

# 2017 Annual Groundwater Monitoring and Corrective Action Report

Baldwin Bottom Ash Pond – CCR Unit ID 601  
Baldwin Energy Complex  
10901 Baldwin Road  
Baldwin, Illinois 62217

**Dynegy Midwest Generation, LLC**

January 31, 2018



JANUARY 31, 2018 | PROJECT #67719

# 2017 Annual Groundwater Monitoring and Corrective Action Report

Baldwin Bottom Ash Pond – CCR Unit ID 601  
Baldwin Energy Complex  
Baldwin, Illinois

Prepared for:  
*Dynegy Midwest Generation, LLC*



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KRISTEN L. THEESFELD  
Hydrogeologist



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ERIC J. TLACHAC, PE  
Senior Engineer

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## ACRONYMS AND ABBREVIATIONS

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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 Baldwin Bottom Ash Pond located at Baldwin Energy Complex near Baldwin, 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.<sup>1</sup>

This report provides the required information for the Baldwin Bottom Ash Pond 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 27-28, 2017, for which analytical data was received on December 13, 2017.

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<sup>1</sup> 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 Baldwin Bottom Ash Pond 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 Baldwin Bottom Ash Pond.

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 March 14-16, June 20-21, July 25-28, and November 27-28. 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 27-28, 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 (March 13, 2018), respectively. Statistical evaluation of analytical data is being performed in accordance with the Statistical Analysis Plan, Baldwin Energy Complex, 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

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#### 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

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Natural Resource Technology, an OBG Company, 2017a, Sampling and Analysis Plan, Baldwin Bottom Ash Pond, Baldwin Energy Complex, Baldwin, 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

Baldwin

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Table 1. Baldwin Bottom Ash Pond: Appendix III Analytical Results

11:28:05 AM

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
MW-304	12/29/2015	1.280	9.640	124.0	1.980	8.040	157.0
	3/21/2016	1.270	9.860	131.0	1.860	8.180	163.0
	6/21/2016	1.330	14.30	140.0	1.590	8.100	200.0
	9/19/2016	1.950	16.50	138.0	1.660	7.850	176.0
	12/27/2016	1.510	15.40	141.0	1.610	7.870	177.0
	3/16/2017	1.490	6.910	144.0	1.660	7.940	166.0
	6/21/2017	1.550	17.80	152.0	1.840	7.910	177.0
	7/28/2017	1.420	13.20	155.0	1.750	7.830	187.0
	11/28/2017	1.450	11.40	138.0	1.720	7.950	178.0
MW-306	3/22/2016	0.6340	6.100	34.00	0.8300	9.860	19.00
	6/21/2016	0.4780	5.370	33.00	0.6900	10.30	21.00
	8/18/2016	0.3220	22.40	41.00	0.5400	10.30	25.00
	9/19/2016	0.2400	35.30	47.00	0.5500	11.02	28.00
	12/27/2016	0.2200	30.70	47.00	0.5800	10.83	26.00
	3/16/2017	0.3060	19.70	51.00	0.6100	11.22	27.00
	6/21/2017	0.2250	26.30	53.00	0.6200	11.13	30.00
	7/28/2017	0.2590	15.30	54.00	0.6000	10.89	31.00
	11/28/2017	0.4070	3.400	55.00	0.6500	10.66	39.00

Table 1. Baldwin Bottom Ash Pond: Appendix III Analytical Results

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Location ID	Sample Date	TDS, mg/L
MW-304	12/29/2015	1090.
	3/21/2016	1200.
	6/21/2016	1220.
	9/19/2016	1220.
	12/27/2016	1230.
	3/16/2017	1280.
	6/21/2017	1360.
	7/28/2017	1330.
	11/28/2017	1330.
MW-306	3/22/2016	482.0
	6/21/2016	408.0
	8/18/2016	314.0
	9/19/2016	235.0
	12/27/2016	360.0
	3/16/2017	328.0
	6/21/2017	335.0
	7/28/2017	256.0
	11/28/2017	328.0

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Table 1. Baldwin Bottom Ash Pond: Appendix III Analytical Results

