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Dynegy Midwest Generation, LLC

Date

January 31, 2024

Project No.

1940103649-008

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

LANDFILL
HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS
CCR UNIT 801



2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT LANDFILL

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ACRONYMS AND ABBREVIATIONS

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

ASD Alternative Source Demonstration

CCR coal combustion residuals

D11 Quarter 3, 2022 Detection Monitoring sampling event
D12 Quarter 1, 2023 Detection Monitoring sampling event
D13 Quarter 3, 2023 Detection Monitoring sampling event

LF Landfill

GWPS groundwater protection standard

HPP Hennepin Power Plant

NA not applicable

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.) § 257.90(e) for the Landfill (LF) located at the Hennepin Power Plant (HPP) near Hennepin, Illinois.

Groundwater is being monitored at the LF in accordance with the Detection Monitoring Program requirements specified in 40 C.F.R. § 257.94.

The LF monitoring system was modified in 2023 to add wells 16 and 17 as background locations. No wells were installed or decommissioned.

The following Statistically Significant Increases (SSIs) of 40 C.F.R. § 257 Appendix III parameter concentrations greater than background concentrations were reported in 2023:

- Boron at wells 05R, 05DR, 40S, and 48
- Fluoride at wells 05R, 05DR, 40S, and 48
- pH at wells 05R, 40S

Alternative Source Demonstrations (ASDs) were completed for the SSIs listed above and the LF remains in the Detection Monitoring Program.

1. INTRODUCTION

This report has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) on behalf of Dynegy Midwest Generation, LLC, to provide the information required by 40 C.F.R. § 257.90(e) for the LF located at the HPP near Hennepin, Illinois.

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 and 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**, paragraph 1).
- 3. In addition to all the monitoring data obtained under § 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the Detection Monitoring or Assessment Monitoring Programs (Section 3, 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 in addition to identifying the constituent(s) detected at a statistically significant increase relative to background levels) (**Section 3**).
- 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 (see **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 a statistically significant increase over background for one or more constituents listed in Appendix III of § 257 pursuant to § 257.94(e):
 - A. Identify those constituents listed in Appendix III of § 257 and the names of the monitoring wells associated with such an increase.

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

This report provides the required information for the LF for calendar year 2023.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

No changes have occurred to the monitoring program status in calendar year 2023 and the LF remains in the Detection Monitoring Program in accordance with 40 C.F.R. § 257.94.

3. KEY ACTIONS COMPLETED IN 2023

A summary of the samples collected from background and compliance monitoring wells in 2023 under the Detection Monitoring Program is included in **Table A** on the following page. The groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. A groundwater monitoring plan (GMP) was developed for the LF in 2023; the existing LF monitoring system was modified in 2023 to add existing wells 16 and 17 as background locations (Ramboll, 2023a). No wells were installed or decommissioned in 2023 (wells 16 and 17 were installed prior to 2023).

One groundwater sample was collected from each background and compliance well during each monitoring event¹. All samples were collected and analyzed in accordance with the Multi-Site Sampling and Analysis Plan (SAP) (Ramboll, 2023b).

Potentiometric surfaces are included in **Figures 2 and 3**. All available monitoring data and analytical results obtained under 40 C.F.R. § 257.90 through 257.98 are presented in **Tables 1 and 2**. All associated laboratory reports and field data sheets are included in **Appendix A**. Analytical data received after December 31, 2023 will be reported in the 2024 Annual Groundwater Monitoring and Corrective Action Report.

Analytical data were evaluated in accordance with the Multi-Site Statistical Analysis Plan (Ramboll, 2022a), the Multi-Site Quality Assurance Project Plan (Ramboll, 2022b), and the Multi-Site Data Management Plan (Ramboll, 2022c) to determine any SSIs of Appendix III parameters greater than background values. SSIs are summarized in **Table A** and highlighted in **Table 2**. Wells 16 and 17 were added to the monitoring system as background wells in mid-2023. The background values used for each event are shown on **Table 2**. The updated background values were used beginning in the third quarter of 2023. 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**. Additional information to support background statistics is provided in **Appendix C**.

Potential alternative sources were evaluated as outlined in the 40 C.F.R. § 257.94(e)(2). ASDs were completed in 2023 for the SSIs summarized in **Table A**. The dates the ASDs were completed are also provided in **Table A**. The ASDs were certified by a qualified professional engineer and are included in **Appendix D**. The LF remains in the Detection Monitoring Program.

¹ Compliance monitoring well 48 was not sampled during the December 2023 sampling event due to damage to the well. Repairs or replacement of well 48 will occur in 2024.

Table A. 2023 Detection Monitoring Program Summary

Event ID	Sampling Dates 1, 2, 3	Analytical Data Receipt Date ⁴	SSI(s) Determination Date	SSI(s)	ASD Completion Date
D11 ⁵	September 14, 2022	October 31, 2022	January 31, 2023	Boron at wells 05DR, 05R, 40S, and 48; Fluoride at wells 05DR, 05R, 40S, and 48; pH at wells 05R and 40S	May 1, 2023
D12	February 28 – March 2, 2023	April 14, 2023	July 13, 2023	Boron at wells 05DR, 05R, 40S, and 48; pH at well 40S	October 11, 2023
D13	August 23 - 28, 2023	November 16, 2023	February 14, 2024	TBD	NA

Notes:

ASD: Alternative Source Demonstration

NA: not applicable

SSL: Statistically Significant Level TBD: to be determined in 2024

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¹ All samples were analyzed for Appendix III parameters listed in 40 C.F.R. § 257.94(e).

² The following background wells were sampled for events D11 and D12 prior to completion of the background update evaluation: 07, 08, and 08D. The following background wells were sampled for event D13 after completion of the background update evaluation: 07, 08, 08D, 16, and 17.

³ The following compliance wells were sampled for each event: 05DR, 05R, 40S, and 48.

⁴ Analytical data received after December 31, 2023 will be reported in the 2024 Annual Groundwater Monitoring and Corrective Action Report.

⁵ Laboratroy reports and associated analytical data tables were included in the 2022 Annual Groundwater Monitoring and Corrective Action Report.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

Monitoring well 48 was damaged by a lawn mower in 2023, and was no longer capable of being sampled following detailed inspection in November. This well will either be repaired or replaced in early 2024, as feasible.

No additional problems were encountered with the groundwater monitoring program during 2023. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2024

The following key activities are planned for 2024:

- Continuation of the Detection Monitoring Program with semiannual sampling scheduled for the first and third quarters of 2024.
- Complete evaluation of analytical data from the compliance wells using background data to determine whether an SSI of Appendix III parameters detected at concentrations greater than background concentrations has occurred.
- If an SSI is identified, potential alternative sources (*i.e.*, a source other than the CCR unit caused the SSI or that the SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated.
 - If an alternative 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 2024 Annual Groundwater Monitoring and Corrective Action Report.
 - If an alternative 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 2024 (e.g., assessment monitoring) will be met, including associated recordkeeping/notifications required by 40 C.F.R. §§ 257.105 through 257.108.
- Compliance monitoring well 48 will be repaired or replaced in 2024.

6. REFERENCES

Code of Federal Regulations, Title 40, Chapter I, Subchapter I, Part 257, Subpart D, Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, effective April 17, 2015. Accessed from URL https://www.ecfr.gov/current/title-40/chapter-I/subchapter-I/part-257/subpart-D#page-top

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022a. Multi-Site Statistical Analysis Plan, 40 C.F.R. § 257. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022b. Multi-Site Quality Assurance Project Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2022c. Multi-Site Data Management Plan. December 28, 2022.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023a. 40 C.F.R. § 257 Groundwater Monitoring Plan, Landfill, Hennepin Power Plant, Hennepin, Illinois. October 10, 2023.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2023b. Multi-Site Sampling and Analysis Plan, Revision 1. October 10, 2023.

GROUNDWATER ELEVATION DATA
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HENNEPIN POWER PLANT

LANDFILL

HENNEPIN, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
05R	Compliance	UA	03/01/2023	41.26	447.17
05R	Compliance	UA	05/30/2023	41.35	447.08
05R	Compliance	UA	08/21/2023	38.69	449.74
05R	Compliance	UA	10/31/2023	41.19	447.24
05R	Compliance	UA	11/13/2023	41.37	447.06
05DR	Compliance	UA	03/01/2023	41.20	447.17
05DR	Compliance	UA	05/30/2023	41.32	447.05
05DR	Compliance	UA	08/21/2023	38.73	449.64
05DR	Compliance	UA	10/31/2023	41.23	447.14
05DR	Compliance	UA	11/13/2023	41.44	446.93
07	Background	UA	03/01/2023	68.85	449.42
07	Background	UA	03/30/2023	67.72	450.54
07	Background	UA	04/30/2023	67.44	450.82
07	Background	UA	05/30/2023	67.80	450.47
07	Background	UA	06/21/2023	68.16	450.10
07	Background	UA	07/21/2023	68.13	450.13
07	Background	UA	08/21/2023	68.39	449.87
07	Background	UA	10/31/2023	68.55	449.72
07	Background	UA	11/13/2023	68.54	449.73
07	Background	UA	12/21/2023	69.03	449.24
08	Background	UA	03/01/2023	54.20	447.18
08	Background	UA	03/30/2023	52.78	448.59
08	Background	UA	04/30/2023	53.22	448.15
08	Background	UA	05/30/2023	53.84	447.54
08	Background	UA	06/21/2023	53.99	447.38
08	Background	UA	07/21/2023	53.66	447.71
08	Background	UA	08/21/2023	54.24	447.13
08	Background	UA	09/30/2023	54.43	446.95
08	Background	UA	10/31/2023	53.85	447.53
08	Background	UA	11/13/2023	54.02	447.36
08	Background	UA	12/21/2023	54.80	446.58
08D	Background	UA	03/01/2023	54.27	447.07
08D	Background	UA	03/30/2023	52.89	448.44
08D	Background	UA	04/30/2023	53.49	447.84
08D	Background	UA	05/30/2023	54.12	447.22
08D	Background	UA	06/21/2023	54.12	447.21
08D	Background	UA	07/21/2023	53.75	447.58
08D	Background	UA	08/21/2023	54.44	446.89
08D	Background	UA	09/30/2023	54.61	446.73
08D	Background	UA	10/31/2023	54.04	447.30
08D	Background	UA	11/13/2023	54.23	447.11
08D	Background	UA	12/21/2023	55.00	446.34
16	Background	UA	02/28/2023	54.86	446.88
16	Background	UA	05/30/2023	54.57	447.17
16	Background	UA	08/28/2023	[53.90]	[447.84]
16	Background	UA	09/30/2023	55.00	446.74





GROUNDWATER ELEVATION DATA

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LANDFILL

HENNEPIN, IL

Well ID	Well Type	Monitored Unit	Date	Depth to Groundwater (feet BMP)	Groundwater Elevation (feet NAVD88)
16	Background	UA	10/31/2023	54.47	447.27
16	Background	UA	11/13/2023	54.67	447.07
16	Background	UA	12/21/2023	55.45	446.29
17	Background	UA	02/28/2023	59.08	448.05
17	Background	UA	03/30/2023	57.25	449.87
17	Background	UA	04/30/2023	56.31	450.81
17	Background	UA	05/30/2023	55.96	451.17
17	Background	UA	06/21/2023	54.99	452.13
17	Background	UA	07/21/2023	54.68	452.44
17	Background	UA	08/21/2023	56.12	451.00
17	Background	UA	10/31/2023	55.56	451.57
17	Background	UA	11/13/2023	56.23	450.90
17	Background	UA	12/21/2023	59.29	447.84
40S	Compliance	UA	03/01/2023	40.55	447.12
40S	Compliance	UA	05/30/2023	40.54	447.13
40S	Compliance	UA	08/21/2023	37.92	449.75
40S	Compliance	UA	10/31/2023	40.42	447.25
40S	Compliance	UA	11/13/2023	40.61 447.06	
48	Compliance	UA	03/01/2023	40.24	447.22
48	Compliance	UA	05/30/2023	39.78	447.68

Notes:

Only wells with groundwater elevations measured are included.

BMP = below measuring point

Bracketing [] indicates that the measurement was obtained outside of the episodic depth to groundwater measurements time frame.

NAVD88 = North American Vertical Datum of 1988

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Monitored Unit Abbreviations:

UA = uppermost aquifer

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ANALYTICAL RESULTS - APPENDIX III PARAMETERS
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HENDEIN POWER PLANT

LANDFILL HENNEPIN, IL

Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background ¹	SSI Type
07	UA	Background	03/01/2023	D12	Boron, total	mg/L	0.0658	NA	NA
07	UA	Background	08/24/2023	D13	Boron, total	mg/L	0.0670	NA	NA
07	UA	Background	03/01/2023	D12	Calcium, total	mg/L	146	NA	NA
07	UA	Background	08/24/2023	D13	Calcium, total	mg/L	94.0	NA	NA
07	UA	Background	03/01/2023	D12	Chloride, total	mg/L	105	NA	NA
07	UA	Background	08/24/2023	D13	Chloride, total	mg/L	51.0	NA	NA
07	UA	Background	03/01/2023	D12	Fluoride, total	mg/L	0.120	NA	NA
07	UA	Background	08/24/2023	D13	Fluoride, total	mg/L	0.24 J	NA	NA
07	UA	Background	11/20/2023	D13R	Fluoride, total	mg/L	0.120	NA	NA
07	UA	Background	03/01/2023	D12	pH (field)	SU	7.0	NA	NA
07	UA	Background	08/24/2023	D13	pH (field)	SU	6.9	NA	NA
07	UA	Background	03/01/2023	D12	Sulfate, total	mg/L	76.0	NA	NA
07	UA	Background	08/24/2023	D13	Sulfate, total	mg/L	67.0	NA	NA
07	UA	Background	03/01/2023	D12	Total Dissolved Solids	mg/L	638	NA	NA
07	UA	Background	08/24/2023	D13	Total Dissolved Solids	mg/L	640	NA	NA
08	UA	Background	03/01/2023	D12	Boron, total	mg/L	0.118	NA	NA
08	UA	Background	08/24/2023	D13	Boron, total	mg/L	0.0700	NA	NA
08	UA	Background	03/01/2023	D12	Calcium, total	mg/L	176	NA	NA
08	UA	Background	08/24/2023	D13	Calcium, total	mg/L	160	NA	NA
08	UA	Background	03/01/2023	D12	Chloride, total	mg/L	227	NA	NA
08	UA	Background	08/24/2023	D13	Chloride, total	mg/L	240	NA	NA
08	UA	Background	03/01/2023	D12	Fluoride, total	mg/L	0.100	NA	NA
08	UA	Background	08/24/2023	D13	Fluoride, total	mg/L	0.19 J	NA	NA
08	UA	Background	11/17/2023	D13R	Fluoride, total	mg/L	0.089 J	NA	NA
08	UA	Background	03/01/2023	D12	pH (field)	SU	6.7	NA	NA
08	UA	Background	08/24/2023	D13	pH (field)	SU	6.7	NA	NA
08	UA	Background	03/01/2023	D12	Sulfate, total	mg/L	129	NA	NA
08	UA	Background	08/24/2023	D13	Sulfate, total	mg/L	100	NA	NA
08	UA	Background	03/01/2023	D12	Total Dissolved Solids	mg/L	1,020	NA	NA
08	UA	Background	08/24/2023	D13	Total Dissolved Solids	mg/L	1,100	NA	NA
08D	UA	Background	03/01/2023	D12	Boron, total	mg/L	0.0942	NA	NA
08D	UA	Background	08/24/2023	D13	Boron, total	mg/L	0.0510	NA	NA
08D	UA	Background	03/01/2023	D12	Calcium, total	mg/L	255	NA	NA
08D	UA	Background	08/24/2023	D13	Calcium, total	mg/L	200	NA	NA
08D	UA	Background	03/01/2023	D12	Chloride, total	mg/L	319	NA	NA
08D	UA	Background	08/24/2023	D13	Chloride, total	mg/L	310	NA	NA
08D	UA	Background	03/01/2023	D12	Fluoride, total	mg/L	0.100	NA	NA
08D	UA	Background	08/24/2023	D13	Fluoride, total	mg/L	0.19 U	NA	NA
08D	UA	Background	11/17/2023	D13R	Fluoride, total	mg/L	0.097 J	NA	NA
08D	UA	Background	03/01/2023	D12	pH (field)	SU	6.5	NA	NA
08D	UA	Background	08/24/2023	D13	pH (field)	SU	6.6	NA	NA
08D	UA	Background	03/01/2023	D12	Sulfate, total	mg/L	279	NA	NA
08D	UA	Background	08/24/2023	D13	Sulfate, total	mg/L	170	NA	NA
08D	UA	Background	03/01/2023	D12	Total Dissolved Solids	mg/L	1,440	NA	NA
08D	UA	Background	08/24/2023	D13	Total Dissolved Solids	mg/L	1,400	NA	NA
16	UA	Background	02/28/2023	D12	Boron, total	mg/L	0.207	NA	NA
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ANALYTICAL RESULTS - APPENDIX III PARAMETERS
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LANDFILL

HENNEPIN, IL

HENNEPIN,		M - II T	D-1-	F	Danie de la constant		D U	D1	COL T.
Well ID	HSU	Well Type	Date	Event ID	Parameter	Unit	Result	Background ¹	SSI Type
16	UA	Background	08/28/2023	D13	Boron, total	mg/L	0.110	NA	NA
16	UA	Background	02/28/2023	D12	Calcium, total	mg/L	99.4	NA	NA
16	UA	Background	08/28/2023	D13	Calcium, total	mg/L	73.0	NA	NA
16	UA	Background	02/28/2023	D12	Chloride, total	mg/L	92.0	NA	NA
16	UA	Background	08/28/2023	D13	Chloride, total	mg/L	81.0	NA	NA
16	UA	Background	02/28/2023	D12	Fluoride, total	mg/L	0.240	NA	NA
16	UA	Background	08/28/2023	D13	Fluoride, total	mg/L	0.31 J	NA	NA
16	UA	Background	11/17/2023	D13R	Fluoride, total	mg/L	0.220	NA	NA
16	UA	Background	02/28/2023	D12	pH (field)	SU	7.2	NA	NA
16	UA	Background	08/28/2023	D13	pH (field)	SU	7.2	NA	NA
16	UA	Background	02/28/2023	D12	Sulfate, total	mg/L	78.0	NA	NA
16	UA	Background	08/28/2023	D13	Sulfate, total	mg/L	56.0	NA	NA
16	UA	Background	02/28/2023	D12	Total Dissolved Solids	mg/L	508	NA	NA
16	UA	Background	08/28/2023	D13	Total Dissolved Solids	mg/L	450	NA	NA
17	UA	Background	02/28/2023	D12	Boron, total	mg/L	0.106	NA	NA
17	UA	Background	08/28/2023	D13	Boron, total	mg/L	0.0760	NA	NA
17	UA	Background	02/28/2023	D12	Calcium, total	mg/L	133	NA	NA
17	UA	Background	08/28/2023	D13	Calcium, total	mg/L	58.0	NA	NA
17	UA	Background	02/28/2023	D12	Chloride, total	mg/L	108	NA	NA
17	UA	Background	08/28/2023	D13	Chloride, total	mg/L	80.0	NA	NA
17	UA	Background	02/28/2023	D12	Fluoride, total	mg/L	0.130	NA	NA
17	UA	Background	08/28/2023	D13	Fluoride, total	mg/L	0.36 J	NA	NA
17	UA	Background	11/17/2023	D13R	Fluoride, total	mg/L	0.210	NA	NA
17	UA	Background	02/28/2023	D13K	pH (field)	SU	7.0	NA NA	NA NA
17	UA	Background	08/28/2023	D12	pH (field)	SU	7.3	NA NA	NA NA
17	UA	Background	02/28/2023	D13	Sulfate, total	mg/L	77.0	NA NA	NA NA
17	UA	Background	08/28/2023	D12	Sulfate, total		58.0	NA NA	NA NA
					·	mg/L			
17	UA	Background	02/28/2023	D12	Total Dissolved Solids	mg/L	630	NA	NA
17	UA	Background	08/28/2023	D13	Total Dissolved Solids	mg/L	420	NA 0.153	NA Datawain ad
05R	UA	Compliance	03/01/2023	D12	Boron, total	mg/L	0.854	0.153	Determined
05R	UA	Compliance	08/23/2023	D13	Boron, total	mg/L	0.510	0.172	TBD
05R	UA	Compliance	03/01/2023	D12	Calcium, total	mg/L	89.9	280	No Exceedance
05R	UA	Compliance	08/23/2023	D13	Calcium, total	mg/L	77.0	232	TBD
05R	UA	Compliance	03/01/2023	D12	Chloride, total	mg/L	88.0	396	No Exceedance
05R	UA	Compliance	08/23/2023	D13	Chloride, total	mg/L	82.0	297	TBD
05R	UA	Compliance	03/01/2023	D12	Fluoride, total	mg/L	0.130	0.120	No Exceedance
05R	UA	Compliance	08/23/2023	D13	Fluoride, total	mg/L	0.21 J	0.320	TBD
05R	UA	Compliance	11/16/2023	D13R	Fluoride, total	mg/L	0.130	0.320	TBD
05R	UA	Compliance	03/01/2023	D12	pH (field)	SU	7.5	6.6/7.5	No Exceedance
05R	UA	Compliance	08/23/2023	D13	pH (field)	SU	7.6	6.3/7.5	TBD
05R	UA	Compliance	03/01/2023	D12	Sulfate, total	mg/L	80.0	200	No Exceedance
05R	UA	Compliance	08/23/2023	D13	Sulfate, total	mg/L	73.0	199	TBD
05R	UA	Compliance	03/01/2023	D12	Total Dissolved Solids	mg/L	500	1,520	No Exceedance
05R	UA	Compliance	08/23/2023	D13	Total Dissolved Solids	mg/L	530	1,410	TBD
05DR	UA	Compliance	03/01/2023	D12	Boron, total	mg/L	0.805	0.153	Determined
05DR	UA	Compliance	08/23/2023	D13	Boron, total	mg/L	0.680	0.172	TBD





TABLE 2 ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

HENNEPIN POWER PLANT

LANDFILL HENNEPIN, IL

Result **SSI Type** Well ID HSU **Well Type Date Event ID Parameter** Unit Background¹ 05DR UA Compliance 03/01/2023 D12 Calcium, total mg/L 93.0 280 No Exceedance 05DR UΑ Compliance 08/23/2023 D13 Calcium, total mg/L 73.0 232 **TBD** 05DR Compliance UA 03/01/2023 D12 Chloride, total mg/L 92.0 396 No Exceedance 05DR Compliance 297 **TBD** UA 08/23/2023 D13 Chloride, total mg/L 76.0 Fluoride, total No Exceedance 05DR Compliance 03/01/2023 D12 0.150 UA mg/L 0.120 05DR UΑ Compliance 08/23/2023 D13 Fluoride, total mg/L 0.24 J 0.320 TBD 05DR 0.320 **TBD** UA Compliance 11/16/2023 D13R Fluoride, total mg/L 0.150 05DR UA Compliance 03/01/2023 D12 SU 6.6/7.5 No Exceedance pH (field) 7.3 05DR UA Compliance 08/23/2023 D13 pH (field) SU 7.4 6.3/7.5 **TBD** 05DR UA Compliance 03/01/2023 D12 Sulfate, total 82.0 200 No Exceedance mg/L 05DR Compliance D13 Sulfate, total 75.0 199 **TBD** UA 08/23/2023 mg/L 05DR Total Dissolved Solids UΑ Compliance 03/01/2023 D12 mg/L 488 1,520 No Exceedance 08/23/2023 05DR UΑ Compliance D13 Total Dissolved Solids 490 1,410 **TBD** mg/L 40S UA Compliance 03/01/2023 D12 Boron, total 1.21 0.153 Determined mg/L 40S UA Compliance 08/23/2023 D13 1.30 0.172 TBD Boron, total mg/L Calcium, total 40S UA Compliance 03/01/2023 D12 mg/L 75.5 280 No Exceedance 40S UΑ Compliance 08/23/2023 D13 Calcium, total mg/L 58.0 232 **TBD** Chloride, total 40S UA Compliance 03/01/2023 99.0 396 D12 mg/L No Exceedance 40S UA Compliance 08/23/2023 D13 Chloride, total mg/L 73.0 297 TBD 40S 03/01/2023 UΑ Compliance D12 Fluoride, total mg/L 0.160 0.120 No Exceedance 40S UA Compliance 08/23/2023 D13 Fluoride, total 0.24 J 0.320 **TBD** mg/L 40S UΑ Compliance 11/16/2023 D13R Fluoride, total mg/L 0.170 0.320 TBD **40S** UA Compliance 03/01/2023 D12 pH (field) SU 7.7 6.6/7.5 Determined 40S UA SU **TBD** Compliance 08/23/2023 D13 pH (field) 7.9 6.3/7.5 40S UA Compliance 03/01/2023 D12 Sulfate, total mg/L 95.0 200 No Exceedance 40S UA Compliance 08/23/2023 D13 Sulfate, total 92.0 199 **TBD** mg/L 40S UA Compliance 03/01/2023 D12 Total Dissolved Solids 474 1,520 No Exceedance mg/L 40S UΑ Compliance 08/23/2023 D13 Total Dissolved Solids mg/L 480 1,410 TBD 48 UA Compliance 03/01/2023 D12 Boron, total mg/L 1.41 0.153 Determined Boron, total 48 UΑ Compliance 08/23/2023 D13 mg/L 1.40 0.172 **TBD** 48 UA Compliance 03/01/2023 D12 87.6 280 No Exceedance Calcium, total mg/L Calcium, total 48 UΑ Compliance 08/23/2023 D13 64.0 232 **TBD** mg/L 48 UA Compliance 03/01/2023 D12 Chloride, total mg/L 104 396 No Exceedance 297 TBD 48 UA Compliance 08/23/2023 D13 Chloride, total mg/L 74.0 03/01/2023 mg/L 48 UA D12 Fluoride, total 0.180 0.120 No Exceedance Compliance 08/23/2023 48 UA Compliance D13 Fluoride, total mg/L 0.25 J 0.320 TBD pH (field) 03/01/2023 UA Compliance D12 SU 7.5 6.6/7.5 No Exceedance 48 Compliance 08/23/2023 6.3/7.5 48 UA D13 pH (field) SU 7.6 TBD UA Compliance 03/01/2023 Sulfate, total 200 No Exceedance 48 D12 mg/L 86.0 Compliance TBD UA 08/23/2023 D13 Sulfate, total mg/L 100 199 48 UA Compliance 03/01/2023 D12 476 No Exceedance 48 Total Dissolved Solids mg/L 1,520 Total Dissolved Solids 48 UA Compliance 08/23/2023 D13 mg/L 490 1,410 TBD





ANALYTICAL RESULTS - APPENDIX III PARAMETERS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT LANDFILL HENNEPIN, IL

Notes:

¹Wells 16 and 17 were added to the monitoring system as background wells in mid-2023. The background values used for each event are shown. The updated background values were used beginning in the third quarter of 2023. HSU = hydrostratigraphic unit:

UA = Uppermost Aquifer

ID = identification mg/L = milligrams per liter NA = not applicable R = resample

Statistically Significant Increase (SSI) Type:

TBD: To be determined in 2024.

No Exceedance: No exceedance of the background.

Determined: An exceedance was determined without comparison to a resample.

SU = Standard Units

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

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STATISTICAL BACKGROUND VALUES

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT LANDFILL HENNEPIN, IL

		Q1			Q3					
Parameter	Date Range	Sample Count	Percent Non- Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)	Date Range	Sample Count	Percent Non- Detects	Statistical Calculation	Statistical Background Value (LPL/UPL)
Boron (mg/L)	12/08/2015 - 06/09/2017	24	0	Parametric UPL	0.153	02/24/2021 - 09/14/2022	55	0	Parametric UPL (log- transformed)	0.172
Calcium (mg/L)	12/08/2015 - 06/09/2017	24	0	Parametric UPL	280	02/24/2021 - 09/14/2022	55	0	Non-Parametric UPL	232
Chloride (mg/L)	12/08/2015 - 06/09/2017	24	0	Parametric UPL	396	02/24/2021 - 09/14/2022	55	0	Non-Parametric UPL	297
Fluoride (mg/L)	12/08/2015 - 06/09/2017	24	58	Non-parametric UPL	0.120	02/24/2021 - 09/14/2022	55	5	Non-Parametric UPL	0.320
pH (field) (SU)	12/08/2015 - 06/09/2017	24	0	Non-parametric UPL	6.6/7.5	02/24/2021 - 09/14/2022	55	0	Parametric LPL/UPL	6.3/7.5
Sulfate (mg/L)	12/08/2015 - 06/09/2017	24	0	Parametric UPL	200	02/24/2021 - 09/14/2022	55	0	Non-Parametric UPL	199
Total Dissolved Solids (mg/L)	12/08/2015 - 06/09/2017	24	0	Parametric UPL	1,520	02/24/2021 - 09/14/2022	52	0	Non-Parametric UPL	1410

Notes:

LPL = lower prediction limit (applicable for pH only)

mg/L = milligrams per liter

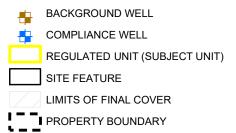
SU = standard units

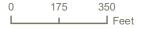
UPL = upper prediction limit





FIGURES





MONITORING WELL LOCATION MAP

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.





COMPLIANCE MONITORING WELL

BACKGROUND MONITORING WELL

MONITORING WELL

PORE WATER WELL

→ STAFF GAGE, CCR UNIT

GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)

- - INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

LIMITS OF FINAL COVER

PROPERTY BOUNDARY

NOTE

- 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
- 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

*ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT

0 175 350 I I I Fe

POTENTIOMETRIC SURFACE MAP FEBRUARY 28 AND MARCH 1, 2023

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.





COMPLIANCE MONITORING WELL

BACKGROUND MONITORING WELL

MONITORING WELL

PORE WATER WELL

STAFF GAGE, CCR UNIT

GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)

GROUNDWATER FLOW DIRECTION

INFERRED GROUNDWATER ELEVATION CONTOUR

REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

LIMITS OF FINAL COVER

PROPERTY BOUNDARY

NOTES

- 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
- 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- *ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT

0 175 350 I I I Fee

POTENTIOMETRIC SURFACE MAP AUGUST 21, 2023

2023 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

FIGURE 3

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.



APPENDICES

APPENDIX A LABORATORY REPORTS AND FIELD DATA SHEETS

http://www.teklabinc.com/

100226

E-10374

05002

05003

9978

Illinois

Kansas

Louisiana

Louisiana

Oklahoma

April 14, 2023

Eric Bauer Ramboll 234 W. Florida St. Milwaukee, WI 53204

TEL: (414) 837-3614 FAX: (414) 837-3608

RE: HEN-23Q1 **WorkOrder:** 23020845

Dear Eric Bauer:

TEKLAB, INC received 51 samples on 3/2/2023 8:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Elizabeth A. Hurley

Director of Customer Service

(618)344-1004 ex 33

ehurley@teklabinc.com

Elizabeth a Hurley





http://www.teklabinc.com/

HEN-257-801

Client: Ramboll Work Order: 23020845 Client Project: HEN-23Q1 Report Date: 14-Apr-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	7
Laboratory Results	8
Sample Summary	20
Dates Report	21
Quality Control Results	33
Receiving Check List	70
Chain of Custody	Appended



APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

Definitions

http://www.teklabinc.com/

Client: Ramboll Work Order: 23020845

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Abbr Definition

- * Analytes on report marked with an asterisk are not NELAP accredited
- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.
 - DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.
 - DNI Did not ignite
- DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- NC Data is not acceptable for compliance purposes
- ND Not Detected at the Reporting Limit
- **NELAP NELAP Accredited**
 - PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.
 - RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
 - RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
 - SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
 - Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
 - TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"
- TNTC Too numerous to count (> 200 CFU)



APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

Definitions

http://www.teklabinc.com/

Work Order: 23020845 Client: Ramboll

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Qualifiers

- # Unknown hydrocarbon RL shown is a Client Requested Quantitation Limit
- H Holding times exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
 - Spike Recovery outside recovery limits
 - X Value exceeds Maximum Contaminant Level

- B Analyte detected in associated Method Blank
- E Value above quantitation range
- I Associated internal standard was outside method criteria
- Manual Integration used to determine area response
- R RPD outside accepted recovery limits
- T TIC(Tentatively identified compound)





Case Narrative

http://www.teklabinc.com/

Client: Ramboll Work Order: 23020845
Client Project: HEN-23Q1 Report Date: 14-Apr-23

Cooler Receipt Temp: 3.2 °C

An employee of Teklab, Inc. collected the sample(s).

55 was measured on 3/1/23 at 1008 per field file. 05DR was collected at 1237 rather than 1257 per field file. EAH 3/21/23

HEN_257_801 data is included in this report. EAH 4/14/23

Locations

	Collinsville		Springfield		Kansas City
Address	5445 Horseshoe Lake Road	Address	3920 Pintail Dr	Address	8421 Nieman Road
	Collinsville, IL 62234-7425		Springfield, IL 62711-9415		Lenexa, KS 66214
Phone	(618) 344-1004	Phone	(217) 698-1004	Phone	(913) 541-1998
Fax	(618) 344-1005	Fax	(217) 698-1005	Fax	(913) 541-1998
Email	jhriley@teklabinc.com	Email	KKlostermann@teklabinc.com	Email	jhriley@teklabinc.com
	Collinsville Air		Chicago		
Address	5445 Horseshoe Lake Road	Address	1319 Butterfield Rd.		
	Collinsville, IL 62234-7425		Downers Grove, IL 60515		
Phone	(618) 344-1004	Phone	(630) 324-6855		
Fax	(618) 344-1005	Fax			
Email	EHurley@teklabinc.com	Email	arenner@teklabinc.com		

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

Accreditations

http://www.teklabinc.com/

Client: Ramboll Work Order: 23020845

Client Project: HEN-23Q1 Report Date: 14-Apr-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2023	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2023	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2023	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2023	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

http://www.teklabinc.com/

Work Order: 23020845 Client: Ramboll

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab ID: 23020845-002 Client Sample ID: 07

Collection Date: 03/01/2023 16:16 Matrix: GROUNDWATER

PIELD ELEVATION MEASUREMISTS								
Depth to water from measuring point	Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
STANDARD METHOD 4500-H B 2001 FIELD PH	FIELD ELEVATION MEASUR	EMENTS						
FANDARD METHODS 2130 B FIELD Turbidity 1.00 4.10 NTU 1 03/01/2023 16:16 R325999 STANDARD METHODS 18TH ED. 2580 B FIELD Oxidation-Reduction Potential * 0.300 161.2 mV 1 03/01/2023 16:16 R325999 STANDARD METHODS 2510 B FIELD Spec. Conductance, Field * 0 1467 μS/cm 1 03/01/2023 16:16 R325999 STANDARD METHODS 2510 B FIELD STANDARD METHODS 4500-O G FIELD Oxygen, Dissolved * 0 11.2 *°C 1 03/01/2023 16:16 R325999 STANDARD METHODS 4500-O G FIELD Oxygen, Dissolved * 0 2.69 mg/L 1 03/01/2023 16:16 R325999 STANDARD METHODS 2320 B (TOTAL) 1997, 2011 Alkalinity, Bicarbonate (as CaCO3) NELAP 0 385 mg/L 1 03/03/2023 14:45 R325991 STANDARD METHODS 2320 B 1997, 2011 Alkalinity, Carbonate (as CaCO3) NELAP 0 0 mg/L 1 03/03/2023 14:45 R325591	Depth to water from measuring p	ooint *	0		68.85	ft	1	03/01/2023 16:16 R325999
STANDARD METHODS 2130 B FIELD Turbidity	STANDARD METHOD 4500-H	B 2001 FIELD						
Turbidity	рН	*	1.00		6.96		1	03/01/2023 16:16 R325999
STANDARD METHODS 18TH ED. 2580 B FIELD	STANDARD METHODS 2130	B FIELD						
Oxidation-Reduction Potential	Turbidity	*	1.0		< 1.0	NTU	1	03/01/2023 16:16 R325999
STANDARD METHODS 2510 B FIELD Spec. Conductance, Field * 0 1467 µS/cm 1 03/01/2023 16:16 R325999 STANDARD METHODS 2550 B FIELD Temperature * 0 111.2 °C 1 03/01/2023 16:16 R325999 STANDARD METHODS 4500-O G FIELD Oxygen, Dissolved * 0 2.69 mg/L 1 03/01/2023 16:16 R325999 STANDARD METHODS 2320 B (TOTAL) 1997, 2011 Alkalinity, Bicarbonate (as CaCO3) NELAP 0 385 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2320 B 1997, 2011 Alkalinity, Carbonate (as CaCO3) NELAP 0 0 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2320 B 1997, 2011 Alkalinity, Carbonate (as CaCO3) NELAP 0 0 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2540 C (TOTAL) 1997, 2011 Total Dissolved Solids NELAP 20 638 mg/L 1 03/02/2023 11:20 R325574 SW-846 9036 (TOTAL) Sulfate NELAP 50 76 mg/L 5 03/07/2023 15:09 R325693 SW-846 9214 (TOTAL) Fluoride NELAP 0.10 0.12 mg/L 1 03/02/2023 12:46 R325510 SW-846 9251 (TOTAL) Chloride NELAP 5 105 mg/L 5 03/07/2023 15:09 R325696 SW-846 3005A, 6010B, METALS BY ICP (TOTAL) Calcium NELAP 0.100 146 mg/L 1 03/03/2023 16:32 203466 Magnesium NELAP 0.050 48.8 mg/L 1 03/03/2023 16:32 203466 Potassium NELAP 0.050 48.8 mg/L 1 03/03/2023 16:32 203466 Sodium NELAP 0.050 48.7 mg/L 1 03/03/2023 16:32 203466 Sodium NELAP 0.050 48.7 mg/L 1 03/03/2023 16:32 203466 Sodium NELAP 0.050 48.7 mg/L 1 03/03/2023 16:32 203466	STANDARD METHODS 18TH	ED. 2580 B FIELD						
Spec. Conductance, Field ° 0 1467 μS/cm 1 03/01/2023 16:16 R325999 STANDARD METHODS 2550 B FIELD Temperature ° 0 11.2 °C 1 03/01/2023 16:16 R325999 STANDARD METHODS 4500-0 G FIELD Oxygen, Dissolved ° 0 2.69 mg/L 1 03/01/2023 16:16 R325999 STANDARD METHODS 2320 B (TOTAL) 1997, 2011 Alkalinity, Bicarbonate (as CaCO3) NELAP 0 385 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2320 B 1997, 2011 Alkalinity, Carbonate (as CaCO3) NELAP 0 0 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2540 C (TOTAL) 1997, 2011 Total Dissolved Solids NELAP 20 638 mg/L 1 03/02/2023 11:20 R325574 SW-846 9036 (TOTAL) Sulfate NELAP 50 76 mg/L 5 03/07/2023 15:09 R325693 SW-846 9251 (TOTAL) <t< td=""><td>Oxidation-Reduction Potential</td><td>*</td><td>-300</td><td></td><td>161.2</td><td>mV</td><td>1</td><td>03/01/2023 16:16 R325999</td></t<>	Oxidation-Reduction Potential	*	-300		161.2	mV	1	03/01/2023 16:16 R325999
STANDARD METHODS 2550 B FIELD Temperature * 0 11.2 °C 1 03/01/2023 16:16 R325999 STANDARD METHODS 4500-O G FIELD Oxygen, Dissolved * 0 2.69 mg/L 1 03/01/2023 16:16 R325999 STANDARD METHODS 2320 B (TOTAL) 1997, 2011 Alkalinity, Bicarbonate (as CaCO3) NELAP 0 385 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2320 B 1997, 2011 Alkalinity, Carbonate (as CaCO3) NELAP 0 0 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2540 C (TOTAL) 1997, 2011 Total Dissolved Solids NELAP 20 638 mg/L 1 03/02/2023 11:20 R325574 SW-846 9036 (TOTAL) SUBJECT S	STANDARD METHODS 2510	B FIELD						
Temperature	Spec. Conductance, Field	*	0		1467	μS/cm	1	03/01/2023 16:16 R325999
STANDARD METHODS 4500-O G FIELD	STANDARD METHODS 2550	B FIELD						
Oxygen, Dissolved * 0 2.69 mg/L 1 03/01/2023 16:16 R325999 STANDARD METHODS 2320 B (TOTAL) 1997, 2011 Alkalinity, Bicarbonate (as CaCO3) NELAP 0 385 mg/L 1 03/03/2023 14:45 R325991 STANDARD METHODS 2320 B 1997, 2011 Alkalinity, Carbonate (as CaCO3) NELAP 0 0 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2540 C (TOTAL) 1997, 2011 Total Dissolved Solids NELAP 20 638 mg/L 1 03/02/2023 11:20 R325574 SW-846 9036 (TOTAL) Sulfate NELAP 50 76 mg/L 5 03/07/2023 15:09 R325693 SW-846 9214 (TOTAL) Fluoride NELAP 0.10 0.12 mg/L 1 03/02/2023 12:46 R325510 SW-846 3051 (TOTAL) Chloride NELAP 5 105 mg/L 5 03/07/2023 15:09 R325696 SW-846 3005A, 6010B, METALS BY ICP (TOTAL) Calcium NELAP 0.100	Temperature	*	0		11.2	°C	1	03/01/2023 16:16 R325999
STANDARD METHODS 2320 B (TOTAL) 1997, 2011 Alkalinity, Bicarbonate (as CaCO3) NELAP 0 385 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2320 B 1997, 2011 Alkalinity, Carbonate (as CaCO3) NELAP 0 0 mg/L 1 03/03/2023 14:45 R325591 STANDARD METHODS 2540 C (TOTAL) 1997, 2011 Total Dissolved Solids NELAP 20 638 mg/L 1 03/02/2023 11:20 R325574 SW-846 9036 (TOTAL) Sulfate NELAP 50 76 mg/L 5 03/07/2023 15:09 R325693 SW-846 9214 (TOTAL) Fluoride NELAP 0.10 0.12 mg/L 1 03/02/2023 12:46 R325510 SW-846 9251 (TOTAL) Chioride NELAP 5 105 mg/L 5 03/07/2023 15:09 R325696 SW-846 3005A, 6010B, METALS BY ICP (TOTAL) Calcium NELAP 0.100 146 mg/L 1 03/03/2023 16:32 203466								



Laboratory Results

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

http://www.teklabinc.com/

Work Order: 23020845 Client: Ramboll

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab ID: 23020845-003 Client Sample ID: 08

Collection Date: 03/01/2023 15:01 Matrix: GROUNDWATER

5.75 5.75 5.75 5.75 5.75 5.75 5.75 5.75							
Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASUR	REMENTS						
Depth to water from measuring	point *	0		54.20	ft	1	03/01/2023 15:01 R325999
STANDARD METHOD 4500-I	H B 2001 FIELD						
рН	*	1.00		6.67		1	03/01/2023 15:01 R325999
STANDARD METHODS 2130	O B FIELD						
Turbidity	*	1.0		< 1.0	NTU	1	03/01/2023 15:01 R325999
STANDARD METHODS 18TH	I ED. 2580 B FIELD						
Oxidation-Reduction Potential	*	-300		161	mV	1	03/01/2023 15:01 R325999
STANDARD METHODS 2510	B FIELD						
Spec. Conductance, Field	*	0		2438	μS/cm	1	03/01/2023 15:01 R325999
STANDARD METHODS 2550	B FIELD						
Temperature	*	0		13.1	°C	1	03/01/2023 15:01 R325999
STANDARD METHODS 4500	-O G FIELD						
Oxygen, Dissolved	*	0		0.52	mg/L	1	03/01/2023 15:01 R325999
STANDARD METHODS 2320	B (TOTAL) 1997, 201	1					
Alkalinity, Bicarbonate (as CaCo	D3) NELAP	0		518	mg/L	1	03/03/2023 14:59 R325591
STANDARD METHODS 2320	B 1997, 2011						
Alkalinity, Carbonate (as CaCO	B) NELAP	0		0	mg/L	1	03/03/2023 14:59 R325591
STANDARD METHODS 2540	C (TOTAL) 1997, 201	1					
Total Dissolved Solids	NELAP	20		1020	mg/L	1	03/02/2023 11:23 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	50		129	mg/L	5	03/07/2023 15:14 R325693
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10		0.10	mg/L	1	03/02/2023 12:49 R325510
SW-846 9251 (TOTAL)	SW-846 9251 (TOTAL)						
Chloride	NELAP	20		227	mg/L	20	03/08/2023 11:02 R325771
SW-846 3005A, 6010B, METALS BY ICP (TOTAL)							
Calcium	NELAP	0.100		176	mg/L	1	03/03/2023 16:51 203466
Magnesium	NELAP	0.050		44.5	mg/L	1	03/03/2023 16:51 203466
Potassium	NELAP	0.100		7.66	mg/L	1	03/06/2023 13:22 203466
Sodium	NELAP	0.050		186	mg/L	1	03/03/2023 16:51 203466
SW-846 3005A, 6020A, META	ALS BY ICPMS (TOTA	L)					
Boron	NELAP	25.0		118	μg/L	5	03/16/2023 15:23 203466



Laboratory Results

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

http://www.teklabinc.com/

Client: Ramboll Work Order: 23020845

Client Project: HEN-23Q1 Report Date: 14-Apr-23 Lab ID: 23020845-007 Client Sample ID: 16

Collection Date: 02/28/2023 15:57 Matrix: GROUNDWATER

TALLUTA CINGOND WAY		Concetion Base: 02/20/2023 13:37						
Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch	
FIELD ELEVATION MEASUR	REMENTS							
Depth to water from measuring	point *	0		54.86	ft	1	02/28/2023 15:57 R325999	
STANDARD METHOD 4500-	H B 2001 FIELD							
рН	*	1.00		7.25		1	02/28/2023 15:57 R325999	
STANDARD METHODS 213	0 B FIELD							
Turbidity	*	1.0		< 1.0	NTU	1	02/28/2023 15:57 R325999	
STANDARD METHODS 18TH	HED. 2580 B FIELD							
Oxidation-Reduction Potential	*	-300		57.7	mV	1	02/28/2023 15:57 R325999	
STANDARD METHODS 2510	B FIELD							
Spec. Conductance, Field	*	0		1255	μS/cm	1	02/28/2023 15:57 R325999	
STANDARD METHODS 2550	B FIELD							
Temperature	*	0		17.8	°C	1	02/28/2023 15:57 R325999	
STANDARD METHODS 4500	-O G FIELD							
Oxygen, Dissolved	*	0		0.26	mg/L	1	02/28/2023 15:57 R325999	
STANDARD METHODS 2320	B (TOTAL) 1997, 20	11						
Alkalinity, Bicarbonate (as CaCo	O3) NELAP	0		285	mg/L	1	03/03/2023 15:13 R325591	
STANDARD METHODS 2320	B 1997, 2011							
Alkalinity, Carbonate (as CaCO	3) NELAP	0		0	mg/L	1	03/03/2023 15:13 R325591	
STANDARD METHODS 2540	C (TOTAL) 1997, 20	11						
Total Dissolved Solids	NELAP	20		508	mg/L	1	03/02/2023 11:25 R325574	
SW-846 9036 (TOTAL)								
Sulfate	NELAP	50		78	mg/L	5	03/07/2023 16:21 R325693	
SW-846 9214 (TOTAL)								
Fluoride	NELAP	0.10		0.24	mg/L	1	03/02/2023 12:56 R325510	
SW-846 9251 (TOTAL)								
Chloride	NELAP	5		92	mg/L	5	03/07/2023 16:21 R325696	
SW-846 3005A, 6010B, MET	ALS BY ICP (TOTAL)							
Calcium	NELAP	0.100	S	99.4	mg/L	1	03/03/2023 17:02 203466	
Magnesium	NELAP	0.050		33.4	mg/L	1	03/03/2023 17:02 203466	
Potassium	NELAP	0.100		4.80	mg/L	1	03/06/2023 13:33 203466	
Sodium	NELAP	0.050		57.3	mg/L	1	03/03/2023 17:02 203466	
Matrix spike control limits are not			io.					
SW-846 3005A, 6020A, META	ALS BY ICPMS (TOT	•						
Boron	NELAP	25.0		207	μg/L	5	03/06/2023 12:03 203466	



Laboratory Results

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

http://www.teklabinc.com/

Work Order: 23020845 Client: Ramboll

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab ID: 23020845-008 Client Sample ID: 17

Collection Date: 02/28/2023 16:14 Matrix: GROUNDWATER

		Concessor Butt. 02/20/2023 10:11					
Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASUR	REMENTS						
Depth to water from measuring	point *	0		59.08	ft	1	02/28/2023 16:14 R325999
STANDARD METHOD 4500-	H B 2001 FIELD						
рН	*	1.00		7.01		1	02/28/2023 16:14 R325999
STANDARD METHODS 213	0 B FIELD						
Turbidity	*	1.0		< 1.0	NTU	1	02/28/2023 16:14 R325999
STANDARD METHODS 18TI	H ED. 2580 B FIELD						
Oxidation-Reduction Potential	*	-300		118	mV	1	02/28/2023 16:14 R325999
STANDARD METHODS 2510) B FIELD						
Spec. Conductance, Field	*	0		1505	μS/cm	1	02/28/2023 16:14 R325999
STANDARD METHODS 2550	D B FIELD						
Temperature	*	0		14.6	°C	1	02/28/2023 16:14 R325999
STANDARD METHODS 4500	0-O G FIELD						
Oxygen, Dissolved	*	0		2.22	mg/L	1	02/28/2023 16:14 R325999
STANDARD METHODS 2320	0 B (TOTAL) 1997, 20	11					
Alkalinity, Bicarbonate (as CaC		0		387	mg/L	1	03/03/2023 15:20 R325591
STANDARD METHODS 2320	0 B 1997, 2011				-		
Alkalinity, Carbonate (as CaCO	•	0		0	mg/L	1	03/03/2023 15:20 R325591
STANDARD METHODS 2540	0 C (TOTAL) 1997, 20	11					
Total Dissolved Solids	NELAP	20		630	mg/L	1	03/02/2023 11:25 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	50		77	mg/L	5	03/07/2023 16:42 R325693
SW-846 9214 (TOTAL)					-		
Fluoride	NELAP	0.10		0.13	mg/L	1	03/02/2023 12:58 R325510
SW-846 9251 (TOTAL)							
Chloride	NELAP	5		108	mg/L	5	03/07/2023 16:42 R325696
SW-846 3005A, 6010B, MET	ALS BY ICP (TOTAL)				-		
Calcium	NELAP	0.100		133	mg/L	1	03/03/2023 17:13 203466
Magnesium	NELAP	0.050		42.6	mg/L	1	03/03/2023 17:13 203466
Potassium	NELAP	0.100		3.85	mg/L	1	03/06/2023 13:44 203466
Sodium	NELAP	0.050		56.5	mg/L	1	03/03/2023 17:13 203466
SW-846 3005A, 6020A, MET	ALS BY ICPMS (TOT	AL)					
Boron	NELAP	25.0		106	μg/L	5	03/06/2023 11:37 203466

Client Project: HEN-23Q1

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

Laboratory Results

HEN-257-801 http://www.teklabinc.com/

APPENDIX A.

Report Date: 14-Apr-23

Client: Ramboll **Work Order: 23020845**

Lab ID: 23020845-023 Client Sample ID: 48

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASUREM	MENTS						
Depth to water from measuring poi	nt *	0		40.24	ft	1	03/01/2023 12:14 R325999
STANDARD METHOD 4500-H E	3 2001 FIELD						
рН	*	1.00		7.49		1	03/01/2023 12:14 R325999
STANDARD METHODS 2130 B	FIELD						
Turbidity	*	1.0		3.73	NTU	1	03/01/2023 12:14 R325999
STANDARD METHODS 18TH E	D. 2580 B FIELD						
Oxidation-Reduction Potential	*	-300		163.8	mV	1	03/01/2023 12:14 R325999
STANDARD METHODS 2510 B	FIELD						
Spec. Conductance, Field	*	0		1107	μS/cm	1	03/01/2023 12:14 R325999
STANDARD METHODS 2550 B	FIELD						
Temperature	*	0		16.8	°C	1	03/01/2023 12:14 R325999
STANDARD METHODS 4500-O	G FIELD						
Oxygen, Dissolved	*	0		0.33	mg/L	1	03/01/2023 12:14 R325999
STANDARD METHODS 2320 B	(TOTAL) 1997, 20°	11					
Alkalinity, Bicarbonate (as CaCO3)	• •	0		222	mg/L	1	03/03/2023 15:52 R325591
STANDARD METHODS 2320 B	1997, 2011						
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/03/2023 15:52 R325591
STANDARD METHODS 2540 C	(TOTAL) 1997, 20°	11					
Total Dissolved Solids	NELAP	20		476	mg/L	1	03/02/2023 12:10 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	50		86	mg/L	5	03/07/2023 18:06 R325693
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10		0.18	mg/L	1	03/02/2023 13:22 R325510
SW-846 9251 (TOTAL)							
Chloride	NELAP	5		104	mg/L	5	03/07/2023 18:07 R325696
SW-846 3005A, 6010B, METAL	S BY ICP (TOTAL)						
Calcium	NELAP	0.100	S	87.6	mg/L	1	03/03/2023 18:02 203466
Magnesium	NELAP	0.050		29.4	mg/L	1	03/03/2023 18:02 203466
Potassium	NELAP	0.100		5.86	mg/L	1	03/06/2023 16:18 203466
Sodium	NELAP	0.050		51.5	mg/L	1	03/03/2023 18:02 203466
Matrix spike control limits are not app	olicable due to high sa	ample/spike rat	io.				
SW-846 3005A, 6020A, METAL	S BY ICPMS (TOTA	•					
Boron	NELAP	25.0		1410	μg/L	5	03/08/2023 12:20 203617



Client Project: HEN-23Q1

Laboratory Results

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

http://www.teklabinc.com/

Report Date: 14-Apr-23

Client: Ramboll **Work Order: 23020845**

Lab ID: 23020845-031 Client Sample ID: 05DR

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
v		KL	Quai	Kesuit	Units	DГ	Date Analyzeu Daten
FIELD ELEVATION MEASUR Depth to water from measuring	_	0		41.20	ft	1	03/01/2023 12:37 R325999
,	·	U		41.20	IL.	ı	03/01/2023 12.37 1323999
STANDARD METHOD 4500-I	* *	1.00		7.34		1	03/01/2023 12:37 R325999
•	0 D EIEL D	1.00		1.34		ı	03/01/2023 12:37 1(323999
STANDARD METHODS 2130 Turbidity	Y B FIELD	1.0		< 1.0	NTU	1	03/01/2023 12:37 R325999
,	LED SESS DELETE	1.0		< 1.0	NIO	ı	03/01/2023 12:37 1(323999
STANDARD METHODS 18TH Oxidation-Reduction Potential	1 ED. 2380 B FIELD *	-300		175.9	mV	1	03/01/2023 12:37 R325999
	D FIFI D	-300		175.5	IIIV	'	03/01/2023 12:37 1(323939
STANDARD METHODS 2510 Spec. Conductance, Field	Y B FIELD	0		1117	μS/cm	1	03/01/2023 12:37 R325999
	D FIELD	U		1117	μο/сп	ı	03/01/2023 12:37 K323999
STANDARD METHODS 2550	, R LIELD	0		16.0	°C	1	03/01/2023 12:37 R325999
Temperature	0.0 5151.0	U		10.0	C	ı	03/01/2023 12:37 R325999
STANDARD METHODS 4500	-O G FIELD	0		1.79		4	02/04/2002 42:27 D225000
Oxygen, Dissolved	. D /TOTAL \ 4007 004	<u>-</u>		1.79	mg/L	1	03/01/2023 12:37 R325999
STANDARD METHODS 2320	•			000		4	00/00/0000 44 04 D005050
Alkalinity, Bicarbonate (as CaCC		0		233	mg/L	1	03/06/2023 11:01 R325659
STANDARD METHODS 2320	, -	•		_	,,	_	00/00/0000 44 04 D005050
Alkalinity, Carbonate (as CaCO3		0		0	mg/L	1	03/06/2023 11:01 R325659
STANDARD METHODS 2540	, ,						
Total Dissolved Solids	NELAP	20		488	mg/L	1	03/02/2023 12:56 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	50		82	mg/L	5	03/08/2023 11:12 R325765
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10		0.15	mg/L	1	03/02/2023 13:44 R325510
SW-846 9251 (TOTAL)							
Chloride	NELAP	5		92	mg/L	5	03/08/2023 11:12 R325771
SW-846 3005A, 6010B, META	ALS BY ICP (TOTAL)						
Calcium	NELAP	0.100		93.0	mg/L	1	03/03/2023 19:16 203468
Magnesium	NELAP	0.050		31.2	mg/L	1	03/03/2023 19:16 203468
Potassium	NELAP	0.100		6.72	mg/L	1	03/06/2023 16:48 203468
Sodium	NELAP	0.050		49.5	mg/L	1	03/03/2023 19:16 203468
SW-846 3005A, 6020A, META	•	•					
Boron	NELAP	25.0		805	μg/L	5	03/06/2023 14:56 203468

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT **Laboratory Results**

APPENDIX A. HENNEPIN POWER PLANT, LANDFILL HEN-257-801

http://www.teklabinc.com/

Client: Ramboll Work Order: 23020845

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab ID: 23020845-032 Client Sample ID: 05R

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASURE	EMENTS						
Depth to water from measuring p	oint *	0		41.26	ft	1	03/01/2023 12:26 R325999
STANDARD METHOD 4500-H	B 2001 FIELD						
рН	*	1.00		7.51		1	03/01/2023 12:26 R325999
STANDARD METHODS 2130	B FIELD						
Turbidity	*	1.0		1.93	NTU	1	03/01/2023 12:26 R325999
STANDARD METHODS 18TH	ED. 2580 B FIELD						
Oxidation-Reduction Potential	*	-300		161.6	mV	1	03/01/2023 12:26 R325999
STANDARD METHODS 2510	B FIELD						
Spec. Conductance, Field	*	0		1110	μS/cm	1	03/01/2023 12:26 R325999
STANDARD METHODS 2550	B FIELD						
Temperature	*	0		16.6	°C	1	03/01/2023 12:26 R325999
STANDARD METHODS 4500-	O G FIELD						
Oxygen, Dissolved	*	0		0.32	mg/L	1	03/01/2023 12:26 R325999
STANDARD METHODS 2320	B (TOTAL) 1997. 20	11					
Alkalinity, Bicarbonate (as CaCO		0		241	mg/L	1	03/06/2023 11:07 R325659
STANDARD METHODS 2320	•						
Alkalinity, Carbonate (as CaCO3)	•	0		0	mg/L	1	03/06/2023 11:07 R325659
STANDARD METHODS 2540		11			_		
Total Dissolved Solids	NELAP	20		500	mg/L	1	03/02/2023 12:56 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	50		80	mg/L	5	03/08/2023 11:14 R325765
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10		0.13	mg/L	1	03/02/2023 13:46 R325510
SW-846 9251 (TOTAL)					_		
Chloride	NELAP	5		88	mg/L	5	03/08/2023 11:15 R325771
SW-846 3005A, 6010B, META	LS BY ICP (TOTAL)				<u> </u>		
Calcium	NELAP	0.100	S	89.9	mg/L	1	03/03/2023 19:19 203468
Magnesium	NELAP	0.050	S	31.3	mg/L	1	03/03/2023 19:19 203468
Potassium	NELAP	0.500		8.78	mg/L	5	03/06/2023 17:25 203468
Sodium	NELAP	0.050	S	45.9	mg/L	1	03/03/2023 19:19 203468
Matrix spike control limits are not a	pplicable due to high s	ample/spike rat	io.				
SW-846 3005A, 6020A, META	LS BY ICPMS (TOT	AL)					
Boron	NELAP	25.0		854	μg/L	5	03/22/2023 3:49 204109

Client Project: HEN-23Q1

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

Laboratory Results

HEN-257-801 http://www.teklabinc.com/

Report Date: 14-Apr-23

Client: Ramboll **Work Order: 23020845**

Lab ID: 23020845-033 Client Sample ID: 08D

					•	<u> </u>	
Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASURE	EMENTS						
Depth to water from measuring po	oint *	0		54.27	ft	1	03/01/2023 14:42 R325999
STANDARD METHOD 4500-H	B 2001 FIELD						
рН	*	1.00		6.48		1	03/01/2023 14:42 R325999
STANDARD METHODS 2130	B FIELD						
Turbidity	*	1.0		< 1.0	NTU	1	03/01/2023 14:42 R325999
STANDARD METHODS 18TH	ED. 2580 B FIELD						
Oxidation-Reduction Potential	*	-300		158.6	mV	1	03/01/2023 14:42 R325999
STANDARD METHODS 2510	B FIELD						
Spec. Conductance, Field	*	0		3178	μS/cm	1	03/01/2023 14:42 R325999
STANDARD METHODS 2550	B FIELD						
Temperature	*	0		13.3	°C	1	03/01/2023 14:42 R325999
STANDARD METHODS 4500-	O G FIELD						
Oxygen, Dissolved	*	0		0.32	mg/L	1	03/01/2023 14:42 R325999
STANDARD METHODS 2320	B (TOTAL) 1997, 201	1					
Alkalinity, Bicarbonate (as CaCO	3) NELAP	0		547	mg/L	1	03/06/2023 11:25 R325659
STANDARD METHODS 2320	B 1997, 2011						
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/06/2023 11:25 R325659
STANDARD METHODS 2540	C (TOTAL) 1997, 201	1					
Total Dissolved Solids	NELAP	20		1440	mg/L	1	03/02/2023 12:57 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	100		279	mg/L	10	03/08/2023 11:20 R325765
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10		0.10	mg/L	1	03/02/2023 13:48 R325510
SW-846 9251 (TOTAL)							
Chloride	NELAP	10		319	mg/L	10	03/08/2023 11:20 R325771
SW-846 3005A, 6010B, META	LS BY ICP (TOTAL)						
Calcium	NELAP	0.100		255	mg/L	1	03/03/2023 19:31 203468
Magnesium	NELAP	0.050		70.1	mg/L	1	03/03/2023 19:31 203468
Potassium	NELAP	0.100		4.16	mg/L	1	03/06/2023 17:55 203468
Sodium	NELAP	0.050		238	mg/L	1	03/03/2023 19:31 203468
SW-846 3005A, 6020A, META	•	•					
Boron	NELAP	25.0		94.2	μg/L	5	03/06/2023 15:02 203468



Laboratory Results

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

http://www.teklabinc.com/

Client: Ramboll **Work Order: 23020845**

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab ID: 23020845-038 Client Sample ID: 40S

						•	
Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASUR	EMENTS						
Depth to water from measuring p	ooint *	0		40.55	ft	1	03/01/2023 12:00 R325999
STANDARD METHOD 4500-H	H B 2001 FIELD						
рН	*	1.00		7.69		1	03/01/2023 12:00 R325999
STANDARD METHODS 2130) B FIELD						
Turbidity	*	1.0		0.43	NTU	1	03/01/2023 12:00 R325999
STANDARD METHODS 18TH	I ED. 2580 B FIELD						
Oxidation-Reduction Potential	*	-300		157.1	mV	1	03/01/2023 12:00 R325999
STANDARD METHODS 2510	B FIELD						
Spec. Conductance, Field	*	0		1044	μS/cm	1	03/01/2023 12:00 R325999
STANDARD METHODS 2550	B FIELD						
Temperature	*	0		16.3	°C	1	03/01/2023 12:00 R325999
STANDARD METHODS 4500	-O G FIELD						
Oxygen, Dissolved	*	0		0.33	mg/L	1	03/01/2023 12:00 R325999
STANDARD METHODS 2320	B (TOTAL) 1997, 201	1					
Alkalinity, Bicarbonate (as CaCC	03) NELAP	0		189	mg/L	1	03/03/2023 17:02 R325591
STANDARD METHODS 2320	B 1997, 2011						
Alkalinity, Carbonate (as CaCO3	B) NELAP	0		0	mg/L	1	03/03/2023 17:02 R325591
STANDARD METHODS 2540	C (TOTAL) 1997, 201	1					
Total Dissolved Solids	NELAP	20		474	mg/L	1	03/02/2023 13:37 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	50		95	mg/L	5	03/08/2023 12:35 R325765
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10		0.16	mg/L	1	03/02/2023 14:07 R325510
SW-846 9251 (TOTAL)							
Chloride	NELAP	5		99	mg/L	5	03/08/2023 12:35 R325771
SW-846 3005A, 6010B, META	ALS BY ICP (TOTAL)						
Calcium	NELAP	0.100		75.5	mg/L	1	03/03/2023 20:04 203468
Magnesium	NELAP	0.050		31.0	mg/L	1	03/03/2023 20:04 203468
Potassium	NELAP	0.100		7.32	mg/L	1	03/06/2023 18:10 203468
Sodium	NELAP	0.050		48.5	mg/L	1	03/03/2023 20:04 203468
SW-846 3005A, 6020A, META	•	•					
Boron	NELAP	25.0		1210	μg/L	5	03/06/2023 16:38 203468



APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

Laboratory Results

HEN-257-801 http://www.teklabinc.com/

Work Order: 23020845 Client: Ramboll

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab ID: 23020845-040 Client Sample ID: SG02

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASUREM	MENTS						
Depth to water from measuring poir	nt *	0		449.50	ft	1	03/02/2023 7:30 R325999

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL **Laboratory Results** HEN-257-801

http://www.teklabinc.com/

Client: Ramboll **Work Order: 23020845**

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab ID: 23020845-050 Client Sample ID: 08 Duplicate

Collection Date: 03/01/2023 15:01 Matrix: GROUNDWATER

						<u>'</u>	
Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
FIELD ELEVATION MEASUR	REMENTS						
Depth to water from measuring	point *	0		54.20	ft	1	03/01/2023 15:01 R325999
STANDARD METHOD 4500-	H B 2001 FIELD						
рН	*	1.00		6.67		1	03/01/2023 15:01 R325999
STANDARD METHODS 213	0 B FIELD						
Turbidity	*	1.0		< 1.0	NTU	1	03/01/2023 15:01 R325999
STANDARD METHODS 18TH	HED. 2580 B FIELD						
Oxidation-Reduction Potential	*	-300		161	mV	1	03/01/2023 15:01 R325999
STANDARD METHODS 2510	B FIELD						
Spec. Conductance, Field	*	0		2438	μS/cm	1	03/01/2023 15:01 R325999
STANDARD METHODS 2550	B FIELD						
Temperature	*	0		13.1	°C	1	03/01/2023 15:01 R325999
STANDARD METHODS 4500	-O G FIELD						
Oxygen, Dissolved	*	0		0.52	mg/L	1	03/01/2023 15:01 R325999
STANDARD METHODS 2320	B (TOTAL) 1997, 201	1					
Alkalinity, Bicarbonate (as CaCo	O3) NELAP	0		518	mg/L	1	03/06/2023 11:59 R325659
STANDARD METHODS 2320	B 1997, 2011						
Alkalinity, Carbonate (as CaCO	3) NELAP	0		0	mg/L	1	03/06/2023 11:59 R325659
STANDARD METHODS 2540	C (TOTAL) 1997, 201	1					
Total Dissolved Solids	NELAP	20		1080	mg/L	1	03/02/2023 14:09 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	50		136	mg/L	5	03/08/2023 13:09 R325765
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10	J	0.10	mg/L	1	03/02/2023 14:26 R325510
SW-846 9251 (TOTAL)							
Chloride	NELAP	10		222	mg/L	10	03/08/2023 13:28 R325771
SW-846 3005A, 6010B, META	ALS BY ICP (TOTAL)						
Calcium	NELAP	0.100		177	mg/L	1	03/03/2023 20:30 203468
Magnesium	NELAP	0.050		43.9	mg/L	1	03/03/2023 20:30 203468
Potassium	NELAP	0.100		7.85	mg/L	1	03/06/2023 18:17 203468
Sodium	NELAP	0.050		186	mg/L	1	03/03/2023 20:30 203468
SW-846 3005A, 6020A, META	ALS BY ICPMS (TOTA	L)					
Boron	NELAP	25.0		107	μg/L	5	03/06/2023 16:51 203468



Client Project: HEN-23Q1

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

Laboratory Results

HEN-257-801 http://www.teklabinc.com/

Report Date: 14-Apr-23

Client: Ramboll **Work Order: 23020845**

Lab ID: 23020845-051 Client Sample ID: Field Blank

Collection Date: 03/01/2023 17:01 Matrix: AQUEOUS

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed Batch
STANDARD METHODS 2320 B	(TOTAL) 1997, 2011						
Alkalinity, Bicarbonate (as CaCO3)) NELAP	0		1	mg/L	1	03/07/2023 8:46 R325659
STANDARD METHODS 2320 B	1997, 2011						
Alkalinity, Carbonate (as CaCO3)	NELAP	0		0	mg/L	1	03/07/2023 8:46 R325659
STANDARD METHODS 2540 C	(TOTAL) 1997, 2011						
Total Dissolved Solids	NELAP	20		< 20	mg/L	1	03/02/2023 14:09 R325574
SW-846 9036 (TOTAL)							
Sulfate	NELAP	10		< 10	mg/L	1	03/08/2023 13:33 R325765
SW-846 9214 (TOTAL)							
Fluoride	NELAP	0.10		< 0.10	mg/L	1	03/02/2023 14:29 R325510
SW-846 9251 (TOTAL)							
Chloride	NELAP	1		< 1	mg/L	1	03/08/2023 13:33 R325771
SW-846 3005A, 6010B, METAL	S BY ICP (TOTAL)						
Calcium	NELAP	0.100		< 0.100	mg/L	1	03/03/2023 20:34 203468
Magnesium	NELAP	0.050		< 0.050	mg/L	1	03/03/2023 20:34 203468
Potassium	NELAP	0.100		< 0.100	mg/L	1	03/06/2023 18:21 203468
Sodium	NELAP	0.050		< 0.050	mg/L	1	03/03/2023 20:34 203468
SW-846 3005A, 6020A, METAL	S BY ICPMS (TOTAL)					
Boron	NELAP	25.0		< 25.0	μg/L	5	03/07/2023 9:57 203468



Sample Summary

http://www.teklabinc.com/

Client: Ramboll Work Order: 23020845

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
23020845-002	07	Groundwater	7	03/01/2023 16:16
23020845-003	08	Groundwater	9	03/01/2023 15:01
23020845-007	16	Groundwater	5	02/28/2023 15:57
23020845-008	17	Groundwater	5	02/28/2023 16:14
23020845-023	48	Groundwater	2	03/01/2023 12:14
23020845-031	05DR	Groundwater	7	03/01/2023 12:37
23020845-032	05R	Groundwater	7	03/01/2023 12:26
23020845-033	08D	Groundwater	9	03/01/2023 14:42
23020845-038	40S	Groundwater	7	03/01/2023 12:00
23020845-040	SG02	Groundwater	1	03/02/2023 7:30
23020845-050	08 Duplicate	Groundwater	9	03/01/2023 15:01
23020845-051	Field Blank	Aqueous	9	03/01/2023 17:01



http://www.teklabinc.com/

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
23020845-002A	07	03/01/2023 16:16	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 16:16
	Standard Method 4500-H B 2001 Field				03/01/2023 16:16
	Standard Methods 2130 B Field				03/01/2023 16:16
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 16:16
	Standard Methods 2320 B (Total) 1997, 2011				03/03/2023 14:45
	Standard Methods 2320 B 1997, 2011				03/03/2023 14:45
	Standard Methods 2510 B Field				03/01/2023 16:16
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 11:20
	Standard Methods 2550 B Field				03/01/2023 16:16
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:13
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 13:51
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 13:51
	Standard Methods 4500-O G Field				03/01/2023 16:16
	SW-846 9036 (Total)				03/07/2023 15:09
	SW-846 9214 (Total)				03/02/2023 12:46
	SW-846 9251 (Total)				03/07/2023 15:09
23020845-002B	07	03/01/2023 16:16	03/02/2023 8:00		
	EPA 314.0				03/09/2023 0:00
23020845-002C	07	03/01/2023 16:16	03/02/2023 8:00		
	SW-846 9036 (Dissolved)				03/06/2023 9:07
	SW-846 9214 (Dissolved)				03/02/2023 12:15
	SW-846 9251 (Dissolved)				03/06/2023 9:07
23020845-002D	07	03/01/2023 16:16	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/03/2023 16:32
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/03/2023 13:51
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/06/2023 10:27
	SW-846 7470A (Total)			03/02/2023 9:08	03/06/2023 19:54
23020845-002E	07	03/01/2023 16:16	03/02/2023 8:00		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/02/2023 17:39
	SW-846 7470A (Dissolved)			03/02/2023 9:08	03/06/2023 20:05
23020845-002F	07	03/01/2023 16:16	03/02/2023 8:00		
	SW-846 9012A (Total)			03/02/2023 14:59	03/03/2023 17:37
23020845-002G	07	03/01/2023 16:16	03/02/2023 8:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by	GC/MS			03/02/2023 11:25
23020845-003A	08	03/01/2023 15:01	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 15:01



http://www.teklabinc.com/

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
	Standard Method 4500-H B 2001 Field				03/01/2023 15:01
	Standard Methods 2130 B Field				03/01/2023 15:01
	Standard Methods 2320 B 1997, 2011				03/03/2023 14:59
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 15:01
	Standard Methods 2320 B (Total) 1997, 2011				03/03/2023 14:59
	Standard Methods 2320 B 1997, 2011				03/03/2023 14:59
	Standard Methods 2510 B Field				03/01/2023 15:01
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 11:23
	Standard Methods 2550 B Field				03/01/2023 15:01
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:15
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 13:53
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 13:53
	Standard Methods 4500-O G Field				03/01/2023 15:01
	SW-846 9036 (Total)				03/07/2023 15:14
	SW-846 9214 (Total)				03/02/2023 12:49
	SW-846 9251 (Total)				03/08/2023 11:02
3020845-003B	08	03/01/2023 15:01	03/02/2023 8:00		
	EPA 314.0				03/09/2023 0:00
3020845-003C	08	03/01/2023 15:01	03/02/2023 8:00		
	Standard Methods 2550 B Field				03/01/2023 15:01
	SW-846 9036 (Dissolved)				03/06/2023 9:44
	SW-846 9214 (Dissolved)				03/02/2023 12:17
	SW-846 9251 (Dissolved)				03/06/2023 9:50
3020845-003D	08	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/03/2023 16:51
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/06/2023 13:22
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/03/2023 14:23
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/06/2023 11:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/16/2023 15:23
	SW-846 7470A (Total)			03/02/2023 9:08	03/06/2023 20:08
3020845-003E	08	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			03/02/2023 9:16	03/09/2023 9:02
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/02/2023 17:45
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/03/2023 16:11
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/16/2023 15:27
	SW-846 7470A (Dissolved)			03/02/2023 9:08	03/06/2023 20:10
23020845-003F	08	03/01/2023 15:01	03/02/2023 8:00		



http://www.teklabinc.com/

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
	SW-846 9012A (Total)			03/02/2023 14:59	03/03/2023 18:03
23020845-003G	08	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 9066 (Total)				03/06/2023 15:45
23020845-003Н	08	03/01/2023 15:01	03/02/2023 8:00		
	Standard Methods 4500-NH3 G (Total) 1997, 2011				03/03/2023 17:13
23020845-003I	08	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by	GC/MS			03/02/2023 11:50
23020845-007A	16	02/28/2023 15:57	03/02/2023 8:00		
	Field Elevation Measurements				02/28/2023 15:57
	Standard Method 4500-H B 2001 Field				02/28/2023 15:57
	Standard Methods 2130 B Field				02/28/2023 15:57
	Standard Methods 18th Ed. 2580 B Field				02/28/2023 15:57
	Standard Methods 2320 B (Total) 1997, 2011				03/03/2023 15:13
	Standard Methods 2320 B 1997, 2011				03/03/2023 15:13
	Standard Methods 2510 B Field				02/28/2023 15:57
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 11:25
	Standard Methods 2550 B Field				02/28/2023 15:57
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:10
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:01
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:01
	Standard Methods 4500-O G Field				02/28/2023 15:57
	SW-846 9036 (Total)				03/07/2023 16:21
	SW-846 9214 (Total)				03/02/2023 12:56
	SW-846 9251 (Total)				03/07/2023 16:21
23020845-007B	16	02/28/2023 15:57	03/02/2023 8:00		
	SW-846 9036 (Dissolved)				03/06/2023 10:35
	SW-846 9214 (Dissolved)				03/02/2023 12:24
	SW-846 9251 (Dissolved)				03/06/2023 10:35
23020845-007C	16	02/28/2023 15:57	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/03/2023 17:02
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/06/2023 13:33
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/03/2023 15:06
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/06/2023 12:03
	SW-846 7470A (Total)			03/02/2023 9:08	03/06/2023 20:28
23020845-007D	16	02/28/2023 15:57	03/02/2023 8:00		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/02/2023 18:49
	SW-846 7470A (Dissolved)			03/02/2023 9:08	03/06/2023 20:31



http://www.teklabinc.com/

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
23020845-007E	16	02/28/2023 15:57	03/02/2023 8:00		
	SW-846 9012A (Total)			03/02/2023 14:59	03/03/2023 16:58
23020845-008A	17	02/28/2023 16:14	03/02/2023 8:00		
	Field Elevation Measurements				02/28/2023 16:14
	Standard Method 4500-H B 2001 Field				02/28/2023 16:14
	Standard Methods 2130 B Field				02/28/2023 16:14
	Standard Methods 18th Ed. 2580 B Field				02/28/2023 16:14
	Standard Methods 2320 B (Total) 1997, 2011				03/03/2023 15:20
	Standard Methods 2320 B 1997, 2011				03/03/2023 15:20
	Standard Methods 2510 B Field				02/28/2023 16:14
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 11:25
	Standard Methods 2550 B Field				02/28/2023 16:14
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:12
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:07
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:07
	Standard Methods 4500-O G Field				02/28/2023 16:14
	SW-846 9036 (Total)				03/07/2023 16:42
	SW-846 9214 (Total)				03/02/2023 12:58
	SW-846 9251 (Total)				03/07/2023 16:42
23020845-008B	17	02/28/2023 16:14	03/02/2023 8:00		
	SW-846 9036 (Dissolved)				03/06/2023 10:43
	SW-846 9214 (Dissolved)				03/02/2023 12:26
	SW-846 9251 (Dissolved)				03/06/2023 10:43
3020845-008C	17	02/28/2023 16:14	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/03/2023 17:13
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/06/2023 13:44
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/03/2023 14:41
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:03	03/06/2023 11:37
	SW-846 7470A (Total)			03/02/2023 9:08	03/06/2023 20:33
23020845-008D	17	02/28/2023 16:14	03/02/2023 8:00		
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/02/2023 18:55
	SW-846 7470A (Dissolved)			03/02/2023 9:08	03/06/2023 20:35
3020845-008E	17	02/28/2023 16:14	03/02/2023 8:00		
	SW-846 9012A (Total)			03/02/2023 14:59	03/03/2023 18:20
23020845-023A	48	03/01/2023 12:14	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 12:14
	Standard Method 4500-H B 2001 Field				03/01/2023 12:14



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Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
	Standard Methods 2130 B Field				03/01/2023 12:14
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 12:14
	Standard Methods 2320 B (Total) 1997, 2011				03/03/2023 15:52
	Standard Methods 2320 B 1997, 2011				03/03/2023 15:52
	Standard Methods 2510 B Field				03/01/2023 12:14
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 12:10
	Standard Methods 2550 B Field				03/01/2023 12:14
	Standard Methods 4500-O G Field				03/01/2023 12:14
	SW-846 9036 (Total)				03/07/2023 18:06
	SW-846 9214 (Total)				03/02/2023 13:22
	SW-846 9251 (Total)				03/07/2023 18:07
23020845-023B	48	03/01/2023 12:14	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/03/2023 18:02
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:03	03/06/2023 16:18
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/07/2023 9:33	03/08/2023 12:20
23020845-031A	05DR	03/01/2023 12:37	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 12:37
	Standard Method 4500-H B 2001 Field				03/01/2023 12:37
	Standard Methods 2130 B Field				03/01/2023 12:37
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:01
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 12:37
	Standard Methods 2320 B (Total) 1997, 2011				03/06/2023 11:01
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:01
	Standard Methods 2510 B Field				03/01/2023 12:37
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 12:56
	Standard Methods 2550 B Field				03/01/2023 12:37
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:20
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:14
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:14
	Standard Methods 4500-O G Field				03/01/2023 12:37
	SW-846 9036 (Total)				03/08/2023 11:12
	SW-846 9214 (Total)				03/02/2023 13:44
	SW-846 9251 (Total)				03/08/2023 11:12
3020845-031B	05DR	03/01/2023 12:37	03/02/2023 8:00		
	Standard Methods 2550 B Field				03/01/2023 12:37
	SW-846 9036 (Dissolved)				03/06/2023 11:28
	SW-846 9214 (Dissolved)				03/02/2023 11:28
	SW-846 9251 (Dissolved)				03/06/2023 11:29



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Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
23020845-031C	05DR	03/01/2023 12:37	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/03/2023 19:16
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/06/2023 16:48
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/06/2023 14:56
23020845-031D	05DR	03/01/2023 12:37	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			03/02/2023 9:16	03/09/2023 9:26
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/02/2023 20:25
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/03/2023 16:30
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/20/2023 21:00	03/22/2023 6:53
	SW-846 7470A (Dissolved)			03/02/2023 9:11	03/07/2023 5:23
23020845-031E	05DR	03/01/2023 12:37	03/02/2023 8:00		
	SW-846 9012A (Total)			03/02/2023 14:59	03/03/2023 18:29
23020845-031F	05DR	03/01/2023 12:37	03/02/2023 8:00		
	SW-846 9066 (Total)				03/06/2023 16:07
23020845-031G	05DR	03/01/2023 12:37	03/02/2023 8:00		
	Standard Methods 4500-NH3 G (Total) 1997, 2011				03/03/2023 12:29
23020845-032A	05R	03/01/2023 12:26	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 12:26
	Standard Method 4500-H B 2001 Field				03/01/2023 12:26
	Standard Methods 2130 B Field				03/01/2023 12:26
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:07
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 12:26
	Standard Methods 2320 B (Total) 1997, 2011				03/06/2023 11:07
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:07
	Standard Methods 2510 B Field				03/01/2023 12:26
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 12:56
	Standard Methods 2550 B Field				03/01/2023 12:26
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:21
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:21
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:21
	Standard Methods 4500-O G Field				03/01/2023 12:26
	SW-846 9036 (Total)				03/08/2023 11:14
	SW-846 9214 (Total)				03/02/2023 13:46
	SW-846 9251 (Total)				03/08/2023 11:15
23020845-032B	05R	03/01/2023 12:26	03/02/2023 8:00		
	Standard Methods 2550 B Field				03/01/2023 12:26
	SW-846 9036 (Dissolved)				03/06/2023 11:36



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Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
	SW-846 9214 (Dissolved)				03/02/2023 11:30
	SW-846 9251 (Dissolved)				03/06/2023 11:37
23020845-032C	05R	03/01/2023 12:26	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/03/2023 19:19
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/06/2023 17:25
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/20/2023 19:16	03/22/2023 3:49
23020845-032D	05R	03/01/2023 12:26	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			03/02/2023 9:16	03/09/2023 9:28
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/02/2023 20:31
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:16	03/03/2023 16:36
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/20/2023 21:00	03/22/2023 6:59
	SW-846 7470A (Dissolved)			03/02/2023 9:11	03/07/2023 5:26
23020845-032E	05R	03/01/2023 12:26	03/02/2023 8:00		
	SW-846 9012A (Total)			03/03/2023 16:10	03/06/2023 13:40
23020845-032F	05R	03/01/2023 12:26	03/02/2023 8:00		
	SW-846 9066 (Total)				03/06/2023 16:11
23020845-032G	05R	03/01/2023 12:26	03/02/2023 8:00		
	Standard Methods 4500-NH3 G (Total) 1997, 2011				03/03/2023 12:32
23020845-033A	08D	03/01/2023 14:42	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 14:42
	Standard Method 4500-H B 2001 Field				03/01/2023 14:42
	Standard Methods 2130 B Field				03/01/2023 14:42
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:25
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 14:42
	Standard Methods 2320 B (Total) 1997, 2011				03/06/2023 11:25
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:25
	Standard Methods 2510 B Field				03/01/2023 14:42
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 12:57
	Standard Methods 2550 B Field				03/01/2023 14:42
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:21
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:40
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 12:40
	Standard Methods 4500-O G Field				03/01/2023 14:42
	SW-846 9036 (Total)				03/08/2023 11:20
	SW-846 9214 (Total)				03/02/2023 13:48
	SW-846 9251 (Total)				03/08/2023 11:20
23020845-033B	08D	03/01/2023 14:42	03/02/2023 8:00		



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Sample ID	Client Sample ID	Collection Date	Received Date		
-	Test Name			Prep Date/Time	Analysis Date/Time
	EPA 314.0				03/09/2023 0:00
23020845-033C	08D	03/01/2023 14:42	03/02/2023 8:00		
	Standard Methods 2550 B Field				03/01/2023 14:42
	SW-846 9036 (Dissolved)				03/06/2023 11:39
	SW-846 9214 (Dissolved)				03/02/2023 11:31
	SW-846 9251 (Dissolved)				03/06/2023 11:39
23020845-033D	08D	03/01/2023 14:42	03/02/2023 8:00		03/00/2023 11.37
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/03/2023 19:31
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/06/2023 17:55
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/03/2023 11:46
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/06/2023 15:02
	SW-846 7470A (Total)			03/02/2023 9:00	03/07/2023 5:28
23020845-033E	08D	03/01/2023 14:42	03/02/2023 8:00	03/02/2023 9.11	03/07/2023 3.20
230200+3 033E		03/01/2023 14.42	03/02/2023 0.00		00/00/0000 4 4 05
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			03/02/2023 9:19	03/03/2023 14:37
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/02/2023 20:38
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/03/2023 18:00
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/20/2023 21:00	03/22/2023 7:05
	SW-846 7470A (Dissolved)			03/02/2023 9:11	03/07/2023 5:30
23020845-033F	08D	03/01/2023 14:42	03/02/2023 8:00		
	SW-846 9012A (Total)			03/03/2023 16:10	03/06/2023 13:44
23020845-033G	08D	03/01/2023 14:42	03/02/2023 8:00		
	SW-846 9066 (Total)				03/06/2023 16:15
23020845-033H	08D	03/01/2023 14:42	03/02/2023 8:00		
	Standard Methods 4500-NH3 G (Total) 1997, 2011				03/03/2023 12:34
23020845-033I	08D	03/01/2023 14:42	03/02/2023 8:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by	GC/MS			03/02/2023 13:02
23020845-038A	40S	03/01/2023 12:00	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 12:00
	Standard Method 4500-H B 2001 Field				03/01/2023 12:00
	Standard Methods 2130 B Field				03/01/2023 12:00
	Standard Methods 2320 B 1997, 2011				03/03/2023 17:02
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 12:00
	Standard Methods 2320 B (Total) 1997, 2011				03/03/2023 17:02
	Standard Methods 2320 B 1997, 2011				03/03/2023 17:02
	Standard Methods 2510 B Field				03/01/2023 12:00
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 13:37
					55,02,2025 15.57



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Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:24
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 13:00
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 13:00
	Standard Methods 4500-O G Field				03/01/2023 12:00
	SW-846 9036 (Total)				03/08/2023 12:35
	SW-846 9214 (Total)				03/02/2023 14:07
	SW-846 9251 (Total)				03/08/2023 12:35
23020845-038B	40S	03/01/2023 12:00	03/02/2023 8:00		
	Standard Methods 2550 B Field				03/01/2023 12:00
	SW-846 9036 (Dissolved)				03/06/2023 12:40
	SW-846 9214 (Dissolved)				03/02/2023 11:37
	SW-846 9251 (Dissolved)				03/06/2023 12:41
23020845-038C	40S	03/01/2023 12:00	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/03/2023 20:04
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/06/2023 18:10
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/06/2023 16:38
23020845-038D	40S	03/01/2023 12:00	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			03/02/2023 9:19	03/03/2023 14:40
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/02/2023 21:48
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/03/2023 17:40
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/20/2023 21:00	03/22/2023 7:29
	SW-846 7470A (Dissolved)			03/02/2023 9:11	03/07/2023 5:55
23020845-038E	40S	03/01/2023 12:00	03/02/2023 8:00		
	SW-846 9012A (Total)			03/03/2023 16:10	03/06/2023 13:53
23020845-038F	40S	03/01/2023 12:00	03/02/2023 8:00		
	SW-846 9066 (Total)				03/06/2023 16:25
23020845-038G	40S	03/01/2023 12:00	03/02/2023 8:00		
	Standard Methods 4500-NH3 G (Total) 1997, 2011				03/03/2023 12:51
23020845-040A	SG02	03/02/2023 7:30	03/02/2023 8:00		
	Field Elevation Measurements				03/02/2023 7:30
23020845-050A	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	Field Elevation Measurements				03/01/2023 15:01
	Standard Method 4500-H B 2001 Field				03/01/2023 15:01
	Standard Methods 2130 B Field				03/01/2023 15:01
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:59
	Standard Methods 18th Ed. 2580 B Field				03/01/2023 15:01
	Standard Methods 2320 B (Total) 1997, 2011				03/06/2023 11:59



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Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
	Standard Methods 2320 B 1997, 2011				03/06/2023 11:59
	Standard Methods 2510 B Field				03/01/2023 15:01
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 14:09
	Standard Methods 2550 B Field				03/01/2023 15:01
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:28
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 15:19
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 15:19
	Standard Methods 4500-O G Field				03/01/2023 15:01
	SW-846 9036 (Total)				03/08/2023 13:09
	SW-846 9214 (Total)				03/02/2023 14:26
	SW-846 9251 (Total)				03/08/2023 13:28
23020845-050B	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	EPA 314.0				03/09/2023 0:00
23020845-050C	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	Standard Methods 2550 B Field				03/01/2023 15:01
	SW-846 9036 (Dissolved)				03/06/2023 13:44
	SW-846 9214 (Dissolved)				03/02/2023 11:56
	SW-846 9251 (Dissolved)				03/06/2023 13:45
23020845-050D	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/03/2023 20:30
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/06/2023 18:17
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/03/2023 13:39
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/06/2023 16:51
	SW-846 7470A (Total)			03/02/2023 9:14	03/06/2023 19:22
23020845-050E	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			03/02/2023 9:19	03/03/2023 14:44
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/02/2023 23:17
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/03/2023 19:10
	SW-846 7470A (Dissolved)			03/02/2023 9:14	03/06/2023 19:24
23020845-050F	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 9012A (Total)			03/03/2023 16:10	03/06/2023 14:45
23020845-050G	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 9066 (Total)				03/06/2023 16:28
23020845-050H	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	Standard Methods 4500-NH3 G (Total) 1997, 2011				03/03/2023 17:33
23020845-050I	08 Duplicate	03/01/2023 15:01	03/02/2023 8:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by	GC/MS			03/02/2023 14:41



