2017 Annual Groundwater Monitoring and Corrective Action Report

Wood River West Ash Ponds 1, 2E, 2W – CCR Unit ID 902
Wood River Power Station
1 Chessen Lane
Alton, Illinois 62202

Dynegy Midwest Generation, LLC

January 31, 2018

OBG

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Wood River Power Station
Alton, Illinois

Prepared for:

Dynegy Midwest Generation, LLC

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ACRONYMS AND ABBREVIATIONS

CCR	Coal Combustion Residuals
CFR	Code of Federal Regulations
mg/L	milligrams per liter
NRT/OBG	Natural Resource Technology, an OBG Company
OBG	O'Brien & Gere Engineers, Inc.
SSI	statistically significant increase
STD	standard units

1 INTRODUCTION

1.1 OVERVIEW

This report has been prepared on behalf of Dynegy Midwest Generation, LLC by O'Brien & Gere Engineers, Inc. (OBG), to provide the information required by 40 CFR 257.90(e) for the Wood River West Ash Ponds 1, 2E, 2W located at Wood River Power Station near Alton, Illinois.

In accordance with 40 CFR 257.90(e), the owner or operator of an existing 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 over background levels).
5. Other information required to be included in the annual report as specified in §§ 257.90 through 257.98.[1]

This report provides the required information for the Wood River West Ash Ponds 1, 2E, 2W for calendar year 2017.

1.2 MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

The final three independent samples of the minimum eight required by 40 CFR 257.94(b) were collected and analyzed from each background and downgradient well in 2017 before October 17. The other five independent samples were collected and analyzed in 2015 and 2016.

The first semi-annual monitoring sample for the Detection Monitoring Program was collected in November 2017 from each well.

Using the last of the minimum eight samples required to be collected by October 17, 2017 to determine whether a statistically significant increase (SSI) of Appendix III parameters over background concentrations has occurred, evaluation of analytical data from the downgradient wells was initiated beginning no later than October 17, 2017 for the initial eight samples. SSI determinations will be completed within 90 days (January 15, 2018). In addition, SSI determinations will be completed within 90 days of completion of analysis for the first semi-annual detection monitoring sample collected on November 2, 2017, for which analytical data was received on November 17, 2017.

[1] For calendar year 2017, corrective action and other information required to be included in the annual report as specified in §§ 257.90 through 257.98 is inapplicable.

2 KEY ACTIONS COMPLETED IN 2017

2.1 SUMMARY

Three groundwater sampling events were completed in 2017 as part of an effort initiated in 2015 to collect eight independent samples from background and downgradient monitoring wells in accordance with 40 CFR 257.94(b).

Subsequent to collection of the eight independent samples, an additional sampling event was completed in November 2017 for parameters listed in Appendix III, 40 CFR Part 257, to supplement the background data set and as the first semi-annual monitoring sampling event for the Detection Monitoring Program.

A map showing the groundwater monitoring system, including the CCR unit and all background and downgradient monitoring wells with well identification numbers, for the Wood River West Ash Ponds 1, 2E, 2W is presented in Figure 1. No monitoring wells were installed or decommissioned from the monitoring system in 2017.

Samples were collected and analyzed in accordance with the Sampling and Analysis Plan (NRT/OBG, 2017a) prepared for the Wood River West Ash Ponds 1, 2E, 2W.

All monitoring data obtained under 40 CFR §§ 257.90 through 257.98 (as applicable) in 2017, as well as monitoring data for the previously collected five independent samples are presented in Tables 1 and 2. Sample collection dates in 2017 were January 31-February 1, April 12, May 31-June 1, and November 2. Sample collection dates for previously collected five independent samples are identified in Tables 1 and 2. One ground water sample was collected from each background and downgradient well in each sampling event.

Statistical evaluation of analytical data from the eight independent samples required to be collected by October 17, 2017 and the first semi-annual detection monitoring event on November 2, 2017 was initiated and will be completed within 90 days of October 17, 2017 (January 15, 2018) or 90 days from receipt of the data from the first semi-annual detection monitoring event (February 15, 2018), respectively. Statistical evaluation of analytical data is being performed in accordance with the Statistical Analysis Plan, Wood River Power Station, Dynegy Midwest Generation, LLC (NRT/OBG, 2017b).

2.2 PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

No problems were encountered with the groundwater monitoring program during 2017. Groundwater samples were collected and analyzed in accordance with the Sampling and Analysis Plan, and all data was accepted.

