

2024 Annual Groundwater Monitoring and Corrective Action Report

Former LOS Ponds 2 and 3 Multiunit

Leland Olds Station

Stanton, North Dakota

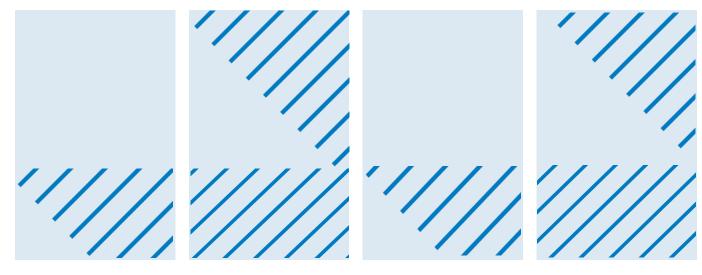
Prepared for Basin Electric Power Cooperative

Prepared by Barr Engineering Co.

January 2025

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2024 Annual Groundwater Monitoring and Corrective Action Report

January 2025

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Abbreviations

asml above mean sea level

ASD Alternative Source Demonstration

bgs below ground surface

CCR Coal Combustion Residuals
CFR Code of Federal Regulations

cm Centimeter

EPA Environmental Protection Agency

FGD Flue gas desulfurization

ft feet

LOS Leland Olds Station

NDAC North Dakota Administrative Code

NDDEQ North Dakota Department of Environmental Quality NPDES National pollution discharge and elimination system

SAP Sampling and Analysis Plan

sec Second

SSI Statistically Significant Increase

TDS Total Dissolved Solids

Executive Summary

This 2024 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) describes the monitoring program and results for the former Ponds 2 and 3 Multiunit (Multiunit) at Basin Electric Power Cooperative's (Basin Electric) Leland Olds Station (LOS; Site). Content of this report is to satisfy requirements of the federal CCR rule.

Monitoring locations MW-2017-10 and MW-2017-11 were installed in October 2022 and added to the monitoring network as replacements for MW-2017-5 and MW-2017-6. MW-2017-10 and MW-2017-11 were first included in the detection monitoring program for the spring 2024 sampling event.

At the beginning, end, and throughout 2024, the Multiunit was operating under a detection monitoring program as described in 40 CFR 257.94 and NDAC 33.1-20-08-06-04. This program includes semi-annual detection monitoring events conducted in the early summer and fall.

Pursuant to § 257.94 and NDAC 33.1-20-08-06-04, no statistically significant increases (SSIs) were determined for the May/June 2024 and September 2024 sampling events. Therefore, no assessment monitoring program (§ 257.95 and NDAC 33.1-20-08-06-04) or related corrective or remedial measures (§§ 257.96, 257.97, and 257.98; NDAC 33.1-20-08-06-06, -07, and -08) were necessary.

1 Introduction

Basin Electric Power Cooperative (Basin) owns Leland Olds Station (LOS), comprised of a coal-fired generating station consisting of two power generating units, located southeast of Stanton, Mercer County, North Dakota (Figure 1). Unit 1 coal-based operations began in 1966 and Unit 2 operations began in 1975. Coal combustion residuals (CCR) were directed to four surface impoundments (Pond 1, Pond 2, Pond 3, and Pond 4) on the southeast side of the property. CCR produced at LOS includes fly ash, bottom ash, and flue gas desulfurization (FGD) waste.

Ponds 1 and 4 were closed-in-place in the mid-1990s. Bottom ash Ponds 2 and 3 (Multiunit or Site) continued operating until 2015. Pond 2 flowed into Pond 3 which discharged through Outfall 003 in accordance with the National Pollution discharge and Elimination System (NPDES) permit. In 2015, LOS converted to dry handling of bottom ash and the Multiunit ceased accepting CCRs.

Closure of the southern half of Pond 2 was completed in 2017. Closure of the remaining portion of Pond 2 and all of Pond 3 began in 2019 and was completed in 2020. In compliance with the CCR Rule, a closure notification including certification by a qualified professional engineer that the closure was completed in accordance with the written closure plan and the requirements of Chapter 40 Code of Federal Regulations (CFR) § 257.102, was posted on October 26, 2020. The Multiunit is now closed-in-place.

This 2024 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) describes the monitoring program and results for the Multiunit at the Site. No corrective actions were required or conducted in 2024.

Basin Electric utilizes a consulting firm, Barr Engineering Co. (Barr) to assist in groundwater reporting and analysis. Barr is familiar with the site and has reviewed the historical groundwater data and CCR information for the site and is knowledgeable about facility design and operation.

Additional Site monitoring information, including CCR reports and certifications can be found on Basin Electric's CCR website: Pond 2 Surface Impoundment - LOS - Basin Electric Power Cooperative and Pond 3 Surface Impoundment - LOS - Basin Electric Power Cooperative.

1.1 Physical Setting

The Multiunit is situated in the valley of the Missouri River. The valley floor is relatively flat, with two relatively poorly defined terraces ranging from 1,670 feet above mean sea level (ft amsl) to a maximum elevation of 1,715 ft amsl near the southern property boundary. Seven of the CCR monitoring system monitoring wells (MW-2017-1 through MW-2017-4, MW-2017-7, MW-2017-10 and MW-2017-11) are located on the lower (first) terrace level, while one is located on the upper (second) terrace (MW-2017-8).

The geology underlying the Multiunit is generally comprised of more than 50 feet of alluvial silt, silty sand, and gravel deposits. The upper terrace level appears to be underlain by at least 25 more feet of alluvial deposits than is found adjacent to the Multiunit. The alluvial deposits are underlain by the Sentinel Butte Formation, which is described as 1,000 feet or more of continental deposits consisting of dense clay, weakly cemented sandstone, and mudstone interlaced with occasional lignite beds that typically range from 5 to 10 feet in thickness.

Groundwater at the lower terrace locations is found within alluvial deposits comprised primarily of silty, fine to medium-grained sand at depths ranging from approximately 17 to 35 feet below ground surface (ft bgs). Aquifer testing completed at monitoring wells MW-2017-3, MW-2017-4, MW-2017-5, and MW-2017-6 indicates hydraulic conductivity values within the monitored aquifer range from 1.28 x 10⁻² to 6.94 x 10⁻⁴ centimeters per second (cm/sec) with a geometric mean of approximately 2.0 x 10⁻³ cm/sec (5.67 feet per day [ft/day]) (AECOM, 2019).

The potentiometric surface of the uppermost groundwater underlying the lower terrace area is typically encountered at elevations between 1,658 to 1,662 ft amsl depending on the stage of the adjacent Missouri River. The stage of the Missouri River was 1657.41 ft asml during the spring sampling event and 1658.28 ft asml during the fall sampling event. Although the direction of groundwater flow is highly influenced by changes in the elevation of the Missouri River, the net flow direction is expected to be eastward in the general direction of river flow with some flow northward into the river. Groundwater at the upper terrace is perched at a considerably higher elevation with limited hydraulic connection to the lower terrace. As a result, the groundwater from the upper terrace is expected to act as a limited background/upgradient influence on the uppermost aquifer at the Multiunit.

Additional Site information can be found on Basin Electric's CCR website in the Pond 2 and Pond 3 Multiunit CCR Groundwater Monitoring System Report (AECOM, 2019).

1.2 Purpose

As stated in § 257.90(e) and NDAC 33.1-20-08-06-01(e), the Annual Report must:

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

1.3 CCR Rule Requirements

Additional requirements for the Annual Report, as outlined in § 257.90(e) and NDAC 33.1-20-08-06-01(e), and this Site's compliance with the CCR Rules, are summarized in Table 1.

EPA CCR Rule Reference (40 CFR)	NDDEQ CCR Rule Reference (NDAC)	Content Required in Report	Location
§ 257.90(e)(1)	§ 33.1-20-08- 06-01(e)(1)	Monitoring System Figure: A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit.	Section 2.1 Groundwater Monitoring System; see Figure 1
§ 257.90(e)(2)	§ 33.1-20-08- 06-01(e)(2)	Monitoring System Adjustments: Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken.	Section 2.1.1 Changes to Groundwater Monitoring System
§ 257.90(e)(3)	§ 33.1-20-08- 06-01(e)(3)	Data and Collection Summary: In addition to all the monitoring data obtained under §257.90 through §257.98 and §33.1-20-08-06, a summary including the number of groundwater samples that were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs.	Section 2.3 Data and Collection Summary; monitoring data included in Table 3, Table 4, Table 5, Appendix A, and Appendix B
§ 257.90(e)(4)	§ 33.1-20-08- 06-01(e)(4)	Monitoring Program: A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels).	Not applicable – No transition between monitoring programs was necessary
§ 257.90(e)(5)	§ 33.1-20-08- 06-01(e)(5)	Other Information : Other information required, if applicable, to be included in the annual report as specified in §257.90 through §257.98 and §33.1-20-08-06.	Section 2.2 Actions Completed/Proble ms Encountered
§ 257.90(e)(6)	<u>n/a</u>	Executive Summary: A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit.	Executive Summary

2 Groundwater Monitoring Program

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

2.1 Groundwater Monitoring System

The certified groundwater monitoring well network around the Multiunit consists of two background wells and six downgradient wells, sampled for groundwater analysis on a semi-annual basis. Background wells monitor water quality that is not potentially influenced by the presence of CCR in the Multiunit. Well locations are described below on Table 2 and shown on Figure 2.

Table 2 Groundwater Monitoring System

CCR Unit	Background Wells	Downgradient Wells
Ponds 2 and 3 Multiunit	MW-2017-1 and MW-2017-8	MW-2017-2, MW-2017-3, MW-2017-4, MW-2017-7, MW-2017-10, and MW-2017-11

Several wells are not included in the compliance network as they are used for characterization, including MW-2017-8D and MW-2017-9. MW-2017-8D is screened in bedrock.

Two monitoring wells, MW-2017-5 and MW-2017-6, have been excluded from the groundwater monitoring network due to concerns about installation, i.e., improper placement of the annular seal and grout in contact with groundwater. The wells remain in place for optional collection of groundwater level measurements for potential inclusion in the potentiometric evaluation of the Site.

Baseline monitoring initiated in September 2017 for wells in the monitoring network (except MW-2017-10 and MW-2017-11 as described below) and included sampling groundwater over eight baseline monitoring events. The results of baseline monitoring are discussed in previous Annual Reports.

Detection monitoring events in 2024 and prior to 2024 were performed in general accordance with procedures established in the site-specific Sampling and Analysis Plan (SAP) (AECOM, 2022), which is included in the facility's Operating Record. The Multiunit was placed in Detection monitoring in April 2019, with the first Detection monitoring groundwater sampling event completed in November 2019. Detection monitoring events have been completed semi-annually since November 2019. The results of previous Detection monitoring events were presented and discussed in the previous Annual Reports, which can be found on Basin Electric's CCR website.

2.1.1 Changes to Groundwater Monitoring System

Monitoring locations MW-2017-10 and MW-2017-11 were installed in October 2022 and added to the monitoring network as replacements for MW-2017-5 and MW-2017-6 to further evaluate the groundwater conditions along the eastern edge of former Ponds 2 and 3. Baseline monitoring began in June 2023 and

will continue until at least eight samples have been collected. Baseline sampling results are included in Appendix C. MW-2017-10 and MW-2017-11 were included in the detection monitoring program beginning in June 2024. The system described in Section 2.1 and shown on Figure 2 supplanted the groundwater monitoring system described in the Groundwater Monitoring System Certification (AECOM, 2019).

2.2 Actions Completed/Problems Encountered

The following actions were completed in 2024:

- Background Update: Background was statistically evaluated and updated to include data through 2023 from upgradient wells MW-2017-1 and MW-2017-8 in accordance with the Groundwater Statistical Method Selection Certification (AECOM, 2019). The updated prediction limits were used for the spring and fall 2024 detection monitoring events.
- Baseline Sampling: Baseline Groundwater samples were collected at MW-2017-10 and MW-2017-11 in April, June, August, September, and October 2024. A baseline sample was collected at MW-2017-11 in November 2024 as well (Appendix C).
- **Detection Monitoring Sampling:** Groundwater samples were collected from each well in the groundwater monitoring system on May 13-14, 2024 and June 25, 2024 and September 17, 2024. Groundwater samples were analyzed for Appendix III constituents, per the detection monitoring program of the CCR Rules (§ 257.94 and NDAC 33.1-20-08-06-04) (Table 3).
- **SSI Evaluation:** SSI evaluations were conducted in accordance with the Groundwater Statistical Method Selection Certification (AECOM, 2019) for the May/June 2024 and September 2024 detection monitoring events. There were no SSIs from either event. (Table 4)

No problems were encountered in 2024.

2.3 Data and Collection Summary

2.3.1 May/June 2024 Detection Monitoring Event

Groundwater samples were collected from the nine groundwater monitoring network wells at the Site on May 13-14, 2024 and June 25, 2024. No SSIs were identified. A summary of results is included in Table 5. Field data sheets and analytical laboratory reports for detection monitoring sampling are included in Appendix A. Water level contours are shown on Figure 3, and flow calculations are included in Appendix B.

2.3.2 September 2024 Detection Monitoring Event

Groundwater samples were collected from the nine groundwater monitoring network wells at the Site on September 17, 2024. No SSIs were identified. A summary of results is included in Table 5. Field data sheets and analytical laboratory reports for detection monitoring sampling are included in Appendix A. Water level contours are shown on Figure 4, and flow calculations are included in Appendix B.

2.4 Activities for Upcoming Year

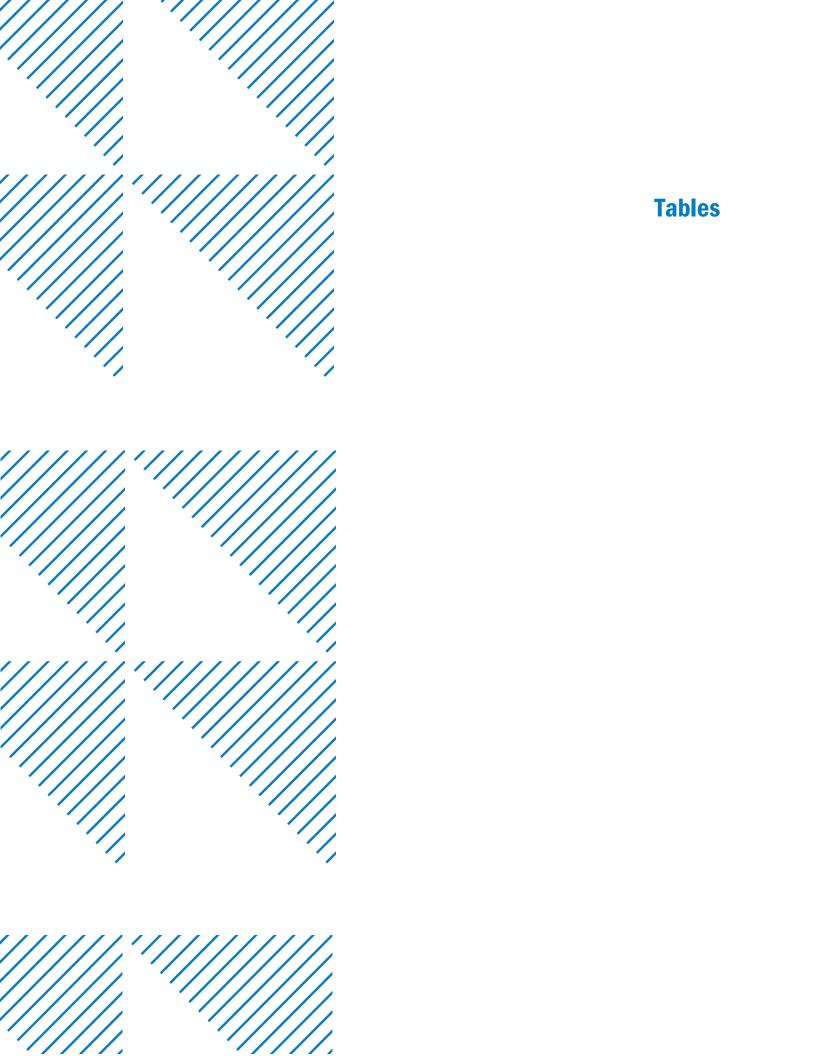
The following key activities for analytical results and statistical evaluations are planned for 2025:

- Evaluate analytical results from 2025 semi-annual detection monitoring events for SSIs according to the Statistical Certification (AECOM, 2019).
- Continue baseline sample collection at MW-2017-10 and MW-2017-11 until eight baseline samples have been collected.
- Review the conceptual site model and consider recommendations for improvements to the monitoring well network if needed.

3 References

AECOM, 2019. Pond 2 and Pond 3 Multiunit CCR Groundwater Monitoring System Report, Leland Olds Station. Prepared for Basin Electric Power Cooperative. April 2019.

AECOM, 2022. Pond 2 and Pond 3 Multiunit Sampling and Analysis Plan, CCR Monitoring Program, Leland Olds Station. Prepared for Basin Electric Power Cooperative. June 2022.



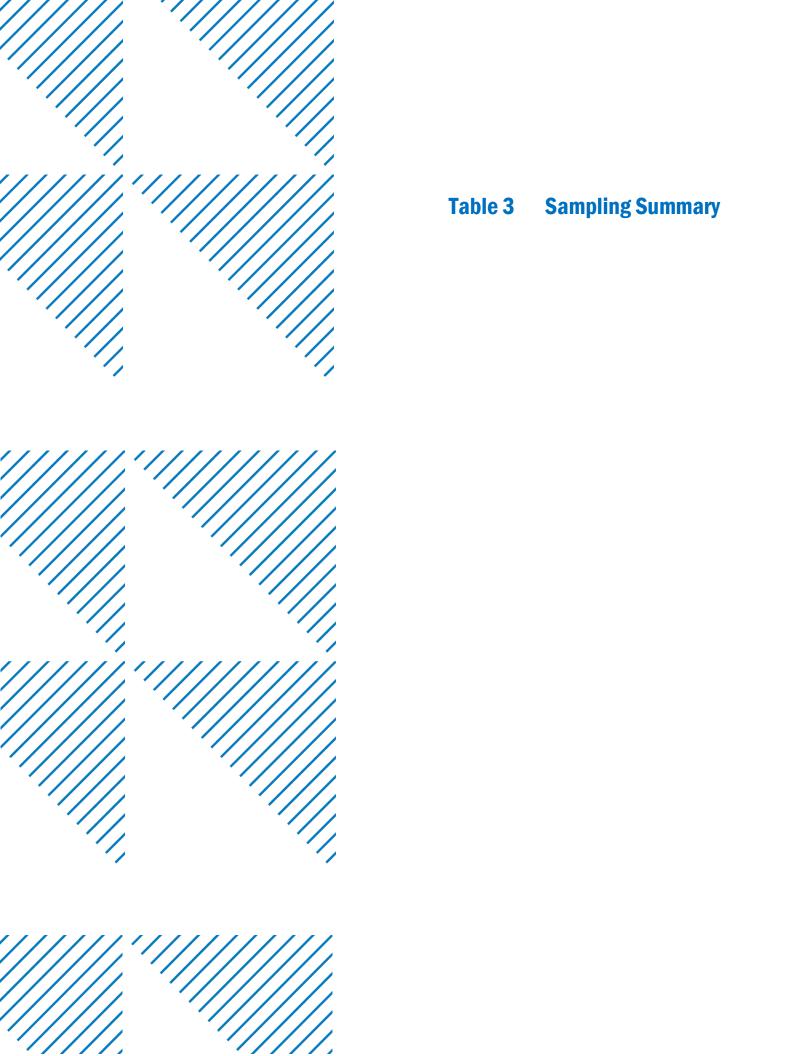


Table 3 Sampling Summary 2024 Annual Monitoring Report BEPC-LOS Multiunit

Event Classification and Number	Monitoring Well	Up or Down Gradient	Event date	No. Samples
Detection Monitoring Event #1	MW-2017-1	Up	5/13/2024	2
Detection Monitoring Event #1	MW-2017-2	Down	5/13/2024	1
Detection Monitoring Event #1	MW-2017-3	Down	5/13/2024	1
Detection Monitoring Event #1	MW-2017-4	Down	5/14/2024	1
Detection Monitoring Event #1	MW-2017-7	Down	5/13/2024	1
Detection Monitoring Event #1	MW-2017-8	Up	5/14/2024	1
Detection Monitoring Event #1	MW-2017-10	Down	6/25/2024	2
Detection Monitoring Event #1	MW-2017-11	Down	6/25/2024	1
Detection Monitoring Event #2	MW-2017-1	Up	9/17/2024	1
Detection Monitoring Event #2	MW-2017-2	Down	9/17/2024	2
Detection Monitoring Event #2	MW-2017-3	Down	9/17/2024	1
Detection Monitoring Event #2	MW-2017-4	Down	9/17/2024	1
Detection Monitoring Event #2	MW-2017-7	Down	9/17/2024	1
Detection Monitoring Event #2	MW-2017-8	Up	9/17/2024	1
Detection Monitoring Event #2	MW-2017-10	Down	9/17/2024	1
Detection Monitoring Event #2	MW-2017-11	Down	9/17/2024	1

Table 4 Statistical Evaluation Summary

Table 4 Statistical Evaluation Summary 2024 Annual Monitoring Report LOS Multiunit CCR Groundwater Compliance

Spring 2024

		Appendix III Constituents											
Well	Boron (T)	Calcium (T)	Chloride	Fluoride	рН	Sulfate	TDS						
MW-2017-2													
MW-2017-3													
MW-2017-4													
MW-2017-7													
MW-2017-10													
MW-2017-11													

Fall 2024

	Appendix III Constituents								
Well	Boron (T)	Calcium (T)	Chloride	Fluoride	рН	Sulfate	TDS		
MW-2017-2									
MW-2017-3									
MW-2017-4									
MW-2017-7									
MW-2017-10									
MW-2017-11									

Sample had a value higher than the prediction limit determined from background data and is a verified SSI Sample did not have a value higher than the prediction limit determined from background data pH: two-sided prediction limit; color indicates sample higher and/or lower than prediction limits

Table 5 Water Quality Analytical Data Summary	

Table 5 Water Quality Analytical Data Summary 2024 Annual Monitoring Report **BEPC LOS Multiunit**

Location		Location	MW-2	2017-1	MW-2017-1	MW-2017-2	MW-	2017-2	MW-2017-3	MW-2017-3	MW-2017-4	MW-2017-4	MW-2017-7	MW-2017-7	MW-2017-8	MW-2017-8	MW-2017-8D
		Date	5/13/	/2024	9/17/2024	5/13/2024	9/17	//2024	5/13/2024	9/17/2024	5/14/2024	9/17/2024	5/13/2024	9/17/2024	5/14/2024	9/17/2024	5/14/2024
	Sam	ple Type	N	FD	N	N	N	FD	N	N	N	N	N	N	N	N	N
Parameter	Analysis Location	Units															
Appendix III																	
Boron, total	Lab	mg/l	0.50	0.48	0.45	1.11	1.30	1.34	1.24	1.38	1.18	1.16	2.05	2.27	< 0.5	0.43	0.65
Calcium, total	Lab	mg/l	226	217	248	112	83.8	82.7	110	114	147	153	67.1	75.5	134	135	8.54
Chloride	Lab	mg/l	13.0	12.5	14.3	10.5	11.4	11.6	9.9	11.6	9.7	10.2	11.1	11.5	24.7	26.6	15.6
Fluoride	Lab	mg/l	0.39	0.39	0.34	0.42	0.44	0.44	0.53	0.44	0.82	0.76	1.32	1.16	0.41	0.37	0.63
рН	Field	pH units	7.05		7.05	7.27	7.35		7.32	7.34	7.16	7.18	7.57	7.60	7.39	7.47	7.95
Solids, total dissolved	Lab	mg/l	1280	1280	1290	859	696	716	920	882	855	862	704	692	3680	3620	1810
Sulfate, as SO4	Lab	mg/l	337	332	337	274	250	261	123	128	293	256	267	264	1430	1810	371

⁻⁻ Not analyzed/Not available. N Sample Type: Normal

not detected.

FD: Sample Type: Field Duplicate
U: The analyte was analyzed for, but was

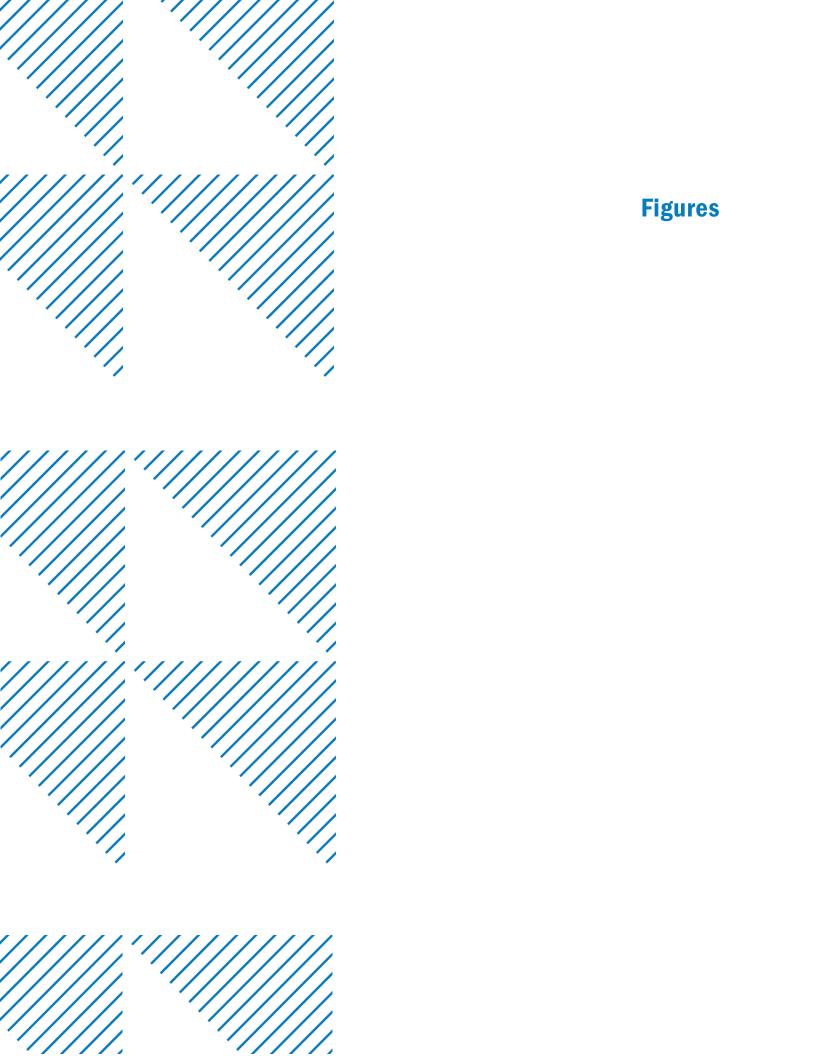
Table 5 Water Quality Analytical Data Summary 2024 Annual Monitoring Report **BEPC LOS Multiunit**

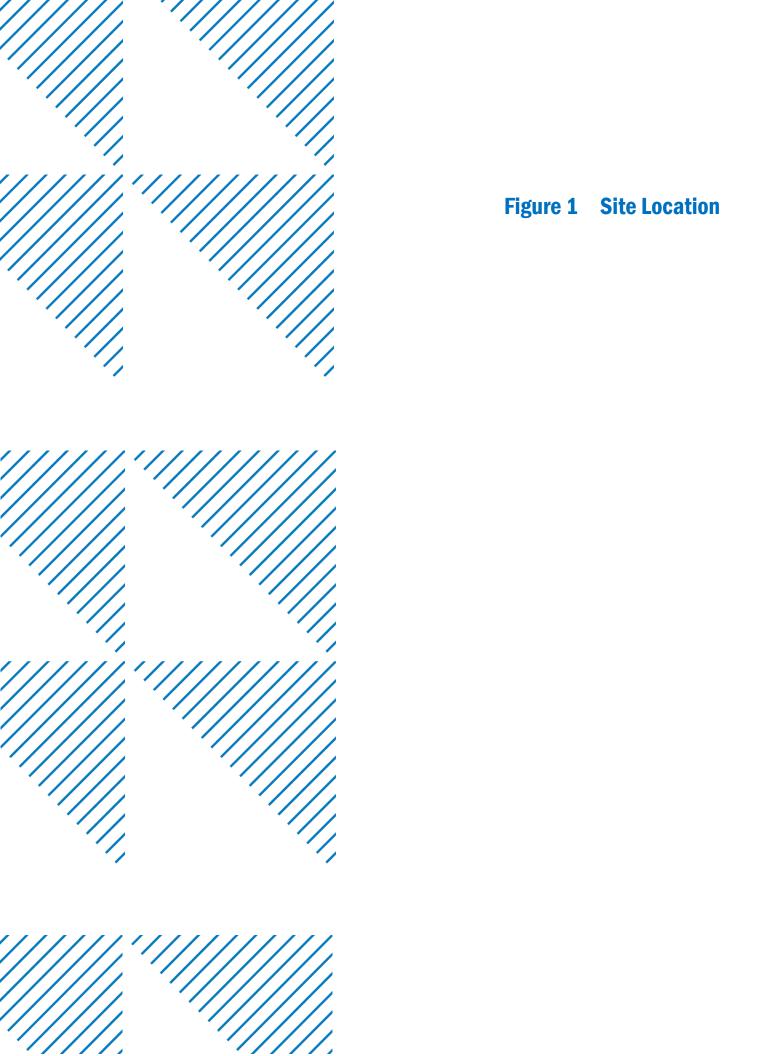
Location Date			MW-2017-8D 9/17/2024	MW-2017-10 6/25/2024		MW-2017-10 8/16/2024	MW-2017-10 9/17/2024	MW-2017-10 10/15/2024	MW-2017-11 6/25/2024	MW-2017-11 8/16/2024	MW-2017-11 9/17/2024	MW-2017-11 10/15/2024	MW-2017-11 11/13/2024
	Sam	ple Type	N	N	FD	N	N	N	N	N	N	N	N
Parameter	Analysis Location	Units											
Appendix III													
Boron, total	Lab	mg/l	0.69	0.87	0.88	0.84	0.87	0.90	1.24	1.26	0.77	1.36	1.23
Calcium, total	Lab	mg/l	9.08	92.6	95.8	95.2	95.9	93.6	63.2	70.1	90.4	61.9	67.6
Chloride	Lab	mg/l	17.3	10.3	10.3	11.2	10.6	10.9	10.6	11.8	11.2	11.2	11.0
Fluoride	Lab	mg/l	0.54	0.82	0.84	0.88	0.84	0.85	0.73	0.76	0.92	0.75	0.44
рН	Field	pH units	8.07	7.57		7.59	7.56	7.57	7.57	7.58	7.55	7.53	7.58
Solids, total dissolved	Lab	mg/l	1960	676	679	672	672	677	592	573	643	590	593
Sulfate, as SO4	Lab	mg/l	341	298	294	297	280	315	179	202	241	168	168

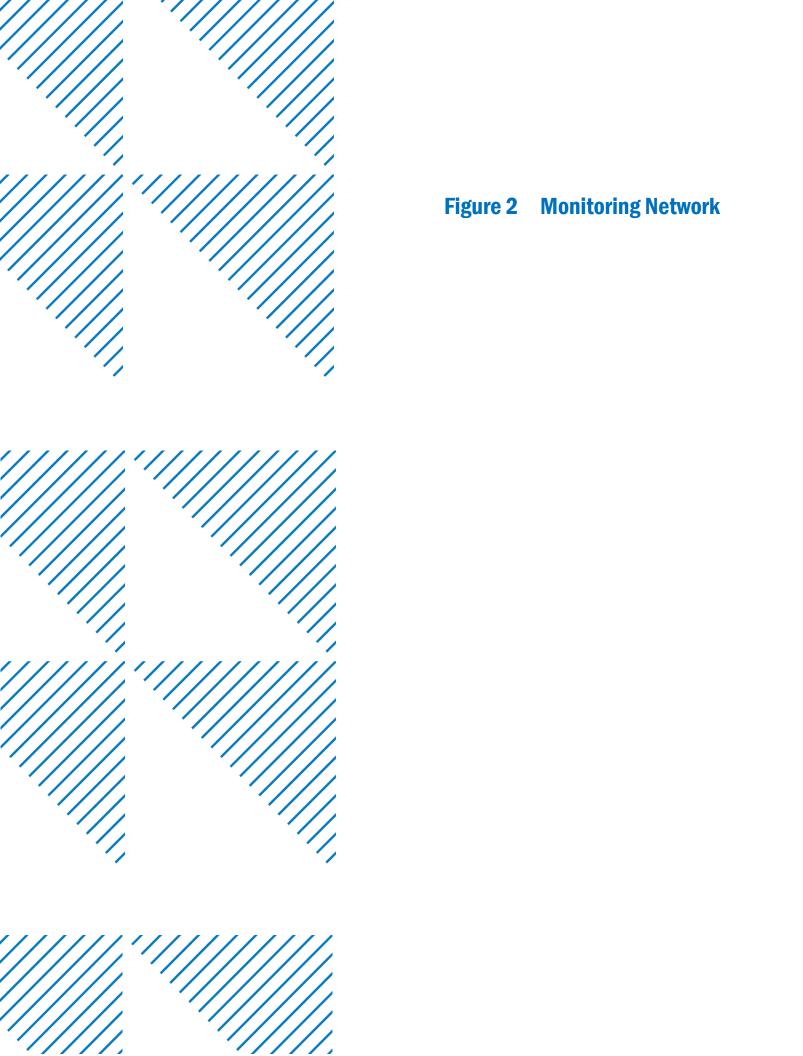
⁻⁻ Not analyzed/Not available. N Sample Type: Normal

not detected.

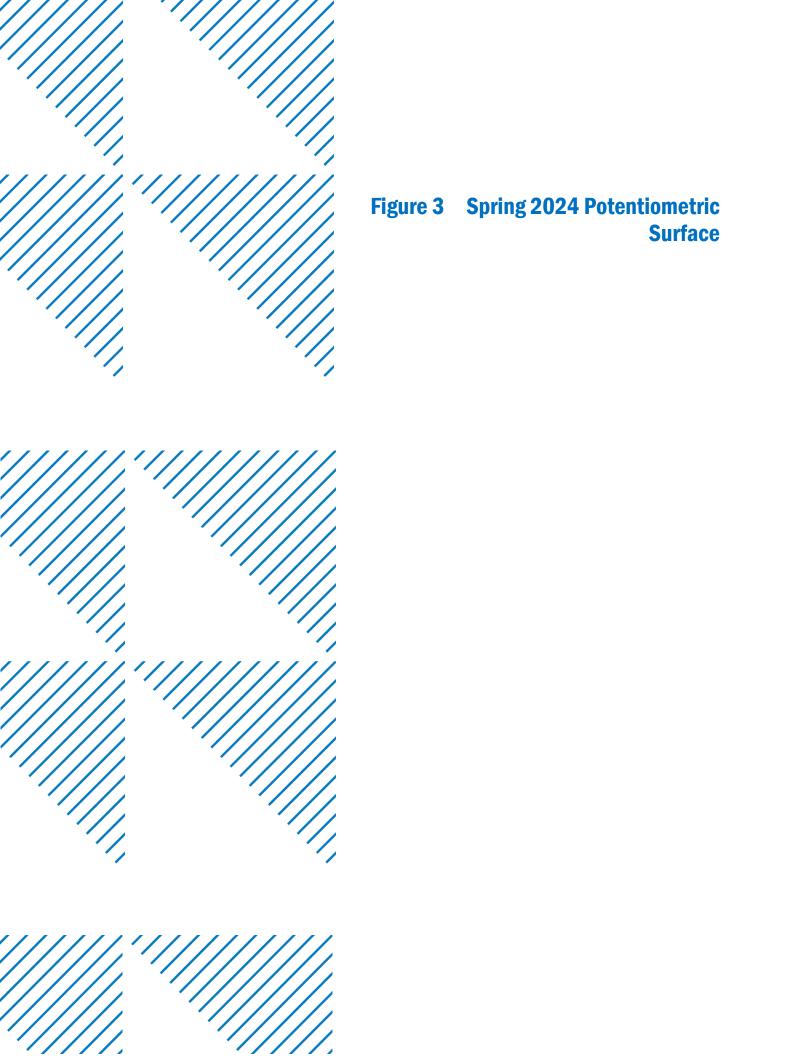
FD: Sample Type: Field Duplicate
U: The analyte was analyzed for, but was











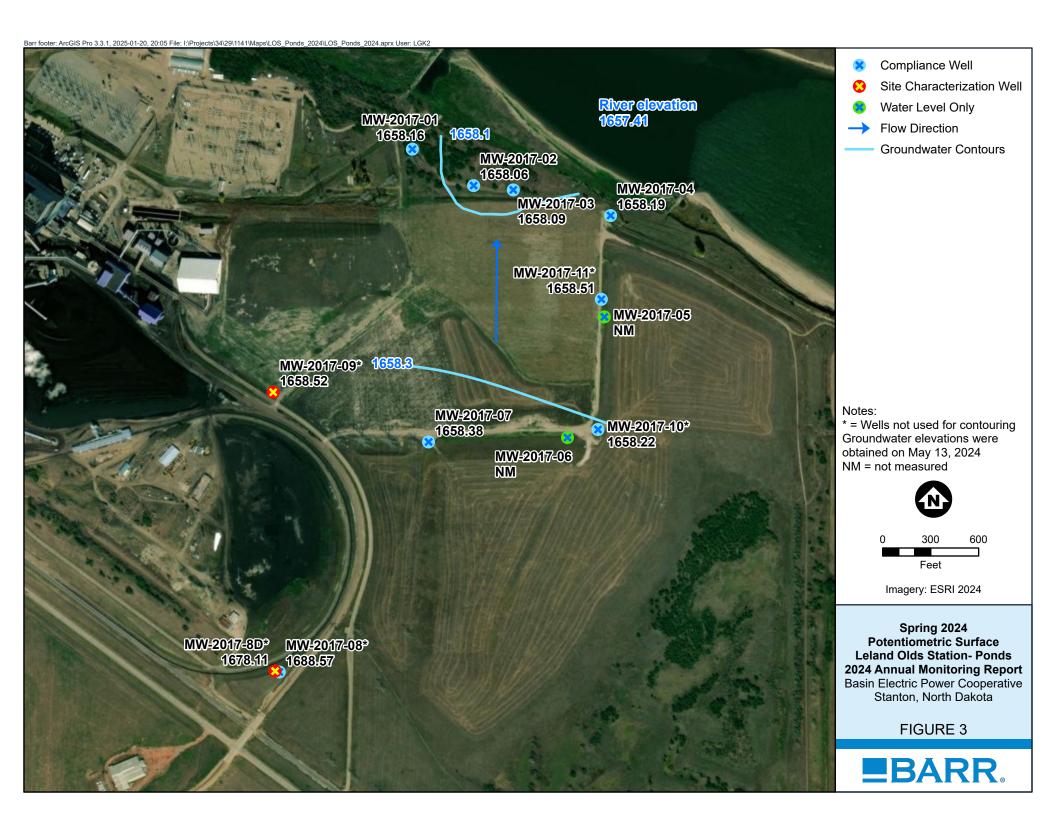
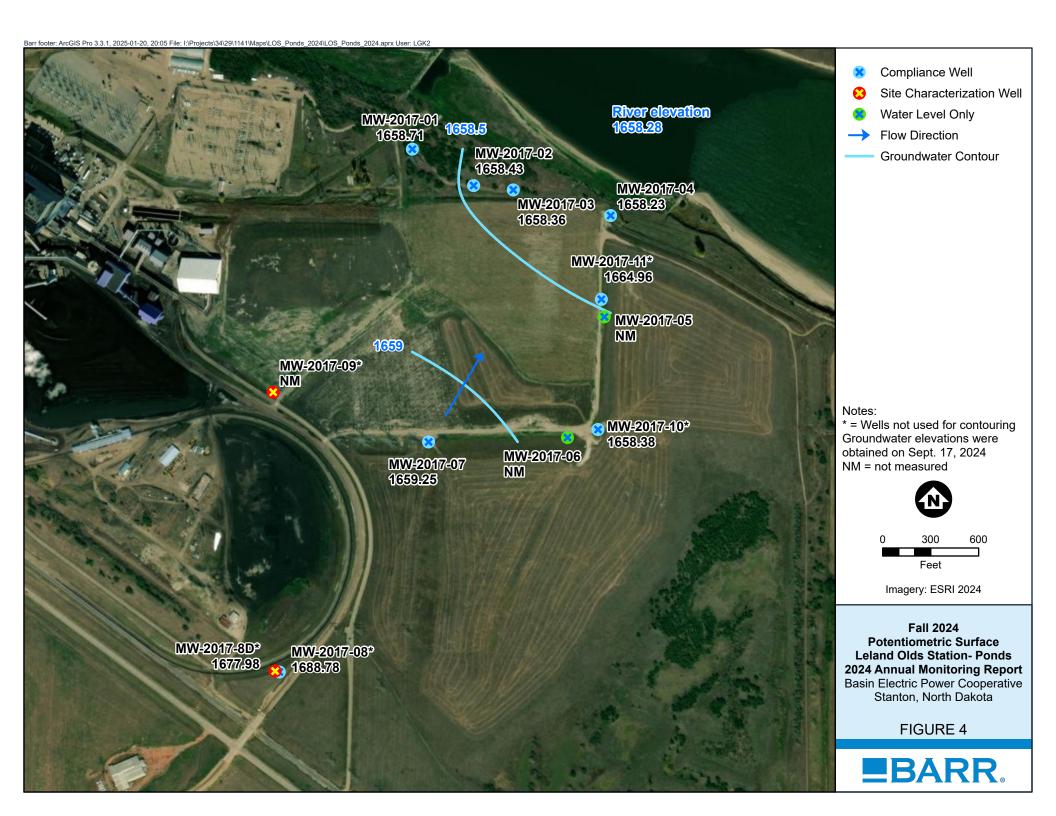
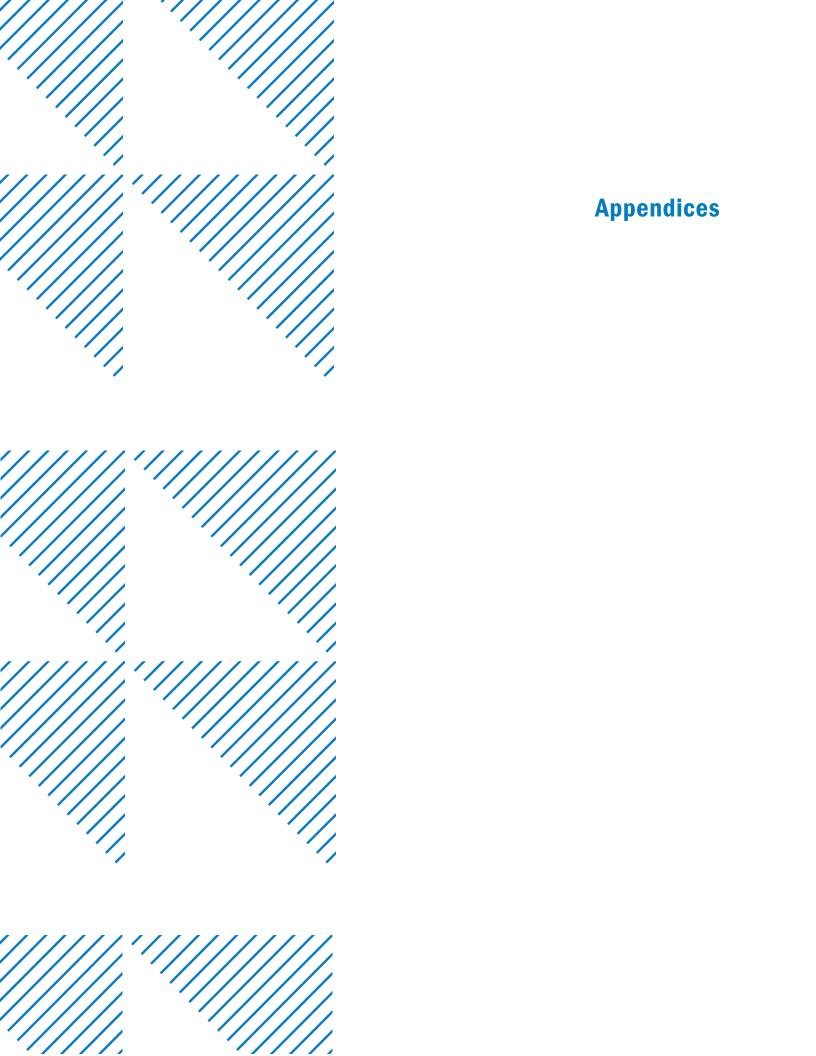


Figure 4 Fall 2024 Potentiom Sur	etric face









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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

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Account #: 2040 Client: Basin Electric Power Cooperative Workorder: LOS CCR Plant Ponds (45645) PO: 790708-04 LOS

Mark Dihle
Basin Electric Power Cooperative
1717 E. Interstate Avenue
Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:



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 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

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: Friday, May 31, 2024 4:28:59 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 45645001
 Date Collected:
 04/15/2024 08:42
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 04/16/2024 15:59
 Collector:
 Client

Temp @ Receipt (C): 5.4 Received on Ice: Yes

. • ,							
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		05/31/2024 15:23	
Radium 228	See Attached			1		05/31/2024 15:23	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 45645002
 Date Collected:
 04/15/2024 10:15
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 04/16/2024 15:59
 Collector:
 Client

Temp @ Receipt (C): 54 Received on Ice: Yes

Temp & Receipt (0).	Neceived on	100.					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		05/31/2024 15:23	
Radium 228	See Attached			1		05/31/2024 15:23	



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Account #: 2040

Client: Basin E

Basin Electric Power Cooperative



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ANALYTICAL SUMMARY REPORT

May 30, 2024

Minnesota Valley Testing Laboratories

1126 N Front St

New Ulm, MN 56073-1176

Work Order: C24040681

24040681 Quote ID: C15480

Project Name: 45645

Energy Laboratories, Inc. Casper WY received the following 2 samples for Minnesota Valley Testing Laboratories on 4/22/2024

for analysis

Lab IDClient Sample IDCollect DateReceive DateMatrixTestC24040681-00145645001, MW-2017-1004/15/24 8:4204/22/24GroundwaterRadium 226 + Radium 228, Total Radium 228, Total Radium 228, Total

C24040681-002 45645002, MW-2017-11 04/15/24 10:15 04/22/24 Groundwater Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager .

Report Approved By:

Page 1 of 7



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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories Report Date: 05/30/24 45645 Collection Date: 04/15/24 08:42 Project: C24040681-001 DateReceived: 04/22/24 Lab ID: Client Sample ID: 45645001, MW-2017-10 Matrix: Groundwater

			MCL/		
Analyses	Result Uni	ts Qualifiers	RL QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL					
Radium 226	0.3 pCi	L		E903.0	05/01/24 12:55 / alb
Radium 226 precision (±)	0.2 pCi	L		E903.0	05/01/24 12:55 / alb
Radium 226 MDC	0.2 pCi	L		E903.0	05/01/24 12:55 / alb
Radium 228	0.2 pCi	L U		RA-05	04/26/24 14:47 / kdk
Radium 228 precision (±)	0.5 pCi	L		RA-05	04/26/24 14:47 / kdk
Radium 228 MDC	0.9 pCi	L		RA-05	04/26/24 14:47 / kdk
Radium 226 + Radium 228	0.8 pCi	L U		A7500-RA	05/02/24 11:08 / dmf
Radium 226 + Radium 228 precision (±)	0.6 pCi	L		A7500-RA	05/02/24 11:08 / dmf
Radium 226 + Radium 228 MDC	0.9 pCi	L		A7500-RA	05/02/24 11:08 / dmf

Report RL - Analyte Reporting Limit Definitions

QCL - Quality Control Limit

U - Not detected at Minimum Detectable Concentration (MDC)

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

Page 2 of 7



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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories Report Date: 05/30/24 45645 Collection Date: 04/15/24 10:15 Project: C24040681-002 DateReceived: 04/22/24 Lab ID: Client Sample ID: 45645002, MW-2017-11 Matrix: Groundwater

					MCL/		
Analyses	Result	Units	Qualifiers	RL	QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.2	pCi/L	U			E903.0	05/01/24 12:55 / alb
Radium 226 precision (±)	0.1	pCi/L				E903.0	05/01/24 12:55 / alb
Radium 226 MDC	0.2	pCi/L				E903.0	05/01/24 12:55 / alb
Radium 228	0.8	pCi/L	U			RA-05	04/26/24 14:47 / kdk
Radium 228 precision (±)	0.6	pCi/L				RA-05	04/26/24 14:47 / kdk
Radium 228 MDC	1	pCi/L				RA-05	04/26/24 14:47 / kdk
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	05/02/24 11:08 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	05/02/24 11:08 / dmf
Radium 226 + Radium 228 MDC	1	pCi/L				A7500-RA	05/02/24 11:08 / dmf

Report RL - Analyte Reporting Limit Definitions

QCL - Quality Control Limit

U - Not detected at Minimum Detectable Concentration (MDC)

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

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Account #: 2

2040

Client: Basin Electric Power Cooperative



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Bonort Date: 05/03/34

QA/QC Summary Report

Prepared by Casper, WY Branch

Work Order: C24040691

Client:	Minnesota Valley Les	sting Labo	oratories	Work Order: C24040681			Report	05/03/24			
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E903.0									Batch: RA2	26-11293
Lab ID:	LCS-RA226-11293	3 Lab	oratory Cor	trol Sample			Run: TENN	ELEC-3_240423A	A	05/01/	/24 10:47
Radium 2	26		12	pCi/L		117	70	130			
Radium 2	26 precision (±)		2.3	pCi/L							
Radium 2	26 MDC		0.15	pCi/L							
Lab ID:	MB-RA226-11293	3 Met	thod Blank				Run: TENN	ELEC-3_240423	A	05/01/	/24 10:47
Radium 2	26		0.03	pCi/L							U
Radium 2	26 precision (±)		0.1	pCi/L							
Radium 2	26 MDC		0.2	pCi/L							
Lab ID:	C24040681-001ADUP	3 Sar	mple Duplica	ate			Run: TENN	ELEC-3_240423/	Ą	05/01/	/24 12:55
Radium 2	26		0.25	pCi/L					18	30	
Radium 2	26 precision (±)		0.14	pCi/L							
Radium 2	26 MDC		0.19	pCi/L							
- The REI	R result is 0.24.										

Qualifiers:

RL - Analyte Reporting Limit U - Not detected at Minimum Detectable Concentration (MDC) ND - Not detected at the Reporting Limit (RL)

Page 4 of 7





Account #:

2040

Client: Basin Electric Power Cooperative



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client:	Minnesota Valley Tes	sting Labo	oratories	Work Order: C24040681 Report Date			t Date:	e: 05/03/24			
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05									Batch: RA	228-7378
Lab ID:	LCS-228-RA226-1129	3 3 Lab	oratory Cor	trol Sample			Run: TENN	ELEC-4_240423	C	04/26	/24 14:47
Radium 2	228		6.0	pCi/L		95	70	130			
Radium 2	228 precision (±)		1.3	pCi/L							
Radium 2	228 MDC		0.90	pCi/L							
Lab ID:	MB-RA226-11293	3 Met	hod Blank				Run: TENN	ELEC-4_240423	C	04/26	/24 14:47
Radium 2	228		0.2	pCi/L							U
Radium 2	228 precision (±)		0.5	pCi/L							
Radium 2	228 MDC		8.0	pCi/L							
Lab ID:	C24040681-001ADUP	3 Sar	nple Duplica	ate			Run: TENN	ELEC-4_240423	C	04/26	/24 14:47
Radium 2	228		0.35	pCi/L					41	30	UR
Radium 2	228 precision (±)		0.54	pCi/L							
Radium 2	228 MDC		0.87	pCi/L							

⁻ Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3, the RER result is 0.15.

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

U - Not detected at Minimum Detectable Concentration (MDC)

Page 5 of 7



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Work Order Receipt Chec	klist			
Minnesota Valley Testing Labo	oratories	C	24040681	
Login completed by: Cristen C. Smith		Date	e Received: 4/22/2024	
Reviewed by: Icadreau		R	eceived by: CCS	
Reviewed Date: 4/25/2024		Ca	arrier name: UPS	
Shipping container/cooler in good condition?	Yes 🗹	No 🗌	Not Present	
Custody seals intact on all shipping container(s)/cooler(s)?	Yes	No 🗌	Not Present ✓	
Custody seals intact on all sample bottles?	Yes	No 🗌	Not Present ✓	
Chain of custody present?	Yes ✓	No 🗌		
Chain of custody signed when relinquished and received?	Yes ✓	No 🗌		
Chain of custody agrees with sample labels?	Yes 🔽	No 🗌		
Samples in proper container/bottle?	Yes 🗸	No 🗌		
Sample containers intact?	Yes 🔽	No 🗌		
Sufficient sample volume for indicated test?	Yes 🔽	No 🗌		
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes 🔽	No 🗌		
Temp Blank received in all shipping container(s)/cooler(s)?	Yes	No 🗸	Not Applicable	
Container/Temp Blank temperature:	15.3°C No Ice			
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes	No 🗌	No VOA vials submitted	\checkmark
Water - pH acceptable upon receipt?	Yes 🗸	No 🗌	Not Applicable	
Standard Reporting Procedures:				
Lab measurement of analytes considered field pa pH, Dissolved Oxygen and Residual Chlorine, are				
Solid/soil samples are reported on a wet weight b data units are typically noted as –dry. For agriculand ground prior to sample analysis.				
The reference date for Radon analysis is the sam analyses is the analysis date. Radiochemical pre-				
For methods that require zero headspace or requinterference, the pH is verified at analysis. Noncincluded in the sample analysis comments.				
Contact and Corrective Action Comme	ents:			
None				

Page 6 of 7

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Report Date: Friday, May 31, 2024 4:28:59 PM



Account #:

MINNESOTA VALLEY TESTING LABORATORIES, INC.

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Client: 2040 Basin Electric Power Cooperative remp: **Analysis Required** Ra226 & Ra228 Ra226 & Ra228 of For faxed report check box 701-258-9720 Analysis as combined Ra226 & Ra228 must be reported for all samples. 18-Apr-24 Purchase Order #:
BL6866 Date Submitted: Knut 4/22/24 09:30 Date: Phone #: Fax #: Chain of Custody Record 624040681 Utner Jass Jar Work Order # Jmpreserved Received by VOC Vials Cista Smith Gallon HNO3 C15480 v5 Intreated Claudette Project Name/Number Time Sample 0842 1015 Name of Sampler: Quote Number Sample Condition: Account #: Sampled 15-Apr-24 15-Apr-24 Contact: Date Sample GW GW Sample Information Client Sample ID MW-2017-10 LABORATORIES, Inc. MW-2017-11 Phone: (701) 258-9720 Toll Free: (800) 279-6885 Fax: (701) 258-9724 Comments: Individual results as well 2616 E Broadway Ave Bismarck, ND 58501 MVTL 2616 E Broadway Bismarck, ND 58501 Billing Address (indicate if different from above) PO Box 249 New Ulm, MN 56073 18-Apr-24 Date: MVTL Lab Number 45645001 Company Name and Address: 45645002 Lab Number Olson

Page 7 of 7





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

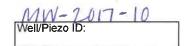
Toll Free	Minnesota V 2616 East Br Bismarck, N Phone: (701) 258-4 : (800) 279-6885	· · · · ·						Page	of _	_		
ompany N	ame and Address			Account #		-		Phor	1e #			
		ectric Power Coop.			2040					01-745-7238	701-557-5	488
		nd Olds Station		Contact				Ema				
		Highway 200A nton, ND 58571			Mark Dihle	•				epc.com akn		epc.com
illing Addr	ess (indicate if differen			Name of S	ampier					rshman@aeco	m.com	
g / taul	ooo (malaate ii ameren	t nom above,		Quote Nun	nhor			jasor		@aecom.com ate Submitted		
				Quote Null	iibei				lo ₈		16/2024	
				Project Na	me/Numbe	r			Pu	urchase Orde		
			-		CCR PL		ГРС	ONDS			0708-04	
Lab Use						_						
Only			Sample Matri GW - Groundwate	, Date	Time	ottles	Y/N			*		
Lab	Sa	mple ID		Sampled	Sampled	m	Σ			Analysis Re	quired	
001	MW	- 2017 - 10	GW	4/15/2024	842	3				6O ₄ , Sb, As, Ba e, Tl <mark>, Ra226, R</mark>		
000								B, Ca, C	I, F, S	O ₄ , Sb, As, B	a, Be, Cd	Cr, Co,Pb,
002	MW	- 2017 - 11	GW	4/15/2024	1015	3	N	Li, Hg, N	lo, Se	e, TI, Ra226, R	a228, TD	S
E												
Comments:					-102							
omments:												
7	ransferred by	Date	Time	^ Received	by	Т	Dat	еТ	ime	Temp	ROI	Therm. #
	M EXPRESS	4/16/2024		110/20	~,		Apr			5.4	(Y) N	TM920

See above for page number

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Report Date: Friday, May 31, 2024 4:28:59 PM

Form # 80-910005-1



Client: Project No: Site Location: Weather Conds:	oject No: le Location: LOS PONDS							Date: <u>4</u> / rt 0750	15/24
water Level a. Total Well Ler b. Water Table	igth	52.1 34.34	c. Ca	sing Material	PVC		Settings	•	26/4
WELL PURGING a. i	S DATA Purge Metho	d <u>Dedicated</u>	d Bladder	Pump					
b. I	b. Field Testing Equipment Used: Make Model YSI HACH						Serial Nun 22C10390 20030C08	1	
c.	Field Testing	g Equipmen	t Calibrati	on Document	ation Found in Fie	eld Notebo	ok #	Page #_	·
Time Re	Volume moved (gal)	T° (C) +/- 0.2	pH +/- 0.1	Spec. Cond (µs/cm) +/- 3%	ORP +/- 10%	DO mg/L +/- 10%	Turbidity (NTU) +/- 10%	Color	DTW 0.33 ft
0827 INI 0830 0830 0833 0834 0839	TIAL 4.6L 5 L 9.6 L U.S L L L L Acceptance Has required Have param If no or I	criteria pas	7.53 7.53 7.53 7.54 7.54 s/fail een removeen reachized	995 995 996 996 996	No	. 34 . 25 . 17 . 23 . 12	. 51 . 72 . 90 . 67 . 55	Olear	34.41 34.39 34.40 34.39
SAMPLE COLI	LECTION:		Method:	Bladder Pump Containers 1	Preservation HNO3		Analysis TDS		Time
	Ig	250ML 500 ML		1	HNO3	2	ANIONS METALS adjum		
Comments Signature	Nyles	Sche	,+1	ls.		Date	4-15-,	24個總	

Well/Piezo ID:	//	
11100		

Client: Project No: Site Location:				Date: <u>/</u> art <u>\$740</u> h <u>1030</u>	<u>15</u> 4 2 2			
Weather Conds:	iloudy, Br	шу,50	Collector(s)	MK. MI	5			
WATER LEVEL DA a. Total Well Length b. Water Table Dep	50.2	e c. C	asing Material	_PVC		Settings _		_ 2
WELL PURGING D A a. Purg	ATA e Method <u>Dedicat</u>	ed Bladde	r Pump					
b. Field	Testing Equipme	nt Used:	Make YSI HACH	Model		Serial Nur 22C10390 20030C08	1	-
c. Field	d Testing Equipme	ent Calibra		ation Found in F	ield Notebo		Page #	
	ume		Spec. Cond		DO	Turbidity		
Time Remov	ed (gal) T° (C)	pH 1/04	(µs/cm)	ORP	mg/L	(NTU)	Color	DTW
	+/- 0.2	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 10%		0.33 ft
0956 INITIAL		7.51	925	-129.8	.32	1.91	clear	40.09
0959		7.50	925	-133.2	-23	1.73		40.0
/ / /	6.5 L 10.4	7.50		-133.2	.23	0.98		40.09
	7.5 L 10.4	7.50	924	- 136.4	22	1.28	V	40.08
	L	-			-			
		1						-
	L L	1						
	Ī	1						
	Ī							
	<u> </u>							
	L L							
Has Has Have	eptance criteria pa required volume to required turbidity e parameters stab f no or N/A - Expla	been remov been reach ilized		No	N/A			
SAMPLE COLLEC	rion:	Method:	Bladder Pump					
Sample ID	Container Type	No. of	Containers	Preservation		Analysis		Time
	1L		1	HNO3		TDS		1015
	-256ML		40.			ANIONS		
	500 MI		1	HNO3		METALS		
omments	I Igal				l P	adium		
		11						
ignature ///	11 (1)	W/			Date	1/ 1/	5-24	

	Calibration Log YSI										
Date	/Time	рН	ORP	Conductivity	DO	Verify					
4-15 24		-				V					
5-13-24	1010	/	V	/	/	/					
5-14-24	0130		V		V	V					
5-21-24	6715	V	V								
5-22-24	6448	V	-	-							
6-11 24	14 0800		V	V	/						
10-12-24	0830	V	V								
0.13.7A	0820	/	/	/		/					
6-17-24	0815	V	~	-		~					
4-25-24	0730	V	~	~	/	L					
8-1-24	0715	V	V	V	~	~					
5-10-24	0120	V	_	~	V	~					
7-10-24	0700	~	~	V	~						
9-11-24	0700	· v	V	V	V						
9-17-24	0705	V	V	V	V	/					
0-1-24	0703	~	/	_	V	/					
0.2.24	0701	~	~	~	-						
M HE HE	- X 1.1/C 1										
	· ·										
S											
					47						





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free	Minnesota V 2616 East Br Bismarck, N Phone: (701) 258-4 : (800) 279-6885	· · · · ·						Page	of _	_		
ompany N	ame and Address			Account #		-		Phor	1e #			
		ectric Power Coop.			2040					01-745-7238	701-557-5	488
		nd Olds Station		Contact				Ema				
		Highway 200A nton, ND 58571			Mark Dihle	•				epc.com akn		epc.com
illing Addr	ess (indicate if differen			Name of S	ampier					rshman@aeco	m.com	
g / taul	ooo (malaate ii ameren	t nom above,		Quote Nun	nhor			jasor		@aecom.com ate Submitted		
				Quote Null	iibei				lo ₈		16/2024	
				Project Na	me/Numbe	r			Pu	urchase Orde		
			-		CCR PL		ГРС	ONDS			0708-04	
Lab Use						_						
Only			Sample Matri GW - Groundwate	, Date	Time	ottles	Y/N			*		
Lab	Sa	mple ID		Sampled	Sampled	m	Σ			Analysis Re	quired	
001	MW	- 2017 - 10	GW	4/15/2024	842	3				6O ₄ , Sb, As, Ba e, Tl <mark>, Ra226, R</mark>		
000								B, Ca, C	I, F, S	O ₄ , Sb, As, B	a, Be, Cd	Cr, Co,Pb,
002	MW	- 2017 - 11	GW	4/15/2024	1015	3	N	Li, Hg, N	lo, Se	e, TI, Ra226, R	a228, TD	S
E												
Comments:					-102							
omments:												
7	ransferred by	Date	Time	^ Received	by	Т	Dat	еТ	ime	Temp	ROI	Therm. #
	M EXPRESS	4/16/2024		110/20	~,		Apr			5.4	(Y) N	TM920

See above for page number

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Report Date: Friday, May 31, 2024 4:28:59 PM

Form # 80-910005-1



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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

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Account #: 2040 Client: Basin Electric Power Cooperative

Workorder: LOS Multiunit CCR (48615) PO: 790708-04

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carrell

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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Report Date: Tuesday, June 4, 2024 10:10:52 AM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 48615001
 Date Collected:
 05/13/2024 13:20
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-1
 Date Received:
 05/15/2024 14:56
 Collector:
 Client

remp @ Receipt (C): 3.6	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	337	mg/L	25	5		05/22/2024 10:57	
Method: EPA 6010D							
Boron	0.50	mg/L	0.1	1	05/15/2024 16:09	05/20/2024 12:50	
Calcium	226	mg/L	1	1	05/15/2024 16:09	05/16/2024 11:25	
Method: SM4500-CI-E 2011							
		_					
Chloride	13.0	mg/L	2.0	1		05/21/2024 10:14	
Method: SM4500-F-C-2011							
Fluoride	0.39	mg/L	0.1	1		05/16/2024 12:34	
Method: USGS I-1750-85							
Total Dissolved Solids	1280	mg/L	10	1		05/15/2024 16:22	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 48615002
 Date Collected:
 05/13/2024 13:50
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-2
 Date Received:
 05/15/2024 14:56
 Collector:
 Client

Temp @ Receipt (C): 3.6	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	274	mg/L	25	5		05/22/2024 10:58	
Method: EPA 6010D							
Boron	1.11	mg/L	0.1	1	05/15/2024 16:09	05/20/2024 12:51	
Calcium	112	mg/L	1	1	05/15/2024 16:09	05/16/2024 11:26	
Method: SM4500-CI-E 2011							
		_					
Chloride	10.5	mg/L	2.0	1		05/21/2024 10:15	
Method: SM4500-F-C-2011							
Fluoride	0.42	mg/L	0.1	1		05/16/2024 12:40	
Method: USGS I-1750-85							
Total Dissolved Solids	859	mg/L	10	1		05/15/2024 16:22	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 48615003
 Date Collected:
 05/13/2024 14:15
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-3
 Date Received:
 05/15/2024 14:56
 Collector:
 Client

Received on	ice. 165					
Results	Units	RDL	DF	Prepared	Analyzed	Qual
123	mg/L	25	5		05/22/2024 10:48	
1.24	mg/L	0.1	1	05/15/2024 16:09	05/20/2024 12:52	
110	mg/L	1	1	05/15/2024 16:09	05/16/2024 11:27	
0.0	ma/l	2.0	1		05/21/2024 10:16	
5.5	mg/L	2.0	1		03/21/2024 10.10	
0.53	mg/L	0.1	1		05/16/2024 12:46	
920	mg/L	10	1		05/15/2024 16:22	
	123 1.24 110 9.9	Results Units 123 mg/L 1.24 mg/L 110 mg/L 9.9 mg/L 0.53 mg/L	Results Units RDL 123 mg/L 25 1.24 mg/L 0.1 110 mg/L 1 9.9 mg/L 2.0 0.53 mg/L 0.1	Results Units RDL DF 123 mg/L 25 5 1.24 mg/L 0.1 1 110 mg/L 1 1 9.9 mg/L 2.0 1 0.53 mg/L 0.1 1	Results Units RDL DF Prepared 123 mg/L 25 5 1.24 mg/L 0.1 1 05/15/2024 16:09 110 mg/L 1 1 05/15/2024 16:09 9.9 mg/L 2.0 1 0.53 mg/L 0.1 1	Results Units RDL DF Prepared Analyzed 123 mg/L 25 5 05/22/2024 10:48 1.24 mg/L 0.1 1 05/15/2024 16:09 05/20/2024 12:52 110 mg/L 1 1 05/15/2024 16:09 05/16/2024 11:27 9.9 mg/L 2.0 1 05/21/2024 10:16 0.53 mg/L 0.1 1 05/16/2024 12:46





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 48615004
 Date Collected:
 05/13/2024 14:41
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-7
 Date Received:
 05/15/2024 14:56
 Collector:
 Client

remp @ Receipt (C): 3.6	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	267	mg/L	25	5		05/22/2024 10:49	
Method: EPA 6010D							
Wethod: EPA 6010D							
Boron	2.05	mg/L	0.1	1	05/15/2024 16:09	05/20/2024 12:52	
Calcium	67.1	mg/L	1	1	05/15/2024 16:09	05/16/2024 11:30	
Method: SM4500-CI-E 2011							
Chloride	11.1	mg/L	2.0	1		05/21/2024 10:17	
Method: SM4500-F-C-2011							
Fluoride	1.32	mg/L	0.1	1		05/16/2024 12:52	
Method: USGS I-1750-85							
Total Dissolved Solids	704	mg/L	10	1		05/15/2024 16:22	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 48615005
 Date Collected:
 05/14/2024 08:40
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-4
 Date Received:
 05/15/2024 14:56
 Collector:
 Client

Terrip (a) Necerpt (a).	Neceived on	165					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
							_
Method: ASTM D516-16							
Sulfate	293	mg/L	25	5		05/22/2024 10:50	
Method: EPA 6010D							
Boron	1.18	mg/L	0.1	1	05/15/2024 16:09	05/20/2024 12:53	
Calcium	147	mg/L	1	1	05/15/2024 16:09	05/16/2024 11:33	
Method: SM4500-CI-E 2011							
Chloride	9.7	mg/L	2.0	1		05/21/2024 10:19	
Method: SM4500-F-C-2011							
Fluoride	0.82	mg/L	0.1	1		05/16/2024 12:58	
Method: USGS I-1750-85							
Total Dissolved Solids	855	mg/L	10	1		05/15/2024 16:22	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 48615006
 Date Collected:
 05/14/2024 11:30
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-8
 Date Received:
 05/15/2024 14:56
 Collector:
 Client

Temp @ Receipt (C): 3.6	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	1430	mg/L	50	10		05/22/2024 10:59	
Method: EPA 6010D							
				_	0=11=10001 1000	0=/00/0004 40 =4	
Boron	<0.5	mg/L	0.5	5	05/15/2024 16:09	05/20/2024 12:54	
Calcium	134	mg/L	5	5	05/15/2024 16:09	05/16/2024 11:34	
Method: SM4500-CI-E 2011							
Chloride	24.7	mg/L	2.0	1		05/21/2024 10:20	
Method: SM4500-F-C-2011							
Fluoride	0.41	mg/L	0.1	1		05/16/2024 13:03	
Method: USGS I-1750-85							
Total Dissolved Solids	3680	mg/L	10	1		05/15/2024 16:22	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 48615007
 Date Collected:
 05/14/2024 10:30
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-8D
 Date Received:
 05/15/2024 14:56
 Collector:
 Client

Temp @ Receipt (C): 3.6 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	371	mg/L	25	5		05/22/2024 10:53	*
Mathadi EDA 045 4							
Method: EPA 245.1	10.0000		0.0000	4	05/47/0004 00:05	05/47/0004 44:00	
Mercury	<0.0002	mg/L	0.0002	1	05/17/2024 09:25	05/17/2024 11:38	
Method: EPA 6010D							
Boron	0.65	mg/L	0.1	1	05/15/2024 16:09	05/20/2024 12:55	
Calcium	8.54	mg/L	1	1	05/15/2024 16:09	05/16/2024 11:35	
Lithium	0.0625	mg/L	0.02	1	05/15/2024 16:09	05/20/2024 10:24	
Mathadi FDA COOOD							
Method: EPA 6020B	10.001		0.004	_	05/45/0004 40:00	05/04/0004 45:00	
Antimony	<0.001	mg/L	0.001	5	05/15/2024 16:09	05/21/2024 15:39	
Arsenic	<0.002	mg/L	0.002	5	05/15/2024 16:09	05/21/2024 15:39	
Barium	0.0462	mg/L	0.002	5	05/15/2024 16:09	05/21/2024 15:39	
Beryllium	<0.0005	mg/L	0.0005	5	05/15/2024 16:09	05/22/2024 11:33	
Cadmium	<0.0005	mg/L	0.0005	5	05/15/2024 16:09	05/21/2024 15:39	
Chromium	<0.002	mg/L	0.002	5	05/15/2024 16:09	05/21/2024 15:39	
Cobalt	<0.002	mg/L	0.002	5	05/15/2024 16:09	05/21/2024 15:39	
Lead	<0.0005	mg/L	0.0005	5	05/15/2024 16:09	05/21/2024 15:39	
Molybdenum	<0.002	mg/L	0.002	5	05/15/2024 16:09	05/21/2024 15:39	
Selenium	<0.005	mg/L	0.005	5	05/15/2024 16:09	05/21/2024 15:39	
Thallium	<0.0005	mg/L	0.0005	5	05/15/2024 16:09	05/21/2024 15:39	
Method: SM4500-CI-E 2011							
Chloride	15.6	mg/L	2.0	1		05/21/2024 10:21	
Method: SM4500-F-C-2011							
Fluoride	0.63	mg/L	0.1	1		05/16/2024 13:10	
Method: USGS I-1750-85							
Total Dissolved Solids	1810	mg/L	10	1		05/15/2024 16:22	

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: Tuesday, June 4, 2024 10:10:52 AM



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

Analysis Results Comments

Sulfate

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

Lab ID:48615008Date Collected:05/13/2024 13:20Matrix:GroundwaterSample ID:DuplicateDate Received:05/15/2024 14:56Collector:Client

remp @ receipt (0): 0.0	1100011100 OII	100.					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	332	mg/L	25	5		05/22/2024 10:54	
Method: EPA 6010D							
Welliod. EFA 6010D							
Boron	0.48	mg/L	0.1	1	05/15/2024 16:09	05/20/2024 12:57	
Calcium	217	mg/L	1	1	05/15/2024 16:09	05/16/2024 11:36	
Method: SM4500-CI-E 2011							
Chloride	12.5	mg/L	2.0	1		05/21/2024 10:22	
		Ü					
Method: SM4500-F-C-2011							
Fluoride	0.39	mg/L	0.1	1		05/16/2024 13:16	
Tidorido	0.00	mg/L	0.1	•		00/10/2024 10:10	
Method: USGS I-1750-85							
Total Dissolved Solids	1280	mg/L	10	1		05/15/2024 16:22	
Total Dissolved Sollds	1200	IIIg/L	10	1		03/13/2024 10.22	





Account #: 2040 Client: Basin Electric Power Cooperative

C Resul	ts Summary						WO #:	4861	5
Sulfate QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg/	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB			100	Recovery 102.0	% Recovery	Limit (%) 85	Limit (%) 115		
LFB			100	105.0		85	115		
LFB			100	106.0		85	115		
.FB			100	105.0		85	115		
LFB			100	106.0		85	115		
FB			100	88.6		85	115		
FB			100	89.3		85	115		
LFB			100	91.8		85	115		
LFB			100	98.7		85	115		
MB		<5							
ИВ		<5							
ИB		<5							
ИB		<5							
ИВ		<5							
ИB		<5							
ИВ		<5							
MB		<5							
ИB		<5							
MS/MSD	48615007		500	60.8	60.7	85	115	0.1	20
MS/MSD	48628004		500	87.2	90.4	85	115	3.3	20
MS/MSD	48691003		2000	63.6	64.4	85	115	0.6	20
MS/MSD	48695001		5000	95.3	92.2	85	115	1.7	20
MS/MSD	48799013		100	102.1	101.5	85	115	0.0	20
MS/MSD	48978001		500	93.3	111.0	85	115	11.1	20
MS/MSD	48979003		4000	103.0	108.2	85	115	3.8	20
MS/MSD	48979004		100	103.9	104.1	85	115	0.0	20
Chloride QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg/	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)





Account #: 2040

Client: Basin Electric Power Cooperative

Chloride	Original S 1 :-	Dii- C "	C-il-	Units: mg/L			Haras C	DDD (0/1	DDD Lie 1: 444
QC Type LFB	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery 95.8	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	94.9		90	110		
LFB			30	94.5		90	110		
LFB			30	94.1		90	110		
LFB			30	93.6		90	110		
LFB			30	93.5		90	110		
LFB			30	93.4		90	110		
LFB			30	94.1		90	110		
LFB			30	93.1		90	110		
МВ		<2.0							
МВ		<2.0							
МВ		<2.0							
МВ		<2.0							
МВ		<2.0							
МВ		<2.0							
МВ		<2.0							
MB		<2.0							
МВ		<2.0							
МВ		<2.0							
MS/MSD	48326001		30	92.5	92.5	80	120	0.0	20
MS/MSD	48399012		30	95.2	93.5	80	120	1.8	20
MS/MSD	48529001		30	94.5	95.2	80	120	0.0	20
MS/MSD	48695001		30	96.2	94.4	80	120	0.6	20
MS/MSD	48806002		30	100.0	98.2	80	120	0.6	20
MS/MSD	48806003		30	100.7	100.7	80	120	0.0	20
Boron				Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	103.0	A Recovery	85	115		
МВ		<0.1							
MS/MSD	48615007		0.4	96.6	100.0	70	130	1.4	20





Account #: 2040

Client: Basin Electric Power Cooperative

				10.00						
Calcium QC Type	Original Sample ID	Blank Result	Spike Amount	Units: Spike % Recovery	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	106.0			85	115		
МВ		<1								
PDS/PDSD	48277003		100	108.0		109.0	75	125	0.2	20
PDS/PDSD	48384002		100	105.0		105.0	75	125	0.1	20
PDS/PDSD	48399012		100	110.0		111.0	75	125	0.8	20
DUP	48477001								4.0	20
PDS/PDSD	48615004		100	106.0		106.0	75	125	0.1	20
DUP	48615008								0.6	20
Lithium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	106.0			85	115		
MB		<0.04								
MS/MSD	48615007		0.4	98.7		101.0	70	130	2.2	20
Antimony				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	97.0			80	120		
LFB-MS			0.1	94.4			80	120		
МВ		<0.001								
MB		<0.001								
MS/MSD	48615007		0.4	101.0		102.0	75	125	1.5	20
MS/MSD	48615007		0.4	101.0		103.0	75	125	2.5	20
SPK	48637009		0.1	97.8			75	125		
SPK	48695001		0.1	101.0			75	125		
Arsenic				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	_	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	90.0		necovery	80 80	120		
LFB-MS			0.1	100.0			80	120		
MB		<0.002								
MB		<0.002								
MS/MSD	48615007		0.4	98.0		96.7	75	125	1.3	20
MS/MSD	48615007		0.4	105.0		106.0	75	125	1.0	20





Account #: 2040

Client: Basin Electric Power Cooperative

Arsenic					ng/L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	48637009		0.1	104.0		75	125		
SPK	4000004		0.4	107.0		75	425		
SFK	48695001		0.1	107.0		75	125		
SPK	48695001		0.2	99.4		75	125		
Barium				Units: m	ng/L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.5	,	80	120		
LFB-MS			0.1	93.2		80	120		
MB		<0.002							
MB		<0.002							
MS/MSD	48615007		0.4	92.0	88.8	75	125	3.2	20
MI2/M2D	48615007		U.4	92.0	88.6	/5	125	3.2	20
MS/MSD	48615007		0.4	96.0	98.1	75	125	2.1	20
SPK	48637009		0.1	78.4		75	125		
SPK	48695001		0.1	81.8		75	125		
JI K	40033001		0.1	01.0		,,	125		
Beryllium				Units: m	ng/L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 96.7	% Recovery	Limit (%) 80	Limit (%)		
LFB-MS			0.1	97.0		80	120		
MB		<0.0005							
MID		V0.0003							
MB		<0.0005							
MS/MSD	48615007		0.4	96.8	94.8	75	125	2.1	20
SPK	48695001		0.1	93.9		75	125		
SPK	48695001		0.2	87.8		75	125		
50 12 00									
Cadmium	20.0	20.12			ng/L	p 100 11 11	W 9 7 7		2220 0000
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	101.0		80	120		
			0.1						
LFB-MS				93.7		80	120		
LFB-MS			0.1			80	120		
LFB-MS		<0.0005				80	120		
МВ						80	120		
		<0.0005				80	120		
мв	48615007		0.1	93.7	96.2			3.1	20
МВ	48615007				96.2	80	120	3.1	20
мв	48615007 48615007		0.1	93.7	96.2			3.1	20
MB MB MS/MSD			0.1	93.7		75	125		





Account #: 2040

Client: Basin Electric Power Cooperative

Cadmium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	48695001		0.2	88.3			75	125		
SPK	48695001		0.1	85.4			75	125		
Chromium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	mg/ L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
				Recovery		% Recovery	Limit (%)	Limit (%)		
LFB-MS			0.1	109.0			80	120		
LFB-MS			0.1	100.0			80	120		
MB		<0.002								
MB		<0.002								
MS/MSD	48615007		0.4	105.0		111.0	75	125	5.1	20
MS/MSD	48615007		0.4	103.0		98.7	75	125	4.2	20
SPK	48637009		0.1	105.0			75	125		
SPK	48695001		0.1	110.0			75	125		
SPK	48695001		0.2	99.1			75	125		
Cobalt				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 97.8		% Recovery	Limit (%) 80	Limit (%) 120		
LFB-MS			0.1	103.0			80	120		
MB		<0.002								
MB		<0.002								
MS/MSD	48615007		0.4	100.0		95.3	75	125	4.4	20
MS/MSD	48615007		0.4	99.4		105.0	75	125	5.1	20
SPK	48637009		0.1	97.0			75	125		
SPK	48695001		0.2	96.3			75	125		
SPK	48695001		0.1	99.9			75	125		
Lead				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	_	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	96.8			80	120		
LFB-MS			0.1	98.9			80	120		
MB		<0.0005								
140		<0.0005								
MB		<0.0005								
MS/MSD	48615007		0.4	96.9		98.2	75	125	1.3	20





Account #: 2040

Client: Basin Electric Power Cooperative

LESO				Units:	mg/L					
Lead QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	ilig/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
MS/MSD	48615007		0.4	Recovery 95.5		% Recovery 92.7	Limit (%) 75	Limit (%) 125	2.9	20
SPK	48637009		0.1	98.0			75	125		
SPK	48695001		0.1	94.1			75	125		
Molybdenum				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	92.7			80	120		
LFB-MS			0.1	98.4			80	120		
MB		<0.002								
МВ		<0.002								
MS/MSD	48615007		0.4	96.5		96.6	75	125	0.0	20
MS/MSD	48615007		0.4	101.0		108.0	75	125	6.7	20
SPK	48637009		0.1	95.7			75	125		
SPK	48695001		0.1	104.0			75	125		
SPK	48695001		0.2	99.8			75	125		
Selenium				Units:	mg/L					
QC Type										
	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery 99.3		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
	Original Sample ID	Blank Result		Recovery		Spike Duplicate % Recovery	Limit (%)	Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS	Original Sample ID	Blank Result	0.1	99.3		Spike Duplicate % Recovery	Limit (%) 80	Limit (%) 120	RPD (%)	RPD Limit (%)
LFB-MS	Original Sample ID		0.1	99.3		Spike Duplicate % Recovery	Limit (%) 80	Limit (%) 120	RPD (%)	RPD Limit (%)
LFB-MS LFB-MS MB		<0.005	0.1	99.3 100.0		% Recovery	Limit (%) 80 80	Limit (%) 120 120		
LFB-MS	Original Sample ID 48615007	<0.005	0.1	99.3		Spike Duplicate % Recovery	Limit (%) 80	Limit (%) 120	RPD (%)	RPD Limit (%)
LFB-MS LFB-MS MB		<0.005	0.1	99.3 100.0		% Recovery	Limit (%) 80 80	Limit (%) 120 120		
LFB-MS LFB-MS MB MB MS/MSD	48615007	<0.005	0.1	99.3 100.0		% Recovery	80 80 75	Limit (%) 120 120 120	3.2	20
LFB-MS LFB-MS MB MB MS/MSD	48615007 48615007	<0.005	0.1	Recovery 99.3 100.0 106.0 99.9		% Recovery	## (%) 80 80 80 75 75 75 75 80 80 80 80 80 80 80 80 80 80 80 80 80	120 125 125	3.2	20
LFB-MS LFB-MS MB MS/MSD MS/MSD	48615007 48615007 48637009	<0.005	0.1 0.1 0.4 0.4	99.3 100.0 106.0 99.9		% Recovery	10mit (%) 80 80 75 75	Limit (%) 120 120 120 125 125	3.2	20
LFB-MS LFB-MS MB MB MS/MSD SPK SPK	48615007 48615007 48637009 48695001	<0.005	0.1 0.1 0.4 0.4 0.1	Recovery 99.3 100.0 106.0 99.9 101.0 102.0		% Recovery	75 75 75 75 75 75 75 75 75 75 75 75 75 7	120 120 125 125 125 125	3.2	20
LFB-MS LFB-MS MB MB MS/MSD SPK SPK Thallium	48615007 48615007 48637009 48695001	<0.005 <0.005	0.1 0.1 0.4 0.4 0.1 0.1	Recovery 99.3 100.0 106.0 99.9 101.0 102.0 Units:	mg/L	% Recovery 103.0 104.0	Limit (%) 80 80 80 75 75 75 75 75 75 75 7	Limit (%) 120 120 125 125 125 125 125	3.2	20 20
LFB-MS LFB-MS MB MB MS/MSD SPK SPK	48615007 48615007 48637009 48695001	<0.005	0.1 0.1 0.4 0.4 0.1	Recovery 99.3 100.0 106.0 99.9 101.0 102.0	mg/L	% Recovery	75 75 75 75 75 75 75 75 75 75 75 75 75 7	120 120 125 125 125 125	3.2	20
LFB-MS MB MB MS/MSD SPK SPK SPK Thallium QC Type LFB-MS	48615007 48615007 48637009 48695001	<0.005 <0.005	0.1 0.4 0.4 0.1 0.1 0.2 Spike Amount 0.1	Recovery 99.3 100.0 106.0 99.9 101.0 102.0 101.0 Units: Spike % Recovery 96.8	mg/L	% Recovery 103.0 104.0 Spike Duplicate	Limit (%) 80 80 80 75 75 75 75 75 Lower Control Limit (%) 80 80	Unit (%) 120 120 125 125 125 125 125 125	3.2	20 20
LFB-MS LFB-MS MB MB MS/MSD MS/MSD SPK SPK SPK Thallium QC Type	48615007 48615007 48637009 48695001	<0.005 <0.005	0.1 0.1 0.4 0.4 0.1 0.1 0.2	Recovery 99.3 100.0 106.0 99.9 101.0 102.0 Units: Spike % Recovery	mg/L	% Recovery 103.0 104.0 Spike Duplicate	Limit (%) 80 80 80 75 75 75 75 75 10 Lower Control Limit (%) 10 L	Limit (%) 120 120 120 125 125 125 125 125 125 125 126 Upper Control Limit (%)	3.2	20 20
LFB-MS LFB-MS MB MS/MSD MS/MSD SPK SPK SPK Thallium QC Type LFB-MS	48615007 48615007 48637009 48695001	<0.005 <0.005	0.1 0.4 0.4 0.1 0.1 0.2 Spike Amount 0.1	Recovery 99.3 100.0 106.0 99.9 101.0 102.0 101.0 Units: Spike % Recovery 96.8	mg/L	% Recovery 103.0 104.0 Spike Duplicate	Limit (%) 80 80 80 75 75 75 75 75 Lower Control Limit (%) 80 80	Unit (%) 120 120 125 125 125 125 125 125	3.2	20 20





