Annual Groundwater Monitoring and Corrective Action Report

Indiana Michigan Power Company

Rockport Plant

Landfill CCR Management Unit

Rockport, Indiana

January 31, 2022

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INDIANA MICHIGAN POWER℠

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Abbreviations:
ASD - Alternate Source Demonstration
CCR – Coal Combustion Residual
GWPS - Groundwater protection standards
SSI - Statistically Significant Increase
SSL - Statistically Significant Level

I. Overview

This *Annual Groundwater Monitoring and Corrective Action Report* (Report) has been prepared to report the status of activities for the preceding year at the CCR landfill at Indiana Michigan Power Company's (I&M) Rockport Plant. The Indiana Michigan Power Company is wholly-owned subsidiary of American Electric Power Company (AEP). The USEPA's CCR rules require that the Annual Groundwater Monitoring and Corrective Action Report covering the previous year's groundwater monitoring activities be posted to the operating record no later than January 31, 2022.

In general, the following activities were completed:

- At the start of the current annual reporting period, the landfill was operating under the detection monitoring program.
- At the end of the current annual reporting period, the landfill was operating under the detection monitoring program.
- Data and statistical analysis not available for the previous reporting period indicates that during the November 2020 semi-annual sampling event:
    - The following Appendix III parameters exceeded background concentrations:
        - Calcium at well MW-16D
        - Chloride at wells MW-1I, MW-2D, and MW-16D
        - Fluoride at wells MW-2S, MW-21I, and MW-21S
        - TDS at wells MW-2D and MW-16D
    - A successful Alternative Source Demonstration was completed for the November 2020 sampling event, and the landfill remained in detection monitoring for the first semi-annual sampling event for 2021.
- During the May 2021 sampling event:
    - The following Appendix III parameters exceeded background:
        - Calcium at well MW-16D
        - Chloride at wells MW-1I, MW-2D, and MW-16D
        - Fluoride at wells MW-2S, MW-15I, MW-21I, and MW-21S
        - TDS at wells MW-1D, MW-1S, MW-2D, and MW-16D

- A successful Alternative Source Demonstration was completed for the Appendix III exceedances, and the Landfill remained in detection monitoring for the second semi-annual sampling event.

- The November 2021 semi-annual sampling event data are still undergoing statistical analysis.

The major components of this annual report, to the extent applicable at this time, are presented in sections that follow:

- A map/aerial photograph showing the landfill unit, all groundwater monitoring wells and monitoring well identification numbers (Attached as **Appendix 1**);
- All of the monitoring data collected, including the rate and direction of groundwater flow, plus a summary showing the number of samples collected per monitoring well, the dates the samples were collected, and whether the sample was collected as part of background, detection monitoring, or assessment monitoring programs (Attached as **Appendix 1**);
- Statistical comparison of monitoring data to determine if there have been significant increase over background concentrations (Attached as **Appendix 2**, where applicable);
- A discussion of whether any alternate source demonstrations were performed, and the conclusions (Attached as **Appendix 3**, where applicable);
- A summary of any transition between monitoring programs, or an alternate monitoring frequency, for example the date and circumstances for transitioning from detection monitoring to assessment monitoring, in addition to identifying the constituents detected at a statistically significant increase over background concentrations (Notices Attached as **Appendix 4**, where applicable);
- Identification of any monitoring wells that were installed, or decommissioned during the preceding year, along with a statement as to why that happened (Attached as **Appendix 5**, where applicable); and
- Other information required to be included in the annual report such as alternate source demonstration or assessment of corrective measures, if applicable

In addition, this report summarizes key actions completed, and where applicable, describes any problems encountered and actions taken to resolve those problems. The report includes a projection of key activities for the upcoming year.

II. Groundwater Monitoring Well Locations and Identification Numbers

The CCR landfill monitoring wells are listed as follows (S=shallow, I=Intermediate, D=Deep):

- Five Upgradient/Off Gradient Wells: MW-6S; MW-8(S,I); MW-11S; MW-14S.

- Sixteen Downgradient Wells: MW-17(S,I); MW-15(S,I); MW-16(S,I,D); MW-1(S,I,D); MW-21(S,I,D); and MW-2(S,I,D).

A figure that depicts the PE-certified groundwater monitoring network, the monitoring well locations, and their corresponding identification numbers is provided in **Appendix 1**.

III. Monitoring Wells Installed or Decommissioned

There were no CCR monitoring wells installed or decommissioned in 2021. The network design, as summarized in the *Groundwater Monitoring Network Design Report* (*Amec Foster Wheeler, 2017)* and as posted at the CCR web site for Rockport Plant's Landfill, did not change. That design report, viewable on the AEP CCR web site, discusses the facility location, the hydrogeological setting, the hydrostratigraphic units, the uppermost aquifer, downgradient monitoring well locations and the upgradient monitoring well locations.

IV. Groundwater Quality Data and Static Water Elevation Data, With Flow Rates and Flow Directions

Appendix 1 contains tables showing the groundwater quality data collected during the establishment of background quality, detection and assessment monitoring. Static water elevation data from each monitoring event also are shown in **Appendix 1**, along with the groundwater velocity calculations, groundwater flow direction and potentiometric maps developed after each sampling event.

V. Groundwater Quality Data Statistical Analysis

Appendix 2 contains the statistical analysis reports.

- Data and statistical analysis not available for the previous reporting period indicates that during the November 2020 semi-annual sampling event:
    - The following Appendix III parameters exceeded background concentrations:
        - Calcium at well MW-16D
        - Chloride at wells MW-1I, MW-2D, and MW-16D
        - Fluoride at wells MW-2S, MW-21I, and MW-21S
        - TDS at wells MW-2D and MW-16D
    - A successful Alternative Source Demonstration was completed for the November 2020 sampling event, and the landfill remained in detection monitoring for the first semi-annual sampling event for 2021.
- During the May 2021 sampling event:

- The following Appendix III parameters exceeded background:
    - Calcium at well MW-16D
    - Chloride at wells MW-1I, MW-2D, and MW-16D
    - Fluoride at wells MW-2S, MW-15I, MW-21I, and MW-21S
    - TDS at wells MW-1D, MW-1S, MW-2D, and MW-16D
  - A successful Alternative Source Demonstration was completed for the Appendix III exceedances, and the Landfill remained in detection monitoring for the second semi-annual sampling event.
- The November 2021 semi-annual sampling event data are still undergoing statistical analysis.

VI. Alternate Source Demonstrations

November 2020 Samples

An alternate source demonstration (ASD) by Wood Environment & Infrastructure Solutions Inc. relative to the Appendix III SSIs resulting from the November 2020 sampling event was undertaken and completed by report dated May 17, 2021. The demonstration concluded that the groundwater quality and Appendix III indicator parameter SSIs identified in the statistical evaluation were not the result of a release of leachate from the landfill, but were due to natural groundwater variation. The successful ASD is included in **Appendix 3**.

Because the ASD for the November 2020 samples was successful, the landfill remained in detection monitoring for the first semiannual samples of 2021 collected in May.

May 2021 Samples

The first semiannual detection monitoring samples of 2021 were collected in May with verification samples collected in August. As discussed above, there were SSIs for Appendix III parameters. An ASD by Wood Environment & Infrastructure Solutions Inc. relative to the Appendix III SSIs was undertaken and completed by report dated January 4, 2022. The demonstration concluded that the groundwater quality and Appendix III indicator parameter SSIs identified in the statistical evaluation were not the result of a release of leachate from the landfill, but were due to natural groundwater variation and impacts from historical oil and gas operations in the vicinity. The successful ASD is included in **Appendix 3**.

Because the ASD for the May 2021 samples was successful, the landfill remained in detection monitoring for the second semiannual samples of 2021 taken in November.

VII. Discussion About Transition Between Monitoring Requirements or Alternate Monitoring Frequency

Because an ASD was successful for the Appendix III SSIs resulting from the statistical analyses of results from both the November 2020 and May 2021 sampling events, the landfill remained in detection monitoring for the November 2021 sampling event. Completion of resampling and statistical analyses of results for the November 2021 sampling event will be completed in early 2022.

If there are no SSIs of Appendix III parameters resulting from statistical analyses of the November 2021 sampling results, the landfill will remain in detection monitoring. If SSIs for the Appendix III indicator parameters are identified, an ASD will be investigated. If the ASD is successful, the landfill will remain in detection monitoring. If an ASD is not successful, then the landfill will proceed with assessment monitoring as required by 40 CFR 257.95.

Regarding defining an alternate monitoring frequency, the groundwater velocity and monitoring well production is high enough at this facility that no modification of the twice-per-year detection monitoring effort is needed.

VIII. Other Information Required

The landfill is currently in detection monitoring. As required by the CCR detection monitoring rules in 40 CFR 257.94, sampling all CCR wells for the Appendix III parameters was completed in 2021.

IX. Description of Any Problems Encountered in 2020 and Actions Taken

No significant problems were encountered. The low flow sampling effort went smoothly and the schedule was met to support the annual groundwater report preparation covering the 2021 groundwater monitoring activities.

X. A Projection of Key Activities for the Upcoming Year

Key activities for 2021 include:

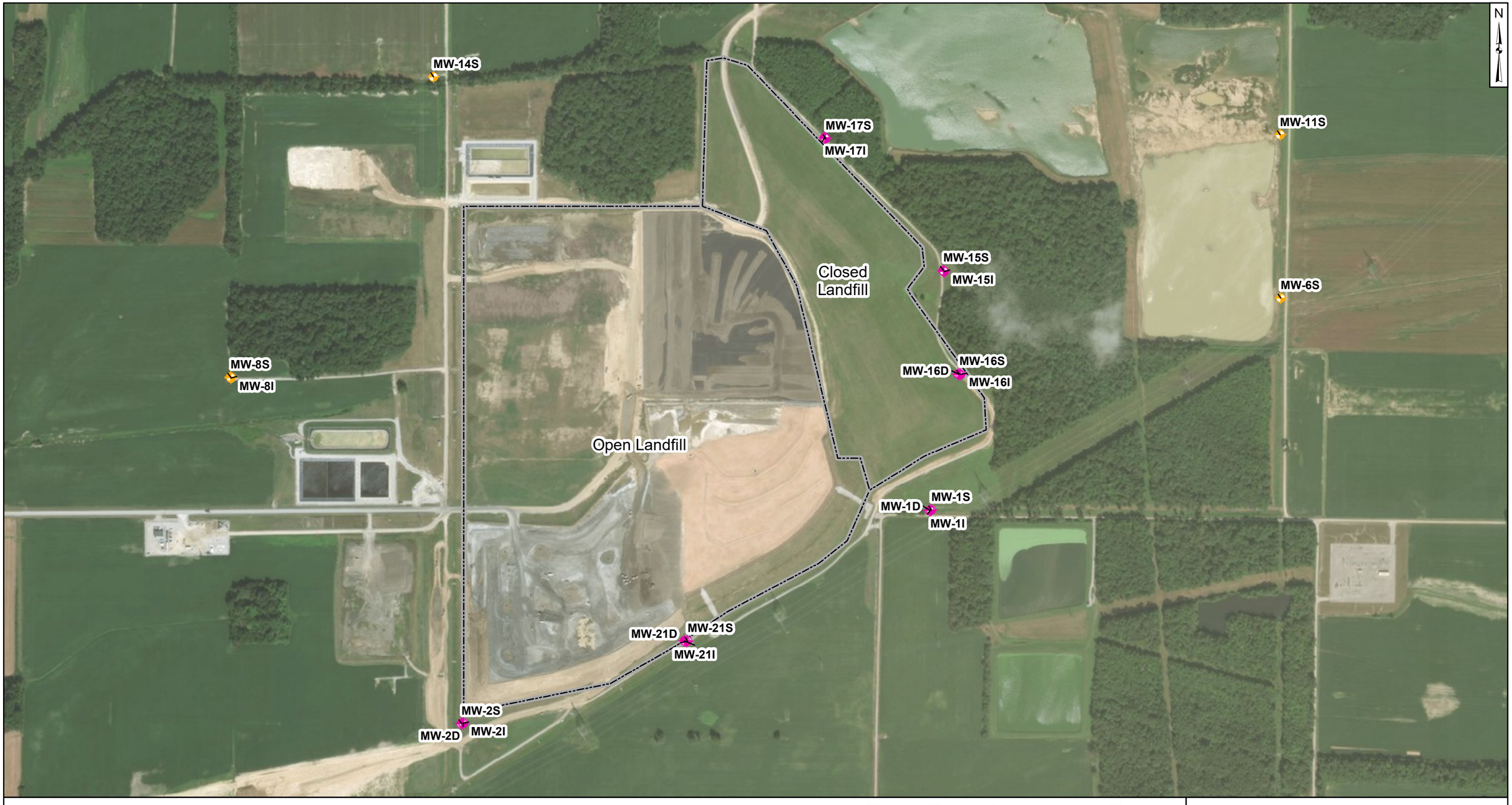
- Completion of resampling and statistical analyses of results from the November 2021 sampling event.
- Detection monitoring on a twice per year schedule (May and November) for 2021.
- Evaluation of the semiannual detection monitoring results from a statistical analysis viewpoint, looking for any statistically significant increases, or decreases when pH is considered.
- Alternate source demonstrations or assessment monitoring activities as necessary or required.
- Responding to any new data received in light of what the CCR rule requires.

- Preparation of the annual groundwater report.

APPENDIX 1 – Groundwater Data Tables and Figures

Figures and Tables follow, showing the groundwater monitoring network, data collected and the rate and direction of groundwater flow. The dates that the samples were collected and it also is shown whether the data were collected under background, detection, or assessment monitoring.

