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We Energies

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2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

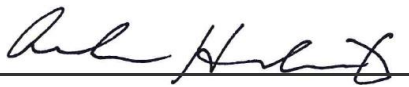
CALEDONIA ASH LANDFILL

**2022 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
CALEDONIA ASH LANDFILL**

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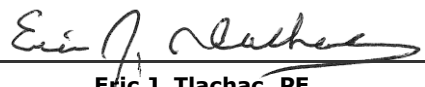
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ACRONYMS AND ABBREVIATIONS

§	Section
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternate Source Demonstration
B	boron
Ca	calcium
CCR	coal combustion residuals
GWPS	groundwater protection standard
mg/L	milligrams per liter
NA	not applicable
NRT/OBG	Natural Resource Technology, Inc., an OBG Company
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Sampling and Analysis Plan
SO ₄	sulfate
SSI	statistically significant increase
TBD	to be determined
TDS	total dissolved solids

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) Section (§) 257.90(e) for the Caledonia Ash Landfill located in Caledonia, Wisconsin.

Groundwater is being monitored at the Caledonia Ash Landfill in accordance with the detection monitoring program requirements specified in 40 C.F.R. § 257.94.

No changes were made to the monitoring system in 2022 (no wells were installed or decommissioned).

In 2022, groundwater analytical data was evaluated for statistically significant increases (SSIs) over background concentrations for Appendix III constituents in groundwater monitoring wells at the Caledonia Ash Landfill. The following constituents and wells had SSIs reported in 2022:

- Boron (B) – W08D, W09D, W10D, W49 and W50
- Calcium (Ca) – W08D
- Sulfate (SO₄) – W08D, W09D, W10D, W49 and W50
- Total Dissolved Solids (TDS) – W08D and W50

Alternate Source Demonstrations (ASDs) prepared in prior years provided justification that the SSIs observed during the Detection Monitoring Program were not due to a release from the coal combustion residuals (CCR) unit but were either from an error in sampling or analysis or from naturally occurring conditions (e.g., natural variation in groundwater quality).

The Caledonia Ash Landfill remains in the detection monitoring program in accordance with 40 C.F.R. § 257.94.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of We Energies to provide the information required by 40 C.F.R. § 257.90(e) the Caledonia Ash Landfill located in Caledonia, WI.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a CCR unit must prepare an Annual Groundwater Monitoring and Corrective Action Report for the preceding calendar year that documents the status of the Groundwater Monitoring and Corrective Action Program for the CCR unit, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and projects key activities for the upcoming year. At a minimum, the annual report must contain the following information, to the extent available:

1. 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.
2. 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.
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs.
4. 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 relative to background levels).
5. Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.
6. 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. At a minimum, the summary must specify all of the following:
 - i. At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.
 - ii. At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in § 257.94 or the assessment monitoring program in § 257.95.
 - iii. If it was determined that there was a statistically significant increase over background for one or more constituents listed in Appendix III of § 257 pursuant to § 257.94(e):
 - A. Identify those constituents listed in Appendix III of § 257 and the names of the monitoring wells associated with such an increase.
 - B. Provide the date when the assessment monitoring program was initiated for the CCR unit.

- iv. If it was determined that there was a statistically significant level above the groundwater protection standard [GWPS] for one or more constituents listed in Appendix IV of § 257 pursuant to § 257.95(g) include all of the following:
 - A. Identify those constituents listed in Appendix IV of § 257 and the names of the monitoring wells associated with such an increase.
 - B. Provide the date when the assessment of corrective measures was initiated for the CCR unit.
 - C. Provide the date when the public meeting was held for the assessment of corrective measures for the CCR unit.
 - D. Provide the date when the assessment of corrective measures was completed for the CCR unit.
- v. Whether a remedy was selected pursuant to § 257.97 during the current annual reporting period, and if so, the date of remedy selection.
- vi. Whether remedial activities were initiated or are ongoing pursuant to § 257.98 during the current annual reporting period.

This report provides the required information for the Caledonia Ash Landfill for calendar year 2022.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the monitoring program status in calendar year 2022 and the Caledonia Ash Landfill remains in the detection monitoring program in accordance with 40 C.F.R. § 257.94.

3. KEY ACTIONS COMPLETED IN 2022

The detection monitoring program is summarized in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background (upgradient) and downgradient monitoring wells, is presented in **Figure 1**. No changes were made to the monitoring system in 2022. In general, one groundwater sample was collected from each background and compliance well during each monitoring event. All samples were collected and analyzed in accordance with the *Sampling and Analysis Plan* (SAP; Natural Resource Technology, an OBG Company [NRT/OBG], 2017). Potentiometric surface maps for the fourth quarter of 2021 and both monitoring events in 2022 are included in **Figures 2 through 4**. Water level data, collected from background and downgradient monitoring wells, are included in **Table 1**. All monitoring data and analytical results obtained under 40 C.F.R. §§ 257.90 through 257.98 (as applicable) in the fourth quarter of 2021 and both monitoring events in 2022 are presented in **Tables 2**. Laboratory reports for the fourth quarter of 2021 and both 2022 monitoring events are included in **Appendix A**.

Analytical data were evaluated in accordance with the *Statistical Analysis Plan, Caledonia Ash Landfill* (NRT/OBG, 2017) to determine any SSIs for Appendix III parameters relative to background concentrations. Statistical background values are provided in **Table 3**. A flow chart showing the statistical methodology for determining background values is included as **Appendix B**.

Statistical evaluation of analytical data, including SSI determinations, from the Detection Monitoring Program for November 8-9, 2021 (Detection Monitoring Round 9) and May 5, 2022 (Detection Monitoring Round 10) were completed in 2022 and within 90 days of receipt of the analytical data. SSIs over background concentrations for Appendix III constituents were identified during data evaluations of Round 9 and Round 10 groundwater sampling analytical data. Additional information regarding SSI parameters and well locations is provided in **Table A**.

The ASDs dated April 15, 2018 and November 23, 2020 for the Caledonia Ash Landfill provided a description, data, and pertinent information supporting an alternate source for the wells and parameters with SSIs in Detection Monitoring Rounds 9-10. Data resulting in SSIs above background are consistent with analytical results observed in previous detection monitoring rounds. As a result, no ASDs were prepared in 2022.

Table A. 2021-2022 Detection Monitoring Program Summary

Detection Round	Sampling Date	Analytical Data Receipt Date	Parameters Collected	SSI Wells (Parameters)	SSI(s) Determination Date	ASD Completion Date¹
9	November 8-9, 2021	December 15, 2021	Appendix III	W08D (B, Ca, SO ₄ , TDS) W09D (SO ₄) W10D (B, SO ₄) W49 (B, SO ₄) W50 (B, SO ₄ , TDS)	March 15, 2022	NA
10	May 4-5, 2022	May 22, 2022	Appendix III	W08D (B, Ca, SO ₄ , TDS) W09D (B, SO ₄) W10D (B, SO ₄) W49 (B, SO ₄) W50 (B, SO ₄ , TDS)	August 23, 2022	NA
11	November 7, 2022	January 6, 2023	Appendix III	TBD	TBD Before April 8, 2023	TBD

Notes:

NA: not applicable

TBD: to be determined

¹ASDs previously completed on April 15, 2018 and November 23, 2020 for the Caledonia Ash Landfill provided a description, data, and pertinent information supporting an alternate source for the wells and parameters with SSIs identified during the November 8-9, 2021 and May 4-5, 2022 sampling events.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the Groundwater Monitoring Program during 2022. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2023

The following key activities are planned for 2023:

- Continuation of the detection monitoring program with semi-annual sampling scheduled for the second and fourth quarters of 2023.
- Complete evaluation of analytical data from the compliance wells using background data to determine whether an SSI of Appendix III parameters detected at concentrations greater than background concentrations has occurred.
- If an SSI is identified, potential alternate sources (*i.e.*, a source other than the CCR unit caused the SSI or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated.
 - If an alternate source is identified to be the cause of the SSI, a written demonstration will be completed within 90 days of SSI determination and included in the 2023 Annual Groundwater Monitoring and Corrective Action Report.
 - If an alternate source(s) is not identified to be the cause of the SSI, the applicable requirements of 40 C.F.R. §§ 257.94 through 257.98 as may apply in 2023 (*e.g.*, assessment monitoring) will be met, including associated recordkeeping/notifications required by 40 C.F.R. §§ 257.105 through 257.108.

6. REFERENCES

Natural Resource Technology, an OBG Company (NRT/OBG), 2017, *Sampling and Analysis Plan Revision 2, Caledonia Ash Landfill, Caledonia, Wisconsin, September 29, 2017.*

Natural Resource Technology, an OBG Company (NRT/OBG), 2017, *Statistical Analysis Plan, Caledonia Ash Landfill, Caledonia, Wisconsin, October 17, 2017.*

TABLES

**TABLE 1
GROUNDWATER ELEVATIONS**

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
CALEDONIA ASH LANDFILL
CALEDONIA, WI

Well ID	Well Type	Latitude (Decimal degrees)	Longitude (Decimal degrees)	Date	Groundwater Elevation (ft NAVD88)
W46D	Background (Upgradient/Side-gradient)	42.83840	-87.84685	11/08/2021	652.57
				05/04/2022	655.71
				11/07/2022	651.73
W48	Background (Upgradient)	42.83564	-87.84441	11/09/2021	653.61
				05/05/2022	657.06
				11/07/2022	655.11
W08D	Compliance (Downgradient)	42.83621	-87.83965	11/09/2021	652.14
				05/04/2022	655.10
				11/07/2022	650.23
W09D	Compliance (Downgradient)	42.83892	-87.83924	11/08/2021	651.72
				05/04/2022	655.02
				11/07/2022	652.92
W10D	Compliance (Downgradient)	42.83985	-87.84015	11/09/2021	651.08
				05/05/2022	654.08
				11/07/2022	651.57
W49	Compliance (Downgradient)	42.83987	-87.84187	11/09/2021	651.32
				05/05/2022	654.45
				11/07/2022	652.68
W50	Compliance (Downgradient)	42.83751	-87.83865	11/09/2021	651.69
				05/05/2022	654.84
				11/07/2022	653.06