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Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
23020845-051A	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	Standard Methods 2320 B 1997, 2011				03/07/2023 8:46
	Standard Methods 2320 B (Total) 1997, 2011				03/07/2023 8:46
	Standard Methods 2320 B 1997, 2011				03/07/2023 8:46
	Standard Methods 2540 C (Total) 1997, 2011				03/02/2023 14:09
	Standard Methods 4500-NO2 B (Total) 2000, 2011				03/02/2023 15:28
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 15:23
	Standard Methods 4500-NO3 F (Total) 2000, 2011				03/02/2023 15:23
	SW-846 9036 (Total)				03/08/2023 13:33
	SW-846 9214 (Total)				03/02/2023 14:29
	SW-846 9251 (Total)				03/08/2023 13:33
23020845-051B	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	EPA 314.0				03/09/2023 0:00
23020845-051C	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	SW-846 9036 (Dissolved)				03/06/2023 13:56
	SW-846 9214 (Dissolved)				03/02/2023 11:58
	SW-846 9251 (Dissolved)				03/06/2023 13:55
23020845-051D	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/03/2023 20:34
	SW-846 3005A, 6010B, Metals by ICP (Total)			03/02/2023 9:06	03/06/2023 18:21
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/03/2023 13:45
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/06/2023 18:08
	SW-846 3005A, 6020A, Metals by ICPMS (Total)			03/02/2023 9:06	03/07/2023 9:57
	SW-846 7470A (Total)			03/02/2023 9:14	03/06/2023 19:27
23020845-051E	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	SW-846 3005A, 6010B, Metals by ICP (Dissolved)			03/02/2023 9:19	03/03/2023 15:23
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/02/2023 23:24
	SW-846 3005A, 6020A, Metals by ICPMS (Dissolved)			03/02/2023 9:19	03/03/2023 20:14
	SW-846 7470A (Dissolved)			03/02/2023 9:14	03/06/2023 19:38
23020845-051F	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	SW-846 9012A (Total)			03/03/2023 16:10	03/06/2023 14:50
23020845-051G	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	SW-846 9066 (Total)				03/06/2023 12:09
23020845-051H	Field Blank	03/01/2023 17:01	03/02/2023 8:00		
	Standard Methods 4500-NH3 G (Total) 1997, 2011				03/03/2023 12:57
23020845-051I	Field Blank	03/01/2023 17:01	03/02/2023 8:00		



APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

Dates Report

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Client: Ramboll Work Order: 23020845

Client Project: HEN-23Q1 Report Date: 14-Apr-23

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time

03/02/2023 15:05



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- POOFOOO	O T	1.00		11.20							
Batch R325999 SampID: LCS-R3259	SampType:	LUS		Units							
Analyses	999	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
pН		*	1.00		7.02	7.000	0	100.3	98.57	101.4	02/28/2023
рН		*	1.00		7.09	7.000	0	101.3	98.57	101.4	03/01/2023
STANDARD METH	IODS 2510 E	3 FIELD									
Batch R325999	SampType:	LCS		Units µS/cm	ı						
SampID: LCS-R3259	999										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Spec. Conductance, F	Field	*	0		1460	1409	0	103.6	90	110	03/01/2023
Spec. Conductance, F	-ield	*	0		1481	1409	0	105.1	90	110	02/28/202
STANDARD METH	IODS 2320	B 1997, 2	011								
Batch R325591 SampID: MBLK	SampType:	MBLK		Units mg/L							Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Alkalinity, Total (as Ca	aCO3)		0		0						03/03/202
Batch R325591	SampType:	LCS		Units mg/L							
SampID: LCS		a .	DI	0 1	D 1:	G '1	SPK Ref Val	0/ DEC	Loughimit	Lliah Limit	Date Analyzed
Analyses	-000)	Cert	RL	Qual	Result	Spike		%REC	Low Limit	High Limit	•
Alkalinity, Total (as Ca	aCO3)		0		243	236.0	0	103.0	90	110	03/03/202
Batch R325591	SampType:	LCSD		Units mg/L					RPD Lir	mit:	
SampID: LCSDUP											Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Alkalinity, Total (as Ca	aCO3)		0		235	236.0	0	99.6	90	110	03/03/202
Batch R325659	SampType:	MBLK		Units mg/L							
SampID: MBLK		C	Dī	01	Dagu!t	C :1-	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Analyses Alkalinity, Total (as Ca	2CO3)	Cert	RL 0	Qual	Result 0	Spike	JI K KGI VAI	/orkLO	LOW LITTIL	i ligit Littit	03/06/202
Alkalility, Total (as Ca	aCO3)		U		·						03/00/202
Batch R325659 SampID: LCS	SampType:	LCS		Units mg/L							Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Alkalinity, Total (as Ca	2CO3)	2011	0	4	237	236.0	0	100.4	90	110	03/06/202



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	,	011								
Batch R325659 SampType:	LCSD		Units mg/L					RPD Lin	nit:	
SampID: LCSDUP										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Alkalinity, Total (as CaCO3)		0		236	236.0	0	100.0	90	110	03/06/202
Alkalinity, Total (as CaCO3)		0		240	236.0	0	101.7	90	110	03/06/202
Batch R325659 SampType:	DUP		Units mg/L					RPD Lin	nit: 10	
SampID: 23020845-005ADUP										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Alkalinity, Total (as CaCO3)		0		249				243.0	2.44	03/06/20
Batch R325659 SampType:	59 SampType: DUP Units mg/L RPD Limit: 10									
SampID: 23020845-051ADUP										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Alkalinity, Total (as CaCO3)		0		1				1.000	0.00	03/07/20
STANDARD METHODS 2540 (C (TOTAL) 1997	, 2011							
Batch R325574 SampType: SampID: MBLK	MBLK		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
	Cert	RL 20	Qual	Result	Spike 16.00	SPK Ref Val	%REC 0	Low Limit	High Limit	Analyzed
Analyses Total Dissolved Solids Total Dissolved Solids	Cert		Qual							Analyzed
	Cert	20	Qual	< 20	16.00	0	0	-100	100	03/02/20 03/02/20
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType:		20 20	Qual Units mg/L	< 20 < 20	16.00 16.00	0	0	-100 -100	100 100	
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType:		20 20	Ì	< 20 < 20	16.00 16.00	0 0 0	0 0 0	-100 -100	100 100	03/02/20 03/02/20 03/02/20 Date
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType: SampID: LCS		20 20	Ì	< 20 < 20	16.00 16.00	0	0 0 0	-100 -100	100 100	03/02/20 03/02/20 03/02/20
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType:	LCS	20 20 20	Units mg/L	< 20 < 20 < 20	16.00 16.00 16.00	0 0 0	0 0 0	-100 -100 -100	100 100 100	03/02/20 03/02/20 03/02/20 Date
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType: SampID: LCS Analyses Total Dissolved Solids	LCS	20 20 20 RL	Units mg/L	< 20 < 20 < 20 Result	16.00 16.00 16.00 Spike	0 0 0 SPK Ref Val	0 0 0 %REC	-100 -100 -100 Low Limit	100 100 100 High Limit	03/02/20 03/02/20 03/02/20 Date Analyzed
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType: SampID: LCS Analyses Total Dissolved Solids Total Dissolved Solids	LCS	20 20 20 RL 20	Units mg/L	< 20 < 20 < 20 < 20 Result	16.00 16.00 16.00 Spike	0 0 0 SPK Ref Val 0	0 0 0 %REC 92.0	-100 -100 -100 Low Limit	100 100 100 100 High Limit	03/02/20 03/02/20 03/02/20 03/02/20 Date Analyzed
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType: SamplD: LCS Analyses Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids SampType:	LCS Cert	20 20 20 RL 20 20	Units mg/L	< 20 < 20 < 20 Result 920	16.00 16.00 16.00 Spike 1000 1000	0 0 0 SPK Ref Val 0	0 0 0 %REC 92.0 90.8	-100 -100 -100 Low Limit 90 90	100 100 100 High Limit 110 110	03/02/20 03/02/20 03/02/20 03/02/20 Date Analyzed 03/02/20
Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids Batch R325574 SampType: SampID: LCS Analyses Total Dissolved Solids Total Dissolved Solids Total Dissolved Solids	LCS Cert	20 20 20 RL 20 20	Units mg/L Qual	< 20 < 20 < 20 Result 920	16.00 16.00 16.00 Spike 1000 1000	0 0 0 SPK Ref Val 0	0 0 0 %REC 92.0 90.8 91.0	-100 -100 -100 Low Limit 90 90 90	100 100 100 High Limit 110 110	03/02/20 03/02/20 03/02/20 03/02/20 Date Analyzed 03/02/20



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STANDARD METHODS 2540 C Batch R325574 SampType:	•		Units mg/L					RPD Lir	mit: 5	
SamplD: 23020845-021ADUP	Б0.		Office Hig/L					МЪШ	TIIC. 3	5.
·	C .	DI	0 1	D 1	G '1	CDK Dof Vol	0/ DEC	DDD Dof \/	al 0/ DDD	Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V		
Total Dissolved Solids		20		492				496.0	0.81	03/02/202
Batch R325574 SampType:	DUP		Units mg/L					RPD Lir	mit: 5	
SampID: 23020845-030ADUP										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Total Dissolved Solids		20		540				534.0	1.12	03/02/202
Batch R325574 SampType:	DUP		Units mg/L					RPD Lir	mit: 5	
SampID: 23020845-041ADUP Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Date Analyzed
Total Dissolved Solids		20	•	544	·			558.0	2.54	03/02/202
Batch R325574 SampType:	DUP		Units mg/L					RPD Lir	mit: 5	
SampID: 23020845-050ADUP										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Total Dissolved Solids		20		1090				1080	0.74	03/02/202
STANDARD METHODS 4500-	NH3 G (TO	OTAL)	1997, 2011							
Batch R325556 SampType: SampID: ICB/MBLK	MBLK		Units mg/L							Date
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Nitrogen, Ammonia (as N)		0.10		< 0.10	0.0270	0	0	-100	100	03/03/202
Batch R325556 SampType:	LCS		Units mg/L							
SampID: ICV/LCS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Nitrogen, Ammonia (as N)		0.10		1.01	1.000	0	101.3	90	110	03/03/202
Batch R325556 SampType:	MS		Units mg/L							
SampID: 23020845-005GMS										Date
						00140 4141	0/050			Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Allalyzca



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Batch R325556 SampTyp	e: MSD		Units mg/L					RPD Lin	nit: 10	
SamplD: 23020845-005GMSD			.							Date
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Nitrogen, Ammonia (as N)		0.10	S	1.72	2.000	0	85.8	1.705	0.58	03/03/2023
STANDADD METHODS 450	0 NO2 P (T	OTAL \	2000 2011							
STANDARD METHODS 450 Batch R325452 SampTyp SampID: MBLK	e: MBLK	JIAL)	Units mg/L							Data
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.05	* 3.3.2	< 0.05	0.0250	0	0	-100	100	03/01/2023
Batch R325452 SampTyp SampID: LCS	e: LCS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Nitrogen, Nitrite (as N)		0.25		0.65	0.6510	0	99.8	90	110	03/01/2023
Batch R325452 SampTyp SampID: 23020845-002AMS	e: MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Nitrogen, Nitrite (as N)		0.05		0.49	0.5000	0	97.6	85	115	03/02/2023
Batch R325452 SampTyp	e: MSD		Units mg/L					RPD Lin	nit: 10	
SamplD: 23020845-002AMSD Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Date Analyzed
Nitrogen, Nitrite (as N)		0.05	-	0.50	0.5000	0	99.0	0.4880	1.42	03/02/2023
Batch R325452 SampTyp SampID: 23020845-003AMS	e: MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Nitrogen, Nitrite (as N)		0.05		0.49	0.5000	0.006000	96.8	85	115	03/02/2023
Batch R325452 SampTyp SampID: 23020845-003AMSD	e: MSD		Units mg/L					RPD Lin	nit: 10	Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Nitrogen, Nitrite (as N)	_ · · · ·	0.05	•	0.49	0.5000	0.006000	97.6	0.4900	0.81	03/02/202



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Cert Cert Cert Cert Cert Cert	RL 0.05 PTAL) 2 RL 0.050 0.050	Qual Units mg/L Qual 2000, 2011 Units mg/L	Result 0.49 Result 0.50 Result < 0.050 < 0.050	Spike 0.5000 Spike 0.5000 Spike 0.0090	SPK Ref Val 0 SPK Ref Val	98.8 %REC 99.8	Low Limit 85 RPD Lin RPD Ref Va 0.4940 Low Limit -100	al %RPD 1.01	Date Analyzed 03/02/2023 Date Analyzed 03/02/2023 Date Analyzed 03/02/2023
Cert O3 F (TO MBLK Cert	RL 0.05 OTAL) 2 RL 0.050 0.050	Units mg/L Qual 2000, 2011 Units mg/L Qual	Result 0.50 Result < 0.050	0.5000 Spike 0.5000 Spike	SPK Ref Val 0 SPK Ref Val	98.8 %REC 99.8 %REC	RPD Lin RPD Ref Va 0.4940 Low Limit	115 nit: 10 al %RPD 1.01 High Limit	Date Analyzed 03/02/2023 Date Analyzed 03/02/2023
Cert O3 F (TO MBLK Cert	RL 0.05 DTAL) :	Qual 2000, 2011 Units mg/L Qual	Result 0.50 Result < 0.050	Spike 0.5000 Spike	SPK Ref Val 0 SPK Ref Val	%REC 99.8 %REC	RPD Lin	nit: 10 al %RPD 1.01 High Limit	Date Analyzed 03/02/2023 Date Analyzed
Cert O3 F (TO MBLK Cert	RL 0.05 PTAL) 2 RL 0.050 0.050	Qual 2000, 2011 Units mg/L Qual	0.50 Result < 0.050	0.5000 Spike	0 SPK Ref Val	99.8 %REC	RPD Ref Va 0.4940 Low Limit	al %RPD 1.01 High Limit	03/02/2023 Date Analyzed 03/02/2023
O3 F (TO MBLK Cert	0.05 PTAL) : RL 0.050 0.050	2000, 2011 Units mg/L Qual	0.50 Result < 0.050	0.5000 Spike	0 SPK Ref Val	99.8 %REC	0.4940 Low Limit	1.01 High Limit	03/02/2023 Date Analyzed 03/02/2023
O3 F (TO MBLK Cert	0.05 PTAL) : RL 0.050 0.050	2000, 2011 Units mg/L Qual	0.50 Result < 0.050	0.5000 Spike	0 SPK Ref Val	99.8 %REC	0.4940 Low Limit	1.01 High Limit	03/02/2023 Date Analyzed 03/02/2023
MBLK Cert	RL 0.050 0.050	Units mg/L Qual	Result < 0.050	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed 03/02/2023
MBLK Cert	RL 0.050 0.050	Units mg/L Qual	Result < 0.050						Analyzed 03/02/2023
Cert	RL 0.050 0.050	Qual	< 0.050						Analyzed 03/02/2023
	0.050 0.050		< 0.050						Analyzed 03/02/2023
	0.050 0.050		< 0.050		0	0	-100	100	
_CS		Linita	< 0.050	0.0090	0	0	-100	100	03/03/303
LCS		Linita						-	03/02/2023
		Units mg/L							
									Date
Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
	0.050		0.522	0.5000	0	104.4	90	110	03/02/2023
MS		Units mg/L							
Court	DI	01	D14	C:1	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Cert	0.250	Quai	4.38	1.250	3.190	95.0	85	115	03/02/2023
MSD		Units mg/L					RPD Lin	nit: 10	
									Date
Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
	0.250		4.41	1.250	3.190	97.9	4.378	0.82	03/02/2023
MS		Units mg/L							
									Date
Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
М	Cert Cert	Cert RL 0.250 ISD Cert RL 0.250 IS Cert RL	Cert RL Qual 0.250 Units mg/L Cert RL Qual 0.250 Units mg/L Cert RL Qual	Cert RL Qual Result 0.250 4.38 ISD Units mg/L Cert RL Qual Result 0.250 4.41 IS Units mg/L Cert RL Qual Result	Cert RL Qual Result Spike 0.250 4.38 1.250 ISD Units mg/L Cert RL Qual Result Spike 0.250 4.41 1.250 IS Units mg/L Cert RL Qual Result Spike Cert RL Qual Result Spike	Cert RL Qual Result Spike SPK Ref Val 0.250 4.38 1.250 3.190 ISD Units mg/L Cert RL Qual Result Spike SPK Ref Val 0.250 4.41 1.250 3.190 IS Units mg/L Cert RL Qual Result Spike SPK Ref Val	Cert RL Qual Result Spike SPK Ref Val %REC 0.250 4.38 1.250 3.190 95.0 ISD Units mg/L Cert RL Qual Result Spike SPK Ref Val %REC 0.250 4.41 1.250 3.190 97.9 IS Units mg/L Cert RL Qual Result Spike SPK Ref Val %REC	Cert RL Qual Result Spike SPK Ref Val %REC Low Limit 0.250 4.38 1.250 3.190 95.0 85 ISD Units mg/L RPD Lin Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val 0.250 4.41 1.250 3.190 97.9 4.378 IS Units mg/L Cert RL Qual Result Spike SPK Ref Val %REC Low Limit	Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit 0.250 4.38 1.250 3.190 95.0 85 115 ISD Units mg/L RPD Limit: 10 Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD 0.250 4.41 1.250 3.190 97.9 4.378 0.82 IS Units mg/L Units mg/L



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Batch R325529 SampType	MSD		Units mg/L					RPD Lir	mit: 10	
SampID: 23020845-049AMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Nitrogen, Nitrate-Nitrite (as N)		0.250		3.02	1.250	1.734	103.0	3.011	0.36	03/02/202
SW-846 9012A (TOTAL)										
Batch 203485 SampType SampID: MBLK 230302 TCN1	MBLK		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Cyanide		0.005		< 0.005	0.0015	0	0	-100	100	03/03/202
Batch 203485 SampType SampID: LCS 230302 TCN1	LCS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Cyanide		0.005		0.024	0.0250	0	97.5	90	110	03/03/202
Batch 203485 SampType SampID: 23020845-007EMS	MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Cyanide		0.005		0.025	0.0250	0	99.5	75	125	03/03/202
Batch 203485 SampType	MSD		Units mg/L					RPD Lir	mit: 15	
SamplD: 23020845-007EMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Cyanide		0.005	R	0.020	0.0250	0	81.8	0.02488	19.53	03/03/202
Batch 203538 SampType SampID: MBLK 230303 TCN1	MBLK		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Cyanide		0.005		< 0.005	0.0015	0	0	-100	100	03/06/202
Batch 203538 SampType SampID: LCS 230303 TCN1	LCS		Units mg/L							Date
	~	DI	0 1	D 14	0.11	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Analyses	Cert	RL	Qual	Result	Spike	Of It Itel val	701 YEO	LOW LITTIL	riigii Liitiit	



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SW-846 9012A (TOTAL)										
Batch 203538 SampType:	MS		Units mg/L							
SampID: 23020845-035FMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Cyanide		0.005		0.025	0.0250	0	98.2	75	125	03/06/2023
Batch 203538 SampType:	MSD		Units mg/L					RPD Lir	nit: 15	
SamplD: 23020845-035FMSD	a .	DI	0 1	D 1:	g '1	CDK Dof Vol	0/ DEC	DDD Def V		Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V		•
Cyanide		0.005		0.022	0.0250	0	89.5	0.02454	9.21	03/06/2023
Batch 203538 SampType:	MS		Units mg/L							
SampID: 23020845-049DMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Cyanide		0.005	S	0.016	0.0250	0	62.8	75	125	03/06/2023
Batch 203538 SampType:	MSD		Units mg/L					RPD Lir	nit: 15	
SamplD: 23020845-049DMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Cyanide		0.005	R	0.023	0.0250	0	93.6	0.01570	39.42	03/06/2023
SW-846 9036 (DISSOLVED)										
Batch R325628 SampType: SampID: 23020845-002CMS	MS		Units mg/L							Date
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Sulfate		50	Q uui	168	100.0	75.21	93.1	85	115	03/06/2023
Batch R325628 SampType:	MSD		Units mg/L					RPD Lir	mit: 10	
SampID: 23020845-002CMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Sulfate		50		172	100.0	75.21	97.2	168.4	2.36	03/06/2023
Batch R325628 SampType:	MS		Units mg/L							
Batch R325628 SampType: SampID: 23020845-030CMS	MS		Units mg/L							Date
Dutti	MS Cert	RL	Units mg/L Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed



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SW-846 9036 (DIS	SOLVED)										
Batch R325628	SampType:	MSD		Units mg/L					RPD Lir	mit: 10	
SampID: 23020845-0	030CMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Sulfate			50		185	100.0	88.46	96.3	180.3	2.47	03/06/202
Batch R325628 SampID: 23020845-0	SampType: 034CMS	MS		Units mg/L							Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Sulfate			50		205	100.0	108.2	96.7	85	115	03/06/202
Batch R325628 SampID: 23020845-0	SampType:	MSD		Units mg/L					RPD Liı	mit: 10	Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Sulfate		Cort	50	Quui	207	100.0	108.2	98.4	204.9	0.83	03/06/202
SW-846 9036 (TOT	ΓAL)										
Batch R325628	SampType:	MBLK		Units mg/L							
SampID: ICB/MBLK											Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Sulfate			10		< 10	6.140	0	0	-100	100	03/06/202
Batch R325628 SampID: ICV/LCS	SampType:	LCS		Units mg/L							Data
Analyses		Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		Cort	10	Quai	21	20.00	0	104.6	90	110	03/06/202
Batch R325693	SampType:	MBLK		Units mg/L							
SampID: ICB/MBLK							00//0 ///				Date Analyzed
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val		Low Limit	Ū	•
Sulfate			10		< 10	6.140	0	0	-100	100	03/07/202
Batch R325693 SampID: ICV/LCS	SampType:	LCS		Units mg/L							Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Sulfate			10		20	20.00	0	100.5	90	110	03/07/202



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SW-846 9036 (TOTAL)										
Batch R325693 SampTyr SampID: 23020845-003AMS	e: MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Sulfate		50		215	100.0	129.4	85.6	85	115	03/07/2023
Batch R325693 SampTyp	e: MSD		Units mg/L					RPD Lir	nit: 10	
SamplD: 23020845-003AMSD	a	D.		D 1	a	CDK Dat Val	0/ DEC	DDD D-41/	-L 0/DDD	Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val		RPD Ref V		•
Sulfate		50		220	100.0	129.4	90.6	215.0	2.29	03/07/202
Batch R325693 SampTyp SampID: 23020845-024AMS	oe: MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Sulfate		50		208	100.0	108.0	100.4	85	115	03/07/202
Batch R325693 SampTyp	e: MSD		Units mg/L					RPD Lir	nit: 10	
SampID: 23020845-024AMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Sulfate		50		209	100.0	108.0	101.3	208.4	0.45	03/07/202
Batch R325693 SampTyp	e: MS		Units mg/L							
SampID: 23020845-030AMS						00//0 ///				Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val		Low Limit	High Limit	•
Sulfate		50		179	100.0	82.42	96.2	85	115	03/07/202
Batch R325693 SampTyp SamplD: 23020845-030AMSD	e: MSD		Units mg/L					RPD Lir	nit: 10	
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Date Analyzed
Sulfate		50	A 0001	182	100.0	82.42	99.3	178.7	1.71	03/07/202
Dutti	e: MBLK		Units mg/L							
SampID: ICB/MBLK	C	Di	0 1	Danile	G '1	SPK Ref Val	% DEC	Low Limit	High Limit	Date Analyzed
Analyses Sulfate	Cert	RL 10	Qual	Result	Spike 6.140	0	%REC 0	-100	100	03/08/202
		.0			3.140				.50	33,30,202
Batch R325765 SampTyp	e: LCS		Units mg/L							Date
SampID: ICV/LCS										
SampID: ICV/LCS Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed



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Batch R325765 SampType MSD	SW-846 9036 (TOTAL)										
Analyses		MS		Units mg/L							
Sulfate	SampID: 23020845-037AMS										
Batch R325765 SampType MSD	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
SampID: 23020845-037AMSD Oct 1 Cert 1 Qual Result Spike SpK Ref val MeEC RPD Ref val MePD	Sulfate		50		212	100.0	111.8	99.9	85	115	03/08/2023
Analyses	Batch R325765 SampType:	MSD		Units mg/L					RPD Lir	mit: 10	
Sulfate 50 209 100.0 111.8 97.3 211.7 1.21 03/08/202 SW-846 9066 (TOTAL) Batch R325651 SampType: MBLK Units mg/L SamplO: ICD/MBLK Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Phenols 0.005 40.005 0.0028 0 0 0 -100 100 03/08/202 Batch R325651 SampType: LCS Units mg/L SamplO: ICV/LCS Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyzed Phenols 0.005 0.005 0.0050 0 0 109.8 90 110 03/08/202 Batch R325651 SampType: MS Units µg/L SamplO: 23020845-051GMS Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyzed Phenols 5 55 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units µg/L SampIO: 23020845-051GMSD Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyzed Phenols 5 56 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units µg/L SampIO: 23020845-051GMSD Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzed Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008MS Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyzed Date Analyzed Ana	SampID: 23020845-037AMSD										
SW-846 9066 (TOTAL) SampType: MBLK Units mg/L SampType: MBLK Units mg/L SampType: MBLK Units mg/L SampType: Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyz	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Samp Samp	Sulfate		50		209	100.0	111.8	97.3	211.7	1.21	03/08/2023
SampID: ICB/MBLK Cert RL Qual Result Spike SPK Ref Val %REC Low Limit Low Limit High Limit Analyzed Date Analyzed Phenols 0.005 < 0.005	SW-846 9066 (TOTAL)										
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Phenols 0.005 0.005 0.005 0.0028 0 0 -100 100 03/06/202 Batch R325651 SampType: LCS Units mg/L SampType: Cert RL Oual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Phenols Cert RL Oual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Batch R32561 SampType: MS Units µg/L SampType SPK Ref Val %REC Low Limit High Limit Analyzed Phenols Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Batch R325651 SampType: MSD Units µg/L Spike SPK Ref Val %REC Low Limit High Limit A	2	MBLK		Units mg/L							
Phenols	SampID: ICB/MBLK										
Batch R325651 SampType: LCS	Analyses	Cert		Qual	Result		SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
SampID: ICV/ICS Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyzed Phenols 0.005 0.055 0.0500 0 109.8 90 110 03/06/202 Batch R325651 SampType: MS Units µg/L SampID: 23020845-051GMS SPK Ref Val %REC Low Limit High Limit Analyzed Phenols 5 5 55 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units µg/L RPD Limit: 15 Date Analyzed Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 Sw-846 9214 (DISSOLVED) SampType: MS Units mg/L Units mg/L SampType: MS Units mg/L Spike SPK R	Phenols		0.005		< 0.005	0.0028	0	0	-100	100	03/06/2023
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyzed Phenols 0.005 0.055 0.0550 0 109.8 90 110 03/06/202 Batch R325651 SampType: MS Units µg/L Spike SPK Ref Val %REC Low Limit High Limit Analyzed Phenols 5 5 55 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units µg/L RPD Limit: 15 RPD Limit: 15 Date Analyzed Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzed SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L Units mg/L Spike SPK Ref Val %REC Low Limit High Limit Date Analyzed Analyses Cert RL Qual Result Spike	240011	LCS		Units mg/L							
Phenols	SampID: ICV/LCS										
Batch R325651 SampType: MS Units μg/L SamplD: 23020845-051GMS Jate Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Analyzed Analyzed Phenols 5 55 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units μg/L RPD Limit: 15 Date Analyses Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzed Date Analyzed Analyzed Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Units mg/L Spike SPK Ref Val %REC Low Limit High Limit Analyzed Date Analyzed	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
SamplD: 23020845-051GMS Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Phenols 5 55 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units µg/L RPD Limit: 15 The Company of	Phenois		0.005		0.055	0.0500	0	109.8	90	110	03/06/2023
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed Phenols 5 55 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units μg/L RPD Limit: 15 Date SampID: 23020845-051GMSD Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzed Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Units mg/L Spike SPK Ref Val %REC Low Limit High Limit Date Analyzed	Batch R325651 SampType:	MS		Units µg/L							
Phenols 5 55 50.00 3.190 104.0 85 115 03/06/202 Batch R325651 SampType: MSD Units μg/L RPD Limit: 15 SampID: 23020845-051GMSD Date Analyses Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzed Analyzed Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Date Analyzed Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed	SampID: 23020845-051GMS										
Batch R325651 SampType: MSD Units µg/L RPD Limit: 15 SampID: 23020845-051GMSD Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD %RPD Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Units mg/L Spike SPK Ref Val %REC Low Limit High Limit High Limit Analyzed	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
SampID: 23020845-051GMSD Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzed Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed	Phenols		5		55	50.00	3.190	104.0	85	115	03/06/2023
Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzed Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202 SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed		MSD		Units µg/L					RPD Lir	mit: 15	
Phenols 5 56 50.00 3.190 104.7 55.20 0.65 03/06/202	SamplD: 23020845-051GMSD										
SW-846 9214 (DISSOLVED) Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Units mg/L Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Batch R325510 SampType: MS Units mg/L SampID: 23020845-008BMS Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed	Phenols		5		56	50.00	3.190	104.7	55.20	0.65	03/06/2023
SampID: 23020845-008BMS Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed	, , ,										
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzed	2 41011	MS		Units mg/L							Date
	Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	
	·						0.1350	105.4	75	125	03/02/202



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SW-846 9214 (DISSOLVED)										
Batch R325510 SampType	: MSD		Units mg/L					RPD Lim	it: 15	
SamplD: 23020845-008BMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	l %RPD	Analyzed
Fluoride		0.10		2.24	2.000	0.1350	105.5	2.242	0.13	03/02/2023
Batch R325510 SampType SampID: 23020845-039CMS	: MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Fluoride		0.10		2.37	2.000	0.2680	105.0	75	125	03/02/2023
Batch R325510 SampType	: MSD		Units mg/L					RPD Lim	it: 15	
SampID: 23020845-039CMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	l %RPD	Analyzed
Fluoride		0.10		2.43	2.000	0.2680	108.0	2.368	2.50	03/02/2023
SW-846 9214 (TOTAL)										
Batch R325510 SampType SampID: MBLK	: MBLK		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Fluoride		0.10		< 0.10	0.0370	0	0	-100	100	03/02/2023
Batch R325510 SampType SampID: LCS	: LCS		Units mg/L							Date
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Fluoride	CCIT	0.10	Quui	1.05	1.000	0	105.3	90	110	03/02/2023
Batch R325510 SampType	: MS		Units mg/L							
SampID: 23020845-009AMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Fluoride		0.10		2.22	2.000	0.1560	103.4	75	125	03/02/2023
Batch R325510 SampType	: MSD		Units mg/L					RPD Lim	it: 15	
SampID: 23020845-009AMSD Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	I %RPD	Date Analyzed
				2.13		0.1560				03/02/2023



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MS		Units mg/L							Date
Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
	0.10		2.17	2.000	0.1270	102.0	75	125	03/02/202
MSD		Units mg/L					RPD Lir	nit: 15	
C	DI	0 .1	D 1	G 11	SDK Dof Val	% DEC	PPD Pof V	al % DDD	Date Analyzed
Cert	0.10	Quai	2.24	2.000	0.1270	105.4	2.168	3.04	03/02/202
MS		Units mg/L							
Comt	DI	Oval	Dogult	Cmileo	SPK Rof Val	%REC	Low Limit	High Limit	Date Analyzed
Cert	0.10	Quai	2.15	2.000	0.1410	100.2	75	125	03/02/202
MSD		Units ma/L					RPD Lir	nit: 15	
	DI		D 1:	g '1	CDV Det Vel	0/ DEC			Date Analyzed
Cert		Qual							03/02/202
MS		Units mg/L							Date
Cert		Qual		·					Analyzed
	0.10		2.28	2.000	0.1490	106.8	75	125	03/02/202
MSD		Units mg/L					RPD Lir	nit: 15	Date
Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
	0.10		2.24	2.000	0.1490	104.6	2.284	1.95	03/02/202
MS		Units mg/L							Date
MS Cert	RL	Units mg/L Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
	RL 0.10		Result	Spike 2.000	SPK Ref Val 0.1400	%REC 91.6	Low Limit 75	High Limit	
								125	Analyzed
Cert		Qual				91.6	75	125 nit: 15	Analyzed
	MSD Cert MSD Cert MSD Cert	Cert RL 0.10 MSD MS Cert RL 0.10 MSD Cert RL 0.10 MS Cert RL 0.10 MSD Cert RL 0.10 MSD Cert RL 0.10	Cert RL Qual MSD Units mg/L Cert RL Qual 0.10 Units mg/L MS RL Qual 0.10 Units mg/L Cert RL Qual 0.10 Units mg/L MS Units mg/L Cert RL Qual 0.10 Units mg/L MSD Units mg/L MSD Units mg/L MSD Units mg/L	Cert RL Qual point Result point MSD Units mg/L Units mg/L Cert RL Qual point Result point MS Units mg/L Units mg/L MSD Units mg/L Units mg/L Cert RL Qual point Result point 0.10 2.14 MS Units mg/L Units mg/L Cert RL Qual point Result point 0.10 2.28 Units mg/L Units mg/L Cert RL Qual point Result point Cert RL Qual point Result point Cert RL Qual point Result point	Cert RL Qual Result 2.17 Spike 2.000 MSD Units mg/L Cert RL Qual Result 2.000 MS Units mg/L Spike 2.24 2.000 MS Units mg/L Units mg/L Spike 2.15 2.000 MSD Units mg/L Units mg/L Spike 2.14 2.000 MS Units mg/L Units mg/L Spike 2.28 2.000 MSD Units mg/L Units mg/L Spike 2.28 2.000 MSD Units mg/L Spike 2.28 2.000	Cert RL Qual 2.17 Spike 2.000 SPK Ref Val 2.000 MSD Units mg/L SPK Ref Val 2.000 Cert RL Qual Result Spike 2.24 SPK Ref Val 2.000 MS Units mg/L SPK Ref Val 2.000 SPK Ref Val 2.000 MSD Units mg/L Spike SPK Ref Val 2.000 SPK Ref Val 2.000 MS Units mg/L Spike SPK Ref Val 2.000 SPK Ref Val 2.000 MS Units mg/L Spike SPK Ref Val 2.000 SPK Ref Val 2.000 MSD Units mg/L Spike SPK Ref Val 2.000 SPK Ref Val 2.000 MSD Units mg/L Spike SPK Ref Val 2.000 SPK Ref Val 2.000 MSD Units mg/L Spike SPK Ref Val 2.000 SPK Ref Val 2.000	Cert RL Qual Result Spike SPK Ref Val %REC MSD Units mg/L 2.17 2.000 0.1270 102.0 MSD Units mg/L Spike SPK Ref Val %REC Cert RL Qual Result Spike SPK Ref Val %REC MS Units mg/L Spike SPK Ref Val %REC 0.10 Result Spike SPK Ref Val %REC MSD Units mg/L Spike SPK Ref Val %REC Cert RL Qual Result Spike SPK Ref Val %REC MSD Units mg/L Spike SPK Ref Val %REC Cert RL Qual Result Spike SPK Ref Val %REC MSD Units mg/L 2.28 2.000 0.1490 106.8 MSD Units mg/L Spike SPK Ref Val %REC	Cert RL Qual Result Spike SPK Ref Val %REC Low Limit MSD Units mg/L 2.17 2.000 0.1270 102.0 75 MSD Units mg/L Spike SPK Ref Val %REC RPD Ref Val Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val MS Units mg/L Spike SPK Ref Val %REC Low Limit Cert RL Qual Result Spike SPK Ref Val %REC Low Limit MSD Units mg/L 2.14 2.000 0.1410 100.0 2.146 MS Units mg/L Spike SPK Ref Val %REC RPD Ref Val MS Units mg/L Spike SPK Ref Val %REC Low Limit Cert RL Qual Result Spike SPK Ref Val %REC Low Limit MSD Units mg/L Spike SPK Ref Val %REC Low Limit	Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit MSD Units mg/L 2.17 2.000 0.1270 102.0 75 125 MSD Units mg/L FRPD Limit 15 RPD Ref Val %REC RPD Ref Val %RPD 0.10 Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD MS Units mg/L 2.15 2.000 0.1410 100.2 75 125 MSD Units mg/L FRPD Ref Val %REC Low Limit High Limit A construction of the properties of the p



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SW-846 9214 (TOTAL)										
Batch R325510 SampType:	MS		Units mg/L							
SampID: 23020845-051AMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Fluoride		0.10		2.00	2.000	0	100.0	75	125	03/02/2023
Batch R325510 SampType:	MSD		Units mg/L					RPD Lir	nit: 15	
SamplD: 23020845-051AMSD										Date
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Fluoride		0.10		2.05	2.000	0	102.7	2.000	2.66	03/02/2023
SW-846 9251 (DISSOLVED)										
Batch R325629 SampType:	MS		Units mg/L							
SampID: 23020845-002CMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride		20		179	100.0	88.87	89.7	85	115	03/06/2023
Batch R325629 SampType:	MSD		Units mg/L					RPD Lir	nit: 15	
SamplD: 23020845-002CMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Chloride		20		178	100.0	88.87	89.5	178.5	0.10	03/06/2023
Batch R325629 SampType:	MS		Units mg/L							
SampID: 23020845-030CMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride		20		195	100.0	102.4	92.6	85	115	03/06/2023
Batch R325629 SampType:	MSD		Units mg/L					RPD Lir	nit: 15	
SamplD: 23020845-030CMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Chloride		20		192	100.0	102.4	89.2	195.1	1.78	03/06/2023
Batch R325629 SampType:	MS		Units mg/L							
SampID: 23020845-034CMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride		20		181	100.0	86.13	94.7	85	115	03/06/2023



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	SOLVED)										
Batch R325629	SampType:	MSD		Units mg/L					RPD Lim	it: 15	
SampID: 23020845-0	034CMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	l %RPD	Analyzed
Chloride			20		179	100.0	86.13	92.9	180.8	0.97	03/06/2023
Batch R325696 SampID: 23020845-0	SampType: 013BMS	MS		Units mg/L							Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride			5		190	100.0	98.15	91.5	85	115	03/07/2023
Batch R325696	SampType:	MSD		Units mg/L					RPD Lim	it: 15	
SampID: 23020845-0	013BMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	l %RPD	Analyzed
Chloride			5		190	100.0	98.15	92.0	189.6	0.26	03/07/2023
SW-846 9251 (TOT	ſAL)										
Batch R325629 SampID: ICB/MBLK	SampType:	MBLK		Units mg/L							Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride			4		< 4	0.5000	0	0	-100	100	03/06/2023
Batch R325629 SampID: ICV/LCS	SampType:	LCS		Units mg/L							Date
Analyses		Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride			4		21	20.00	0	103.1	90	110	03/06/2023
Batch R325696	SampType:	MBLK		Units mg/L							
SampID: ICB/MBLK							00140 4341	0/550			Date Analyzed
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val			High Limit	•
Chloride			1		<1	0.5000	0	0	-100	100	03/07/2023
Batch R325696 SampID: ICV/LCS	SampType:	LCS		Units mg/L							Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride			1		20	20.00	0	99.8	90	110	03/07/2023



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SW-846 9251 (TOTAL)										
Batch R325696 SampType: SampID: 23020845-024AMS	MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride		5		195	100.0	104.4	90.6	85	115	03/07/202
Batch R325696 SampType:	MSD		Units mg/L					RPD Lir	nit: 15	
SampID: 23020845-024AMSD	~				~	0DK D - () /-1	0/050	DDD D-()/	-I 0/DDD	Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val		RPD Ref V		
Chloride		5		195	100.0	104.4	90.6	195.0	0.03	03/07/202
Batch R325696 SampType: SampID: 23020845-030AMS	MS		Units mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride		5	-	219	100.0	130.4	89.0	85	115	03/07/202
Batch R325696 SampType:	MSD		Units mg/L					RPD Lir	mit: 15	
SampID: 23020845-030AMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Chloride		5		218	100.0	130.4	87.2	219.4	0.82	03/07/202
Batch R325771 SampType:	MBLK		Units mg/L							
SampID: ICB/MBLK										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride		1		< 1	0.5000	0	0	-100	100	03/08/202
Batch R325771 SampType: SampID: ICV/LCS	LCS		Units mg/L							5.
Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride	CCIT	1	Quui	20	20.00	0	99.0	90	110	03/08/202
Batch R325771 SampType:	MS		Units mg/L							
SampID: 23020845-003AMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Chloride		20		590	400.0	226.8	90.7	85	115	03/08/202
Batch R325771 SampType:	MSD		Units mg/L					RPD Lir	mit: 15	
SampID: 23020845-003AMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Chloride		20		593	400.0	226.8	91.5	589.7	0.54	03/08/202



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Batch R325771 sampType: MS Units mg/L Sprike Sprike Walk of the building of the bui	SW-846 9251 (TOTAL)											
Analyses Cert RL Qual Result Spike SPK Ref val %REC Low Limit High Limit Analyse Chloride 5 204 100.0 113.2 90.4 85 115 03/08/ Batch R326771 SampType: MSD Units mg/L Feet Ref Val %REC RPD Limit: 15 SampID: 20200845-037AMSD SampID: Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Re	, ,		MS		Units mg/L							
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyse Chloride 5 204 100.0 113.2 90.4 85 115 0308/ Batch R325771 SampType: MSD Units mg/L FRPD Limit 15 Low Limit HgPD Limit 15 SampTye: Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyse Chloride 5 200 100.0 113.2 87.0 203.5 1.68 03/08/ SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED) Batch 203472 SampType: MBLK Units mg/L SampType: MSK Units mg/L Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyses Date Analyses Cert RL Qual <t< td=""><td></td><td>MS</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Date</td></t<>		MS										Date
Chloride	Analyses		Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
SampID: 23020845-037AMSD Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyses Analyses 5 200 100.0 113.2 87.0 203.5 1.68 03/08/ SW-846 3005A, 6010B, METALS BY ICP (DISSULVED) Batch 203472 SampType: MBLK Units mg/L Spike SPK Ref Val %REC Low Limit High Limit Analyses Calcium 0.100 0.100 0.0350 0 0 -100 100 03/09/ Magnesium 0.050 Vulits mg/L Vuli							•	113.2	90.4	85	115	03/08/202
Analyses			MSD		Units mg/L					RPD Lir	mit: 15	
Chloride 5 200 100.0 113.2 87.0 203.5 1.68 03/08/ SW-846 3005A, 6010B, METALS BY ICP (DISSOLVED) Batch 203472 SampType: MBLK Calcium 0.100 < 0.100 0.0350 0 0 -100 100 03/09/ Magnesium 0.050 < 0.050 0.0055 0 0 0 -100 100 03/09/ Batch 203472 SampType: LCS Units mg/L SampID: LCS-203472 Analyses Cert RL Qual Result Spike SPK Ref Val REC Low Limit High Limit Analyz Calcium 0.100 2.54 2.500 0 101.5 85 115 03/09/ Magnesium 0.050 2.31 2.500 0 92.2 85 115 03/09/ Batch 203472 SampType: MS Units mg/L SampID: 23020845-005DMS Analyses Cert RL Qual Result Spike SPK Ref Val REC Low Limit High Limit Analyz Calcium 0.100 2.54 2.500 0 101.5 85 115 03/09/ Batch 203472 SampType: MS Units mg/L Calcium 0.050 2.31 2.500 0 92.2 85 115 03/09/ Magnesium 0.050 S 74.3 2.500 73.42 35.6 75 125 03/09/ Magnesium 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/ Magnesium 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/ Batch 203472 SampType: MSD Units mg/L SampID: 23020845-005DMSD Analyses Cert RL Qual Result Spike SPK Ref Val REC Low Limit High Limit Analyz Calcium 0.100 S 74.3 2.500 73.42 35.6 75 125 03/09/ Magnesium 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/ Batch 203472 SampType: MSD Units mg/L SampID: 23020845-005DMSD Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val Rec RPD Ref Val RPD Date Analyses Cert RL Qual Result Spike SPK Ref Val Rec RPD Ref Val RPD Date Analyses Cert RL Qual Res	•	MSD	Cont	DI	Oval	Dogult	Cmileo	SPK Rof Val	%REC	RPD Ref V	al %RPD	Date Analyzed
Batch 203472 SampType: MBLK Units mg/L SampID: MBLK-203472 MBLK-203472 MBLK-203472 MREC Low Limit High Limit Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyses Calcium 0.050 0.050 < 0.050	,		Cert		Quai		•					03/08/202
Batch 203472 SampType: MBLK Units mg/L SampID: MBLK-203472 SampID: MBLK-203472 Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyses Calcium 0.050 < 0.100	SW-846 3005A. 6010B	. METAL	_S BY ICF	(DISS	OLVED)							
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzes Calcium 0.100 < 0.100	Batch 203472 San			•								Date
Magnesium 0.050 < 0.050 0.050 0.055 0 0 -100 100 03/09/ Batch 203472 SampType: LCS Units mg/L SampID: LCS-203472 Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit High Limit Analyses Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Date Analyses Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyses Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyses RPD Limit 20 Batch 203472 SampType: MSD Units mg/L SampID: 2.500 27.39 69.3 75 125 03/09/ Batch 203472 SampType: MSD Units mg/L RPD Limit: 20 SampID: 23020845-005DMSD Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyses Date Analyses Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyses Date Analyses O.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/	Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Batch 203472 SampType: LCS Units mg/L Spike SPK Ref Val %REC Low Limit High Limit Analyzes Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzes Calcium 0.100 2.54 2.500 0 101.5 85 115 03/09/	Calcium			0.100		< 0.100	0.0350	0	0	-100	100	03/09/202
Date	Magnesium			0.050		< 0.050	0.0055	0	0	-100	100	03/09/202
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzes Calcium 0.100 2.54 2.500 0 101.5 85 115 03/09/ Magnesium 0.050 2.31 2.500 0 92.2 85 115 03/09/ Batch 203472 SampType: MS Units mg/L Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyses Calcium 0.100 S 74.3 2.500 73.42 35.6 75 125 03/09/ Batch 203472 SampType: MSD Units mg/L RPD Limit: 20 SampID: 23020845-005DMSD Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyses Calcium 0.100 75.4 2.500 73.42		прТуре:	LCS	ı	Units mg/L							Data
Magnesium 0.050 2.31 2.500 0 92.2 85 115 03/09/st Batch 203472 SampType: MS Units mg/L Analyses Cert RL Qual Result Spike SPK Ref Val REC Low Limit High Limit Analyzes Date Analyzes Calcium 0.100 S 74.3 2.500 73.42 35.6 75 125 03/09/st Magnesium 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/st Batch 203472 SampType: MSD SampID: 23020845-005DMSD Units mg/L RPD Limit: 20 SampID: 23020845-005DMSD Date Analyzes Cert RL Qual Result Spike SPK Ref Val REC RPD Ref Val RPD Analyzes RPD Ref Val Republication Repu	Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Batch 203472 SampType: MS Units mg/L SampID: 23020845-005DMS Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzes Date Analyzes Calcium 0.100 S 74.3 2.500 73.42 35.6 75 125 03/09/ 75 125 03/09/ Magnesium 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/ 75 125 03/09/ Batch 203472 SampType: MSD Units mg/L RPD Limit: 20 SampID: 23020845-005DMSD Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzes Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/	Calcium			0.100		2.54	2.500	0	101.5	85	115	03/09/202
Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyzes Calcium 0.100 S 74.3 2.500 73.42 35.6 75 125 03/09/ses 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/ses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Date Analyzes Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzes Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/ses Calcium 0.100 75.4 2.500	Magnesium			0.050		2.31	2.500	0	92.2	85	115	03/09/202
Analyses Cert RL Qual Result Spike SPK Ref Val %REC Low Limit High Limit Analyze Calcium 0.100 S 74.3 2.500 73.42 35.6 75 125 03/09/ Magnesium 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/ Batch 203472 SampType: MSD Units mg/L RPD Limit: 20 SampID: 23020845-005DMSD Date Analyzes Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyze Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/			MS	I	Units mg/L							Doto
Calcium 0.100 S 74.3 2.500 73.42 35.6 75 125 03/09/st Magnesium 0.050 S 29.1 2.500 27.39 69.3 75 125 03/09/st Batch 203472 SampType: MSD Units mg/L RPD Limit: 20 SampID: 23020845-005DMSD Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyses Cert No.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/st	·		Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Batch 203472 SampType: MSD Units mg/L RPD Limit: 20 SampID: 23020845-005DMSD Date Analyses Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzer Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/				0.100	S	74.3	2.500	73.42	35.6	75	125	03/09/202
SampID: 23020845-005DMSD Date Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyzer Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/	Magnesium			0.050	S	29.1	2.500	27.39	69.3	75	125	03/09/202
Analyses Cert RL Qual Result Spike SPK Ref Val %REC RPD Ref Val %RPD Analyze Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/			MSD		Units mg/L					RPD Lir	mit: 20	
Calcium 0.100 75.4 2.500 73.42 80.4 74.31 1.50 03/09/		DIMSD	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Date Analyzed
Magnesium 0.050 29.7 2.500 27.39 92.5 29.12 1.97 03/09/	Calcium			0.100		75.4	2.500	73.42	80.4	74.31	1.50	03/09/202
	Magnesium			0.050		29.7	2.500	27.39	92.5	29.12	1.97	03/09/202



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Batch 203473 SampType:	MBLK	·	Jnits mg/L							
SamplD: MBLK-203473										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/03/202
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/03/2023
Batch 203473 SampType: SampID: LCS-203473	LCS	l	Jnits mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100		2.45	2.500	0	97.9	85	115	03/03/2023
Magnesium		0.0500		2.41	2.500	0	96.6	85	115	03/03/2023
Batch 203473 SampType: SampID: 23020845-051EMS	MS	l	Jnits mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100		2.44	2.500	0	97.6	75	125	03/03/202
Magnesium		0.050		2.40	2.500	0	96.1	75	125	03/03/2023
Batch 203473 SampType:	MSD	ι	Jnits mg/L					RPD Lir	nit: 20	
SamplD: 23020845-051EMSD Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Date Analyzed
Calcium		0.100		2.45	2.500	0	97.8	2.439	0.29	03/03/202
Magnesium		0.050		2.43	2.500	0	97.1	2.403	1.03	03/03/2023
SW-846 3005A, 6010B, META	LS BY ICF	P (TOTA	L)							
Batch 203466 SampType: SampID: MBLK-203466	MBLK	ι	Jnits mg/L							Date
	~	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Analyses	Cert	ILL								
· · · · · · · · · · · · · · · · · · ·	Cert	0.100	Quui	< 0.100	0.0350	0	0	-100	100	03/03/202
Calcium	Cert		Quui		0.0350 0.0055	0	0	-100 -100	100 100	03/03/202 03/03/202
Analyses Calcium Magnesium Potassium	Cert	0.100	Quai	< 0.100		-	•			



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SW-846 3005A, 601	IOB, METAI	S BY ICP	(TOTA	L)							
	SampType:	LCS	L	Inits mg/L							
SamplD: LCS-203466	6										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium			0.100		2.65	2.500	0	106.1	85	115	03/03/202
Magnesium			0.050		2.63	2.500	0	105.2	85	115	03/03/2023
Potassium			0.100		2.52	2.500	0	101.0	85	115	03/03/2023
Sodium			0.050		2.50	2.500	0	100.1	85	115	03/03/202
Batch 203466	SampType:	MS	L	Jnits mg/L							
SampID: 23020845-0	07CMS										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium			0.100		102	2.500	99.38	120.8	75	125	03/03/2023
Magnesium			0.050		36.2	2.500	33.39	114.4	75	125	03/03/2023
Potassium			0.100		7.73	2.500	4.797	117.4	75	125	03/06/202
Sodium			0.050		60.0	2.500	57.31	107.2	75	125	03/03/202
D / 1 000400	Samue Tyrna.	MCD		loito/I					RPD Lir	mit. 20	
Batch 	SampType: 07CMSD	MSD	C	Jnits mg/L					RPD LII	niit. 20	Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Calcium			0.100	S	103	2.500	99.38	136.8	102.4	0.39	03/03/2023
Magnesium			0.050		36.2	2.500	33.39	114.4	36.25	0.00	03/03/2023
Potassium			0.100		7.42	2.500	4.797	105.1	7.731	4.05	03/06/202
Sodium			0.050		60.2	2.500	57.31	116.0	59.99	0.37	03/03/2023
Batch 203466	SampType:	MS	L	Jnits mg/L							
SampID: 23020845-0	23BMS										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium			0.100	S	90.9	2.500	87.61	130.8	75	125	03/03/2023
Magnesium			0.050		32.2	2.500	29.43	110.0	75	125	03/03/202
Potassium			0.100		8.52	2.500	5.864	106.4	75	125	03/06/202
Sodium			0.050		54.1	2.500	51.50	104.8	75	125	03/03/202
Batch 203466	SampType:	MSD	L	Jnits mg/L					RPD Lir	nit: 20	
SampID: 23020845-0											Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Calcium			0.100		90.2	2.500	87.61	101.6	90.88	0.81	03/03/202
Magnesium			0.050		31.9	2.500	29.43	98.4	32.18	0.91	03/03/202
Potassium			0.100		8.42	2.500	5.864	102.4	8.523	1.16	03/06/202



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Batch 203468 SampType	e: MBLK	ι	Jnits mg/L							
SampID: MBLK-203468										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/03/2023
Magnesium		0.050		< 0.050	0.0055	0	0	-100	100	03/03/2023
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/06/2023
Sodium		0.050		< 0.050	0.0180	0	0	-100	100	03/03/2023
Batch 203468 SampType SampID: LCS-203468	e: LCS	l	Jnits mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100		2.66	2.500	0	106.5	85	115	03/03/2023
Magnesium		0.050		2.62	2.500	0	104.6	85	115	03/03/2023
Potassium		0.100		2.56	2.500	0	102.4	85	115	03/06/2023
Sodium		0.050		2.50	2.500	0	100.1	85	115	03/03/2023
Batch 203468 SampType SampID: 23020845-032CMS Analyses	e: MS	RL	Jnits mg/L Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Calcium	CCIT	0.100	S	96.7	2.500	89.90	270.4	75	125	03/03/2023
Magnesium		0.050	S	35.0	2.500	31.33	146.4	75	125	03/03/2023
Potassium		0.500		11.4	2.500	8.785	105.6	75	125	03/06/2023
Sodium		0.050	S	50.2	2.500	45.92	173.2	75	125	03/03/2023
Batch 203468 SampType	e: MSD	l	Jnits mg/L					RPD Lir	nit: 20	
SampID: 23020845-032CMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Calcium		0.100	S	97.7	2.500	89.90	312.4	96.66	1.08	03/03/202
Magnesium		0.050	S	35.4	2.500	31.33	164.0	34.99	1.25	03/03/2023
Potassium		0.500		11.1	2.500	8.785	91.6	11.42	3.11	03/06/202
Sodium		0.050	S	51.0	2.500	45.92	204.4	50.25	1.54	03/03/202
Batch 203468 SampTyp SampID: 23020845-043BMS	e: MS	ι	Jnits mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100	S	110	2.500	105.8	168.0	75	125	03/03/202
Magnesium		0.050		2.90	2.500	0.2942	104.3	75	125	03/03/202
Potassium		1.00		28.0	2.500	25.07	117.6	75	125	03/06/202
Sodium		0.050	S	123	2.500	118.6	188.0	75	125	03/03/202



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, ,	METALS BY IC	P (IOIA	L)							
Batch 203468 Samp	Type: MSD	ι	Jnits mg/L					RPD Lin	nit: 20	
SampID: 23020845-043BM Analyses	SD Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Date Analyzed
Calcium	341	0.100	S	110	2.500	105.8	180.0	110.0	0.27	03/03/202
Magnesium		0.050		2.88	2.500	0.2942	103.4	2.901	0.80	03/03/202
Potassium		1.00		27.0	2.500	25.07	79.2	28.01	3.49	03/06/202
Sodium		0.050	S	124	2.500	118.6	208.0	123.3	0.40	03/03/202
Batch 203617 Samp SampID: MBLK-203617	Type: MBLK	l	Jnits mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100		< 0.100	0.0350	0	0	-100	100	03/08/202
Magnesium		0.0500		< 0.0500	0.0055	0	0	-100	100	03/08/202
Potassium		0.100		< 0.100	0.0400	0	0	-100	100	03/08/202
Sodium		0.0500		< 0.0500	0.0180	0	0	-100	100	03/08/202
Batch 203617 Samp SamplD: LCS-203617	Type: LCS	l	Jnits mg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100		2.59	2.500	0	103.6	85	115	03/08/202
Magnesium		0.0500		2.59	2.500	0	103.7	85	115	03/08/202
Potassium		0.100		2.55	2.500	0	102.0	85	115	03/08/202
Sodium		0.0500		2.42	2.500	0	96.7	85	115	03/08/202
	Type: MS	l	Jnits mg/L							
SampID: 23020845-023BM	S									Date
Analyses	Cert		Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Calcium		0.100	S	92.6	2.500	87.27	215.2	75	125	03/08/202
Magnesium		0.050	S	35.0	2.500	29.46	220.0	75	125	03/08/202
Sodium		0.050	S	55.6	2.500	50.52	204.4	75	125	03/08/202
	Type: MSD	l	Jnits mg/L					RPD Lin	nit: 20	Date
Batch 203617 Samp SamplD: 23020845-023BM	SD							555 5 414		
SampID: 23020845-023BM		RL	Oual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
	SD Cert	RL 0.100	Qual S	Result 92.6	Spike 2.500	SPK Ref Val 87.27	%REC 215.2	92.65	0.00	
SampID: 23020845-023BM Analyses										03/08/202 03/08/202



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SW-846 3005A, 6020A, META	LS BY ICP	MS (DI	SSOLVED)						
Batch 203472 SampType:	MBLK	l	Jnits µg/L							
SampID: MBLK-203472										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Aluminum		25.0		< 25.0	12.50	0	0	-100	100	03/02/2023
Antimony		1.0		< 1.0	0.4500	0	0	-100	100	03/02/2023
Arsenic		1.0		< 1.0	0.3750	0	0	-100	100	03/02/2023
Barium		1.0		< 1.0	0.7000	0	0	-100	100	03/02/2023
Beryllium		1.0		< 1.0	0.2500	0	0	-100	100	03/02/2023
Boron		25.0		< 25.0	9.250	0	0	-100	100	03/02/2023
Cadmium		1.0		< 1.0	0.1340	0	0	-100	100	03/02/2023
Chromium		1.5		< 1.5	0.7000	0	0	-100	100	03/02/2023
Cobalt		1.0		< 1.0	0.1150	0	0	-100	100	03/02/2023
Copper		1.0		< 1.0	0.3000	0	0	-100	100	03/02/2023
Iron		25.0		< 25.0	11.50	0	0	-100	100	03/02/2023
Lead		1.0		< 1.0	0.6000	0	0	-100	100	03/02/2023
Manganese		2.0		< 2.0	0.7500	0	0	-100	100	03/02/2023
Molybdenum		1.5		< 1.5	0.6000	0	0	-100	100	03/02/2023
Nickel		1.0		< 1.0	0.4300	0	0	-100	100	03/02/2023
Selenium		1.0		< 1.0	0.6000	0	0	-100	100	03/02/2023
Silver		1.0		< 1.0	0.1000	0	0	-100	100	03/02/2023
Thallium		2.0		< 2.0	0.9500	0	0	-100	100	03/02/2023
Vanadium		5.0		< 5.0	5.000	0	0	-100	100	03/02/2023
Zinc		15.0		< 15.0	5.900	0	0	-100	100	03/02/2023



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SW-846 3005A, 6020A, METAL	LS BY ICP	MS (DIS	SSOLVED)						
Batch 203472 SampType:	LCS	ι	Jnits μg/L							
SampID: LCS-203472										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Aluminum		25.0		1750	2000	0	87.7	80	120	03/03/2023
Antimony		1.0		542	500.0	0	108.4	80	120	03/02/2023
Arsenic		1.0		555	500.0	0	111.1	80	120	03/02/2023
Barium		1.0		2270	2000	0	113.3	80	120	03/02/2023
Beryllium		1.0		53.8	50.00	0	107.7	80	120	03/02/2023
Boron		25.0		550	500.0	0	109.9	80	120	03/02/2023
Cadmium		1.0		54.4	50.00	0	108.7	80	120	03/02/2023
Chromium		1.5		223	200.0	0	111.6	80	120	03/02/2023
Cobalt		1.0		572	500.0	0	114.3	80	120	03/02/2023
Copper		1.0		292	250.0	0	116.8	80	120	03/02/2023
Iron		25.0		2260	2000	0	113.0	80	120	03/02/2023
Lead		1.0		559	500.0	0	111.8	80	120	03/02/2023
Manganese		2.0		559	500.0	0	111.8	80	120	03/02/2023
Molybdenum		1.5		538	500.0	0	107.5	80	120	03/02/2023
Nickel		1.0		572	500.0	0	114.4	80	120	03/02/2023
Selenium		1.0		515	500.0	0	103.1	80	120	03/02/2023
Silver		1.0		58.9	50.00	0	117.9	80	120	03/02/2023
Thallium		2.0		276	250.0	0	110.6	80	120	03/02/2023
Vanadium		5.0		544	500.0	0	108.8	80	120	03/02/2023
Zinc		15.0		531	500.0	0	106.2	80	120	03/02/2023



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SW-846 3005A, 6020A, METAL	S BY ICP	MS (DI	SSOLVED)						
Batch 203472 SampType:	MS	ι	Jnits µg/L							
SampID: 23020845-005DMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Aluminum		25.0		1710	2000	0	85.7	75	125	03/03/2023
Antimony		1.0		590	500.0	0.5607	117.9	75	125	03/02/2023
Arsenic		1.0		600	500.0	0	119.9	75	125	03/02/2023
Barium		1.0		1840	2000	49.50	89.5	75	125	03/03/2023
Beryllium		1.0		45.4	50.00	0	90.8	75	125	03/03/2023
Boron		25.0		646	500.0	175.6	94.0	75	125	03/06/2023
Cadmium		1.0		58.9	50.00	0	117.7	75	125	03/02/2023
Chromium		1.5		177	200.0	0	88.5	75	125	03/03/2023
Cobalt		1.0		572	500.0	0	114.4	75	125	03/02/2023
Copper		1.0		286	250.0	0.7983	114.1	75	125	03/02/2023
Iron		25.0		1790	2000	0	89.7	75	125	03/03/2023
Lead		1.0		592	500.0	0	118.4	75	125	03/02/2023
Manganese		2.0		579	500.0	0	115.9	75	125	03/02/2023
Molybdenum		1.5		611	500.0	19.68	118.3	75	125	03/02/2023
Nickel		1.0		573	500.0	0.7214	114.4	75	125	03/02/2023
Selenium		1.0		560	500.0	0.7404	111.9	75	125	03/02/2023
Silver		1.0		59.8	50.00	0	119.5	75	125	03/02/2023
Thallium		2.0		224	250.0	0	89.5	75	125	03/03/2023
Zinc		15.0		561	500.0	0	112.1	75	125	03/02/2023



Boron

Quality Control Results

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Client: Ramboll Work Order: 23020845
Client Project: HEN-23Q1 Report Date: 14-Apr-23

Satch 203472 SampType:	MSD		Units µg/L					RPD Lir	nit: 20	
amplD: 23020845-005DMSD Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Date Analyzed
Aluminum		25.0	4	1830	2000	0	91.6	1714	6.73	03/03/202
Antimony		1.0		490	500.0	0.5607	97.8	590.1	18.57	03/02/202
Arsenic		1.0		505	500.0	0	101.0	599.6	17.11	03/02/202
Barium		1.0		1920	2000	49.50	93.8	1839	4.59	03/03/202
Beryllium		1.0		48.5	50.00	0	97.0	45.41	6.61	03/03/202
Boron		25.0		698	500.0	175.6	104.4	645.7	7.76	03/06/202
Cadmium		1.0		48.4	50.00	0	96.7	58.87	19.62	03/02/202
Chromium		1.5		189	200.0	0	94.6	177.0	6.60	03/03/202
Cobalt		1.0		478	500.0	0	95.6	571.9	17.89	03/02/202
Copper		1.0		240	250.0	0.7983	95.6	286.1	17.60	03/02/202
ron		25.0		1900	2000	0	94.9	1794	5.66	03/03/202
Lead		1.0		490	500.0	0	98.0	592.1	18.87	03/02/202
Manganese		2.0		481	500.0	0	96.1	579.4	18.64	03/02/202
Molybdenum		1.5		505	500.0	19.68	97.1	611.1	18.95	03/02/202
Nickel		1.0		473	500.0	0.7214	94.5	572.8	19.08	03/02/202
Selenium		1.0		466	500.0	0.7404	93.1	560.2	18.29	03/02/202
Silver		1.0		50.4	50.00	0	100.8	59.77	17.03	03/02/202
Thallium		2.0		243	250.0	0	97.0	223.7	8.08	03/03/202
Zinc		15.0		466	500.0	0	93.1	560.6	18.50	03/02/202
Satch 203472 SampType: amplD: 23020845-025DMS	MS		Units µg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron		25.0		1930	500.0	1517	82.5	75	125	03/07/202
atch 203472 SampType:	MSD		Units µg/L					RPD Lir	nit: 20	
ampID: 23020845-025DMSD										Date

1900

500.0

1517

76.1

1929

1.67

03/07/2023

25.0



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SW-846 3005A, 6020A, META	LS BY ICF	MS (D	SSOLVED))						
Batch 203473 SampType:			Units µg/L	,						
SampID: MBLK-203473										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Aluminum		25.0		< 25.0	12.50	0	0	-100	100	03/02/2023
Antimony		1.0		< 1.0	0.4500	0	0	-100	100	03/02/2023
Arsenic		1.0		< 1.0	0.3750	0	0	-100	100	03/02/2023
Barium		1.0		< 1.0	0.7000	0	0	-100	100	03/02/2023
Beryllium		1.0		< 1.0	0.2500	0	0	-100	100	03/02/2023
Boron		25.0		< 25.0	9.250	0	0	-100	100	03/02/2023
Cadmium		1.0		< 1.0	0.1340	0	0	-100	100	03/02/2023
Chromium		1.5		< 1.5	0.7000	0	0	-100	100	03/02/2023
Cobalt		1.0		< 1.0	0.1150	0	0	-100	100	03/02/2023
Copper		1.0		< 1.0	0.3000	0	0	-100	100	03/02/2023
Iron		25.0		< 25.0	11.50	0	0	-100	100	03/02/2023
Lead		1.0		< 1.0	0.6000	0	0	-100	100	03/02/2023
Manganese		2.0		< 2.0	0.7500	0	0	-100	100	03/02/2023
Molybdenum		1.5		< 1.5	0.6000	0	0	-100	100	03/02/2023
Nickel		1.0		< 1.0	0.4300	0	0	-100	100	03/02/2023
Selenium		1.0		< 1.0	0.6000	0	0	-100	100	03/02/2023
Silver		1.0		< 1.0	0.1000	0	0	-100	100	03/02/2023
Thallium		2.0		< 2.0	0.9500	0	0	-100	100	03/02/2023
Vanadium		5.0		< 5.0	5.000	0	0	-100	100	03/02/2023
Zinc		15.0		< 15.0	5.900	0	0	-100	100	03/02/2023



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SW-846 3005A, 6020A, METAI	LS BY ICP	MS (DIS	SSOLVED)						
Batch 203473 SampType:	LCS	ι	Jnits µg/L							
SampID: LCS-203473										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Aluminum		25.0		2060	2000	0	103.0	80	120	03/03/2023
Antimony		1.0		502	500.0	0	100.5	80	120	03/03/2023
Arsenic		1.0		488	500.0	0	97.6	80	120	03/03/2023
Barium		1.0		2130	2000	0	106.4	80	120	03/03/2023
Beryllium		1.0		52.1	50.00	0	104.2	80	120	03/03/2023
Boron		25.0		501	500.0	0	100.3	80	120	03/03/2023
Cadmium		1.0		52.0	50.00	0	104.0	80	120	03/03/2023
Chromium		1.5		214	200.0	0	107.0	80	120	03/03/2023
Cobalt		1.0		543	500.0	0	108.6	80	120	03/03/2023
Copper		1.0		275	250.0	0	110.0	80	120	03/03/2023
Iron		25.0		2160	2000	0	108.0	80	120	03/03/2023
Lead		1.0		529	500.0	0	105.7	80	120	03/03/2023
Manganese		2.0		533	500.0	0	106.7	80	120	03/03/2023
Molybdenum		1.5		517	500.0	0	103.4	80	120	03/03/2023
Nickel		1.0		538	500.0	0	107.7	80	120	03/03/2023
Selenium		1.0		473	500.0	0	94.6	80	120	03/03/2023
Silver		1.0		52.3	50.00	0	104.5	80	120	03/03/2023
Thallium		2.0		244	250.0	0	97.4	80	120	03/03/2023
Vanadium		5.0		523	500.0	0	104.7	80	120	03/03/2023
Zinc		15.0		462	500.0	0	92.3	80	120	03/03/2023



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SW-846 3005A, 6020A, META	LS BY ICP	MS (D	ISSOLVED)						
Batch 203473 SampType:	MS		Units µg/L							
SampID: 23020845-035EMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Antimony		1.0		407	500.0	0	81.3	75	125	03/03/2023
Arsenic		1.0		442	500.0	0.5053	88.2	75	125	03/03/2023
Barium		1.0		1740	2000	46.25	84.8	75	125	03/03/2023
Beryllium		1.0		42.5	50.00	0	85.0	75	125	03/03/2023
Boron		25.0		3200	500.0	2627	114.2	75	125	03/02/2023
Cadmium		1.0		41.9	50.00	0	83.8	75	125	03/03/2023
Chromium		1.5		168	200.0	0.8898	83.5	75	125	03/03/2023
Cobalt		1.0		423	500.0	0.1224	84.5	75	125	03/03/2023
Copper		1.0		211	250.0	0.8759	84.1	75	125	03/03/2023
Iron		25.0		1720	2000	0	86.0	75	125	03/03/2023
Lead		1.0		439	500.0	0	87.7	75	125	03/03/2023
Manganese		2.0		427	500.0	2.474	85.0	75	125	03/03/2023
Nickel		1.0		415	500.0	0.9686	82.7	75	125	03/03/2023
Selenium		1.0		635	500.0	18.35	123.4	75	125	03/02/2023
Silver		1.0		42.8	50.00	0	85.7	75	125	03/03/2023
Thallium		2.0		219	250.0	0	87.4	75	125	03/03/2023
Vanadium		5.0		428	500.0	6.704	84.2	75	125	03/03/2023
Zinc		15.0		619	500.0	0	123.8	75	125	03/02/2023



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SW-846 3005A, 6020A	, METAI	LS BY ICP	MS (DIS	SSOLVE	D)						
Batch 203473 Sar	npType:	MSD	ι	Jnits µg/L					RPD L	.imit: 20	
SampID: 23020845-035E	MSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref	Val %RPD	Analyzed
Antimony			1.0		421	500.0	0	84.1	406.6	3.38	03/03/2023
Arsenic			1.0		441	500.0	0.5053	88.2	441.6	0.05	03/03/2023
Barium			1.0		1770	2000	46.25	86.1	1743	1.51	03/03/2023
Beryllium			1.0		42.1	50.00	0	84.1	42.49	1.00	03/03/2023
Boron			25.0		3180	500.0	2627	110.8	3198	0.53	03/02/2023
Cadmium			1.0		42.1	50.00	0	84.1	41.89	0.39	03/03/2023
Chromium			1.5		169	200.0	0.8898	83.9	167.8	0.54	03/03/2023
Cobalt			1.0		419	500.0	0.1224	83.9	422.8	0.81	03/03/2023
Copper			1.0		210	250.0	0.8759	83.8	211.0	0.32	03/03/2023
Iron			25.0		1710	2000	0	85.6	1720	0.49	03/03/2023
Lead			1.0		437	500.0	0	87.3	438.6	0.47	03/03/2023
Manganese			2.0		425	500.0	2.474	84.5	427.3	0.59	03/03/2023
Nickel			1.0		413	500.0	0.9686	82.3	414.7	0.49	03/03/2023
Selenium			1.0		634	500.0	18.35	123.2	635.4	0.17	03/02/2023
Silver			1.0		43.2	50.00	0	86.5	42.84	0.94	03/03/2023
Thallium			2.0		215	250.0	0	86.0	218.6	1.61	03/03/2023
Vanadium			5.0		425	500.0	6.704	83.7	427.7	0.56	03/03/2023
Zinc			15.0	S	626	500.0	0	125.1	618.9	1.08	03/02/2023



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SW-846 3005A, 6020A, METAI	LS BY ICP	MS (DIS	SSOLVED)						
Batch 203473 SampType:	MS	ι	Jnits µg/L							
SampID: 23020845-051EMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Aluminum		25.0		1820	2000	0	90.9	75	125	03/03/2023
Antimony		1.0		462	500.0	0	92.4	75	125	03/03/2023
Arsenic		1.0		490	500.0	0	98.1	75	125	03/02/2023
Barium		1.0		1930	2000	0	96.3	75	125	03/03/2023
Beryllium		1.0		48.6	50.00	0	97.2	75	125	03/02/2023
Boron		25.0		504	500.0	0	100.9	75	125	03/02/2023
Cadmium		1.0		46.6	50.00	0	93.1	75	125	03/03/2023
Chromium		1.5		202	200.0	1.653	100.0	75	125	03/02/2023
Cobalt		1.0		478	500.0	0	95.6	75	125	03/03/2023
Copper		1.0		255	250.0	1.672	101.4	75	125	03/02/2023
Iron		25.0		1930	2000	17.63	95.5	75	125	03/03/2023
Lead		1.0		500	500.0	0	100.1	75	125	03/02/2023
Manganese		2.0		496	500.0	0	99.2	75	125	03/02/2023
Molybdenum		1.5		464	500.0	0	92.8	75	125	03/03/2023
Nickel		1.0		494	500.0	0	98.8	75	125	03/02/2023
Selenium		1.0		464	500.0	0	92.7	75	125	03/02/2023
Silver		1.0		48.1	50.00	0	96.2	75	125	03/03/2023
Thallium		2.0		246	250.0	0	98.3	75	125	03/02/2023
Vanadium		5.0		477	500.0	0	95.3	75	125	03/02/2023
Zinc		15.0		484	500.0	0	96.9	75	125	03/02/2023



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Batch 203473	SampType:	MSD		Units µg/L					RPD Lin	nit: 20	
ampID: 2302084	5-051EMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Aluminum			25.0		1760	2000	0	88.1	1818	3.10	03/03/202
Antimony			1.0		456	500.0	0	91.2	462.1	1.29	03/03/202
Arsenic			1.0		589	500.0	0	117.8	490.3	18.30	03/02/202
Barium			1.0		1910	2000	0	95.4	1926	0.99	03/03/202
Beryllium			1.0		59.3	50.00	0	118.7	48.59	19.92	03/02/202
Boron			25.0		594	500.0	0	118.8	504.4	16.28	03/02/202
Cadmium			1.0		46.0	50.00	0	92.1	46.56	1.13	03/03/202
Chromium			1.5		239	200.0	1.653	118.6	201.7	16.83	03/02/202
Cobalt			1.0		464	500.0	0	92.9	478.1	2.92	03/03/202
Copper			1.0		308	250.0	1.672	122.6	255.2	18.83	03/02/202
Iron			25.0		1880	2000	17.63	93.3	1928	2.33	03/03/202
Lead			1.0		604	500.0	0	120.8	500.4	18.76	03/02/202
Manganese			2.0		599	500.0	0	119.9	496.2	18.82	03/02/202
Molybdenum			1.5		458	500.0	0	91.6	463.8	1.22	03/03/202
Nickel			1.0		598	500.0	0	119.6	494.0	19.06	03/02/202
Selenium			1.0		551	500.0	0	110.2	463.7	17.20	03/02/202
Silver			1.0		48.2	50.00	0	96.4	48.12	0.20	03/03/202
Thallium			2.0		292	250.0	0	116.6	245.7	17.06	03/02/202
Vanadium			5.0		578	500.0	0	115.5	476.7	19.16	03/02/202
Zinc			15.0		584	500.0	0	116.8	484.3	18.67	03/02/202
Batch 204110	SampType:	MBLK		Units µg/L							
SampID: MBLK-20	04110										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron			25.0		< 25.0	9.250	0	0	-100	100	03/22/202
Cobalt			1.0		< 1.0	0.1150	0	0	-100	100	03/22/202
atch 204110	SampType:	LCS		Units µg/L							
ampID: LCS-204	1110										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron			25.0		481	500.0	0	96.2	80	120	03/22/20
Cobalt			1.0		485	500.0	0	97.1	80	120	03/22/20



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SW-846 3005A, 6020A, MET	ALS BY ICI	PMS (D	ISSOLVED	0)						
Batch 204110 SampType	e: MS		Units µg/L							
SampID: 23020845-019DMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron		25.0	S	8520	500.0	8393	25.9	75	125	03/22/2023
Batch 204110 SampType	e: MSD		Units µg/L					RPD Lir	nit: 20	
SampID: 23020845-019DMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Va	al %RPD	Analyzed
Boron		25.0	S	8570	500.0	8393	35.3	8522	0.55	03/22/2023

CW 04C 200FA CO20A MET	ALC DV ICE	NAC (TC	TAL \							
SW-846 3005A, 6020A, META Batch 203466 SampType			Units µg/L							
SampID: MBLK-203466 Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		1.0		< 1.0	0.4500	0	0	-100	100	03/03/2023
Arsenic		1.0		< 1.0	0.3750	0	0	-100	100	03/03/2023
Barium		1.0		< 1.0	0.7000	0	0	-100	100	03/03/2023
Beryllium		1.0		< 1.0	0.2500	0	0	-100	100	03/06/2023
Boron		25.0		< 25.0	9.250	0	0	-100	100	03/06/2023
Cadmium		1.0		< 1.0	0.1340	0	0	-100	100	03/03/2023
Chromium		1.5		< 1.5	0.7000	0	0	-100	100	03/06/2023
Cobalt		1.0		< 1.0	0.1150	0	0	-100	100	03/03/2023
Lead		1.0		< 1.0	0.6000	0	0	-100	100	03/03/2023
Lithium	*	3.0		< 3.0	1.450	0	0	-100	100	03/06/2023
Molybdenum		1.5		< 1.5	0.6000	0	0	-100	100	03/03/2023
Selenium		1.0		< 1.0	0.6000	0	0	-100	100	03/03/2023
Thallium		2.0		< 2.0	0.9500	0	0	-100	100	03/03/2023



Thallium

Quality Control Results

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Client: Ramboll Work Order: 23020845
Client Project: HEN-23Q1 Report Date: 14-Apr-23

Batch 203466 SampType:	LCS		Units µg/L							
SampID: LCS-203466 Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Antimony		1.0		494	500.0	0	98.9	80	120	03/03/202
Arsenic		1.0		480	500.0	0	96.0	80	120	03/03/202
Barium		1.0		2100	2000	0	104.8	80	120	03/03/202
Beryllium		1.0		51.2	50.00	0	102.3	80	120	03/06/202
Boron		25.0		518	500.0	0	103.6	80	120	03/06/202
Cadmium		1.0		56.3	50.00	0	112.5	80	120	03/03/202
Chromium		1.5		206	200.0	0	103.2	80	120	03/06/202
Cobalt		1.0		494	500.0	0	98.8	80	120	03/03/202
Lead		1.0		489	500.0	0	97.7	80	120	03/03/202
Lithium	*	3.0		574	500.0	0	114.7	80	120	03/06/202
Molybdenum		1.5		505	500.0	0	101.1	80	120	03/03/202
Selenium		1.0		448	500.0	0	89.5	80	120	03/03/202
Thallium		2.0		243	250.0	0	97.0	80	120	03/03/202
Batch 203466 SampType: SampID: 23020845-007CMS	MS		Units µg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Antimony		1.0		505	500.0	0	101.1	75	125	03/03/202
Arsenic		1.0		498	500.0	0	99.7	75	125	03/03/202
Barium		1.0		2240	2000	116.6	106.3	75	125	03/03/202
Beryllium		1.0		52.7	50.00	0	105.5	75	125	03/06/202
Boron		25.0		738	500.0	207.3	106.2	75	125	03/06/202
Cadmium		1.0		55.5	50.00	0	111.0	75	125	03/03/202
Chromium		1.5		203	200.0	0	101.4	75	125	03/06/202
Cobalt		1.0		487	500.0	0.1439	97.3	75	125	03/03/202
Lead		1.0		505	500.0	0	101.0	75	125	03/03/202
Lithium	*	3.0		607	500.0	7.654	119.8	75	125	03/06/202
Molybdenum		1.5		505	500.0	9.996	99.1	75	125	03/03/202
		1.0		461	500.0	0	92.2	75	125	03/03/202
Selenium		1.0		401	500.0	U	92.2	75	123	03/03/202

2.0

248

250.0 0

99.2

75

125

03/03/2023



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Batch 203466	SampType:	MSD		Units µg/L					RPD Lir	nit: 20	
SampID: 2302084	15-007CMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Antimony			1.0		508	500.0	0	101.7	505.4	0.60	03/03/202
Arsenic			1.0		503	500.0	0	100.6	498.4	0.93	03/03/202
Barium			1.0		2250	2000	116.6	106.7	2242	0.40	03/03/202
Beryllium			1.0		53.0	50.00	0	105.9	52.73	0.46	03/06/202
Boron			25.0		752	500.0	207.3	108.8	738.3	1.78	03/06/202
Cadmium			1.0		56.6	50.00	0	113.2	55.51	1.96	03/03/202
Chromium			1.5		202	200.0	0	100.9	202.8	0.51	03/06/202
Cobalt			1.0		505	500.0	0.1439	101.0	486.7	3.76	03/03/202
Lead			1.0		514	500.0	0	102.7	504.9	1.72	03/03/202
Lithium		*	3.0		605	500.0	7.654	119.5	606.8	0.30	03/06/202
Molybdenum			1.5		528	500.0	9.996	103.7	505.5	4.42	03/03/202
Selenium			1.0		466	500.0	0	93.1	461.0	0.98	03/03/202
Thallium			2.0		250	250.0	0	99.9	247.9	0.72	03/03/202
Batch 203468	SampType:	MBLK		Units µg/L							
		MBLK		Units µg/L							Date
SampID: MBLK-2		MBLK Cert	RL	Units µg/L Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
SampID: MBLK-2 Analyses				. •	Result	Spike 0.4500	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
SampID: MBLK-2 Analyses Antimony			RL	. •							Analyzed 03/03/202
SampID: MBLK-2 Analyses Antimony Arsenic			RL 1.0	. •	< 1.0	0.4500	0	0	-100	100	Analyzed 03/03/202 03/03/202
SampID: MBLK-2 Analyses Antimony Arsenic Barium			RL 1.0 1.0	. •	< 1.0 < 1.0	0.4500 0.3750	0	0	-100 -100	100 100	
SampID: MBLK-2 Analyses Antimony			1.0 1.0 1.0	. •	< 1.0 < 1.0 < 1.0	0.4500 0.3750 0.7000	0 0 0	0 0 0	-100 -100 -100	100 100 100	03/03/202 03/03/202 03/03/202
SampID: MBLK-2 Analyses Antimony Arsenic Barium Beryllium Boron			RL 1.0 1.0 1.0 1.0	. •	< 1.0 < 1.0 < 1.0 < 1.0	0.4500 0.3750 0.7000 0.2500	0 0 0	0 0 0 0	-100 -100 -100 -100	100 100 100 100	Analyzed 03/03/202 03/03/202 03/03/202 03/06/202
SampID: MBLK-2 Analyses Antimony Arsenic Barium Beryllium Boron Cadmium			RL 1.0 1.0 1.0 1.0 25.0	. •	<1.0 <1.0 <1.0 <1.0 <25.0	0.4500 0.3750 0.7000 0.2500 9.250	0 0 0 0	0 0 0 0	-100 -100 -100 -100 -100	100 100 100 100 100	03/03/202 03/03/202 03/03/202 03/06/202 03/06/202
SampID: MBLK-2 Analyses Antimony Arsenic Barium Beryllium Boron Cadmium Chromium			RL 1.0 1.0 1.0 1.0 25.0	. •	< 1.0 < 1.0 < 1.0 < 1.0 < 25.0 < 1.0	0.4500 0.3750 0.7000 0.2500 9.250 0.1340	0 0 0 0 0	0 0 0 0 0	-100 -100 -100 -100 -100 -100	100 100 100 100 100 100	Analyzed 03/03/202 03/03/202 03/03/202 03/06/202 03/06/202 03/03/202
SampID: MBLK-2 Analyses Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt			RL 1.0 1.0 1.0 1.0 25.0 1.0	. •	<1.0 <1.0 <1.0 <1.0 <25.0 <1.0 <1.5	0.4500 0.3750 0.7000 0.2500 9.250 0.1340 0.7000	0 0 0 0 0 0	0 0 0 0 0 0	-100 -100 -100 -100 -100 -100	100 100 100 100 100 100	Analyzed 03/03/202 03/03/202 03/03/202 03/06/202 03/06/202 03/06/202 03/06/202
Analyses Analyses Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Lead			RL 1.0 1.0 1.0 1.0 25.0 1.0 1.5 1.0	. •	<1.0 <1.0 <1.0 <1.0 <25.0 <1.0 <1.5 <1.0	0.4500 0.3750 0.7000 0.2500 9.250 0.1340 0.7000 0.1150	0 0 0 0 0 0	0 0 0 0 0 0 0	-100 -100 -100 -100 -100 -100 -100	100 100 100 100 100 100 100	Analyzed 03/03/202 03/03/202 03/06/202 03/06/202 03/06/202 03/06/202 03/03/202
Analyses Analyses Antimony Arsenic Barium Beryllium Boron Cadmium Chromium Cobalt Lead Lithium			RL 1.0 1.0 1.0 1.0 25.0 1.5 1.0 1.0	. •	<1.0 <1.0 <1.0 <1.0 <25.0 <1.0 <1.5 <1.0	0.4500 0.3750 0.7000 0.2500 9.250 0.1340 0.7000 0.1150 0.6000	0 0 0 0 0 0 0	0 0 0 0 0 0 0	-100 -100 -100 -100 -100 -100 -100 -100	100 100 100 100 100 100 100 100	Analyzed 03/03/202 03/03/202 03/03/202 03/06/202 03/06/202 03/06/202 03/03/202 03/03/202
Beryllium			RL 1.0 1.0 1.0 1.0 25.0 1.0 1.5 1.0 3.0	. •	<1.0 <1.0 <1.0 <1.0 <25.0 <1.0 <1.5 <1.0 <1.0 <1.5	0.4500 0.3750 0.7000 0.2500 9.250 0.1340 0.7000 0.1150 0.6000 1.450	0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0	-100 -100 -100 -100 -100 -100 -100 -100	100 100 100 100 100 100 100 100 100	Analyzed 03/03/202 03/03/202 03/06/202 03/06/202 03/06/202 03/03/202 03/03/202 03/06/202



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Batch 203468 SampType:	LCS		Units µg/L							
SampID: LCS-203468										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Antimony		1.0		498	500.0	0	99.6	80	120	03/03/202
Arsenic		1.0		497	500.0	0	99.4	80	120	03/03/202
Barium		1.0		2160	2000	0	108.0	80	120	03/03/202
Beryllium		1.0		55.0	50.00	0	109.9	80	120	03/06/202
Boron		25.0		561	500.0	0	112.2	80	120	03/06/202
Cadmium		1.0		56.0	50.00	0	111.9	80	120	03/03/202
Chromium		1.5		218	200.0	0	109.2	80	120	03/06/202
Cobalt		1.0		516	500.0	0	103.2	80	120	03/03/202
Lead		1.0		491	500.0	0	98.2	80	120	03/03/202
Lithium	*	3.0		496	500.0	0	99.2	80	120	03/07/202
Molybdenum		1.5		508	500.0	0	101.7	80	120	03/03/202
Selenium		1.0		460	500.0	0	91.9	80	120	03/03/202
Thallium		2.0		235	250.0	0	93.8	80	120	03/03/202
Satch 203617 SampType:	MBLK		Units µg/L							
SampID: MBLK-203617										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron		25.0		< 25.0	9.250	0	0	-100	100	03/08/202
Satch 203617 SampType:	LCS		Units µg/L							
SampID: LCS-203617										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron		25.0		516	500.0	0	103.1	80	120	03/08/202
Batch 203617 SampType:	MS		Units µg/L							
SampID: 23020845-023BMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron		25.0		2450	1000	1407	104.3	75	125	03/08/202
atch 203617 SampType:	MSD		Units µg/L					RPD Lir	mit: 20	
amplD: 23020845-023BMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Boron		25.0		2370	1000	1407	96.3	2450	3.29	03/08/202



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CW 04C 200EA COOOA METAL	e py ior	MC /T	OTAL)							
SW-846 3005A, 6020A, METAL Batch 204109 SampType:		rivi S (I	Units µg/L							
SamplD: MBLK-204109	WIDEK		Office pg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%RFC	Low Limit	High Limit	Analyzed
Boron	CCIT	25.0	Quai	< 25.0	9.250	0	0	-100	100	03/22/2023
Cobalt		1.0		< 1.0	0.1150	•	0	-100	100	03/22/2023
Obbait		1.0		1.0	0.1100	O	O	-100	100	03/22/2023
Batch 204109 SampType:	LCS		Units µg/L							
SampID: LCS-204109										Date Apalyzod
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val		Low Limit	High Limit	Analyzed
Boron		25.0		503	500.0	0	100.5	80	120	03/22/2023
Cobalt		1.0		528	500.0	0	105.7	80	120	03/22/2023
Batch 204109 SampType:	MS		Units µg/L							
SampID: 23020845-016CMS										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Boron		25.0		671	500.0	198.9	94.4	75	125	03/22/2023
Batch 204109 SampType:	MSD		Units µg/L					RPD Lir	nit: 20	
SampID: 23020845-016CMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Boron		25.0		661	500.0	198.9	92.4	671.0	1.50	03/22/2023
SW-846 7470A (DISSOLVED)										
Batch 203471 SampType:	MBLK		Units µg/L							
SampID: MBLK-203471										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury		0.20		< 0.20	0.0550	0	0	-100	100	03/03/2023
Batch 203471 SampType:	LCS		Units µg/L							
SampID: LCS-203471										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury		0.20		4.84	5.000	0	96.9	85	115	03/03/2023
Weredry										
	MS		Units µg/L							
	MS		Units µg/L							Date
Batch 203471 SampType:	MS Cert	RL	Units µg/L Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed



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	ISSOLVED)										
Batch 203471	SampType:	MSD		Units µg/L					RPD Lir	nit: 15	
SampID: 23020845	-039EMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Mercury			0.20		5.08	5.000	0	101.6	5.036	0.84	03/06/2023
SW-846 7470A (T	OTAL)										
Batch 203469	SampType:	MBLK		Units µg/L							
SampID: MBLK-203	3469										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury			0.20		< 0.20	0.0550	0	0	-100	100	03/06/2023
Batch 203469	SampType:	LCS		Units µg/L							
SampID: LCS-2034	69										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury			0.20		4.85	5.000	0	97.0	85	115	03/06/202
Batch 203469	SampType:	MS		Units µg/L							
SampID: 23020845	-002DMS										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury			0.20		5.24	5.000	0	104.8	75	125	03/06/2023
Batch 203469	SampType:	MSD		Units µg/L					RPD Lir	mit: 15	
SampID: 23020845	-002DMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Mercury			0.20		4.90	5.000	0	98.1	5.239	6.62	03/06/202
Batch 203469	SampType:	MS		Units µg/L							
SampID: 23020845	-013CMS										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury			0.20		5.35	5.000	0	106.9	75	125	03/06/202
Batch 203469	SampType:	MSD		Units µg/L					RPD Lir	nit: 15	
SampID: 23020845	-013CMSD										Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed



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_ *** *	MBLK		Units µg/L							
SampID: MBLK-203470										Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val		Low Limit		•
Mercury		0.20		< 0.20	0.0550	0	0	-100	100	03/06/2023
Batch 203470 SampType: SampID: LCS-203470	LCS		Units µg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury		0.20		5.06	5.000	0	101.2	85	115	03/06/2023
Batch 203470 SampType: SampID: 23020845-024CMS	MS		Units µg/L							Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed
Mercury		0.20		5.46	5.000	0	109.2	75	125	03/06/2023
Batch 203470 SampType:	MSD		Units µg/L					RPD Lir	mit: 15	
SampID: 23020845-024CMSD										Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Analyzed
Mercury		0.20		5.46	5.000	0	109.2	5.460	0.05	03/06/2023
Batch 203470 SampType:	MS		Units µg/L							
SampID: 23020845-036CMS Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Mercury		0.20	•	5.30	5.000	0	106.0	75	125	03/07/2023
Batch 203470 SampType:	MSD		Units µg/L					RPD Lir	nit: 15	
SampID: 23020845-036CMSD Analyses	Cert	RL	Oual	Result	Spike	SPK Ref Val	%REC	RPD Ref V	al %RPD	Date Analyzed
Allalyses	Cert		Quai		•		106.0	5.300	0.05	03/07/2023
Mercury		0.20		5.30	5.000	0	100.0	3.300	0.00	
Mercury Batch 203471 SampType:	MS	0.20	Units µg/L	5.30	5.000	0	100.0	3.300	-	
Mercury Batch 203471		0.20		Result		SPK Ref Val		Low Limit		Date Analyzed
Mercury Batch 203471 SampType:	MS Cert		Units µg/L Qual		5.000 Spike 5.000					
Mercury Batch 203471 SampType: SampID: 23020845-051DMS Analyses Mercury Batch 203471 SampType:	Cert	RL		Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit 125	Analyzed
Mercury Batch 203471 SampType: SampID: 23020845-051DMS Analyses Mercury	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC 100.4	Low Limit 75	High Limit 125 mit: 15	Analyzed



Receiving Check List

http://www.teklabinc.com/

Work Order: 23020845 Client: Ramboll Client Project: HEN-23Q1 Report Date: 14-Apr-23 Carrier: Joe Riley Received By: ANC

Reviewed by:

On:

On: 02-Mar-23

Completed by:

Lindsey Maddox

Elizabeth a thurley 02-Mar-23 Elizabeth A. Hurley

Pages to follow: Chain of custody 4	Extra pages included	0			
Shipping container/cooler in good condition?	Yes 🗸	No 🗌	Not Present	Temp °C	3.2
Type of thermal preservation?	None	Ice 🗸	Blue Ice	Dry Ice	
Chain of custody present?	Yes 🗸	No 🗌			
Chain of custody signed when relinquished and received?	Yes 🗸	No 🗌			
Chain of custody agrees with sample labels?	Yes 🗸	No 🗌			
Samples in proper container/bottle?	Yes 🗸	No 🗌			
Sample containers intact?	Yes 🗸	No 🗌			
Sufficient sample volume for indicated test?	Yes 🗸	No 🗌			
All samples received within holding time?	Yes 🗸	No 🗌			
Reported field parameters measured:	Field 🗹	Lab \square	NA \square		
Container/Temp Blank temperature in compliance?	Yes 🗸	No \square			
When thermal preservation is required, samples are complied 0.1°C - 6.0°C, or when samples are received on ice the samples are	•	between			
Water – at least one vial per sample has zero headspace?	Yes 🗸	No 🗆	No VOA vials		
Water - TOX containers have zero headspace?	Yes	No 🗌	No TOX containers		
Water - pH acceptable upon receipt?	Yes	No 🗸	NA \square		
NPDES/CWA TCN interferences checked/treated in the field?	Yes	No \square	NA 🗹		
Any No responses	must be detailed belo	ow or on the	coc.		

pH strip #87147/79929. - TSM/Imaddox - 3/2/2023 8:53:12 AM

Additional Sodium Hydroxide (81662) was needed in 02, 07, 08, 10, 12, 13, 16, 17, 05R, 08D, 18D, 06, 15, and 08 Duplicate upon arrival at the laboratory. - Imaddox - 3/2/2023 10:13:57 AM

Additional Nitric Acid (87873) was needed in 08D and 08 Duplicate upon arrival at the laboratory. - Imaddox - 3/2/2023 10:15:51 AM

Additional Sulfuric Acid (86787) was needed in 08 upon arrival at the laboratory. - Imaddox - 3/2/2023 10:22:00 AM

CHAIN-OF-CUSTODY / Analytical Request Document HENNEPIN POWER BLAND CORRECTIVE ACTION REPORT

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

Section A	••••	Section C		Page: 1 of 4
Required Client Information: Company: Vistra Corp		Invoice Information: Attention: Jason Stuckey	ן '	.186
Address: 13498 E. 900th St	Copy To: Jason Stuckey	Company Name: Vistra Corp	REGULAT	TORY AGENCY
10430 E. 300th St	•	Address: see Section A	NPDES GROUND WAT	
Email To: Brian Voelker@VistraCorp.com	Purchase Order No.:	Quote	UST RCRA	OTHER
		Reference: Project		Official
Phone: (217) 753-8911 Fax:	1 ojoči rumo.	Manager: Profile #:	Site Location	
Requested Due Date/TAT: 10 day	Project Number: 2285		STATE:	
			d Analysis Filtered (Y/N)	
Section D Valid Matrix Required Client Information MATRIX		Preservatives		
ORINKING WATER			05	
WASTE WATER PRODUCT	MM B D D D D D D D D D D D D D D D D D D		802-805 804 t t st	2
SOIL/SOLIO OIL	MATRIX CODE (see valid codes SAMPLE TYPE (G=GRAB C=CC MAPLE TEMP AT COLLECTION		ا القادة النا الا	Residual Chlorine (Y/N) Project No./ Lab I.D.
SAMPLE ID WIPE AIR	CG=GRAI	# OF CONTAINERS Unpreserved H ₂ SO ₄ HNO ₃ HNO ₃ HOI Na ₂ S ₂ O ₃ Methanol Other TAnalysis Test HEN_257_801 HEN_257_803 HEN_257_803		igine in
(A-Z, 0-9 / -) OTHER TISSUE	от 1ш1.1	ed e	SSUR DSUR CP_E CP_E	원
	X X X X X X X X X X X X X X X X X X X	CONTI	MPC CLC CLC + 811	lal l
# E E E E E E E E E	MATRIX CODE SAMPLE TYPE TAPA SAMPLE TEMP A	# OF CONTAINERS # OF CONTAINERS H2SO4 HNO3 HCI NaOH Na2S ₂ O3 Methanol Other # Analysis Test # Analysis Test HEN_257_801 HEN_257_803 HEN_257_803	HEN_811_80 HEN_CLOSL HEN_CLOSL HEN_WPCP Fast Cac	esign Burgard No. (1 ob 1 B
1 4 - 02	03/0)/23 1423			23020845-001
2 🗶 07	030/33 66			400
3 X × - 08	05/01/23 1501			003
4 X XTE - 10	03/01/23 0417			004
5 X TE - 12	03/0/133 1046		<u> </u>	005
6 X XTE 13	03/0/12/10/5			000
7 🔭 - 16	02/13/27/55/			007
8 * -17	02 24 25 16 4			00%
9 -22 1124	100000000000000000000000000000000000000			000
10 - 23	02/25/25 1035			010
11 – 25	02/25/23 1/435			012
12 _ 26	02/23/23 1436			113 113
13 ~ 27	02/26/25 1347			014
14 - 30	05/1/01/2/15			015
15 7 31	0x/34/23 \ 3.50 0x/34/23 \ 306			013
16 - 32			DATE TIME	SAMPLE CONDITIONS
ADDITIONAL COMMENTS	RELINQUISHED BY AFFILIATION DATE	TIME ACCEPTED BY / AFFILIATION		
HEN-23Q1 Rev 0		MAD LITTIAN LOUV	3/2/23 8700	Y
	70			3.2 Y N TE
7	SAMPLER NAME AND SIGNATUR			Received on loe (Y/N) Sealed Cooler (Y/N) Samples Intact (Y/N)
	PRINT Name of SAMPLER:	JOE K 1 1 7	31 01	Temp in °C Custody Sealed Cooler (Y/N) Sealed Cooler (Y/N) (Y/N) EVAIL (Y/N) (
	SIGNATURE of SAMPLER:		12/02/83	Sam Sam
		A Add od Hi	Ud 2/8/1873)	

HS present in FB(213) * Added NaOH(81462) * Added H2504(86767)

HENNEPIN POWER PLANT LANDSTILL

CHAIN-OF-CUSTODY / Analytical Request Document Henniedin Don/ed Bland / Analytical Request Document

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

Section C Section B 4 Section A Page: Required Client Information: Required Project Information: Invoice Information: Attention: Report To: Brian Voelker Jason Stuckey Company: Vistra Corp Company Name: Vistra Corp REGULATORY AGENCY Address: 13498 E. 900th St Copy To: Jason Stuckey Address: see Section A **GROUND WATER** DRINKING WATER **NPDES** Purchase Order No.: Quote UST RCRA OTHER Brian.Voelker@VistraCorp.com Email To: Reference roject Project Name: Site Location Phone: (217) 753-8911 Manager: IL Profile #: Project Number: 2285 STATE: Requested Due Date/TAT: 10 day Requested Analysis Filtered (Y/N) N X Valid Matrix Codes Section D (see valid codes to left) COLLECTED Preservatives C=COMP) Required Client Information MATRIX CODE DRINKING WATER 802-805 SAMPLE TEMP AT COLLECTION WATER WASTE WATER ww 804 Residual Chlorine (Y/N) (G=GRAB SOLUSOLID West East OII HEN_CLOSURE_ HEN CLOSURE CONTAINERS SAMPLE ID AIR OTHER _801 804 802 803 801 HEN_WPCP_ (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE MATRIX CODE HEN_WPCP Unpreserved H₂SO₄ HNO₃ Analysis 7 SAMPLE TYPE HEN_257_ HEN_811_ -1EN_257_ HEN_257_ 1EN_257_ NaOH Na₂S₂O₃ Methano ITEM# P. Project No./ Lab I.D. DATE TIME **- 33** 1 018 ~ 34 2 019 25/199 / - 35 3 - 36 4 1 - 46 5 47 6 J **№** 48 7 0 _ 49 8 - 50 9 - 51 10 **...** 52 11 54 12 ~ 55 13 030 -- 03R 14 031 15 727 - 05R 16 SAMPLE CONDITIONS DATE TIME ACCEPTED BY / APPILIATION RELINQUISHED BY / AFFILIATION DATE TIME ADDITIONAL COMMENTS (B) (B) HEN-23Q1 Rev 0 ehav SAMPLER NAME AND SIGNATURE Custody Sealed Coole (Y/N) Received or Ice (Y/N) Samples In (Y/N) Temp in PRINT Name of SAMPLER: **DATE Signed** SIGNATURE of SAMPLER: (MM/DD/YY):

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION RECHAIN-OF-CUSTODY / Analytical Request Document

HENNEPIN POWER PLANT I AND THE PROPERTY OF THE PROPERTY HENNEPIN POWER PLANT, VANDOLO The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately. Section C Section A Section B 4 Required Project Information: Required Client Information: Invoice Information: Jason Stuckey Company: Report To: Brian Voelker Vistra Corp Address: 13498 E. 900th St Copy To: Jason Stuckey Company Name: Vistra Corp **REGULATORY AGENCY** Address: see Section A DRINKING WATER NPDES **GROUND WATER** Quote Purchase Order No.: Email To: Brian.Voelker@VistraCorp.com UST **RCRA** OTHER eference Project Phone: (217) 753-8911 Project Name: Site Location Manager IL Profile #: Project Number: 2285 STATE: 10 day Requested Due Date/TAT: Requested Analysis Filtered (Y/N) N / Section D Valid Matrix Codes (see valid codes to left) C=COMP) COLLECTED Required Client Information MATRIX CODE Preservatives DRINKING WATER DW 802-805 SAMPLE TEMP AT COLLECTION WATER WASTE WATER 804 Residual Chlorine (Y/N) PRODUCT (G=GRAB SOIL/SOLID OL WP AR OT TS OIL WIPE HEN_CLOSURE_ HEN_CLOSURE CONTAINERS Analysis Test SAMPLE ID HEN_257_801 802 803 804 801 OTHER (A-Z, 0-9 / ,-) MATRIX CODE Unpreserved
H₂SO₄
HNO₃
HCI
NaOH HEN_WPCP HEN_WPCP. TISSUE SAMPLE TYPE Sample IDs MUST BE UNIQUE 257 HEN_257 HEN_811_ 257 434 Methanol Na₂S₂O₃ Fish TEN I Z ITEM Project No./ Lab I.D. A DATE TIME 441 23020845 -033 08D 1 300 Ĵ-18D 2 125 **-7 18S** 3 136 > 21R 4 037 5 - 22D 038 **40S** 6 139 - 45S 7 1 040 8 → SG02 - XPW01 9 03/0/122 ~ ✓ XPW02 10 043 XPW03 11 044 0 12 → XSG01 045 √ 04R 13 **₹** 06 14 047 0 --- 15 15 19D 16 SAMPLE CONDITIONS DATE TIME RELINQUISHED BY / AFFILIATION DATE TIME ACCEPTED BY / AFFILIATION ADDITIONAL COMMENTS **HEN-23Q1 Rev 0** SAMPLER NAME AND SIGNATURE Received or Ice (Y/N) Custody Sealed Coo (Y/N) (V/N) PRINT Name of SAMPLER:

SIGNATURE of SAMPLER

(MM/DD/YY): DATE Signed

ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT I ผู้ก่าวไม่ ผู้ก่

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

HENNEPIN POWER PLANT, LANDING L Section A Section B Section C 4 Required Client Information: Required Project Information: Invoice Information: Company: Vistra Corp Report To: Brian Voelker Attention: Jason Stuckey Company Name: Vistra Corp 13498 E. 900th St Address: Copy To: Jason Stuckey **REGULATORY AGENCY** Address: see Section A **NPDES GROUND WATER** DRINKING WATER Email To: Brian.Voelker@VistraCorp.com Purchase Order No.: OTHER UST RCRA Reference Project Phone: (217) 753-8911 Project Name: Site Location Manager: IL Profile #: Project Number: 2285 Requested Due Date/TAT: 10 day STATE: Requested Analysis Filtered (Y/N) Section D Valid Matrix Codes ΝX (see valid codes to left) C=COMP) MATRIX COLLECTED Preservatives Required Client Information CODE DRINKING WATER 802-805 SAMPLE TEMP AT COLLECTION WATER WASTE WATER ww 804 (G=GRAB Residual Chlorine (Y/N) SOLUSDLID SL OL WP AR OT TS Group 1 HEN_WPCP_West HEN_WPCP_East Grow # OF CONTAINERS HEN_CLOSURE HEN_CLOSURE SAMPLE ID AIR OTHER 801 HEN_257_802 803 804 HEN_811_801 (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE MATRIX CODE Unpreserved H₂SO₄ HNO₃ HCI NaOH TISSUE SAMPLE TYPE Analysis HEN 257 **IEN 257** HEN_257 Fast East ITEM # Project No./ Lab I.D. DATE 13/01/2° 23020845-049 **→** 19S 050 **~** 08 Duplicate 03/10/1/20 051 Field Blank 3 5 6 7 8 9 10 11 12 13 14 15 16 SAMPLE CONDITIONS RELINGUISHED BY / AFFILIATION ACCEPTED BY LAFFILIATION DATE TIME ADDITIONAL COMMENTS DATE TIME **HEN-23Q1 Rev 0** ples Intact (Y/N) SAMPLER NAME AND SIGNATURE Received or tce (Y/N) Custody saled Cool (Y/N) Temp in ° PRINT Name of SAMPLER: DATE Signed 03/02 SIGNATURE of SAMPLER

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

						PROJECT IN	IFORMAT	ION						
Site:	Hennepin er: 23010001 Tas		Client		Vistra									
Project Numb	er: 23010001 Tas	k #:	Start	Date: 1/11/	2023	Time: 11	:00							
Field Personn	el: J. Riley / J. Colp			Finish Date: _	3/1/2023			Time:					1616	
V	VELL INFORMATION								EVENT TYP	PΕ				
	Vell ID:07				Well Develop					ow Stress Sam	pling Other			
C	Casing ID:	inches			Well Volume	Approach Sam	pling		(Specify):Low	Flow				
				WAT	TER QUALIT	Y INDICATO	R PARAM	METERS (conf	inued)					
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to		Drawdown (Feet)	Temp. (°C)		pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)		ORP (mV)	Visual Clarity
	16:04		68.85											
	16:07	0.13	68.85		0	11.2	7.32		1464	3.36	1.99	137.6		
	16:10	0.26	68.85		0	11.3	7.04		1470	2.96	0	149.4		
	16:13	0.39	68.85		0	11.3	6.98		1463	2.97	0	155.7		
	16:16	0.52	68.85		0	11.2	6.96		1467	2.69	0	161.2		
			NO	TES (continu	ned)						ABBREVIA			
Bladder Pu	mp / Clear /No Color /	No odor								Cond Actual Condu FT BTOC - Feet Belo	octivity w Top of Casing na -	ORP - Oxidation-R Conductance SU -	eduction Potential SEC - S Standard Units	pecific Electrical

Low-Flow Sampling Form	Page 2 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

					I	PROJECT IN	NFORMA	TION						
Site: Project Numb	Hennepin er: 23010001 Tas	L #L	Client Start		Vistra	Time: 11	-00							
Project Numb	ei. 23010001 Tas	K #.	Start	Date: 1/11/2	2023	Time: 11	:00							
Field Personn	el: J. Riley / J. Colp			Finish Date: _	3/1/2023			Time:					1501	
٧	VELL INFORMATION								EVENT TY	PΕ				
	Vell ID:08				Well Develop					ow Stress Sam	pling Other			
	Casing ID:	inches			Well Volume	Approach San	npling		(Specify):Low	Flow				
				WAT	ER QUALIT	Y INDICATO	R PARA	METERS (co	ntinued)					
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to		Drawdown (Feet)	Temp.		pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORF (mV)		Visual Clarity
	14:52		54.2											
	14:55	0.13	54.2		0	13.1	6.74		2384	2.04	0	164.5		
	14:58	0.26	54.2		0	13.1	6.69		2418	0.56	0	162.7		
	15:01	0.39	54.2		0	13.1	6.67		2438	0.52	0	161		
			NO	ΓES (continu	ied)						ABBREVIA			
Bladder Pu	mp / Clear /No Color /	No odor								Cond Actual Condu FT BTOC - Feet Belo	activity w Top of Casing na -	ORP - Oxidation-Reduction Conductance SU - Stand		ecific Electrical

Low-Flow Sampling Form

Page 2 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

						PROJECT I	NFORMATION						
ite:	Hennepin		Client:		Vistra								
roject Num	nber: 23010001	Task #:	Start D	Date: 1/11/2	2023	Time: 1	1:00						
ield Persor	nnel: <u>J. Riley / J. Colp</u>		F	Finish Date: _	3/1/2023		Time:					1442	
	WELL INFORMATION							EVENT TY	PE				
	Well ID: 08D				Well Develop	ment		Low-Flow /	Low Stress San	pling Other			
	Casing ID:	inches			Well Volume	Approach Sar	mpling	(Specify):Low	Flow				
				WAT	ER QUALIT	Y INDICATO	OR PARAMETERS (c	ontinued)					
Sampling	Time	Volume	Depth to		Drawdown	T	-11	SEC or	Dissolved	Turbidity		ORP	Visual
Stage	(military)	Removed	(Fee	et)	(Feet)	Temp. (°C)	pH (SU)	Cond.	Oxygen	(NTU)		(mV)	Clarity
Stage	1 7	(gallons)			(1 661)	(0)	(00)	(µs/cm)	(mg/L)	(1110)		(*)	Clarity
	14:30		54.27										
	14:36	0.39	54.27		0	13.3	6.48	3177	0.51	1.01	166.4		T
	14:39	0.52	54.27		0	13.3	6.48	3181	0.36	0	161		T
	14:42	0.65	54.27		0	13.3	6.48	3178	0.32	0	158.6		
													T
													T
													T
													1
													T
													1
													T
			NOT	ES (continu	req)					ABBREVIA			
ladder P	ump / Clear /No Colo	r / No odor							Cond Actual Cond FT BTOC - Feet Belo	uctivity w Top of Casing na -		n-Reduction Potential SEC - U - Standard Units	Specific Electrical

Low-Flow Sampling Form

Page 2 of 2

HEN-257-801

Page 2 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM PROJECT INFORMATION

						PROJECTI	IFORMATION						
Site: Project Numb	Hennepin per: 23010001 Ta	sk #:	Clien Start	t: Date: 1/11/	Vistra 2023	Time: 11	:00						
ield Person	nel:J. Riley / J. Colp			Finish Date:	2/28/2023	3	Time:					1557	
	WELL INFORMATION							EVENT TY	PE				
	Well ID: 16 Casing ID:	inches			Well Develop Well Volume		npling	Low-Flow / L (Specify):Low	ow Stress Sam Flow	pling Other			
				WA	TER QUALIT	Y INDICATO	R PARAMETERS (cor	tinued)					
Sampling Stage	Time (military)	Volume Removed (gallons)		o Water eet)	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)		ORP (mV)	Visual Clarity
	15:42		54.86										
	15:48	0.26	54.86		0	17.8	7.41	1257	0.33	0	49.2		
	15:51	0.39	54.86		0	17.8	7.34	1256	0.3	0	52.3		
	15:54	0.52	54.86		0	17.8	7.28	1257	0.27	0	55.7		
	15:57	0.65	54.86		0	17.8	7.25	1255	0.26	0	57.7		
•			NO	TES (contin	ued)					ABBREVIA	TIONS		
3ladder Pu	ump / Clear /No Color ,	Slight odor		- (,,	,				Cond Actual Condu FT BTOC - Feet Belo		ORP - Oxidatio	n-Reduction Potential SEC - S SU - Standard Units	pecific Electrical

Page 2 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

						PROJECT IN	IFORMATION							
Site:	Hennepin		Clien		Vistra		_							
Project Num	ber: 23010001 Ta	ask #:	Start	Date: 1/11	2023	Time: 11	:00							
Field Person	nel: J. Riley / J. Colp			Finish Date:	2/28/2023	3		Time:					1614	
	WELL INFORMATION							E	VENT TYP	Έ				
	Well ID:17				Well Develop					ow Stress Sam	pling Other			
	Casing ID:	inches			Well Volume	Approach San	npling		(Specify):Low	Flow				
				WA	TER QUALIT	Y INDICATO	R PARAMETE	RS (contir	nued)					
Sampling	Time	Volume		o Water	Drawdown	Temp.	рH	1	SEC or	Dissolved	Turbidity		ORP	Visual
Stage	(military)	Removed (gallons)	(Fe	eet)	(Feet)	(°C)	(SL	J)	Cond. (µs/cm)	Oxygen (mg/L)	(NTU)		(mV)	Clarity
	16:05		59.08											
	16:08	0.13	59.08		0	14.6	7.09		1509	2.33	0	115.7		
	16:11	0.26	59.08		0	14.6	7.04		1504	2.24	0	116.6		
	16:14	0.39	59.08		0	14.6	7.01		1505	2.22	0	118		
	1		NO	TES (contin	ued)						ABBREVIA	TIONS		1
Bladder P	ump / Clear /No Color	/ Slight odor								Cond Actual Condu FT BTOC - Feet Belo	ctivity w Top of Casing na -		Reduction Potential SEC - S I - Standard Units	pecific Electrical

Page 2 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

						PROJECT II	NFORMATION						
Site: Project Numb	Hennepin per: 23010001 T	ask #:	Clien Start	t: Date: 1/11/	Vistra 2023	Time: 1	1:00						
ield Personr	nel: J. Riley / J. Colp			Finish Date:	3/1/2023		Tim	e:				1237	
1	WELL INFORMATION							EVENT 1	TYPE				
	Well ID: <u>05DR</u> Casing ID:	inches			Well Develop Well Volume		mpling	Low-Flow (Specify):L	/ Low Stress San ow Flow	npling Other			
				WA	TER QUALIT	Y INDICATO	R PARAMETER	S (continued)					
Sampling Stage	Time (military)	Volume Removed (gallons)		o Water eet)	Drawdown (Feet)	Temp.	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)		ORP (mV)	Visual Clarity
	12:28		41.2										
	12:31	0.13	41.2		0	15.6	7.42	1105	6.4	1.89	176.3		
	12:34	0.26	41.2		0	16.1	7.37	1115	2.5	0.44	177.6		
	12:37	0.39	41.2		0	16	7.34	1117	1.79	0	175.9		
													1
-													
			NO	TES (contin	ued)					ABBREVIA	ATIONS		
3ladder Pu	ımp / Clear /No Color	/ No odor		- (************************************	,				Cond Actual Cond FT BTOC - Feet Bel		ORP - Oxidation-	Reduction Potential SEC - :	Specific Electrical

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

						PROJECT IN	NFORMAT	ION						
Site: Project Numb	Hennepin per: 23010001 Ta	ask #:	Clien Start	t: Date: 1/11/	Vistra 2023	Time: 11	:00							
ield Personr	nel: J. Riley / J. Colp			Finish Date:	3/1/2023			Time:					1226	
1	WELL INFORMATION								EVENT TYP	Έ				
	Well ID:05R Casing ID:	inches			Well Develop Well Volume		npling		Low-Flow / L (Specify):Low	ow Stress Sam Flow	pling Other			
				WA	TER QUALIT	Y INDICATO	R PARAM	IETERS (co	ntinued)					
Sampling Stage	Time (military)	Volume Removed (gallons)		to Water eet)	Drawdown (Feet)	Temp. (°C)		pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)		ORP (mV)	Visual Clarity
	12:17		41.26											
	12:20	0.13	41.26		0	16.5	7.54		1112	0.67	4.02	168.5		
	12:23	0.26	41.26		0	16.6	7.53		1112	0.38	5.16	165.5		
	12:26	0.39	41.26		0	16.6	7.51		1110	0.32	1.93	161.6		
	1		NO	TES (contin	l ued)						ABBREVIA	TIONS		1
Bladder Pu	ımp / Clear /No Color	/ No odor								Cond Actual Condu FT BTOC - Feet Belo	activity w Top of Casing na -		n-Reduction Potential SEC - U - Standard Units	Specific Electrical

Low-Flow Sampling Form

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WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

						PROJECT II	NFORMATION							
Site:	Hennepin		Clien		Vistra									
Project Num	ber: 23010001	Task #:	Start	Date: 1/11	2023	Time: 11	:00							
Field Persor	nel: J. Riley / J. Colp			Finish Date:	3/1/2023		Tim	e:				1200		
	WELL INFORMATION							EVENT TY	PE					
Well ID: 40S inches			Well Development Well Volume Approach Sam				npling	Low-Flow / Low Stress Sampling Other ling (Specify):Low Flow						
				WA	TER QUALIT	Y INDICATO	R PARAMETER	S (continued)						
Sampling Stage	Time (military)	Volume Removed (gallons)		o Water	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)		ORP (mV)	Visual Clarity	
	11:51		40.55											
	11:54	0.13	40.55		0	16.1	7.68	1042	0.7	0.26	164.9			
	11:57	0.26	40.55		0	16.3	7.69	1043	0.4	0.21	160.5			
	12:00	0.39	40.55		0	16.3	7.69	1044	0.33	0.43	157.1			
										1	-			
										-				
											1			
NOTES (continued)										ABBREVIATIONS				
Bladder P	ump / Clear /No Colo	r / No odor	NO	i Lo (contin	ueuj				Cond Actual Cond FT BTOC - Feet Belo		ORP - Oxidatio	n-Reduction Potential SEC U - Standard Units	- Specific Electrical	

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

Page 2 of 2

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

					I	PROJECT IN	NFORMATION					
Site:	Hennepin er: 23010001 Tas	sk #:	_ Client	:	Vistra	Time: 11	-00					
,		on #.	Start									
	nel: J. Riley / J. Colp			Finish Date: _	3/1/2023		Time:				<u>1214</u>	
l l	WELL INFORMATION							EVENT TY				
	Vell ID: <u>48</u> Casing ID:	inches			Well Volume		npling	Low-Flow / (Specify):Low	Low Stress Sam Flow	pling Other		
				WAT	TER QUALIT	Y INDICATO	R PARAMETERS	(continued)				
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth to		Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	12:05		40.24									
	12:08	0.13	40.24		0	16.7	7.51	1103	0.56	33.95	169.8	
	12:11	0.26	40.24		0	16.7	7.5	1106	0.38	6.28	166.7	
	12:14	0.39	40.24		0	16.8	7.49	1107	0.33	3.73	163.8	
			NO	TES (continu	neq)					ABBREVIA		
Bladder Pu	mp / Clear /No Color /	No odor	•	·	•	·			Cond Actual Condu FT BTOC - Feet Belo		ORP - Oxidation-Reduction Potential SEC - S Conductance SU - Standard Units	pecific Electrical

Low-Flow Sampling Form

APPENDIX A. ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

WELL DEVELOPMENT AND GROUNDWATER SAMPLING FIELD FORM

						PROJECT IN	IFORMATION					
Site:	Hennepin		Clien		Vistra		_					
Project Numb	per: 23010001 T	ask #:	Start	Date: 1/11/	2023	Time: 11	:00					
Field Personi	nel: J. Riley / J. Colp			Finish Date: _	3/1/2023		Time:				1501	
,	WELL INFORMATION							EVENT TYP	PΕ			
	Well ID: <u>08DUP</u> Casing ID:	inches			Well Develop Well Volume		npling	Low-Flow / L (Specify):Low	ow Stress Sam Flow	pling Other		
				WA	TER QUALIT	Y INDICATO	R PARAMETERS (continued)				
Sampling Stage	Time (military)	Volume Removed (gallons)		o Water	Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
	14:52		54.2									
	14:55	0.13	54.2		0	13.1	6.74	2384	2.04	0	164.5	
	14:58	0.26	54.2		0	13.1	6.69	2418	0.56	0	162.7	
	15:01	0.39	54.2		0	13.1	6.67	2438	0.52	0	161	
			L							<u> </u>		
			NO	TES (contin	neq)					ABBREVIA		
Bladder Pu	ump / Clear /No Color	/ No odor							Cond Actual Condu FT BTOC - Feet Belo		ORP - Oxidation-Reduction Potential Conductance SU - Standard Units	SEC - Specific Electrical

Low-Flow Sampling Form Page 2 of 2

ANALYTICAL REPORT

PREPARED FOR

Attn: Brian Voelker Vistra Energy Corp 133 S 4th, Suite 206 Springfield, Illinois 62701

Generated 11/16/23 13:57:33 Revision 1

JOB DESCRIPTION

HEN-23Q3 HEN_257_801

JOB NUMBER

500-238579-11

Eurofins Chicago 2417 Bond Street University Park IL 60484



Eurofins Chicago

HENNEPIN POWER PLANT, LANDFILL

HEN-257-801

Job Notes

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APPENDIX A.
ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
HENNEPIN PLANGER HISTORY LIANSOFF LIANSOFF LANSOFF LANS

Client: Vistra Energy Corp Project/Site: HEN-23Q3

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APPENDIX A. ANYCAL CROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

Joh<u>END25</u>50@238579-11 SDG: HEN_257_801

Job ID: 500-238579-11

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-238579-11

Revision

The report being provided is a revision of the original report sent on 11/07/23. The report (revision 1) is being revised due to: Missing COCs. Please remove all "Alkalinity (SM 2320B)" results. Report Fluoride results by SM4500 instead of 300.0 for sample 9 (HEN 48).

Receipt

The samples were received on 8/23/2023 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 28 coolers at receipt time were 0.1° C, 0.1° C, 0.2° C, 0.3° C, 0.4° C, 0.5° C, 0.6° C, 0.7° C, 0.8° C, 1.0° C, 1.2° C, 1.2° C, 1.3° C, 1.3° C, 1.3° C, 1.6° C, 1.7° C, 1.7° C, 1.7° C, 1.7° C, 2.0° C, 2.0° C, 2.0° C, 2.8° C, 2.9° C, 2.9° C, 2.0° C, 2.0 C, 2.9° C, 3.0° C and 3.7° C.

Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Field Service / Mobile Lab

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Methods 300.0: The method blank for analytical batch 500-731549 contained Chloride above the method detection limit. This target analyte concentration was less than the reporting limit (RL) in the method blank; therefore, re-extraction and/or re-analysis of samples was not performed.

Method SM 4500 F C: The following sample was analyzed outside of analytical holding time per client request: HEN 48 (500-238579-9).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

APPENDIX A. AMETHOR SOLVETTER AND ITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEN 2508 238579-11

SDG: HEN_257_801

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET CHI
300.0	Anions, Ion Chromatography	EPA	EET CHI
SM 2320B	Alkalinity	SM	EET CHI
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET CHI
SM 4500 F C	Fluoride	SM	EET CHI
Field Sampling	Field Sampling	EPA	EET CHI
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	EET CHI

Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

APPENDIX A. ASTAM FROM STATE AND STATE AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEN 1257 2801

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-238579-9	HEN_48	Water	08/23/23 10:20	08/24/23 09:38
500-238579-10	HEN_05!R	Water	08/23/23 11:30	08/24/23 09:38
500-238579-11	HEN_05&DR	Water	08/23/23 11:45	08/24/23 09:38
500-238579-12	HEN_40#S	Water	08/23/23 09:05	08/24/23 09:38
500-238579-28	HEN_07	Water	08/24/23 14:00	08/25/23 09:32
500-238579-30	HEN_08	Water	08/24/23 15:10	08/25/23 09:32
500-238579-32	HEN_08&D	Water	08/24/23 12:25	08/25/23 09:32
500-238579-34	HEN_08_FD	Water	08/24/23 15:10	08/25/23 09:32
500-238579-58	HEN_16	Water	08/28/23 08:35	08/28/23 15:00
500-238579-59	HEN_17	Water	08/28/23 09:40	08/28/23 15:00
500-238579-60	HEN 17-FD	Water	08/28/23 09:40	08/28/23 15:00

CHENTLES AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEN 25080 238579-11

NTU

Client: Vistra Energy Corp Project/Site: HEN-23Q3 SDG: HEN_257_801

Client Sample ID: HEN_48 Lab Sample ID: 500-238579-9 Date Collected: 08/23/23 10:20

Date Received: 08/24/23 09:38

Turbidity

Matrix: Water

08/23/23 10:20

Method: SW846 6020B - Metals	(ICP/MS)	- Total Reco	verable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.4		0.050	0.013	mg/L		08/29/23 08:50	10/04/23 23:39	1
Calcium	64		0.20	0.044	mg/L		08/29/23 08:50	09/05/23 15:20	1
Magnesium	25		0.20	0.049	mg/L		08/29/23 08:50	09/05/23 15:20	1
Potassium	5.2		0.50	0.11	mg/L		08/29/23 08:50	09/05/23 15:20	1
Sodium	44		0.20	0.077	mg/L		08/29/23 08:50	10/04/23 23:39	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	74		5.0	0.58	mg/L			08/29/23 02:59	5
Sulfate (EPA 300.0)	100		5.0	1.0	mg/L			08/29/23 02:59	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	170		5.0	3.7	mg/L			08/28/23 18:00	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/28/23 18:00	1
Total Dissolved Solids (SM 2540C)	490		10	4.3	mg/L			08/28/23 21:00	1
Fluoride (SM 4500 F C)	0.19	Н	0.10	0.056	mg/L			11/15/23 13:25	1
Method: EPA Field Sampling - F	ield Samı	oling							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	7.62				SU			08/23/23 10:20	1
Field Temperature	20.8				Degrees C			08/23/23 10:20	1
Oxidation Reduction Potential	147.4				millivolts			08/23/23 10:20	1
Oxygen, Dissolved	0.11				mg/L			08/23/23 10:20	1
Specific Conductance	589				umhos/cm			08/23/23 10:20	1

APPENDIX A. CHENTLESAMPIE TRESONTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

Degrees C

umhos/cm

millivolts

mg/L

NTU

John Power Plant, End Inc. 1288-11 John Power Plant, Edward 128-11 SDG: HEN_257_801

Client Sample ID: HEN_05!R

Date Collected: 08/23/23 11:30 Date Received: 08/24/23 09:38

Client: Vistra Energy Corp

Project/Site: HEN-23Q3

Field Temperature

Oxygen, Dissolved

Turbidity

Specific Conductance

Oxidation Reduction Potential

Lab Sample ID: 500-238579-10

08/23/23 11:30

08/23/23 11:30

08/23/23 11:30

08/23/23 11:30

08/23/23 11:30

Matrix: Water

Method: SW846 6020B - Metals	(ICP/MS)	- Total Reco	overable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.51		0.050	0.013	mg/L		08/29/23 08:50	10/04/23 23:43	1
Calcium	77		0.20	0.044	mg/L		08/29/23 08:50	09/05/23 15:23	1
Magnesium	31		0.20	0.049	mg/L		08/29/23 08:50	09/05/23 15:23	1
Potassium	8.2		0.50	0.11	mg/L		08/29/23 08:50	09/05/23 15:23	1
Sodium	41		0.20	0.077	mg/L		08/29/23 08:50	10/04/23 23:43	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	82		5.0	0.58	mg/L			08/29/23 03:29	5
Fluoride (EPA 300.0)	0.21	J	1.0	0.19	mg/L			08/29/23 03:14	1
Sulfate (EPA 300.0)	73		5.0	1.0	mg/L			08/29/23 03:29	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	230		5.0	3.7	mg/L			08/28/23 18:09	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/28/23 18:09	1
Total Dissolved Solids (SM 2540C)	530		10	4.3	mg/L			08/28/23 21:02	1
Method: EPA Field Sampling -	Field Samı	oling							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	38.69				ft			08/23/23 11:30	1
Field pH	7.62				SU			08/23/23 11:30	1

20.3

144.2

0.14

644

APPENDIX A. CHENTLESAMPIE TRESONTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

Degrees C

umhos/cm

millivolts

mg/L

NTU

John Power Plant, Landfill John 1, Landfill SDG: HEN_257_801

Client Sample ID: HEN_05&DR

Date Collected: 08/23/23 11:45 Date Received: 08/24/23 09:38

Client: Vistra Energy Corp

Project/Site: HEN-23Q3

Field Temperature

Oxygen, Dissolved

Turbidity

Specific Conductance

Oxidation Reduction Potential

Lab Sample ID: 500-238579-11

08/23/23 11:45

08/23/23 11:45

08/23/23 11:45

08/23/23 11:45

08/23/23 11:45

Matrix: Water

Method: SW846 6020B - Metals	(ICP/MS)	- Total Reco	overable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.68		0.050	0.013	mg/L		08/29/23 08:50	10/04/23 23:47	1
Calcium	73		0.20	0.044	mg/L		08/29/23 08:50	09/05/23 15:26	1
Magnesium	28		0.20	0.049	mg/L		08/29/23 08:50	09/05/23 15:26	1
Potassium	6.2		0.50	0.11	mg/L		08/29/23 08:50	09/05/23 15:26	1
Sodium	44		0.20	0.077	mg/L		08/29/23 08:50	10/04/23 23:47	1
- General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	76		5.0	0.58	mg/L			08/29/23 04:00	5
Fluoride (EPA 300.0)	0.24	J	1.0	0.19	mg/L			08/29/23 03:44	1
Sulfate (EPA 300.0)	75		5.0	1.0	mg/L			08/29/23 04:00	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	230		5.0	3.7	mg/L			08/28/23 18:18	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/28/23 18:18	1
Total Dissolved Solids (SM 2540C)	490		10	4.3	mg/L			08/28/23 21:05	1
- Method: EPA Field Sampling -	Field Sam	oling							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	38.73				ft			08/23/23 11:45	1
Field pH	7.41				SU			08/23/23 11:45	1

20.4

158.8

0.15

631

CHENCE STATES OF THE SOUTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEN 2508 238579-11 APPENDIX A.

mg/L

NTU

umhos/cm

SDG: HEN_257_801

Client Sample ID: HEN_40#S

Date Collected: 08/23/23 09:05 Date Received: 08/24/23 09:38

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Oxygen, Dissolved

Turbidity

Specific Conductance

Lab Sample ID: 500-238579-12

08/23/23 09:05

08/23/23 09:05

08/23/23 09:05

Matrix: Water

Method: SW846 6020B - Metals	(ICP/MS)	- Total Reco	verable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.3		0.050	0.013	mg/L		08/29/23 08:50	10/04/23 23:50	1
Calcium	58		0.20	0.044	mg/L		08/29/23 08:50	09/05/23 15:30	1
Magnesium	27		0.20	0.049	mg/L		08/29/23 08:50	09/05/23 15:30	1
Potassium	6.3		0.50	0.11	mg/L		08/29/23 08:50	09/05/23 15:30	1
Sodium	41		0.20	0.077	mg/L		08/29/23 08:50	10/04/23 23:50	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	73		5.0	0.58	mg/L			08/29/23 05:00	5
Fluoride (EPA 300.0)	0.24	J	1.0	0.19	mg/L			08/29/23 04:45	1
Sulfate (EPA 300.0)	92		5.0	1.0	mg/L			08/29/23 05:00	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	170		5.0	3.7	mg/L			08/28/23 18:27	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/28/23 18:27	1
Total Dissolved Solids (SM 2540C)	480		10	4.3	mg/L			08/28/23 21:08	1
- Method: EPA Field Sampling - F	ield Samı	oling							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	37.92				ft			08/23/23 09:05	1
Field pH	7.88				SU			08/23/23 09:05	1
Field Temperature	18.8				Degrees C			08/23/23 09:05	1
Oxidation Reduction Potential	133.5				millivolts			08/23/23 09:05	1

0.37

579

2.13

11/16/23 (Rev. 1)

APPENDIX A. CHEHILSAMPIE RESULTSRING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

mg/L

NTU

umhos/cm

Client: Vistra Energy Corp

John 1250 238579-11

Project/Site: HEN-23Q3

SDG: HEN_257_801

Client Sample ID: HEN_07 Lab Sample ID: 500-238579-28

Date Collected: 08/24/23 14:00 Matrix: Water Date Received: 08/25/23 09:32

Method: SW846 6020B - Metals						_	_		
Analyte	Result	Qualifier	RL _		Unit	_ D	Prepared	Analyzed	Dil Fac
Boron	0.067		0.050	0.013	mg/L		09/01/23 08:58	10/05/23 02:41	1
Calcium	94	В	0.20	0.044	mg/L		09/01/23 08:58	10/05/23 02:41	1
Magnesium	32		0.20	0.049	mg/L		09/01/23 08:58	10/05/23 02:41	1
Potassium	2.7		0.50	0.11	mg/L		09/01/23 08:58	10/05/23 02:41	1
Sodium	68	В	0.20	0.077	mg/L		09/01/23 08:58	10/05/23 02:41	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	51		5.0	0.58	mg/L			08/29/23 21:35	5
Fluoride (EPA 300.0)	0.24	J	1.0	0.19	mg/L			08/29/23 21:20	1
Sulfate (EPA 300.0)	67		5.0	1.0	mg/L			08/29/23 21:35	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	390		5.0	3.7	mg/L			08/30/23 16:36	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/30/23 16:36	1
Total Dissolved Solids (SM 2540C)	640		10	4.3	mg/L			08/30/23 11:27	1
- Method: EPA Field Sampling - I	Field Samp	oling							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	68.39				ft			08/24/23 14:00	1
Field pH	6.91				SU			08/24/23 14:00	1
Field Temperature	13.8				Degrees C			08/24/23 14:00	1
Oxidation Reduction Potential	179.9				millivolts			08/24/23 14:00	1

4.15

699

3.55

Oxygen, Dissolved

Turbidity

Specific Conductance

08/24/23 14:00

08/24/23 14:00

08/24/23 14:00

APPENDIX A. CHEMALS AMPLE TRESONTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEND 2500 238579-11

Client: Vistra Energy Corp

John ND 2570 11

Project/Site: HEN-23Q3

SDG: HEN_257_801

Client Sample ID: HEN_08

Date Collected: 08/24/23 15:10

Lab Sample ID: 500-238579-30

Matrix: Water

Date Collected: 08/24/23 15:10 Matrix: Water Date Received: 08/25/23 09:32

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.070		0.050	0.013	mg/L		09/01/23 08:58	10/05/23 02:44	1
Calcium	160	В	0.20	0.044	mg/L		09/01/23 08:58	10/05/23 02:44	1
Magnesium	41		0.20	0.049	mg/L		09/01/23 08:58	10/05/23 02:44	1
Potassium	7.7		0.50	0.11	mg/L		09/01/23 08:58	10/05/23 02:44	1
Sodium	120	В	0.20	0.077	mg/L		09/01/23 08:58	10/05/23 02:44	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	240		10	1.2	mg/L	_		08/29/23 22:36	10
Fluoride (EPA 300.0)	0.19	J	1.0	0.19	mg/L			08/29/23 21:50	1
Sulfate (EPA 300.0)	100		10	2.1	mg/L			08/29/23 22:36	10
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	500		5.0	3.7	mg/L			08/30/23 16:45	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/30/23 16:45	1
Total Dissolved Solids (SM 2540C)	1100		10	4.3	mg/L			08/30/23 11:30	1
Method: EPA Field Sampling - Fi	ield Samp	oling							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.72				SU			08/24/23 15:10	1
Field Temperature	14.7				Degrees C			08/24/23 15:10	1
Oxidation Reduction Potential	188.6				millivolts			08/24/23 15:10	1
Oxygen, Dissolved	1.16				mg/L			08/24/23 15:10	1
Specific Conductance	1241				umhos/cm			08/24/23 15:10	1
Turbidity	3.49				NTU			08/24/23 15:10	1

11/16/23 (Rev. 1)

APPENDIX A. CHEMALS AMPLE TRESONTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEND 2500 238579-11

Client: Vistra Energy Corp Project/Site: HEN-23Q3 SDG: HEN_257_801

Client Sample ID: HEN_08&D Lab Sample ID: 500-238579-32 Date Collected: 08/24/23 12:25

Date Received: 08/25/23 09:32

Matrix: Water

Method: SW846 6020B - Metals ((ICP/MS)	- Total Reco	verable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.051		0.050	0.013	mg/L		09/01/23 08:58	10/05/23 02:48	1
Calcium	200	В	0.20	0.044	mg/L		09/01/23 08:58	10/05/23 02:48	1
Magnesium	56		0.20	0.049	mg/L		09/01/23 08:58	10/05/23 02:48	1
Potassium	2.9		0.50	0.11	mg/L		09/01/23 08:58	10/05/23 02:48	1
Sodium	130	В	0.20	0.077	mg/L		09/01/23 08:58	10/05/23 02:48	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	310		10	1.2	mg/L			08/29/23 23:06	10
Fluoride (EPA 300.0)	<1.0		1.0	0.19	mg/L			08/29/23 22:51	1
Sulfate (EPA 300.0)	170		10	2.1	mg/L			08/29/23 23:06	10
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	500		5.0	3.7	mg/L			08/30/23 16:56	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/30/23 16:56	1
Total Dissolved Solids (SM 2540C)	1400		10	4.3	mg/L			08/30/23 11:33	1
- Method: EPA Field Sampling - Fi	ield Samı	oling							
Analyte	_	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.59				SU			08/24/23 12:25	1
Field Temperature	17.3				Degrees C			08/24/23 12:25	1
Oxidation Reduction Potential	192.0				millivolts			08/24/23 12:25	1
Oxygen, Dissolved	0.63				mg/L			08/24/23 12:25	1
Specific Conductance	1435				umhos/cm			08/24/23 12:25	1
Turbidity	4.32				NTU			08/24/23 12:25	1

APPENDIX A. CHEMALS AMPLE TRESONTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEND 2500 238579-11

Client: Vistra Energy Corp

John ND 2570 11

Project/Site: HEN-23Q3

SDG: HEN_257_801

Client Sample ID: HEN_08_FD

Date Collected: 08/24/23 15:10

Lab Sample ID: 500-238579-34

Matrix: Water

Date Collected: 08/24/23 15:10 Matrix: Water Date Received: 08/25/23 09:32

Method: SW846 6020B - Metals (Analyte	•	- Total Reco	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.055	Qualifier -	0.050	0.013			09/01/23 08:58	10/05/23 02:59	Dil Fa
		ь.	0.030		Ü		09/01/23 08:58	10/05/23 02:59	
Calcium	160	В		0.044	•				
Magnesium	42		0.20	0.049			09/01/23 08:58		
Potassium	7.8		0.50		mg/L		09/01/23 08:58		•
Sodium	120	В	0.20	0.077	mg/L		09/01/23 08:58	10/05/23 02:59	
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fa
Chloride (EPA 300.0)	230		10	1.2	mg/L			08/29/23 23:37	10
Fluoride (EPA 300.0)	<1.0		1.0	0.19	mg/L			08/29/23 23:21	•
Sulfate (EPA 300.0)	110		10	2.1	mg/L			08/29/23 23:37	10
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	500		5.0	3.7	mg/L			08/30/23 17:06	
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/30/23 17:06	
Total Dissolved Solids (SM 2540C)	1100		10	4.3	mg/L			08/30/23 11:36	•
Method: EPA Field Sampling - Fi	eld Samr	olina							
Analyte	_	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Field pH	6.72				SU			08/24/23 15:10	
Field Temperature	14.7				Degrees C			08/24/23 15:10	•
Oxidation Reduction Potential	188.6				millivolts			08/24/23 15:10	
Oxygen, Dissolved	1.16				mg/L			08/24/23 15:10	,
Specific Conductance	1241				umhos/cm			08/24/23 15:10	
Turbidity	3.49				NTU			08/24/23 15:10	1

APPENDIX A. CHENTLESAMPLE TRESONTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

mg/L

NTU

umhos/cm

Client Sample ID: HEN_16

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Oxygen, Dissolved

Turbidity

Specific Conductance

Date Collected: 08/28/23 08:35 Date Received: 08/28/23 15:00 Lab Sample ID: 500-238579-58

08/28/23 08:35

08/28/23 08:35

08/28/23 08:35

Matrix: Water

Method: SW846 6020B - Metals	s (ICP/MS)	- Total Reco	overable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.11		0.050	0.013	mg/L		09/01/23 08:58	10/05/23 04:19	1
Calcium	73	В	0.20	0.044	mg/L		09/01/23 08:58	10/05/23 04:19	1
Magnesium	25		0.20	0.049	mg/L		09/01/23 08:58	10/05/23 04:19	1
Potassium	4.7		0.50	0.11	mg/L		09/01/23 08:58	10/05/23 04:19	1
Sodium	51	В	0.20	0.077	mg/L		09/01/23 08:58	10/05/23 04:19	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	81		5.0	0.58	mg/L			08/30/23 18:06	5
Fluoride (EPA 300.0)	0.31	J	1.0	0.19	mg/L			08/30/23 17:51	1
Sulfate (EPA 300.0)	56		5.0	1.0	mg/L			08/30/23 18:06	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	230		5.0	3.7	mg/L			08/31/23 18:25	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/31/23 18:25	1
Total Dissolved Solids (SM 2540C)	450		10	4.3	mg/L			08/31/23 23:12	1
Method: EPA Field Sampling -	Field Samp	oling							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	53.9				ft			08/28/23 08:35	1
Field pH	7.23				SU			08/28/23 08:35	1
Field Temperature	22.8				Degrees C			08/28/23 08:35	1
Oxidation Reduction Potential	122.7				millivolts			08/28/23 08:35	1

0.37

556

3.99

3

4

6

8

9

10

APPENDIX A. CHEMIC SAMPLE RESONTS RING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

SU

Degrees C

umhos/cm

millivolts

mg/L

NTU

Client: Vistra Energy Corp John ND2570@238579-11 Project/Site: HEN-23Q3 SDG: HEN_257_801

Client Sample ID: HEN_17

Date Received: 08/28/23 15:00

Field pH

Turbidity

Field Temperature

Oxygen, Dissolved

Specific Conductance

Oxidation Reduction Potential

Lab Sample ID: 500-238579-59 Date Collected: 08/28/23 09:40

Matrix: Water

08/28/23 09:40

08/28/23 09:40

08/28/23 09:40

08/28/23 09:40

08/28/23 09:40

08/28/23 09:40

Method: SW846 6020B - Metals	(ICP/MS)	- Total Reco	verable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.076		0.050	0.013	mg/L		09/01/23 09:05	10/04/23 22:08	1
Calcium	58		0.20	0.044	mg/L		09/01/23 09:05	09/05/23 19:28	1
Magnesium	26		0.20	0.049	mg/L		09/01/23 09:05	09/05/23 19:28	1
Potassium	4.4		0.50	0.11	mg/L		09/01/23 09:05	09/05/23 19:28	1
Sodium	55	В	0.20	0.077	mg/L		09/01/23 09:05	10/04/23 22:08	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	80		5.0	0.58	mg/L			08/30/23 18:37	5
Fluoride (EPA 300.0)	0.36	J	1.0	0.19	mg/L			08/30/23 18:21	1
Sulfate (EPA 300.0)	58		5.0	1.0	mg/L			08/30/23 18:37	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	190		5.0	3.7	mg/L			08/31/23 18:35	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/31/23 18:35	1
Total Dissolved Solids (SM 2540C)	420		10	4.3	mg/L			08/31/23 23:19	1
- Method: EPA Field Sampling - F	ield Samı	oling							
Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	56.12				ft			08/28/23 09:40	1

7.34

22.4

148.2

5.76

506

APPENDIX A. CHENTLE SATISTICS AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

mg/L

NTU

umhos/cm

John ND2570@238579-11 Client: Vistra Energy Corp Project/Site: HEN-23Q3 SDG: HEN_257_801

Client Sample ID: HEN_17-FD Lab Sample ID: 500-238579-60

Date Collected: 08/28/23 09:40 **Matrix: Water** Date Received: 08/28/23 15:00

Method: SW846 6020B - Metal	s (ICP/MS)	- Total Reco	verable						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	0.082		0.050	0.013	mg/L		09/01/23 09:05	10/04/23 22:16	1
Calcium	59		0.20	0.044	mg/L		09/01/23 09:05	09/05/23 19:35	1
Magnesium	27		0.20	0.049	mg/L		09/01/23 09:05	09/05/23 19:35	1
Potassium	4.5		0.50	0.11	mg/L		09/01/23 09:05	09/05/23 19:35	1
Sodium	56	В	0.20	0.077	mg/L		09/01/23 09:05	10/04/23 22:16	1
General Chemistry									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride (EPA 300.0)	80		5.0	0.58	mg/L			08/30/23 19:37	5
Fluoride (EPA 300.0)	0.36	J	1.0	0.19	mg/L			08/30/23 19:22	1
Sulfate (EPA 300.0)	57		5.0	1.0	mg/L			08/30/23 19:37	5
Bicarbonate Alkalinity as CaCO3 (SM 2320B)	190		5.0	3.7	mg/L			08/31/23 18:44	1
Carbonate Alkalinity as CaCO3 (SM 2320B)	<5.0		5.0	3.7	mg/L			08/31/23 18:44	1
Total Dissolved Solids (SM 2540C)	430		10	4.3	mg/L			08/31/23 23:25	1
- Method: EPA Field Sampling -	Field Sam	oling							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Depth to Water (ft from MP)	56.12				ft			08/28/23 09:40	1
Field pH	7.34				SU			08/28/23 09:40	1
Field Temperature	22.4				Degrees C			08/28/23 09:40	1
Oxidation Reduction Potential	148.2				millivolts			08/28/23 09:40	1

5.76

506

4.02

Oxygen, Dissolved

Turbidity

Specific Conductance

08/28/23 09:40

08/28/23 09:40

08/28/23 09:40

John ND257080-238579-11 SDG: HEN_257_801

Qualifiers

M	eta	ls

Client: Vistra Energy Corp Project/Site: HEN-23Q3

B Compound was found in the blank and sample.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier Qualifier Description

H Sample was prepped or analyzed beyond the specified holding time. This does not meet regulatory requirements.

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation These commonly used abbreviations may or may not be present in this report.

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery
CFL Contains Free Liquid
CFU Colony Forming Unit
CNF Contains No Free Liquid

DER Duplicate Error Ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

•

4

5

6

Q

10

12

13

Metals

Prep Batch: 729866

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total Recoverable	Water	3005A	
500-238579-10	HEN_05!R	Total Recoverable	Water	3005A	
500-238579-11	HEN_05&DR	Total Recoverable	Water	3005A	
500-238579-12	HEN_40#S	Total Recoverable	Water	3005A	
MB 500-729866/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-729866/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 730528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-28	HEN_07	Total Recoverable	Water	3005A	
500-238579-30	HEN_08	Total Recoverable	Water	3005A	
500-238579-32	HEN_08&D	Total Recoverable	Water	3005A	
500-238579-34	HEN_08_FD	Total Recoverable	Water	3005A	
500-238579-58	HEN_16	Total Recoverable	Water	3005A	
MB 500-730528/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-730528/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Prep Batch: 730537

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-59	HEN_17	Total Recoverable	Water	3005A	
500-238579-60	HEN_17-FD	Total Recoverable	Water	3005A	
MB 500-730537/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 500-730537/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

Analysis Batch: 731002

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total Recoverable	Water	6020B	729866
500-238579-10	HEN_05!R	Total Recoverable	Water	6020B	729866
500-238579-11	HEN_05&DR	Total Recoverable	Water	6020B	729866
500-238579-12	HEN_40#S	Total Recoverable	Water	6020B	729866
500-238579-59	HEN_17	Total Recoverable	Water	6020B	730537
500-238579-60	HEN_17-FD	Total Recoverable	Water	6020B	730537
MB 500-729866/1-A	Method Blank	Total Recoverable	Water	6020B	729866
MB 500-730537/1-A	Method Blank	Total Recoverable	Water	6020B	730537
LCS 500-729866/2-A	Lab Control Sample	Total Recoverable	Water	6020B	729866
LCS 500-730537/2-A	Lab Control Sample	Total Recoverable	Water	6020B	730537

Analysis Batch: 735519

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total Recoverable	Water	6020B	729866
500-238579-10	HEN_05!R	Total Recoverable	Water	6020B	729866
500-238579-11	HEN_05&DR	Total Recoverable	Water	6020B	729866
500-238579-12	HEN_40#S	Total Recoverable	Water	6020B	729866
500-238579-28	HEN_07	Total Recoverable	Water	6020B	730528
500-238579-30	HEN_08	Total Recoverable	Water	6020B	730528
500-238579-32	HEN_08&D	Total Recoverable	Water	6020B	730528
500-238579-34	HEN_08_FD	Total Recoverable	Water	6020B	730528
500-238579-58	HEN_16	Total Recoverable	Water	6020B	730528
500-238579-59	HEN_17	Total Recoverable	Water	6020B	730537
500-238579-60	HEN_17-FD	Total Recoverable	Water	6020B	730537
MB 500-729866/1-A	Method Blank	Total Recoverable	Water	6020B	729866

SDG: HEN_257_801

Metals (Continued)

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Analysis Batch: 735519 (Continued)

Lab Sample ID MB 500-730528/1-A	Client Sample ID Method Blank	Prep Type Total Recoverable	Matrix Water	Method	Prep Batch 730528
				6020B	
MB 500-730537/1-A	Method Blank	Total Recoverable	Water	6020B	730537
LCS 500-729866/2-A	Lab Control Sample	Total Recoverable	Water	6020B	729866
LCS 500-730528/2-A	Lab Control Sample	Total Recoverable	Water	6020B	730528
LCS 500-730537/2-A	Lab Control Sample	Total Recoverable	Water	6020B	730537

General Chemistry

Analysis Batch: 729689

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total/NA	Water	300.0	
500-238579-10	HEN_05!R	Total/NA	Water	300.0	
500-238579-10	HEN_05!R	Total/NA	Water	300.0	
500-238579-11	HEN_05&DR	Total/NA	Water	300.0	
500-238579-11	HEN_05&DR	Total/NA	Water	300.0	
500-238579-12	HEN_40#S	Total/NA	Water	300.0	
500-238579-12	HEN_40#S	Total/NA	Water	300.0	
MB 500-729689/34	Method Blank	Total/NA	Water	300.0	
LCS 500-729689/35	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 729794

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total/NA	Water	SM 2540C	
500-238579-10	HEN_05!R	Total/NA	Water	SM 2540C	
500-238579-11	HEN_05&DR	Total/NA	Water	SM 2540C	
500-238579-12	HEN_40#S	Total/NA	Water	SM 2540C	
MB 500-729794/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-729794/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 729808

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total/NA	Water	SM 2320B	
500-238579-10	HEN_05!R	Total/NA	Water	SM 2320B	
500-238579-11	HEN_05&DR	Total/NA	Water	SM 2320B	
500-238579-12	HEN_40#S	Total/NA	Water	SM 2320B	
MB 500-729808/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-729808/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 729898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-28	HEN_07	Total/NA	Water	300.0	
500-238579-28	HEN_07	Total/NA	Water	300.0	
500-238579-30	HEN_08	Total/NA	Water	300.0	
500-238579-30	HEN_08	Total/NA	Water	300.0	
500-238579-32	HEN_08&D	Total/NA	Water	300.0	
500-238579-32	HEN_08&D	Total/NA	Water	300.0	
500-238579-34	HEN_08_FD	Total/NA	Water	300.0	
500-238579-34	HEN_08_FD	Total/NA	Water	300.0	
MB 500-729898/44	Method Blank	Total/NA	Water	300.0	
LCS 500-729898/45	Lab Control Sample	Total/NA	Water	300.0	

SDG: HEN_257_801

Client: Vistra Energy Corp Project/Site: HEN-23Q3

General Chemistry

Analysis Batch: 730129

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-28	HEN_07	Total/NA	Water	SM 2540C	
500-238579-30	HEN_08	Total/NA	Water	SM 2540C	
500-238579-32	HEN_08&D	Total/NA	Water	SM 2540C	
500-238579-34	HEN_08_FD	Total/NA	Water	SM 2540C	
MB 500-730129/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-730129/2	Lab Control Sample	Total/NA	Water	SM 2540C	

Analysis Batch: 730144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-58	HEN_16	Total/NA	Water	300.0	
500-238579-58	HEN_16	Total/NA	Water	300.0	
500-238579-59	HEN_17	Total/NA	Water	300.0	
500-238579-59	HEN_17	Total/NA	Water	300.0	
500-238579-60	HEN_17-FD	Total/NA	Water	300.0	
500-238579-60	HEN_17-FD	Total/NA	Water	300.0	
MB 500-730144/3	Method Blank	Total/NA	Water	300.0	
LCS 500-730144/4	Lab Control Sample	Total/NA	Water	300.0	

Analysis Batch: 730242

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-28	HEN_07	Total/NA	Water	SM 2320B	
500-238579-30	HEN_08	Total/NA	Water	SM 2320B	
500-238579-32	HEN_08&D	Total/NA	Water	SM 2320B	
500-238579-34	HEN_08_FD	Total/NA	Water	SM 2320B	
MB 500-730242/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-730242/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 730463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-58	HEN_16	Total/NA	Water	SM 2540C	_
500-238579-59	HEN_17	Total/NA	Water	SM 2540C	
500-238579-60	HEN_17-FD	Total/NA	Water	SM 2540C	
MB 500-730463/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 500-730463/2	Lab Control Sample	Total/NA	Water	SM 2540C	
500-238579-58 MS	HEN_16	Total/NA	Water	SM 2540C	
500-238579-58 DU	HEN_16	Total/NA	Water	SM 2540C	
500-238579-59 DU	HEN 17	Total/NA	Water	SM 2540C	

Analysis Batch: 730652

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-58	HEN_16	Total/NA	Water	SM 2320B	
500-238579-59	HEN_17	Total/NA	Water	SM 2320B	
500-238579-60	HEN_17-FD	Total/NA	Water	SM 2320B	
MB 500-730652/3	Method Blank	Total/NA	Water	SM 2320B	
LCS 500-730652/4	Lab Control Sample	Total/NA	Water	SM 2320B	

Analysis Batch: 742490

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total/NA	Water	SM 4500 F C	
MB 500-742490/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 500-742490/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	

APPENDIX A.

QC ASSOCIATION SUMMARY HENNEPIN POWER PLANT, LANDFILL
JOHEND 250 238579-11
SDG: HEN_257_801 Client: Vistra Energy Corp Project/Site: HEN-23Q3

Field Service / Mobile Lab

Analysis Batch: 731893

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238579-9	HEN_48	Total/NA	Water	Field Sampling	
500-238579-10	HEN_05!R	Total/NA	Water	Field Sampling	
500-238579-11	HEN_05&DR	Total/NA	Water	Field Sampling	
500-238579-12	HEN_40#S	Total/NA	Water	Field Sampling	
500-238579-28	HEN_07	Total/NA	Water	Field Sampling	
500-238579-30	HEN_08	Total/NA	Water	Field Sampling	
500-238579-32	HEN_08&D	Total/NA	Water	Field Sampling	
500-238579-34	HEN_08_FD	Total/NA	Water	Field Sampling	
500-238579-58	HEN_16	Total/NA	Water	Field Sampling	
500-238579-59	HEN_17	Total/NA	Water	Field Sampling	
500-238579-60	HEN_17-FD	Total/NA	Water	Field Sampling	

John ND 25 0 2 2 3 8 5 7 9 - 1 1 SDG: HEN_257_801

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-729866/1-A

Matrix: Water

Analysis Batch: 731002

Client: Vistra Energy Corp Project/Site: HEN-23Q3

> **Client Sample ID: Method Blank Prep Type: Total Recoverable**

Prep Batch: 729866

	1410	111.0							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.20		0.20	0.044	mg/L		08/29/23 08:50	09/05/23 14:24	1
Magnesium	<0.20		0.20	0.049	mg/L		08/29/23 08:50	09/05/23 14:24	1
Potassium	<0.50		0.50	0.11	mg/L		08/29/23 08:50	09/05/23 14:24	1

Lab Sample ID: MB 500-729866/1-A

Matrix: Water

Analysis Batch: 735519

MR MR

Client Sample ID: Method Blank **Prep Type: Total Recoverable Prep Batch: 729866**

	MR	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050	0.013	mg/L		08/29/23 08:50	10/04/23 22:39	1
Sodium	<0.20		0.20	0.077	mg/L		08/29/23 08:50	10/04/23 22:39	1

Lab Sample ID: LCS 500-729866/2-A

Matrix: Water

Analysis Batch: 731002

Client Sample ID: Lab Control Sample Prep Type: Total Recoverable Prep Batch: 729866

	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	
Calcium	10.0	10.2	mg/L		102	80 - 120	
Magnesium	10.0	10.4	mg/L		104	80 - 120	
Potassium	10.0	9.96	mg/L		100	80 - 120	

Lab Sample ID: LCS 500-729866/2-A

Matrix: Water

Analysis Batch: 735519

Client Sample ID: Lab Control Sample Prep Type: Total Recoverable Prep Batch: 729866

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Boron	1.00	0.934		mg/L		93	80 - 120	
Sodium	10.0	9.62		mg/L		96	80 - 120	

Lab Sample ID: MB 500-730528/1-A

Matrix: Water

Analysis Batch: 735519

Client Sample ID: Method Blank Prep Type: Total Recoverable Prep Batch: 730528

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050	0.013	mg/L		09/01/23 08:58	10/05/23 02:29	1
Calcium	0.0704	J	0.20	0.044	mg/L		09/01/23 08:58	10/05/23 02:29	1
Magnesium	<0.20		0.20	0.049	mg/L		09/01/23 08:58	10/05/23 02:29	1
Potassium	<0.50		0.50	0.11	mg/L		09/01/23 08:58	10/05/23 02:29	1
Sodium	0.104	J	0.20	0.077	mg/L		09/01/23 08:58	10/05/23 02:29	1

Lab Sample ID: LCS 500-730528/2-A

Matrix: Water

Analysis Batch: 735519

Client Sample ID: Lab Control Sample Prep Type: Total Recoverable

Prep Batch: 730528

7 , 6.6 2 6 1 666.16	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Boron	1.00	0.920		mg/L		92	80 - 120	-
Calcium	10.0	9.67		mg/L		97	80 - 120	
Magnesium	10.0	9.71		mg/L		97	80 - 120	
Potassium	10.0	10.1		mg/L		101	80 - 120	
Sodium	10.0	9.79		mg/L		98	80 - 120	

 $John ND_{25}O D_{2}38579-11$ SDG: HEN_257_801

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 500-730537/1-A

Matrix: Water

Analysis Batch: 731002

Client: Vistra Energy Corp Project/Site: HEN-23Q3

> **Client Sample ID: Method Blank Prep Type: Total Recoverable Prep Batch: 730537**

	INIB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Calcium	<0.20		0.20	0.044	mg/L		09/01/23 09:05	09/05/23 18:33	1
Magnesium	<0.20		0.20	0.049	mg/L		09/01/23 09:05	09/05/23 18:33	1
Potassium	<0.50		0.50	0.11	mg/L		09/01/23 09:05	09/05/23 18:33	1

Lab Sample ID: MB 500-730537/1-A

Matrix: Water

Analysis Batch: 735519

Client Sample ID: Method Blank Prep Type: Total Recoverable Prep Batch: 730537 MR MR

	IVID IV	VID							
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<0.050		0.050	0.013	mg/L		09/01/23 09:05	10/04/23 20:49	1
Sodium	0.0814 J	J	0.20	0.077	mg/L		09/01/23 09:05	10/04/23 20:49	1

Lab Sample ID: LCS 500-730537/2-A

Matrix: Water

Analysis Batch: 731002

Client Sample ID: Lab Control Sample Prep Type: Total Recoverable

Prep Batch: 730537

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Calcium	10.0	10.0		mg/L		100	80 - 120	
Magnesium	10.0	10.2		mg/L		102	80 - 120	
Potassium	10.0	9.94		mg/L		99	80 - 120	

Lab Sample ID: LCS 500-730537/2-A

Matrix: Water

Analysis Batch: 735519

Client Sample ID: Lab Control Sample Prep Type: Total Recoverable Prep Batch: 730537

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Boron	1.00	1.01		mg/L		101	80 - 120	
Sodium	10.0	10.2		mg/L		102	80 - 120	

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 500-729689/34

Matrix: Water

Analysis Batch: 729689

Client Sample ID: Method Blank Prep Type: Total/NA

Client Sample ID: Lab Control Sample

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			08/28/23 18:23	1
Fluoride	<1.0		1.0	0.19	mg/L			08/28/23 18:23	1
Sulfate	<1.0		1.0	0.21	mg/L			08/28/23 18:23	1

Lab Sample ID: LCS 500-729689/35

Matrix: Water

Analysis Batch: 729689							
	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier	Unit D	%Rec	Limits	
Chloride	20.0	19.6		mg/L	98	90 - 110	
Fluoride	20.0	20.2		mg/L	101	90 - 110	
Sulfate	20.0	20.9		mg/L	104	90 - 110	

Eurofins Chicago

Prep Type: Total/NA

HENNEPIN POWER PLANT, LANDFILL

 $John ND_{25}O D_{2}38579-11$ SDG: HEN_257_801

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: MB 500-729898/44

Matrix: Water

Analysis Batch: 729898

Client Sample ID: Method Blank

Prep Type: Total/NA

		MB	MB							
	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Chloride	<1.0		1.0	0.12	mg/L			08/29/23 20:50	1
	Fluoride	<1.0		1.0	0.19	mg/L			08/29/23 20:50	1
L	Sulfate	<1.0		1.0	0.21	mg/L			08/29/23 20:50	1

Lab Sample ID: LCS 500-729898/45

Matrix: Water

Analysis Batch: 729898

Client Sample ID: Lab Control Sample Prep Type: Total/NA

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	20.0	19.7		mg/L		98	90 - 110	
Fluoride	20.0	20.4		mg/L		102	90 - 110	
Sulfate	20.0	20.9		mg/L		104	90 - 110	

Lab Sample ID: MB 500-730144/3

Matrix: Water

Analysis Batch: 730144

Client Sample ID: Method Blank

Client Sample ID: Lab Control Sample

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Type: Total/NA

	MB	MR							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.0		1.0	0.12	mg/L			08/30/23 13:15	1
Fluoride	<1.0		1.0	0.19	mg/L			08/30/23 13:15	1
Sulfate	<1.0		1.0	0.21	mg/L			08/30/23 13:15	1
	Chloride Fluoride	AnalyteResultChloride<1.0	Chloride <1.0 Fluoride <1.0	Analyte Result Chloride Qualifier Chloride RL Chloride Fluoride <1.0	Analyte Result 2 Qualifier RL 3 MDL 3 Chloride <1.0	Analyte Result Chloride Qualifier RL MDL Unit mg/L Fluoride <1.0	Analyte Result Chloride Qualifier RL NDL Unit mg/L D mg/L Fluoride <1.0	Analyte Result Qualifier RL MDL Unit D Prepared Chloride <1.0	Analyte Result Chloride Qualifier RL NDL Unit mg/L D mg/L Prepared Nalyzed Analyzed Nalyzed Fluoride <1.0

Lab Sample ID: LCS 500-730144/4

Matrix: Water

Analysis Batch: 730144

Allalysis Batch. 730144	Spike	LCS	LCS				%Rec
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
Chloride	20.0	19.5		mg/L		97	90 - 110
Fluoride	20.0	20.1		mg/L		100	90 - 110
Sulfate	20.0	20.8		mg/L		104	90 - 110

Method: SM 2320B - Alkalinity

Lab Sample ID: MB 500-729808/3	Client Sample ID: Method Blank
Matrix: Water	Prep Type: Total/NA
Analysis Batch: 729808	

MB MB Result Qualifier RL MDL Unit Dil Fac Analyte Prepared Analyzed Bicarbonate Alkalinity as CaCO3 <5.0 5.0 3.7 mg/L 08/28/23 15:43 Carbonate Alkalinity as CaCO3 <5.0 5.0 3.7 mg/L 08/28/23 15:43

Lab Sample ID: LCS 500-729808/4

Matrix: Water

Analysis Batch: 729808

Allalysis Datell. 12000								
	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Alkalinity	100	92.6		mg/L		93	90 - 110	

Eurofins Chicago

Prep Type: Total/NA

Joh<u>END25</u>50@238579-11 SDG: HEN_257_801

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Method: SM 2320B - Alkalinity (Continued)

Lab Sample ID: MB 500-730242/3

Lab Sample ID: LCS 500-730242/4

Matrix: Water

Analysis Batch: 730242

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB Result Qualifier RL **MDL** Unit Analyzed Dil Fac Analyte D Prepared 5.0 Bicarbonate Alkalinity as CaCO3 <5.0 3.7 mg/L 08/30/23 15:42 Carbonate Alkalinity as CaCO3 <5.0 5.0 3.7 mg/L 08/30/23 15:42

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Matrix: Water

Analysis Batch: 730242

Spike LCS LCS %Rec Analyte Added Result Qualifier Unit %Rec Limits Alkalinity 100 90.2 mg/L 90 90 - 110

Lab Sample ID: MB 500-730652/3 Client Sample ID: Method Blank **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 730652

MR MR RL **MDL** Unit Analyte Result Qualifier Prepared Analyzed Dil Fac 5.0 3.7 mg/L Bicarbonate Alkalinity as CaCO3 <5.0 08/31/23 16:08 Carbonate Alkalinity as CaCO3 <5.0 5.0 3.7 mg/L 08/31/23 16:08

Client Sample ID: Lab Control Sample Lab Sample ID: LCS 500-730652/4 **Matrix: Water** Prep Type: Total/NA

Analysis Batch: 730652

	,	Spike	LCS	LCS				%Rec	
1	Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
_/	Alkalinity	100	90.8		mg/L		91	90 - 110	

Method: SM 2540C - Solids, Total Dissolved (TDS)

MD MD

Lab Sample ID: MB 500-729794/1 **Client Sample ID: Method Blank Matrix: Water** Prep Type: Total/NA

Analysis Batch: 729794

	IVID IVID						
Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10	10	4.3 mg/L			08/28/23 20:37	1

Lab Sample ID: LCS 500-729794/2 **Client Sample ID: Lab Control Sample Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 729794

	Spike	LCS	LCS				%Rec	
Analyte	Added	l Result	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids	250	232		mg/L	_	93	80 - 120	

Client Sample ID: Method Blank Lab Sample ID: MB 500-730129/1 **Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 730129

7 maryolo Batom 100120									
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10		10	4.3	mg/L			08/30/23 11:22	1

John 102500 238579-11 SDG: HEN_257_801

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Method: SM 2540C - Solids,	Total Dissolved	(TDS) (Continued)
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Lab Sample ID: LCS 500-730129/2

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Matrix: Water

Analysis Batch: 730129

		Spike	LCS	LCS				%Rec	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids		250	290		ma/L		116	80 - 120	

Lab Sample ID: MB 500-730463/1 **Client Sample ID: Method Blank Prep Type: Total/NA**

Matrix: Water

Analysis Batch: 730463

MB MB

Analyte	Result Qualifier	RL	MDL Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	<10	10	4.3 mg/L			08/31/23 23:07	1

Lab Sample ID: LCS 500-730463/2 **Client Sample ID: Lab Control Sample** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 730463

	Spike	LCS	LCS			%Rec	
Analyte	Added	Result	Qualifier	Unit I	D %Rec	Limits	
Total Dissolved Solids	250	240		ma/L	96	80 - 120	

Lab Sample ID: 500-238579-58 MS Client Sample ID: HEN_16 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 730463

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Total Dissolved Solids	450		250	728		ma/L		111	75 - 125	

Lab Sample ID: 500-238579-58 DU Client Sample ID: HEN_16 Prep Type: Total/NA

Matrix: Water

Analysis Batch: 730463

	Sample	Sample	DU	DU					RPD	
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit	
Total Dissolved Solids	450		 430		mg/L			5	5	

Lab Sample ID: 500-238579-59 DU

Matrix: Water

Analysis Batch: 730463

Allalysis Datcil. 130403									
	Sample	Sample	DU	DU					RPD
Analyte	Result	Qualifier	Result	Qualifier	Unit	D		RPD	Limit
Total Dissolved Solids	420		 426		mg/L			0.9	5

Method: SM 4500 F C - Fluoride

Lab Sample ID: MB 500-742490/3 **Client Sample ID: Method Blank** Prep Type: Total/NA

Matrix: Water

Analysis Batch: 742490

	IVID IV	VID							
Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.10		0.10	0.056	mg/L			11/15/23 13:14	1

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Client Sample ID: HEN_17

Prep Type: Total/NA

QCUSAMPIENTES UNSTORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL JOHEND 250 238579-11

Client: Vistra Energy Corp Project/Site: HEN-23Q3 SDG: HEN_257_801

Method: SM 4500 F C - Fluoride (Continued)

Lab Sample ID: LCS 500-742490/4 **Client Sample ID: Lab Control Sample Matrix: Water Prep Type: Total/NA**

Analysis Batch: 742490

	Spike	LCS	LCS				%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Fluoride	10.0	9.68		mg/L		97	90 - 119	. –

John ND2570@238579-11 SDG: HEN_257_801

Client Sample ID: HEN_48

Client: Vistra Energy Corp

Project/Site: HEN-23Q3

Date Collected: 08/23/23 10:20 Date Received: 08/24/23 09:38

Lab Sample ID: 500-238579-9

Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 ¹
Total Recoverable	Analysis	6020B		1	731002	EH	EET CHI	09/05/23 15:20
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 1
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/04/23 23:39
Total/NA	Analysis	300.0		5	729689	W1T	EET CHI	08/29/23 02:59
Total/NA	Analysis	SM 2320B		1	729808	EH	EET CHI	08/28/23 18:00
Total/NA	Analysis	SM 2540C		1	729794	CLB	EET CHI	08/28/23 21:00
Total/NA	Analysis	SM 4500 F C		1	742490	SO	EET CHI	11/15/23 13:25
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/23/23 10:20

Client Sample ID: HEN_05!R

Date Collected: 08/23/23 11:30 Date Received: 08/24/23 09:38

Lab Sample ID: 500-238579-10

Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 ¹
Total Recoverable	Analysis	6020B		1	731002	EH	EET CHI	09/05/23 15:23
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 ¹
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/04/23 23:43
Total/NA	Analysis	300.0		1	729689	W1T	EET CHI	08/29/23 03:14
Total/NA	Analysis	300.0		5	729689	W1T	EET CHI	08/29/23 03:29
Total/NA	Analysis	SM 2320B		1	729808	EH	EET CHI	08/28/23 18:09
Total/NA	Analysis	SM 2540C		1	729794	CLB	EET CHI	08/28/23 21:02
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/23/23 11:30

Client Sample ID: HEN_05&DR

Date Collected: 08/23/23 11:45 Date Received: 08/24/23 09:38 Lab Sample ID: 500-238579-11 **Matrix: Water**

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 ¹
Total Recoverable	Analysis	6020B		1	731002	EH	EET CHI	09/05/23 15:26
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 ¹
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/04/23 23:47
Total/NA	Analysis	300.0		1	729689	W1T	EET CHI	08/29/23 03:44
Total/NA	Analysis	300.0		5	729689	W1T	EET CHI	08/29/23 04:00
Total/NA	Analysis	SM 2320B		1	729808	EH	EET CHI	08/28/23 18:18
Total/NA	Analysis	SM 2540C		1	729794	CLB	EET CHI	08/28/23 21:05
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/23/23 11:45

Joh<u>END25</u>50@238579-11 SDG: HEN_257_801

Client Sample ID: HEN 40#S

Date Collected: 08/23/23 09:05 Date Received: 08/24/23 09:38

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Lab Sample ID: 500-238579-12

Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 ¹
Total Recoverable	Analysis	6020B		1	731002	EH	EET CHI	09/05/23 15:30
Total Recoverable	Prep	3005A			729866	BDE	EET CHI	08/29/23 08:50 - 08/29/23 09:20 1
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/04/23 23:50
Total/NA	Analysis	300.0		1	729689	W1T	EET CHI	08/29/23 04:45
Total/NA	Analysis	300.0		5	729689	W1T	EET CHI	08/29/23 05:00
Total/NA	Analysis	SM 2320B		1	729808	EH	EET CHI	08/28/23 18:27
Total/NA	Analysis	SM 2540C		1	729794	CLB	EET CHI	08/28/23 21:08
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/23/23 09:05

Lab Sample ID: 500-238579-28

Client Sample ID: HEN_07 Date Collected: 08/24/23 14:00

Date Received: 08/25/23 09:32

Batch Batch Dilution Batch **Prepared** Method Number Analyst or Analyzed **Prep Type** Type Run **Factor** Lab 09/01/23 08:58 - 09/01/23 09:28 1 Total Recoverable Prep 3005A 730528 BDE EET CHI Total Recoverable 6020B 735519 BJH **EET CHI** 10/05/23 02:41 Analysis 1 Total/NA Analysis 300.0 1 729898 W1T **EET CHI** 08/29/23 21:20 Total/NA Analysis 300.0 5 729898 W1T **EET CHI** 08/29/23 21:35 Total/NA Analysis SM 2320B 1 730242 EH **EET CHI** 08/30/23 16:36 EET CHI Total/NA Analysis SM 2540C 730129 SO 1 08/30/23 11:27 EET CHI Total/NA Analysis Field Sampling 731893 DN 08/24/23 14:00

Client Sample ID: HEN_08 Lab Sample ID: 500-238579-30

Date Collected: 08/24/23 15:10 Date Received: 08/25/23 09:32

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			730528	BDE	EET CHI	09/01/23 08:58 - 09/01/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/05/23 02:44
Total/NA	Analysis	300.0		1	729898	W1T	EET CHI	08/29/23 21:50
Total/NA	Analysis	300.0		10	729898	W1T	EET CHI	08/29/23 22:36
Total/NA	Analysis	SM 2320B		1	730242	EH	EET CHI	08/30/23 16:45
Total/NA	Analysis	SM 2540C		1	730129	so	EET CHI	08/30/23 11:30
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/24/23 15:10

Client Sample ID: HEN_08&D Lab Sample ID: 500-238579-32 Date Collected: 08/24/23 12:25

Date Received: 08/25/23 09:32

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			730528	BDE	EET CHI	09/01/23 08:58 - 09/01/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/05/23 02:48
Total/NA	Analysis	300.0		1	729898	W1T	EET CHI	08/29/23 22:51

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10

Matrix: Water

Matrix: Water

Matrix: Water

Joh<u>⊨ND25</u>50&0-238579-11 SDG: HEN_257_801

Client Sample ID: HEN 08&D

Date Collected: 08/24/23 12:25 Date Received: 08/25/23 09:32

Date Received: 08/28/23 15:00

Analysis

SM 2320B

Total/NA

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Lab Sample ID: 500-238579-32

Matrix: Water

10

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	300.0		10	729898	W1T	EET CHI	08/29/23 23:06
Total/NA	Analysis	SM 2320B		1	730242	EH	EET CHI	08/30/23 16:56
Total/NA	Analysis	SM 2540C		1	730129	SO	EET CHI	08/30/23 11:33
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/24/23 12:25

Client Sample ID: HEN_08_FD Lab Sample ID: 500-238579-34

Date Collected: 08/24/23 15:10 **Matrix: Water** Date Received: 08/25/23 09:32

Batch Batch Dilution Batch **Prepared Prep Type** Type Method Run **Factor Number Analyst** Lab or Analyzed 09/01/23 08:58 - 09/01/23 09:28 1 Total Recoverable Prep 3005A 730528 BDE EET CHI 6020B 735519 BJH Total Recoverable Analysis 1 **EET CHI** 10/05/23 02:59 Total/NA Analysis 300.0 1 729898 W1T **EET CHI** 08/29/23 23:21 Total/NA Analysis 300.0 10 729898 W1T **EET CHI** 08/29/23 23:37 Total/NA **EET CHI** 08/30/23 17:06 Analysis SM 2320B 1 730242 EH Total/NA Analysis SM 2540C 730129 SO **EET CHI** 08/30/23 11:36 1 Total/NA Analysis **EET CHI** Field Sampling 1 731893 DN 08/24/23 15:10

Client Sample ID: HEN 16 Lab Sample ID: 500-238579-58

Date Collected: 08/28/23 08:35 **Matrix: Water** Date Received: 08/28/23 15:00

_	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			730528	BDE	EET CHI	09/01/23 08:58 - 09/01/23 09:28 ¹
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/05/23 04:19
Total/NA	Analysis	300.0		1	730144	EH	EET CHI	08/30/23 17:51
Total/NA	Analysis	300.0		5	730144	EH	EET CHI	08/30/23 18:06
Total/NA	Analysis	SM 2320B		1	730652	EH	EET CHI	08/31/23 18:25
Total/NA	Analysis	SM 2540C		1	730463	CLB	EET CHI	08/31/23 23:12
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/28/23 08:35

Client Sample ID: HEN 17 Lab Sample ID: 500-238579-59 Date Collected: 08/28/23 09:40 **Matrix: Water**

Batch **Batch** Dilution Batch **Prepared** or Analyzed Method Run Factor Number Analyst **Prep Type** Type Lab 09/01/23 09:05 - 09/01/23 09:35 1 Total Recoverable 3005A BDE EET CHI Prep 730537 Total Recoverable 09/05/23 19:28 6020B 731002 EH **EET CHI** Analysis 1 3005A **EET CHI** Total Recoverable Prep 730537 BDE 09/01/23 09:05 - 09/01/23 09:35 1 Total Recoverable Analysis 6020B 735519 BJH **EET CHI** 10/04/23 22:08 1 Total/NA Analysis 300.0 1 730144 EH **EET CHI** 08/30/23 18:21 Total/NA 300.0 5 **EET CHI** 08/30/23 18:37 Analysis 730144 EH

1

730652 EH

EET CHI

08/31/23 18:35

John 102500 238579-11 SDG: HEN_257_801

Client Sample ID: HEN_17

Client: Vistra Energy Corp Project/Site: HEN-23Q3

Date Collected: 08/28/23 09:40 Date Received: 08/28/23 15:00

Lab Sample ID: 500-238579-59

Matrix: Water

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Type	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total/NA	Analysis	SM 2540C		1	730463	CLB	EET CHI	08/31/23 23:19
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/28/23 09:40

Client Sample ID: HEN_17-FD Lab Sample ID: 500-238579-60

Date Collected: 08/28/23 09:40 **Matrix: Water**

Date Received: 08/28/23 15:00

	Batch	Batch		Dilution	Batch			Prepared
Prep Type	Туре	Method	Run	Factor	Number	Analyst	Lab	or Analyzed
Total Recoverable	Prep	3005A			730537	BDE	EET CHI	09/01/23 09:05 - 09/01/23 09:35
Total Recoverable	Analysis	6020B		1	731002	EH	EET CHI	09/05/23 19:35
Total Recoverable	Prep	3005A			730537	BDE	EET CHI	09/01/23 09:05 - 09/01/23 09:35
Total Recoverable	Analysis	6020B		1	735519	BJH	EET CHI	10/04/23 22:16
Total/NA	Analysis	300.0		1	730144	EH	EET CHI	08/30/23 19:22
Total/NA	Analysis	300.0		5	730144	EH	EET CHI	08/30/23 19:37
Total/NA	Analysis	SM 2320B		1	730652	EH	EET CHI	08/31/23 18:44
Total/NA	Analysis	SM 2540C		1	730463	CLB	EET CHI	08/31/23 23:25
Total/NA	Analysis	Field Sampling		1	731893	DN	EET CHI	08/28/23 09:40

This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

Laboratory References:

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

APPENDIX A.