Groundwater Monitoring Network Figure



Monitoring Well Network

- Compliance Sampling Location
- Background Sampling Location
- Landfill Areas

Notes

- Monitoring well coordinates provided by AEP.
- Site features based on information available in the Groundwater Monitoring Network Evaluation (AMEC, 2016) provided by AEP.

750 375 0 750
Feet

Site Layout
CCR Landfills

AEP-Rockport Power Plant

Geosyntec consultants

Columbus, Ohio | 2018/01/26

Figure **1**

C:\Users\mmuenich\Documents\local_projects\AEP_GIS\Rockport\MXDs\Landfill\AEP-Rockport_LF_Site_Layout_Rev1.mxd. MMuenich. 1/26/2018. CHA8423/08/08.

Groundwater Data Tables

Table 1 - Groundwater Data Summary: MW-001D
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/8/2016	Background	0.017	63.6	27.3	496	0.28	7.6	40.2	331
7/19/2016	Background	0.015	57.9	29.8	471	0.30	7.1	40.6	329
9/20/2016	Background	0.016	65.2	29.8	464	0.28	7.4	32.3	288
11/16/2016	Background	0.018	69.3	39.3	842	0.29	7.5	33.6	339
1/11/2017	Background	0.006	63.4	40.6	400	0.26	7.4	36.4	323
3/8/2017	Background	0.055	70.0	40.3	558	0.26	7.3	37.0	330
5/9/2017	Background	0.046	67.8	40.9	394	0.28	7.3	39.5	342
7/18/2017	Background	0.019	63.9	39.3	525	0.24	8.1	39.6	338
10/4/2017	Detection	0.002 J1	65.7	10.3	448	0.85	7.3	10.4	339
1/3/2018	Detection	--	--	--	539	0.31	7.7	--	--
6/7/2018	Detection	0.103	70.9	43.1	508	0.3	8.2	39.5	345
8/16/2018	Detection	0.02	--	43.8	568	--	7.4	--	--
11/14/2018	Detection	0.1	71.9	46.9	457	0.3	7.8	39.8	340
2/13/2019	Detection	< 0.02 U1	--	--	317	--	7.4	--	--
5/23/2019	Detection	0.02 J1	73.6	32.1	504	0.27	7.2	45.3	346
7/23/2019	Detection	--	--	--	510	--	7.3	39.2	--
11/22/2019	Detection	0.04 J1	72.5	49.1	609	0.27	7.3	41.2	398
2/17/2020	Detection	--	--	--	817	--	7.4	--	257
5/19/2020	Detection	0.04 J1	59.9	23.8	454	0.30	7.1	23.3	261
11/11/2020	Detection	0.04 J1	80.3	56.2	664	0.30	7.1	37.7	397
2/3/2021	Detection	--	56.8	--	467	--	7.5	--	264
5/26/2021	Detection	0.033 J1	77.2	44.0	747	0.26	7.7	38.6	410
8/5/2021	Detection	--	--	--	657	--	7.4	--	440
11/12/2021	Detection	0.042 J1	73.7	55.4	735	0.30	7.4	36.0	410

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-001D
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/8/2016	Background	0.05	1.29	255	0.01 J1	0.13	0.3	3.64	1.084	0.28	1.13	< 0.0002 U1	0.002 J1	3.44	0.07 J1	0.04 J1
7/19/2016	Background	0.03 J1	0.73	147	< 0.005 U1	0.07	1.5	0.373	0.195	0.30	1.37	0.017	< 0.002 U1	3.59	0.03 J1	0.02 J1
9/20/2016	Background	0.03 J1	1.07	160	0.007 J1	0.04	0.3	0.836	1.457	0.28	0.500	0.0005 J1	< 0.002 U1	3.60	0.07 J1	0.056
11/16/2016	Background	0.03 J1	0.65	147	< 0.005 U1	0.04	0.072	0.329	7.296	0.29	0.222	0.004	< 0.002 U1	3.24	0.03 J1	0.02 J1
1/11/2017	Background	0.03 J1	0.77	162	< 0.005 U1	0.15	0.439	0.577	0.649	0.26	0.807	0.007	< 0.002 U1	2.43	0.03 J1	0.05 J1
3/8/2017	Background	0.02 J1	0.58	139	< 0.005 U1	0.04	0.687	0.173	0.2384	0.26	1.92	0.007	< 0.002 U1	3.40	0.03 J1	0.03 J1
5/9/2017	Background	0.02 J1	0.75	142	0.006 J1	0.04	0.174	0.440	0.724	0.28	0.419	0.009	< 0.002 U1	3.05	0.06 J1	0.04 J1
7/18/2017	Background	0.02 J1	0.59	139	< 0.004 U1	0.05	0.131	0.212	0.946	0.24	0.355	0.002	< 0.002 U1	2.94	< 0.03 U1	0.03 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-001I
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.075	67.4	24.9	461	0.37	6.7	44.3	323
7/19/2016	Background	0.014	60.0	24.8	479	0.40	7.0	46.7	315
9/20/2016	Background	0.018	64.5	24.3	570	0.37	7.4	42.4	331
11/16/2016	Background	0.015	63.9	24.1	544	0.31	7.1	40.7	334
1/11/2017	Background	0.004 J1	60.9	24.4	370	0.33	7.6	41.4	316
3/8/2017	Background	0.045	66.9	24.1	500	0.35	7.4	41.2	300
5/9/2017	Background	0.049	65.7	26.5	443	0.38	7.2	43.8	323
7/18/2017	Background	0.047	64.8	26.5	402	0.34	6.9	43.3	330
10/4/2017	Detection	0.018	68.1	27.5	424	0.37	7.1	44.1	327
6/6/2018	Detection	0.11	66.4	28.6	480	0.42	7.5	42	321
8/16/2018	Detection	0.056	--	--	533	--	7.3	--	--
11/14/2018	Detection	0.05 J1	65.5	28.8	425	0.41	7.8	40.7	308
2/13/2019	Detection	--	--	30.1	443	--	7.5	--	--
4/1/2019	Detection	--	--	34.1	802	--	7.4	--	--
5/23/2019	Detection	0.02 J1	67.7	33.1	503	0.42	7.0	40.2	341
7/23/2019	Detection	--	--	30.6	493	--	7.2	--	--
9/11/2019	Detection	--	--	33.5	481	--	7.3	--	--
11/22/2019	Detection	< 0.02 U1	66.7	35.0	491	0.37	7.1	39.7	348
5/19/2020	Detection	0.02 J1	71.2	37.7	566	0.40	7.2	40.1	323
7/16/2020	Detection	--	--	35.4	575	0.39	7.4	--	340
11/11/2020	Detection	< 0.02 U1	65.9	36.3	590	0.43	7.3	39.0	322
2/3/2021	Detection	--	--	36.9	549	--	7.4	--	--
5/26/2021	Detection	0.017 J1	67.4	37.8	648	0.38	7.7	38.6	350
8/4/2021	Detection	--	--	38.2	566	--	7.3	--	--
11/12/2021	Detection	0.016 J1	68.2	42.5	598	0.40	7.5	39.0	340

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-001I
Rockport - LF
Phase II Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.04 J1	0.86	85.5	< 0.005 U1	0.08	0.2	0.341	0.3903	0.37	0.851	0.005	< 0.002 U1	2.47	< 0.03 U1	0.03 J1
7/19/2016	Background	0.04 J1	0.78	86.1	< 0.005 U1	0.10	1.0	0.364	1.675	0.40	1.25	0.022	0.002 J1	2.85	0.04 J1	0.02 J1
9/20/2016	Background	0.01 J1	0.92	84.9	< 0.005 U1	0.02	0.2	0.401	1.696	0.37	0.156	0.007	< 0.002 U1	2.89	< 0.03 U1	0.02 J1
11/16/2016	Background	0.02 J1	0.80	93.4	< 0.005 U1	0.02 J1	0.051	0.381	1.312	0.31	0.059	0.005	< 0.002 U1	3.27	< 0.03 U1	0.03 J1
1/11/2017	Background	0.02 J1	0.82	90.5	0.005 J1	0.02 J1	0.390	0.424	0.621	0.33	0.099	0.005	< 0.002 U1	3.33	< 0.03 U1	0.104
3/8/2017	Background	0.03 J1	0.69	76.7	< 0.005 U1	0.05	0.686	0.054	0.15	0.35	0.427	0.006	< 0.002 U1	1.82	0.04 J1	0.03 J1
5/9/2017	Background	0.04 J1	0.89	85.0	< 0.004 U1	0.01 J1	0.155	0.558	0.63	0.38	0.068	0.008	< 0.002 U1	2.87	< 0.03 U1	0.02 J1
7/18/2017	Background	0.02 J1	0.86	94.3	< 0.004 U1	0.007 J1	0.112	0.569	2.533	0.34	0.137	0.0005 J1	< 0.002 U1	2.85	< 0.03 U1	0.02 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-001S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.037	70.7	29.6	687	0.59	8.1	33.7	392
7/19/2016	Background	0.015	62.9	31.1	612	0.65	7.2	35.5	392
9/20/2016	Background	0.022	68.0	31.4	703	0.60	7.1	32.4	411
11/16/2016	Background	0.020	74.4	31.9	657	0.54	7.3	30.7	398
1/11/2017	Background	0.005 J1	65.0	32.0	470	0.57	7.4	30.7	392
3/8/2017	Background	0.030	71.5	30.7	300	0.59	7.1	30.5	384
5/9/2017	Background	0.031	72.6	31.3	567	0.63	7.2	33.3	402
7/18/2017	Background	0.028	69.2	30.4	536	0.58	7.3	33.6	406
10/4/2017	Detection	0.044	67.6	33.1	635	0.57	7.1	34.6	396
1/3/2018	Detection	--	--	39.9	686	--	7.6	--	--
6/6/2018	Detection	0.046	71.8	34.9	590	0.61	7.5	34.2	386
8/16/2018	Detection	--	--	37.3	658	--	7.3	--	--
11/14/2018	Detection	0.04 J1	71.9	38.1	535	0.63	7.5	32.3	410
2/13/2019	Detection	--	--	40.4	530	--	7.5	--	--
4/1/2019	Detection	--	--	38.5	892	--	7.4	--	--
5/23/2019	Detection	< 0.02 U1	73.7	33.7	593	0.55	7.9	36.3	388
7/23/2019	Detection	--	--	30.0	618	--	7.4	--	--
11/22/2019	Detection	< 0.02 U1	69.8	30.6	612	0.57	6.9	35.9	444
2/18/2020	Detection	--	--	--	1,386	--	7.1	--	442
5/19/2020	Detection	0.02 J1	72.0	34.7	440	0.55	7.0	37.1	350
11/11/2020	Detection	< 0.02 U1	67.8	33.3	691	0.66	7.0	34.1	402
5/26/2021	Detection	0.019 J1	66.2	35.0	793	0.66	7.8	31.6	430
8/5/2021	Detection	--	--	--	699	--	7.3	--	430
11/12/2021	Detection	0.018 J1	65.8	32.9	687	0.65	7.6	31.0	380

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-001S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.03 J1	0.43	18.5	< 0.01 U1	0.02 J1	0.3	0.171	0.0665	0.59	0.204	0.004	< 0.002 U1	0.65	1.1	< 0.02 U1
7/19/2016	Background	0.20	0.69	21.9	0.160	0.22	0.7	0.398	0.819	0.65	0.572	0.024	< 0.002 U1	0.80	1.1	0.168
9/20/2016	Background	0.02 J1	0.38	17.2	< 0.005 U1	0.005 J1	0.3	0.014	0.244	0.60	0.01 J1	0.002	< 0.002 U1	0.68	0.9	< 0.01 U1
11/16/2016	Background	0.02 J1	0.38	17.9	< 0.005 U1	0.007 J1	0.207	0.01 J1	0.296	0.54	0.022	0.010	< 0.002 U1	0.74	0.9	< 0.01 U1
1/11/2017	Background	0.04 J1	0.43	17.7	< 0.005 U1	0.02	0.720	0.052	0.934	0.57	0.076	0.008	< 0.002 U1	0.59	1.0	< 0.01 U1
3/8/2017	Background	0.04 J1	0.76	36.5	0.023	0.09	1.38	1.21	0.0407	0.59	1.26	0.010	< 0.002 U1	0.97	1.1	0.03 J1
5/9/2017	Background	0.05 J1	0.50	22.3	0.01 J1	0.22	0.552	0.164	0.0324	0.63	0.526	0.009	< 0.002 U1	1.64	1.1	< 0.01 U1
7/18/2017	Background	0.02 J1	0.39	17.3	< 0.004 U1	0.01 J1	0.255	0.02 J1	0.309	0.58	0.033	0.0007 J1	< 0.002 U1	0.64	1.2	< 0.01 U1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-002D
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	< 0.002 U1	75.6	24.2	586	0.19	7.9	42.1	341
7/20/2016	Background	0.010	65.8	24.2	524	0.21	7.5	44.2	339
9/21/2016	Background	0.013	66.7	22.8	551	0.20	7.3	39.6	338
11/17/2016	Background	0.014	73.9	22.2	516	0.19	7.1	35.4	327
1/11/2017	Background	< 0.002 U1	64.2	22.3	386	0.19	7.4	38.3	318
3/8/2017	Background	0.030	74.2	21.7	568	0.20	7.4	37.6	318
5/9/2017	Background	0.027	70.8	23.1	388	0.21	7.3	40.5	343
7/19/2017	Background	0.073	64.7	23.0	516	0.18	8.5	40.5	340
10/4/2017	Detection	0.041	67.7	22.4	428	0.20	7.2	42.3	332
6/7/2018	Detection	0.076	78.6	43.1	460	0.22	7.6	39.8	361
8/16/2018	Detection	0.038	--	93	830	--	7.3	--	--
11/12/2018	Detection	0.07 J1	72.4	51.3	464	0.2	7.4	36.1	348
2/13/2019	Detection	--	--	40.9	391	--	7.3	--	--
4/1/2019	Detection	--	--	69.4	608	--	7.5	--	--
5/22/2019	Detection	< 0.02 U1	98.5	135	803	0.18	7.3	33.3	531
7/24/2019	Detection	--	114	156	834	--	6.3	--	540
9/11/2019	Detection	--	103	110	705	--	7.2	--	443
11/14/2019	Detection	0.02 J1	76.9	56.5	726	0.18	7.3	38.9	356
2/18/2020	Detection	--	--	76.3	1,377	--	7.1	--	--
5/18/2020	Detection	< 0.02 U1	88.7	93.6	617	0.21	7.8	36.2	399
7/15/2020	Detection	--	--	96.2	781	0.20	7.3	--	411
11/11/2020	Detection	< 0.02 U1	92.2	92.2	725	0.20	7.2	35.1	395
2/3/2021	Detection	--	--	74.2	674	--	7.3	--	400
5/27/2021	Detection	0.012 J1	88.5	82.9	664	0.21	9.5	37.6	440
8/5/2021	Detection	--	--	94.2	734	--	7.2	--	420
11/11/2021	Detection	0.011 J1	96.3	135	943	0.20	6.8	33.3	470