Notes:

ft = foot/feet

NAVD88 = North American Vertical Datum of 1988

Table 2. Analytical Results - Appendix III Parameters

Date Range: 11/01/2021 to 12/01/2022

Lab Methods:

Well Id	Date Sampled	Lab Id	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
W08D	11/9/2021	AE57087	0.450	49.800	9.800	1.300	7.5	219.000
	5/4/2022	AE60495	0.455	52.000	11.900	1.600	7.4	240.000
	11/7/2022	AE63530	0.460	48.600	9.500	1.200	7.7	210.000
W09D	11/8/2021	AE57086	0.391	18.400	3.800	1.400	8.1	33.200
	5/4/2022	AE60494	0.402	20.700	6.500	1.600	7.8	33.900
	11/7/2022	AE63529	0.422	17.900	3.600	1.300	7.9	32.900
W10D	11/9/2021	AE57090	0.429	20.900	4.000	1.300	8.0	40.600
	5/5/2022	AE60497	0.412	22.900	7.100	1.600	7.9	43.900
	11/7/2022	AE63528	0.443	20.200	3.900	1.300	7.7	42.200
W46D	11/8/2021	AE57085	0.385	26.100	5.600	1.200	7.3	17.700
	5/4/2022	AE60493	0.364	26.900	9.500	1.300	7.0	36.700
	11/7/2022	AE63526	0.368	24.600	6.800	1.100	7.1	34.400
W48	11/9/2021	AE57089	0.377	27.100	3.800	0.970	7.9	<0.440
	5/5/2022	AE60499	0.370	28.400	<2.200	<0.480	7.8	<2.200
	11/7/2022	AE63525	0.386	26.000	3.800	0.960	7.7	0.470
W49	11/9/2021	AE57092	0.449	16.800	4.500	1.400	7.6	37.800
	5/5/2022	AE60500	0.444	17.900	7.300	1.900	7.8	36.700
	11/7/2022	AE63532	0.458	15.600	4.300	1.500	8.1	50.000
W50	11/9/2021	AE57091	0.510	28.400	6.000	1.200	7.7	81.400
	5/5/2022	AE60498	0.499	29.900	8.300	1.400	7.6	81.000
	11/7/2022	AE63531	0.541	28.900	5.800	1.200	7.6	67.000

Table 2. Analytical Results - Appendix III Parameters

Date Range: 11/01/2021 to 12/01/2022

Lab Methods:

Well Id	Date Sampled	Lab Id	TDS, mg/L
W08D	11/9/2021	AE57087	472.000
	5/4/2022	AE60495	480.000
	11/7/2022	AE63530	482.000
W09D	11/8/2021	AE57086	186.000
	5/4/2022	AE60494	214.000
	11/7/2022	AE63529	212.000
W10D	11/9/2021	AE57090	212.000
	5/5/2022	AE60497	180.000
	11/7/2022	AE63528	218.000
W46D	11/8/2021	AE57085	206.000
	5/4/2022	AE60493	254.000
	11/7/2022	AE63526	216.000
W48	11/9/2021	AE57089	256.000
	5/5/2022	AE60499	198.000
	11/7/2022	AE63525	280.000
W49	11/9/2021	AE57092	204.000
	5/5/2022	AE60500	204.000
	11/7/2022	AE63532	220.000
W50	11/9/2021	AE57091	272.000
	5/5/2022	AE60498	298.000
	11/7/2022	AE63531	292.000

Notes:

Exceedance of Background

TABLE 3**STATISTICAL BACKGROUND VALUES**

2022 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
CALEDONIA ASH LANDFILL
CALEDONIA, WI

Parameter	Statistical Background Value (LPL/UPL)
40 C.F.R. Part 257 Appendix III	
Boron (mg/L)	0.401
Calcium (mg/L)	34.4
Chloride (mg/L)	13.8
Fluoride (mg/L)	4.00
pH (field) (SU)	7.0/8.5
Sulfate (mg/L)	30.2
Total Dissolved Solids (mg/L)	260

Notes:

40 C.F.R. = Title 40 of the Code of Federal Regulations

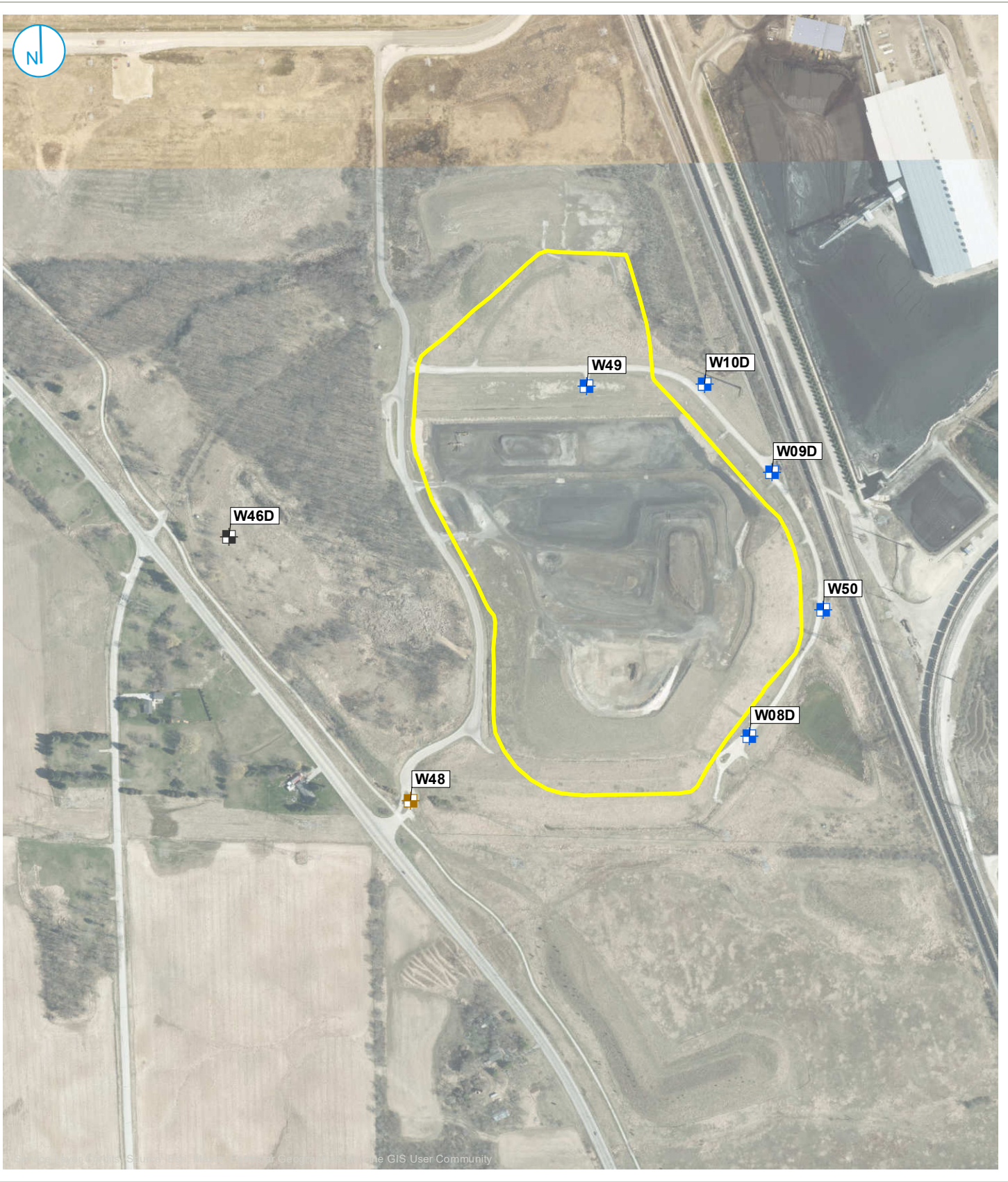
LPL = Lower Prediction Limit (applicable for pH only)





mg/L = milligrams per liter

SU = Standard Units

UPL = Upper Prediction Limit

FIGURES



-  CCR RULE BACKGROUND MONITORING WELL LOCATION
-  CCR RULE DOWNGRADENT MONITORING WELL LOCATION
-  CCR RULE UPGRADIANT MONITORING WELL LOCATION
-  UNIT BOUNDARY



