

2017 Annual Groundwater Monitoring and Corrective Action Report

Miami Fort Lawrenceburg Road Landfill – CCR Unit ID 113
Miami Fort Power Station
11021 Brower Road
North Bend, Ohio 45052

Dynegy Miami Fort, LLC

January 31, 2018

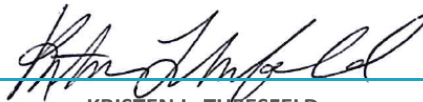


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2017 Annual Groundwater Monitoring and Corrective Action Report

Miami Fort Lawrenceburg Road Landfill –
CCR Unit ID 113
Miami Fort Power Station
North Bend, Ohio

Prepared for:
Dynegy Miami Fort, 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 Dynegey Miami Fort, LLC by O'Brien & Gere Engineers, Inc. (OBG), to provide the information required by 40 CFR 257.90(e) for the Miami Fort Lawrenceburg Road Landfill located near the Miami Fort Power Station and approximately one mile west of the village of North Bend, Ohio.

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 Miami Fort Lawrenceburg Road Landfill 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 14-15, 2017, for which analytical data was received on November 28, 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 Miami Fort Lawrenceburg Road Landfill 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 (AECOM, 2017) prepared for the Miami Fort Lawrenceburg Road Landfill.

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 6, June 5, July 11, and November 14-15. 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 14-15, 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 26, 2018), respectively. Statistical evaluation of analytical data is being performed in accordance with the Statistical Analysis Plan, Miami Fort Power Station, Dynegy Miami Fort, LLC (NRT/OBG, 2017).

2.2 PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE THE PROBLEMS

Groundwater samples were collected and analyzed in accordance with the Sampling and Analysis Plan. Field pH measurements during collection of the March 6, 2017 groundwater samples are not valid due to a malfunction of the water quality probe used to take the measurements. No additional problems were encountered during 2017.

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

AECOM, 2017, Sampling and Analysis Plan, CCR Rule Groundwater Monitoring, Lawrenceburg Road Landfill, Unit 113, Miami Fort Power Station, Cleves, Ohio, Job Number 60442412, Revision 0, October 17, 2017.

Natural Resource Technology, an OBG Company, 2017, Statistical Analysis Plan, Miami Fort Power Station, Dynegy Miami Fort, LLC, October 17, 2017.



Tables

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Table 1. Miami Fort Lawrenceburg Road Landfill: 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-11	12/11/2015	0.08180	147.0	10.90	0.1050	7.130	47.80
	3/23/2016	0.06460	111.0	13.90	0.1330	7.030	34.30
	6/23/2016	0.08290	111.0	12.50	<1.000	6.980	<50.00
	9/15/2016	0.07410	113.0	6.490	<1.000	6.970	44.50
	12/20/2016	0.07850	121.0	6.950	<1.000	7.140	<50.00
	3/6/2017	0.08650	122.0	11.00	<1.000	9.020	39.90
	6/5/2017	<0.08000	116.0	5.890	<1.000	7.690	32.60
	7/11/2017	<0.08000	112.0	11.60	<1.000	6.900	35.10
	11/14/2017	<0.08000	103.0	14.90	<1.000	6.700	<50.00
MW-12	12/11/2015	0.09320	155.0	18.60	0.1170	7.240	59.00
	3/23/2016	0.07830	207.0	9.510	0.1620	6.910	54.60
	6/23/2016	0.1050	134.0	17.70	<1.000	6.830	56.10
	9/15/2016	0.09080	131.0	12.90	<1.000	6.880	29.40
	12/20/2016	0.09410	140.0	10.50	<1.000	6.960	50.40
	3/6/2017	0.09430	146.0	7.050	<1.000	8.850	48.50
	6/5/2017	0.08960	145.0	11.90	<1.000	7.490	51.00
	7/11/2017	<0.08000	130.0	13.00	<1.000	6.840	<50.00
	11/14/2017	<0.08000	139.0	10.40	<1.000	6.670	<50.00

