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1940100711-004

**2021 ANNUAL GROUNDWATER
MONITORING AND CORRECTIVE
ACTION REPORT**
ASH POND NO. 2
COFFEEN POWER PLANT
COFFEEN, ILLINOIS
CCR UNIT 102

**2021 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT
COFFEEN POWER PLANT ASH POND NO. 2**

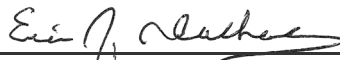
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ACRONYMS AND ABBREVIATIONS

§	Section
40 C.F.R.	Title 40 of the Code of Federal Regulations
AP2	Ash Pond No. 2
CCR	coal combustion residuals
CMA	Corrective Measures Assessment
CPP	Coffeen Power Plant
GWPS	groundwater protection standard
NA	not applicable
No.	Number
NRT/OBG	Natural Resource Technology, an OBG Company
OBG	OBG, Part of Ramboll
Ramboll	Ramboll Americas Engineering Solutions, Inc.
SAP	Sampling and Analysis Plan
SSI	Statistically Significant Increase
SSL	Statistically Significant Level
TBD	to be determined

EXECUTIVE SUMMARY

This report has been prepared to provide the information required by Title 40 of the Code of Federal Regulations (40 C.F.R.) Section (§) 257.90(e) for the Ash Pond Number (No.) 2 (AP2) located at Coffeen Power Plant (CPP) near Coffeen, Illinois.

Groundwater is being monitored at AP2 in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95. Assessment Monitoring was initiated at AP2 on April 9, 2018.

No changes were made to the monitoring system in 2021 (no wells were installed or decommissioned).

The following Statistically Significant Levels (SSLs) of 40 C.F.R. § 257 Appendix IV parameters were determined in 2021:

- Cobalt at wells G401
- Lithium at well G401

As required by 40 C.F.R. § 257.95(g)(3)(i), a Corrective Measures Assessment (CMA) (OBG, Part of Ramboll [OBG], 2019) following the requirements of 40 C.F.R. § 257.96 was initiated on April 8, 2019 and completed on July 8, 2019. This CMA was revised on November 30, 2020 (Ramboll Americas Engineering Solutions, Inc. [Ramboll], 2020) to address cobalt and lithium SSLs based on the 2020 assessment monitoring results, include additional information related to site geology/hydrogeology, and focus on application of the evaluation factors identified in 40 C.F.R. § 257.96(c) to potential groundwater corrective measures.

A public meeting was held on October 7, 2019 at the Coffeen Elementary School in Coffeen, Illinois to discuss the results of the CMA in accordance with 40 C.F.R. § 257.96(e).

Remedy selection is in progress and the associated semiannual reports required by 40 C.F.R. § 257.97(a) are being completed.

1. INTRODUCTION

This report has been prepared by Ramboll on behalf of Illinois Power Generating Company, to provide the information required by 40 C.F.R. § 257.90(e) for the AP2 located at the CPP near Coffeen, 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, summarizes key actions completed, describes any problems encountered, discusses actions to resolve the problems, and projects key activities for the upcoming year. At a minimum, the annual report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit.
2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken.
3. In addition to all the monitoring data obtained under §§ 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the Detection Monitoring or Assessment Monitoring Programs.
4. A narrative discussion of any transition between monitoring programs (*e.g.*, the date and circumstances for transitioning from Detection Monitoring to Assessment Monitoring in addition to identifying the constituent(s) detected at a Statistically Significant Increase [SSI] relative to background levels).
5. Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.
6. A section at the beginning of the annual report that provides an overview of the current status of groundwater monitoring and corrective action programs for the CCR unit. At a minimum, the summary must specify all of the following:
 - i. At the start of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95.
 - ii. At the end of the current annual reporting period, whether the CCR unit was operating under the detection monitoring program in §257.94 or the assessment monitoring program in §257.95.
 - iii. If it was determined that there was a SSI over background for one or more constituents listed in Appendix III of §257 pursuant to §257.94(e):
 - A. Identify those constituents listed in Appendix III of §257 and the names of the monitoring wells associated with the SSI(s).
 - B. Provide the date when the assessment monitoring program was initiated for the CCR unit.