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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
MW-356	12/29/2015	1.930	12.70	42.00	1.910	7.450	47.00
	3/28/2016	1.830	11.70	41.00	1.890	7.800	50.00
	6/23/2016	2.040	12.00	40.00	1.780	7.580	49.00
	9/22/2016	2.580	13.70	41.00	1.780	7.710	51.00
	12/27/2016	2.060	11.40	40.00	1.800	7.670	44.00
	3/15/2017	1.990	11.70	34.00	1.850	7.820	47.00
	6/20/2017	1.970	10.60	34.00	1.880	7.780	45.00
	7/26/2017	1.930	11.20	34.00	1.880	7.910	46.00
	11/27/2017	1.980	12.20	33.00	1.990	7.560	44.00
MW-369	12/29/2015	0.7290	4.120	154.0	3.600	8.810	338.0
	3/28/2016	1.420	20.40	126.0	2.690	8.430	220.0
	6/23/2016	1.910	27.90	176.0	2.900	8.480	234.0
	9/22/2016	2.400	80.30	89.00	1.310	8.320	157.0
	12/27/2016	1.900	54.60	127.0	1.750	8.490	170.0
	3/14/2017	1.980	68.50	94.00	1.310	7.770	142.0
	6/20/2017	1.920	64.10	117.0	1.540	7.370	154.0
	7/26/2017	1.920	68.20	89.00	1.320	7.400	125.0
	11/27/2017	2.100	74.80	95.00	1.460	7.470	104.0

Table 1. Baldwin Bottom Ash Pond: Appendix III Analytical Results

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Location ID	Sample Date	TDS, mg/L
MW-356	12/29/2015	674.0
	3/28/2016	666.0
	6/23/2016	670.0
	9/22/2016	670.0
	12/27/2016	678.0
	3/15/2017	696.0
	6/20/2017	642.0
	7/26/2017	670.0
	11/27/2017	744.0
MW-369	12/29/2015	1070.
	3/28/2016	1280.
	6/23/2016	1230.
	9/22/2016	784.0
	12/27/2016	964.0
	3/14/2017	784.0
	6/20/2017	836.0
	7/26/2017	700.0
	11/27/2017	780.0

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Table 1. Baldwin Bottom Ash Pond: Appendix III Analytical Results

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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
MW-370	12/29/2015	1.770	31.60	1120.	2.800	7.710	234.0
	3/28/2016	1.560	25.80	1140.	2.530	7.900	281.0
	6/23/2016	2.430	42.10	1100.	2.630	7.990	247.0
	9/22/2016	1.810	35.40	1120.	2.700	7.690	241.0
	12/27/2016	1.820	33.60	1140.	2.770	7.300	230.0
	3/14/2017	1.810	38.10	1120.	2.580	7.850	240.0
	6/20/2017	1.820	35.10	1240.	2.940	7.640	249.0
	7/25/2017	1.840	38.20	1280.	3.000	7.560	247.0
	11/27/2017	1.810	45.90	1290.	2.990	7.850	268.0
MW-382	12/29/2015	1.610	19.30	46.00	2.770	7.800	457.0
	3/28/2016	1.600	17.90	37.00	2.870	7.870	509.0
	6/23/2016	2.170	24.80	39.00	2.830	7.970	447.0
	9/22/2016	2.570	27.30	35.00	2.780	7.790	481.0
	12/27/2016	1.780	18.40	35.00	2.760	7.710	428.0
	3/14/2017	1.740	20.60	34.00	2.760	8.100	451.0
	6/20/2017	1.710	19.40	39.00	2.890	7.750	445.0
	7/25/2017	1.750	19.00	38.00	2.880	7.740	450.0
	11/27/2017	1.860	20.30	35.00	2.910	7.910	443.0

Table 1. Baldwin Bottom Ash Pond: Appendix III Analytical Results

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Location ID	Sample Date	TDS, mg/L
MW-370	12/29/2015	2510.
	3/28/2016	2710.
	6/23/2016	2730.
	9/22/2016	2620.
	12/27/2016	2780.
	3/14/2017	2730.
	6/20/2017	2850.
	7/25/2017	2830.
	11/27/2017	2960.
MW-382	12/29/2015	1120.
	3/28/2016	1250.
	6/23/2016	1200.
	9/22/2016	1170.
	12/27/2016	1200.
	3/14/2017	1200.
	6/20/2017	1160.
	7/25/2017	1180.
	11/27/2017	1240.

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Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

