Prepared for
We Energies

Date
January 31, 2025

Project No.
1940102327

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

PLEASANT PRAIRIE POWER PLANT ASH LANDFILL

RAMBOLL Bright ideas. Sustainable change.

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PLEASANT PRAIRIE POWER PLANT ASH LANDFILL

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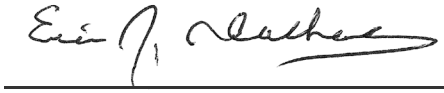

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ACRONYMS AND ABBREVIATIONS

§	Section
40 C.F.R.	Title 40 of the Code of Federal Regulations
ASD	Alternate Source Demonstration
CCR	Coal Combustion Residuals
GWPS	groundwater protection standard
NA	not applicable
P4	Pleasant Prairie Power Plant
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Sampling and Analysis Plan
SSI	Statistically Significant Increase
TBD	To be Determined

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 Ash Landfill located at the Pleasant Prairie Power Plant (P4) near Pleasant Prairie, Wisconsin.

Groundwater is being monitored at the P4 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 2024 (no wells were installed or decommissioned).

In 2024, groundwater analytical data was evaluated for statistically significant increases (SSIs) over background concentrations of 40 CFR § 257 Appendix III constituents in groundwater monitoring wells at P4 Ash Landfill. The following constitutes and wells had SSIs detected in 2024:

- Fluoride (F) – W74, W75 and W76
- Total Dissolved Solids (TDS) – W75 and W76

Alternate Source Demonstrations (ASDs) prepared in prior years for these parameters and monitoring locations, with exception of TDS at W75 and W76 and F at W76, provide lines of evidence that the SSIs observed during the Detection Monitoring Program were not due to a release from P4 but were either from an error in sampling or analysis or from naturally occurring conditions (*e.g.,* natural variation in groundwater quality). TDS at W75 and W76, as well as F at W76 were addressed in an ASD dated December 22, 2024.

The P4 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) for the P4 Ash Landfill located in Pleasant Prairie, Wisconsin.

In accordance with 40 C.F.R. § 257.90(e), the owner or operator of a coal combustion residuals (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 (**Section 2**), summarizes key actions completed (**Section 3**), describes any problems encountered, discusses actions to resolve the problems (**Section 4**), and projects key activities for the upcoming year (**Section 5**). 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 (**Figure 1**).
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 (**Section 3**).
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98 (**Tables 1 and 2**), 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 (**Section 3 and Table A**).
4. A narrative discussion of any transition between monitoring programs (*e.g.*, the date and circumstances for transitioning from Detection Monitoring to Assessment Monitoring (**Section 2**) in addition to identifying the constituent(s) detected at an SSI relative to background levels) (**Table A**).
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 (**Executive Summary**). 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 an SSI 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 P4 Ash Landfill for calendar year 2024.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the monitoring program status in calendar year 2024 and the P4 Ash Landfill remains in the Detection Monitoring Program in accordance with 40 C.F.R. § 257.94.

3. KEY ACTIONS COMPLETED IN 2024

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 2024.

In general, one groundwater sample was collected from each background and downgradient well during each monitoring event. All samples were collected and analyzed in accordance with the *Sampling and Analysis Plan* (SAP)*, Pleasant Prairie Power Plant Ash Landfill* (Natural Resource Technology, Inc., 2015). Potentiometric surface maps for the fourth quarter of 2023 and both monitoring events in 2024 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 2023 and both monitoring events in 2024 are presented in **Table 2**. Laboratory reports for both 2024 monitoring events are included in **Appendix A**[1]. Results for analysis of additional samples required by Ch. NR 507 Wisconsin Administrative Code are included in some reports because they were collected during the same sampling events, but are not summarized in this report.

Analytical data were evaluated in accordance with the *Statistical Analysis Plan, Pleasant Prairie Power Plant Ash Landfill* (Natural Resource Technology, Inc., an OBG Company, 2017) to determine any SSIs of 40 CFR § 257 Appendix III parameters relative to background concentrations. Statistical background values are provided in **Table 3**. A flow chart showing the statistical methodology for determination of background values is included as **Appendix B**.

Statistical evaluation, including SSI determinations, of analytical data from the Detection Monitoring Program for the October 26 and 30, 2023 (Detection Monitoring Round 13) and April 18, 2024 (Detection Monitoring Round 14) sampling events were completed in 2024 and within 90 days of receipt of the analytical data. SSIs over background concentrations for Appendix III constituents were identified; SSI parameters and well locations are provided in **Table A**.

An ASD for the SSIs determined during Detection Monitoring Round 14 was prepared within 90 days of the SSI determination and is included in **Appendix C**. The ASD was prepared in accordance with 40 CFR 257.94(e)(2) and provides a description, data, and pertinent information to support that the SSIs observed during Detection Monitoring Round 14 were not due to a release from the P4 but were either errors in sampling, analysis, statistical evaluation, or from naturally occurring conditions (e.g. natural variation in groundwater quality). The ASD dated November 13, 2022, for P4 provided a description, data, and pertinent information supporting an alternate source for the remaining wells and parameters with SSIs in Detection Monitoring Rounds 13-14.

[1] Laboratory reports for the fourth quarter of 2023 monitoring event were provided in the 2023 annual report.

Table A. 2023-2024 Detection Monitoring Program Summary

Detection Round	Sampling Date	Analytical Data Receipt Date	Parameters Collected	SSI Wells (Parameters)	SSI(s) Determination Date	ASD Completion Date
13	October 26 and 30, 2023	December 1, 2023	Appendix III	W75 (Fluoride)	February 29, 2024	NA[1]
14	April 18, 2024	June 25, 2024	Appendix III[2]	W74 (Fluoride), W75 (Fluoride, TDS), W76 (Fluoride, TDS)	September 23, 2024	December 22, 2024
15	October 15 and 16, 2024	December 17, 2024	Appendix III	TBD	TBD Before March 17, 2025	TBD

Notes:

NA: not applicable

TBD: to be determined

[1]The ASD previously completed on November 13, 2022 for the P4 Ash Landfill provided a description, data, and pertinent information supporting an alternate source for the wells and parameters with SSIs identified during the October 26 and 30, 2023 sampling event.

[2] Appendix III parameters Total Chloride, Fluoride and Sulfate were not analyzed at location W73 during Detection Round 14.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the Groundwater Monitoring Program during 2024. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2025

The following key activities are planned for 2025:

- Continuation of the Detection Monitoring Program with semi-annual sampling scheduled for the second and fourth quarters of 2025.
- Complete evaluation of analytical data from the downgradient wells using background data to determine whether an SSI of 40 CFR § 257 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 P4 Ash Landfill 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 2025 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 2025 (*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, Inc., 2015, *Sampling and Analysis Plan-Revision 1, Pleasant Prairie Power Plant Ash Landfill, Pleasant Prairie, Wisconsin, December 8, 2015.*

Natural Resource Technology, Inc., an OBG Company, 2017, *Statistical Analysis Plan, Pleasant Prairie Power Plant Ash Landfill, Pleasant Prairie, Wisconsin, October 17, 2017.*

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
2024 CCR ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PLEASANT PRAIRIE POWER PLANT ASH LANDFILL
PLEASANT PRAIRIE, WI

Well ID	Well Type	Latitude (Degrees, minutes, seconds)	Longitude (Degrees, minutes, seconds)	Date	Groundwater Elevation (ft NAVD88)
W20D	Background (Upgradient)	42°33'51.3592"	-87°54'15.0776"	4/18/2024	670.42
				10/15/2024	666.46
W77	Background (Upgradient)	42°33'45.2513"	-87°53'54.2383"	4/18/2024	670.37
				10/15/2024	667.87
W73	Compliance (Downgradient)	42°33'57.0560"	-87°53'57.3214"	4/18/2024	669.55
				10/16/2024	666.66
W74	Compliance (Downgradient)	42°33'56.9099"	-87°54'14.3343"	4/18/2024	667.90
				10/15/2024	666.09
W75	Compliance (Downgradient)	42°33'56.8116"	-87°54'08.8120"	4/18/2024	668.94
				10/15/2024	666.46
W76	Compliance (Downgradient)	42°33'56.4738"	-87°54'01.8036"	4/18/2024	669.50
				10/16/2024	666.43

Notes:
ft = foot/feet
NAVD88 = North American Vertical Datum of 1988

Pleasant Prairie Ash LF
Table 2. Analytical Results - Appendix III Parameters

Date Range: 10/01/2023 to 12/31/2024

Lab Methods:

Well Id	Date Sampled	Lab Id	Boron, total, mg/L	Calcium, total, mg/L	Chloride, total, mg/L	Fluoride, total, mg/L	pH (Field), SU	Sulfate, total, mg/L
W20D	10/26/2023	AE69710	0.451	24.2	11.6	1.10	7.5	182
	4/18/2024	AE72480	0.429	24.2	11.0	1.90	7.6	170
	10/15/2024	AE75101	0.470	26.2	10.0	1.10	7.8	190
W73	10/30/2023	AE69690	0.447	19.0	11.2	1.10	8.2	132
	4/18/2024	AE72475	0.433	19.1			8.3	
	10/16/2024	AE75099					8.3	
		AE75108	0.470	21.9	10.0	1.10		130
W74	10/30/2023	AE69691	0.423	19.4	13.2	1.10	8.2	162
	4/18/2024	AE72481	0.398	19.1	14.0	2.00	8.2	160
	10/15/2024	AE75102	0.430	21.7	14.0	1.10	8.2	170
W75	10/30/2023	AE69686	0.434	19.4	8.7	1.20	7.4	133
	4/18/2024	AE72482	0.428	19.3	9.8	1.90	8.3	130
	10/15/2024	AE75103	0.450	20.5	8.1	1.10	8.1	130
W76	10/30/2023	AE69688	0.450	18.9	10.6	1.10	8.3	139
	4/18/2024	AE72483	0.442	18.7	11.0	1.90	8.5	130
	10/16/2024	AE75104	0.450	19.4	9.9	1.10	8.3	140
W77	10/30/2023	AE69689	0.428	24.5	8.1	1.20	7.8	135
	4/18/2024	AE72484	0.418	24.8	8.8	1.90	7.8	120
	10/15/2024	AE75105	0.430	25.3	7.7	1.10	7.8	130

Pleasant Prairie Ash LF
Table 2. Analytical Results - Appendix III Parameters

Date Range: 10/01/2023 to 12/31/2024

Lab Methods:

Well Id	Date Sampled	Lab Id	TDS, mg/L
W20D	10/26/2023	AE69710	406
	4/18/2024	AE72480	520
	10/15/2024	AE75101	400
W73	10/30/2023	AE69690	338
	4/18/2024	AE72475	410
	10/16/2024	AE75108	460
W74	10/30/2023	AE69691	372
	4/18/2024	AE72481	400
	10/15/2024	AE75102	390
W75	10/30/2023	AE69686	340
	4/18/2024	AE72482	480
	10/15/2024	AE75103	380
W76	10/30/2023	AE69688	344
	4/18/2024	AE72483	540
	10/16/2024	AE75104	370
W77	10/30/2023	AE69689	366
	4/18/2024	AE72484	440
	10/15/2024	AE75105	370

Notes:

Exceedance of Background

TABLE 3

STATISTICAL BACKGROUND VALUES

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

PLEASANT PRAIRIE POWER PLANT ASH LANDFILL

PLEASANT PRAIRIE, WI

Parameter	Statistical Background Value (LPL/UPL)
40 C.F.R. Part 257 Appendix III	
Boron (mg/L)	0.455
Calcium (mg/L)	38.1
Chloride (mg/L)	21.3
Fluoride (mg/L)	1.13
pH (field) (SU)	7.2/9.6
Sulfate (mg/L)	230
Total Dissolved Solids (mg/L)	457

[O: AFH 12/23/22; C: EJT 1/21/23]

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

UNIT BOUNDARY

CCR DOWNGRADIENT MONITORING WELL LOCATION

CCR UPGRADIENT MONITORING WELL LOCATION

IMAGERY DATE = 6/23/2022

0 150 300 Feet

MONITORING WELL LOCATION MAP

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PLEASANT PRAIRIE POWER PLANT
ASH LANDFILL
PLEASANT PRAIRIE, WISCONSIN

FIGURE 1

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.