3 KEY ACTIVITIES PLANNED FOR 2018

3.1 SUMMARY

The following key activities are planned for 2018:

- Continuation of the Detection Monitoring Program with semi-annual sampling scheduled for the 2nd and 4th quarters of 2018.
- Complete evaluation of analytical data from the downgradient wells, using both the eight samples required to be collected by October 17, 2017 and the first semi-annual detection monitoring sample taken in November 2017 to determine whether a SSI of Appendix III parameters over background concentrations has occurred.
- If an SSI is identified, potential alternate sources (*i.e.*, a source other than the CCR unit caused the SSI or that that SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated. If an alternate source is demonstrated to be the cause of the SSI, a written demonstration will be completed within 90 days of SSI detection and included in the annual groundwater monitoring and corrective action report for 2018.
  - If an alternate source(s) is not identified to be the cause of the SSI, the applicable requirements of 40 CFR §§ 257.94 through 257.98 (*e.g.*, assessment monitoring) as may apply in 2018 will be met, including associated recordkeeping/notifications required by 40 CFR §§ 257.105 through 257.108.

REFERENCES

Natural Resource Technology, an OBG Company, 2017a, Sampling and Analysis Plan, Wood River West Ash Ponds 1, 2E, 2W, Wood River Power Station, Alton, Illinois, Project No. 2285, Revision 0, October 17, 2017.

Natural Resource Technology, an OBG Company, 2017b, Statistical Analysis Plan, Baldwin Energy Complex, Havana Power Station, Hennepin Power Station, Wood River Power Station, Dynegy Midwest Generation, LLC, October 17, 2017.

Tables

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
02	11/3/2015	3.620	188.0	63.00	0.1200	6.950	242.0
	2/3/2016	3.620	185.0	66.00	0.1600	6.900	239.0
	5/12/2016	3.140	162.0	56.00	0.1900	6.810	194.0
	8/3/2016	1.360	182.0	67.00	0.2400	7.100	131.0
	11/2/2016	3.230	168.0	70.00	0.2000	6.830	217.0
	2/1/2017	3.940	167.0	66.00	0.1800	6.800	205.0
	4/12/2017	3.380	169.0	60.00	0.1800	6.830	229.0
	5/31/2017	1.590	125.0	51.00	0.3800	7.520	113.0
	11/2/2017	4.470	196.0	76.00	0.1700	7.510	230.0
04	11/3/2015	0.3760	181.0	60.00	0.1300	7.010	<10.00
	2/3/2016	0.3880	191.0	53.00	0.1700	6.910	<10.00
	5/12/2016	0.3240	182.0	40.00	0.1800	6.790	<10.00
	8/3/2016	0.3320	260.0	48.00	0.1900	6.860	<10.00
	11/2/2016	0.3800	161.0	54.00	0.1900	6.680	<10.00
	2/1/2017	0.3260	170.0	55.00	0.1800	6.840	<10.00
	4/12/2017	0.3010	180.0	50.00	0.2000	6.840	<10.00
	5/31/2017	0.2970	183.0	37.00	0.2300	7.570	<10.00
	11/2/2017	0.4000	199.0	61.00	0.1600	7.400	<10.00

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
02	11/3/2015	934.0
	2/3/2016	848.0
	5/12/2016	860.0
	8/3/2016	750.0
	11/2/2016	794.0
	2/1/2017	900.0
	4/12/2017	906.0
	5/31/2017	596.0
	11/2/2017	982.0
04	11/3/2015	716.0
	2/3/2016	704.0
	5/12/2016	744.0
	8/3/2016	764.0
	11/2/2016	740.0
	2/1/2017	716.0
	4/12/2017	776.0
	5/31/2017	802.0
	11/2/2017	788.0