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-002D
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.03 J1	0.78	185	< 0.005 U1	0.12	0.2	0.473	0.0495	0.19	0.648	0.002	< 0.002 U1	2.11	< 0.03 U1	0.02 J1
7/20/2016	Background	0.06	0.82	195	0.006 J1	0.12	0.4	0.439	0.328	0.21	0.359	0.018	< 0.002 U1	2.16	< 0.03 U1	0.02 J1
9/21/2016	Background	0.02 J1	0.81	180	0.007 J1	0.07	0.3	0.425	0.451	0.20	0.247	0.002	< 0.002 U1	1.97	0.05 J1	0.03 J1
11/17/2016	Background	0.02 J1	0.61	172	< 0.005 U1	0.10	0.05 J1	0.212	2.243	0.19	0.021	0.007	< 0.002 U1	2.09	0.09 J1	0.01 J1
1/11/2017	Background	0.03 J1	0.62	157	< 0.005 U1	0.26	0.277	0.327	1.278	0.19	0.378	0.007	< 0.002 U1	1.80	0.08 J1	0.02 J1
3/8/2017	Background	0.03 J1	0.59	160	< 0.005 U1	0.09	0.562	0.252	1.295	0.20	0.045	0.008	< 0.002 U1	2.13	0.03 J1	0.02 J1
5/9/2017	Background	0.04 J1	0.65	159	< 0.004 U1	0.08	0.188	0.335	0.4554	0.21	0.144	0.011	< 0.002 U1	1.90	0.06 J1	0.02 J1
7/19/2017	Background	0.02 J1	0.62	169	< 0.004 U1	0.08	0.162	0.353	0.372	0.18	0.075	0.0006 J1	< 0.002 U1	1.89	0.04 J1	0.02 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-002I
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.019	74.0	28.6	581	0.30	7.9	42.9	332
7/20/2016	Background	0.009	67.5	29.7	542	0.33	7.1	45.7	363
9/21/2016	Background	0.025	66.8	28.0	513	0.31	7.5	41.1	330
11/17/2016	Background	0.013	73.9	25.8	495	0.36	7.3	36.9	326
1/11/2017	Background	< 0.002 U1	63.9	27.1	370	0.30	7.7	39.2	314
3/8/2017	Background	0.024	71.5	25.8	557	0.31	7.6	39.2	312
5/9/2017	Background	0.034	71	28.6	383	0.31	8.4	42.4	343
7/19/2017	Background	0.025	68.9	29.7	431	0.28	7.0	44.1	346
10/4/2017	Detection	0.030	72.5	29.8	553	0.28	7.2	45.5	343
1/4/2018	Detection	--	--	28.8	568	--	7.8	--	--
6/6/2018	Detection	0.052	72.7	31.8	802	0.32	7.6	43.2	356
8/16/2018	Detection	0.03	--	31.5	614	--	7.5	--	--
11/13/2018	Detection	0.05 J1	64.8	27.9	434	0.32	7.2	39	308
2/13/2019	Detection	< 0.02 U1	--	--	435	--	7.6	--	--
5/22/2019	Detection	< 0.02 U1	64.3	25.4	481	0.32	7.3	39.2	328
11/14/2019	Detection	< 0.02 U1	63.4	23.3	576	0.33	7.4	39.3	296
5/18/2020	Detection	< 0.02 U1	61.9	24.4	420	0.36	7.8	40.5	297
11/11/2020	Detection	< 0.02 U1	66.6	24.3	558	0.37	6.9	38.6	296
2/3/2021	Detection	--	--	--	491	--	7.4	--	--
5/27/2021	Detection	0.013 J1	70.9	29.2	510	0.35	9.7	40.8	350
8/4/2021	Detection	--	--	--	581	--	7.3	--	--
11/11/2021	Detection	0.013 J1	72.1	31.7	647	0.32	7.0	37.2	340

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-002I
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.06	0.64	78.5	< 0.005 U1	0.03	0.2	0.606	0.398	0.30	0.208	0.005	< 0.002 U1	4.91	0.7	0.051
7/20/2016	Background	0.06	0.68	84.0	0.006 J1	0.05	0.6	0.760	0.962	0.33	0.454	0.021	< 0.002 U1	5.00	0.7	0.04 J1
9/21/2016	Background	0.07	0.55	67.1	< 0.005 U1	0.05	0.1	0.415	0.508	0.31	0.178	0.002	< 0.002 U1	4.21	0.6	0.04 J1
11/17/2016	Background	0.13	0.61	60.1	< 0.005 U1	0.07	0.143	0.260	0.425	0.36	0.231	0.006	< 0.002 U1	3.14	0.4	0.02 J1
1/11/2017	Background	0.10	0.65	59.4	< 0.005 U1	0.16	0.154	0.280	0.845	0.30	0.383	0.007	< 0.002 U1	2.07	0.2	0.03 J1
3/8/2017	Background	0.10	0.74	58.4	0.01 J1	0.22	1.01	0.581	0.435	0.31	0.588	0.005	< 0.002 U1	2.06	0.2	0.03 J1
5/9/2017	Background	0.15	0.9	59.3	0.022	0.09	0.829	1.28	0.491	0.31	1.39	0.007	< 0.002 U1	2.17	0.4	< 0.01 U1
7/19/2017	Background	0.11	0.76	62.9	0.020	0.05	0.567	0.995	0.536	0.28	1.19	< 0.0002 U1	< 0.002 U1	2.07	0.2	0.064

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-002S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	< 0.002 U1	59.4	21.5	423	0.26	6.4	26.0	298
7/20/2016	Background	0.015	51.6	21.8	465	0.29	7.7	27.6	265
9/21/2016	Background	0.014	57.4	23.8	440	0.26	7.6	26.2	301
11/17/2016	Background	0.018	62.4	21.8	459	0.26	7.3	24.1	316
1/11/2017	Background	0.004 J1	51.6	21.2	341	0.25	7.7	25.9	284
3/8/2017	Background	0.069	57.9	21.0	522	0.26	7.7	26.6	285
5/9/2017	Background	0.084	59	20.8	354	0.26	7.1	30.3	321
7/19/2017	Background	0.052	53.3	19.6	409	0.23	7.5	33.8	308
10/4/2017	Detection	0.045	60.7	21.2	509	0.25	7.2	30.0	323
6/6/2018	Detection	0.073	57	25.3	470	0.29	7.6	28.9	329
11/13/2018	Detection	0.06 J1	54.7	24.8	425	0.28	7.5	24.7	272
2/13/2019	Detection	--	--	26.5	451	--	7.8	--	--
4/1/2019	Detection	--	--	26.1	491	--	7.7	--	--
5/22/2019	Detection	< 0.02 U1	51.3	26.4	500	0.30	7.7	26.2	352
7/23/2019	Detection	--	--	26.8	486	0.30	7.5	--	339
9/11/2019	Detection	--	--	26.6	473	--	7.3	--	--
11/14/2019	Detection	0.03 J1	59.2	27.3	657	0.28	7.5	27.8	336
2/18/2020	Detection	--	--	--	1,070	--	7.4	--	--
5/18/2020	Detection	0.02 J1	53.7	28.9	462	0.34	7.4	24.9	344
7/15/2020	Detection	--	--	28.7	584	0.33	7.6	--	347
11/11/2020	Detection	0.03 J1	58.4	27.0	588	0.34	7.4	25.7	336
2/4/2021	Detection	--	--	--	562	0.36	7.6	--	--
5/27/2021	Detection	0.043 J1	59.8	24.8	500	0.35	9.5	30.8	370
8/4/2021	Detection	--	--	--	579	0.35	7.3	--	--
11/11/2021	Detection	0.028 J1	55.2 M1, P3	23.0	588	0.33	7.0	27.1	330

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.
M1: The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
P3: The precision on the matrix spike duplicate (MSD) was above acceptance limits.

Table 1 - Groundwater Data Summary: MW-002S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	< 0.02 U1	0.97	16.0	< 0.01 U1	0.01 J1	0.4	0.177	< 1.2 U1	0.26	0.158	0.0004 J1	< 0.002 U1	2.03	0.3	< 0.02 U1
7/20/2016	Background	0.02 J1	1.09	14.0	< 0.005 U1	0.01 J1	0.6	0.090	0.66	0.29	0.105	0.018	< 0.002 U1	2.39	0.3	< 0.01 U1
9/21/2016	Background	0.04 J1	0.94	12.4	< 0.005 U1	0.02 J1	0.3	0.017	0.172	0.26	0.101	0.005	< 0.002 U1	2.07	0.2	< 0.01 U1
11/17/2016	Background	0.02 J1	0.94	12.4	< 0.005 U1	0.02	0.337	0.019	0.371	0.26	0.022	0.008	< 0.002 U1	1.91	0.3	< 0.01 U1
1/11/2017	Background	0.02 J1	0.92	11.0	< 0.005 U1	0.09	0.329	0.014	0.654	0.25	0.063	0.009	< 0.002 U1	2.14	0.4	0.074
3/8/2017	Background	0.02 J1	0.95	12.3	< 0.005 U1	0.009 J1	0.670	0.051	0.5205	0.26	0.042	0.0007 J1	< 0.002 U1	1.92	0.3	< 0.01 U1
5/9/2017	Background	0.04 J1	0.95	12.3	< 0.004 U1	0.01 J1	0.370	0.064	0.434	0.26	0.047	0.002	< 0.002 U1	1.75	0.2	< 0.01 U1
7/19/2017	Background	0.12	0.96	13.6	< 0.004 U1	0.03	0.410	0.121	0.6927	0.23	0.243	0.005	< 0.002 U1	1.81	0.3	0.03 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-006S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/8/2016	Background	0.012	46.1	8.44	435	0.73	7.9	18.8	294
7/18/2016	Background	0.014	46.3	8.35	401	0.79	7.5	18.3	290
9/20/2016	Background	0.012	44.4	6.04	430	0.73	7.4	10.9	266
11/16/2016	Background	0.028	50.8	7.04	741	0.69	8.1	14.3	279
1/10/2017	Background	0.006	47.8	7.03	360	0.65	7.9	14.0	287
3/8/2017	Background	0.032	53.2	3.32	300	0.25	7.9	6.9	296
5/8/2017	Background	0.051	50.3	8.68	441	0.69	7.6	17.5	305
7/18/2017	Background	0.078	47.0	4.88	292	0.57	7.7	9.6	274
10/3/2017	Detection	0.094	44.8	3.28	347	0.71	7.3	7.5	261
6/5/2018	Detection	0.09	45.2	2.38	330	0.89	7.5	3.8	225
8/15/2018	Detection	0.101	52.8	11.9	483	0.81	7.7	15.6	277
9/26/2018	Detection	0.08 J1	44.1	6.83	--	0.84	--	9.8	261
11/1/2018	Detection	0.04 J1	42.3	3.52	430	0.86	7.3	4.9	225
11/14/2018	Detection	--	--	--	221	--	7.9	--	--
11/15/2018	Detection	0.04 J1	38.8	3.91	--	0.88	--	5.2	196
5/23/2019	Detection	0.02 J1	52.5	9.64	473	0.95	7.4	16.8	315
11/14/2019	Detection	< 0.02 U1	47.8	5.36	452	0.90	7.3	12.0	277
5/19/2020	Detection	< 0.02 U1	43.1	1.49	373	1.02	7.7	1.6	214
11/12/2020	Detection	< 0.02 U1	43.0	2.07	366	1.11	7.1	4.4	225
5/25/2021	Detection	0.017 J1	43.4	1.29	354	1.21	8.0	0.83	210
11/12/2021	Detection	0.015 J1	46.8 M1, P3	2.03	450	1.15	7.4	2.91	240

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.
M1: The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
P3: The precision on the matrix spike duplicate (MSD) was above acceptance limits.