Account #: 2040

Client: Basin Electric Power Cooperative

nallium				Units:	mg/L					
	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	,	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
i/MSD	48615007		0.4	97.1		99.6	75	125	2.5	20
i/MSD	48615007		0.4	94.6		91.9	75	125	2.9	20
<	48637009		0.1	101.0			75	125		
(48695001		0.1	96.0			75	125		
ercury				Units:	mg/L					
	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
3			0.002	97.2			85	115		
3			0.002	95.0			85	115		
3			0.002	96.7			85	115		
3		<0.0002								
š		<0.0002								
3		<0.0002								
i/MSD	48399002		0.002	98.8		95.0	70	130	5.1	20
i/MSD	48430001		0.002	96.8		96.6	70	130	0.0	20
/MSD	48637007		0.002	100.0		100.0	70	130	0.0	20
S/PDSD	48691009		0.01	99.9		97.4	70	130	3.0	
									3.0	20
i/MSD	48691009 48695001		0.002	94.0		97.4	70	130	0.0	20
i/MSD uoride	48695001		0.002	94.0 Units:	mg/L	97.3	70	130	0.0	
uoride Type			0.002 Spike Amount	94.0 Units: Spike % Recovery	mg/L		70 Lower Control Limit (%)	Upper Control		20 RPD Limit (%)
i/MSD uoride	48695001		0.002	94.0 Units: Spike %	mg/L	97.3 Spike Duplicate	70 Lower Control	130 Upper Control	0.0	
uoride Type	48695001	Blank Result	0.002 Spike Amount	94.0 Units: Spike % Recovery	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%)	Upper Control	0.0	
uoride : Type M-F	48695001	Blank Result	0.002 Spike Amount 3.06	94.0 Units: Spike % Recovery 109.0	mg/L	97.3 Spike Duplicate	Lower Control Limit (%) 83.99	Upper Control Limit (%)	0.0	
uoride Type M-F	48695001	Blank Result	0.002 Spike Amount 3.06 0.5	94.0 Units: Spike % Recovery 109.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90	130 Upper Control Limit (%) 111.11	0.0	
uoride E Type M-F	48695001	Blank Result	0.002 Spike Amount 3.06 0.5	94.0 Units: Spike % Recovery 109.0 110.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90	130 Upper Control Limit (%) 111.11 110	0.0	
v/MSD uoride Type M-F I-F	48695001	Blank Result	0.002 Spike Amount 3.06 0.5	94.0 Units: Spike % Recovery 109.0 110.0 100.0	mg/L	97.3 Spike Duplicate	Lower Control Limit (%) 83.99 90 90	130 Upper Control Limit (%) 111.11 110 110	0.0	
uoride Type M-F F-F F-F	48695001 Original Sample ID	Blank Result	0.002 Spike Amount 3.06 0.5 0.5	94.0 Units: Spike % Recovery 109.0 110.0 100.0 104.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90 90 90	130 Upper Control Limit (%) 111.11 110 110 110	0.0	
//MSD uoride Type M-F b-F b-F	48695001. Original Sample ID	Blank Result	0.002 Spike Amount 3.06 0.5 0.5	94.0 Units: Spike % Recovery 109.0 110.0 100.0 104.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90 90 90	130 Upper Control Limit (%) 111.11 110 110 110	0.0	
V/MSD uoride Type M-F I-F I-F I-F I-F I-F	48695001. Original Sample ID	Blank Result	0.002 Spike Amount 3.06 0.5 0.5	94.0 Units: Spike % Recovery 109.0 110.0 100.0 104.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90 90 90	130 Upper Control Limit (%) 111.11 110 110 110	0.0	
V/MSD uoride Type M-F I-F I-F I-F I-F I-F I-F I-F	48695001 Original Sample ID	Blank Result <0.1 <0.1	0.002 Spike Amount 3.06 0.5 0.5	94.0 Units: Spike % Recovery 109.0 110.0 100.0 104.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90 90 90	130 Upper Control Limit (%) 111.11 110 110 110	0.0	
V/MSD uoride Type M-F I-F I-F I-F I-F I-F I-F I-F	48695001 Original Sample ID	Slank Result	0.002 Spike Amount 3.06 0.5 0.5	94.0 Units: Spike % Recovery 109.0 110.0 100.0 104.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90 90 90	130 Upper Control Limit (%) 111.11 110 110 110	0.0	
V/MSD uoride Type M-F I-F I-F I-F I-F I-F I-F I-F	48695001 Original Sample ID		0.002 Spike Amount 3.06 0.5 0.5	94.0 Units: Spike % Recovery 109.0 110.0 100.0 104.0	mg/L	97.3 Spike Duplicate	70 Lower Control Limit (%) 83.99 90 90 90	130 Upper Control Limit (%) 111.11 110 110 110	0.0	
3 3 3	/MSD /MSD ercury Type	Type	Type	Type	Type Original Sample ID Blank Result Spike Amount Spike % Recovery /MSD 48615007 0.4 97.1 (4 48615007 0.4 94.6 (5 48637009 0.1 101.0 (6 48695001 0.1 96.0 Eercury Units: Type Original Sample ID Blank Result Spike Amount Spike % Recovery 0.002 97.2 (5 0.002 95.0 (6 4.0002 96.7 (7 0.002 96.7 (8 4.0002 4.0002 (8 4.0002 98.8 (7 48430001 0.002 96.8	Type Original Sample ID Blank Result Spike Amount Recovery /MSD 48615007 0.4 97.1 (A 48615007 0.4 94.6 (A 48637009 0.1 101.0 (A 48695001 0.1 96.0 CERCUTY Units: mg/L mg/L Type Original Sample ID Blank Result Spike Amount Spike W (B VO.002 97.2 0.002 97.2 (B VO.002 96.7 0.002 96.7 (B VO.0002 VO.0002 96.7 0.002 98.8 (MSD 48399002 0.002 96.8 0.002 96.8	Type	Type	Type Original Sample ID Blank Result Spike Amount Recovery Spike Spike Duplicate Necovery Lower Control Limit (%) Upper Control Limit (%) //MSD 48615007 0.4 94.6 91.9 75 125 (A 48637009 0.1 101.0 75 125 (B 48695001 0.1 96.0 75 125 (C 48695001 0.1 96.0 75 125 (C 48695001 0.1 96.0 75 125 (C 48695001 0.1 96.0 5pike Mount 75 125 (C 48695001 81ank Result 5pike Amount 5pike Mount 5pike Spike Duplicate Lower Control Limit (%) Upper Control Limit (%) (C 0.002 97.2 85 115 (A 0.002 96.7 85 115 (C 40.002 40.002 40.002 40.002 40.002 40.002 40.002 40.002 40.002 40.002 40.002	No





Account #: 2040

Client: Basin Electric Power Cooperative

Fluoride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD-F	48626004		0.5	108.0		108.0	80	120	0.0	20
MS/MSD-F	48672003		0.5	102.0		102.0	80	120	0.0	20
MS/MSD-F	48695001		0.5	100.0		98.0	80	120	1.4	20
Total Dissolve	ed Solids			Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0			90.35	110.33		
MB		<10								
DUP	48401001								1.2	20



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



Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free: (Minnesota Valley Testing Laborator 2616 East Broadway Avenue Bismarck, ND 58501 hone: (701) 258-9720 800) 279-6885 Fax: (701) 258-9724	ies, Inc.	Basin WO: 4	Electric 8615	P	OW	Chain of Custody Page1 of1 Work Order #				
Company Nan	ne and Address		Account #		_		Phone				
	Basin Electric Power Coop.			2040				701-745-7238 <u>701-557-5488</u>			
	<u>Leland Olds Station</u> 3901 Highway 200A			Mark Dihle)		Emails mdihle	@bepc.com aknutson@bepc.com			
	Stanton, ND 58571		Name of S		ar contr		Ksolie(e@barr.com			
Billing Addres	ss (indicate if different from above)		Myles She					Date Submitted			
	Attn: Liabilities		Quote Nui	nber				5/15/2024			
				me/Numbe LOS Multil		СС	R	Purchase Order # 790708-04			
Cab Use Only	Sample ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	# of	Filtered		Analysis Required			
α	MW-2017-1	GW	5/13/2024	1320	2	N	B,Ca,CI,F,	SO4,TDS			
002	MW-2017-2	GW	5/13/2024	1350	2	100	B,Ca,CI,F,				
003	MW-2017-3	GW	5/13/2024	1415	2	N	B,Ca,CI,F,	SO4,TDS			
004	MW-2017-7	GW	5/13/2024	1441	2	N	B,Ca,CI,F,	SO4,TDS			
005	MW-2017-4	GW	5/14/2024	840	2	N	B,Ca,CI,F,	SO4,TDS			
006	MW-2017-8	GW	5/14/2024	1130	2	N	B,Ca,CI,F,	SO4,TDS			
CO7 MW-2017-8D GW			5/14/2024	1030	3	N		SO4,TDS,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li, TI,Ra226,Ra228			
800	2				2			,CI,F,SO4,TDS			
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.

Date

Report Date: Tuesday, June 4, 2024 10:10:52 AM

Millenning E

Well/Piezo ID:	
MW-2017	-01

Client: Project No:	BEPC				Date: <u>5-/3-24</u> Time: Start <u>/248</u> Finish <u>/325</u>					
Site Location: Weather Conds:	LOS PC	unny		Collector(s)	AK		-			
WATER LEVEL DAT a. Total Well Length		ured from	c. Ca	sing Material	PVC	Well 🛣				
b. Water Table Dept		3; /	d. Ca	ising Diametei		f. Calcul	ated vveir v	olume (see	: раск)	
		<u>Dedicated</u>	d Bladder	Pump						
b. Field	Testing E	quipment	Used:	Make YSI HACH	Model		Serial Nun 22C10390 20030C08	1		
c. Field	Testing I	Equipmen	t Calibrati	ion Document	ation Found in F	ield Notebo	ook # <u>4</u> <5	Page #	1	
Time Remove Stabilization		T° (C) +/- 0.2	pH +/- 0.1	Spec. Cond (µs/cm) +/- 3%	ORP +/- 10%	DO mg/L +/- 10%	Turbidity (NTU) +/- 10%	Color	DTW 0.33 ft	
1305 1305 1310 1315	ie L 3 L	10.6	7.06 7.04 7.05 7.05	1864 1877 1875 1880	-142.2 -139.9 -138.6 -135.2	0,48	2.81 2,16 1.70 2.19	Clear	25.75 25.70 25.73 25.71	
	L									
	L L L									
Has Has Have	required very required to parameter to the contract of the con	riteria pas volume be urbidity be ers stabili A - Explai	en remov een reach zed		No	N/A				
SAMPLE COLLECT	TION:		Method:	Bladder Pump						
Sample ID (1) - 2017-01		er Type IL 250ML 500 ML		Containers 1 1 1	Preservation HNO3		-	Time /320		
Comments										
Signature	Va	5				Date <u>5</u>	-13-29	9		

	142 11/21	_
	Well/Piezo ID:	1
MU	-2017-02	1
		_

Veather Co		S PONDS		_Collector(s)	5-/3-24 Date: <u>1834</u> Time: Start <u>/330</u> Finish <u>/352</u>					
VATER LEV	/EL DATA: (m	neasured fro	-	•	PVC	Well Piezometer [e. Pump Settings 25/5 660				
. Water Ta	ble Depth	22,97	d. C	asing Diamete	r		ated Well V			
VELL PUR	GING DATA a. Purge Met	hod <u>Dedicate</u>	d Bladde	r Pump						
	b. Field Testi	ng Equipmen	t Used:	Make YSI HACH	Model		Serial Num 22C10390 20030C08	t		
	c. Field Test	ing Equipmer	nt Calibra		ation Found in F	ield Notebo				
Time stabilization	Volume Removed (ga	T° (C) +/- 0.2	pH +/- 0,1	Spec. Cond (µs/cm) +/- 3%	ORP +/- 10%	DO mg/L +/- 10%	Turbidity (NTU)	Color	DTW 0.33 ft	
1340	INITIAL 5	16.8	7.18	1316	-107,3	0.38	4,20	Cleon	22.97	
1343	7	L 10,8	7.25		-113,2	0.26	3.46)	23,0	
1346	9	L 10,6	7,27	1271	-116,4	0,18	1,65	- (22.99	
1349		L 10,60	7,27	1367	-117,0	0,17	1,39		23.0	
		L								
		L								
		L								
		L								
		L								
		L								
		L		-						
		L								
	e. Acceptano Has requir	பு e criteria pas ed volume be		Yes /ed	No	N/A				
	Have para	ed turbidity b meters stabili N/A - Explai	zed	ned 📮						
SAMPLE C	OLLECTION:		Method:	Bladder Pump						
Sample	ID Cont	ainer Type	No. of	Containers	Preservation	1	Analysis		Time	
12017		1L	140. 01	1	HNO3		TDS		1 350	
		-250ML		**		_	ANIONS		v	
		500 ML		1	HNO3		METALS			
omments										
annents	-									
	Puc									

Well/Piezo ID:	
WEIDT ICZU ID.	- 1
$I = M D_{CL} = 2 \Delta T T - R$	- 1
1 100 0011	

Client: Project No:		BEPC					Date: <u>5-/3-24</u> Time: Start <u>/3-55</u>					
Site Locatio	in:	LOSE	PONDS				_		1414	-		
Weather Co		680	Sun		Collector(s)	AIL						
A/ATED LE	VEL DATA	\. <i>(</i>		T t	0!		M-0 G		D'annant.			
		4: (mea	asured froi				Well Piezometer □ e. Pump Settings <u>36.4 € 60 ps</u>					
a. Total We	II Length			c. Ca	asing Material	PVC	e. Pump Settings 36 4 6 60 PS					
o. Water Ta	able Depth	đ	24,27	d. Ca	asing Diamete	r	f. Calcul	ated Well V	olume (see	e back)		
WELL PUR			d <u>Dedicate</u>	d Bladder	Pump	 -						
	b. Field 1	Testina	Equipmen	t Used:	Make	Model		Serial Num	nber			
			• •		YSI			22C10390				
					HACH			20030C084	4551	-		
	c. Field	Testing	g Equipmen	it Calibrat	ion Document	ation Found in F	Field Notebo	ook #	Page #			
	Volur	ne			Spec. Cond		DO	Turbidity		T		
Time	Remove	d (gal)	T° (C)	pH	(µs/cm)	ORP	mg/L	(NTU)	Color	DTW		
Stabilization		m.	+/- 0.2	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 10%	- 2	0.33 ft		
1408	INITIAL	7८ 5 L	10,6	7.30	1449	-132.4	0.20	2.21	Clean	25,0		
1411		le L	16.5	7,32	1440	-133.0	0,19	1.81		25.0		
414		7 L	10.5	7.32	1477	-/33,0	0,19	1.70		24.94		
:		L	,									
	-	L										
	-	L					-					
	_	_ L					+			_		
		ī										
		L										
		Ł										
		<u>_</u> _										
	e Accen	tance	criteria pas	e/fail	Yes	No	N/A	,				
			I volume be		Yes red Z							
	Has re	equired	I turbidity be	een reach	ed 🔼							
			eters stabili		7							
	iri	no or r	I/A - Explai	n below.								
	-											
SAMPLE C	OLLECTI	ON:		Method: I	Bladder Pump))						
Sample	a ID	Contai	ner Type	No. of	Containers	Preservation	T	Analysis		Time		
MUCZOIT		Contai	1L	140. 01	1	HNO3		TDS		1415		
			250ML	_	1			ANIONS		7,70		
			500 ML		1	HNO3		METALS				
omments												
ignature	an				1		Date 5	-13-2	4			
griature					-		Date					

Well/Piezo ID:	
MW 2017	-7

Client: Project No:		BEPC)				=	Time: Sta	Date: <u>5</u>			
Site Location			PONDS			110	_	Finisl	1443	_		
Neather Co	nds:	688	Sun		Collector(s)	AIC						
VATER LE\	/EL DAT/	A: (me	asured fror	n Top of	Casing)		Well Piezometer					
. Total Well		•		•		PVC	e. Pump Settings 26:4 @ 60ps?					
	_	,	39.87				ated Well V					
. Water Ta	bie Deptr	1	3110/	u. Ca	ising Diameter		i. Calcul	ateu vven v	rolullie (Sei	= DaCK)		
VELL PUR			od <u>Dedicate</u>	d Bladder	Pump							
		- 141				Model		Carial Num	-1			
	b. Field	i esting	Equipment	(Usea:	Make YSI	Model		Serial Nun 22C10390				
					HACH			20030C08		_		
	c. Field	Testing	g Equipmen	t Calibrati	ion Documenta	ation Found in F	ield Notebo	ook#/	Page #			
	Volu	me			Spec. Cond		DO	Turbidity	T	T		
Time	Remove			pН	(µs/cm)	ORP	mg/L	(NTU)	Color	DTW		
tabilization	-		+/- 0.2	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 10%	0	0.33 ft		
1430	INITIAL	3 4 L	11.0	7.59	1006	26.1	0,32	1.99	Brown	39,91		
436	-	5 L		7,56		21.9	0,20	1,68		46,0		
439		6 L		7,57	1006	22.0	0.22	1,100	4	40.01		
10		L	1	7.07	7.00							
		L										
		L								-		
	-	<u>L</u>							-			
	-	L L					-					
		一亡										
		L										
		L										
	ο Λοοο	L	criteria pas	c/foil	Yes	No	N/A					
	Has r Has r Have	equired equired param	d volume be d turbidity b neters stabil N/A - Explai	een remov een reach ized	/ed 🔼							
		_										
SAMPLE C	OLLECT	ION:		Method:	Bladder Pump							
Sample	e ID	Conta	iner Type	No. of	Containers	Preservation		Analysis		Time		
W 2017	フ		1L		1	HNO3	-	TDS		01441		
			250NIL-	-	1	UNO2	+	ANIONS				
			500 ML		1	HNO3	-	METALS				
Comments		-										
	1						Data La	-13-29	/			
ignature _	an						Date	17 9/				

Client: Project No:		BEPO	:					Time: Sta	Date: 5	14.24
Site Location Weather Co		LOS	PONDS	520	Collector(s)	-45			h <u>0855</u>	
WATER LE	VEL DAT	A: (me	asured fro	m Top of	Casing)		Well		Piezomete	
a. Total Wel	II Length			c. Ca	sing Material	PVC	e. Pump Settings 26/4			1 0 L
b. Water Ta	able Depti	า	25.94	f d. Ca	sing Diamete	r	f. Calcul	ated Well \	/olume (see	back)
WELL PUR			od <u>Dedicate</u>	d Bladder	Pump					
	b. Field	Testing	j Equipmen	t Used:	Make YSI HACH	Model		Serial Nun 22C10390 20030C08	1	
								1		1
	c. Field	Testing	g Equipmer	it Calibrat	ion Document	ation Found in F	ield Notebo	ook # <5	Page #_	
Time Stabilization			T° (C) +/- 0.2	pH +/- 0.1	Spec. Cond (µs/cm) +/- 3%	ORP +/- 10%	DO mg/L +/- 10%	Turbidity (NTU) +/- 10%	Color	DTW 0.33 ft
6823 6823 6827 6820	INITIAL 7	6.5 7 L 5 L	10,4	7.16	1221	-117.7 -117.7 -118.3 ~118.6	28	7,85	Cloudy	26.01 25.98 26.0 25.97
0836	8.1	٩ L L	10.4	7:16	1225	-119.5	31 8.72			25,99
		L								
		L								
	-	L								
		L					1			
	Has r Has r Have	equired equired param	criteria pas d volume be d turbidity b eters stabil N/A - Explai	en remov een reach zed		No □ □	N/A			
SAMPLE C	OLLECT	ION:		Method: I	Bladder Pump					
Sample	e ID	Conta	iner Type	No. of	Containers 1	Preservation		Analysis		Time
MW-201	MLV-2017 - 1L					HNO3		TDS ANIONS		0840
			500 ML		1	HNO3		METALS		
Comments									197	
Signature	Myles	50	hett	es			Date	5-14	-24	



Client: Project No:	BEPC					Date: <u>5-14-2</u> +4				
Site Location: Weather Conds:	LOS F	PONDS M 5	60	Collector(s)	MI	Finish 1040				
WATER LEVEL D	ATA: (mea	asured fro	m Top of	Casing)		Well 🖫	P	Piezomete	er 🗆	1
a. Total Well Leng	jth .		c. Ca	sing Material	PVC	e. Pump Settings 25/5 45 P				
b. Water Table D	epth	38.11	🥏 d. Ca	asing Diameter	·	f. Calculated Well Volume (see back)				
WELL PURGING a. Po		d <u>Dedicate</u>	d Bladder	Pump						
b. Field Testing Equipment Used: Make YSI						Serial Number 22C103901				
				HACH		20030C084551				
		g Equipmer	nt Calibrat		ation Found in Fi	<0.5	<5	Page #_		
	/olume loved (gal)	Tº (C)	all	Spec. Cond	ODD	DO	Turbidity	Calas	DTM	
Time Rem	loved (gai)	T° (C) +/- 0.2	pH +/- 0.1	(µs/cm) +/- 3%	ORP +/- 10%	mg/L +/- 10%	(NTU) +/- 10%	Color	0.33 ft	
100000000000000000000000000000000000000	AL9L	9.5	7.95	2840	~43.9	.23	5.86	Brown	38.21	
1018	9.5 L	9.4	7.95	2827	-49.4	122	6.40		38,21	
1025	10.54	9.4	195	2230	-50.8	122	9.39		38, 7	
1028	11 L	94	7.95	2829	-52.6	,21	6.91		38,21	
	L									
	L L			-						
	L									
	L									
	L L									
	L									
H H	as required as required ave parame	criteria pas I volume be I turbidity b eters stabil I/A - Explai	een remov een reach ized		No	N/A			11	
SAMPLE COLLE	ECTION:		Method:	Bladder Pump						
			Containers Preservation		Analysis			Time		
1L		1	HNO3	TDS ANIONS			1030			
259ML 500 ML		1 HNO3		METALS						
		GAL		1			Radium			
Comments										
Signature	es S	cherty	W			Date	5-14	- 24		

Well/Piezo ID: 2017 - 8		Transition in the second
MIL 2011-8	(7)	Well/Piezo ID:
	_ >	11/2/201
		11111110

Client: BEPC Project No: Site Location: LOS PONDS Weather Conds: Collector(s)							Date: 5-14-24 Time: Start 1045 Finish 1140				
WATER LE		: (meası	red from	-	-		Well		Piezomete	er 🗆	
a. Total Wel	ll Length	_		c. Ca	sing Material	PVC	e. Pump	Settings	26/4	_0 7	
b. Water Ta	able Depth	2	B. 6	o d. Ca	asing Diameter	·	f. Calcul	ated Well V	olume (see	back)	
WELL PUR	GING DATA a. Purge I		Dedicate	d Bladder	Pump						
	b. Field To	esting Ed	quipment	t Used:	Make YSI HACH	Model		Serial Num 22C10390 20030C08	1		
					11/10/1			20000000	1001	- 1	
	c. Field T	esting E	quipmen	it Calibrat	ion Document	ation Found in Fi	eld Notebo	ook #	Page #		
	Volum	ne I			Spec. Cond		DO	Turbidity			
Time	Removed	(gal)	T° (C)	pН	(µs/cm)	ORP	mg/L	(NTU)	Color	DTW	
Stabilization			+/- 0.2	+/- 0.1	+/- 3%	+/- 10%	+/- 10%	+/- 10%		0.33 ft	
1125	INITIAL G		9.8	7.39 7.39 7.39 7.39 7.39	4712 47127 47120 47120	-112. H -1/2. H -1/2. 8	,33	9.38 9.17 8.25 8.28 8.65	Brown	28.64 28.64 28.66 28.66 28.66	
	Has re- Have p	quired vo quired tu paramete	olume be	en remov een reach ized		№ 0	N/A				
SAMPLE C	OLLECTIO	ON:		Method:	Bladder Pump						
Sample	e ID	Containe	г Туре	No. of	Containers	Preservation		Analysis		Time	
		11			1	HNO3		TDS		1130	
			SOME	-	4			ANIONS			
			500 ML		1	HNO3		METALS			
Comments	11.14		1 41					اه. سر	01/		
Signature 🚜	ryly	SIL	4//		_		Date	5-14	-d4		

Basin Electric North Dakota

Site Name: LOS PONDS

Event Date: 5-13-24

Weather Conditions: WARM & SUNNY

Field Technician: AK

River Elevation (if applicable)

1657.41

Well ID	Time	Depth to Water*	Well Condition	Comments
MW - 2017 - 01	730	25.70	GOOD	
MW - 2017 - 02		22.97		
MW - 2017 - 03		24.27		
MW - 2017 - 07		39.87		
MW - 2017 - 09		51.41		
MW - 2017 - 11		39.70		
MW - 2017 - 10		33.93		
MW - 2017 - 04		25.94		
MW - 2017 - 08D		38.16		
- 2017 - 08		28.66		

^{*} Depth to water as measured from the top of PVC casing.

		Calibra	tion Log YSI			Hach
Date	/Time	рН	ORP	Conductivity	DO	Verify
4-15 24		-				V
5-13-24	1010	/	V	/	/	/
5-14-24	0130		V		V	V
5-21-24	6715	V	V			
5-22-24	6448	V	-	-		
6-11 24	0800	~	V	V	/	
10-12-24	0830	V	V			
0.13.7A	0820	/		/		/
6-17-24	0815	V	~	-		~
4-25-24	0730	V	~	~	/	L
8-1-24	0715	V	V	V	~	~
5-10-24	0120	V	_	~	V	~
7-10-24	0700	~	~	V	~	
9-11-24	0700	· v	V	V	V	
9-17-24	0705	V	V	V	V	/
0-1-24	0703	~	/	_	V	/
0.2.24	0701	~	~	~	-	
M HE HE	- X 1.1/C 1					
	· ·					
S						
					47	





Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free	Minnesota Valley Testing Laboratories 2616 East Broadway Avenue Bismarck, ND 58501 hone: (701) 258-9720 (800) 279-6885 Fax: (701) 258-9724	s, Inc.	Basin WO: 4		P	OW	er Coop	Chain of Custody Page1 of1 Work Order # Lab Use Only
Company Na	ame and Address		Account #				Phone	
	Basin Electric Power Coop.		0 1 1	2040			Emails	<u>701-745-7238</u> <u>701-557-5488</u>
	<u>Leland Olds Station</u> 3901 Highway 200A		Contact	Mark Dihle	•			@bepc.com aknutson@bepc.com
	Stanton, ND 58571		Name of S					Dbarr.com
Billing Addr	ess (indicate if different from above)		Myles She					
	Attn: Liabilities		Quote Nun	nber				Date Submitted <u>5/15/2024</u>
			Project Na				_	Purchase Order #
				LOS Multil	Jnit	CC	R	<u>790708-04</u>
Cab Use Only	Sample ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	# of	Filtered		Analysis Required
001	MW-2017-1	GW	5/13/2024	1320	2	N	B,Ca,CI,F,S	6O4,TDS
002	MW-2017-2	GW	5/13/2024	1350	2	N	B,Ca,CI,F,S	604,TDS
003	MW-2017-3	GW	5/13/2024	1415	2	N	B,Ca,CI,F,S	SO4,TDS
004	MW-2017-7	GW	5/13/2024	1441	2	N	B,Ca,CI,F,S	604,TDS
005	MW-2017-4	GW	5/14/2024	840	2	N	B,Ca,CI,F,S	SO4,TDS
006	MW-2017-8	GW	5/14/2024	1130	2	N	B,Ca,CI,F,S	SO4,TDS
007	MW-2017-8D	GW	5/14/2024	1030	3	N		SO4,TDS,Sb,As,Ba,Be,Cd,Cr,Co,Pb,Li, FI,Ra226,Ra228
800	Duplicate	GW	5/13/2024	1320	2	N	B,Ca,CI,F,S	SO4,TDS
Comments:								

Received by

Date

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: Tuesday, June 4, 2024 10:10:52 AM

Millenning E



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Account #: 2040 Client: Basin Electric Power Cooperative Workorder: LOS CCR Plant Ponds (52994) PO: 790708-04 LOS

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:



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 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

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, August 1, 2024 11:18:07 AM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 52994001
 Date Collected:
 06/25/2024 10:35
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 06/26/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.6 Received on Ice: Yes

1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1							
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2024 10:52	
Radium 228	See Attached			1		08/01/2024 10:52	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 52994002
 Date Collected:
 06/25/2024 08:30
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 06/26/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.6 Received on Ice: Yes

b @							
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		08/01/2024 10:52	
Radium 228	See Attached			1		08/01/2024 10:52	



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Account #: 2040

Client: Basin Electric Power Cooperative



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ANALYTICAL SUMMARY REPORT

July 30, 2024

Minnesota Valley Testing Laboratories 1126 N Front St

New Ulm, MN 56073-1176

Work Order: C24070019 Quote ID: C15480

Project Name: 52994

Energy Laboratories, Inc. Casper WY received the following 2 samples for Minnesota Valley Testing Laboratories on 7/1/2024

for analysis.

 Lab ID
 Client Sample ID
 Collect Date
 Receive Date
 Matrix
 Test

 C24070019-001
 52994001, MW-2017-10
 06/25/24 10:35
 07/01/24
 Groundwater
 Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total

 C24070019-002
 52994002, MW-2017-11
 06/25/24 8:30
 07/01/24
 Groundwater
 Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Report Date: 07/30/24 Client: Minnesota Valley Testing Laboratories 52994 Collection Date: 06/25/24 10:35 Project: C24070019-001 DateReceived: 07/01/24 Lab ID: Client Sample ID: 52994001, MW-2017-10 Matrix: Groundwater

			MCL/		
Analyses	Result Ur	nits Qualifiers	RL QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL					
Radium 226	0.4 pC	Ci/L		E903.0	07/15/24 15:32 / haw
Radium 226 precision (±)	0.2 pC	Ci/L		E903.0	07/15/24 15:32 / haw
Radium 226 MDC	0.2 pC	Ci/L		E903.0	07/15/24 15:32 / haw
Radium 228	1.1 pC	Ci/L U		RA-05	07/10/24 12:16 / trs
Radium 228 precision (±)	0.8 pC	Ci/L		RA-05	07/10/24 12:16 / trs
Radium 228 MDC	1.3 pC	Ci/L		RA-05	07/10/24 12:16 / trs
Radium 226 + Radium 228	1.0 pC	Ci/L U		A7500-RA	07/17/24 10:21 / dmf
Radium 226 + Radium 228 precision (±)	0.8 pC	Ci/L		A7500-RA	07/17/24 10:21 / dmf
Radium 226 + Radium 228 MDC	1.3 pC	Ci/L		A7500-RA	07/17/24 10:21 / dmf

Report Definitions RL - Analyte Reporting Limit QCL - Quality Control Limit

U - Not detected at Minimum Detectable Concentration

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Report Date: 07/30/24 Client: Minnesota Valley Testing Laboratories 52994 Collection Date: 06/25/24 08:30 Project: C24070019-002 DateReceived: 07/01/24 Lab ID: Client Sample ID: 52994002, MW-2017-11 Matrix: Groundwater

					MCL/		
Analyses	Result	Units	Qualifiers	RL	QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	07/15/24 15:32 / haw
Radium 226 precision (±)	0.1	pCi/L				E903.0	07/15/24 15:32 / haw
Radium 226 MDC	0.1	pCi/L				E903.0	07/15/24 15:32 / haw
Radium 228	-0.2	pCi/L	U			RA-05	07/10/24 12:16 / trs
Radium 228 precision (±)	0.7	pCi/L				RA-05	07/10/24 12:16 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	07/10/24 12:16 / trs
Radium 226 + Radium 228	0.7	pCi/L	U			A7500-RA	07/17/24 10:21 / dmf
Radium 226 + Radium 228 precision (±)	0.7	pCi/L				A7500-RA	07/17/24 10:21 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	07/17/24 10:21 / dmf

Report Definitions RL - Analyte Reporting Limit QCL - Quality Control Limit

U - Not detected at Minimum Detectable Concentration

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

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Account #:

2040

Client: Basin Electric Power Cooperative



- The RER result is 0.29.

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client:	Minnesota Valley Te	sting Lab	oratories		Work Order:	C2407	0019	Report	Date	07/17/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	: E903.0									Batch: RA2	26-11364
Lab ID:	LCS-RA226-11364	3 Lab	oratory Cor	ntrol Sample	Э		Run: TENN	ELEC-4_240702E	3	07/15/	24 15:42
Radium :	226		9.9	pCi/L		100	70	130			
Radium :	226 precision (±)		1.9	pCi/L							
Radium :	226 MDC		0.17	pCi/L							
Lab ID:	MB-RA226-11364	3 Me	thod Blank				Run: TENN	ELEC-4_240702E	3	07/15/	24 15:42
Radium :	226		0.01	pCi/L							U
Radium :	226 precision (±)		0.1	pCi/L							
Radium :	226 MDC		0.2	pCi/L							
Lab ID:	C24060946-020EDUP	3 Sar	mple Duplic	ate			Run: TENN	ELEC-4_240702E	3	07/15/	24 15:42
Radium :	226		2.1	pCi/L					9.0	30	
Radium :	226 precision (±)		0.46	pCi/L							
Radium :	226 MDC		0.16	pCi/L							

Qualifiers:

RL - Analyte Reporting Limit U - Not detected at Minimum Detectable Concentration (MDC) ND - Not detected at the Reporting Limit (RL)

Page 4 of 7





Account #: 2040

Client:

Basin Electric Power Cooperative



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QA/QC Summary Report

Prepared by Casper, WY Branch

				ropulou	by Guoper, **	Diane	J11				
Client:	Minnesota Valley Tes	sting La	boratories		Work Order:	C2407	0019	Report	Date:	07/17/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05									Batch: RA	228-7432
Lab ID:	LCS-228-RA226-1136	4 3 L	aboratory Con	trol Sample	1		Run: TENN	ELEC-4_240702A		07/10/	24 12:16
Radium 2	228		9.8	pCi/L		95	70	130			
Radium 2	228 precision (±)		2.0	pCi/L							
Radium 2	228 MDC		1.1	pCi/L							
Lab ID:	MB-RA226-11364	3 N	lethod Blank				Run: TENN	ELEC-4_240702A		07/10/	24 12:16
Radium 2	228		-0.06	pCi/L							U
Radium 2	228 precision (±)		0.7	pCi/L							
Radium 2	228 MDC		1	pCi/L							
Lab ID:	C24060946-020EDUP	3 5	Sample Duplica	ate			Run: TENN	ELEC-4_240702A		07/10/	24 12:16
Radium 2	228		6.1	pCi/L					16	30	
Radium 2	228 precision (±)		1.4	pCi/L							
Radium 2	228 MDC		1.0	pCi/L							
- The RE	R result is 0.52.										

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

U - Not detected at Minimum Detectable Concentration (MDC)

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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



Account #: 2040 Client: Basin Electric Power Cooperative

ENERGY LABORATORIES	Trust our People. Trust our Data. www.energylab.com			Billings, MT 406.252.6325 • Casper, WY 307.235.0515 Gillette, WY 307.686.7175 • Helena, MT 406.442.0711					
Work Order I	Receipt Chec	klist							
Minnesota Valle	ey Testing Labo	ratories	C	24070019					
Login completed by: L	isa X. Quezada		Date	Received: 7/1/2024					
Reviewed by: ci	indy		Re	ceived by: CCS					
Reviewed Date: 7	/11/2024		Car	rier name: UPS Ground					
Shipping container/cooler in goo	od condition?	Yes 🗸	No 🗌	Not Present					
Custody seals intact on all shipp	ping container(s)/cooler(s)?	Yes	No 🗌	Not Present 🗹					
Custody seals intact on all samp	ple bottles?	Yes	No 🗌	Not Present ✓					
Chain of custody present?		Yes 🗸	No 🗌						
Chain of custody signed when r	relinquished and received?	Yes 🗸	No 🗌						
Chain of custody agrees with sa	ample labels?	Yes ✓	No 🗌						
Samples in proper container/bo	ttle?	Yes ✓	No 🗌						
Sample containers intact?		Yes ✓	No 🗌						
Sufficient sample volume for inc	dicated test?	Yes ✓	No 🗌						
All samples received within hold (Exclude analyses that are consuch as pH, DO, Res CI, Sulfite	sidered field parameters	Yes 🗸	No 🗌						
Temp Blank received in all ship	ping container(s)/cooler(s)?	Yes	No 🗸	Not Applicable					
Container/Temp Blank temperate	ture:	26.0°C No Ice							
Containers requiring zero heads bubble that is <6mm (1/4").	space have no headspace or	Yes 🗌	No 🗌	No VOA vials submitted					
Water - pH acceptable upon rec	ceipt?	Yes 🗸	No 🗌	Not Applicable					
Standard Reporting	g Procedures:								
				rsis within 15 minutes of sampling such as ed outside of recommended holding time.					
	oted as -dry. For agricult			pecifically indicated. If moisture corrected, eters/characteristics, all samples are dried					
				erence date for all other Radiochemical sigma Total Measurement Uncertainty.					
interference, the pH is ve	For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.								
	Duplicate samples are as uate the holding time unle			on time for the associated requested					
Contact and Correct	ctive Action Comme	nts:							

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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, August 1, 2024 11:18:07 AM Thursday, August 1, 2024 11:18:07 AM

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 #: 2040

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MINNESOTA VALLEY TESTING LABORATORIES, INC.

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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



LABORATORIES, Inc.

2616 E Broadway Ave Bismarck, ND 58501

Chain of Custody Record

Toll Free: (8	Phone: (701) 258	;-9720 x: (701) 258-9724			w	ork	Or	der	#		2994 (224070019
	e and Address:		Account #:							Phone #: 701-258-9720	
	MV 2616 E Br Bismarck.		Contact: Claudette Name of Sampler:							Fax #: For faxed report check box E-mail: ccarroll@mvtl.com	
Billing Address		Quote Number C15480 v5							For e-mail report check box Date Submitted: 27-Jun-24		
	PO Bo New Ulm, I			Project Nar	ne/Numbe	er:					Purchase Order #: BL6901 Analysis
		Sample Information					В	ottle	Ту	ре	Analysis
Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sampled	Untreated	Gallon HNO3	VOC Vials Umpreserved	Glass Jar	Other	Analysis Required
Lub Humbo.	52994001	MW-2017-10	GW	25-Jun-24	1035		1				Ra226 & Ra228
	52994002	MW-2017-11	GW	25-Jun-24	0830		1				Ra226 & Ra228 Ra226 & Ra228
				1							
				100				-	-	-	
				l lea							ted for all samples.
								_			to differ all complete
Comment	s: Individual res	ults as well as co	mbined	Ra226 &	Ra228	mu	st	be	rep	or	ted for all samples.

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

	D-4 T	Times	Sample Condition:	Received by:	Date:	Temp:
Transferred by:	Date:	Time:	Sample Condition.	A Trecourse by		
T Olean	27-Jun-24	1700		ausie Snuts	7-1-24 10:00	

Page 7 of 7







Y/N

Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free: (80	2616 East Bro Bismarck, ND Phone: (701) 258-97 00) 279-6885		s, Inc.	Basin E W0: 52	lectric Po)W	er (Coop€	Work	hain o Page c Order #	of _	
oompany want		ctric Power Coop.		Account #	2040			I none		745-7238 7	01-557-5	488
	3901 H	I Olds Station Highway 200A on, ND 58571		Contact Name of Sa	Mark Dihle				@bepc	.com aknı	utson@be	pc.com
3illing Address	(indicate if different f			mk	ampier			Ksolie(wbarr.c	iom		
		,		Quote Nun	nber			Salas II	Date	Submitted 6/	26/2024	
				Project Na LOS	me/Numbe		ГРС	ONDS	Purch	nase Order 79	·# 0708-04	
Lab Use Only Lab	Sam	ple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	Bottles	A/N		Aı	nalysis Re	quired	
001	MW - 2	2017 - 10	GW	6/25/2024	1035		N	B, Ca, Cl, I Li, Hg, Mo				
002	MW - 2	2017 - 11	GW	6/25/2024	830	3	N	Li, Hg, Mo	, Se, T	, Ra226, R	a228, TD	
_	D	UP.	GW	6/25/2024	1035	2	N	B, Ca, Cl, Li, Hg, Mo			a, Be, Cd,	Cr, Co,Pb,
								VA. S				
Comments:							_					
Trar	sferred by	Date	Time	Received		Γ	Dat			Temp	ROI	Therm. #
/ILLENNIUM E	XPRESS	6/26/2024	A	HORSE		120	21	12/ 1/K	17	5.60	(Y)/ N	the

Please submit the top copy with your samples. We will return the completed original with your results.

See above for page number

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Report Date: Thursday, August 1, 2024 11:18:07 AM

Form # 80-910005-1



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Account #: 2040 Client: Basin Electric Power Cooperative

Workorder: LOS CCR Plant Ponds (52997) PO: 790708-04

Mark Dihle
Basin Electric Power Cooperative
1717 E. Interstate Avenue
Bismarck, ND 58503

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.