Accreditation/Certification Summap Corrective action report Henniepin Power Plant, Landfill John 1250 238579-11
SDG: HEN_257_801 Client: Vistra Energy Corp Project/Site: HEN-23Q3

Laboratory: Eurofins Chicago

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Prog	ram	Identification Number	Expiration Date
Ilinois	NELA	NP.	IL00035	04-29-24
,	s are included in this repo	•	not certified by the governing authori	ty. This list may include analytes
Analysis Method	Prep Method	Matrix	Analyte	
Field Sampling		Water	Depth to Water (ft from M	P)
Field Sampling		Water	Field pH	
Field Sampling		Water	Field Temperature	
Field Sampling		Water	Oxidation Reduction Pote	ential
Field Sampling		Water	Oxygen, Dissolved	
Field Sampling		Water	Specific Conductance	
Field Sampling		Water	Turbidity	
SM 2320B		Water	Bicarbonate Alkalinity as	CaCO3
SM 2320B		Water	Carbonate Alkalinity as C	aCO3

2

HEN-257-801

CHAIN-OF-CUSTODY / Analytical Request Document

500-238579 COC

500-238579

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately Section B Section A Section C of 1 Required Project Information Required Client Information Invoice Information Report To Brian Voelker Company Vistra Corp/A3 Jason Stuckey Copy To Jason Stuckey Address 3030 Warrenville Rd Ste 418 Company Name: Vistra Corp REGULATORY AGENCY Lisle IL 60532 Address see Section A NPDES **GROUND WATER** DRINKING WATER Purchase Order No. Brian.Voelker@VistraCorp.com OTHER UST RCRA Referenc Project Name: Phone: (217) 753-8911 Project Site Location Manager IL Project Number: 50021987 Requested Due Date/TAT 10 day STATE Requested Analysis Filtered (Y/N) Valid Matrix Codes Z Section D C=COMP) COLLECTED Required Client Information MATRIX Preservatives valid codes t DRINKING WATER 802-80 WATER WASTE WATER (G=GRAB 804 PRODUCT SOIL/SOLID West ees) OIL WIPE HEN_WPCP_East # OF CONTAINERS Analysis Test SAMPLE ID HEN_CLOSURE HEN_CLOSURE SUP_000 AIR OTHER 802-802 803 HEN_257_803 804 845_804 MATRIX CODE HEN 811 801 (A-Z, 0-9 /) SAMPLE TYPE HEN WPCP Sample IDs MUST BE UNIQUE HEN_257_ HEN_845_ HEN 257 **JEN** 845 HEN 257 Na₂S₂O₃ Methanol A H Y Y DATE Project No./ Lab I D 2123123 HEN_05'R 1130 Х 2 3 5 9 10 11 12 13 14 15 16 RELINGUISHED BY I AFFILIATION ADDITIONAL COMMENTS DATE TIME ACCEPTED BY / AFFILIATION SAMPLE CONDITIONS HEN-23Q3 Rev 0 SHOROMUL HUMOM DELICATA SAMPLER NAME AND SIGNATURE Custody Sealed Cooler (Y/N) PRINT Name of SAMPLER. (RCM314) DATE Signed SIGNATURE of SAMPLER (MM/DD/YY).

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SIGNATURE of SAMPLER

Received on Ice (Y/N)

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CHAIN-OF-CUSTODY / Analytical Request Document

500-238579

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately Section A Section B Section C 1 Page Required Client Information Required Project Information Invoice Information Company Vistra Corp/A3 Report To Brian Voelker Attention Jason Stuckey Address 3030 Warrenville Rd Ste 418 Company Name. Vistra Corp Copy To: Jason Stuckey **REGULATORY AGENCY** Lisle IL 60532 Address see Section A **NPDES GROUND WATER** DRINKING WATER Email To: Purchase Order No Brian.Voelker@VistraCorp.com Quote UST RCRA OTHER Phone. (217) 753-8911 Project Name roject Site Location // Anager IL Project Number: 50021987 rofile #: Requested Due Date/TAT 10 day STATE Requested Analysis Filtered (Y/N) Section D **→** N × Valid Matrix Codes (G=GRAB C=COMP) * . è COLLECTED • Required Client Information MATRIX CODE Preservatives 802-80 WATER WASTE WATER 804 PRODUCT SOIL/SOLID 802-805 HEN_WPCP_West Residual Chlorine (Y/ HEN_WPCP_East Analysis Test # OF CONTAINERS HEN_CLOSURE HEN_CLOSURE SAMPLE ID WIPE HEN_SUP_000 SAMPLE TEMP AT 802 HEN_257_803 804 HEN_845_803 845_804 801 CODE HEN_811_801 (A-Z, 0-9/) OTHER SAMPLE TYPE Sample IDs MUST BE UNIQUE TISSUE HEN_845_ HEN_257 HEN 257 HEN 257 MATRIX ĒN DATE Project No./ Lab I D. 8124123 <u> 1420</u> HEN 07 Χ Χ Х Χ Х Х SHORT HOLDS-NO2 Added by EETA 815123 SH Trip Blank 5 6 7 8 9 10 11 12 13 14 15 16 ADDITIONAL COMMENTS RELINQUISHED BY / AFFILIATION DATE ACCEPTED BY / AFFILIATION SAMPLE CONDITIONS **HEN-23Q3 Rev 0** Allison Beckett 3/24/13 EETA HAA 8175123 SAMPLER NAME AND SIGNATURE Custody Sealed Cooler (Y/N) Samples Intact (Y/N) PRINT Name of SAMPLER DATE Signed 8/24/ SIGNATURE of SAMPLER

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CHAIN-OF-CUSTODY / Analytical Request Document

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CHAIN-OF-CUSTODY / Analytical Request Document

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CHAIN-OF-CUSTODY / Analytical Request Document

500-238579 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Section A Required Client Information	Section B Required Pro	oject Info	rmation					tion C ce Info	mation	1															Pa	ge 1	of	1	
Company Vistra Corp/A3	Report To	Brian Vo	oelker				Atter	ition	Ja	son S	tucke	y													<u> </u>				_
Address. 3030 Warrenville Rd Ste 418	Сору То: Ј	ason S	tuckey				Com	pany N	ame:	Vist	ra Co	rp					**********						REG	ULA	TORY	AGENC	ſ		П
Lisle IL 60532							Addr	ess	see	Sec	tion A	1					***************************************		N	PDES	3	GR	OUN	WA1	ΓER	DRII	IKING WAT	ER	
Email To. Brian Voelker@VistraCorp.com	Purchase Ord	der No.					Quote Refer												ŧ	IST		RO	CRA			OTHER			
Phone: (217) 753-8911 Fax:	Project Name),					Projec Mana												5	Site L	ocatio	n							
Requested Due Date/TAT 10 day	Project Numb	er 500	21987				Profile										***************************************			;	STATE	:		IL					
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WATER WASTE WATER PRODUCT SOIL/SO(LID OIL SAMPLE ID WIPE AIR (A-Z, 0-9 /) OTHER	OL WP	MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)	DATE		TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	HNO ₃	HC! NaOH	Na ₂ S ₂ O ₃	Methanol Other	Analysis Test	HEN_257_801	HEN_257_802	HEN_257_803	HEN_257_804	HEN_811_801		HEN_845_803	HEN CLOSIBE 802-808		11	HEN_WPCP_East	HEN_WPCP_West	residual Chlorine (Y/N)	oject No./	Lab I D	
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CHAIN-OF-CUSTODY / Analytical Request Document

500-238579 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately Section B Section C Section A Page 1 Required Client Information Required Project Information Invoice Information Report To. Brian Voelker Attention Company Vistra Corp/A3 Jason Stuckey Address 3030 Warrenville Rd Ste 418 Copy To: Jason Stuckey Company Name: Vistra Corp REGULATORY AGENCY Lisle IL 60532 Address see Section A **NPDES GROUND WATER** DRINKING WATER Email To: Brian Voelker@VistraCorp.com Purchase Order No. Quote Reference UST RCRA OTHER Project Name: Phone: (217) 753-8911 roject Site Location Manage IL Project Number 50021987 Requested Due Date/TAT 10 day Requested Analysis Filtered (Y/N) Section D Valid Matrix Codes C=COMP) N /A COLLECTED Preservatives Required Client Information MATRIX CODE DRINKING WATER DW WATER WASTE WATER (G=GRAB PRODUCT SOIL/SOLID SL OL WP AR OT TS East West ees) OIL WIPE # OF CONTAINERS Analysis Test CLOSURE HEN_CLOSURE SAMPLE ID 802 804 803 AIR OTHER HEN_845_804 801 MATRIX CODE (A-Z, 0-9 /) HEN_WPCP_ HEN_WPCP SAMPLE TYPE SUP Sample IDs MUST BE UNIQUE 845 HEN 811 HEN_257_ 845 257 HEN_257_ HEN 257 Methanol Na₂S₂O₃ HEN HEN H H HEN HEN DATE Project No./ Lab I D TIME HEN 16 8/28/23 0835 Х Х SHORT HOLDS-NO2 2 3 5 8 9 10 11 12 13 14 15 16 ADDITIONAL COMMENTS RELINQUISHED BY / AFFILIATION DATE ACCEPTED BY / AFFILIATION DATE SAMPLE CONDITIONS Allison Beckett 8/28/12/500 HEN-23Q3 Rev 0 SAMPLER NAME AND SIGNATURE Samples Intact (Y/N) PRINT Name of SAMPLER DATE Signed (MM/DD/YY) SIGNATURE of SAMPLER

CHAIN-OF-CUSTODY / Analytical Request Document

CHAIN-OF-CUSTODY / Analytical Request Document	501	5-0	23 k	579
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Section C	Page	1	of	1
Invoice Information		•		

Section A Required Client Information	Section B Required Proje	ect Infor			Section C Invoice Information													Pa	age	1	of		1							
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Phone (217) 753-8911 Fax.	Project Name:						Proje Mana	ct										1	Site	Loca	tion					T				
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Login Sample Receipt Checklist

HEN-257-801

Client: Vistra Energy Corp

Job Number: 500-238579-11
SDG Number: HEN_257_801

Login Number: 238579 List Source: Eurofins Chicago

List Number: 1

Creator: Scott, Sherri L

Answer	Comment
True	
True	
True	
True	
True	
True	
True	0.6,0.7,0.3,1.2,0.8,0.4,0.1,2.9,1.7,3.7,1.0,2.8,0.2, 2.0,2.9,0.1,1.63.0,1.3,0.5,2
True	
True	
True	
True	
False	
True	
True	
True	
True	
False	
True	
True	
True	
False	
True	
True	
N/A	
	True True True True True True True True

Event:	Plant:	All DTWs	SAR-3: E	
HEN-23Q3 Rev 0	HEN	All DTWs on SAR-3 must be collected within 24 hours.	AR-3: Episodic Depth to Groundwater Measurements	

100%	SGD	XSG01	XPW03	XPW02	XPW01	48	45S	40S	36	33	31	30	26	25	19D	198	15	11	10	06	05DR	05R	04R	02		Well
LICIAL I DO TENTACIN	HEN YSG II RIVER	HEN_XSG01	HEN_XPW03_pore	HEN_XPW02_pore	HEN_XPW01_pore	HEN_48	HEN_45#S	HEN_40#S		HEN_33	HEN_31	HEN_30	HEN_26	HEN_25	HEN_19&D	HEN_19#S	HEN_15	HEN_11	HEN_10	HEN_06	HEN_05&DR	HEN_05!R	HEN_04R	HEN_02		o iid
-			8121/13	8/21/23	8/21/23	8/21/23	8121123	8121/23	8/22/93	8/12/13	8122123	8122123	ELITTIS	8122123	8121123	8121123	8/21/23	8/21/23	812123	8/21/23	galas	8121/23	8/21/23	8121123		200
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			486	14,19	Sr. b	N/A	18-98	37-92	13.58	28	4.85	58.h	13.26	A Zion	37.34	37.2	47:47	48-33	48.28	2.S	38.73	38.69	37.08	H8-1h		(ft bmp)
U:6/21/23 GKJ						* Cours out to Brak				>												15		2	Comments	
Ì			12	2	2	5	G	R	C	2	5	A	G	2	2	R	R	2	Q	2	2	2	2	12		Init

HENNEPIN POWER PLANT	, LANDFILL EN-257-801
Stick-up Monitoring Wells 1. Outer protective Casing Not corroded Not dented Not dented Not loose 2. Inner casing Not corroded Not corroded Not dented Not dented Not loose 3. Are there weep holes in outer casing? 4. Weep holes able to drain? 5. Is there a lockable cap present? 6. Is there a lock present? 6. Is there a lock present? 7. Bumper posts in good condition? Flushmount Monitoring Wells 8. Can the lid be secured tightly? 9. Does the lid have a gasket that seals? 10. No water in the flushmount?	Site Hennapin II Inspection Date 8/2/123 0 1140 Well Number HEN-00
Yes Yes Yes	_ Major wel to maintai
X Z X X	Major wells repairs* required to maintain well integrity?
NA NA NA	equired rity?
	Yes
<u>Comments</u>	> No
	z

* Major well repair are those that require a subcontractor or separate mobilization to complete 21. Well clearly visible and labeled? 20. No surface seal settling? 19 . Concrete pad Comments: Not deteriorated? Slope away form casing? Not heaved or below surrounding grade? DIM: 20:80+ X de la la installed

17. Measured total depth of well.

16. Installed as total depth.

17 o 18

Yes

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×

18. Concrete pad installed?

General Condition

14. No plant roots or vegetation in well?

15. No sediment in bottom of well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

Yes

8

Z

11. Is the well cap lockable?12. Is there a lock present?

* Major well repair are those that require a subcontractor or separate mobilization to complete 21. Well clearly visible and labeled? 07W-372H pump installed

18. Concrete pad installed?

19 . Concrete pad

General Condition

17. Measured total depth of well. Installed as total depth.

39.92 ft

₽

Yes

몽

Z

20. No surface seal settling?

Not heaved or below surrounding grade?

Not deteriorated? Slope away form casing?

Comments:

14. No plant roots or vegetation in well?

15. No sediment in bottom of well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

les es

S

NA

y

12. Is there a lock present? 11. Is the well cap lockable?

Privileged and Confidential, Attorney Work Product. Prepared at the Request of Counsel. Subject to Chang **Nonitoring** is **Vellig valuation Checklis** Ecomes Available.

	instance of something to the second s	* Major well repair are those that require a subcontractor
mel)	y durid	DTW: 37.34
	>	Comments:
	2.	20. No surface seal settling?
		Not heaved or below surrounding grade?
		Not deteriorated?
	y.	Slope away form casing?
	×	19. Concrete pad installed?
	Yes No NA	General Condition
	62.55ft	17. Measured total depth of well.
)	If present, how much sediment?
	4-	15. No sediment in bottom of well?
	>	14. No plant roots or vegetation in well?
	< ×	12. Water level measuring point clearly marked? 13. No obstructions in well?
	-	Downhole Condition
	Yes No NA	All Monitoring Wells
	+	12. Is there a lock present?
		11. Is the well cap lockable?
		10. No water in the flushmount?
	7	8. Can the lid be secured tightly?
	Yes No NA	Flushmount Monitoring Wells
		The state of the s
	(7. Bumper posts in good condition?
		5. Is there a lock present? 6. Is there a lock present?
	4	4. Weep holes able to drain?
	X	3. Are there weep holes in outer casing?
	Yes No NA	Not loose
		Not cracked
		Not dented
	×	Not corroded
	Yes No NA	2. Inner casing
	4	Not loose
		Not cracked
	->	Not dented
	Yes No NA	1. Outer protective Casing
Comments		Stick-up Monitoring Wells
×	to maintain well integrity?	Inspection Date 彩 <u>21/23</u> 色 13件0 Well Number <u>井もNー</u> タD
Yes No NA	Major wells repairs* required	Site Former's 1

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Inspection Date 8/11/13 (Bions)	Major wells repairs* required	Yes No NA
	(
Stick-up Monitoring Wells		Comments
Not corroded	₹ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
Not dented		
Not cracked		
Not loose	₩	
2. Inner casing	Yes No NA	
Not corroded	**	
Not dented		
Not cracked		
Not loose	Yes No NA	
4. Weep holes able to drain?		
5. Is there a lockable cap present?		
6. Is there a lock present?		
7. Bumper posts in good condition?	~	
Flushmount Monitoring Wells	Yes No NA	
8. Can the lid be secured tightly? 9. Does the lid have a gasket that seals?	-×	
10. No water in the flushmount?		
12. Is there a lock present?	1	
All Monitoring Wells	Yes No NA	
12. Water level measuring point clearly marked?	A A	
13. No obstructions in well?	×:	
14. No plant roots or vegetation in well?	A	
15. No sediment in bottom of well?	· ·	
in present, now indent sediment:	,	
16. Installed as total depth.17. Measured total depth of well.	H2.78m	
General Condition	Yes No NA	
18. Concrete pad installed?		
19 . Concrete pad		
Slope away form casing?	×	
Not deteriorated?	*	
Not heaved or below surrounding grade?	*	
21. Well clearly visible and labeled?	×	
ents:		
(NOUNCY O MIT NOED	WELLS 3+100 DV	NW.
* Major well repair are those that require a subcontractor or separate mobilization to complete	actor or congrete mobilization to	

Inspection Date 8/2/123 Well Number #EN-15	Major wells repairs* required to maintain well integrity?
Stick-up Monitoring Wells 1. Outer protective Casing	Yes No NA Comments
Not corroded	メ
Not cracked	
Not loose	8
2. Inner casing	Yes No NA
Not corroded	
Not cracked	
Not loose	4
3. Are there weep holes in outer casing?	Yes NO NA
4. Weep holes able to drain?	×
5. Is there a lockable cap present?	. 'Y
7. Bumper posts in good condition?	4
Flushmount Monitoring Wells	Yes No NA
9. Does the lid have a gasket that seals?	
11. Is the well cap lockable?	
12. Is there a lock present?	1
All Monitoring Wells	Yes No NA
12. Water level measuring point clearly marked?	X
13. No obstructions in well?	7
14. No plant roots or vegetation in well?	
15. No sediment in bottom of well? If present, how much sediment?	· · · · · · · · · · · · · · · · · · ·
16. Installed as total depth.	71 72
] `
18. Concrete pad installed?	Y NO NA
19 . Concrete pad	
Slope away form casing?	× ×
Not deteriorated? Not heaved or below surrounding grade?	
20. No surface seal settling? 21. Well clearly visible and Jaholod?	×
2	
Tonge	120 05 pump 1 DI NJ: 47.191+
* Major well repair are those that require a subcontractor or separate mobilization to complete	actor or separate mobilization to complete

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	17 N. 15. 924
×.	21. Well clearly visible and labeled?
	20. No surface seal settling?
×	Not heaved or below surrounding grade?
×	Not deteriorated?
×	Slope away form casing?
	19 . Concrete pad
×	18. Concrete pad installed?
Yes No NA	General Condition
WUST	17. Measured total depth of well.
	16. Installed as total depth.
]	If present, how much sediment?
×	15. No sediment in bottom of well?
ス	14. No plant roots or vegetation in well?
+	13. No obstructions in well?
25 X	12. Water level measuring point clearly marked?
Yes NO NA	Downhole Condition
-	
×	12. Is there a lock present?
×	11. Is the well cap lockable?
U H	10. No water in the flushmount?
×	9. Does the lid have a gasket that seals?
,	8. Can the lid be secured tightly?
Yes No NA	Flushmount Monitoring Wells
\frac{1}{2}	/. Balliper posts ill good condition?
4	2 Primary posts in good condition
2 ×	5. Is there a lock present?
*	4. weep livies able to dialify
×	3. Are there weep noies in outer casing?
Yes No NA	2 Arg +horo 11000 holos is out to 101512
×	Not loose
X	Not cracked
X	Not dented
×	Not corroded
Yes No NA	2. Inner casing
× _	Not loose
×	Not cracked
	Not dented
	Not corroded
Yes No NA Comments	Stick-up Monitoring Wells 1. Outer protective Casing
×	Inspection Date 8/21/23 (2) 0950
Maior wells repairs* required Yes No NA	Site #physpin T)

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	,	ANNUAL	GROUN	IDWAT	ER MC	NITO						LANT, L	REPORT ANDFILL I-257-801
All Monitoring Wells	9. Does the lid have a gasket that seals? 10. No water in the flushmount? 11. Is the well cap lockable? 12. Is there a lock present?	7. Bumper posts in good condition? Flushmount Monitoring Wells R Can the lid he secured tightly?	5. Is there a lockable cap present? 6. Is there a lock present?	3. Are there weep holes in outer casing?4. Weep holes able to drain?	Not loose	Not cracked	Not corroded	2. Inner casing	Not loose	Not dented	Not corroded	Stick-up Monitoring Wells 1. Outer protective Casing	Site #8hhlping/ Inspection Date 8/11/13 @ 830 Well Number #EN-11 &D
Yes		Yes	×		Yes			Yes				Yes	Major wells repairs* required to maintain well integrity?
Z O		No		Q	NO C		-2	No	•	+	×	N _O	s repairs*
NA A	2	2 NA		y	NA			NA				N A	required 3rity?
												Comments	Yes No N.

* Major well repair are those that require a subcontractor or separate mobilization to complete 21. Well clearly visible and labeled? 20. No surface seal settling? 19 . Concrete pad Comments: Not heaved or below surrounding grade? Not deteriorated? Slope away form casing? DT WI: ON App

Q. N.

17. Measured total depth of well.

040

Yes

Хĕ

Installed as total depth.

15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

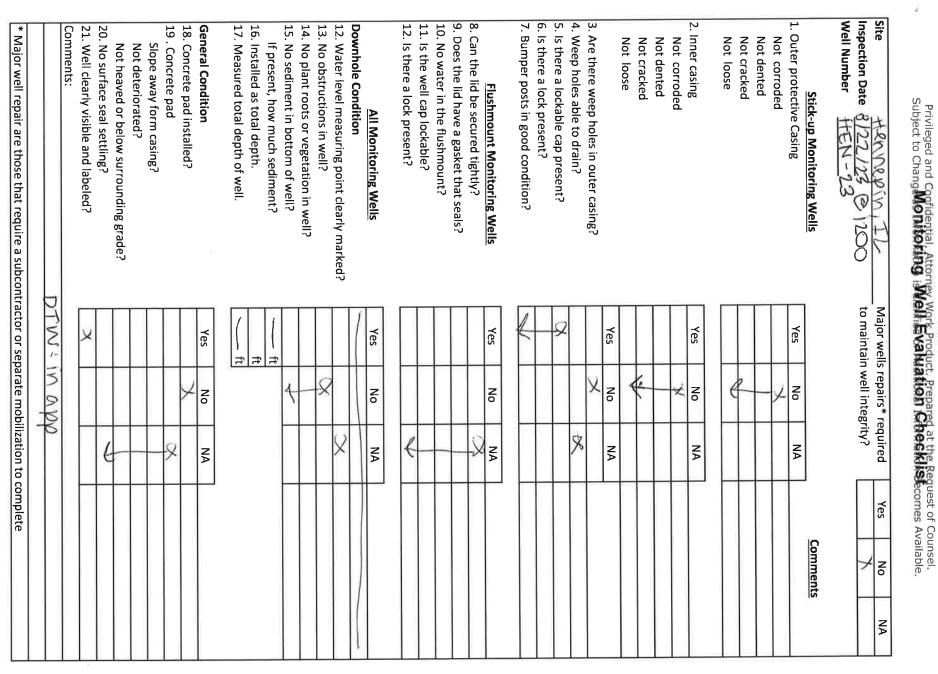
Downhole Condition

18. Concrete pad installed?

General Condition

						PROJECT I	NFORMATIC)N				PHEN-2	
		Site: HPV	merin	,IL			Clien		ball				
	Project Nur		CO 10 0		Task #:		Start Date	1	122		Time: 0 9	800	
		onnel: All		KRE	7		Finish Date	912	Time: 1015				
			RMATION Q					EVENT					
			EN-22)	Well Develop		X		ow Stress Sa	mpling			
		Casing ID: 7		inches	Well Volume	NAME AND ADDRESS OF THE OWNER, TH		Other (Specif	fy):				
ı			т , , , — —		VATER QUALIT	Y INDICATO		TERS (cont	inued)				
	Sampling	Time	Volume Removed	Depth t Water		170% Temp.	±0.1	SEC or	Dissolved	15% ort1	+1.0		
- 1	Stage	(military)	(gallons)	(Feet)		(°C)	pH	±0 dond.	- ∂Oxygen	Turbidity	ORP	Visual	
D		0819	(ganono)	(i coty	(reet)	19.1	7.5 G	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	
ı		0824				17.9	¥7.35	1322	3.04	3.87	-12. V	crar	
1		0829				17.8	779	1210	1.07	6.12	-68.0		
- [0834				17.7	7.29	1220	0.85	10.02	-00.0		
[0839	20			18.2	729	0.730	0.34	9 10.5	-72.0		
		0844				18.6	7.30	0.730	0.87	12.9	-79.6		
30		0849				19.0	7.30	0.731	0.85	211.43	-81.7		
Į.		0854				18.0	7.30	0729	0.05	20027.10	-34.1		
OF		0859				17.7	7.30	0.731	0.83	210.2	-83.0		
45		0904	3.5			18.0	7.30	0.731	0.91	24.8	-82.1		
- }											02.1		
ŀ													
ŀ													
ŀ													
ŀ					(continued)					ABBREVIA'			
	Sa	ampl	es tak	en (20910				Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Reduce SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius		
		FRYY	ovs iv	ON:	Under	van	9e (2)	00120					

PLofL



Client: Ram ha)

10.40

1-210

Time:

Time:

- [WELL INFO	RMATION						EVENT '	TYPE				
ſ		Well ID: H	FC-23			Well Develop	ment	K	Low-Flow / L	ow Stress Sar	mpling			
ı	C	Casing ID:	2	inches		Well Volume	Approach Sai		Other (Specify					
[٧	VAT	ER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)				
	Sampling	Time	Volume Removed	Depth Wate	to	Drawdown	Temp	pН	SEC or Cond	Dissolved Oxygen	Turbidity	ORP	Visual	
	Stage	(military)	(gallons)	(Feet)		(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	
0		1041					18.8	7.39	0.836	2.91	3.61	-94.10	chedu	
- [1040		1			15.7	7.40	0.836	1.32	3.75	-113.9		
[1051					15.4	7.42	0.838	0.49	3.79	-129.0		
		105 V	1.5				15.5	7.37	0.837	0.35	3.80	-128.2		
		1611					15.4	7.37	0.835	0.26	5.81	-128.7		
		1100					15 Z	7.39	0.835	0.21	4.49	-126.8		
0		1111					15.4	7.39	0.3 3 3	0.20	W7.9	-125.8		
- 1		ittle	0.8				15.0	7.40	0.832	0.18	9.1	-124.3		
١														
										,				
		<u></u>												
- 1				NOTE	S (c	ontinued)				ABBREVIATIONS				
	S	iamp	les to us ivoi	ak.ei	\wedge	@ 113	20			Cond - Actual Condu FT BTOC - Feel Below na - Not Applicable nm - Not Measured		ORP - Oxidation Redu SEC - Specific Electric SU - Standard Units Temp - Temperature "C - Degrees Celcius		
		Ferro	us ivol	n: L	IV	ider v	ange	2011	45					

PROJECT INFORMATION

Start Date:

Finish Date:

P_I of I

Henneninith

Allison

Task #:

Site:

Project Number:

Field Personnel:

Site	di l'AVK	_Major wells repairs* required	s repairs* r	equired	Yes	No	NA
Inspection Date Well Number	#EON-21R	to maintain well integrity?	n well integ	rity? [×	
Stick	Stick-up Monitoring Wells					Comments	
 Outer protective Casing 	e Casing	Yes	No	NA			
Not corroded			Y				
Not dented			_				
Not cracked			_				
Not loose			C				
2. Inner casing		Yes	No	NA			
Not corroded			×				
Not dented							
Not cracked			_				
Not loose			e				
-		Yes	No	NA			
3. Are there weep holes in or	3. Are there weep notes in outer casing:		y.	Q			
5. Is there a lockable cap present?	ble cap present?	Q					
6. Is there a lock present?	oresent?	_					
7. Bumper posts ii	7. Bumper posts in good condition?	+					
Flushn	Flushmount Monitoring Wells	Yes	No No	NA			
8. Can the lid be secured tightly?	ecured tightly?			Q			
 Does the lid have a gasket that No water in the flushmount? 	9. Does the lid have a gasket that seals? 10. No water in the flushmount?						
11. Is the well cap lockable?	lockable?			.:			
12. Is there a lock present?	present?			E			
ı							
Downholo Condit	All Monitoring Wells	Yes	No	NA			
12. Water level meas	12. Water level measuring point clearly marked?			7.			
13. No obstructions in well?	ns in well?		Q	,			
14. No plant roots	14. No plant roots or vegetation in well?						
15. No sediment i	15. No sediment in bottom of well?		4				
If present, hov	If present, how much sediment?						
16. Installed as total depth.	tal depth.	#					
17. Measured total depth of well.	al depth of well.						
General Condition	_	Yes	No	NA	46		
18. Concrete pad installed?	installed?	×					
19 . Concrete pad	_						
Slope away form casing?	rm casing?		X				
Not deteriorated?	ted?						
Not neaved or below sur	Not neaved or below surrounding grade?		4				
21. Well clearly vi	21. Well clearly visible and labeled?	Z					
Comments:							
* Maior well rena	ir are those that require a subconti	actor or sen	arate mobi	lization to c	omnlete		
* Maior well repa	* Maior well repair are those that require a subcontractor or separate mobilization to complete	artor or sep	arate mobi	lization to c	omnlete		1

						PROJECT II	NFORMATIO	N				HEN-2
		Site: Hen	nepin I				Client:		00(/			
	roject Nun				Task #:		Start Date:	81221	2 2		Time: [3	00
Fi		nnel: AlliS		-lt			Finish Date:	0100	レク		Time: 14	-30
		WELL INFOR					0.4	EVENT	TYPE			
		Well ID:+_t	<u> EN-218</u>		Well Develop		1		ow Stress Sar	mpling		
_	C	asing ID: 2		inches	☐ Well Volume	Approach Sa	impling [Other (Specify):			
				V	WATER QUALIT	Y INDICATO	OR PARAME	TERS (conti	nued)			
		- .	Volume	Depth				SEC or	Dissolved			
S	Sampling Stage	Time	Removed	Wate		Temp.	pH	Cond.	Oxygen	Turbidity	ORP	Visual
\vdash	Stage	(31)	(gallons)	(Feet) (Feet)	17 8	(SU) 7.50	(µs/cm) 0.758	(mg/L)	(NTU)	(mV)	Clarity
		1310				17.3	7.54	0.704	1.17	59.8	-129.4	chear
\vdash		1321				17.2	7.54	0.705	1.06	58.5		2 ~ /b 21
		W 101326				17.1	7.53	0.768	1.110	33.94	-138.9 -13U.1	Brownish
			2.5			120	7.52	0.765	0.95	34.3	-137.2	
		THE ME SU				17.1	753	0.763	0.330	32.3	-1349	
٥	4		3.0			16.6	7.51	0742	0.21	34.8	-136.3	
						10.0	T.O.1	0.742		131.0	150.5	
				NOTE	S (continued)					ABBREVIA	TIONS	
	S	•			@ 134				Cond - Actual Conduc FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		ORP - Oxidation-Red SEC - Specific Electr SU - Standard Units Temp - Temperature *C - Degrees Celcius	ical Conductance
		Ferr	rovs i	YOY	1:0.914	ppm)					

PIOFI

16. Installed as total depth.17. Measured total depth of well.	All Monitoring Wells Downhole Condition 12. Water level measuring point clearly marked? 13. No obstructions in well? 14. No plant roots or vegetation in well? 15. No sediment in bottom of well? If present, how much sediment?	Flushmount Monitoring Wells 8. Can the lid be secured tightly? 9. Does the lid have a gasket that seals? 10. No water in the flushmount? 11. Is the well cap lockable? 12. Is there a lock present?	 2. Inner casing Not corroded Not dented Not cracked Not loose 3. Are there weep holes in outer casing? 4. Weep holes able to drain? 5. Is there a lockable cap present? 6. Is there a lock present? 7. Bumper posts in good condition? 	Stick-up Monitoring Wells 1. Outer protective Casing Not corroded Not dented Not cracked Not loose	Site #CNN-51
	ell? Yes No NA The Color of t	Nells Yes No NA X IIS?	yes No NA Yes No NA Yes No NA	Yes No NA	Major wells repairs* required to maintain well integrity?
				Comments	Yes No NA

20. No surface seal settling?21. Well clearly visible and labeled?

Comments:

Major well repair are those that require a subcontractor or separate mobilization to complete

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- [<i>b</i>					PROJECT I	NFORMATIO	N				-
- 1		Site: HONY	ocpin, I	L			Client:	Rambo	i 10			
- 1	Project Nun	nber:			Task #:		Start Date:	8/12/	10		Time: 15	00
Į.			on Beck	ett			Finish Date:	01001	05		Time:	
		WELL INFO						EVENT	TYPE			
- 1		Well ID: H	EN-51		Well Develo	pment	Ø	Low-Flow / L	ow Stress Sai	mpling		
ļ.	С	asing ID:	2	inches	Well Volum	e Approach Sa	ampling 🔲	Other (Specify):			
					WATER QUALI	TY INDICATO	OR PARAMET	TERS (conti	nued)			
			Volume	Depth				SEC or	Dissolved			
- 1	Sampling	Time	Removed	Wate			pH	Cond.	Oxygen	Turbidity	ORP	Visual
。	Stage	(military)	(gallons)	(Feet	t) (Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
٦ŀ		1500				18.9	7.45	0.725	5.56	10.51	21.3	Chan
ŀ		511	N.			17.3	7.30	0.734	238	12.19	-88.3	
ŀ		1510	1			16.8	7.32	0.736	1.26	11.17	-105.3	
ŀ		1521	1.0			17.1	7.34	0.737	0.92	31.84	-115.5	
ŀ		1526				17.1	7.35	0.735	0.73	98.2V	-122.1	
ŀ		1531	0 5			14-6	7.35	0.737	0.63	200.2	124.5	
,0		1536	2.0			17.3	7.34	0.738	0.38	22.5	-126.7	
ŀ		1541				17.2	7.37	0.1734	0.33	24.2	-127.4	
ŀ		1546				17.1	7.37	0.733	0.30	25.7	-127.7	
ŀ		1551	3.0			17.3	7.37	0.730	0.27	26.2	-128.10	
ŀ												
ŀ			-									
ŀ				-								
ŀ					-0/ // 0							
ŀ	-				S (continued)				Cond Actual Condu	ABBREVIA	TIONS ORP - Oxidation-Redu	iction Potential
	20	mpu	es tal	Len	@ 15	5 Q			FT BTOC - Feet Below na - Not Applicable nm - Not Measured		SEC - Specific Electric SU - Standard Units Temp - Temperature "C - Degrees Celcius	
	F	Errov	is ivor	1:1	.744	ppm	@ 141	8				

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		mplete	zation to co	rate mobili	ractor or sepa	* Major well repair are those that require a subcontractor or separate mobilization to complete	* Major well
				dato	othu= on		
			*		R	21. Well clearly visible and labeled? Comments:	21. Well clea
			+			Not heaved or below surrounding grade? 20. No surface seal settling?	Not heav 20. No surfa
			- 🗷			Not deteriorated?	Not dete
						te pad	19 . Concrete pad
			NA	% N	Yes	General Condition 18. Concrete pad installed?	General Condition 18. Concrete pad ir
			dem	ddwd ve 14) <u>=</u>	17. Measured total depth of well.	17. Measure
					# #	16. Installed as total depth.	16. Installed
				4		15. No sediment in bottom of well?	15. No sedin
				-\$		 No obstructions in well? No plant roots or vegetation in well? 	13. No obstr 14. No plant
			Q	2		12. Water level measuring point clearly marked?	12. Water le
			3	Ž	Ī	Condition	Downhole Condition
			20	5	Vos	All Monitoring Wells	
			f			12. Is there a lock present?	12. Is there
						11. Is the well cap lockable?	11. Is the we
						9. Does the lid have a gasket that seals? 10. No water in the flushmount?	9. Does the
			Q			8. Can the lid be secured tightly?	8. Can the li
			NA	No	Yes	Flushmount Monitoring Wells	-
					L	7. Bumper posts in good condition?	7. Bumper p
						6. Is there a lock present?	6. Is there a
			Q		2	4. Weep noies able to grain? 5. Is there a lockable can present?	5. Is there a
			?	R		3. Are there weep holes in outer casing?	3. Are there
			A	No 0	Yes		
				4		jo :	Not loose
						ked	Not gracked
				Q.		oded	Not corroded
			NA	No	Yes	ing	2. Inner casing
				+		je	Not loose
						ked	Not cracked
			2	-5		ted teach	Not dented
			X X	⊀ No	Yes	1. Outer protective Casing Not corroded	1. Outer protective
is.	Comments	IC.				Stick-up Monitoring Wells)
	>		, ,			PEC-22 01680	Well Number
	×		ritvo	well integ	to maintain well integrity?	812113	Inspection Date
NA	No	Yes	equired	viajor wells repairs* required	Major were	ログコンストンコンコ	טונה

18

				F	PROJECT IN	IFORMATIO	N				
9	Site: HPWV	epinJ	C 10			Client:	RON	nboll			
Project Num	ber:		2.5	Task #:		Start Date:	Q11()	22		Time: ()	M 15
Field Person	nel: All C	on Beck	ext			Finish Date:	1000	60		Time: 💆	70
	VELL INFOR						EVENT	ГҮРЕ			
	Well ID: H			Well Develop		\boxtimes	Low-Flow / Lo	ow Stress Sar	mpling		
Ca	asing ID:		inches	Well Volume	Approach Sai	mpling \Box	Other (Specify)):			
			WAT	TER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)	W=		
		Volume	Depth to				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pH	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	0811				118.5	7.08	0.426	1-47	4-00	11319	Clar
	0320	2 5			((0.)	7.68	0.653	0.27	4.10	012.60	-
	0831	2.5			14.1	7.69	0.453	0.18	4.14	87.2	
	0836				10.1	7.48	9.453	0.14	4.20	78.8	
	094)	5		-	1(0.)	7.68	6.453	0.13	4.24	77.0	
	0846	5.5			110.1	7.07	0.453	0.12	4.31	77.8	
						-					
											-
				-							
				1							L
			NOTES (continued)				Cond Actual Condu	ABBREVIA	TIONS ORP - Oxidation-Red	uction Potential
Sa	mple	s tak	en e	3085	Ò			FT BTOC - Feet Below na - Not Applicable nm - Not Measured		SEC - Specific Electr SU - Standard Units Temp - Temperature *C - Degrees Celcius	cal Conductance
			~ (, /	1000	Ladie	1.10				
1-0	VOVV	S 110	VI 2011	mple	DU 1 K	7 - UMA	NY Y MYN	30			
	. 1 0 0) ,,,		1700		J 101	1 1 1 1 1				

Inspection Date $\frac{2/22}{32}$ Well Number $\frac{2/22}{32}$	to maintain well integrity?
Stick-up Monitoring Wells 1. Outer protective Casing	Yes No No No
Not corroded	
Not cracked	1
Not loose	
2. Inner casing	Yes No NA
Not corroded	X
Not dented	
Not loose	
3. Are there weep holes in outer casing?	Yes No NA
4. Weep holes able to drain?	×
5. Is there a lockable cap present? 6. Is there a lock present?	××
7. Bumper posts in good condition?	× -
Elushmount Monitoring Wells 8. Can the lid be secured tightly?	Yes No NA
10. No water in the flushmount?11. Is the well cap lockable?12. Is there a lock present?	
All Monitoring Wells	Yes No NA
12. Water level measuring point clearly marked?13. No obstructions in well?	>
14. No plant roots or vegetation in well? 15. No sediment in bottom of well? If present, how much sediment?	#
16. Installed as total depth.17. Measured total depth of well.	ft
General Condition 18. Concrete pad installed?	Yes No NA
19 . Concrete pad	*
Not deteriorated?	
Not heaved or below surrounding grade?	
 No surface seal settling? Well clearly visible and labeled? 	<
Comments:	
* Major well repair are those that require a subcontractor or separate mobilization to complete	ractor or separate mobilization to complete

				F	ROJECT IN	FORMATIO	N				
	Site: HENNE	PIN				Client:				12	35
	nber: 2013			Task #:		Start Date:	81221	02		Time:	
Field Persor	nnel: C. To	zemb czy				Finish Date:	0124			Time: 11	25
V	WELL INFOR	RMATION					EVENT	TYPE			
	Well ID: H	N-37		Well Develop	ment	$ \boxtimes$		ow Stress Sar	npling		
С	asing ID:		inches	Well Volume	Approach San	npling 🗌	Other (Specify):			
			WA	TER QUALITY	/ INDICATO	R PARAMET	TERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved	101. KIO		
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Pile	1040	l			37.	t,1	316	10%	4480	+10	CLEAR
Same	1048				14.0	7.10	0.7.8	0.45	41.69	173.6	
	1053				(3.9	7.11	0.716	0.21	20.60	165.2	
	1058				(3.8	7.10	0.715	0.12	13.02	160.1	
	1103	3			13-8	7.10	0.715	0.09	8-77	156.9	
	1108				13.8	7.10	0.716	029	7.30	153.9	
	1113	3.25			13.0	7.07	0.7.5	0.08	5.33	151.7	
	1619									,	
	- 0										
	-		NOTES	(continued)					ABBREVIA ⁻	TIONS	
GANE	upoar	115		,				Cond Actual Conduc FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		ORP - Oxidation-Reduction SEC - Specific Electrical SU - Standard Units Temp - Temperature C - Degrees Celcius	
FI	under	~9									

Well Development and Groundwater Sampling Field Form xls MW-1

Privileged and Confidential, Attorney Work Product, Prepared at the Request of Counsel. Subject to Chang Monitoring is Velice Valuation Changes Available.

	ANNU	JAL G	ROUN	IDW	'ATE	R MC	NIT	OR	ING I	AN HEN	D C INE	OR PIN	RE I PC	CTI DWE	VE ER	AC ⁻ PLA	ŃΤ,	I REP LAND N-257	FILL	-
9. Does the lid have a gasket that seals? 10. No water in the flushmount? 11. Is the well cap lockable?	Flushmount Monitoring Wells 8 Can the lid he accured tightly?	7. Bumper posts in good condition?	5. Is there a lockable cap present? 6. Is there a lock present?	4. Weep holes able to drain?	3. Are there weep holes in outer casing?	Not loose	Not cracked	Not dented	Not corroded	2. Inner casing		Not loose	Not cracked	Not dented	Not corroded	1. Outer protective Casing	Stick-up Monitoring Wells	well Number 33 @ 1018	Inspection Date 8/22/25	Site HENNERZN
	3/	W	×		-	Vec				Yes						Yes			to mainta	Major we
	N _O		×			5			×	No		8	a	-	×	No			to maintain well integrity?	Major wells repairs* required
	NA	8 X		X	ゟ゙	Z				NA						NA			;rity?	equired
																	u:			Yes
																	Comments			No
																	ře.			z

20. No surface seal settling? * Major well repair are those that require a subcontractor or separate mobilization to complete Comments: 21. Well clearly visible and labeled? Not heaved or below surrounding grade? Not deteriorated? Smy Overly

Lec D

17. Measured total depth of well.

Installed as total depth.

471-35. 14

Yes

S

Z

15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

Yes

S

NA

19 . Concrete pad

Slope away form casing?

18. Concrete pad installed?

General Condition

12. Is there a lock present?

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				Comments:
			×	21. Well clearly visible and labeled?
	9		×>	20. No surface seal settling?
			<×	Not deteriorated?
			×	Slope away form casing?
				19 . Concrete pad
		NA	Yes No	General Condition 18. Concrete pad installed?
			18.6 ft	16. Installed as total depth. 17. Measured total depth of well.
			, ××	14. No plant roots or vegetation in well? 15. No sediment in bottom of well?
			₹×	12. Water level measuring point clearly marked?13. No obstructions in well?
		× _{NA}	Yes No	All Monitoring Wells Downhole Condition
	\mathcal{X}			11. Is the well cap lockable? 12. Is there a lock present?
		1		10. No water in the flushmount?
		N N	No.	8. Can the lid be secured tightly?
		A		Flushmount Monitoring Wells
			*	7. Bumper posts in good condition?
			2<	5. Is there a lockable cap present?
		×		4. Weep holes able to drain?
		X NA	Yes No	3. Are there weep holes in outer casing?
				Not loose
				Not dented
		NA	Yes No	2. Inner casing Not corroded
			<	Not loose
				Not dented Not cracked
			->	Not corroded
Comments		NA	Yes No	Stick-up Monitoring Wells 1. Outer protective Casing
		rity?	to maintain well integrity?	Well Number 30
No NA	Yes	equired	Major wells repairs* required	7/24

* Major well repair are those that require a subcontractor or separate mobilization to complete

ect tu	vilege	
ect to Chang	vileged and Con	
Nonno	ifidential,	
Me Bui	Attorney 1	
Well Lava	Wark Prog	5151
Hatton	luct. Prep	
Checklis	ared at th	
MISS econ	e Request	

n ptp	* Major well repair are those that require a subspatial to the sub	08:3 W
	× ×	21. Well clearly visible and labeled?
	(×;	Not heaved or below surrounding grade?
	*	Not deteriorated?
		19 . Concrete pad
	Yes No NA	General Condition 18. Concrete pad installed?
	SS # # ;	16. Installed as total depth. 17. Measured total depth of well.
	*	14. No plant roots or vegetation in well? 15. No sediment in bottom of well? If present how much endiment?
		13. No obstructions in well?
	3	Downhole Condition 12. Water level measuring point clearly marked?
	Yes No NA	All Monitoring Wells
		12. Is there a lock present?
		11. Is the well cap lockable?
		10. No water in the flushmount?
	/	8. Can the lid be secured tightly?
	Kes No NA	Flushmount Monitoring Wells
	X:	7. Bumper posts in good condition?
	K >	6. Is there a lock present?
	×	5. Is there a lockable cap present?
	×)	4. Weep holes able to drain?
	Yes No NA	3. Are there ween holes in outer casing?
		Not loose
		Not cracked
	×	Not deated
	Yes No NA	2. Inner casing
	~	Not loose
		Not cracked
		Not dented
Comments	Yes No NA	Stick-up Monitoring Wells 1. Outer protective Casing Not corrodod
		Well Number 30
Yes No NA	to maintain well integrity?	Inspection Date 21212500955
		Part .

Privileged and Confidential, Attorney Work Product. Prepared at the Request of Counsel. Subject to Change Nonitoring is Velicava Matton Change Nonitoring is Velicava Matton Change Niscomes Available.

			HENN	NEPIN POWER PLANT, LANDFI HEN-257-8	
18. Concrete pad installed? 19. Concrete pad Slope away form casing? Not deteriorated? Not heaved or below surrounding grade? 20. No surface seal settling?	All Monitoring Wells Downhole Condition 12. Water level measuring point clearly marked? 13. No obstructions in well? 14. No plant roots or vegetation in well? 15. No sediment in bottom of well? If present, how much sediment? 16. Installed as total depth. 17. Measured total depth of well.	Flushmount Monitoring Wells 8. Can the lid be secured tightly? 9. Does the lid have a gasket that seals? 10. No water in the flushmount? 11. Is the well cap lockable? 12. Is there a lock present?	 2. Inner casing Not corroded Not dented Not cracked Not loose 3. Are there weep holes in outer casing? 4. Weep holes able to drain? 5. Is there a lockable cap present? 6. Is there a lock present? 7. Bumper posts in good condition? 	Well Number Stick-up Monitoring Wells 1. Outer protective Casing Not corroded Not dented Not dented Not cracked Not loose	Site HENNAPTN Inspection Date 2/12 0244
<	Yes ## 15:7/ ft	Kes	× es	Yes	Major well
XXXX No	md Ofm	No	XX No No	No No	Major wells repairs* required
N	No NA X	NA	XXX N	NA	equired
					Yes
				Comments	No
					NA

Page 67 of 130

Major well repair are those that require a subcontractor or separate mobilization to complete

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PROJECT INFORMATION												
Site: Client:												
Project Num				Task #:		Start Date:	0100	172			35	
Field Persor		ensury				Finish Date:	1/20	10)		Time: 14	35	
						EVENT	TYPE					
		45		Well Development Low-				w-Flow / Low Stress Sampling				
C	asing ID:		inches	Well Volume Approach Sampling Other (Specify):):				
			W	ATER QUALITY	/ INDICATO	R PARAME	ΓERS (conti	nued)				
		Volume	Depth to				SEC or	Dissolved				
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond	Oxygen	Turbidity	ORP.	Visual	
Stage PRA	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	
Pulge	1348	0.25	13-5						100 000		CLOWRY	
SAMPLE	1350	0.05	13.5	1 00	17.0		A C.M	1 500	6562		CLEAR	
312416			15.0	i Ø	7.25		1.52	65.57	171.1			
	1355 6.6						0.509	.46	42-11	171.7		
	1400						0.517	1.46	26.88	172.4		
	1405 1351 & 16.6						0.516	1.48	17.97	173.8		
	1410					7.23		151	13.11	174.6		
	1415 3 16.6							.52	9.47	175.2		
	1420		12.61		16.5	7.22	0.514	1-56	8.29	175-9		
	1423	4	13,51	Q	16.6	7-22	0.514	1.59	6,43	176.5		
	1430											
	*											
NOTES (continued)							ABBREVIATIONS					
SIMILE 1430							Cond Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature *C - Degrees Celcius					
5 marce 1430							=					

Well Development and Groundwater Sampling Field Form xls $\,$ MW-1 $\,$

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Major well repair are those that require a subcontractor or separate mobilization to complete

											HEN
				P	ROJECT IN		N				
Site: Task #: Task #:						Client: Start Date:				55	
	VELL INFOR						EVENT :	TYPE			
Well ID: 26 Casing ID: inches				 Well Development Well Volume Approach Sampling User (Specify): 						10	
			W	ATER QUALITY	/ INDICATO	R PARAMET	TERS (conti	nued)			
Sampling Stage PCWGE SMILE	Time (military)	Volume Removed (gallons)	Depth to Water (Feet)	Drawdown (Feet)	Temp. (°C) 17-3	pH (SU) 7-09	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L) O Si O · (&	Turbidity (NTU) 2-31 2-37 2-40	ORP (mV)	Visual Clarity CLEAR
	1524 1526 1531	3,0	13.9	- 0-1	17.0	7-09 7-09 7-01	0.784 0.784 0.784	0.04	2.44 2.44 2.50	179.9 179.6 177.0	
F2 Sam	under	1.04 535	NOTES	S (continued)				Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		TIONS ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature "C - Degrees Celcius	

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14

* Major well repair are those that require a subcontractor or separate mobilization to complete			Comments:	21. Well clearly visible and labeled?	20. No surface seal settling?	Not heaved or below surrounding grade?	Not deteriorated?	Slope away form casing?
actor or se		W: (Z				
parate mobi	1	20 VC			2			-Q
lization to complete	· ·	OII.						

19 . Concrete pad

18. Concrete pad installed?

General Condition

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17. Measured total depth of well.

16. Installed as total depth.

15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

#

₽ Ŧ 13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

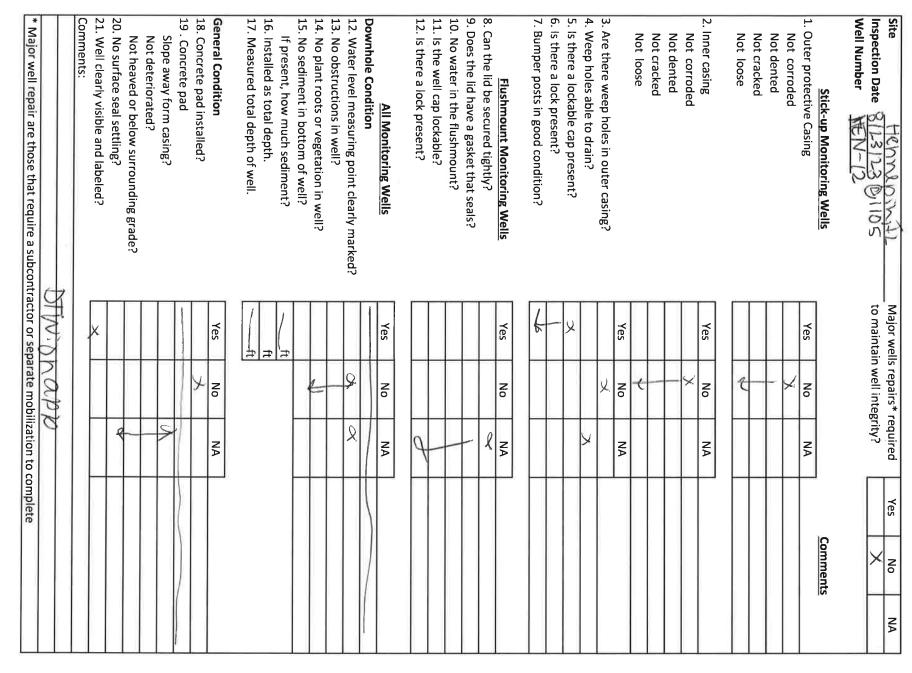
řes

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12. Is there a lock present?

					PROJECT II	NFORMATIO	N					
	Site: Henv	UPINJ	2			Client	-			, 2,		
Project Num			7 . 1)	Task #:		Start Date:	-8)13/	17			55	
	nnel: Alli3		cett			_ Finish Date:	_9001			_ Time: 🄱	07	
V	WELL INFO						EVENT :	TYPE				
		EN-47	[Well Develop		\searrow		ow Stress San	npling			
С	asing ID:	2	inches	Well Volume	Approach Sa	ımpling 🔲	Other (Specify):				
			W	ATER QUALIT	Y INDICATO	OR PARAME	ΓERS (conti	nued)				
		Volume	Depth to				SEC or	Dissolved				
Sampling	Time	Removed	Water	Drawdown	Temp.	pH	Cond.	Oxygen	Turbidity	ORP	Visual	
Stage	(military)	(gallons)	(Feet)	(Feet)	27.9	(SU)	(µs/cm)	(mg/L) 0.05	(NTU)	(mV)	Clarity	
	1506				216	7.03	0.402		3.85	113.7	clear	
	1511	1-0			21.6	7.03	0.040	10 2.360	3.18	148.2	-/	
	15 1V	1.0			21.6	7.03	0.639	1.70	3.02	152.0	H	
	1521			-	21.5	7.03	0.037	1.68			+-+	
	1526	2.5			21.5	7.04	0.639	1.52	3.01	156.2		
	1320	1.5			11.5	7.0-1	0,03-1	1.02	5,20	102.2	1	
				-								
				- i								
				ABBREVIA	TIONS							
Samples taken @ 1530									ABBREVIATIONS Cond Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured ABBREVIATIONS ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature "C - Degrees Celcius			
	Eervol	is ivov	01	400 : UV	nder 1	rounge)					



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Well Development and Groundwater Sampling Field Form,xls MW-1

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		malata	lization to co	arate mohi	ractor or sepa	* Major well repair are those that require a subcontractor or separate mobilization to complete
				90	ON NO	שואע
						フ・
						Comments:
					×	21. Well clearly visible and labeled?
				4		20. No surface seal settling?
						Not heaved or below surrounding grade?
				_		Not deteriorated?
				Ų.		Slope away form casing?
						19 . Concrete pad
					X	
			NA	No	Yes	General Condition
					ft	17. Measured total depth of well.
					#	16. Installed as total depth.
						If present, how much sediment?
				ę		15. No sediment in bottom of well?
						14. No plant roots or vegetation in well?
				2		13. No obstructions in well?
			¥	Kg.		12. Water level measuring point clearly marked?
						Downhole Condition
			NA	No	Yes	All Monitoring Wells
			4			12. Is there a lock present?
						11. Is the well cap lockable?
						10. No water in the flushmount?
			-			9. Does the lid have a gasket that seals?
			7			8. Can the lid be secured tightly?
			NA	No	Yes	Flushmount Monitoring Wells
					4	7. Bumper posts in good condition?
						b. Is there a lock present?
					1/2	5. Is there a lockable cap present?
			×			t. weep ilotes able to dialit:
				×		A Ween holes able to drain?
			NA	No.	Yes	3 Are there ween holes in outer resing?
						Not loose
				-		Not cracked
						Not dented
				Q		Not corroded
		72	NA	No	Yes	2. Inner casing
				1		Not loose
						Not cracked
				7		Not dented
				ゾ		Not corroded
			NA	No	Yes	1. Outer protective Casing
ents	Comments	10				Stick-up Monitoring Wells
	3		P. 1.4.			
+	X		zrity?	n well inter	to maintain well integrity?	ection Date
NA NA	S S	Yes	required	s repairs*	Major wells repairs* required	Site # MALPINITY

						F	PROJECT IN	NFORMATIO	N				
		Site: HPN	nepin, 1					Client:	2	~ Pa	mboll		
	Project Nun					Task #:		Start Date:	almai	1 1 2 W		Time: 00	110
Į.	Field Perso	nnel: All) S	ion BCC	2-1/2	_			Finish Date:	UI CW)			Time: 🛭 🗗 🧷	130
L		WELL INFOR							EVENT	TYPE			
- 1		Well ID: HE				Well Develop				ow Stress Sar	npling		
- 1	C	asing ID:	2	inches	\sqcup	Well Volume	Approach Sai	mpling	Other (Specify):			
- I			,		VAT	ER QUALITY	/ INDICATO	R PARAME	ΓERS (conti	nued)	,		
- 1			Volume	Depth			_		SEC or	Dissolved			
- 1	Sampling	Time	Removed	Wate		Drawdown	Temp.	pH	Cond	Oxygen	Turbidity	ORP	Visual
อ	Stage	(military)	(gallons)	(Feet)	(Feet)	20.9	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
°l		0824	-				20.8	7.40	0.559	3.37	1.50	127.4	clear
ŀ		0929					20.8	7.35	0.500	2.34	5.82	142.5	
ŀ		02034	WW 1.5				20.8	7.34	0.540	2.19	5.82	144.5	
ŀ		0839	選が礼配 (17人)				20.8	7.34	0.553	2.00	1458	144.3	
ŀ		0844					20.8	7.33	0.558	199	17.95	143.7	
30		D849	3.0		-		20.8	7.33	0.569	1.91	18.25	143.2	
30		J G T T	7.0				20.9	7.33	0.559	1.85	18.98	142.2	1
ı							20.	1.35	0.007	7.05	10.10	172.2	
ı													
ı													
ı													
- 1													
- [NOTE	S (c	continued)		×	***************************************		ABBREVIA:	TIONS	
	Sa	mpu	s tor	ieh	(0	9 085	5			Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Red SEC - Specific Electri SU - Standard Units Temp - Temperature *C - Degrees Celcius	
	-	Ferro	us iv	DV:	U	nder	roma	ze a	0910				

Well Development and Groundwater Sampling Field Form,xls MW-1

* Major well repair are those that require a subcontractor or separate mobilization to compl		フラ	Comments:	21. Well clearly visible and labeled?	20. No surface seal settling?	Not heaved or below surrounding grade?	Not deteriorated?	Slope away form casing?	19 . Concrete pad	18. Concrete pad installed?	General Condition	17. Measured total depth of well.	16. Installed as total depth.	If present, how much sediment?	15. No sediment in bottom of well?	14. No plant roots or vegetation in well?
ctor or sep		N :05		Q						Q	Yes			Ì		
arate mobi	0	a av			4	2		Q			No	. s t			+	
lization to											NA					
comp																

lete

12. Is there a lock present?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

Yes

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									HE	INNEPIN POWE	ER PLANT, LAND HEN-25		
	- 71	. ,			PROJECT IN	NFORMATIO							
		repin, I	L			Client	_ROM	bo11					
Project Nun				Task #:		Start Date:	-63/-/-/-	72		Time: /3	00		
		ion Bec	actob			Finish Date:	01 65 1	23		Time: 143	5		
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	WELL INFO	RMATION					EVENT	TYPE					
	Well ID:	EN-54		Well Develop	ment	X	Low-Flow / L	ow Stress Sar	poling				
C	asing ID:	2	inches	Well Volume	Approach Sar	mpling	Other (Specify						
			WA	TER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)			~		
		Volume	Depth to				SEC or	Dissolved					
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual		
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity		
13	14				247	7.36	0.565	6-10	5.90	113.9	chear		
13	傳				23.0	7.32	0.574	3.58	24.10	128.2			
13	ALU A	1-0			22.7	7.31	0.577	3.00	23.14	133.1			
13	18 29				22.4	7.31	0.576	2.71	19.6	W13624			
/3	34				22.3	7.31	0.577	2.49	18.41	00 13/10			
13	P43.9				22.4	7.30	0.577	2.40	14.50	140.2			
1344 22.3 7.31 0.577 2.39 14.88 140.1													
1349 2.5 22.6 7.30 0.576 2.31 1382 141.0													
	LL, 4 1,80 0.570 L.31 13.82 141.0												
100										-			
						-							
			NOTES	J					L				
				(continued)				Cond Actual Conduc	ABBREVIA	TIONS ORP - Oxidation-Reduc	ston Potential		
22	lama	STAK	en 6	1350)			FT BTOC - Feel Below		SEC - Specific Electric			
31	11.140	0017	-011		•			na - Not Applicable nm - Not Measured		SU - Standard Units Temp - Temperature			
		_	<u> </u>	\ (1			*C - Degrees Celcius			
Ī	-01/1/0	us tak	N ZW.	moull 0	7 145	50:513	571						
ł	-CAND	NZ 110	, , , ,	1 4 22	, ,		- ('						

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	etelamo	ization to c	narate mobil	tractor or sec	* Major well repair are those that require a subcontractor or separate mobilization to complete
		de	-ON app	Drw	
				7	comments:
				×	21. Well clearly visible and labeled?
		R			20. No surface seal settling?
					Not heaved or below surrounding grade?
					Not deteriorated?
		X			Slope away form casing?
				\langle	19 . Concrete pad
			У		18. Concrete pad installed?
		NA	No	Yes	General Condition
				ft.	17. Measured total depth of well.
				ft.	16. Installed as total depth.
) †	If present, how much sediment?
			t		15. No sediment in bottom of well?
			_}		14. No plant roots or vegetation in well?
		8	ş		13 No obstructions in well?
		ζ.			12 Water level measuring point clearly marked?
		NA	No	Yes	Downhole Condition
		4			12. Is there a lock present?
		2			11. Is the well cap lockable?
		_			10. No water in the flushmount?
					9. Does the lid have a gasket that seals?
		¥			8. Can the lid be secured tightly?
		N A	No	Yes	Flushmount Monitoring Wells
				t	7. Bumper posts in good condition?
					6. Is there a lock present?
				×.	5. Is there a lockable cap present?
		メ			4. Weep holes able to drain?
			Q.		3. Are there weep holes in outer casing?
		NA N	8 (Yes	10030
					Not loose
			-		Not cracked
			×		Not corroded
		NA	No	Yes	2. Inner casing
			4		Not loose
					Not cracked
-			¥		Not dented
HEN & WHITHOU	PENNIXO			L .	Not corroded
		NA	No	Yes	1. Outer protective Casing
Comments					Stick-up Monitoring Wells
					HE12
× 20	Tes	rity?	to maintain well integrity?	to maintai	Inspection Date 8/23/23 @ 1100
	۲۸۲	horiina horiina	- *i*-* *	Maioruo	i o

HEN				N	FORMATIO	PROJECT II					
			110	Rambo				IL	nepin,	Site: HAN	
INSE	Time: iA					7	Task #:			nber:	Project Num
12.55	Time: 10 Time: 12		1	8/23/2	Finish Date:			Ketb	ison Bel	nnel: All	Field Persor
100			TYPE	EVENT :					RMATION	WELL INFO	1
		nnling	ow Stress San		X	ment	Well Develop	<u> </u>	EN-13	Well ID: H	
		iipiiiig		Other (Specify	mpling \Box		☐ Well Volume	inches	2	asing ID:	С
						No. of Contract of	ATER QUALIT	W			
ſ			Dissolved	SEC or	9			Depth to	Volume		
Visual	ORP	Turbidity	Oxygen	Cond.	рH	Temp,	Drawdown	Water	Removed	Time	Sampling
Clarity	(mV)	(NTU)	(mg/L)	(µs/cm)	(SU)	(°C)	(Feet)	(Feet)	(gallons)	(military)	Stage
	152-0	3.19	11.30	0.5.52	7.33	2.5			-	1057	
+ 1	152.7	3-18	3.47	0.562	7.37	21.0				1102	
	151-1	3.19	3.43	0.503	7.38	21.10			1.00	1107	
	149.9	3.20	2.33	0543	7.38	21.4				1112	
	149.9	3.21	2.23	0.863	7.39	21.60			0 (5	1117	
- 4	150,2	3.05	2.10	0.503	7.39	21.4			2.0	1122	
											-
							_				
							/ 11 15	NOTEO			
De Austria De Control		ABBREVIA					(continued)				41
Electrical Conductance Jnits ature	SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius		FT BTOC - Feet Below na - Not Applicable nm - Not Measured				21/25	en (s tak	lmpu	SC
Electri Inits ature	ORP - Oxidation-Redu SEC - Specific Electri SU - Standard Units Temp - Temperature	tivity	Cond Actual Conduct FT BTOC - Feet Below na - Not Applicable	ere.	vveu	Mdl		en (s tak		

dupe @ 1125

	,		to maintain well integrity?	8125123	pection Date
NA	Nø	Yes	Major wells repairs* required		Ю

ı I	Major wells repairs* required	Yes Nø NA
Well Number 187	to maintain well integrity?	,
Stick-up Monitoring Wells 1 Outer protective Casing	No.	Comments
Not corroded	×	
Not dented		
Not cracked		
Not loose	<	
2. Inner casing	Yes No NA	
Not corroded	×	
Not dented		
Not cracked		
Not loose	Vec No No	
3. Are there weep holes in outer casing?	× 2	
4. Weep holes able to drain?	X	
5. Is there a lockable cap present?	*	
o. Is there a lock present?	7	
/. Bumper posts in good condition?	*	
Elushmount Monitoring Wells 8. Can the lid he secured tightly?	Yes No	
9. Does the lid have a gasket that seals?		
10. No water in the flushmount?		
12. Is there a lock present?		
All Monitoring Wells	Voc No NA	
Downhole Condition	×	
12. Water level measuring point clearly marked?		
14. No plant roots or vegetation in well?		
15. No sediment in bottom of well?	<	
If present, how much sediment?	‡ ‡	
17. Measured total depth of well.	# 7	
General Condition	Yes No NA	
18. Concrete pad installed?	×	
19 . Concrete pad	*	
Not deteriorated?		
Not heaved or below surrounding grade?	\	
20. No surface seal settling?	4	
21. Well clearly visible and labeled?	_	
Comments:		
* Major well repair are those that require a subcontractor or separate mobilization to complete	actor or separate mobilization to con	nplete

				F	PROJECT IN	IFORMATIO	N				
	Site:					Client:					
Project Num	ber: 2023	-074		Task #:		Start Date:	0193	123		Time: 13	18
Field Person	nel: TRO	43CAJ				Finish Date:	0100	(V)		Time: 142	35
	VELL INFOR						EVENT :	TYPE			
	Well ID: 142	D	. Ci	Well Develop	ment		Low-Flow / Lo	ow Stress San	npling		
Ca	asing ID:		inches	Well Volume	Approach Sar	mpling	Other (Specify)):			
			wÀ	TER QUALIT	Y INDICATO	R PARAMET	ERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Pac					\sim	1		1		\sim	
DURGE	1330	0.1									CLEAR
	1333		3		21.3	7.22	0.692	7.84	15.81	169.2	
	1338	8			21.3	7.17	0.688	0.78	6.81	79.1	
	1343	1-5			21.2	7.17	0.684	0.33	10.75	72.2	
	1348		i		21.2	7.17	19-624	0-12	11.18	フリフ	
	1353				71.1	7.12	17 624	0.17	10,44	68.3	
	1358	2			21.2	7.18	0.685	0.17	10.26	68,2	
									1		
			NOTES (continued)					ABBREVIA ¹	IONS	
Sar EI	NOTES (continued) Sample 1435 Cond Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured FI - UMMIL ABBREVIATIONS ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature *C - Degrees Celcius										

Page 112

Major well repair are those that require a subcontractor or separate mobilization to complete

21. Well clearly visible and labeled?

20. No surface seal settling?

Not heaved or below surrounding grade?

Slope away form casing? Not deteriorated?

Comments:

DTW 38 78

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installed

17. Measured total depth of well.

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Yes

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Installed as total depth.

No plant roots or vegetation in well?
 No sediment in bottom of well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

Concrete pad

18. Concrete pad installed?

General Condition

Page 83 of 130

					F	PROJECT IN	IFORMATIO	N				
		NEPIN					Client:					
Project Num	nber: 2013	0711			Task #:		Start Date:	2113	103		Time: 115	5
Field Persor	nnel: CT	remoly					Finish Date:	9651			Time: 1/3	35
V	WELL INFO	RMATION						EVENT	TYPE			
	Well ID:	5 Dil			Well Develop	ment	X	Low-Flow / L	ow Stress Sam	npling		
С	asing ID:		inches		Well Volume	Approach Sar	npling	Other (Specify				
			V	/AT	ER QUALITY	/ INDICATO	R PARAMET	ERS (conti	nued)			
		Volume	Depth t	0				SEC or	Dissolved			
Sampling	Time	Removed	Water	•	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(galions)	(Feet)	_	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
PRE	1155	BURK	387	3	Q							
Punct	1205	213013		3	Ø							CLEAR
	1216	0.75	38.7		8	21.2	7.41	0.632	0.77	281	169.5	
	1215		38.7	3		20.C	7.4(0.631	0.28	2.54	167.7	
	1220		38.7	3	Ø	20.6	7.42	0.631	0.20	2.67	165.1	
	1225	1.25	38-7	3		20.8	7.41	0.631	0.18	2.13	163.5	
1230 38.73 20.8 7.41 0.63 0.16 2.35 161.7												
1235 38.73 20.8 7.41 0.671 0.15 2.51 160.2												
1240 38.73 20 74 0.63 015 2.12 150 8												
158.8												
							, i					
			NOTES	S (c	ontinued)			-	i	ABBREVIAT	TIONS	
SAM	NOTES (continued) SAMPLE C-1145 FI BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured TI - UNDRRW											
1-1	_== (1/4)	11-1-10-9								·		
1					8							

Well Development and Groundwater Sampling Field Form.xls MW-1

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Flushmount Monitoring Wells 8. Can the lid be secured tightly?	6. Is there a lock present?7. Bumper posts in good condition?	3. Are there weep holes in outer casing? 4. Weep holes able to drain? 5. Is there a lockable cap present?	Not cracked Not loose	2. Inner casing Not corroded Not dented	Not dented Not cracked Not loose	Stick-up Monitoring Wells 1. Outer protective Casing Not correded	Site #PANAPPIN T2 Inspection Date 8/21/23 8/165 Well Number #EN-05 R
Yes	+,	١ [Yes	Yes		Yes	Major wel
No		× a	20	- Y 8	4	N _O	Major wells repairs* required to maintain well integrity?
N N		y	NA A	NA		NA	required grity?
							Yes
				-		Comments	y No
							Z

9. Does the lid have a gasket that seals?

21. Well clearly visible and labeled? 20. No surface seal settling?

Not heaved or below surrounding grade?

Not deteriorated? Slope away form casing?

Comments:

Concrete pad

18. Concrete pad installed?

General Condition

17. Measured total depth of well. Installed as total depth.

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15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

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12. Is there a lock present? 11. Is the well cap lockable? 10. No water in the flushmount?

13. No obstructions in well?

* Major well repair are those that require a subcontractor or separate mobilization to complete

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					F	PROJECT IN	FORMATIO	N					
	Site: //(~	SEPZV					Client:						
	nber: 2023				Task #:		Start Date:	0123	173		Time: [6]	36	
Field Persor	nnel:	RENBUY					Finish Date:	000	10)		Time: 1/4	50	
1	WELL INFOR							EVENT	TYPE				
	Well ID:	15R			Well Develop	ment		Low-Flow / L	ow Stress Sar	npling			
С	asing ID:		inches		Well Volume	Approach Sar	npling 🗌	Other (Specify):				
			W	/AT	ER QUALIT	/ INDICATO	R PARAME	ΓERS (conti	nued)				
Volume Depth to SEC or Dissolved											110		
Sampling	Time	Removed	Water		Drawdown	Temp.	pН	Cond	Oxygen	Turbidity	+ORP	Visual	
Stage	(military)	(gallons)	(Feet)	_	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	
PRE	1036		38-6	-									
purge	1042	01		\mathcal{H}	Ø		-	0.646	1.00	21.51	118.9	CLEAR	
SAMPLE	1048	0.5	38.6		8	20.6	7.61	0.646	1.60	27.51	118.9	1	
	1053		38-60	1	8	20.6	7.61	0.644	0.36	18.70	136.8		
	1058		39.6		0	20.5	7.61	0.643	0.23	12.41	141.0		
	1103	1.25	38.69		Ŕ	20.8	7.61	0.643	0.19	8.77	142.8		
	1108		38.6		Q	20.6	7.61	0.644	0:17	7,00	143.7		
	1113		39.6		XX.	20.0	7.61	0.643	0.15	5.15	144-0	1	
	1118	2.5	38.60	Ĺ	Q	20.6	7.61	0.645	0.14	4.41	144.2		
	1123					20:3	7.62	0.644	0.14	3.55	144.2		
			NOTES) (c	ontinued)					ABBREVIA'	TIONS		
SAMPLE FI-	NOTES (continued) SAMPLE - 1130 Cond Actual Conductivity FT BTOC Feet Below Top of Casing na - Not Applicable nm' - Not Measured Cond Actual Conductivity FT BTOC Feet Below Top of Casing na - Not Applicable nm' - Not Measured Temp - Temperature "C- Degrees Celcius												

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																																				HEN	I-257-801
COURD PUT TAKE WATER	Comments:	21. Well clearly visible and labeled?	20. No surface seal settling?	Not heaved or below surrounding grade?	Not deteriorated?	Slope away form casing?	19 . Concrete pad	18. Concrete pad installed?	General Condition	17. Measured total depth of well.	16. Installed as total depth.	If present, how much sediment?	14. No plant roots or vegetation in well?	13. No obstructions in well?	12. Water level measuring point clearly marked?	All Monitoring Wells	12. Is there a lock present?	11. Is the well cap lockable?	10. No water in the flushmount?	9. Does the lid have a gasket that seals?	Flushmount Monitoring Wells 8. Can the lid be secured tightly?	y paintput posts in good containon:	7 Rimper posts in good condition?	o. Is there a lock present?f. Is there a lock present?	4. weep noies able to drain?	3. Are there weep holes in outer casing?	Not loose	Not cracked	Not dented	Not corroded	2. Inner casing	Not loose	Not cracked	Not dented	1. Outer protective Casing	Stick-up Monitoring Wells	Inspection Date 8/21/23 © 1055 Well Number HEN-48
LEVEL BEHARMY ON		7	X	×	X	X		-	Yes No NA	#	#	*	×	×	<	Yes No NA		/	×	<i>/</i>	Yes No NA		7	XX	×	×	Yes No NA	Κ	×	A	Yes No NA	*	> × x	\$ \$ ×	Yes No NA		Major wells repairs* required to maintain well integrity?
ave to blockage														crueto incia												1		SPARE CASE CENTRED				where is now	Sych pro			Comments	Yes No NA

* Major well repair are those that require a subcontractor or separate mobilization to complete

					PROJECT IN	IFORMATIO	N					
;	Site: HEMI	EPZU				Client:						
	nber: 202			Task #:		Start Date:	9/23	123		Time: 💇		
Field Persor	nnel: Trivi	5v-/				Finish Date:	00	1-5		Time: 😥	30	
V	VELL INFOR						EVENT	TYPE				
	Well ID: 4	8		☐ Well Develo	pment	V	Low-Flow / Lo	ow Stress Sar	npling			
С	asing ID:		inches	☐ Well Volume	Approach Sar	mpling 🔲	Other (Specify)):				
			V	VATER QUALIT	Y INDICATO	R PARAMET	ERS (conti	nued)				
Volume Depth to SEC or Dissolved												
Sampling	Time	Removed	Water	r Drawdown	Temp.	pН	Cond	Oxygen	Turbidity	ORP		sual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Cla	arity
DEB							- 10	1 - 2				
PURGE	0937	011			200	763	0.601	1,95	5:23	163.4	CLE	AR
SOMOLE	0943	0.75			70.9	7.63	0.601	(.93	523	163,4	1	
	0948				20.8	7.62	0.590	0.50	4.37	160.2		
	09.53				20.7	7.62	0.581	0.24	3.28	157.6		
	0958				20.5	7.62	0.589	0.18	271	154.3		
	1003	225			20.7	7.62	0.589	0.15	2,22	152.0		
	1008				20.3	7.62	0.589	0.13	2.30	150.3		
	1013				20.7	7.62	0.599	0.12	2.09	148.7		
	1018	3			20.8	7.62	0.584	0.11	2,01	147.4		
												7
	,		NOTE	S (continued)					ABBREVIA	TIONS	-	
# WEAS	ure w	BSTRUC ATER	1300	S (continued)	CASZM	. Coult	, מטן	Cond Actual Conduc FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius		
SAMPL	ke-1	020										
F1-	LNDRT	zwh										

Well Development and Groundwater Sampling Field Form.xls MW-1

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						ROJECTIN	FORMATIO	N				
	Site: MCM	CP Z					Client:					
	mber: <u>2023</u>				Task #:		Start Date:		120		Time: OS	26
Field Perso	nnel: LT	Zember					Finish Date:	0(2)	105		Time: (39)	18
	WELL INFOR							EVENT	TYPE			
	Well ID: 40	75			Well Develop	ment	4		ow Stress Sam	pling		
	Casing ID:		inches	<u> </u>	Well Volume	Approach San	npling 🔲	Other (Specify):			
			V	/ATE	ER QUALITY	/ INDICATO	R PARAMET	ERS (conti	nued)			
Sampling Stage	Time (military)	Volume Removed (gallons)	Depth t Water (Feet)		Drawdown (Feet)	Temp. (°C)	pH (SU)	SEC or Cond. (µs/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP (mV)	Visual Clarity
purch	0836	0.1	37.4	12	8							CLEAR
S AMPLE		1-5	37.9 37.9 37.0	2	9888	19.0 18.8 19.7	7.89 7.89 7.98 2.88	0.579 0.579 0.579	7.20 0.41 0.44 0.37	4.25 3.29 2.58	149.6 143.4 139.1 135.7	
	6901	2:75	31.9		8	18-8	7.88	0.579	0-37	2.13	133,5	
SAM	SCE CO O	905	NOTES	S (co	ontinued)				Cond Actual Conduct FT BTOC - Feel Below na - Not Applicable nm - Not Measured		FIONS ORP - Oxidation-Reduct SEC - Specific Electrici SU - Standard Units Temp - Temperature *C - Degrees Celcius	

Well Development and Groundwater Sampling Field Form,xls MW-1

* Major well repair are those that require a subcontractor or separate mobilization to complete 17. Measured total depth of well. Comments: 21. Well clearly visible and labeled? 20. No surface seal settling? 19. Concrete pad 18. Concrete pad installed? **General Condition** 16. Installed as total depth. 15. No sediment in bottom of well? 14. No plant roots or vegetation in well? 12. Is there a lock present? 9. Does the lid have a gasket that seals? 8. Can the lid be secured tightly? 5. Is there a lockable cap present? Are there weep holes in outer casing?
 Weep holes able to drain? Site 12. Water level measuring point clearly marked? **Downhole Condition** 11. Is the well cap lockable? 13. No obstructions in well? 10. No water in the flushmount? Inner casing Outer protective Casing Well Number Inspection Date Bumper posts in good condition? Is there a lock present? Not loose Not heaved or below surrounding grade? Not deteriorated? Slope away form casing? Not cracked Not dented Not corroded Not loose If present, how much sediment? Not cracked Not dented Not corroded Flushmount Monitoring Wells Stick-up Monitoring Wells All Monitoring Wells to maintain well integrity? Major wells repairs* required Yes Yes Yes Yes Yes Yes # # # 8 No 몽 8 Ņ 몽 Ν Z Z N Z Z Yes Comments No ₹

Privileged and Confidential, Attorney Wark Product. Prepared at the Request of Counsel. Subject to Change 1901 150 1110 is a call to Change 1901 150 1110 is a call to Change 1901 1110 is a call to Change 1901 is a call to

					F	PROJECT IN	FORMATIO	N				
!	Site:						Client					
Project Num					Task #:		Start Date:				Time: 09	()o
	nnel:						Finish Date:	012			Time: 10	38
V	WELL INFOR							EVENT	ГҮРЕ			2
	Well ID: He	N 35		1	Well Develop			Low-Flow / L	ow Stress San	npling		
C	asing ID:		inches		Well Volume	Approach Sar	mpling 🔲	Other (Specify):			
WATER QUALITY INDICATOR PARAMETERS (continued)												
		Volume	Depth 1					SEC or	Dissolved			
Sampling	Time	Removed	Water		Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage PURGE	(military)	(gallons)	(Feet)	-	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Sample		0-1		\dashv		+36		3%	10%		410	CLGAR
Jimqe	0946					16:5	7.10	0-926	8.28	14.30	159.9	
	0956	1.3				16-2	7.04	0-9(8	6.78	15,97	169.8	
	1001	100				16.3	7.03	1.369	2.16	7.70	163-8	
	1006	0			\vdash	16.9_	7.03	1.378	1.87	2.67	1620	
		2.0		\Box		16.2	7.03	1.358	1.47	2-81	161.7	
	1011											
					——							
			-		——							
												
												
				S (c	ontinued)					ABBREVIA1		
FI	U. C.	IDIO	t						Cond Actual Conduct FT BTOC - Feet Below na - Not Applicable nm - Not Measured	Top of Casing	ORP - Oxidation-Reduction SEC - Specific Electrical SU - Standard Units Temp - Temperature *C - Degrees Celcius	
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V-257-801		PLA	ΞK	JVVL	IPC	=PIN	=ININI	F																		
Inspection Date 8/24/23 Well Number #EN-52	Stick-up Monitoring Wells	1. Outer protective Casing	Not corroded	Not dented	Not cracked	Not loose		Not corroded	Not dented	Not cracked	Not loose		3. Are there weep holes in outer casing?	4. Weep holes able to drain?	5. Is there a lockable cap present?	6. Is there a lock present?	7. Bumper posts in good condition?	Flushmount Monitoring Wells	8. Can the lid be secured tightly? 9. Does the lid have a gasket that seals?	10. No water in the flushmount?	11. Is the well cap lockable?	12. Is there a lock present?	All Monitoring Wells	Downhole Condition	12. Water level measuring point clearly marked?	[13. No obstructions in well?
Major we to mainta	ŶĬ	Yes					\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\					Yes			-Q		F	Yes					Yes	(
Major wells repairs* required to maintain well integrity?		No	X	نسہ		4	20	'n	_		٤	No	Y					No					No		2	<u></u>
required grity?		NA					25					NA		y				NA	¥			4	NA		×	
Yes	· S																									
X No	Comments																									
NA	100																									

14. No plant roots or vegetation in well?

15. No sediment in bottom of well?

If present, how much sediment?

* Major well repair are those that require a subcontractor or separate mobilization to complete

day vo: NATO

21. Well clearly visible and labeled? 20. No surface seal settling?

X

Not heaved or below surrounding grade?

Not deteriorated? Slope away form casing?

Comments:

19 . Concrete pad

18. Concrete pad installed?

General Condition

Yes

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17. Measured total depth of well. Installed as total depth.

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		0.1	10 10 O + 1	<i><</i> .		PROJECT II	NFORMATIO					
	Design A No.		nnepin,	16			_ Client:	Ramk	221			
	Project Nur		· 2001	200	Task #:		_ Start Date:	8/24/2	12		Time: 👌 🗸	105
		- NI DESCRIPTION	ision Beck	1+1			_ Finish Date:	Oloni))		Time: 10	20
		WELL INFO						EVENT	TYPE			
	· · · · · · · · · · · · · · · · · · ·		EN-SZ		Well Develop				ow Stress San	npling		
		Casing ID:	2.	inches	Well Volume			Other (Specify				
			T		ATER QUALITY	Y INDICATO	OR PARAMET	rers (conti	nued)			
	Sampling	Time	Volume	Depth to		_		SEC or	Dissolved		9	
	Sampling Stage	(military)	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
0	Otage	0909	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
		0914	9			41.7	7.10	0.035	7.57	5.56	1470	CLEON
		0919	1.0			23.6	7.01	0.405	(000000)Z.Q		152.3	
		0924	1.0			23.8	10.5%	0.609	1,39	4.48	149.7	
- 1			1 2 0			23.9	7.05	0.612	1.21	4.27	147.2	
. —		0929	2.0			13.9	7.04	0.013	1-03	425	146.5	
52		0934				24.0	7.04	0.414	1.96	4.08	45.8	4
											1411	
				<u> </u>								
1												
ŀ				<u> </u>								
ł												
ŀ												
ŀ					(continued)					ABBREVIA		
	Sc	1mp	les to	NKEN	n 009	40			Cond Actual Conduct FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Red SEC - Specific Electri SU - Standard Units Temp - Temperature *C - Degrees Celcius	ical Conductance
	Ŧ	-evro	us ivo	in 6	9 1011:1	Inder	voune	O				

_1		HENN	NEPIN POWER PLANT, I HEN	LANDFILL N-257-801
Rlushmount Monitoring Wells 8. Can the lid be secured tightly? 9. Does the lid have a gasket that seals? 10. No water in the flushmount? 11. Is the well cap lockable? 12. Is there a lock present?	3. Are there weep holes in outer casing?4. Weep holes able to drain?5. Is there a lockable cap present?6. Is there a lock present?7. Bumper posts in good condition?	2. Inner casing Not corroded Not dented Not cracked Not loose	Stick-up Monitoring Wells 1. Outer protective Casing Not corroded Not dented Not dracked Not loose	Site HEN-8D 1460 Well Number HEN-8D 1460
Yes No	Yes Yes No	Yes No	Yes No	Major wells repairs* required to maintain well integrity?
Q NA	S NA	NA	NA	required Yes No grity?

21. Well clearly visible and labeled? 20. No surface seal settling?

Not heaved or below surrounding grade?

Comments:

18. Concrete pad installed?

Concrete pad

Slope away form casing?

Not deteriorated?