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
25	**11/4/2015**	0.5750	253.0	193.0	0.3300	7.020	207.0
	2/4/2016	0.5480	198.0	198.0	0.3400	6.800	136.0
	5/13/2016	0.6130	259.0	242.0	0.3500	6.830	237.0
	8/3/2016	0.5910	368.0	171.0	0.3600	6.870	254.0
	11/3/2016	0.6530	225.0	130.0	0.3300	6.790	217.0
	1/31/2017	0.4670	189.0	108.0	0.3700	6.750	183.0
	4/12/2017	0.4480	133.0	126.0	0.3900	6.780	67.00
	6/1/2017	0.5710	171.0	147.0	0.4000	6.890	136.0
	11/2/2017	0.6760	283.0	129.0	0.3600	7.280	227.0
31	**11/4/2015**	0.9900	112.0	543.0	0.2500	7.270	148.0
	2/4/2016	1.130	603.0	2770.	0.2000	6.690	249.0
	5/13/2016	0.9180	752.0	3690.	0.1600	6.500	279.0
	8/3/2016	0.8550	481.0	1540.	0.2600	6.600	209.0
	11/3/2016	0.8310	286.0	1390.	0.2400	6.790	203.0
	1/31/2017	0.7240	195.0	644.0	0.2600	6.910	183.0
	4/12/2017	0.8370	168.0	718.0	0.2800	6.910	196.0
	5/31/2017	1.110	480.0	2120.	0.2100	7.430	250.0
	11/2/2017	0.8850	224.0	1090.	0.2800	7.500	190.0

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
25	11/4/2015	1230.
	2/4/2016	990.0
	5/13/2016	1390.
	8/3/2016	1350.
	11/3/2016	1120.
	1/31/2017	910.0
	4/12/2017	708.0
	6/1/2017	926.0
	11/2/2017	1300.
31	11/4/2015	2140.
	2/4/2016	6770.
	5/13/2016	8550.
	8/3/2016	4100.
	11/3/2016	3530.
	1/31/2017	2180.
	4/12/2017	2400.
	5/31/2017	5220.
	11/2/2017	3120.

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
32R	**11/4/2015**	1.110	62.30	48.00	0.2400	7.110	102.0
	2/4/2016	1.620	79.50	52.00	0.2100	6.400	120.0
	5/13/2016	3.560	121.0	20.00	0.1400	6.930	144.0
	8/4/2016	0.7670	77.80	46.00	0.2800	6.820	93.00
	11/3/2016	0.7960	59.50	57.00	0.2800	6.740	103.0
	2/1/2017	0.9680	77.30	37.00	0.2700	6.840	76.00
	4/12/2017	0.7010	75.10	44.00	0.3000	6.770	68.00
	6/1/2017	0.9930	75.50	57.00	0.3100	6.920	96.00
	11/2/2017	0.7160	100.0	91.00	0.3500	7.540	76.00
34	**11/3/2015**	9.060	141.0	69.00	0.3100	7.050	<10.00
	2/3/2016	3.170	161.0	99.00	0.4200	6.860	<10.00
	5/12/2016	2.320	220.0	222.0	0.5400	6.740	<10.00
	8/3/2016	2.110	287.0	223.0	0.5800	6.800	<10.00
	11/2/2016	1.850	206.0	191.0	0.5900	6.820	<10.00
	2/1/2017	0.8240	240.0	250.0	0.6300	6.810	<10.00
	4/12/2017	1.180	228.0	234.0	0.6600	6.790	<10.00
	5/31/2017	1.170	247.0	224.0	0.5600	7.550	<10.00
	11/2/2017	1.510	254.0	152.0	0.5200	7.360	<10.00

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
32R	11/4/2015	440.0
	2/4/2016	496.0
	5/13/2016	572.0
	8/4/2016	468.0
	11/3/2016	440.0
	2/1/2017	490.0
	4/12/2017	492.0
	6/1/2017	556.0
	11/2/2017	624.0
34	11/3/2015	600.0
	2/3/2016	724.0
	5/12/2016	1040.
	8/3/2016	1060.
	11/2/2016	966.0
	2/1/2017	1100.
	4/12/2017	1110.
	5/31/2017	1180.
	11/2/2017	1060.

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
36	11/3/2015	0.1340	86.60	45.00	0.2100	7.140	<10.00
	2/3/2016	0.1610	78.00	45.00	0.2200	6.510	<10.00
	5/12/2016	0.1210	81.70	48.00	0.2500	6.780	<10.00
	8/3/2016	0.1030	89.10	48.00	0.2600	6.920	<10.00
	11/2/2016	0.1100	84.40	51.00	0.2300	6.820	<10.00
	2/1/2017	0.1350	70.00	47.00	0.2500	6.650	<10.00
	4/12/2017	0.1190	84.70	46.00	0.2400	6.980	<10.00
	5/31/2017	0.1560	78.50	47.00	0.2400	7.520	<10.00
	11/2/2017	0.1070	75.20	45.00	0.2400	7.440	<10.00