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Report Date: Wednesday, July 24, 2024 4:12:14 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 52997001
 Date Collected:
 06/25/2024 10:35
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 06/26/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.6 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	298	mg/L	25	5		07/02/2024 11:49	
Method: EPA 245.1							
	10.0000		0.0000	4	07/00/0004 40-00	07/40/0004 00.57	
Mercury	<0.0002	mg/L	0.0002	1	07/09/2024 10:30	07/10/2024 08:57	
Method: EPA 6010D							
Boron	0.87	mg/L	0.1	1	06/27/2024 16:39	07/02/2024 11:46	
Calcium	92.6	mg/L	1	1	06/27/2024 16:39	07/09/2024 10:00	
Lithium	<0.02	mg/L	0.02	1	06/27/2024 16:39	07/10/2024 10:30	
Mathadi FRA COOOR							
Method: EPA 6020B	10.001		0.004	_	00/07/0004 40:00	07/44/0004 44.47	
Antimony	<0.001	mg/L	0.001	5	06/27/2024 16:39	07/11/2024 11:47	
Arsenic	0.0032	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:47	
Barium	0.0784	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:47	
Beryllium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:47	
Cadmium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:47	
Chromium	<0.002	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:47	
Cobalt	<0.002	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:47	
Lead	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:47	
Molybdenum	0.0075	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:47	
Selenium	<0.005	mg/L	0.005	5	06/27/2024 16:39	07/11/2024 11:47	
Thallium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:47	
Method: SM4500-CI-E 2011							
Chloride	10.3	mg/L	2.0	1		07/02/2024 09:30	
Method: SM4500-F-C-2011							
Fluoride	0.82	mg/L	0.1	1		06/27/2024 15:36	
Method: USGS I-1750-85							
Total Dissolved Solids	676	mg/L	10	1		06/28/2024 14:55	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 52997002
 Date Collected:
 06/25/2024 08:30
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 06/26/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.6 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	179	mg/L	25	5		07/02/2024 11:50	
Mathada EDA 045 4							
Method: EPA 245.1	.0.000		0.0000		07/00/0004 40 00	07/40/0004 00 57	
Mercury	<0.0002	mg/L	0.0002	1	07/09/2024 10:30	07/10/2024 08:57	
Method: EPA 6010D							
Boron	1.24	mg/L	0.1	1	06/27/2024 16:39	07/02/2024 11:47	
Calcium	63.2	mg/L	1	1	06/27/2024 16:39	07/09/2024 10:01	
Lithium	0.0322	mg/L	0.02	1	06/27/2024 16:39	07/10/2024 10:31	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/27/2024 16:39	07/11/2024 11:59	
Arsenic	0.0101	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:59	
Barium	0.0434	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:59	
Beryllium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:59	
Cadmium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:59	
Chromium	<0.002	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:59	
Cobalt	<0.002	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:59	
Lead	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:59	
Molybdenum	0.0100	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 11:59	
Selenium	<0.005	mg/L	0.005	5	06/27/2024 16:39	07/11/2024 11:59	
Thallium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 11:59	
Method: SM4500-CI-E 2011							
Chloride	10.6	mg/L	2.0	1		07/02/2024 09:40	
Method: SM4500-F-C-2011							
Fluoride	0.73	mg/L	0.1	1		06/27/2024 15:42	
Method: USGS I-1750-85							
Total Dissolved Solids	592	mg/L	10	1		06/28/2024 14:55	

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Report Date: Wednesday, July 24, 2024 4:12:14 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 52997003
 Date Collected:
 06/25/2024 10:35
 Matrix:
 Groundwater

 Sample ID:
 Dup
 Date Received:
 06/26/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.6 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	294	mg/L	25	5		07/02/2024 11:52	
Method: EPA 245.1							
	10.0000		0.0002	1	07/09/2024 10:30	07/10/2024 08:57	
Mercury	<0.0002	mg/L	0.0002	1	07/09/2024 10.30	07/10/2024 06.57	
Method: EPA 6010D							
Boron	0.88	mg/L	0.1	1	06/27/2024 16:39	07/02/2024 11:47	
Calcium	95.8	mg/L	1	1	06/27/2024 16:39	07/09/2024 10:01	
Lithium	<0.02	mg/L	0.02	1	06/27/2024 16:39	07/10/2024 10:31	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	06/27/2024 16:39	07/11/2024 12:08	
•		J					
Arsenic	0.0034	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 12:08	
Barium	0.0780	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 12:08	
Beryllium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 12:08	
Cadmium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 12:08	
Chromium	<0.002	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 12:08	
Cobalt	<0.002	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 12:08	
Lead	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 12:08	
Molybdenum	0.0076	mg/L	0.002	5	06/27/2024 16:39	07/11/2024 12:08	
Selenium	<0.005	mg/L	0.005	5	06/27/2024 16:39	07/11/2024 12:08	
Thallium	<0.0005	mg/L	0.0005	5	06/27/2024 16:39	07/11/2024 12:08	
Method: SM4500-CI-E 2011							
Chloride	10.3	mg/L	2.0	1		07/02/2024 09:41	
Method: SM4500-F-C-2011							
Fluoride	0.84	mg/L	0.1	1		06/27/2024 15:48	
Method: USGS I-1750-85							
Total Dissolved Solids	679	mg/L	10	1		06/28/2024 14:55	





Account #: 2040 Client: Basin Electric Power Cooperative

C Resul	ts Summary						WO #:	5299	17
Sulfate QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	ng/L Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB			100	Recovery 102.0	% Recovery	Limit (%) 85	Limit (%) 115		
LFB			100	104.0		85	115		
LFB			100	104.0		85	115		
.FB			100	100.0		85	115		
FB			100	106.0		85	115		
.FB			100	103.0		85	115		
LFB			100	105.0		85	115		
LFB			100	103.0		85	115		
LFB			100	102.0		85	115		
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
MS/MSD	52271003		1000	75.7	77.8	85	115	1.0	20
NS/MSD	52995002		500	87.6	85.6	85	115	1.2	20
MS/MSD	53003005		100	99.7	97.9	85	115	1.8	20
MS/MSD	53013004		100	97.3	98.7	85	115	1.3	20
MS/MSD	53172005		500	70.1	68.1	85	115	1.0	20
MS/MSD	53218006		2000	77.3	78.4	85	115	0.5	20
MS/MSD	53218016		2000	70.6	70.3	85	115	0.3	20
MS/MSD	53218018		1000	87.9	85.4	85	115	1.1	20
Chloride QC Type	Original Sample ID	Blank Result	Spike Amount	Units: n Spike % Recovery	ng/L Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)





Account #: 2040

Client: Basin Electric Power Cooperative

Chloride				Units: mg/					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	95.6		90	110		
LFB			30	94.8		90	110		
LFB			30	92.0		90	110		
LFB			30	95.9		90	110		
LFB			30	91.4		90	110		
LFB			30	94.3		90	110		
LFB			30	93.6		90	110		
MB		<2.0							
MB		<2.0							
MB		<2.0							
МВ		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MB		<2.0							
MS/MSD	52995003		30	103.7	103.2	80	120	0.3	20
MS/MSD	53013002		30	94.5	93.9	80	120	0.6	20
MS/MSD	53289003		30	89.6	90.0	80	120	0.3	20
MS/MSD	53316001		30	100.3	101.1	80	120	0.0	20
Danas				Haltan and					
Boron QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg/ Spike %	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-OE			0.4	Recovery 104.0	% Recovery	Limit (%) 85	Limit (%) 115		
MB		<0.1							
MS/MSD					107.0	70	130	3.3	20
	52997003		0.4	96.4					
Calcium				Units: mg/					
Calcium QC Type	52997003 Original Sample ID	Blank Result	Spike Amount	Units: mg/ Spike % Recovery		Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
Calcium		Blank Result		Units: mg/	- Spike Duplicate	Lower Control	Upper Control		
Calcium QC Type		Blank Result	Spike Amount	Units: mg/ Spike % Recovery	- Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)		
Calcium QC Type LFB-MI			Spike Amount	Units: mg/ Spike % Recovery	- Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)		
Calcium QC Type LFB-MI	Original Sample ID		Spike Amount	Units: mg/ Spike % Recovery	- Spike Duplicate	Lower Control Limit (%) 85	Upper Control Limit (%)	RPD (%)	RPD Limit (%)



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Basin Electric Power Cooperative



Account #: 2040 Client:

Calcium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD	53003004		100	102.0		102.0	75	125	0.4	20
PDS/PDSD	53013001		100	101.0		101.0	75	125	0.1	20
PDS/PDSD	53013003		100	99.8		102.0	75	125	1.4	20
PDS/PDSD	53289005		100	96.1		92.0	75	125	2.3	20
PDS/PDSD	53586002		100	83.0		88.7	75	125	2.0	20
PDS/PDSD	53782010		100	95.7		95.8	75	125	0.2	20
Lithium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	104.0			85	115		
МВ		<0.04								
MS/MSD	52997003		0.4	101.0		107.0	70	130	6.2	20
Antimony				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0			85	115		
MB		<0.001								
MS/MSD	52865005		0.4	107.0		110.0	70	130	3.0	20
SPK	52865005		0.1	106.0			75	125		
			0.1	100.0			.5			
MS/MSD	52997003		0.4	106.0		110.0	75	125	3.5	20
SPK	53076001		0.1	104.0			75	125		
Arsenic				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 104.0		% Recovery	Limit (%) 85	Limit (%) 115		
МВ		<0.005								
MS/MSD	52865005		0.4	106.0		108.0	70	130	0.9	20
SPK	52865005		0.1	103.0			75	125		
MS/MSD	52997003		0.4	105.0		108.0	75	125	3.0	20
SPK	53076001		0.1	104.0			75	125		
					-					
Barium QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 102.0		% Recovery	Limit (%) 85	Limit (%) 115		- *
MB		<0.002								





Account #: 2040

Client: Basin Electric Power Cooperative

Barium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	52865005		0.1	99.6		70 Incovery	75	125		
MS/MSD	52997003		0.4	100.0		103.0	75	125	2.3	20
PK	53076001		0.1	96.1			75	125		
Beryllium				Units:	mg/L					
QC Туре	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB-MS			0.1	102.0			85	115		
ИВ		<0.0005								
MS/MSD	52865005		0.4	112.0		115.0	70	130	2.4	20
SPK	52865005		0.1	105.0			75	125		
MS/MSD	52997003		0.4	114.0		118.0	75	125	3.9	20
SPK .	53076001		0.1	110.0			75	125		
Coductions				I lait-	ma = /1					
Cadmium QC Type	Original Sample ID	Blank Result	Spike Amount	Units: Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
FB-MS			0.1	Recovery 103.0		% Recovery	Limit (%) 85	Limit (%) 115		
ИВ		<0.0005								
		-010003								
NS/MSD	52865005		0.4	104.0		106.0	70	130	2.1	20
PK	52865005		0.1	99.0			75	125		
//S/MSD	52997003		0.4	102.0		107.0	75	125	4.3	20
SPK	53076001		0.1	95.4			75	125		
Chromium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB-MS			0.1	107.0		76 Recovery	85	115		
ИВ		<0.002								
//S/MSD	52865005		0.4	102.0		104.0	70	130	1.4	20
PK	52865005		0.1	101.0			75	125		
MS/MSD	52997003		0.4	99.1		103.0	75	125	4.2	20
5PK	53076001		0.1	102.0			75	125		
# N	33070001		0.1	102.0			/3	123		
Cobalt				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB-MS			0.1	106.0			85	115		
ИВ		<0.002								



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Account #: 2040

Client: Basin Electric Power Cooperative

Cobalt QC Type	Original Sample ID	Blank Result	Spike Amount	Units: Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
SPK	52865005		0.1	Recovery 102.0		% Recovery	Limit (%) 75	Limit (%) 125		
MS/MSD	52997003		0.4	99.3		102.0	75	125	3.2	20
SPK	53076001		0.1	102.0			75	125		
Lead				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	IIIg/L	Spike Duplicate	Lower Control	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 103.0		% Recovery	Limit (%) 85	Limit (%) 115		
МВ		<0.0005								
MS/MSD	52865005		0.4	102.0		104.0	70	130	1.5	20
SPK	52865005		0.1	96.6			75	125		
MS/MSD	52997003		0.4	100.0		103.0	75	125	2.7	20
SPK	53076001		0.1	93.5			75	125		
Molybdenum				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	109.0			85	115		
MB		<0.002								
MS/MSD	52865005		0.4	102.0		104.0	70	130	2.8	20
SPK	52865005		0.1	107.0			75	125		
MS/MSD	52997003		0.4	99.7		104.0	75	125	4.1	20
SPK	53076001		0.1	105.0			75	125		
Selenium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0			85	115		
МВ		<0.01								
MS/MSD	52865005		0.4	107.0		112.0	70	130	4.3	20
SPK	52865005		0.1	100.0			75	125		
MS/MSD	52997003		0.4	106.0		112.0	75	125	4.8	20
SPK	53076001		0.1	102.0			75	125		
Thallium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0			85	115		
MB		<0.0005								
MS/MSD	52865005		0.4	101.0		102.0	70	130	1.5	20





Account #: 2040

Client: Basin Electric Power Cooperative

Thallium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
SPK	52865005		0.1	94.9		,	75	125		
MS/MSD	52997003		0.4	99.0		102.0	75	125	3.0	20
SPK	53076001		0.1	93.0			75	125		
Mercury				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	101.0			85	115		
LRB		<0.0002								
MS/MSD	52654001		0.002	102.0		99.8	70	130	0.0	20
MS/MSD	53076002		0.002	94.2		95.0	70	130	0.0	20
Fluoride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	6/ -	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.06	99.7		∞ necovery	83.99	111.11		
LFB-F			0.5	96.0			90	110		
LFB-F			0.5	96.0			90	110		
LFB-F			0.5	98.0			90	110		
LFB-F			0.5	94.0			90	110		
LFB-F			0.5	96.0			90	110		
MB-F		<0.1								
MB-F		<0.1								
MB-F		<0.1								
MB-F		<0.1								
MB-F		<0.1								
MS/MSD	52997001		0.5	106.0		106.0	80	120	0.0	20
MS/MSD	53003002		0.5	102.0		104.0	80	120	1.6	20
MS/MSD	53009004		0.5	118.0		118.0	80	120	0.0	20
			0.5	102.0		102.0	80	120	0.0	20
MS/MSD	53013005									
				Units.	mg/I					
MS/MSD Total Dissolved QC Type		Blank Result	Spike Amount	Units: Spike % Recovery	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
Total Dissolved	Solids	Blank Result	Spike Amount		mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 90.35	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
Total Dissolved QC Type	Solids	Blank Result		Spike % Recovery	mg/L	Spike Duplicate % Recovery	Limit (%)	Limit (%)	RPD (%)	RPD Limit (%)





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free: (80	2616 East Bro Bismarck, NE Phone: (701) 258-9		es, Inc.	Basin E WO: 52	Electric P 2997	ow	er			of Cus	1	
Company Name	Basin Ele	ectric Power Coop.		Account #	2040				Phone # 701-745-7238 701-557-54			
		Highway 200A			Mark Dihle	bepc.com a	knutson@h	enc com				
		ton, ND 58571		Name of S		_			barr.com	antifut3011(cc).	осролсоні	
Billing Address	indicate if different			mk				T COOLIC CO	barr.com			
		,		Quote Nun	nber				Date Submit	ted <u>6/26/2024</u>		
				Project Na LOS	me/Numbe		PC	ONDS	Purchase Oi	der# <u>790708-04</u>		
Lab Use Only Lab	Sar	nple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	Bottles	Y/N		Analysis	Required		
001	MW -	2017 - 10	GW	6/25/2024	1035	3					d, Cr, Co,Pb, DS	
002	MW -	2017 - 11	GW	6/25/2024	830	3	N	Li, Hg, Mo,	Se, TI, Ra226	s, Ra228, TI		
003	ı	DUP.	GW	6/25/2024	1035	2	N	B, Ca, Cl, F Li, Hg, Mo,			d, Cr, Co,Pb,	
Comments:	formed by	D-4-	Time	Deschool	h	_	D-/			- DOI	Th #	
Trans	ferred by	Date	Time	Received	ру	_	Dat				Therm. #	
MILLENNIUM EX	PKE55	6/26/2024	A	Horst		ØC	2Y	2 nay 14/41	7 5.60	(Y)/ N		

Please submit the top copy with your samples. We will return the completed original with your results.

See above for page number

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Report Date: Wednesday, July 24, 2024 4:12:14 PM

Form # 80-910005-1

Well/Piezo ID:		
MW 201	7-11	

Ground Water Sample Collection Record

Client:) a	BEPC					Date: <u>\(\(\lambda \) \(\lambda \) \(\lambda \)</u>			
Project No: Site Location		LOSE	ONDS				Finish 0			
Weather Co				ř	Collector(s)	MV	1 1111311			
vveather Col	ilus.	Sunv	14 68		Collector(s)	IVIV				
							M II	<i>-</i>		
WATER LE\		\: (mea					Well _		=11	# AC I
a. Total Well	Length		50.26	. c. Ca	sing Material	_PVC	e. Pump S	ettings <u>W</u>	0/1009	0621
o. Water Ta	ble Depth	9	39.27	d. Ca	sing Diameter				~ 100 mi	-
WELL PURC			d <u>Dedicate</u>	d Bladder	Pump					
	b. Field T	esting	Equipment	t Used:	Make YSI	Model		Serial Num 22C10390	1	
					HACH			20030C084	4551	
	c. Field	Testing	j Equipmen	< 0.5	ion Document	ation Found ir	Field Note	book # <u> </u>	Page	#
	Volur		T0 (0)	~ DO	Spec. Cond	211	ODD	Turbidity	Calas	DTM
Time Stabilization	Removed	d (gal)	T° (C) +/- 0.2	mg/L +/- 10%	(µs/cm) +/- 3%	pH +/- 0.1	ORP +/- 10%	√(NTU) +/- 10%	Color	0.33 ft
	INITIAL	26			1023	7.56	- 30.9	1.25	clear	31.30
0810		1.5 4.6 L	11.0	.29	1023	7.51	84 1	139	UTOUN	34.30
0820		5.5L	11.8	23	1022	7.57	-80.4			39.30
0825		0.5	11.8	2.1	1023	7.67	87.0	0.88	1	39.30
0000	- V	/,/ _	11.0		1023		9 7.0	0.00		31.50
		L								
		L								
		L								
		L								
		<u> </u>								
		<u>-</u>								
						-				
	Has re Has re Have	equired equired param	criteria pas d volume be d turbidity b eters stabil I/A - Explai	een remov een reach ized		No	N/A			
SAMPLE C	OLLECTI	ON:		Method:	Bladder Pump					
Sample	e ID	Contai	ner Type	No. of	Containers	Preservation		Analysis		Time
			1L		1			TDS/Anions	3	0830
			00 ML		1	HNO3		METALS		
		10	fal			it		Fadium)	4
Comments										
	/						*	-1		
Signature <u></u>	Mari	rah	K_				Date	25/24		

Well/Piezo ID:	
1 1 C 10 1 1 C 2 O 1 D .	•
$1 MW \cdot 2017 \cdot 10$	
1 1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1	

Ground Water Sample Collection Record

Client: Project No: Site Location: Weather Conds:	LOS PONDS SWING 10.	eau	_Collector(s)	-MK	Date: <u>//</u> Time: <u>0</u> Finish <u> (</u>	746	= +	
water Level Dat a. Total Well Length b. Water Table Dept	A: (measured from	n Top of c. Ca	Casing) Ising Material	PVC	Well e. Pump S	Í ettings <u>2</u>	0/4-830 100ml	5psi
WELL PURGING DA a. Purge	TA e Method <u>Dedicate</u>	d Bladder	Pump					
b. Field	Testing Equipmen	t Used:	Make YSI HACH	Model		Serial Nun 22C10390 20030C08	1	i e
c. Field	Testing Equipmen	t Calibrat	ion Documen	tation Found ir	Field Note	ebook #	lPage	#
e. Acce Has Have	ed (gal) T° (C) +/- 0.2	een remov een reach ized		pH +/- 0.1 7.67 7.67 7.67 7.57	ORP +/- 10% - 14.9 - 19.9 - 21.7 - 23.3 - 23.6	Jurbidity (NTU) +/- 10% 1.42 1.44 0.99 1.39 1.02	Color	DTW 0.33 ft 33.7 33.65 33.67 33.67
SAMPLE COLLECT	TION:	Method: I	Bladder Pump)			- D VOF	
Sample ID Comments	Container Type 1L 500 ML	No. of	Containers 1 1	Preservation HNO3		Analysis TDS/Anions METALS 2ad1um		Time 1035
Signature <u>Mar</u>	yahk_				Date	125/24	·	

		Calibra	tion Log YSI			Hach
Date	/Time	рН	ORP	Conductivity	DO	Verify
4-15 24						V.,
5-13-24	1010	/	V		V	
5-14-24	0130	V	V-		/	V
5-21-24	6715	V				
5-22-24	6648	V	-	-	-	1
6-11-24	0800	V	V	V		V
6-12-24	0830		1			
0.13.24	0820	/	/	/	/	/
6-17.24	0815	V	~	-		~
6-25.24	0730	V	-	~	~	レ
8-1-24	0715	V	V	V	~	✓
5-10-24	0720	V	-		V	<u></u>
7-10-24	0700	V	<u></u>	V	~	
9-11-24	0700	. ~	V	V		/
917.24	0705	V	V	V	V	
0-1-24	0703	~	/		V	
0.2.24	0701	~	~	V	W	
	e					
S						
					37	
			-			
			-			





Y/N

Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free: (80	2616 East Bro Bismarck, ND Phone: (701) 258-97 00) 279-6885		s, Inc.	Basin E W0: 52	lectric Po)W	er (Coop€	Work	hain o Page c Order #	of _	
oompany want		ctric Power Coop.		Account #	2040			I none		745-7238 7	01-557-5	488
	3901 H	I Olds Station Highway 200A on, ND 58571		Contact Name of Sa	Mark Dihle				@bepc	.com aknı	utson@be	pc.com
3illing Address	(indicate if different f			mk	ampier			Ksolie(wbarr.c	iom		
		,		Quote Nun	nber			Salas II	Date	Submitted 6/	26/2024	
				Project Na LOS	me/Numbe		ГРС	ONDS	Purch	nase Order 79	·# 0708-04	
Lab Use Only Lab	Sam	ple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	Bottles	A/N		Aı	nalysis Re	quired	
001	MW - 2	2017 - 10	GW	6/25/2024	1035		N	B, Ca, Cl, I Li, Hg, Mo				
002	MW - 2	2017 - 11	GW	6/25/2024	830	3	N	Li, Hg, Mo	, Se, T	, Ra226, R	a228, TD	
_	D	UP.	GW	6/25/2024	1035	2	N	B, Ca, Cl, Li, Hg, Mo			a, Be, Cd,	Cr, Co,Pb,
								VA. S				
Comments:							_					
Trar	sferred by	Date	Time	Received		Γ	Dat			Temp	ROI	Therm. #
/ILLENNIUM E	XPRESS	6/26/2024	A	HORSE		120	21	12/ 1/K	17	5.60	(Y)/ N	the

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See above for page number

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Report Date: Thursday, August 1, 2024 11:18:07 AM

Form # 80-910005-1





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free: (80	2616 East Bro Bismarck, NE Phone: (701) 258-9		es, Inc.	Basin E WO: 52	Electric P 2997	ow	er			of Cus	1
Company Name	Basin Ele	ectric Power Coop.		Account #	2040			Phone #		8 <u>701-557</u>	-5488
		Highway 200A			Mark Dihle				bepc.com a	knutson@h	enc com
		ton, ND 58571		Name of S		_			barr.com	antifut3011(cc).	осролсоні
Billing Address	indicate if different			mk				T COOLIC CO	barr.com		
		,		Quote Nun	nber				Date Submit	ted <u>6/26/2024</u>	
				Project Na LOS	me/Numbe		PC	ONDS	Purchase Oi	der# <u>790708-04</u>	
Lab Use Only Lab	Sar	nple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	Bottles	Y/N		Analysis	Required	
001	MW -	2017 - 10	GW	6/25/2024	1035	3					d, Cr, Co,Pb, DS
002	MW -	2017 - 11	GW	6/25/2024	830	3	N	Li, Hg, Mo,	Se, TI, Ra226	s, Ra228, TI	
003	ı	DUP.	GW	6/25/2024	1035	2	N	B, Ca, Cl, F Li, Hg, Mo,			d, Cr, Co,Pb,
Comments:	formed by	D-4-	Time	Deschool	h	_	D-/			- DOI	Th #
Trans	ferred by	Date	Time	Received	ру	_	Dat				Therm. #
MILLENNIUM EX	PKE55	6/26/2024	A	Horst		ØC	2Y	2 nay 14/41	7 5.60	(Y)/ N	

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See above for page number

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Report Date: Wednesday, July 24, 2024 4:12:14 PM

Form # 80-910005-1



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Account #: 2040 Client: Basin Electric Power Cooperative

Workorder: LOS CCR Wells (59755) **PO**: 790708-04

Mark Dihle
Basin Electric Power Cooperative
1717 E. Interstate Avenue
Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carrell

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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Report Date: Wednesday, September 4, 2024 3:24:55 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 59755001
 Date Collected:
 08/16/2024 08:45
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 08/16/2024 14:27
 Collector:
 Client

Temp @ Receipt (C): 4.8 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	202	mg/L	25	5		08/21/2024 10:57	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	08/22/2024 09:35	08/22/2024 11:36	
Welcury	\0.0002	mg/L	0.0002	ı	00/22/2024 09.55	00/22/2024 11:50	
Method: EPA 6010D							
Boron	1.26	mg/L	0.1	1	08/16/2024 16:20	08/27/2024 11:41	
Calcium	70.1	mg/L	1	1	08/16/2024 16:20	08/21/2024 16:28	
Lithium	0.0348	mg/L	0.02	1	08/16/2024 16:20	09/03/2024 15:33	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	08/16/2024 16:20	08/22/2024 14:24	
Arsenic	0.0100	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:24	
Barium	0.0392	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:24	
Beryllium	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:24	
Cadmium	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:24	
Chromium	<0.002	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:24	
Cobalt	<0.002	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:24	
Lead	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:24	
Molybdenum	0.0095	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:24	
Selenium	<0.005	mg/L	0.005	5	08/16/2024 16:20	08/22/2024 14:24	
Thallium	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:24	
Method: SM4500-CI-E 2011							
Chloride	11.8	mg/L	2.0	1		08/20/2024 11:19	
Method: SM4500-F-C-2011							
Fluoride	0.76	mg/L	0.1	1		08/19/2024 15:27	
Method: USGS I-1750-85							
Total Dissolved Solids	573	mg/L	10	1		08/16/2024 14:45	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 59755002
 Date Collected:
 08/16/2024 09:50
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 08/16/2024 14:27
 Collector:
 Client

Temp @ Receipt (C): 4.8 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	297	mg/L	25	5		08/21/2024 11:11	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	08/22/2024 09:35	08/22/2024 11:36	
Welcury	\0.0002	mg/L	0.0002	•	00/22/2024 09.55	00/22/2024 11:50	
Method: EPA 6010D							
Boron	0.84	mg/L	0.1	1	08/16/2024 16:20	08/27/2024 11:47	
Calcium	95.2	mg/L	1	1	08/16/2024 16:20	08/21/2024 16:29	
Lithium	<0.02	mg/L	0.02	1	08/16/2024 16:20	09/03/2024 15:39	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	08/16/2024 16:20	08/22/2024 14:42	
Arsenic	0.0031	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:42	
Barium	0.0694	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:42	
Beryllium	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:42	
Cadmium	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:42	
Chromium	<0.002	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:42	
Cobalt	<0.002	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:42	
Lead	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:42	
Molybdenum	0.0066	mg/L	0.002	5	08/16/2024 16:20	08/22/2024 14:42	
Selenium	<0.005	mg/L	0.005	5	08/16/2024 16:20	08/22/2024 14:42	
Thallium	<0.0005	mg/L	0.0005	5	08/16/2024 16:20	08/22/2024 14:42	
Method: SM4500-CI-E 2011							
Chloride	11.2	mg/L	2.0	1		08/20/2024 11:20	
Method: SM4500-F-C-2011							
Fluoride	0.88	mg/L	0.1	1		08/19/2024 15:33	
Method: USGS I-1750-85							
Total Dissolved Solids	672	mg/L	10	1		08/16/2024 14:45	





Account #: 2040 Client: Basin Electric Power Cooperative

C Resul	ts Summary						WO #:	5975	5
Sulfate QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg,	/L Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB			100	Recovery 103.0	% Recovery	Limit (%) 85	Upper Control Limit (%)		
LFB			100	106.0		85	115		
LFB			100	96.7		85	115		
LFB			100	104.0		85	115		
МВ		<5							
MB		<5							
MB		<5							
МВ		<5							
MS/MSD	59086007		100	110.8	111.3	85	115	0.8	20
MS/MSD	59753001		500	107.1	104.2	85	115	1.6	20
MS/MSD	60122001		1000	111.5	111.9	85	115	0.6	20
Chloride				Units: mg,	/L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	104.0	No necessary	90	110		
LFB			30	106.0		90	110		
LFB			30	104.0		90	110		
LFB			30	107.0		90	110		
LFB			30	106.0		90	110		
LFB			30	102.0		90	110		
МВ		<2.0							
МВ		<2.0							
MB		<2.0							
MB		<2.0							
МВ		<2.0							
МВ		<2.0							
MS/MSD	59068006		30	102.6	99.7	80	120	2.1	20
MS/MSD	59424001		30	108.2	106.6	80	120	0.0	20



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Account #: 2040

Client: Basin Electric Power Cooperative

D				11-11						
Boron QC Type	Original Sample ID	Blank Result	Spike Amount	Units: Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-OE	Ongridi Sample 15	Diarik Nesale	0.4	Recovery 105.0		% Recovery	Limit (%)	Limit (%)	111 0 (70)	Ni D Linit (70)
110-01			0.4	103.0			65	113		
MB		<0.1								
MS/MSD	59755001		0.4	78.0		99.8	75	125	5.4	20
MS/MSD	59755002		0.4	110.0		80.2	75	125	9.8	20
Calcium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	6/ =	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MI			100	Recovery 110.0		% Recovery	Limit (%) 85	Limit (%)		
MB		<1								
PDS/PDSD	58859003		100	103.0		103.0	75	125	0.6	20
PDS/PDSD	59086005		100	101.0		106.0	75	125	1.6	20
PDS/PDSD	59213001		500	106.0		102.0	75	125	2.2	20
DUD	F0633064								2.1	20
DUP	59622001								3.1	20
PDS/PDSD	59753001		100	101.0		100.0	75	125	0.2	20
PDS/PDSD	60006002		100	99.9		102.0	75	125	1.0	20
PUS/PUSU	60006002		100	99.9		102.0	/3	125	1.0	20
Lithium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	110.0			85	115		
MB		<0.04								
MS/MSD	59755001		0.4	98.9		108.0	75	125	8.0	20
MS/MSD	59755002		0.4	112.0		101.0	75	125	9.8	20
Antimony				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	94.9			85	115		
MB		<0.001								
S.D.V	F061800*		0.1	00.0			75	125		
SPK	59618001		0.1	99.0			75	125		
MS/MSD	59755001		0.4	93.6		97.2	75	125	3.9	20
MS/MSD	59755002		0.4	99.9		91.2	75	125	9.2	20
	33733002		0.4	55.5		J.1.6	.73	123	J.L.	20
Arsenic				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	98.1			85	115		
MB		<0.005								
		.5.005								





Account #: 2040 Client: Basin Electric Power Cooperative

Arsenic				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	59755001		0.4	93.0		96.8	75	125	3.9	20
MS/MSD	59755002		0.4	98.7		90.9	75	125	8.1	20
Barium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	Or -	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 93.1		% Recovery	Limit (%) 85	Limit (%) 115		
CI D-WIS			0.1	55.1			0.5	113		
МВ		<0.002								
SPK	59618001		0.1	88.8			75	125		
MS/MSD	59755001		0.4	85.3		88.0	75	125	2.9	20
MS/MSD	59755002		0.4	91.4		82.3	75	125	8.6	20
Beryllium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 93.0		% Recovery	Limit (%) 85	Limit (%) 115		
МВ		<0.0005								
SPK	59618001		0.1	95.6			75	125		
MS/MSD	50755004		0.4	02.6		97.2	75	125	5.0	20
IVIS/IVISD	59755001		0.4	92.6		97.2	75	125	5.0	20
MS/MSD	59755002		0.4	100.0		92.0	75	125	8.3	20
Cadmium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	6/ -	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 91.3		% Recovery	Limit (%) 85	Limit (%)		
LI D-WIS			0.1	31.3			0.5	113		
MB		<0.0005								
SPK	59618001		0.1	88.7			75	125		
MS/MSD	59755001		0.4	87.9		91.7	75	125	4.2	20
MS/MSD	59755002		0.4	93.4		86.2	75	125	7.8	20
Chromium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 96.0		% Recovery	Limit (%) 85	Limit (%)		
MB		<0.002								
CDU	5054005			00.7			7.	425		
SPK	59618001		0.1	86.6			75	125		
MS/MSD	59755001		0.4	85.9		89.8	75	125	4.3	20
MS/MSD	59755002		0.4	91.8		83.8	75	125	9.1	20
Cobalt				Units:	mg/L					
		Blank Result								
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)



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Client: Basin Electric Power Cooperative

Cobalt QC Type	Original Sample ID	Blank Result	Spike Amount	Units: Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
MB		<0.002		Recovery		% Recovery	Limit (%)	Limit (%)	= ()	
SPK	59618001		0.1	93.4			75	125		
MS/MSD	59755001		0.4	86.2		89.3	75	125	3.4	20
MS/MSD	59755002		0.4	91.3		83.6	75	125	8.9	20
Lead				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.6		% Recovery	Limit (%) 85	Limit (%) 115		
MB		<0.0005								
CDV	50540004		0.4	00.0			75	425		
SPK	59618001		0.1	88.0			75	125		
MS/MSD	59755001		0.4	88.2		90.2	75	125	2.2	20
MS/MSD	59755002		0.4	92.9		86.4	75	125	7.2	20
Molybdenum				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	6/ -	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 97.4		% Recovery	Limit (%) 85	Limit (%) 115		
MB		<0.002								
SPK	59618001		0.1	97.9			75	125		
SPK	59618001		0.1	97.9			75	125		
MS/MSD	59755001		0.4	84.5		88.8	75	125	4.8	20
MS/MSD	59755002		0.4	91.3		83.4	75	125	9.0	20
Selenium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	93.3		, one core,	85	115		
МВ		<0.01								
SPK	59618001		0.1	91.7			75	125		
MS/MSD	59755001		0.4	92.0		95.0	75	125	3.2	20
MS/MSD	59755002		0.4	100.0		88.6	75	125	12.2	20
Thallium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	91.5		,	85	115		
МВ		<0.0005								
SPK	59618001		0.1	85.1			75	125		
MS/MSD	59755001		0.4	83.5		83.8	75	125	0.3	20
MS/MSD	59755002		0.4	90.3		83.7	75	125	7.5	20





Account #: 2040

Client: Basin Electric Power Cooperative

Mercury				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recover	у	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	101.0			85	115		
LRB		<0.0002								
MS/MSD	59000002		0.002	103.0		104.0	70	130	0.0	20
MS/MSD	59213003		0.002	108.0		103.0	70	130	4.7	20
MS/MSD	60141001		0.002	102.0		102.0	70	130	0.0	20
Fluoride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recover	У	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.06	108.0			83.99	111.11		
LFB-F			0.5	106.0			90	110		
LFB-F			0.5	104.0			90	110		
MB-F		<0.1								
MB-F		<0.1								
MS/MSD	59764005		0.5	98.0		100.0	80	120	1.5	20
Total Dissolve	d Solids			Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recover	у	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	100.0			90.35	110.33		
MB		<10								
DUP	59755001								1.9	20





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free	W W 2		es, Inc.	Basin WO: 5	Electric 59755	Po	we	r Coope		of Cus	•
Company N	<u>Lela</u> 3901	ectric Power Coop. nd Olds Station I Highway 200A nton, ND 58571		Account # Contact Name of S	2040 Mark Dihl	e		Phone Emails mdihle@	701-745-7238		
Billing Add	Iress (indicate if differen	ss (indicate if different from above) mk Quote Number Project Name/Number LOS CCR WELLS		S	Date Submitted						
Lab Use Only	Sa	mple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	Bottles	N/A		Analysis R	equired	
001	MW	<i>I-</i> 2017-11	GW	8/16/2024	845	3	N	14 14	, SO4, Sb, As, g, Mo, Se, Tí, R		
002	MW	7-2017-10	GW	8/16/2024	950	3	N	I I He	F, SO4, Sb, As, g, Mo, Se, TI, R		
Comments	:										
	Transferred by	Date	Time	Received	l by	I,	Dat	te Tim	ne Temp	ROI	Therm. #

Please submit the top copy with your samples. We will return the completed original with your results.

See above for page number

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: Wednesday, September 4, 2024 3:24:55 PM

Form # 80-910005-1



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Account #: 2040 Client: Basin Electric Power Cooperative Workorder: LOS CCR Wells (59756) PO: 790708-04 LOS

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:



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 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

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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Report Date: Tuesday, September 17, 2024 5:02:10 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 59756001
 Date Collected:
 08/16/2024 08:45
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 08/16/2024 14:27
 Collector:
 Client

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		09/17/2024 10:03	
Radium 228	See Attached			1		09/17/2024 10:03	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 59756002
 Date Collected:
 08/16/2024 09:50
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 08/16/2024 14:27
 Collector:
 Client

Temp @ Receipt (C): 4.8 Received on Ice: Yes

Parameter Results **RDL** DF **Prepared** Analyzed Qual **Method: Contracted Result** Radium 226 See Attached 1 09/17/2024 10:03 Radium 228 See Attached 1 09/17/2024 10:03



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Account #: 2040 Client: Basin Electric Power Cooperative



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ANALYTICAL SUMMARY REPORT

September 16, 2024

Minnesota Valley Testing Laboratories 1126 N Front St

New Ulm, MN 56073-1176

100

Work Order: C24080958 Quote ID: C15480

Project Name: 59756

Energy Laboratories, Inc. Casper WY received the following 2 samples for Minnesota Valley Testing Laboratories on 8/22/2024

 Lab ID
 Client Sample ID
 Collect Date
 Receive Date
 Matrix
 Test

 C24080958-001
 59756001, MW-2017-11
 08/16/24 8:45
 08/22/24
 Groundwater
 Radium 226 + Radium 228, Total Radium 226, Total Radium 228, Total

 C24080958-002
 59756002, MW-2017-10
 08/16/24 9:50
 08/22/24
 Groundwater
 Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Minnesota Valley Testing Laboratories Report Date: 09/16/24 59756 Collection Date: 08/16/24 08:45 Project: C24080958-001 DateReceived: 08/22/24 Lab ID: Client Sample ID: 59756001, MW-2017-11 Matrix: Groundwater

				MCL/		
Analyses	Result Units	Qualifiers	RL	QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL						
Radium 226	0.2 pCi/L	U			E903.0	09/04/24 13:41 / apt
Radium 226 precision (±)	0.2 pCi/L				E903.0	09/04/24 13:41 / apt
Radium 226 MDC	0.3 pCi/L				E903.0	09/04/24 13:41 / apt
Radium 228	1.9 pCi/L				RA-05	08/29/24 14:58 / trs
Radium 228 precision (±)	0.9 pCi/L				RA-05	08/29/24 14:58 / trs
Radium 228 MDC	1.3 pCi/L				RA-05	08/29/24 14:58 / trs
Radium 226 + Radium 228	2.0 pCi/L				A7500-RA	09/05/24 10:36 / dmf
Radium 226 + Radium 228 precision (±)	0.9 pCi/L				A7500-RA	09/05/24 10:36 / dmf
Radium 226 + Radium 228 MDC	1.4 pCi/L				A7500-RA	09/05/24 10:36 / dmf

Report Definitions

RL - Analyte Reporting Limit QCL - Quality Control Limit

U - Not detected at Minimum Detectable Concentration

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

Page 2 of 7



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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Report Date: 09/16/24 Client: Minnesota Valley Testing Laboratories 59756 Collection Date: 08/16/24 09:50 Project: DateReceived: 08/22/24 C24080958-002 Lab ID: Client Sample ID: 59756002, MW-2017-10 Matrix: Groundwater

			MCL/		
Analyses	Result Unit	Qualifiers	RL QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL					
Radium 226	0.2 pCi/L	U		E903.0	09/04/24 13:41 / apt
Radium 226 precision (±)	0.2 pCi/L			E903.0	09/04/24 13:41 / apt
Radium 226 MDC	0.2 pCi/L			E903.0	09/04/24 13:41 / apt
Radium 228	2.2 pCi/L			RA-05	08/29/24 14:58 / trs
Radium 228 precision (±)	0.9 pCi/L			RA-05	08/29/24 14:58 / trs
Radium 228 MDC	1.3 pCi/L			RA-05	08/29/24 14:58 / trs
Radium 226 + Radium 228	2.3 pCi/L			A7500-RA	09/05/24 10:36 / dmf
Radium 226 + Radium 228 precision (±)	0.9 pCi/L			A7500-RA	09/05/24 10:36 / dmf
Radium 226 + Radium 228 MDC	1.3 pCi/L			A7500-RA	09/05/24 10:36 / dmf

Report Definitions

RL - Analyte Reporting Limit QCL - Quality Control Limit

U - Not detected at Minimum Detectable Concentration

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

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Account #:

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Client: Basin Electric Power Cooperative



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QA/QC Summary Report

Prepared by Casper, WY Branch

Client:	Minnesota Valley Tes	sting Labo	ratories		Work Order:	C2408	0958	Report	Date	09/05/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E903.0									Batch: RA2	26-11413
Lab ID:	LCS-RA226-11413	3 Lab	oratory Cor	trol Sample	e		Run: TENN	ELEC-4_240823I)	09/04/	24 13:41
Radium 2	26		10	pCi/L		104	70	130			
Radium 2	26 precision (±)		2.0	pCi/L							
Radium 2	26 MDC		0.14	pCi/L							
Lab ID:	MB-RA226-11413	3 Met	hod Blank				Run: TENN	ELEC-4_240823[)	09/04	24 13:41
Radium 2	26		0.03	pCi/L							U
Radium 2	26 precision (±)		0.08	pCi/L							
Radium 2	26 MDC		0.1	pCi/L							
Lab ID:	C24081010-006EDUP	3 San	nple Duplica	ate			Run: TENN	ELEC-4_240823[)	09/04	24 14:42
Radium 2	26		0.042	pCi/L					10	30	U
Radium 2	26 precision (±)		0.093	pCi/L							
Radium 2	26 MDC		0.15	pCi/L							
- The REI	R result is 0.03.										