- iv. If it was determined that there was a SSL 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 the SSL(s).
 - B. Provide the date when the CMA was initiated for the CCR unit.
 - C. Provide the date when the public meeting was held for CMA for the CCR unit.
 - D. Provide the date when the CMA 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 AP2 for calendar year 2021.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

Groundwater is being monitored at AP2 in accordance with the Assessment Monitoring Program requirements specified in 40 C.F.R. § 257.95. Assessment Monitoring was initiated on April 9, 2018. SSLs were determined for AP2 and alternate source evaluations were inconclusive. In accordance with 40 C.F.R. § 257.95(g)(5), a CMA following the requirements of 40 C.F.R. § 257.96 was initiated on April 8, 2019 and completed on July 8, 2019. A public meeting was held on October 7, 2019 at the Coffeen Elementary School in Coffeen, Illinois to discuss the results of the CMA in accordance with 40 C.F.R. § 257.96(e). The CMA was revised on November 30, 2020 to address cobalt and lithium SSLs based on the 2020 assessment monitoring results, include additional information related to site geology/hydrogeology, and focus on application of the evaluation factors identified in 40 C.F.R. § 257.96(c) to potential groundwater corrective measures. Remedy selection is in progress and the associated semiannual reports required by 40 C.F.R. § 257.97(a) are being completed.

AP2 remains in the Assessment Monitoring Program in accordance with 40 C.F.R. § 257.96(b).

3. KEY ACTIONS COMPLETED IN 2021

The Assessment Monitoring Program is summarized 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**. No changes were made to the monitoring system in 2021. One groundwater sample was collected from each background and compliance well during each monitoring event ¹. All samples were collected and analyzed in accordance with the Sampling and Analysis Plan (SAP; Natural Resource Technology, an OBG Company [NRT/OBG], 2017a). All monitoring data obtained under 40 C.F.R. § 257.90 through 257.98 (as applicable) in 2021, and analytical results for the August 2020 sampling event, are presented in **Tables 1 to 3**. Analytical data were evaluated in accordance with the Statistical Analysis Plan (NRT/OBG, 2017b) to determine any SSLs of Appendix IV parameters over GWPSs. Notifications were completed in accordance with 40 C.F.R. § 257.95(g).

Statistical background values are provided in **Table 4** and GWPSs in **Table 5**. The background values reported in **Table 4** are slightly different from those reported previously because different software was utilized to calculate these values in 2021.

Alternate source evaluations were inconclusive for one or more of the SSLs. Consequently, and in accordance with 40 C.F.R. § 257.95(g)(5), a CMA following the requirements of 40 C.F.R. § 257.96 was initiated on April 8, 2019 and the required notification completed. The CMA (OBG, 2019) was completed on July 8, 2019 and posted to the publicly accessible website, as required by 40 C.F.R. § 257.107(h)(8). This CMA was revised on November 30, 2020 to address cobalt and lithium SSLs based on the 2020 assessment monitoring results, include additional information related to site geology/hydrogeology, and focus on application of the evaluation factors identified in 40 C.F.R. § 257.96(c) to potential groundwater corrective measures.

Remedy selection is in progress and the associated semiannual reports required by 40 C.F.R. § 257.97(a) were completed in January and July of 2021.

¹ Sampling was limited to G401 during the December 2021 sampling event to confirm SSLs of select Appendix IV parameters initially detected at concentrations greater than the GWPSs in the preceding sampling event, as allowed by the Statistical Analysis Plan.

Table A. 2020-2021 Assessment Monitoring Program Summary

Sampling Dates	Analytical Data Receipt Date	Parameters Collected	SSL(s)	SSL(s) Determination Date	CMA Initiated
August 12, 2020	October 15, 2020	Appendix III Appendix IV Detected ¹	Cobalt (G401) Lithium (G401)	January 13, 2021	NA
January 21, 28-29, 2021	April 14, 2021	Appendix III Appendix IV	Cobalt (G401) Lithium (G401)	July 13, 2021	NA
August 17-18, 2021	September 21, 2021	Appendix III Appendix IV Detected ¹	Cobalt (G401) Lithium (G401)	December 20, 2021	NA
November 29, 2021 ²	December 9, 2021	Lithium at well G401 ³	NA	NA	NA

Notes:

NA: not applicable

TBD: to be determined

¹ Groundwater sample analysis was limited to Appendix IV parameters detected during previous events in accordance with 40 C.F.R. § 257.95(d)(1).