General Condition

Yes

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17. Measured total depth of well. 16. Installed as total depth. 15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

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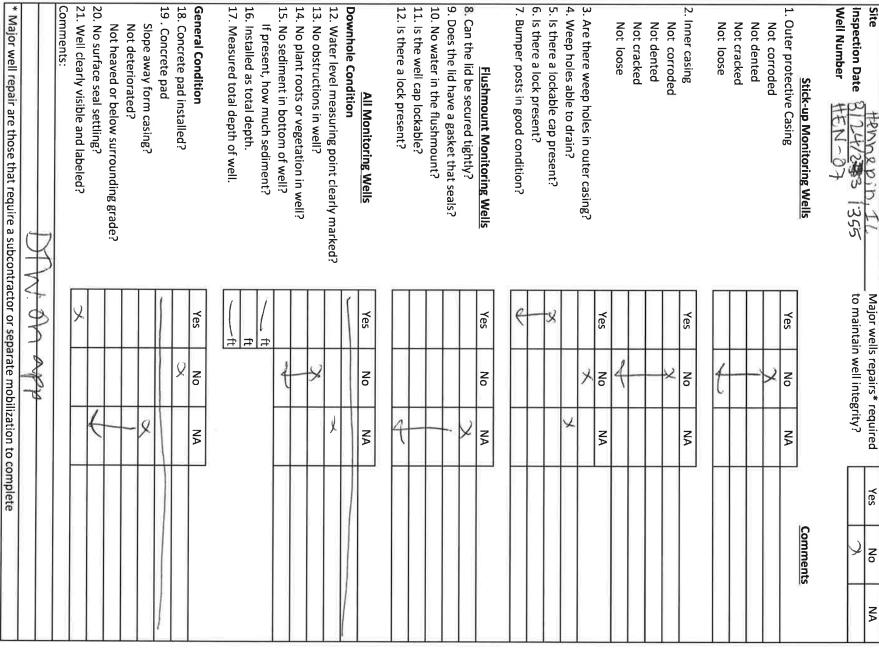
No

Z

13. No obstructions in well?

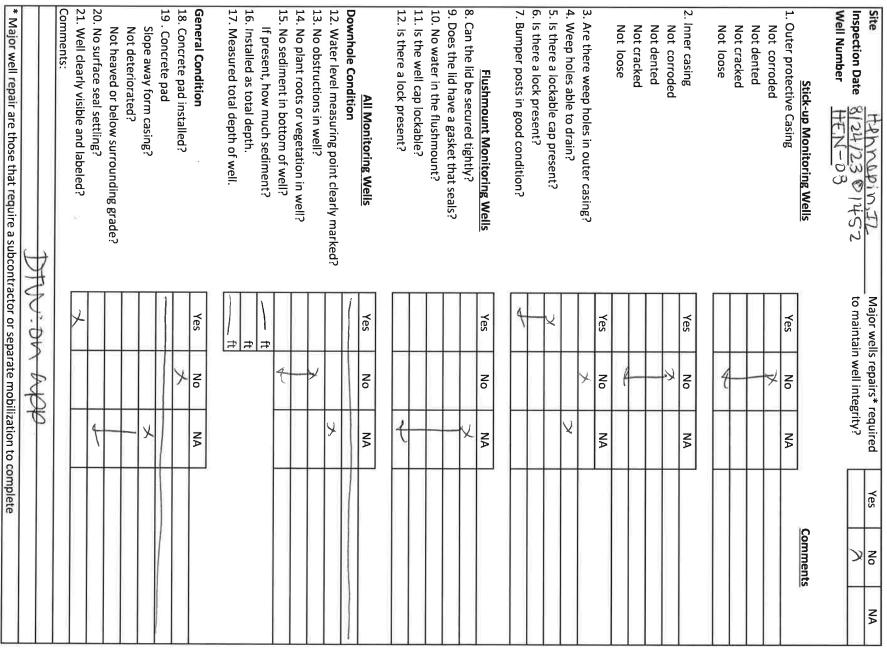
					PROJECT IN	NFORMATIC	N				HEIN-23
	Site: + PMY	repin, IL				Client		Rambol	1		
Project Num	nber:	N. 2		Task #:		Start Date	8/11/	2		Time:	Man 1140
Field Persor	nnel: AlliS	on Beck	elat			Finish Date	01011	13		Time:	1311
V	VELL INFO						EVENT	TYPE			
		EN-87	$D \square$	Well Develop	ment	X		_ow Stress Sar	mpling		
С	asing ID:	2,	inches		Approach Sa		Other (Specif				
			WA	TER QUALIT	Y INDICATO	R PARAME					
		Volume	Depth to				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	1154				WAN 18.7	7.03	1.33 W	4.45	4.29	182.5	CHAIR
	1159				17.7	16.624	1.426	4 de la constante de la consta	14.88	193.7	1
	1204				17.7	11.58	1.433	0.98	5.34	1014.0	
	1209	1.0			17.4	4.58	1430	0.70	4.100	193.6	
	1214				17.5	4.58	1.432	0.75	4.57	192.4	
	1219	2.0			17.3	6.59	1.435	0.03	4.32	192.0	
								•		1,00	
											1
											+
											+
K								1			1
			NOTES ((continued)					ABBREVIA'	TIONS	
Son	mple	es ta		@122	,5			Cond Actual Conduct FT BTOC - Feet Below na - Not Applicable nm - Not Measured	tivity	ORP - Oxidation-Res SEC - Specific Elect SU - Standard Units Temp - Temperature *C - Degrees Celcium	rical Conductance
Fe	2VVO\1	5 ivov	n Sar	nple @	11232	:Under	rrange	,			

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											HEN-2
					PROJECT I	NFORMATIC	N				
	Site: HM	Albin I	2			Client					
Project Nur	nber:	, ,		Task #:		Start Date				Time: 13	20
Field Perso	nnel: Allis	in Beiv	etito	- X		Finish Date		13	18/	Time: 14	
	WELL INFO	The second second	The state of the s			_ · · · · · · · · · · · · · · · · · · ·				_ Time,c	50
				_		5	EVENT				
_	Low-Flow / Low Stress Sampling										
	Casing ID: 2		inches		Approach Sa	ampling 🔲	Other (Specif	y):			
			W	ATER QUALIT	Y INDICATO	OR PARAME	TERS (cont	inued)			
		Volume	Depth to				SEC or	Dissolved			T
Sampling	Time	Removed	Water	Drawdown	Temp	На	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	1332				14.4	4.98	0.727	2.73	5.14	100.3	CHOr
	1337				14.0	1097	0.618	4.25	4.45		CHETT
	1342	2.0			13.9	6.900				174.5	
	1347	2.0				- W	0.701	WAND 4.20		174.4	
		·3 a			13.9	10.014	0.760	4.16	3,85	178.7	
	1352	3.0			13.8	4.93	0.099	4.16	3.57	17990	
	1357				13-8	10-91	0.499	4.15	3.55	179.9	42
											,
)						
				_							
		L									
			NOTES	(continued)					ABBREVIA [*]		
Co.		100100	· (a)	11100				Cond Actual Conduct FT BTOC - Feet Below		ORP - Oxidation-Redu SEC - Specific Electric	ction Potential
90N	mples	TUKE	n (0)	14-00				na - Not Applicable	Top of Gasing	SU - Standard Units Temp - Temperature	an Conquetance
				10				- Not Weashied		*C - Degrees Celcius	
1	_			ple Ol	110h	مد ما مرد م	0				
10	SUGVV	IVON	CAMI	010 (07)	44/1/	YVOLUV YO	MSD				
1 0	1 1000	11011	Out	r ~ 0	٠. ک	110/					
								1			11

ection Date		
C 2 年 () 2 C / 中 C 1 8	せんかいまかった	
to maintain well integrity?	Major wells repairs* required	
	Yes	
V	No	
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				F	PROJECT IN	NFORMATIO	N				
	Site: Hen	Nepin	JIL		1	Client	Ramk	90M			
Project Nur			,	Task #:		Start Date	Q/2 ip/	416		Time: 14	135
Field Perso	nnel: <u>All î</u>	son bei	Y.CA			Finish Date	OIDII			Time: 1	
	WELL INFO	RMATION					EVENT	TYPE			
	Well ID: 09			Well Develop	ment	X	Low-Flow / L	ow Stress Sar	npling		
C	Casing ID:		inches	Well Volume	Approach Sa	mpling \Box	Other (Specify):			
			WA	TER QUALITY	Y INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	1443			_	148.7	0.62	1.228	1.54	3.85	1921	clear
	1449				14.4	10.58	1.239	9 1.30	3.01	194.)	
	1453	2.5		_	147	6.69	MEGODS, CO		3.53	188.9	
	1458				124.6	10.69	1. 243	1.19	3,50	188.1	
	1503				146	11.72	1.244	1.17	3.49	188 W	
	1508				47	4.72	1.241	1.10	3.49	189. V	1
						-					
				(continued)				Cond Actual Condu	ABBREVIA	TIONS ORP - Oxidation-Rec	duction Polential
So	imple	s tat	en (9/15/10				FT BTOC - Feet Below na - Not Applicable nm - Not Measured		SEC - Specific Electi SU - Standard Units Temp - Temperature *C - Degrees Celcur	rical Conductance
Fl	ey yous	NOVI	Sam	pledG) 1580	indl	N remy				

dupe @ 1510

		Comments:
	X	21. Well clearly visible and labeled?
	×>	20. No surface seal settling?
	<×	Not beaved or below surrounding grade?
	×	Slope away form casing?
		19 . Concrete pad
		18. Concrete pad installed?
	Yes No NA	General Condition
	ft	17. Measured total depth of well.
	→ 3	16. Installed as total depth.
	+	If present how much sediment?
		14. No plant roots or vegetation in well?
		13. No obstructions in well?
	-0	12. Water level measuring point clearly marked?
	× 80	Downhole Condition
	20	All Monitoring Wells
1		12. Is there a lock present?
	/	11. Is the well cap lockable?
	/	10. No water in the flushmount?
	/	9. Does the lid have a gasket that seals?
	/	8. Can the lid be secured tightly?
	Yes No NA	Flushmount Monitoring Wells
	×	7. Bumper posts in good condition?
	λ	6. Is there a lock present?
	X	5. Is there a lockable cap present?
	χ	4. Weep holes able to drain?
	X	3. Are there weep holes in outer casing?
	Vec No No	Not 100se
		Not cracked
		Not dented
	-X	Not corroded
	Yes No NA	2. Inner casing
	<u> </u>	Not loose
		Not cracked
		Not dented
	×	Not corroded
Comments	Yes No NA	Stick-up Monitoring Wells 1. Outer protective Casing
		. 79
>	to maintain well integrity?	Inspection Date 2/24/23
Yes No NA	Maior wells repairs* required	Site

* Major well repair are those that require a subcontractor or separate mobilization to complete

					DO IECT I	IFORMATIO					TILIV-Z
	Site:			'	ROJECTI	FORMATIO					
Project Nur				T1-#		Client:					
Field Personnel: TRANS LAT				Task #: Start Date						Time: <u>U820</u>	
WELL INFORMATION						Finish Date:	~			Time:	12
							EVENT	TYPE			
	Well ID: [4]	CN 27		Well Develop			Low-Flow / i	ow Stress Sar	mpling		
Casing ID: inches				Well Volume	Approach Sa	mpling	Other (Specif	y):			
WATER QUALITY INDICATOR PARAMETERS (continued)											
		Volume	Depth t				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
COSTA											
PURGE	0824	0.1								ļ	CLEAR
Short	0828				12.9	7.21	0.819	0.50	12.75	0.1	
	0833				13.0	7.22	0-817	0.09	23.15	20.3	
	0938				135	7.24	0.813	0.00	4627	-29-8	
	0943				17,3.	7.32	0-816	19.04	46.77	-31.5	
	0848	2-75			12.4	7.33	0.016	3.06	47.09	-32.9	
	0853	3.0			12-5	7,73	0-816	0.07	40 04	-33.7	
	0854						- 13	0.07	100	- 3.3 /	
			NOTES	(continued)					ADDD5: #44		
NOTES (continued) FELINDER SOMPULO 0900							Cond Actual Conduct	ABBREVIAT	ORP - Oxidation-Redu	ction Patential	
100	VEIC							FT BTOC - Feet Below na - Not Applicable	Top of Casing	SEC - Specific Electric SU - Standard Units	al Conductance
- AND TO CO	P. 09	00						nm - Not Measured		Temp - Temperature	1
JOHN P W										°C - Degrees Celcius	
					-						- 1
											- 1
											1

Well Development and Groundwater Sampling Field Form.xls MW-1

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17. Measured total depth of well.

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Yes

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X

Installed as total depth.

15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

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19 . Concrete pad

18. Concrete pad installed?

General Condition

* Major well repair are those that require a subcontractor or separate mobilization to complete

DTIN:41.846+

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21. Well clearly visible and labeled? 20. No surface seal settling?

Not heaved or below surrounding grade?

Not deteriorated? Slope away form casing?

Comments:

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PROJECT INFORMATION ,											
Site: HINNEPINITE Client: PAT							nboll				
Project Num				Task #:		Start Date				Time: 07	LS
Field Persor	nnel: Allis	on Beck	ext			Finish Date:	a office	240		-	20
٧	WELL INFOR						EVENT	TYPE			
	Well ID: 1	EN-02		Well Develop	ment	X	Low-Flow / L	ow Stress Sar	mpling		
С	asing ID: 7		inches	☐ Well Volume		mpling 📋	Other (Specify				
WATER QUALITY INDICATOR PARAMETERS (continued)											
Volume Depth							SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	1031		4).17		15.4	7.12	0.679	5.70	5.80	150.5	Clear
	1037		41.17		14.2	4.81	0.687	0.63	5.08	172.7	
	1042	2.0	41.17		14.0	10.78	0.085	0.38	5.12	174.3	
	1647		41.10		14.1	(0.8)	0.484	0.31	4.34	172.3	
	1052	3.0	41.15		14.0	U. 93	0.484	0.27	3.99	170.8	
	1057				14.0	6.83	0.486	0.27	4.17	170.1	
1102 4.0				14.0	(1.83	0.485	0.24	3.85	1109.1	V	
			NOTES	(continued)					ABBREVIA ⁻	TIONS	
								Cond Actual Conductivity ORP - Oxidation-Reduction Potential			
CM	mol0	S tak	en (c	> 1105 N SAM				FT BTOC - Feet Below nn - Not Applicable nm - Not Measured	Top of Casing	SEC - Specific Electric SU - Standard Units	al Conductance
200	inpa	9 0 0 00)				nm - Not Measured		*C - Degrees Celcius	
			TON	LI CANA	DIFX				·		
*1	UN FF	KROUS	+KO	10 out 121	1 60						
,	70 . 0										- 1

Stick-up Monitoring Wells	Well Number HEN -XPYNO2-POYE	Inspection Date 0/3/1/3 0 1/3/2	
i	so manager went meeblery.	Major wells repairs* requir	

Yes

N_o

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Comments

2. Inner casing Outer protective Casing Not loose Not cracked Not dented Not corroded

Not loose Not cracked Not dented

Are there weep holes in ou
 Weep holes able to drain?

Is there a lock present?

7. Bumper posts in good condition?

9. Does the lid have a gasket that seals?

11. Is the well cap lockable?

12. Is there a lock present?

13. No obstructions in well?

If present, how much sediment?

Installed as total depth.

General Condition

19 . Concrete pad 18. Concrete pad installed?

Slope away form casing?

Not deteriorated?

20. No surface seal settling?

21. Well clearly visible and labeled?

Comments:

* Major well repair are those that require a subcontractor or separate mobilization to complete 17. Measured total depth of well. 15. No sediment in bottom of well? 14. No plant roots or vegetation in well? 12. Water level measuring point clearly marked? **Downhole Condition** 10. No water in the flushmount? 8. Can the lid be secured tightly? Is there a lockable cap present? Are there weep holes in outer casing? Not heaved or below surrounding grade? Not corroded Flushmount Monitoring Wells All Monitoring Wells DTW:14.30+4 2 Yes Yes Yes Yes ľg # # # X. S S <u>N</u> N_O 8 ¥ K N Z Z Œ

required

Yes

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PROJECT INFORMATION											
Site:						Client:	,				
				Task #:					Time: 1252		
Field Personnel: Them By						Finish Date:	010	107		Time: 14	SQ
WELL INFORMATION							EVENT	TYPE			
Well ID: XPNOZ				Well Develop	oment	Low-Flow / Low Stress Sampling					
Casing ID: inches				Well Volume	Approach Sa	mpling 🔲	Other (Specify	v):			
			W.	ATER QUALIT	Y INDICATO	R PARAMET	ΓERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Pae	17-56	-	19.0					.			
purge	1304	0.1	14.19		. 6. 11	10 . 5		0.57.7			CICAR
STUBLE	1308	1.0	14.58		19.4	1203	3.071	0.91	29.87	-116.0	
	1313		14.92		19.2	12.13	3.111	0.21	59.77	-155.7	
	1318		15.0	~0,18	17.4	12.14	3.109	0.14	40.43	-165,2	
	1323	2.5	15-1	-0.1	19.3	12.16	3 129	0.10	28.61	-1685	
1328 15.13			40		19.8	12.16	3-146	0.12	7994	-157.5	
					19.7	12.17	3.163	0.12	27:84	-152.3	
	1338	3,25	15.15	Ø	19.7	12.17	3.191	0.12	23.05	-148,4	
					-						
			NOTES	(continued)					APPDEMA:	TIONS	
NOTES (continued)								ABBREVIATIONS Cond Actual Conductivity ORP - Oxidation-Reduction Potential			
FI-0.109 Simple-1345 EB-1345								FT BTOC - Feet Below na - Not Applicable nm - Not Measured	Top of Casing	SEC - Specific Electric SU - Standard Units Temp - Temperature	
	1345									*C - Degrees Celcius	
San	Ple - 10	211									
	R-1	540									2.
ED											

Well Development and Groundwater Sampling Field Form,xls MW-1

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Site 5 .4 21. Well clearly visible and labeled? 20. No surface seal settling? 19. Concrete pad 18. Concrete pad installed? 17. Measured total depth of well. 16. Installed as total depth. 12. Water level measuring point clearly marked? 9. Does the lid have a gasket that seals? 8. Can the lid be secured tightly? 7. Bumper posts in good condition? 2. Comments: **General Condition** 14. No plant roots or vegetation in well? 13. No obstructions in well? **Downhole Condition** 12. Is there a lock present? 11. Is the well cap lockable? 10. No water in the flushmount? Well Number TONXON O Inspection Date Major well repair are those that require a subcontractor or separate mobilization to complete Is there a lockable cap present? Weep holes able to drain? Are there weep holes in outer casing? Inner casing Outer protective Casing Is there a lock present? Slope away form casing? Not loose Not cracked Not dented Not corroded Not loose Not cracked Not dented Not corroded Not heaved or below surrounding grade? Not deteriorated? No sediment in bottom of well? If present, how much sediment? Flushmount Monitoring Wells Stick-up Monitoring Wells All Monitoring Wells BILLING STING POX. 1005 DTW. 9. BA 17:13 ft to maintain well integrity? Major wells repairs* required THE PARTY AND THE Yes Yes Yes Yes \es Yes Q D X 4 S ᇹ 8 S N_O なみちゃ 8 ΝŽ Z Z X Z $\frac{1}{8}$ Buison to Yes Comments 4 ×∣₹ Z

					PROJECT II	VFORMATIO	N				
	Site:					Client:					
Project Nun				Task #:		Start Date:	8/24	102		Time: 112	15
Field Persor		Keng My				Finish Date:	0101	10)		Time: 🗘	20
\	WELL INFO						EVENT	TYPE			
	Well ID: X	Puc!		Well Develop	oment	Ø	Low-Flow / L	ow Stress Sar	mpling		
С	asing ID:		inches	Well Volume	Approach Sa	mpling	Other (Specify):			
	Y		nued)								
		Volume	Depth t				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Fre	1130	0.1	9.45								
PURGE			9.40		1.00	1120	0 1 1 1 1 1 2	A = -	11.00		CLEAR
Souple	1135	0.75	9.45		19.5	11.30	0.783	0.37	4.22	-241.6	
	1140	A 22	9.45		19.5	11.31	0.795	0.22	10.51	-242,4	
	1145	1.0	9.45	S XX	19.0	11.33	0-801	0.17	13.54	-244.1	
	1150		0.804	0-11	17.05	-248.5					
	1155	1.25	0.608	0.11	21.53	-259.5	F-0				
	17,00	0.05	0.817	0.11	54.09	-271.9					
	1705		0.10	57.11	-278.6						
1210 3.5 9.45 Q 17.7 11.59 0.818									55,97	-279.1	
					-						
				(continued)							
				ABBREVIA [*]							
Gamel	May YU.	<i></i>	Cond Actual Conduc FT BTOC - Feet Below	v Top of Casing	ORP - Oxidation-Redu SEC - Specific Electric						
1000	- cs -							na - Not Applicable nm - Not Measured		SU - Standard Units Temp - Temperature	
111	Myson		~ 10	1						*C - Degrees Celcius	
12	12 MINT	(Bunt		ワ							
100	MOST										
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Well Development and Groundwater Sampling Field Form xls MW-1

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omplete	ractor or separate mobilization to co	* Major well repair are those that require a subcontractor or separate mobilization to complete
	+798	77.08.0. M.La
	×	21. Well clearly visible and labeled? Comments:
	6-	20. No surface seal settling?
		Not deteriorated?
	К	Slope away form casing?
	C Section Control of the Control of	19 . Concrete pad
	X No NA	18. Concrete pad installed?
	1911 #	17. Measured total depth of well.
)	If present, how much sediment?
	+	15. No sediment in bottom of well?
	_	14. No plant roots or vegetation in well?
	X.	13. No obstructions in well?
	2.	12. Water level measuring point clearly marked?
	res No	Downhole Condition
	E	12. Is there a lock present?
		11. Is the well cap lockable?
		10. No water in the flushmount?
		9. Does the lid have a gasket that seals?
		8. Can the lid be secured tightly?
	Yes No NA	Flushmount Monitoring Wells
	4	/. Bumper posts in good condition?
		b. Is there a lock present?
	9	5. Is there a lockable cap present?
	9	4. Weep holes able to drain?
	g.	3. Are there weep holes in outer casing?
	Yes No NA	
	(Not loose
		Not cracked
	\	Not dented
	2	Not corroded
	Yes No NA	2. Inner casing
	+	Not loose
		Not cracked
	S	Not dented
	< ;	Not corroded
Comments	YPS NO NA	Stick-up Monitoring Wells 1. Outer protective Casing
	9	Well Number HEN-XPN03-POYE
X.	to maintain well integrity?	ection Date
Yes No NA	Major wells repairs* required	Site TONNON'S

Work Product Alexander Control of the Available Available Hennepin Power Plant, Landfill Hen-257-801

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					PROJECT IN	FORMATIC	N						
	Site:					Client	:						
Project Num				Task #:		Start Date	8101	\$1012 103 Time: 1455					
Field Persor	nnel: Thum	214				Finish Date							
	WELL INFOR						EVENT	TYPE					
	Well ID: XP	w03		Well Develop	ment		Low-Flow / L	ow Stress Sar	mpling				
С	asing ID:	1174	inches	Well Volume	Approach Sa	mpling \Box	Other (Specify	() :					
			w	ATER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)					
		Volume	Depth to				SEC or	Dissolved					
Sampling	Time	Removed	Water		Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual		
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity		
tre			9.26		14		141	10 60					
	1500	1.0	5.16	-0.3	46.7		.0.	0.82	5.				
	1506		5.16	8	16.7	11.71	1.141	0.82	592	-3.2			
	1511		5.16	& \(\tilde{\omega}\)	16.6	11.79	1.144	0-11	13.62	-22-1			
	1516	2	5.16	1.146	0-11	9.31	-30.8						
	1521	2-5	5.16	1.149	0.10	9.28	-37,3						
	1526	9.97	-41.9										
	153						15,000						
	1536												
		NOTES		11	ABBREVIA								
FI	4+DE - 15	2				-		Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature C - Degrees Celcius			
SAMPI	U- IC	2								***************************************			
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	o, o o o.		ŀ	HENNEPIN POWE	R PLANT, LA HEN-2	NDFILL 257-801
Flushmount Monitoring Wells 8. Can the lid be secured tightly? 9. Does the lid have a gasket that seals? 10. No water in the flushmount?	5. Is there a lockable cap present?6. Is there a lock present?7. Bumper posts in good condition?	3. Are there weep holes in outer casing?4. Weep holes able to drain?	Not corroded Not dented Not cracked Not loose	Not dented Not cracked Not loose 2. Inner casing	Stick-up Monitoring Wells 1. Outer protective Casing Not correded	Inspection Date 5/21/12 @ 0955 Well Number 10
Yes	XXX	Yes		Yes	Yes	Major we to mainta
No		X 8	XXXX	No XXX	₹ No	Major wells repairs* required to maintain well integrity?
Z Z Z Z		X		NA A	NA	required grity?
					<u> </u>	Yes
					Comments	××°
					,,,,,	NA

21. Well clearly visible and labeled? 20. No surface seal settling? Comments: Major well repair are those that require a subcontractor or separate mobilization to complete Not heaved or below surrounding grade? Not deteriorated? DW: 4828 7 Bottom of Casing X 150 2 XX Z

5

General Condition

18. Concrete pad installed?

Concrete pad

Slope away form casing?

17. Measured total depth of well.

15N34

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Installed as total depth.

15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

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11. Is the well cap lockable?12. Is there a lock present?

1						PROJECT I	NFORMATIO	N				HEN-
		Site: HEN	nevin.	JL			Client	- 14	hall			
	Project Nur	mber:	, ,		Task #:			8/2/11	40		Time: 09	N/A
	Field Perso	nnel: <u>AIII</u>	ion bec	X-ltt	2		Finish Date:	0141	13		Time: 6	100
		WELL INFOR						EVENT	TYPE			
		Well ID: 1	EN-10		Well Develop	oment	X	Low-Flow / L	ow Stress Sar	npling		
		Casing ID:	2	inches	Well Volume	Approach Sa	mpling 🔲	Other (Specify	/):			
- 1					WATER QUALIT	Y INDICATO	OR PARAME	TERS (conti	nued)			
- 1			Volume	Depth				SEC or	Dissolved			
- 1	Sampling Stage	Time (military)	Removed	Wate		Temp.	pН	Cond	Oxygen	Turbidity	ORP	Visual
a	Stage	081 # (0	(gallons)	(Feet		22.8	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
ď		0821		48.12		23.1	7.15	0.619	1.52	4.08	138. V	Clear
ı		08 26	2.0	49.12		23.1	7.05	0.024	0.73	4.50	1446	+
ı		0831	5 1	48.12	5	23.1	7.04	0.025	0.85	7.00	144.2	
- 1		0836	3.0	48.1		23.2	7.04	0.1025	0.53	4.50	141.8	
2.5		1480	3.5	48-11		23.2	7.04	0.025	0.52	3.90	W+0.9	
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ŀ					S (continued)							
-				ABBREVIATIONS								
	Say	mple	s tak	Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Red SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	cal Conductance					
	* N() FER	2ROUS	TRON	J SAMP	LE*						

Inspection Date 8/21/23 Well Number	
123 @ 0930	
Major wells repairs* required to maintain well integrity?	
Yes	
No	
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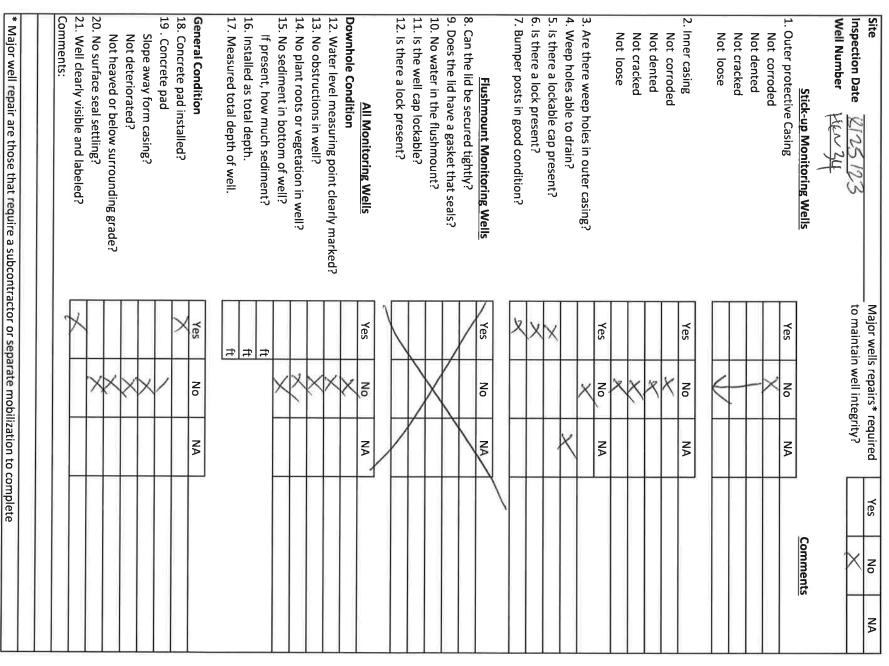
					comments:
				<	21. Well clearly visible and labeled?
				<	20. No surrace seal settling?
				5	Do Nic street of perow sallounding 8 ade:
			\		Not beaved or below surrounding grades
			4		Not deteriorated?
			C		Slope away form casing?
				7	19 . Concrete pad
				,	18. Concrete pad installed?
		NA	No	Yes	General Condition
					1). Ivicasuled total deptil of well.
					17 Mooning to to the control of the
				‡ ;	16 Installed as total denth
				#	If present, how much sediment?
			X		15. No sediment in bottom of well?
			7		14. No plant roots or vegetation in well?
			X		13. No obstructions in well?
			×		12. Water level measuring point clearly marked?
		X			Downhole Condition
		NA A	No	Yes	All Monitoring Wells
		×			12. Is there a lock present?
		47			12 lether eled ockabler
		×7			11 le +bo mell can lockable
		4,			10 No water in the flushmount?
		<			9. Does the lid have a gasket that seals?
		×			8. Can the lid be secured tightly?
		NA	No	Yes	Flushmount Monitoring Wells
					-
			7		7. Bumper posts in good condition?
			1		6. Is there a lock present?
			>		5. Is there a lockable cap present?
			, <		4. Weep holes able to drain?
			7.		3. Are there weep holes in outer casing?
		NA	No	Yes	
			7		Not loose
			<		Not cracked
			7		Not dented
			7,		Not corroded
		NA	No	Yes	2. Inner casing
			7		Not loose
			1		Not cracked
			7,		Not dented
			, <		Not corroded
		NA	No	Yes	1. Outer protective Casing
Comments					Stick-up Monitoring Wells
9					0
×		rity	1 well integ	to maintain well integrity?	inspection Date 3/2/123 @ 0930
No NA	Yes	equired	s repairs* r	Major wells repairs* required	212
			,		0.14

* Major well repair are those that require a subcontractor or separate mobilization to complete

				F	PROJECT IN	NFORMATIO	N					
		noping	IL			Client	Rami	1100				
Project Num		2000	**	Task #:		Start Date	8/25/	-1 2		Time: /()	155	
		m BLOK	19th			Finish Date	_01637	03		Time: T	200	
V	VELL INFO						EVENT	TYPE				
		EN-50		Well Develop		K		ow Stress Sar	mpling			
C	asing ID:	2	inches	Well Volume			Other (Specify					
		VP		ATER QUALITY	/ INDICATO	R PARAME	TERS (conti	nued)				
Sampling	Time	Volume Removed	Depth t Water		T	-11	SEC or	Dissolved				
Stage	(military)	(gallons)	(Feet)	Drawdown (Feet)	Temp, (°C)	pH (SU)	Cond. (µs/cm)	Oxygen (mg/L)	Turbidity (NTU)	ORP	Visual Clarity	
61	\$ 58	(gamono)	(1 001)	(i ccty	1/2-8	7.53	0.444	0.101	3104.79	(mV) 81.2	Clow	
11	(2) 03				16.7	7.50	0.1143	0.59	384.4	1125	1	
1)	03	2.0			14.8	7.49	0.1064	0.17	4.33	109.3		
))	CIX 13				16.9	7.49	0.000	0.14	4.31	38.5		
11 118 4-0 167 7.47 0.12 4.00 11 11.3 10.7 7.47 0.45 0.12 12.3.98												
11	100 L3	0.12	B 3.98	88.O	-							
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NOTES (continued)										TIONS		
		taku	ABBREVIATIONS Cond Actual Conductivity FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temp - Temperature C- Degrees Celcius									
Fl	MM	Sim	n so	Imple@	1140	:Unal	rrimg	O				

Well Development and Groundwater Sampling Field Form,xls MW-1

	K		19.2 to maintain well integrity?	ンシング	spection Date
NA	No	Yes	Major wells repairs* required		te
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					F	PROJECT IN	IFORMATIO	N					
\$	Site:						Client:						
Project Num	ber:				Task #:		Start Date:	9100	102		Time: 105	3	
Field Person	nnel: TREM	BLOW			2 50		Finish Date:	010	125		Time: 110	15	
٧	VELL INFO	RMATION						EVENT :	TYPE		•		
	Well ID: 1	6N 34			Well Develop	ment		Low-Flow / L	ow Stress San	npling			
Ca	asing ID:		inches		Well Volume	Approach Sar	mpling 🔲	Other (Specify):				
			V	VAT	ER QUALITY	/ INDICATO	R PARAME1	ΓERS (conti	nued)				
		Volume	Depth t					SEC or	Dissolved				
Sampling	Time	Removed	Water		Drawdown	Temp.	pH	Cond.	Oxygen	Turbidity	ORP	Vis	
Stage	(military)	(gallons)	(Feet)		(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Cla	
Purse	1095	0-1		_		+3.2	400	0.968	2.00	1402	116.2	CCE	
	1100					13.2	7.21	0-949	2.06	14.02	-116.2	CLES	IR
	1105			_		128	7.09	0966	0.25	7-80	-108.6		
	1110	2.5				12.8	7.08	0.969	0.21	6.54	410,4		
	115					12.7	1.06	0.97 (0.22	5-51	-111.2		
	1/20					12.8	7-08	0-977	0.20	4.81	-110.7		
	125												
	1130												
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			NOTE	S (C	ontinued)				Cond Actual Conduc	ABBREVIA	ORP - Oxidation-Reduc	etion Potenti	int
FI- SAMPLI	- Uwari	C G							FT BTOC - Feet Below na - Not Applicable nm - Not Measured		SEC - Specific Electric SU - Standard Units Temp - Temperature "C - Degrees Celcius		
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Well Development and Groundwater Sampling Field Form.xls MW-1

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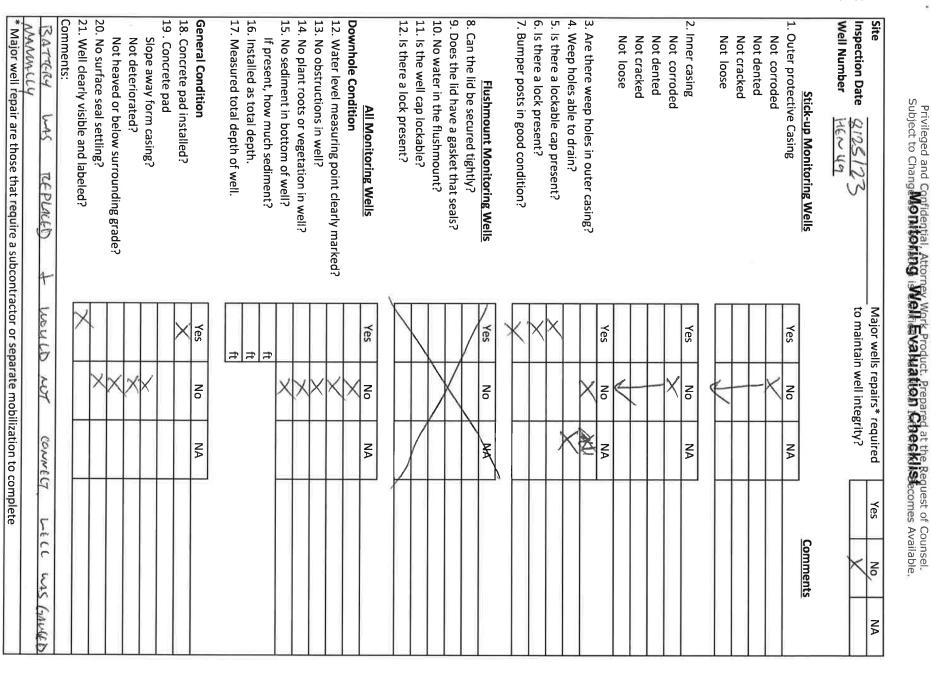
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Star						PROJECT IN	IFORMATIO	N					
Project Number: Task # Start Date: Task # Time: 0.00		Site: Henr	repin, I	U			Client:	Rambi	(1)				
Well ID:			, ,		Task #:		Start Date:		7.7		Time: 00	125	
Well ID:		the state of the s	and the state of t	altel			Finish Date:	01/2	L3		Time: 40	35	
Casing ID	\							EVENT :	TYPE				
Sampling Time Noture Removed Water Drawdown Temp. PH Cond. Oxygen Turbidity ORP Visual Oxygen Oxyge			EN-49		Well Develop	ment	\times	Low-Flow / Lo	ow Stress San	npling			
Sampling Time Removed Water Drawdown Temp. ph SEC or Cond. Oxygen Turbidity ORP Visual Oxygen Oxyge	С	asing ID:	2	inches	Well Volume	Approach Sai	mpling 🗌	Other (Specify):				
Sampling Time Removed Water Drawdown Temp. PH Cond. Oxygen Turbidity ORP Visual Clarity NTU My NTU NTU My Clarity NTU NTU My NTU				V	ATER QUALIT	Y INDICATO	R PARAME	ΓERS (conti	nued)				
Stage								SEC or	Dissolved				
19 32 19.45 15.5 7.2 0.700 140 72.1 7.5 (40 om of of of of of of of of of of of of of								= == 8/		Turbidity	ORP		
15.3 7.13 0.498 0.22 92.38 38.0 16.4 7.12 0.1698 0.17 10.79 98.0 16.4 7.12 0.1698 0.17 10.79 98.0 16.4 7.12 0.1698 0.15 122.4 57.7 16.60 16.4 7.12 0.1698 0.15 122.4 57.7 16.60 16.4 7.12 0.1698 0.15 122.4 57.7 16.60			(gallons)										
19 42 7.0 19.05 15.4 7.12 0.198 0.17 10.79 98.0	- 0				-								
19 147 19 19 15 17 17 18 17 18 18 18 18			17 0		~							Bownsmi	virky
09 52 19.45 15.4 7.12 0.647 0.13 121.9 58.8 09 57 5.0 19.44 16.4 7.17 0.608 0.12 122.9 50.1 10 102 19.65 15.3 7.12 0.408 0.11 123.6 58.2 NOTES (continued) Sample Start On S			0.0					- IX 10		110. 1.		1 1	
NOTES (continued) NOTES (continued) Sampus table 10.05 NOTES (continued) Sampus table 10.05 NOTES (continued) Sampus table 12.2.9 Eg. 1 10.009 1.12 1.22.9 Eg. 1 10.0							7.12				211		
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NOTES (continued) Sampustarions Cond Actual Conductivity FT BTOC Feel Below Top of Casing an - Not Applicable mm - Not Measured mm - Not Measured ABBREVIATIONS ORP - Oxidation-Reduction Potential SEC - Specific Electrical Conductions SU- Standard Units Temp - Temperature "C- Degrees Celcius		102	9,0										
Somusial Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temperature "C - Degrees Celcius		INSPIRE OF Z		, ,,,,,,		70.5	T.12	0.000	0.11	123.0	20.2		
Somusial Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temperature "C - Degrees Celcius												 	
Somusial Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temperature "C - Degrees Celcius													
Somusial Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temperature "C - Degrees Celcius												-	
Somusial Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temperature "C - Degrees Celcius													
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Somusial Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temperature "C - Degrees Celcius					1								
Somusial Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity FT BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured Cond Actual Conductivity SEC - Specific Electrical Conductance SU - Standard Units Temperature "C - Degrees Celcius				NOTES	S (continued)					ABBREVIA	TIONS	-	
*C - Degrees Celcius	Conso	0 010 6	601/01	_						livily	ORP - Oxidation-Rec		
	20/11	ING 2	TURE	10	105				na - Not Applicable	/ Lop of Casing	SU - Standard Units Temp - Temperature		
	1-1-		0 -	001	0.010	1020.1	102110	(11100			C - Degrees Cercius		
Ferrous iron sample @ 1030: Undurrange	1461	21101	11011	2 an	TVU VI	1120.	/Y VX VY	WYBE				- 1	
	1 50	, , , , ,				•		0				- 1	

Site HOMNIDAT L Nell Number HEN-10 Well Number HEN-10	,	1. Outer protective Casing	Not corroded	Not dented	Not cracked	Not loose	2. Inner casing	Not corroded	Not dented	Not cracked	Not loose		3. Are there ween holes in outer casing?	0	4. Weep holes able to drain?	4. Weep holes able to drain?5. Is there a lockable cap present?	4. Weep holes able to drain?5. Is there a lockable cap present?6. Is there a lock present?	4. Weep holes able to drain?5. Is there a lockable cap present?6. Is there a lock present?7. Bumper posts in good condition?	4. Weep holes able to drain? 5. Is there a lockable cap present? 6. Is there a lock present? 7. Bumper posts in good condition? Flushmount Monitoring Wells
Major we		Yes					Yes					Yes			1		> 2	(×	Yes
Major wells repairs* required to maintain well integrity?		No	R.		2	(No	9	_	_	Ł	No	×						No
required grity?		NA					NA					NA		X					NA
Yes																			
× No	Comments																		
N A																			

* Major well repair are those that require a subcontractor or separate mobilization to complete DIM 53.90 dead

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Comments:

21. Well clearly visible and labeled? 20. No surface seal settling?

S

Not heaved or below surrounding grade?

Not deteriorated? Slope away form casing? **General Condition**

Yes

X S

Z

19 . Concrete pad

18. Concrete pad installed?

17. Measured total depth of well.

16. Installed as total depth.

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15. No sediment in bottom of well? 14. No plant roots or vegetation in well?

If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked?

Downhole Condition

All Monitoring Wells

Yes

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Page 119 of 130

12. Is there a lock present?

11. Is the well cap lockable?

10. No water in the flushmount?

	.,	51			PROJECT II	NFORMATIO	N				
	Site: Her	Melpin	JLL			Client	Ramb	011			
Project Num		00.0.		_ Task #:		_ Start Date		2		Time: 08	00
	nnel: <u>Allı</u>		rest.			Finish Date:	012012	9			105
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	WELL INFO						EVENT .	TYPE			
	Well ID: 4	5N-10		Well Develop			Low-Flow / L	ow Stress Sar	mpling		
	asing ID:	2	inches	Well Volume	Approach Sa	mpling \square	Other (Specify):			
			WAT	ER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved			
Sampling Stage	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Glage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	0813		53.90		-	7.47	0.550	8.13	4.40	114.5	clour
	0818		- AP		22.5	7.23	0.553	1.41	3.88	131.4	
		1.0	53.90		22.7	7.23	0.554	1.21	3.92	131.1	
-	0823	1.0	53.90		22.8	7.23	0.556	0.53	3.85	126.8	
	0828		53.90		22.8	7.23	0.556	0.41	3.89	123.5	1
	0833	2.0	53.90		22.8	7.23	0.556	0.37	3.99	122.7	V
									Ĺ		
			NOTES (c	ontinued)					ABBREVIA	TIONS	
Sar	nples	stak	en O	0835	ĵ			Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	
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DTN: On ap	Comments:	21. Well clearly visible and labeled?	20. No surface seal settling?	Not heaved or below surrounding grade?	Not deteriorated?	Slope away form casing?	19 . Concrete pad	18. Concrete pad installed?	General Condition Yes	17. Measured total depth of well.	If present, how much sediment?	15. No sediment in bottom of well?	14. No plant roots or vegetation in well?	12. Water level measuring point clearly marked?	Downnoie Condition	All Monitoring Wells Yes	1	12. Is there a lock present?	11. Is the well cap lockable?	10. No water in the flushmount?	9. Does the lid have a gasket that seals?	T	Flushmount Monitoring Wells	7. Bumper posts in good condition?	6. Is there a lock present?	4. Weep holes able to drain?	3. Are there weep holes in outer casing?	Yes	Not loose	Not cracked	Not corroaed	2. Inner casing Yes	1 [Not loose	Not cracked	Not dented		Stick-up Monitoring Wells 1. Outer protective Casing Yes		Hennew II
			×	cracked	Characa	χ.			NO NA			(+	S.	. 9		NO NA		<			>		NO NA			Ż.		No NA	1		- 5	No NA		(-	No NA Comments	to maintain well integrity?	Major wells repairs* required Yes No NA

					PROJECT II	NFORMATIO	N				TILINEZ
	Site: HRAY	UpinIL				Client:	Kain	10011			
Project Nur		~		Task #:		Start Date:	8/28/1			Time: () 0	105
	nnel: <u>ກາງ</u> ເປ		**			Finish Date:		,)		Time: 101	
	WELL INFO						EVENT	TYPE			
	Well ID:	FI-173		Well Develop	ment	\square	Low-Flow / L	ow Stress Sa	mpling		
C	asing ID:	2	inches		Approach Sa	mpling	Other (Specify	ı):			
			W	ATER QUALIT	Y INDICATO	R PARAMET	TERS (conti	nued)			
		Volume	Depth to	0			SEC or	Dissolved			1
Sampling	Time	Removed	Water		Temp.	ρН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	0911				224	7.15	0.565	5.91	5.00	137.9	clear
	0910				22.7	7.35	0.514	4.13	3.97	140.7	1
	0921	7 .		_	22.5	7.35	0.508	10.00	4.08	744.3	
	0924	1.0			22.5	7.35	0.508	(0.00	3.96	146.5	
	0931			_	22.4	7.34	0.507	5.88	3.99	147.0	
	0920	2.0	-		22.4	7:34	0.506	5.76	4.02	148.2	V-
				_				ļ			
				_							
										L	
			NOTES	(continued)				Cond Actual Conduc	ABBREVIA	TIONS ORP - Oxidation-Redu	Particular I
Sa	mple	s tak	en e	90940				FT BTOC - Feel Belov na - Not Applicable nm - Not Measured		SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcus	
Fe	evrous	ivon s	amk	ole @09	45 M	derro	unge				

aupe @ 0940

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Privileged and Confidential, Attorney Work Product, Prepared at the Request of Counsel. Subject to Chang Montonian in Attorney Work Product, Prepared at the Request of Counsel.

* Major well repair are those that require a subcontractor or separate mobilization to complete 21. Well clearly visible and labeled? 20. No surface seal settling? Site 19 . Concrete pad 18. Concrete pad installed? 17. Measured total depth of well. 9. Does the lid have a gasket that seals? 4. Comments: **General Condition** Installed as total depth. 15. No sediment in bottom of well? 14. No plant roots or vegetation in well? 13. No obstructions in well? 12. Water level measuring point clearly marked? **Downhole Condition** 12. Is there a lock present? 11. Is the well cap lockable? 10. No water in the flushmount? 8. Can the lid be secured tightly? 7. Bumper posts in good condition? 2. Inner casing Well Number Inspection Date is there a lock present? Is there a lockable cap present? Weep holes able to drain? Are there weep holes in outer casing? Outer protective Casing Not cracked Not heaved or below surrounding grade? Not deteriorated? Slope away form casing? If present, how much sediment? Not loose Not dented Not corroded Not loose Not cracked Not dented Not corroded Flushmount Monitoring Wells Stick-up Monitoring Wells All Monitoring Wells 030 3219 to maintain well integrity? Major wells repairs* required řě/ [g Yes Υes Yes Yes # ı # S 몽 S 몽 o No WE SO Z K N Z N K Yes Comments S N N

CONTROL OF THE SECOND WATER SAME PLANT OF THE PROPERTY OF THE

					Р	ROJECT IN	FORMATIO	N				
	Site:						Client:					-
Project Nun					Task #:		Start Date:	0100	9)		Time: 🗪	36
Field Perso	nnel:	EMBLA					Finish Date:	0(28	6		Time: (2	1
	WELL INFO							EVENT :	TYPE			
	Well ID: C	3 た			Well Develop	ment		Low-Flow / Lo	ow Stress San	npling		
С	asing ID:		inches		Well Volume	Approach Sar	npling 🔲	Other (Specify):			
			. V	VAT	ER QUALITY	/ INDICATO	R PARAMET	TERS (conti	nued)			
		Volume	Depth					SEC or	Dissolved			
Sampling	Time	Removed	Wate	٢	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)		(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Pullage	0915	0.1									175	CCEAR
SMPLE	0920					16,2	7.22	0.655	0.8	10.85	4 SHY	
	0925	1.0				18.2	7.2	0.653	0.32	5.46	137.8	**
	0930					14.2	7.21	0.653	0-22	3.81	1329	
	0935					18.3	7.21	0-653	0.23	2.99	129.4	
	0940	2.25				163	7.20	0.652	0.20	254	126.9	
	0945									-		
	0150							İ				
	0955											
	·	XI	NOTE	S (c	continued)			***		ABBREVIA'	TIONS	
11	UNDR	9			,				Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured	tivity	ORP - Oxidation-Redui SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	
Sand	ide ord	X /										

Well Development and Groundwater Sampling Field Form xls MW-1

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Privileged and Confidential, Attorney Wark Product. Prepared at the Request of Counsel. Subject to Chang. Work Toking is Validated Manual on Confidential Secones Available.

Site Well Number Inspection Date Outer protective Casing Stick-up Monitoring Wells 28/23 to maintain well integrity? Major wells repairs* required Yes S Š Yes Comments S

4. ω 21. Well clearly visible and labeled? 20. No surface seal settling? 19. Concrete pad 18. Concrete pad installed? 17. Measured total depth of well. 16. Installed as total depth. 15. No sediment in bottom of well? 14. No plant roots or vegetation in well? 12. Is there a lock present? 9. Does the lid have a gasket that seals? 8. Can the lid be secured tightly? 7. Bumper posts in good condition? 2. Comments: **General Condition** 13. No obstructions in well? 12. Water level measuring point clearly marked? **Downhole Condition** 11. Is the well cap lockable? 10. No water in the flushmount? Is there a lockable cap present? Is there a lock present? Weep holes able to drain? Are there weep holes in outer casing? Inner casing Not heaved or below surrounding grade? Not deteriorated? Slope away form casing? Not loose Not cracked Not dented Not corroded Not loose Not cracked Not dented Not corroded It present, how much sediment? Flushmount Monitoring Wells All Monitoring Wells Yes Yes Yes Yes [ĕ # | # | # ᇹ S 8 S 8 X Z Z Ν N N

Major well repair are those that require a subcontractor or separate mobilization to complete

					P	ROJECT IN	IFORMATIO	N				
	Site:						Client:				-0.0	
Project Nur					Task #:		Start Date:	0120	7/22		Time: 🔷 🤇	00
	nnel: Tea						Finish Date:	810	3/40		Time: 😘	5
	WELL INFO						3	EVENT				
	Well ID: 18	5			Well Develop	ment	×	Low-Flow / Lo	ow Stress San	npling		
	Casing ID:		inches		Well Volume	Approach Sar	mpling 🔲	Other (Specify)):			
			٧	VAT	ER QUALITY	/ INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth					SEC or	Dissolved			
Sampling	Time	Removed	Wate		Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet))	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
pulle	080	0.25	ļ			15.5						CLEAR
71	0811					16-8	7.52	0.686	2.30	5-45	1040	
	0816					16-7	7.39	0.661	0.42	3.20	103.2	
	0821	0				16.8	7.39	0.661	0.26	2.61	28-1	
	0426	2,25				(6.8	7.38	0.661	0.22	2.49	15.5	
	093	2-5				16-8	7.38	0.661	0-20	2.46	94.1	
	0836											
	034											
	0946											
											_	
			NOTE	S (c	ontinued)					ABBREVIA	TIONS	
FI- 0835 Smrce-	UNDE				•				Cond Actual Conduc FT BTOC - Feet Below na - Nol Applicable nm - Nol Measured	tivity	ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	
Swee -	<i></i>											

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Yes No NA	No

		۲ ۲					Yes
У	4	Z.					No
X	3	200		_		V	NA
			°		0	0	0

8. Can the lid be secured tightly?9. Does the lid have a gasket that seals?

Flushmount Monitoring Wells

7. Bumper posts in good condition?

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Is there a lock present?

* Major well repair are those that require a subcontractor or separate mobi	24.81:M10	Comments:	21. Well clearly visible and labeled?	20. No surface seal settling?	Not heaved or below surrounding grade?	Not deteriorated?	Slope away form casing?	19 . Concrete pad	18. Concrete pad installed?
ctor or sepa	8.48		8						×
arate mobi	7/20			4			X		

ilization to complete

installed

17. Measured total depth of well.

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16. Installed as total depth.

14. No plant roots or vegetation in well?

No sediment in bottom of well? If present, how much sediment?

13. No obstructions in well?

12. Water level measuring point clearly marked

Downhole Condition

All Monitoring Wells

12. Is there a lock present? 11. Is the well cap lockable? 10. No water in the flushmount?

General Condition

					DDO IFOT I	NECDMAN					HEN-257
	Site: HOM	repinite	,		PROJECTI	NFORMATIO					
Project Nur		repin +		Task #:		Start Date	Pambo				131.4
Field Perso		SON BEC	K. P + +	rask #		_ Start Date _ Finish Date		123			140
	WELL INFO	The second second				_ Tillish Date		TVDE		_ Time:	140
		EN-456		☐ Well Develop	amont .	X	EVENT				
C		2	inches		Approach Sa		Other (Specify	ow Stress Sar	mpling		
					- declarate						
		Volume	Depth 1	VATER QUALIT	TINDICATO	JR PARAIVIE					
Sampling	Time	Removed	Water		Temp.	рН	SEC or Cond.	Dissolved Oxygen	Turbidity	ORP	Viewel
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(us/cm)	(mg/L)	(NTU)	(mV)	Visual Clarity
	1044		18.98	3	19.3	7.32	U.704	3.27	9.13	57.9	Clear
	1049		18.97	L.	19.1	7.17	0.641	0.25	148.24		Brown/muck
	1054	2.5	18.98		19.1	7.170	0.040	0.72	130.12	111.7	1
	1059		18-98		19-1	7-110	0.440	0.19	89.9	1110.1	+1
	1104		18-98		19.1	7.16	0.440	0.18	U\$7.30	118.4	
	1109	5.0	18-98		19.1	7.10	0.040	0.17	54.30	119.2	
	111894		18.98		19.1	VIFE	0.440	0.17	55.66	120.2	$\forall \forall$
		-									
			NOTES	S (continued)					ABBREVIA	TIONS	
	•	taxes		White !!!	-			Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Res SEC - Specific Elect SU - Standard Units Temp - Temperature *C - Degrees Celcium	rical Conductance
Fl	NYOU	s ivon	Sor	mple ()1130:	undu	rround	şi			

Well Development and Groundwater Sampling Field Form xls MW-1

SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads All DTWs on SAR-4 form may be collected at anytime during the sampling event.

Plant: HEN

Event: HEN-23Q3 Rev 0

						On-site Tra	ansducer Data]	
Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down- loaded?	Batt (H/M/L)	Comments	Initials
03R	HEN 03R	8/28/2023	9:06	See transducer reading	21615140	У	448.07	У	h		СТ
07	HEN 07	8/24/2023	13:20	See transducer reading	21615139	у	450.45	У	h		АВ
08	HEN 08	8/24/2023	14:35	See transducer reading	21615138	у	448.33	У	h		АВ
08D	HEN 08&D	8/24/2023	11:40	See transducer reading	21615598	У	448.09	У	h		АВ
12	HEN 12	8/23/2023	9:30	See transducer reading	21615520	У	448.17	У	h		АВ
13	HEN 13	8/23/2023	10:55	See transducer reading	21615515	У	448.22	У	h		АВ
16	HEN 16	8/28/2023	8:00	53.9	21615137	У	N/A	n	h	Replaced battery, issues connecting to hobo link, manually gauged well.	АВ
17	HEN 17	8/28/2023	9:05	See transducer reading	21615500	У	449.15	У	h		АВ
18S	HEN 18#S	8/28/2023	8:00	See transducer reading	21615482	у	448.12	У	h		СТ
18D	HEN 18&D	8/23/2023	13:18	See transducer reading	21615609	у	448.08	У	h		СТ
21R	HEN 21R	8/22/2023	13:00	See transducer reading	21615613	у	447.73	У	h		АВ
22	HEN 22	8/25/2023	8:15	See transducer reading	21615497	у	447.26	У	h		АВ
22D	HEN 22&D	8/22/2023	8:00	See transducer reading	21564134	У	447.57	У	h		АВ
23	HEN_23	8/22/2023	10:40	See transducer reading	21615600	у	447.92	У	h		АВ
27	HEN 27	8/24/2023	8:20	See transducer reading	21615576	у	447.77	У	h		СТ
32	HEN_32	8/22/2023	10:35	See transducer reading	21615487	у	447.64	У	h		СТ

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SAR-4: Depth to Groundwater Measurements - On-site Transducer Downloads All DTWs on SAR-4 form may be collected at anytime during the sampling event.

Plant: HEN

Event: HEN-23Q3 Rev 0

						On-site Tra	ansducer Data				
Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)	Data Logger Serial No.	Does Data Logger Serial No. Match?	WL Reading on Transducer (ft)	Data down- loaded?	Batt (H/M/L)	Comments	Initials
34	HEN_34	8/25/2023	10:53	See transducer reading	21615509	У	440.58	У	h	Replaced battery 8/25/23	СТ
35	HEN_35	8/24/2023	9:30	See transducer reading	21615510	У	447.64	У	h		СТ
46	HEN_46	8/23/2023	8:10	See transducer reading	21615491	У	448.28	У	h		АВ
47	HEN_47	8/23/2023	14:55	See transducer reading	21615505	У	447.94	У	h		АВ
49	HEN_49	8/25/2023	9:25	19.65	21615490	У	N/A	n	h	Replaced battery, issues connecting to hobo link, manually gauged well.	АВ
50	HEN_50	8/25/2023	10:55	See transducer reading	21615489	У	-0.03	У	h		АВ
51	HEN_51	8/22/2023	15:00	See transducer reading	21615608	У	447.74	У	h		АВ
52	HEN_52	8/24/2023	9:05	See transducer reading	21615145	У	448.12	У	h		АВ
54	HEN_54	8/23/2023	13:00	See transducer reading	21615143	У	448.03	У	h		АВ
55	HEN_55	8/23/2023	12:55	See transducer reading	21615612	У	corrupted file	У	h	Data was downloaded, data did not save correctly/ corrupt	АВ

U: 6/21/23 GKJ

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Site Hennepin ILL	Major well	s repairs*	required	Yes	No	NA
Inspection Date 8/2/123 (2) 1140	to maintai	n well integ	grity?		λ	
Well Number HEN-010						
11174						
Stick-up Monitoring Wells					Comments	i
1. Outer protective Casing	Yes	No	NA NA			
Not corroded		X				
Not dented		1				
Not cracked	-					
Not loose		1				
Not loose		Ψ				
2 (1977)	V	Na	NA NA	r.		
2. Inner casing	Yes	No	INA			
Not corroded		¥				
Not dented						
Not cracked						
Not loose		Ψ				
-	Yes	No	NA			
3. Are there weep holes in outer casing?		×				
4. Weep holes able to drain?			X			
5. Is there a lockable cap present?	Х					
6. Is there a lock present?						
7. Bumper posts in good condition?	4					
Flushmount Monitoring Wells	Yes	No	NA	1		
8. Can the lid be secured tightly?			X			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?			+			
12. Is there a lock present?			1			
12. Is there a lock present:			_	<u> </u>		
All Monitoring Wells	Yes	No	l NA	1		
Downhole Condition	163	INO	IVA			
1		A)	N			
12. Water level measuring point clearly marked?		38	Ø			
13. No obstructions in well?		1				
14. No plant roots or vegetation in well?		w//				
15. No sediment in bottom of well?		4				
If present, how much sediment?	ft	4				
16. Installed as total depth.	ft	3				
17. Measured total depth of well.	31.09ft					
			1	ī		
General Condition	Yes	No	NA NA			
18. Concrete pad installed?		Х				
19 . Concrete pad						
Slope away form casing?			X			
Not deteriorated?						
Not heaved or below surrounding grade?						
20. No surface seal settling?		ĺ	1			
21. Well clearly visible and labeled?	×					
Comments:						
	0.80 Ft	101 10 n	p inst	allod		
7111	- 0 - 1	FAIR	111011	THE (
* Major well repair are those that require a subcor	ntractor or ser	parate mob	ilization to	complete		
and the chose that require a subcon	actor or act	-arace mot		compicte		

Site Hennepin, IL	Major wells repairs* re		Yes	No	NA
Inspection Date 8/11/23 (a) (0 mm 45	to maintain well integr	ity? [X	
Well Number HEN-195					
Stick-up Monitoring Wells				Comments	e:
Outer protective Casing	Yes No	NA			
Not corroded	Ŋ.				
Not dented	1				
Not cracked					
Not loose					
1101 1000					
2. Inner casing	Yes No	NA			
Not corroded	×				
Not dented					
Not cracked					
Not loose					
Not loose	Yes No	NA			
2. Are there ween below in outer casing?	7	, IVA			
3. Are there weep holes in outer casing?		~1			
4. Weep holes able to drain?		X			
5. Is there a lockable cap present?	N N				
6. Is there a lock present?	,				
7. Bumper posts in good condition?	4				
		1			
Flushmount Monitoring Wells	Yes No	NA NA			
8. Can the lid be secured tightly?		X			
9. Does the lid have a gasket that seals?					
10. No water in the flushmount?					
11. Is the well cap lockable?					
12. Is there a lock present?		V			
	r		10		
All Monitoring Wells	Yes No	NA			
Downhole Condition					
12. Water level measuring point clearly marked?		\sim			
13. No obstructions in well?	X				
14. No plant roots or vegetation in well?					
15. No sediment in bottom of well?	1				
If present, how much sediment?	— ft		/		
16. Installed as total depth.	ft				
17. Measured total depth of well.	39.92 ft				
General Condition	Yes No	NA			
18. Concrete pad installed?	X				
19 . Concrete pad					
Slope away form casing?	×				
Not deteriorated?					
Not heaved or below surrounding grade?					
20. No surface seal settling?	- Jan				
21. Well clearly visible and labeled?	X				
Comments:					
	2. 7 A 01000	incl	011100		
DTW: 3	1. LT PUTTY	o inst	MACA		
* Major well repair are those that require a subcon	tractor or consents makil	ization to	complete		
. Iviaioi well levali die tilose tildt leuulle d SUDCON	itiation of Separate MODII	iizaliUII lU (שושושושו		

Site Hennepin, IL	Major well	ls repairs* i	required	Yes	No	NA
Inspection Date 8121/23 @ 1040	to maintai	n well integ	grity?		X	
Well Number HEN-19D					•	
<u> </u>						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded		35				
Not dented		1				
Not cracked						
Not loose		1				
2. Inner casing	Yes	No	NA NA	į.		
Not corroded	103	X	1171			
Not dented		1				
Not cracked		\vdash				
Not loose		1				
Not loose	Yes	No	NA			
Are there ween helps in outer casing?	162	メ	INA			
3. Are there weep holes in outer casing?			7			
4. Weep holes able to drain?	<u> </u>		5			
5. Is there a lockable cap present?	X					
6. Is there a lock present?						
7. Bumper posts in good condition?	4	L				
	<u> </u>		1	ř		
Flushmount Monitoring Wells	Yes	No	NA -A			
8. Can the lid be secured tightly?			7			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			+			
				1		
All Monitoring Wells	Yes	No	NA			
Downhole Condition						
12. Water level measuring point clearly marked?			X			
13. No obstructions in well?		X				
14. No plant roots or vegetation in well?		_1_				
15. No sediment in bottom of well?		1				
If present, how much sediment?	- ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	6255ft					
General Condition	Yes	No	NA			
18. Concrete pad installed?	\times					
19 . Concrete pad						
Slope away form casing?		K				
Not deteriorated?						
Not heaved or below surrounding grade?						
20. No surface seal settling?		1				
21. Well clearly visible and labeled?	X					
Comments:						
DTW : 8	ンマスル	pym	n in	vell		
1110.2		FVIII	PILL	VOVI		
* Major well repair are those that require a subcon-	tractor or sen	arate moh	lization to	complete		

site Hennipen, IL	Major wells	repairs*	required	Yes	No	NA
Inspection Date 8(21/23 @ 1035	to maintain	well inte	grity?		0	
Well Number HEN-N+R			,		101	
4-7-011						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded	103	X	1			
Not dented		1				
Not cracked						
Not loose		1/				
Not loose		W				
2. Inner casing	Yes	No	NA			
Not corroded	163	NO	INA			
Not corroded Not dented	-	7				
	-	-				
Not cracked		\				
Not loose		V				
	Yes	No	NA			
3. Are there weep holes in outer casing?		7				
4. Weep holes able to drain?						
5. Is there a lockable cap present?						
6. Is there a lock present?						
7. Bumper posts in good condition?		V				
					0	
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?			Х			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			4			
	-					
All Monitoring Wells	Yes	No	NA			
Downhole Condition			ACK.			
12. Water level measuring point clearly marked?		P	A.			
13. No obstructions in well?		X	*			
14. No plant roots or vegetation in well?		1	\$			
15. No sediment in bottom of well?	- Land	1	3			
If present, how much sediment?	→ ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	217 70ft					
and the state of t	12. 01					
General Condition	Yes	No	NA]			
18. Concrete pad installed?	X					
19 . Concrete pad	~					
Slope away form casing?	×					
Not deteriorated?	×					
Not heaved or below surrounding grade?	1		-			
	メ	V				
20. No surface seal settling?		Х				
21. Well clearly visible and labeled?	X					
Comments:	00.201		100 =	٠		
PAD IS CROCKED + MAY NEED RE	PASES	37	1.08 D	/W		

* Major well repair are those that require a subcont	tractor or sepa	rate mob	ilization to c	omplete		

					HE	N-257-801
Site Hennepin, IL		ls repairs*		Yes	No	NA
Inspection Date 8/2/123	to maintai	n well inte	grity?		Х	
Well Number #EN-15						
Stick-up Monitoring Wells					Comments	E
1. Outer protective Casing	Yes	No	NA			
Not corroded		X				
Not dented		1				
Not cracked						
Not loose		4				
			r			
2. Inner casing	Yes	No	NA			
Not corroded		7				
Not dented						
Not cracked		1,				
Not loose		40				
	Yes	No	NA			
3. Are there weep holes in outer casing?		X				
4. Weep holes able to drain?			メ			
5. Is there a lockable cap present?	メ					
6. Is there a lock present?	1					
7. Bumper posts in good condition?	4					
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?	***		x			
9. Does the lid have a gasket that seals?			1			
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			4			
All Monitoring Wells	Yes	No	NA			
Downhole Condition						
12. Water level measuring point clearly marked?			X			
13. No obstructions in well?		グ				
14. No plant roots or vegetation in well?						
15. No sediment in bottom of well?		7				
If present, how much sediment?	ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	50.3 ft					
we are the second of the secon						
General Condition	Yes	No	NA			
18. Concrete pad installed?	\sim					
19 . Concrete pad						
Slope away form casing?		メ				
Not deteriorated?						
Not heaved or below surrounding grade?		1				
20. No surface seal settling?		-V				
21. Well clearly visible and labeled?	X					
Comments:						
contai	ns pun	no!	DTWII	47.191	+	
TODO	F DVMP:	50,344				
* Major well repair are those that require a subcont	tractor or sep	arate mobi	lization to co	omplete		

Site Hennepin, IL	Major well	s repairs*	required	Yes	No	NA
Inspection Date 8/21/23 (2,0950	to maintai				Y	
Well Number					<i></i>	
11						
Stick-up Monitoring Wells					Commonts	
			1 110	1	Comments	83
1. Outer protective Casing	Yes	No	NA			
Not corroded		X				
Not dented		X				
Not cracked		×				
Not loose		X				
2. Inner casing	Yes	No	NA			
Not corroded		X				
Not dented		X				
Not cracked		Ý				
Not loose		X				
The residence of the re	Yes	No	NA			
3. Are there weep holes in outer casing?	163	×	INA			
			~/			
4. Weep holes able to drain?			×			
5. Is there a lockable cap present?	X					
6. Is there a lock present?						
7. Bumper posts in good condition?	\perp					
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?	The same		X			
9. Does the lid have a gasket that seals?	Ma		Х			
10. No water in the flushmount?	14	*Xo	×			
11. Is the well cap lockable?	X	/-~	V			
12. Is there a lock present?	8		×			
	3					
All Monitoring Wells	Yes	No	NA	l		
Downhole Condition	- 1	110	100			
12. Water level measuring point clearly marked?	- 30	WAR	X			$\overline{}$
13. No obstructions in well?		Mak.	-			
1		->-				
14. No plant roots or vegetation in well?		3				
15. No sediment in bottom of well?		Х				
If present, how much sediment?	ft ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	663ft					
				3		
General Condition	Yes	No	NA			
18. Concrete pad installed?	×					
19 . Concrete pad						
Slope away form casing?		λ				
Not deteriorated?		X				
Not heaved or below surrounding grade?		X				
20. No surface seal settling?	5.2	X				
21. Well clearly visible and labeled?	X					
Comments:						
DTN:48.33H						
* Major well repair are those that require a subcor	tractor or sep	arate mob	ilization to o	omplete		

Site Hennerin IL	_	ls repairs*	•	Yes	No	NA
Inspection Date 8/12/12 60 830	to maintai	in well inte	grity?		X	
Well Number HEN-22&D			- 1			-
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA NA	ľ	COMMICHES	
Not corroded	103	V	1100			
Not dented		1	-			
		\vdash				
Not cracked		-				
Not loose		100				
				C)		
2. Inner casing	Yes	No	NA			
Not corroded		CX.				
Not dented						
Not cracked						
Not loose		W				
31	Yes	No	NA			
3. Are there weep holes in outer casing?	1.05	K	102.			
4. Weep holes able to drain?		- J				
5. Is there a lockable cap present?	d		×			
l i i	1					
6. Is there a lock present?						
7. Bumper posts in good condition?	A					
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?			X			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			W -			
			1 1			
All Monitoring Wells	Vac	No	I NA			
Downhole Condition	Yes	No	NA			
I .			7			
12. Water level measuring point clearly marked?			X			
13. No obstructions in well?		9				
14. No plant roots or vegetation in well?						
15. No sediment in bottom of well?		V				
If present, how much sediment?	ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	app ft					
General Condition	Yes	No	NA			
18. Concrete pad installed?		X				
19 . Concrete pad			2			
Slope away form casing?			x			
Not deteriorated?			\vdash			
Not heaved or below surrounding grade?						
20. No surface seal settling?			7			
21. Well clearly visible and labeled?	\propto					
Comments:						
DTIM	: on my	m				
	-	T				
* Major well repair are those that require a subconti	ractor or sep	arate mobi	ilization to c	omplete		

						PROJECT I	NFORMATIC	N				HEN-257-8
			merin	176			Clien	t Ram	601)			
	Project Nur				Task #:		Start Date		1-2		Time: 0 {	300
		nnel: All	163	Klt			Finish Date	VILL	105		Time: ioi	
			RMATION Q					EVENT	TYPE			
			1EN-224		Well Develor	oment	Ż	Low-Flow / L	_ow Stress Sa	mplina		
		Casing ID:	2	inches	☑ Well Volume	Approach Sa	ampling [Other (Specify	y):			
			·	WA	TER QUALIT	Y INDICATO	OR PARAME	TERS (conti	inued)			
		<u>_</u> .	Volume	Depth to	1	\$10%	±0.1		Dissolved	45% or ±1	+1.0	
	Sampling	Time	Removed	Water	Drawdown	Temp.	pН	SEC or	÷ ∂Охудеп	Turbidity	ORP	Visual
Ð	Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
9						19.1	7.56	0.712	3.04	3.87	-12. V	clear
		0824				17.9	\$7.35	0.722	1.66	6.12	-68.0	
		0829				17.8	7.29	07.28	1.07	18.02	-66.0	
		0834				17.7	7.29	0.729	0.85	10.3	-72.0	
		0839	20			18.2	729	0.730	0.34	42.11	-75.7	
		0844				18.6	7.30	0.730	0.87	12.9	-79.6	
30		0849				19.0	7.30	0.731	0.85	211.43	-81.7	
- 1		0854				18.0	7.30	0729	0.05	100027.10	-34.1	
40		0859				17.7	7.30	0.731	0.83	26.2	-83.0	
45		0904	3.5			18.0	7.30	0.731	0.91	24.8	-82.1	
ļ										7.0	02.1	
- 1												
- 1												
ŀ												
ŀ				NOTES	(continued)					ABBREVIA	TIONS	
	Si	ampl	es tak	en G	20910				Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured	ctivity	ORP - Oxidation-Reduct SEC - Specific Electrics SU - Standard Units Temp - Temperature *C - Degrees Celcius	tion Potential al Conductance
		FRYY	ovs iv):No	Inder	van	9e (2)	00120				

PLofL

Site	Hennepin, IL	Major wells	repairs* i	equired	Yes	No	NA
	8/22/23 @ 1200	to maintain	-			X	
Well Number	HEN-12						
Well Humber	ITER LO						
Cali	k-up Monitoring Wells					Comments	
		Yes	No	NA	1	COMMICHES	9.
1. Outer protecti		162	7	NA.			
Not corroded							
Not dented							
Not cracked			0				
Not loose							
			NI.	l NA	i i		
2. Inner casing		Yes	No	INA	-		
Not corroded			- ¥				
Not dented							
Not cracked			1				
Not loose							
		Yes	No	NA			
3. Are there wee	p holes in outer casing?		\times				
4. Weep holes al	ble to drain?			DK.			
5. Is there a lock	able cap present?	Ø					
6. Is there a lock	present?						
7. Bumper posts	in good condition?	V					
		2					
<u>Flush</u>	mount Monitoring Wells	Yes	No	NA			
8. Can the lid be	secured tightly?			3			
9. Does the lid h	ave a gasket that seals?						
	the flushmount?						
11. Is the well ca	ap lockable?						
12. Is there a loc				4			
	All Monitoring Wells	Yes	No	NA			
Downhole Cond	lition	<u> </u>					
12. Water level	measuring point clearly marked?			\propto			
13. No obstructi	ons in well?		X				
14. No plant roo	its or vegetation in well?						
	t in bottom of well?		+				
1	ow much sediment?	·— ft					
16. Installed as t		ft					
1	otal depth of well.	ft					
General Conditi	on	Yes	No	NA	1		
18. Concrete pa			X				
19 . Concrete pa			-/\	X			
Slope away f				17			
Not deterior				1-1-			
	or below surrounding grade?			+			
1				7	 		
20. No surface s	_	~					
1	visible and labeled?	X					
Comments:							
		DTW:	map	Ψ			
				ST			
* Major well reg	pair are those that require a subcor	itractor or sep	oarate mob	oilization to	complete		

RIVE AND CORRECTIVE ACTION REPORT

[PROJECT	INFORMATIO	N				HEN-25
ı		Site:	MUSDI	nit	L		Client	Ramk	noll			
- 1	Project Nun	nber:	Ž		Task #:		Start Date		112 Time: 104()			4()
Į	Field Perso	nnel: All	ison b	e Co-l-	tt.		Finish Date	0100			Time: 12	40
		WELL INFO						EVENT				
- [EC-23		Well Dev	elopment	Z	Low-Flow / L	ow Stress Sa	mpling		
- [C	asing ID:	2_	inches	∟ Well Volι	ıme Approach S	Sampling	Other (Specify	/):			
				V	WATER QUA	LITY INDICAT	OR PARAME	R PARAMETERS (continued)				
- [Volume	Depth				SEC or	Dissolved			
- 1	Sampling	Time	Removed	Wate			pH	Cond	Oxygen	Turbidity	ORP	Visual
	Stage	(military)	(gallons)	(Feet) (Feet)		(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
ĺ		1041				18.8	7.39	0.836	2.91	3.61	-94.10	chear
- 1		1040				15.7	7.40	0.836	1.32	3.75	-113.9	
- 1		1051				15.4	7.42	0.838	0.49	3.79	-129.0	
- 1		1050	1.5			15:5	7.37	0.837	0.35	3.80	-128.2	
- 1		1191				15.4	7.57	0.835	0.20	5.81	-128.7	
		1100				15 Z	7.39	0.835	0.21	4.49	-124.8	
0		11/1				15.4	739	0.333	0.20	17.9	-125.8	
		ille	3.0			15.0	7.40	0.832	0.18	9.1	-124.3	
				NOTE	S (continue	d)				ABBREVIA	TIONS	
	S	amp	les to						Cond - Actual Condu FT BTOC - Feel Belor na - Not Applicable nm - Not Measured	ctivity	ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature "C - Degrees Celcius	
		Ferro	us ivo	n : L	inder	(VOM o	se (2) 11	145				

Pl of 1

Site	Hennepin, FL	_ Major wells	-	-	Yes	No	NA
Inspection Date	8122/23 @ 1308	to maintair	well integ	rity?		X	
Well Number	HEON-ZIR						
Stic	k-up Monitoring Wells					Comments	
1. Outer protective Casing		Yes	No	NA	1		3
Not corroded	1	X					
Not dented			7,				
Not cracked			_				
		-	0 -				
Not loose							
		[No.	NA	ï		
2. Inner casing		Yes	No	NA			
Not corroded			X				
Not dented							
Not cracked							
Not loose			0				
		Yes	No	NA			
3. Are there wee	p holes in outer casing?		Ļ				
4. Weep holes ab	ole to drain?			ď			
5. Is there a locka	able cap present?	9					
6. Is there a lock	present?						
	in good condition?	1					
l	8						
Flush	mount Monitoring Wells	Yes	No	NA	ľ		
		165	140	Q			
8. Can the lid be secured tightly?9. Does the lid have a gasket that seals?		-		7			
10. No water in t	_						
11. Is the well ca							
12. Is there a loci	k present?						
		F I			1		
_	All Monitoring Wells	Yes	No	NA			
Downhole Condi							
1	neasuring point clearly marked?			メ			
13. No obstruction	ons in well?		Ø				
14. No plant root	ts or vegetation in well?						
15. No sediment	in bottom of well?		4				
If present, ho	w much sediment?	ft					
16. Installed as to	otal depth.	ft					
17. Measured to	tal depth of well.	— ft					
		A					
General Condition	on	Yes	No	NA			
18. Concrete pac		*					
19 . Concrete pa							
Slope away fo			×				
Not deteriora			1				
	or below surrounding grade?				i.		
20. No surface se			4				
	risible and labeled?	로입					
	visible alla labelea!	-x					
Comments:							
* Major well repa	air are those that require a subcont	tractor or sep	arate mobi	lization to	complete		

APPENDIX A.

SAND CORRECTIVE ACTION	REPORT
HENNEDIN DOWED DI ANT I	ANDELLI

						PROJECT II	NFORMATIO	N				HEN-25	
-	Site: Hennepin IL						Client: Kaya bx()						
-	Project Num		(2)		Task #:		Start Date:	Start Date: 8/22/23			Time: [300		
Ļ	Field Personnel: Allison Brokelt					Finish Date:	0100	しろ		Time: 14	-30		
L		WELL INFOR				EVENT 1							
- [Well ID: HEN-LIK Casing ID: 2 inches				Well Develop	ment	Low-Flow / Low Stress Samplin			mpling			
Į.					Well Volume Approach Sampling 1 Other								
	WATER QUALITY INDI						TOR PARAMETERS (continued)						
-			Volume	Depth				SEC or	Dissolved				
-1	Sampling	Time	Removed	Wate		Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual	
,	Stage	(military)	(gallons)	(Feet) (Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	
' ŀ		1/2/311			4	17.8	7.50	0.758	1.17	59.8	-129.4	chear	
ŀ		1310				173	7.54	0.704	1.22	58.5	139.8	4	
ŀ		1321				17.2	7.54	0705	1.06	41.69	-138.9	Brownish	
ŀ		KE 191326				17.1	7.53	0.768	1.16	33.94	-13U.1		
ŀ		31 35	2.5	-		177	752	0.745	0.95	34.3	-137.2		
٦		THE CONSIGNATION	0 0			17.1	7.53	0.763	0.9330	32.3	-134.9		
0	- 1	14-91 (34)	3.0			16.6	7.51	0742	0.21	34.8	136.3		
ŀ		THE CONTRACTOR							-				
ŀ													
ŀ													
ŀ													
ŀ													
ŀ													
ŀ													
ŀ	NOTES (continued)							ABBREVIATIONS					
	S	Samples taken @ 1345							Cond - Actual Conductivity ORP - Oxidation-Reduct SEC - Specific Electrica SU - Standard Units nm - Not Measured Temp - Temperature *C - Degrees Celcius			ical Conductance	
	Ferrors iron: 0.914 ppm)							

PIOFI

Site HennepinIL	Major well	s repairs* ı	equired	Yes	No	NA
Inspection Date 8/12/23 (9) 13 15	to maintaiı	n well integ	rity?		メ	
Well Number HEN-51 5						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded		X				
Not dented						
Not cracked						
Not loose		1				
	L					
2. Inner casing	Yes	No	NA	1		
Not corroded		Х				
Not dented						
Not cracked	-					
Not loose		w/				
Not loose	Yes	No	NA			
2 Are there were helps in outer essing?	162	×	IVA	-		
3. Are there weep holes in outer casing?4. Weep holes able to drain?		Х	· · · · · ·			
	~		7			
5. Is there a lockable cap present?						
6. Is there a lock present?	- ()					
7. Bumper posts in good condition?	Ψ					
	r			1		
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?			X			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?	-					
11. Is the well cap lockable?						
12. Is there a lock present?			4			
All Monitoring Wells	Yes	No	NA			
Downhole Condition						
12. Water level measuring point clearly marked?			ブ			
13. No obstructions in well?		*				
14. No plant roots or vegetation in well?						
15. No sediment in bottom of well?		4				
If present, how much sediment?	- ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	— ft	FOX	9(
		`	`			
General Condition	Yes	No	NA			
18. Concrete pad installed?	人					
19 . Concrete pad					_	
Slope away form casing?		2				
Not deteriorated?		Ĭ				
Not heaved or below surrounding grade?						
20. No surface seal settling?		4				
21. Well clearly visible and labeled?	X	N				
Comments:			l			
Comments.	A	0.000				
90	M-On	NAB				
* Major well repair are those that require a subcont	ractor or con	arato mah	lization to	complete		
wajor well repair are those that require a subcont	ractor or sep	arate mob	iization to (complete		

	4	.,				F	PROJECT IN	IFORMATIO	N				HEIN-23
		Site: HON	nupin, I	L				Client:	Rambo	1)			
	Project Nun			211	T	ask #:		Start Date:	8/12/	20		_ Time: <u>1</u> S	00
- 1			on Beck	ett				Finish Date:	0 00	05		Time:	
ļ		WELL INFO							EVENT	TYPE			
- 1		Well ID: H				'ell Develop					mpling		
- }		asing ID:	2	inches			Approach Sa		Other (Specify				
- 1						R QUALIT	Y INDICATO	R PARAMET	TERS (conti	nued)			
	Complina	Time	Volume Removed	Depth			т	-11	SEC or	Dissolved			
	Sampling Stage	(military)	(gallons)	Wate (Feet		Orawdown (Feet)	Temp. (°C)	pH (SU)	Cond. (µs/cm)	Oxygen	Turbidity	ORP	Visual Clarity
0	Olago	1500	(galloris)	(1 661		(1 661)	18.9	7.45	0.725	(mg/L)	(NTU)	(mV)	Cleanity
ı		1511	l s				17.3	7.30	0.734	238	12.19	-88.3	V(X) 0 41
ı		1510					16.8	732	0.736	1.26	11.17	-105.3	
[1521	1.0				17.1	7.34	0.737	0.012	31.84	-115.5	
ı,		1526					17.1	7.35	0.735	0.73	98.2V	-122.1	
- 1		1531					14-6	7.35	0.737	0.63	200.2	124.5	
30		1536	2.0				17.3	7.34	0.738	0.38	22.5	-126.7	
- 1		1541			_		17.2	7.37	0.1734	0.33	24.2	-127.4	
- 1		1546					17.1	7.37	0.733	0.30	25.7	-127.7	
- 1		1551	3.0				17.3	7.37	0.730	0.27	26.2	-128.0	
ŀ					_								
ŀ													
ŀ													
ı				NOTE	S (con	ntinued)					ABBREVIA	TIONS	
ı	$C \wedge$	١.٥	t .				-:			Cond Actual Conduc	tivity	ORP - Oxidation-Redu	
	201	mpu	es tal	KUN	6	15	5 Q			FT BTOC - Feet Belov na - Not Applicable nm - Not Measured	v Top of Casing	SEC - Specific Electric SU - Standard Units Temp - Temperature "C - Degrees Celcius	al Conductance
		-e vval	15 IVOV	. 1	74	44 V	mac	@ 141	8			Hard Rose Control	
	1	ZC1100	0 1101	1 - 1	, T	1 1 7	1						
- 1													

PLOFL

Site HENNERIN 1).						11-237-001
110-11-11-11-11-11-11-11-11-11-11-11-11-		ls repairs*	•	Yes	No	NA
Inspection Date 312113 0 1530	to mainta	in well inte	grity?		X	
Well Number HEC-22						
Stick-up Monitoring Wells					Comments	<u>s</u>
1. Outer protective Casing	Yes	No	NA			
Not corroded		X	X			
Not dented						
Not cracked						
Not loose		4				
		A.———				
2. Inner casing	Yes	No	NA.	Ĭ		
Not corroded		\ \alpha				
Not dented		19				
Not cracked						
Not loose		1				
1101 10030	Yes	No	NA NA			
3. Are there weep holes in outer casing?	res	NO NO	INA			
		~	1			
4. Weep holes able to drain?			\propto			
5. Is there a lockable cap present?	×					
6. Is there a lock present?						
7. Bumper posts in good condition?	~					
				0		
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?			X			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			4			
All Monitoring Wells	Yes	No	NA			
Downhole Condition						
12. Water level measuring point clearly marked?			X			
13. No obstructions in well?		X	- 01			
14. No plant roots or vegetation in well?						
15. No sediment in bottom of well?		1				
If present, how much sediment?	→ ft					
16. Installed as total depth.	ft	4				
17. Measured total depth of well.		ties towards	nan			
27 Wedsards total depth of Well.		60V	POPP			
General Condition	Yes	No	NA NA			
18. Concrete pad installed?	Tes	₩ ₩	INA			
19 . Concrete pad		00				
						_
Slope away form casing?			X			
Not deteriorated?			<u> </u>			
Not heaved or below surrounding grade?						
20. No surface seal settling?			W			
21. Well clearly visible and labeled?	α		1.2			
Comments:						
	DTW=Dr	Japp				
		3.1				
 Major well repair are those that require a subcont 	ractor or sep	arate mob	ilization to d	omplete		

HENNEPIN POWER PLANT, LANDFILL HEN-257-801

				F	PROJECT II	VFORMATIO	N				TILIN-23
	Site: HPWV	repint	(M			Client	RON	mboll	-		
Project Nun	nber:			Task #:		Start Date:	QIAC)			Time: () (8)	M 15
Field Person	nnel: All S	on Beck	ett			Finish Date:	1000	しつ		Time: 00	
	WELL INFO						EVENT	TYPE			
		EN 22		☐ Well Develop	ment	×	Low-Flow / L	ow Stress Sar	mpling		
С	asing ID:	2	inches	Well Volume	Approach Sa	mpling \Box	Other (Specify):			
			V	VATER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth t				SEC or	Dissolved			
Sampling	Time	Removed	Water		Temp.	pH	Cond	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	14.2	(SU). (F	(μs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	0326					7.68	0.456	0.27	4.10	92.6	Clar
	0831	2.5			1(0.)	7.109	0.453		4.14	87.2	
	0836	2.5			10.1	7.48	0.435	0.18	4 20	78.8	
	094)	5			110	7.48	6.653	0.13	4.24	77.0	
	0846	5.5			1/0.1	7.117	0.453	0.12	4.31	77.8	
	0010	3.7			LWI	1.01	3.055	1.12	11.01	17.0	
									1		
	11										
			NOTE	S (continued)					ABBREVIA		
Sa	Mple	s tak	en	0085	0			Cond Actual Condu FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Red SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	cal Conductance
F	evvou	S ivo	n sa	ample	2092	o:und	Wron	ze			

Site	Major well	s repairs* r	equired	Yes	No	NA
Inspection Date \$122.123	to maintaiı	n well integ	rity?		X	
Well Number 14w 32						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No /	NA			
Not corroded		X				
Not dented		1				
Not cracked		7/				
Not loose		-				
2. Inner casing	Yes	No /	NA			
Not corroded		X				
Not dented						
Not cracked						
Not loose						
	Yes	No	NA			
3. Are there weep holes in outer casing?	100	X				
4. Weep holes able to drain?			×			
5. Is there a lockable cap present?						
6. Is there a lock present?	\rightarrow					
7. Bumper posts in good condition?						
7. Bumper posts in good condition:	L_X					
Flushmount Manitoring Walls	No.	No	NA			
8. Can the lid be secured tightly?	Yes	No	INA			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?		_	$\overline{}$			
11. Is the well cap lockable?	-		$\overline{}$			
12. Is there a lock present?						
All Monitoring Wells	Yes	No	NA			
Downhole Condition		X				
12. Water level measuring point clearly marked?						
13. No obstructions in well?	-					
14. No plant roots or vegetation in well?						
15. No sediment in bottom of well?		V				
If present, how much sediment?	ft	1				
16. Installed as total depth.	ft	ı				
17. Measured total depth of well.	ft					
General Condition	Yes	No	NA			
18. Concrete pad installed?	X					
19 . Concrete pad		X				
Slope away form casing?		1				
Not deteriorated?						
Not heaved or below surrounding grade?						
20. No surface seal settling?		V				
21. Well clearly visible and labeled?	X					
Comments:						
* Major well repair are those that require a subcont	ractor or sep	arate mobi	lization to c	omplete		

		•		м	٠.
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- 1	1	•			
	v			- 3	D
-7	٠	×	•		ν

	PROJECT INFORMATION										
	Site: HENNE	PIN				Client:				12	35
	ber: 2013			Task #:		Start Date:	21001	02		Time:	
Field Person	nnel: C. Ta	EMBLAY				Finish Date:	0124	0)		Time: 11	25
	VELL INFOR						EVENT	TYPE			,
	Well ID: HE	N.32		Well Develop				ow Stress San	npling		
C	asing ID:		inches	Well Volume	Approach San	npling 🔲	Other (Specify):			
			WAT	ER QUALIT	Y INDICATO	R PARAMET	TERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved	101. KIO		
Sampling	Time	Removed	Water	Drawdown	Temp.	рН	Cond _®	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Pile	1040				37.	+,1	316	10%	4400	+10	CLEAR
Same	1048				14.0	7.10	0.7.8	0.45	41.69	173.6	
	1053				13.9	7-11	0.716	0.21	20.60	165.2	
	1058				(3.8	7.10	0.715	0.12	13.02	160.1	
	1103	3			13-8	7.10	0.715	0.09	8-77	156.9	
	1108				13.8	7.00	0.716	029	7.30	153.9	
	1113	3.75			(3.2,	7.07	0-7.5	0.08	5.33	151.7	
	1010									•	
4	- 0										
			NOTES (continued)					ABBREVIA ⁻	TIONS	
GANS	LEC !	115	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					Cond Actual Conduc FT BTOC - Feet Belov na - Not Applicable nm - Not Measured	ctivity	ORP - Oxidation-Redui SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	
FI	uporri	~9	-								

Site	HENNEPZN	required	Yes	No	NA		
Inspection Date	8/22123	to maintai	n well integ	grity?			
Well Number	33 0.1018				3		
Stick	c-up Monitoring Wells					Comments	
1. Outer protectiv		Yes	No	NA	1		• 22
Not corroded		1.00	X				
Not dented			1				
Not cracked				-			
Not loose		-					
Not loose			u v				
2					1		
2. Inner casing		Yes	No	NA			
Not corroded			X				
Not dented							
Not cracked							
Not loose			V				
		Yes	No	NA			
3. Are there weep	holes in outer casing?			%			
4. Weep holes abl	le to drain?			X			
5. Is there a locka	ble cap present?	X					
6. Is there a lock p	* *		X				
1	n good condition?	-		86 V			
7. Bumper posts i	in good condition:	$\sqcup v$	/GEN	***			
Fluchn	nount Monitoring Wells	Yes	No	NA.	1		
		163	No	INA			
8. Can the lid be s							
1	ve a gasket that seals?	-					
10. No water in th							
11. Is the well cap							
12. Is there a lock	present?						
		:					
<u>A</u>	ll Monitoring Wells	Yes	No	NA			
Downhole Condit	ion			X			
12. Water level m	easuring point clearly marked?		X				
13. No obstruction	ns in well?						
14. No plant roots	or vegetation in well?						
15. No sediment i	n bottom of well?		1				
1	v much sediment?	ft					
16. Installed as to		ft					
17. Measured total		36-12ft					
17. Wicasarea tota	ar depth of wen.	30-12-11					
General Condition	_	V		NIA .	1		
		Yes	No	NA			
18. Concrete pad				X			
19 . Concrete pad							
Slope away for							
Not deteriorat							
Not heaved or	below surrounding grade?			N			
20. No surface sea	al settling?	7.	X	-1			
21. Well clearly vi			X/		OVERLAR	on int	enc
Comments:			/ \			- 0	~ ~ ~
DTW	26						
gume.	2 Will						
	ir are those that require a subcont	ractor or ***	arata mala!	lianting to	و در احتمامه		
iviajoi weli repa	ii are those that require a subcont	actor or sep	arate mobi	lization to	complete		

Site	Major well	required	Yes	No	NA	
Inspection Date 8(22/23 @1600	to maintair	n well inte	grity?			
Well Number 3 1						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA	1		
Not corroded		X				
Not dented		-/1				
Not cracked						
Not loose		V				
1100 10050	L 1					
2. Inner casing	Yes	No	l NA	1		
Not corroded	163	×				
Not dented		-		-		
Not cracked	-			 		
Not loose	-	1/		-		
Not loose	- v					
2 Assables a succession of the second	Yes	No	NA	4		
3. Are there weep holes in outer casing?			X			
4. Weep holes able to drain?			X			
5. Is there a lockable cap present?	X					
6. Is there a lock present?	$\perp \chi$					
7. Bumper posts in good condition?	X					
	192			20		
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?						
9. Does the lid have a gasket that seals?			_			
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?						
			l.			
All Monitoring Wells	Yes	No	NA NA	1		
Downhole Condition			X			
12. Water level measuring point clearly marked?		X				
13. No obstructions in well?		×				
14. No plant roots or vegetation in well?		×				
15. No sediment in bottom of well?		V				
If present, how much sediment?	ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	18 £ ft					
17. Weasured total deptit of well.	18.6 11					
General Condition	Yes	No	NA	1		
18. Concrete pad installed?	X	INO	INA			
19 . Concrete pad histalied:	X					
		1/				
Slope away form casing?		X				
Not deteriorated?		X				
Not heaved or below surrounding grade?		X				
20. No surface seal settling?		X		D.		
21. Well clearly visible and labeled?	X					
Comments:						
750 4.85						
MAS PAMP						
* Major well repair are those that require a subcont	tractor or sepa	arate mobi	lization to	complete		

Site	required	Yes	No	NA		
Inspection Date <u>2121</u> 2300955	to maintai	n well inte	grity?			
Well Number 30						
•						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded		X				
Not dented		1				
Not cracked		1,				
Not loose		V				
			-4-			
2. Inner casing	Yes	No	NA			
Not corroded		X				
Not dented		- 1				
Not cracked						
Not loose		\/				
	Yes	No	NA			
3. Are there weep holes in outer casing?			X			
4. Weep holes able to drain?			ÍΧ			
5. Is there a lockable cap present?	X					
6. Is there a lock present?	\sim					
7. Bumper posts in good condition?	Ŷ					
	<u> </u>					
Flushmount Monitoring Wells	-Yes	No	NA]		
8. Can the lid be secured tightly?						
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?						
All Monitoring Wells	Yes	No	NA	1		
Downhole Condition			X			
12. Water level measuring point clearly marked?		V				
13. No obstructions in well?		X				
14. No plant roots or vegetation in well?		X				
15. No sediment in bottom of well?		X				
If present, how much sediment?	ft	/\				
16. Installed as total depth.	ft					
17. Measured total depth of well.	% ft					
	<u></u>					
General Condition	Yes	No	NA			
18. Concrete pad installed?	X					
19 . Concrete pad						
Slope away form casing?		X				
Not deteriorated?		X				
Not heaved or below surrounding grade?		X				
20. No surface seal settling?		X				
21. Well clearly visible and labeled?	X					
Comments:			li—			
DTW 4.85						
* Major well repair are those that require a subcon	tractor or sens	rate mohi	lization to a	omploto		
L	eractor or sepa	nate mobi	וובמנוטוו נט נ	ompiete		

	apen	Major wel	-		Yes	No	N/
Inspection Date S/DL	0945	to maintai	n well inte	grity?			
Well Number 1602	3						
Stick-up Moni	toring Wells					Comments	
1. Outer protective Casing	toring trens	Yes	No	T NA	1	Comments	
Not corroded			×	147			
Not dented			- <i>i</i>	<u> </u>			
Not cracked				-			
Not loose							
2 January in -				1	1		
2. Inner casing		Yes	No	NA			
Not corroded			\sim				
Not dented							
Not cracked			1				
Not loose			~				
2. Aso there were heles in a		Yes	No	NA X			
3. Are there weep holes in o	_	Olm		2			
4. Weep holes able to drain		%	non-	_~			
5. Is there a lockable cap pre	esent?		92				
6. Is there a lock present?7. Bumper posts in good cor	ndition?	5.0					
7. Bumper posts in good cor	idition?	X		1			
Flushmount Mo	nitoring Wells	Yes	No	NA	<u> </u>		
Can the lid be secured tig	htly?						
9. Does the lid have a gaske	t that seals?						
10. No water in the flushmo	unt?						
11. Is the well cap lockable?							
12. Is there a lock present?							
All Monitor	ing Wells	Yes	No	l NA			
Downhole Condition		103	110	X			
12. Water level measuring p	oint clearly marked?		V	1			
13. No obstructions in well?			~				
14. No plant roots or vegeta			Ý.				
15. No sediment in bottom (V				
If present, how much sec		ft	. ^				
16. Installed as total depth.		ft					
17. Measured total depth of	f well.	15-71 ft	4/0 PW	H 25.71			
General Condition		Vec	N-	I NA	î.		
18. Concrete pad installed?		Yes	No	NA			
19 . Concrete pad installed?		_~					
Slope away form casing?			1				
Not deteriorated?		-	×				
	rounding and - 2	-	X				
Not heaved or below sur			>				
20. No surface seal settling?			X				
21. Well clearly visible and la	epeled?	\sim					
Comments:	/me	Thu see				0 170	^
	amp X	WHEN SFT			Note	ED BRUS	5
		ETTEM 1	nno es	ENCH			
* Major well repair are those			- 5				

					7771441077 73; 314	ALIE E CATABONE (TRACE) ALIE AND AND AND AND AND AND AND AND AND AND					ER PLANT, LANDI
					PROJECT IN	IFORMATIO	N				HEN-257-
	Site:					Client:					
Project Nun				Task #:		Start Date:	0/100	172		Time: 13	35
Field Persor	nnel:	rensury				Finish Date:	3720	105		Time: 14	
1	WELL INFO	RMATION					EVENT :	ГҮРЕ			
	Well ID:	25		☐ Well Develop	ment		Low-Flow / Lo	ow Stress San	npling		
C	asing ID:		inches	☐ Well Volume	Approach Sar	mpling 🔲	Other (Specify)		, 0		
			V	ATER QUALIT	Y INDICATO	R PARAMET	ERS (conti	nued)			
		Volume	Depth t				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP.	Visual
Stage (military) (gallons) (Feet) (°C) (SU) (µs/cm) (mg/L) (NTU) (mV) Clarity											
PRE 1342 13-8 CLOWRY											
PURAT 1348 0.25 13.51 (CLEAR)											
SANOTE	1350		13.5	i Ø	17.0	7.25		1.52	65.57	1761	
	1355				16-6	7.25	0.519	1.46	42-11	171.7	
	1400				16.6	7-24	0.517	1.46	26.88	172.4	
	1405		13.5	8	16.1	7-24	0.516	1.48	17.97	173.8	
	1410				16.8	7.23	0.516	1.51	13.11	174.6	
	1415	3			16.6	7-23	0.516	1.52	9.47	175.2	
	1420				16.5	7.22	0.514	1.56	8.29	175-9	
	1423	4	13,51	Q	10.C	7-22	0.514	1.89	6,43	176.5	
	1430						,	,			
			NOTES	S (continued)					ABBREVIAT	IONS	
* 8 he0	ANDARA CONTO	(7		1				Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured	livity Top of Casing	ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature "C - Degrees Celcius	
Sampl	E 11	130					ē		9	×	

Site	HENNIDIN	Major we	lls repairs*	required	Yes	No	NA
Inspection Date	9122 123 6990	_	in well inte				
Well Number	HEN 26						
Stic	k-up Monitoring Wells					Comments	
1. Outer protective		Yes	No	NA NA	ľ	Comments)
Not corroded	5	103	X	100			
Not dented							
Not cracked							
Not loose		-	1/				
	×						
2. Inner casing		Yes	No	NA			
Not corroded		103	V	100			
Not dented			1	-			
Not cracked							
Not loose			1/				
1101 10050		Yes	No	NA			
3 Are there weer	holes in outer casing?	162	No	INA			
4. Weep holes ab			/~	X			
5. Is there a locka		×	Val.	^			
6. Is there a lock	• •		30	X			
	n good condition?	N/		λ			
7. Builiper posts i	n good condition?	X	<u> </u>				
Fluch	mount Monitorin - 18/-11-	N					
	nount Monitoring Wells	Yes	No	NA			
8. Can the lid be s							
1	ve a gasket that seals?						
10. No water in th							
11. Is the well cap							
12. Is there a lock	present?						
				T -1			
1	ll Monitoring Wells	Yes	No	NA NA			
Downhole Condit	- -			¥800			
	easuring point clearly marked?		X				
13. No obstruction			X				
	or vegetation in well?		_X_ '				
15. No sediment i		(2)					
	v much sediment?	ft					
16. Installed as to	•	ft					
17. Measured tota	al depth of well.	24.) ft					
General Condition		Yes	No	NA			
18. Concrete pad	installed?	X	1				
19 . Concrete pad			X				
Slope away for							
Not deteriorat	ed?		1		40		
Not heaved or	below surrounding grade?		V				
20. No surface sea	l settling?		X				
21. Well clearly vis	sible and labeled?	X					
Comments:							
Will H	B HAS PUMP						
DTV	13.26						
	r are those that require a subcontr	actor or sen	arate mobi	lization to co	mnlete		

HENNEPIN POWER PLANT, LANDFILL

HEN-257-801 PROJECT INFORMATION Client: Site: Time: 1455 Start Date: Task #: Project Number: Field Personnel: TRANK LAY Time: Finish Date: WELL INFORMATION **EVENT TYPE** Well ID: 76 Low-Flow / Low Stress Sampling Well Development Other (Specify): Casing ID: Well Volume Approach Sampling inches **WATER QUALITY INDICATOR PARAMETERS (continued)** Depth to SEC or Dissolved Volume **ORP** Oxygen Turbidity Water Temp. pΗ Cond. Visual Time Removed Drawdown Sampling Clarity (NTU) (mV) (°C) (SU) (µs/cm) (mg/L) Stage (military) (gallons) (Feet) (Feet) CLEAR 0-1 PLURGE 100 SMILE 1500 17.2 0.10 2.37 1117 7.09 2.40 1.5 17. 0.04 2.201 1-09 7.0 2.44 0.02 170,6 7.0 7.09 2.50 3,0 3.9 0-7.01 0-07 177.0 **ABBREVIATIONS NOTES** (continued) SAMPLE 1835 ORP - Oxidation-Reduction Potential Cond. - Actual Conductivity SEC - Specific Electrical Conductance FT BTOC - Feet Below Top of Casing SU - Standard Units na - Not Applicable nm - Not Measured Temp - Temperature *C - Degrees Celcius

Site Henrihn IL	_Major well	s repairs*	required	Yes	No	NA
Inspection Date 8/23/23 @1250	to maintai	n well integ	rity?		X	
Well Number HEN-HD			8			
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA	-		
Not corroded	103	₩ ₩	100			
Not dented		-41				
Not cracked	-					
Not loose		4				
Not loose						
2 Janes series						
2. Inner casing	Yes	No	NA			
Not corroded		7				
Not dented						
Not cracked						
Not loose		4				
	Yes	No	NA			
3. Are there weep holes in outer casing?		\sim				
4. Weep holes able to drain?			7			
5. Is there a lockable cap present?	7		/			
6. Is there a lock present?						
7. Bumper posts in good condition?	1					
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?	1.00	110	7			
9. Does the lid have a gasket that seals?			1,			
10. No water in the flushmount?			1			
11. Is the well cap lockable?						
12. Is there a lock present?			7			
	<u></u>					
All Monitoring Wells	Yes	No	NA			
Downhole Condition						
12. Water level measuring point clearly marked?			X			
13. No obstructions in well?		X				
14. No plant roots or vegetation in well?						
15. No sediment in bottom of well?		Y				
If present, how much sediment?	ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	ft					
		Ni				
General Condition	Yes	No	NA			
18. Concrete pad installed?	X					
19 . Concrete pad						50
Slope away form casing?		OX.				
Not deteriorated?		7				
Not heaved or below surrounding grade?						
		1				
20. No surface seal settling?		<i>O</i>				
21. Well clearly visible and labeled?	\triangle					
Comments:						
DT	W:O	NON	10			
- Auto-		r	V			
* Major well repair are those that require a subcontra	actor or sep	arate mobi	lization to c	omplete		

Privileged and Confidential Attoric Vork Production

APPENDIX A.