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Location ID	Sample Date	As, tot, mg/L	Ba, tot, mg/L	Bc, tot, mg/L	Cd,tot, mg/L	Co, tot, mg/L	Cr, tot, mg/L
MW-304	12/29/2015	0.001900	0.01910	<0.001000	<0.001000	<0.001000	<0.001000
	3/21/2016	0.001600	0.01950	<0.001000	<0.001000	<0.001000	<0.001000
	6/21/2016	0.001600	0.01990	<0.001000	<0.001000	<0.001000	<0.001000
	9/19/2016	0.002500	0.02380	<0.001000	<0.001000	<0.001000	<0.001000
	12/27/2016	0.001900	0.01990	<0.001000	<0.001000	<0.001000	<0.001000
	3/16/2017	0.001600	0.01710	<0.001000	<0.001000	<0.001000	<0.001000
	6/21/2017	0.001700	0.02060	<0.001000	<0.001000	<0.001000	<0.001000
	7/28/2017	0.002100	0.01930	<0.001000	<0.001000	<0.001000	<0.001000
MW-306	3/22/2016	0.01010	0.01130	<0.001000	<0.001000	<0.001000	0.001100
	6/21/2016	0.01400	0.009700	<0.001000	<0.001000	<0.001000	0.001100
	8/18/2016	0.01210	0.01250	<0.001000	<0.001000	<0.001000	<0.001000
	9/19/2016	0.004500	0.01570	<0.001000	<0.001000	<0.001000	<0.001000
	12/27/2016	0.004400	0.01310	<0.001000	<0.001000	<0.001000	<0.001000
	3/16/2017	0.01530	0.009600	<0.001000	<0.001000	<0.001000	<0.001000
	6/21/2017	0.004600	0.01270	<0.001000	<0.001000	<0.001000	<0.001000
	7/28/2017	0.005700	0.008500	<0.001000	<0.001000	<0.001000	0.001500
MW-356	12/29/2015	<0.001000	0.02970	<0.001000	<0.001000	<0.001000	<0.001000
	3/28/2016	0.001200	0.02880	<0.001000	<0.001000	<0.001000	<0.001000



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Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

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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
MW-304	12/29/2015	1.980	<0.0002000	0.05680	0.005200	<0.001000	0.0
	3/21/2016	1.860	<0.0002000	0.05410	0.007600	<0.001000	0.0
	6/21/2016	1.590	<0.0002000	0.05520	0.005800	<0.001000	0.4900
	9/19/2016	1.660	<0.0002000	0.06930	0.006900	<0.001000	0.4900
	12/27/2016	1.610	<0.0002000	0.06460	0.005300	<0.001000	0.1100
	3/16/2017	1.660	<0.0002000	0.06850	0.008100	<0.001000	1.180
	6/21/2017	1.840	<0.0002000	0.06500	0.003900	<0.001000	1.160
	7/28/2017	1.750	<0.0002000	0.06500	0.003400	<0.001000	0.9900
MW-306	3/22/2016	0.8300	<0.0002000	0.03780	0.006700	<0.001000	0.3500
	6/21/2016	0.6900	<0.0002000	0.02730	0.007200	<0.001000	1.140
	8/18/2016	0.5400	<0.0002000	0.02020	0.01260	<0.001000	0.4900
	9/19/2016	0.5500	<0.0002000	0.02010	0.01980	<0.001000	0.1200
	12/27/2016	0.5800	<0.0002000	0.01600	0.02010	<0.001000	0.2100
	3/16/2017	0.6100	<0.0002000	0.01700	0.01820	<0.001000	0.9000
	6/21/2017	0.6200	<0.0002000	0.01570	0.02240	<0.001000	0.8900
	7/28/2017	0.6000	<0.0002000	0.01590	0.02370	<0.001000	0.1400
MW-356	12/29/2015	1.910	<0.0002000	0.04840	0.002300	<0.001000	0.1200
	3/28/2016	1.890	<0.0002000	0.04080	0.002700	<0.001000	0.1460

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Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

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Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
MW-304	12/29/2015	<0.001000	<0.001000	<0.001000
	3/21/2016	<0.001000	<0.001000	<0.001000
	6/21/2016	<0.001000	<0.001000	<0.001000
	9/19/2016	<0.001000	<0.001000	<0.001000
	12/27/2016	<0.001000	<0.001000	<0.001000
	3/16/2017	<0.001000	<0.001000	<0.001000
	6/21/2017	<0.001000	<0.001000	<0.001000
	7/28/2017	<0.001000	<0.001000	<0.001000
MW-306	3/22/2016	<0.001000	<0.001000	<0.001000
	6/21/2016	<0.001000	<0.001000	<0.001000
	8/18/2016	<0.001000	<0.001000	<0.001000
	9/19/2016	<0.001000	<0.001000	<0.001000
	12/27/2016	<0.001000	<0.001000	<0.001000
	3/16/2017	<0.001000	<0.001000	<0.001000
	6/21/2017	<0.001000	<0.001000	<0.001000
	7/28/2017	<0.001000	<0.001000	<0.001000
MW-356	12/29/2015	<0.001000	<0.001000	<0.001000
	3/28/2016	0.001100	<0.001000	<0.001000

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Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