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UNIT BOUNDARY

BEDROCK UNIT (UPPERMOST AQUIFER) CCR MONITORING WELL LOCATION

GROUNDWATER ELEVATION CONTOUR (1-FT INTERVAL, NAVD 88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

Vgw = ESTIMATED FT/YR GROUNDWATER FLOW VELOCITY
IMAGERY DATE = 6/23/2022

0 150 300 Feet

POTENTIOMETRIC SURFACE MAP
OCTOBER 26 AND 30, 2023

FIGURE 2

2024 CCR ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PLEASANT PRAIRIE POWER PLANT
ASH LANDFILL
PLEASANT PRAIRIE, WISCONSIN

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GROUNDWATER AVERAGE LINEAR VELOCITY CALCULATIONS
PLEASANT PRAIRIE POWER PLANT ASH LANDFILL
PLEASANT PRAIRIE, WISCONSIN

OCTOBER 2023 **$V = K\,i\,/\,n_e$**

V = Groundwater Velocity
K = Hydraulic Conductivity
i = Hydraulic Gradient (unitless value)
n_e = Effective Porosity

UPPERMOST AQUIFER

Contours	**665.5**	**to**	**665.0**	**North to Northeast Across the Landfill**	Elevation Change (ft)		Distance Change (ft)
K =	1.04E+03	ft/yr	Geometric mean for Landfill 3 (all)				
i =	0.005		between contours identified above		0.5	/	106 = 0.005
n_e =	25	%					

$$V = \frac{1.04E+03 * 4.72E-03}{0.25}$$

V = 20 feet/year

[O: KJS 1/29/2024, C:EJT 1/29/2024]

PROJECT: 169000XXXX | DATED: 1/27/2025 | DESIGNER: PWYSIATKO Y:\GIS\Projects\16\1660\P4\MXD\2024Annual_GWM_CAR\2024Annual_GWM_CAR_P4_Landfill_LBR\2024Annual_GWM_CAR_P4_Landfill_LBR.aprx

UNIT BOUNDARY

BEDROCK UNIT (UPPERMOST AQUIFER) CCR MONITORING WELL LOCATION

GROUNDWATER ELEVATION CONTOUR (0.5-FT INTERVAL, NAVD 88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

Vgw = ESTIMATED FT/YR GROUNDWATER FLOW VELOCITY
IMAGERY DATE = 6/23/2022

0 150 300 Feet

POTENTIOMETRIC SURFACE MAP APRIL 18, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PLEASANT PRAIRIE POWER PLANT
ASH LANDFILL
PLEASANT PRAIRIE, WISCONSIN

FIGURE 3

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ENGINEERING SOLUTIONS, INC.

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GROUNDWATER AVERAGE LINEAR VELOCITY CALCULATIONS
PLEASANT PRAIRIE POWER PLANT ASH LANDFILL
PLEASANT PRAIRIE, WISCONSIN

APRIL 2024 $V = K i / n_e$

V = Groundwater Velocity
K = Hydraulic Conductivity
i = Hydraulic Gradient (unitless value)
n_e = Effective Porosity

UPPERMOST AQUIFER

Contours	**668.5**	**to**	**668.0**	**North to Northeast Across the Landfill**	Elevation Change (ft)		Distance Change (ft)	
K =	1.04E+03	ft/yr	Geometric mean for Landfill 3 (all)					
i =	0.005		between contours identified above					
n_e =	25	%			0.5	/	91	0.005

$$V = \frac{1.04E+03 * 5.49E-03}{0.25}$$

V = 23 feet/year

[O: KJS 8/8/2024, C: NRK 1/28/2025]

PROJECT: 169000XXXX | DATED: 1/27/2025 | DESIGNER: PWYSIATKO Y:\GIS\Projects\16\1660\P4\MXD\2024Annual_GWM_CAR\2024Annual_GWM_CAR_P4_Landfill_LBR\2024Annual_GWM_CAR_P4_Landfill_LBR.aprx

- UNIT BOUNDARY
- BEDROCK UNIT (UPPERMOST AQUIFER) CCR MONITORING WELL LOCATION
- GROUNDWATER ELEVATION CONTOUR (0.5-FT INTERVAL, NAVD 88)
- INFERRED GROUNDWATER ELEVATION CONTOUR
- GROUNDWATER FLOW DIRECTION

Vgw = ESTIMATED FT/YR GROUNDWATER FLOW VELOCITY
IMAGERY DATE = 6/23/2022

0 150 300 Feet

POTENTIOMETRIC SURFACE MAP OCTOBER 15 AND 16, 2024

2024 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
PLEASANT PRAIRIE POWER PLANT
ASH LANDFILL
PLEASANT PRAIRIE, WISCONSIN

FIGURE 4

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GROUNDWATER AVERAGE LINEAR VELOCITY CALCULATIONS
PLEASANT PRAIRIE POWER PLANT ASH LANDFILL
PLEASANT PRAIRIE, WISCONSIN

OCTOBER 2024 **$V = K\,i\,/\,n_e$**

V = Groundwater Velocity
K = Hydraulic Conductivity
i = Hydraulic Gradient (unitless value)
n_e = Effective Porosity

UPPERMOST AQUIFER

Contours	**667.5**	**to**	**667.0**	**North to Northeast Across the Landfill**	Elevation Change (ft)		Distance Change (ft)
K =	1.04E+03	ft/yr	Geometric mean for Landfill 3 (all)				
i =	0.001		between contours identified above		0.5	/	460 = 0.001
n_e =	25	%					

$$V = \frac{1.04E+03 * 1.09E-03}{0.25}$$

V = 5 feet/year

[O:KJS 11/25/2024 , C: NRK 1/28/2025]

APPENDICES

APPENDIX A
LABORATORY REPORTS

To: Eric Kovatch
PSB Annex A231

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

Report Date: Tuesday, June 25, 2024

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

Sample Description: **P10RR P4 Landfill Semi Annual Sample**
Sample ID: AE72459 Sample Collection Date/Time: 04/18/2024 09:16
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	2.02	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	11	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	2144	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	7.1	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	630	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	93	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	5.8	0.38	ppm	1.0	2		Std Mtd 5310C	4/29/24	020
Dissolved Boron	215	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	187800	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	64650	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	11.2	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	0.288	0.16	ug/L	0.53	1	J	EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	740	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W16R P4 Landfill Semi Annual Sample**
Sample ID: AE72460 Sample Collection Date/Time: 04/17/2024 11:47
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	4.37	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	11	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	1454	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.2	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	340	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	250	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	4.1	0.19	ppm	0.50	1		Std Mtd 5310C	4/29/24	020
Dissolved Boron	479	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	190100	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	54600	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	10.0	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	700	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W17AR P4 Landfill Semi Annual Sample**
Sample ID: AE72461 Sample Collection Date/Time: 04/17/2024 12:28
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	11.16	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	14	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	645	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.7	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	150	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	44	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	4.8	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	635	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	71310	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	34210	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	234	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	1.56	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	320	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W17BR P4 Landfill Semi Annual Sample**
Sample ID: AE72462 Sample Collection Date/Time: 04/18/2024 14:28
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	11.45	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	10	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	272	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	8.3	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	94	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	17	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	2.2	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	646	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	11340	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	4330	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	154	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	46	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W17CR P4 Landfill Semi Annual Sample**
Sample ID: AE72463 Sample Collection Date/Time: 04/17/2024 12:07
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	4.26	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	14	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	1721	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.4	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	430	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	490	0.124	mg/L	0.42	20		EPA 300.0	5/16/24	AEU
Dissolved Organic Carbon	1.8	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	557	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	134400	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	88340	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	13.6	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	0.504	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	700	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W19 P4 Landfill Semi Annual Sample**
Sample ID: AE72464 Sample Collection Date/Time: 04/17/2024 13:25
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	4.50	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	13	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	1637	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.3	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	390	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	630	0.124	mg/L	0.42	20		EPA 300.0	5/16/24	AEU
Dissolved Organic Carbon	2.7	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	803	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	234100	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	92610	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	4.2	2.7	ug/L	9.2	1	J	EPA 200.7	5/21/24	EDL
Dissolved Selenium	0.173	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	970	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W20A P4 Landfill Semi Annual Sample**
Sample ID: AE72465 Sample Collection Date/Time: 04/17/2024 11:01
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.36	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	14	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	857	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	260	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	110	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	2.7	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	343	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	66520	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	52510	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	16.4	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	380	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W20B P4 Landfill Semi Annual Sample**
Sample ID: AE72466 Sample Collection Date/Time: 04/18/2024 09:59
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.84	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	11	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	559	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	220	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	75	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	1.3	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	309	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	43580	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	31480	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	30.9	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	240	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W20C P4 Landfill Semi Annual Sample**
Sample ID: AE72467 Sample Collection Date/Time: 04/17/2024 11:14
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	4.64	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	12	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	2824	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.1	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	440	20	mg/l		1		Std Mtd 2320 B	5/1/24	AEU
Dissolved Sulfate	1300	0.31	mg/L	1.05	50		EPA 300.0	5/16/24	AEU
Dissolved Organic Carbon	2.2	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	217	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	360700	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	184100	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	Less Than	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	0.196	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	1700	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W28 P4 Landfill Semi Annual Sample**
Sample ID: AE72468 Sample Collection Date/Time: 04/17/2024 15:00
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	3.54	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	12	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	806	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.6	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	400	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	68	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	2.4	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	192	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	76190	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	56290	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	Less Than	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	0.189	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	420	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W31A P4 Landfill Semi Annual Sample**
Sample ID: AE72469 Sample Collection Date/Time: 04/17/2024 10:05
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	1.54	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	16	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	1051	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.5	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	280	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	140	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	1.4	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	91.3	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	102200	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	59850	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	4.86	2.7	ug/L	9.2	1	J	EPA 200.7	5/21/24	EDL
Dissolved Selenium	0.355	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	500	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W31B P4 Landfill Semi Annual Sample**
Sample ID: AE72470 Sample Collection Date/Time: 04/18/2024 13:52
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	1.29	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	10	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	917	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	7.6	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	300	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	130	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	1.4	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	86.6	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	100700	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	59130	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	4.33	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	500	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W31C P4 Landfill Semi Annual Sample**
Sample ID: AE72471 Sample Collection Date/Time: 04/17/2024 10:15
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	3.23	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	15	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	753	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	320	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	110	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	1.4	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	99.1	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	77870	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	51270	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	12.8	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	410	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W35A P4 Landfill Semi Annual Sample**
Sample ID: AE72472 Sample Collection Date/Time: 04/17/2024 14:14
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.07	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	15	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	325	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	160	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	8.0	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	2.3	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	583	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	73430	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	38670	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	57.6	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	1.31	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	340	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W35B P4 Landfill Semi Annual Sample**
Sample ID: AE72473 Sample Collection Date/Time: 04/17/2024 14:38
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	2.21	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	14	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	2075	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.3	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	440	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	51	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	2.1	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	90.9	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	153100	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	69920	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	3.76	2.7	ug/L	9.2	1	J	EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	670	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **W35C P4 Landfill Semi Annual Sample**
Sample ID: AE72474 Sample Collection Date/Time: 04/17/2024 14:46
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	2.61	0.05	feet		1		H2OD	4/17/24	RAMBOLL
Field Temperature	12	0.1	Degrees C		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	2272	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.1	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	540	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	39	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	2.2	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	69.3	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	158300	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	66350	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	Less Than	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	670	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Comments:

Sample Description: **W73 P4 Landfill Semi Annual Sample**
Sample ID: AE72475 Sample Collection Date/Time: 04/18/2024 16:03
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	21.03	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	11	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	490	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	8.3	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	110	20	mg/l		1		Std Mtd 2320 B	4/26/24	AEU
Dissolved Sulfate	120	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	2.0	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	437	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	18370	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	11800	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	106	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	94	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Alkalinity as CaCO3	110	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	410	20	mg/L		1		Std Mtd 2540 C	4/25/24	SAA
Total Boron	433	2.8	ug/L	9.4	1		EPA 200.7	6/16/24	EDL
Total Calcium	19130	12.4	ug/L	170.3	1		EPA 200.7	6/16/24	EDL
Total Magnesium	12170	17.5	ug/L	58.4	1		EPA 200.7	6/16/24	EDL
Total Molybdenum	110	2.7	ug/L	9.2	1		EPA 200.7	6/25/24	EDL
Total Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	6/25/24	EDL

Sample Comments:

Sample Description: **QAQC1 P4 Landfill Semi Annual Sample**
Sample ID: AE72476 Sample Collection Date/Time: 04/17/2024 13:30
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Filtered Alkalinity as CaCO3	410	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	630	0.124	mg/L	0.42	20		EPA 300.0	5/16/24	AEU
Dissolved Organic Carbon	2.6	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	818	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	241600	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	95740	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	105	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Description: **QAQC1 P4 Landfill Semi Annual Sample**
Sample ID: AE72476 Sample Collection Date/Time: 04/17/2024 13:30
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Dissolved Selenium	0.132	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	1000	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **QAQC2 P4 Landfill Semi Annual Sample**
Sample ID: AE72477 Sample Collection Date/Time: 04/17/2024 10:04
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Filtered Alkalinity as CaCO3	220	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	71	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	1.3	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	306	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	44430	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	31940	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	Less Than	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	240	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **EB1 P4 Landfill Semi Annual Sample**
Sample ID: AE72478 Sample Collection Date/Time: 04/17/2024 15:15
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	16	0.1	Degrees (		1		TEMP	4/17/24	RAMBOLL
Field Conductivity	8.08	0	umhos		1		FCOND25	4/17/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	4/17/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	Less Than	20	mg/l		1		Std Mtd 2320 B	5/2/24	AEU
Dissolved Sulfate	Less Than	0.031	mg/L	0.105	5		EPA 300.0	5/1/24	AEU
Dissolved Organic Carbon	Less Than	0.19	ppm	0.50	1		Std Mtd 5310C	4/30/24	020
Dissolved Boron	Less Than	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Dissolved Calcium	Less Than	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Dissolved Magnesium	Less Than	17.5	ug/L	58.4	1		EPA 200.7	5/16/24	EDL
Dissolved Molybdenum	Less Than	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Description: **EB1 P4 Landfill Semi Annual Sample**
Sample ID: AE72478 Sample Collection Date/Time: 04/17/2024 15:15
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Dissolved Selenium	Less Than	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	Less Than	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Sample Comments:

Sample Description: **EB2 P4 Landfill Semi Annual Sample**
Sample ID: AE72479 Sample Collection Date/Time: 04/18/2024 16:15
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	14	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	3.95	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	8.0	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Boron	4.02	2.8	ug/L	9.4	1	J	EPA 200.7	5/16/24	EDL
Total Calcium	122	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Total Hardness as CaCO3	Less Than	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Fluoride	Less Than	0.06	mg/L	0.195	5		EPA 300.0	5/6/24	AEU
Total Chloride	3.4	0.0155	mg/L	0.05	5		EPA 300.0	5/6/24	AEU
Total Sulfate	4.0	0.031	mg/L	0.105	5		EPA 300.0	5/6/24	AEU
Total Alkalinity as CaCO3	Less Than	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	160	20	mg/L		1		Std Mtd 2540 C	4/24/24	SAA
Dissolved Organic Carbon	0.26	0.19	ppm	0.56	1	J	Std Mtd 5310C	4/30/24	020

Sample Comments:

Sample Description: **W20D P4 Landfill Semi Annual Sample**
Sample ID: AE72480 Sample Collection Date/Time: 04/18/2024 10:37
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	17.99	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	11	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	574	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	7.6	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Boron	429	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Total Calcium	24230	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Total Hardness as CaCO3	125	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL

Report Date: Tuesday, June 25, 2024

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

Sample Description: **W20D P4 Landfill Semi Annual Sample**
Sample ID: AE72480 Sample Collection Date/Time: 04/18/2024 10:37
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Fluoride	1.9	0.06	mg/L	0.195	5		EPA 300.0	5/6/24	AEU
Total Chloride	11	0.0155	mg/L	0.05	5		EPA 300.0	5/6/24	AEU
Total Sulfate	170	0.031	mg/L	0.105	5		EPA 300.0	5/6/24	AEU
Total Alkalinity as CaCO3	110	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	520	20	mg/L		1		Std Mtd 2540 C	4/24/24	SAA

Sample Comments:

Sample Description: **W74 P4 Landfill Semi Annual Sample**
Sample ID: AE72481 Sample Collection Date/Time: 04/18/2024 15:14
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	18.93	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	11	0.1	Degrees (		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	545	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	8.2	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Boron	398	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Total Calcium	19090	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Total Hardness as CaCO3	107	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Fluoride	2.0	0.06	mg/L	0.195	5		EPA 300.0	5/6/24	AEU
Total Chloride	14	0.0155	mg/L	0.05	5		EPA 300.0	5/6/24	AEU
Total Sulfate	160	0.031	mg/L	0.105	5		EPA 300.0	5/6/24	AEU
Total Alkalinity as CaCO3	100	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	400	20	mg/L		1		Std Mtd 2540 C	4/24/24	SAA

Sample Comments:

Sample Description: **W75 P4 Landfill Semi Annual Sample**
Sample ID: AE72482 Sample Collection Date/Time: 04/18/2024 11:37
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	20.97	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	10	0.1	Degrees (		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	500	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	8.3	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL

Report Date: Tuesday, June 25, 2024

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

Sample Description: **W75 P4 Landfill Semi Annual Sample**
Sample ID: AE72482 Sample Collection Date/Time: 04/18/2024 11:37
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Boron	428	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Total Calcium	19310	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Total Hardness as CaCO3	100	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Fluoride	1.9	0.06	mg/L	0.195	5		EPA 300.0	5/6/24	AEU
Total Chloride	9.8	0.0155	mg/L	0.05	5		EPA 300.0	5/6/24	AEU
Total Sulfate	130	0.031	mg/L	0.105	5		EPA 300.0	5/6/24	AEU
Total Alkalinity as CaCO3	120	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	480	20	mg/L		1		Std Mtd 2540 C	4/24/24	SAA

Sample Comments:

Sample Description: **W76 P4 Landfill Semi Annual Sample**
Sample ID: AE72483 Sample Collection Date/Time: 04/18/2024 12:26
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	22.13	0.05	feet		1		H2OD	4/18/24	RAMBOLL
Field Temperature	10	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	503	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	8.5	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Boron	442	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Total Calcium	18700	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Total Hardness as CaCO3	95.1	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Fluoride	1.9	0.06	mg/L	0.195	5		EPA 300.0	5/6/24	AEU
Total Chloride	11	0.0155	mg/L	0.05	5		EPA 300.0	5/6/24	AEU
Total Sulfate	130	0.031	mg/L	0.105	5		EPA 300.0	5/6/24	AEU
Total Alkalinity as CaCO3	120	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	540	20	mg/L		1		Std Mtd 2540 C	4/24/24	SAA

Sample Comments:

Sample Description: **W77 P4 Landfill Semi Annual Sample**
Sample ID: AE72484 Sample Collection Date/Time: 04/18/2024 13:10
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	16.86	0.05	feet		1		H2OD	4/18/24	RAMBOLL

Report Date: Tuesday, June 25, 2024

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

Sample Description: **W77 P4 Landfill Semi Annual Sample**
Sample ID: AE72484 Sample Collection Date/Time: 04/18/2024 13:10
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	10	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	536	0	umhos		1		FCOND25	4/18/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
Total Boron	418	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Total Calcium	24780	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Total Hardness as CaCO3	117	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Fluoride	1.9	0.06	mg/L	0.195	5		EPA 300.0	5/6/24	AEU
Total Chloride	8.8	0.0155	mg/L	0.05	5		EPA 300.0	5/6/24	AEU
Total Sulfate	120	0.031	mg/L	0.105	5		EPA 300.0	5/6/24	AEU
Total Alkalinity as CaCO3	140	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	440	20	mg/L		1		Std Mtd 2540 C	4/24/24	SAA