WATER MONTH OF THE AND CORRECTIVE ACTION REPORT
HENNEPIN POWER PLANT, LANDFILL

					PROJECT II	FORMATIO	N				HEN-257-
	Site: Henv	UPINII	2			Client:				1	
Project Num				Task #:		Start Date:	-8)231	77		Time:	55
		in beu	cert			Finish Date:	_9001	25		Time: 14	07
١	WELL INFO						EVENT	TYPE			
		EN-47		Well Develor	pment	K	Low-Flow / L	ow Stress San	npling		
С	asing ID:	2	inches	Well Volume	Approach Sa	mpling	Other (Specify):			
			V	VATER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth				SEC or	Dissolved			
Sampling	Time	Removed	Water		Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	1506				22.9	494	0.402	0.05	3.85	113.7	clear
	1511	1-7			21.6	7.03	0.440	102.360	3.18	148.2	
	151V	1-0			21.6	7.03	0.640	1.70	3.02	152.0	
	1521	l		_	21.5		0.639			184.6	-
	1526	2.5			21.5	7.03	0.441	1.68	3.01	156.3	
	1320	1.5			11.5	1.0-1	0,031	1.02	5,20	102.2	1
										-	
										-	
						<u> </u>					
			NOTE	S (continued)					ABBREVIA	TIONS	
		. \			~			Cond Actual Conduc	tivity	ORP - Oxidation-Red	
20	mple	is tak	en	@153	i O			FT BTOC - Feel Below na - Not Applicable nm - Not Measured	Top of Casing	SEC - Specific Electri SU - Standard Units Temp - Temperature *C - Degrees Celcius	cal Conductance
-		5.66		1	ما ما د د						
1	-errol	15 IVOV	10)	600: (1)	NAUN V	WY COUNCES!)				
			_				•				

Site Hennepinge	Major well	ls repairs*	required	Yes	No	NA			
Inspection Date 8/13/123 0/105	to maintai	to maintain well integrity?							
Well Number WEV-12									
Stick-up Monitoring Wells					Comments				
1. Outer protective Casing	Yes	No	NA NA	1		•			
Not corroded	1.55	V	1						
Not dented			1						
Not cracked									
Not loose		4	-						
Not loose		- V-		<u> </u>					
				1					
2. Inner casing	Yes	No	NA						
Not corroded		Х							
Not dented									
Not cracked									
Not loose		+							
	Yes	No	NA						
3. Are there weep holes in outer casing?		×							
4. Weep holes able to drain?			X						
5. Is there a lockable cap present?	×								
6. Is there a lock present?									
7. Bumper posts in good condition?	16								
Probability of posts in good condition.									
Flushmount Monitoring Wells	Yes	No	l NA	1					
8. Can the lid be secured tightly?	163	INU	NA VA						
	-		+ -						
9. Does the lid have a gasket that seals?			1						
10. No water in the flushmount?			1						
11. Is the well cap lockable?									
12. Is there a lock present?			0						
-				•					
All Monitoring Wells	Yes	No	NA						
Downhole Condition									
12. Water level measuring point clearly marked?		△	X						
13. No obstructions in well?									
14. No plant roots or vegetation in well?									
15. No sediment in bottom of well?									
If present, how much sediment?	- ft								
16. Installed as total depth.	ft								
17. Measured total depth of well.	ft								
27. Meddared total depth of Well.		l							
General Condition	Yes	No	I NIA	1					
18. Concrete pad installed?	res	No	NA						
·		メ							
19 . Concrete pad			Y ==						
Slope away form casing?			14						
Not deteriorated?									
Not heaved or below surrounding grade?									
20. No surface seal settling?			A.						
21. Well clearly visible and labeled?	×								
Comments:	35								
	NT:	10 L	2						
	DIN, V	nap	10						
* Major well repair are those that require a subcor	tractor or sen	arate moh	ilization to	complete					
TOTAL CONTROL	- 500	LINARPSWINE		F. C.					

Vivileged and Confidential Attor. Work Product Prepared at the Request of Cou

Counsel APPENDIX A.

ATTORNOO AND CORRECTIVE ACTION REPORT

HENNEPIN POWER PLANT, LANDFILL

						PROJECT I	NFORMATIC	N				HEN-25
- 1			Mepini	IL			Client	ran	nboll			
- 1	Project Num				Task #:		Start Date	8/13/1	2 7		Time: ()0	130
- 1	Field Persor		ison bec	useth			Finish Date	0/10/10	-5		Time: 10	40
	V	VELL INFO						EVENT	TYPE			
- 1			F2-12		Well Develor	ment	X	Low-Flow / L	ow Stress Sa	mpling		
١	C	asing ID:		inches	Well Volume	Approach Sa	ampling 🗀	Other (Specify	y):			
ı				٧	VATER QUALIT	Y INDICATO	OR PARAME	TERS (conti	inued)			
- 1	_		Volume	Depth				SEC or	Dissolved			
- 1	Sampling	Time	Removed	Wate		Temp	pН	Cond.	Oxygen	Turbidity	ORP	Visual
ŀ	Stage	(military)	(gallons)	(Feet) (Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
'			1038			21.3	7.81	0.551	9.73	3.92	149.6	clear
H			1043	3 6		19.7	7.39	0.559	2.45	3.25	159.4	
H			1048	1.5		196	7.35	0.559	2.01	3.10	137.1	
ŀ			1053	2 0	_	19.6	7.33	0.559	1.94	3.10	185.7	
ŀ			1058	2.5		19.5	7.31	0.559	1.91	3.11	155.1	
			001103	1) 1		19.5	7.30	0.559	1.89	3.05	154.8	
١٥			1108	4.0		19.5	730	0.558	1.88	3.0	\$154.1	
ŀ												
ŀ			<u> </u>		_							
ŀ												
ŀ												
ŀ												
ł												
ŀ								L.,				
ł					S (continued)				Cond Actual Condu	ABBREVIA		
	So	ampl	es to	Klh	@ 1010				FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		ORP - Oxidation-Red SEC - Specific Electri SU - Standard Units Temp - Temperature *C - Degrees Celcius	
	F	=ervo	US IVO	² √ (∂	9 1019:1	Inder	roung	3C			*C - Degrees Celcius	

Site	HENNIPINIZ	_Major well	s repairs* r	required	Yes	No	NA				
Inspection Date	8123123 68875	to maintai	n well integ	rity?		Χ					
Well Number	HEN-4600			-							
Sticl	k-up Monitoring Wells					Comments					
1. Outer protectiv		Yes	No	NA							
Not corroded	J		X								
Not dented			7								
Not cracked											
Not loose			\rightarrow								
IVOL 1003E			1								
2. Inner casing		Vaa	N.	N/A							
Not corroded		Yes	No	NA							
			1								
Not dented											
Not cracked			-11								
Not loose											
		Yes	No	NA							
3. Are there weep	holes in outer casing?		X								
4. Weep holes ab	le to drain?			\prec							
5. Is there a locka	ble cap present?	κ,									
6. Is there a lock p	present?										
7. Bumper posts i	n good condition?	4									
Flushr	nount Monitoring Wells	Yes	No	NA	Ì						
8. Can the lid be s		1.03	- 110	~							
1	ve a gasket that seals?			$\vdash \uparrow \vdash \vdash$							
10. No water in th	-										
11. Is the well cap											
				4							
12. Is there a lock	present?			A.							
			_								
	II Monitoring Wells	Yes	No	NA							
Downhole Condit											
	easuring point clearly marked?		3	X							
13. No obstructio	ns in well?		7								
14. No plant roots	s or vegetation in well?		1.								
15. No sediment i	n bottom of well?		4								
If present, how	v much sediment?	ft									
16. Installed as to	tal depth.	ft									
17. Measured total	al depth of well.	— ft									
General Condition	า	Yes	No	NA							
18. Concrete pad	installed?	K									
19 . Concrete pad											
Slope away for			7								
Not deteriorat			7								
20. No surface sea	below surrounding grade?		-								
1	_	- 1	4								
1	sible and labeled?	X									
Comments:											
	DTIAL	Av al	n va								
10 He 10 He	2170	OI VIV	7								
↑ Major well repa	ir are those that require a subcontr	actor or sep	arate mobi	lization to c	omplete						

Request of Counsel

APPENDIX A.

WATER MENUNA AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL HEN-257-801

						F	PROJECT IN	NFORMATIO	N				HEN-2
- 1			nepin, 1					Client	2	= Pa	mboll		
- 1	Project Nun			- 1	Tas	k #:		Start Date		154		Time: 00	10
			ion BCCI	2-10-				Finish Date	UI CONT	C willy		Time: 🚺 🕜	130
		WELL INFO							EVENT				
- 1		Well ID: HE				Develop			Low-Flow / L		mpling		
ŀ		asing ID:	2	inches			Approach Sa		Other (Specify				
ļ						ER QUALITY INDICATOR PARAMETERS (continued)							
1			Volume	Depth			_		SEC or	Dissolved			
١	Sampling	Time	Removed	Wate	.	wdown	Temp.	рН	Cond	Oxygen	Turbidity	ORP	Visual
إ	Stage	(military)	(gallons)	(Feet)) ((Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
ป							20.9	7.40	0559	3.37	1.25	14.4	clear
ŀ		0924					20.8	7.35	0.5100	2.44	4.01	142.5	
ŀ			Auto) -		_		20.8	7.35	0.500	2.34	5.82	144.1	
ŀ		09034	WWW LG				20.8	7.34	0.500	2.19	9.841	144.5	
ŀ		0839	-				20.9	7.34	0.558	200	1458	144.3	
.		D949	3.0				20.8	7.33	0.558	1.99	17.95	143.7	\vdash
이		00040	5.0				20.8	7.33	0.569	1.91	18.25	143.2	1
ŀ					_		20.9	7.33	0.559	1.85	18.98	142.2	-
ŀ									1				
ŀ					-			-	-				
ŀ		-	<u> </u>					-					
ŀ													
ŀ									-				
ŀ				NOTE	2 4 4			<u> </u>					
ŀ				NOTE	S (conti	nuea)				Cond Actual Conduc	ABBREVIA	ORP - Oxidation-Red	uction Potential
	20	MPU	rs for	cen	(a) (085	5			FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		SEC - Specific Electri SU - Standard Units Temp - Temperature *C - Degrees Celcius	
		Ferro	us iv	ÒΜ.	UN	der	rama	H @	0910				

Privileged and Confidential, Attorney Work Product. Prepared at the Request of Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel, APPENDIX A. Subject to Chang Monitoring United Burnal Jackson Counsel Burnal Jackson

Site Hennepin, IZ	_Major well	·=	- 1	Yes	No	NA					
Inspection Date 8/23/23 @ 133 4	to maintair	n well integ	grity?		>						
Well Number HEN-54											
Stick-up Monitoring Wells					Comments						
1. Outer protective Casing	Yes	No	NA								
Not corroded		Y									
Not dented		7									
Not cracked	-	\rightarrow									
Not loose	1	1									
Not loose		4									
2 Innor casing	Vos	Me	NA								
2. Inner casing Not corroded	Yes	No No	INA								
	_	-1									
Not dented											
Not cracked											
Not loose		\mathcal{A}									
	Yes	No	NA								
3. Are there weep holes in outer casing?		メ									
4. Weep holes able to drain?			7								
5. Is there a lockable cap present?	78										
6. Is there a lock present?											
7. Bumper posts in good condition?	of										
Flushmount Monitoring Wells	Yes	No	NA								
8. Can the lid be secured tightly?			9								
9. Does the lid have a gasket that seals?											
10. No water in the flushmount?											
11. Is the well cap lockable?											
12. Is there a lock present?			4								
12. Is there a lock present:											
All Manitorine Wells	[Van	N	NIA .	ĺ							
All Monitoring Wells	Yes	No	NA								
Downhole Condition											
12. Water level measuring point clearly marked?			ユ								
13. No obstructions in well?		ᄉ									
14. No plant roots or vegetation in well?											
15. No sediment in bottom of well?		+									
If present, how much sediment?	ft ft										
16. Installed as total depth.	ft										
17. Measured total depth of well.	ft										
General Condition	Yes	No	NA								
18. Concrete pad installed?	OX.										
19 . Concrete pad											
Slope away form casing?		Ø									
Not deteriorated?		7									
Not heaved or below surrounding grade?											
20. No surface seal settling?		d.									
21. Well clearly visible and labeled?	X										
Comments:	$\overline{}$										
	1	24000000000000000000000000000000000000									
1714	1:0n	ald b									
* • • • • • • • • • • • • • • • • • • •											
* Major well repair are those that require a subcontr	actor or sep	arate mobi	lization to o	omplete							

APPENDIX A.
ORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

						PROJECT I	NFORMATIO	N /				HEN-257
			repin, I	L			Client	ROW	b011			
	Project Num				Task #:		Start Date				Time: /3	300
	Field Persor	nnel: <u>Allı</u>	ison Bec	butt			Finish Date	01651	LO		Time: 14	5.5
- 1	V	WELL INFO	RMATION					EVENT	TYPE			
- 1		Well ID:	1EN-54	[Well Develor	ment	X	Low-Flow / L	ow Stress Sar	npling		
- 1	С	asing ID:	2	inches	Well Volume	Approach Sa	ımpling 🗌	Other (Specify		<u> </u>		
- 1				W	ATER QUALIT	Y INDICATO	OR PARAME	TERS (conti	nued)			0
			Volume	Depth to				SEC or	Dissolved			
- 1	Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
٥	Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
ĭ	13	14				247	7.36	0.565	6-10	5.90	113.9	CHON
	13	1319				23.0	7.32	0.574	3.58	24.10	128.2	
- 1	13	#U4	1-0			22.7	7.31	0.577	3.00	23.14	133.1	
- 1	13	19				22.4	7.31	0.576	2.71	19.6	N1364	
- 1	/3	34				22.3	7.31	0.577	2.49	18.41	128120	
- 1	13					22.4	7.30	0.577	2.40	14.50	140.2	
		1344				22.3	7.31	0.577	2.39	14.88	140.1	
35		1349	2.5			22.6	7.80	0.576	2.31	13.82	141.0	
ļ												
J												
- 1	**											
ļ												
Į.												
				NOTES	(continued)					ABBREVIA	TIONS	
	Sc	ympu	es tak	en (9 1350 mple(0)			Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured		ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	
	Ŧ	-e.v.vo	us ivo	N ZW	imple(c	3 145	50:513	371				

Site	Hennepingh	Major well	ls repairs*	required	Yes	No	NA NA
Inspection Date	9/23/23 @ 1110	to maintai	n well inte	grity?		X	
Well Number	HEN-13						
	-						
Stic	k-up Monitoring Wells					Comments	
1. Outer protective	ve Casing	Yes	No	NA			
Not corroded		X			OSEINIXO	NSK MUSHY	1
Not dented			*				i.
Not cracked					1		
Not loose							
2. Inner casing		Yes	No	NA	1		
Not corroded			メ				
Not dented			1				
Not cracked						_	
Not loose			1)				
		Yes	No	NA			
3. Are there wee	p holes in outer casing?		- X		1		
4. Weep holes ab	<u> </u>			~	1		
5. Is there a locka		×					
6. Is there a lock		T T					
I .	in good condition?	+					
7. Bulliper posts	in good condition:						
Flush	mount Monitoring Wells	Yes	No	l NA	7		
8. Can the lid be		103	1	*			
1	ive a gasket that seals?	-		1	1		
10. No water in t	_	-			1		
11. Is the well cap					-		
12. Is there a lock		-		J	1		
12. 15 there a loca	c present:			1			
,	All Monitoring Wells	Yes	No	l NA	1		
Downhole Condi		163	NO	INA			
	neasuring point clearly marked?			76			
13. No obstruction		-	~~	×			
	s or vegetation in well?		7	-	·		
I	in bottom of well?				+		
I	w much sediment?	ft	1	l			
		ft	-1				
16. Installed as to		ft	40				
17. Measured to	ai depth of well.]				
General Condition		Vos	No	T NIA	7		
18. Concrete pad		Yes	No	NA			
1			メ		-		
19 . Concrete pac							20.54
Slope away fo				1			
Not deteriora		-					
1	r below surrounding grade?						
20. No surface se							
	isible and labeled?	$\perp \chi$		127			
Comments:							
		mai	Mag	Arr			
		DIV	ONIO	TP			
* Major well repa	air are those that require a subcon	tractor or sep	parate mob	ilization to	complete		

APPENDIX A.
ORINGAND CORRECTIVE ACTION REPORT
HENNEPIN POWER PLANT, LANDFILL

1055
1255
RP Visual
v) Clarity
.o Clear
7 /
9
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2
ation-Reduction Potential
fic Electrical Conductance rd Units perature s Celcius
fic rd

dupe @ 1125

Site	Major wel	ls repairs*	required	Yes	Nø	NA
Inspection Date \$123123	to maintai	n well inte	grity?		7	
Well Number						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded		X				
Not dented						
Not cracked						
Not loose		1/				
				1.		
2. Inner casing	Yes	No	NA	1		
Not corroded		X				
Not dented		1				
Not cracked			†			
Not loose	-	1/				
	Yes	No	NA			
3. Are there weep holes in outer casing?	103	V	/ 10/2	1		
4. Weep holes able to drain?	<u> </u>			 		
5. Is there a lockable cap present?		\times	_			
6. Is there a lock present?						
7. Bumper posts in good condition?	-					
Flushmount Monitoring Wells	Yes	No	180	ĺ		
8. Can the lid be secured tightly?	100	NO				
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?	\rightarrow					
11. Is the well cap lockable?						
12. Is there a lock present?						
12. Is there a lock present:	16		all			
All Monitoring Wells	Yes	No	NA			
Downhole Condition	163	X	IVA			
12. Water level measuring point clearly marked?						
13. No obstructions in well?						
14. No plant roots or vegetation in well?						
15. No sediment in bottom of well?		1				
If present, how much sediment?	-	V				
	ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	ft	ļ				
General Condition	Vac	N-	N/A	1		
18. Concrete pad installed?	Yes	No	NA			
19 . Concrete pad installed?		V				
Slope away form casing?						
Not deteriorated?						
Not heaved or below surrounding grade?		_/_				
20. No surface seal settling?		V				
21. Well clearly visible and labeled?	X					
Comments:						
 Major well repair are those that require a subcont 	tractor or sep	arate mobi	lization to c	omplete		

Nork Product. Prepared at the Request of Counsel.

APPENDIX A.

APPENDIX A.

APPENDIX A.

APPENDIX A. HENNEPIN POWER PLANT, LANDFILL HEN-257-801 PROJECT INFORMATION Site: Client: Project Number: 2023 - 07 U Task #: Start Date: Time: Field Personnel: TRANSCAM Time: 1435 Finish Date: WELL INFORMATION **EVENT TYPE** Well ID: 147 Well Development Low-Flow / Low Stress Sampling Casing ID: Well Volume Approach Sampling Other (Specify): inches WATER QUALITY INDICATOR PARAMETERS (continued) Volume Depth to SEC or Dissolved Time Removed Water Drawdown Oxygen **ORP** Sampling Temp. pН Cond: Turbidity Visual Stage (military) (gallons) Clarity (Feet) (Feet) (°C) (SU) (NTU) (µs/cm) (mg/L) (mV) Pau 1330 0.1 DURGE CLEAR 169.2 0.69 15.8 21.2 6.81 1-5 0-3 10.75 72.2 0-1 0.17 10,44 10.76 **NOTES** (continued) ABBREVIATIONS SAMPLE 1405 FI - UMER ond. - Actual Conductivity ORP - Oxidation-Reduction Potential FT BTOC - Feet Below Top of Casing SEC - Specific Electrical Conductance na - Not Applicable SU - Standard Units m - Not Measured

Temp - Temperature "C - Degrees Celcius

Site Hennepin/IL	-		s* required	Yes	No	NA					
Inspection Date 8/21/23(0) 1115	to maintain well integrity?										
Well Number HEN - 05DR					.,						
Stick-up Monitoring Wells					Comments						
1. Outer protective Casing	Yes	No	NA								
Not corroded		У									
Not dented											
Not cracked											
Not loose		A	-								
			- 1								
2. Inner casing	Yes	No	NA NA	1							
Not corroded	103	3	The state of the s								
Not dented		7	_								
Not cracked											
Not loose		1									
1400 10036	Vac		- NA								
2 Are there ween helps in outer essing?	Yes	No ~	NA	1							
3. Are there weep holes in outer casing?		X									
4. Weep holes able to drain?			*								
5. Is there a lockable cap present?	1										
6. Is there a lock present?											
7. Bumper posts in good condition?	Ψ.										
				,							
Flushmount Monitoring Wells	Yes	No	NA								
8. Can the lid be secured tightly?											
9. Does the lid have a gasket that seals?											
10. No water in the flushmount?											
11. Is the well cap lockable?											
12. Is there a lock present?			ų								
				=							
All Monitoring Wells	Yes	No	NA								
Downhole Condition	\										
12. Water level measuring point clearly marked?			*								
13. No obstructions in well?		×									
14. No plant roots or vegetation in well?											
15. No sediment in bottom of well?		W									
If present, how much sediment?	ft										
16. Installed as total depth.	ft										
17. Measured total depth of well.	108.107ft										
General Condition	Yes	No	NA NA	ĺ							
18. Concrete pad installed?	X		107								
19 . Concrete pad											
Slope away form casing?		×									
Not deteriorated?	-	$\hat{}$	_								
Not heaved or below surrounding grade?											
20. No surface seal settling?											
_	- 50										
21. Well clearly visible and labeled?	X										
Comments:		110	- Albert	to .							
DTW : 38	19	um	e inste	real							
w Adaila - Harris - A											
* Major well repair are those that require a subcontra	ector or sepa	arate m	obilization to o	complete							

HEN-257-801 **PROJECT INFORMATION** Site: 16JUEPZU Client: Project Number: 2023 0711 Task #: Start Date: Q113 1155 Time: Field Personnel: CRCMB Ly Finish Date: Time: 1365 WELL INFORMATION **EVENT TYPE** Well ID: 05 DE Low-Flow / Low Stress Sampling Well Development Casing ID: Well Volume Approach Sampling Other (Specify): inches WATER QUALITY INDICATOR PARAMETERS (continued) Volume Depth to SEC or Dissolved Sampling Time Removed Water Drawdown Temp. рΗ Cond. Oxygen **ORP** Turbidity Visual Stage (military) (gallons) (Feet) (Feet) (°C) (SU) (µs/cm) (mg/L) (NTU) Clarity (mV) PRE 1155 38473 38.73 Ø PURGE 1205 Ø CLEAR 1216 0.75 21.2 7.41 0.632 0.77 28 69.5 20.C 7.41 0.631 0.28 2.54 1220 70.6 165.1 2.67 12.25 20.8 1.25 7.4 0.63 2.13 63.5 1730 38-73 20.0 0.16 0.63 161.7 38.73 1235 0.631 20.0 7.41 0.15 2.51 60.7 38.73 20.4 7.4 1240 **NOTES** (continued) **ABBREVIATIONS** Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential SAMPLE @- 1145 FI- WNDRRNG FT BTOC - Feet Below Top of Casing SEC - Specific Electrical Conductance na - Not Applicable SU - Standard Units m - Not Measured Temp - Temperature "C - Degrees Celcius

Site	Hennepin, IZ	Major wel	-	•	Yes	No	NA
Inspection Date	8/21/23 (0)105	to maintai	n well inte	grity?		X	
Well Number	HEN-05R					- - - - - - - - - - -	
Stic	k-up Monitoring Wells					Comments	
1. Outer protectiv	ve Casing	Yes	No	NA	Ì		
Not corroded			K				
Not dented							
Not cracked							
Not loose			1				
2. Inner casing		Yes	No	NA NA	ľ	0.	
Not corroded			>				
Not dented			i				
Not cracked							
Not loose			4				
		Yes	No	NA			
3. Are there weer	holes in outer casing?		メ	1			
4. Weep holes ab	_		-,	プ			
5. Is there a locka		~),			
6. Is there a lock p		1					
	n good condition?	1					
i sumper posts i	n good condition.						
Flushr	nount Monitoring Wells	Yes	No	NA NA	ľ		
8. Can the lid be s		163	NO	2			
1	ve a gasket that seals?			1			
10. No water in th				+		_	
11. Is the well cap				-			
12. Is there a lock							
12. IS there a lock	present:						
Δ	II Monitoring Wells	Yes	No	NA NA	i i		
Downhole Condit		res	NO	INA			
	easuring point clearly marked?						
13. No obstructio		-	21	Х			
	or vegetation in well?	-	3				
	n bottom of well?		_				
1	v much sediment?	-	Caro				
16. Installed as to		- ft					
17. Measured total	•	ft					
17. Ivieasured tota	ar depth of well.	140.051					
General Condition	_	I van 1	N.	T NA 1			
		Yes	No	NA			
18. Concrete pad		צ					
19 . Concrete pad							
Slope away for	_		9				
Not deteriorat			-Ì				
	below surrounding grade?						
20. No surface sea			مل				
21. Well clearly vi	sible and labeled?	×					
Comments:		40):				
	DTW:38.	by pvi	mp in	Stalle-	ed		
		•					
* Major well repa	ir are those that require a subcont	ractor or sep	arate mob	lization to c	omplete		

HENNEPIN POWER PLANT, LANDFILL HEN-257-801 PROJECT INFORMATION Site: HENNEPZU Client: Project Number: 2023-0711 Task #: Start Date: Time: Finish Date: Time: WELL INFORMATION **EVENT TYPE** Well ID: 05R Well Development Low-Flow / Low Stress Sampling Casing ID: Well Volume Approach Sampling Other (Specify): inches WATER QUALITY INDICATOR PARAMETERS (continued) Volume Depth to 3/emp. SEC or Dissolved JORP ORP Sampling Time Removed Water Drawdown pН Cond. Oxygen Turbidity Visual (mg/L) Stage (military) (gallons) (Feet) (Feet) (°C) (SU) (µs/cm) (NTU) (mV) Clarity PRE 38-69 036 PURGE 1047 0 8 21.5 CLEAR 1.60 SAMPLE 1048 38.64 Ø 70.6 0.5 7.6 0.646 27.5 110.9 1053 20.6 7.6 06,44 0.36 18.70 136. 2 105 8 38.69 20.5 7.6 Ø 0.23 12.41 141.0 0.643 1103 1.25 Ø 7.6 8.77 20.2 0.19 142.8 0.643 1108 38.69 0 7.6 7,00 143.7 20.6 0.644 0,17 38.69 8 20.0 7.61 0.643 0.15 5.10 144-0 1118 2.5 10.6 38.69 0.645 4.41 0.14 44.2 1123 20.3 0.644 0.14 144.2 **NOTES** (continued) **ABBREVIATIONS** ORP - Oxidation-Reduction Potential SAMPEQ-1130 FI-0.806 PPM Cond. - Actual Conductivity T BTOC - Feet Below Top of Casing SEC - Specific Electrical Conductance na - Not Applicable SU - Standard Units m - Not Measured Temp - Temperature *C - Degrees Celcius

Site Hennepinil		ls repairs*	•	Yes	No	NA
Inspection Date 8/2/123 0/055	to maintai	in well integ	grity?	X		
Well Number HEV-48					***	
Stick-up Monitoring Wells					Comments	L
1. Outer protective Casing	Yes	No	NA	1		
Not corroded		X				
Not dented	~	960		SMAL	CDEUT	
Not cracked	_~	X		Jrace	(000	
Not loose	\times	_		1445 5	zs Lous	<u>C</u>
1101 10030		1	l:	wece	25 6005	(~
2. Inner casing	Yes	No	NA NA	1		
Not corroded	163	V	IVA			
Not dented						
Not cracked	_	X		7.449	0.45.6 .47.6	1.00.00
Not loose	X.			Temere	case cru	HALED)
Not loose	X					
2 4	Yes	No	NA	1		
3. Are there weep holes in outer casing?						
4. Weep holes able to drain?			X			
5. Is there a lockable cap present?	X					
6. Is there a lock present?	X					
7. Bumper posts in good condition?						
				ī		
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?	X		/			
9. Does the lid have a gasket that seals?			,X			
10. No water in the flushmount?		X	X.			
11. Is the well cap lockable?	/					
12. Is there a lock present?						
All Monitoring Wells	Yes	No	NA			
Downhole Condition						
12. Water level measuring point clearly mar	ked?		X			
13. No obstructions in well?	X			CRUCKED	i well	
14. No plant roots or vegetation in well?	35.	X				
15. No sediment in bottom of well?			X			
If present, how much sediment?	ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	ft					
				_		
General Condition	Yes	No	NA			
18. Concrete pad installed?	X					
19 . Concrete pad						
Slope away form casing?	X					
Not deteriorated?		X'				
Not heaved or below surrounding grade?	X					
20. No surface seal settling?	X	-				
21. Well clearly visible and labeled?	X					
Comments:						
COULD NOT TAKE WATE	or Levei	READS	1-6 M	p to	blocka	000
			4 010	//	DIVUIND	00
* Major well repair are those that require a	subcontractor or sep	arate mobi	lization to	complete		

				F	PROJECT IN	IFORMATIO	N				
	Site: HEMI	EPZU				Client:					
	nber: 202			Task #:		Start Date:	9/23	123		Time:	
Field Persor	nnel: Trw	5W/				Finish Date:	00	1-)		Time: 😥	30
'	WELL INFO	RMATION					EVENT :	TYPE			
	Well ID: Well Development Low-Flow / Low Stress Sampling										
С	asing ID:		inches	Well Volume	Approach Sai	mpling 🔲	Other (Specify):			
WATER QUALITY INDICATOR PARAMETERS (continued)											
		Volume	Depth to				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp	pН	Cond	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
223	46.00	(0)			0-0	7 :	- 10	1 00 0		-	11000
purit	0937	011			200		0.601	1-15	5.25	163.4	CLEAR
SIMOLE	0943	0.75			70.9	7.63	0.601	(.93	523	163.4	
	0948				20.8	7.62	0.590	0.50	4.37	160.2	
	09.53				20.7	7.62	0.599	0.24	3.28	137.6	-+-
-	0958	200			20.5	7.62	0.589	0.18	271	154.3	\longrightarrow
-	1003	225			20.7	7.62	0.589	0.15	2.30	152.0	\vdash
	1013				20.7	7.62	0.589	0.13	2.09	148.7	-
	1018	3			20.8	7.62	0.589	0.11	2,01	147.4	\vdash
	1013				20.8	1.6.2	0.589	0.11	2,01	147.4	
					*						
											1 7
			NOTES	(continued)					ABBREVIA	TIONS	
* WEAS	NOTES (continued) ** WELL HAS OBSTRUCTION ZNSIDE CASING. COULD NOT MEASURE WATER SAMPLE @ - 1020 FI - UNDRRNG						Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured	ctivity	ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius		
SAMPL	£ @ - 1	020									
F1-	LNDRI	zwh									

HEN-257-801

Site Hennepin, 1L	Major well			Yes	No	NA		
Inspection Date 8/21/23 @ 1050	to maintai	n well inte _l	grity?		X			
Well Number HEN-405								
Stick-up Monitoring Wells					Comments	b)		
1. Outer protective Casing	Yes	No	NA					
Not corroded		×						
Not dented		1						
Not cracked								
Not loose		V						
2. Inner casing	Yes	No	NA					
Not corroded		У						
Not dented								
Not cracked								
Not loose		V						
	Yes	No	NA NA					
3. Are there weep holes in outer casing?		>						
4. Weep holes able to drain?			ズ					
5. Is there a lockable cap present?	×							
6. Is there a lock present?	1							
7. Bumper posts in good condition?	1							
good condition.								
Flushmount Monitoring Wells	Yes	No	l NA	Í				
8. Can the lid be secured tightly?	103	140	×					
9. Does the lid have a gasket that seals?			7					
10. No water in the flushmount?								
11. Is the well cap lockable?			1					
12. Is there a lock present?			6					
12. 13 there a lock present:	- 7							
All Monitoring Wells	Yes	No	NA					
Downhole Condition	163	INU	IVA					
12. Water level measuring point clearly marked?	-/-	\$	~					
13. No obstructions in well?	1	X	\prec					
14. No plant roots or vegetation in well?		1						
15. No sediment in bottom of well?		-						
If present, how much sediment?		1						
16. Installed as total depth.	ft ft	À						
·	20025	5						
17. Measured total depth of well.	30% 101							
General Condition	[v.,]		T NA 7					
	Yes	No	NA					
18. Concrete pad installed?								
19 . Concrete pad								
Slope away form casing?		X						
Not deteriorated?								
Not heaved or below surrounding grade?		1						
20. No surface seal settling?		Y						
21. Well clearly visible and labeled?	X							
Comments:	37.9							
DTW: 300s	307	H P	ump i	nstall	ed			
			-					
* Major well repair are those that require a subconti	ractor or sep	arate mobi	lization to c	omplete				

						PROJECT IN	FORMATIO	N				11214 29
	Site: MCM	CP 2					Client:					
Project Nun	nber: 2023	071/			Task #:		Start Date: 9 (23) 22 Time: 0826				26	
Field Persor	nnel: L TI	zenbug					Finish Date:	0(2)	105		Time: (39)	19
	WELL INFOR							EVENT	TYPE			
	Well ID: کور	75			Well Development							
С	asing ID:		inches		Well Volume	Approach San	npling 🔲	Other (Specify	'):			
WATER QUALITY INDICATOR PARAMETERS (continued)												
		Volume	Depth	to				SEC or	Dissolved			
Sampling	Time	Removed	Wate		Drawdown	Temp.	рН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)		(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
PRE	0335	- 4	374	16	80							
brief	0836	0.1	51.4	12		.04				1	45.5 654	CLEAR
SAMPLE			37.9		Q	19.0	7.89	0 58	2.20	4.25	147.6	
	0846	1.5	37.9		\$	18.8	7.89	0.579	0.41	3.29	143.4	
	0851		37.		\$	18.7	7.98	0-379	0,44	2.58	139.1	
	0256		37.0		100	18.7	7.88	0.579	0.37	2.16	1357	
	6901	2:75	37.0	12	8	18-8	7.88	0.579	0-37	2.13	133,5	
												_\
			NOTE	S (c	ontinued)					ABBREVIA [*]		
SAMBLE 0905 EL-MORNY									Cond - Actual Conductivity ORP - Oxidation-Reduction Potential FF BTOC - Feel Below Top of Casing na - Not Applicable nm - Not Measured SU - Standard Units Temp - Temperature C - Degrees Celcius			
(-1-	. MOD ICE	- 9										

Site	HENNEPEN	Major wel	ls repairs*	required	Yes	No	NA
Inspection Date	9/24/23	to mainta	in well inte	grity?			
Well Number	HG~ 35						
Stic	k-up Monitoring Wells					Comments	i
1. Outer protecti	ve Casing	Yes	No	NA	ĺ		
Not corroded			X				
Not dented							
Not cracked							
Not loose			1/				
			4				
2. Inner casing		Yes	No	NA NA	ř		
Not corroded			X				
Not dented							
Not cracked							
Not loose			1/				
		Yes	No	NA			
3 Are there wee	p holes in outer casing?	103	V	INA			
4. Weep holes ab							
	able cap present?			1			
6. Is there a lock			-				
III.	•	- 					
7. builiper posts	in good condition?						
Eluch	mount Manitoring Minlls		T N.	1 114 1			
	mount Monitoring Wells	Yes	No	NA			
8. Can the lid be		-		7			
	eve a gasket that seals?						
10. No water in t							
11. Is the well cap							
12. Is there a lock	c present?			W			
				-			
	All Monitoring Wells	Yes	No	NA			
Downhole Condi			X				
	neasuring point clearly marked?		X				
13. No obstruction			X				
	s or vegetation in well?		X				
	in bottom of well?		X				
If present, ho	w much sediment?	ft					
16. Installed as to	otal depth.	ft					
17. Measured tot	al depth of well.	ft					
General Conditio		Yes	No	NA			
18. Concrete pad	installed?	\perp X					
19 . Concrete pac	i	3					
Slope away fo	rm casing?		X				
Not deteriora	ted?		X				
Not heaved or	below surrounding grade?		X				
20. No surface se			X	<u> </u>			
	isible and labeled?	×					
Comments:							
* Major well repa	ir are those that require a subcont	ractor or sen	arate mob	ilization to a	omplete		
		COLOI OI DED	- ucc 11100		VIIINICLE		

HENNEPIN POWER PLANT, LANDFILL

					F	PROJECT IN	IFORMATIO	N				HEN-237
	Site:						Client:					
Project Num					Task #:		Start Date:	9101	Į.		Time: 09	٥٤)
Field Persor	nnel: TREW	BUY					Finish Date:	010			Time: 1c	38
WELL INFORMATION								EVENT	TYPE			0
Well ID: HEN 35					Well Develop	Well Development Low-Flow / Low Stress Sampling						
Casing ID: inches			inches		Well Volume Approach Sampling Other (Specify):							
			V	۷A٦	TER QUALITY	/ INDICATO	R PARAMET	ERS (conti	nued)			
		Volume	Depth	to				SEC or	Dissolved			
Sampling	Time	Removed	Wate		Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)		(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
purge	00	0-1				+34	41	3%	10%	10%	410	CLGAR
Sample	0946					16.5	7.10	0-926	8.28	14.30	159.9	
	0951					16-2	7.04	0-918	6.78	15,97	169.8	
	0956	100				16.3	7.03	1-369	2.16	7.70	163-8	
	1001					16.2	7.03	1.378	1.87	2.67	1620	
	1006	2.0				16.7	7-03	1.358	1.47	2-81	161,7	
	1011			_								_
			NOTE	S //	continued)					ADDDEVIA	FIGNO	
-11	1500	1.45.5		3 <u>(</u> (continuea)				Cond Actual Conduc	ABBREVIA	ORP - Oxidation-Redu	ction Potential
		- UNDIE							FT BTOC - Feet Below na - Not Applicable		SEC - Specific Electric SU - Standard Units	
_		inla							nm - Not Measured		Temp - Temperature	
SAND	U.C.	1010									°C - Degrees Celcius	
0												

Site	#BOOD HENNERINILL	_ Major well	ls repairs*	required	Yes	No	NA
Inspection Date	8/24/23	to maintai	n well inte	grity?		メ	
Well Number	HEN-52						
	++						
Stick	-up Monitoring Wells					Comments	
1. Outer protectiv	-	Yes	No	NA NA	1	-	•
Not corroded			メ	1			
Not dented			3				
Not cracked			1	 			
Not cracked Not loose		-	4				
Not loose			4				
				T	1		
2. Inner casing		Yes	No	NA NA			
Not corroded			マ				
Not dented							
Not cracked							
Not loose			3				
		Yes	No	NA			
3. Are there weep	holes in outer casing?		X				
4. Weep holes abl	_			ス			
5. Is there a locka		×					
6. Is there a lock p							
7. Bumper posts in		1/2					
7. Bumper posts ii	a good condition.		l				
Fluche	nount Monitoring Wells	Voc	No	T NA	Ī		
The second secon		Yes	No	INA			
8. Can the lid be s		-		1 7			
	ve a gasket that seals?						
10. No water in th							
11. Is the well cap				1 1			
12. Is there a lock	present?			1			
<u>A</u>	ll Monitoring Wells	Yes	No	NA			
Downhole Condit	ion						
12. Water level m	easuring point clearly marked?			X			
13. No obstruction	ns in well?		X				
14. No plant roots	or vegetation in well?)				
15. No sediment i	_		-				
	v much sediment?	ft					
16. Installed as to		ft	ł				
17. Measured total		ft					
17. Weasured tota	ar depth of well.	- 10	Į.				
General Condition	_	V	T	T NA	ī		
		Yes	No	NA			
18. Concrete pad		人					
19 . Concrete pad							
Slope away for			\rightarrow				
Not deteriorat							
Not heaved or	below surrounding grade?						
20. No surface sea	al settling?		1				
21. Well clearly vi	sible and labeled?	久					
Comments:							
	n	T111.		/a/estax/sym			
	D	H VV: (O M	pp			
* Major well rena	ir are those that require a subconti	actor or sen	arate moh	ilization to	complete		
Linejor Well Tepa	a. a mose mucrequite a subcolle	acroi oi seh	arace mod	mzativii tu t	combiers		

THE PERSON OF MENTANIL SOLUTION FROM THE REQUEST OF COUNTY OF THE PROPERTY OF THE PROPERTY OF THE PROP

APPENDIX A.

GRING AND CORRECTIVE ACTION REPORT

HENNEPIN POWER PLANT, LANDFILL

					PROJECT I	NFORMATIO	N				HEN-257
	Site: HR	nnepin,	IL			Client	Ramk	22			
Project Nur		1 7		Task #;		Start Date: Olas L/2 Time: 00					105
	- No. 11127/1981	SON BECK	lft.			Finish Date	0/01/1))		Time: 10	
	WELL INFO						EVENT	TYPE			
		EN-52		Well Develop	ment	X	Low-Flow / L	ow Stress Sar	npling		
C	asing ID:	2.	inches	Well Volume	Approach Sa	ampling 🔲	Other (Specify				
	-		WA	TER QUALIT	Y INDICATO	OR PARAME	TERS (conti	nued)			
. "	-	Volume	Depth to				SEC or	Dissolved		3	
Sampling Stage	Time	Removed	Water	Drawdown	Temp.	рH	Cond.	Oxygen	Turbidity	ORP	Visual
Glage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	0914				550	7.10	0.035	7.57	5.56	1470	CLEON
	0919	1-D			23.0	7.01	0.1005	(M) 2.0		152.3	
	0924	1.0			23.8	7.05	0.609	1,39	4.48	149.7	
	0929	2.0		 	13.9	7.04	0.412	1.21	4.27	147.2	
	0924	0.0			24.0	7.04	0.414	1.96	4.08	140.5	$-\psi$
	19.				27.0	7.07	0.417	1.010	4.00	42.8	
											-
											
											
			NOTES (continued)					ABBREVIA	TIONS	
So	nmpl	es to		1011	40			Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured	tivity	ORP - Oxidation-Red SEC - Specific Electri SU - Standard Units Temp - Temperature *C - Degrees Celcius	uction Potential cal Conductance
Ŧ	-evro	us ivo	in 0	1011:1	Inder	Voung	80				

Site HENNEPIN, IL	Major well	s repairs* i	required	Yes	No	NA
Inspection Date \$124/23 @ 1450	to maintai	n well integ	grity?			
Well Number HEN-80						
31213 36						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA	1	COMMITTEE	ē
Not corroded	103	Ø	110			
Not dented	ļ	4				
Not cracked	ļ	-				
		-				
Not loose		4				
				10		
2. Inner casing	Yes	No	NA			
Not corroded		d				
Not dented						
Not cracked						
Not loose		A.				
	Yes	No	NA			
3. Are there weep holes in outer casing?		0/				
4. Weep holes able to drain?		,	Ø			
5. Is there a lockable cap present?	Ø		01			
6. Is there a lock present?	1					
<u> </u>						
7. Bumper posts in good condition?						
				i		
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?			α			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			4			
All Monitoring Wells	Yes	No	NA			
Downhole Condition						
12. Water level measuring point clearly marked?			X			
13. No obstructions in well?	-	24				
14. No plant roots or vegetation in well?		- X-				
I	-					
15. No sediment in bottom of well?		4				
If present, how much sediment?	~ ft					
16. Installed as total depth.	ft	at-				
17. Measured total depth of well.	ft					
General Condition	Yes	No	NA			
18. Concrete pad installed?	X					
19 . Concrete pad						No. of Concession, Name of
Slope away form casing?		ン				
Not deteriorated?						
Not heaved or below surrounding grade?						
20. No surface seal settling?		1				
21. Well clearly visible and labeled?	H~	7				
Comments:	メ					
Comments.						
—	1/1/1/1	MAR	NA			
<u> </u>	110.0	· veg	r	160		
* Major well repair are those that require a subcontr	actor or sep	arate mobi	lization to c	omplete		

OURSEL APPENDIA A.
ORRIVE AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT, LANDFILL

						PROJECT I	NFORMATIC	N				HEN-26
		Site: HMY	repin, IL	,			Clien		Rambol	1		
	Project Nur				Task #:		Start Date	8/211/	1.2		Time:	WED 1140
ļ		CHILD THE STATE OF	ion beck	elet			_ Finish Date	01011	13		Time:	13.11
Į		WELL INFO						EVENT	TYPE			195
			EN-87	D	Well Develop	oment	X	Low-Flow / I	Low Stress Sai	mpling		
ı		Casing ID:	2,	inches	☐ Well Volume	Approach Sa	mpling	Other (Specif		1 3		
Į.			***	V	VATER QUALIT	Y INDICATO	OR PARAME	TERS (cont	inued)			
- [Volume	Depth	to			SEC or	Dissolved			
- 1	Sampling Stage	Time	Removed	Wate		Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
ا		(military) 診 1(54	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
~ F						MAN 18.7	7.03	1.330	4.45	4.29	182.5	CHAI
ŀ		1150				17.7	16:104	1.420	(MINE) 2.0		193.7	j
ŀ		1204	1 2			17.7	11.58	1.433	0.98	5.34	1014.0	
ŀ		1209	1.0			17.4	N.28	1.430	0.70	4.100	193.0	
٦ŀ		1214	- 0			17.5	4.58	1.432	0.75	4.57	192.4	
S		1219	2.0			17.3	6.59	1.435	0.03	4.32	192.0	
ŀ												
H							_					
ŀ												
H												
H												
-												
ŀ										<u> </u>		
-												
-				NOTE	S (continued)					ABBREVIA		
	So	mple	es to	KU	0)122	5			Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured			ture
		·			imple @		:Undl	rvounge	nm - Not Measured		Temp - Tempera	ture

Site	Hennepin, IL	_Major well	Yes	No	NA				
Inspection Date	8/24/233 /355	to maintain well integrity?							
Well Number	HEN-07								
Stic	ck-up Monitoring Wells					Comments			
1. Outer protecti	ive Casing	Yes	No	NA]				
Not corroded			\sim						
Not dented			1						
Not cracked			-						
Not loose		-	1		-				
1100 10030			~				_		
2. Inner casing		Yes	No	NA	i				
Not corroded		163	×	INA					
Not dented			1						
Not defited Not cracked		-							
Not loose		ļ	-						
Not loose		-							
2 4	a balant at the Co	Yes	No	NA	ļ				
	p holes in outer casing?		\times						
4. Weep holes at				X					
	able cap present?	3							
6. Is there a lock	•								
7. Bumper posts	in good condition?	4							
					1				
	mount Monitoring Wells	Yes	No	NA					
8. Can the lid be				X					
	ave a gasket that seals?			- 1					
10. No water in t									
11. Is the well ca	•								
12. Is there a loci	k present?			4					
					V.				
4	All Monitoring Wells	Yes	No	NA					
Downhole Condi	ition								
12. Water level n	neasuring point clearly marked?			~					
13. No obstruction	ons in well?		X						
14. No plant root	ts or vegetation in well?								
15. No sediment	in bottom of well?		4						
If present, ho	w much sediment?	ft ft							
16. Installed as to	otal depth.	ft							
17. Measured to	tal depth of well.	——ft							
General Condition	on	Yes	No	NA					
18. Concrete pad	l installed?		\propto						
19 . Concrete pag	d								
Slope away fo	orm casing?			X					
Not deteriora	ted?			1					
Not heaved o	r below surrounding grade?								
20. No surface se	eal settling?			V					
1	risible and labeled?	2							
Comments:									
	M	1							
	DIV	V. 0M	NAD						
* Major well repa	air are those that require a subcontr	actor or sena	rate moh	ilization to d	complete				
		0.650.09							

HENNEPIN POWER PLANT, LANDFILL

					PROJECT I	NFORMATIC	ON				HEN-257	
	Site: Hen	Melpini	2			Client	t:					
Project Nun		, ,		Task #:		Start Date: 3/24/23 Time: 1320					20	
		ion Beck	et			Finish Date: UT 1000 Time: 1430						
'	WELL INFO						EVENT	TYPE				
	Well ID:	EN-07		Well Develop	ment	Low-Flow / Low Stress Sampling						
C	asing ID: 2	A c	inches	Well Volume	Approach Sa	ampling	Other (Specif				1	
			WA ⁻	TER QUALIT	Y INDICATO	OR PARAME	TERS (cont	inued)		_		
		Volume	Depth to				SEC or	Dissolved				
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual	
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	
	1337				14.4	U.98	0.727	5.73	5.14	144.3	CHAr	
	1342	1 0			14.0	497	0.418	4.25	4.45	174.5		
	1347	2.0			13.9	6.906	0.701	WWW 4.20		174.4		
						10.014	0.760	4.16	3.85	178.7		
	1352	3.0		<u> </u>	13.8	4.93	0.099	4.16	3.57	17990		
	1334				13-8	10-91	0.499	4.15	3.55	179.9	4	
							 				-	
				 			<u> </u>					
						-						
						 						
				i								
							<u> </u>					
			NOTES (continued)					ADDDENIA	TIONS		
		1		·				Cond Actual Conduc	ABBREVIA	ORP - Oxidation-Redu	iction Potential	
80v	mpus	take	$\wedge \otimes $	400				FT BTOC - Feet Below na - Not Applicable nm - Not Measured	Top of Casing	SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	cal Conductance	
Fe	VYOUS	ĪVO V	samk	ole Ol	49): V	ndern	MSU					

Site	THNOPINIL	_Major well	•		Yes	No	NA NA
Inspection Date	8/24/23 01452	to maintai	n well inte	grity?		A	
Well Number	HEN-03			s			
Stic	k-up Monitoring Wells					Comments	
1. Outer protective		Yes	No	NA			
Not corroded	<u> </u>		X				
Not dented			1				
Not cracked				†			
Not loose			4	1			
Not loose				1			
2. Inner casing		Yes	No	NA	İ		
Not corroded		103		10/			
Not dented			7	1			
Not cracked		-		 			
Not loose				1			
Not loose		Vos	No	NA NA			
2 Are there were	n holos in outer easing?	Yes	No	INA			
4. Weep holes ab	p holes in outer casing?		×				
5. Is there a locka				ヌ			
1	• •	X		-			
6. Is there a lock							
7. Bumper posts	in good condition?	4					
Flush					Ė		
	mount Monitoring Wells	Yes	No	NA ,			
8. Can the lid be	• .			17			
I .	ve a gasket that seals?						
10. No water in the							
11. Is the well cap							
12. Is there a lock	c present?			1			
	All Monitoring Wells	Yes	No	NA			
Downhole Condi							
	neasuring point clearly marked?			ブ			
13. No obstructio			-} -				
	s or vegetation in well?						
	in bottom of well?		4				
	w much sediment?	ft					
16. Installed as to		ft					
17. Measured tot	al depth of well.	ft					
General Conditio		Yes	No	NA			
18. Concrete pad			人				
19 . Concrete pad		7					
Slope away fo				メ			
Not deteriorat							
	below surrounding grade?						
20. No surface se	_			1			
21. Well clearly vi	isible and labeled?	X					
Comments:							
	11	N P DIO	A V)//			
	カ ド	UO . UV	1000	4			
* Major well repa	ir are those that require a subcontr	actor or sepa	arate mob	ilization to c	omplete		

PROJECT INFORMATION	HEN-25
Site: Henripin, II Client: Rombon	
Project Number: Task #: Start Date:Q// Time:	35
Field Personnel: ALLISON BELLION Finish Date: Time: 1	020
WELL INFORMATION EVENT TYPE	
Well ID: 68 Low-Flow / Low Stress Sampling	
Casing ID: inches Well Volume Approach Sampling Other (Specify):	
WATER QUALITY INDICATOR PARAMETERS (continued)	20
Volume Depth to SEC or Dissolved	
Sampling Time Removed Water Drawdown Temp. pH Cond. Oxygen Turbidity ORP	Visual
Stage (military) (gallons) (Feet) (Feet) (°C) (SU) (μs/cm) (mg/L) (NTU) (mV)	Clarity
	Clear
	1 1
1503 1508 14.6 (1.72 1.244 1.17 3.49 188.6	
1500	1
	
NOTES (continued) ABBREVIATIONS	-
Cond. Actual Conductivity. OPP Ovidation Re	
Samples taken @1510 FT BTOC - Feet Below Top of Casing na - Not Applicable nm - Not Measured Temp - Temperature "C- Degrees Celcius" SEC - Specific Elect SU - Standard Units of the Company of the Com	,
Ferrous iron sampled@ 1580: Moder range	

dupe @ 1510

Site		ls repairs*		Yes	Mo	NA
Inspection Date <u>\$124 123</u>	to maintai	n well inte	grity?			
Well Number 27				-		
Stick-up Monitoring Wells				1	Comments	i.
L. Outer protective Casing	Yes	No	NA			
Not corroded		4				
Not dented		\perp				
Not cracked						
Not loose			l			
2. Inner casing	Yes	No	NA NA	1		
Not corroded		×				
Not dented						
Not cracked				•		
Not loose		1/				
	Yes	No	NA			
3. Are there weep holes in outer casing?	165	×	100	1		
4. Weep holes able to drain?		1	×			
5. Is there a lockable cap present?			^			
6. Is there a lock present?	<u>×</u>					
7. Bumper posts in good condition?						
7. Bumper posts in good condition?						
Flushmount Monitoring Wells	Yes	No	NA	1		
8. Can the lid be secured tightly?						
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?						
All Bancianian Malla	V		l NA	1		
All Monitoring Wells Downhole Condition	Yes	No	NA			
		1				
12. Water level measuring point clearly marked? 13. No obstructions in well?						
			-			
14. No plant roots or vegetation in well?		1				
15. No sediment in bottom of well?		Ψ_				
If present, how much sediment?	ft	4				
16. Installed as total depth.	ft	4				
17. Measured total depth of well.	ft]				
General Condition	Yes	No	NA	1		
18. Concrete pad installed?	×					
19 . Concrete pad						
Slope away form casing?		X				
Not deteriorated?		×				
Not heaved or below surrounding grade?		×				
20. No surface seal settling?	-	X				
21. Well clearly visible and labeled?	×					
* Major well repair are those that require a subsection	tractor or com	arato meh	ilization to	complete		
21. Well clearly visible and labeled?Comments:* Major well repair are those that require a subcon	tractor or sep	parate mob	ilization to o	complete		

					PROJECT II	NFORMATIO	N				TILIV-207
	Site:					Client					
Project Nur				Task #:		Start Date	0104			Time: US	220
Field Perso		MBLAT				Finish Date	8,0			Time:	121
	WELL INFO					EVENT TYPE					
	Well ID: 14	cn 27		Well Develop	ment			ow Stress Sar	molina		
(Casing ID:		inches	Well Volume		mpling	Other (Specify		···p·····g		
			٧	VATER QUALITY	Y INDICATO	OR PARAME	TERS (conti	nued)			
0	-	Volume	Depth t	to			SEC or	Dissolved			
Sampling Stage	Time	Removed	Water		Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Otage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
PURGE	0824	0.1									
Shople	0828	0.1			12.9	701	10 (10)	10 15			CLEAR
70 (11	0833	1				7.21	0.819	0.50	13:75	0.1	
	0938				13.0	7.20	0-217	0.09	25.15	20.3	
	0943				12.3	7.24	0.813	0.00	533	-29-8	
	0848	0 794			12.4	7.32	0-816	0.04	46.77	-31.5	
	0853	3.0			12-5	1.33	0.016	2.06	47.09	-32.9	
	0854	5.0			12.5	1.45	0-816	0.07	48.87	-33.1	
	000										
			NOTES	(continued)					ADDES	TIONS	
F111	NOUD		110120	(Jonanaea)	-			Cond Actual Conduct	ABBREVIA [*]	ORP - Oxidation-Redu	ction Potential
Soute	WHR © 091	00		FT BTOC na - Not			FT BTOC - Feet Below na - Nol Applicable nm - Nol Measured	FT BTOC - Feet Below Top of Casing SEC - Specific Electrical Conductance SU - Standard Units			
70.11-20 - 10-										D - Duglieus Celdins	
					198						

Site Hennebi	1,14	Major well	s repairs* i	required	Yes	No	NA				
	200	to maintaiı	n well integ	vell integrity?							
Well Number HEN-02											
Stick-up Monitoring W	<u>ells</u>					Comments	4				
1. Outer protective Casing		Yes	No	NA							
Not corroded			X								
Not dented			1								
Not cracked											
Not loose			0								
1											
2. Inner casing		Yes	No	NA							
Not corroded			CX								
Not dented											
Not cracked											
Not loose			- 1								
1100 10050		Yes	No	NA NA							
3. Are there weep holes in outer casi	ng?	163	X	IVA							
4. Weep holes able to drain?	116:		- 0	~							
5. Is there a lockable cap present?		R		X							
6. Is there a lock present?											
i i		4									
7. Bumper posts in good condition?		•									
Eluchmount Monitoring	Melle		NI-	NIA	Z ×						
8. Can the lid be secured tightly?	weiis	Yes	No	NA X							
9. Does the lid have a gasket that sea	la D	-		Ŷ							
10. No water in the flushmount?	15 ?			1							
11. Is the well cap lockable?											
12. Is there a lock present?				4							
All Bandandandan tarall		F			pi.						
All Monitoring Wells	į	Yes	No	NA							
Downhole Condition							~				
12. Water level measuring point clea	rly marked?			X							
13. No obstructions in well?			X								
14. No plant roots or vegetation in w	ell?										
15. No sediment in bottom of well?			4								
If present, how much sediment?		— ft									
16. Installed as total depth.		ft									
17. Measured total depth of well.		47.109ft									
Lane.											
General Condition		Yes	No	NA							
18. Concrete pad installed?		У									
19 . Concrete pad							_				
Slope away form casing?			X	**							
Not deteriorated?											
Not heaved or below surrounding	grade?		1								
20. No surface seal settling?			9								
21. Well clearly visible and labeled?		\propto									
Comments:											
	DTIN:41.	84¢+	:01/v	npin	stalle	d					
				310		w.)					
* Major well repair are those that rec	uire a subcontr	actor or sepa	arate mobi	lization to c	omplete						

COURSEL APPENDIX A.

APPENDIX A.

APPENDIX A.

ANDELL

ANDELL

ANDELL

HENNEPIN POWER PLANT, LANDFILL

					PROJECT I	NFORMATIO	N ,				HEN-257
		repin,I				Client	P-01	nboll			
Project Nun	nber:			Task #:		Start Date				Time: (0	25
Field Persor	nnel: <u>AIIIS</u>	on Beck	ext			Finish Date	JUH1.	5			20
1	WELL INFO	RMATION					EVENT	TYPE			
	Well ID: 1	EN-02		Well Develop	oment	X	Low-Flow / L	ow Stress Sa	mplina		
C	asing ID:		inches	Well Volume	Approach Sa		Other (Specify				
			WA	TER QUALIT	Y INDICATO	OR PARAME	TERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	1031		41.17		15.4	7.12	0.679	5.70	5.80	150.5	Clear
	1037	-	417		14.2	16.01	0.087	0.63	5.08	172.7	
	1041	2.0	41.17		14-0	10.78	0.685	0.38	5.12	174.3	
	1647	2 0	41.10		14.1	(0.8)	0.484	0.31	4.34	172.3	
	1052	3.0	41.15		14.0	U. 93	0.484	0.27	3.99	170.8	
	1057	21			14.0	6.83	0.086	0.27	4.17	170.1	
	1102	4.0			14.0	(1.83	0.085	0.24	3.85	1109.1	V
				1							
				(continued)					ABBREVIA		
Sa	mple	s tak	en C	5 1105 N SAM				Cond Actual Conduc FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	
*/	NO FE	RROUS	IRO!	u SAM	PLEX						

Site	HennepinIL	Major well	s repairs* i	required	Yes	No	NA
Inspection Date	9/21/23 (O) 1010	to maintair	า well integ	grity?		X	
Well Number	HEN-XPNOZ-POYE						
Stic	k-up Monitoring Wells					Comments	
1. Outer protecti	ve Casing	Yes	No	NA			
Not corroded			V				
Not dented			T				
Not cracked							
Not loose			4				
2. Inner casing		Yes	No	NA			
Not corroded			×				
Not dented			j				
Not cracked							
Not loose			V				
		Yes	No	NA			
3. Are there weer	p holes in outer casing?		X				
4. Weep holes ab				×			
5. Is there a locka		×					
6. Is there a lock							
	in good condition?	4					
Transper posts	Sood condition.						
Flush	mount Monitoring Wells	Yes	No	NA			
8. Can the lid be		163	NO	X			
	ive a gasket that seals?			X .			
10. No water in the	_						
11. Is the well cap							
12. Is there a lock				5			
12. IS there a lock	C present:						
	All Monitoring Wells	Yes	No	NA	Î		
Downhole Condi		1ES	INU	INA			
	neasuring point clearly marked?			~			_
13. No obstructio			X	X			
	s or vegetation in well?		^				
	in bottom of well?	-	1				
	w much sediment?		<u> </u>				
16. Installed as to		-> ft					
17. Measured tot		ft					
17. Measured tot	ar depth of well.	P ft					
General Conditio	n	Ves I	NI-	NA T			
		Yes	No	NA			
18. Concrete pad 19. Concrete pad		×					
			5000 K				
Slope away fo	_		<u> </u>				
Not deteriorat		-					
	below surrounding grade?						
20. No surface se	_		4				
	isible and labeled?	X					
Comments:							
	DTW:	14.39.44					
122							
* Major well repa	ir are those that require a subcontr	actor or sepa	arate mobi	lization to c	omplete		

HENNEPIN POWER PLANT, LANDFILL

						PROJECT IN	IFORMATIO	N				HEN-25
	Site:					TROOLOT III	Client:					
Project Num					Task #:		Start Date:		112		Time: 1/2	52
	nnel: The	-BM					Finish Date:		165		Time: 174	
V	WELL INFOR	RMATION						EVENT	TYPE			
	Well ID: X	2uoz			Well Develop	ment		Low-Flow / L	ow Stress Sar	nplina		
С	asing ID:		inches	□ v	Well Volume	Approach Sai	mpling \square	Other (Specify		, ,		
	WATER QUALITY INDICATOR PARAMETERS (continued)											
	Volume Depth to SEC or Dissolved											
Sampling	Time	Removed	Wate	r	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)		(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
pae	12-56	4	19.0		- 20 10							
purge	1304	0.1	14.19		-0.16	19.4	10 .3	5 4	0.00	## A C	1.66	CLEAR
SAMPLE	1308	1.0	14.5		-0.31		12.03	3.071	0.91	89.87	-116.0	
	1318		14.9	_	-0.36	19.2	12.13	3.111	0.21	59.77	-155.7	
	1323	2.5	15.0		-0.18	19.3	12.14	3.109	0.14	40.43	-165.2	
	1328	2.3	15	2	-0.03		12.16		0.12	28.61	-1685	
	1333		15.17		0.02	19.8	12.17	3 1/3	0.12	2394	-157.5	
	1338	3,25	15.15		8	19.7	12.17	3.191	0.12	23.65	-152.3	
	1320	2,43	15.13	'	٩	11,5	1211/	3.19(1	0.12	29.05	148,4	
				-								
				_								\vdash
				-								
				$\neg \uparrow$								
			NOTE	S (co	ntinued)					ABBREVIA	TIONS	
FI-	0.109	115	NOTE	00)	minueu)				Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured	tivity	ORP - Oxidation-Redi SEC - Specific Electri SU - Standard Units Temp - Temperature *C - Degrees Celcius	
5m	0.109 PU-13 B-1	345										2

Site Hennepin, IL	Major well	ls repairs*	required	Yes	No	NA
Inspection Date 8/21/23 @ 1005	to maintai	n well inte	grity?		Х	
Well Number HENXPWOI - Porce					7.	
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded		X				
Not dented		Ť				
Not cracked						
Not loose		1				
2. Inner casing	Yes	No	NA			
Not corroded		¥				
Not dented						
Not cracked						
Not loose						
Not loose	Yes	No	NA NA			
2 Are there ween helps in outer essing?	162	X	INA			
3. Are there weep holes in outer casing?		-^	_			
4. Weep holes able to drain?	/		\times			
5. Is there a lockable cap present?	×					
6. Is there a lock present?	X					
7. Bumper posts in good condition?	X					
Flushers and Bessies in 200-11-	l v			1		
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?			 		_	
9. Does the lid have a gasket that seals?			-1			
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			V			
				(mark)		
All Monitoring Wells	Yes	No	NA			
Downhole Condition			- N			<u> </u>
12. Water level measuring point clearly marked?	-		Ø			
13. No obstructions in well?	_ (_	X				
14. No plant roots or vegetation in well?		X				
15. No sediment in bottom of well?		X	-			
If present, how much sediment?	ft Manager					
16. Installed as total depth.	ft					
17. Measured total depth of well.	17.13 ft					
					150	
General Condition	Yes	No	NA			
18. Concrete pad installed?						
19 . Concrete pad						
Slope away form casing?		R				
Not deteriorated?)				
Not heaved or below surrounding grade?						
20. No surface seal settling?		+				
21. Well clearly visible and labeled?	x					
Comments:					<u> </u>	
Dtw: 9	4564	BOF	tohn of	casino	17.12	FL
Z11V.		12-1		C	11110	1.7
* Major well repair are those that require a subcontri	actor or sep	arate mob	lization to c	omplete		

HEN-257-801

					PROJECT II	NFORMATIO					
	Site:					_ Client:					
Project Nun				Task #:		_ Start Date:		123		Time: 11	15
Field Perso		Keng Oy				_ Finish Date:	0101	10)		_ Time: 🔟	20
1	WELL INFO						EVENT	TYPE			
	Well ID:	Putl		☐ Well Develop	ment	Ø	Low-Flow / L	ow Stress Sar	mpling		
Casing ID: inches Well Volume Approach Sampling Other (Specify):											
			WA	TER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth to				SEC or	Dissolved		1	
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Pre	IRS		9.45								
Punge	1/30	0.1	1.45	<u> </u>							CLEAR
SOMPLE	1135	0.75	9.45	88	19.5	11.30	0.783	0.37	4.22	-241.6	
	1140		9.45	8	19.5	11.31	0.795	0.22	10.51	-242,4	
	1145	1.0	9.45	S	18.8	11-33	0-801	0.17	13.54	-244.1	
	1150		4:45	8	19.0	11.33	0.804	0-11	17.05	-248.5	
	1155		9.45	8	19.2	11.34	0.608	0.11	21.53	-259,5	
	1700	1.25	9.45	Q	17.6	11,39	0.815	0.11	54109	-271.9	
	1705		9.45	8	17.7	11,39	0.817	0.10	57.11	-278.6	
	1210	3.5	9.45	Ø	17.7		0.818	0.10	55,97	-279.1	
						- 4	0.4		00.		
	···	/	NOTES	(continued)					ABBREVIA	TIONS	
Gomel	WYSOL WARMEN	Sunt (a mi	5				Cond Actual Condu FT BTOC - Feet Belov na - Not Applicable nm - Not Measured	clivity	ORP - Oxidation-Redi SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	

Site	HennalpinIL	Major well	s repairs* r	Yes	No	NA	
Inspection Date	8/21/23 @/ 10/20	to maintaiı	n well integ	rity?		メ	
Well Number	HEN-XPNO3-POVE						
	70.0						
Stic	k-up Monitoring Wells					Comments	
1. Outer protectiv		Yes	No	NA	Ì		•
Not corroded		1.05	×	1			
Not dented							
Not cracked		-					
Not loose			1				
1101 10036			_ Y				
2 Innor casing		V	NI-	NIA	l		
2. Inner casing Not corroded		Yes	No	NA			
			X				
Not dented							
Not cracked							
Not loose			4				
		Yes	No	NA			
	o holes in outer casing?		Ø.				
4. Weep holes ab	le to drain?			α			
5. Is there a locka	ble cap present?	\propto					
6. Is there a lock	present?	1					
7. Bumper posts i	in good condition?	4					
					-		
Flushr	mount Monitoring Wells	Yes	No	NA			
8. Can the lid be s				X	-		
	ve a gasket that seals?			i			
10. No water in th	_						
11. Is the well cap							
12. Is there a lock				1			
12. IS there a lock	A present:						
	II Bandanina Malla			214	P.		
	All Monitoring Wells	Yes	No	NA			
Downhole Condit							_
	neasuring point clearly marked?		5/	X	-		
13. No obstructio			×				
	s or vegetation in well?						
	in bottom of well?		<u> </u>				
If present, how	w much sediment?	ft ft					
16. Installed as to	tal depth.	ft					
17. Measured tot	al depth of well.	19.11 ft					
General Conditio	n	Yes	No	NA			
18. Concrete pad	installed?	X					
19 . Concrete pad							
Slope away fo			×				
Not deteriorat	_		1				
	below surrounding grade?						
20. No surface sea			4				
1	isible and labeled?	J					
Comments:	SIME BITO IBUCICO:						
Comments.		1601					
	DTW:9	BO++					
* 84=1	45 45 0						
" Major well repa	ir are those that require a subcontr	actor or sepa	arate mobi	lization to c	omplete		

HEN-257-801

					PROJECT I	NFORMATIC	N				
	Site:					Client	t:				
Project Num				Task #:		Start Date	\$101	2 103		Time: J Y	55
Field Persor	nnel: Trum	714				_ Finish Date	010	100		Time:	
1	WELL INFOR	RMATION					EVENT	TYPE			
	Well ID: XP	1403		☐ Well Deve	elopment		Low-Flow / L	ow Stress Sar	mpling		
С	asing ID:	1172	inches	☐ Well Volu	me Approach Sa	ımpling 🗌	Other (Specify	/):			
			V	VATER QUAI	ITY INDICATO	OR PARAME	TERS (conti	nued)			
		Volume	Depth t	to			SEC or	Dissolved			
Sampling	Time	Removed	Water	Drawdov	vn Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
PRE	1937		9.26								
	1500	1.0	5.16	-0-3		11. 1	1-41	0.82	5.		
	1506		5.16	8	16-7	11.71	1.141	0.82	592	-3.2	
	15(1		5.16	DO.	16.6	11.79	1.144	0-11	13.62	-22-1	
	1516	2	5.16	Ø	16:7	11:79	1.146	0-11	9.31	-30.8	
	152		5.16	B	16,8	11.78	1,149	0.10	9.28	-37,3	
	1526	2-5	5.16	Q	16.7	11.79	1149	0-11	9.97	-41.9	
	153						- CAL		i.		
	1536					<u> </u>					
			NOTE	S (continued	l)			1.5	ABBREVIA	TIONS	
FI	420E	2		24		-		Cond Actual Condu FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		ORP - Oxidation-Redu SEC - Specific Electric SU - Standard Units Temp - Temperature C - Degrees Celcius	
SAMPI	- 15	30					1				

Site Hennepin	Major wel	s repairs* ı	required	Yes	No	NA
Inspection Date 8/21/23 @ 00/55	to maintai	n well integ	grity?		X	
Well Number 10						
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded		χ				
Not dented		X				
Not cracked		X				
Not loose		~				
2 Inner easing		n	N/A	ľ		
2. Inner casing Not corroded	Yes	No ~	NA			
		\				
Not dented	-	\				
Not cracked		X				
Not loose		ス				
	Yes	No∍	NA			
3. Are there weep holes in outer casing?		XX				
4. Weep holes able to drain?			×			
5. Is there a lockable cap present?	X					
6. Is there a lock present?	7					
7. Bumper posts in good condition?						
Floral control and the second second			·			
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?	**		X			
9. Does the lid have a gasket that seals?			7			
10. No water in the flushmount?			Х			
11. Is the well cap lockable?			У			
12. Is there a lock present?			X			
All Monitoring Wells	Yes	No	NA	Ď.		
Downhole Condition	/C3	INO	INA			
12. Water level measuring point clearly marked?			ノ			
13. No obstructions in well?	-	\sim				
14. No plant roots or vegetation in well?		→				
15. No sediment in bottom of well?		$\overline{\checkmark}$				
If present, how much sediment?	- ft					
16. Installed as total depth.	- 10					
17. Measured total depth of well.	48 1051					
·	, 0.40.1					
General Condition	Yes	No	NA			
18. Concrete pad installed?	X					
19 . Concrete pad						
Slope away form casing?		X				
Not deteriorated?		Х				
Not heaved or below surrounding grade?		X				
20. No surface seal settling?		Х				
21. Well clearly visible and labeled?	χ					
Comments:						
DTW: 48.28 CX	Borton	nof co	asima	I ton of	nm	0 48.11
11	101101		.011.0	HAP A	LUM	70.0
* Major well repair are those that require a subcont	ractor or sep	arate mobi	lization to c	omplete		

Request of Counsel

ATTURNE AND CORRECTIVE ACTION REPORT

OF THE POWER PLANT, LANDFILL BAND CORRECTIVE ACTION TO THE HENNEPIN POWER PLANT, LANDFILL HEN-257-801

						PROJECT I	NFORMATIC	N				HEIN-23/
		Site: HEN	nepih,	IL			Client		1100			
	Project Nur		, ,		Task #	:	Start Date	2/2/11	17		Time: () 9	310
		nnel: <u>AIII</u>		XIX	2		Finish Date	01291	10		Time: 6	900
		WELL INFO						EVENT	TYPE			
		Well ID:	EN-10		☐ Well De	evelopment	X	Low-Flow / L	ow Stress Sa	mpling		
		asing ID:	2	inches	☐ Well Vo	lume Approach Sa	ampling 🔲	Other (Specify	/):			
	1			V	WATER QU	ALITY INDICATO	OR PARAME	TERS (conti	nued)			
		-	Volume	Depth	to			SEC or	Dissolved			
	Sampling	Time	Removed	Wate			рН	Cond	Oxygen	Turbidity	ORP	Visual
	Stage	(military)	(gallons)	(Feet			(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
ð		082)		48.19		22.8	7.15	0.1019	1.52	4.08	138. V	Clear
			2 0	48.12		23.1	7.06	0.422	0.73	4.50	1446	
		0826	2.0	49.12		23.1	7.05	0.024	0.67	7.00	144.2	
- 1		0834	20	48.12		23.1	7.04	0.025	0.85	10-15	142.8	
25		0841	3.6	48.1		23.2	7.04	0.625	0.53	4.50	141.8	
4-5		0071	3, 5	48-11		23.2	7.04	0.025	0.52	₩3.90	140.9	V
ı				-			-					
- 1							-					
ł												
										-		
ı										·		
ı								-				
ı												
ı				NOTE	S (continue)d)				ADDDENIA	T10110	
ı		1 .	<i>c</i> . 1 .			•			Cond Actual Conduc	ABBREVIA	ORP - Oxidation-Red	fuction Potential
	201	mple	s tax	-en	6/08	45			FT BTOC - Feet Below na - Not Applicable nm - Not Measured	v Top of Casing	SEC - Specific Electr SU - Slandard Unils Temp - Temperature "C - Degrees Celcius	
- 1		_				V						
	M) FER	POUS-	TRON	J SAN	1PIET						
	, ,	, , ,	-100	J (401	2 2/11	. 1 L O						
- 12												

Site Hunnepin		s repairs* r	-	Yes	No	NA
Inspection Date 3/21/23 @ 09	to maintair	n well integ	rity?		X	
Well Number 50	70					
Stick-up Monitoring Wells	<u> </u>			_	Comments	
1. Outer protective Casing	Yes	No	NA			
Not corroded						
Not dented		V				
Not cracked		/				
Not loose		V				
	·					
2. Inner casing	Yes	No	NA			
Not corroded						
Not dented	-	V				
Not cracked		VI				
Not loose		V				
	Yes	No	NA			
3. Are there weep holes in outer casing?		V		1		
4. Weep holes able to drain?		V				
5. Is there a lockable cap present?	-	V.				
6. Is there a lock present?		//				
7. Bumper posts in good condition?		V				
l l l l l l l l l l l l l l l l l l l	L					
Flushmount Monitoring Well	ls Yes	No	NA	1		
8. Can the lid be secured tightly?	100	-10	V			
9. Does the lid have a gasket that seals?			√			
10. No water in the flushmount?			×			
11. Is the well cap lockable?			X			
12. Is there a lock present?			V			
The state of the presents.						
All Monitoring Wells	Yes	No	NA	ľ		
Downhole Condition	163	INO	X			
12. Water level measuring point clearly n	narked?	~				
13. No obstructions in well?	narked:	~				
14. No plant roots or vegetation in well?		2				
15. No sediment in bottom of well?		S				
If present, how much sediment?	ft	_				
16. Installed as total depth.	ft					
17. Measured total depth of well.	ft					
17. Measured total depth of well.						
General Condition	V ₂₂	No T	ALA	ĺ		
18. Concrete pad installed?	Yes	No	NA			
19 . Concrete pad installed:	1					
Slope away form casing?	A-2.01	V				
Not deteriorated?		2				
	4-3	/				
Not heaved or below surrounding gra	ae?	· W				
20. No surface seal settling?	V					
21. Well clearly visible and labeled?						
Comments:						
w a de la constante de la cons						
* Major well repair are those that require	a subcontractor or sepa	arate mobili	zation to c	complete		

HENNEPIN POWER PLANT, LANDFILL HEN-257-801 PROJECT INFORMATION HennopinIL Ramball Client: Project Number: Task #: Start Date: Time: Field Personnel: All) 500 BP (12/4) Finish Date: Time: **WELL INFORMATION EVENT TYPE** Well ID: HEN-50 Well Development Low-Flow / Low Stress Sampling Casing ID: Well Volume Approach Sampling inches Other (Specify): WATER QUALITY INDICATOR PARAMETERS (continued) Volume Depth to SEC or Dissolved Sampling Time Removed Water Drawdown Temp. рΗ Cond. Oxygen Turbidity ORP Visual Stage (military) (gallons) (Feet) (Feet) (°C) (SU) (µs/cm) (mg/L) (NTU) Clarity (mV) 850 10 10.8 753 0.004 0.10 81.2 CLOOK **60** 03 11 7.50 0.50 384.4 110.7 TO S 2.0 14.8 1) 7.49 0.17 109.3 0.10104)) 4.31 38.5 4.0 16.7 0.12 4.00 87.2 11112 16.2 0.445 0.12 18.3.9 R 88.0 **NOTES** (continued) **ABBREVIATIONS** Samples taken @ 1725 Ferrors im sample & 1140: Underrange Cond. - Actual Conductivity ORP - Oxidation-Reduction Potential FT BTOC - Feet Below Top of Casing SEC - Specific Electrical Conductance na - Not Applicable SU - Standard Units nm - Not Measured Temp - Temperature *C - Degrees Celcius

9

Site	Major wel	Yes	No	NA		
Inspection Date 2125 123	_	n well inte	-		X	
Well Number YEN 34			,			
1 7						
Stick-up Monitoring Wells					Comments	;
1. Outer protective Casing	Yes	No	NA	Ī		
Not corroded		X				
Not dented		1				
Not cracked						
Not loose		1/				
				l		
2. Inner casing	Yes	No	NA	Ī		
Not corroded		×				
Not dented		×				
Not cracked						
Not loose		->				
1100 10050	Yes	No	NA NA			
3. Are there weep holes in outer casing?	163	X	IVA			
4. Weep holes able to drain?		~	1			
5. Is there a lockable cap present?	~	-	X			
6. Is there a lock present?	-					
l .	2					
7. Bumper posts in good condition?	_ ~					
Flushmount Monitoring Wells	Voc	No	NA /			
8. Can the lid be secured tightly?	Yes	No	NA/			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?		\sim				
11. Is the well cap lockable?			$\overline{}$			
12. Is there a lock present?						
A II A 4		****		ı		
All Monitoring Wells	Yes	No	NA *			
Downhole Condition		-X				
12. Water level measuring point clearly marked?		X				
13. No obstructions in well?		X_				
14. No plant roots or vegetation in well?		X/				
15. No sediment in bottom of well?		X				
If present, how much sediment?	ft	4				
16. Installed as total depth.	ft	2				
17. Measured total depth of well.	ft]				
			т	r:		
General Condition	Yes	No	NA			
18. Concrete pad installed?						
19 . Concrete pad						
Slope away form casing?		X				
Not deteriorated?		X				
Not heaved or below surrounding grade?		X				
20. No surface seal settling?		X				
21. Well clearly visible and labeled?	\prec					
Comments:	•					
* Major well repair are those that require a subcon	tractor or sep	arate mob	ilization to d	omplete		

	PROJECT INFORMATION											
	Site:					Client:						
Project Num				Task #:		Start Date:	9100	102		Time: (05	13	
Field Persor	nnel: TREM	BLOY				Finish Date:	0100	1125		Time: 110	(5	
٧	WELL INFOR						EVENT :	TYPE				
	Well ID: 10	5N 34		Well Develor				ow Stress Sar	npling			
C	asing ID:		inches	Well Volume	Approach Sar	mpling 🗌	Other (Specify)):				
			W	VATER QUALIT	Y INDICATO	R PARAME	TERS (conti	nued)				
		Volume	Depth to				SEC or	Dissolved				
Sampling	Time	Removed	Water		Temp.	pH	Cond.	Oxygen	Turbidity	ORP	Visual	
Parst	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	_
1 Milling	1095	0-1			+3-2	1.01	0.448	2.06	1402	116.2	CCEAR	_
	1100				13.7	7.21	0-948	2.06	14.02	-116.2	CLERR	
	1105				128	7.09	0966	0.25	7-80	-108.6		
	1110	2.5			12.8	7.08	0.969	0.21	6-54	410,4		
	1115				12.9	7-08	0.97 (0.22	5-51	711.2		
	1120				12.8	7-08	0-977	0.20	4.81	-110.7		
	125								,			
	1130											
	U.											
											1	
											. /	
											V	\supset
			NOTES	S (continued)					ABBREVIA [®]	TIONS		
FI- SAMPLI	- uner	25			×			Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured	tivity	ORP - Oxidation-Reduc SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius		

Site	Major wells repairs* required Yes No N					
Inspection Date Q125/23		n well inte		105	V	
Well Number HEN 49	to mame		Σ,			
THEIR GAT						
Stick-up Monitoring Wells					Comments	,
1. Outer protective Casing	Yes	No	T NA		comments	
Not corroded	103	110	l IVA			
Not dented		 ~	1			
Not cracked			 			
Not loose	ļ	H ,				
Not loose						
3 Inner easing		N.	I NA			
2. Inner casing	Yes	No	NA			
Not corroded		X				
Not dented						
Not cracked						
Not loose		A				
	Yes	No	NA			
3. Are there weep holes in outer casing?		X	200			
4. Weep holes able to drain?						
5. Is there a lockable cap present?	X		.,			
6. Is there a lock present?	\times					
7. Bumper posts in good condition?						
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?						
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?						
	9					
All Monitoring Wells	Yes	No	NA			
Downhole Condition		X				
12. Water level measuring point clearly marked?		X				
13. No obstructions in well?		X				
14. No plant roots or vegetation in well?		×				
15. No sediment in bottom of well?		×				
If present, how much sediment?	ft	~ /				
16. Installed as total depth.	ft	4				
17. Measured total depth of well.	ft	4				
		ı				
General Condition	Yes	No	NA]			
18. Concrete pad installed?	X	110				
19 . Concrete pad						
Slope away form casing?		\.				
Not deteriorated?	-	×				
Not heaved or below surrounding grade?		→				
20. No surface seal settling?		->				
-	~					
21. Well clearly visible and labeled?	\wedge					
Comments:	1911	1 12 12	3W22 - 22 m	701 0	V000	0.05
BATTERY WAS REPLACED +	would	NOT	CONNEC	7. Li	(L has	GAUGED
MAMMILY						
* Major well repair are those that require a subcont	ractor or sep	arate mobi	lization to co	omplete		

	PROJECT INFORMATION HEN-25/-801											
	Site: HPNY	repin, I	し			Client	Pambo	71)				
Project Num		, ,		Task #:		Start Date		コラ		Time: 00	125	
	No. of the latest and	on belli	-lf)			Finish Date	01/2	L3		Time: 40		
V	WELL INFO						EVENT	TYPE				
	Well ID: H	EN-49		Well Develop	ment	\times	Low-Flow / L	ow Stress Sar	npling			
С	asing ID:	2	inches	Well Volume	Approach Sa	mpling 🔲	Other (Specify):				
	WATER QUALITY INDICATOR PARAMETERS (continued)											
	Volume Depth to SEC or Dissolved											
Sampling	Time	Removed	Water	Drawdown	Temp.	pН	Cond	Oxygen	Turbidity	ORP	Visual	
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity	
19	137		19.45		15.5	7.21	0.700	12/0	72.1	71.5	Clear	
09	142	2.0	19.45		15.3	7.13	0.698	0.22	92.38	38.0	Brownen	urky
09	47	2.0	19.05			7.12	0.1078	0.17	110.79	48.10	1	·
09	52		19.65		18.4	7. [2	0.1018	0.15	122.4	57.7		
09	57	5.0	19. (14		15.4	7.12	0.607	0.13	101.	58.8		
10	102	8.0	19.45		15.3	7.12	0.498	0.12	122 9	50.1		
10	TREATION L		7 7.03		73, 3	7.12	0.000	0.11	123.6	58.2		
				-							-	
				1							1	
										-	+	
				4								
			NOTES (continued)	-				ARRDE\/IA	TIONS		
Carre	NOTES (continued) Cond Actual Conductivity ORP - Oxidation-Reduction Potential											
SOMPUS TAKEN © 1105° FITTOC - Feel Below Top of Casing no. Not Applicable no. Not Applicable no. Not Magazined										SEC - Specific Electric SU - Standard Units		
	1							nm - Not Measured		Temp - Temperature *C - Degrees Celcius		
100	CNIC	ivan	00100	1010 (2)	1020-1	Maln	VIIMO					
441	ZVUY	14011	2011/1	YU W	10.70.	/! \/\\'	ining	1				
	Ferrous iron sample @ 1030: Walrrange											

SITE HENNIDING L	Major wells i	-		Yes	No	NA NA
Inspection Date 8/28/23 68/5	to maintain v	vell inte	grity? [X	
Well Number #EN-1 W						
Stick-up Monitoring Wells					Comment	s
1. Outer protective Casing	Yes	No	NA]		Comment	= 0
Not corroded	165	√	10,			
Not dented		1				
Not cracked						
Not loose	-	ري	1			
Not loose	3					
2. Inner casing	Yes	No	NA			
Not corroded		Ø.				
Not dented						
Not cracked						
Not loose		7				
	Yes	No	NA I			
3. Are there weep holes in outer casing?		χ				
4. Weep holes able to drain?			y			
5. Is there a lockable cap present?	7					
6. Is there a lock present?	1					
7. Bumper posts in good condition?						
7. Bumper posts in good condition:						
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?			X			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?			V			
All Manifeston Malla	Г у. Т					
All Monitoring Wells Downhole Condition	Yes	No	NA			
12. Water level measuring point clearly marked?		2)	×			
13. No obstructions in well?		K				
14. No plant roots or vegetation in well?			-			
15. No sediment in bottom of well?		~				
If present, how much sediment?	ft					
16. Installed as total depth.	ft					
17. Measured total depth of well.	ft					
General Condition	Yes	No	T NA T			
18. Concrete pad installed?	*	×	 '''`			
19 . Concrete pad	- A	303/				
Slope away form casing?			N			
Not deteriorated?	-		1			
Not heaved or below surrounding grade?						
20. No surface seal settling?			4			
21. Well clearly visible and labeled? Comments:	7					

* Major well repair are those that require a subcontractor or separate mobilization to complete

Prixileged and Confidential Attor

Work Product. Prepared at the Request of Counsel.