² Sampling was limited to G401 during the December 2021 sampling event to confirm SSLs of select Appendix IV parameters initially detected at concentrations greater than the GWPS during the preceding sampling event, as allowed by the Statistical Analysis Plan.

³ Groundwater sample analysis was limited to select Appendix IV parameters initially detected at a concentration greater than the GWPS during the preceding sampling event to confirm SSLs, as allowed by the Statistical Analysis Plan.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the Groundwater Monitoring Program during 2021. Groundwater samples were collected and analyzed in accordance with the SAP and all data were accepted.

5. KEY ACTIVITIES PLANNED FOR 2022

The following key activities are planned for 2022:

- All or part of the monitoring well network that was proposed for compliance with Title 35 of the Illinois Administrative Code § 845 is under evaluation for incorporation into the current monitoring system.
- Continuation of the Assessment Monitoring Program with semi-annual sampling scheduled for the first and third quarters of 2022.
- Complete evaluation of analytical data from the compliance wells, using GWPSs to determine whether an SSL of Appendix IV parameters has occurred.
- Remedy selection will continue; semiannual progress reports required by 40 C.F.R. § 257.97(a) will be completed and posted to the publicly accessible website as required by 40 C.F.R. § 257.107(h)(9).

6. REFERENCES

Natural Resource Technology, an OBG Company (NRT/OBG), 2017a. *Sampling and Analysis Plan, Coffeen Ash Pond No. 2, Coffeen Power Station, Coffeen, Illinois, Project No. 2285, Revision 0.* October 17, 2017.

Natural Resource Technology, an OBG Company (NRT/OBG), 2017b. *Statistical Analysis Plan, Coffeen Power Station, Newton Power Station, Illinois Power Generating Company.* October 17, 2017.

OBG, Part of Ramboll (OBG), 2019. *Corrective Measures Assessment, Coffeen Ash Pond No. 2 – CCR Unit ID 102, Coffeen Power Station, 134 Cips Lane, Coffeen, Illinois 62017.* Illinois Power Generating Company, July 8, 2019.

Ramboll Americas Engineering Solutions, Inc. (Ramboll), 2020. *Corrective Measures Assessment Revision 1, Coffeen Ash Pond No. 2 – CCR Unit ID 102, Coffeen Power Station, 134 Cips Lane, Coffeen, Illinois 62017.* Illinois Power Generating Company, November 30, 2020.

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 COFFEEN POWER PLANT
 102 - ASH POND NO. 2
 COFFEEN, IL

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (ft BMP)	Groundwater Elevation (ft NAVD88)
G270	Background	39.06656	-89.39740	08/10/2020	7.81	618.11
				01/20/2021	3.35	622.51
				03/29/2021	2.48	623.38
				04/20/2021	3.12	622.74
				05/03/2021	2.78	623.08
				05/17/2021	2.99	622.87
				06/09/2021	4.11	621.75
				06/23/2021	6.80	619.06
				07/12/2021	3.30	622.56
				07/26/2021	3.47	622.39
				08/16/2021	3.32	622.54
10/25/2021	2.76	623.10				
G281	Background	39.06541	-89.39932	08/10/2020	7.10	619.26
				01/20/2021	7.00	619.36
				03/29/2021	4.68	621.68
				04/20/2021	6.74	619.62
				04/21/2021	6.59	619.77
				05/03/2021	5.76	620.60
				06/09/2021	6.71	619.65
				06/14/2021	6.90	619.46
				06/23/2021	7.65	618.71
				07/12/2021	6.13	620.23
				07/26/2021	6.34	620.02
08/16/2021	6.55	619.81				
10/25/2021	5.52	620.84				
G401	Compliance	39.06026	-89.39529	08/10/2020	18.80	606.77
				01/20/2021	Not Measured	
				03/29/2021	Not Measured	
				04/20/2021	21.43	604.14
				07/26/2021	21.63	603.94
				08/16/2021	21.53	604.04
				10/25/2021	21.37	604.20
				11/29/2021	21.32	604.25
G402	Compliance	39.06021	-89.39171	08/10/2020	11.28	602.09
				01/20/2021	10.36	603.01
				03/29/2021	Not Measured	
				04/20/2021	9.59	603.78
				07/26/2021	10.54	602.83
				08/16/2021	10.08	603.29
				10/25/2021	9.16	604.21
G403	Compliance	39.06317	-89.39878	08/10/2020	5.33	621.14
				01/20/2021	6.59	619.88
				03/29/2021	Not Measured	
				04/20/2021	7.06	619.41
				07/26/2021	6.91	619.56
				08/16/2021	7.20	619.27