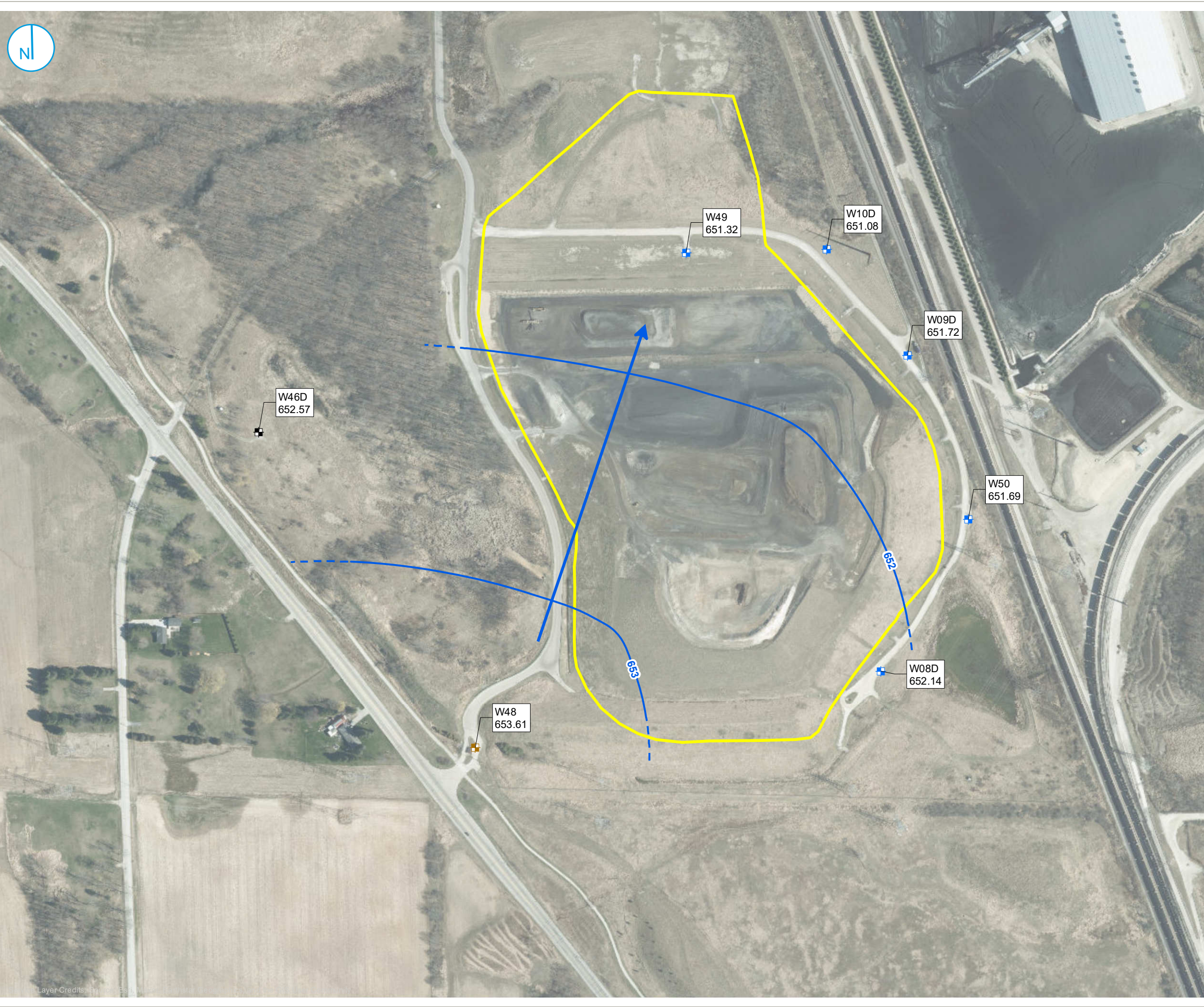
MONITORING WELL LOCATION MAP

FIGURE 1

**2022 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
CALEDONIA ASH LANDFILL
CALEDONIA POWER PLANT
CALEDONIA, WISCONSIN**

RAMBOLL AMERICAS
ENGINEERING SOLUTIONS, INC.





- CCR RULE BACKGROUND MONITORING WELL LOCATION
- CCR RULE DOWNGRADIENT MONITORING WELL LOCATION
- CCR RULE UPGRADIENT MONITORING WELL LOCATION
- UNIT BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION



**POTENTIOMETRIC SURFACE MAP
NOVEMBER 8-9, 2021**

**2022 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
CALEDONIA ASH LANDFILL
CALEDONIA POWER PLANT
CALEDONIA, WISCONSIN**

FIGURE 2





- CCR RULE BACKGROUND MONITORING WELL LOCATION
- CCR RULE DOWNGRAIDENT MONITORING WELL LOCATION
- CCR RULE UPGRADIENT MONITORING WELL LOCATION
- UNIT BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

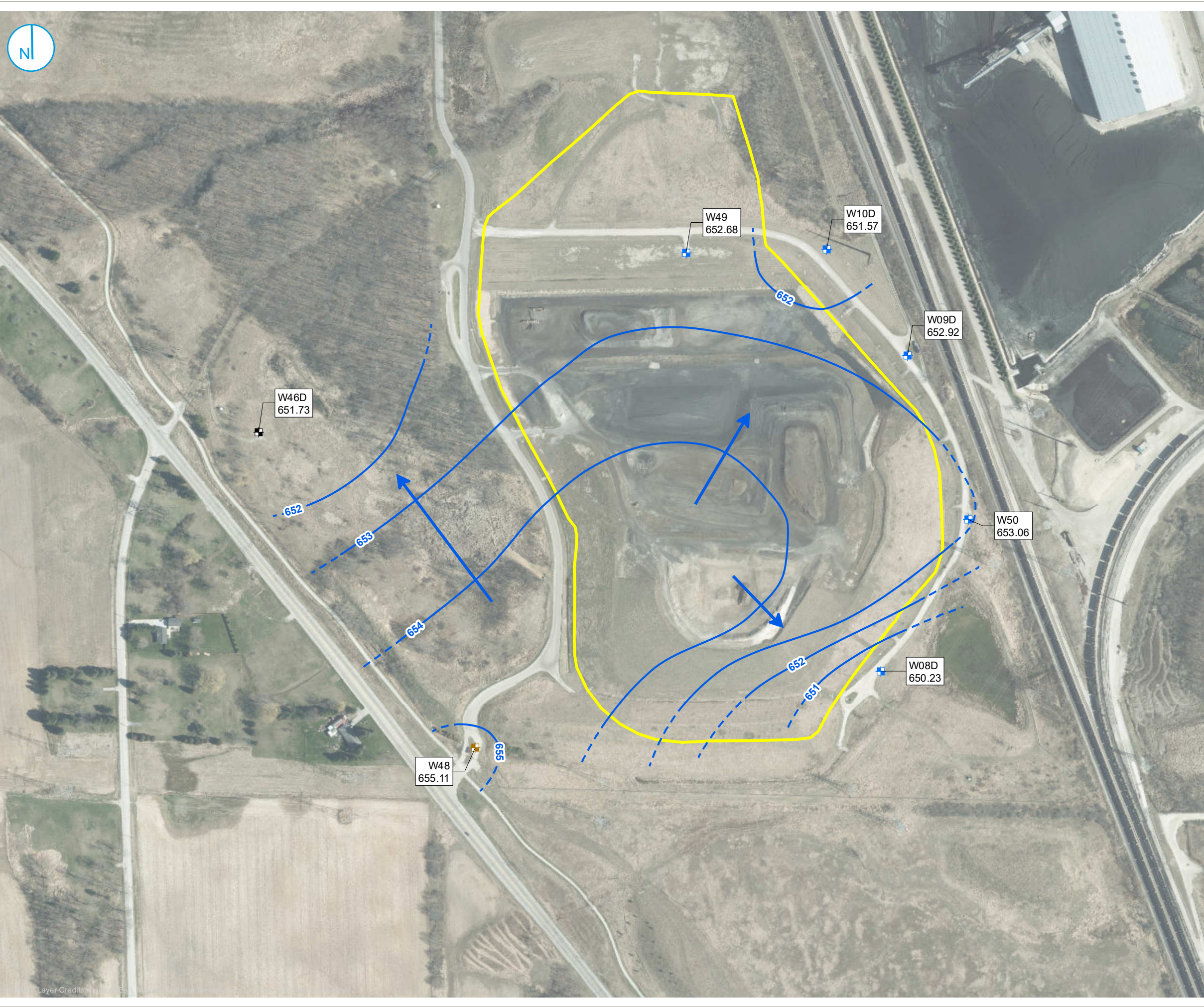


**POTENTIOMETRIC SURFACE MAP
MAY 4-5, 2022**

2022 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
CALEDONIA ASH LANDFILL
CALEDONIA POWER PLANT
CALEDONIA, WISCONSIN

FIGURE 3





- CCR RULE BACKGROUND MONITORING WELL LOCATION
- CCR RULE DOWNGRADIENT MONITORING WELL LOCATION
- CCR RULE UPGRADIENT MONITORING WELL LOCATION
- UNIT BOUNDARY
- GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION



**POTENTIOMETRIC SURFACE MAP
NOVEMBER 7, 2022**

**2022 ANNUAL GROUNDWATER MONITORING
AND CORRECTIVE ACTION REPORT
CALEDONIA ASH LANDFILL
CALEDONIA POWER PLANT
CALEDONIA, WISCONSIN**

FIGURE 4



APPENDICES

APPENDIX A
LABORATORY REPORTS

To: Bob Meidl
PSB Annex A231

From: WEC Business Services
Laboratory Services PSBA-A070
WDNR Cert # 241329000



Report Date: Wednesday, December 15, 2021

The following are the analytical results for samples received by Laboratory Services:

Sample Description: Caledonia CCR Well Sample 110821001									
Sample ID: AE57085		Sample Collection Date/Time: 11/08/2021 09:32							
Sample Received: 11/10/2021		Sample Collector: L.ALBRIGHT							
<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	48.69	0.05	feet		1.0		H2OD	11/8/21	L ALBRIGHT
Field Temperature	15	0.1	Degrees C		1.0		TEMP	11/8/21	L ALBRIGHT
Field Conductivity	393	0	umhos		1.0		FCOND25	11/8/21	L ALBRIGHT
Field pH	7.3	0.1	Units	0.1	1.0		FIELDPH	11/8/21	L ALBRIGHT
Total Dissolved Solids	206	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/17/21	020
Total Fluoride	1.2	0.095	mg/L	0.32	1.0		EPA 300.0	12/6/21	020
Total Chloride	5.6	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	17.7	0.44	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Boron	385	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	26100	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	5.9	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	18.1	0.44	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	170	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/18/21	020
Bicarbonate Ion	169.7	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	0.3	0.1	mg/L		1.0		CO3	12/23/21	PJA
Dissolved Calcium	25600	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	14700	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	35000	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	1880	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

Sample Description: Caledonia CCR Well Sample 110821002									
Sample ID: AE57086		Sample Collection Date/Time: 11/08/2021 13:35							
Sample Received: 11/10/2021		Sample Collector: L.ALBRIGHT							
<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	55.63	0.05	feet		1.0		H2OD	11/8/21	L ALBRIGHT
Field Temperature	18	0.1	Degrees C		1.0		TEMP	11/8/21	L ALBRIGHT
Field Conductivity	291	0	umhos		1.0		FCOND25	11/8/21	L ALBRIGHT
Field pH	8.1	0.1	Units	0.1	1.0		FIELDPH	11/8/21	L ALBRIGHT
Total Dissolved Solids	186	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/17/21	020
Total Fluoride	1.4	0.095	mg/L	0.32	1.0		EPA 300.0	12/6/21	020
Total Chloride	3.8	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	33.2	0.44	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Boron	391	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020