Sample Comments:

Sample Description: **QAQC3 P4 Landfill Semi Annual Sample**
Sample ID: AE72485 Sample Collection Date/Time: 04/18/2024 13:15
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Boron	421	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Total Calcium	24990	12.4	ug/L	170.3	1		EPA 200.7	5/16/24	EDL
Total Hardness as CaCO3	118	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Fluoride	1.9	0.06	mg/L	0.195	5		EPA 300.0	5/6/24	AEU
Total Chloride	8.8	0.0155	mg/L	0.05	5		EPA 300.0	5/6/24	AEU
Total Sulfate	120	0.031	mg/L	0.105	5		EPA 300.0	5/6/24	AEU
Total Alkalinity as CaCO3	140	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Dissolved Solids	740	20	mg/L		1		Std Mtd 2540 C	4/24/24	SAA

Sample Comments:

Sample Description: **L-Tank P4 Landfill Sample**
Sample ID: AE72486 Sample Collection Date/Time: 04/18/2024 15:00
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	12	0.1	Degrees C		1		TEMP	4/18/24	RAMBOLL
Field Conductivity	723	0	umhos		1		FCOND25	4/18/24	RAMBOLL

Report Date: Tuesday, June 25, 2024

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

Sample Description: **L-Tank P4 Landfill Sample**
Sample ID: AE72486 Sample Collection Date/Time: 04/18/2024 15:00
Sample Received: 04/22/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field pH	8.2	0.1	Units	0.1	1		FIELDPH	4/18/24	RAMBOLL
COD	Less Than	14.7	mg/L	50.0	1		EPA 410.4	5/2/24	020
Total Suspended Solids	2	1	mg/L	3	1	J	Std Mtd 2540 D	4/24/24	SAA
Total Alkalinity as CaCO3	160	20	mg/L		1		SM 2320 B-1997	5/2/24	AEU
Total Chloride	27	0.295	mg/L	0.99	5		EPA 300.0	5/14/24	AEU
Total Sulfate	170	1.2	mg/L	3.9	5		EPA 300.0	5/14/24	AEU
Total Boron	642	2.8	ug/L	9.4	1		EPA 200.7	5/16/24	EDL
Total Cadmium	0.9	0.8	ug/L	2.4	1	J	EPA 200.7	5/16/24	EDL
Total Iron	123	1.4	ug/L	4.6	1		EPA 200.7	5/16/24	EDL
Total Lead	Less Than	9.7	ug/L	32.2	1		EPA 200.7	5/16/24	EDL
Total Manganese	4.3	0.2	ug/L	0.7	1		EPA 200.7	5/16/24	EDL
Total Molybdenum	67.3	2.7	ug/L	9.2	1		EPA 200.7	5/21/24	EDL
Total Selenium	3.33	0.16	ug/L	0.53	1		EPA 200.8	5/21/24	EDL
Total Hardness as CaCO3	312	1	mg/L		1		Std Mtd 2340B	5/16/24	EDL
Total Mercury	2.28	0.28	ng/L	0.93	1		EPA 245.7	5/2/24	CMW
SVOCs	Completed				1		EPA 8270C	4/25/24	020

Sample Comments:

Sample Description: **L-Tank P4 Landfill Sample BOD only**
Sample ID: AE72487 Sample Collection Date/Time: 04/23/2024 10:15
Sample Received: 04/23/2024 Sample Collector: LAUREN ANDERSON

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Biochemical Oxygen Demand	Less Than	2	mg/L	2	1	B3, B4	Std Mtd 5210B	4/25/24	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 Lab Services: 414-221-4595

To: Eric Kovatch
PSB Annex A231

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

Report Date: Saturday, December 28, 2024

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

Sample Description: **W20A P4 Landfill Semi Annual Sample**
Sample ID: AE75083 Sample Collection Date/Time: 10/14/2024 10:09
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	6.07	0.05	feet		1		H2OD	10/14/24	RAMBOLL
Field Temperature	12.2	0.1	Degrees C		1		TEMP	10/14/24	RAMBOLL
Field Conductivity	1198	0	umhos		1		FCOND25	10/14/24	RAMBOLL
Field pH	7.5	0.1	Units	0.1	1		FIELDPH	10/14/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	280	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	97	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	2.2	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	346	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	16.4	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	406	10	mg/L	5.4	10		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **W20C P4 Landfill Semi Annual Sample**
Sample ID: AE75084 Sample Collection Date/Time: 10/14/2024 10:50
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.16	0.05	feet		1		H2OD	10/14/24	RAMBOLL
Field Temperature	15.1	0.1	Degrees C		1		TEMP	10/14/24	RAMBOLL
Field Conductivity	3190	0	umhos		1		FCOND25	10/14/24	RAMBOLL
Field pH	6.9	0.1	Units	0.1	1		FIELDPH	10/14/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	410	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	510	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	2.3	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	288	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	4.7	2.4	ug/L	10.0	1	J	EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	1630	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Report Date: Saturday, December 28, 2024

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

Sample Comments:

Sample Description: **W31C P4 Landfill Semi Annual Sample**
Sample ID: AE75085 Sample Collection Date/Time: 10/14/2024 11:30
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.07	0.05	feet		1		H2OD	10/14/24	RAMBOLL
Field Temperature	15.1	0.1	Degrees C		1		TEMP	10/14/24	RAMBOLL
Field Conductivity	892	0	umhos		1		FCOND25	10/14/24	RAMBOLL
Field pH	7.9	0.1	Units	0.1	1		FIELDPH	10/14/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	300	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	96	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	1.2	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	124	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	12.6	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	431	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **W28 P4 Landfill Semi Annual Sample**
Sample ID: AE75086 Sample Collection Date/Time: 10/14/2024 12:08
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.99	0.05	feet		1		H2OD	10/14/24	RAMBOLL
Field Temperature	16.1	0.1	Degrees C		1		TEMP	10/14/24	RAMBOLL
Field Conductivity	1417	0	umhos		1		FCOND25	10/14/24	RAMBOLL
Field pH	7.2	0.1	Units	0.1	1		FIELDPH	10/14/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	330	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	260	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	1.0	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	214	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	8.5	2.4	ug/L	10.0	1	J	EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	866	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Report Date: Saturday, December 28, 2024

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

Sample Comments:

Sample Description: **P10RR P4 Landfill Semi Annual Sample**
Sample ID: AE75087 Sample Collection Date/Time: 10/14/2024 13:02
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	2.13	0.05	feet		1		H2OD	10/14/24	RAMBOLL
Field Temperature	14.4	0.1	Degrees C		1		TEMP	10/14/24	RAMBOLL
Field Conductivity	2179	0	umhos		1		FCOND25	10/14/24	RAMBOLL
Field pH	7.0	0.1	Units	0.1	1		FIELDPH	10/14/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	520	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	82	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	3.9	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	282	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	9.8	2.4	ug/L	10.0	1	J	EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	699	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **W19 P4 Landfill Semi Annual Sample**
Sample ID: AE75088 Sample Collection Date/Time: 10/14/2024 14:00
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	11.79	0.05	feet		1		H2OD	10/14/24	RAMBOLL
Field Temperature	14.1	0.1	Degrees C		1		TEMP	10/14/24	RAMBOLL
Field Conductivity	2103	0	umhos		1		FCOND25	10/14/24	RAMBOLL
Field pH	7.1	0.1	Units	0.1	1		FIELDPH	10/14/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	410	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	350	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	1.8	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	512	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	5.3	2.4	ug/L	10.0	1	J	EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	1090	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

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

Sample Comments:

Sample Description: **EB -1 P4 Landfill Semi Annual Sample**
Sample ID: AE75089 Sample Collection Date/Time: 10/14/2024 14:28
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	15.5	0.1	Degrees (		1		TEMP	10/14/24	RAMBOLL
Field Conductivity	54	0	umhos		1		FCOND25	10/14/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	10/14/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	Less Than	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	0.58	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	Less Than	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	Less Than	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	Less Than	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	1.72	1	mg/L	5.4	1	J	Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **W20B P4 Landfill Semi Annual Sample**
Sample ID: AE75090 Sample Collection Date/Time: 10/15/2024 09:18
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	6.18	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	11.6	0.1	Degrees (		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	1023	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	7.3	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	250	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	120	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	1.4	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	337	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	24.9	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	372	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

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

Sample Comments:

Sample Description: **W16R P4 Landfill Semi Annual Sample**
Sample ID: AE75091 Sample Collection Date/Time: 10/15/2024 12:40
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	5.32	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	14.0	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	1100	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	7.00	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	420	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	240	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	3.2	0.19	ppm	0.50	1	H1	Std Mtd 5310C	11/12/24	020
Dissolved Boron	902	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	12.9	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	838	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020
Duplicate Result SO4-IC-GW-AS14	240	0.020	mg/L		1			11/8/24	AEU

Sample Comments:

Sample Description: **QAQC1 P4 Landfill Semi Annual Sample**
Sample ID: AE75092 Sample Collection Date/Time: 10/15/2024 00:00
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Filtered Alkalinity as CaCO3	260	20	mg/l		1		Std Mtd 2320 B	10/28/24	AEU
Dissolved Sulfate	120	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	1.4	0.19	ppm	0.50	1		Std Mtd 5310C	11/12/24	020
Dissolved Boron	325	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	24.9	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	386	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Report Date: Saturday, December 28, 2024

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

Sample Description: **W35C P4 Landfill Semi Annual Sample**
Sample ID: AE75093 Sample Collection Date/Time: 10/15/2024 14:08
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	3.45	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	12.9	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	2981	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	7.1	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	420	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	57	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	1.8	0.19	ppm	0.50	1		Std Mtd 5310C	11/12/24	020
Dissolved Boron	105	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	2.5	2.4	ug/L	10.0	1	J	EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	793	10	mg/L	5.4	10		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **EB - 2 P4 Landfill Semi Annual Sample**
Sample ID: AE75094 Sample Collection Date/Time: 10/15/2024 14:40
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	11.9	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	94.1	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	5.0	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	0.40	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	0.27	0.19	ppm	0.50	1	J	Std Mtd 5310C	11/12/24	020
Dissolved Boron	Less Than	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	Less Than	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	13.0	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **W17BR P4 Landfill Semi Annual Sample**
Sample ID: AE75095 Sample Collection Date/Time: 10/16/2024 09:44
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst

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

Sample Description: **W17BR P4 Landfill Semi Annual Sample**
Sample ID: AE75095 Sample Collection Date/Time: 10/16/2024 09:44
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	13.57	0.05	feet		1		H2OD	10/16/24	RAMBOLL
Field Temperature	10.8	0.1	Degrees C		1		TEMP	10/16/24	RAMBOLL
Field Conductivity	928	0	umhos		1		FCOND25	10/16/24	RAMBOLL
Field pH	8.5	0.1	Units	0.1	1		FIELDPH	10/16/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	100	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	19	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	2.2	0.19	ppm	0.50	1		Std Mtd 5310C	11/12/24	020
Dissolved Boron	661	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	158	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	47.2	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **QAQC 2 P4 Landfill Semi Annual Sample**
Sample ID: AE75096 Sample Collection Date/Time: 10/16/2024 00:00
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Filtered Alkalinity as CaCO3	110	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	19	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	2.2	0.19	ppm	0.50	1		Std Mtd 5310C	11/12/24	020
Dissolved Boron	659	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	158	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	47.4	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **W17AR P4 Landfill Semi Annual Sample**
Sample ID: AE75097 Sample Collection Date/Time: 10/16/2024 10:21
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	13.02	0.05	feet		1		H2OD	10/16/24	RAMBOLL
Field Temperature	14.8	0.1	Degrees C		1		TEMP	10/16/24	RAMBOLL
Field Conductivity	466	0	umhos		1		FCOND25	10/16/24	RAMBOLL

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

Sample Description: **W17AR P4 Landfill Semi Annual Sample**
Sample ID: AE75097 Sample Collection Date/Time: 10/16/2024 10:21
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field pH	8.0	0.1	Units	0.1	1		FIELDPH	10/16/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	130	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	33	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	4.4	0.19	ppm	0.50	1		Std Mtd 5310C	11/12/24	020
Dissolved Boron	630	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	275	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	77.0	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020
Duplicate Result SO4-IC-GW-AS14	33	0.020	mg/L		1			11/8/24	AEU

Sample Comments:

Sample Description: **W17CR P4 Landfill Semi Annual Sample**
Sample ID: AE75098 Sample Collection Date/Time: 10/16/2024 11:23
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	7.93	0.05	feet		1		H2OD	10/16/24	RAMBOLL
Field Temperature	15.0	0.1	Degrees C		1		TEMP	10/16/24	RAMBOLL
Field Conductivity	2127	0	umhos		1		FCOND25	10/16/24	RAMBOLL
Field pH	7.2	0.1	Units	0.1	1		FIELDPH	10/16/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	440	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	290	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	1.5	0.19	ppm	0.50	1		Std Mtd 5310C	11/12/24	020
Dissolved Boron	690	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	13.2	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	0.40	0.32	ug/L	1.1	1	J	EPA 200.8	10/23/24	020
Total Hardness as CaCO3	711	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **W73 P4 Landfill Semi Annual Sample**
Sample ID: AE75099 Sample Collection Date/Time: 10/16/2024 12:08
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	23.92	0.05	feet		1		H2OD	10/16/24	RAMBOLL

Report Date: Saturday, December 28, 2024

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

Sample Description: **W73 P4 Landfill Semi Annual Sample**
Sample ID: AE75099 Sample Collection Date/Time: 10/16/2024 12:08
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	11.6	0.1	Degrees C		1		TEMP	10/16/24	RAMBOLL
Field Conductivity	608	0	umhos		1		FCOND25	10/16/24	RAMBOLL
Field pH	8.3	0.1	Units	0.1	1		FIELDPH	10/16/24	RAMBOLL
Total Filtered Alkalinity as CaCO3	100	20	mg/l		1		Std Mtd 2320 B	11/6/24	AEU
Dissolved Sulfate	110	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Organic Carbon	2.0	0.19	ppm	0.50	1		Std Mtd 5310C	11/12/24	020
Dissolved Boron	458	17.3	ug/L	40.0	1		EPA 200.7	10/24/24	020
Dissolved Molybdenum	105	2.4	ug/L	10.0	1		EPA 200.7	10/24/24	020
Dissolved Selenium	Less Than	0.32	ug/L	1.1	1		EPA 200.8	10/23/24	020
Total Hardness as CaCO3	101	1	mg/L	5.4	1		Std Mtd 2340B	10/24/24	020

Sample Comments:

Sample Description: **L-Tank P4 Landfill Sample**
Sample ID: AE75100 Sample Collection Date/Time: 10/16/2024 12:45
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	14.7	0.1	Degrees C		1		TEMP	10/16/24	RAMBOLL
Field Conductivity	1173	0	umhos		1		FCOND25	10/16/24	RAMBOLL
Field pH	7.9	0.1	Units	0.1	1		FIELDPH	10/16/24	RAMBOLL
Biochemical Oxygen Demand	2	2	mg/L	2	1	WW-O	Std Mtd 5210B	10/23/24	057
COD	17.2	14.7	mg/L	50.0	1	J	EPA 410.4	10/30/24	020
Total Suspended Solids	935	1	mg/L	3	1		Std Mtd 2540 D	10/23/24	SAA
Total Alkalinity as CaCO3	80	20	mg/L		1		SM 2320 B-1997	11/7/24	AEU
Total Chloride	54	0.059	mg/L	0.198	1		EPA 300.0	11/5/24	AEU
Total Sulfate	230	0.24	mg/L	0.78	1		EPA 300.0	11/5/24	AEU
Total Boron	1280	173	ug/L	400	10		EPA 200.7	10/25/24	020
Total Cadmium	Less Than	1.3	ug/L	5.0	1		EPA 200.7	10/25/24	020
Total Iron	8730	56.7	ug/L	100	1		EPA 200.7	10/25/24	020
Total Lead	11.0	5.9	ug/L	20.0	1	J	EPA 200.7	10/25/24	020
Total Manganese	253	1.5	ug/L	5.0	1		EPA 200.7	10/25/24	020
Total Molybdenum	194	2.4	ug/L	10.0	1		EPA 200.7	10/25/24	020
Total Selenium	15.2	0.63	ug/L	2.1	2		EPA 200.8	10/29/24	020
Total Hardness as CaCO3	582	10	mg/L	54	10		Std Mtd 2340B	10/25/24	020
Total Calcium	144000	1140	ug/L	5000	10		EPA 200.7	10/25/24	020
Total Magnesium	54100	182	ug/L	1000	1		EPA 200.7	10/25/24	020
Total Potassium	6800	320	ug/L	1000	1		EPA 200.7	12/13/24	020
Total Sodium	85900	350	ug/L	500	1		EPA 200.7	12/13/24	020
Total Mercury	205	1.7	ng/L	5.7	10		EPA 1631E	12/5/24	AEU

Report Date: Saturday, December 28, 2024

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

Sample Comments:

Sample Description: **W20D P4 Landfill CCR Well Sample**
Sample ID: AE75101 Sample Collection Date/Time: 10/15/2024 09:55
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	21.97	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	10.7	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	722	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Dissolved Solids	400	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	1.1	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	10	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU
Total Sulfate	190	0.24	mg/L	0.78	1		EPA 300.0	12/12/24	AEU
Total Boron	470	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	26200	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	137	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	110	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	0.6	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	109.3	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	11	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	140	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	24500	110	ug/L	500	1		EPA 200.7	10/28/24	020
Dissolved Magnesium	16300	182	ug/L	1000	1		EPA 200.7	10/28/24	020
Dissolved Sodium	89300	3500	ug/L	5000	10		EPA 200.8	10/25/24	020
Dissolved Potassium	3300	325	ug/L	1000	1		EPA 200.7	10/28/24	020

Sample Comments:

Sample Description: **W74 P4 Landfill CCR Well Sample**
Sample ID: AE75102 Sample Collection Date/Time: 10/15/2024 10:37
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	20.79	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	10.5	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	679	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	8.2	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Dissolved Solids	390	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	1.1	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	14	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU

Report Date: Saturday, December 28, 2024

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

Sample Description: **W74 P4 Landfill CCR Well Sample**
Sample ID: AE75102 Sample Collection Date/Time: 10/15/2024 10:37
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Sulfate	170	0.24	mg/L	0.78	1	H1	EPA 300.0	12/12/24	AEU
Total Boron	430	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	21700	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	119	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	100	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	1.5	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	98.5	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	16	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	130	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	20600	110	ug/L	500	1		EPA 200.7	10/25/24	020
Dissolved Magnesium	15300	182	ug/L	100	1		EPA 200.7	10/25/24	020
Dissolved Sodium	81700	350	ug/L	500	1		EPA 200.8	10/25/24	020
Dissolved Potassium	2780	325	ug/L	1000	1		EPA 200.7	10/25/24	020

Sample Comments:

Sample Description: **W75 P4 Landfill CCR Well Sample**
Sample ID: AE75103 Sample Collection Date/Time: 10/15/2024 13:26
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	23.95	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	10.7	0.1	Degrees (		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	621	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	8.1	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Dissolved Solids	380	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	1.1	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	8.1	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU
Total Sulfate	130	0.24	mg/L	0.78	1	H1	EPA 300.0	12/12/24	AEU
Total Boron	450	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	20500	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	108	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	110	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	1..3	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	108.7	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	9.2	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	110	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	20100	110	ug/L	500	1		EPA 200.7	10/25/24	020
Dissolved Magnesium	13400	182	ug/L	1000	1		EPA 200.7	10/25/24	020
Dissolved Sodium	74800	350	ug/L	500	1		EPA 200.8	10/25/24	020
Dissolved Potassium	2740	325	ug/L	1000	1		EPA 200.7	10/25/24	020

Report Date: Saturday, December 28, 2024

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

Sample Comments:

Sample Description: **W76 P4 Landfill CCR Well Sample**
Sample ID: AE75104 Sample Collection Date/Time: 10/16/2024 08:54
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	25.20	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	10.7	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	629	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	8.3	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Dissolved Solids	370	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	1.1	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	9.9	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU
Total Sulfate	140	0.24	mg/L	0.78	1	H1	EPA 300.0	12/12/24	AEU
Total Boron	450	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	19400	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	100	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	110	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	2.0	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	107.9	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	11	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	120	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	19800	110	ug/L	500	1		EPA 200.7	10/25/24	020
Dissolved Magnesium	12700	182	ug/L	1000	1		EPA 200.7	10/25/24	020
Dissolved Sodium	80000	350	ug/L	500	1		EPA 200.8	10/25/24	020
Dissolved Potassium	2130	325	ug/L	1000	1		EPA 200.7	10/25/24	020

Sample Comments:

Sample Description: **W77 P4 Landfill CCR Well Sample**
Sample ID: AE75105 Sample Collection Date/Time: 10/15/2024 11:29
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	19.36	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	10.6	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	672	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	7.8	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Dissolved Solids	370	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	1.1	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	7.7	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU

Report Date: Saturday, December 28, 2024

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

Sample Description: **W77 P4 Landfill CCR Well Sample**
Sample ID: AE75105 Sample Collection Date/Time: 10/15/2024 11:29
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Sulfate	130	0.24	mg/L	0.78	1	H1	EPA 300.0	12/12/24	AEU
Total Boron	430	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	25300	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	121	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	140	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	0.8	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	139.1	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	8.7	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	110	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	26000	110	ug/L	500	1		EPA 200.7	10/25/24	020
Dissolved Magnesium	14400	182	ug/L	1000	1		EPA 200.7	10/25/24	020
Dissolved Sodium	85700	350	ug/L	500	1		EPA 200.8	10/25/24	020
Dissolved Potassium	2230	325	ug/L	1000	1		EPA 200.7	10/25/24	020

Sample Comments:

Sample Description: **QC P4 Landfill CCR Well Sample**
Sample ID: AE75106 Sample Collection Date/Time: 10/15/2024 11:34
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Dissolved Solids	360	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	1.1	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	7.7	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU
Total Sulfate	130	0.24	mg/L	0.78	1	H1	EPA 300.0	12/12/24	AEU
Total Boron	430	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	25100	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	120	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	140	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	Less Than	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	140.0	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	8.7	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	110	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	25000	110	ug/L	500	1		EPA 200.7	10/25/24	020
Dissolved Magnesium	13900	182	ug/L	1000	1		EPA 200.7	10/25/24	020
Dissolved Sodium	82900	350	ug/L	500	1		EPA 200.8	10/25/24	020
Dissolved Potassium	2150	325	ug/L	1000	1		EPA 200.7	10/25/24	020

Report Date: Saturday, December 28, 2024

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

Sample Comments:

Sample Description: **EB P4 Landfill CCR Well Sample**
Sample ID: AE75107 Sample Collection Date/Time: 10/16/2024 12:15
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Temperature	15.0	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	18.3	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	8.2	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Dissolved Solids	180	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	Less Than	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	Less Than	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU
Total Sulfate	Less Than	0.24	mg/L	0.78	1	H1	EPA 300.0	12/12/24	AEU
Total Boron	Less Than	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	Less Than	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	Less Than	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	Less Than	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	Less Than	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	Less Than	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	Less Than	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	Less Than	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	Less Than	110	ug/L	500	1		EPA 200.7	10/25/24	020
Dissolved Magnesium	Less Than	182	ug/L	1000	1		EPA 200.7	10/25/24	020
Dissolved Sodium	422	350	ug/L	500	1	J	EPA 200.8	10/25/24	020
Dissolved Potassium	Less Than	325	ug/L	1000	1		EPA 200.7	10/25/24	020

Sample Comments:

Sample Description: **W73 P4 Landfill CCR Well Sample**
Sample ID: AE75108 Sample Collection Date/Time: 10/16/2024 12:08
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Field Water Level	23.92	0.05	feet		1		H2OD	10/15/24	RAMBOLL
Field Temperature	11.6	0.1	Degrees C		1		TEMP	10/15/24	RAMBOLL
Field Conductivity	608	0	umhos		1		FCOND25	10/15/24	RAMBOLL
Field pH	8.3	0.1	Units	0.1	1		FIELDPH	10/15/24	RAMBOLL
Total Dissolved Solids	460	20	mg/L		1		Std Mtd 2540 C	10/23/24	SAA
Total Fluoride	1.1	0.012	mg/L	0.039	1	H1	EPA 300.0	12/12/24	AEU
Total Chloride	10	0.059	mg/L	0.198	1	H1	EPA 300.0	12/12/24	AEU
Total Sulfate	130	0.24	mg/L	0.78	1	H1	EPA 300.0	12/12/24	AEU

Report Date: Saturday, December 28, 2024

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

Sample Description: **W73 P4 Landfill CCR Well Sample**
Sample ID: AE75108 Sample Collection Date/Time: 10/16/2024 12:08
Sample Received: 10/17/2024 Sample Collector: KATIE PHILLIPS

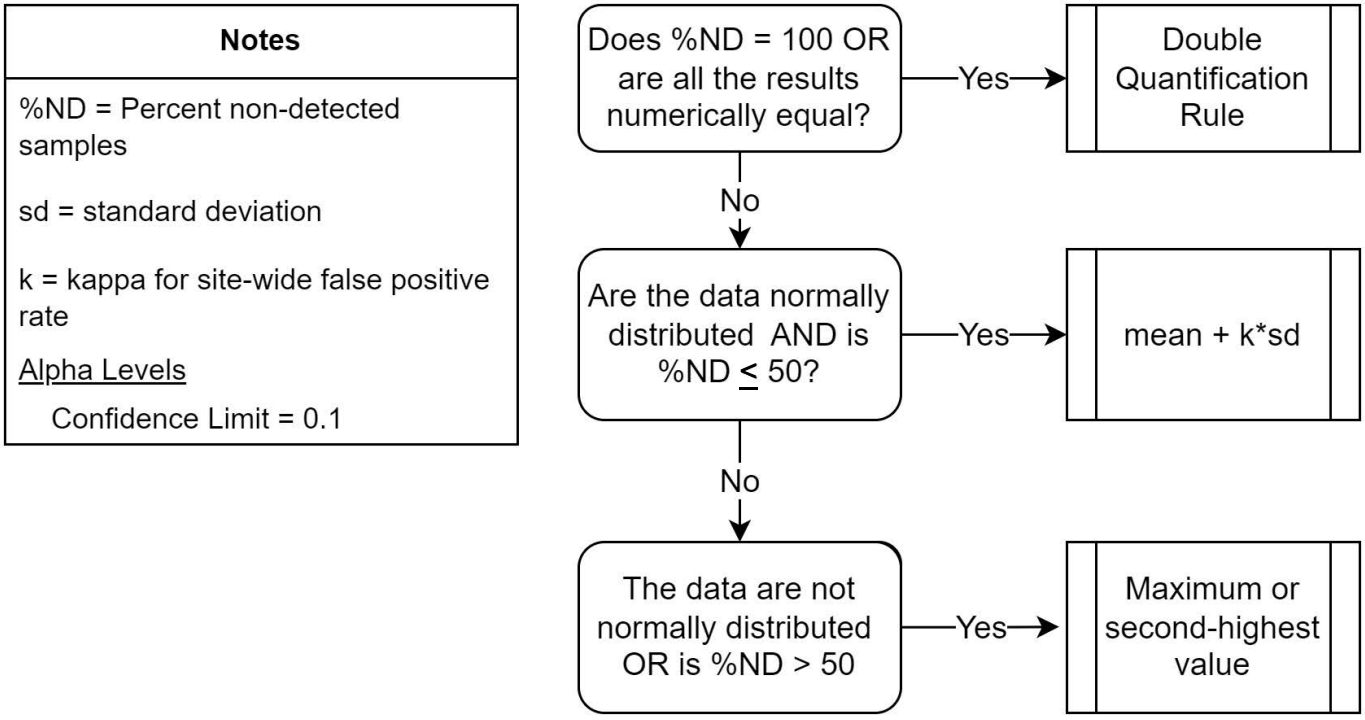
Parameter	Result	LOD	Units	LOQ	DIL	Result Flag	Analysis Method	Analysis Date	Analyst
Total Boron	470	17	ug/L	40	1		EPA 200.7	10/25/24	020
Total Calcium	21900	110	ug/L	500	1		EPA 200.7	10/25/24	020
Total Hardness as CaCO3	113	1	mg/L	5.4	1		Std Mtd 2340B	10/25/24	020
Total Alkalinity as CaCO3	100	20	mg/L		1		SM 2320 B-1997	10/31/24	AEU
Carbonate Ion	1.8	0.1	mg/L		1		CO3	10/31/24	AEU
Bicarbonate Ion	98.1	5.0	mg/L		1		HCO3	10/31/24	AEU
Dissolved Chloride	12	0.0031	mg/L	0.010	1		EPA 300.0	11/5/24	AEU
Dissolved Sulfate	110	0.0062	mg/L	0.021	1		EPA 300.0	11/5/24	AEU
Dissolved Calcium	19500	114	ug/L	500	1		EPA 200.7	10/25/24	020
Dissolved Magnesium	12900	182	ug/L	1000	1		EPA 200.7	10/25/24	020
Dissolved Sodium	78700	350	ug/L	500	1		EPA 200.8	10/25/24	020
Dissolved Potassium	1540	325	ug/L	1000	1		EPA 200.7	10/25/24	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 Lab Services: 414-221-4595

APPENDIX B
STATISTICAL METHODOLOGY FOR DETERMINATION OF BACKGROUND VALUES



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.

APPENDIX C
ALTERNATE SOURCE DEMONSTRATIONS

RAMBOLL

ENVIRONMENT
& HEALTH

Eric Kovatch
Senior Environmental Consultant – Waste, Recycling & Disposal
WEC Energy Group – Business Services
333 W. Everett Street
Milwaukee, WI 53203

40 C.F.R. § 257.94(e)(2) Alternate Source Demonstration for Detection Monitoring Round 14
We Energies Pleasant Prairie Power Plant Ash Landfill

December 22, 2024

Ramboll
234 W. Florida Street
Fifth Floor
Milwaukee, WI 53204
USA

T 414-837-3607
F 414-837-3608
www.ramboll.com

Ref. 1940102327

Dear Mr. Kovatch:

Ramboll Americas Engineering Solutions, Inc. (Ramboll) has prepared this document on behalf of We Energies to provide pertinent information for an alternate source demonstration (ASD) as allowed by Title 40 of the Code of Federal Regulations (40 C.F.R.) Section 257.94(e)(2) for the Pleasant Prairie Power Plant (P4) Ash Landfill located in Pleasant Prairie, Wisconsin.

BACKGROUND

The fourteenth semiannual detection monitoring event (D14) samples were collected on April 18, 2024 and analytical data were received on June 25, 2024. Analysis of the data for statistically significant increases (SSIs) of 40 C.F.R. Part 257 Appendix III parameters over background concentrations was completed within 90 days of receipt of sample results (September 23, 2024) in accordance with the *Statistical Analysis Plan*[1]. That statistical determination identified the following SSIs at uppermost aquifer downgradient monitoring wells:

- Total fluoride at W74, W75, and W76
- Total Dissolved Solids (TDS) at W75 and W76

These SSIs are inconsistent with those detected in previous Detection Monitoring Rounds for which previous ASDs were prepared, as concentrations of total fluoride and TDS were elevated compared to historical results. 40 C.F.R. § 257.94(e)(2) allows the owner or operator 90 days from the date of determination to demonstrate that a source other than the coal combustion residuals (CCR) unit caused the SSI, or that the SSI resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Pursuant to 40 C.F.R. § 257.94(e)(2), the following demonstrates that sample dilution during laboratory analysis was the cause of the total fluoride SSIs in W74, W75, and W76, and natural variation in groundwater quality was the cause of the TDS SSIs in W75 and W76 during the D14 event.