TABLE 1
GROUNDWATER ELEVATIONS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 COFFEEN POWER PLANT
 102 - ASH POND NO. 2
 COFFEEN, IL

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Depth to Groundwater (ft BMP)	Groundwater Elevation (ft NAVD88)
G403	Compliance	39.06317	-89.39878	10/25/2021	5.70	620.77
G404	Compliance	39.06433	-89.39249	08/10/2020	5.30	610.37
				01/20/2021	4.04	611.63
				03/29/2021	Not Measured	
				04/20/2021	4.16	611.51
				07/26/2021	4.38	611.29
				08/16/2021	4.72	610.95
				10/25/2021	3.67	612.00
G405	Compliance	39.06435	-89.39623	08/10/2020	6.01	617.62
				01/20/2021	6.51	617.12
				03/29/2021	Not Measured	
				04/20/2021	6.50	617.13
				07/26/2021	6.26	617.37
				08/16/2021	6.35	617.28
				10/25/2021	5.51	618.12

Notes:
 BMP = below measuring point
 ft = foot/feet
 NAVD88 = North American Vertical Datum of 1988

TABLE 2
ANALYTICAL RESULTS - APPENDIX III PARAMETERS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 COFFEEN POWER PLANT
 102 - ASH POND NO. 2
 COFFEEN, IL

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Boron, total (mg/L)	Calcium, total (mg/L)	Chloride, total (mg/L)	Fluoride, total (mg/L)	pH (field) (SU)	Sulfate, total (mg/L)	Total Dissolved Solids (mg/L)
G270	Background	39.06656	-89.39740	08/12/2020	0.1	58	12	0.349	7.1	53	380
				01/21/2021	<0.01	59	10	0.386	7.1	54	360
				08/18/2021	0.012	55	12	0.409	7.1	54	470
G281	Background	39.06541	-89.39932	08/12/2020	0.037	130	81	0.324	6.9	260	700
				01/29/2021	<0.01	130	100	0.314	7.1	260	870
				08/17/2021	0.032	140	89	0.387	7.1	260	910
G401	Compliance	39.06026	-89.39529	08/12/2020	4.2	520	2.7	<0.25	5.8	2000	2800
				01/29/2021	3.7	490	2.3	<0.25	5.9	2500	3300
				08/17/2021	4.2	550	14	<0.25	5.9	1900	3100
				11/29/2021	--	--	--	--	5.8	--	--
G402	Compliance	39.06021	-89.39171	08/12/2020	6	250	1.1	0.316	6.8	400	1600
				01/28/2021	4.9	230	<1	0.343	6.9	770	1600
				08/17/2021	6.1	240	2.4	0.371	6.9	700	1600
G403	Compliance	39.06317	-89.39878	08/12/2020	0.033	76	3.6	0.394	7.0	34	330
				01/21/2021	<0.01	77	4.5	0.418	6.9	37	330
				08/17/2021	0.11	84	4.5	0.403	6.9	51	470
G404	Compliance	39.06433	-89.39249	08/12/2020	2.8	140	170	<0.25	6.8	190	720
				01/21/2021	2.6	160	190	<0.25	6.6	200	910
				08/17/2021	5.4	240	190	<0.25	6.7	470	1500
G405	Compliance	39.06435	-89.39623	08/12/2020	8.9	220	13	0.594	7.0	460	1200
				01/21/2021	11	250	5.9	0.399	6.9	960	1600
				08/17/2021	12	250	7.8	0.53	7.0	760	1400