Table 1. Wood River West Ash Ponds 1, 2E, 2W: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
36	11/3/2015	372.0
	2/3/2016	354.0
	5/12/2016	364.0
	8/3/2016	416.0
	11/2/2016	332.0
	2/1/2017	366.0
	4/12/2017	390.0
	5/31/2017	388.0
	11/2/2017	370.0

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	As, tot, mg/L	Ba, tot, mg/L	Be, tot, mg/L	Cd,tot, mg/L	Co, tot, mg/L	Cr, tot, mg/L
02	11/3/2015	0.001200	0.05760	<0.001000	<0.001000	<0.001000	<0.001000
	2/3/2016	0.001400	0.07300	<0.001000	<0.001000	<0.001000	<0.001000
	5/12/2016	<0.001000	0.05850	<0.001000	<0.001000	<0.001000	<0.001000
	8/3/2016	0.002500	0.1590	<0.001000	<0.001000	0.001700	<0.001000
	11/2/2016	0.001300	0.08580	<0.001000	<0.001000	<0.001000	<0.001000
	2/1/2017	0.001400	0.07390	<0.001000	<0.001000	<0.001000	<0.001000
	4/12/2017	0.001000	0.06960	<0.001000	<0.001000	<0.001000	<0.001000
	5/31/2017	0.001100	0.1240	<0.001000	<0.001000	0.003100	<0.001000
04	11/3/2015	0.04960	0.3590	<0.001000	<0.001000	<0.001000	<0.001000
	2/3/2016	0.03840	0.2960	<0.001000	<0.001000	<0.001000	<0.001000
	5/12/2016	0.02920	0.2840	<0.001000	<0.001000	<0.001000	<0.001000
	8/3/2016	0.05010	0.4250	<0.001000	<0.001000	<0.001000	<0.001000
	11/2/2016	0.04680	0.3760	<0.001000	<0.001000	<0.001000	<0.001000
	2/1/2017	0.03910	0.3030	<0.001000	<0.001000	<0.001000	<0.001000
	4/12/2017	0.03450	0.2660	<0.001000	<0.001000	<0.001000	<0.001000
	5/31/2017	0.02680	0.2510	<0.001000	<0.001000	<0.001000	<0.001000
25	11/4/2015	0.004000	0.1390	<0.001000	<0.001000	<0.001000	<0.001000
	2/4/2016	0.003300	0.1130	<0.001000	<0.001000	<0.001000	<0.001000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	F, tot, mg/L	Hg, tot, mg/L	Li, tot, mg/L	Mo, tot, mg/L	Pb, tot, mg/L	Ra-226,228, tot, pCi/L
02	11/3/2015	0.1200	<0.0002000	0.02490	<0.001000	<0.001000	2.000
	2/3/2016	0.1600	<0.0002000	0.02040	0.001100	<0.001000	0.3600
	5/12/2016	0.1900	<0.0002000	0.02050	0.001500	<0.001000	0.4900
	8/3/2016	0.2400	<0.0002000	0.01720	0.001800	<0.001000	1.640
	11/2/2016	0.2000	<0.0002000	0.02020	0.001500	<0.001000	0.0
	2/1/2017	0.1800	<0.0002000	0.02110	0.001000	<0.001000	0.4000
	4/12/2017	0.1800	<0.0002000	0.02110	0.001300	<0.001000	2.640
	5/31/2017	0.3800	<0.0002000	0.01140	0.001300	<0.001000	0.1400
04	11/3/2015	0.1300	<0.0002000	0.002400	0.002000	<0.001000	2.000
	2/3/2016	0.1700	<0.0002000	0.002600	<0.001000	<0.001000	0.5600
	5/12/2016	0.1800	<0.0002000	0.002100	<0.001000	<0.001000	0.8100
	8/3/2016	0.1900	<0.0002000	0.003100	<0.001000	<0.001000	0.6900
	11/2/2016	0.1900	<0.0002000	0.002000	<0.001000	<0.001000	0.2900
	2/1/2017	0.1800	<0.0002000	0.002000	<0.001000	<0.001000	0.4500
	4/12/2017	0.2000	<0.0002000	0.002100	<0.001000	<0.001000	1.310
	5/31/2017	0.2300	<0.0002000	0.002300	<0.001000	<0.001000	0.01000
25	11/4/2015	0.3300	<0.0002000	0.04560	0.002200	<0.001000	2.000
	2/4/2016	0.3400	<0.0002000	0.03430	0.002000	<0.001000	0.4000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
02	11/3/2015	<0.001000	<0.001000	<0.001000
	2/3/2016	<0.001000	<0.001000	<0.001000
	5/12/2016	<0.001000	<0.001000	<0.001000
	8/3/2016	0.002600	0.001500	<0.001000
	11/2/2016	<0.001000	<0.001000	<0.001000