[1] Natural Resource Technology, an OBG Company, Statistical Analysis Plan, Pleasant Prairie Power Plant Ash Landfill, October 17, 2017

ALTERNATE SOURCE DEMONSTRATION

TOTAL FLUORIDE IN W74, W75, AND W76

As stated above, total fluoride concentrations observed during the D14 event at monitoring wells W20D (background), W74 (downgradient), W75 (downgradient), W76 (downgradient), and W77 (background) were elevated relative to those observed in previous detection monitoring events and at values exceeding the calculated background upper limit concentration of 1.13 milligrams per liter (mg/L), as shown on **Figure A**, resulting in the SSIs at downgradient wells W74, W75, and W76[2].

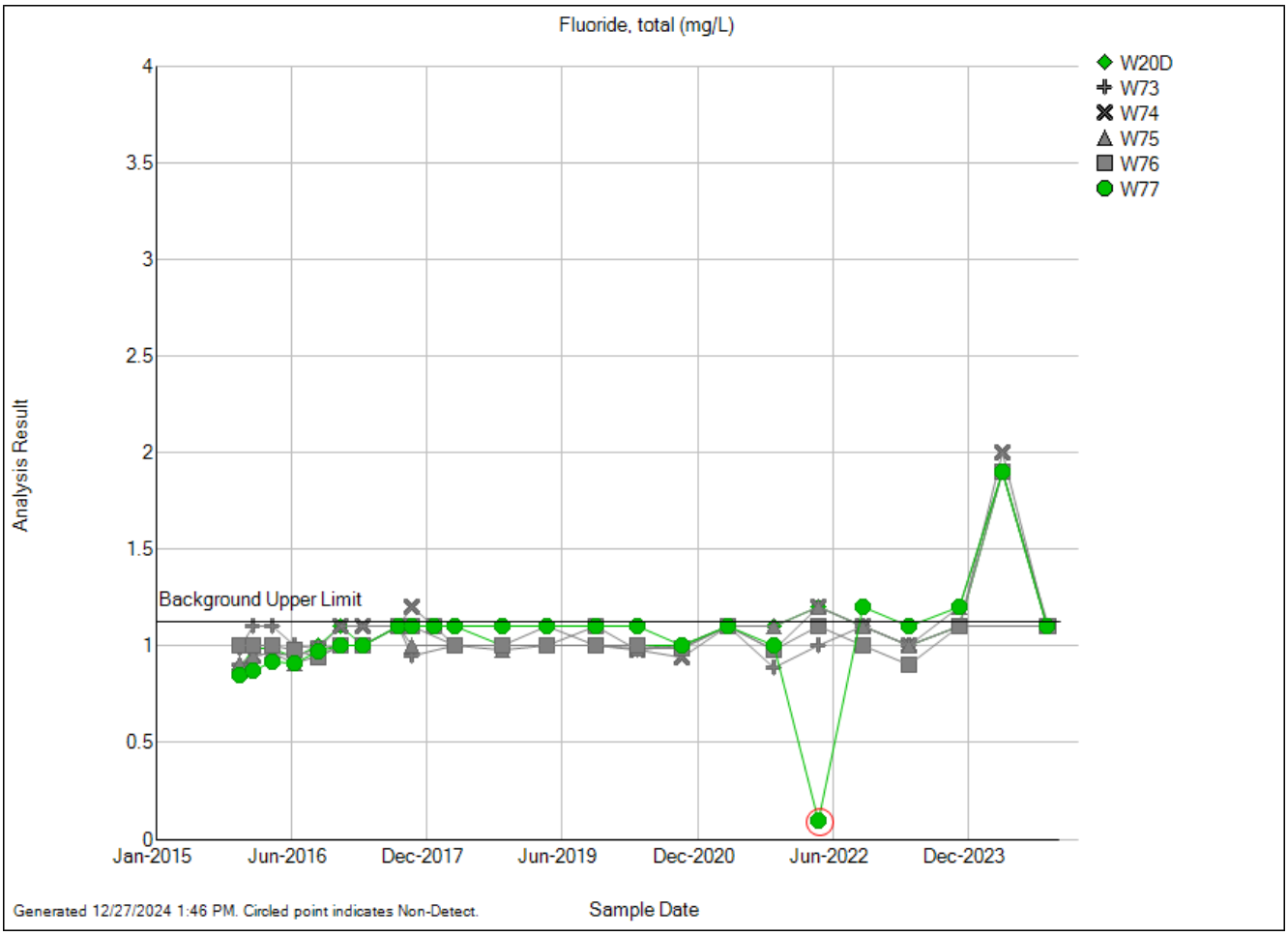


Figure A - Total fluoride concentrations observed in groundwater during detection monitoring events at the P4 Ash Landfill.

The associated analytical lab report (provided in Appendix A of the 2024 Annual Groundwater Monitoring and Corrective Action Report) indicates that samples were diluted 5 times prior to analysis of total fluoride, total chloride, and total sulfate. Upon inquiry, the lab advised that, due to a recent change in the vendor for the lab's chromatography instruments, the calibration range for total fluoride analysis is higher than it was for previous detection monitoring events. The calibration range for events prior to 2021 was 0.1 mg/L to 10

[2] Total fluoride was not analyzed in the sample from W73 during the D14 event.

mg/L (Attachment 1). The calibration range for events in 2021-2023 was 0.2 mg/L to 6.0 mg/L (Attachment 2). The calibration range for the D14 (Q2 2024) and subsequent D15 (Q4 2024) events is 0.5 mg/L to 50 mg/L (Attachment 3). Sample dilution during analysis of the D14 samples caused the detected concentrations in the samples (1.9-2.0 mg/L) to be below the low end of the calibration range (0.5 mg/L x 5 = 2.5 mg/L). The lab further advised that a small amount of variability is introduced when results are below the calibration range, but are statistically valid because they are above the instrument's limit of quantitation (0.195 mg/L for these particular samples at 5-times dilution). These factors caused the D14 results to be elevated relative to previous detection monitoring events.

The above evidence is corroborated by the subsequent D15 detection monitoring event results, also shown on **Figure A**, which were not diluted prior to analysis (associated analytical lab report provided in Appendix A of the 2024 Annual Groundwater Monitoring and Corrective Action Report). As a result, the detected concentrations did not exceed the calculated background upper limit concentration and are consistent with fluoride concentrations observed during detection monitoring events prior to D14.

TDS IN W75 AND W76

TDS concentrations observed during the D14 event were elevated relative to those observed during previous detection monitoring events and at values exceeding the calculated background upper limit concentration of 457 mg/L at wells W20D (background), W75 (downgradient), and W76 (downgradient) (**Figure B**), resulting in the SSIs at W75 and W76.

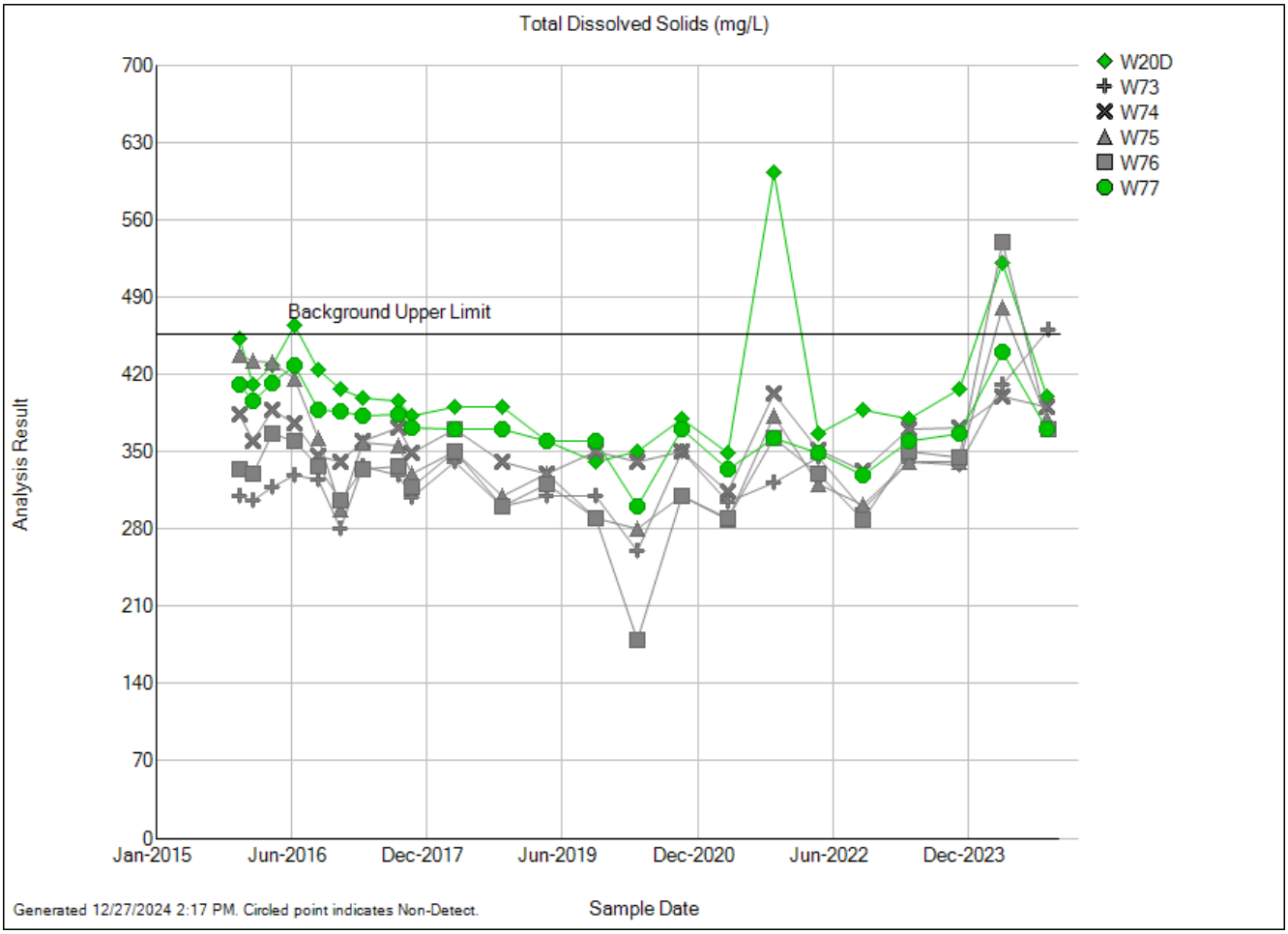


Figure B - Total dissolved solids concentrations observed in groundwater during detection monitoring events at the P4 Ash Landfill.