Notes:

mg/L = milligrams per liter

SU = Standard Units

< = concentration is less than the concentration shown, which corresponds to the reporting limit for the method; estimated concentrations below the reporting limit and associated qualifiers are not provided since they are not utilized in statistics to determine Statistically Significant Increases (SSIs) over background

-- = not analyzed

TABLE 3
ANALYTICAL RESULTS - APPENDIX IV PARAMETERS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 COFFEEN POWER PLANT
 102 - ASH POND NO. 2
 COFFEEN, IL

Well ID	Well Type	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Date	Antimony, total (mg/L)	Arsenic, total (mg/L)	Barium, total (mg/L)	Beryllium, total (mg/L)	Cadmium, total (mg/L)	Chromium, total (mg/L)	Cobalt, total (mg/L)	Fluoride, total (mg/L)	Lead, total (mg/L)	Lithium, total (mg/L)	Mercury, total (mg/L)	Molybdenum, total (mg/L)	Radium 226+228, total (pCi/L)	Selenium, total (mg/L)	Thallium, total (mg/L)
G270	Background	39.06656	-89.39740	08/12/2020	--	<0.001	0.042	<0.001	<0.001	<0.004	<0.002	0.349	<0.001	<0.02	<0.0002	<0.001	0.248	<0.001	<0.001
				01/21/2021	<0.003	<0.001	0.039	<0.001	<0.001	<0.004	<0.002	0.386	<0.001	<0.02	<0.0002	<0.001	0.249	<0.001	<0.001
				08/18/2021	<0.003	<0.001	0.034	<0.001	<0.001	<0.004	<0.002	0.409	<0.001	<0.02	<0.0002	<0.001	0	<0.001	<0.001
G281	Background	39.06541	-89.39932	08/12/2020	--	<0.001	0.057	<0.001	<0.001	<0.004	<0.002	0.324	<0.001	<0.02	<0.0002	<0.001	0.304	<0.001	--
				01/29/2021	<0.003	<0.001	0.064	<0.001	<0.001	<0.004	<0.002	0.314	<0.001	<0.02	<0.0002	<0.001	0.397	<0.001	<0.001
				08/17/2021	<0.003	<0.001	0.065	<0.001	<0.001	<0.004	<0.002	0.387	<0.001	<0.02	<0.0002	<0.001	0.468	<0.001	<0.001
G401	Compliance	39.06026	-89.39529	08/12/2020	--	<0.001	0.01	<0.001	<0.001	<0.004	0.26	<0.25	<0.001	0.036	<0.0002	<0.001	0.325	<0.001	--
				01/29/2021	<0.003	<0.001	0.013	<0.001	<0.001	<0.004	0.24	<0.25	<0.001	0.037	<0.0002	<0.001	1.096	<0.001	<0.001
				08/17/2021	<0.003	<0.001	0.0097	<0.001	<0.001	<0.004	0.17	<0.25	<0.001	0.029	<0.0002	<0.001	0.713	<0.001	<0.001
				11/29/2021	--	--	--	--	--	--	--	--	--	0.038	--	--	--	--	--
G402	Compliance	39.06021	-89.39171	08/12/2020	--	0.0029	0.024	<0.001	<0.001	<0.004	<0.002	0.316	<0.001	0.022	<0.0002	0.0024	0.787	<0.001	--
				01/28/2021	<0.003	0.0022	0.02	<0.001	<0.001	<0.004	<0.002	0.343	<0.001	0.024	<0.0002	0.0019	0.547	<0.001	<0.001
				08/17/2021	<0.003	0.0028	0.024	<0.001	<0.001	<0.004	<0.002	0.371	<0.001	0.025	<0.0002	0.0025	0.486	<0.001	<0.001
G403	Compliance	39.06317	-89.39878	08/12/2020	--	<0.001	0.12	<0.001	<0.001	<0.004	<0.002	0.394	<0.001	<0.02	<0.0002	<0.001	0.593	<0.001	--
				01/21/2021	<0.003	<0.001	0.11	<0.001	<0.001	<0.004	<0.002	0.418	<0.001	<0.02	<0.0002	<0.001	0.139	<0.001	<0.001
				08/17/2021	<0.003	<0.001	0.12	<0.001	<0.001	<0.004	<0.002	0.403	<0.001	<0.02	<0.0002	<0.001	0.985	<0.001	<0.001
G404	Compliance	39.06433	-89.39249	08/12/2020	--	<0.001	0.037	<0.001	<0.001	<0.004	<0.002	<0.25	<0.001	<0.02	<0.0002	<0.001	0.853	<0.001	--
				01/21/2021	<0.003	<0.001	0.042	<0.001	<0.001	<0.004	<0.002	<0.25	<0.001	<0.02	<0.0002	<0.001	0.0477	<0.001	<0.001
				08/17/2021	<0.003	<0.001	0.048	<0.001	<0.001	<0.004	<0.002	<0.25	<0.001	<0.02	<0.0002	<0.001	0.792	<0.001	<0.001
G405	Compliance	39.06435	-89.39623	08/12/2020	--	<0.001	0.022	<0.001	<0.001	<0.004	<0.002	0.594	<0.001	<0.02	<0.0002	0.0013	4.03	<0.001	--
				01/21/2021	<0.003	<0.001	0.02	<0.001	<0.001	<0.004	<0.002	0.399	<0.001	<0.02	<0.0002	<0.001	1.17	<0.001	<0.001
				08/17/2021	<0.003	<0.001	0.015	<0.001	<0.001	0.0047	<0.002	0.53	<0.001	<0.02	<0.0002	0.001	0.162	<0.001	<0.001