Report Date: Wednesday, December 15, 2021

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **Caledonia CCR Well Sample 110821002**
Sample ID: AE57086 Sample Collection Date/Time: 11/08/2021 13:35
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Total Calcium	18400	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	3.8	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	33.8	0.44	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	142	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/18/21	020
Bicarbonate Ion	140.2	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	1.8	0.1	mg/L		1.0		CO3	12/13/21	PJA
Dissolved Calcium	18800	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	10800	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	40700	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	1040	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

Sample Description: **Caledonia CCR Well Sample 110921003**
Sample ID: AE57087 Sample Collection Date/Time: 11/09/2021 11:38
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	46.14	0.05	feet		1.0		H2OD	11/9/21	L ALBRIGHT
Field Temperature	14	0.1	Degrees C		1.0		TEMP	11/9/21	L ALBRIGHT
Field Conductivity	748	0	umhos		1.0		FCOND25	11/9/21	L ALBRIGHT
Field pH	7.5	0.1	Units	0.1	1.0		FIELDPH	11/9/21	L ALBRIGHT
Total Dissolved Solids	472	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/16/21	020
Total Fluoride	1.3	0.095	mg/L	0.32	1.0		EPA 300.0	12/6/21	020
Total Chloride	9.8	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	219	4.4	mg/L	20.0	1.0		EPA 300.0	12/6/21	020
Total Boron	450	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	49800	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	9.8	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	218	4.4	mg/L	20.0	1.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	155	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/18/21	020
Bicarbonate Ion	154.5	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	0.5	0.1	mg/L		1.0		CO3	12/13/21	PJA
Dissolved Calcium	51700	2270	ug/L	10000	20.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	23100	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	77800	7000	ug/L	10000	20.0		EPA 200.7	11/15/21	020
Dissolved Potassium	3080	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

Report Date: Wednesday, December 15, 2021

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **Caledonia CCR Well Sample 110921004**
 Sample ID: AE57088 Sample Collection Date/Time: 11/09/2021 11:43
 Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Total Dissolved Solids	462	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/16/21	020
Total Fluoride	1.2	0.095	mg/L	0.32	1.0		EPA 300.0	12/6/21	020
Total Chloride	9.8	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	205	4.4	mg/L	20.0	1.0		EPA 300.0	12/6/21	020
Total Boron	458	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	51100	2270	ug/L	10000	20.0		EPA 200.7	11/15/21	020
Dissolved Chloride	9.8	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	212	4.4	mg/L	20.0	10.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	161	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/19/21	020
Dissolved Calcium	50400	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	22500	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	75600	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	3090	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

Sample Description: **Caledonia CCR Well Sample 110921005**
 Sample ID: AE57089 Sample Collection Date/Time: 11/09/2021 12:30
 Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	62.27	0.05	feet		1.0		H2OD	11/9/21	L ALBRIGHT
Field Temperature	13	0.1	Degrees C		1.0		TEMP	11/9/21	L ALBRIGHT
Field Conductivity	427	0	umhos		1.0		FCOND25	11/9/21	L ALBRIGHT
Field pH	7.9	0.1	Units	0.1	1.0		FIELDPH	11/9/21	L ALBRIGHT
Total Dissolved Solids	256	20	mg/L		1.0		Std Mtd 2540 C	11/16/21	020
Total Fluoride	0.97	0.095	mg/L	0.32	1.0		EPA 300.0	12/6/21	020
Total Chloride	3.8	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	Less Than	0.44	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Boron	377	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	27100	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	3.9	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	Less Than	0.44	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	223	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/19/21	020
Bicarbonate Ion	221.4	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	1.6	0.1	mg/L		1.0		CO3	12/13/21	PJA
Dissolved Calcium	26200	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	17000	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	45300	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	1540	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Report Date: Wednesday, December 15, 2021

The following are the analytical results for samples received by Laboratory Services:

Sample Comments:

Sample Description: **Caledonia CCR Well Sample 110921006**
Sample ID: AE57090 Sample Collection Date/Time: 11/09/2021 13:11
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	52.02	0.05	feet		1.0		H2OD	11/9/21	L ALBRIGHT
Field Temperature	12	0.1	Degrees C		1.0		TEMP	11/9/21	L ALBRIGHT
Field Conductivity	353	0	umhos		1.0		FCOND25	11/9/21	L ALBRIGHT
Field pH	8.0	0.1	Units	0.1	1.0		FIELDPH	11/9/21	L ALBRIGHT
Total Dissolved Solids	212	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/16/21	020
Total Fluoride	1.3	0.095	mg/L	0.32	1.0		EPA 300.0	12/6/21	020
Total Chloride	4.0	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	40.6	0.44	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Boron	429	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	20900	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	4.2	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	43.1	0.44	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	133	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/19/21	020
Bicarbonate Ion	131.8	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	1.1	0.1	mg/L		1.0		CO3	12/13/21	PJA
Dissolved Calcium	21900	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	8480	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	45900	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	1500	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

Sample Description: **Caledonia CCR Well Sample 110921007**
Sample ID: AE57091 Sample Collection Date/Time: 11/09/2021 13:48
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	42.99	0.05	feet		1.0		H2OD	11/9/21	L ALBRIGHT
Field Temperature	14	0.1	Degrees C		1.0		TEMP	11/9/21	L ALBRIGHT
Field Conductivity	260	0	umhos		1.0		FCOND25	11/9/21	L ALBRIGHT
Field pH	7.7	0.1	Units	0.1	1.0		FIELDPH	11/9/21	L ALBRIGHT
Total Dissolved Solids	272	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/16/21	020
Total Fluoride	1.2	0.095	mg/L	0.32	1.0		EPA 300.0	12/6/21	020
Total Chloride	6.0	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	81.4	2.2	mg/L	10.0	5.0		EPA 300.0	12/6/21	020
Total Boron	510	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	28400	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	6.0	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	82.0	2.2	mg/L	10.0	5.0		EPA 300.0	12/7/21	020

Report Date: Wednesday, December 15, 2021

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **Caledonia CCR Well Sample 110921007**
Sample ID: AE57091 Sample Collection Date/Time: 11/09/2021 13:48
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Total Filtered Alkalinity as CaCO3	145	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/19/21	020
Bicarbonate Ion	144.3	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	0.6	0.1	mg/L		1.0		CO3	12/13/21	PJA
Dissolved Calcium	28600	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	10500	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	56400	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	1590	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

Sample Description: **Caledonia CCR Well Sample 110921008**
Sample ID: AE57092 Sample Collection Date/Time: 11/09/2021 14:30
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	66.17	0.05	feet		1.0		H2OD	11/9/21	L ALBRIGHT
Field Temperature	13	0.1	Degrees C		1.0		TEMP	11/9/21	L ALBRIGHT
Field Conductivity	337	0	umhos		1.0		FCOND25	11/9/21	L ALBRIGHT
Field pH	7.6	0.1	Units	0.1	1.0		FIELDPH	11/9/21	L ALBRIGHT
Total Dissolved Solids	204	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/16/21	020
Total Fluoride	1.4	0.095	mg/L	0.32	1.0		EPA 300.0	12/9/21	020
Total Chloride	4.5	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	37.8	0.44	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Boron	449	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	16800	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	4.5	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	37.4	0.44	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	130	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/19/21	020
Bicarbonate Ion	129.5	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	0.5	0.1	mg/L		1.0		CO3	12/13/21	PJA
Dissolved Calcium	16600	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	7080	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	49600	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	1000	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

Sample Description: **Caledonia CCR Well Sample 110921009**
Sample ID: AE57093 Sample Collection Date/Time: 11/09/2021 14:45
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
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Report Date: Wednesday, December 15, 2021

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **Caledonia CCR Well Sample 110921009**
Sample ID: AE57093 Sample Collection Date/Time: 11/09/2021 14:45
Sample Received: 11/10/2021 Sample Collector: L.ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Temperature	17	0.1	Degrees C		1.0		TEMP	11/9/21	L ALBRIGHT
Field Conductivity	6.52	0	umhos		1.0		FCOND25	11/9/21	L ALBRIGHT
Field pH	7.4	0.1	Units	0.1	1.0		FIELDPH	11/9/21	L ALBRIGHT
Total Dissolved Solids	Less Than	8.7	mg/L	20.0	1.0		Std Mtd 2540 C	11/16/21	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1.0		EPA 300.0	12/9/21	020
Total Chloride	Less Than	0.43	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Sulfate	Less Than	0.44	mg/L	2.0	1.0		EPA 300.0	12/6/21	020
Total Boron	Less Than	17.3	ug/L	40.0	1.0		EPA 200.7	11/15/21	020
Total Calcium	Less Than	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Chloride	Less Than	0.43	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Dissolved Sulfate	Less Than	0.44	mg/L	2.0	1.0		EPA 300.0	12/7/21	020
Total Filtered Alkalinity as CaCO3	Less Than	5.0	mg/l	10.0	1.0		Std Mtd 2320 B	11/17/21	020
Bicarbonate Ion	Less Than	5.0	mg/L	10.0	1.0		HCO3	12/13/21	PJA
Carbonate Ion	Less Than	0.1	mg/L		1.0		CO3	12/13/21	PJA
Dissolved Calcium	Less Than	114	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Magnesium	Less Than	182	ug/L	1000	1.0		EPA 200.7	11/15/21	020
Dissolved Sodium	Less Than	350	ug/L	500	1.0		EPA 200.7	11/15/21	020
Dissolved Potassium	Less Than	325	ug/L	1000	1.0		EPA 200.7	11/15/21	020

Sample Comments:

LOD and LOQ are adjusted for dilution factor.

'J' Flag, if present indicates an estimated concentration at or above the LOD and below the LOQ.

If there are any questions concerning this report, please contact: Patrick Ahrens at (414) 221-2835.