Table 1 - Groundwater Data Summary: MW-006S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/8/2016	Background	0.02 J1	0.28	13.9	< 0.005 U1	0.006 J1	0.4	0.097	0.156	0.73	0.396	< 0.0002 U1	0.002 J1	5.99	0.4	< 0.01 U1
7/18/2016	Background	0.03 J1	0.26	13.6	0.005 J1	0.25	0.4	0.052	0.101	0.79	0.074	0.015	< 0.002 U1	3.28	0.3	0.01 J1
9/20/2016	Background	0.03 J1	0.26	13.6	< 0.005 U1	0.02	0.3	0.019	0.8651	0.73	0.034	0.004	< 0.002 U1	3.34	0.2	< 0.01 U1
11/16/2016	Background	0.03 J1	0.26	14.1	< 0.005 U1	0.02 J1	0.200	0.027	0.202	0.69	0.050	0.006	< 0.002 U1	2.80	0.3	< 0.01 U1
1/10/2017	Background	0.03 J1	0.28	14.8	< 0.005 U1	0.008 J1	0.599	0.045	0.5825	0.65	0.032	0.014	< 0.002 U1	2.93	0.4	0.01 J1
3/8/2017	Background	0.03 J1	0.26	15.8	< 0.005 U1	0.05	1.37	0.049	0.297	0.25	0.113	0.009	< 0.002 U1	3.29	0.7	< 0.01 U1
5/8/2017	Background	0.03 J1	0.28	15.4	< 0.004 U1	0.009 J1	0.583	0.061	0.12	0.69	0.083	0.011	< 0.002 U1	2.73	0.8	< 0.01 U1
7/18/2017	Background	0.02 J1	0.27	14.3	< 0.004 U1	0.04	0.291	0.026	0.954	0.57	0.056	< 0.0002 U1	< 0.002 U1	4.36	0.4	< 0.01 U1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-008I
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/7/2016	Background	0.017	72.0	21.7	598	0.35	7.2	87.5	370
7/19/2016	Background	0.016	67.9	22.0	580	0.34	7.2	86.3	358
9/21/2016	Background	0.017	67.4	21.5	455	0.29	7.4	79.2	376
11/17/2016	Background	0.028	77.5	21.3	968	0.29	7.6	77.5	387
1/10/2017	Background	0.006	79.5	20.9	420	0.25	7.6	80.0	371
3/6/2017	Background	0.083	74.7	20.7	80	0.28	7.4	80.3	391
5/9/2017	Background	0.045	71.9	21.2	507	0.28	7.2	81.9	376
7/18/2017	Background	0.026	72.2	20.9	485	0.25	7.3	83.4	379
10/4/2017	Detection	0.096	74.7	20.1	471	0.27	7.6	85.9	378
12/12/2017	Detection	--	--	19.3	390	0.29	7.9	87.1	--
6/4/2018	Detection	0.044	76.7	20.9	619	0.29	7.7	79	407
11/14/2018	Detection	0.06 J1	67.7	20.6	453	0.33	7.2	68.2	390
5/23/2019	Detection	0.03 J1	70.7	21.0	607	0.34	7.2	62.3	371
11/22/2019	Detection	0.02 J1	66.9	19.7	525	0.30	6.7	68.3	381
5/19/2020	Detection	0.02 J1	68.8	20.4	601	0.32	7.8	61.7	357
11/10/2020	Detection	< 0.02 U1	66.8	19.3	621	0.38	7.4	56.7	343
5/27/2021	Detection	0.020 J1	68.1	18.8	530	0.36	8.3	56.0	390
11/12/2021	Detection	0.020 J1	67.6	19.3	643	0.34	6.8	54.0	350

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-008I
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/7/2016	Background	0.12	5.86	61.4	< 0.005 U1	0.04	0.1	0.800	0.538	0.35	0.083	0.006	< 0.002 U1	2.85	6.2	0.063
7/19/2016	Background	0.27	11.5	70.1	0.119	0.28	0.5	0.961	1.2515	0.34	0.242	0.007	< 0.002 U1	3.00	7.5	0.166
9/21/2016	Background	0.07	2.08	57.0	< 0.005 U1	0.02 J1	0.1	0.643	0.678	0.29	0.02 J1	0.008	< 0.002 U1	2.34	2.7	0.03 J1
11/17/2016	Background	0.10	1.39	58.4	< 0.005 U1	0.04	0.055	0.646	1.166	0.29	0.032	0.009	< 0.002 U1	2.47	3.0	0.03 J1
1/10/2017	Background	0.08	2.58	54.9	< 0.005 U1	0.02 J1	0.817	0.671	1.825	0.25	0.025	0.005	< 0.002 U1	2.31	2.3	0.04 J1
3/6/2017	Background	0.08	2.78	56.9	< 0.005 U1	0.04	0.511	0.656	1.015	0.28	0.032	0.010	< 0.002 U1	2.73	2.9	0.05 J1
5/9/2017	Background	0.08	2.09	57.8	< 0.004 U1	0.05	0.230	0.770	1.011	0.28	0.054	0.001	< 0.002 U1	2.29	4.5	0.03 J1
7/18/2017	Background	0.07	1.31	60.4	< 0.004 U1	0.02 J1	0.077	0.672	1.079	0.25	0.01 J1	< 0.0002 U1	< 0.002 U1	2.58	4.7	0.03 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-008S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/7/2016	Background	0.010	42.7	23.7	520	0.56	7.3	26.5	345
7/19/2016	Background	0.012	41.5	23.5	516	0.56	7.2	26.4	321
9/21/2016	Background	0.011	42.7	22.1	540	0.54	7.1	23.4	332
11/17/2016	Background	0.032	42.9	21.1	811	0.55	7.9	21.7	322
1/9/2017	Background	< 0.002 U1	45.8	20.8	450	0.47	7.6	22.1	300
3/7/2017	Background	0.043	44.8	21.4	260	0.52	7.6	21.7	320
5/9/2017	Background	0.028	42.9	22.8	444	0.52	7.4	21.8	319
7/18/2017	Background	0.022	44.4	22.7	410	0.47	7.4	22.3	319
10/4/2017	Detection	0.016	39.8	22.4	395	0.52	7.8	23.1	317
12/12/2017	Detection	--	--	22.5	460	0.56	7.7	24.9	--
6/5/2018	Detection	0.058	42.3	23.8	400	0.59	7.6	21.2	324
11/13/2018	Detection	0.04 J1	35.6	22.9	354	0.57	7.6	19.5	288
5/23/2019	Detection	< 0.02 U1	35.9	23.6	440	0.58	7.4	20.4	312
11/21/2019	Detection	< 0.02 U1	39.0	23.1	495	0.49	7.4	20.0	324
5/19/2020	Detection	< 0.02 U1	42.2	27.2	567	0.50	6.3	23.8	342
11/10/2020	Detection	< 0.02 U1	43.5	27.1	633	0.56	6.8	23.3	326
5/27/2021	Detection	0.014 J1	39.7	26.8	513	0.59	7.8	19.8	330
11/12/2021	Detection	0.015 J1	40.0	27.3	559	0.55	6.9	20.3	310

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-008S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/7/2016	Background	0.02 J1	1.61	15.4	< 0.005 U1	0.07	0.3	0.400	0.204	0.56	0.207	0.004	< 0.002 U1	0.81	0.4	< 0.01 U1
7/19/2016	Background	0.30	1.78	13.1	0.232	0.31	0.6	0.453	0.577	0.56	0.364	0.025	< 0.002 U1	1.10	0.6	0.276
9/21/2016	Background	0.02 J1	1.33	12.2	< 0.005 U1	0.02 J1	0.4	0.125	1.291	0.54	0.066	0.001	< 0.002 U1	0.80	0.2	0.03 J1
11/17/2016	Background	0.03 J1	1.26	10.9	< 0.005 U1	0.05	0.156	0.113	0.49	0.55	0.065	0.002	< 0.002 U1	0.71	0.2	< 0.01 U1
1/9/2017	Background	0.02 J1	1.56	13.8	0.006 J1	0.01 J1	1.04	0.447	0.676	0.47	0.190	0.002	< 0.002 U1	0.77	0.2	0.01 J1
3/7/2017	Background	0.04 J1	1.53	14.5	0.009 J1	0.26	0.881	0.433	0.3161	0.52	0.278	0.006	< 0.002 U1	1.56	0.2	0.170
5/9/2017	Background	0.03 J1	2.09	16.9	0.01 J1	0.09	0.423	0.981	0.127	0.52	0.389	0.006	< 0.002 U1	0.75	0.3	< 0.01 U1
7/18/2017	Background	0.02 J1	1.19	10.9	< 0.004 U1	0.13	0.277	0.052	1.653	0.47	0.038	0.001	0.015	0.83	0.2	< 0.01 U1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-011S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/8/2016	Background	0.062	41.6	1.82	285	0.74	7.9	10.9	212
7/18/2016	Background	0.062	38.8	1.83	272	0.76	7.3	10.6	201
9/20/2016	Background	0.077	45.1	1.62	330	0.73	7.3	5.3	196
11/16/2016	Background	0.053	37.3	1.54	433	0.92	8.4	4.1	182
1/10/2017	Background	0.029	40.4	2.12	200	0.96	8.1	7.6	179
3/7/2017	Background	0.057	42.8	4.63	70	1.00	7.9	13.7	197
5/9/2017	Background	0.047	41.2	9.87	307	0.86	7.8	16.4	239
7/18/2017	Background	0.067	44.2	8.19	386	0.75	7.7	15.6	224
10/3/2017	Detection	0.090	43.7	3.68	267	0.89	7.2	9.3	200
12/13/2017	Detection	--	--	2.4	260	0.82	8.3	8	--
6/5/2018	Detection	0.076	55.8	6.98	360	0.62	7.2	21.7	276
11/14/2018	Detection	0.11	56.4	1.79	309	0.72	7.6	5.9	238
5/23/2019	Detection	0.08 J1	54.3	1.62	440	0.82	7.7	14.7	279
11/15/2019	Detection	0.052	47.6	1.48	533	0.77	7.8	2.7	216
5/20/2020	Detection	0.04 J1	55.8	2.68	435	0.58	7.4	13.5	246
11/11/2020	Detection	0.04 J1	52.4	1.52	302	0.83	7.4	2.9	211
5/25/2021	Detection	0.038 J1	53.9	2.28	413	0.66	7.7	10.7	240
11/12/2021	Detection	0.038 J1	54.1	2.46	0	0.53	7.2	7.68	250

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-011S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/8/2016	Background	0.05 J1	0.47	10.4	< 0.005 U1	0.006 J1	0.4	0.113	0.422	0.74	0.046	< 0.0002 U1	< 0.002 U1	4.70	0.07 J1	< 0.01 U1
7/18/2016	Background	0.04 J1	0.53	9.79	< 0.005 U1	0.03	0.5	0.043	0.815	0.76	0.02 J1	0.024	< 0.002 U1	4.36	0.08 J1	0.01 J1
9/20/2016	Background	0.04 J1	0.42	11.3	< 0.005 U1	0.03	0.8	0.029	0.741	0.73	0.046	0.004	< 0.002 U1	3.37	0.1	0.01 J1
11/16/2016	Background	0.05 J1	0.45	7.91	< 0.005 U1	0.02	0.416	0.027	0.288	0.92	0.027	0.005	< 0.002 U1	4.71	0.07 J1	0.02 J1
1/10/2017	Background	0.04 J1	0.52	6.52	< 0.005 U1	0.01 J1	0.725	0.022	2.101	0.96	0.02 J1	0.003	< 0.002 U1	6.09	0.05 J1	0.01 J1
3/7/2017	Background	0.04 J1	0.52	7.09	< 0.005 U1	0.007 J1	1.25	0.027	0.1865	1.00	0.02 J1	0.013	0.002 J1	6.03	0.2	0.01 J1
5/9/2017	Background	0.04 J1	0.48	7.73	< 0.004 U1	0.03	0.567	0.030	0.1247	0.86	0.023	0.009	0.002 J1	4.86	0.2	0.01 J1
7/18/2017	Background	< 0.05 U1	0.50	8.16	< 0.02 U1	< 0.02 U1	0.568	0.02 J1	0.7935	0.75	0.06 J1	0.002	< 0.002 U1	4.69	0.3 J1	0.2 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-014S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/7/2016	Background	0.011	59.2	28.6	544	0.39	7.2	34.9	368
7/20/2016	Background	0.008	56.3	29.4	576	0.39	7.1	36.5	364
9/21/2016	Background	0.010	59.5	28.1	640	0.36	7.0	32.5	361
11/17/2016	Background	0.008	65.4	27.8	955	0.35	7.7	29.1	362
1/9/2017	Background	< 0.002 U1	65.7	27.2	530	0.33	7.5	30.7	344
3/7/2017	Background	0.031	63.4	26.8	80	0.36	7.4	29.9	354
5/9/2017	Background	0.017	59.8	29.4	441	0.37	7.0	32.3	376
7/18/2017	Background	0.030	65.6	29.6	496	0.33	7.3	33.1	377
10/4/2017	Detection	0.042	67.0	29.9	488	0.34	7.0	34.8	376
12/12/2017	Detection	--	--	30	490	0.34	7.6	35.5	--
6/5/2018	Detection	0.046	61.1	27.1	450	0.39	7.6	29.4	360
11/13/2018	Detection	0.04 J1	59.2	29	461	0.37	6.8	30.8	344
5/23/2019	Detection	< 0.02 U1	66.9	28.6	604	0.37	7.2	32.4	390
11/16/2019	Detection	< 0.02 U1	65.1	28.9	655	0.38	7.5	32.8	374
5/19/2020	Detection	< 0.02 U1	66.6	28.6	550	0.33	7.7	32.5	411
11/10/2020	Detection	< 0.02 U1	66.4	26.3	742	0.39	6.7	31.4	370
5/28/2021	Detection	0.012 J1	82.0	25.4	706	0.38	7.8	31.0	430
11/12/2021	Detection	0.012 J1	69.2	23.7	741	0.33	7.0	27.0	390