Notes:
 mg/L = milligrams per liter
 pCi/L = picoCuries per liter
 < = concentration is less than the concentration shown, which corresponds to the reporting limit for the method; estimated concentrations below the reporting limit and associated qualifiers are not provided since they are not utilized in statistics to determine Statistically Significant Levels (SSLs) over the groundwater protection standard.
 -- = not analyzed

TABLE 4
STATISTICAL BACKGROUND VALUES
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 COFFEEN POWER PLANT
 102 - ASH POND NO. 2
 COFFEEN, IL

Parameter	Statistical Background Value (LPL/UPL)
40 C.F.R. Part 257 Appendix III	
Boron (mg/L)	0.022
Calcium (mg/L)	150
Chloride (mg/L)	75.0
Fluoride (mg/L)	0.493
pH (field) (SU)	6.7/7.3
Sulfate (mg/L)	370
Total Dissolved Solids (mg/L)	840

Notes:
 40 C.F.R. = Title 40 of the Code of Federal Regulations
 LPL = Lower Prediction Limit (applicable for pH only)
 mg/L = milligrams per liter
 SU = Standard Units
 UPL = Upper Prediction Limit

TABLE 5
GROUNDWATER PROTECTION STANDARDS
 2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 COFFEEN POWER PLANT
 102 - ASH POND NO. 2
 COFFEEN, IL

Parameter	Groundwater Protection Standard*
40 C.F.R. Part 257 Appendix IV	
Antimony (mg/L)	0.006
Arsenic (mg/L)	0.010
Barium (mg/L)	2
Beryllium (mg/L)	0.004
Cadmium (mg/L)	0.005
Chromium (mg/L)	0.1
Cobalt (mg/L)	0.006
Fluoride (mg/L)	4.0
Lead (mg/L)	0.015
Lithium (mg/L)	0.04
Mercury (mg/L)	0.002
Molybdenum (mg/L)	0.1
Radium-226 + Radium 228 (pCi/L)	5
Selenium (mg/L)	0.05
Thallium (mg/L)	0.002

Notes:

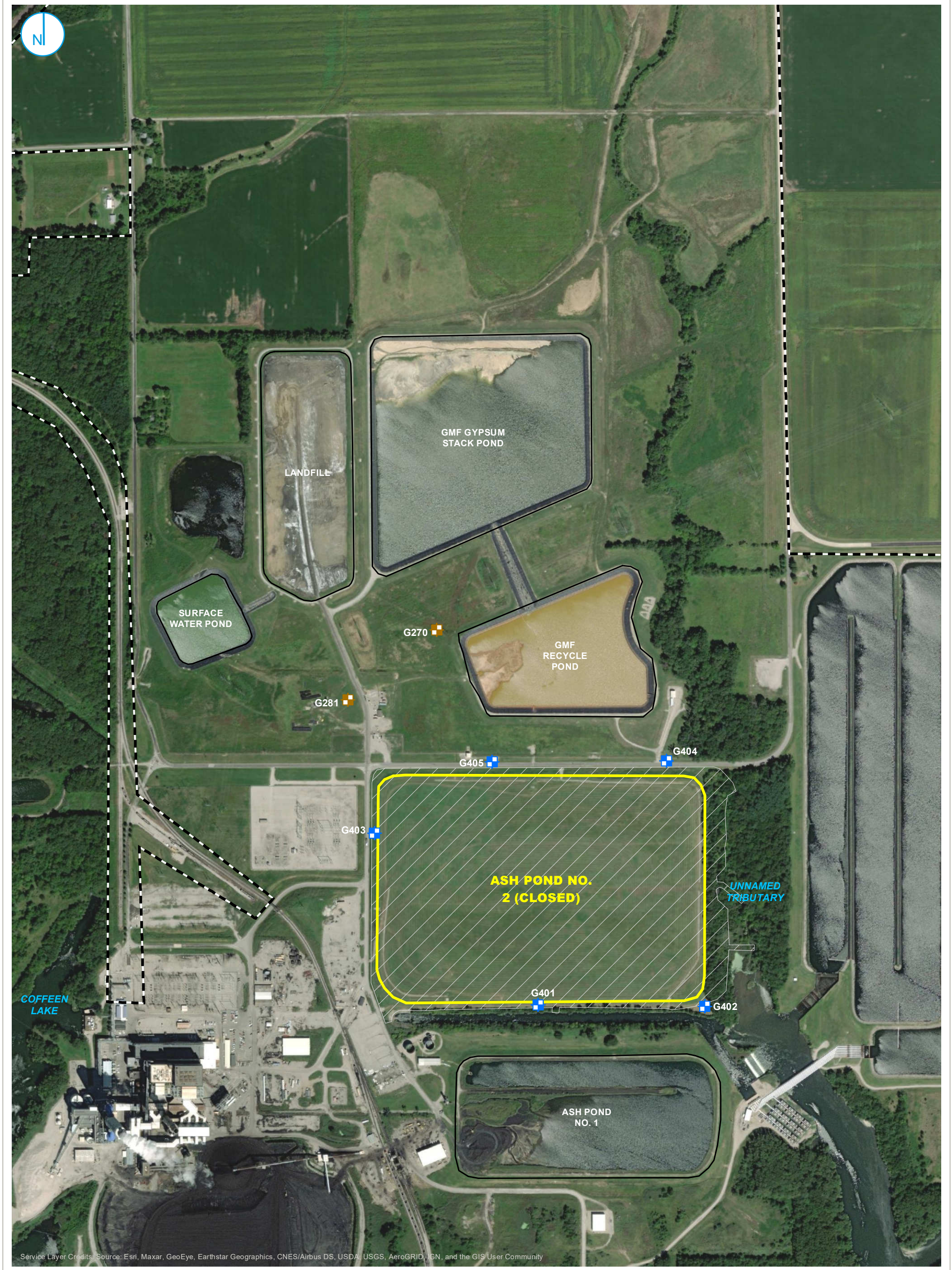
* Groundwater Protection Standard is the higher of the Maximum Contaminant Level/Health-Based Level or background.

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

mg/L = milligrams per liter

pCi/L = picoCuries per liter

FIGURES



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- BACKGROUND WELL
- COMPLIANCE WELL
- PART 257 REGULATED UNIT (SUBJECT UNIT)
- SITE FEATURE
- CAPPED AREA (IEPA APPROVED CLOSURE)
- PROPERTY BOUNDARY

0 200 400 Feet

MONITORING WELL LOCATION MAP

FIGURE 1

2021 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
ASH POND NO.2
 COFFEEN POWER PLANT
 COFFEEN, ILLINOIS

RAMBOLL AMERICAS
 ENGINEERING SOLUTIONS, INC.