	2/1/2017	<0.001000	<0.001000	<0.001000
	4/12/2017	<0.001000	<0.001000	<0.001000
	5/31/2017	<0.001000	<0.001000	<0.001000
04	11/3/2015	<0.001000	<0.001000	<0.001000
	2/3/2016	<0.001000	<0.001000	<0.001000
	5/12/2016	<0.001000	<0.001000	<0.001000
	8/3/2016	0.001100	<0.001000	<0.001000
	11/2/2016	<0.001000	<0.001000	<0.001000
	2/1/2017	<0.001000	<0.001000	<0.001000
	4/12/2017	<0.001000	<0.001000	<0.001000
	5/31/2017	<0.001000	<0.001000	<0.001000
25	11/4/2015	<0.001000	0.003100	<0.001000
	2/4/2016	<0.001000	<0.001000	<0.001000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	As, tot, mg/L	Ba, tot, mg/L	Be, tot, mg/L	Cd,tot, mg/L	Co, tot, mg/L	Cr, tot, mg/L
25	**5/13/2016**	0.007000	0.1280	<0.001000	0.001700	<0.001000	<0.001000
	8/3/2016	0.006300	0.1740	<0.001000	<0.001000	0.001300	<0.001000
	11/3/2016	0.004300	0.1210	<0.001000	<0.001000	<0.001000	<0.001000
	1/31/2017	0.05740	0.2740	<0.001000	0.002300	<0.001000	<0.001000
	4/12/2017	0.007800	0.1000	<0.001000	<0.001000	0.001300	<0.001000
	6/1/2017	0.003800	0.1210	<0.001000	<0.001000	<0.001000	<0.001000
31	**11/4/2015**	0.002200	0.1290	<0.001000	<0.001000	<0.001000	<0.001000
	2/4/2016	0.001500	0.2110	<0.001000	0.001900	<0.001000	<0.001000
	5/13/2016	0.001400	0.2660	<0.001000	0.002100	<0.001000	<0.001000
	8/3/2016	0.001800	0.1920	<0.001000	0.001100	<0.001000	<0.001000
	11/3/2016	0.001400	0.1790	<0.001000	<0.001000	<0.001000	<0.001000
	1/31/2017	0.001400	0.1400	<0.001000	<0.001000	<0.001000	<0.001000
	4/12/2017	0.002000	0.1420	<0.001000	<0.001000	<0.001000	<0.001000
	5/31/2017	0.001100	0.2040	<0.001000	<0.001000	<0.001000	<0.001000
32R	**11/4/2015**	<0.001000	0.09250	<0.001000	<0.001000	<0.001000	<0.001000
	2/4/2016	<0.001000	0.1020	<0.001000	<0.001000	<0.001000	<0.001000
	5/13/2016	<0.001000	0.1010	<0.001000	<0.001000	<0.001000	<0.001000
	8/4/2016	<0.001000	0.1290	<0.001000	<0.001000	<0.001000	<0.001000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	F, tot, mg/L	Hg, tot, mg/L	Li, tot, mg/L	Mo, tot, mg/L	Pb, tot, mg/L	Ra-226,228, tot, pCi/L
25	**5/13/2016**	0.3500	<0.0002000	0.04310	0.002600	0.001100	0.3500
	8/3/2016	0.3600	<0.0002000	0.06540	0.002600	<0.001000	0.2100
	11/3/2016	0.3300	<0.0002000	0.03860	0.002400	<0.001000	0.2400
	1/31/2017	0.3700	<0.0002000	0.03410	0.002800	0.001900	0.5400
	4/12/2017	0.3900	<0.0002000	0.02660	0.004400	<0.001000	1.210
	6/1/2017	0.4000	<0.0002000	0.03620	0.003500	<0.001000	0.2500
31	**11/4/2015**	0.2500	<0.0002000	0.05120	0.004500	<0.001000	2.000
	2/4/2016	0.2000	<0.0002000	0.1140	0.003200	<0.001000	1.200
	5/13/2016	0.1600	<0.0002000	0.1710	0.002000	<0.001000	1.000
	8/3/2016	0.2600	<0.0002000	0.1270	0.004200	<0.001000	1.760
	11/3/2016	0.2400	<0.0002000	0.07540	0.003100	<0.001000	1.410
	1/31/2017	0.2600	<0.0002000	0.04930	0.003200	<0.001000	1.160
	4/12/2017	0.2800	<0.0002000	0.04950	0.004100	<0.001000	1.500
	5/31/2017	0.2100	<0.0002000	0.1340	0.002400	<0.001000	1.500
32R	**11/4/2015**	0.2400	<0.0002000	0.01330	0.009200	<0.001000	2.000
	2/4/2016	0.2100	<0.0002000	0.01170	0.007100	<0.001000	0.1600
	5/13/2016	0.1400	<0.0002000	0.01270	0.001900	<0.001000	1.420
	8/4/2016	0.2800	<0.0002000	0.01620	0.009500	<0.001000	1.520