To: Bob Meidl
PSB Annex A231

From: WEC Business Services
Laboratory Services PSBA-A070
WDNR Cert # 241329000



Report Date: Wednesday, May 25, 2022

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **050422001 Caledonia CCR Well Sample**
 Sample ID: AE60493 Sample Collection Date/Time: 05/04/2022 09:51
 Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	45.55	0.05	feet		1		H2OD	5/4/22	L. ALBRIGHT
Field Temperature	10.70	0.1	Degrees		1		TEMP	5/4/22	L. ALBRIGHT
Field Conductivity	491.76	0	umhos		1		FCOND25	5/4/22	L. ALBRIGHT
Field pH	7.02	0.1	Units	0.1	1		FIELDPH	5/4/22	L. ALBRIGHT
Total Dissolved Solids	254	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	9.5	2.2	mg/L	10.0	5	J	EPA 300.0	5/7/22	020
Total Fluoride	1.3	0.48	mg/L	1.6	5	J	EPA 300.0	5/7/22	020
Total Sulfate	36.7	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Boron	364	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	26900	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

Sample Description: **050422002 Caledonia CCR Well Sample**
 Sample ID: AE60494 Sample Collection Date/Time: 05/04/2022 13:22
 Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	52.33	0.05	feet		1		H2OD	5/4/22	L. ALBRIGHT
Field Temperature	10.30	0.1	Degrees		1		TEMP	5/4/22	L. ALBRIGHT
Field Conductivity	422.23	0	umhos		1		FCOND25	5/4/22	L. ALBRIGHT
Field pH	7.84	0.1	Units	0.1	1		FIELDPH	5/4/22	L. ALBRIGHT
Total Dissolved Solids	214	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	6.5	2.2	mg/L	10.0	5	J,X	EPA 300.0	5/7/22	020
Total Fluoride	1.6	0.48	mg/L	1.6	5		EPA 300.0	5/7/22	020
Total Sulfate	33.9	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Boron	402	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	20700	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

Report Date: Wednesday, May 25, 2022

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **050422003 Caledonia CCR Well Sample**
Sample ID: AE60495 Sample Collection Date/Time: 05/04/2022 15:38
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	43.18	0.05	feet		1		H2OD	5/4/22	L. ALBRIGHT
Field Temperature	10.24	0.1	Degrees		1		TEMP	5/4/22	L. ALBRIGHT
Field Conductivity	930.56	0	umhos		1		FCOND25	5/4/22	L. ALBRIGHT
Field pH	7.38	0.1	Units	0.1	1		FIELDPH	5/4/22	L. ALBRIGHT
Total Dissolved Solids	480	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	11.9	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Fluoride	1.6	0.48	mg/L	1.6	1		EPA 300.0	5/7/22	020
Total Sulfate	240	8.9	mg/L	40.0	20		EPA 300.0	5/7/22	020
Total Boron	455	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	52000	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

Sample Description: **050422004 Caledonia CCR Well Sample**
Sample ID: AE60496 Sample Collection Date/Time: 05/04/2022 15:43
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Total Dissolved Solids	488	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	11.9	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Fluoride	1.5	0.48	mg/L	1.6	5	J	EPA 300.0	5/7/22	020
Total Sulfate	230	8.9	mg/L	40.0	20		EPA 300.0	5/7/22	020
Total Boron	436	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	52100	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

Sample Description: **050422005 Caledonia CCR Well Sample**
Sample ID: AE60497 Sample Collection Date/Time: 05/05/2022 10:17
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	49.02	0.05	feet		1		H2OD	5/5/22	L. ALBRIGHT
Field Temperature	9.86	0.1	Degrees		1		TEMP	5/5/22	L. ALBRIGHT
Field Conductivity	408.09	0	umhos		1		FCOND25	5/5/22	L. ALBRIGHT
Field pH	7.92	0.1	Units	0.1	1		FIELDPH	5/5/22	L. ALBRIGHT
Total Dissolved Solids	180	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	7.1	2.2	mg/L	10.0	5	J	EPA 300.0	5/7/22	020
Total Fluoride	1.6	0.48	mg/L	1.6	5		EPA 300.0	5/7/22	020
Total Sulfate	43.9	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Boron	412	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	22900	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Report Date: Wednesday, May 25, 2022

The following are the analytical results for samples received by Laboratory Services:

Sample Comments:

Sample Description: **050422006 Caledonia CCR Well Sample**
Sample ID: AE60498 Sample Collection Date/Time: 05/05/2022 10:57
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	39.84	0.05	feet		1		H2OD	5/5/22	L. ALBRIGHT
Field Temperature	9.96	0.1	Degrees		1		TEMP	5/5/22	L. ALBRIGHT
Field Conductivity	534.97	0	umhos		1		FCOND25	5/5/22	L. ALBRIGHT
Field pH	7.56	0.1	Units	0.1	1		FIELDPH	5/5/22	L. ALBRIGHT
Total Dissolved Solids	298	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	8.3	2.2	mg/L	10.0	5	J	EPA 300.0	5/7/22	020
Total Fluoride	1.4	0.48	mg/L	1.6	5	J	EPA 300.0	5/7/22	020
Total Sulfate	81.0	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Boron	499	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	29900	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

Sample Description: **050422007 Caledonia CCR Well Sample**
Sample ID: AE60499 Sample Collection Date/Time: 05/05/2022 12:35
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	58.82	0.05	feet		1		H2OD	5/5/22	L. ALBRIGHT
Field Temperature	10.40	0.1	Degrees		1		TEMP	5/5/22	L. ALBRIGHT
Field Conductivity	487.78	0	umhos		1		FCOND25	5/5/22	L. ALBRIGHT
Field pH	7.79	0.1	Units	0.1	1		FIELDPH	5/5/22	L. ALBRIGHT
Total Dissolved Solids	198	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	Less Than	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Fluoride	Less Than	0.48	mg/L	1.6	5		EPA 300.0	5/7/22	020
Total Sulfate	Less Than	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Boron	370	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	28400	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

Sample Description: **050422008 Caledonia CCR Well Sample**
Sample ID: AE60500 Sample Collection Date/Time: 05/05/2022 13:44
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	63.04	0.05	feet		1		H2OD	5/5/22	L. ALBRIGHT

Report Date: Wednesday, May 25, 2022

The following are the analytical results for samples received by Laboratory Services:

Sample Description: **050422008 Caledonia CCR Well Sample**
Sample ID: AE60500 Sample Collection Date/Time: 05/05/2022 13:44
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Temperature	10.56	0.1	Degrees		1		TEMP	5/5/22	L. ALBRIGHT
Field Conductivity	390.58	0	umhos		1		FCOND25	5/5/22	L. ALBRIGHT
Field pH	7.81	0.1	Units	0.1	1		FIELDPH	5/5/22	L. ALBRIGHT
Total Dissolved Solids	204	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	7.3	2.2	mg/L	10.0	5	J	EPA 300.0	5/7/22	020
Total Fluoride	1.9	0.48	mg/L	1.6	5		EPA 300.0	5/7/22	020
Total Sulfate	36.7	2.2	mg/L	10.0	5		EPA 300.0	5/7/22	020
Total Boron	444	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	17900	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

Sample Description: **050422009 Caledonia CCR Well Sample**
Sample ID: AE60501 Sample Collection Date/Time: 05/05/2022 14:20
Sample Received: 05/06/2022 Sample Collector: LYDIA ALBRIGHT

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>LOQ</u>	<u>DIL</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Temperature	12.25	0.1	Degrees		1		TEMP	5/5/22	L. ALBRIGHT
Field Conductivity	48.35	0	umhos		1		FCOND25	5/5/22	L. ALBRIGHT
Field pH	8.47	0.1	Units	0.1	1		FIELDPH	5/5/22	L. ALBRIGHT
Total Dissolved Solids	Less Than	8.7	mg/L	20.0	1		Std Mtd 2540 C	5/7/22	020
Total Chloride	0.69	0.43	mg/L	2.0	1	J	EPA 300.0	5/7/22	020
Total Fluoride	Less Than	0.095	mg/L	0.32	1		EPA 300.0	5/7/22	020
Total Sulfate	Less Than	0.44	mg/L	2.0	1		EPA 300.0	5/7/22	020
Total Boron	Less Than	3.0	ug/L	10.0	1		EPA 200.7	5/12/22	020
Total Calcium	Less Than	76.2	ug/L	254	1		EPA 200.7	5/12/22	020

Sample Comments:

LOD and LOQ are adjusted for dilution factor.

'J' Flag, if present indicates an estimated concentration at or above the LOD and below the LOQ.

If there are any questions concerning this report, please contact: Patrick Ahrens at (414) 221-2835.

May 24, 2022

Patrick Ahrens
WEC Business Services, LLC.
PO BOX 19800
700 NORTH ADAMS
Green Bay, WI 543079004

RE: Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

Dear Patrick Ahrens:

Enclosed are the analytical results for sample(s) received by the laboratory on May 07, 2022. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Green Bay

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

Sincerely,



Brian Basten
brian.basten@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Kevin Howard, We Energies
WE Energies Lab Reports, WE Energies



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Q-6005-001005 CALEDONIA LANDFI

Pace Project No.: 40244539

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40244539001	050422001 (AE60493)	Water	05/04/22 09:51	05/07/22 07:45
40244539002	050422002 (AE60494)	Water	05/04/22 13:22	05/07/22 07:45
40244539003	050422003 (AE60495)	Water	05/04/22 15:38	05/07/22 07:45
40244539004	050422004 (AE60496)	Water	05/04/22 15:43	05/07/22 07:45
40244539005	050422005 (AE60497)	Water	05/05/22 10:17	05/07/22 07:45
40244539006	050422006 (AE60498)	Water	05/05/22 10:57	05/07/22 07:45
40244539007	050422007 (AE60499)	Water	05/05/22 12:35	05/07/22 07:45
40244539008	050422008 (AE60500)	Water	05/05/22 13:44	05/07/22 07:45
40244539009	050422009 (AE60501)	Water	05/05/22 14:20	05/07/22 07:45

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SAMPLE ANALYTE COUNT

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

Lab ID	Sample ID	Method	Analysts	Analytes Reported
40244539001	050422001 (AE60493)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539002	050422002 (AE60494)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539003	050422003 (AE60495)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539004	050422004 (AE60496)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539005	050422005 (AE60497)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539006	050422006 (AE60498)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539007	050422007 (AE60499)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539008	050422008 (AE60500)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3
40244539009	050422009 (AE60501)	EPA 200.8	KXS	2
		SM 2540C	SRK	1
		EPA 300.0	HMB	3