APPENDIX A.

APPENDIX A.

APPENDIX A.

HENNEPIN POWER PLANT. LANDFILL

HEN-257-801 PROJECT INFORMATION Site: Hennelain, IL Client: Rambol Project Number: Start Date: 8/28/23 Task #: 0800 Time: Field Personnel: allison Beckell DOMS Time: WELL INFORMATION **EVENT TYPE** Well ID: 45N-10 Well Development Low-Flow / Low Stress Sampling Casing ID: inches Well Volume Approach Sampling Other (Specify): WATER QUALITY INDICATOR PARAMETERS (continued) Volume Depth to SEC or Dissolved Sampling Time Removed Water Drawdown Temp. рΗ Cond. Oxygen Turbidity ORP Visual Stage (military) (gallons) (Feet) (Feet) (°C) (SU) (µs/cm) (mg/L) (NTU) (mV) Clarity 0808 53.90 19.9 7.47 0.550 8.13 4.40 114.5 clour 0813 53.00 7.23 22.5 0.553 131.4 1.41 3.88 0818 53.90 22.7 0.554 7.23 1.2 3.92 131.1 0823 1.0 53.90 22.8 0.556 0.53 3.85 126.8 0828 53.90 22.8 723 0.556 3.89 0.41 123.5 0833 7.0 53.90 7.23 0.556 22.8 3.99 0.37 122.7 **NOTES** (continued) **ABBREVIATIONS** Samples taken @ 0835 Ferrous iron sample @0850: Vhdlr ond - Actual Conductivity ORP - Oxidation-Reduction Potential FT BTOC - Feet Below Top of Casing SEC - Specific Electrical Conductance na - Not Applicable SU - Standard Units Temp - Temperature m - Not Measured *C - Degrees Celcius

Privileged and Confidential, Attorney Work Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel. APPENDIX A. Subject to Chang Monitorian University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prepared at the Request of Counsel University Product. Prep

Site	- Henrepin, IL	Major well	s repairs*	required	Yes	No	NA
Inspection Date	8128123 @ 0915	to maintai	n well inte	grity?		X	
Well Number	HEN-L7						
Stic	k-up Monitoring Wells					Comments	
1. Outer protectiv	ve Casing	Yes	No	NA	1		
Not corroded			X				
Not dented							
Not cracked				1			
Not loose			+				
		-	- 4				
2. Inner casing		Yes	No	T NA	1		
Not corroded			メ				
Not dented							
Not cracked							
Not loose			4				
1101 10000		Yes	No	NA NA			
3 Are there week	o holes in outer casing?	163	V	I IVA	-		
4. Weep holes ab	_		_	X			
5. Is there a locka		\sim		10	-		
6. Is there a lock		7					
1	in good condition?	12	42				
7. Bumper posts	in good condition?	4					
Eluch	mount Monitoring Molls	V	N.a.	LNA	1		
	mount Monitoring Wells	Yes	No	NA NA	_		
8. Can the lid be				X	-		
1	ve a gasket that seals?						
10. No water in the				\vdash			
11. Is the well can							
12. Is there a lock	c present?			$\perp \Psi$			
					-		
	All Monitoring Wells	Yes	No	NA			
Downhole Condi		*					
	neasuring point clearly marked?			- X			
13. No obstruction	ns in well?		\propto	17			
1	s or vegetation in well?		1				
	in bottom of well?		+				
If present, how	w much sediment?	ft ft					
16. Installed as to	otal depth.	ft					
17. Measured tot	al depth of well.	ft ft					
			11:		_		
General Conditio	n	Yes	No	NA			
18. Concrete pad	installed?	×					
19 . Concrete pac	I	-					
Slope away fo	rm casing?		\propto			40	
Not deteriora	ted?	OX.			CMAL	KLA	
Not heaved or	below surrounding grade?	メ			Crail	11	
20. No surface se			X		010.00	-0-1	
	isible and labeled?	×					
Comments:							
	T.T. 1.	20.					
	DIW	on ay	d.				
* Major well repa	ir are those that require a subcont	ractor or sep	arate mob	ilization to	complete		

HENNEPIN POWER PLANT, LANDFILL

					PROJECT II	NFORMATIO	N				HEN-257-
	Site: HRAY	UpinIL				Client	_ Kain	10011			
Project Num		. ,		Task #:		Start Date		7		Time: () e	105
	nnel: 📆 🍴 🖔		Xf			_ Finish Date	- 10012	,)		Time: 101	30
	WELL INFO						EVENT	TYPE			
_		FI-113		Well Develop		\boxtimes	Low-Flow / L	ow Stress Sa	mpling		
С	asing ID:	2	inches	Well Volume	Approach Sa	mpling 🔲	Other (Specify	/):			
		,	W	ATER QUALIT	Y INDICATO	OR PARAME	TERS (conti	nued)			
	-	Volume	Depth t				SEC or	Dissolved			
Sampling	Time	Removed	Water		Temp.	рH	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
	0911				22.4	7.15	0.545	5.91	5.00	137.9	clear
	0921				22.7	7.35	0.514	4.13	3.97	140.7	+1——
	0924	1.0			22.5	7.35	0.508	10.00	4.08	144.3	
	0931	7.0			22.4	7.35	0.508	(0.00	3.96	146.5	\square
	0920	2.0				7.34	0.507	5.88	3.99	147.0	
	0 10 0	0.0		_	22.4	7.54	0. Sole	5.76	4.02	148.2	V-
									-		
										-	
									-	-	
										-	
										-	
			NOTES	(continued)					APPDENTA	TIONS	
								Cond Actual Condu		ORP - Oxidation-Redi	uction Potential
Su	mple	s tak	en e	90940				FT BTOC - Feet Belor na - Not Applicable nm - Not Measured	w Top of Casing	SEC - Specific Electri SU - Standard Units Temp - Temperature "C - Degrees Celcus	cal Conductance
+				O 500	1000	1 -					
t-l	YVOUS	ivon s	amp	ole @ 09	45 · M	alrr	unge				

aupe @,0940

Site	Major wel	lls repairs*	required	Yes	No	NA
Inspection Date SIU		in well inte				
Well Number 0312						
Stick-up Monitoring Wells					Comments	į
Outer protective Casing	Yes	No	NA			
Not corroded		X				
Not dented		X				
Not cracked		×				
Not loose		X				
		-				
2. Inner casing	Yes	No	NA			
Not corroded		\times				
Not dented		×				
Not cracked		X				
Not loose		X				
	Yes	No	NA.			
3. Are there weep holes in outer casing?		X	800			
4. Weep holes able to drain?	×		TAN			
5. Is there a lockable cap present?	×					
6. Is there a lock present?	×					
7. Bumper posts in good condition?	X					
			-			
Flushmount Monitoring Wells	Yes	No	NA			
8. Can the lid be secured tightly?						
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?		/				
11. Is the well cap lockable?						
12. Is there a lock present?						
All Monitoring Wells	Yes	No	NA			
Downhole Condition		×				
12. Water level measuring point clearly marked?		*				
13. No obstructions in well?		×				
14. No plant roots or vegetation in well?		X				
15. No sediment in bottom of well?		X				
If present, how much sediment?	ft					
16. Installed as total depth.	ft	1				
17. Measured total depth of well.	ft	1				
		•				
General Condition	Yes	No	NA			
18. Concrete pad installed?	\times					
19 . Concrete pad						
Slope away form casing?		X				
Not deteriorated?		×				
Not heaved or below surrounding grade?		X				
20. No surface seal settling?	- ×	X				
21. Well clearly visible and labeled?	×					
Comments:						

					F	PROJECT IN	IFORMATIO	N				TEN-23
	Site:						Client					
Project Nur	mber:				Task #:		Start Date	0100	F ()		Time: 🗪	36
Field Perso	onnel:	EMBLA					Finish Date:	010)		Time: (2	<u>. </u>
	WELL INFO							EVENT	TYPE			
	Well ID:	3t			Well Develop	ment		Low-Flow / L	ow Stress San	npling		
(Casing ID:		inches		Well Volume	Approach Sar	mpling 🔲	Other (Specify):			
			V	VAT	TER QUALITY	/ INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth					SEC or	Dissolved			
Sampling	Time	Removed	Wate		Drawdown	Temp.	pН	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet)		(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
Pullac	0905	0.1				16 -	2 20	0	An.		115	CCERR
SWRIE	0920					16,5	7.22	0.655	0.8	10.85	T SH've	
	0925	1.0				18-2	7.21	0.653	0.32	5.46	137.8	
	0930					18-2	7.21	0.653	0-22	3.81	1329	
	0935					18.3	7.21	0-653	0.23	2.99	129.4	
	0940	2.25				163	7.20	0.652	0.2	254	126.9	
	oque											
	0150	1		_								
	0955											
								ļ				
			NOTE	S (d	continued)				Cond Actual Conduc	ABBREVIA'	TIONS ORP - Oxidation-Redu	allar Developer
1	UNDE	e							FT BTOC - Feet Below na - Not Applicable nm - Not Measured		SEC - Specific Electric SU - Standard Units Temp - Temperature *C - Degrees Celcius	
50m	MO OU	X										

Site	Major we	lls repairs*	required	Yes	No,	NA
Inspection Date 8/28/23		in well inte				
Well Number 125						-
Stick-up Monitoring Wells					Comments	
1. Outer protective Casing	Yes	No	NA	Ì		
Not corroded		X				
Not dented						
Not cracked						
Not loose		1/				
2. Inner casing	Yes	No	NA NA	1		
Not corroded		X				
Not dented		17				
Not cracked						
Not loose						
	Yes	No	NA NA			
3. Are there weep holes in outer casing?	100	×				
4. Weep holes able to drain?		- /-	X			
5. Is there a lockable cap present?	×					
6. Is there a lock present?	1					
7. Bumper posts in good condition?	1					
7. Bumper posts in good condition:						
Flushmount Monitoring Wells	Yes	No	NA	İ		
8. Can the lid be secured tightly?	163	110	INC			
9. Does the lid have a gasket that seals?						
10. No water in the flushmount?						
11. Is the well cap lockable?						
12. Is there a lock present?		 				
22. 15 there a lock present:		L .	$\overline{}$			
All Monitoring Wells	Yes	No	NA			
Downhole Condition	163	INU	INA			_
12. Water level measuring point clearly marked?	-	+ <				
13. No obstructions in well?		$+ \bigcirc -$				
14. No plant roots or vegetation in well?		X				
15. No sediment in bottom of well?	-	- C				
If present, how much sediment?				,		
16. Installed as total depth.	ft	-				
17. Measured total depth of well.	ft	-				
177. Measured total depth of well.	ft	.]				
General Condition	Voc	No	l NA			
18. Concrete pad installed?	Yes	No	NA			
19 . Concrete pad						
Slope away form casing?		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				
Not deteriorated?		X				
		X		-		
Not heaved or below surrounding grade?		X,				
20. No surface seal settling?	~~	X_				
21. Well clearly visible and labeled?	L _X					
Comments:						
* ***						
* Major well repair are those that require a subcont	ractor or sep	parate mob	ilization to c	omplete		

HEN-257-801

					F	PROJECT IN	IFORMATIO	N				
	Site:						Client				P10814	
Project Nun					Task #:		Start Date:	0100	7/22		_ Time: 💇	300
Field Perso	nnel: Tea	43/1					Finish Date:		3143		Time: 😘	05
	WELL INFO						3	EVENT	TYPE			
	Well ID: 18	5			Well Develop	ment	×	Low-Flow / L	ow Stress Sar	npling		
	Casing ID:		inches		Well Volume	Approach Sai	mpling \square	Other (Specify):			
			V	VAT	ER QUALITY	/ INDICATO	R PARAME	TERS (conti	nued)			
		Volume	Depth					SEC or	Dissolved			
Sampling	Time	Removed	Wate		Drawdown	Temp.	pH	Cond.	Oxygen	Turbidity	ORP	Visual
Stage	(military)	(gallons)	(Feet))	(Feet)	(°C)	(SU)	(µs/cm)	(mg/L)	(NTU)	(mV)	Clarity
pulle	08(0	0.25	-			16.6	200	100 1111			7 4 . 5	CLEAR
	0811		-			16-8	7.52	0.686		5-45	1040	
	0816		-			16-7	7.39	0.661	0.42	3.20	103.2	
	0821	0 - 6	-			16.8	7.39	0.661	0.26	2.61	28-1	
	0426	2,25	-			(6.8	7.38	0.661	0.22	2.49	15.5	
	093	2-5	-			16-8	7.38	0.661	0-20	2.46	94.1	
	0936		-								ļ	ļ
	034)										ļ	
	0846		-									
			ļ									
	-										ļ	
			-									
	,									L		
			NOTE	S (c	ontinued)				Cond Actual Conduc	ABBREVIA	TIONS ORP - Oxidation-Red	untion Potential
FI- 0835, sweet	UNDE								FT BTOC - Feet Belov na - Not Applicable nm - Not Measured		SEC - Specific Electri SU - Slandard Units Temp - Temperature *C - Degrees Celcius	ical Conductance
0822	5										and the second second	
Surgel -												
710												

Site	Hennepin, IL	Major well:	•	•	Yes	No	NA
Inspection Date	8/21/23 @1125	to maintair	า well inte	grity?		X	
Well Number	HEN- 452						
<u>Stic</u>	k-up Monitoring Wells					Comments	i i
1. Outer protective	ve Casing	Yes	No	NA			
Not corroded			Х	1			
Not dented			1	2			
Not cracked				4			
Not loose			1	\$			
2. Inner casing		Yes	No	NA			
Not corroded			Х				
Not dented			1				
Not cracked							
Not loose			1				
		Yes	No	NA			
3. Are there week	o holes in outer casing?		Ά		1		
4. Weep holes ab			_^	K			
5. Is there a locka		X		5			
6. Is there a lock							
	in good condition?	1					
Tribumper posts	an good condition.						
Flushi	mount Monitoring Wells	Yes	No	NA NA	1		
8. Can the lid be s		103	110	24			
1	ve a gasket that seals?	-		<u> </u>			
10. No water in the							
11. Is the well cap							
12. Is there a lock				N N			
12. Is there a lock	r present:						
_	all Monitoring Wells	Yes	No	NA NA	1		
Downhole Condi		163	NO	IVA			
	neasuring point clearly marked?			X			
13. No obstructio			×	1			
	s or vegetation in well?		1				
	in bottom of well?		D				
1	w much sediment?		A				
I '		- ft					
16. Installed as to		ft					
17. Measured tot	ai depth of well.	3019 ft					
General Conditio	_	L Voc I			1		
18. Concrete pad		Yes	No	NA			
19 . Concrete pad		_ ^					
Slope away fo	_		<u>X</u>				
Not deteriorat							
	below surrounding grade?						
20. No surface se	_		A				
	sible and labeled?	X					
Comments:							
	DTW:	18.78	pyn	nio ins	stalled	d	
			1362 153	1			
* Major well repa	ir are those that require a subcont	ractor or sepa	arate mobi	lization to	complete		

HEN-257				N	NFORMATIO	PROJECT IN					
			1)	Pambo	Client				upin, Id	Site: HPNY	
140	Time: 10		172		Start Date		Task #:				Project Nun
	Time: 🔟		0)	_0/20/	Finish Date			Cett.	SON BEC	The second second	
			TYPE	EVENT						WELL INFO	
		mpling	ow Stress Sar	Low-Flow / L	X		Well Develop		EN-45.C		
):	Other (Specify	mpling 🔲	Approach Sa	Well Volume	inches		asing ID:	
			nued)	TERS (conti	R PARAME	Y INDICATO	ER QUALIT	WAT			
Visual Clarity	ORP (mV)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	SEC or Cond, (µs/cm)	pH (SU)	Temp. (°C)	Drawdown (Feet)	Depth to Water (Feet)	Volume Removed (gallons)	Time (military)	Sampling Stage
Clear	57.9	9.13	3.27	0.700	7.32	19.3		18.98		1044	
Brown/mu	108.9	148.24	0.25	0.641	7.17	19.1		18.97		1049	
1	111.7	130.12	0.72	0.040	7.17	19.1		18.98	2.5	1054	
	1110.1	89.9	0.19	0.040	7-16	19-1		18-98		1059	
	118.4	U\$7.30	0.18	0. 640	7.16	19.1		18-98		1104	
. //	119.2	54.30	0.17	0.440	7.10	19.1		18-98	5.0	1109	
Ψ	120.2	55.66	0.17	0.1140	W7:1V	19.1		12.98		111894	
	TIONS	ABBREVIAT					ontinued)	NOTES (c			
ical Conductance	ORP - Oxidation-Rec SEC - Specific Electi SU - Standard Units Temp - Temperature "C - Dagraes Celcius	Top of Casing	Cond Actual Conduc FT BTOC - Feet Below na - Not Applicable nm - Not Measured				Mark 1115		taku s ivon	•	

SAR-3: Episodic Depth to Groundwater Measurements All DTWs on SAR-3 must be collected within 24 hours.

Plant:

HEN

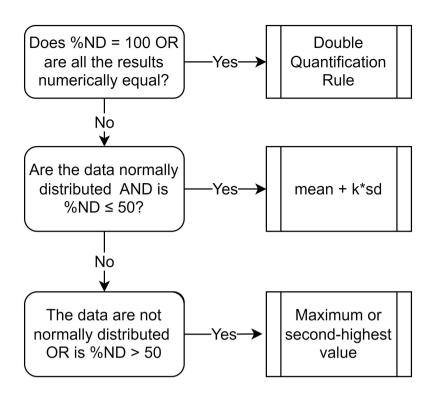
Event:

HEN-23Q3 Rev 0

Well	Unique ID	Date	Time	Measured Depth to Water (ft bmp)		Initials
					Comments	
02	HEN_02	8121123	1200	41-84	- 4	ű
04R	HEN_04R	8/21/23	1035	37-08	Ī.	U
05R	HEN_05!R	8121/23	1105	38.69	£	a
05DR	HEN 05&DR	812123	1115	38.73		A
06	HEN_06	8/21/23	1140	20.8		U
10	HEN_10	8121123	0955	48-28		q
11	HEN_11	8/21/23	0950	48-33		a
15	HEN_15	8121123	1030	47.19	8	F
195	HEN_19#S	8121/23	1045	37.2	= 54	a
19D	HEN_19&D	8121123	1040	37.34	1 4	CF
25	HEN_25	8122123	0945	14.02	******	A
26	HEN_26	8122123	0940	13.26		Cq
30	HEN_30	8122123	(000)	4.85	=	Œ
31	HEN_31	8122123	0955	4-85		G
33	HEN_33	8122123	1018	2.8	۸	G
36	HEN_36	8/22/23	0930	13.58		G
40S	HEN_40#S	8121/23	1050	37-92		CF
45S	HEN_45#S	8121123	1125	18-98		CT
48	HEN_48	8121123	1085	N/A	* MEASURE DIE TO BLOK	G
XPW01	HEN_XPW01_pore	8121123	1005	9.45		a
XPW02	HEN_XPW02_pore	8121123	1010	14,19		CI
XPW03	HEN_XPW03_pore	8121/13	1020	4.86		9
XSG01	HEN_XSG01					
SG02	HEN_YSG_ILRIVER					

APPENDIX B STATISTICAL METHODOLOGY FOR DETERMINATION OF BACKGROUND VALUES

Notes %ND = Percent non-detected samples sd = standard deviation k = kappa for site-wide false positive rate (SWFPR) SWFPR = 0.1



When data are not normally distributed or %ND > 50, the maximum value is used if the background sample size is < 60. Where the background sample size is \geq 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 BACKGROUND UPDATE SUPPORTING INFORMATION

BACKGROUND UPDATE SUPPORTING INFORMATION
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT

LANDFILL

HENNEPIN, IL

Parameter	Statistic	Previous	New
	Sample Count	24	55
	Percent Non-Detect	0	0
Boron, total	Date Range	12/08/2015 - 06/09/2017	02/24/2021 - 09/14/2022
	Data Normality	Normal	Log Normal
	Trend	No Trend	No Trend
	Sample Count	24	55
	Percent Non-Detect	0	0
Calcium, total	Date Range	12/08/2015 - 06/09/2017	02/24/2021 - 09/14/2022
	Data Normality	Normal	Non-Normal
	Trend	No Trend	No Trend
	Sample Count	24	55
	Percent Non-Detect	0	0
Chloride, total	Date Range	12/08/2015 - 06/09/2017	02/24/2021 - 09/14/2022
	Data Normality	Normal	Non-Normal
	Trend	No Trend	No Trend
	Sample Count	24	55
	Percent Non-Detect	58	5
Fluoride, total	Date Range	12/08/2015 - 06/09/2017	02/24/2021 - 09/14/2022
	Data Normality	Non-Normal	Non-Normal
	Trend	No Trend	No Trend
	Sample Count	24	55
	Percent Non-Detect	0	0
Sulfate, total	Date Range	12/08/2015 - 06/09/2017	02/24/2021 - 09/14/2022
	Data Normality	Normal	Non-Normal
	Trend	No Trend	No Trend
	Sample Count	24	52
	Percent Non-Detect	0	0
Total Dissolved Solids	Date Range	12/08/2015 - 06/09/2017	02/24/2021 - 09/14/2022
	Data Normality	Normal	Non-Normal
	Trend	No Trend	No Trend
	Sample Count	24	55
	Percent Non-Detect	0	0
pH (field)	Date Range	12/08/2015 - 06/09/2017	02/24/2021 - 09/14/2022
	Data Normality	Non-Normal	Normal
	Trend	No Trend	Downward

Two background wells (16 and 17, installed in 1995) were added to the monitoring system in 2023. **Conclusion:** New data were used to calculated updated background values.





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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LANDFILL

HENNEPIN, IL

HENNEPIN, II				
Well ID	Date	Parameter	Unit	Result
07	02/24/2021	Antimony, total	mg/L	0.001 U
07	03/18/2021	Antimony, total	mg/L	0.001 U
07	04/07/2021	Antimony, total	mg/L	0.001 U
07	05/05/2021	Antimony, total	mg/L	0.002 U
07	06/08/2021	Antimony, total	mg/L	0.001 U
07	06/24/2021	Antimony, total	mg/L	0.001 U
07	07/13/2021	Antimony, total	mg/L	0.001 U
07	08/03/2021	Antimony, total	mg/L	0.001 U
07	09/09/2021	Antimony, total	mg/L	0.001 U
07	12/08/2021	Antimony, total	mg/L	0.001 U
07	03/22/2022	Antimony, total	mg/L	0.001 U
07	06/08/2022	Antimony, total	mg/L	0.0004 U
07	09/14/2022	Antimony, total	mg/L	0.0004 U
07	02/24/2021	Arsenic, total	mg/L	0.001 U
07	03/18/2021	Arsenic, total	mg/L	0.001 U
07	04/07/2021	Arsenic, total	mg/L	0.001 U
07	05/05/2021	Arsenic, total	mg/L	0.001 U
07	06/08/2021	Arsenic, total	mg/L	0.001 U
07	06/24/2021	Arsenic, total	mg/L	0.001 U
07	07/13/2021	Arsenic, total	mg/L	0.001 U
07	08/03/2021	Arsenic, total	mg/L	0.001 U
07	09/09/2021	Arsenic, total	mg/L	0.001 U
07	12/08/2021	Arsenic, total	mg/L	0.001 U
07	03/22/2022	Arsenic, total	mg/L	0.001 U
07	06/08/2022	Arsenic, total	mg/L	0.0004 U
07	09/14/2022	Arsenic, total	mg/L	0.0004 U
07	02/24/2021	Barium, total	mg/L	0.139
07	03/18/2021	Barium, total	mg/L	0.133
07	04/07/2021	Barium, total	mg/L	0.123
07	05/05/2021	Barium, total	mg/L	0.131
07	06/08/2021	Barium, total	mg/L	0.127
07	06/24/2021	Barium, total	mg/L	0.109
07	07/13/2021	Barium, total	mg/L	0.124
07	08/03/2021	Barium, total	mg/L	0.110
07	09/09/2021	Barium, total	mg/L	0.131
07	12/08/2021	Barium, total	mg/L	0.107
07	03/22/2022	Barium, total	mg/L	0.104
07	06/08/2022	Barium, total	mg/L	0.125
07	09/14/2022	Barium, total	mg/L	0.162
07	02/24/2021	Beryllium, total	mg/L	0.001 U
07	03/18/2021	Beryllium, total	mg/L	0.001 U
07	04/07/2021	Beryllium, total	mg/L	0.001 U
07	05/05/2021	Beryllium, total	mg/L	0.001 U
07	06/08/2021	Beryllium, total	mg/L	0.001 U
07	06/24/2021	Beryllium, total	mg/L	0.001 U
07	07/13/2021	Beryllium, total	mg/L	0.001 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS

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LANDFILL HENNEPIN, IL Well ID **Date Parameter** Unit Result 07 08/03/2021 Beryllium, total mg/L 0.001 U 07 09/09/2021 0.001 U Beryllium, total mg/L 12/08/2021 0.001 U 07 Beryllium, total mg/L 07 03/22/2022 Beryllium, total 0.001 U mg/L mg/L 07 06/08/2022 Beryllium, total 0.0002 U 07 09/14/2022 0.0002 U Beryllium, total mg/L 07 02/24/2021 0.001 U Cadmium, total mg/L 07 03/18/2021 Cadmium, total mg/L 0.001 U 07 04/07/2021 Cadmium, total mg/L 0.001 U 07 05/05/2021 Cadmium, total mg/L 0.001 U 07 06/08/2021 Cadmium, total mg/L 0.001 U 06/24/2021 07 Cadmium, total mg/L 0.001 U 07 07/13/2021 Cadmium, total mg/L 0.001 U 07 08/03/2021 Cadmium, total mg/L 0.001 U 07 09/09/2021 Cadmium, total mg/L 0.001 U 07 12/08/2021 Cadmium, total mg/L 0.001 U 0.001 U 07 03/22/2022 Cadmium, total mg/L 07 0.0002 U 06/08/2022 Cadmium, total mg/L 09/14/2022 07 Cadmium, total mg/L 0.0002 U 07 0.0015 U 02/24/2021 Chromium, total mg/L 07 03/18/2021 Chromium, total mg/L 0.0015 U 07 04/07/2021 Chromium, total mg/L 0.0015 U 07 05/05/2021 Chromium, total 0.001 U mg/L 07 06/08/2021 0.0015 U Chromium, total mg/L 07 06/24/2021 0.0015 U Chromium, total mg/L 07 07/13/2021 Chromium, total mg/L 0.0015 U 07 08/03/2021 Chromium, total mg/L 0.0015 U 07 09/09/2021 0.0015 U Chromium, total mg/L 07 12/08/2021 Chromium, total mg/L 0.0015 U 07 03/22/2022 0.0015 U Chromium, total mg/L 07 06/08/2022 0.0008 J Chromium, total mg/L 07 09/14/2022 Chromium, total mg/L 0.0011 J 07 02/24/2021 Cobalt, total mg/L 0.147 07 03/18/2021 Cobalt, total mg/L 0.129 mg/L 04/07/2021 0.0962 05/05/2021 07 Cobalt, total mg/L 0.105 06/08/2021 Cobalt, total 0.0542 07 mg/L 07 06/24/2021 Cobalt, total 0.0479 mg/L 07 07/13/2021 Cobalt, total 0.0307 mg/L 08/03/2021 Cobalt, total 0.0257 07 mg/L 07 09/09/2021 Cobalt, total mg/L 0.0164 07 12/08/2021 Cobalt, total mg/L 0.00530 03/22/2022 0.00180 07 Cobalt, total mg/L Cobalt, total 0.0121 07 06/08/2022 mg/L 09/14/2022 07 Cobalt, total mg/L 0.0676



07

02/24/2021



mg/L

0.120

Fluoride, total

ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS

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LANDFILL

HENNEPIN, IL Well ID **Date Parameter** Unit Result 07 03/18/2021 Fluoride, total mg/L 0.110 07 04/07/2021 0.130 Fluoride, total mg/L 05/05/2021 07 Fluoride, total mg/L 0.120 07 06/08/2021 Fluoride, total 0.120 mg/L Fluoride, total 07 06/24/2021 0.130 mg/L 07 0.130 07/13/2021 Fluoride, total mg/L 07 08/03/2021 Fluoride, total 0.130 mg/L 07 09/09/2021 Fluoride, total 0.110 mg/L 07 12/08/2021 Fluoride, total mg/L 0.120 07 03/22/2022 Fluoride, total mg/L 0.120 07 06/08/2022 Fluoride, total 0.120 mg/L 09/14/2022 07 Fluoride, total 0.110 mg/L 07 02/24/2021 Lead, total mg/L 0.001 U 0.001 U 07 03/18/2021 Lead, total mg/L 07 04/07/2021 Lead, total mg/L 0.001 U 07 05/05/2021 Lead, total mg/L 0.001 U Lead, total 0.001 U 07 06/08/2021 mg/L 07 0.001 U 06/24/2021 Lead, total mg/L 0.001 U 07 07/13/2021 Lead, total mg/L 07 Lead, total 0.001 U 08/03/2021 mg/L 07 09/09/2021 Lead, total mg/L 0.001 U 07 12/08/2021 Lead, total mg/L 0.001 U 07 03/22/2022 Lead, total 0.001 U mg/L 07 06/08/2022 Lead, total 0.0006 U mg/L 07 09/14/2022 Lead, total 0.0006 U mg/L 07 02/24/2021 Lithium, total mg/L 0.0105 07 03/18/2021 Lithium, total 0.0107 mg/L 07 04/07/2021 0.00960 Lithium, total mg/L 07 05/05/2021 Lithium, total mg/L 0.0103 07 0.00970 06/08/2021 Lithium, total mg/L 07 06/24/2021 0.0100 Lithium, total mg/L 07 07/13/2021 Lithium, total mg/L 0.00870 0.00910 07 08/03/2021 Lithium, total mg/L 07 09/09/2021 mg/L 0.0100 Lithium, total mg/L 12/08/2021 0.00840 03/22/2022 Lithium, total 0.00980 07 mg/L 06/08/2022 Lithium, total 0.00890 07 mg/L 0.0105 07 09/14/2022 Lithium, total mg/L 02/24/2021 Mercury, total 07 0.0002 U mg/L 03/18/2021 Mercury, total 0.0002 U 07 mg/L 07 04/07/2021 Mercury, total 0.0002 U mg/L 07 05/05/2021 Mercury, total mg/L 0.0002 U 06/08/2021 0.0002 U 07 Mercury, total mg/L 0.0002 U 07 06/24/2021 Mercury, total mg/L 07 07/13/2021 Mercury, total mg/L 0.0002 U Mercury, total 0.0002 U 07 08/03/2021 mg/L





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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Well ID	Date	Parameter	Unit	Result
07	09/09/2021	Mercury, total	mg/L	0.0002 U
07	12/08/2021	Mercury, total	mg/L	0.0002 U
07	03/22/2022	Mercury, total	mg/L	0.0002 U
07	06/08/2022	Mercury, total	mg/L	0.0001 U
07	09/14/2022	Mercury, total	mg/L	0.00006 U
07	02/24/2021	Molybdenum, total	mg/L	0.0015 U
07	03/18/2021	Molybdenum, total	mg/L	0.0015 U
07	04/07/2021	Molybdenum, total	mg/L	0.0015 U
07	05/05/2021	Molybdenum, total	mg/L	0.00117
07	06/08/2021	Molybdenum, total	mg/L	0.0015 U
07	06/24/2021	Molybdenum, total	mg/L	0.0015 U
07	07/13/2021	Molybdenum, total	mg/L	0.0015 U
07	08/03/2021	Molybdenum, total	mg/L	0.0015 U
07	09/09/2021	Molybdenum, total	mg/L	0.0015 U
07	12/08/2021	Molybdenum, total	mg/L	0.00160
07	03/22/2022	Molybdenum, total	mg/L	0.0015 U
07	06/08/2022	Molybdenum, total	mg/L	0.0006 U
07	09/14/2022	Molybdenum, total	mg/L	0.0007 J
07	02/24/2021	Radium 226 + Radium 228, total	pCi/L	0.880
07	03/18/2021	Radium 226 + Radium 228, total	pCi/L	1.21
07	04/07/2021	Radium 226 + Radium 228, total	pCi/L	0.895
07	05/05/2021	Radium 226 + Radium 228, total	pCi/L	0.202
07	06/08/2021	Radium 226 + Radium 228, total	pCi/L	1.73
07	06/24/2021	Radium 226 + Radium 228, total	pCi/L	1.72
07	07/13/2021	Radium 226 + Radium 228, total	pCi/L	1.27
07	08/03/2021	Radium 226 + Radium 228, total	pCi/L	0.661
07	09/09/2021	Radium 226 + Radium 228, total	pCi/L	1.14
07	12/08/2021	Radium 226 + Radium 228, total	pCi/L	0.787
07	03/22/2022	Radium 226 + Radium 228, total	pCi/L	0.852
07	06/08/2022	Radium 226 + Radium 228, total	pCi/L	0.983
07	09/14/2022	Radium 226 + Radium 228, total	pCi/L	1.67
07	02/24/2021	Selenium, total	mg/L	0.001 U
07	03/18/2021	Selenium, total	mg/L	0.001 U
07	04/07/2021	Selenium, total	mg/L	0.001 U
07	05/05/2021	Selenium, total	mg/L	0.001 U
07	06/08/2021	Selenium, total	mg/L	0.001 U
07	06/24/2021	Selenium, total	mg/L	0.001 U
07	07/13/2021	Selenium, total	mg/L	0.001 U
07	08/03/2021	Selenium, total	mg/L	0.001 U
07	09/09/2021	Selenium, total	mg/L	0.001 U
07	12/08/2021	Selenium, total	mg/L	0.001 U
07	03/22/2022	Selenium, total	mg/L	0.001 U
07	06/08/2022	Selenium, total	mg/L	0.0006 U
07	09/14/2022	Selenium, total	mg/L	0.0006 U
07	02/24/2021	Thallium, total	mg/L	0.002 U
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ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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LANDFILL

HENNEPIN, IL

HENNEPIN, I	_			
Well ID	Date	Parameter	Unit	Result
07	04/07/2021	Thallium, total	mg/L	0.002 U
07	05/05/2021	Thallium, total	mg/L	0.001 U
07	06/08/2021	Thallium, total	mg/L	0.002 U
07	06/24/2021	Thallium, total	mg/L	0.002 U
07	07/13/2021	Thallium, total	mg/L	0.002 U
07	08/03/2021	Thallium, total	mg/L	0.002 U
07	09/09/2021	Thallium, total	mg/L	0.002 U
07	12/08/2021	Thallium, total	mg/L	0.002 U
07	03/22/2022	Thallium, total	mg/L	0.002 U
07	06/08/2022	Thallium, total	mg/L	0.001 U
07	09/14/2022	Thallium, total	mg/L	0.001 U
08	02/24/2021	Antimony, total	mg/L	0.001 U
08	03/18/2021	Antimony, total	mg/L	0.001 U
08	04/08/2021	Antimony, total	mg/L	0.001 U
08	05/06/2021	Antimony, total	mg/L	0.002 U
08	06/08/2021	Antimony, total	mg/L	0.001 U
08	06/24/2021	Antimony, total	mg/L	0.001 U
08	07/13/2021	Antimony, total	mg/L	0.001 U
08	08/03/2021	Antimony, total	mg/L	0.001 U
08	09/09/2021	Antimony, total	mg/L	0.001 U
08	12/08/2021	Antimony, total	mg/L	0.001 U
08	03/22/2022	Antimony, total	mg/L	0.001 U
08	06/07/2022	Antimony, total	mg/L	0.0004 U
08	09/14/2022	Antimony, total	mg/L	0.0004 U
08	02/24/2021	Arsenic, total	mg/L	0.001 U
08	03/18/2021	Arsenic, total	mg/L	0.001 U
08	04/08/2021	Arsenic, total	mg/L	0.001 U
08	05/06/2021	Arsenic, total	mg/L	0.001 U
08	06/08/2021	Arsenic, total	mg/L	0.001 U
08	06/24/2021	Arsenic, total	mg/L	0.001 U
08	07/13/2021	Arsenic, total	mg/L	0.001 U
08	08/03/2021	Arsenic, total	mg/L	0.001 U
08	09/09/2021	Arsenic, total	mg/L	0.001 U
08	12/08/2021	Arsenic, total	mg/L	0.001 U
08	03/22/2022	Arsenic, total	mg/L	0.001 U
08	06/07/2022	Arsenic, total	mg/L	0.0004 U
08	09/14/2022	Arsenic, total	mg/L	0.0004 U
08	02/24/2021	Barium, total	mg/L	0.0773
08	03/18/2021	Barium, total	mg/L	0.0969
08	04/08/2021	Barium, total	mg/L	0.104
08	05/06/2021	Barium, total	mg/L	0.0963
08	06/08/2021	Barium, total	mg/L	0.0905
08	06/24/2021	Barium, total	mg/L	0.0879
08	07/13/2021	Barium, total	mg/L	0.0909
08	08/03/2021	Barium, total	mg/L	0.0856
08	09/09/2021	Barium, total	mg/L	0.0878





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT

LANDFILL

HENNEPIN, IL Well ID **Date Parameter** Unit Result 80 12/08/2021 Barium, total mg/L 0.0833 03/22/2022 0.113 80 Barium, total mg/L 0.0999 06/07/2022 Barium, total 80 mg/L 09/14/2022 80 Barium, total 0.0864 mg/L 02/24/2021 mg/L 80 Beryllium, total 0.001 U 80 03/18/2021 0.001 U Beryllium, total mg/L 80 04/08/2021 Beryllium, total 0.001 U mg/L 80 05/06/2021 Beryllium, total mg/L 0.001 U 80 06/08/2021 Beryllium, total mg/L 0.001 U 80 06/24/2021 Beryllium, total mg/L 0.001 U mg/L 80 07/13/2021 Beryllium, total 0.001 U 80 08/03/2021 Beryllium, total mg/L 0.001 U 80 09/09/2021 Beryllium, total mg/L 0.001 U 80 12/08/2021 Beryllium, total mg/L 0.001 U 80 03/22/2022 Beryllium, total mg/L 0.001 U 80 06/07/2022 Beryllium, total mg/L 0.0002 U 0.0002 U 80 09/14/2022 Beryllium, total mg/L 02/24/2021 0.001 U 80 Cadmium, total mg/L 03/18/2021 Cadmium, total 80 mg/L 0.001 U 04/08/2021 0.001 U 80 Cadmium, total mg/L 80 05/06/2021 Cadmium, total mg/L 0.001 U 80 06/08/2021 Cadmium, total mg/L 0.001 U 80 06/24/2021 Cadmium, total 0.001 U mg/L 80 07/13/2021 0.001 U Cadmium, total mg/L 80 08/03/2021 0.001 U Cadmium, total mg/L 80 09/09/2021 Cadmium, total mg/L 0.001 U 80 12/08/2021 Cadmium, total mg/L 0.001 U 80 03/22/2022 0.001 U Cadmium, total mg/L 80 06/07/2022 Cadmium, total mg/L 0.0003 J 0.0002 J 80 09/14/2022 Cadmium, total mg/L 80 0.0015 U 02/24/2021 Chromium, total mg/L 0.0015 U 80 03/18/2021 Chromium, total mg/L 0.0015 U 80 04/08/2021 Chromium, total mg/L 80 05/06/2021 mg/L 0.001 U Chromium, total mg/L 06/08/2021 0.0015 U 06/24/2021 Chromium, total 0.0015 U 80 mg/L 07/13/2021 0.0015 U 80 Chromium, total mg/L 08/03/2021 Chromium, total 0.0015 U 80 mg/L 09/09/2021 Chromium, total 0.0015 U 80 mg/L 12/08/2021 0.0015 U 80 Chromium, total mg/L 80 03/22/2022 Chromium, total 0.0015 U mg/L 0.0007 U 80 06/07/2022 Chromium, total mg/L 09/14/2022 0.0007 U 80 Chromium, total mg/L 0.00340 02/24/2021 Cobalt, total 80 mg/L 03/18/2021 0.00450 80 Cobalt, total mg/L 0.00630 80 04/08/2021 Cobalt, total mg/L





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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Well ID	Date	Parameter	Unit	Result
08	05/06/2021	Cobalt, total	mg/L	0.00916
08	06/08/2021	Cobalt, total	mg/L	0.00870
08	06/24/2021	Cobalt, total	mg/L	0.0106
08	07/13/2021	Cobalt, total	mg/L	0.0104
08	08/03/2021	Cobalt, total	mg/L	0.00720
08	09/09/2021	Cobalt, total	mg/L	0.00490
08	12/08/2021	Cobalt, total	mg/L	0.00380
08	03/22/2022	Cobalt, total	mg/L	0.00700
08	06/07/2022	Cobalt, total	mg/L	0.00440
08	09/14/2022	Cobalt, total	mg/L	0.00270
08	02/24/2021	Fluoride, total	mg/L	0.110
08	03/18/2021	Fluoride, total	mg/L	0.1 U
08	04/08/2021	Fluoride, total	mg/L	0.100
08	05/06/2021	Fluoride, total	mg/L	0.110
08	06/08/2021	Fluoride, total	mg/L	0.100
08	06/24/2021	Fluoride, total	mg/L	0.110
08	07/13/2021	Fluoride, total	mg/L	0.110
08	08/03/2021	Fluoride, total	mg/L	0.1 U
08	09/09/2021	Fluoride, total	mg/L	0.1 U
08	12/08/2021	Fluoride, total	mg/L	0.110
08	03/22/2022	Fluoride, total	mg/L	0.110
08	06/07/2022	Fluoride, total	mg/L	0.100
08	09/14/2022	Fluoride, total	mg/L	0.100
08	02/24/2021	Lead, total	mg/L	0.001 U
08	03/18/2021	Lead, total	mg/L	0.001 U
08	04/08/2021	Lead, total	mg/L	0.001 U
08	05/06/2021	Lead, total	mg/L	0.001 U
08	06/08/2021	Lead, total	mg/L	0.001 U
08	06/24/2021	Lead, total	mg/L	0.001 U
08	07/13/2021	Lead, total	mg/L	0.001 U
08	08/03/2021	Lead, total	mg/L	0.001 U
08	09/09/2021	Lead, total	mg/L	0.001 U
08	12/08/2021	Lead, total	mg/L	0.001 U
08	03/22/2022	Lead, total	mg/L	0.001 U
08	06/07/2022	Lead, total	mg/L	0.0006 U
08	09/14/2022	Lead, total	mg/L	0.0006 U
08	02/24/2021	Lithium, total	mg/L	0.0119
08	03/18/2021	Lithium, total	mg/L	0.0130
08	04/08/2021	Lithium, total	mg/L	0.0121
08	05/06/2021	Lithium, total	mg/L	0.0112
08	06/08/2021	Lithium, total	mg/L	0.0125
08	06/24/2021	Lithium, total	mg/L	0.0150
08	07/13/2021	Lithium, total	mg/L	0.0130
08	08/03/2021	Lithium, total	mg/L	0.0138
08	09/09/2021	Lithium, total	mg/L	0.0130
08	12/08/2021	Lithium, total	mg/L	0.0110





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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Well ID	L Date	Parameter	Unit	Result
08	03/22/2022	Lithium, total	mg/L	0.0155
08	06/07/2022	Lithium, total	mg/L	0.0137
08	09/14/2022	Lithium, total	mg/L	0.0106
08	02/24/2021	Mercury, total	mg/L	0.0002 U
08	03/18/2021	Mercury, total	mg/L	0.0002 U
08	04/08/2021	Mercury, total	mg/L	0.0002 U
08	05/06/2021	Mercury, total	mg/L	0.0002 U
08	06/08/2021	Mercury, total	mg/L	0.0002 U
08	06/24/2021	Mercury, total	mg/L	0.0002 U
08	07/13/2021	Mercury, total	mg/L	0.0002 U
08	08/03/2021	Mercury, total	mg/L	0.0002 U
08	09/09/2021	Mercury, total	mg/L	0.0002 U
08	12/08/2021	Mercury, total	mg/L	0.0002 U
08	03/22/2022	Mercury, total	mg/L	0.0002 U
08	06/07/2022	Mercury, total	mg/L	0.0001 U
08	09/14/2022	Mercury, total	mg/L	0.00006 U
08	02/24/2021	Molybdenum, total	mg/L	0.0015 U
08	03/18/2021	Molybdenum, total	mg/L	0.0015 U
08	04/08/2021	Molybdenum, total	mg/L	0.0015 U
08	05/06/2021	Molybdenum, total	mg/L	0.00143
08	06/08/2021	Molybdenum, total	mg/L	0.0015 U
08	06/24/2021	Molybdenum, total	mg/L	0.0015 U
08	07/13/2021	Molybdenum, total	mg/L	0.0015 U
08	08/03/2021	Molybdenum, total	mg/L	0.00150
08	09/09/2021	Molybdenum, total	mg/L	0.0015 U
08	12/08/2021	Molybdenum, total	mg/L	0.00170
08	03/22/2022	Molybdenum, total	mg/L	0.00160
08	06/07/2022	Molybdenum, total	mg/L	0.00170 J
08	09/14/2022	Molybdenum, total	mg/L	0.0014 J
08	02/24/2021	Radium 226 + Radium 228, total	pCi/L	0.432
08	03/18/2021	Radium 226 + Radium 228, total	pCi/L	0.540
08	04/08/2021	Radium 226 + Radium 228, total	pCi/L	0.0906
08	05/06/2021	Radium 226 + Radium 228, total	pCi/L	0.289
08	06/08/2021	Radium 226 + Radium 228, total	pCi/L	0.475 0.983
	06/24/2021	Radium 226 + Radium 228, total	pCi/L	
08	07/13/2021 08/03/2021	Radium 226 + Radium 228, total Radium 226 + Radium 228, total	pCi/L	0.192
	, ,	·	pCi/L	
08	09/09/2021 12/08/2021	Radium 226 + Radium 228, total	pCi/L	0.295
08		Radium 226 + Radium 228, total	pCi/L	0.0654
08	03/22/2022	Radium 226 + Radium 228, total	pCi/L	1.48
08	06/07/2022	Radium 226 + Radium 228, total	pCi/L	1.17
08	09/14/2022	Radium 226 + Radium 228, total	pCi/L	1.71
	, ,	Selenium, total	mg/L	0.001 U
08	03/18/2021	Selenium, total	mg/L	0.001 U
08	04/08/2021	Selenium, total	mg/L	0.001 U
08	05/06/2021	Selenium, total	mg/L	0.001 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS

2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENNEPIN POWER PLANT

LANDFILL HENNEPIN, IL

Well ID **Date Parameter** Unit Result 80 06/08/2021 Selenium, total mg/L 0.001 U 0.001 U 80 06/24/2021 Selenium, total mg/L 07/13/2021 0.001 U 80 Selenium, total mg/L 80 08/03/2021 Selenium, total 0.001 U mg/L 80 09/09/2021 Selenium, total mg/L 0.001 U 80 12/08/2021 0.001 U Selenium, total mg/L 80 03/22/2022 Selenium, total 0.001 U mg/L 80 06/07/2022 Selenium, total mg/L 0.0006 U Selenium, total 80 09/14/2022 mg/L 0.0006 U 80 02/24/2021 Thallium, total mg/L 0.002 U 80 03/18/2021 Thallium, total mg/L 0.002 U Thallium, total 80 04/08/2021 mg/L 0.002 U 80 05/06/2021 Thallium, total mg/L 0.001 U 0.002 U 80 06/08/2021 Thallium, total mg/L 80 06/24/2021 Thallium, total mg/L 0.002 U 80 07/13/2021 Thallium, total mg/L 0.002 U Thallium, total 0.00340 80 08/03/2021 mg/L 0.002 U 80 09/09/2021 Thallium, total mg/L 0.002 U 80 12/08/2021 Thallium, total mg/L 0.002 U 80 03/22/2022 Thallium, total mg/L 80 06/07/2022 Thallium, total mg/L 0.001 U 80 09/14/2022 Thallium, total mg/L 0.001 U 08D 02/24/2021 Antimony, total 0.001 U mg/L 08D 03/18/2021 0.001 U Antimony, total mg/L 08D 04/08/2021 0.001 U Antimony, total mg/L 08D 05/06/2021 Antimony, total mg/L 0.002 U 08D 06/08/2021 Antimony, total mg/L 0.001 U 08D 06/24/2021 0.001 U Antimony, total mg/L 08D 07/13/2021 Antimony, total mg/L 0.001 U 0.001 U 08D 08/03/2021 Antimony, total mg/L 08D 09/09/2021 Antimony, total 0.001 U mg/L Antimony, total 08D 12/08/2021 mg/L 0.001 U 08D 0.001 U 03/22/2022 Antimony, total mg/L 0.0004 U 08D 06/07/2022 mg/L Antimony, total mg/L 09/14/2022 0.0004 U 02/24/2021 0.001 U 08D Arsenic, total mg/L 03/18/2021 0.001 U 08D Arsenic, total mg/L 0.001 U 04/08/2021 08D Arsenic, total mg/L 05/06/2021 08D Arsenic, total 0.001 U mg/L 06/08/2021 0.001 U 08D Arsenic, total mg/L 08D 06/24/2021 Arsenic, total 0.001 U mg/L 08D 07/13/2021 Arsenic, total mg/L 0.001 U 08/03/2021 0.001 U 08D Arsenic, total mg/L 09/09/2021 08D 0.001 U Arsenic, total mg/L 0.001 U 08D 12/08/2021 Arsenic, total mg/L 03/22/2022 0.001 U 08D Arsenic, total mg/L





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENDEIN POWER PLANT

Well ID	Date	Parameter	Unit	Result
08D	06/07/2022	Arsenic, total	mg/L	0.0004 U
08D	09/14/2022	Arsenic, total	mg/L	0.0004 U
08D	02/24/2021	Barium, total	mg/L	0.122
08D	03/18/2021	Barium, total	mg/L	0.128
08D	04/08/2021	Barium, total	mg/L	0.128
08D	05/06/2021	Barium, total	mg/L	0.130
08D	06/08/2021	Barium, total	mg/L	0.116
08D	06/24/2021	Barium, total	mg/L	0.120
08D	07/13/2021	Barium, total	mg/L	0.110
08D	08/03/2021	Barium, total	mg/L	0.113
08D	09/09/2021	Barium, total	mg/L	0.122
08D	12/08/2021	Barium, total	mg/L	0.129
08D	03/22/2022	Barium, total	mg/L	0.136
08D	06/07/2022	Barium, total	mg/L	0.129
08D	09/14/2022	Barium, total	mg/L	0.118
08D	02/24/2021	Beryllium, total	mg/L	0.001 U
08D	03/18/2021	Beryllium, total	mg/L	0.001 U
08D	04/08/2021	Beryllium, total	mg/L	0.001 U
08D	05/06/2021	Beryllium, total	mg/L	0.001 U
08D	06/08/2021	Beryllium, total	mg/L	0.001 U
08D	06/24/2021	Beryllium, total	mg/L	0.001 U
08D	07/13/2021	Beryllium, total	mg/L	0.001 U
08D	08/03/2021	Beryllium, total	mg/L	0.001 U
08D	09/09/2021	Beryllium, total	mg/L	0.001 U
08D	12/08/2021	Beryllium, total	mg/L	0.001 U
08D	03/22/2022	Beryllium, total	mg/L	0.001 U
08D	06/07/2022	Beryllium, total	mg/L	0.0002 U
08D	09/14/2022	Beryllium, total	mg/L	0.0002 U
08D	02/24/2021	Cadmium, total	mg/L	0.001 U
08D	03/18/2021	Cadmium, total	mg/L	0.001 U
08D	04/08/2021	Cadmium, total	mg/L	0.001 U
08D	05/06/2021	Cadmium, total	mg/L	0.001 U
08D	06/08/2021	Cadmium, total	mg/L	0.001 U
08D	06/24/2021	Cadmium, total	mg/L	0.001 U
08D	07/13/2021	Cadmium, total	mg/L	0.001 U
08D	08/03/2021	Cadmium, total	mg/L	0.001 U
08D	09/09/2021	Cadmium, total	mg/L	0.001 U
08D	12/08/2021	Cadmium, total	mg/L	0.001 U
08D	03/22/2022	Cadmium, total	mg/L	0.001 U
08D	06/07/2022	Cadmium, total	mg/L	0.0005 J
08D	09/14/2022	Cadmium, total	mg/L	0.0004 J
08D	02/24/2021	Chromium, total	mg/L	0.0015 U
08D	03/18/2021	Chromium, total	mg/L	0.0015 U
08D	04/08/2021	Chromium, total	mg/L	0.0015 U
08D	05/06/2021	Chromium, total	mg/L	0.001 U
08D	06/08/2021	Chromium, total	mg/L	0.0015 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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Well ID	Date	Parameter	Unit	Result
08D	06/24/2021	Chromium, total	mg/L	0.0015 U
08D	07/13/2021	Chromium, total	mg/L	0.0015 U
08D	08/03/2021	Chromium, total	mg/L	0.0015 U
08D	09/09/2021	Chromium, total	mg/L	0.0015 U
08D	12/08/2021	Chromium, total	mg/L	0.00160
08D	03/22/2022	Chromium, total	mg/L	0.0015 U
08D	06/07/2022	Chromium, total	mg/L	0.0007 U
08D	09/14/2022	Chromium, total	mg/L	0.0007 U
08D	02/24/2021	Cobalt, total	mg/L	0.00250
08D	03/18/2021	Cobalt, total	mg/L	0.00280
08D	04/08/2021	Cobalt, total	mg/L	0.00280
08D	05/06/2021	Cobalt, total	mg/L	0.00303
08D	06/08/2021	Cobalt, total	mg/L	0.00290
08D	06/24/2021	Cobalt, total	mg/L	0.00370
08D	07/13/2021	Cobalt, total	mg/L	0.00660
08D	08/03/2021	Cobalt, total	mg/L	0.00400
08D	09/09/2021	Cobalt, total	mg/L	0.00320
08D	12/08/2021	Cobalt, total	mg/L	0.00310
08D	03/22/2022	Cobalt, total	mg/L	0.00500
08D	06/07/2022	Cobalt, total	mg/L	0.00330
08D	09/14/2022	Cobalt, total	mg/L	0.00350
08D	02/24/2021	Fluoride, total	mg/L	0.110
08D	03/18/2021	Fluoride, total	mg/L	0.100
08D	04/08/2021	Fluoride, total	mg/L	0.100
08D	05/06/2021	Fluoride, total	mg/L	0.120
08D	06/08/2021	Fluoride, total	mg/L	0.100
08D	06/24/2021	Fluoride, total	mg/L	0.120
08D	07/13/2021	Fluoride, total	mg/L	0.120
08D	08/03/2021	Fluoride, total	mg/L	0.110
08D	09/09/2021	Fluoride, total	mg/L	0.100
08D	12/08/2021	Fluoride, total	mg/L	0.110
08D	03/22/2022	Fluoride, total	mg/L	0.110
08D	06/07/2022	Fluoride, total	mg/L	0.110
08D	09/14/2022	Fluoride, total	mg/L	0.110
08D	02/24/2021	Lead, total	mg/L	0.001 U
08D	03/18/2021	Lead, total	mg/L	0.001 U
08D	04/08/2021	Lead, total	mg/L	0.001 U
08D	05/06/2021	Lead, total	mg/L	0.001 U
08D	06/08/2021	Lead, total	mg/L	0.001 U
08D	06/24/2021	Lead, total	mg/L	0.001 U
08D	07/13/2021	Lead, total	mg/L	0.001 U
08D	08/03/2021	Lead, total	mg/L	0.001 U
08D	09/09/2021	Lead, total	mg/L	0.001 U
08D	12/08/2021	Lead, total	mg/L	0.00100
08D	03/22/2022	Lead, total	mg/L	0.001 U
08D	06/07/2022	Lead, total	mg/L	0.0006 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENDEPIN POWER PLANT

LANDFILL

HENNEPIN, IL

HENNEPIN, II	_		1	
Well ID	Date	Parameter	Unit	Result
08D	09/14/2022	Lead, total	mg/L	0.0006 U
08D	02/24/2021	Lithium, total	mg/L	0.0141
08D	03/18/2021	Lithium, total	mg/L	0.0141
08D	04/08/2021	Lithium, total	mg/L	0.0133
08D	05/06/2021	Lithium, total	mg/L	0.0121
08D	06/08/2021	Lithium, total	mg/L	0.0127
08D	06/24/2021	Lithium, total	mg/L	0.0137
08D	07/13/2021	Lithium, total	mg/L	0.0140
08D	08/03/2021	Lithium, total	mg/L	0.0141
08D	09/09/2021	Lithium, total	mg/L	0.0137
08D	12/08/2021	Lithium, total	mg/L	0.0166
08D	03/22/2022	Lithium, total	mg/L	0.0165
08D	06/07/2022	Lithium, total	mg/L	0.0122
08D	09/14/2022	Lithium, total	mg/L	0.0125
08D	02/24/2021	Mercury, total	mg/L	0.0002 U
08D	03/18/2021	Mercury, total	mg/L	0.0002 U
08D	04/08/2021	Mercury, total	mg/L	0.0002 U
08D	05/06/2021	Mercury, total	mg/L	0.0002 U
08D	06/08/2021	Mercury, total	mg/L	0.0002 U
08D	06/24/2021	Mercury, total	mg/L	0.0002 U
08D	07/13/2021	Mercury, total	mg/L	0.0002 U
08D	08/03/2021	Mercury, total	mg/L	0.0002 U
08D	09/09/2021	Mercury, total	mg/L	0.0002 U
08D	12/08/2021	Mercury, total	mg/L	0.0002 U
08D	03/22/2022	Mercury, total	mg/L	0.0002 U
08D	06/07/2022	Mercury, total	mg/L	0.0001 U
08D	09/14/2022	Mercury, total	mg/L	0.00006 U
08D	02/24/2021	Molybdenum, total	mg/L	0.0015 U
08D	03/18/2021	Molybdenum, total	mg/L	0.0015 U
08D	04/08/2021	Molybdenum, total	mg/L	0.0015 U
08D	05/06/2021	Molybdenum, total	mg/L	0.00132
08D	06/08/2021	Molybdenum, total	mg/L	0.0015 U
08D	06/24/2021	Molybdenum, total	mg/L	0.0015 U
08D	07/13/2021	Molybdenum, total	mg/L	0.0015 U
08D	08/03/2021	Molybdenum, total	mg/L	0.0015 U
08D	09/09/2021	Molybdenum, total	mg/L	0.0015 U
08D	12/08/2021	Molybdenum, total	mg/L	0.0015 U
08D	03/22/2022	Molybdenum, total	mg/L	0.0015 U
08D	06/07/2022	Molybdenum, total	mg/L	0.0012 J
08D	09/14/2022	Molybdenum, total	mg/L	0.0013 J
08D	02/24/2021	Radium 226 + Radium 228, total	pCi/L	0.0758
08D	03/18/2021	Radium 226 + Radium 228, total	pCi/L	1.67
08D	04/08/2021	Radium 226 + Radium 228, total	pCi/L	0.518
08D	05/06/2021	Radium 226 + Radium 228, total	pCi/L	0.0230
08D	06/08/2021	Radium 226 + Radium 228, total	pCi/L	0.560
08D	06/24/2021	Radium 226 + Radium 228, total	pCi/L	1.11





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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Well ID	Date	Parameter	Unit	Result
08D	07/13/2021	Radium 226 + Radium 228, total	pCi/L	0.766
08D	08/03/2021	Radium 226 + Radium 228, total	pCi/L	0.220
08D	09/22/2021	Radium 226 + Radium 228, total	pCi/L	1.67
08D	12/08/2021	Radium 226 + Radium 228, total	pCi/L	0.635
08D	03/22/2022	Radium 226 + Radium 228, total	pCi/L	0.480
08D	06/07/2022	Radium 226 + Radium 228, total	pCi/L	0.608
08D	09/14/2022	Radium 226 + Radium 228, total	pCi/L	1.59
08D	02/24/2021	Selenium, total	mg/L	0.001 U
08D	03/18/2021	Selenium, total	mg/L	0.001 U
08D	04/08/2021	Selenium, total	mg/L	0.001 U
08D	05/06/2021	Selenium, total	mg/L	0.001 U
08D	06/08/2021	Selenium, total	mg/L	0.001 U
08D	06/24/2021	Selenium, total	mg/L	0.001 U
08D	07/13/2021	Selenium, total	mg/L	0.001 U
08D	08/03/2021	Selenium, total	mg/L	0.001 U
08D	09/09/2021	Selenium, total	mg/L	0.001 U
08D	12/08/2021	Selenium, total	mg/L	0.001 U
08D	03/22/2022	Selenium, total	mg/L	0.001 U
08D	06/07/2022	Selenium, total	mg/L	0.0006 U
08D	09/14/2022	Selenium, total	mg/L	0.0006 U
08D	02/24/2021	Thallium, total	mg/L	0.002 U
08D	03/18/2021	Thallium, total	mg/L	0.002 U
08D	04/08/2021	Thallium, total	mg/L	0.002 U
08D	05/06/2021	Thallium, total	mg/L	0.001 U
08D	06/08/2021	Thallium, total	mg/L	0.002 U
08D	06/24/2021	Thallium, total	mg/L	0.002 U
08D	07/13/2021	Thallium, total	mg/L	0.002 U
08D	08/03/2021	Thallium, total	mg/L	0.002 U
08D	09/09/2021	Thallium, total	mg/L	0.002 U
08D	12/08/2021	Thallium, total	mg/L	0.002 U
08D	03/22/2022	Thallium, total	mg/L	0.002 U
08D	06/07/2022	Thallium, total	mg/L	0.001 U
08D	09/14/2022	Thallium, total	mg/L	0.001 U
16	02/24/2021	Antimony, total	mg/L	0.001 U
16	03/18/2021	Antimony, total	mg/L	0.001 U
16	04/08/2021	Antimony, total	mg/L	0.001 U
16	05/06/2021	Antimony, total	mg/L	0.002 U
16	06/08/2021	Antimony, total	mg/L	0.001 U
16	06/23/2021	Antimony, total	mg/L	0.001 U
16	07/13/2021	Antimony, total	mg/L	0.001 U
16	08/03/2021	Antimony, total	mg/L	0.001 U
16	09/09/2021	Antimony, total	mg/L	0.001 U
16	03/22/2022	Antimony, total	mg/L	0.001 U
16	02/24/2021	Arsenic, total	mg/L	0.001 U
16	03/18/2021	Arsenic, total	mg/L	0.001 U
16	04/08/2021	Arsenic, total	mg/L	0.001 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENDEPIN POWER PLANT

LANDFILL

HENNEPIN, IL

IENNEPIN, I Well ID	Date	Parameter	Unit	Result
16	05/06/2021	Arsenic, total	mg/L	0.001 U
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16	06/08/2021	Arsenic, total	mg/L	0.001 U
16	06/23/2021	Arsenic, total	mg/L	0.001 U
16	07/13/2021	Arsenic, total	mg/L	0.001 U
16	08/03/2021	Arsenic, total	mg/L	0.001 U
16	09/09/2021	Arsenic, total	mg/L	0.001 U
16	03/22/2022	Arsenic, total	mg/L	0.001 U
16	02/24/2021	Barium, total	mg/L	0.0779
16	03/18/2021	Barium, total	mg/L	0.0857
16	04/08/2021	Barium, total	mg/L	0.0769
16	05/06/2021	Barium, total	mg/L	0.0646
16	06/08/2021	Barium, total	mg/L	0.0642
16	06/23/2021	Barium, total	mg/L	0.0690
		·		
16	07/13/2021	Barium, total	mg/L	0.0636
16	08/03/2021	Barium, total	mg/L	0.0713
16	09/09/2021	Barium, total	mg/L	0.0818
16	03/22/2022	Barium, total	mg/L	0.0808
16	02/24/2021	Beryllium, total	mg/L	0.001 U
16	03/18/2021	Beryllium, total	mg/L	0.001 U
16	04/08/2021	Beryllium, total	mg/L	0.001 U
16	05/06/2021	Beryllium, total	mg/L	0.001 U
16	06/08/2021	Beryllium, total	mg/L	0.001 U
16	06/23/2021	Beryllium, total	mg/L	0.001 U
16	07/13/2021	Beryllium, total	mg/L	0.001 U
16	08/03/2021	Beryllium, total	mg/L	0.001 U
16	03/22/2022	Beryllium, total	mg/L	0.001 U
16	02/24/2021	Cadmium, total	mg/L	0.001 U
16	03/18/2021	Cadmium, total	mg/L	0.001 U
			_	
16	04/08/2021	Cadmium, total	mg/L	0.001 U
16	05/06/2021	Cadmium, total	mg/L	0.001 U
16	06/08/2021	Cadmium, total	mg/L	0.001 U
16	06/23/2021	Cadmium, total	mg/L	0.001 U
16	07/13/2021	Cadmium, total	mg/L	0.001 U
16	08/03/2021	Cadmium, total	mg/L	0.001 U
16	09/09/2021	Cadmium, total	mg/L	0.001 U
16	03/22/2022	Cadmium, total	mg/L	0.001 U
16	02/24/2021	Chromium, total	mg/L	0.0015 U
16	03/18/2021	Chromium, total	mg/L	0.0015 U
16	04/08/2021	Chromium, total	mg/L	0.0015 U
16	05/06/2021	Chromium, total	mg/L	0.001 U
16	06/08/2021	Chromium, total	mg/L	0.0015 U
16	, ,	Chromium, total		0.0015 U
	06/23/2021	·	mg/L	
16	07/13/2021	Chromium, total	mg/L	0.0015 U
16	08/03/2021	Chromium, total	mg/L	0.0015 U
16	09/09/2021	Chromium, total	mg/L	0.0015 U
16	03/22/2022	Chromium, total	mg/L	0.0015 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENDEIN POWER PLANT

Well ID	Date	Parameter	Unit	Result
16	02/24/2021	Cobalt, total	mg/L	0.001 U
16	03/18/2021	Cobalt, total	mg/L	0.001 U
16	04/08/2021	Cobalt, total	mg/L	0.001 U
16	05/06/2021	Cobalt, total	mg/L	0.001 U
16	06/08/2021	Cobalt, total	mg/L	0.001 U
16	06/23/2021	Cobalt, total	mg/L	0.001 U
16	07/13/2021	Cobalt, total	mg/L	0.001 U
16	08/03/2021	Cobalt, total	mg/L	0.001 U
16	09/09/2021	Cobalt, total	mg/L	0.001 U
16	03/22/2022	Cobalt, total	mg/L	0.00100
16	02/24/2021	Fluoride, total	mg/L	0.270
16	03/18/2021	Fluoride, total	mg/L	0.240
16	04/08/2021	Fluoride, total	mg/L	0.240
16	05/06/2021	Fluoride, total	mg/L	0.290
16	06/08/2021	Fluoride, total	mg/L	0.280
16	06/23/2021	Fluoride, total	mg/L	0.270
16	07/13/2021	Fluoride, total	mg/L	0.280
16	08/03/2021	Fluoride, total	mg/L	0.240
16	09/09/2021	Fluoride, total	mg/L	0.250
16	03/22/2022	Fluoride, total	mg/L	0.260
16	09/14/2022	Fluoride, total	mg/L	0.230
16	02/24/2021	Lead, total	mg/L	0.001 U
16	03/18/2021	Lead, total	mg/L	0.001 U
16	04/08/2021	Lead, total	mg/L	0.001 U
16	05/06/2021	Lead, total	mg/L	0.001 U
16	06/08/2021	Lead, total	mg/L	0.001 U
16	06/23/2021	Lead, total	mg/L	0.001 U
16	07/13/2021	Lead, total	mg/L	0.001 U
16	08/03/2021	Lead, total	mg/L	0.001 U
16	09/09/2021	Lead, total	mg/L	0.001 U
16	03/22/2022	Lead, total	mg/L	0.001 U
16	02/24/2021	Lithium, total	mg/L	0.00695
16	03/18/2021	Lithium, total	mg/L	0.00830
16	04/08/2021	Lithium, total	mg/L	0.00780
16	05/06/2021	Lithium, total	mg/L	0.00651
16	06/08/2021	Lithium, total	mg/L	0.00670
16	06/23/2021	Lithium, total	mg/L	0.00690
16	07/13/2021	Lithium, total	mg/L	0.00640
16	08/03/2021	Lithium, total	mg/L	0.00710
16	09/09/2021	Lithium, total	mg/L	0.00820
16	03/22/2022	Lithium, total	mg/L	0.0100
16	02/24/2021	Mercury, total	mg/L	0.0002 U
16	03/18/2021	Mercury, total	mg/L	0.0002 U
16	04/08/2021	Mercury, total	mg/L	0.0002 U
16	05/06/2021	Mercury, total	mg/L	0.0002 U
16	06/08/2021	Mercury, total	mg/L	0.0002 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENDEIN POWER PLANT

Well ID	Date	Parameter	Unit	Result
16	06/23/2021	Mercury, total	mg/L	0.0002 U
16	07/13/2021	Mercury, total	mg/L	0.0002 U
16	08/03/2021	Mercury, total	mg/L	0.0002 U
16	03/22/2022	Mercury, total	mg/L	0.0002 U
16	02/24/2021	Molybdenum, total	mg/L	0.00620
16	03/18/2021	Molybdenum, total	mg/L	0.00590
16	04/08/2021	Molybdenum, total	mg/L	0.00640
16	05/06/2021	Molybdenum, total	mg/L	0.0108
16	06/08/2021	Molybdenum, total	mg/L	0.0106
16	06/23/2021	Molybdenum, total	mg/L	0.00950
16	07/13/2021	Molybdenum, total	mg/L	0.00980
16	08/03/2021	Molybdenum, total	mg/L	0.00750
16	09/09/2021	Molybdenum, total	mg/L	0.00710
16	03/22/2022	Molybdenum, total	mg/L	0.00680
16	02/24/2021	Radium 226 + Radium 228, total	pCi/L	0.798
16	03/18/2021	Radium 226 + Radium 228, total	pCi/L	0.376
16	04/08/2021	Radium 226 + Radium 228, total	pCi/L	1.73
16	05/06/2021	Radium 226 + Radium 228, total	pCi/L	0.216
16	06/08/2021	Radium 226 + Radium 228, total	pCi/L	0.00746
16	06/23/2021	Radium 226 + Radium 228, total	pCi/L	0.643
16	07/13/2021	Radium 226 + Radium 228, total	pCi/L	0.628
16	08/03/2021	Radium 226 + Radium 228, total	pCi/L	0.167
16	09/09/2021	Radium 226 + Radium 228, total	pCi/L	0.226
16	02/24/2021	Selenium, total	mg/L	0.001 U
16	03/18/2021	Selenium, total	mg/L	0.001 U
16	04/08/2021	Selenium, total	mg/L	0.001 U
16	05/06/2021	Selenium, total	mg/L	0.001 U
16	06/08/2021	Selenium, total	mg/L	0.001 U
16	06/23/2021	Selenium, total	mg/L	0.001 U
16	07/13/2021	Selenium, total	mg/L	0.001 U
16	08/03/2021	Selenium, total	mg/L	0.001 U
16	09/09/2021	Selenium, total	mg/L	0.001 U
16	03/22/2022	Selenium, total	mg/L	0.001 U
16	02/24/2021	Thallium, total	mg/L	0.002 U
16	03/18/2021	Thallium, total	mg/L	0.002 U
16	04/08/2021	Thallium, total	mg/L	0.002 U
16	05/06/2021	Thallium, total	mg/L	0.001 U
16	06/08/2021	Thallium, total	mg/L	0.002 U
16	06/23/2021	Thallium, total	mg/L	0.002 U
16	07/13/2021	Thallium, total	mg/L	0.002 U
16	08/03/2021	Thallium, total	mg/L	0.002 U
16	03/22/2022	Thallium, total	mg/L	0.002 U
17	02/24/2021	Antimony, total	mg/L	0.001 U
17	03/18/2021	Antimony, total	mg/L	0.001 U
17	04/08/2021	Antimony, total	mg/L	0.001 U
17	05/06/2021	Antimony, total	mg/L	0.002 U





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2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENDEIN POWER PLANT

Well ID	Date	Parameter	Unit	Result
17	06/08/2021	Antimony, total	mg/L	0.001 U
17	06/23/2021	Antimony, total	mg/L	0.001 U
17	07/13/2021	Antimony, total	mg/L	0.001 U
17	08/03/2021	Antimony, total	mg/L	0.001 U
17	09/09/2021	Antimony, total	mg/L	0.001 U
17	03/22/2022	Antimony, total	mg/L	0.001 U
17	02/24/2021	Arsenic, total	mg/L	0.001 U
17	03/18/2021	Arsenic, total	mg/L	0.001 U
17	04/08/2021	Arsenic, total	mg/L	0.001 U
17	05/06/2021	Arsenic, total	mg/L	0.001 U
17	06/08/2021	Arsenic, total	mg/L	0.001 U
17	06/23/2021	Arsenic, total	mg/L	0.001 U
17	07/13/2021	Arsenic, total	mg/L	0.001 U
17	08/03/2021	Arsenic, total	mg/L	0.001 U
17	09/09/2021	Arsenic, total	mg/L	0.001 U
17	03/22/2022	Arsenic, total	mg/L	0.001 U
17	02/24/2021	Barium, total	mg/L	0.0931
17	03/18/2021	Barium, total	mg/L	0.0896
17	04/08/2021	Barium, total	mg/L	0.0572
17	05/06/2021	Barium, total	mg/L	0.0629
17	06/08/2021	Barium, total	mg/L	0.0533
17	06/23/2021	Barium, total	mg/L	0.0556
17	07/13/2021	Barium, total	mg/L	0.0531
17	08/03/2021	Barium, total	mg/L	0.0504
17	09/09/2021	Barium, total	mg/L	0.0533
17	03/22/2022	Barium, total	mg/L	0.125
17	02/24/2021	Beryllium, total	mg/L	0.001 U
17	03/18/2021	Beryllium, total	mg/L	0.001 U
17	04/08/2021	Beryllium, total	mg/L	0.001 U
17	05/06/2021	Beryllium, total	mg/L	0.001 U
17	06/08/2021	Beryllium, total	mg/L	0.001 U
17	06/23/2021	Beryllium, total	mg/L	0.001 U
17	07/13/2021	Beryllium, total	mg/L	0.001 U
17	08/03/2021	Beryllium, total	mg/L	0.001 U
17	03/22/2022	Beryllium, total	mg/L	0.001 U
17	02/24/2021	Cadmium, total	mg/L	0.001 U
17	03/18/2021	Cadmium, total	mg/L	0.001 U
17	04/08/2021	Cadmium, total	mg/L	0.001 U
17	05/06/2021	Cadmium, total	mg/L	0.001 U
17	06/08/2021	Cadmium, total	mg/L	0.001 U
17	06/23/2021	Cadmium, total	mg/L	0.001 U
17	07/13/2021	Cadmium, total	mg/L	0.001 U
17	08/03/2021	Cadmium, total	mg/L	0.001 U
17	09/09/2021	Cadmium, total	mg/L	0.001 U
17	03/22/2022	Cadmium, total	mg/L	0.001 U
17	02/24/2021	Chromium, total	mg/L	0.0015 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
2023 40 C.F.R. § 257 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT HENDEIN POWER PLANT

Well ID	Date	Parameter	Unit	Result
17	03/18/2021	Chromium, total	mg/L	0.0015 U
17	04/08/2021	Chromium, total	mg/L	0.0015 U
17	05/06/2021	Chromium, total	mg/L	0.001 U
17	06/08/2021	Chromium, total	mg/L	0.0015 U
17	06/23/2021	Chromium, total	mg/L	0.0015 U
17	07/13/2021	Chromium, total	mg/L	0.0015 U
17	08/03/2021	Chromium, total	mg/L	0.0015 U
17	09/09/2021	Chromium, total	mg/L	0.0015 U
17	03/22/2022	Chromium, total	mg/L	0.0015 U
17	02/24/2021	Cobalt, total	mg/L	0.001 U
17	03/18/2021	Cobalt, total	mg/L	0.001 U
17	04/08/2021	Cobalt, total	mg/L	0.001 U
17	05/06/2021	Cobalt, total	mg/L	0.001 U
17	06/08/2021	Cobalt, total	mg/L	0.001 U
17	06/23/2021	Cobalt, total	mg/L	0.001 U
17	07/13/2021	Cobalt, total	mg/L	0.001 U
17	08/03/2021	Cobalt, total	mg/L	0.001 U
17	09/09/2021	Cobalt, total	mg/L	0.001 U
17	03/22/2022	Cobalt, total	mg/L	0.001 U
17	02/24/2021	Fluoride, total	mg/L	0.220
17	03/18/2021	Fluoride, total	mg/L	0.180
17	04/08/2021	Fluoride, total	mg/L	0.230
17	05/06/2021	Fluoride, total	mg/L	0.320
17	06/08/2021	Fluoride, total	mg/L	0.290
17	06/23/2021	Fluoride, total	mg/L	0.290
17	07/13/2021	Fluoride, total	mg/L	0.290
17	08/03/2021	Fluoride, total	mg/L	0.250
17	09/09/2021	Fluoride, total	mg/L	0.240
17	03/22/2022	Fluoride, total	mg/L	0.180
17	09/14/2022	Fluoride, total	mg/L	0.220
17	02/24/2021	Lead, total	mg/L	0.001 U
17	03/18/2021	Lead, total	mg/L	0.001 U
17	04/08/2021	Lead, total	mg/L	0.001 U
17	05/06/2021	Lead, total	mg/L	0.001 U
17	06/08/2021	Lead, total	mg/L	0.001 U
17	06/23/2021	Lead, total	mg/L	0.001 U
17	07/13/2021	Lead, total	mg/L	0.001 U
17	08/03/2021	Lead, total	mg/L	0.001 U
17	09/09/2021	Lead, total	mg/L	0.001 U
17	03/22/2022	Lead, total	mg/L	0.001 U
17	02/24/2021	Lithium, total	mg/L	0.00699
17	03/18/2021	Lithium, total	mg/L	0.00830
17	04/08/2021	Lithium, total	mg/L	0.00520
17	05/06/2021	Lithium, total	mg/L	0.005 U
17	06/08/2021	Lithium, total	mg/L	0.00580
17	06/23/2021	Lithium, total	mg/L	0.00610





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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Well ID	Date	Parameter	Unit	Result
17	07/13/2021	Lithium, total	mg/L	0.00660
17	08/03/2021	Lithium, total	mg/L	0.00620
17	09/09/2021	Lithium, total	mg/L	0.00620
17	03/22/2022	Lithium, total	mg/L	0.0101
17	02/24/2021	Mercury, total	mg/L	0.0002 U
17	03/18/2021	Mercury, total	mg/L	0.0002 U
17	04/08/2021	Mercury, total	mg/L	0.0002 U
17	05/06/2021	Mercury, total	mg/L	0.0002 U
17	06/08/2021	Mercury, total	mg/L	0.0002 U
17	06/23/2021	Mercury, total	mg/L	0.0002 U
17	07/13/2021	Mercury, total	mg/L	0.0002 U
17	08/03/2021	Mercury, total	mg/L	0.0002 U
17	03/22/2022	Mercury, total	mg/L	0.0002 U
17	02/24/2021	Molybdenum, total	mg/L	0.00560
17	03/18/2021	Molybdenum, total	mg/L	0.00400
17	04/08/2021	Molybdenum, total	mg/L	0.00530
17	05/06/2021	Molybdenum, total	mg/L	0.00761
17	06/08/2021	Molybdenum, total	mg/L	0.00770
17	06/23/2021	Molybdenum, total	mg/L	0.00760
17	07/13/2021	Molybdenum, total	mg/L	0.00750
17	08/03/2021	Molybdenum, total	mg/L	0.00650
17	09/09/2021	Molybdenum, total	mg/L	0.00600
17	03/22/2022	Molybdenum, total	mg/L	0.00340
17	02/24/2021	Radium 226 + Radium 228, total	pCi/L	0.382
17	03/18/2021	Radium 226 + Radium 228, total	pCi/L	0.116
17	04/08/2021	Radium 226 + Radium 228, total	pCi/L	0.103
17	05/06/2021	Radium 226 + Radium 228, total	pCi/L	0.257
17	06/08/2021	Radium 226 + Radium 228, total	pCi/L	0.408
17	06/23/2021	Radium 226 + Radium 228, total	pCi/L	0.511
17	07/13/2021	Radium 226 + Radium 228, total	pCi/L	0.0926
17	08/03/2021	Radium 226 + Radium 228, total	pCi/L	0.0882
17	09/09/2021	Radium 226 + Radium 228, total	pCi/L	0.511
17	02/24/2021	Selenium, total	mg/L	0.001 U
17	03/18/2021	Selenium, total	mg/L	0.001 U
17	04/08/2021	Selenium, total	mg/L	0.001 U
17	05/06/2021	Selenium, total	mg/L	0.001 U
17	06/08/2021	Selenium, total	mg/L	0.001 U
17	06/23/2021	Selenium, total	mg/L	0.001 U
17	07/13/2021	Selenium, total	mg/L	0.001 U
17	08/03/2021	Selenium, total	mg/L	0.001 U
17	09/09/2021	Selenium, total	mg/L	0.001 U
17	03/22/2022	Selenium, total	mg/L	0.001 U
17	02/24/2021	Thallium, total	mg/L	0.002 U
17	03/18/2021	Thallium, total	mg/L	0.002 U
17	04/08/2021	Thallium, total	mg/L	0.002 U
17	05/06/2021	Thallium, total	mg/L	0.001 U





ANALYTICAL RESULTS USED IN BACKGROUND CALCULATIONS
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LANDFILL

HENNEPIN, IL

Well ID	Date	Parameter	Unit	Result
17	06/08/2021	Thallium, total	mg/L	0.002 U
17	06/23/2021	Thallium, total	mg/L	0.002 U
17	07/13/2021	Thallium, total	mg/L	0.002 U
17	08/03/2021	Thallium, total	mg/L	0.002 U
17	03/22/2022	Thallium, total	mg/L	0.002 U

Notes:

mg/L = milligrams per liter
pCi/L = picoCuries per liter

J = The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.