However, TDS concentrations observed during the subsequent (Q4 2024; D15) detection monitoring event did not exceed the calculated background upper limit concentration, with the exception of well W73 in which TDS concentrations were not elevated above the calculated background upper limit concentration during the D14 event. Evaluation of D15 results and SSI determinations will be completed within 90 days of the receipt of laboratory data. Observed groundwater flow directions appear to be similar for the D14 and D15 events based upon potentiometric surface maps prepared for both events (see Figures 3 and 4 in the 2024 Annual Groundwater Monitoring and Corrective Action Report). The TDS concentrations observed during the D15 event were also more consistent with those observed during detection monitoring events prior to D14, again with the exception of the TDS concentration observed at well W73. As allowed by the *Statistical Analysis Plan*, the D15 results did not confirm the SSIs observed during the D14 event at wells W75 and W76 and the elevated TDS concentrations observed during the D14 event are a result of natural variation in groundwater quality.

CONCLUSIONS AND CERTIFICATION

The information presented in this document demonstrates that sample dilution during laboratory analysis was the cause of the total fluoride SSIs in W74, W75, and W76, and natural variation in groundwater quality was the cause of the TDS SSIs in W75 and W76 during the D14 event.

The preceding information serves as the ASD prepared in accordance with 40 C.F.R. § 257.94(e)(2) and supports the position that the SSIs reported during the D14 event were not due to a release from the P4 Ash Landfill, but were from either errors in sampling, analysis, or statistical evaluation, or natural variation in groundwater quality. Therefore, no further action (i.e., assessment monitoring) is warranted and the P4 Ash Landfill will remain in detection monitoring.

Eric J. Tlachac, PE
Senior Project Manager
Professional Engineer No. 36088-6
State of Wisconsin
Ramboll Americas Engineering Solutions, Inc.
Date: December 22, 2024

I, Eric J. Tlachac, a qualified professional engineer in good standing in the State of Wisconsin, certify that enclosed information is accurate as of the date of my signature below. The content of this report is not to be used for other than its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Nathaniel R. Keller, PG
Senior Technical Manager
Professional Geologist No. 1283-013
State of Wisconsin
Ramboll Americas Engineering Solutions, Inc.
Date: December 22, 2024

I, Nathaniel R. Keller, a qualified professional geologist, certify that the enclosed information is accurate as of the date of my signature below. The content of this report is not to be used for other than its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

ATTACHMENTS

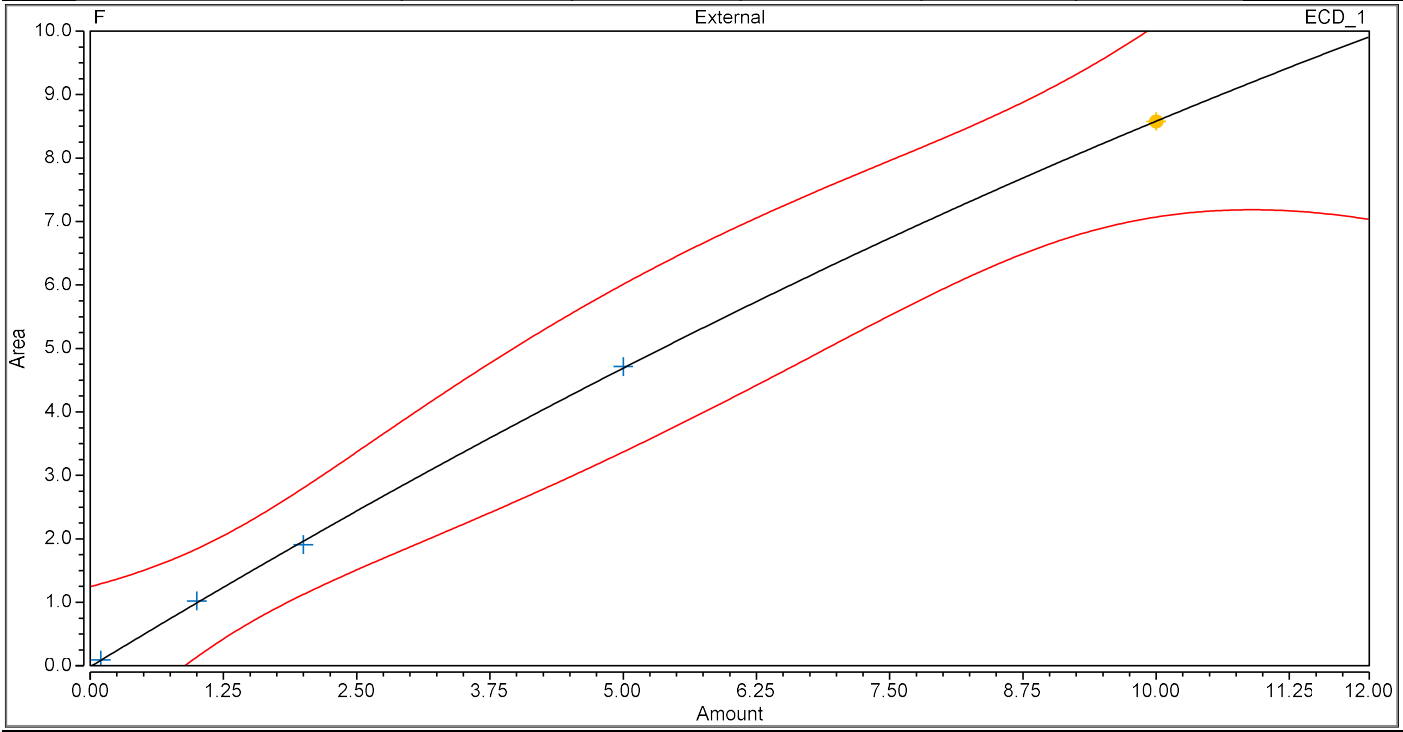
Attachment 1 – Total Fluoride Calibration Range for Samples Analyzed Prior to 2021
Attachment 2 – Total Fluoride Calibration Range for Samples Analyzed 2021-2023
Attachment 3 – Total Fluoride Calibration Range for Samples Analyzed in 2024

ATTACHMENT 1
TOTAL FLUORIDE CALIBRATION RANGE FOR SAMPLES ANALYZED PRIOR TO 2021

Calibration

Calibration Details	F		
Calibration Type	Quad, WithOffset	*Offset (C0)*	-0.0147
Evaluation Type	Area	*Slope (C1)*	1.0221
Number of Calibration Points	5	*Curve (C2)*	-0.0162
Number of disabled Calibration Points	0	*R-Square*	0.9999

Calibration Plot F



Calibration Results F

No.	Injection Name	Calibration Level	X Value ECD_1	Y Value ECD_1	R-Squared % ECD_1 F	Area µS*min ECD_1	Height µS ECD_1
3	Std 1	01	0.1000	0.0917	99.990	0.092	1.068
4	Std 2	02	1.0000	1.0221	99.990	1.022	11.208
5	Std 3	03	2.0000	1.9093	99.990	1.909	20.971
6	Std 4	04	5.0000	4.7136	99.990	4.714	46.083
7	Std 5	05	10.0000	8.5774	99.990	8.577	78.430

ATTACHMENT 2
TOTAL FLUORIDE CALIBRATION RANGE FOR SAMPLES ANALYZED 2021-2023

Instrument ID:	40WTAB
Calibration ID:	121124TABCAL
Calibration Date:	12/11/2024
Expiration Date:	NA
Analyst:	HMB

Method:	EPA 300/9056
Analyte:	F
MDL:	0.095
RL:	0.32
Units:	mg/L

Quadratic Regression, Equal Weighting

Calibration Point	X True Value	Y Instrument Response	From Sheet Calculated Concentration	%RE	Pass/Fail
1	0.200	0.0336	0.1862	6.89	Pass
2	0.300	0.0464	0.3155	5.16	Pass
3	0.500	0.0666	0.5174	3.49	Pass
4	1.000	0.1128	0.9706	2.94	Pass
5	2.000	0.2234	2.0106	0.53	Pass
6	6.000	0.7068	5.9996	0.01	Pass
SUM	10.000	1.18960			

$$y = ax^2 + bx + c$$

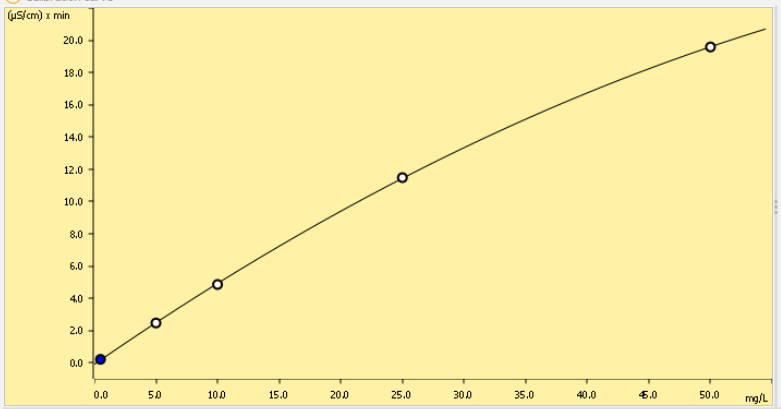
Intercept (c):	0.01533		
x^2 Coefficient (a):	0.00295		
x Coefficient (b):	0.09755		Use
Correlation Coefficient (R):	0.99997	NA	
Coefficient of Determination (R^2):	0.99995	Pass	X

ATTACHMENT 3
TOTAL FLUORIDE CALIBRATION RANGE FOR SAMPLES ANALYZED IN 2024

Chromatograms

Anions

Chromatogram
Calibration curve
Component: Fluoride



Function: A = - 0.0982433 + 2.64349E-4 × Q - 6.74559E-10 × Q²

Relative standard deviation	0.867%
Correlation coefficient	0.999982
Curve type	Quadratic
Weighting	1

	Sample type	Index	Conc.	Volume	Dilution	Sample amount	Area	Ident	Date	Used
1	Standard 1	1	0.500	2000.0	1.0	1.0	0.210	cal std 1	2024-12-12 17:50:11 UTC-6	☑
2	Standard 2	1	5.000	2000.0	1.0	1.0	2.463	cal std 2	2024-12-12 18:13:36 UTC-6	☑
3	Standard 3	1	10.000	2000.0	1.0	1.0	4.852	cal std 3	2024-12-12 18:37:02 UTC-6	☑
4	Standard 4	1	25.000	2000.0	1.0	1.0	11.479	cal std 4	2024-12-12 19:00:28 UTC-6	☑
5	Standard 5	1	50.000	2000.0	1.0	1.0	19.582	cal std 5	2024-12-12 19:23:54 UTC-6	☑