PASI-G = Pace Analytical Services - Green Bay

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

Sample: 050422001 (AE60493) **Lab ID: 40244539001** Collected: 05/04/22 09:51 Received: 05/07/22 07:45 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	364	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 13:57	7440-42-8	
Calcium	26900	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 13:57	7440-70-2	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	254	mg/L	20.0	8.7	1		05/09/22 15:36		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	9.5J	mg/L	10.0	2.2	5		05/17/22 20:13	16887-00-6	D3
Fluoride	1.3J	mg/L	1.6	0.48	5		05/17/22 20:13	16984-48-8	D3
Sulfate	36.7	mg/L	10.0	2.2	5		05/17/22 20:13	14808-79-8	

Sample: 050422002 (AE60494) **Lab ID: 40244539002** Collected: 05/04/22 13:22 Received: 05/07/22 07:45 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	402	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 15:11	7440-42-8	
Calcium	20700	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 15:11	7440-70-2	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	214	mg/L	20.0	8.7	1		05/09/22 15:36		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	6.5J	mg/L	10.0	2.2	5		05/17/22 20:27	16887-00-6	D3
Fluoride	1.6	mg/L	1.6	0.48	5		05/17/22 20:27	16984-48-8	
Sulfate	33.9	mg/L	10.0	2.2	5		05/17/22 20:27	14808-79-8	

Sample: 050422003 (AE60495) **Lab ID: 40244539003** Collected: 05/04/22 15:38 Received: 05/07/22 07:45 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	455	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 14:27	7440-42-8	
Calcium	52000	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 14:27	7440-70-2	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

Sample: 050422003 (AE60495) Lab ID: 40244539003 Collected: 05/04/22 15:38 Received: 05/07/22 07:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	480	mg/L	20.0	8.7	1		05/09/22 15:36		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	11.9	mg/L	10.0	2.2	5		05/17/22 20:42	16887-00-6	
Fluoride	1.6J	mg/L	1.6	0.48	5		05/17/22 20:42	16984-48-8	D3
Sulfate	240	mg/L	40.0	8.9	20		05/18/22 15:09	14808-79-8	

Sample: 050422004 (AE60496) Lab ID: 40244539004 Collected: 05/04/22 15:43 Received: 05/07/22 07:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	436	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 14:56	7440-42-8	
Calcium	52100	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 14:56	7440-70-2	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	488	mg/L	20.0	8.7	1		05/09/22 15:36		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	11.9	mg/L	10.0	2.2	5		05/17/22 23:55	16887-00-6	B
Fluoride	1.5J	mg/L	1.6	0.48	5		05/17/22 23:55	16984-48-8	D3
Sulfate	230	mg/L	40.0	8.9	20		05/18/22 16:04	14808-79-8	

Sample: 050422005 (AE60497) Lab ID: 40244539005 Collected: 05/05/22 10:17 Received: 05/07/22 07:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	412	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 15:04	7440-42-8	
Calcium	22900	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 15:04	7440-70-2	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	180	mg/L	20.0	8.7	1		05/11/22 09:50		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

Sample: 050422005 (AE60497) Lab ID: 40244539005 Collected: 05/05/22 10:17 Received: 05/07/22 07:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	7.1J	mg/L	10.0	2.2	5		05/18/22 00:40	16887-00-6	B,D3
Fluoride	1.6	mg/L	1.6	0.48	5		05/18/22 00:40	16984-48-8	
Sulfate	43.9	mg/L	10.0	2.2	5		05/18/22 00:40	14808-79-8	

Sample: 050422006 (AE60498) Lab ID: 40244539006 Collected: 05/05/22 10:57 Received: 05/07/22 07:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	499	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 15:40	7440-42-8	
Calcium	29900	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 15:40	7440-70-2	

Sample: 050422007 (AE60499) Lab ID: 40244539007 Collected: 05/05/22 12:35 Received: 05/07/22 07:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	298	mg/L	20.0	8.7	1		05/09/22 15:37		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	8.3J	mg/L	10.0	2.2	5		05/18/22 01:40	16887-00-6	B,D3
Fluoride	1.4J	mg/L	1.6	0.48	5		05/18/22 01:40	16984-48-8	D3
Sulfate	81.0	mg/L	10.0	2.2	5		05/18/22 01:40	14808-79-8	

Sample: 050422007 (AE60499) Lab ID: 40244539007 Collected: 05/05/22 12:35 Received: 05/07/22 07:45 Matrix: Water									
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	370	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 15:48	7440-42-8	
Calcium	28400	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 15:48	7440-70-2	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	198	mg/L	20.0	8.7	1		05/11/22 09:50		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	<2.2	mg/L	10.0	2.2	5		05/18/22 01:54	16887-00-6	D3
Fluoride	<0.48	mg/L	1.6	0.48	5		05/18/22 01:54	16984-48-8	D3
Sulfate	<2.2	mg/L	10.0	2.2	5		05/18/22 01:54	14808-79-8	D3

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

Sample: 050422008 (AE60500) **Lab ID: 40244539008** Collected: 05/05/22 13:44 Received: 05/07/22 07:45 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	444	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 16:10	7440-42-8	
Calcium	17900	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 16:10	7440-70-2	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	204	mg/L	20.0	8.7	1		05/11/22 09:51		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	7.3J	mg/L	10.0	2.2	5		05/18/22 02:09	16887-00-6	B,D3
Fluoride	1.9	mg/L	1.6	0.48	5		05/18/22 02:09	16984-48-8	
Sulfate	36.7	mg/L	10.0	2.2	5		05/18/22 02:09	14808-79-8	

Sample: 050422009 (AE60501) **Lab ID: 40244539009** Collected: 05/05/22 14:20 Received: 05/07/22 07:45 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS									
Analytical Method: EPA 200.8 Preparation Method: EPA 200.8 Pace Analytical Services - Green Bay									
Boron	<3.0	ug/L	10.0	3.0	1	05/12/22 05:40	05/20/22 16:17	7440-42-8	P4
Calcium	<76.2	ug/L	254	76.2	1	05/12/22 05:40	05/20/22 16:17	7440-70-2	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Green Bay									
Total Dissolved Solids	<8.7	mg/L	20.0	8.7	1		05/11/22 09:51		
300.0 IC Anions									
Analytical Method: EPA 300.0 Pace Analytical Services - Green Bay									
Chloride	0.69J	mg/L	2.0	0.43	1		05/18/22 16:58	16887-00-6	B
Fluoride	<0.095	mg/L	0.32	0.095	1		05/18/22 16:58	16984-48-8	
Sulfate	<0.44	mg/L	2.0	0.44	1		05/18/22 16:58	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

QC Batch: 415497 Analysis Method: EPA 200.8
QC Batch Method: EPA 200.8 Analysis Description: 200.8 MET
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40244539001, 40244539002, 40244539003, 40244539004, 40244539005, 40244539006, 40244539007, 40244539008, 40244539009

METHOD BLANK: 2392138 Matrix: Water
Associated Lab Samples: 40244539001, 40244539002, 40244539003, 40244539004, 40244539005, 40244539006, 40244539007, 40244539008, 40244539009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Boron	ug/L	<3.0	10.0	05/19/22 15:55	
Calcium	ug/L	<76.2	254	05/19/22 15:55	

LABORATORY CONTROL SAMPLE: 2392139

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Boron	ug/L	250	230	92	85-115	
Calcium	ug/L	10000	10000	100	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2392140 2392141

Parameter	Units	2392140		2392141		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Boron	ug/L	364	250	564	250	80	89	75-125	4	20	
Calcium	ug/L	26900	10000	36800	10000	99	116	75-125	5	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2392142 2392143

Parameter	Units	2392142		2392143		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Result	MSD Spike Conc.	MS Result	MSD Spike Conc.						
Boron	ug/L	402	250	609	250	83	82	75-125	1	20	
Calcium	ug/L	20700	10000	30200	10000	95	103	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

QC Batch: 415202 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40244539001, 40244539002, 40244539003, 40244539004, 40244539006

METHOD BLANK: 2390716 Matrix: Water
Associated Lab Samples: 40244539001, 40244539002, 40244539003, 40244539004, 40244539006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	05/09/22 15:29	

LABORATORY CONTROL SAMPLE: 2390717

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	555	558	101	80-120	

SAMPLE DUPLICATE: 2390718

Parameter	Units	40244256001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	528	536	2	10	

SAMPLE DUPLICATE: 2390719

Parameter	Units	40244330001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	912	912	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Q-6005-001005 CALEDONIA LANDFI

Pace Project No.: 40244539

QC Batch:	415392	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40244539005, 40244539007, 40244539008, 40244539009

METHOD BLANK: 2391516 Matrix: Water

Associated Lab Samples: 40244539005, 40244539007, 40244539008, 40244539009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	<8.7	20.0	05/11/22 09:49	

LABORATORY CONTROL SAMPLE: 2391517

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	555	626	113	80-120	

SAMPLE DUPLICATE: 2391518

Parameter	Units	40244612001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1020	1020	0	10	

SAMPLE DUPLICATE: 2391519

Parameter	Units	40244612002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	438	436	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

QC Batch: 415814 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40244539001, 40244539002, 40244539003

METHOD BLANK: 2394124 Matrix: Water
Associated Lab Samples: 40244539001, 40244539002, 40244539003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	<0.43	2.0	05/17/22 12:21	
Fluoride	mg/L	<0.095	0.32	05/17/22 12:21	
Sulfate	mg/L	<0.44	2.0	05/17/22 12:21	

LABORATORY CONTROL SAMPLE: 2394125

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	20.3	102	90-110	
Fluoride	mg/L	2	2.0	101	90-110	
Sulfate	mg/L	20	20.2	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2394126 2394127

Parameter	Units	40244870003		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	329	400	400	762	755	108	107	107	90-110	1	15	
Fluoride	mg/L	<0.48	10	10	12.0	10.9	120	109	109	90-110	9	15	M0
Sulfate	mg/L	32.2	100	100	150	138	118	106	106	90-110	8	15	M0

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2394128 2394129

Parameter	Units	40244539003		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec					
Chloride	mg/L	11.9	100	100	118	118	107	106	106	90-110	0	15	
Fluoride	mg/L	1.6J	10	10	12.1	12.1	106	105	105	90-110	0	15	
Sulfate	mg/L	240	400	400	645	640	101	100	100	90-110	1	15	

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QUALITY CONTROL DATA

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539

QC Batch: 415990 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40244539004, 40244539005, 40244539006, 40244539007, 40244539008, 40244539009

METHOD BLANK: 2395063 Matrix: Water
Associated Lab Samples: 40244539004, 40244539005, 40244539006, 40244539007, 40244539008, 40244539009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Chloride	mg/L	0.69J	2.0	05/17/22 23:26	
Fluoride	mg/L	<0.095	0.32	05/17/22 23:26	
Sulfate	mg/L	<0.44	2.0	05/17/22 23:26	

LABORATORY CONTROL SAMPLE: 2395064

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	20	21.3	106	90-110	
Fluoride	mg/L	2	2.2	108	90-110	
Sulfate	mg/L	20	21.2	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2395065 2395066

Parameter	Units	40244539004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	11.9	100	100	117	122	105	110	90-110	5	15	
Fluoride	mg/L	1.5J	10	10	12.0	12.2	105	106	90-110	1	15	
Sulfate	mg/L	230	400	400	639	633	102	101	90-110	1	15	

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Q-6005-001005 CALEDONIA LANDFI

Pace Project No.: 40244539

DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.