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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
MW-356	6/23/2016	<0.001000	0.03150	<0.001000	<0.001000	<0.001000	<0.001000
	9/22/2016	0.001300	0.03340	<0.001000	<0.001000	<0.001000	<0.001000
	12/27/2016	0.001200	0.03010	<0.001000	<0.001000	<0.001000	<0.001000
	3/15/2017	0.001000	0.03010	<0.001000	<0.001000	<0.001000	<0.001000
	6/20/2017	<0.001000	0.02970	<0.001000	<0.001000	<0.001000	<0.001000
	7/26/2017	<0.001000	0.02990	<0.001000	<0.001000	<0.001000	<0.001000
MW-369	12/29/2015	0.01390	0.008000	<0.001000	<0.001000	<0.001000	0.002900
	3/28/2016	0.003400	0.02080	<0.001000	<0.001000	<0.001000	<0.001000
	6/23/2016	0.003800	0.02280	<0.001000	<0.001000	<0.001000	<0.001000
	9/22/2016	0.002000	0.05390	<0.001000	<0.001000	<0.001000	<0.001000
	12/27/2016	0.002400	0.03950	<0.001000	<0.001000	<0.001000	<0.001000
	3/14/2017	0.001500	0.04820	<0.001000	<0.001000	<0.001000	<0.001000
	6/20/2017	0.002200	0.05030	<0.001000	<0.001000	<0.001000	<0.001000
	7/26/2017	0.001600	0.04800	<0.001000	<0.001000	<0.001000	0.001200
MW-370	12/29/2015	0.001300	0.04430	<0.001000	<0.001000	<0.001000	<0.001000
	3/28/2016	0.002700	0.04450	<0.001000	<0.001000	0.001400	<0.001000
	6/23/2016	0.003000	0.05820	<0.001000	<0.001000	<0.001000	<0.001000
	9/22/2016	0.001900	0.04310	<0.001000	<0.001000	<0.001000	<0.001000

Baldwin

January 12, 2018

Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

11:28:24 AM

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
MW-356	6/23/2016	1.780	<0.0002000	0.04840	0.002400	<0.001000	0.7700
	9/22/2016	1.780	<0.0002000	0.05630	0.002400	<0.001000	0.06000
	12/27/2016	1.800	<0.0002000	0.05230	0.002000	<0.001000	0.04000
	3/15/2017	1.850	<0.0002000	0.05210	0.001800	<0.001000	0.3900
	6/20/2017	1.880	<0.0002000	0.05330	0.001400	<0.001000	1.210
	7/26/2017	1.880	<0.0002000	0.05440	0.001400	<0.001000	0.8300
MW-369	12/29/2015	3.600	<0.0002000	0.02600	0.07610	<0.001000	0.01000
	3/28/2016	2.690	<0.0002000	0.02340	0.03000	<0.001000	0.04000
	6/23/2016	2.900	<0.0002000	0.03080	0.02640	<0.001000	0.8900
	9/22/2016	1.310	<0.0002000	0.03790	0.02270	<0.001000	0.02700
	12/27/2016	1.750	<0.0002000	0.03110	0.02560	<0.001000	0.02000
	3/14/2017	1.310	<0.0002000	0.03210	0.02300	<0.001000	1.010
	6/20/2017	1.540	<0.0002000	0.03490	0.03130	<0.001000	0.8400
	7/26/2017	1.320	<0.0002000	0.03540	0.02350	<0.001000	0.7500
MW-370	12/29/2015	2.800	<0.0002000	0.1150	0.007500	<0.001000	0.1400
	3/28/2016	2.530	<0.0002000	0.09830	0.02960	<0.001000	0.5100
	6/23/2016	2.630	<0.0002000	0.1540	0.01710	<0.001000	0.7300
	9/22/2016	2.700	<0.0002000	0.1780	0.01810	<0.001000	0.3500

Baldwin

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Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

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Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
MW-356	6/23/2016	<0.001000	<0.001000	<0.001000
	9/22/2016	<0.001000	<0.001000	<0.001000
	12/27/2016	<0.001000	<0.001000	<0.001000
	3/15/2017	<0.001000	<0.001000	<0.001000
	6/20/2017	<0.001000	<0.001000	<0.001000
	7/26/2017	<0.001000	<0.001000	<0.001000
MW-369	12/29/2015	0.003800	0.02750	<0.001000
	3/28/2016	0.002100	0.009600	<0.001000
	6/23/2016	0.001600	0.006400	<0.001000
	9/22/2016	<0.001000	0.003000	<0.001000
	12/27/2016	<0.001000	0.002300	<0.001000
	3/14/2017	<0.001000	0.001200	<0.001000
	6/20/2017	0.002100	0.001000	<0.001000
	7/26/2017	<0.001000	<0.001000	<0.001000
MW-370	12/29/2015	0.003100	0.001000	<0.001000
	3/28/2016	0.002200	<0.001000	<0.001000
	6/23/2016	0.002400	<0.001000	<0.001000
	9/22/2016	0.002300	<0.001000	<0.001000