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
25	5/13/2016	<0.001000	0.002000	<0.001000
	8/3/2016	0.001100	<0.001000	<0.001000
	11/3/2016	<0.001000	<0.001000	<0.001000
	1/31/2017	<0.001000	<0.001000	<0.001000
	4/12/2017	<0.001000	<0.001000	<0.001000
	6/1/2017	<0.001000	<0.001000	<0.001000
31	11/4/2015	<0.001000	0.01700	<0.001000
	2/4/2016	0.001100	0.03890	<0.001000
	5/13/2016	<0.001000	0.03120	<0.001000
	8/3/2016	0.001300	0.02820	<0.001000
	11/3/2016	<0.001000	0.01380	<0.001000
	1/31/2017	<0.001000	0.006600	<0.001000
	4/12/2017	<0.001000	0.01040	<0.001000
	5/31/2017	<0.001000	0.02530	<0.001000
32R	11/4/2015	<0.001000	0.008500	<0.001000
	2/4/2016	<0.001000	0.01030	<0.001000
	5/13/2016	<0.001000	0.002700	<0.001000
	8/4/2016	0.001300	0.01530	<0.001000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	As, tot, mg/L	Ba, tot, mg/L	Be, tot, mg/L	Cd,tot, mg/L	Co, tot, mg/L	Cr, tot, mg/L
32R	11/3/2016	<0.001000	0.1340	<0.001000	<0.001000	<0.001000	<0.001000
	2/1/2017	<0.001000	0.09680	<0.001000	<0.001000	<0.001000	<0.001000
	4/12/2017	<0.001000	0.1070	<0.001000	<0.001000	<0.001000	<0.001000
	6/1/2017	<0.001000	0.1300	<0.001000	<0.001000	<0.001000	<0.001000
34	11/3/2015	0.01700	0.3140	<0.001000	<0.001000	<0.001000	<0.001000
	2/3/2016	0.02320	0.3070	<0.001000	<0.001000	<0.001000	<0.001000
	5/12/2016	0.01980	0.4170	<0.001000	<0.001000	<0.001000	<0.001000
	8/3/2016	0.02260	0.5540	<0.001000	<0.001000	<0.001000	<0.001000
	11/2/2016	0.01520	0.3990	<0.001000	<0.001000	<0.001000	<0.001000
	2/1/2017	0.01650	0.4610	<0.001000	<0.001000	<0.001000	<0.001000
	4/12/2017	0.01330	0.4050	<0.001000	<0.001000	<0.001000	<0.001000
	5/31/2017	0.04200	0.4290	<0.001000	<0.001000	<0.001000	<0.001000
36	11/3/2015	0.002400	0.3250	<0.001000	<0.001000	<0.001000	<0.001000
	2/3/2016	0.002900	0.2910	<0.001000	<0.001000	<0.001000	<0.001000
	5/12/2016	0.002300	0.2850	<0.001000	<0.001000	<0.001000	<0.001000
	8/3/2016	0.002300	0.2980	<0.001000	<0.001000	<0.001000	<0.001000
	11/2/2016	0.002100	0.3210	<0.001000	<0.001000	<0.001000	<0.001000
	2/1/2017	0.002200	0.2460	<0.001000	<0.001000	<0.001000	<0.001000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	F, tot, mg/L	Hg, tot, mg/L	Li, tot, mg/L	Mo, tot, mg/L	Pb, tot, mg/L	Ra-226,228, tot, pCi/L
32R	11/3/2016	0.2800	<0.0002000	0.01170	0.01000	<0.001000	0.3700
	2/1/2017	0.2700	<0.0002000	0.01230	0.01120	<0.001000	0.3000
	4/12/2017	0.3000	<0.0002000	0.01310	0.01390	<0.001000	0.6300
	6/1/2017	0.3100	<0.0002000	0.01540	0.01300	<0.001000	0.4400
34	11/3/2015	0.3100	<0.0002000	0.002300	<0.001000	<0.001000	2.000
	2/3/2016	0.4200	<0.0002000	0.002000	<0.001000	<0.001000	0.8400
	5/12/2016	0.5400	<0.0002000	0.002400	<0.001000	<0.001000	1.350
	8/3/2016	0.5800	<0.0002000	0.003200	<0.001000	<0.001000	1.640
	11/2/2016	0.5900	<0.0002000	0.002100	<0.001000	<0.001000	0.3700
	2/1/2017	0.6300	<0.0002000	0.002200	0.001200	<0.001000	0.7900
	4/12/2017	0.6600	<0.0002000	0.002500	<0.001000	<0.001000	2.660
	5/31/2017	0.5600	<0.0002000	0.002100	0.001600	<0.001000	1.170
36	11/3/2015	0.2100	<0.0002000	0.004200	<0.001000	<0.001000	2.000
	2/3/2016	0.2200	<0.0002000	0.004200	<0.001000	<0.001000	0.7600
	5/12/2016	0.2500	<0.0002000	0.003600	<0.001000	<0.001000	2.160
	8/3/2016	0.2600	<0.0002000	0.004000	<0.001000	<0.001000	1.840
	11/2/2016	0.2300	<0.0002000	0.003800	<0.001000	<0.001000	0.6700
	2/1/2017	0.2500	<0.0002000	0.003200	<0.001000	<0.001000	0.2700