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-014S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/7/2016	Background	0.06	2.33	29.7	0.02 J1	0.32	1.0	1.49	0.512	0.39	1.02	< 0.0002 U1	0.002 J1	12.7	1.4	0.01 J1
7/20/2016	Background	0.02 J1	1.54	31.0	0.008 J1	0.21	0.3	0.573	0.594	0.39	0.307	0.018	< 0.002 U1	1.51	1.4	< 0.01 U1
9/21/2016	Background	0.02 J1	1.29	27.8	0.005 J1	0.07	0.3	0.333	0.9	0.36	0.310	0.006	< 0.002 U1	1.43	1.2	< 0.01 U1
11/17/2016	Background	0.03 J1	0.75	26.3	< 0.005 U1	0.03	0.162	0.088	1.106	0.35	0.549	0.004	< 0.002 U1	1.26	1.2	0.02 J1
1/9/2017	Background	0.02 J1	0.91	27.0	< 0.005 U1	0.05	0.575	0.187	0.78	0.33	0.115	0.006	< 0.002 U1	1.62	1.1	0.054
3/7/2017	Background	0.02 J1	0.76	26.3	< 0.005 U1	0.01 J1	0.660	0.083	0.0525	0.36	0.061	0.005	< 0.002 U1	1.84	1.1	0.055
5/9/2017	Background	0.06	0.75	25.0	< 0.004 U1	0.08	0.301	0.065	0.0316	0.37	0.071	0.001	< 0.002 U1	1.35	1.2	0.01 J1
7/18/2017	Background	< 0.05 U1	0.70	27.0	< 0.02 U1	< 0.02 U1	0.258	0.03 J1	1.883	0.33	0.116	< 0.0002 U1	< 0.002 U1	1.67	1.3	0.07 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-015I
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/7/2016	Background	0.060	44.1	59.3	555	0.25	7.2	42.5	380
7/19/2016	Background	0.032	44.6	53.8	512	0.25	7.1	41.0	356
9/21/2016	Background	0.030	46.1	43.4	530	0.23	7.1	34.0	334
11/16/2016	Background	0.022	51.4	44.9	874	0.25	7.5	33.6	340
1/10/2017	Background	0.019	46.5	48.3	420	0.34	7.7	35.4	351
3/7/2017	Background	0.047	51.1	38.5	60	0.32	7.5	31.1	331
5/10/2017	Background	0.038	46.6	32.7	457	0.31	7.2	29.7	322
7/18/2017	Background	0.050	43.9	27.1	400	0.22	7.2	26.6	300
10/4/2017	Detection	0.080	44.6	23.7	368	0.23	7.3	27.3	287
12/12/2017	Detection	--	--	22.8	350	0.22	7.8	26.7	--
1/4/2018	Detection	0.04	--	--	474	--	7.8	--	--
6/6/2018	Detection	0.066	47	25.1	420	0.26	8.1	25.3	279
8/16/2018	Detection	--	--	--	527	--	7.4	--	--
11/13/2018	Detection	0.07 J1	39.9	23.7	412	0.25	7.6	25.3	248
5/23/2019	Detection	0.03 J1	47.8	18.0	414	0.26	7.3	20.9	260
11/15/2019	Detection	0.03 J1	45.2	16.9	495	0.27	7.4	17.6	248
5/19/2020	Detection	0.03 J1	49.2	19.0	435	0.25	7.5	17.8	253
11/10/2020	Detection	0.03 J1	44.2	12.8	381	0.47	7.5	11.7	213
2/2/2021	Detection	--	--	--	400	0.36	7.6	--	--
5/28/2021	Detection	0.028 J1	53.3	16.0	393	0.39	7.7	14.7	240
8/4/2021	Detection	--	--	--	400	0.38	7.4	--	--
11/11/2021	Detection	0.026 J1	44.4	14.0	402	0.47	8.0	11.3	220

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-015I
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/7/2016	Background	0.01 J1	25.2	118	< 0.005 U1	0.02 J1	0.2	1.24	0.863	0.25	0.026	0.005	< 0.002 U1	5.76	< 0.03 U1	0.04 J1
7/19/2016	Background	0.25	27.9	132	0.165	0.23	0.5	1.66	1.091	0.25	0.254	0.018	< 0.002 U1	6.74	0.2	0.273
9/21/2016	Background	0.01 J1	21.1	119	< 0.005 U1	0.009 J1	0.1	1.32	0.504	0.23	0.026	0.004	< 0.002 U1	5.75	< 0.03 U1	0.03 J1
11/16/2016	Background	0.04 J1	23.6	107	0.005 J1	0.06	0.132	1.03	1.747	0.25	0.213	0.004	< 0.002 U1	6.73	< 0.03 U1	0.04 J1
1/10/2017	Background	0.01 J1	20.2	91.2	< 0.005 U1	0.005 J1	0.350	1.00	0.869	0.34	0.01 J1	0.011	< 0.002 U1	7.63	< 0.03 U1	0.04 J1
3/7/2017	Background	0.02 J1	20.4	88.9	< 0.005 U1	0.03	0.700	0.903	0.865	0.32	0.065	0.006	< 0.002 U1	7.91	0.07 J1	0.112
5/10/2017	Background	0.02 J1	20.2	86.1	< 0.004 U1	0.03	0.134	1.02	0.189	0.31	0.090	0.002	< 0.002 U1	6.52	0.04 J1	0.03 J1
7/18/2017	Background	0.02 J1	23.6	94.8	< 0.004 U1	0.02	0.089	1.25	1.643	0.22	0.082	< 0.0002 U1	< 0.002 U1	5.58	< 0.03 U1	0.04 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-015S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/7/2016	Background	0.011	46.9	21.2	512	0.65	7.2	30.3	338
7/19/2016	Background	0.012	43.6	18.7	574	0.65	7.1	27.7	319
9/21/2016	Background	0.008	46.6	18.9	510	0.63	7.2	25.1	329
11/16/2016	Background	< 0.002 U1	52.3	18.3	904	0.50	7.7	23.2	338
1/11/2017	Background	< 0.002 U1	63.6	21.9	470	0.36	7.2	28.3	374
3/7/2017	Background	0.084	62.9	16.1	60	0.42	7.2	23.4	342
5/10/2017	Background	0.077	45.7	14.1	419	0.65	7.3	21.0	294
7/19/2017	Background	0.073	44.4	11.8	368	0.66	7.3	20.3	263
10/4/2017	Detection	0.095	48.3	13.3	393	0.62	7.4	23.2	300
6/5/2018	Detection	0.078	44.7	8.84	416	0.69	7.2	16.3	274
11/13/2018	Detection	0.04 J1	41.8	8.78	317	0.72	7.5	13.1	232
5/23/2019	Detection	< 0.02 U1	41.3	8.88	348	0.88	7.5	10.2	207
7/23/2019	Detection	--	--	--	362	0.87	5.7	--	--
9/11/2019	Detection	--	--	--	269	0.81	7.4	--	--
11/15/2019	Detection	< 0.02 U1	40.2	9.48	467	0.70	7.4	8.4	234
5/19/2020	Detection	< 0.02 U1	42.4	10.3	400	0.86	7.6	9.1	218
11/10/2020	Detection	< 0.02 U1	45.4	10.1	455	0.78	7.3	10.3	236
5/28/2021	Detection	0.014 J1	66.4	10.6	430	0.81	7.7	8.82	250
11/11/2021	Detection	0.012 J1	46.3	10.4	500	0.65	7.5	8.07	270

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-015S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/7/2016	Background	0.04 J1	0.32	4.71	0.007 J1	0.14	0.2	3.03	0.4175	0.65	0.286	0.007	< 0.002 U1	2.52	0.4	0.03 J1
7/19/2016	Background	0.04 J1	0.24	5.85	< 0.005 U1	0.25	1.7	1.17	< 0.71 U1	0.65	0.101	0.022	0.002 J1	2.89	0.7	< 0.01 U1
9/21/2016	Background	0.02 J1	0.21	3.21	< 0.005 U1	0.05	0.5	1.09	0.418	0.63	0.098	0.005	< 0.002 U1	2.54	0.5	0.02 J1
11/16/2016	Background	0.04 J1	0.18	3.27	< 0.005 U1	0.05	0.058	0.794	1.249	0.50	0.037	0.005	< 0.002 U1	1.57	0.3	0.02 J1
1/11/2017	Background	0.04 J1	0.26	6.05	< 0.005 U1	0.06	0.493	1.75	0.189	0.36	0.039	0.008	< 0.002 U1	0.78	0.3	0.03 J1
3/7/2017	Background	0.03 J1	0.21	4.98	< 0.005 U1	0.04	0.934	1.26	0.0973	0.42	0.024	0.008	< 0.002 U1	1.17	0.5	0.04 J1
5/10/2017	Background	0.04 J1	0.21	3.54	0.005 J1	0.05	0.198	1.20	0.241	0.65	0.062	0.003	< 0.002 U1	2.08	0.5	0.02 J1
7/19/2017	Background	0.02 J1	0.23	3.11	< 0.004 U1	0.05	0.096	1.25	0.0916	0.66	0.083	0.0009 J1	< 0.002 U1	2.87	0.2	0.02 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-016D
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.033	84.3	68.7	519	0.20	6.8	36.4	350
7/19/2016	Background	0.013	68.7	69.6	582	0.22	7.3	37.4	321
9/20/2016	Background	0.012	70.5	67.6	538	0.22	7.3	33.4	342
11/17/2016	Background	0.014	77.9	63.6	613	0.17	7.3	33.2	356
1/11/2017	Background	0.004 J1	72.4	67.9	525	0.21	7.5	34.0	343
3/8/2017	Background	0.023	79.2	65.4	614	0.22	7.4	35.3	347
5/10/2017	Background	0.102	75.8	69.9	436	0.22	7.5	37.2	367
7/18/2017	Background	0.017	71.7	69.6	597	0.17	9.0	36.8	363
10/4/2017	Detection	0.059	80.4	81.5	516	0.22	7.6	40.0	383
1/4/2018	Detection	--	80.1	86	692	--	7.7	37.9	--
6/6/2018	Detection	0.033	90.2	108	690	0.22	7.3	38.6	434
8/16/2018	Detection	--	83.8	99.7	782	--	7.3	--	447
11/14/2018	Detection	0.07 J1	84.1	102	607	0.21	7.4	38.6	434
2/12/2019	Detection	--	--	109	510	--	7.4	--	439
4/1/2019	Detection	--	--	107	945	--	7.3	--	429
5/22/2019	Detection	0.03 J1	88.5	104	755	0.20	7.3	38.0	460
7/24/2019	Detection	--	95.6	106	731	--	7.0	--	457
9/11/2019	Detection	--	109	125	813	--	7.3	--	523
11/15/2019	Detection	0.03 J1	100	127	1,070	0.17	7.3	40.8	537
2/18/2020	Detection	--	--	133	1,869	--	7.2	38.9	579
5/19/2020	Detection	0.03 J1	108	135	799	0.17	7.7	40.1	558
7/15/2020	Detection	--	102	133	969	0.20	7.2	--	519
11/11/2020	Detection	0.04 J1	109	130	1,050	0.21	7.2	39.1	547
2/2/2021	Detection	--	106	117	953	--	7.4	--	573
5/28/2021	Detection	0.038 J1	122	110	886	0.23	9.6	40.6	580
8/5/2021	Detection	--	103	110	956	0.20	7.2	--	570
11/11/2021	Detection	0.038 J1	105	98.3	1,060	0.18	6.8	37.0	560

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-016D
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.02 J1	0.48	240	< 0.005 U1	0.08	0.3	0.617	0.0514	0.20	0.078	0.001	< 0.002 U1	2.06	0.04 J1	0.03 J1
7/19/2016	Background	0.02 J1	0.40	246	< 0.005 U1	0.08	0.4	0.547	0.294	0.22	0.040	0.013	< 0.002 U1	2.31	0.04 J1	0.069
9/20/2016	Background	0.02 J1	0.31	221	< 0.005 U1	0.02 J1	0.1	0.418	1.348	0.22	0.021	0.003	< 0.002 U1	1.96	< 0.03 U1	0.02 J1
11/17/2016	Background	0.02 J1	0.32	217	< 0.005 U1	0.05	1.21	0.452	0.909	0.17	0.066	0.006	< 0.002 U1	1.98	< 0.03 U1	0.02 J1
1/11/2017	Background	0.01 J1	0.34	210	< 0.005 U1	0.02 J1	0.112	0.354	1.716	0.21	0.008 J1	0.013	< 0.002 U1	1.99	< 0.03 U1	0.02 J1
3/8/2017	Background	0.02 J1	0.31	224	< 0.005 U1	0.01 J1	0.188	0.401	0.811	0.22	0.022	0.007	< 0.002 U1	2.27	0.05 J1	0.04 J1
5/10/2017	Background	0.03 J1	0.33	212	< 0.004 U1	0.07	0.151	0.466	0.151	0.22	0.070	0.008	< 0.002 U1	1.90	< 0.03 U1	0.02 J1
7/18/2017	Background	0.03 J1	0.39	247	< 0.004 U1	0.10	0.141	0.571	0.514	0.17	0.103	0.0006 J1	< 0.002 U1	2.03	< 0.03 U1	0.02 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-016I
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.031	110	80.4	957	0.1 J1	7.7	38.7	539
7/20/2016	Background	0.027	93.9	86.8	870	0.15	7.6	42.2	532
9/21/2016	Background	0.026	95.9	90.2	867	0.1 J1	7.4	36.8	544
11/17/2016	Background	0.024	96.2	59.1	702	0.1 J1	7.1	33.0	508
1/11/2017	Background	0.015	89.3	44.1	674	0.1 J1	7.4	34.0	481
3/8/2017	Background	0.100	101	39.3	779	0.16	7.3	35.4	460
5/19/2017	Background	0.032	86.7	39.4	569	0.15	7.0	35.4	455
7/18/2017	Background	0.044	91.3	50.2	665	0.08 J1	7.2	36.1	465
10/4/2017	Detection	0.050	84.0	70.8	644	0.1 J1	7.5	40.4	495
1/4/2018	Detection	--	71.9	71.2	821	--	7.7	--	487
6/6/2018	Detection	0.046	82.9	58.6	720	0.17	7.4	38.7	480
8/16/2018	Detection	--	61.6	61.1	797	--	7.2	--	456
11/14/2018	Detection	0.139	53.7	47.8	545	0.17	7.3	32.5	408
2/12/2019	Detection	0.02 J1	--	--	476	--	7.4	--	--
5/22/2019	Detection	0.03 J1	56.0	45.5	641	0.17	7.4	33.2	405
11/15/2019	Detection	0.02 J1	41.0	31.2	659	0.14	7.4	25.2	343
5/19/2020	Detection	0.02 J1	51.9	31.3	481	0.14	7.8	25.8	350
11/10/2020	Detection	0.02 J1	44.5	19.6	567	0.20	6.8	21.4	273
5/28/2021	Detection	0.019 J1	50.4	16.5	460	0.18	7.5	18.5	270
11/11/2021	Detection	0.019 J1	50.0	16.6	538	0.15	6.9	17.6	280