Baldwin

January 12, 2018

Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

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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
MW-370	12/27/2016	0.002300	0.03780	<0.001000	<0.001000	<0.001000	<0.001000
	3/14/2017	0.001900	0.03900	<0.001000	<0.001000	<0.001000	<0.001000
	6/20/2017	0.001900	0.03790	<0.001000	<0.001000	<0.001000	<0.001000
	7/25/2017	0.001700	0.03700	<0.001000	<0.001000	<0.001000	<0.001000
MW-382	12/29/2015	0.002700	0.02040	<0.001000	<0.001000	<0.001000	0.003000
	3/28/2016	0.003000	0.01600	<0.001000	<0.001000	<0.001000	<0.001000
	6/23/2016	0.003000	0.02210	<0.001000	<0.001000	<0.001000	0.003000
	9/22/2016	0.002300	0.02430	<0.001000	<0.001000	<0.001000	0.005000
	12/27/2016	0.001200	0.01570	<0.001000	<0.001000	<0.001000	0.002500
	3/14/2017	0.001400	0.01760	<0.001000	<0.001000	<0.001000	0.002100
	6/20/2017	<0.001000	0.01550	<0.001000	<0.001000	<0.001000	0.001800
	7/25/2017	0.001100	0.01550	<0.001000	<0.001000	<0.001000	0.003000

Baldwin

January 12, 2018

Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

11:28:24 AM

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
MW-370	12/27/2016	2.770	<0.0002000	0.1310	0.02360	<0.001000	0.4300
	3/14/2017	2.580	<0.0002000	0.1260	0.01510	<0.001000	4.840
	6/20/2017	2.940	<0.0002000	0.1340	0.02230	<0.001000	1.410
	7/25/2017	3.000	<0.0002000	0.1370	0.02070	<0.001000	0.8400
MW-382	12/29/2015	2.770	<0.0002000	0.05170	0.003400	<0.001000	0.1500
	3/28/2016	2.870	<0.0002000	0.05220	0.001000	<0.001000	0.06000
	6/23/2016	2.830	<0.0002000	0.07050	0.001300	<0.001000	0.4500
	9/22/2016	2.780	<0.0002000	0.07230	0.001600	0.001000	0.6500
	12/27/2016	2.760	<0.0002000	0.06030	0.001100	<0.001000	0.2300
	3/14/2017	2.760	<0.0002000	0.05750	0.001800	0.001300	0.4300
	6/20/2017	2.890	<0.0002000	0.06470	<0.001000	<0.001000	2.620
	7/25/2017	2.880	<0.0002000	0.06100	0.001700	<0.001000	0.9700

Baldwin

January 12, 2018

Table 2. Baldwin Bottom Ash Pond: Appendix IV Analytical Results

11:28:24 AM

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Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
MW-370	12/27/2016	<0.001000	<0.001000	<0.001000
	3/14/2017	0.001500	<0.001000	<0.001000
	6/20/2017	<0.001000	<0.001000	<0.001000
	7/25/2017	<0.001000	<0.001000	<0.001000
MW-382	12/29/2015	<0.001000	<0.001000	<0.001000
	3/28/2016	<0.001000	<0.001000	<0.001000
	6/23/2016	<0.001000	<0.001000	<0.001000
	9/22/2016	<0.001000	<0.001000	<0.001000
	12/27/2016	<0.001000	<0.001000	<0.001000
	3/14/2017	<0.001000	<0.001000	<0.001000
	6/20/2017	<0.001000	<0.001000	<0.001000
	7/25/2017	<0.001000	<0.001000	<0.001000





**Figures**

Y:\Mapping\Projects\222285\MXD\2017\_AnnualGWM\_CAR\Figure 1\_GWS\_WellLoc\_Baldwin\_BAP.mxd Author: stobsc Date/Time: 1/29/2018, 3:19:09 PM



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

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

GROUNDWATER SAMPLING WELL LOCATION MAP  
BALDWIN BOTTOM ASH POND  
UNIT ID: 601

2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT  
DYNEGY CCR RULE GROUNDWATER MONITORING  
BALDWIN ENERGY COMPLEX  
BALDWIN, ILLINOIS

PROJECT NO: 67719

FIGURE NO: 1



**OBG**

THERE'S A WAY