U = The analyte was analyzed for, but was not detected above the level of the adjusted detection limit or quantitation limit, as appropriate.

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APPENDIX D ALTERNATIVE SOURCE DEMONSTRATIONS

Prepared for

Dynegy Midwest Generation, LLC

Date

May 1, 2023

Project No.

1940103649-008

40 C.F.R. § 257.94(e)(2): ALTERNATE SOURCE DEMONSTRATION LANDFILL HENNEPIN POWER PLANT HENNEPIN, ILLINOIS CCR UNIT 801

CERTIFICATIONS

I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Brian G. Hennings
Professional Geologist

196-001482 Illinois

Ramboll Americas Engineering Solutions, Inc.

Date: May 1, 2023



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

Eric J. Tlachac

Qualified Professional Engineer

062-063091

Illinois

Ramboll Americas Engineering Solutions, Inc.

Date: May 1, 2023



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TABLES (IN TEXT)

Table A Construction Events Affecting AP2 and AP4

FIGURES (IN TEXT)

Figure A Box-Whisker Plot Showing Distribution of Total Boron
Figure B Box-Whisker Plot Showing Total Fluoride Concentrations

FIGURES (ATTACHED)

Figure 1 Monitoring Well Location Map

Figure 2 Potentiometric Surface Map – September 13-14, 2022

APPENDICES

Appendix A Groundwater Elevation Contour Maps

Appendix B Bottom Ash Leachate Data

ACRONYMS AND ABBREVIATIONS

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

AP2 Ash Pond No. 2 AP4 Ash Pond No. 4

ASD Alternate Source Demonstration

CCR coal combustion residuals
CCR Rule 40 C.F.R. § 257 Subpart D

CEC Civil & Environmental Consultants, Inc.

cm/s centimeters per second

D11 Detection Monitoring Round 11
HDPE high-density polyethylene

Hennepin East includes Landfill, AP2, AP4, and East Ash Pond

HPP Hennepin Power Plant

IEPA Illinois Environmental Protection Agency

LOE(s) line(s) of evidence mg/L milligrams per liter

NAVD88 North American Vertical Datum of 1988

No. Number

NPDES National Pollutant Discharge Elimination System

NRT Natural Resource Technology, Inc.

NRT/OBG Natural Resource Technology, an OBG Company

OBG O'Brien & Gere Engineers, Inc.

OWAP Old West Ash Pond oz/sy ounce per square yard

Ramboll Ramboll Americas Engineering Solutions, Inc.

SSI statistically significant increase

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.94(e)(2) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of statistically significant increases (SSI) over background for groundwater constituents listed in Appendix III of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSI(s) (Alternate Source Demonstration [ASD]), or that the SSI(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

This ASD has been prepared on behalf of Dynegy Midwest Generation, LLC, by Ramboll Americas Engineering Solutions, Inc. (Ramboll), to provide pertinent information pursuant to 40 C.F.R. § 257.94(e)(2) for the Hennepin Power Plant (HPP) Landfill, located near Hennepin, Illinois.

The most recent Detection Monitoring sampling event (Detection Monitoring Round 11 [D11]) samples were collected on September 14, 2022, and analytical data were received on October 31, 2022. In accordance with 40 C.F.R. § 257.93(h)(2), statistical analysis of the data to identify SSIs of 40 C.F.R. § 257 Subpart D (CCR Rule) Appendix III parameters over background concentrations was completed by January 31, 2023. The statistical determination identified the following SSIs at compliance monitoring wells:

- Boron at wells 05R, 05DR, 40S, and 48
- Fluoride at wells 05R, 05DR, 40S, and 48
- pH at wells 05R, 40S

Pursuant to 40 C.F.R. § 257.94(e)(2), the lines of evidence (LOEs) described in **Section 3** demonstrate that sources other than the Landfill were the cause of the SSIs listed above. This ASD was completed by May 1, 2023, within 90 days of determination of the SSIs, as required by 40 C.F.R. § 257.94(e)(2).

2. BACKGROUND

2.1 Site Location and Description

The HPP is located in the northwest quarter of Section 26, Township 33 North, Range 2 West, Putnam County, Illinois and approximately 3 miles north-northeast of the Village of Hennepin. The Landfill is located east of the HPP, situated less than 200 feet from the south bank of the Illinois River and approximately one mile east of the Big Bend, where the river shifts course from predominantly west to predominantly south.

The Landfill is one of four CCR units regulated under 40 C.F.R. § 257 Subpart D (CCR Rule) at the HPP. Three CCR units (the Landfill, Ash Pond Number (No.) 2 [AP2], and the East Ash Pond) and one unit not regulated by the CCR Rule (Ash Pond No. 4 [AP4]) are located adjacent to each other and east of the HPP and are collectively known as Hennepin East. The fourth CCR unit (Old West Ash Pond [OWAP]), is located west of the HPP. Areas surrounding the Landfill include industrial properties to the east and south, agricultural land to the southwest, and the HPP to the west. The CCR units at Hennepin East and surrounding properties are shown on **Figure 1**.

2.2 Groundwater Monitoring

The Landfill groundwater monitoring system for compliance with the CCR Rule consists of three background monitoring wells (07, 08, and 08D) and four compliance monitoring wells (05R, 05DR, 40S, and 48). A map showing the groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. **Figure 1** also includes monitoring wells for other CCR units located upgradient of the Landfill (12, 13, 16, and 17) which are not part of the Landfill monitoring system but are used to support the LOEs discussed in **Section 3**.

Groundwater samples are collected and analyzed in accordance with the Sampling and Analysis Plan prepared for the Landfill (Natural Resource Technology, an OBG Company [NRT/OBG], 2017b). Statistical evaluation of analytical data is performed in accordance with the Statistical Analysis Plan (NRT/OBG, 2017a).

2.3 Site History

The HPP has two coal-fired generating units constructed in 1953 and 1959 with a total capacity of 210 Megawatts. Operations were ceased in November 2019. The coal source changed several times during the plant's operational history. The history of CCR management at Hennepin East is summarized below.

AP2/AP4: AP2 was used to store and dispose fly ash, bottom ash, and other non-CCR waste streams, including coal pile runoff. The pond originally encompassed the area that currently includes the existing AP2, the Landfill, and the Leachate Pond (not a CCR unit). AP2 has been inactive since 1996 and currently encompasses approximately 18 acres. AP2 is unlined with a lowermost, but variable, bottom elevation (referenced to the North American Vertical Datum of 1988 [NAVD88]) of 451 feet. AP4 (located south of AP2) is an unlined, closed impoundment (capped or otherwise maintained) not subject to CCR Rule requirements.

A Modified Closure Work Plan was submitted to Illinois Environmental Protection Agency (IEPA) in 2010 proposing closure of AP2 by capping with future Landfill phases as they were constructed

(Kelron Environmental and Natural Resource Technology, Inc. [NRT], 2010). The Modified Closure Work Plan was approved by IEPA in a letter dated March 3, 2010. The Landfill is Phase I of the Modified Closure Work Plan. The formerly proposed Landfill Phases II, III, and IV will no longer be constructed upon AP2. Therefore, a Closure and Post Closure Care Plan for AP2 was submitted for IEPA approval in February 2018 (Civil & Environmental Consultants, Inc. [CEC], 2018). A Closure Plan Addendum, which incorporates AP4, was submitted in October 2018 (O'Brien & Gere Engineers, Inc. [OBG] and CEC, 2018). IEPA approved the Closure and Post Closure Care Plan for Hennepin AP2/AP4 on February 26, 2020, following correspondence in 2019 (OBG, part of Ramboll, 2019) to address IEPA comments. Closure construction began on May 21, 2020, and was completed on November 17, 2020. The final cover system on AP2/AP4 consists of a 24-inch compacted soil barrier with a hydraulic conductivity of no more than 1 x 10⁻⁷ centimeters per second (cm/s) overlain by a 6-inch thick vegetative cover layer. The cover system was extended eastward to overlap with the western end of the Landfill geomembrane liner and southward to the side slope of the East Ash Pond. The approximate dates of construction affecting AP2 and AP4 are summarized in **Table A** below (AECOM, 2016).

Table A. Construction Events Affecting AP2 and AP4

Date	Event	
1958	Construction of AP2.	
1978	Embankment raise of AP2.	
1985	Embankment raise of AP2 to elevation 484 feet NAVD88.	
1989	Embankment raise of AP2 to elevation 494 feet NAVD88.	
1996	AP2 was removed from service and completely dewatered.	
2009 to 2010	Eastern portion of AP2 was removed to facilitate construction of the Leachate Pond.	
2010/2011	Landfill Phase I cell was constructed in 2010 over placed CCR in AP2 adjacent to the Leachate Pond. In February 2011, 7,500 cubic yards of bottom ash was placed into the Phase I cell as a post-construction freeze-protection measure to protect the leachate collection system and geomembrane liner. No other material (fly ash or bottom ash) has been placed in the Landfill since.	
2014	North Embankment tree removal, grading, and vegetation re-establishment adjacent to AP2.	
2020	AP2 and AP4 closed in place in accordance with IEPA-approved closure plan.	

Landfill: The Landfill Phase I cell, covering approximately 4.5 acres, was constructed in 2010 over existing, dewatered CCR in AP2 as part of the Modified Closure Work Plan for AP2. The Phase I cell was constructed with a composite liner (geomembrane over compacted clay) and leachate collection system above the liner that transfers collected precipitation and leachate to the Leachate Pond. Ash fill underlying the Landfill is known to be present to a minimum elevation of 454 feet (referenced to NAVD88).

In February 2011, 7,500 cubic yards of bottom ash was placed into the Landfill as a post-construction freeze protection measure to protect the leachate collection system and geomembrane liner. No other material has been placed in the Landfill since.

East Ash Pond: The East Ash Pond was used to store and dispose bottom ash, fly ash, and other non-CCR waste, and to clarify process water prior to discharge in accordance with the plant's National Pollutant Discharge Elimination System (NPDES) permit. The pond was constructed in

two phases. The first phase occurred in 1995 when the initial embankment was constructed to a total height of 32 feet with a lowermost, but variable, bottom elevation of the pond at 458 feet. The original pond bottom was lined with a 4-foot thick layer of compacted clay with a hydraulic conductivity of 1×10^{-7} cm/s, underlain by a 1-foot thick sand layer (AECOM, 2016). The pond depth behind the original embankment was 15 feet with 5 feet of freeboard. The embankment was raised 12 feet in 2003 to a total impoundment depth of 30 feet with 2 feet of freeboard. The liner system of the embankment raise consisted of (from top to bottom) a 45-mil reinforced polypropylene geomembrane, a 1-foot thick clay layer, and an 8 ounce per square yard (oz/sy) polypropylene geotextile fabric. This pond was used for the treatment of bottom ash transport water, miscellaneous low volume wastewater streams, and storage of unsold fly ash until plant operations ceased in November 2019.

Polishing Pond: The Polishing Pond (located east of the East Ash Pond) is not subject to CCR Rule requirements and was constructed in 1995 with a 48-inch-thick compacted clay liner having a vertical hydraulic conductivity of 1 x 10^{-7} cm/s.

Leachate Pond: The Leachate Pond (located east of the Landfill) is not subject to CCR Rule requirements and is a 25.5-acre-foot pond constructed with a composite liner consisting of 60-mil high-density polyethylene (HDPE) overlying two feet of compacted clay with a vertical hydraulic conductivity of 1 x 10^{-7} cm/s. Construction was completed December 2010.

2.4 Site Hydrogeology and Stratigraphy

A detailed hydrogeological assessment of the HPP was completed and submitted as part of the February 2018 supplemental Closure and Post Closure Care Plan for AP2 and subsequent Addenda (previously referenced). Information pertinent to this ASD is included in this report; however, more complete information on site hydrogeology and stratigraphy is available in the Closure Plan Addendum (OBG and CEC, 2018).

There are three dominant geomorphic features in the immediate vicinity of the HPP: an upper river terrace at an elevation of about 500 to 550 feet NAVD88, a lower river terrace at an elevation of about 450 to 460 feet NAVD88, and the current river valley filled with alluvium to an elevation of about 445 feet NAVD88. The HPP, AP2, and the Landfill were constructed on the original narrow lower river terrace between the Illinois River and the upper terrace. The original lower river terrace is approximately 10 to 20 feet above the average river level at the HPP (elevation 443.7 feet NAVD88) based upon measurements collected between 2003 and 2018 (OBG, part of Ramboll, 2020). The AP2 berm slopes steeply toward the river and its toe is close to the riverbank. The East Ash Pond, Polishing Pond, and AP4 were constructed on the upper river terrace at an elevation of approximately 500 to 505 feet NAVD88, or 60 to 65 feet above the average river level.

The hydrogeological assessment identified that the stratigraphy within and immediately surrounding Hennepin East consists of fill, unlithified river alluvium, and Pleistocene-age glacial outwash deposits overlying Pennsylvanian-age shale bedrock. Constructed berms consist of a variety of locally available materials, primarily sand, gravel, and coal ash. Where undisturbed or partially excavated, the native surficial soil at the site is poorly drained, moderately permeable silty clay loam formed as alluvium in floodplains.

There are two hydrogeologic units present at Hennepin East: alluvium and Henry Formation sands and gravels. The river is immediately adjacent to the lower terrace, east of Hennepin East,

and there is minimal alluvium between Hennepin East and the river. The highly permeable Henry Formation sands and gravels make up the upper and lower terraces and fill the valley beneath the alluvium. The sands and gravels of the two terraces are indistinguishable, consisting of a heterogeneous mixture of silty-sandy gravel with cobble zones and boulders up to several feet in diameter. The Henry Formation is more than 100 feet thick in the river valley and at least 130 feet thick on the upper terrace.

The Henry Formation and alluvium comprise the Uppermost Aquifer at Hennepin East and extend from the water table to the bedrock. The Uppermost Aquifer extends about 7,000 feet upgradient from Hennepin East to the south, where clay-rich glacial till is encountered. Glacial tills such as this typically yield little water.

The Pennsylvanian-age bedrock consists of interbedded layers of shale with thin limestone, sandstone, and coal beds. The shale bedrock unit has low hydraulic conductivity and defines the lower boundary of the Uppermost Aguifer.

The hydraulic gradient within the Uppermost Aquifer in the vicinity of Hennepin East varies with the elevation of the Illinois River (see select groundwater elevation contour maps in **Appendix A**). The direction of groundwater flow is most often toward the river to the north and west, but comparison of groundwater and river elevation data indicate reversals in this flow direction during times of high river elevations. The relative duration of these events is short, which leads to the determination of a predominant groundwater flow direction toward the river to the north and west.

Groundwater elevations were obtained from measurements in monitoring wells on September 13-14, 2022, prior to the D11 sampling event at the site. Groundwater elevations for Hennepin East during the D11 sampling event are shown in **Figure 2** and ranged from 443.25 feet NAVD88 (in well 55) to 454.90 feet NAVD88 (in well 15). Groundwater flow was generally towards the Illinois River with groundwater flowing from southeast to northwest beneath the Landfill.

3. ALTERNATE SOURCE DEMONSTRATION: LINES OF EVIDENCE

As allowed by 40 C.F.R. § 257.94(e)(2), this ASD demonstrates that sources other than the Landfill (the CCR unit) caused the SSIs. LOEs supporting this ASD include the following:

- 1. Landfill liner design.
- 2. Concentrations of boron in landfill leachate are lower than those observed in downgradient groundwater.
- 3. Previous vertical infiltration of surface water through ash fill in AP2.
- 4. Upgradient concentrations of fluoride.

Data and information supporting these LOEs are discussed in more detail below.

3.1 LOE #1: Landfill Liner Design

The Landfill was constructed in 2010 with a 60-mil HDPE geomembrane overlying three feet of compacted clay with hydraulic conductivity of 1×10^{-7} cm/sec (CEC, 2010). Precipitation and/or leachate that collects on top of the liner is removed by a leachate collection system and transferred to the Leachate Pond for management. The Leachate Pond is also lined with a 60-mil HDPE liner overlying two feet of compacted clay.

The IEPA-approved Landfill composite liner system exceeds the design criteria for a composite liner for new CCR landfills established by 40 C.F.R. § 257.70(b). The composite liner design criteria were established to help prevent contaminants in CCR from leaking from the CCR unit and impacting groundwater. Therefore, the presence of the composite liner suggests that the Landfill is not the source of the observed SSIs.

3.2 LOE #2: Concentrations of Boron in Landfill Leachate are Lower than those Observed in Downgradient Groundwater

The only material that has been placed in the lined Landfill consists of a layer of coarse bottom ash (7,500 cubic yards or 11,625 tons) to protect the leachate collection system and geomembrane liner from freezing. There has been no additional CCR landfilling activity within the lined area since the bottom ash freeze protection layer was installed.

Analytical data (**Appendix B**) from two samples of bottom ash leachate derived in the laboratory (extraction method ASTM D3987, shake extraction with water) identified boron concentrations of 0.193 milligrams per liter (mg/L) (2009 sample) and 0.197 mg/L (2008 sample).

A box-whisker plot of total boron concentrations detected between 2015 and 2022 at monitoring wells near the Landfill is shown on **Figure A** on the following page. The boron concentrations of 0.193 and 0.197 mg/L detected in the laboratory-derived leachate samples are below the boron concentrations observed in downgradient wells as shown in **Figure A**. Analytical data available for laboratory-derived leachate from the bottom ash placed in the Landfill indicates that the bottom ash is not capable of leaching boron in concentrations observed in the downgradient monitoring wells.

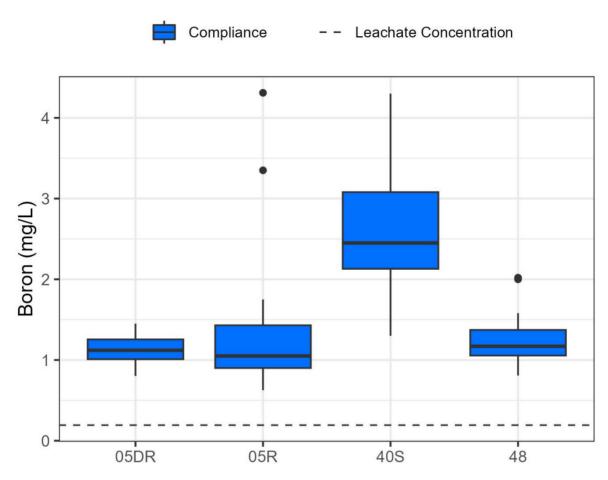


Figure A. Box-Whisker Plot Showing Distribution of Total Boron.

3.3 LOE #3: Previous Vertical Infiltration of Surface Water through Ash Fill in AP2

The Landfill was constructed over the eastern portion of AP2 as Phase I of an IEPA-approved Modified Closure Work Plan for AP2. The portions of AP2 to the west of the Landfill were previously exposed, and subject to infiltration of precipitation and generation of CCR leachate. AP2 is unlined, and prior to capping of the eastern end of the ash pond by construction of the Landfill liner, potentially allowed CCR constituents to percolate downward to groundwater. The previously exposed portions of AP2 outside of the footprint of the Landfill may be an alternate source for CCR parameters observed in groundwater near the Landfill. However, a soil cover designed to minimize surface water infiltration and CCR-impacts to groundwater was constructed over these exposed portions of AP2 in 2020 as part of a Closure and Post Closure Care Plan for AP2 approved by IEPA on February 26, 2020.

Comparison of groundwater and Illinois River elevation data indicate that natural variation in river elevation related to flood events occasionally causes groundwater flow reversal and increases in groundwater elevations in the Uppermost Aquifer beneath the Landfill. When river elevations rise above 451 to 454 feet NAVD88, low-lying ash deposits underlying the Landfill have the potential to become partially saturated for a transient period. The short-term, partial

saturation may result in a temporary change to some CCR constituent concentrations at some compliance locations after the predominant groundwater flow direction is reestablished. Explicit simulation of flood events (OBG, part of Ramboll, 2020) indicates that potential increases in concentrations from flooding of the Illinois River are small and transient, such that long-term concentrations will not be significantly affected.

3.4 LOE #4: Upgradient Concentrations of Fluoride

The groundwater potentiometric surface map in **Figure 2** shows a major component of unconfined groundwater flow originates from areas upgradient of the Landfill to the east and south. A box-whisker plot of total fluoride concentrations detected between 2015 and 2022 at monitoring wells near the Landfill is presented in **Figure B** on the following page. Included on this figure are total fluoride concentrations detected at background and downgradient compliance wells, as well as those detected at other wells upgradient of the Landfill, but not part of the monitoring system for the Landfill (12, 13, 16, and 17).

The box-whisker plot on **Figure B** shows two groupings of total fluoride concentrations as follows:

- Low Concentrations: The low concentrations are at background wells 07, 08, and 08D and downgradient compliance wells 05R, 05DR, 40S, and 48.
- High Concentrations: The high concentrations of fluoride occur at wells 12 and 13, located upgradient of the Landfill, and at wells 16 and 17 located upgradient of the East Ash Pond near the property boundary.

The fact that concentrations of fluoride are higher in monitoring wells upgradient of the Landfill than those in downgradient wells demonstrates that the Landfill is not the source of fluoride SSIs observed in the compliance wells.

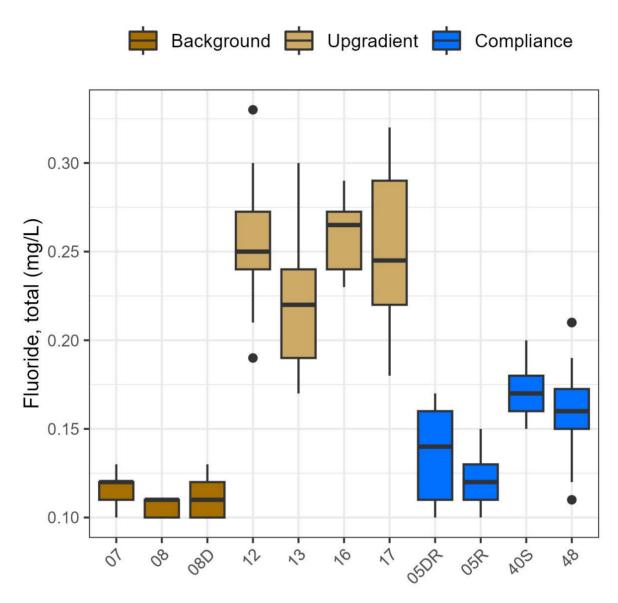


Figure B. Box-Whisker Plot Showing Total Fluoride Concentrations.

4. CONCLUSIONS

Based on these four LOEs, it has been demonstrated that the Landfill is not the source of the boron, fluoride, and pH SSIs identified in wells 05R, 05DR, 40S, and 48.

- 1. Landfill liner design.
- 2. Concentrations of boron in landfill leachate are lower than those observed in downgradient groundwater.
- 3. Previous vertical infiltration of surface water through ash fill in AP2.
- 4. Upgradient concentrations of fluoride.

Based on the LOEs presented, the following alternate sources are causing the SSIs observed in the Landfill's compliance wells:

- Boron: SSIs for boron may be attributed to portions of AP2 to the west of the Landfill that
 were previously exposed, and subject to infiltration of precipitation and generation of CCR
 leachate outside the Landfill boundary.
- Fluoride: It is likely that areas upgradient of the Landfill present alternate sources of fluoride based on the fact that concentrations of fluoride are higher upgradient of the Landfill than downgradient of the Landfill.
- pH: SSIs for pH may be attributed to portions of AP2 to the west of the Landfill that were previously exposed, and subject to infiltration of precipitation and generation of CCR leachate outside the Landfill boundary.

This information serves as the written ASD report prepared in accordance with 40 C.F.R. § 257.94(e)(2) that SSIs observed during the D11 monitoring event were not caused by the Landfill but were from other sources. Therefore, an assessment monitoring program is not required, and the Landfill will remain in detection monitoring.

5. REFERENCES

AECOM, 2016. Hennepin Power Station – History of Construction, 40 CFR § 257.73(c). October 2016.

Civil & Environmental Consultants, Inc. (CEC), 2010. Hennepin CCW Landfill – Phase 1 Construction Completion Report, Hennepin Power Station, Hennepin, Putnam County, Illinois. December 2010.

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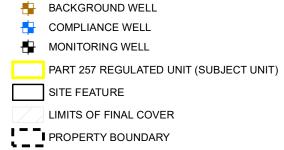
Natural Resource Technology, an OBG Company (NRT/OBG), 2017b. Sampling and Analysis Plan, Hennepin Landfill, Hennepin Power Station, Hennepin, Illinois, Project No. 2285, Revision 0. October 17, 2017.

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O'Brien & Gere Engineers, Inc., part of Ramboll (OBG, part of Ramboll), 2019. Response to IEPA Comments - Closure and Post-Closure Care Plan for the Hennepin East Ash Pond No. 2 and Closure Plan Addendum Hennepin East Ash Pond No 2 which includes closure of Ash Pond No. 4. July 22, 2019.

O'Brien & Gere Engineers, Inc., part of Ramboll (OBG, part of Ramboll), 2020. River Flood Evaluation Report, Hennepin East Ash Pond No. 2 and No. 4, Closure Plan Addendum 3. January 15, 2020.

FIGURES



175 350

MONITORING WELL LOCATION MAP

ALTERNATE SOURCE DEMONSTRATION LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.





COMPLIANCE MONITORING WELL

BACKGROUND MONITORING WELL

MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)

- - - INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

GROUNDWATER MANAGEMENT ZONE

PART 257 REGULATED UNIT (SUBJECT UNIT)

LIMITS OF FINAL COVER

SITE FEATURE

PROPERTY BOUNDARY

NOTE

- 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
- 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- *ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT

175 350

POTENTIOMETRIC SURFACE MAP SEPTEMBER 13 AND 14, 2022

ALTERNATE SOURCE DEMONSTRATION LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

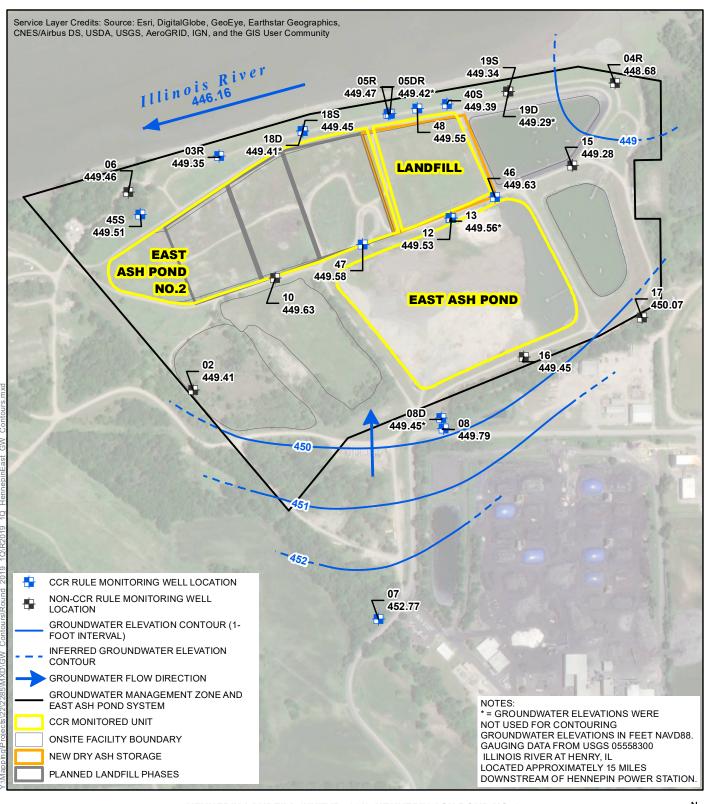
FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.



APPENDICES

APPENDIX A GROUNDWATER ELEVATION CONTOUR MAPS

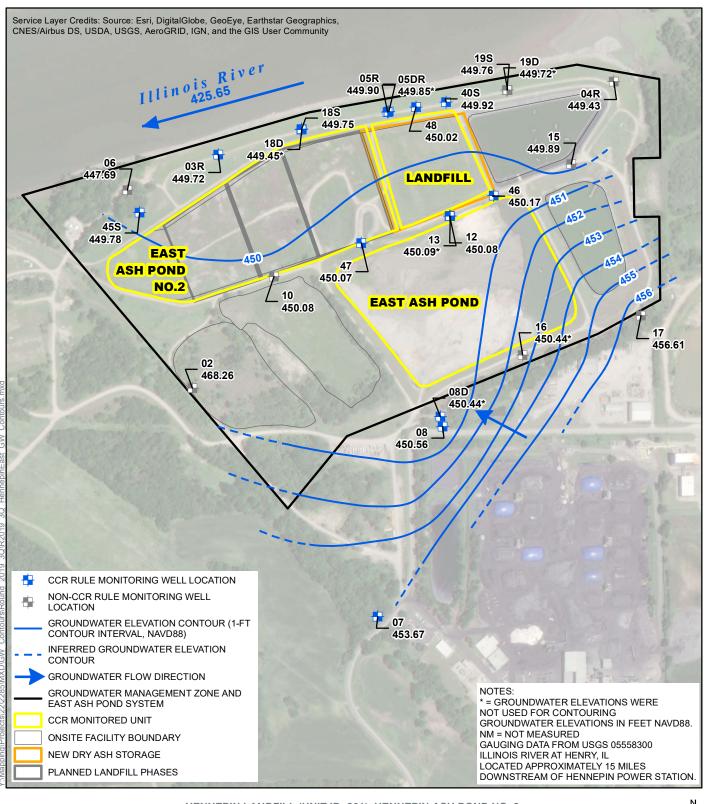


HENNEPIN LANDFILL (UNIT ID: 801), HENNEPIN ASH POND NO. 2 (UNIT ID: 802), AND HENNEPIN EAST ASH POND (UNIT ID: 803) GROUNDWATER ELEVATION CONTOUR MAP MARCH 13, 2019

> CCR RULE GROUNDWATER MONITORING HENNEPIN POWER STATION HENNEPIN, ILLINOIS







HENNEPIN LANDFILL (UNIT ID: 801), HENNEPIN ASH POND NO. 2 (UNIT ID: 802), AND HENNEPIN EAST ASH POND (UNIT ID: 803) GROUNDWATER ELEVATION CONTOUR MAP SEPTEMBER 17, 2019

> CCR RULE GROUNDWATER MONITORING HENNEPIN POWER STATION HENNEPIN, ILLINOIS





APPENDIX B BOTTOM ASH LEACHATE DATA

TEKLAB, INC.

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

August 03, 2009

John Augspols Dynegy Midwest Generation 13498 East 800th Street Hennepin, IL 61327

TEL: (815) 339-9218

FAX:



1(22111 11001001000 #100220

RE: Hennepin Station Bottom Ash WorkOrder: 09070896

Dear John Augspols:

TEKLAB, INC received 1 sample on 7/24/2009 9:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. IL ELAP and NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ideather A. White

Heather A. White Project Manager (618)344-1004 ex 20

CASE NARRATIVE

TEKLAB, INC.

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

Client: Dynegy Midwest GenerationProject: Hennepin Station Bottom Ash

LabOrder: 09070896

Report Date: 03-Aug-09 Cooler Receipt Temp: 22.8 °C

State accreditations:

KS: NELAP #E-10347 | KY: UST #0073 | MO: DNR #00930 | AR: ADEQ #70-028-0

Qualifiers

DF - Dilution Factor

RL - Reporting Limit

 $\boldsymbol{ND}\,$ - Not Detected at the Reporting Limit

 ${\bf Surr} \quad \hbox{- Surrogate Standard added by lab}$

 $\boldsymbol{TNTC}\;$ - Too numerous to count ($>200\;CFU$)

Q - QC criteria failed or noncompliant CCV

11(1C 100 numerous to count (> 200 Cr O)

B - Analyte detected in the associated Method Blank

 $\boldsymbol{J}\;$ - Analyte detected below reporting limits

 $\boldsymbol{R}\,$ - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

X - Value exceeds Maximum Contaminant Level

- Unknown hydrocarbon

NELAP - IL ELAP and NELAP Accredited Field of Testing IDPH - IL Dept. of Public Health

C - Client requested RL below PQL

D - Diluted out of sample

E - Value above quantitation range

H - Holding time exceeded

MI - Matrix interference

DNI - Did not ignite



ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

LABORATORY RESULTS

Client: Dynegy Midwest Generation

Client Project: Hennepin Station Bottom Ash

WorkOrder: 09070896

Client Sample ID: Hennipin Station Bottom Ash

Report Date: 03-Aug-09 Matrix: SOLID

Analyses	Certification RL	Qual	Result	Units	DF	Date Analyzed Ana	alyst
ASTM D3987, SW-846 3005A, 6010	B, METALS IN SHAKE EX	TRACT I	ВҮ ІСР				
Arsenic	0.0250		< 0.0250	mg/L	1	7/29/2009 3:49:50 PM	LAL
Barium	0.0050		0.116	mg/L	1	7/29/2009 11:19:44 AM	LAL
Beryllium	0.0010		< 0.0010	mg/L	1	7/29/2009 11:19:44 AM	LAL
Boron	0.0200		0.193	mg/L	1	8/3/2009 10:30:48 AM	LAL
Cadmium	0.0020		< 0.0020	mg/L	1	7/29/2009 3:49:50 PM	LAL
Chromium	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Cobalt	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Copper	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Iron	0.0300		0.0687	mg/L	1	7/29/2009 3:49:50 PM	LAL
Manganese	0.0050		< 0.0050	mg/L	1	7/29/2009 3:49:50 PM	LAL
Nickel	0.0100		< 0.0100	mg/L	1	7/29/2009 3:49:50 PM	LAL
Selenium	0.0500		< 0.0500	mg/L	1	7/29/2009 3:49:50 PM	LAL
Silver	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Zinc	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
ASTM D3987, SW-846 3020A, MET	TALS IN SHAKE EXTRAC	T BY GFA	<u>AA</u>				
Antimony, SHAKE by GFAA 7041	0.0050		< 0.0050	mg/L	1	7/29/2009 2:45:16 PM	MEK
Lead, SHAKE by GFAA 7421	0.0020	J	0.0011	mg/L	1	7/29/2009 10:18:30 AM	MEK
Thallium, SHAKE by GFAA 7841	0.0020		< 0.0020	mg/L	1	7/29/2009 2:41:30 PM	MEK
ASTM D3987, SW-846 7470A IN SI	HAKE EXTRACT						
Mercury, SHAKE	0.00020		< 0.00020	mg/L	1	7/28/2009	ALU

Sample Narrative

TEKLAB, INC.

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

RECEIVING CHECK LIST **Client:** Dynegy Midwest Generation **Project:** Hennepin Station Bottom Ash Lab Order: 09070896 Report Date: 03-Aug-09 Carrier: UPS Received By: DB Completed by: Marin L. Darling II Reviewed by: Ideash w A. White On: On: 24-Jul-09 24-Jul-09 Heather A. White Marvin L. Darling Pages to follow: Chain of custody Extra pages included Yes 🗸 No 🗌 Not Present Shipping container/cooler in good condition? Temp °C 22.8 Type of thermal preservation? None Ice Blue Ice Dry Ice No 🗹 Chain of custody present? Yes No 🗹 Chain of custody signed when relinquished and received? Yes Chain of custody agrees with sample labels? Yes No | **✓** Samples in proper container/bottle? Yes No 🗀 Sample containers intact? Yes 🔽 No 🗀 Sufficient sample volume for indicated test? Yes No 🗀 All samples received within holding time? Yes 🗸 No | NA 🗸 Field \bigsqcup Lab 🔲 Reported field parameters measured: Yes 🗹 No \square Container/Temp Blank temperature in compliance? When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected. Water - VOA vials have zero headspace? Yes No L No VOA vials submitted Yes 🗹 No 🗌 Water - pH acceptable upon receipt? Any No responses must be detailed below or on the COC. Sample id and collection date/time obtained from sample container. Per John Augspols, sample ID and collection/date time on the container are

Sample id and collection date/time obtained from sample container. Per John Augspols, sample ID and collection/date time on the container are correct. Analyze for the same list of parameters as in 2008. EAH 7/27/09

TEKLAB, INC

5445 Horseshoe Lake Road Collinsville, IL 62234-7425

TEL: (618) 344-1004 FAX: (618) 344-1005 **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

WorkOrder: 09070896

Client:

Dynegy Midwest Generation 13498 East 800th Street

TEL: (815) 339-9218

FAX:

Hennepin, IL 61327 Project: Hennepin Station Bottom As

24-Jul-09

			Date Collected Bottle		Requested Tests					
Sample ID	ClientSampID	Matrix		D3987/6010B	D3987/7000 G	D3987/SW74 70A				
09070896-001	Hennipin Station Bottom	Solid	7/22/2009 11:00:00 AM		A	Α	Α			
Comments:		***************************************	Date/Tir	me	22.86	I CÉ	2 1 1		Date/Time	
Relinquished	by:	-		~~~	Received by	: <u>/_</u>	13.HJ	(UPS)	7/24/04 900	
Relinquished	by:		THE PETER PROPERTY AND ADMINISTRAL PROPERTY AND ADMINISTRATION AND ADMINISTRAL PROPERTY AND ADMINISTRATION ADMINISTRATION ADMINISTRAL PROPERTY AND ADMINISTRATION ADMI		Received by	7:				
Relinquished	by:		MAA MAA MAA MAA MAA MAA MAA MAA MAA MAA		Received by	/ :				
E .									,	

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Please find enclosed a bottom ash sample to be run for the same parameters as last year. I enclosed those results with the sample. I would like to pay for this with a credit card. If you have any questions please contact, me:

John Augspols

Supv. Environmental and Chemistry

(815) 339-9218

Fax (815) 339 -2772

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004

FAX: 618-344-1005

LABORATORY RESULTS

Client: Dynegy Midwest Generation

WorkOrder: 08060909

Lab ID: 08060909-001

Report Date: 02-Jul-08

Client Project: Hennepin Station Bottom Ash

Client Sample ID: Hennipin Station Botton Ash

Collection Date: 6/24/2008 9:00:00 AM

Matrix: SOLID

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed A	nalyst
ASTM D3987, SW-846 3005A, 6010B	METALS IN SHA	KE EX	TRACT I	ЗҮ ІСР				
Arsenic		.0250		< 0.0250	mg/L	1	6/30/2008 12:29:55 Pt	/ LAL
Barium	C	.0050		0.0699	mg/L	1	6/30/2008 12:29:55 Pt	/ LAL
Beryllium	C	.0010		< 0.0010	mg/L	1	6/30/2008 12:29:55 PM	/ LAL
Boron	C	.0200		0.197	mg/L	1	6/30/2008 12:29:55 Pt	/ LAL
Cadmium	0	.0020		< 0.0020	mg/L	1	6/30/2008 12:29:55 PM	/ LAL
Chromium	C	.0100		< 0.0100	mg/L	1	6/30/2008 12:29:55 PI	A LAL
Cobalt	0	.0100		< 0.0100	mg/L	1	6/30/2008 12:29:55 PI	A LAL
Copper	C	.0100		< 0.0100	mg/L	1	6/30/2008 12:29:55 Pt	A LAL
Iron	C	.0200		0.110	mg/L	1	6/30/2008 12:29:55 PI	A LAL
Manganese	C	.0050		< 0.0050	mg/L	1	6/30/2008 12:29:55 PI	A LAL
Nickel	C	.0100		< 0.0100	mg/L	1	6/30/2008 12:29:55 Pt	/ LAL
Selenium	C	.0500		< 0.0500	mg/L	1	6/30/2008 12:29:55 Pt	Λ LAL
Silver	C	.0100		< 0.0100	mg/L	1	6/30/2008 12:29:55 PI	/ LAL
Zinc	C	.0100	j	0.0025	mg/L	1	6/30/2008 12:29:55 Pt	/ LAL
ASTM D3987, SW-846 3020A, META	LS IN SHAKE EX	TRAC	T BY GFA	A				
Antimony, SHAKE by GFAA 7041		0.0050	J	0.0024	mg/L	1	6/30/2008 11:51:48 AI	MV N
Lead, SHAKE by GFAA 7421	(0.0020		< 0.0020	mg/L	1	6/30/2008 9:45:10 AN	I JMV
Thallium, SHAKE by GFAA 7841	(1.0020	S	< 0.0020	mg/L	1	6/30/2008 11:17:06 AI	u jmv
ASTM D3987, SW-846 7470A IN SHAKE EXTRACT								
Mercury, SHAKE		00020	J	0.00006	mg/L	1	6/30/2008	SRF

Sample Narrative

ASTM D3987, SW-846 3020A, Metals in Shake Extract by GFAA

TI - Matrix interference present in sample.

22-8 noice 03 7/14/09

900 Feips 037/24/09

Prepared for

Dynegy Midwest Generation, LLC

Date

October 11, 2023

Project No.

1940103649-008

40 C.F.R. § 257.94(e)(2):
ALTERNATIVE SOURCE
DEMONSTRATION
LANDFILL
HENNEPIN POWER PLANT
HENNEPIN, ILLINOIS
CCR UNIT 801

CERTIFICATIONS

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

Eric J. Tlachac

Qualified Professional Engineer

062-063091

Illinois

Ramboll Americas Engineering Solutions, Inc.

Date: October 11, 2023



I, Brian G. Hennings, a professional geologist in good standing in the State of Illinois, certify that the information in this report is accurate as of the date of my signature below. The content of this report is not to be used other than for its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Brian G. Hennings

Professional Geologist

196-001482

Illinois

Ramboll Americas Engineering Solutions, Inc.

Date: October 11, 2023



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APPENDICES

Appendix A Groundwater Elevation Contour Maps

Appendix B Bottom Ash Leachate Data

ACRONYMS AND ABBREVIATIONS

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

AP2 Ash Pond No. 2 AP4 Ash Pond No. 4

ASD Alternative Source Demonstration

CCR coal combustion residuals
CCR Rule 40 C.F.R. § 257 Subpart D

CEC Civil & Environmental Consultants, Inc.

cm/s centimeters per second

D12 Detection Monitoring Round 12

HCR Hydrogeologic Site Characterization Report

HDPE high-density polyethylene

Hennepin East includes Landfill, AP2, AP4, and East Ash Pond

HPP Hennepin Power Plant

IEPA Illinois Environmental Protection Agency

LOE(s) line(s) of evidence mg/L milligrams per liter

NAVD88 North American Vertical Datum of 1988

No. Number

NPDES National Pollutant Discharge Elimination System

NRT Natural Resource Technology, Inc.

NRT/OBG Natural Resource Technology, an OBG Company

OBG O'Brien & Gere Engineers, Inc.

OWAP Old West Ash Pond oz/sy ounce per square yard

Ramboll Americas Engineering Solutions, Inc.

SSI statistically significant increase

1. INTRODUCTION

Title 40 of the Code of Federal Regulations (40 C.F.R.) § 257.94(e)(2) allows the owner or operator of a coal combustion residuals (CCR) unit 90 days from the date of determination of statistically significant increases (SSI) over background for groundwater constituents listed in Appendix III of 40 C.F.R. § 257 to complete a written demonstration that a source other than the CCR unit being monitored caused the SSI(s) (Alternative Source Demonstration [ASD]), or that the SSI(s) resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

This ASD has been prepared on behalf of Dynegy Midwest Generation, LLC, by Ramboll Americas Engineering Solutions, Inc. (Ramboll), to provide pertinent information pursuant to 40 C.F.R. § 257.94(e)(2) for the Hennepin Power Plant (HPP) Landfill, located near Hennepin, Illinois.

The most recent Detection Monitoring sampling event (Detection Monitoring Round 12 [D12]) samples were collected on February 28 and March 1, 2023 and analytical data were received on April 14, 2023. In accordance with 40 C.F.R. § 257.93(h)(2), statistical analysis of the data to identify SSIs of 40 C.F.R. § 257 Subpart D (CCR Rule) Appendix III parameters over background concentrations was completed by July 13, 2023. The statistical determination identified the following SSIs at compliance monitoring wells:

- Boron at wells 05R, 05DR, 40S, and 48
- pH at wells 40S

Pursuant to 40 C.F.R. § 257.94(e)(2), the lines of evidence (LOEs) described in **Section 3** demonstrate that sources other than the Landfill were the cause of the SSIs listed above. This ASD was completed by October 11, 2023, within 90 days of determination of the SSIs, as required by 40 C.F.R. § 257.94(e)(2).

2. BACKGROUND

2.1 Site Location and Description

The HPP is located in the northwest quarter of Section 26, Township 33 North, Range 2 West, Putnam County, Illinois and approximately 3 miles north-northeast of the Village of Hennepin. The Landfill is located east of the HPP, situated less than 200 feet from the south bank of the Illinois River and approximately one mile east of the Big Bend, where the river shifts course from predominantly west to predominantly south.

The Landfill is one of four CCR units regulated under the CCR Rule at the HPP. Three CCR units (the Landfill, Ash Pond Number (No.) 2 [AP2], and the East Ash Pond) and one unit not regulated by the CCR Rule (Ash Pond No. 4 [AP4]) are located adjacent to each other and east of the HPP and are collectively known as Hennepin East. The fourth CCR unit (Old West Ash Pond [OWAP]), is located west of the HPP. Areas surrounding the Landfill include industrial properties to the east and south, agricultural land to the southwest, and the HPP to the west. The CCR units at Hennepin East and surrounding properties are shown on **Figure 1**.

2.2 Groundwater Monitoring

The Landfill groundwater monitoring system for compliance with the CCR Rule consists of five background monitoring wells (07, 08, 08D, 16, and 17) and four compliance monitoring wells (05R, 05DR, 40S, and 48). A map showing the groundwater monitoring system, including the CCR unit and all background and compliance monitoring wells, is presented in **Figure 1**. **Figure 1** also includes monitoring wells for other CCR units located upgradient of the Landfill (12 and 13) which are not part of the Landfill monitoring system but are used to support the LOEs discussed in **Section 3**.

Groundwater samples are collected and analyzed in accordance with the Multi-Site Sampling and Analysis Plan (Ramboll, 2023). Statistical evaluation of analytical data is performed in accordance with the Multi-Site Statistical Analysis Plan (Ramboll, 2022).

2.3 Site History

The HPP has two coal-fired generating units constructed in 1953 and 1959 with a total capacity of 210 Megawatts. Operations were ceased in November 2019. The history of CCR management at Hennepin East is summarized below.

AP2/AP4: AP2 was used to store and dispose fly ash, bottom ash, and other non-CCR waste streams, including coal pile runoff. The pond originally encompassed the area that currently includes the existing AP2, the Landfill, and the Leachate Pond (not a CCR unit). AP2 has been inactive since 1996 and currently encompasses approximately 18 acres. AP2 is unlined with a lowermost, but variable, bottom elevation (referenced to the North American Vertical Datum of 1988 [NAVD88]) of 451 feet. AP4 (located south of AP2) is an unlined, closed impoundment (capped or otherwise maintained) not subject to CCR Rule requirements.

A Modified Closure Work Plan was submitted to Illinois Environmental Protection Agency (IEPA) in 2010 proposing closure of AP2 by capping with future Landfill phases as they were constructed (Kelron Environmental and Natural Resource Technology, Inc. [NRT], 2010). The Modified Closure Work Plan was approved by IEPA in a letter dated March 3, 2010. The Landfill is Phase I

of the Modified Closure Work Plan. The formerly proposed Landfill Phases II, III, and IV will no longer be constructed upon AP2. Therefore, a Closure and Post Closure Care Plan for AP2 was submitted for IEPA approval in February 2018 (Civil & Environmental Consultants, Inc. [CEC], 2018). A Closure Plan Addendum, which incorporates AP4, was submitted in October 2018 (O'Brien & Gere Engineers, Inc. [OBG] and CEC, 2018). IEPA approved the Closure and Post Closure Care Plan for Hennepin AP2/AP4 on February 26, 2020, following correspondence in 2019 (OBG, part of Ramboll, 2019) to address IEPA comments. Closure construction began on May 21, 2020, and was completed on November 17, 2020. The final cover system on AP2/AP4 consists of a 24-inch compacted soil barrier with a hydraulic conductivity of no more than 1 x 10⁻⁷ centimeters per second (cm/s) overlain by a 6-inch thick vegetative cover layer. The cover system was extended eastward to overlap with the western end of the Landfill geomembrane liner and southward to the side slope of the East Ash Pond. The approximate dates of construction affecting AP2 and AP4 are summarized in **Table A** below (AECOM, 2016).

Table A. Construction Events Affecting AP2 and AP4

Date	Event
1958	Construction of AP2.
1978	Embankment raise of AP2.
1985	Embankment raise of AP2 to elevation 484 feet NAVD88.
1989	Embankment raise of AP2 to elevation 494 feet NAVD88.
1996	AP2 was removed from service and completely dewatered.
2009 to 2010	Eastern portion of AP2 was removed to facilitate construction of the Leachate Pond.
2010/2011	Landfill Phase I cell was constructed in 2010 over placed CCR in AP2 adjacent to the Leachate Pond. In February 2011, 7,500 cubic yards of bottom ash was placed into the Phase I cell as a post-construction freeze-protection measure to protect the leachate collection system and geomembrane liner. No other material (fly ash or bottom ash) has been placed in the Landfill since.
2014	North Embankment tree removal, grading, and vegetation re-establishment adjacent to AP2.
2020	AP2 and AP4 closed in place in accordance with IEPA-approved closure plan.

Landfill: The Landfill Phase I cell, covering approximately 4.5 acres, was constructed in 2010 over existing, dewatered CCR in AP2 as part of the Modified Closure Work Plan for AP2. The Phase I cell was constructed with a composite liner (geomembrane over compacted clay) and leachate collection system above the liner that transfers collected precipitation and leachate to the Leachate Pond. Ash fill underlying the Landfill is known to be present to a minimum elevation of 454 feet (referenced to NAVD88).

In February 2011, 7,500 cubic yards of bottom ash was placed into the Landfill as a post-construction freeze protection measure to protect the leachate collection system and geomembrane liner. No other material has been placed in the Landfill since.

East Ash Pond: The East Ash Pond was used to store and dispose bottom ash, fly ash, and other non-CCR waste, and to clarify process water prior to discharge in accordance with the plant's National Pollutant Discharge Elimination System (NPDES) permit. The pond was constructed in two phases. The first phase occurred in 1995 when the initial embankment was constructed to a total height of 32 feet with a lowermost, but variable, bottom elevation of the pond at 458 feet.

The original pond bottom was lined with a 4-foot thick layer of compacted clay with a hydraulic conductivity of 1×10^{-7} cm/s, underlain by a 1-foot thick sand layer (AECOM, 2016). The pond depth behind the original embankment was 15 feet with 5 feet of freeboard. The embankment was raised 12 feet in 2003 to a total impoundment depth of 30 feet with 2 feet of freeboard. The liner system of the embankment raise consisted of (from top to bottom) a 45-mil reinforced polypropylene geomembrane, a 1-foot thick clay layer, and an 8 ounce per square yard (oz/sy) polypropylene geotextile fabric. This pond was used for the treatment of bottom ash transport water, miscellaneous low volume wastewater streams, and storage of unsold fly ash until plant operations ceased in November 2019.

Polishing Pond: The Polishing Pond (located east of the East Ash Pond) is not subject to CCR Rule requirements and was constructed in 1995 with a 48-inch-thick compacted clay liner having a vertical hydraulic conductivity of 1×10^{-7} cm/s.

Leachate Pond: The Leachate Pond (located east of the Landfill) is not subject to CCR Rule requirements and is a 25.5-acre-foot pond constructed with a composite liner consisting of 60-mil high-density polyethylene (HDPE) overlying two feet of compacted clay with a vertical hydraulic conductivity of 1 x 10^{-7} cm/s. Construction was completed December 2010.

2.4 Site Hydrogeology and Stratigraphy

Multiple site investigations have been completed at the HPP to characterize the geology, hydrogeology, and groundwater quality as required by 40 C.F.R. § 257.91 (Groundwater Monitoring Systems). Hennepin East, including the Landfill, has been well characterized and detailed in the Hydrogeologic Site Characterization Reports (HCR) for the HPP, including the most recent HCR for the adjacent East Ash Pond (Ramboll, 2021), that was included with the Operating Permit application submitted to the IEPA.

There are three dominant geomorphic features in the immediate vicinity of the HPP: an upper river terrace at an elevation of about 500 to 550 feet NAVD88, a lower river terrace at an elevation of about 450 to 460 feet NAVD88, and the current river valley filled with alluvium to an elevation of about 445 feet NAVD88. The HPP, AP2, and the Landfill were constructed on the original narrow lower river terrace between the Illinois River and the upper terrace. The original lower river terrace is approximately 10 to 20 feet above the average river level at the HPP (elevation 443.7 feet NAVD88) based upon measurements collected between 2003 and 2018 (OBG, part of Ramboll, 2020). The AP2 berm slopes steeply toward the river and its toe is close to the riverbank. The East Ash Pond, Polishing Pond, and AP4 were constructed on the upper river terrace at an elevation of approximately 500 to 505 feet NAVD88, or 60 to 65 feet above the average river level.

The hydrogeological assessment identified that the stratigraphy within and immediately surrounding Hennepin East consists of fill, unlithified river alluvium, and Pleistocene-age glacial outwash deposits overlying Pennsylvanian-age shale bedrock. Constructed berms consist of a variety of locally available materials, primarily sand, gravel, and coal ash. Where undisturbed or partially excavated, the native surficial soil at the site is poorly drained, moderately permeable silty clay loam formed as alluvium in floodplains.

There are two hydrogeologic units present at Hennepin East: alluvium and Henry Formation sands and gravels. The river is immediately adjacent to the lower terrace, east of Hennepin East, and there is minimal alluvium between Hennepin East and the river. The highly permeable Henry

Formation sands and gravels make up the upper and lower terraces and fill the valley beneath the alluvium. The sands and gravels of the two terraces are indistinguishable, consisting of a heterogeneous mixture of silty-sandy gravel with cobble zones and boulders up to several feet in diameter. The Henry Formation is more than 100 feet thick in the river valley and at least 130 feet thick on the upper terrace.

The Henry Formation and alluvium comprise the Uppermost Aquifer at Hennepin East and extend from the water table to the bedrock. The Uppermost Aquifer extends about 7,000 feet upgradient from Hennepin East to the south, where clay-rich glacial till is encountered. Glacial tills such as this typically yield little water.

The Pennsylvanian-age bedrock consists of interbedded layers of shale with thin limestone, sandstone, and coal beds. The shale bedrock unit has low hydraulic conductivity and defines the lower boundary of the Uppermost Aquifer.

The hydraulic gradient within the Uppermost Aquifer in the vicinity of Hennepin East varies with the elevation of the Illinois River (see select groundwater elevation contour maps in **Appendix A**). The direction of groundwater flow is most often toward the river to the north and west, but comparison of groundwater and river elevation data indicate reversals in this flow direction during times of high river elevations. The relative duration of these events is short, which leads to the determination of a predominant groundwater flow direction toward the river to the north and west.

Groundwater elevations were obtained from measurements in monitoring wells on February 28 and March 1, 2023, prior to the D12 sampling event at the site. Groundwater elevations for Hennepin East during the D12 sampling event are shown in **Figure 2** and ranged from 446.86 feet NAVD88 (in well 47) to 449.42 feet NAVD88 (in well 07). During this monitoring event the Illinois River elevation was observed to be greater than the groundwater elevations observed in wells near the river which can lead to temporary reversal in groundwater flow as mentioned in the preceding paragraph. The groundwater elevation contours on the potentiometric surface map shown in **Figure 2** illustrate the presence of relatively high groundwater elevations originating from the Illinois River to the north, and the routinely upgradient areas to the south and east monitored by the background wells. Under these hydraulic conditions groundwater will flow towards the lower heads in the center of the map as illustrated by the 447-foot contour interval.

3. ALTERNATIVE SOURCE DEMONSTRATION: LINES OF EVIDENCE

As allowed by 40 C.F.R. § 257.94(e)(2), this ASD demonstrates that sources other than the Landfill (the CCR unit) caused the SSIs. LOEs supporting this ASD include the following:

- 1. Landfill liner design.
- 2. Concentrations of boron in Landfill leachate are lower than those observed in downgradient groundwater.
- 3. Concentrations of boron in compliance monitoring wells are not increasing over time.
- 4. Previous vertical infiltration of surface water through ash fill in AP2.

Data and information supporting these LOEs are discussed in more detail below.

3.1 LOE #1: Landfill Liner Design

The Landfill was constructed in 2010 with a 60-mil HDPE geomembrane overlying three feet of compacted clay with hydraulic conductivity of 1×10^{-7} cm/sec (CEC, 2010). Precipitation and/or leachate that collects on top of the liner is removed by a leachate collection system and transferred to the Leachate Pond for management. The Leachate Pond is also lined with a 60-mil HDPE liner overlying two feet of compacted clay.

The IEPA-approved Landfill composite liner system exceeds the design criteria for a composite liner for new CCR landfills established by 40 C.F.R. § 257.70(b). The composite liner design criteria were established to help prevent contaminants in CCR from leaking from the CCR unit and impacting groundwater. Therefore, the presence of the composite liner suggests that the Landfill is not the source of the observed SSIs.

3.2 LOE #2: Concentrations of Boron in Landfill Leachate are Lower than those Observed in Downgradient Groundwater

The only material that has been placed in the lined Landfill consists of a layer of coarse bottom ash (7,500 cubic yards or 11,625 tons) to protect the leachate collection system and geomembrane liner from freezing. There has been no additional CCR landfilling activity within the lined area since the bottom ash freeze protection layer was installed.

Analytical data (**Appendix B**) from two samples of bottom ash leachate derived in the laboratory (extraction method ASTM D3987, shake extraction with water) identified boron concentrations of 0.193 milligrams per liter (mg/L) (2009 sample) and 0.197 mg/L (2008 sample).

A box-whisker plot of total boron concentrations detected between 2015 and D12 at compliance monitoring wells near the Landfill is shown on **Figure A** on the following page. The boron concentrations of 0.193 and 0.197 mg/L detected in the laboratory-derived leachate samples are below the boron concentrations observed in compliance monitoring wells as shown in **Figure A**. Analytical data available for laboratory-derived leachate from the bottom ash placed in the Landfill indicates that the bottom ash is not capable of leaching boron in concentrations observed in the compliance monitoring wells.

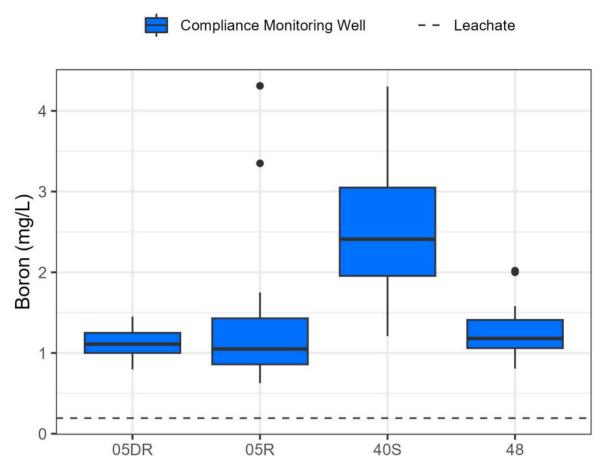


Figure A. Box-Whisker Plot Showing Distribution of Total Boron Concentrations in Compliance Monitoring Wells and Landfill Leachate

3.3 LOE #3: Concentrations of Boron in Compliance Monitoring Wells are not Increasing Over Time

Boron is a common indicator of CCR impacts to groundwater due to its leachability from CCR and mobility in groundwater (Electric Power Research Institute [EPRI], 2012). If the Landfill were a "new" source of boron to groundwater, boron concentrations in the compliance monitoring wells would be expected to increase with time as concentrations in the compliance wells approach levels of boron from within the Landfill. Concentrations in compliance wells are not increasing as show in **Table B** on the following page. Therefore, the Landfill is not the source of boron in groundwater.

Table B. Mann-Kendall Trend Analyses of Total Boron Concentrations in Compliance Monitoring Wells

	Mann-Kendall Results - Total Boron Concentrations							
Sample Location	Start Date	End Date	Sample Count	Trend (95% Confidence)				
05R	12/9/2015	5/31/2023	27	Decreasing				
05DR	12/9/2015	5/31/2023	27	Decreasing				
405	12/9/2015	6/1/2023	26	Decreasing				
48	12/9/2015	3/1/2023	21	No Trend				

3.4 LOE #4: Previous Vertical Infiltration of Surface Water through Ash Fill in AP2

The Landfill was constructed over the eastern portion of AP2 as Phase I of an IEPA-approved Modified Closure Work Plan for AP2. The portions of AP2 to the west of the Landfill were previously exposed, and subject to infiltration of precipitation and generation of CCR leachate. However, a soil cover designed to minimize surface water infiltration and CCR-impacts to groundwater was constructed over these exposed portions of AP2 in 2020 as part of a Closure and Post Closure Care Plan for AP2 approved by IEPA on February 26, 2020. AP2 is unlined, and prior to capping of the ash pond by construction of the Landfill liner and the AP2 cover system, precipitation that came into contact with CCR in AP2 may have allowed CCR constituents to percolate downward to groundwater. The previously exposed portions of AP2 may be an alternative source for CCR parameters observed in groundwater near the Landfill.

Comparison of groundwater and Illinois River elevation data indicate that natural variation in river elevation related to flood events occasionally causes groundwater flow reversal and increases in groundwater elevations in the Uppermost Aquifer beneath the Landfill. When river elevations rise above 451 to 454 feet NAVD88, low-lying ash deposits underlying the Landfill have the potential to become partially saturated for a transient period. The short-term, partial saturation may result in a temporary change to some CCR constituent concentrations at some compliance monitoring wells after the predominant groundwater flow direction is reestablished. Explicit simulation of flood events (OBG, part of Ramboll, 2020) indicates that potential increases in concentrations from flooding of the Illinois River are small and transient, such that long-term concentrations will not be significantly affected.

4. CONCLUSIONS

Based on these four LOEs, it has been demonstrated that the Landfill is not the source of the boron and pH SSIs identified in wells 05R, 05DR, 40S, and 48.

- 1. Landfill liner design.
- 2. Concentrations of boron in Landfill leachate are lower than those observed in downgradient groundwater.
- 3. Concentrations of boron in compliance monitoring wells are not increasing over time.
- 4. Previous vertical infiltration of surface water through ash fill in AP2.

Based on the LOEs presented, the following alternative sources are causing the SSIs observed in the Landfill's compliance wells:

• Boron and pH: SSIs for boron and pH may be attributed to portions of AP2 to the west of the Landfill that were previously exposed, and subject to infiltration of precipitation and generation of CCR leachate outside the Landfill boundary.

This information serves as the written ASD report prepared in accordance with 40 C.F.R. § 257.94(e)(2) that SSIs observed during the D12 monitoring event were not caused by the Landfill but were from other sources. Therefore, an assessment monitoring program is not required, and the Landfill will remain in detection monitoring.

5. REFERENCES

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FIGURES

BACKGROUND MONITORING WELL COMPLIANCE MONITORING WELL MONITORING WELL 40 C.F.R. § 257 REGULATED UNIT (SUBJECT UNIT) SITE FEATURE LIMITS OF FINAL COVER

175 350

MONITORING WELL LOCATION MAP

ALTERNATE SOURCE DEMONSTRATION LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

FIGURE 1

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.





COMPLIANCE MONITORING WELL

BACKGROUND MONITORING WELL

MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)

- - - INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

40 C.F.R. § 257 REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

LIMITS OF FINAL COVER

PROPERTY BOUNDARY

NOTE

- 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
- 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
- *ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT

0 175 350 I I I I Fee

POTENTIOMETRIC SURFACE MAP FEBRUARY 28 AND MARCH 1, 2023

ALTERNATIVE SOURCE DEMONSTRATION LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

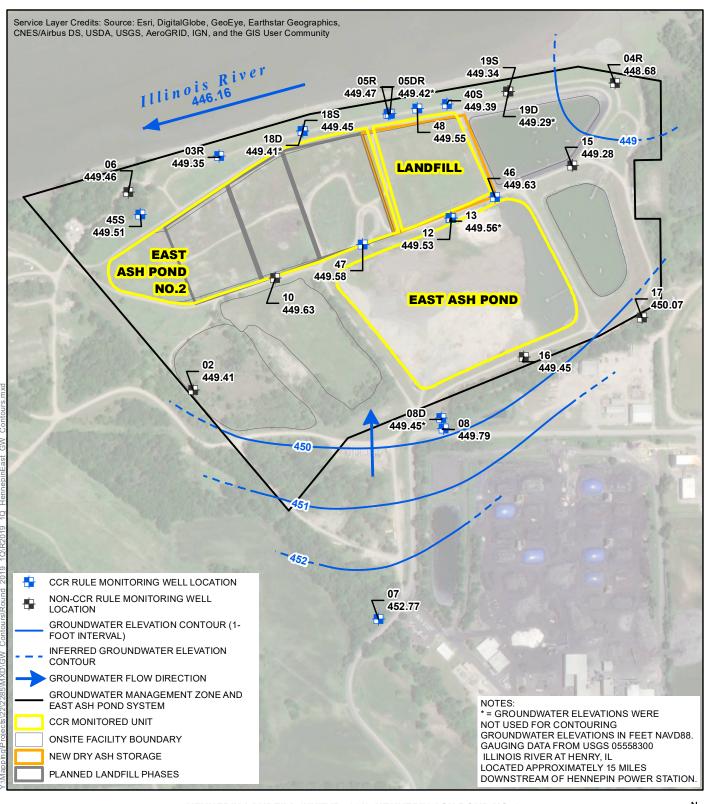
FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.



APPENDICES

APPENDIX A GROUNDWATER ELEVATION CONTOUR MAPS

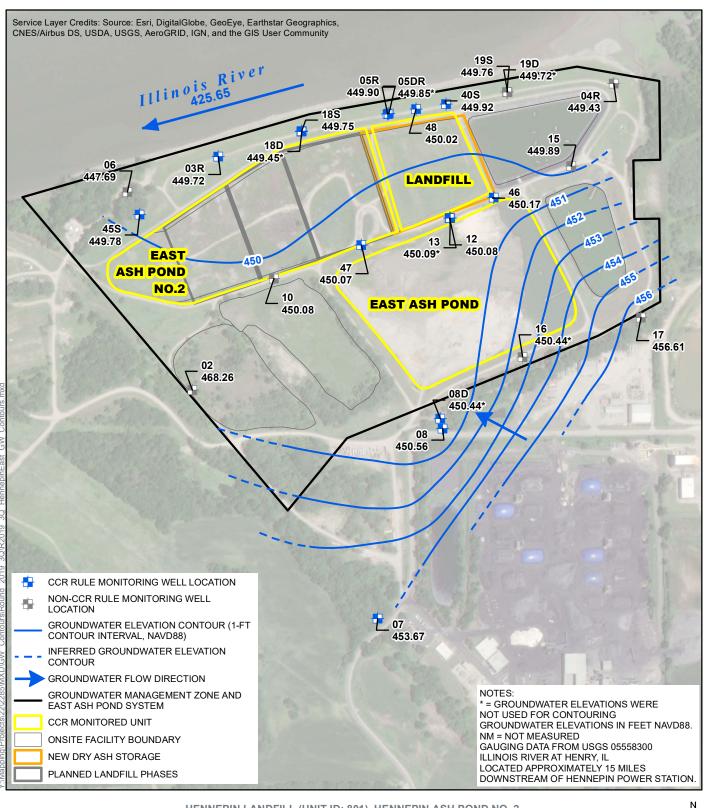


HENNEPIN LANDFILL (UNIT ID: 801), HENNEPIN ASH POND NO. 2 (UNIT ID: 802), AND HENNEPIN EAST ASH POND (UNIT ID: 803) GROUNDWATER ELEVATION CONTOUR MAP MARCH 13, 2019

> CCR RULE GROUNDWATER MONITORING HENNEPIN POWER STATION HENNEPIN, ILLINOIS

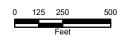




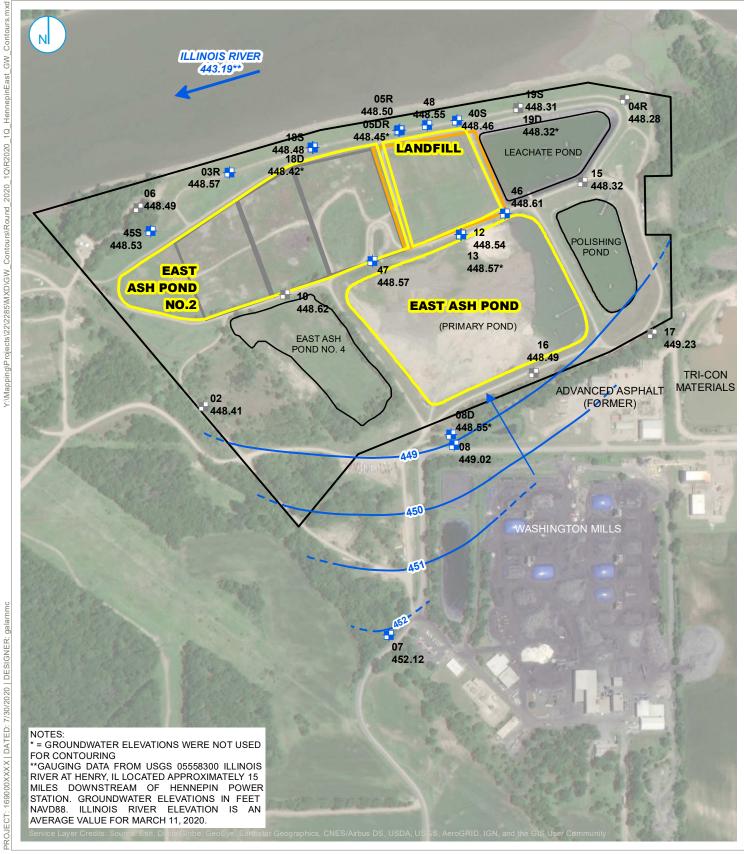


HENNEPIN LANDFILL (UNIT ID: 801), HENNEPIN ASH POND NO. 2 (UNIT ID: 802), AND HENNEPIN EAST ASH POND (UNIT ID: 803) GROUNDWATER ELEVATION CONTOUR MAP SEPTEMBER 17, 2019

> CCR RULE GROUNDWATER MONITORING HENNEPIN POWER STATION HENNEPIN, ILLINOIS







CCR MONITORING WELL

NON-CCR MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (1-FT CONTOUR INTERVAL, NAVD88)

- - · INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION
GROUNDWATER MANAGEMENT ZONE
AND EAST ASH POND SYSTEM

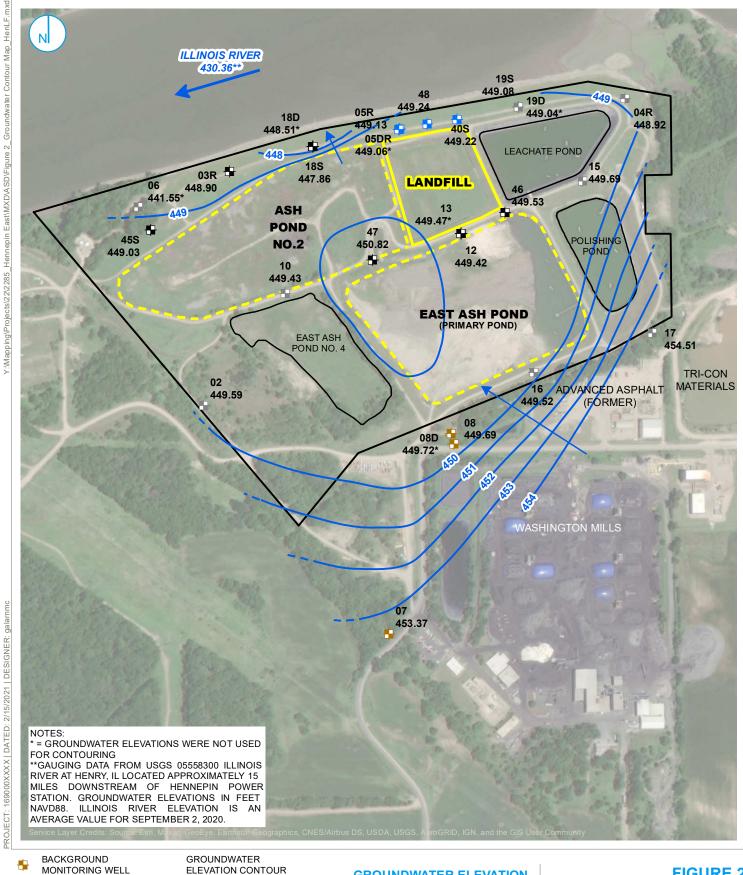
CCR MONITORED UNIT

GROUNDWATER ELEVATION
CONTOUR MAP
MARCH 11, 2020

HENNEPIN LANDFILL (UNIT ID: 801), HENNEPIN ASH POND NO. 2 (UNIT ID: 802), AND HENNEPIN EAST ASH POND (UNIT ID: 803) VISTRA ENERGY

AST ASH POND (UNIT ID: 803) VISTRA ENERGY HENNEPIN POWER STATION HENNEPIN, ILLINOIS RAMBOLL US CORPORATION
A RAMBOLL COMPANY







NON-CCR RULE MONITORING WELL **GROUNDWATER** MANAGEMENT ZONE

GROUNDWATER FLOW DIRECTION CCR MONITORED UNIT, SUBJECT SITE AND EAST ASH POND CCR MONITORED UNIT 250 500 ☐ Feet NON-CCR UNIT

(1-FT CONTOUR

GROUNDWATER

INFERRED

INTERVAL, NAVD88)

ELEVATION CONTOUR

GROUNDWATER ELEVATION CONTOUR MAP SEPTEMBER 2, 2020

ALTERNATE SOURCE DEMONSTRATION HENNEPIN POWER STATION HENNEPIN, ILLINOIS FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.



BACKGROUND WELL

MONITORING WELL

SOURCE SAMPLE LOCATION

STAFF GAGE

GROUNDWATER ELEVATION CONTOUR (0.5 FT CONTOUR INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW ARROW

PART 257 REGULATED UNIT (SUBJECT UNIT)

SITE FEATURE

LIMITS OF FINAL COVER

PROPERTY BOUNDARY

NOIE

*GROUNDWATER ELEVATIONS SHOWN IN FEET, NAVD88. ELEVATIONS IN PARENTHESIS WERE NOT USED FOR CONTOURING.
**GAUGING DATA FROM USGS 05558300
ILLINOIS RIVER AT HENRY, IL LOCATED APPROXIMATELY 15 MILES DOWNSTREAM OF HENNEPIN POWER STATION. SURFACE WATER ELEVATIONS IN FEET NAVD88. ILLINOIS RIVER ELEVATION IS AN AVERAGE VALUE FOR MARCH 18, 2021.

175 350

GROUNDWATER ELEVATION CONTOUR MAP MARCH 17, 2021

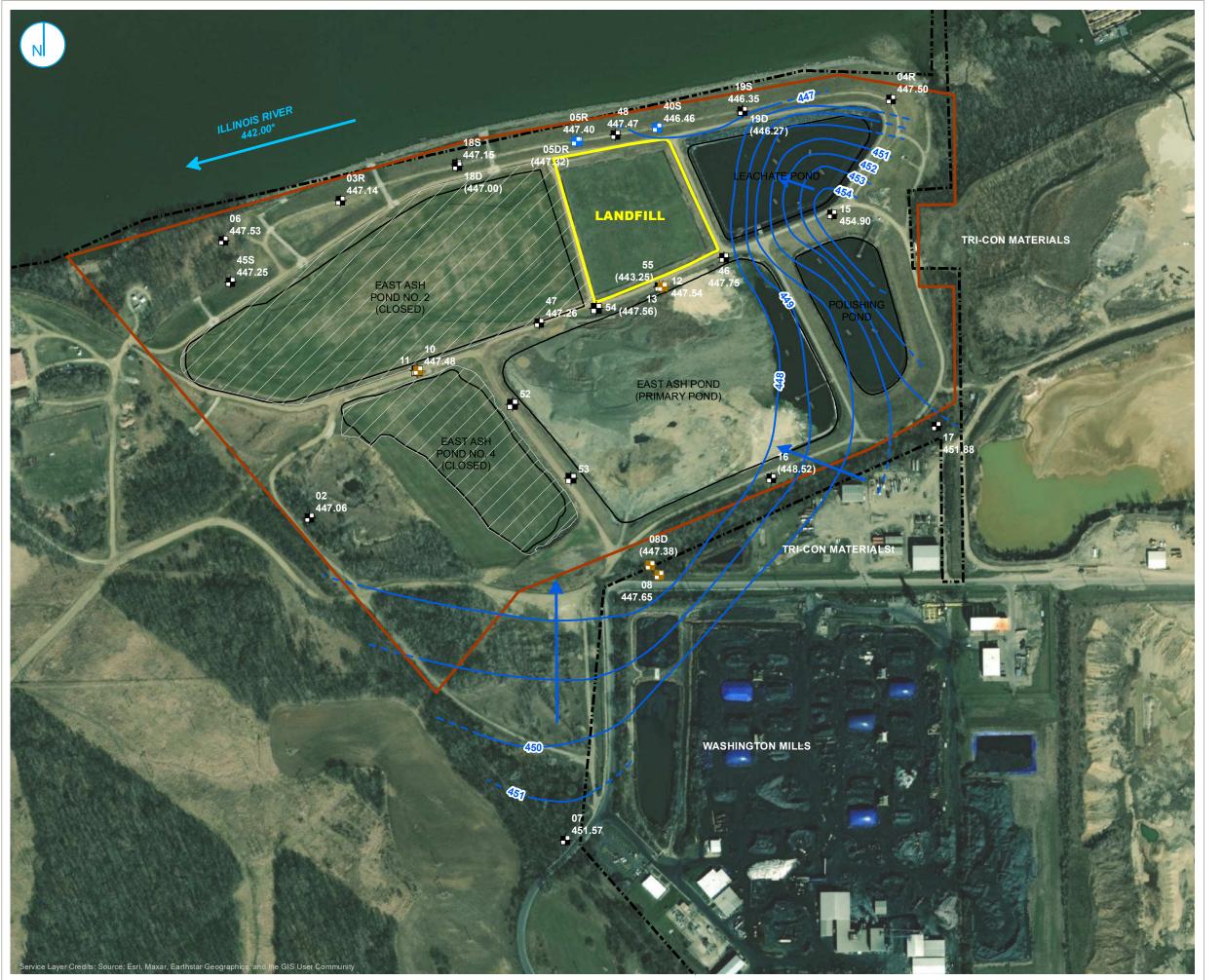
ALTERNATE SOURCE DEMONSTRATION COAL COMBUSTION WASTE LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.





COMPLIANCE MONITORING WELL

BACKGROUND MONITORING WELL

MONITORING WELL

GROUNDWATER ELEVATION CONTOUR (1 FT CONTOUR INTERVAL, NAVD88)

INFERRED GROUNDWATER ELEVATION CONTOUR

GROUNDWATER FLOW DIRECTION

GROUNDWATER MANAGEMENT ZONE

PART 257 REGULATED UNIT (SUBJECT UNIT)

LIMITS OF FINAL COVER

SITE FEATURE

PROPERTY BOUNDARY

- 1. ELEVATIONS IN PARENTHESES WERE NOT USED FOR CONTOURING.
- 2. ELEVATION CONTOURS SHOWN IN FEET, NORTH AMERICAN VERTICAL DATUM OF 1988
- *ILLINOIS RIVER ELEVATION OBTAINED FROM STAFF GAGE SG02, LOCATED AT THE HENNEPIN POWER PLANT

175

GROUNDWATER ELEVATION CONTOUR MAP SEPTEMBER 13 AND 14, 2022

ALTERNATE SOURCE DEMONSTRATION COAL COMBUSTION WASTE LANDFILL

HENNEPIN POWER PLANT HENNEPIN, ILLINOIS

FIGURE 2

RAMBOLL AMERICAS ENGINEERING SOLUTIONS, INC.



APPENDIX B BOTTOM ASH LEACHATE DATA

TEKLAB, INC.

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

August 03, 2009

John Augspols Dynegy Midwest Generation 13498 East 800th Street Hennepin, IL 61327

TEL: (815) 339-9218

FAX:



1(22111 11001001000 #100220

RE: Hennepin Station Bottom Ash WorkOrder: 09070896

Dear John Augspols:

TEKLAB, INC received 1 sample on 7/24/2009 9:00:00 AM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. IL ELAP and NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ideather A. White

Heather A. White Project Manager (618)344-1004 ex 20

CASE NARRATIVE

TEKLAB, INC.

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

Client: Dynegy Midwest Generation

Project: Hennepin Station Bottom Ash

LabOrder: 09070896

Report Date: 03-Aug-09 Cooler Receipt Temp: 22.8 °C

State accreditations:

KS: NELAP #E-10347 | KY: UST #0073 | MO: DNR #00930 | AR: ADEQ #70-028-0

Qualifiers

DF - Dilution Factor

RL - Reporting Limit

ND - Not Detected at the Reporting Limit

Surr - Surrogate Standard added by lab

TNTC - Too numerous to count (> 200 CFU)

Q - QC criteria failed or noncompliant CCV

B - Analyte detected in the associated Method Blank

J - Analyte detected below reporting limits

R - RPD outside accepted recovery limits

S - Spike Recovery outside accepted recovery limits

X - Value exceeds Maximum Contaminant Level

- Unknown hydrocarbon

NELAP - IL ELAP and NELAP Accredited Field of Testing IDPH - IL Dept. of Public Health C - Client requested RL below PQL

D - Diluted out of sample

E - Value above quantitation range

H - Holding time exceeded

MI - Matrix interference

DNI - Did not ignite



ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

LABORATORY RESULTS

Client: Dynegy Midwest Generation

Client Project: Hennepin Station Bottom Ash

WorkOrder: 09070896

Client Sample ID: Hennipin Station Bottom Ash

Report Date: 03-Aug-09 Matrix: SOLID

Analyses	Certification RL	Qual	Result	Units	DF	Date Analyzed Ana	alyst
ASTM D3987, SW-846 3005A, 6010B,	METALS IN SHAKE EX	TRACT I	SY ICP				
Arsenic	0.0250		< 0.0250	mg/L	1	7/29/2009 3:49:50 PM	LAL
Barium	0.0050		0.116	mg/L	1	7/29/2009 11:19:44 AM	LAL
Beryllium	0.0010		< 0.0010	mg/L	1	7/29/2009 11:19:44 AM	LAL
Boron	0.0200		0.193	mg/L	1	8/3/2009 10:30:48 AM	LAL
Cadmium	0.0020		< 0.0020	mg/L	1	7/29/2009 3:49:50 PM	LAL
Chromium	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Cobalt	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Copper	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Iron	0.0300		0.0687	mg/L	1	7/29/2009 3:49:50 PM	LAL
Manganese	0.0050		< 0.0050	mg/L	1	7/29/2009 3:49:50 PM	LAL
Nickel	0.0100		< 0.0100	mg/L	1	7/29/2009 3:49:50 PM	LAL
Selenium	0.0500		< 0.0500	mg/L	1	7/29/2009 3:49:50 PM	LAL
Silver	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
Zinc	0.0100		< 0.0100	mg/L	1	7/29/2009 11:19:44 AM	LAL
ASTM D3987, SW-846 3020A, METAL	LS IN SHAKE EXTRACT	ΓBY GFA	<u>A</u>				
Antimony, SHAKE by GFAA 7041	0.0050		< 0.0050	mg/L	1	7/29/2009 2:45:16 PM	MEK
Lead, SHAKE by GFAA 7421	0.0020	J	0.0011	mg/L	1	7/29/2009 10:18:30 AM	MEK
Thallium, SHAKE by GFAA 7841	0.0020		< 0.0020	mg/L	1	7/29/2009 2:41:30 PM	MEK
ASTM D3987, SW-846 7470A IN SHA	KE EXTRACT						
Mercury, SHAKE	0.00020		< 0.00020	mg/L	1	7/28/2009	ALU

Sample Narrative

TEKLAB, INC.

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004 FAX: 618-344-1005

RECEIVING CHECK LIST **Client:** Dynegy Midwest Generation **Project:** Hennepin Station Bottom Ash Lab Order: 09070896 Report Date: 03-Aug-09 Carrier: UPS Received By: DB Completed by: Marin L. Darling II Reviewed by: Ideash w A. White On: On: 24-Jul-09 24-Jul-09 Heather A. White Marvin L. Darling Pages to follow: Chain of custody Extra pages included Yes 🗸 No 🗌 Not Present Shipping container/cooler in good condition? Temp °C 22.8 Type of thermal preservation? None Ice Blue Ice Dry Ice No 🗹 Chain of custody present? Yes No 🗹 Chain of custody signed when relinquished and received? Yes Chain of custody agrees with sample labels? Yes No | **✓** Samples in proper container/bottle? Yes No 🗀 Sample containers intact? Yes 🔽 No 🗀 Sufficient sample volume for indicated test? Yes No 🗀 All samples received within holding time? Yes 🗸 No | NA 🗸 Field \bigsqcup Lab 🔲 Reported field parameters measured: Yes 🗹 No \square Container/Temp Blank temperature in compliance? When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected. Water - VOA vials have zero headspace? Yes No L No VOA vials submitted Yes 🗹 No 🗌 Water - pH acceptable upon receipt? Any No responses must be detailed below or on the COC. Sample id and collection date/time obtained from sample container. Per John Augspols, sample ID and collection/date time on the container are

Sample id and collection date/time obtained from sample container. Per John Augspols, sample ID and collection/date time on the container are correct. Analyze for the same list of parameters as in 2008. EAH 7/27/09

TEKLAB, INC

5445 Horseshoe Lake Road Collinsville, IL 62234-7425

TEL: (618) 344-1004 FAX: (618) 344-1005 **CHAIN-OF-CUSTODY RECORD**

Page 1 of 1

WorkOrder: 09070896

Client:

Dynegy Midwest Generation 13498 East 800th Street

TEL: (815) 339-9218

FAX:

Hennepin, IL 61327 Project: Hennepin Station Bottom As

24-Jul-09

Sample ID	ClientSampID	Matrix	Date Collected	Bottle	Requested Tests						
					D3987/6010B	D3987/7000 G	D3987/SW74 70A				
09070896-001	Hennipin Station Bottom	Solid	7/22/2009 11:00:00 AM		Α	Α	Α				
Comments:		***************************************	Date/Tir	me	22.8°c;	I CÉ	2 1 1		Date/Time		
Relinquished	by:	-			Received by	: <u>/</u>	13 AY	(UPS)	7124104 900		
Relinquished	by:		1172 TT 118889999073244444444444		Received by	7 :					
Relinquished	by:				Received by	7:					
E											

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

Please find enclosed a bottom ash sample to be run for the same parameters as last year. I enclosed those results with the sample. I would like to pay for this with a credit card. If you have any questions please contact, me:

John Augspols

Supv. Environmental and Chemistry

(815) 339-9218

Fax (815) 339 -2772

ENVIRONMENTAL TESTING LABORATORY

TEL: 618-344-1004

FAX: 618-344-1005

LABORATORY RESULTS

Client: Dynegy Midwest Generation

WorkOrder: 08060909

Lab ID: 08060909-001

Report Date: 02-Jul-08

Client Project: Hennepin Station Bottom Ash

Client Sample ID: Hennipin Station Botton Ash

Collection Date: 6/24/2008 9:00:00 AM

Matrix: SOLID

Analyses	Certification RL	Qual	Result	Units	DF	Date Analyzed An	alyst
ASTM D3987, SW-846 3005A, 6010B	, METALS IN SHAKE)	EXTRACT	ВУ ІСР				
Arsenic	0.0250)	< 0.0250	mg/L	1	6/30/2008 12:29:55 PM	LAL
Barium	0.0050)	0.0699	mg/L	1	6/30/2008 12:29:55 PM	LAL
Beryllium	0.0010)	< 0.0010	mg/L	1	6/30/2008 12:29:55 PM	LAL
Boron	0.0200)	0.197	mg/L	1	6/30/2008 12:29:55 PM	LAL
Cadmium	0.0020)	< 0.0020	mg/L	1	6/30/2008 12:29:55 PM	LAL
Chromium	0.0100)	< 0.0100	mg/L	1	6/30/2008 12:29:55 PM	LAL
Cobalt	0.0100)	< 0.0100	mg/L	1	6/30/2008 12:29:55 PM	LAL
Copper	0.0100)	< 0.0100	mg/L	1	6/30/2008 12:29:55 PM	LAL
Iron	0.0200)	0.110	mg/L	1	6/30/2008 12:29:55 PM	LAL
Manganese	0.0050)	< 0.0050	mg/L	1	6/30/2008 12:29:55 PM	LAL
Nickel	0.0100)	< 0.0100	mg/L	1	6/30/2008 12:29:55 PM	LAL
Selenium	0.0500)	< 0.0500	mg/L	1	6/30/2008 12:29:55 PM	LAL
Silver	0.0100)	< 0.0100	mg/L	1	6/30/2008 12:29:55 PM	LAL
Zinc	0.0100) j	0.0025	mg/L	1	6/30/2008 12:29:55 PM	LAL
ASTM D3987, SW-846 3020A, META	ALS IN SHAKE EXTRA	CT BY GI	AA.				
Antimony, SHAKE by GFAA 7041	0.0050		0.0024	mg/L	1	6/30/2008 11:51:48 AM	JMV
Lead, SHAKE by GFAA 7421	0.0020)	< 0.0020	mg/L	1	6/30/2008 9:45:10 AM	JMV
Thallium, SHAKE by GFAA 7841	0.0020) S	< 0.0020	mg/L	1	6/30/2008 11:17:06 AM	JMV
ASTM D3987, SW-846 7470A IN SH	AKE EXTRACT						
Mercury, SHAKE	0.0002) J	0,00006	mg/L	1	6/30/2008	SRH

Sample Narrative

ASTM D3987, SW-846 3020A, Metals in Shake Extract by GFAA

TI - Matrix interference present in sample.

22-8 noice 03 7/24/09

900 Feirs 7/24/09