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-016I
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.02 J1	0.71	267	< 0.005 U1	0.06	0.1	0.602	0.592	0.1 J1	0.023	0.005	< 0.002 U1	1.02	0.2	0.085
7/20/2016	Background	0.01 J1	0.75	267	< 0.005 U1	0.03	0.2	0.627	1.576	0.15	0.025	0.005	< 0.002 U1	1.02	0.2	0.060
9/21/2016	Background	0.01 J1	0.75	262	< 0.005 U1	0.03	0.1	0.576	1.225	0.1 J1	0.023	0.006	< 0.002 U1	1.03	0.1	0.074
11/17/2016	Background	0.05	0.67	234	< 0.005 U1	0.05	0.082	0.546	0.587	0.1 J1	0.053	0.013	< 0.002 U1	0.93	0.2	0.069
1/11/2017	Background	0.01 J1	0.72	220	< 0.005 U1	0.04	0.085	0.514	2.632	0.1 J1	0.01 J1	0.010	< 0.002 U1	1.00	0.1	0.071
3/8/2017	Background	0.02 J1	0.68	221	< 0.005 U1	0.03	0.422	0.580	0.581	0.16	0.034	0.013	< 0.002 U1	1.17	0.2	0.075
5/19/2017	Background	0.06	0.70	206	< 0.004 U1	0.08	0.204	0.707	0.938	0.15	0.153	0.010	< 0.002 U1	0.91	0.4	0.075
7/18/2017	Background	0.02 J1	0.73	238	< 0.004 U1	0.03	0.118	0.599	0.787	0.08 J1	0.065	0.003	< 0.002 U1	1.07	0.2	0.070

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-016S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.028	96.2	18.7	822	0.44	7.5	46.9	483
7/20/2016	Background	0.025	83.0	19.0	764	0.46	7.1	50.1	471
9/21/2016	Background	0.024	93.5	17.1	719	0.38	7.3	42.1	509
11/17/2016	Background	0.025	96.4	16.4	669	0.30	6.9	38.3	486
1/11/2017	Background	0.017	94.6	17.5	677	0.35	7.2	39.2	474
3/8/2017	Background	0.038	106	19.3	804	0.36	7.1	39.6	473
5/10/2017	Background	0.082	105	22.9	581	0.38	8.3	42.3	499
7/19/2017	Background	0.037	91.8	19.8	595	0.33	6.3	40.7	484
10/4/2017	Detection	0.061	108	19.3	647	0.41	7.3	45.0	503
1/4/2018	Detection	--	109	--	872	--	7.3	--	517
6/6/2018	Detection	0.109	108	17.3	770	0.42	7.2	40.8	520
8/16/2018	Detection	0.034	109	--	920	--	7.1	--	533
11/14/2018	Detection	0.107	104	16.2	720	0.39	7.0	40.3	548
2/12/2019	Detection	0.02 J1	--	--	570	--	7.1	--	517
5/22/2019	Detection	0.03 J1	99.2	18.0	774	0.38	7.1	34.5	493
11/15/2019	Detection	0.02 J1	92.2	20.7	961	0.32	7.0	35.2	497
5/19/2020	Detection	0.03 J1	104	26.7	675	0.34	7.5	34.9	470
7/15/2020	Detection	--	--	25.8	823	0.37	7.1	--	489
11/11/2020	Detection	0.02 J1	103	21.8	948	0.38	6.5	34.5	473
5/28/2021	Detection	0.021 J1	96.8	21.2	763	0.41	7.2	32.2	480
11/11/2021	Detection	0.019 J1	86.7	13.3	832	0.37	6.6	24.4	440

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-016S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.03 J1	0.37	32.3	< 0.005 U1	0.03	0.2	0.073	0.163	0.44	0.074	0.007	< 0.002 U1	1.15	0.6	0.01 J1
7/20/2016	Background	0.03 J1	0.37	29.9	< 0.005 U1	0.03	0.5	0.025	1.047	0.46	0.057	0.031	< 0.002 U1	1.21	0.6	< 0.01 U1
9/21/2016	Background	0.25	0.38	29.5	< 0.005 U1	0.10	0.3	0.070	0.0255	0.38	0.182	0.005	< 0.002 U1	1.11	0.8	< 0.01 U1
11/17/2016	Background	0.02 J1	0.34	25.3	< 0.005 U1	0.006 J1	1.03	0.028	0.2943	0.30	< 0.004 U1	0.018	< 0.002 U1	1.19	0.4	< 0.01 U1
1/11/2017	Background	0.02 J1	0.42	25.1	< 0.005 U1	0.008 J1	0.081	0.014	1.993	0.35	0.039	0.013	< 0.002 U1	1.21	0.4	0.02 J1
3/8/2017	Background	0.02 J1	0.31	25.7	< 0.005 U1	0.004 J1	0.463	0.012	0.282	0.36	0.006 J1	0.013	< 0.002 U1	1.32	0.4	0.02 J1
5/10/2017	Background	0.02 J1	0.39	29.8	< 0.004 U1	0.01 J1	0.196	0.063	0.145	0.38	0.027	0.008	< 0.002 U1	1.14	0.3	0.01 J1
7/19/2017	Background	0.02 J1	0.33	25.6	< 0.004 U1	0.04	0.101	0.01 J1	2.8533	0.33	0.01 J1	0.010	< 0.002 U1	0.98	0.4	0.01 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-017I
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/8/2016	Background	0.058	73.7	195	839	0.57	7.6	43.1	609
7/20/2016	Background	0.056	83.1	209	913	0.56	7.2	49.3	569
9/20/2016	Background	0.051	88.9	214	1,000	0.52	7.1	48.1	620
11/16/2016	Background	0.041	80.0	164	607	0.56	7.8	44.1	540
1/10/2017	Background	0.034	72.3	159	670	0.56	7.5	43.2	513
3/7/2017	Background	0.079	81.4	158	60	0.58	7.5	44.9	549
5/9/2017	Background	0.083	69.6	151	768	0.61	7.2	43.5	528
7/19/2017	Background	0.052	64.4	145	678	0.63	7.3	44.7	509
10/4/2017	Detection	0.061	63.0	115	786	0.66	7.4	46.6	486
12/13/2017	Detection	--	--	86	530	0.76	7.5	44.8	--
1/4/2018	Detection	--	--	110	848	0.65	7.8	--	471
6/5/2018	Detection	0.081	51.2	80.2	652	0.87	7.4	41	418
8/16/2018	Detection	--	--	61.1	728	0.98	7.5	--	376
9/26/2018	Detection	--	--	--	--	1.03	--	--	--
11/13/2018	Detection	0.07 J1	36.5	50.1	450	1	7.6	29.6	328
2/12/2019	Detection	--	--	--	391	1.05	7.7	--	--
4/1/2019	Detection	--	--	--	786	1.08	7.6	--	--
5/23/2019	Detection	0.04 J1	45.1	60.2	570	1.07	7.5	32.8	352
7/23/2019	Detection	--	--	--	488	1.06	6.7	--	--
9/12/2019	Detection	--	--	--	363	1.08	7.6	--	--
11/15/2019	Detection	0.04 J1	43.9	41.2	654	0.95	7.4	23.2	309
5/19/2020	Detection	0.04 J1	40.3	32.8	487	1.07	7.9	20.7	273
7/15/2020	Detection	--	--	--	521	--	7.3	--	--
11/10/2020	Detection	0.04 J1	38.1	25.5	437	1.16	8.4	16.8	239
5/27/2021	Detection	0.043 J1	41.0	30.0	389	1.07	7.8	15.5	280
8/5/2021	Detection	0.038 J1	39.4	31.7	431	1.06	7.5	17.0	260
11/11/2021	Detection	0.039 J1	46.4	40.8	500	0.99	7.8	25.3	270

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-017I
Rockport - LF
Phase II Constituents

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/8/2016	Background	0.07	7.14	168	0.020	0.12	0.6	1.24	1.925	0.57	1.19	< 0.0002 U1	0.003 J1	3.60	0.1	0.03 J1
7/20/2016	Background	0.05 J1	7.41	190	0.006 J1	0.13	2.1	0.778	1.167	0.56	0.284	0.004	< 0.002 U1	3.66	0.05 J1	0.02 J1
9/20/2016	Background	0.04 J1	6.45	198	< 0.005 U1	0.04	0.1	0.472	1.587	0.52	0.133	0.005	< 0.002 U1	3.08	0.05 J1	0.02 J1
11/16/2016	Background	0.03 J1	3.38	149	< 0.005 U1	0.04	0.059	0.370	0.762	0.56	0.049	0.006	< 0.002 U1	3.37	< 0.03 U1	0.056
1/10/2017	Background	0.02 J1	3.94	148	< 0.005 U1	0.008 J1	0.254	0.391	1.51	0.56	0.02 J1	0.009	< 0.002 U1	3.20	< 0.03 U1	0.02 J1
3/7/2017	Background	0.02 J1	4.61	159	< 0.005 U1	0.007 J1	0.776	0.406	1.023	0.58	0.026	0.008	< 0.002 U1	3.62	0.05 J1	0.02 J1
5/9/2017	Background	0.02 J1	3.61	133	< 0.004 U1	0.03	0.196	0.394	1.007	0.61	0.115	0.005	< 0.002 U1	3.26	0.03 J1	0.01 J1
7/19/2017	Background	0.02 J1	3.76	140	< 0.004 U1	0.02 J1	0.127	0.372	0.8141	0.63	0.02 J1	< 0.0002 U1	< 0.002 U1	3.42	< 0.03 U1	0.05 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-017S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/8/2016	Background	0.015	36.9	13.9	350	0.85	7.8	14.3	272
7/20/2016	Background	0.016	34.8	15.4	373	0.86	7.3	14.8	235
9/20/2016	Background	0.016	34.8	12.3	344	0.73	7.7	10.9	233
11/16/2016	Background	0.017	35.9	11.4	1,460	0.70	7.7	10.5	232
1/10/2017	Background	0.006	32.3	11.0	310	0.48	7.6	10.7	262
3/7/2017	Background	0.058	40.0	10.7	60	0.46	7.5	12.0	251
5/9/2017	Background	0.041	35.5	10.4	357	0.58	7.3	13.1	250
7/19/2017	Background	0.020	34.4	10.8	287	0.82	7.5	10.2	201
10/4/2017	Detection	0.033	34.1	10.5	351	0.89	7.4	10.7	214
6/5/2018	Detection	0.045	32.4	10.8	319	0.98	7.4	9.5	214
11/13/2018	Detection	0.05 J1	33.1	11.5	280	0.91	7.5	8.4	196
5/23/2019	Detection	0.03 J1	32.7	12.0	322	1.08	7.6	7.7	217
11/15/2019	Detection	0.02 J1	28.7	12.6	396	0.96	7.6	6.2	207
5/19/2020	Detection	0.02 J1	32.8	12.7	358	0.95	7.8	6.5	200
7/14/2020	Detection	--	--	--	385	--	6.8	--	--
11/10/2020	Detection	0.02 J1	33.9	12.9	403	0.90	7.5	8.2	211
5/27/2021	Detection	0.025 J1	35.9	11.0	389	0.95	7.6	5.92	210
11/11/2021	Detection	0.023 J1	35.2 M1, P3	9.41	420	0.81	7.7	4.62	230

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.
M1: The associated matrix spike (MS) or matrix spike duplicate (MSD) recovery was outside acceptance limits.
P3: The precision on the matrix spike duplicate (MSD) was above acceptance limits.