Table 1. Miami Fort Lawrenceburg Road Landfill: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
MW-11	12/11/2015	475.0
	3/23/2016	439.0
	6/23/2016	457.0
	9/15/2016	449.0
	12/20/2016	468.0
	3/6/2017	433.0
	6/5/2017	422.0
	7/11/2017	435.0
	11/14/2017	447.0
MW-12	12/11/2015	527.0
	3/23/2016	541.0
	6/23/2016	513.0
	9/15/2016	510.0
	12/20/2016	523.0
	3/6/2017	510.0
	6/5/2017	527.0
	7/11/2017	515.0
	11/14/2017	524.0

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Table 1. Miami Fort Lawrenceburg Road Landfill: 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-13	12/11/2015	0.1250	123.0	159.0	0.1920	7.850	69.10
	3/23/2016	0.05220	184.0	241.0	0.1720	6.980	39.10
	6/23/2016	0.07750	144.0	295.0	<1.000	7.330	<50.00
	9/15/2016	0.06720	150.0	286.0	<1.000	7.010	40.60
	12/20/2016	0.06560	160.0	250.0	<1.000	7.210	<100.0
	3/6/2017	<0.08000	151.0	144.0	<1.000	9.030	40.10
	6/5/2017	<0.08000	149.0	516.0	<1.000	7.390	39.60
	7/11/2017	<0.08000	135.0	284.0	<1.000	6.890	36.80
	11/15/2017	<0.08000	130.0	247.0	<1.000	6.760	<250.0
MW-14	12/11/2015	0.2870	179.0	71.20	0.1470	7.170	75.00
	3/23/2016	0.2670	116.0	19.80	0.2480	7.370	34.20
	6/22/2016	0.4230	107.0	<60.00	<1.000	7.120	<100.0
	9/15/2016	0.3950	109.0	30.30	<1.000	7.170	65.00
	12/20/2016	0.4770	149.0	50.20	<1.000	7.880	60.40
	3/6/2017	0.2110	93.70	28.60	<1.000	9.130	38.80
	6/5/2017	0.1510	82.30	<30.00	<1.000	7.760	<50.00
	7/11/2017	0.1310	80.00	21.70	<1.000	7.160	<50.00
	11/14/2017	0.1810	95.90	33.30	<1.000	6.830	<50.00

Table 1. Miami Fort Lawrenceburg Road Landfill: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
MW-13	12/11/2015	627.0
	3/23/2016	939.0
	6/23/2016	924.0
	9/15/2016	891.0
	12/20/2016	866.0
	3/6/2017	847.0
	6/5/2017	970.0
	7/11/2017	911.0
	11/15/2017	841.0
MW-14	12/11/2015	595.0
	3/23/2016	326.0
	6/22/2016	469.0
	9/15/2016	479.0
	12/20/2016	565.0
	3/6/2017	356.0
	6/5/2017	312.0
	7/11/2017	332.0
	11/14/2017	416.0

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Table 1. Miami Fort Lawrenceburg Road Landfill: 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-15	12/11/2015	0.08650	151.0	46.30	0.1180	7.160	40.60
	3/23/2016	0.05320	201.0	32.40	0.1420	7.060	39.00
	6/22/2016	0.06890	124.0	35.20	<1.000	7.020	<50.00
	9/15/2016	0.07780	127.0	36.00	<1.000	7.120	40.60
	12/20/2016	0.06400	118.0	33.60	<1.000	7.120	<50.00
	3/6/2017	<0.08000	133.0	29.50	<1.000	9.020	<10.00
	6/5/2017	<0.08000	108.0	<30.00	<1.000	7.640	36.50
	7/11/2017	<0.08000	102.0	26.00	<1.000	6.980	37.30
	11/14/2017	<0.08000	102.0	20.80	<1.000	6.820	<50.00
MW-5	12/11/2015	3.880	154.0	8.420	0.1930	7.120	284.0
	3/23/2016	3.100	179.0	22.20	0.2750	7.190	212.0
	6/23/2016	3.920	113.0	7.150	<1.000	7.160	322.0
	9/15/2016	3.660	118.0	6.690	<1.000	7.230	250.0
	12/20/2016	5.090	132.0	6.200	<1.000	7.340	274.0
	3/6/2017	5.670	130.0	5.690	<1.000	9.280	302.0
	6/5/2017	3.420	123.0	11.40	<1.000	7.960	169.0
	7/11/2017	3.470	116.0	5.420	<1.000	7.080	209.0
	11/15/2017	2.480	90.70	4.320	<1.000	7.080	150.0