Qualifiers:

RL - Analyte Reporting Limit U - Not detected at Minimum Detectable Concentration (MDC) ND - Not detected at the Reporting Limit (RL)

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Account #:

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QA/QC Summary Report

Prepared by Casper, WY Branch

Client:	Minnesota Valley Tes	sting Labo	ratories		Work Order:	C2408	0958	Report	Date:	09/05/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05									Batch: RA	228-7462
Lab ID:	LCS-228-RA226-1141	3 3 Lab	oratory Cor	trol Sample			Run: TENN	ELEC-4_240823I	3	08/29/	24 14:58
Radium 2	228		9.5	pCi/L		93	70	130			
Radium 2	228 precision (±)		1.9	pCi/L							
Radium 2	228 MDC		1.0	pCi/L							
Lab ID:	MB-RA226-11413	3 Met	hod Blank				Run: TENN	ELEC-4_240823I	3	08/29/	24 14:58
Radium 2	228		1	pCi/L							
Radium 2	228 precision (±)		0.7	pCi/L							
Radium 2	228 MDC		1	pCi/L							
Lab ID:	C24081010-006EDUP	3 San	nple Duplica	ate			Run: TENN	ELEC-4_240823I	3	08/29/	24 14:58
Radium 2	228		1.7	pCi/L					41	30	R
Radium 2	228 precision (±)		0.80	pCi/L							
Radium 2	228 MDC		1.2	pCi/L							

⁻ Duplicate RPD is outside of the acceptance range for this analysis. However, the RER is less than or equal to the limit of 3, the RER result is 0.73.

Qualifiers:

RL - Analyte Reporting Limit
R - Relative Percent Difference (RPD) exceeds advisory limit

ND - Not detected at the Reporting Limit (RL)

Page 5 of 7

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Report Date: Tuesday, September 17, 2024 5:02:10 PM





Account #: 2040 Client: Basin Electric Power Cooperative

ENERGY LABORATORIES	Trust our People. Trust our Data. www.energylab.com				• Casper, WY 307.235.0515 • Helena, MT 406.442.0711
Work Ordei	Receipt Chec	klist			
Minnesota Va	illey Testing Labo	ratories	С	24080958	
Login completed by:	Lisa X. Quezada		Date	e Received: 8/22/2024	
Reviewed by:	Icadreau		R	eceived by: SLR	
Reviewed Date:	8/29/2024		Ca	arrier name: UPS Ground	
Shipping container/cooler in	good condition?	Yes ✓	No 🗌	Not Present	
Custody seals intact on all s	hipping container(s)/cooler(s)?	Yes	No 🗌	Not Present 🗸	
Custody seals intact on all s	ample bottles?	Yes	No 🗌	Not Present ✓	
Chain of custody present?		Yes 🔽	No 🗌		
Chain of custody signed who	en relinquished and received?	Yes 🗸	No 🗌		
Chain of custody agrees with	h sample labels?	Yes 🔽	No 🗌		
Samples in proper container	/bottle?	Yes 🔽	No 🗌		
Sample containers intact?		Yes 🔽	No 🗌		
Sufficient sample volume for	r indicated test?	Yes 🔽	No 🗌		
All samples received within I (Exclude analyses that are c such as pH, DO, Res CI, Su	onsidered field parameters	Yes 🔽	No 🗌		
Temp Blank received in all s	hipping container(s)/cooler(s)?	Yes	No 🗸	Not Applicable	
Container/Temp Blank temp	erature:	24.6°C No Ice			
Containers requiring zero he bubble that is <6mm (1/4").	adspace have no headspace or	Yes	No 🗌	No VOA vials submitted	1
Water - pH acceptable upon	receipt?	Yes ✓	No 🗌	Not Applicable	
Standard Reporti	na Procedures:				
Lab measurement of a	analytes considered field pa n and Residual Chlorine, are				
	e reported on a wet weight by y noted as –dry. For agricult Imple analysis.				
	r Radon analysis is the sam is date. Radiochemical pred				
	uire zero headspace or requ s verified at analysis. Nonce e analysis comments.				
	nd Duplicate samples are a caluate the holding time unle			tion time for the associate	d requested
Contact and Corr	rective Action Comme	ents:			

Page 6 of 7

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Report Date: Tuesday, September 17, 2024 5:02:10 PM

None

Tuesday, September 17, 2024 5:02:10 PM

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MVI	2616 E B	ATORIES, Inc. roadway Ave c, ND 58501		Chain	of C	ust	od	y R	ec	or	rd Page <u>1</u> of <u>1</u> .
Toll Eroo: (9	Phone: (701) 258 (00) 279-6885 F	8-9720 ax: (701) 258-9724			١	Worl	k O	der	#	5	9756 (24080958
	e and Address:	ax. (101) 200-0124		Account #:							Phone #: 701-258-9720
	<u>MV</u> <u>2616 E B</u> <u>Bismarck,</u>	roadway ND 58501		Contact:		udett	te			2	For faxed report check box E-mail: ccarroll@mvtl.com
Billing Address	s (indicate if different f	rom above):		Quote Num	ber					_	For e-mail report check box Date Submitted:
	PO Bo				C15	480 v	/5				20-Aug-24
	New Ulm,	MN 56073		Project Na	ne/Num	ber:					Purchase Order #: BL6923
		Sample Information					E	ottle	Ту	ре	Analysis
Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sample		Gallon HNO3	VOC Vials Umpreserved	Glass Jar	Other	Analysis Required
	59756001	MW-2017-11	GW	16-Aug-24	0845	1	1				Ra226 & Ra228
	59756002	MW-2017-10	GW	16-Aug-24	0950		1				Ra226 & Ra228
				18		_	+	-	-		
				12		+	+		t	+	
	7.0			1							
R.				1			+		-	-	
		36.5		100					-	-	
Comment	e: Individual ree	ults as well as co	mhined F	2226 &	Ra228	mı	iet	ho	ron	OF	tod for all camples

			150			
Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
T. Olson	20-Aug-24	1700	Page 1	Shelby Richtas	8/22/24/025	4

Page 7 of 7





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free	2616 East Bro Bismarck, ND Phone: (701) 258-97		es, Inc.		Basin WO: 5		Po	we		Chain (Page	of _	-
Company N	Lelan	ctric Power Coop. d Olds Station Highway 200A			Account #	2040 Mark Dihle			Emails	701-745-7238 bepc.com akr		
Billing Add	Stant ress (indicate if different	on, ND 58571 from above)			Name of S mk Quote Nu					Date Submitte		
					Project Na	me/Numbe LOS CCR		LLS		Purchase Orde <u>7</u>	er # 90708-04	
Lab Use Only		t. ID	Sample N GW - Ground		Date	Time Sampled	ottles	z				
Lab		pple ID 2017-11	GW		Sampled 8/16/2024			N Y	B, Ca, CI, F,	Analysis Ro SO4, Sb, As, I Mo, Se, TI <mark>, Ra</mark>	Ba, Be, Cd	
002		2017-10	GW		8/16/2024			N	B, Ca, Cl, F,	SO4, Sb, As, I Mo, Se, TI <mark>, R</mark> a		
	*											
			9									
Comments	:				L	2						
Millennium	Transferred by Exprress	Date 8/16/2024	Time NOON	A	Received	-	1	Dat	te Time	Temp	ROI Ý/N	Therm. #

Please submit the top copy with your samples. We will return the completed original with your results.

See above for page number

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Report Date: Tuesday, September 17, 2024 5:02:10 PM

Form # 80-910005-1

Well/Piezo ID:	
MW 201	

Ground Water Sample Collection Record

Client:		BEPC	;				_Date: _8			
Project No: Site Locatio	n:	1.001	PONDS				_Time: _(55	
Weather Co		clou		1,	Collector(e)	MK	_rinish(08	ソン	
Vicaliei ou	/11U3.	TARA	ay VI		_ Collector(S)					
WATER LE	VEL DAT	A: (me	asured fro	m Top of	Casing)		Well			
a. Total Wel	ll Length		50.24	c. Ca	asing Materia	I _PVC			5/5 e.4	opsi
	_			-					1000	0/0/
b. Water Ta	able Depti	า	39.31	_ d. Ca	asing Diamet	er			~100H	TIV
WELL PUR			d <u>Dedicate</u>	d Bladder	Pump					
	b. Field	Testina	Equipmen	t Used:	Make	Model		Serial Nun	nher	
					YSI			22C10390		
					HACH			20030C08	4551	
	c. Field	Testing	j Equipmer	nt Calibrat く。ヮ	ion Documer	ntation Found i	n Field Note	ebook #	Page	#
Ţ.	Volu		T0 70%	DO	Spec. Cond			Turbidity		
Time Stabilization	Remove	ed (gal)	T° (C) +/- 0.2	mg/L +/- 10%	(µs/cm) +/- 3%	+/- 0.1	ORP +/- 10%	(NTU) +/- 10%	Color	DTW 0.33 ft
0825	INITIAL	4L	11.9	.36	899	7.55	-75.7	-51	clear	39.35
0830		5.0 L	12.0	.23	900	7.57	-855	.76	J	39 360
0835		₩.OL	11.9	.24	899	7.57	-86.9	-40		39.35
0840	-	7.0L	12.0	. 23	899	7.57	89.4	.56		39 35
0845		8.0 -	11.9	. 1.1	901	7.58	-89.9	u3		39.35
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	Has r Has r Have	equired equired parame	criteria pas l volume be l turbidity be eters stabili //A - Explai	een remov een reach zed		No 	N/A			
SAMPLE C	OLLECT	ON:		Method: I	Bladder Pum	p	-			
Sample	e ID	Contair	ner Type	No. of	Containers	Preservation		Analysis		Time
			1L		1			TDS/Anions		0845
			00 ML		1	HNO3		METALS		
		Iga	ц		1	HN03	¥.	-adjum		1
Comments										
Signature	Mana	ih	Knuts	on	_		Date	8.16.24		

Well/Piezo ID:	
1111 2011	

Ground Water Sample Collection Record

Client: Project No:		BEPC					Date: <u>8</u>			
Site Location	n:	LOS P	ONDS				Finish	000		
Weather Co					Collector(s)		•			
								2		
WATER LEV		A: (mea		-			Well	_		
a. Total Wel	I Length		52.1	c. Ca	ising Material	PVC	e. Pump S	ettings		
b. Water Ta	ble Depth	١ .	33. UI	d. Ca	sing Diamete	r				
WELL PUR			d <u>Dedicate</u>	d Bladder	Pump					
	b. Field	Testing	Equipmen	t Used:	Make YSI	Model		Serial Num 22C10390	1	
					HACH			20030C084	4551	
	c. Field	Testing	Equipmen	t Calibrat と. ら	ion Document	tation Found in	Field Note	book #	Page	#
Time	Volu Remove		T° (C)	DO ma/l	Spec. Cond (µs/cm)	enants.	ORP	Turbidity (NTU)	Color	DTW
Stabilization		u (gai)	+/- 0.2	mg/L +/- 10%	+/- 3%	pH +/- 0.1	+/- 10%	+/- 10%	Coloi	0.33 ft
0925	INITIAL	51	12.1	.15	908	7.59	36.0	1.07	clear	33.7
0930		Y L	12.1	. 20	947	7.59	- (0.9	.99	+	33.13
0940		8 L	12.1	.17	908	7.59	-19.7	.92	Ĭ	33.71
0945		9 L	12.2	-18	968	7.59	-21.4	1.10	-	33.72
0950		10	12.2	.18	9118	7.59	-23	1.14		33.7
		긥								
		L								
	_	L								
		Ī							-	
	. ^	L	criteria pas	o /foil	Vac	No	NI/A			
	Has r Has r Have	equired equired parame	volume be turbidity be eters stabili //A - Explai	en remov een reach zed			N/A			
SAMPLE C	OLLECT	ION:		Method: I	Bladder Pump)				
Sample	e ID	Contai	ner Type	No. of	Containers	Preservation		Analysis		Time
			1L		1			TDS/Anions		0950
			00 ML		1	HNO3		METALS	,	_
		10	jou			THANS		Radium		
Comments										
	,									
Signature	man	an	Knu	ASON	<u> </u>		Date	8-16-2	4	

		Calibra	tion Log YSI			Hach		
Date	/Time	рН	ORP	Conductivity	DO	Verify		
4-15 24						V.,		
5-13-24	1010	/	V		V			
5-14-24	0130	V	V-		/	V		
5-21-24	6715	V						
5-22-24	6648	V	-	-	-	1		
6-11-24	0800	V	V	V		V		
6-12-24	0830		1					
0.13.24	0820	/	/	/	/	/		
6-17.24	0815	V	~	-		~		
6-25.24	0730	V	-	~	~	レ		
8-1-24	0715	V	V	V	~	✓		
5-10-24	0720	V	-	<u> </u>	V	<u></u>		
7-10-24	0700	V	<u></u>	V	~			
9-11-24	0700	. ~	V	V		/		
917.24	0705	V	V	V	V			
0-1-24	0703	~	/		V			
0.2.24	0701	~	~	V	W			
	e							
S								
					37			
			-					
			-					





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free	W W 2		es, Inc.	Basin WO: 5	Electric 59755	Po	we	r Coope		of Cus	•
Company N	<u>Lela</u> 3901	ectric Power Coop. nd Olds Station I Highway 200A nton, ND 58571		Account # Contact Name of S	2040 Mark Dihl	e		Phone Emails mdihle@	701-745-7238		
Billing Add	Iress (indicate if differen	t from above)		mk Quote Nu Project Na	mber ame/Numb LOS CCR		ELL:	S	Purchase Ord	8/16/2024	
Lab Use Only	Sa	mple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	Bottles	N/A		Analysis R	equired	
001	MW	<i>I-</i> 2017-11	GW	8/16/2024	845	3	N	14 14	, SO4, Sb, As, g, Mo, Se, Tí, R		
002	MW	7-2017-10	GW	8/16/2024	950	3	N	I I He	F, SO4, Sb, As, g, Mo, Se, TI, R		
Comments	:										
	Transferred by	Date	Time	Received	l by	I,	Dat	te Tim	ne Temp	ROI	Therm. #

Please submit the top copy with your samples. We will return the completed original with your results.

See above for page number

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Report Date: Wednesday, September 4, 2024 3:24:55 PM

Form # 80-910005-1

Tuesday, September 17, 2024 5:02:10 PM

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Toll Eroo: (9	Phone: (701) 258 (00) 279-6885 F	8-9720 ax: (701) 258-9724			١	Worl	k O	der	#	5	9756 (24080958
	e and Address:	ax. (101) 200-0124		Account #:							Phone #: 701-258-9720
	<u>MV</u> <u>2616 E B</u> <u>Bismarck,</u>	roadway ND 58501		Contact:		udett	te			2	For faxed report check box E-mail: ccarroll@mvtl.com
Billing Address	s (indicate if different f	rom above):		Quote Num	ber					_	For e-mail report check box Date Submitted:
	PO Bo				C15	480 v	/5				20-Aug-24
	New Ulm,	MN 56073		Project Na	ne/Num	ber:					Purchase Order #: BL6923
		Sample Information					E	ottle	Ту	ре	Analysis
Lab Number	MVTL Lab Number	Client Sample ID	Sample Type	Date Sampled	Time Sample		Gallon HNO3	VOC Vials Umpreserved	Glass Jar	Other	Analysis Required
	59756001	MW-2017-11	GW	16-Aug-24	0845	1	1				Ra226 & Ra228
	59756002	MW-2017-10	GW	16-Aug-24	0950		1				Ra226 & Ra228
				18		_	+	-	-		
				12		+	+		t	+	
	7.0			1							
R.				1			+		-	-	
		36.5		100					-	-	
Comment	e: Individual ree	ults as well as co	mhined F	2226 &	Ra228	mı	iet	ho	ron	OF	tod for all camples

			150			
Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
T. Olson	20-Aug-24	1700	Page 1	Shelby Richtas	8/22/24/025	4

Page 7 of 7





Effective Date: 26 Aug 2022

Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free	2616 East Bro Bismarck, ND Phone: (701) 258-97		es, Inc.		Basin WO: 5		Po	we		Chain (Page	of _	-
Company N	Lelan	ctric Power Coop. d Olds Station Highway 200A			Account #	2040 Mark Dihle			Emails	701-745-7238 bepc.com akr		
Billing Add	Stant ress (indicate if different	on, ND 58571 from above)			Name of S mk Quote Nu					Date Submitte		
					Project Na	me/Numbe LOS CCR		LLS		Purchase Orde <u>7</u>	er # 90708-04	
Lab Use Only		t. ID	Sample N GW - Ground		Date	Time Sampled	ottles	z				
Lab		pple ID 2017-11	GW		Sampled 8/16/2024			N Y	B, Ca, CI, F,	Analysis Ro SO4, Sb, As, I Mo, Se, TI <mark>, Ra</mark>	Ba, Be, Cd	
002		2017-10	GW		8/16/2024			N	B, Ca, Cl, F,	SO4, Sb, As, I Mo, Se, TI <mark>, R</mark> a		
	*											
			9									
Comments	:				L	2						
Millennium	Transferred by Exprress	Date 8/16/2024	Time NOON	A	Received	-	1	Dat	te Time	Temp	ROI Ý/N	Therm. #

Please submit the top copy with your samples. We will return the completed original with your results.

See above for page number

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: Tuesday, September 17, 2024 5:02:10 PM

Form # 80-910005-1



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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

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Account #: 2040 Client: Basin Electric Power Cooperative

Workorder: LOS CCR Wells (64527) **PO**: 790708-04

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:

C. Carrell

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: Wednesday, October 16, 2024 12:16:18 PM



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527001
 Date Collected:
 09/17/2024 08:22
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-1
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Temp @ Receipt (C): 5.3	Received or	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	337	mg/L	25	5		09/20/2024 15:23	
Method: EPA 6010D							
Boron	0.45	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 10:56	
Calcium	248	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:09	
Method: SM4500-CI-E 2011							
Chloride	14.3	mg/L	2.0	1		09/19/2024 14:45	
Method: SM4500-F-C-2011							
Fluoride	0.34	mg/L	0.1	1		09/19/2024 00:35	
Method: USGS I-1750-85							
Total Dissolved Solids	1290	mg/L	10	1		09/19/2024 13:55	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527002
 Date Collected:
 09/17/2024 08:59
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-2
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

remp @ Receipt (C): 5.3	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	250	mg/L	25	5		09/20/2024 15:35	
Method: EPA 6010D							
Boron	1.30	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 10:58	
Calcium	83.8	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:10	
Made at 0144500 OLF 0044							
Method: SM4500-CI-E 2011							
Chloride	11.4	mg/L	2.0	1		09/19/2024 14:47	
Method: SM4500-F-C-2011							
Method: SM4500-F-C-2011							
Fluoride	0.44	mg/L	0.1	1		09/19/2024 00:41	
Method: USGS I-1750-85							
Wethou: 0363 1-1/50-85							
Total Dissolved Solids	696	mg/L	10	1		09/19/2024 13:55	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527003
 Date Collected:
 09/17/2024 08:59
 Matrix:
 Groundwater

 Sample ID:
 DUP
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

remp @ Receipt (C): 5.3	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	261	mg/L	25	5		09/20/2024 15:25	
Method: EPA 6010D							
Method: EPA 6010D							
Boron	1.34	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 10:59	
Calcium	82.7	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:11	
Method: SM4500-CI-E 2011							
Chloride	11.6	mg/L	2.0	1		09/19/2024 14:48	
Method: SM4500-F-C-2011							
Fluoride	0.44	mg/L	0.1	1		09/19/2024 00:47	
		-					
Method: USGS I-1750-85							
Total Dissolved Solids	716	mg/L	10	1		09/19/2024 13:55	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527004
 Date Collected:
 09/17/2024 09:32
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-3
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

remp @ Receipt (C): 5.3	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	128	mg/L	25	5		09/20/2024 15:26	
Method: EPA 6010D							
Boron	1.38	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 11:00	
Calcium	114	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:12	
Method: SM4500-CI-E 2011							
Chloride	11.6	mg/L	2.0	1		09/19/2024 14:49	
Method: SM4500-F-C-2011							
Fluoride	0.44	mg/L	0.1	1		09/19/2024 00:53	
Method: USGS I-1750-85							
Total Dissolved Solids	882	mg/L	10	1		09/19/2024 13:55	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527005
 Date Collected:
 09/17/2024 10:14
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-7
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Temp @ Receipt (C): 5.3	Received or	ı Ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	264	mg/L	25	5		09/20/2024 15:27	
Method: EPA 6010D							
Boron	2.27	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 11:03	
Calcium	75.5	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:16	
Method: SM4500-CI-E 2011							
Chloride	11.5	mg/L	2.0	1		09/19/2024 14:50	
Method: SM4500-F-C-2011							
Fluoride	1.16	mg/L	0.1	1		09/19/2024 00:58	
Method: USGS I-1750-85							
Total Dissolved Solids	692	mg/L	10	1		09/19/2024 13:55	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527006
 Date Collected:
 09/17/2024 10:57
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-4
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Temp @ Receipt (C): 5.3	Received or	ı Ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	256	mg/L	25	5		09/20/2024 15:28	
Method: EPA 6010D							
Boron	1.16	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 11:04	
Calcium	153	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:17	
Method: SM4500-CI-E 2011							
Chloride	10.2	mg/L	2.0	1		09/19/2024 14:51	
Method: SM4500-F-C-2011							
Fluoride	0.76	mg/L	0.1	1		09/19/2024 01:04	
ridonde	0.70	mg/L	0.1	'		09/19/2024 01:04	
Method: USGS I-1750-85							
Total Dissolved Solids	862	mg/L	10	1		09/19/2024 13:55	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527007
 Date Collected:
 09/17/2024 11:39
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Temp @ Receipt (C): 5.3 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	280	mg/L	25	5		09/20/2024 15:36	
Method: EPA 245.1							
	10.0000		0.0000	4	40/04/0004 00:00	40/04/0004 40:00	
Mercury	<0.0002	mg/L	0.0002	1	10/01/2024 08:00	10/01/2024 10:32	
Method: EPA 6010D							
Boron	0.87	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 11:05	
Calcium	95.9	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:20	
Lithium	<0.02	mg/L	0.02	1	09/18/2024 16:33	10/10/2024 09:37	
Mathada EDA 0000D							
Method: EPA 6020B	.0.004		0.004	_	00/40/0004 40 00	00/00/0004 44 47	
Antimony	<0.001	mg/L	0.001	5	09/18/2024 16:33	09/20/2024 14:17	
Arsenic	0.0035	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:17	
Barium	0.0761	mg/L	0.002	5	09/18/2024 16:33	09/23/2024 15:10	
Beryllium	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:17	
Cadmium	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:17	
Chromium	<0.002	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:17	
Cobalt	<0.002	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:17	
Lead	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:17	
Molybdenum	0.0074	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:17	
Selenium	<0.005	mg/L	0.005	5	09/18/2024 16:33	09/20/2024 14:17	
Thallium	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:17	
Method: SM4500-CI-E 2011							
Chloride	10.6	mg/L	2.0	1		09/19/2024 14:53	
Method: SM4500-F-C-2011							
Fluoride	0.84	mg/L	0.1	1		09/19/2024 01:10	
Method: USGS I-1750-85							
Total Dissolved Solids	672	mg/L	10	1		09/19/2024 13:55	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527008
 Date Collected:
 09/17/2024 12:23
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Temp @ Receipt (C): 5.3 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	241	mg/L	25	5		09/20/2024 15:31	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/01/2024 08:00	10/01/2024 10:32	
Method: EPA 6010D							
Boron	0.77	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 11:07	
Calcium	90.4	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:21	
Lithium	0.0226	mg/L	0.02	1	09/18/2024 16:33	10/10/2024 09:39	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	09/18/2024 16:33	09/20/2024 14:12	
Arsenic	0.0022	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:12	
Barium	0.0724	mg/L	0.002	5	09/18/2024 16:33	09/23/2024 15:06	
Beryllium	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:12	
Cadmium	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:12	
Chromium	<0.002	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:12	
Cobalt	<0.002	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:12	
Lead	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:12	
Molybdenum	0.0171	mg/L	0.002	5	09/18/2024 16:33	09/20/2024 14:12	
Selenium	<0.005	mg/L	0.005	5	09/18/2024 16:33	09/20/2024 14:12	
Thallium	<0.0005	mg/L	0.0005	5	09/18/2024 16:33	09/20/2024 14:12	
Method: SM4500-CI-E 2011							
Chloride	11.2	mg/L	2.0	1		09/19/2024 14:54	
Method: SM4500-F-C-2011							
Fluoride	0.92	mg/L	0.1	1		09/19/2024 01:16	*
Method: USGS I-1750-85							
Total Dissolved Solids	643	mg/L	10	1		09/19/2024 13:55	

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Report Date: Wednesday, October 16, 2024 12:16:18 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

Analysis Results Comments

Fluoride

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527009
 Date Collected:
 09/17/2024 13:28
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-8
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Temp @ Receipt (C): 5.3	Received on	ice: Yes					
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	1810	mg/L	100	20		09/20/2024 15:38	
Method: EPA 6010D							
Wethou. EFA 0010D							
Boron	0.43	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 11:08	
Calcium	135	mg/L	5	5	09/18/2024 16:33	09/19/2024 13:21	
Method: SM4500-CI-E 2011							
WIECTION. 3WI4300-CI-L 2011							
Chloride	26.6	mg/L	2.0	1		09/19/2024 14:55	
Method: SM4500-F-C-2011							
Fluoride	0.37	mg/L	0.1	1		09/19/2024 01:22	
Method: USGS I-1750-85							
Total Dissolved Solids	2620	na a /l	10	4		00/40/2024 42.55	
Total Dissolved Soilds	3620	mg/L	10	1		09/19/2024 13:55	





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64527010
 Date Collected:
 09/17/2024 14:17
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-8D
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Received on	ice: Yes					
Results	Units	RDL	DF	Prepared	Analyzed	Qual
341	mg/L	25	5		09/20/2024 15:47	
0.69	mg/L	0.1	1	09/18/2024 16:33	09/24/2024 11:08	
9.08	mg/L	1	1	09/18/2024 16:33	09/19/2024 14:34	
17.3	mg/L	2.0	1		09/19/2024 14:56	
0.54	mg/L	0.1	1		09/19/2024 01:28	
1960	mg/L	10	1		09/19/2024 13:55	
	Results 341 0.69 9.08	Results Units 341 mg/L 0.69 mg/L 9.08 mg/L 17.3 mg/L 0.54 mg/L	Results Units RDL 341 mg/L 25 0.69 mg/L 0.1 9.08 mg/L 1 17.3 mg/L 2.0 0.54 mg/L 0.1	Results Units RDL DF 341 mg/L 25 5 0.69 mg/L 0.1 1 9.08 mg/L 1 1 17.3 mg/L 2.0 1 0.54 mg/L 0.1 1	Results Units RDL DF Prepared 341 mg/L 25 5 0.69 mg/L 0.1 1 09/18/2024 16:33 9.08 mg/L 1 1 09/18/2024 16:33 17.3 mg/L 2.0 1 0.54 mg/L 0.1 1	Results Units RDL DF Prepared Analyzed 341 mg/L 25 5 09/20/2024 15:47 0.69 mg/L 0.1 1 09/18/2024 16:33 09/24/2024 11:08 9.08 mg/L 1 1 09/18/2024 16:33 09/19/2024 14:34 17.3 mg/L 2.0 1 09/19/2024 14:56 0.54 mg/L 0.1 1 09/19/2024 01:28





Account #: 2040 Client: Basin Electric Power Cooperative

C Result	ts Summary						WO #:	6452	27
Sulfate QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg,	L Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB	Original sample to	bidlik Nesuit	100	Recovery 93.4	% Recovery	Limit (%)	Limit (%)	KPD (70)	KPD LIIIIL (%)
.FB			100	94.0		85	115		
.FB			100	98.0		85	115		
FB			100	98.7		85	115		
FB			100	99.1		85	115		
ИВ		<5							
ИB		<5							
ИВ		<5							
MB		<5							
ИВ		<5							
NS/MSD	64376004		500	92.5	87.5	85	115	3.2	20
AS/MSD	64527009		2000	86.5	87.4	85	115	0.6	20
/IS/MSD	64554001		100	75.3	82.8	85	115	4.5	20
13) 1130	04334001		100	73.3	02.0		113	4.3	
Chloride				Units: mg,					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
FB			30	94.8		90	110		
LFB			30	99.2		90	110		
FB			30	97.7		90	110		
.FB			30	97.2		90	110		
FB			30	98.8		90	110		
FB			30	98.9		90	110		
гв			30	98.9		90	110		
.FB			30	95.7		90	110		
ИВ		<2.0							
ИВ		<2.0							
MB		<2.0							
		<2.0							
MB									
		<2.0							
ИΒ		<2.0							
MB		<2.0							





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100000 ASS										
Chloride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MS/MSD	64216012		30	92.3		114.1	80	120	7.1	20
MS/MSD	64477002		30	106.2		102.4	80	120	2.4	20
MS/MSD	64527010		30	96.6		96.3	80	120	0.2	20
Boron				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	99.2			85	115		
LFB-OE			0.4	96.6			85	115		
MB		<0.1								
MB		<0.1								
MS/MSD	64527001		0.4	101.0		98.6	70	130	0.7	20
MS/MSD	64527007		0.4	97.1		105.0	70	130	1.4	20
Calcium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	108.0		,	85	115		
LFB-MI			100	112.0			85	115		
MB		<1								
МВ		<1								
PDS/PDSD	64155004		100	93.3		93.1	75	125	0.1	20
nns (nns n	64216004		100	83.8		81.0	75	125	0.6	20
PDS/PDSD	64216004		100	63.6		81.0	75	125	0.6	20
PDS/PDSD	64340001		100	96.0		96.8	75	125	0.6	20
PDS/PDSD	64340003		100	95.8		98.7	75	125	2.2	20
PDS/PDSD	64477010		100	91.6		94.8	75	125	1.5	20
, 03/1030	24477010		200	91.0		J-1.0	,,	123	a.J	20
DUP	64477012								2.2	20
DUP	64527009								1.5	20
PDS/PDSD	64527010		200	93.2		94.2	75	125	1.0	20
Lithium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	108.0		According	85	115		
MB		<0.04								
MS/MSD	64527007		0.4	101.0		102.0	70	130	1.7	20





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Antimony				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	96.6		80	120		
МВ		<0.001							
MB		<0.001							
SPK	64341001		0.1	102.0		75	125		
SPK	64373001		0.1	104.0		75	125		
MS/MSD	64527007		0.4	104.0	106.0	75	125	1.4	20
MS/MSD	64527007		0.4	94.6	102.0	75	125	8.1	20
Arsenic				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0		80	120		
LFB-MS			0.1	100.0		80	120		
МВ		<0.002							
Wib									
MB		<0.002							
SPK	64341001		0.1	103.0		75	125		
SPK	64373001		0.1	103.0		75	125		
MS/MSD	64527007		0.4	97.0	106.0	75	125	8.3	20
WIS/WISU	64327007		0.4	97.0	106.0	75	125	0.3	20
MS/MSD	64527007		0.4	104.0	107.0	75	125	3.1	20
Barium				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 101.0	% Recovery	Limit (%) 80	Limit (%) 120		
LFB-MS			0.1	104.0		80	120		
LI D'INIJ			0.1	204.0		00	120		
MB		<0.002							
МВ		<0.005							
MS/MSD	64527007		0.4	94.2	100.0	75	125	5.2	20
MS/MSD	64527007		0.4	100.0	101.0	75	125	1.0	20
Beryllium				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		80	120		
LFB-MS			0.1	86.6		80	120		



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Beryllium									
QC Type	Original Sample ID	Blank Result	Spike Amount	Units: m Spike % Recovery	ng/L Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
МВ		<0.0005			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		(1.7		
SPK	64341001		0.1	98.4		75	125		
SPK	64373001		0.1	102.0		75	125		
MS/MSD	64527007		0.4	104.0	108.0	75	125	3.8	20
MS/MSD	64527007		0.4	90.9	97.6	75	125	6.9	20
Cadmium					ng/L				
QC Type LFB-MS	Original Sample ID	Blank Result	Spike Amount 0.1	Spike % Recovery 92.8	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.6		80	120		
MB		<0.0005							
MB		<0.0005							
SPK	64341001		0.1	94.1		75	125		
SPK	64373001		0.1	93.3		75	125		
MS/MSD	64527007		0.4	89.2	96.6	75	125	7.8	20
MS/MSD	64527007		0.4	98.9	101.0	75	125	2.3	20
Wis/ WisD	64527007		0.4	96.9	101.0	75	125	2.3	20
Chromium				Units: m	ng/L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS	Original Sample 10			Recovery	% Recovery				
	Original Sample 10		0.1	Recovery 107.0	% Recovery	80	120		
LFB-MS	Original Sample to		0.1		% Recovery				
LFB-MS	Original Sample ID	<0.002		107.0	% Recovery	80	120		
	Original Sample D	<0.002		107.0	% Recovery	80	120		
МВ	64373001			107.0	% Recovery	80	120		
MB MB SPK	64373001		0.1	107.0 97.4		80	120	27	20
MB SPK MS/MSD	64373001 64527007		0.1	107.0 97.4 107.0	104.0	80 80 75	120 120 125	2.7	20
MB MB SPK	64373001		0.1	107.0 97.4		80	120	2.7	20
MB MB SPK MS/MSD MS/MSD Cobalt	64373001 64527007 64527007	<0.002	0.1 0.1 0.4 0.4	97.4 97.4 107.0 101.0 90.8 Units: m	104.0 98.6	80 80 75 75	120 120 125 125	8.2	20
MB SPK MS/MSD MS/MSD Cobalt QC Type	64373001 64527007		0.1 0.4 0.4 Spike Amount	107.0 97.4 107.0 101.0 90.8 Units: m Spike % Recovery	104.0	75 75 75 Lower Control Limit (%)	120 120 125 125 125 125 Upper Control Limit (%)		
MB SPK MS/MSD MS/MSD Cobalt QC Type LFB-MS	64373001 64527007 64527007	<0.002	0.1 0.4 0.4 Spike Amount 0.1	107.0 97.4 107.0 101.0 90.8 Units: m Spike % Recovery 105.0	104.0 98.6 Og/L Spike Duplicate	80 80 75 75 75 Lower Control Limit (%)	120 120 125 125 125 Upper Control Limit (%) 120	8.2	20
MB SPK MS/MSD MS/MSD Cobalt QC Type	64373001 64527007 64527007	<0.002	0.1 0.4 0.4 Spike Amount	107.0 97.4 107.0 101.0 90.8 Units: m Spike % Recovery	104.0 98.6 Og/L Spike Duplicate	75 75 75 Lower Control Limit (%)	120 120 125 125 125 125 Upper Control Limit (%)	8.2	20
MB SPK MS/MSD MS/MSD Cobalt QC Type LFB-MS	64373001 64527007 64527007	<0.002	0.1 0.4 0.4 Spike Amount 0.1	107.0 97.4 107.0 101.0 90.8 Units: m Spike % Recovery 105.0	104.0 98.6 Og/L Spike Duplicate	80 80 75 75 75 Lower Control Limit (%)	120 120 125 125 125 Upper Control Limit (%) 120	8.2	20
MB SPK MS/MSD MS/MSD Cobalt QC Type LFB-MS	64373001 64527007 64527007	<0.002	0.1 0.4 0.4 Spike Amount 0.1	107.0 97.4 107.0 101.0 90.8 Units: m Spike % Recovery 105.0	104.0 98.6 Og/L Spike Duplicate	80 80 75 75 75 Lower Control Limit (%)	120 120 125 125 125 Upper Control Limit (%) 120	8.2	20





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Cobalt QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
SPK	64373001		0.1	Recovery 105.0		% Recovery	Limit (%) 75	Limit (%)		
MS/MSD	64527007		0.4	100.0		104.0	75	125	3.2	20
MS/MSD	64527007		0.4	91.5		99.2	75	125	8.1	20
1				Unite	/1					
Lead QC Type	Original Sample ID	Blank Result	Spike Amount	Units:	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS	Original Sample 10	bialik Kesuit	0.1	Recovery 100.0		% Recovery	Limit (%)	Limit (%)	RFD (70)	KPD LIIIIL (70)
LFB-MS			0.1	106.0			80	120		
MB		<0.0005								
MB		<0.0005								
SPK	64341001		0.1	99.4			75	125		
SPK	64373001		0.1	101.0			75	125		
MS/MSD	64527007		0.4	95.0		100.0	75	125	5.6	20
MS/MSD	64527007		0.4	103.0		104.0	75	125	1.2	20
Molybdenum				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	108.0			80	120		
LFB-MS			0.1	99.6			80	120		
МВ		<0.002								
MB		<0.002								
SPK	64341001		0.1	103.0			75	125		
SPK	64373001		0.1	110.0			75	125		
MS/MSD	64527007		0.4	99.5		102.0	75	125	2.9	20
MS/MSD	64527007		0.4	89.3		97.9	75	125	9.2	20
							_			
Selenium				Units:	mg/L					
Selenium QC Type	Original Sample ID	Blank Result	Spike Amount		mg/L	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
	Original Sample ID	Blank Result	Spike Amount	Units:	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
QC Type	Original Sample ID	Blank Result		Units: Spike % Recovery	mg/L	Spike Duplicate % Recovery	Limit (%)	Limit (%)	RPD (%)	RPD Limit (%)
QC Type LFB-MS	Original Sample ID	Blank Result	0.1	Units: Spike % Recovery 104.0	mg/L	Spike Duplicate % Recovery	Limit (%) 80	Limit (%) 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS MB	Original Sample ID	<0.005	0.1	Units: Spike % Recovery 104.0	mg/L	Spike Duplicate % Recovery	Limit (%) 80	Limit (%) 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS MB			0.1	Units: Spike % Recovery 104.0	mg/L	Spike Duplicate % Recovery	Limit (%) 80 80	Limit (%) 120 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS MB	Original Sample ID 64341001	<0.005	0.1	Units: Spike % Recovery 104.0	mg/L	Spike Duplicate % Recovery	Limit (%) 80	Limit (%) 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS MB		<0.005	0.1	Units: Spike % Recovery 104.0	mg/L	Spike Duplicate % Recovery	Limit (%) 80 80	Limit (%) 120 120	RPD (%)	RPD Limit (%)

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Colonium				Unite	ma/I					
Selenium QC Type	Original Sample ID	Blank Result	Spike Amount	Units: Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
		bidlik Kesuit		Recovery		% Recovery	Limit (%)	Limit (%)		
MS/MSD	64527007		0.4	90.5		98.0	75	125	8.0	20
MS/MSD	64527007		0.4	103.0		110.0	75	125	6.1	20
Thallium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 107.0		% Recovery	Limit (%) 80	Limit (%) 120		
CI D IIID			0.2	20710			00	220		
LFB-MS			0.1	102.0			80	120		
МВ		<0.0005								
MB		< 0.0005								
SPK	64341001		0.1	99.4			75	125		
SPK	64373001		0.1	101.0			75	125		
MS/MSD	64527007		0.4	04.1		101.0	76	125	7.4	20
MS/MSD	04327007		0.4	94.1		101.0	75	125	7.4	20
MS/MSD	64527007		0.4	103.0		104.0	75	125	0.7	20
Mercury				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB			0.002	Recovery 90.8		% Recovery	Limit (%) 85	Limit (%) 115		
LRB		<0.0002								
MS/MSD	65214007		0.002	71.6		73.2	70	130	6.9	20
MS/MSD	65214007		0.002	71.6		73.2	70	130	6.9	20
MS/MSD MS/MSD	65214007 65452004		0.002	71.6 85.6		73.2	70	130	6.9	20
MS/MSD	65452004		0.002	85.6		79.9	70	130	6.1	20
MS/MSD MS/MSD	65452004		0.002	85.6 87.4	mg/l	79.9	70	130	6.1	20
MS/MSD MS/MSD Fluoride	65452004 65916001	Blank Porult	0.002	85.6 87.4 Units:	mg/L	79.9 81.8	70	130	6.1	20
MS/MSD MS/MSD Fluoride QC Type	65452004	Blank Result	0.002 0.002 Spike Amount	85.6 87.4 Units: Spike % Recovery		79.9	70 70 Lower Control Limit (%)	130 130 Upper Control Limit (%)	6.1	20
MS/MSD MS/MSD Fluoride	65452004 65916001	Blank Result	0.002	85.6 87.4 Units: Spike %		79.9 81.8 Spike Duplicate	70 70 Lower Control	130 130 Upper Control	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F	65452004 65916001	Blank Result	0.002 0.002 Spike Amount 3.06	85.6 87.4 Units: Spike % Recovery 101.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99	130 130 Upper Control Limit (%) 111.11	6.1	20
MS/MSD MS/MSD Fluoride QC Type	65452004 65916001	Blank Result	0.002 0.002 Spike Amount	85.6 87.4 Units: Spike % Recovery		79.9 81.8 Spike Duplicate	70 70 Lower Control Limit (%)	130 130 Upper Control Limit (%)	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F	65452004 65916001	Blank Result	0.002 0.002 Spike Amount 3.06	85.6 87.4 Units: Spike % Recovery 101.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99	130 130 Upper Control Limit (%) 111.11	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F LFB-F	65452004 65916001	Blank Result	0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F LFB-F	65452004 65916001	Blank Result	0.002 0.002 Spike Amount 3.06	85.6 87.4 Units: Spike % Recovery 101.0		79.9 81.8 Spike Duplicate	70 Lower Control Limit (%) 83.99	130 Upper Control Limit (%) 111.11	6.1	20
MS/MSD Fluoride QC Type CRM-F LFB-F LFB-F	65452004 65916001		0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F LFB-F	65452004 65916001	Blank Result	0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD Fluoride QC Type CRM-F LFB-F LFB-F MB-F	65452004 65916001	<0.1	0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD Fluoride QC Type CRM-F LFB-F LFB-F	65452004 65916001		0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F LFB-F LFB-F MB-F	65452004 65916001	<0.1	0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F LFB-F LFB-F MB-F	65452004 65916001	<0.1	0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F LFB-F LFB-F MB-F	65452004 65916001	<0.1	0.002 0.002 Spike Amount 3.06 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0		79.9 81.8 Spike Duplicate	70 To Lower Control Limit (%) 83.99 90	130 130 Upper Control Limit (%) 111.11 110	6.1	20
MS/MSD MS/MSD Fluoride QC Type CRM-F LFB-F LFB-F MB-F MB-F	65452004 65916001 Original Sample ID	<0.1	0.002 0.002 Spike Amount 3.06 0.5 0.5	85.6 87.4 Units: Spike % Recovery 101.0 102.0 104.0		79.9 81.8 Spike Duplicate % Recovery	70 Lower Control Limit (%) 83.99 90 90	130 Upper Control Limit (%) 111.11 110 110	6.1 6.1 RPD (%)	20 20 RPD Limit (%)