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

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Q-6005-001005 CALEDONIA LANDFI
Pace Project No.: 40244539


Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40244539001	050422001 (AE60493)	EPA 200.8	415497	EPA 200.8	415604
40244539002	050422002 (AE60494)	EPA 200.8	415497	EPA 200.8	415604
40244539003	050422003 (AE60495)	EPA 200.8	415497	EPA 200.8	415604
40244539004	050422004 (AE60496)	EPA 200.8	415497	EPA 200.8	415604
40244539005	050422005 (AE60497)	EPA 200.8	415497	EPA 200.8	415604
40244539006	050422006 (AE60498)	EPA 200.8	415497	EPA 200.8	415604
40244539007	050422007 (AE60499)	EPA 200.8	415497	EPA 200.8	415604
40244539008	050422008 (AE60500)	EPA 200.8	415497	EPA 200.8	415604
40244539009	050422009 (AE60501)	EPA 200.8	415497	EPA 200.8	415604
40244539001	050422001 (AE60493)	SM 2540C	415202		
40244539002	050422002 (AE60494)	SM 2540C	415202		
40244539003	050422003 (AE60495)	SM 2540C	415202		
40244539004	050422004 (AE60496)	SM 2540C	415202		
40244539005	050422005 (AE60497)	SM 2540C	415392		
40244539006	050422006 (AE60498)	SM 2540C	415202		
40244539007	050422007 (AE60499)	SM 2540C	415392		
40244539008	050422008 (AE60500)	SM 2540C	415392		
40244539009	050422009 (AE60501)	SM 2540C	415392		
40244539001	050422001 (AE60493)	EPA 300.0	415814		
40244539002	050422002 (AE60494)	EPA 300.0	415814		
40244539003	050422003 (AE60495)	EPA 300.0	415814		
40244539004	050422004 (AE60496)	EPA 300.0	415990		
40244539005	050422005 (AE60497)	EPA 300.0	415990		
40244539006	050422006 (AE60498)	EPA 300.0	415990		
40244539007	050422007 (AE60499)	EPA 300.0	415990		
40244539008	050422008 (AE60500)	EPA 300.0	415990		
40244539009	050422009 (AE60501)	EPA 300.0	415990		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt Form (SCUR)

Client Name: We Energies
 Courier: CS Logistics Fed Ex Speedee UPS Walto
 Client Pace Other: _____

Project #: _____
WO# : 40244539

 40244539

Tracking #: _____
 Custody Seal on Cooler/Box Present: yes no Seals intact: yes no
 Custody Seal on Samples Present: yes no Seals intact: yes no
 Packing Material: Bubble Wrap Bubble Bags None Other _____
 Thermometer Used SR-107 Type of Ice: Wet Blue Dry None Samples on ice, cooling process has begun
 Cooler Temperature Uncorr: 0.5 /Corr: 0.3
 Temp Blank Present: yes no Biological Tissue is Frozen: yes no

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

Person examining contents:
 Date: 5/7/20 Initials: AW
 Labeled By Initials: MLP

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		<u>003 BP3N: "1543"</u> <u>5/7/20 AW</u>
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

To: Bob Meidl
PSB Annex A231



From: WEC Business Services
Laboratory Services PSBA-A070
WDNR Cert # 241329000

Report Date: Friday, January 6, 2023

The following are the analytical results for samples received by Laboratory Services on 11/09/2022 :

Sample Description: 110722001 Caledonia CCR Well Sample
 Sample ID: AE63525 Serial/Impact ID: W48
 Sample Collector: NATE DUDA Sample Collection Date: 11/7/22 Collection Time: 08:59

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	60.77	0.05	feet		H2OD	11/7/22	RAMBOLL
Field Temperature	11	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	450	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	7.7	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	280	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	3.8	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	0.47	0.44	mg/L	J	EPA 300.0	11/11/22	020
Total Calcium	26000	1140	ug/L		EPA 200.7	11/18/22	020
Total Boron	386	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	227	5	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	136	10	mg/L		Std Mtd 2340B	11/18/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.0155	0.0015	mg/L		EPA 200.7	11/17/22	020
Total Silver	Less Than	0.0032	mg/L		EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L		EPA 200.7	11/17/22	020
Dissolved Calcium	25.5	0.114	mg/L		EPA 200.7	11/18/22	020
Dissolved Chloride	4.0	0.43	mg/L		EPA 300.0	11/27/22	020
Dissolved Magnesium	16.4	0.182	mg/L		EPA 200.7	11/18/22	020
Dissolved Sodium	44.6	3.500	mg/L		EPA 200.7	11/18/22	020
Dissolved Potassium	1.47	0.325	mg/L		EPA 200.7	11/18/22	020
Dissolved Sulfate	Less Than	0.44	mg/L		EPA 300.0	11/27/22	020

Sample Description: 110722002 Caledonia CCR Well Sample
 Sample ID: AE63526 Serial/Impact ID: W46D
 Sample Collector: NATE DUDA Sample Collection Date: 11/7/22 Collection Time: 09:39

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	49.59	0.05	feet		H2OD	11/7/22	RAMBOLL
Field Temperature	12	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	430	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	7.1	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	216	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	6.8	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	34.4	0.44	mg/L		EPA 300.0	11/11/22	020
Total Calcium	24600	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	368	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	164	5	mg/L		SM 2320 B-1997	11/16/22	020

Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	122	1.000	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.0472	0.0015	mg/L		EPA 200.7	11/17/22	020
Total Silver	Less Than	0.0032	mg/L		EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L		EPA 200.7	11/17/22	020
Dissolved Calcium	24.6	0.114	mg/L		EPA 200.7	11/18/22	020
Dissolved Chloride	5.7	0.43	mg/L		EPA 300.0	11/27/22	020
Dissolved Magnesium	14.3	0.182	mg/L		EPA 200.7	11/18/22	020
Dissolved Sodium	33.5	0.350	mg/L		EPA 200.7	11/18/22	020
Dissolved Potassium	1.73	0.325	mg/L		EPA 200.7	11/18/22	020
Dissolved Sulfate	35.0	0.44	mg/L		EPA 300.0	11/27/22	020

Sample Description: 110722003 Caledonia CCR Well Sample
Sample ID: AE63527 **Serial/Impact ID:** QAQC1
Sample Collector: NATE DUDA **Sample Collection Date:** 11/7/22 **Collection Time:** 09:44

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Total Dissolved Solids	222	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	6.4	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	34.8	0.44	mg/L		EPA 300.0	11/11/22	020
Total Calcium	25700	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	378	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	162	5	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	127	1.0	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.0512	0.0015	mg/L		EPA 200.7	11/17/22	020
Total Silver	Less Than	0.0032	mg/L		EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L		EPA 200.7	11/17/22	020
Dissolved Calcium	25.0	0.114	mg/L		EPA 200.7	11/18/22	020
Dissolved Chloride	5.5	0.43	mg/L		EPA 300.0	11/27/22	020
Dissolved Magnesium	14.7	0.182	mg/L		EPA 200.7	11/18/22	020
Dissolved Sodium	34.3	0.350	mg/L		EPA 200.7	11/18/22	020
Dissolved Potassium	1.76	0.325	mg/L		EPA 200.7	11/18/22	020
Dissolved Sulfate	34.7	0.44	mg/L		EPA 300.0	11/27/22	020

Sample Description: 110722004 Caledonia CCR Well Sample
Sample ID: AE63528 **Serial/Impact ID:** W10D
Sample Collector: NATE DUDA **Sample Collection Date:** 11/7/22 **Collection Time:** 10:33

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	51.53	0.05	feet		H2OD	11/7/22	RAMBOLL
Field Temperature	10	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	390	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	7.7	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	218	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	3.9	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	42.2	0.44	mg/L		EPA 300.0	11/11/22	020
Total Calcium	20200	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	443	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	136	5	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	82.9	1.000	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.0191	0.0015	mg/L		EPA 200.7	11/17/22	020

Total Silver	Less Than	0.0032	mg/L	EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L	EPA 200.7	11/17/22	020
Dissolved Calcium	20.6	0.114	mg/L	EPA 200.7	11/18/22	020
Dissolved Chloride	4.1	0.43	mg/L	EPA 300.0	11/27/22	020
Dissolved Magnesium	7.91	0.182	mg/L	EPA 200.7	11/18/22	020
Dissolved Sodium	43.6	0.350	mg/L	EPA 200.7	11/18/22	020
Dissolved Potassium	1.34	0.325	mg/L	EPA 200.7	11/18/22	020
Dissolved Sulfate	41.9	0.44	mg/L	EPA 300.0	11/27/22	020

Sample Description: 110722005 Caledonia CCR Well Sample
Sample ID: AE63529 **Serial/Impact ID:** W09D
Sample Collector: NATE DUDA **Sample Collection Date:** 11/7/22 **Collection Time:** 11:13