Table 1. Miami Fort Lawrenceburg Road Landfill: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
MW-15	12/11/2015	538.0
	3/23/2016	508.0
	6/22/2016	480.0
	9/15/2016	469.0
	12/20/2016	457.0
	3/6/2017	484.0
	6/5/2017	401.0
	7/11/2017	405.0
	11/14/2017	403.0
MW-5	12/11/2015	670.0
	3/23/2016	651.0
	6/23/2016	599.0
	9/15/2016	647.0
	12/20/2016	626.0
	3/6/2017	619.0
	6/5/2017	563.0
	7/11/2017	553.0
	11/15/2017	462.0

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Table 1. Miami Fort Lawrenceburg Road Landfill: 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-8	12/11/2015	0.1070	122.0	13.70	0.08430	7.160	26.70
	3/23/2016	0.08340	143.0	10.50	0.1030	7.130	26.20
	6/23/2016	0.09960	107.0	13.60	<1.000	6.990	32.60
	9/15/2016	0.1360	112.0	12.90	<1.000	7.040	33.00
	12/20/2016	0.09680	108.0	10.60	<1.000	7.220	30.50
	3/6/2017	0.1230	112.0	12.50	<1.000	8.940	30.70
	6/5/2017	0.1050	126.0	14.60	<1.000	7.790	32.30
	7/11/2017	0.1360	108.0	12.80	<1.000	6.960	29.50
	11/15/2017	0.09560	107.0	16.00	<1.000	6.950	29.60
MW-9	12/11/2015	0.1810	212.0	65.50	0.05590	7.020	45.50
	3/23/2016	0.1040	177.0	43.00	0.09030	6.980	43.70
	6/23/2016	0.1210	140.0	60.90	<1.000	6.810	<50.00
	9/15/2016	0.1110	136.0	24.70	<1.000	6.830	44.10
	12/20/2016	0.1190	154.0	15.60	<1.000	6.990	<50.00
	3/6/2017	0.1630	133.0	28.80	<1.000	8.950	43.40
	6/5/2017	0.1130	155.0	68.60	<1.000	7.600	<50.00
	7/11/2017	0.1190	142.0	51.30	<1.000	6.750	39.30
	11/15/2017	0.1060	147.0	109.0	<1.000	6.710	<50.00

Table 1. Miami Fort Lawrenceburg Road Landfill: Appendix III Analytical Results

Location ID	Sample Date	TDS, mg/L
MW-8	12/11/2015	412.0
	3/23/2016	395.0
	6/23/2016	440.0
	9/15/2016	449.0
	12/20/2016	421.0
	3/6/2017	414.0
	6/5/2017	463.0
	7/11/2017	439.0
	11/15/2017	439.0
MW-9	12/11/2015	595.0
	3/23/2016	526.0
	6/23/2016	607.0
	9/15/2016	569.0
	12/20/2016	594.0
	3/6/2017	492.0
	6/5/2017	608.0
	7/11/2017	596.0
	11/15/2017	683.0