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Total Dissolv	ed Solids			Units: mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	101.0		90.35	110.33		
MB		<10							
DUP	64527010							1.0	20
DUP	64550001							1.6	20

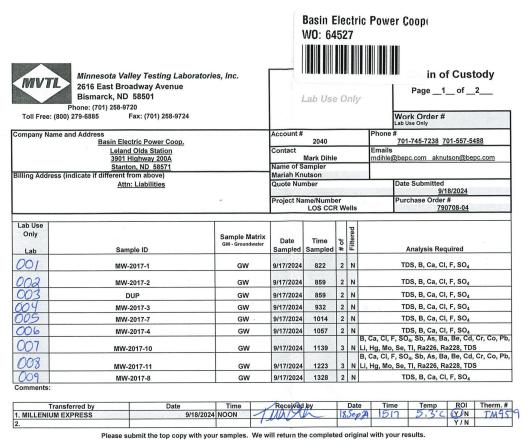


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	3901 H	I Olds Station lighway 200A			Mark Dihle)		Emails mdihle@	bepc.cor	m aknut	tson@be	pc.com
Billing Add	ress (indicate if different f	on, ND 58571 rom above) :: Liabilities		Name of S Mariah Kn Quote Nur	utson				Date Sub			
				Project Na	me/Numb ND002		2		Purchas	e Order	8/2024 # 1708-04	
Lab Use Only Lab	Sam	ple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	# of	Filtered		Analy	rsis Req	uired	
010	MW-2	017-8D	GW	9/17/2024	1417	2	N		TDS, B	, Ca, CI,	F, SO ₄	
						1						7.0
Comments	<u> </u> ::											
	Transferred by NIUM EXPRESS	Date	Time 024 NOON	Received	l by	100	Date	Time		emp	ROI	Therm. #

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Account #: 2040 Client: Basin Electric Power Cooperative Workorder: LOS CCR Wells (64529) PO: 790708-04 LOS

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:



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 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

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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Report Date: Friday, October 25, 2024 4:31:50 PM



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64529001
 Date Collected:
 09/17/2024 11:39
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

Temp @ Receipt (C): 5.3 Received on Ice: Yes

Parameter Results **RDL** DF **Prepared** Analyzed Qual **Method: Contracted Result** Radium 226 See Attached 1 10/25/2024 09:05 Radium 228 See Attached 10/25/2024 09:05 1



Radium 228

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10/25/2024 09:05

Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 64529002
 Date Collected:
 09/17/2024 12:23
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 09/18/2024 15:17
 Collector:
 Client

See Attached

Temp @ Receipt (C): Received on Ice: 5.3 Yes **Parameter** Results **RDL** DF **Prepared** Analyzed Qual **Method: Contracted Result** Radium 226 See Attached 1 10/25/2024 09:05

1



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Account #: 2040 Client: Basin Electric Power Cooperative



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ANALYTICAL SUMMARY REPORT

October 23, 2024

Minnesota Valley Testing Laboratories 1126 N Front St

New Ulm. MN 56073-1176

Work Order: C24090966

Quote ID: C15480

Project Name: 64529

Energy Laboratories, Inc. Casper WY received the following 2 samples for Minnesota Valley Testing Laboratories on 9/26/2024

Lab ID Client Sample ID Collect Date Receive Date Matrix Test C24090966-001 64529001, MW-2017-10 09/17/24 11:39 09/26/24 Radium 226 + Radium 228, Total Radium 226, Total C24090966-002 64529002, MW-2017-11 09/17/24 12:23 09/26/24 Aqueous Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Report Date: 10/23/24 Client: Minnesota Valley Testing Laboratories 64529 Collection Date: 09/17/24 11:39 Project: DateReceived: 09/26/24 C24090966-001 Lab ID: Client Sample ID: 64529001, MW-2017-10 Matrix: Aqueous

					MCL/		
Analyses	Result	Units	Qualifiers	RL	QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	10/15/24 15:18 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	10/15/24 15:18 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	10/15/24 15:18 / apt
Radium 228	0.7	pCi/L	U			RA-05	10/10/24 16:38 / trs
Radium 228 precision (±)	0.6	pCi/L				RA-05	10/10/24 16:38 / trs
Radium 228 MDC	1	pCi/L				RA-05	10/10/24 16:38 / trs
Radium 226 + Radium 228	0.6	pCi/L	U			A7500-RA	10/17/24 09:57 / dmf
Radium 226 + Radium 228 precision (±)	0.6	pCi/L				A7500-RA	10/17/24 09:57 / dmf
Radium 226 + Radium 228 MDC	1.0	pCi/L				A7500-RA	10/17/24 09:57 / dmf

Report RL - Analyte Reporting Limit Definitions: QCL - Quality Control Limit

U - Not detected

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

Page 2 of 8



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Basin Electric Power Cooperative Account #: 2040 Client:

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Minnesota Valley Testing Laboratories Client: Report Date: 10/23/24 64529 Collection Date: 09/17/24 12:23 Project: C24090966-002 DateReceived: 09/26/24 Lab ID: Client Sample ID: 64529002, MW-2017-11 Matrix: Aqueous

MCL/ QCL Method Result Units Qualifiers RL Analysis Date / By Analyses RADIONUCLIDES, TOTAL 0.3 pCi/L E903.0 10/15/24 15:18 / apt Radium 226 10/15/24 15:18 / apt Radium 226 precision (±) 0.2 pCi/L E903.0 Radium 226 MDC 0.2 pCi/L E903.0 10/15/24 15:18 / apt Radium 228 0.9 pCi/L RA-05 10/10/24 16:38 / trs Radium 228 precision (±) 0.7 pCi/L RA-05 10/10/24 16:38 / trs Radium 228 MDC 1.1 pCi/L RA-05 10/10/24 16:38 / trs Radium 226 + Radium 228 0.9 pCi/L U A7500-RA 10/17/24 09:57 / dmf Radium 226 + Radium 228 precision (±) 0.7 pCi/L A7500-RA 10/17/24 09:57 / dmf Radium 226 + Radium 228 MDC 1.1 pCi/L A7500-RA 10/17/24 09:57 / dmf

Report RL - Analyte Reporting Limit Definitions

QCL - Quality Control Limit

U - Not detected

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

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Account #: 2

2040

Client: Basin Electric Power Cooperative



Work Order: C24090966

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Report Date: 10/17/24

QA/QC Summary Report

Prepared by Casper, WY Branch

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E903.0									Batch: RA2	26-11466
Lab ID: LCS-RA226-11466	3 Lab	oratory Cor	trol Sample			Run: TENN	IELEC-4_241004E)	10/15	/24 15:18
Radium 226		10	pCi/L		102	70	130			
Radium 226 precision (±)		2.0	pCi/L							
Radium 226 MDC		0.19	pCi/L							
Lab ID: MB-RA226-11466	3 Met	thod Blank				Run: TENN	IELEC-4_241004E)	10/15	/24 15:18
Radium 226		-0.02	pCi/L							U
Radium 226 precision (±)		0.1	pCi/L							
Radium 226 MDC		0.2	pCi/L							
Lab ID: C24090986-005EDUP	3 Sar	mple Duplica	ate			Run: TENN	IELEC-4_241004E)	10/15	/24 17:33
Radium 226		9.1	pCi/L					9.3	30	
Radium 226 precision (±)		1.8	pCi/L							
Radium 226 MDC		0.16	pCi/L							
- The RER result is 0.33.										

Qualifiers:

RL - Analyte Reporting Limit U - Not detected ND - Not detected at the Reporting Limit (RL)

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Account #: 20

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work C	order: C24090966							Report	Date	: 10/17/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05									Batch: RA	228-7500
Lab ID:	LCS-228-RA226-1146	6 3 L	aboratory Cor	trol Sample			Run: TENN	ELEC-4_241004A	Ą	10/10/	/24 16:38
Radium 2	28		9.1	pCi/L		91	70	130			
Radium 2	28 precision (±)		1.9	pCi/L							
Radium 2	28 MDC		1.2	pCi/L							
Lab ID:	MB-RA226-11466	3 N	lethod Blank				Run: TENN	ELEC-4_241004	A	10/10/	/24 16:38
Radium 2	28		0.7	pCi/L							U
Radium 2	28 precision (±)		0.7	pCi/L							
Radium 2	28 MDC		1	pCi/L							
Lab ID:	C24090986-005EDUP	3 S	ample Duplica	ate			Run: TENN	ELEC-4_241004	Ą	10/10	/24 16:38
Radium 2	28		1.3	pCi/L					17	30	
Radium 2	28 precision (±)		0.72	pCi/L							
Radium 2	28 MDC		1.0	pCi/L							
- The REF	R result is 0.20.										

Qualifiers:

RL - Analyte Reporting Limit U - Not detected ND - Not detected at the Reporting Limit (RL)

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Work Order Receipt Checklist	
Minnesota Valley Testing Laboratories	C24090966

Login completed by:	Aaron J. Smith		Date	Received: 9/26/2024
Reviewed by:	Icadreau		Re	ceived by: SLR
Reviewed Date:	10/2/2024		Car	rier name: UPS Ground
Shipping container/cooler in	good condition?	Yes 🗸	No 🗌	Not Present
Custody seals intact on all s	hipping container(s)/cooler(s)?	Yes	No 🗌	Not Present ✓
Custody seals intact on all s	ample bottles?	Yes	No 🗌	Not Present ✓
Chain of custody present?		Yes 🗸	No 🗌	
Chain of custody signed who	en relinquished and received?	Yes 🗸	No 🗌	
Chain of custody agrees with	h sample labels?	Yes 🗸	No 🗌	
Samples in proper container	/bottle?	Yes 🗸	No 🗌	
Sample containers intact?		Yes 🔽	No 🗌	
Sufficient sample volume for	r indicated test?	Yes 🔽	No 🗌	
All samples received within I (Exclude analyses that are of such as pH, DO, Res CI, Su	considered field parameters	Yes ✓	No 🗌	
Temp Blank received in all s	hipping container(s)/cooler(s)?	Yes	No 🔽	Not Applicable
Container/Temp Blank temp	erature:	24.8°C No Ice		
Containers requiring zero he bubble that is <6mm (1/4").	eadspace have no headspace or	Yes	No 🗌	No VOA vials submitted
Water - pH acceptable upon	receipt?	Yes 🗹	No 🗌	Not Applicable

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

The reference date for Radon analysis is the sample collection date. The reference date for all other Radiochemical analyses is the analysis date. Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

For methods that require zero headspace or require preservation check at the time of analysis due to potential interference, the pH is verified at analysis. Nonconforming sample pH is documented as part of the analysis and included in the sample analysis comments.

Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.

Contact and Corrective Action Comments:

The temperature of the sample(s) in shipping container 1 was 24.6° C and shipping container 2 was 24.8° C. AJS 09/26/24

Page 6 of 8

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Report Date: Friday, October 25, 2024 4:31:50 PM



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Current certificates are available at www.energylab.com website:

	Agency	Number
	Alaska	17-023
	California	3087
	Colorado	MT00005
	Department of Defense (DoD)/ISO17025	ADE-2588
Billings, MT	Florida (Primary NELAP)	E87668
	Idaho	MT00005
1	Louisiana	05079
ANAB	Montana	CERT0044
ASSI National Accreditation Board	Nebraska	NE-OS-13-04
TESTING LABORATORY	Nevada	NV-C24-00250
ATTOO .	North Dakota	R-007
HER ACK ONE	National Radon Proficiency	109383-RMP
TNI	Oregon	4184
PROPATOR	South Dakota	ARSD 74:04:07
	Texas	TX-C24-00302
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00170
	Washington	C1039
	Alaska	20-006
	California	3021
	Colorado	WY00002
	Florida (Primary NELAP)	E87641
	Idaho	WY00002
	Louisiana	05083
Casper, WY	Montana	CERT0002
AN ACCREON	Nebraska	NE-OS-08-04
	Nevada	NV-C24-00245
LABORATOR!	North Dakota	R-125
	Oregon	WY200001
	South Dakota	WY00002
	Texas	T104704181-23-21
	US EPA Region VIII	WY00002
	USNRC License	49-26846-01
	Washington	C1012
Gillette, WY	US EPA Region VIII	WY00006
	Colorado	MT00945
Helena, MT	Montana	CERT0079
	Nevada	NV-C24-00119
	US EPA Region VIII	Reciprocal
	USDA Soil Permit	P330-20-00090
		1 : 2 =

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Report Date: Page 11 of 13

Friday, October 25, 2024 4:31:50 PM

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Page 1 of 1 .

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www.MVTL.c	A 50201 ~ 800-362	smarck, ND 58501	m, MN 56073 ~ 800	

Phone: (701) 258-9720 Work Order # 64529 Toll Free: (800) 279-6885 Fax: (701) 258-9724 Company Name and Address: Account #: Phone #: 701-258-9720 MVTL Contact: 2616 E Broadway Claudette For faxed report check box Bismarck, ND 58501 Name of Sampler: ccarroll@mvtl.com Billing Address (indicate if different from above): For e-mail report check box **Quote Number** Date Submitted: Client: PO Box 249 C15480 v5 24-Sep-24 New Ulm, MN 56073 Project Name/Number: Purchase Order #: **BL6938** Sample Information **Bottle Type Analysis** VOC Vials Umpreserved Gallon HNO3 Basin Electric Power Cooperative Sample Date Time Lab Number MVTL Lab Number Client Sample ID Type Sampled Sampled **Analysis Required** C746909.66 MW-2017-10 17-Sep-24 GW 1139 Ra226 & Ra228 64529002 MW-2017-11 GW 17-Sep-24 1223 1 Ra226 & Ra228

LABORATORIES, Inc. 2616 E Broadway Ave

Bismarck, ND 58501

Chain of Custody Record

Transferred by: Date: Time: Sample Condition: Temp: T. Olson Shellon Richins 24-Sep-24 1700 0501

Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.



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Account #: 2040 Client: Basin Electric Power Cooperative

Toll Free:	2616 East Bro Bismarck, ND Phone: (701) 258-97		es, Inc.			Basin WO: 64	152	29	in of Custody Page _1_ of _2_ Work Order # Lab Use Only	
Company Na	ame and Address	ctric Power Coop.			Account #	2040			Phone # 701-745-7238 701-557-5488	
	Basin Elec			Contact	2040			Emails	\dashv	
	3901 I			Mark Dihle)		mdihle@bepc.com aknutson@bepc.com			
B.III	Stante		Name of S Mariah Kn							
Billing Addr	ess (indicate if different f Affr	n: Liabilities			Quote Nui			-	Date Submitted	\dashv
					100				9/18/2024	_
			1		Project Na	ame/Numb	er vw	واام	Purchase Order # 790708-04	
						200 00.		-		
Lab Use Only Lab	Sam	ple ID	Sample Ma		Date Sampled	Time Sampled	# of	Filtered	Analysis Required	
		2017-1	GW		9/17/2024	822	2	N	TDS, B, Ca, Cl, F, SO ₄	
-	MW-	2017-2	GW		9/17/2024	859	2	N	TDS, B, Ca, CI, F, SO ₄	
_	D	OUP	GW		9/17/2024	859	2	N	TDS, B, Ca, CI, F, SO ₄	
· —	MW-	2017-3	GW		9/17/2024	932	2	N	TDS, B, Ca, Cl, F, SO ₄	
_	MW-	2017-7	GW ·	,	9/17/2024	1014	2	N	TDS, B, Ca, Cl, F, SO ₄	
	MW-	2017-4	GW		9/17/2024	1057	2	N		
001	MW-:	GW		9/17/2024	1139	3	N	B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co Li, Hg, Mo, Se, Tl, Ra226, Ra228, TDS		
002	MW-:	GW		9/17/2024	1223	3	N	B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co Li, Hg, Mo, Se, Tl <mark>, Ra226, Ra228,</mark> TDS	Pb,	
MW-2017-8 GV					9/17/2024	1328	2	N	TDS, B, Ca, CI, F, SO₄	
Comments:		,								
		D-4-	Time		Bassis	l hu	_	Dat	te Time Temp ROI Therr	n #
	Transferred by JM EXPRESS	Date 9/18/2024	Time NOON	Ï	Received by					950
1. WILLENIC	JIVI EAPRESS	3/10/2024		10			10	July	Y/N	4.5

Please submit the top copy with your samples. We will return the completed original with your results.

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Account #: 2040 Client: Basin Electric Power Cooperative

MV7	Minnesota Val 2616 East Bro Bismarck, ND hone: (701) 258-97	es, Inc.	Lat Ues Only					Chain of Custody Page2 of2 Work Order #				
				Account #				Phone	Lab Use	Only		
Company N	lame and Address Basin Elec	ctric Power Coop.		Account	2040			1 110110		45-7238 7	01-557-54	188
	Leland	i Olds Station lighway 200A								com aknu	tson@ber	oc.com
		on, ND 58571		Name of S							/48	
Billing Add	ress (indicate if different f			Mariah Kr					ID-4- 0			
	Attn	: Liabilities		Quote Nu	mber				Date S	Submitted <u>9/1</u>	8/2024	*
				Project Na	ame/Numb ND002		2		Purch	ase Order 790	# 0708-04	, d
Lab Use Only Lab	Sam	ple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	# of	Filtered		An	alysis Red	uired	
Lab		017-8D	GW	9/17/2024	1417	2	N		TDS, B, Ca, Cl, F, SO₄			
	*						П					
							H					
				1								
	×					T	H					
							\Box					
Comments	:											
	Transferred by	Date	Time /	Received	l by		Date			Temp	ROI	Therm. #
	NIUM EXPRESS	9/18/2024	NOON	MARC	_	18:	Sepa	4 151	7	5.3.4	ØN (¥)	TM959

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: Friday, October 25, 2024 4:31:50 PM

Well/Piezo ID:	
MW.20	17-1

Client: Project No:		BEPC				_Time: _	-				
Site Location Weather Co			ANDFILL		Collector(s)	MIZ	Finish _	0827			
VVEALUE: CO		TIMM	1 411			TA III					
WATER LE	VEL DAT	A: (mea	asured fro	n Top of	Casing)		Well Z		Piezomete	r 🔲 ,	
a. Total Wel	I Length			c. Ca	sing Material	PVC	e. Pump	Settings 2	40/4 00	opsi	
b. Water Ta	able Depti	า	25.15	d. Ca	sing Diameter				27/3	·	
WELL PUR			d <u>Dedicate</u>	d Bladder	Pump						
	b. Field	Testing	Equipmen	t Used:	Make YSI HACH	Model		Serial Num 22C10390 20030C08	1	8	
										·	
	c. Field	Testing	g Equipmen	t Calibrati	on Documenta	ation Found in Fi	eld Notebo ≼0.⁄5	ok # <5	Page #_		
Time	Volu Remove		T° (C)	DÓ mg/L	Spec. Cond (µs/cm)	рН	ORP	Turbidity (NTU)	Color	DTW	
Stabilization	-	4.	+/- 0.2	+/- 10%	+/- 3%	+/- 0.1	+/- 10%	+/- 10%	1111	0.33 ft	
0809	INITIAL		10.4	0.36	1904	7.05	-59.1	1.83	clear	25.2	
0813		6 L	10.4	0.36	1912	7.05	-619	2.40		25.3	
0821		1 [10.3	0.51	1923	7.05	- 43.1	2.30		75 27	
0000		L	10.0	0.51		1. 0	7.5.1	- 30		01.01	
		L									
		L									
	-	<u>_</u>					-				
		Ē									
		L									
		L)		- (f - i)	Vaa		N1/A				
	Has I Has I Have	required required parame	criteria pas I volume be I turbidity b eters stabili I/A - Explai	een remov een reach zed		No	N/A				
SAMPLE C	OLLECT	ION:		Method:	Bladder Pump	3					
Sample	e ID	Contai	ner Type	No. of	Containers	Preservation		Analysis		Time	
			1L		1	1016		TDS/Anior	IS	0822	
-		5	00mL		1	HNO3	-	Metals			
										- V	
		1								<u> </u>	
Comments											
Ciamatura	ha	<i>(</i> -					Data	11712			

Well/Piezo I	D:	
MW-	1017-2	

Client:		BEPC				Date: 917124 Time: 0831					
Project No: Site Location	n: ;	LOS L	ANDFILL				_Time: _(_Finish _(
Weather Co		cal			Collector(s)	MK					
WATER LE	/EL DAT/	A: (mea	sured fror	n Top of	Casing)		Well 🗾	,	Piezomete	er 🗌	
a. Total Well		Ì.				PVC			10/4 CV	<u>o</u> psi	
b. Water Ta	ble Depth	_	22.00	d. Ca	sing Diameter				•	·	
WELL PUR			d <u>Dedicated</u>	d Bladder	Pump						
	b F3:-143	F4:	-	l land.	Mala	Madal		Carial Num	, how		
	b. Fleid	esung	Equipment	Useu:	Make YSI	Model		Serial Num 22C10390	1	<u>.</u>	
					HACH			20030C08	4551	-	
	c. Field	Testing	ı Equipmen	t Calibrati	on Documenta	ition Found in Fi	eld Notebo <0.5	ok # <5	Page #_	1	
	Volu	200	- 0.400	DO	Spec. Cond		OPP.	Turbidity	0-1	DTM	
Time Stabilization	Remove	d (gal)	T° (C) +/- 0.2	mg/L +/- 10%	(µs/cm) +/- 3%	pH +/- 0.1	ORP +/- 10%	(NTU) +/- 10%	Color	DTW 0.33 ft	
0840	INITIAL	121	10.4	0.25	Olele	7.34	-31.4	2.24	clear	22.62	
0850		8 L	10.4	0.22	101010	7.35	-44.2	1.79		22.40	
0808		12 -	0.4	0.18	1007	7.35	-5	2.17		22.61	
		<u>_</u>									
		닙									
		L									
		L L									
		L									
		L L									
		L									
	Has r Has r Have	equired equired parame	criteria pas I volume be I turbidity be eters stabili I/A - Explai	een remov een reach ized		No	N/A				
SAMPLE C	OLLECT	ION:		Method:	Bladder Pump						
Sampl	e ID	Contai	iner Type	No. of	Containers	Preservation		Analysis		Time	
1L			1L 00mL		1	HNO3		TDS/Anior Metals	ns	0859	
)		5	OUTIL		1	TINUS		MICIGIS			
Commercial					Dun					L	
Comments	8				DUP						
Signature	no	u	~_				Date	9	7/24		

Well/Piezo ID:	
MW. 2017	. 3

Client: Project No: Site Location:	BEPC LOS LANDFILL			Date: 917124 Time: 0910 Finish ()949				
Weather Conds:	calm sunni	1 10,	Collector(s)			/		
WATER LEVEL DA a. Total Well Length	•	_	Casing) sing Material	PVC	Well 💆 e. Pump		Piezomete	*
b. Water Table Dep	th 24.0	d. Ca	sing Diameter				,	•
WELL PURGING D a a. Purg	ATA ge Method <u>Dedicate</u>	d Bladder	Pump					
b. Field	d Testing Equipmen		Make YSI HACH	Model		Serial Num 22C10390 20030C08	1	- -
c. Fiel	d Testing Equipmer	nt Calibrati	on Documenta	tion Found in Fi		ok #	Page #_	1
Time Remove Stabilization	lume ved (gal) T° (C) +/- 0.2	DO mg/L +/- 10%	Spec. Cond (µs/cm) +/- 3%	pH +/- 0.1	ORP +/- 10%	Turbidity (NTU) +/- 10%	Color	DTW 0.33 ft
0919 INITIA 0925 0927 0931	5 L 10.4 5 L 10.4 7 L 10.4	:21	1404 1399 1403 1400	7.32 7.33 7.33 7.34	-57.1 -62.7 -68.9 -69.4	12.7	clear	24.2 24.3 24.4 24.4
	L L							
	L L							
	L L							
Has Has Hav	eptance criteria pas s required volume bo s required turbidity b ve parameters stabil If no or N/A - Expla	een remov een reach ized		No	N/A			
SAMPLE COLLEC	TION:	Method: I	Bladder Pump					
Sample ID	Container Type 1L 500mL	No. of	Containers 1	Preservation HNO3		Analysis TDS/Anior Metals	าร	Time 0932
)								1
Comments	=							
Signature <u></u>	an				Date _	9/17/2	4	

Well/Pie	zo ID:		
MN	1.2017	-7	

Client: Project No: Site Location	٦٠	BEPC	ANDFILL				Date:					
Weather Co			y, calm	นอ.	Collector(s)	MK						
WATER LE\	/EL DAT	A: (mea	sured fron	n Top of (Casing)		Well 🗹		Piezometer			
a. Total Well	I Length			c. Ca	sing Material	PVC	e. Pump	Settings _	26/4 66	<u>opsi</u>		
b. Water Ta	ble Depth	٠ .	39.0	d. Ca	sing Diameter	·						
WELL PURG			d <u>Dedicated</u>	d Bladder	Pump							
	b. Field	Testing	Equipment	Used:	Make YSI HACH	Model		Serial Num 22C10390 20030C08	1			
c. Field Testing Equipment Calibration Documentation Found in Field Notebook # Page #												
Time	Volu Remove		T° (C)	DO mg/L	Spec. Cond (µs/cm)	рН	ORP	Turbidity (NTU)	Color	DTW		
Stabilization		4.	+/- 0.2	+/- 10%	+/- 3%	+/- 0.1	+/- 10%	+/- 10%	TO GLANT	0.33 ft		
1000		3L 1.5 L	11.5	.21	1021	7.40	87.4 83.8 80.7	2.13	Brown	39.7 39.4 39.55		
1012		1.5 L L	114	-18	1022	7.40	76.0	2.88	V	91.95		
		L										
		L	- 3									
		L										
		L										
	Has i Has i Have	equired equired parame	criteria pas I volume be I turbidity b eters stabili I/A - Explai	een remov een reach zed		No	N/A					
SAMPLE	COLLECT	ION:		Method:	Bladder Pump							
Sampl	e ID	Contai	iner Type	No. of	Containers	Preservation		Analysis		Time		
		5	1L 00mL		1	HNO3		TDS/Anior Metals	าร	104		
										V		
Comments		-										
Signature \(\scale	M	ur	<u></u>				Date	111124				

Well/Piezo ID:	- 1	1
MN.201	7.4	

Client: Project No: Site Location Weather Cor		LOS L	ANDFILL		Collector(s)	MK	Date: 911124 Time: 1022 Finish 1100				
water Lev	Length		-	c. Ca	sing Material	PVC	Well 🗹 e. Pump		Piezomete		
b. Water Ta	•		25.90	d. Ca	sing Diameter						
WELLFORG			d <u>Dedicate</u>	d Bladder	Pump						
	b. Field ⁻	Гesting	Equipmen	t Used:	Make YSI HACH	Model		Serial Nun 22C10390 20030C08	1	•. •?	
	c. Field	Testing	Equipmen	t Calibrati	on Documenta	ation Found in Fi	eld Notebo	ok # <5	Page #_		
Time Stabilization	Volui Remove		T° (C) +/- 0.2	DO mg/L +/- 10%	Spec. Cond (µs/cm) +/- 3%	pH +/- 0.1	ORP +/- 10%	Turbidity (NTU) +/- 10%	Color	DTW 0.33 ft	
1048 1052 1050	INITIAL	15 L 7 L 7.5 L 1.5 L	11.5	0.29 0.28 0.24 0.22	1284 1282 1273 1275	7.14 7.17 7.18 7.18	-42.5 -44.6 -40.5 -47.3		olear	25.86 25.90 25.90 25.90	
		L L L									
	e Accer	L L L	criteria pas	s/fail	Yeş	No	N/A				
	Has r Has r Have	equired equired parame	volume be turbidity be eters stabili I/A - Explai	een remov een reach ized	ed 🗓						
SAMPLE C	OLLECT	ON:		Method:	Bladder Pump						
Sample	e ID		ner Type 1L 00mL	No. of	Containers 1 1	Preservation HNO3		Analysis TDS/Anior Metals		Time 1057	
Comments											
Signature C	hni	a	~ ~				Date 9	117/24	 اد		

Well/Piezo ID:	
MW 2017 10	

Client: Project No:	Project No:						_ Date: <u>_9</u> _Time: _ <u>1</u>			
Site Location Weather Con			ANDFILL	valm	Collector(s)	MK	Finish 1			
WATER LE\		A: (mea	sured fror	=			Well		Piezometer	
a. Total Well	I Length			. c. Ca	sing Material	_PVC	e. Pump	Settings	2014 @ 0	20001
b. Water Ta	ble Depth	n .	33:17	d. Ca	ising Diameter					
WELL PUR			d <u>Dedicate</u>	d Bladder	Pump)				
	b. Field Testing Equipment Used:			Used:	Make YSI HACH	Model		Serial Num 22C10390 20030C08	1	
								1		9
	c. Field	Testing	Equipmen	t Calibrati	on Documenta	ation Found in Fi	eld Notebo <0.5	ok #\ <5	Page #_	
Time	Volu Remove		T° (C)	DO mg/L	Spec. Cond (µs/cm)	pH	ORP	Turbidity (NTU)	Color	DTW
Stabilization	INITIAL	11	+/- 0.2	+/- 10%	+/- 3% 989	+/- 0.1	+/- 10%	+/- 10%	clear	0.33 ft
1129	1741111142	5 L	12.5	0.11	987	7.57	-27.3	1.05	OTOW	33.85
1133		V L	12.5	0.10	987	7.50	-27.4	1.01		33.91
1137	-	7 L	12.6	0.10	986	7.56	- 26.9	1.02		33.80
		ī								
		L								
	-	L								
	-	급								
		L								
	-	L				÷				
		L								
	Has i Has i Have	required required parame	criteria pas I volume be I turbidity b eters stabili I/A - Explai	een remov een reach ized		No	N/A			
SAMPLE C	COLLECT	ION:	11	Method:	Bladder Pump					
Sample	e ID	Contai	ner Type	No. of	Containers	Preservation		Analysis		Time
		E	1L 00mL		1	HNO3	-	TDS/Anior Metals	ns	1139
)			gal		1	HN03 Metals HN03 Padium			m	1
Comments		_	V				1			
Signature Signature	m	an	~				Date	9117124		

Well/Piezo ID:	
A AJAI O CILT II	
1/1/1/ 1/2011-11	

Client: Project No:	8	BEPC					Date: 9/17/24 Time: 1/57					
Site Location Weather Cor			ANDFILL		Collector(s)	1 /1/	Finish _	itin 12	+3			
vveatrier Cor	ius.	<u> 2mi</u>	TUI HUT	Carm	Collector(s)	IVIF						
WATER LEV	/EL DAT	A: (mea	sured fror	n Top of	Casing)		Well /		Piezometei			
a. Total Well	Length			. c. Ca	sing Material	PVC	e. Pump	Settings 2	5/504	opsi		
b. Water Ta	ble Depth	-	3325	d. Ca	sing Diameter							
WELL PURG			d <u>Dedicate</u>	d Bladder	Pump							
	b. Field Testing Equipmen				Make YSI	Model		Serial Num	1			
					HACH			20030C08	4551			
			Equipmen	V		ation Found in Fig	eld Notebo <0.5	<5	Page #_			
Time Stabilization	Volui Remove	62 62	T° (C) +/- 0.2	DO mg/L +/- 10%	Spec. Cond (µs/cm) +/- 3%	pH +/- 0.1	ORP +/- 10%	Turbidity (NTU) +/- 10%	Color	DTW 0.33 ft		
1200	INITIAL		11.5	1.89	941	7.56	23.9	1.73	clear	33.45		
1210		5 1	11.12	2.06	942	7.56	30.7	2.09		33.40 33.40		
1218	1	.5 L	11.6	2.01	938	7.56	33.4	2.17		33.43		
1222	Σ	3.5 L	11.10	2.45	939	7.55	36.4	2.21		33.43		
		L										
		L L										
		L										
		L										
	Has re Has re Have	equired equired parame	criteria pas volume be turbidity be eters stabili I/A - Explai	en remov een reach zed		No	N/A					
SAMPLE C	OLLECT	ON:		Method:	Bladder Pump							
Sample	e ID	Contai	ner Type	No. of	Containers	Preservation		Analysis		Time		
			1L		1			TDS/Anior	ıs	1223		
			gal		1	HN03	Metals Padiun		m			
Comments	8											
Signature _	en	a	~				Date	7/17/24	L			

Well/Piezo	DID:			
MW.	2017	1-	8	

Client:		BEPC					_	117124		
Project No: Site Location		_	ANDFILL			2.220	_Time: _Finish		331	
Weather Co	nds:	Hot.	sunny	Breezy	Collector(s)	MK				
WATER LE	VEL DAT	A: (mea	sured from	n Top of	Casing)		Well 🗾		Piezomete	
a. Total Wel	Length			c. Ca	sing Material	PVC	e. Pump	Settings 2	10/4 64	LOPSI
b. Water Ta	able Depth	ו ,	2845	d. Ca	sing Diameter					
WELL PUR			d <u>Dedicate</u>	d Bladder	Pump					
	b. Field Testing Equipment Used:			: Used:	Make YSI	Model		Serial Num 22C10390	1	e.
					HACH			20030C08	4551	Cu 50
	c. Field	Testing	j Equipmen	t Calibrati	on Documenta	tion Found in Fi		<5	Page #_	
Time	Volu Remove		T° (C)	DO mg/L	Spec. Cond (µs/cm)	pН	ORP	Turbidity (NTU)	Color	DTW
Stabilization	า		+/- 0.2	+/- 10%	+/- 3%	+/- 0.1	+/- 10%	+/- 10%		0.33 ft
1315	INITIAL	5L	10.9	0.19	4761	7.40	-41.5	9.79	Clear	28.40
1328		71	10.0	0.18	4173	7.47	-50.9	10.4		28,45
1327		8 L	10.7	0.18	4793	7.47	-51.9	9.51	1	28.44
	-	L L								
		Ĺ								
		L								
		L								
		L								
	-	L								
		ī								
	Has Has Have	required required parame	criteria pas I volume be I turbidity b eters stabil I/A - Explai	een remov een reach ized		No 	N/A			
SAMPLE C	COLLECT	ION:		Method:	Bladder Pump					
Sampl	e ID	Contai	iner Type	No. of	Containers	Preservation		Analysis		Time
	1L 500mL			1	HNO3	-	TDS/Anior Metals	ns	1328	
		-	OITIL		ı	111400		Wictais		1
Comments										
1	100	<i>-</i>	11-5					alabi	2.	
Signature	11/1	an	\sim				Date	1/17/24		

Well/Piezo ID:	. RD
IV IV I DUI I	9 -2

Client:		BEPC	;			Date:					
Project No:						_Time: _					
Site Location Weather Con			ANDFILL		Collector(c)	h 41/	_Finish _	14-60			
vveather con	ius.	TIUT	sunny	Bruzu	_Collector(s)	VIE					
					0 !>		MALL FA		Diamonata	. 🗀	
WATER LEV		A: (mea	asured tror	-		DV (O	Well 7		Piezometer		
a. Total Well	Length			. c. Ca	ising iviaterial	PVC	e. Pump	-			
b. Water Tab	ole Depth)	38.29	d. Ca	asing Diameter						
WELL PURG			d <u>Dedicate</u>	d Bladder	Pump	8					
	b. Field	Testing	Equipment	t Used:	Make YSI	Model		Serial Num			
								22C10390 20030C08			
								20030000			
	c. Field	Testing	g Equipmen	t Calibrat	ion Documenta	ation Found in F	ield Notebo <0.5	ok # <5	Page #_	1	
	Volu		190 0 1700 1	DO	Spec. Cond	rus (P		Turbidity	0.1	DTM	
Time Stabilization	Remove	d (gal)	T° (C) +/- 0.2	mg/L +/- 10%	(µs/cm) +/- 3%	pH +/- 0.1	ORP +/- 10%	(NTU) +/- 10%	Color	DTW 0.33 ft	
	INITIAL	9L	1040	0.39	2897	8.07	-14.4	10.9	Brown	38.38	
1401		10	10.4	0.34	2910	8-01	-18.3	11.6		38.4	
1415		17-L	10.8	0.31	2901	8.05	-20.0	11.0		38.4	
1417		L	10.1	0.01	2101	5-0	10.1	10.5	V	20-1	
		<u> </u>									
		L									
		Ī									
		L									
		<u> </u>					1	-			
		L									
	o Acce	L	criteria pas	e/fail	Yes	No	N/A				
	Has r Has r Have	equired equired param	d volume be d turbidity b eters stabili N/A - Explai	een remov een reach ized	red 🛄						
SAMPLE CO	OLLECT	ION:		Method:	Bladder Pump						
Sample	: ID	Conta	iner Type	No. of	Containers	Preservation		Analysis		Time	
1L 500mL		1	HNO3	+	TDS/Anior Metals	18	14+7				
7			700IIIL			111100		Motars		V	
Comments		-									
Signature	W	1 h	1				Date	7/17/24			

Basin Electric North Dakota

Field Technician:

Site Name:	LOS Plant CCR	
Event Date:	9/16/2024	
Weather Conditions:	sunny, hot & breezy	

Mariah Knutson

River Elevation (if applicable)

1658.28

Well ID	Time	Depth to Water*	Well Condition	Comments
MW-2017-1	745	25.15	Good	
MW-2017-2		22.6		
MW-2017-3		24		
MW-2017-7		39		
MW-2017-4		25.9		
MW-2017-10		33.77		
MW-2017-11		33.25		
MW-2017-8		28.45		
MW-2017-8D		38.29		
7				
			`	

^{*} Depth to water as measured from the top of PVC casing.