Table 1 - Groundwater Data Summary: MW-017S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/8/2016	Background	0.01 J1	0.24	2.12	< 0.005 U1	0.02	0.5	0.047	1.036	0.85	0.024	< 0.0002 U1	< 0.002 U1	3.98	0.07 J1	0.01 J1
7/20/2016	Background	0.03 J1	0.26	2.74	< 0.005 U1	0.08	0.2	0.105	0.0439	0.86	0.098	0.020	0.002 J1	4.20	0.06 J1	0.01 J1
9/20/2016	Background	0.02 J1	0.22	2.24	< 0.005 U1	0.01 J1	0.1	0.034	0.0759	0.73	0.025	0.003	< 0.002 U1	4.08	0.08 J1	0.01 J1
11/16/2016	Background	0.03 J1	0.20	2.40	< 0.005 U1	0.02	0.066	0.029	1.594	0.70	0.020	0.004	< 0.002 U1	3.39	0.1	0.053
1/10/2017	Background	0.03 J1	0.21	3.45	< 0.005 U1	0.02 J1	0.489	0.040	0.17	0.48	0.02 J1	0.003	< 0.002 U1	0.44	0.2	0.02 J1
3/7/2017	Background	0.04 J1	0.20	3.94	< 0.005 U1	0.09	0.776	0.076	0.47	0.46	0.079	0.008	0.002 J1	0.70	0.1	0.02 J1
5/9/2017	Background	0.04 J1	0.22	4.37	< 0.004 U1	0.02 J1	0.233	0.138	0.433	0.58	0.108	0.003	< 0.002 U1	1.14	0.1	< 0.01 U1
7/19/2017	Background	0.02 J1	0.22	2.25	< 0.004 U1	0.06	0.124	0.053	1.748	0.82	0.038	< 0.0002 U1	< 0.002 U1	4.38	0.08 J1	0.03 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-021D
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.022	74.2	19.2	591	0.36	8.1	39.2	328
7/19/2016	Background	0.015	60.6	19.6	544	0.38	7.8	41.0	299
9/21/2016	Background	0.015	70.4	18.9	478	0.36	7.7	35.5	315
11/16/2016	Background	0.013	74.7	19.1	585	0.33	7.5	32.0	346
1/11/2017	Background	0.004 J1	67.3	19.4	441	0.36	7.2	34.4	332
3/8/2017	Background	0.024	76.2	18.9	600	0.33	7.6	35.1	304
5/9/2017	Background	0.062	71.5	19.9	493	0.35	7.4	37.1	339
7/19/2017	Background	0.015	70.9	19.5	531	0.30	8.5	36.5	332
10/4/2017	Detection	0.092	67.8	18.5	449	0.32	7.5	37.4	339
1/11/2018	Detection	0.088	--	--	564	--	7.0	--	--
6/6/2018	Detection	0.03	70.7	19.9	470	0.4	7.7	38.4	347
11/13/2018	Detection	0.04 J1	62.1	18.8	451	0.34	7.7	35.2	314
5/22/2019	Detection	< 0.02 U1	69.3	19.1	511	0.36	7.5	36.8	348
11/14/2019	Detection	< 0.02 U1	69.4	19.2	670	0.32	7.4	38.6	323
5/19/2020	Detection	0.02 J1	69.2	19.9	449	0.26	7.6	33.3	328
11/11/2020	Detection	< 0.02 U1	70.9	19.5	599	0.38	7.0	37.1	318
5/27/2021	Detection	0.014 J1	69.8	19.8	538	0.40	9.7	36.4	330
8/4/2021	Detection	--	--	--	567	--	7.5	--	--
11/11/2021	Detection	0.014 J1	69.7	19.5	555	0.38	7.8	34.2	330

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-021D
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.08	1.07	241	< 0.005 U1	0.02	0.2	0.216	0.567	0.36	0.107	0.002	< 0.002 U1	6.31	0.2	0.03 J1
7/19/2016	Background	0.08	1.06	240	< 0.005 U1	0.03	0.3	0.210	1.428	0.38	0.075	0.025	< 0.002 U1	6.66	0.2	0.02 J1
9/21/2016	Background	0.06	0.95	226	< 0.005 U1	0.02 J1	0.1	0.195	0.834	0.36	0.066	0.005	< 0.002 U1	6.13	0.3	0.03 J1
11/16/2016	Background	0.06	0.86	206	< 0.005 U1	0.03	0.05 J1	0.171	1.078	0.33	0.056	0.007	< 0.002 U1	5.33	0.3	0.02 J1
1/11/2017	Background	0.07	0.99	220	0.01 J1	0.02	0.124	0.202	1.144	0.36	0.091	0.009	< 0.002 U1	6.09	0.2	0.04 J1
3/8/2017	Background	0.07	0.92	220	< 0.005 U1	0.02	0.433	0.182	0.938	0.33	0.092	0.005	< 0.002 U1	5.68	0.5	0.02 J1
5/9/2017	Background	0.08	0.97	216	< 0.004 U1	0.04	0.165	0.208	0.4495	0.35	0.118	0.013	< 0.002 U1	5.07	0.6	0.02 J1
7/19/2017	Background	0.12	1.04	226	< 0.004 U1	0.02	0.110	0.203	0.856	0.30	0.089	0.0005 J1	< 0.002 U1	5.29	0.5	0.03 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-021I
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.007	69.0	21.1	548	0.33	8.0	46.2	331
7/19/2016	Background	0.012	64.7	21.7	500	0.36	7.6	47.9	334
9/21/2016	Background	0.011	65.1	20.4	488	0.34	7.6	43.2	305
11/16/2016	Background	0.012	68.4	20.0	432	0.34	7.3	40.4	317
1/11/2017	Background	< 0.002 U1	59.5	19.9	397	0.30	7.4	41.0	292
3/8/2017	Background	0.028	66.5	19.6	520	0.32	7.5	39.6	275
5/9/2017	Background	0.027	62.9	21.0	361	0.34	8.6	42.4	306
7/19/2017	Background	0.080	60.1	20.4	422	0.30	7.4	43.6	322
10/4/2017	Detection	0.029	63.9	20.5	399	0.31	7.4	45.7	306
6/6/2018	Detection	0.034	66.5	20.6	430	0.38	7.5	44.6	317
11/13/2018	Detection	0.08 J1	61.5	20.2	402	0.36	7.7	43.4	294
5/21/2019	Detection	< 0.02 U1	62.4	18.1	403	0.36	7.3	36.0	278
5/22/2019	Detection	--	--	--	438	--	7.5	--	--
11/14/2019	Detection	< 0.02 U1	56.5	17.5	526	0.38	7.5	35.5	262
5/19/2020	Detection	< 0.02 U1	58.5	19.3	386	0.35	7.4	38.8	283
11/11/2020	Detection	< 0.02 U1	58.6	18.0	518	0.45	7.0	36.4	266
2/3/2021	Detection	--	--	--	452	0.46	7.5	--	--
5/27/2021	Detection	0.011 J1	57.1	17.9	413	0.48	9.7	35.4	290
8/4/2021	Detection	--	--	--	469	0.43	7.4	--	--
11/11/2021	Detection	0.011 J1	57.2	18.2	500	0.40	7.7	35.8	280

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-021I
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.02 J1	1.55	127	< 0.005 U1	0.02	0.1	0.514	0.349	0.33	0.02 J1	< 0.0002 U1	< 0.002 U1	4.92	< 0.03 U1	0.03 J1
7/19/2016	Background	0.02 J1	1.67	136	< 0.005 U1	0.02	0.2	0.558	1.406	0.36	0.021	0.019	< 0.002 U1	5.25	0.05 J1	0.03 J1
9/21/2016	Background	0.02 J1	1.55	121	< 0.005 U1	0.02	0.1	0.422	0.981	0.34	0.046	0.004	< 0.002 U1	4.46	0.03 J1	0.02 J1
11/16/2016	Background	0.02 J1	1.41	126	< 0.005 U1	0.04	0.386	0.524	0.6556	0.34	0.035	0.006	< 0.002 U1	4.40	0.09 J1	0.02 J1
1/11/2017	Background	0.02 J1	1.39	126	0.01 J1	0.02 J1	1.04	0.437	2.733	0.30	< 0.004 U1	0.005	< 0.002 U1	4.63	0.07 J1	0.04 J1
3/8/2017	Background	0.03 J1	1.08	123	< 0.005 U1	0.01 J1	0.349	0.437	0.882	0.32	0.01 J1	0.007	< 0.002 U1	4.31	0.07 J1	0.02 J1
5/9/2017	Background	0.05	1.2	116	< 0.004 U1	0.01 J1	0.125	0.412	0.591	0.34	0.022	0.008	< 0.002 U1	4.06	0.05 J1	0.03 J1
7/19/2017	Background	0.03 J1	1.38	123	< 0.004 U1	0.01 J1	0.143	0.517	1.225	0.30	0.033	0.004	< 0.002 U1	4.18	0.05 J1	0.03 J1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Table 1 - Groundwater Data Summary: MW-021S
Rockport - LF
Phase I Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Boron	Calcium	Chloride	Conductivity	Fluoride	pH	Sulfate	Total Dissolved Solids
		mg/L	mg/L	mg/L	µS/cm	mg/L	SU	mg/L	mg/L
6/9/2016	Background	0.002 J1	55.1	15.0	387	0.61	6.6	21.2	275
7/19/2016	Background	0.011	52.8	15.1	450	0.64	7.5	21.2	292
9/21/2016	Background	0.007	52.0	14.7	454	0.62	7.6	17.4	285
11/16/2016	Background	0.015	60.0	14.7	501	0.63	7.5	14.9	294
1/11/2017	Background	0.002 J1	54.4	14.4	410	0.54	7.3	15.9	287
3/8/2017	Background	0.018	59.0	14.8	540	0.58	7.6	16.5	298
5/9/2017	Background	0.033	56.0	15.7	344	0.60	8.9	17.6	296
7/19/2017	Background	0.034	55.9	15.9	398	0.54	7.2	18.8	304
10/4/2017	Detection	0.027	59.8	17.7	402	0.60	7.5	20.1	300
12/12/2017	Detection	--	--	18	390	0.6	8.0	21.1	--
6/6/2018	Detection	0.039	52.8	17.5	400	0.66	7.8	18.7	283
11/14/2018	Detection	0.06 J1	55	17.9	380	0.66	7.3	17	278
2/12/2019	Detection	< 0.02 U1	--	17.9	318	--	7.7	--	--
4/1/2019	Detection	--	--	17.5	404	--	7.8	--	--
5/21/2019	Detection	< 0.02 U1	52.5	16.0	424	0.65	7.6	14.1	258
11/14/2019	Detection	< 0.02 U1	50.4	17.4	530	0.73	7.5	15.8	241
2/18/2020	Detection	--	--	--	856	0.79	7.5	--	--
5/19/2020	Detection	< 0.02 U1	49.1	18.0	347	0.76	8.1	15.1	238
7/16/2020	Detection	--	--	16.1	416	0.77	7.9	--	228
11/11/2020	Detection	< 0.02 U1	50.9	18.1	499	0.83	7.6	16.4	259
2/3/2021	Detection	--	--	--	529	0.85	7.7	--	--
5/28/2021	Detection	0.011 J1	62.6	19.1	450	0.81	10.0	18.4	300
8/4/2021	Detection	--	--	--	519	0.78	7.5	--	--
11/11/2021	Detection	0.012 J1	57.1	19.3	585	0.74	7.8	20.0	320

Notes:
mg/L: milligrams per liter
SU: standard unit
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag.
In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit.
In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

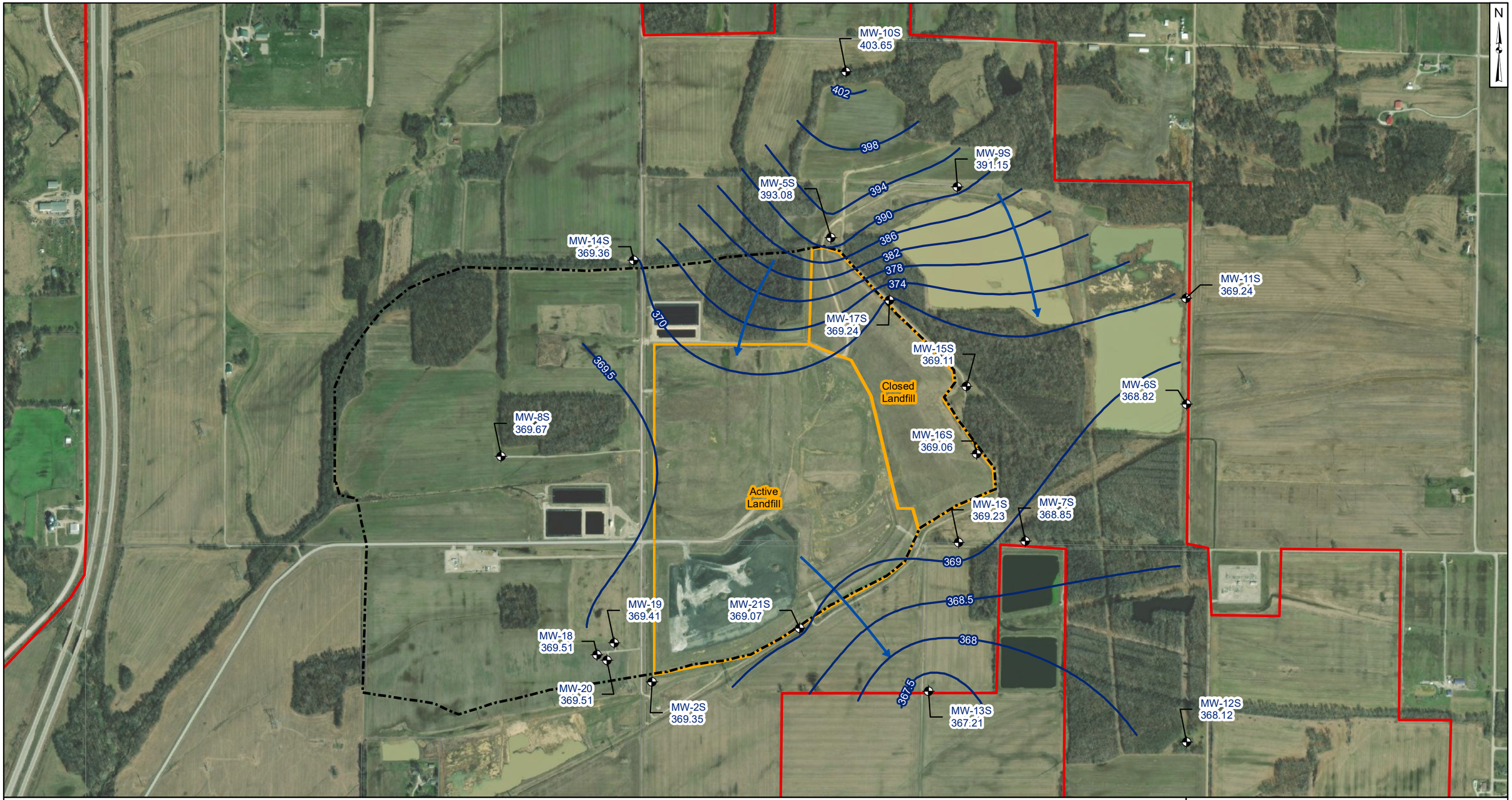
Table 1 - Groundwater Data Summary: MW-021S
Rockport - LF
Phase II Constituents

Geosyntec Consultants, Inc.