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Table 2. Miami Fort Lawrenceburg Road Landfill: 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-11	12/11/2015	0.005280	0.1110	<0.001000	<0.0004000	<0.0005000	<0.002500
	3/23/2016	<0.002950	0.1190	<0.0008750	<0.0002500	<0.0005430	<0.002500
	6/23/2016	<0.001000	0.1060	<0.001000	<0.001000	<0.0005000	<0.002000
	9/15/2016	<0.001000	0.09880	<0.001000	<0.001000	<0.0005000	<0.002000
	12/20/2016	<0.001000	0.1010	<0.001000	<0.001000	<0.0005000	<0.002000
	3/6/2017	0.001240	0.08910	<0.001000	<0.001000	<0.0005000	<0.002000
	6/5/2017	<0.001000	0.1120	<0.001000	<0.001000	<0.0005000	<0.002000
	7/11/2017	<0.001000	0.1020	<0.001000	<0.001000	<0.0005000	<0.002000
MW-12	12/11/2015	0.005410	0.06390	<0.001000	<0.002000	<0.002500	<0.002500
	3/23/2016	<0.002950	0.1040	<0.0008750	<0.0002500	<0.0005430	<0.002500
	6/23/2016	<0.001000	0.06490	<0.001000	<0.001000	<0.0005000	<0.002000
	9/15/2016	<0.001000	0.05670	<0.001000	<0.001000	<0.0005000	<0.002000
	12/20/2016	<0.001000	0.06260	<0.001000	<0.001000	<0.0005000	<0.002000
	3/6/2017	<0.001000	0.05080	<0.001000	<0.001000	<0.0005000	<0.002000
	6/5/2017	<0.001000	0.06490	<0.001000	<0.001000	<0.0005000	<0.002000
	7/11/2017	<0.001000	0.06030	<0.001000	<0.001000	<0.0005000	<0.002000
MW-13	12/11/2015	0.003490	0.08290	<0.005000	<0.002000	<0.002500	<0.002500
	3/23/2016	<0.002950	0.1050	<0.0008750	<0.0002500	<0.0005430	<0.002500

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Table 2. Miami Fort Lawrenceburg Road Landfill: 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-11	12/11/2015	0.1050	<0.0001000	0.002520	0.0005290	<0.001000	0.3060
	3/23/2016	0.1330	<0.0001000	0.004750	<0.002500	<0.0004330	0.3490
	6/23/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4610
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3860
	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.7480
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2590
	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.5010
	7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4360
MW-12	12/11/2015	0.1170	<0.0001000	0.004150	<0.0005000	0.002420	0.2960
	3/23/2016	0.1620	<0.0001000	0.008560	<0.002500	<0.0004330	0.5810
	6/23/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3420
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3570
	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4800
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3140
	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2290
	7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	1.140
MW-13	12/11/2015	0.1920	<0.0001000	0.01530	0.02630	<0.001000	0.3400
	3/23/2016	0.1720	<0.0001000	0.01630	0.006470	<0.0004330	0.5260

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Table 2. Miami Fort Lawrenceburg Road Landfill: 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-11	12/11/2015	<0.0005000	<0.003000	<0.0005000
	3/23/2016	<0.004180	<0.003980	<0.001380
	6/23/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000
	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000
	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000
MW-12	12/11/2015	<0.0005000	<0.003000	<0.002500
	3/23/2016	<0.004180	<0.003980	<0.001380
	6/23/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000
	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000
	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000
MW-13	12/11/2015	<0.002500	<0.003000	<0.002500
	3/23/2016	<0.004180	<0.003980	<0.001380

Lawrenceburg

January 30, 2018

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

5:55:31 PM

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-13	6/23/2016	<0.001000	0.07440	<0.001000	<0.001000	0.0008600	<0.002000
	9/15/2016	0.001220	0.07010	<0.001000	<0.001000	0.001170	<0.002000
	12/20/2016	0.001560	0.07200	<0.001000	<0.001000	0.001500	<0.002000
	3/6/2017	0.001110	0.05890	<0.001000	<0.001000	<0.0005000	<0.002000
	6/5/2017	<0.001000	0.07520	<0.001000	<0.001000	<0.0005000	<0.002000
	7/11/2017	<0.001000	0.06730	<0.001000	<0.001000	<0.0005000	<0.002000
MW-14	12/11/2015	<0.002500	0.06200	<0.005000	<0.002000	<0.002500	0.01140
	3/23/2016	<0.002950	0.03590	<0.0008750	<0.0002500	<0.0005430	<0.002500
	6/22/2016	<0.001000	0.03390	<0.001000	<0.001000	<0.0005000	<0.002000
	9/15/2016	<0.001000	0.03140	<0.001000	<0.001000	<0.0005000	<0.002000
	12/20/2016	0.001750	0.05160	<0.001000	<0.001000	0.003040	0.002000
	3/6/2017	0.001090	0.02340	<0.001000	<0.001000	<0.0005000	<0.002000
	6/5/2017	<0.001000	0.02250	<0.001000	<0.001000	<0.0005000	<0.002000
	7/11/2017	<0.001000	0.02180	<0.001000	<0.001000	<0.0005000	<0.002000
MW-15	12/11/2015	<0.002500	0.06610	<0.005000	<0.002000	<0.002500	0.007160
	3/23/2016	<0.002950	0.07960	<0.0008750	<0.0002500	<0.0005430	<0.002500
	6/22/2016	<0.001000	0.05170	<0.001000	<0.001000	0.0008900	<0.002000
	9/15/2016	<0.001000	0.04530	<0.001000	<0.001000	<0.0005000	<0.002000