		Calibration Log YSI									
Date	/Time	рН	ORP	Conductivity	DO	Verify					
4-15 24						V.,					
5-13-24	1010	/	V		V						
5-14-24	0130	V	V		/	V					
5-21-24	6715	V									
5-22-24	6648	V	-	-	-	1					
6-11-24	0800	V	V	V		V					
6-12-24	0830		1								
0.13.24	0820	/	/	/	/	/					
6-17.24	0815	V	~	-		~					
6-25.24	0730	V	-	~	~	レ					
8-1-24	0715	V	V	V	~	✓					
5-10-24	0720	V	-		V	<u></u>					
7-10-24	0700	V	<u></u>	V	~						
9-11-24	0700	. ~	V	V		/					
917.24	0705	V	V	V	V						
0-1-24	0703	~	/		V						
0.2.24	0701	~	~	V	W						
	e										
S											
					37						
			-								
			-								

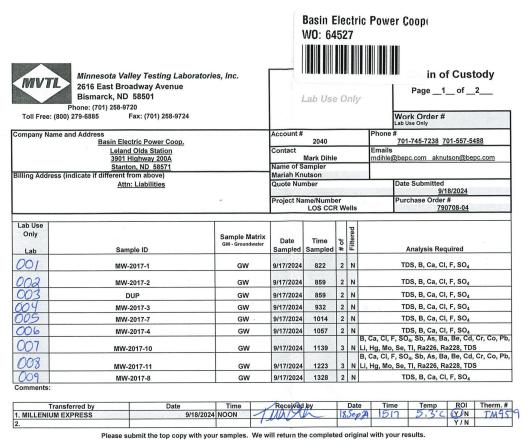


1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890
2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724
1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

www.MVTL.com



Account #: 2040 Client: Basin Electric Power Cooperative



Please submit the top copy with your samples. We will return the completed original with your results

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: Wednesday, October 16, 2024 12:16:18 PM





Account #: 2040 Client: Basin Electric Power Cooperative

MV	Bismarck, ND hone: (701) 258-97	ories, Inc.		Lab Use	0	nly		Chain of Custody Page _2_ of _2_				
Toll Free	e: (800) 279-6885	Fax: (701) 258-9724				1			Work Order #			
Company N	lame and Address Basin Elec	ctric Power Coop.		Account #	2040			Phone #	701-745-7238	701-557-5	488	
	Leland	l Olds Station lighway 200A		Contact	Mark Dihle			Emails	bepc.com aki	nutson@he	nc com	
		on, ND 58571		Name of S		_		mainea	рерс.сон ак	idisoriaged	po.com	
Billing Add	ress (indicate if different f			Mariah Kn								
		Quote Nui	mber				Date Submitte	d /18/2024				
				Project Na	me/Numb ND002		2		Purchase Ord <u>7</u>	er # 90708-04	4	
Lab Use Only Lab	Sam	ple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	# of	Filtered		Analysis R	equired		
010	MW-2	017-8D	GW	9/17/2024	1417	2	N		TDS, B, Ca,	CI, F, SO ₄		
						1					7 (1	
Comments	:											
	Transferred by	Date	Time	Received	l by		Date	Time		ROI	Therm. #	
1. MILLENI	NIUM EXPRESS	9/18/2	2024 NOON	Will	_	185	Sepa	1 1517	5.3.0	✓ (Y) N	TM959	

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Report Date: Wednesday, October 16, 2024 12:16:18 PM



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Account #: 2040 Client: Basin Electric Power Cooperative

Workorder: LOS CCR Wells (67999) **PO**: 790708-04

Mark Dihle
Basin Electric Power Cooperative
1717 E. Interstate Avenue
Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:



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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Report Date: Friday, November 1, 2024 3:24:32 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 67999001
 Date Collected:
 10/15/2024 08:40
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 10/16/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.1 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	315	mg/L	25	5		10/23/2024 09:58	
Method: EPA 245.1							
	40,0000		0.0002	1	10/21/2024 09:00	10/22/2024 07:39	
Mercury	<0.0002	mg/L	0.0002	1	10/21/2024 09.00	10/22/2024 07.39	
Method: EPA 6010D							
Boron	0.90	mg/L	0.1	1	10/16/2024 16:06	10/24/2024 11:12	
Calcium	93.6	mg/L	1	1	10/16/2024 16:06	10/17/2024 12:28	
Lithium	<0.02	mg/L	0.02	1	10/16/2024 16:06	10/31/2024 15:58	
Method: EPA 6020B							
	<0.001	ma/l	0.001	5	10/16/2024 16:06	10/23/2024 12:13	
Antimony		mg/L					
Arsenic	0.0023	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:13	
Barium	0.0774	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:13	
Beryllium	<0.0005	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:13	
Cadmium	<0.0005	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:13	
Chromium	<0.002	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:13	
Cobalt	<0.002	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:13	
Lead	<0.0005	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:13	
Molybdenum	0.0075	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:13	
Selenium	<0.005	mg/L	0.005	5	10/16/2024 16:06	10/23/2024 12:13	
Thallium	<0.0005	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:13	
Method: SM4500-CI-E 2011							
Chloride	10.9	mg/L	2.0	1		10/22/2024 09:55	
Method: SM4500-F-C-2011							
Fluoride	0.85	mg/L	0.1	1		10/16/2024 16:46	
Method: USGS I-1750-85							
Total Dissolved Solids	677	mg/L	10	1		10/17/2024 15:24	

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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 67999002
 Date Collected:
 10/15/2024 10:40
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 10/16/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.1 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	168	mg/L	25	5		10/23/2024 09:59	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	10/21/2024 09:00	10/22/2024 07:39	
Welcury	\0.0002	mg/L	0.0002	'	10/21/2024 09:00	10/22/2024 07:59	
Method: EPA 6010D							
Boron	1.36	mg/L	0.1	1	10/16/2024 16:06	10/24/2024 11:15	
Calcium	61.9	mg/L	1	1	10/16/2024 16:06	10/17/2024 12:29	
Lithium	0.0334	mg/L	0.02	1	10/16/2024 16:06	10/31/2024 16:03	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	10/16/2024 16:06	10/23/2024 12:31	
Arsenic	0.0100	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:31	
Barium	0.0442	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:31	
Beryllium	0.0009	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:31	
Cadmium	<0.0005	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:31	
Chromium	<0.002	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:31	
Cobalt	<0.002	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:31	
Lead	0.0008	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:31	
Molybdenum	0.0102	mg/L	0.002	5	10/16/2024 16:06	10/23/2024 12:31	
Selenium	<0.005	mg/L	0.005	5	10/16/2024 16:06	10/23/2024 12:31	
Thallium	0.0007	mg/L	0.0005	5	10/16/2024 16:06	10/23/2024 12:31	
Method: SM4500-CI-E 2011							
Chloride	11.2	mg/L	2.0	1		10/22/2024 09:56	
Method: SM4500-F-C-2011							
Fluoride	0.75	mg/L	0.1	1		10/16/2024 16:52	
Method: USGS I-1750-85							
Total Dissolved Solids	590	mg/L	10	1		10/17/2024 15:24	

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Account #: 2040 Client: Basin Electric Power Cooperative

C Result	s Summary						WO #:	6799	9
Sulfate				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			100	106.0		85	115		
.FB			100	109.0		85	115		
.FB			100	104.0		85	115		
.FB			100	103.0		85	115		
.FB			100	101.0		85	115		
.FB			100	99.8		85	115		
ИВ		<5							
MB		<5							
ИВ		<5							
MB		<5							
MB		<5							
ИΒ		<5							
MS/MSD	68010001		1000	110.7	109.5	85	115	0.6	20
MS/MSD	68208003		500	75.9	71.7	85	115	2.0	20
MS/MSD	68338013		4000	97.6	103.9	85	115	2.9	20
MS/MSD	68338014		1000	83.4	84.8	85	115	0.4	20
Chloride				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	Spike Duplicate % Recovery	Lower Control	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	Recovery 96.1	% Recovery	Limit (%) 90	110		
LFB			30	96.5		90	110		
FB			30	96.6		90	110		
FB			30	97.3		90	110		
FB			30	96.9		90	110		
FB			30	96.8		90	110		
МВ		<2.0							
МВ		<2.0							
ИВ		<2.0							
ИΒ		<2.0							





Account #: 2040

Client: Basin Electric Power Cooperative

Chloride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
MB		<2.0		Recovery		% Recovery	Limit (%)	Limit (%)		
MS/MSD	68070001		30	99.8		92.6	80	120	1.8	20
MS/MSD	68338014		30	97.1		91.8	80	120	4.0	20
MS/MSD	68338015		30	105.8		98.1	80	120	7.5	20
Boron				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	102.0			85	115		
MB		<0.1								
MS/MSD	67999001		0.4	106.0		110.0	70	130	1.1	20
Calcium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MI			100	105.0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	85	115		
MB		<1								
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
PDS/PDSD	65827002		100	101.0		101.0	75	125	0.0	20
103/1030	03027002		100	101.0		101.0	,,	123	0.0	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
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
rusprusu	01401010		100	9.66		100.0	/3	125	0.5	20
PDS/PDSD	67601001		100	98.3		101.0	75	125	1.7	20
DUP	67845001								2.2	20
Lithium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-OE			0.4	Recovery 103.0		% Recovery	Limit (%) 85	Limit (%)		
				103.0						
MB		<0.04								
MS/MSD	67999001		0.4	109.0		110.0	70	130	0.6	20
Antimony				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS		0.0000000000000000000000000000000000000	0.1	Recovery 104.0		% Recovery	Limit (%)	Limit (%)		
			0.1	104.0			30	120		

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Account #: 2040

Client: Basin Electric Power Cooperative

Original Sample ID 67658003 67658003 67999001	Blank Result	Spike Amount 0.8 0.8	Spike % Recovery 117.0		Spike Duplicate % Recovery 116.0	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
67658003			117.0					1.3	20
		0.8	114.0						
67999001					117.0	75	125	2.5	20
67999001									
		0.4	109.0		100.0	75	125	8.8	20
			Units:	mg/L					
Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
		0.1	105.0			80	120		
	<0.002								
67658003		0.8	123.0		120.0	75	125	2.3	20
6/658003		0.8	120.0		118.0	/5	125	1.4	20
67999001		0.4	109.0		101.0	75	125	7.8	20
			Units:	mg/L					
Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
		0.1	102.0			80	120		
	<0.002								
6/658003		0.8	115.0		117.0	75	125	0.9	20
67658003		0.8	115.0		120.0	75	125	2.0	20
67999001		0.4	105.0		102.0	75	125	2.7	20
				- /-					
Original Sample ID	Blank Result	Spike Amount		mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
			Recovery		% Recovery	Limit (%)	Limit (%)		
		0.1	100.0			80	120		
	<0.0005								
67658003		0.8	124.0		124.0	75	125	0.0	20
57000004		2.4	445.0		440.0	75	425	5.3	20
67999001		0.4	115.0		110.0	75	125	5.3	20
			Units:	mg/L					
Original Sample ID	Blank Result		Recovery		Spike Duplicate % Recovery	Limit (%)	Limit (%)	RPD (%)	RPD Limit (%)
		0.1	103.0			80	120		
	<0.0005								
67658003		0.8	111.0		113.0	75	125	1.7	20
67658003		0.8	114.0		113.0	75	125	1.1	20
67999001		0.4	105.0		97.8	75	125	6.7	20
			Units:	mg/L					
Original Sample ID	Blank Result	Spike Amount	Spike %		Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
	67658003 67999001 Original Sample ID 67658003 67658003 67999001 Original Sample ID 67658003 67999001	67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003 67658003	67658003 0.8 67999001 0.4 Original Sample ID Blank Result Spike Amount 0.1 -0.002 67658003 0.8 67658003 0.8 67999001 0.4 Original Sample ID Blank Result Spike Amount 0.1 -0.0005 67658003 0.8 67999001 0.4 Original Sample ID Blank Result Spike Amount 0.1 -0.0005 67658003 0.8 67999001 0.4 Original Sample ID Blank Result Spike Amount 0.1 -0.0005	67658003	67658003	67658003	67658003	Company Comp	180 190



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Account #: 2040

Client: Basin Electric Power Cooperative

					200					
Chromium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
MB		<0.002								
SPK/SPKD	67658003		0.8	113.0		115.0	75	125	1.4	20
	2. 330000		-10	220.0						
SPK/SPKD	67658003		0.8	117.0		114.0	75	125	1.7	20
MS/MSD	67999001		0.4	110.0		99.9	75	125	9.6	20
HIJ/WIJU	0/333001		0.4	110.0		J3.3	73	123	5.0	20
Cobalt				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		% Recovery	80	120		
MB		<0.002								
SPK/SPKD	67658003		0.8	116.0		112.0	75	125	3.4	20
SPK/SPKD	67658003		0.8	115.0		116.0	75	125	1.6	20
MS/MSD	67999001		0.4	104.0		97.4	75	125	6.9	20
8										
Lead				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0			80	120		
MB		<0.0005								
MID		~U.UUU3								
SPK/SPKD	67658003		0.8	114.0		113.0	75	125	0.7	20
CDV/CDVP	67659002		0.9	112.0		115.0	75	125	1.6	30
SPK/SPKD	67658003		0.8	113.0		115.0	75	125	1.6	20
MS/MSD	67999001		0.4	106.0		102.0	75	125	3.9	20
Molybdenum				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	105.0			80	120		
MB		<0.002								
SPK/SPKD	67658003		0.8	109.0		114.0	75	125	4.0	20
SPK/SPKD	67658003		0.8	105.0		105.0	75	125	0.3	20
MS/MSD	67999001		0.4	104.0		95.1	75	125	8.9	20
Selenium	Original Sample ID	Blank Result	Snike Amount	Units: Spike %	mg/L	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
QC Type	Original Sample ID	DIATIK KESUIT	Spike Amount	Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	NFD (70)	NED LIMIT (%)
LFB-MS			0.1	101.0			80	120		
MB		<0.005								
SPK/SPKD	67658003		8.0	121.0		117.0	75	125	3.2	20
SPK/SPKD	67658003		0.8	119.0		119.0	75	125	0.4	20
MS/MSD	67999001		0.4	107.0		101.0	75	125	6.3	20





Account #: 2040

Client: Basin Electric Power Cooperative

Thallium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	,	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.8			80	120		
MB		<0.0005								
SPK/SPKD	67658003		0.8	111.0		112.0	75	125	0.7	20
SPK/SPKD	67658003		0.8	112.0		113.0	75	125	0.5	20
MS/MSD	67999001		0.4	105.0		101.0	75	125	3.9	20
Mercury				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	103.0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	85	115		
LRB		<0.0002								
MS/MSD	66839001		0.002	89.5		89.0	70	130	0.0	20
MS/MSD	67353001		0.002	94.6		95.8	70	130	0.0	20
MS/MSD	67999002		0.002	103.0		100.0	70	130	4.9	20
Fluoride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.06	108.0			83.99	111.11		
LFB-F			0.5	104.0			90	110		
LFB-F			0.5	98.0			90	110		
MB-F		<0.1								
MB-F		<0.1								
MS/MSD	67999002		0.5	96.0		88.0	80	120	3.3	20
Total Dissolve	d Solids			Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	98.0			90.35	110.33		
MB		<10								
DUP	67999001								0.9	20



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Account #: 2040 Client: Basin Electric Power Cooperative

	Minnesota Valley Testing Laboratories, Inc. 2616 East Broadway Avenue Bismarck, ND 58501 Phone: (701) 258-9720 Toll Free: (800) 279-6885 Fax: (701) 258-9724 ompany Name and Address Basin Electric Power Coop.					Po	w	er Coope	Chain of Custody Page1 of1 Work Order # Lab Use Only			
Company Name a				Account #		#						
	<u>Leland</u> 3901 H	tric Power Coop. Olds Station ighway 200A n, ND 58571		2040 701-745-7238 701-557-5488								
Billing Address (i	indicate if different fr	om above)	- Fair	Mariah Kn	utson				In			
	Attn	: Liabilities		Quote Nui	mber				Date Submitted 10/16/2024			
				Project Na	LOS CCI		ells		Purchase Order # <u>790708-04</u>			
Lab Use Only Lab	Sample ID Sample ID				Time Sampled	# of	Filtered		Analysis Required			
6)								B, Ca, Cl, F	F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pb,			
602		017-10 017-11	GW	10/15/2024	1040			B, Ca, CI, F	Se, TI, Ra226, Ra228, TDS F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pb, Se, TI, Ra226, Ra228, TDS			
Comments:	*								<u></u>			
Trans	ferred by	Date 10/16/20	Time 024 NOON	Received	by //		Dat	IHA De Tim				
2.				The state of	CV/	-		(Y/N			
	Please su	bmit the top copy with	your samples. We w	rill return th	e complete	ed o	rigi	nal with you	IT POSITIES.			

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: Friday, November 1, 2024 3:24:32 PM



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Account #: 2040 Client: Basin Electric Power Cooperative

Workorder: LOS CCR Wells (68002) **PO:** 790708-04

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:



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 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

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: Wednesday, November 13, 2024 5:00:16 PM



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 68002001
 Date Collected:
 10/15/2024 08:40
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-10
 Date Received:
 10/16/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.1 Received on Ice: Yes

,							
Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		11/13/2024 15:35	
Radium 228	See Attached			1		11/13/2024 15:35	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 68002002
 Date Collected:
 10/15/2024 10:40
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 10/16/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 5.1 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		11/13/2024 15:35	
Radium 228	See Attached			1		11/13/2024 15:35	



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Account #: 2040 Client: Basin Electric Power Cooperative



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ANALYTICAL SUMMARY REPORT

November 13, 2024

Minnesota Valley Testing Laboratories 1126 N Front St

New Ulm. MN 56073-1176

Work Order: C24100677 Quote ID: C15480

Project Name: 68002

Energy Laboratories, Inc. Casper WY received the following 2 samples for Minnesota Valley Testing Laboratories on

10/22/2024 for analysis

Lab ID Client Sample ID Collect Date Receive Date Matrix C24100677-001 68002001, MW-2017-10 10/15/24 8:40 10/22/24 Radium 226 + Radium 228, Total Radium 226, Total

Groundwater C24100677-002 68002002, MW-2017-11 10/15/24 10:40 10/22/24 Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



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Client: Basin Electric Power Cooperative Account #: 2040



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Report Date: 11/13/24 Client: Minnesota Valley Testing Laboratories 68002 Collection Date: 10/15/24 08:40 Project: C24100677-001 DateReceived: 10/22/24 Lab ID: Client Sample ID: 68002001, MW-2017-10 Matrix: Groundwater

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1	pCi/L	U			E903.0	11/04/24 12:43 / apt
Radium 226 precision (±)	0.1	pCi/L				E903.0	11/04/24 12:43 / apt
Radium 226 MDC	0.2	pCi/L				E903.0	11/04/24 12:43 / apt
Radium 228	2.3	pCi/L				RA-05	10/29/24 12:12 / trs
Radium 228 precision (±)	0.9	pCi/L				RA-05	10/29/24 12:12 / trs
Radium 228 MDC	1.2	pCi/L				RA-05	10/29/24 12:12 / trs
Radium 226 + Radium 228	2.4	pCi/L				A7500-RA	11/05/24 16:08 / dmf
Radium 226 + Radium 228 precision (±)	1	pCi/L				A7500-RA	11/05/24 16:08 / dmf
Radium 226 + Radium 228 MDC	1.2	pCi/L				A7500-RA	11/05/24 16:08 / dmf

Report RL - Analyte Reporting Limit Definitions: QCL - Quality Control Limit

U - Not detected

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

Page 2 of 8



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Client: Basin Electric Power Cooperative Account #: 2040

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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Report Date: 11/13/24 Client: Minnesota Valley Testing Laboratories 68002 Collection Date: 10/15/24 10:40 Project: C24100677-002 DateReceived: 10/22/24 Lab ID: Client Sample ID: 68002002, MW-2017-11 Matrix: Groundwater

					MCL/		
Analyses	Result U	nits Q	ualifiers	RL	QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.1 p0	Ci/L	U			E903.0	11/04/24 14:55 / apt
Radium 226 precision (±)	0.1 p0	Ci/L				E903.0	11/04/24 14:55 / apt
Radium 226 MDC	0.2 p0	Ci/L				E903.0	11/04/24 14:55 / apt
Radium 228	1.9 p0	Ci/L				RA-05	10/29/24 12:12 / trs
Radium 228 precision (±)	0.9 p0	Ci/L				RA-05	10/29/24 12:12 / trs
Radium 228 MDC	1.1 p0	Ci/L				RA-05	10/29/24 12:12 / trs
Radium 226 + Radium 228	2.0 p0	Ci/L				A7500-RA	11/05/24 16:08 / dmf
Radium 226 + Radium 228 precision (±)	0.9 p0	Ci/L				A7500-RA	11/05/24 16:08 / dmf
Radium 226 + Radium 228 MDC	1.1 p0	Ci/L				A7500-RA	11/05/24 16:08 / dmf

Report RL - Analyte Reporting Limit Definitions:

QCL - Quality Control Limit

U - Not detected

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

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Account #: 2

2040

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work C	Order: C24100677							Repor	t Date:	11/08/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E903.0									Batch: RA2	26-11488
Lab ID:	LCS-RA226-11488	3 Lab	oratory Cor	trol Sample			Run: TENN	ELEC-3_241023	A	11/04	/24 10:39
Radium 2	26		11	pCi/L		115	70	130			
Radium 2	26 precision (±)		2.2	pCi/L							
Radium 2	26 MDC		0.19	pCi/L							
Lab ID:	MB-RA226-11488	3 Met	hod Blank				Run: TENN	ELEC-3_241023.	A	11/04	/24 10:39
Radium 2	26		0.02	pCi/L							U
Radium 2	26 precision (±)		0.1	pCi/L							
Radium 2	26 MDC		0.2	pCi/L							
Lab ID:	C24100293-003ADUP	3 Sar	nple Duplica	ate			Run: TENN	ELEC-3_241023	A	11/04	/24 14:39
Radium 2	26		11	pCi/L					1.7	30	
Radium 2	26 precision (±)		2.4	pCi/L							
Radium 2	26 MDC		1.2	pCi/L							
- The REF	R result is 0.06.										

Qualifiers:

RL - Analyte Reporting Limit U - Not detected ND - Not detected at the Reporting Limit (RL)

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Account #:

2040

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QA/QC Summary Report

Prepared by Casper, WY Branch

Work Orde	r: C24100677							Report	Date	: 11/08/24	
Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: R	A-05									Batch: RA	228-7512
Lab ID: LC	S-228-RA226-1148	8 3 Lab	oratory Con	trol Sample			Run: TENN	ELEC-4_241023A	A	10/29	/24 11:32
Radium 228			8.4	pCi/L		84	70	130			
Radium 228 pr	recision (±)		1.8	pCi/L							
Radium 228 M	IDC		1.0	pCi/L							
Lab ID: MB	3-RA226-11488	3 Met	thod Blank				Run: TENN	ELEC-4_241023	A	10/29	/24 11:32
Radium 228			1	pCi/L							
Radium 228 pr	recision (±)		0.8	pCi/L							
Radium 228 M	IDC		1	pCi/L							
Lab ID: C2	4100293-003ADUP	3 Sar	mple Duplica	ate			Run: TENN	ELEC-4_241023/	A	10/29	/24 13:02
Radium 228			15	pCi/L					18	30	
Radium 228 pr	recision (±)		6.1	pCi/L							
Radium 228 M	IDC		7.9	pCi/L							
- The RER resu	ılt is 0.28.										

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

Page 5 of 8



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ENERGY

LABORATORIES	THIRD OF STREET			GIHETTE, WT 307.000.7173 •	Helena, MI 406.442.0/11			
Work Orde	r Receipt Ched	cklist						
Minnesota Va	alley Testing Lab	oratories	С	24100677				
Login completed by:	Dakota R. Sawyer		Date	e Received: 10/22/2024				
Reviewed by:	Iquezada			eceived by: AJS				
Reviewed Date:	10/23/2024		Carrier name: UPS Ground					
Shipping container/cooler in	good condition?	Yes ✓	No 🗌	Not Present				
Custody seals intact on all s	Yes	No 🗌	Not Present ✓					
Custody seals intact on all s	Yes	No 🗌	Not Present ✓					
Chain of custody present?		Yes 🗸	No 🗌					
Chain of custody signed wh	en relinquished and received?	Yes ✓	No 🗌					
Chain of custody agrees wit	h sample labels?	Yes ✓	No 🗌					
Samples in proper containe	r/bottle?	Yes 🗸	No 🗌					
Sample containers intact?		Yes ✓	No 🗌					
Sufficient sample volume fo	r indicated test?	Yes ✓	No 🗌					
(Exclude analyses that are of	samples received within holding time? xclude analyses that are considered field parameters ch as pH, DO, Res CI, Sulfite, Ferrous Iron, etc.)		No 🗌					
Temp Blank received in all s	shipping container(s)/cooler(s)?	Yes	No 🗸	Not Applicable				
Container/Temp Blank temp	erature:	16.3°C No Ice						
Containers requiring zero he bubble that is <6mm (1/4").	eadspace have no headspace or	Yes	No 🗌	No VOA vials submitted 🗸				
Water - pH acceptable upor	receipt?	Yes 🔽	No 🗌	Not Applicable				
Standard Report	ing Procedures:							
pH, Dissolved Oxyge Solid/soil samples are data units are typicall and ground prior to sa The reference date for analyses is the analyse For methods that requinterference, the pH is included in the sampl Trip Blanks and/or Bli	n and Residual Chlorine, and reported on a wet weight by noted as —dry. For agricular ple analysis. Transple analysis is the sare sis date. Radiochemical presuire zero headspace or require zero headspace or require zero headspace. Nonce analysis comments.	re qualified as basis (as receiltural and minimple collection results uire preservationforming salassigned the e	being analyz ved) unless s ing soil paran date. The re represent a 2 on check at t mple pH is do arliest collect	ysis within 15 minutes of sa ed outside of recommended specifically indicated. If moi- neters/characteristics, all sa ference date for all other Ra -sigma Total Measurement the time of analysis due to p ocumented as part of the an	tholding time. sture corrected, mples are dried adiochemical Uncertainty. otential alysis and			
Contact and Cor	rective Action Comm	ents:						

Page 6 of 8





Account #: 2040

Client: Basin Electric Power Cooperative



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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number		
	Alaska	17-023		
	California	3087		
	Colorado	MT00005		
	Department of Defense (DoD)/ISO17025	ADE-2588		
Billings, MT	Florida (Primary NELAP)	E87668		
	Idaho	MT00005		
d	Louisiana	05079		
ANAB	Montana	CERT0044		
ASSI National Accreditation Board ACCREDITED	Nebraska	NE-OS-13-04		
TESTING LABORATORY	Nevada	NV-C24-00250		
ALL DE	North Dakota	R-007		
HAT ACKNOWN	National Radon Proficiency	109383-RMP		
TNI	Oregon	4184		
BORATOR	South Dakota	ARSD 74:04:07		
	Texas	TX-C24-00302		
	US EPA Region VIII	Reciprocal		
	USDA Soil Permit	P330-20-00170		
	Washington	C1039		
	Alaska	20-006		
	California	3021		
	Colorado	WY00002		
	Florida (Primary NELAP)	E87641		
	Idaho	WY00002		
	Louisiana	05083		
Casper, WY	Montana	CERT0002		
CAN ACCREON	Nebraska	NE-OS-08-04		
TAIL	Nevada	NV-C24-00245		
MORATOR	North Dakota	R-125		
	Oregon	WY200001		
	South Dakota	WY00002		
	Texas	T104704181-23-21		
	US EPA Region VIII	WY00002		
	USNRC License	49-26846-01		
	Washington	C1012		
Gillette, WY	US EPA Region VIII	WY00006		
,	Colorado	MT00945		
Helena, MT	Montana	CERT0079		
promote medical colic	Nevada	NV-C24-00119		
	US EPA Region VIII	Reciprocal		
	USDA Soil Permit	P330-20-00090		

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Report Date: Page 11 of 12

Wednesday, November 13, 2024 5:00:16 PM

Account #: 2040

Account #:

Name of Sampler:

Project Name/Numbe

Time

Sampled

0840

1040

Quote Number

Date

Sampled

15-Oct-24

15-Oct-24

LABORATORIES, Inc. 2616 E Broadway Ave Bismarck, ND 58501

Fax: (701) 258-9724

Sample Information

Client Sample ID

MW-2017-10

MW-2017-11

Phone: (701) 258-9720

Billing Address (indicate if different from above):

68002001

68002002

MVTL

2616 E Broadway Bismarck, ND 58501

PO Box 249

New Ulm, MN 56073

Toll Free: (800) 279-6885

Company Name and Address:

Lab Number | MVTL Lab Number

Chain of Custody Record

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ork	Or	der #	7	6											
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Dettle Tune						BL6965									
Bottle Typ			эе	_	Analysis	Client:									
Untreated	Gallon HNO3	VOC Vials Umpreserved	Glass Jar	Other		Analysis Required	Basin								
	1	1				Ra226 & Ra228	Electric Power Cooperative								
	1					Ra226 & Ra228	그 않								
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Comments: Individual results as well as combined Ra226 & Ra228 must be reported for all samples.

Sample

Type

GW

GW

Transferred by:	Date:	Time:	Sample Condition:	Received by:	Date:	Temp:
Olson	18-Oct-24	1700		AGGOD SMITH	0.72.24 11:10	

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MINNESOTA VALLEY TESTING LABORATORIES, INC.

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2616 East Broadway Ave. ~ Bismarck, ND 58501 ~ 800-279-6885 ~ Fax 701-258-9724 1126 North Front St. ~ New Ulm, MN 56073 ~ 800-782-3557 ~ Fax 507-359-2890





Account #: 2040 Client: Basin Electric Power Cooperative

	Minnesota Valley Testing Laboratories, Inc. 2616 East Broadway Avenue Bismarck, ND 58501 Phone: (701) 258-9720 Toll Free: (800) 279-6885 Fax: (701) 258-9724 Company Name and Address Basin Electric Power Coop.					Basin Electric Power Coope W0: 68002 Page _1_ of Work Order #					
Company Nam				Account #			_	Phone #			
		tric Power Coop.			2040			701-745-7238 701-557-5488			
		Highway 200A		Contact	Mark Dihle			Emails mdihle@bepc.com aknutson@bepc.com			
	Stant	on, ND 58571		Name of S		_	-	indine@bepc.com aknutson@bepc.com			
Billing Address	s (indicate if different f			Mariah Kn				, a d			
	Attı	: Liabilities		Quote Nui	nber			Date Submitted 10/16/2024			
				Project Na	LOS CCI		ells	Purchase Order # 3			
Lab Use											
Only		,	Sample Matrix	Date	Time	of	Filtered				
Lab	San	ple ID		Sampled Sampled #		#	ш	Analysis Required			
				12		7.0					
1.00											
601	MW-	2017-10	GW	10/15/2024	840	3	N	B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Tl, Ra226, Ra228, TDS			
				10/10/2024	040	Ů		B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pb,			
00%	MW-	2017-11	GW	10/15/2024	1040	3	N	Li, Hg, Mo, Se, Tl, Ra226, Ra228, TDS			
Comments:				1							
Tra	nsferred by	Date	Time	Received	by		Dat	te Time Temp ROI Therm.#			
1. MILLENIUM 2.			024 NOON	welly	WA			120 1082 S. (DYIN MASS			
	Please s	ubmit the top copy with	your samples. We w	vill return th	e complete	ed o	rigi	inal with your results.			

lent:	BE	PC					115124				
Project No: Site Location:	annum		1011	Callastaria	8.47	Time: 0756 Finish					
Weather Con	ds: CA	d, bre	on]	Collector(s)	IVIK						
WATER LEV	EL DATA: (me	asured fro	om Top of	Casing)		Well 🗸					
a. Total Well	Length		c. Ca	sing Material	PVC	-	Pump Setting	27/309	opsi		
Water Tab		34.97	Samuel and the same	sing Diamete							
	b. Field Testin			Make YSI HACH	Model	C.	Serial Numbe 5320084101 20030C08455				
	c. Field Testin	ng Equipm	ent Calibra		ntation Four	nd in Field		Page #	1		
	Volume		DO	Spec. Cond			Jurbidity				
Time	Removed (gal	T° (C)	mg/L	(µs/cm)	pH	ORP	(NTU)	Color	DTW		
Stabilization	Removed (gal	+/- 0.2	mg/L +/- 10%	+/- 3%	+/- 0.1	+/- 10%	+/- 10%		0.33 ft		
Stabilization	Removed (gal	1.0	mg/L +/- 10% 0.40	+/- 3% 987	7.68	+/- 10%	+/- 10% 0.31	Color	0.33 ft 35.06		
Stabilization 0830 0836	Removed (gal	1.0	mg/L +/- 10% 0.40 0.36	41-3% 987 989	7.68	+1-10% -34-3 -38-5	+/- 10% 0.31 0.40		0.33 ft 35.06 35.06		
Stabilization 0830 0830	Removed (gal INITIAL のし りらし	+/- 0.2 1.0 8.9 8.8	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.06 35.05 35.04		
0830 0830	Removed (gal	+/- 0.2 1.0 8.9 8.8	mg/L +/- 10% 0.40 0.36	41-3% 987 989	7.68	+1-10% -34-3 -38-5	+/- 10% 0.31 0.40		0.33 ft 35.06 35.05 35.04		
Stabilization 0830 0835	Removed (gal INITIAL のし りらし	+/- 0.2 1.0 8.9 8.9 8.9	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.06 35.05 35.04		
Stabilization 0830 0835	Removed (gal	+/- 0.2 1.0 9.9 9.9 3.9	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.06 35.05 35.04		
Stabilization 0850 0835 0835	Removed (gal	+/- 0.2 1.0 8.9 8.9 8.9	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.06 35.05 35.04		
Stabilization 0830 0830 0830	INITIAL OLUGIA	+/- 0.2 1.0 8.9 8.9 3.9	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.06 35.05 35.04		
Stabilization 0830 0830 0830	Removed (gal	+/- 0.2 1.0 8.9 8.8 3.9	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.06 35.05 35.04		
Stabilization 0830 0830	INITIAL OLUGIA	+/- 0.2 1.0 8.9 8.8 3.9	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.04 35.05 35.04		
Stabilization 0830 0830 0830	Removed (gal	+/- 0.2 1.0 \$.9 \$.9 \$.9	mg/L +/- 10% 0.40 0.30	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.04 35.05		
Stabilization 0850 0835 0835	Removed (gal	+/- 0.2 1.0 \$.9 \$.9 \$.9	mg/L +/- 10% 0.40 0.33 0.33	41-3% 985 985	+/-0.1 7.68 7.67 7.68	+1-10% -34-3 -38-5 -39-1	+/- 10% 0.37 0.40 0.44		0.33 ft 35.06 35.05 35.04		

Sample ID	Container Typ	No. of Containers	Preservation	Analysis	Time
THE STATE OF THE S	1L	1	de la constantina	TDS/Anions	0840
	500mL	1	HNO3	Metals	
	laal	1	HNUS	Padium	

Signature Mun

Comments

Date 10/15/24

-	PC				Date: 1	115/24		
A	6				Time:			
-	ld, bre	very	Collector(s)	MK	- T 0 1131 -		11.	
L DATA: (me	asured fro	om Top of	Casing)		Well Z	ſ	SATE MANAGEMENT	11-75-714
ength		c. Car	sing Material	PVC		Pump Setting	1 24/4 20	SOPSI
Depth IG DATA I. Purge Meth I. Field Testin		ted Bladde ent Used:	sing Diameter er Pump Make YSI HACH	Model		Serial Numbe 5320084101 20030C0845	l.,	
				Water Street Lawre	W. D. CHARLES WAS		1	
. Field Testin	ng Equipm	ent Calibra <0.5	ition Docume	ntation Fou	nd in Field	Notebook # _	Page #	
Volume		DO	Spec. Cond			Turbidity		
Removed (gal)		mg/L	(µs/cm)	pH	ORP	(NTU)	Color	DTW
	+/- 0.2	+/- 10%	+/- 3%	+/- 0.1	+/- 10%	+/- 10%	014.015	0.33 ft
NITIAL 351		0.42	911	7.51	-791	0.49	clear	40.70
4.61	10.2	0.50	911	7.51	-81.2	0.19		40.71
5 L	10.7	0.23	911	753	-83.0	0.55	1	40-71
2	10.2	0.00	- 11	1670	95.0	0.172		1011
1								
L								
L								
L							6	
L L					-			
L L L								-
L L L								
L L L								

SAMPLE C	OLLECTION:

Comments

Method: Bladder Pump

Sample ID	Container Typ	No. of Containers	Preservation	Analysis	Time
200000000000000000000000000000000000000	1L	1	100000000000000000000000000000000000000	TDS/Anions	1040
	500mL	1	HNO3	Metals	
	lage	1	HN03	Fadium	1

Signature 🖳

WATER LEVEL DATA: (measured from Top of Casing)

ent: Project No: Site Location: Weather Conds:

a. Total Well Length

Time

Stabilization

103.0

1033

10.39

b. Water Table Depth WELL PURGING DATA

Date 10/19/24





Account #: 2040 Client: Basin Electric Power Cooperative

	Bismarck, ND 58501 Phone: (701) 258-9720 Toll Free: (800) 279-6885 Fax: (701) 258-9724 Company Name and Address				Po	W	Page1_ of1 Work Order #	
Company Name an			Account # Phone #					
	Basin Electric Power Coop. Leland Olds Station 3901 Highway 200A Stanton, ND 58571		Contact Name of S	Mark Dihle)		T01-745-7238 701-557-5488 Emails mdihle@bepc.com aknutson@bepc.com	
Billing Address (in	dicate if different from above)		Mariah Kn					
	Attn: Liabilities		Quote Nur	nber			Date Submitted 10/16/2024	
			Project Na	me/Numb LOS CCI		ells	Purchase Order#	
Lab Use Only Lab	nly		Date Time 5 Sampled Sampled #			Filtered	Analysis Required	
001	MW-2017-10	GW	10/15/2024	840	3	N	B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pl V Li, Hg, Mo, Se, Tl, Ra226, Ra228, TDS	
002	MW-2017-11	GW	10/15/2024	1040	3	N	B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pi Li, Hg, Mo, Se, Tl, Ra226, Ra228, TDS	
Comments:							<u> </u>	
			7		_		JUH'+	
Transfe 1. MILLENIUM EXP 2.		6/2024 NOON	Received	by W		Dat	ate Time Temp ROI Therm.	
	Please submit the top copy w	ith your samples. We w	ill return th	e complete	ed o	rigi	ginal with your results.	

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: Friday, November 1, 2024 3:24:32 PM





Account #: 2040 Client: Basin Electric Power Cooperative

	Minnesota Valley Testing Laboratories, Inc. 2616 East Broadway Avenue Bismarck, ND 58501 Phone: (701) 258-9720 Toll Free: (800) 279-6885 Fax: (701) 258-9724 Company Name and Address Basin Electric Power Coop.					Basin Electric Power Coope W0: 68002 Page _1_ of Work Order #					
Company Nam				Account #			_	Phone #			
		tric Power Coop.			2040			701-745-7238 701-557-5488			
		Highway 200A		Contact	Mark Dihle			Emails mdihle@bepc.com aknutson@bepc.com			
	Stant	on, ND 58571		Name of S		_	-	indine@bepc.com aknutson@bepc.com			
Billing Address	s (indicate if different f			Mariah Kn				, a d			
	Attı	: Liabilities		Quote Nui	nber			Date Submitted 10/16/2024			
				Project Na	LOS CCI		ells	Purchase Order # 3			
Lab Use											
Only		,	Sample Matrix	Date	Time	of	Filtered				
Lab	San	ple ID		Sampled Sampled #		#	ш	Analysis Required			
				12		7.0					
1.00											
601	MW-	2017-10	GW	10/15/2024	840	3	N	B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Hg, Mo, Se, Tl, Ra226, Ra228, TDS			
				10/10/2024	040	Ů		B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pb,			
00%	MW-	2017-11	GW	10/15/2024	1040	3	N	Li, Hg, Mo, Se, Tl, Ra226, Ra228, TDS			
Comments:				1							
Tra	nsferred by	Date	Time	Received	by		Dat	te Time Temp ROI Therm.#			
1. MILLENIUM 2.			024 NOON	welly	WA			120 1082 S. (DYIN MASS			
	Please s	ubmit the top copy with	your samples. We w	vill return th	e complete	ed o	rigi	inal with your results.			



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1201 Lincoln Hwy. ~ Nevada, IA 50201 ~ 800-362-0855 ~ Fax 515-382-3885

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Account #: 2040 Client: Basin Electric Power Cooperative

Workorder: LOS CCR Wells (70864) **PO:** 790708-04

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

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.

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, December 5, 2024 9:19:11 AM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 70864001
 Date Collected:
 11/13/2024 09:13
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 11/13/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 4.6 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: ASTM D516-16							
Sulfate	168	mg/L	5	1		11/20/2024 10:53	
Method: EPA 245.1							
Mercury	<0.0002	mg/L	0.0002	1	11/20/2024 07:55	11/20/2024 11:36	
Welcury	\0.0002	mg/L	0.0002	•	11/20/2024 07:55	11/20/2024 11:50	
Method: EPA 6010D							
Boron	1.23	mg/L	0.5	5	11/13/2024 18:15	11/20/2024 11:03	
Calcium	67.6	mg/L	5	5	11/13/2024 18:15	11/15/2024 15:03	
Lithium	0.0321	mg/L	0.02	1	11/13/2024 18:15	11/15/2024 10:52	
Method: EPA 6020B							
Antimony	<0.001	mg/L	0.001	5	11/13/2024 18:15	11/25/2024 14:30	
Arsenic	0.0108	mg/L	0.002	5	11/13/2024 18:15	11/25/2024 14:30	
Barium	0.0428	mg/L	0.002	5	11/13/2024 18:15	11/25/2024 14:30	
Beryllium	<0.0005	mg/L	0.0005	5	11/13/2024 18:15	11/25/2024 14:30	
Cadmium	<0.0005	mg/L	0.0005	5	11/13/2024 18:15	11/25/2024 14:30	
Chromium	<0.002	mg/L	0.002	5	11/13/2024 18:15	11/25/2024 14:30	
Cobalt	<0.002	mg/L	0.002	5	11/13/2024 18:15	11/25/2024 14:30	
Lead	<0.0005	mg/L	0.0005	5	11/13/2024 18:15	11/25/2024 14:30	
Molybdenum	0.0105	mg/L	0.002	5	11/13/2024 18:15	11/25/2024 14:30	
Selenium	<0.005	mg/L	0.005	5	11/13/2024 18:15	11/25/2024 14:30	
Thallium	<0.0005	mg/L	0.0005	5	11/13/2024 18:15	11/25/2024 14:30	
Method: SM4500-CI-E 2011							
Chloride	11.0	mg/L	2.0	1		11/19/2024 09:32	
Method: SM4500-F-C-2011							
Fluoride	0.44	mg/L	0.1	1		11/14/2024 13:49	*
Method: USGS I-1750-85							
Total Dissolved Solids	593	mg/L	10	1		11/15/2024 15:04	



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Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

Analysis Results Comments

Fluoride

Matrix spike and/or matrix spike duplicate recovery was low; the associated laboratory control sample recovery was acceptable.