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
32R	11/3/2016	<0.001000	0.01420	<0.001000
	2/1/2017	<0.001000	0.01530	<0.001000
	4/12/2017	<0.001000	0.01640	<0.001000
	6/1/2017	<0.001000	0.02000	<0.001000
34	11/3/2015	<0.001000	<0.001000	<0.001000
	2/3/2016	<0.001000	<0.001000	<0.001000
	5/12/2016	<0.001000	<0.001000	<0.001000
	8/3/2016	0.001100	<0.001000	<0.001000
	11/2/2016	<0.001000	<0.001000	<0.001000
	2/1/2017	<0.001000	<0.001000	<0.001000
	4/12/2017	<0.001000	<0.001000	<0.001000
	5/31/2017	<0.001000	<0.001000	<0.001000
36	11/3/2015	<0.001000	<0.001000	<0.001000
	2/3/2016	<0.001000	<0.001000	<0.001000
	5/12/2016	<0.001000	<0.001000	<0.001000
	8/3/2016	<0.001000	<0.001000	<0.001000
	11/2/2016	<0.001000	<0.001000	<0.001000
	2/1/2017	<0.001000	<0.001000	<0.001000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	As, tot, mg/L	Ba, tot, mg/L	Be, tot, mg/L	Cd,tot, mg/L	Co, tot, mg/L	Cr, tot, mg/L
36	**4/12/2017**	0.002300	0.2620	<0.001000	<0.001000	<0.001000	<0.001000
	5/31/2017	0.002200	0.2660	<0.001000	<0.001000	<0.001000	<0.001000

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	F, tot, mg/L	Hg, tot, mg/L	Li, tot, mg/L	Mo, tot, mg/L	Pb, tot, mg/L	Ra-226,228, tot, pCi/L
36	4/12/2017	0.2400	<0.0002000	0.003700	<0.001000	<0.001000	0.9200
	5/31/2017	0.2400	<0.0002000	0.004000	<0.001000	<0.001000	1.090

Table 2. Wood River West Ash Ponds 1, 2E, 2W: Appendix IV Analytical Results

Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
36	4/12/2017	<0.001000	<0.001000	<0.001000
	5/31/2017	<0.001000	<0.001000	<0.001000