Lawrenceburg

January 30, 2018

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

5:55:31 PM

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-13	6/23/2016	<1.000	<0.0002000	<0.05000	0.005160	<0.001000	0.7390
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.8840
	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.8860
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.5050
	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2980
	7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.7180
MW-14	12/11/2015	0.1470	<0.0001000	0.007700	<0.002500	<0.001000	0.2700
	3/23/2016	0.2480	<0.0001000	0.008960	<0.002500	<0.0004330	0.4840
	6/22/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2280
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3280
	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	0.002030	1.050
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.08460
	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.02300
	7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4650
MW-15	12/11/2015	0.1180	<0.0001000	0.005850	<0.002500	<0.001000	0.3820
	3/23/2016	0.1420	<0.0001000	0.008200	<0.002500	<0.0004330	0.2780
	6/22/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2080
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.6170

Lawrenceburg

January 30, 2018

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

5:55:31 PM

Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
MW-13	6/23/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000
	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000
	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000
MW-14	12/11/2015	<0.002500	<0.003000	<0.002500
	3/23/2016	<0.004180	<0.003980	<0.001380
	6/22/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000
	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000
	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000
MW-15	12/11/2015	<0.002500	<0.003000	<0.002500
	3/23/2016	<0.004180	<0.003980	<0.001380
	6/22/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000

Lawrenceburg

January 30, 2018

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

5:55:31 PM

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-15	12/20/2016	<0.001000	0.04410	<0.001000	<0.001000	<0.0005000	<0.002000
	3/6/2017	0.001020	0.04090	<0.001000	<0.001000	<0.0005000	<0.002000
	6/5/2017	<0.001000	0.03790	<0.001000	<0.001000	<0.0005000	<0.002000
	7/11/2017	<0.001000	0.03630	<0.001000	<0.001000	<0.0005000	<0.002000
MW-5	12/11/2015	0.005720	0.08930	<0.001000	<0.0004000	0.0005800	0.01300
	3/23/2016	<0.002950	0.1290	<0.0008750	<0.0002500	<0.0005430	<0.002500
	6/23/2016	<0.001000	0.08010	<0.001000	<0.001000	<0.0005000	<0.002000
	9/15/2016	<0.001000	0.07670	<0.001000	<0.001000	<0.0005000	<0.002000
	12/20/2016	<0.001000	0.08130	<0.001000	<0.001000	<0.0005000	<0.002000
	3/6/2017	0.001040	0.06640	<0.001000	<0.001000	<0.0005000	<0.002000
	6/5/2017	<0.001000	0.08300	<0.001000	<0.001000	<0.0005000	<0.002000
7/11/2017	<0.001000	0.07610	<0.001000	<0.001000	<0.0005000	<0.002000	
MW-8	12/11/2015	0.004320	0.09580	<0.001000	<0.0004000	<0.0005000	<0.002500
	3/23/2016	<0.002950	0.1330	<0.0008750	<0.0002500	<0.0005430	<0.002500
	6/23/2016	<0.001000	0.1010	<0.001000	<0.001000	<0.0005000	<0.002000
	9/15/2016	<0.001000	0.09740	<0.001000	<0.001000	<0.0005000	<0.002000
	12/20/2016	<0.001000	0.09320	<0.001000	<0.001000	<0.0005000	<0.002000
	3/6/2017	<0.001000	0.07910	<0.001000	<0.001000	<0.0005000	<0.002000