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	54.43	0.05	feet		H2OD	11/7/22	RAMBOLL
Field Temperature	11	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	380	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	7.9	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	212	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	3.6	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	32.9	0.44	mg/L		EPA 300.0	11/11/22	020
Total Calcium	17900	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	422	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	142	5	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	86.8	1.000	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.0076	0.0015	mg/L		EPA 200.7	11/17/22	020
Total Silver	Less Than	0.0032	mg/L		EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L		EPA 200.7	11/17/22	020
Dissolved Calcium	18.4	0.114	mg/L		EPA 200.7	11/18/22	020
Dissolved Chloride	3.9	0.43	mg/L		EPA 300.0	11/27/22	020
Dissolved Magnesium	10.3	0.182	mg/L		EPA 200.7	11/18/22	020
Dissolved Sodium	41.6	0.350	mg/L		EPA 200.7	11/18/22	020
Dissolved Potassium	0.965	0.325	mg/L	J	EPA 200.7	11/18/22	020
Dissolved Sulfate	33.7	0.44	mg/L		EPA 300.0	11/27/22	020

Sample Description: 110722006 Caledonia CCR Well Sample
Sample ID: AE63530 **Serial/Impact ID:** W08D
Sample Collector: NATE DUDA **Sample Collection Date:** 11/7/22 **Collection Time:** 11:46

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	49.59	0.05	feet		H2OD	11/7/22	RAMBOLL
Field Temperature	12	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	800	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	7.7	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	482	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	9.5	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	210	2.2	mg/L		EPA 300.0	11/27/22	020
Total Calcium	48600	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	460	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	158	5	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	213	1.000	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.163	0.0015	mg/L		EPA 200.7	11/17/22	020

Total Silver	Less Than	0.0032	mg/L	EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L	EPA 200.7	11/17/22	020
Dissolved Calcium	50.4	0.114	mg/L	EPA 200.7	11/18/22	020
Dissolved Chloride	10.1	0.43	mg/L	EPA 300.0	11/27/22	020
Dissolved Magnesium	22.5	0.182	mg/L	EPA 200.7	11/18/22	020
Dissolved Sodium	75.6	0.350	mg/L	EPA 200.7	11/18/22	020
Dissolved Potassium	3.04	0.325	mg/L	EPA 200.7	11/18/22	020
Dissolved Sulfate	219	4.4	mg/L	EPA 300.0	11/28/22	020

Sample Description: 110722007 Caledonia CCR Well Sample
Sample ID: AE63531 **Serial/Impact ID:** W50
Sample Collector: NATE DUDA **Sample Collection Date:** 11/7/22 **Collection Time:** 12:22

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	42.15	0.05	feet		H2OD	11/7/22	RAMBOLL
Field Temperature	12	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	510	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	7.6	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	292	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	5.8	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	67.0	2.2	mg/L		EPA 300.0	11/14/22	020
Total Calcium	28900	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	541	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	148	5	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	117	1.000	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.0388	0.0015	mg/L		EPA 200.7	11/17/22	020
Total Silver	Less Than	0.0032	mg/L		EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L		EPA 200.7	11/17/22	020
Dissolved Calcium	27.7	0.114	mg/L		EPA 200.7	11/18/22	020
Dissolved Chloride	6.0	0.43	mg/L		EPA 300.0	11/27/22	020
Dissolved Magnesium	10.1	0.182	mg/L		EPA 200.7	11/18/22	020
Dissolved Sodium	55.1	0.350	mg/L		EPA 200.7	11/18/22	020
Dissolved Potassium	1.64	0.325	mg/L		EPA 200.7	11/18/22	020
Dissolved Sulfate	86.7	2.2	mg/L		EPA 300.0	11/28/22	020

Sample Description: 110722008 Caledonia CCR Well Sample
Sample ID: AE63532 **Serial/Impact ID:** W49
Sample Collector: NATE DUDA **Sample Collection Date:** 11/7/22 **Collection Time:** 13:28

<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Water Level	65.0	0.05	feet		H2OD	11/7/22	RAMBOLL
Field Temperature	12	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	380	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	8.1	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	220	8.7	mg/L		Std Mtd 2540 C	11/14/22	020
Total Chloride	4.3	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	50.0	0.44	mg/L		EPA 300.0	11/11/22	020
Total Calcium	15600	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	458	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	126	5.0	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	Less Than	0.021	mg/L	H3	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	66.6	1.000	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	0.0256	0.0015	mg/L		EPA 200.7	11/17/22	020

Total Silver	Less Than	0.0032	mg/L		EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L		EPA 200.7	11/17/22	020
Dissolved Calcium	15.7	0.114	mg/L		EPA 200.7	11/18/22	020
Dissolved Chloride	4.5	0.43	mg/L		EPA 300.0	11/27/22	020
Dissolved Magnesium	6.770	0.182	mg/L		EPA 200.7	11/18/22	020
Dissolved Sodium	50.1	0.350	mg/L		EPA 200.7	11/18/22	020
Dissolved Potassium	0.804	0.325	mg/L	J	EPA 200.7	11/18/22	020
Dissolved Sulfate	48.2	0.44	mg/L		EPA 300.0	11/27/22	020

Sample Description: 110722009 **Caledonia CCR Well Sample**
Sample ID: AE63533 **Serial/Impact ID:** EB1
Sample Collector: NATE DUDA **Sample Collection Date:** 11/7/22 **Collection Time:** 13:45

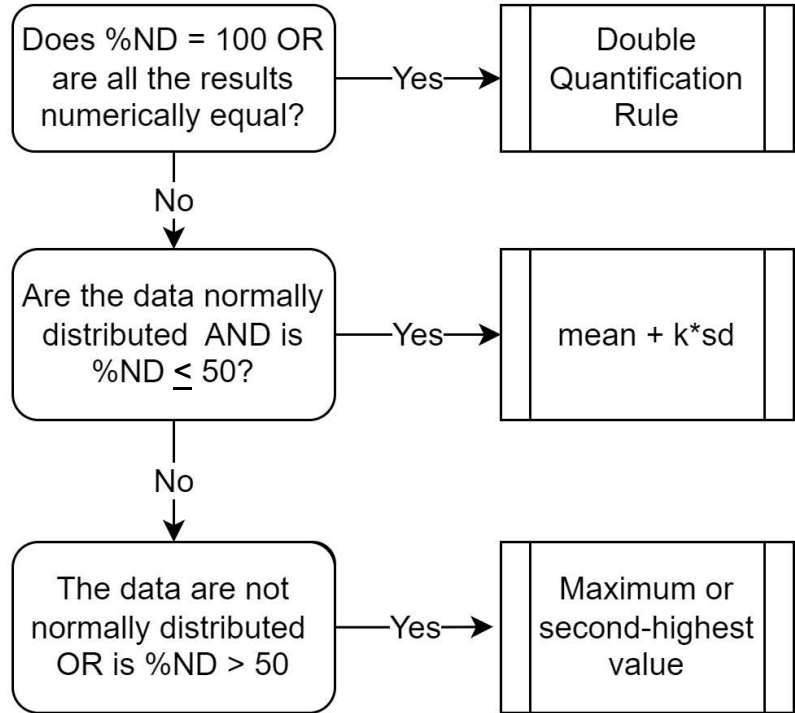
<u>Parameter</u>	<u>Result</u>	<u>LOD</u>	<u>Units</u>	<u>Result Flag</u>	<u>Analysis Method</u>	<u>Analysis Date</u>	<u>Analyst</u>
Field Temperature	15	0.1	Degrees C		TEMP	11/7/22	RAMBOLL
Field Conductivity	40	0	umhos		FCOND25	11/7/22	RAMBOLL
Field pH	8.1	0.1	Units		FIELDPH	11/7/22	RAMBOLL
Total Dissolved Solids	14.0	8.7	mg/L	J	Std Mtd 2540 C	11/14/22	020
Total Chloride	Less Than	0.43	mg/L		EPA 300.0	11/11/22	020
Total Sulfate	Less Than	0.44	mg/L		EPA 300.0	11/11/22	020
Total Calcium	Less Than	114	ug/L		EPA 200.7	11/17/22	020
Total Boron	Less Than	17.3	ug/L		EPA 200.7	11/17/22	020
Total Alkalinity as CaCO3	Less Than	5.0	mg/L		SM 2320 B-1997	11/16/22	020
Nitrate-Nitrite as N	0.12	0.044	mg/L	J	EPA 300.0	11/11/22	020
Total Hardness as CaCO3	Less Than	1.000	mg/L		Std Mtd 2340B	11/17/22	020
Total Copper	Less Than	0.0034	mg/L		EPA 200.7	11/17/22	020
Total Manganese	Less Than	0.0015	mg/L		EPA 200.7	11/17/22	020
Total Silver	Less Than	0.0032	mg/L		EPA 200.7	11/17/22	020
Total Zinc	Less Than	0.0116	mg/L		EPA 200.7	11/17/22	020
Dissolved Calcium	Less Than	0.114	mg/L		EPA 200.7	11/18/22	020
Dissolved Chloride	Less Than	0.43	mg/L		EPA 300.0	11/27/22	020
Dissolved Magnesium	Less Than	0.182	mg/L		EPA 200.7	11/18/22	020
Dissolved Sodium	Less Than	0.350	mg/L		EPA 200.7	11/18/22	020
Dissolved Potassium	Less Than	0.325	mg/L		EPA 200.7	11/18/22	020
Dissolved Sulfate	Less Than	0.44	mg/L		EPA 300.0	11/27/22	020

If there are any questions concerning this report, please contact Laboratory Services at (414) 221-4595.

Sample Comments:

APPENDIX B
STATISTICAL METHODOLOGY FOR DETERMINATION OF BACKGROUND
VALUES

Notes
%ND = Percent non-detected samples
sd = standard deviation
k = kappa for site-wide false positive rate
<u>Alpha Levels</u>
Confidence Limit = 0.1



When data are not normally distributed or %ND > 50, the maximum value is used if the background sample size is < 60. Where the background sample size is ≥ 60 , the achievable per-constituent false positive rates for the maximum and second-highest background values will be compared, and the background value with the achievable per-constituent false positive rate that is closest to, but does not exceed, the target per-constituent false positive rate of 0.015% is used.