Figures

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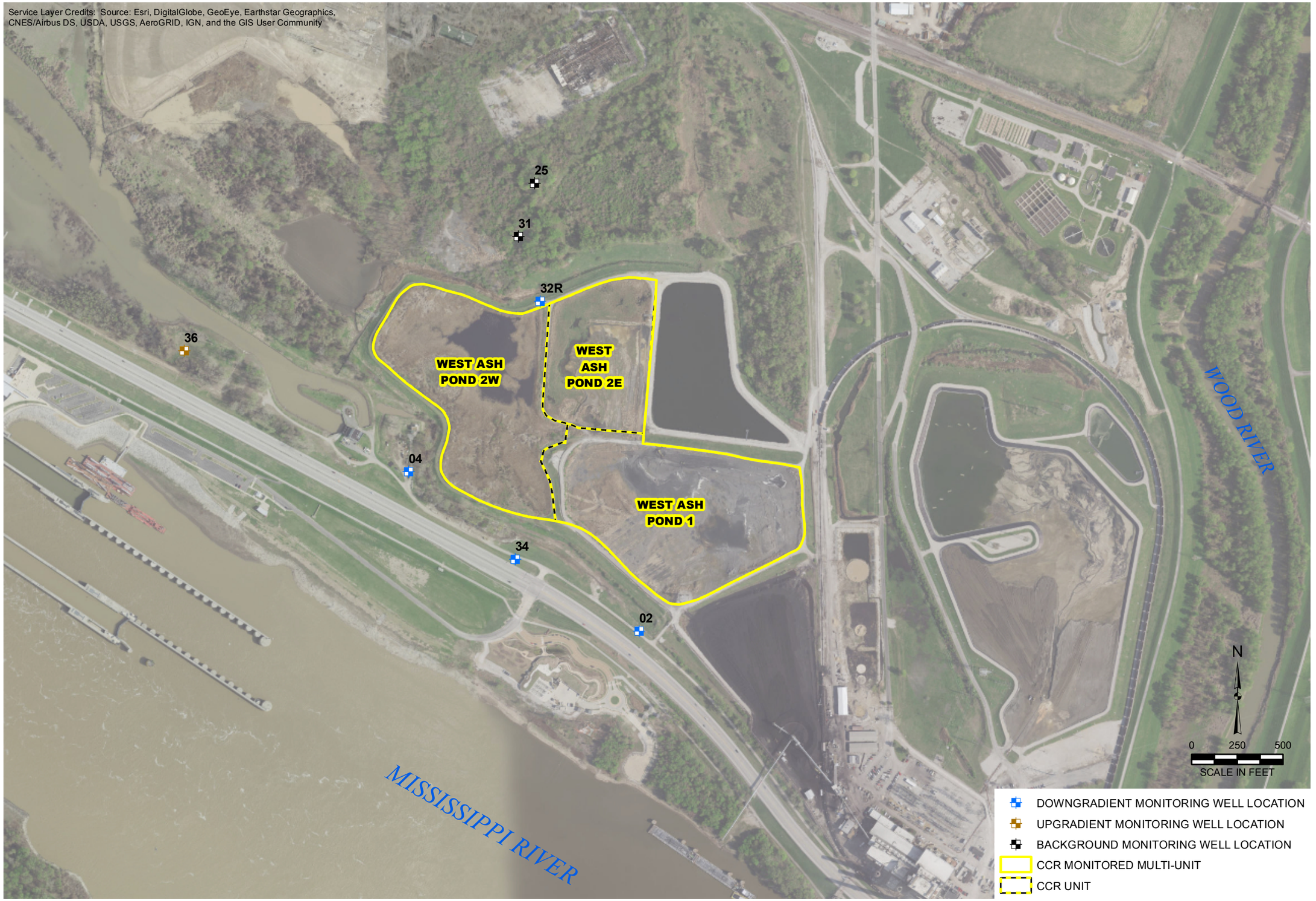

DOWNGRADIENT MONITORING WELL LOCATION
UPGRADIENT MONITORING WELL LOCATION
BACKGROUND MONITORING WELL LOCATION
CCR MONITORED MULTI-UNIT
CCR UNIT

GROUNDWATER SAMPLING WELL LOCATION MAP
WOOD RIVER WEST ASH PONDS 1, 2E, 2W
MULTI-UNIT ID: 902

2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
DYNEGY CCR RULE GROUNDWATER MONITORING
WOOD RIVER POWER STATION
EAST ALTON, ILLINOIS

DRAWN BY/DATE: SDS 12/15/17
REVIEWED BY/DATE: KLT 12/15/17
APPROVED BY/DATE: SJC 1/25/18

PROJECT NO: 67721

FIGURE NO: 1

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THERE'S A WAY