Lawrenceburg

January 30, 2018

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

5:55:31 PM

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-15	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.5400
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3010
	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2280
	7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2860
MW-5	12/11/2015	0.1930	<0.0001000	0.03550	0.001110	0.001890	0.3620
	3/23/2016	0.2750	<0.0001000	0.04280	<0.002500	<0.0004330	0.4720
	6/23/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2490
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3260
	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.7920
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4450
	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2000
	7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.8430
MW-8	12/11/2015	0.08430	<0.0001000	0.002060	0.0007810	<0.001000	0.7760
	3/23/2016	0.1030	<0.0001000	0.005050	<0.002500	<0.0004330	0.7140
	6/23/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3380
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.8980
	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.8030
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.2280

Lawrenceburg

January 30, 2018

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

5:55:31 PM

Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
MW-15	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000
	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000
MW-5	12/11/2015	<0.0005000	<0.003000	<0.0005000
	3/23/2016	<0.004180	<0.003980	<0.001380
	6/23/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000
	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000
	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000
MW-8	12/11/2015	<0.0005000	<0.003000	<0.0005000
	3/23/2016	<0.004180	<0.003980	<0.001380
	6/23/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000
	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

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-8	6/5/2017	<0.001000	0.1070	<0.001000	<0.001000	<0.0005000	<0.002000
	7/11/2017	<0.001000	0.09190	<0.001000	<0.001000	<0.0005000	<0.002000
MW-9	12/11/2015	<0.002500	0.1160	<0.005000	<0.002000	<0.002500	0.01840
	3/23/2016	<0.002950	0.09680	<0.0008750	<0.0002500	<0.0005430	<0.002500
	6/23/2016	<0.001000	0.07800	<0.001000	<0.001000	<0.0005000	<0.002000
	9/15/2016	<0.001000	0.06790	<0.001000	<0.001000	<0.0005000	<0.002000
	12/20/2016	<0.001000	0.07690	<0.001000	<0.001000	<0.0005000	<0.002000
	3/6/2017	0.001260	0.05570	<0.001000	<0.001000	<0.0005000	<0.002000
	6/5/2017	0.001170	0.08020	<0.001000	<0.001000	<0.0005000	<0.002000
	7/11/2017	<0.001000	0.07230	<0.001000	<0.001000	<0.0005000	<0.002000

Lawrenceburg

January 30, 2018

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

5:55:31 PM

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-8	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4700
	7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.9090
MW-9	12/11/2015	0.05590	<0.0001000	<0.004000	<0.002500	<0.001000	0.4910
	3/23/2016	0.09030	<0.0001000	0.005740	<0.002500	<0.0004330	0.3220
	6/23/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4820
	9/15/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3920
	12/20/2016	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.7200
	3/6/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.4260
	6/5/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.7090
7/11/2017	<1.000	<0.0002000	<0.05000	<0.005000	<0.001000	0.3130	

Table 2. Miami Fort Lawrenceburg Road Landfill: Appendix IV Analytical Results

Location ID	Sample Date	Sb, tot, mg/L	Se, tot, mg/L	Tl, tot, mg/L
MW-8	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000
MW-9	12/11/2015	<0.002500	<0.003000	<0.002500
	3/23/2016	<0.004180	<0.003980	<0.001380
	6/23/2016	<0.002000	<0.005000	<0.001000
	9/15/2016	<0.002000	<0.005000	<0.001000
	12/20/2016	<0.002000	<0.005000	<0.001000
	3/6/2017	<0.002000	<0.005000	<0.001000
	6/5/2017	<0.002000	<0.005000	<0.001000
	7/11/2017	<0.002000	<0.005000	<0.001000



Figures

Y:\Mapping\Projects\222285\MXD\2017_AnnualGWM_CAR\Figure 1_GWS_WellLoc_MiamiFort_LRL.mxd Author: stobsd Date/Time: 1/26/2018, 6:08:39 PM



Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

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

DRAWN BY/DATE:
SDS 12/21/17

REVIEWED BY/DATE:
KLT 12/21/17

APPROVED BY/DATE:
SJC 1/25/18

GROUNDWATER SAMPLING WELL LOCATION MAP
 MIAMI FORT LAWRENCEBURG ROAD LANDFILL
 UNIT ID: 113

2017 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
 DYNEGY CCR RULE GROUNDWATER MONITORING
 MIAMI FORT POWER STATION
 NORTH BEND, OHIO

PROJECT NO: 67720

FIGURE NO: 1



OBG

THERE'S A WAY