Account #: 2040 Client: Basin Electric Power Cooperative

C Resul	ts Summary						WO #:	7086	54
Sulfate QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg/l	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
.FB			100	Recovery 99.7	% Recovery	Limit (%) 85	Limit (%) 115		
LFB			100	105.0		or.	445		
FR.			100	105.0		85	115		
FB			100	106.0		85	115		
.FB			100	95.7		85	115		
FB			100	104.0		85	115		
FB			100	96.4		85	115		
50			100	100.0		nr.	***		
FB			100	109.0		85	115		
FB			100	102.0		85	115		
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<5							
ИВ		<s< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td></s<>							
/IS/MSD	70896004		1000	100.4	95.9	85	115	1.6	20
	74.007004		2000	00.0	07.0	or.			20
MS/MSD	71087001		2000	99.0	97.8	85	115	0.7	20
MS/MSD	71089005		500	93.5	91.7	85	115	1.0	20
AS/MSD	71089015		1000	103.2	99.7	85	115	1.2	20
MS/MSD	71089025		100	92.8	97.4	85	115	4.8	20
NS/MSD	71292003		500	94.8	95.5	85	115	0.5	20
vs/msd	71294007		100	109.1	103.1	85	115	5.7	20
	/12.77/0/		100	403.4	103.1		113		20
Chloride QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg/l	- Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
FB FB	Original Sample ID	DIGHT NESULE	30	Recovery 96.5	% Recovery	Limit (%)	Limit (%)	0 [70]	na o annic (%)
FB			30	95.9		90	110		
FB			30	95.6		90	110		
FB			30	96.1		90	110		



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Account #: 2040 Client: Basin Electric Power Cooperative

Chloride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			30	95.6		, incovery	90	110		
LFB			30	95.9			90	110		
LFB			30	95.9			90	110		
LFB			30	96.1			90	110		
MB		<2.0								
IVID		~2.0								
MB		<2.0								
MB		<2.0								
MB		<2.0								
МВ		<2.0								
MB		<2.0								
MB		<2.0								
MB		<2.0								
MS/MSD	70896004		30	98.2		97.8	80	120	0.2	20
1113/11130	70030001		55	3012		37.0		120	O/E	20
MS/MSD	71089004		30	99.0		98.6	80	120	0.3	20
MS/MSD	71089024		30	101.9		101.4	80	120	0.3	20
	71089026			100.1						
MS/MSD	71089026		30	100.1		99.6	80	120	0.3	20
Boron				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	96.7			85	115		
140										
IAIR		<0.1								
		<0.1								
	70864001	<0.1	2	98.4		94.6	75	125	2.4	20
PDS/PDSD Calcium	70864001	<0.1	2	.,,,,,,,,,,	mg/L	94.6	75	125	2.4	20
PDS/PDSD Calcium QC Type	70864001 Original Sample ID	<0.1 Blank Result	Spike Amount	Units: Spike % Recovery	mg/L	94.6 Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	2.4 RPD (%)	20 RPD Limit (%)
PDS/PDSD Calcium				Units:	mg/L	Spike Duplicate	Lower Control	Upper Control		
PDS/PDSD Calcium QC Type			Spike Amount	Units: Spike % Recovery	mg/L	Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)		
PDS/PDSD Calcium QC Type LFB-MI	Original Sample ID	Blank Result	Spike Amount	Units: Spike % Recovery	mg/L	Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD Calcium QC Type LFB-MI		Blank Result	Spike Amount	Units: Spike % Recovery	mg/L	Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)		
PDS/PDSD Calcium QC Type LFB-MI	Original Sample ID	Blank Result	Spike Amount	Units: Spike % Recovery	mg/L	Spike Duplicate	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD Calcium QC Type LFB-MI MB	Original Sample ID	Blank Result	Spike Amount	Units: Spike % Recovery 108.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 85	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
PDS/PDSD Calcium QC Type LFB-MI MB DUP PDS/PDSD PDS/PDSD	70707001 70896003 71020008	Blank Result	Spike Amount 100 100	Units: Spike % Recovery 108.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 85	Upper Control Limit (%) 115 125	RPD (%) 1.3 2.0 1.5	20 20 20
PDS/PDSD Calcium QC Type LFB-MI MB DUP PDS/PDSD	Original Sample ID 70707001 70896003	Blank Result	Spike Amount	Units: Spike % Recovery 108.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 85	Upper Control Limit (%) 115	RPD (%)	RPD Limit (%) 20 20
PDS/PDSD Calcium QC Type LFB-MI MB DUP PDS/PDSD	70707001 70896003 71020008	Blank Result	Spike Amount 100 100	Units: Spike % Recovery 108.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 85	Upper Control Limit (%) 115 125	RPD (%) 1.3 2.0 1.5	20 20 20





Account #: 2040

Client: Basin Electric Power Cooperative

Lithium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-OE			0.4	109.0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	85	115		
MB		<0.04								
MS/MSD	70864001		0.4	105.0		103.0	75	125	1.4	20
Antimony				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0		N NECOVERY	80	120		
LFB-MS			0.1	104.0			85	115		
LFB-MS			0.1	104.0			85	115		
МВ		<0.001								
МВ		<0.001								
MB		<0.001								
MS/MSD	70864001		0.4	107.0		102.0	75	125	4.6	20
SPK	70864001		0.1	102.0			75	125		
Arsenic				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.4			80	120		
LFB-MS			0.1	102.0			85	115		
LFB-MS			0.1	106.0			85	115		
MB		<0.002								
МВ		<0.001								
МВ		<0.005								
MS/MSD	70864001		0.4	105.0		101.0	75	125	3.5	20
SPK	70864001		0.1	97.8			75	125		
Barium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	107.0		.s necovery	85	115		
LFB-MS			0.1	99.0			80	120		
LFB-MS			0.1	102.0			85	115		
MB		<0.002								
МВ		<0.0004								
MB		<0.002								





Account #: 2040

Client: Basin Electric Power Cooperative

Barium				Units: mg/	ı				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
MS/MSD	70864001		0.4	Recovery 103.0	% Recovery 102.0	Limit (%) 75	Limit (%) 125	0.7	20
SPK	70864001		0.1	99.8		75	125		
Beryllium				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	106.0		85	115		
LFB-MS			0.1	103.0		85	115		
LFB-MS			0.1	98.5		80	120		
МВ		<0.0005							
МВ		<0.0001							
МВ		0.000540							
MS/MSD	70864001		0.4	106.0	104.0	75	125	2.1	20
SPK	70864001		0.1	97.6		75	125		
Cadmium				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	103.0	·	85	115		
LFB-MS			0.1	102.0		85	115		
LFB-MS			0.1	101.0		80	120		
МВ		<0.0005							
МВ		<0.0005							
МВ		<0.0005							
MS/MSD	70864001		0.4	104.0	99.5	75	125	4.2	20
SPK	70864001		0.1	95.4		75	125		
Chromium				Units: mg/	L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	99.5		80	120		
LFB-MS			0.1	102.0		85	115		
LFB-MS			0.1	107.0		85	115		
МВ		<0.0004							
МВ		<0.002							
		<0.002							
MB									





Account #: 2040

Client: Basin Electric Power Cooperative

Chromium				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	-6/ -	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
SPK	70864001		0.1	Recovery 97.3		% Recovery	Limit (%) 75	Limit (%) 125	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Cobalt				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	102.0			85	115		
LFB-MS			0.1	109.0			85	115		
LFB-MS			0.1	100.0			80	120		
МВ		<0.002								
МВ		<0.0004								
МВ		<0.002								
MS/MSD	70864001		0.4	102.0		99.0	75	125	2.7	20
SPK	70864001		0.1	98.5			75	125		
Lead				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	<u>.</u>	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	100.0		78 HECOVERY	85	115		
LFB-MS			0.1	108.0			85	115		
LFB-MS			0.1	98.6			80	120		
MB		<0.0005								
МВ		<0.0005								
МВ		<0.0001								
MS/MSD	70864001		0.4	104.0		98.4	75	125	5.7	20
SPK										
	70864001		0.1	95.6			75	125		
Molybdenum	70864001		0.1	95.6 Units:	mg/L		75	125		
Molybdenum QC Type	70864001 Original Sample ID	Blank Result	0.1 Spike Amount	Units:	mg/L	Spike Duplicate	Lower Control		RPD (%)	RPD Limit (%)
		Blank Result		Units:	mg/L	Spike Duplicate % Recovery		Upper Control Limit (%)	RPD (%)	RPD Limit (%)
QC Type		Blank Result	Spike Amount	Units: Spike % Recovery	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
QC Type		Blank Result	Spike Amount	Units: Spike % Recovery 102.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS		Blank Result	Spike Amount 0.1 0.1	Units: Spike % Recovery 102.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 80	Upper Control Limit (%) 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS LFB-MS			Spike Amount 0.1 0.1	Units: Spike % Recovery 102.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 80	Upper Control Limit (%) 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS MB		<0.0004	Spike Amount 0.1 0.1	Units: Spike % Recovery 102.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 80	Upper Control Limit (%) 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS LFB-MS MB		<0.0004	Spike Amount 0.1 0.1	Units: Spike % Recovery 102.0	mg/L	Spike Duplicate % Recovery	Lower Control Limit (%) 80	Upper Control Limit (%) 120	RPD (%)	RPD Limit (%)
QC Type LFB-MS LFB-MS LFB-MS MB MB	Original Sample ID	<0.0004	Spike Amount 0.1 0.1 0.1	Units: Spike % Recovery 102.0 111.0	mg/L	% Recovery	Lower Control Limit (%) 80 85	Upper Control Limit (%) 120 115		





Account #: 2040

Client: Basin Electric Power Cooperative

					<i>.</i>				
Selenium QC Type	Original Sample ID	Blank Result	Spike Amount	Units: mg, Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB-MS			0.1	104.0		85	115		
LFB-MS			0.1	101.0		85	115		
LFB-MS			0.1	100.0		80	120		
МВ		<0.01							
МВ		<0.01							
МВ		<0.005							
MS/MSD	70864001		0.4	106.0	103.0	75	125	3.1	20
SPK	70864001		0.1	94.2		75	125		
Thallium				Units: mg/	1				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike %	Spike Duplicate	Lower Control	Upper Control	RPD (%)	RPD Limit (%)
LFB-MS			0.1	Recovery 99.9	% Recovery	Limit (%)	Limit (%) 120		
LFB-MS			0.1	109.0		85	115		
LFB-MS			0.1	101.0		85	115		
MB		<0.0001							
MB		<0.0005							
MB		<0.0005							
IVID		<0.0003							
MS/MSD	70864001		0.4	99.7	96.7	75	125	3.1	20
SPK	70864001		0.1	93.5		75	125		
Mercury				Units: mg,	'L				
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery	Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
LFB			0.002	105.0		85	115		
LFB			0.002	103.0		85	115		
LFB			0.002	100.0		85	115		
LRB		<0.0002							
МВ		<0.0002							
МВ		<0.0002							
MS/MSD	71020004		0.002	97.0	97.5	70	130	5.1	20
MS/MSD	71089009		0.002	101.0	102.0	70	130	0.0	20
MS/MSD	71089019		0.002	104.0	104.0	70	130	0.0	20
MS/MSD	71292003		0.002	102.0	102.0	70	130	0.0	20





Account #: 2040

Client: Basin Electric Power Cooperative

Fluoride				Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM-F			3.06	96.4			83.99	111.11		
LFB-F			0.5	96.0			90	110		
LFB-F			0.5	96.0			90	110		
LFB-F			0.5	94.0			90	110		
LFB-F			0.5	90.0			90	110		
MB-F		<0.1								
MB-F		<0.1								
MB-F		<0.1								
MB-F		<0.1								
MS/MSD	70864001		1	75.0		71.0	80	120	3.4	20
MS/MSD	71020003		0.5	86.0		82.0	80	120	3.1	20
MS/MSD	71020007		0.5	84.0		86.0	80	120	1.3	20
Total Dissolve	ed Solids			Units:	mg/L					
QC Type	Original Sample ID	Blank Result	Spike Amount	Spike % Recovery		Spike Duplicate % Recovery	Lower Control Limit (%)	Upper Control Limit (%)	RPD (%)	RPD Limit (%)
CRM			736	99.0			90.35	110.33		
MB		<10								
DUP	70864001								0.3	20



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2040 Client: Basin Electric Power Cooperative Account #:

Toll Free: (2616 East Broa Bismarck, ND Phone: (701) 258-97	58501	ries, Inc.	Basin WO: 7		c P	ow	ver Coo	Pa	ge1 Order #	f Cus	•
Company Nan	ne and Address Basin Elec		Contact	2040			Emails	# 701-745	i-7238 7	01-557-5		
Billing Addres	3901 F Stanto s (indicate if different fr Attn		Name of S Mariah Kr Quote Nu	nutson	в		mainle	Date Su		itson@be	pc.com	
¥			Project Na	ame/Numb LOS CCI		ells		Purchas	11/ e Order	# 0708-04		
Lab Use Only Lab	Sam	ple ID	Sample Matrix GW - Groundwater	Date Sampled	Time Sampled	# of	Filtered	4	Analysis Required			
	MW-2	017-11	GW	11/13/2024	913	3		B, Ca, Cl, F Li, Hg, Mo,				Cr, Co, Pb,
Comments:									7		7	
Tra 1. MILLENIUN	nsferred by	Date 11/13/20	Time 24 NOON	Received			Date			emp	ROI	Therm. #

Please submit the top copy with your samples. We will return the completed original with your results.

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, December 5, 2024 9:19:11 AM



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Account #: 2040 Client: Basin Electric Power Cooperative Workorder: LOS CCR Wells (70865) PO: 790708-04 LOS

Mark Dihle Basin Electric Power Cooperative 1717 E. Interstate Avenue Bismarck, ND 58503

Certificate of Analysis

Approval

All data reported has been reviewed and approved by:



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 SD SDWA

Subcontracted Analyses

Analyzed By	Company	Address	Phone	Certification
SUBv	Energy Labs Casper	2393 Salt Creek Highway, Casper. WY 82601	307-235-0515	CERT

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: Monday, December 30, 2024 1:36:09 PM





Account #: 2040 Client: Basin Electric Power Cooperative

Analytical Results

 Lab ID:
 70865001
 Date Collected:
 11/13/2024 09:13
 Matrix:
 Groundwater

 Sample ID:
 MW-2017-11
 Date Received:
 11/13/2024 14:47
 Collector:
 Client

Temp @ Receipt (C): 4.6 Received on Ice: Yes

Parameter	Results	Units	RDL	DF	Prepared	Analyzed	Qual
Method: Contracted Result							
Radium 226	See Attached			1		12/30/2024 13:03	
Radium 228	See Attached			1		12/30/2024 13:04	



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Account #: 2040

Client:

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ANALYTICAL SUMMARY REPORT

December 19, 2024

Minnesota Valley Testing Laboratories 1126 N Front St

New Ulm, MN 56073-1176

Work Order: C24110737 Quote ID: C15480

Project Name: 70865

Energy Laboratories, Inc. Casper WY received the following 1 sample for Minnesota Valley Testing Laboratories on

11/20/2024 for analysis.

 Lab ID
 Client Sample ID
 Collect Date
 Receive Date
 Matrix
 Test

 C24110737-001
 70865001, MW-2017-11
 11/13/24 9:13
 11/20/24
 Groundwater
 Radium 226 + Radium 228, Total Radium 226, Tota

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy, Casper, WY 82601-9601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the report package. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

Energy Laboratories, Inc. verifies the reported results for the analysis has been technically reviewed and approved for release.

If you have any questions regarding these test results, please contact your Project Manager.



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Account #: 2040 Client: Basin Electric Power Cooperative



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LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

 Client:
 Minnesota Valley Testing Laboratories
 Report Date:
 12/19/24

 Project:
 70865
 Collection Date:
 11/13/24 09:13

 Lab ID:
 C24110737-001
 DateReceived:
 11/20/24

 Client Sample ID:
 70865001, MW-2017-11
 Matrix:
 Groundwater

					MCL/		
Analyses	Result U	nits	Qualifiers	RL	QCL	Method	Analysis Date / By
RADIONUCLIDES, TOTAL							
Radium 226	0.06 p0	Ci/L	U			E903.0	12/09/24 10:15 / haw
Radium 226 precision (±)	0.1 p0	Ci/L				E903.0	12/09/24 10:15 / haw
Radium 226 MDC	0.2 pt	Ci/L				E903.0	12/09/24 10:15 / haw
Radium 228	0.2 pt	Ci/L	U			RA-05	12/03/24 19:10 / trs
Radium 228 precision (±)	0.5 p0	Ci/L				RA-05	12/03/24 19:10 / trs
Radium 228 MDC	0.8 p0	Ci/L				RA-05	12/03/24 19:10 / trs
Radium 226 + Radium 228	0.5 p0	Ci/L	U			A7500-RA	12/10/24 11:41 / dmf
Radium 226 + Radium 228 precision (±)	0.5 p0	Ci/L				A7500-RA	12/10/24 11:41 / dmf
Radium 226 + Radium 228 MDC	0.8 pc	Ci/L				A7500-RA	12/10/24 11:41 / dmf

Report F
Definitions:

RL - Analyte Reporting Limit QCL - Quality Control Limit

U - Not detected

MCL - Maximum Contaminant Level ND - Not detected at the Reporting Limit (RL)

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Account #: 2040

Client:

Basin Electric Power Cooperative



Work Order: C24110737

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Report Date: 12/10/24

QA/QC Summary Report

Prepared by Casper, WY Branch

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	E903.0									Batch: RA2	26-11525
Lab ID:	LCS-RA226-11525	3 Lal	boratory Con	trol Sample			Run: TENN	ELEC-4_2411	25E	12/09/	24 10:15
Radium 22	26		11	pCi/L		109	70	130			
Radium 22	26 precision (±)		1.7	pCi/L							
Radium 2	26 MDC		0.14	pCi/L							
Lab ID:	MB-RA226-11525	3 Ме	thod Blank				Run: TENN	ELEC-4_2411	25E	12/09/	24 10:15
Radium 22	26		-0.02	pCi/L							U
Radium 22	26 precision (±)		0.08	pCi/L							
Radium 22	26 MDC		0.1	pCi/L							
Lab ID:	C24110744-001ADUP	3 Sa	mple Duplica	ite			Run: TENN	ELEC-4_2411	25E	12/09/	24 10:15
Radium 22	26		0.37	pCi/L					41	30	R
Radium 22	26 precision (±)		0.14	pCi/L							
Radium 22	26 MDC		0.17	pCi/L							
- Duplicate	RPD is outside of the acce	eptance ran	ge for this anal	ysis. However, t	he RER is less	than or e	qual to the limi	it of 3, the RER r	esult is 0.65	i.	
Lab ID:	C24110380-001EDUP	3 Sa	mple Duplica	ite			Run: TENN	ELEC-4_2411	25E	12/09/	24 13:29
Radium 22	26		3.0	pCi/L					29	30	
Radium 22	26 precision (±)		0.69	pCi/L							
Radium 22	26 MDC		0.35	pCi/L							
- The REF	result is 0.89.										

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

U - Not detected

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Account #: 2040

Client: Basin Electric Power Cooperative



Work Order: C24110737

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Report Date: 12/10/24

QA/QC Summary Report

Prepared by Casper, WY Branch

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	RA-05									Batch: RA	228-7536
Lab ID:	LCS-228-RA226-1152	5 3 Lal	boratory Con	trol Sample			Run: TENN	ELEC-4_24112	5D	12/03	/24 19:10
Radium 2	28		9.9	pCi/L		100	70	130			
Radium 2	28 precision (±)		1.9	pCi/L							
Radium 2	28 MDC		0.73	pCi/L							
Lab ID:	MB-RA226-11525	3 Me	thod Blank				Run: TENN	ELEC-4_24112	.5D	12/03	/24 19:10
Radium 2	28		0.2	pCi/L							U
Radium 2	28 precision (±)		0.4	pCi/L							
Radium 2	28 MDC		0.7	pCi/L							
Lab ID:	C24110744-001ADUP	3 Sa	mple Duplica	ite			Run: TENN	ELEC-4_24112	5D	12/03	/24 19:10
Radium 2	28		0.47	pCi/L					60	30	UR
Radium 2	28 precision (±)		0.45	pCi/L							
Radium 2	28 MDC		0.72	pCi/L							
- Duplicate	e RPD is outside of the acce	eptance rang	ge for this anal	ysis. However, t	he RER is less	than or e	qual to the limi	it of 3, the RER re	sult is 0.64		
Lab ID:	C24110380-001EDUP	3 Sa	mple Duplica	ite			Run: TENN	ELEC-4_24112	5D	12/03	/24 19:10
Radium 2	28		1.4	pCi/L					35	30	UR
Radium 2	28 precision (±)		1.3	pCi/L							
Radium 2	28 MDC		2.0	pCi/L							
- Duplicate	e RPD is outside of the acce	eptance rang	ge for this anal	ysis. However, t	he RER is less	than or e	qual to the limi	it of 3, the RER re	sult is 0.27		

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

R - Relative Percent Difference (RPD) exceeds advisory limit

U - Not detected

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Account #: 2040 Client: Basin Electric Power Cooperative

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Work Order Receipt Che	cklist								
Minnesota Valley Testing Lab	oratories	С	24110737						
Login completed by: Lisa X. Quezada		Date	e Received: 11/20/2024						
Reviewed by: csmith		R	eceived by: DRS						
Reviewed Date: 11/20/2024	eviewed Date: 11/20/2024 Carrier name: UPS Ground								
Shipping container/cooler in good condition?	Yes 🗸	No 🗌	Not Present						
Custody seals intact on all shipping container(s)/cooler(s)?	Yes	No 🗌	Not Present ✓						
Custody seals intact on all sample bottles?	Yes	No 🗌	Not Present ✓						
Chain of custody present?	Yes 🔽	No 🗌							
Chain of custody signed when relinquished and received?	Yes 🔽	No 🗌							
Chain of custody agrees with sample labels?	Yes 🗹	No 🗌							
Samples in proper container/bottle?	Yes 🔽	No 🗌							
Sample containers intact?	Yes 🗹	No 🗌							
Sufficient sample volume for indicated test?	Yes 🔽	No 🗌							
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res CI, Sulfite, Ferrous Iron, etc.)	Yes 🗹	No 🗌							
Temp Blank received in all shipping container(s)/cooler(s)?	Yes	No 🗸	Not Applicable						
Container/Temp Blank temperature:	8.3°C No Ice								
Containers requiring zero headspace have no headspace or bubble that is <6mm (1/4").	Yes	No 🗌	No VOA vials submitted						
Water - pH acceptable upon receipt?	Yes ✓	No 🗌	Not Applicable						
Standard Reporting Procedures:									
Lab measurement of analytes considered field p pH, Dissolved Oxygen and Residual Chlorine, a Solid/soil samples are reported on a wet weight	re qualified as basis (as rece	being analyz	ed outside of recommended holding time. specifically indicated. If moisture corrected,						
data units are typically noted as –dry. For agricu and ground prior to sample analysis.	ıltural and min	ing soil paran	neters/characteristics, all samples are dried						
The reference date for Radon analysis is the sar analyses is the analysis date. Radiochemical pro									
For methods that require zero headspace or req interference, the pH is verified at analysis. Non included in the sample analysis comments.									
Trip Blanks and/or Blind Duplicate samples are assigned the earliest collection time for the associated requested analysis in order to evaluate the holding time unless specifically indicated.									
Contact and Corrective Action Comm	ents:								
None									

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Account #: 2040

Client: Basin Electric Power Cooperative



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Laboratory Certifications and Accreditations

Current certificates are available at www.energylab.com website:

	Agency	Number				
	Alaska	17-023				
	California	3087				
	Colorado	MT00005				
	Department of Defense (DoD)/ISO17025	ADE-2588				
Billings, MT	Florida (Primary NELAP)	E87668				
	Idaho	MT00005				
d	Louisiana	05079				
ANAB	Montana	CERT0044				
AESI National Accreditation Board ACCREDITED	Nebraska	NE-OS-13-04				
TESTING LABORATORY	Nevada	NV-C24-00250				
a ACCREA	North Dakota	R-007				
A CONTRACTOR OF THE PROPERTY O	National Radon Proficiency	109383-RMP				
TNI	Oregon	4184				
BORATON	South Dakota	ARSD 74:04:07				
	Texas	TX-C24-00302				
	US EPA Region VIII	Reciprocal				
	USDA Soil Permit	P330-20-00170				
	Washington	C1039				
	Alaska	20-006				
	California	3021				
	Colorado	WY00002				
	Florida (Primary NELAP)	E87641				
	Idaho	WY00002				
C 14/1/	Louisiana	05083				
Casper, WY	Montana	CERT0002				
SAN ACCREON	Nebraska	NE-OS-08-04				
TNI	Nevada	NV-C24-00245				
ABORATOR!	North Dakota	R-125				
	Oregon	WY200001				
	South Dakota	WY00002				
	Texas	T104704181-23-21				
	US EPA Region VIII	WY00002				
	USNRC License	49-26846-01				
	Washington	C1012				
Gillette, WY	US EPA Region VIII	WY00006				
	Colorado	MT00945				
Helena, MT	Montana	CERT0079				
	Nevada	NV-C24-00119				
	US EPA Region VIII	Reciprocal				
	USDA Soil Permit	P330-20-00090				

Page 6 of 7

Report Date: Monday, December 30, 2024 1:36:09 PM 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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	00) 279-6885	Fax: (701) 25	8-9724		10		Work	(0	rder	#	7	0865	CZ	гош	37	Till the same of t
Company Nam	e and Address:				Account #:							Phone #:	701-258-	-9720		
		IVTL			Contact:	-						Fax #:				
		Broadway k, ND 58501			Name of Sa		udette	е				For fax E-mail:	ccarro	eck box	tl com	
Billing Address	s (indicate if different		:			•						For e-r	nail report ch			
	POI	Box 249			Quote Nun		480 v	5				Date Submit	tted: 18-Nov	-24		ဂ
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		Sample III	iomation	1				Т-	ottle	ı yı	be		Ana	ysis		
Lab Number	MVTL Lab Number	Client	Sample ID	Sample Type	Date Sampled	Time Sample		Gallon HNO3	VOC Vials Umpreserved	Glass Jar	Other		Analysis	Requir	ed	Basin E
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Tran	sferred by:	Date:	Time:	Sample	Condition:		Rece	iver	d by:	-		Date:			Temp:	
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2040 Client: Basin Electric Power Cooperative Account #:

	2616 East Bro Bismarck, ND Phone: (701) 258-97 :: (800) 279-6885 ame and Address Basin Ele Leian		s, Inc.	Account #			ow 	Ph	none #	Work	Chain of Page1	of	488		
500		on, ND 58571		Name of S											
Billing Add	ress (indicate if different f			Mariah Kr Quote Nu					Date Submitted						
Attn: Liabilities					mber					Date :		/13/2024			
					ame/Numb					Purch	nase Order	· #			
					LOS CCF	R W									
Lab Use Only Lab	Sam	iple ID	Sample Matrix GW - Groundwater	Date	Time Sampled	# of	Filtered		Analysis Required						
		1000													
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	MW-	2017-11	GW	11/13/2024	913	3					Jb, As, B. I, Ra226, R				
Comments	:				1							*******			
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Please submit the top copy with your samples. We will return the completed original with your results.

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: Monday, December 30, 2024 1:36:09 PM

Well/Piezo ID	·
Troint lozo iz	111/2/11/11
I N	(1////2011/1/11

Ground Water Sample Collection Record

ent: Project No: Site Location: Weather Con	<u> </u>	BEPC NVS SWANY C	old	Collector(s)	MK	Date: Time: Finish	0830		
WATER LEV	-	neasured fro				Well 🖊	,	and a	ć Λ o :
a. Total Well	Length		. c. Ca	sing Material	PVC	_	Pump Settings	10 4 EV	10pst
b. Water Tab		40.85	d. Ca	sing Diamete	r				
WELL PURG	a. Purge Me	ethod <u>Dedica</u>		er Pump Make					
	b. Field Tes	ting Equipme	ent Used:	Model		Serial Number 5320084101	•		
				YSI HACH			20030C08455	1	
	c. Field Tes	sting Equipme	ent Calibra	ation Docume	ntation Four	nd in Field	Notebook #	Page #	1
	Volume		DO	Spec. Cond		655	Turbidity	0-1-	DTM
Time Stabilization	Removed (g	(al) T° (C) +/- 0.2	mg/L +/- 10%	(µs/cm) +/- 3%	pH +/- 0.1	ORP +/- 10%	(NTU) +/- 10%	Color	DTW 0.33 ft
0903	INITIAL ()		. 48	909	7.58	-71.0	0.210	clear	40,96
0900	10,0		. 108	909	7.57	- 78.4	0.34		4-0.90
0909	7.5	L 9.2	.64	908	7.58	- 79	0.29		40.89
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SAMPLE CO	- DLLECTION	:	Method:	Bladder Pump)			•	
Sample	e ID C	Container Typ	No. of		Preservation		Analysis*		Time
		1L 500mL		1	HNO3		TDS/Anion Metals	S	0913
		land		1	HN03		Radium	1	
Comments									
Signature 🚄	nen	~				Date	13/24		_



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2040 Client: **Basin Electric Power Cooperative** Account #:

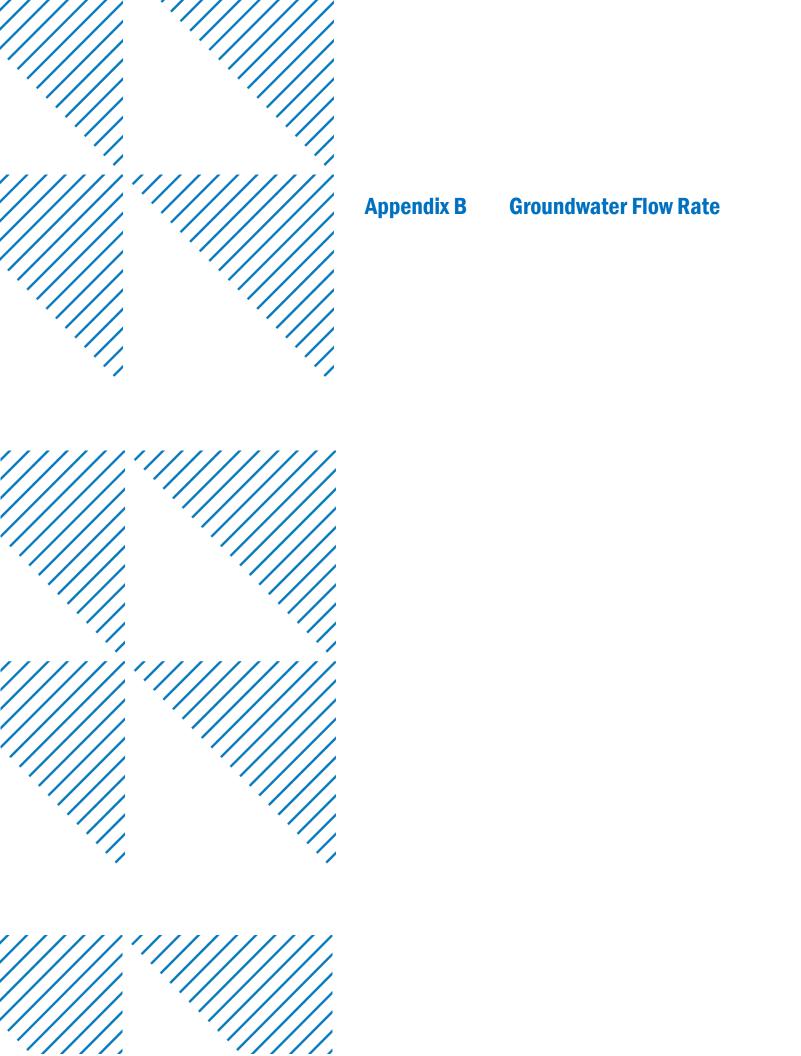
Minnesota Valley Testing Laboratories, Inc. 2616 East Broadway Avenue Bismarck, ND 58501 Phone: (701) 258-9720 Toll Free: (800) 279-6885 Fax: (701) 258-9724 Company Name and Address					Electri 0864	c P	ow	Page _1_ of _1
Company Name	Basin Elec	tric Power Coop.		Contact	2040			701-745-7238 701-557-5488 Emails
Leland Olds Station 3901 Highway 200A Stanton, ND 58571					Mark Dihle Sampler	e	_	mdihle@bepc.com aknutson@bepc.com
Billing Address (indicate if different from above) <u>Attn: Liabilities</u>				Mariah Kr Quote Nu				Date Submitted 11/13/2024
¥				Project Na	me/Numb LOS CCI	er R W	ells	Purchase Order # <u>790708-04</u>
Lab Use Only Lab	Sample ID		Sample Matrix GW - Groundwater	Date Time 5 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2				Analysis Required
							E	B, Ca, Cl, F, SO ₄ , Sb, As, Ba, Be, Cd, Cr, Co, Pb,
Comments:	MW-2	017-11	GW	11/13/2024	913	3		Li, Hg, Mo, Se, TI, Ra226, Ra228, TDS
comments:								
Tran	sferred by	Date 11/13/20:	Time 24 NOON	Received			Date	

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13NO124 1447 4.6°C DIN TM959

Report Date: Thursday, December 5, 2024 9:19:11 AM



Appendix C Groundwater Flow Rate 2024 Annual Monitoring Report LOS Multiunit CCR Groundwater Compliance

LOS - Multiunit Groundwater Velocity Calculation

Sampling Date	5/13/2024

Upgradient: MW-2017-07

Top of Casing Elevation	1698.25	ft amsl
Depth to Water	39.87	ft below TOC
Water Level Elevation	1658.38	ft amsl

Downgradient: MW-2017-02

Top of Casing Elevation	1681.03	ft amsl
Depth to Water	22.97	ft below TOC
Water Level Elevation	1658.06	ft amsl

horizontal hydraulic	4.09E-03	cm/s
conductivity (Kh)	11.6	ft/day
porosity (n)	0.33	
horizontal distance	1584	ft
WL elevation difference	0.32	ft
gradient (i)	2.020E-04	ft/ft
linear velocity (V)	7.09E-03	ft/day
V	2.6	ft/yr

2023 AGMCAR (AECOM, 2024)

2023 AGMCAR (AECOM, 2024)

Appendix C Groundwater Flow Rate 2024 Annual Monitoring Report LOS Multiunit CCR Groundwater Compliance

LOS - Multiunit Groundwater Velocity Calculation

|--|

Upgradient: MW-2017-07

Top of Casing Elevation	1698.25	ft amsl
Depth to Water	39.00	ft below TOC
Water Level Elevation	1659.25	ft amsl

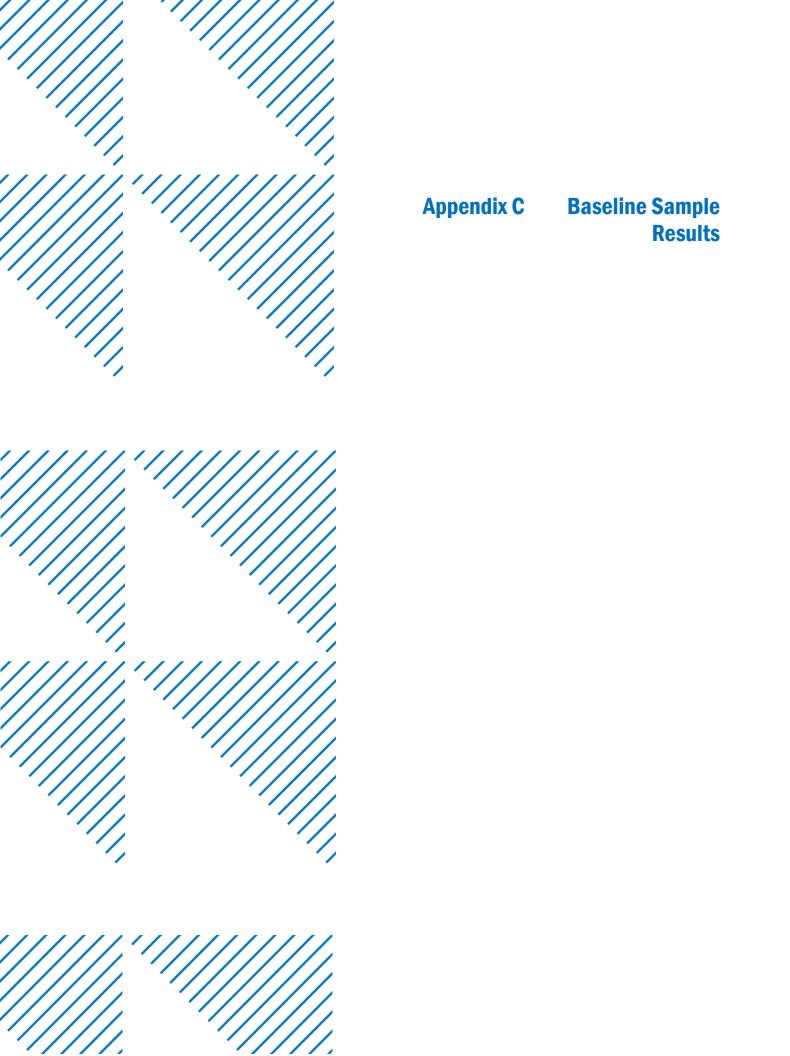
Downgradient: MW-2017-04

Top of Casing Elevation	1684.13	
Depth to Water	25.90	ft below TOC
Water Level Elevation	1658.23	ft amsl

horizontal hydraulic	4.09E-03	cm/s
conductivity (Kh)	11.6	ft/day
porosity (n)	0.33	
horizontal distance	15884	ft
WL elevation difference	1.02	ft
gradient (i)	6.422E-05	ft/ft
linear velocity (V)	2.26E-03	ft/day
V	0.8	ft/vr

2023 AGMCAR (AECOM, 2024)

2023 AGMCAR (AECOM, 2024)



Appendix C Baseline Sample Results 2024 Annual Monitoring Report BEPC-LOS Multiunit

Location		MW-2017-10	MW-2017-10		MW-2017-10	MW-2017-10	MW-2017-10	MW-2017-10		MW-2017-10	MW-2017-10	MW-2017-10	
		Date	5/03/2023	6/0	6/2023	6/26/2023	9/12/2023	4/15/2024	6/2	5/2024	8/16/2024	9/17/2024	10/15/2024
	S	ample Type	N	N	FD	N	N	N	N	FD	N	N	N
		Status	SSource	SSource	SSource	SSource	SSource	No QC	No QC	No QC	No QC	No QC	No QC
Parameter	Analysis Location	Units											
General Parameters													
Chloride	Lab	mg/l	12.0	12.2	12.3	11.7	11.6		10.3	10.3	11.2	10.6	10.9
Fluoride	Lab	mg/l	0.76	0.80	0.79	0.77	0.81		0.82	0.84	0.88	0.84	0.85
Solids, total dissolved	Lab	mg/l	640	670	655	682	667		676	679	672	672	677
Sulfate, as SO4	Lab	mg/l	269	265	353	328	298		298	294	297	280	315
Dissolved oxygen	Field	mg/l	1	1				0.22	0.18		0.18	0.10	0.32
pН	Field	pH units	7.25	7.50	7.50	7.47	7.47	7.54	7.57		7.59	7.56	7.57
Redox (oxidation potential)	Field	mV	1	1				-126.9	-23.6		-23	-26.9	-39.6
Specific conductance @ 25 deg C	Field	umhos/cm	-	-				995	1097		968	986	985
Temperature	Field	deg C	-					10.2	13.1		12.2	12.6	8.9
Turbidity	Field	NTU	-		-			0.55	1.02		1.14	1.02	0.49
Total Metals													
Antimony	Lab	mg/l	< 0.001 U		< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U				
Arsenic	Lab	mg/l	0.0025	0.0029	0.0031	0.0032	0.0032		0.0032	0.0034	0.0031	0.0035	0.0023
Barium	Lab	mg/l	0.0806	0.0796	0.0795	0.0837	0.0737		0.0784	0.0780	0.0694	0.0761	0.0774
Beryllium	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U				
Boron	Lab	mg/l	1.02	0.95	0.97	0.97	0.93		0.87	0.88	0.84	0.87	0.90
Cadmium	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U				
Calcium	Lab	mg/l	86.2	86.1	88.7	90.8	90.3		92.6	95.8	95.2	95.9	93.6
Chromium	Lab	mg/l	< 0.002 U		< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U				
Cobalt	Lab	mg/l	< 0.002 U		< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U				
Lead	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U				
Lithium	Lab	mg/l	< 0.02 U		< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U	< 0.02 U				
Mercury	Lab	mg/l	< 0.0002 U		< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U				
Molybdenum	Lab	mg/l	0.0082	0.0079	0.0083	0.0085	0.0080		0.0075	0.0076	0.0066	0.0074	0.0075
Selenium	Lab	mg/l	< 0.005 U		< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U				
Thallium	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U				
Radiochemical Parameters													
Radium 226	Lab	pCi/l	-					0.3 +/- 0.2 ND	0.4 +/- 0.2 ND		0.2 +/- 0.2 ND	0.1 +/- 0.1 ND	0.1 +/- 0.1 ND
Radium 228	Lab	pCi/l	-					0.2 +/- 0.5 ND	1.1 +/- 0.8 ND		2.2 +/- 0.9	0.7 +/- 0.6 ND	2.3 +/- 0.9
Radium, combined (226+228)	Lab	pCi/l	0.75	0.75	0.80	0.75	0.60						
Radium, combined (226+228)	Barr Calculation	pCi/l	-		-			0.5 +/- 0.5 q	1.5 +/- 0.8 q		2.4 +/- 0.9 q	0.8 +/- 0.6	2.4 +/- 0.9 q

Appendix C Baseline Sample Results 2024 Annual Monitoring Report BEPC-LOS Multiunit

		Location	MW-	-2017-11	MW-2017-11	MW-	2017-11	MW-	-2017-11	MW-2017-11	MW-2017-11	MW-2017-11	MW-2017-11	MW-2017-11	MW-2017-11
	Date		5/0	3/2023	6/06/2023	6/2	6/26/2023		9/12/2023		6/25/2024	8/16/2024	9/17/2024	10/15/2024	11/13/2024
	Sa	mple Type	N	FD	N	N	FD	N	FD	N	N	N	N	N	N
		Status	SSource	No QC	No QC	No QC	No QC	No QC	No QC						
Parameter	Analysis Location	Units													
General Parameters															
Chloride	Lab	mg/l	12.2	12.1	12.4	11.7	11.9	11.7	11.8		10.6	11.8	11.2	11.2	11.0
Fluoride	Lab	mg/l	0.75	0.75	0.77	0.70	0.71	0.73	0.72		0.73	0.76	0.92	0.75	0.44
Solids, total dissolved	Lab	mg/l	577	581	504	571	583	592	581		592	573	643	590	593
Sulfate, as SO4	Lab	mg/l	189	184	175	219	223	199	202		179	202	241	168	168
Dissolved oxygen	Field	mg/l								0.22	0.21	0.22	2.65	0.23	0.64
pН	Field	pH units	7.28	7.28	7.57	7.50	7.50	7.49	7.49	7.50	7.57	7.58	7.55	7.53	7.58
Redox (oxidation potential)	Field	mV								-136.4	-87.0	-89.9	36.4	-83.0	-81.4
Specific conductance @ 25 deg C	Field	umhos/cm								925	1023	901	939	911	909
Temperature	Field	deg C								10.4	11.8	11.9	11.6	10.2	9.2
Turbidity	Field	NTU								1.28	0.88	0.63	2.21	0.55	0.41
Total Metals															
Antimony	Lab	mg/l	< 0.001 U		< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U	< 0.001 U						
Arsenic	Lab	mg/l	0.0084	0.0083	0.0088	0.0100	0.0100	0.0084	0.0089		0.0101	0.0100	0.0022	0.0100	0.0108
Barium	Lab	mg/l	0.0485	0.0445	0.0458	0.0493	0.0490	0.0392	0.0399		0.0434	0.0392	0.0724	0.0442	0.0428
Beryllium	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	0.0009	< 0.0005 U						
Boron	Lab	mg/l	1.29	1.23	1.23	1.30	1.31	1.17	1.20		1.24	1.26	0.77	1.36	1.23
Cadmium	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U	< 0.0005 U						
Calcium	Lab	mg/l	65.4	63.2	63.1	68.3	68.8	63.7	65.6		63.2	70.1	90.4	61.9	67.6
Chromium	Lab	mg/l	< 0.002 U		< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U						
Cobalt	Lab	mg/l	< 0.002 U		< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U	< 0.002 U						
Lead	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	0.0008	< 0.0005 U						
Lithium	Lab	mg/l	0.0321	0.0308	0.0319	0.0323	0.0324	0.0294	0.0302		0.0322	0.0348	0.0226	0.0334	0.0321
Mercury	Lab	mg/l	< 0.0002 U		< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U	< 0.0002 U						
Molybdenum	Lab	mg/l	0.0095	0.0093	0.0097	0.0100	0.0108	0.0090	0.0090		0.0100	0.0095	0.0171	0.0102	0.0105
Selenium	Lab	mg/l	< 0.005 U		< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U	< 0.005 U						
Thallium	Lab	mg/l	< 0.0005 U		< 0.0005 U	< 0.0005 U	< 0.0005 U	0.0007	< 0.0005 U						
Radiochemical Parameters															
Radium 226	Lab	pCi/l								0.2 +/- 0.1 ND	0.1 +/- 0.1 ND	0.2 +/- 0.2 ND	0.3 +/- 0.2	0.1 +/- 0.1 ND	0.06 +/- 0.1 ND
Radium 228	Lab	pCi/l								0.8 +/- 0.6 ND	-0.2 +/- 0.7 ND	1.9 +/- 0.9	0.9 +/- 0.7 ND	1.9 +/- 0.9	0.2 +/- 0.5 ND
Radium, combined (226+228)	Lab	pCi/l	0.75	0.75	0.75	0.70	0.75	0.70	0.65			-			
Radium, combined (226+228)	Barr Calculation	pCi/l								1.0 +/- 0.6 q	0.1 +/- 0.1 q	2.1 +/- 0.9 q	1.2 +/- 0.7 q	2.0 +/- 0.9 q	0.3 +/- 0.5 ND

Barr Standard Footnotes and Qualifiers

	Not analyzed/Not available.
N	Sample Type: Normal
FD	Sample Type: Field Duplicate
ND	Not detected.
No QC	Laboratory data has been excluded from Barr QA/QC procedures.
SSource	Laboratory and/or field data obtained from a secondary source external to Barr. Second source QA/QC evaluation procedures may or may not have been performed beyond the original data generator.
q	The combined radium result includes both detected and not detected values.
U	The analyte was analyzed for, but was not detected.