Collection Date	Monitoring Program	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
		µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	pCi/L	mg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
6/9/2016	Background	0.03 J1	0.53	18.5	< 0.005 U1	0.02	0.4	0.104	0.1599	0.61	0.095	0.003	< 0.002 U1	1.78	0.7	0.01 J1
7/19/2016	Background	0.02 J1	0.47	19.6	< 0.005 U1	0.02 J1	0.7	0.033	0.5728	0.64	0.042	0.013	< 0.002 U1	1.85	0.5	0.01 J1
9/21/2016	Background	0.02 J1	0.46	19.4	< 0.005 U1	0.006 J1	0.3	0.030	0.452	0.62	0.025	0.003	< 0.002 U1	1.74	0.2	< 0.01 U1
11/16/2016	Background	0.02 J1	0.43	19.1	< 0.005 U1	0.02	0.292	0.023	0.484	0.63	0.023	0.009	< 0.002 U1	1.63	0.2	< 0.01 U1
1/11/2017	Background	0.03 J1	0.47	19.3	0.006 J1	0.01 J1	0.401	0.022	2.067	0.54	0.024	0.007	< 0.002 U1	1.74	0.1	0.058
3/8/2017	Background	0.03 J1	0.49	21.9	< 0.005 U1	0.01 J1	0.536	0.053	0.0305	0.58	0.095	0.002	< 0.002 U1	2.00	0.1	< 0.01 U1
5/9/2017	Background	0.04 J1	0.47	17.7	< 0.004 U1	0.01 J1	0.300	0.027	0.2351	0.60	0.023	0.005	< 0.002 U1	1.62	0.1	< 0.01 U1
7/19/2017	Background	0.05 J1	0.42	21.9	< 0.004 U1	0.01 J1	0.272	0.006 J1	1.098	0.54	0.024	< 0.0002 U1	< 0.002 U1	2.31	0.2	< 0.01 U1

Notes:
µg/L: micrograms per liter
mg/L: milligrams per liter
pCi/L: picocuries per liter
<: Non-detect value. Analytes which were not detected are shown as less than the method detection limit (MDL) followed by a 'U1' flag. In analytical data prior to 5/18/2021, U1 flags were reported as U in the analytical report.
- -: Not analyzed
J1: Concentration estimated. Analyte was detected between the method detection limit and the reporting limit. In analytical data prior to 5/18/2021, J1 flags were reported as J in the analytical report.

Groundwater Flow Direction Maps



Legend

- Groundwater Monitoring Well
- Approximate Groundwater Flow Direction
- Groundwater Elevation Contour
- 1984 Landfill Permit Boundary (Area 1)
- Property Boundary
- Landfill Area 1A (Active and Closed)

Notes

- Monitoring well coordinates and water level data (collected on May 24, 2021) provided by AEP.
- Site features based on information available in the Groundwater Monitoring Network Evaluation (AMEC, 2016) provided by AEP.
- Property and parcel boundaries taken from Spencer County Assessor.
- The water level from the shallowest screen interval in each well cluster was used in groundwater contouring.
- Groundwater elevation units are feet above mean sea level.

1,000 500 0 1,000 Feet

Potentiometric Surface Contours - Uppermost Aquifer
May 2021

AEP-Rockport Power Plant - CCR Landfill
Rockport, Indiana

Geosyntec consultants

Columbus, Ohio | 2021/08/16

Figure **X**

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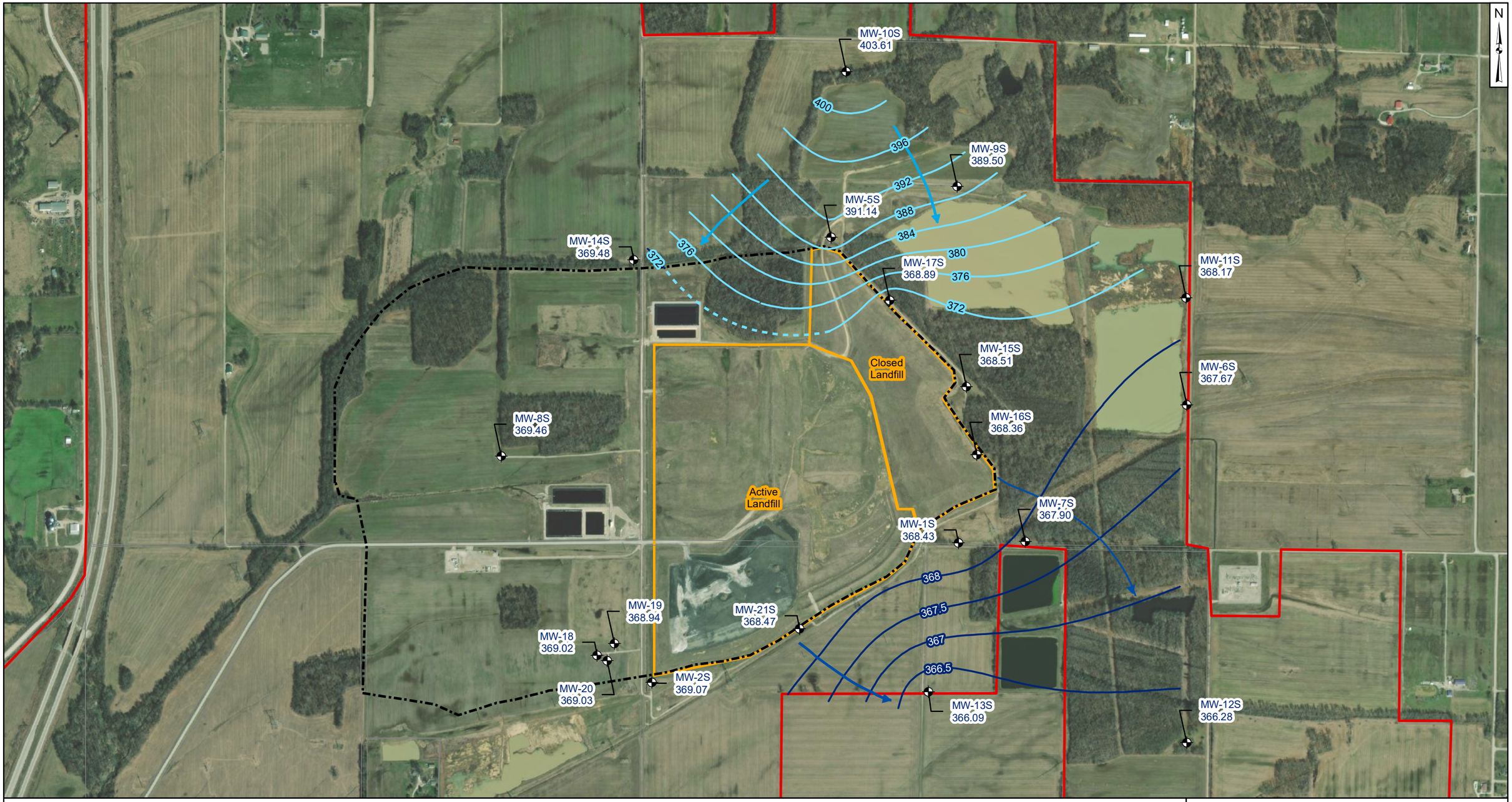

Legend

- Groundwater Monitoring Well
- Groundwater Elevation Contour (0.5 interval)
- Approximate Groundwater Flow Direction
- Groundwater Elevation Contour (Inferred)
- Groundwater Elevation Contour (4.0 interval)
- Approximate Groundwater Flow Direction
- Groundwater Elevation Contour (Inferred)
- 1984 Landfill Permit Boundary (Area 1)
- Property Boundary
- Landfill Area 1A (Active and Closed)

Notes

- Monitoring well coordinates and water level data (collected on November 8, 2021) provided by AEP.
- Site features based on information available in the Groundwater Monitoring Network Evaluation (Amec, 2016) provided by AEP.
- Property and parcel boundaries taken from Spencer County Assessor.
- The water level from the shallowest screen interval in each well cluster was used in groundwater contouring.

1,000 500 0 1,000 Feet

Potentiometric Surface Contours - Uppermost Aquifer November 2021

AEP-Rockport Power Plant - CCR Landfill
Rockport, Indiana

Geosyntec consultants

Columbus, Ohio | 2021/12/29

Figure X

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Groundwater Flow Velocity Calculations

Table 1: Residence Time Calculation Summary
Rockport - Landfill

Geosyntec Consultants, Inc.

			2021-02[3]		2021-05		2021-08[3]		2021-11	
CCR Management Unit	Monitoring Well	Well Diameter (inches)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)	Groundwater Velocity (ft/year)	Groundwater Residence Time (days)
Landfill	MW-11S [1]	2.0	383	0.16	269	0.23	384	0.16	376	0.16
	MW-14S [1]	2.0	231	0.26	10,252	0.01	9,740	0.01	9,683	0.01
	MW-15I [2]	2.0	185	0.33	798	0.08	42,317	0.001	318	0.19
	MW-15S [2]	2.0	165	0.37	1,093	0.06	404	0.15	290	0.21
	MW-16D [2]	2.0	163	0.37	107	0.57	346	0.18	342	0.18
	MW-16I [2]	2.0	90	0.68	10	6.24	403	0.15	279	0.22
	MW-16S [2]	2.0	163	0.37	58	1.04	337	0.18	324	0.19
	MW-17I [2]	2.0	407	0.15	20,423	0.003	270	0.23	322	0.19
	MW-17S [2]	2.0	168	0.36	21,042	0.003	65	0.94	263	0.23
	MW-1D [2]	2.0	11,796	0.01	187	0.32	370	0.16	540	0.11
	MW-1I [2]	2.0	783	0.08	937	0.06	972	0.06	1,226	0.05
	MW-1S [2]	2.0	755	0.08	862	0.07	926	0.07	1,055	0.06
	MW-21D [2]	2.0	1,046	0.06	781	0.08	965	0.06	984	0.06
	MW-21I [2]	2.0	996	0.06	795	0.08	633	0.10	1,027	0.06
	MW-21S [2]	2.0	780	0.08	809	0.08	902	0.07	1,006	0.06
	MW-2D [2]	2.0	423	0.14	148	0.41	503	0.12	611	0.10
	MW-2I [2]	2.0	759	0.08	131	0.46	913	0.07	694	0.09
	MW-2S [2]	2.0	482	0.13	140	0.44	527	0.12	634	0.10
	MW-6S [1]	2.0	434	0.14	762	0.08	407	0.15	389	0.16
	MW-8I [1]	2.0	550	0.11	166	0.37	1,553	0.04	736	0.08
	MW-8S [1]	2.0	195	0.31	109	0.56	104	0.59	711	0.09

Notes:
[1] - Upgradient Well
[2] - Downgradient Well
[3] -Two-of-two verification sampling

APPENDIX 2 – Statistical Analyses

The memorandums summarizing the statistical evaluation follow.

Geosyntec consultants

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Memorandum

Date:	August 12, 2021
To:	David Miller (AEP)
Copies to:	Justin Jent (AEP)
From:	Allison Kreinberg (Geosyntec)
Subject:	Evaluation of Detection Monitoring Data at Rockport Plant's Landfill (LF)

In accordance with the United States Environmental Protection Agency's (USEPA's) regulations regarding the disposal of coal combustion residuals (CCR) in landfills and surface impoundments (40 CFR 257 Subpart D, "CCR rule"), the second semi-annual detection monitoring event at the Landfill (LF), an existing CCR unit at the Rockport Power Plant located in Rockport, Indiana was completed on November 10-11, 2020. Based on the results, verification sampling was completed on February 2-3, 2021. A memorandum documenting the results of the statistical evaluation was certified on March 10, 2021 (Attachment A).

Geosyntec recently noted that the reported analytical values for downgradient wells MW-017I and MW-017S and a comparison of these results to the appropriate prediction limits were not shown in the summary table provided in the March 2021 memorandum. A revised version of the summary table is provided herein which includes the results for MW-017I and MW-017S. One potential exceedance was identified for pH at MW-017I; verification sampling was completed on May 27, 2021 and the verification result was within the acceptable range for pH. No statistically significant increases (SSIs) were identified at either MW-017I or MW-17S during the second semiannual event of 2020 and the results of the March 2021 statistical memorandum are still valid.

Table 1: Detection Monitoring Data Evalation
Rockport - Landfill

Geosyntec Consultants

Analyte	Unit	Description	MW-001D		MW-001I		MW-001S	MW-002D		MW-002I		MW-002S		MW-015I	
			11/11/2020	2/3/2021	11/11/2020	2/3/2021	11/11/2020	11/11/2020	2/3/2021	11/11/2020	2/3/2021	11/11/2020	2/4/2021	11/10/2020	2/3/2021
Boron	mg/L	Intrawell Background Value (UPL)	0.151		0.122		0.0686	0.106		0.0632		0.120		0.0976	
		Analytical Result	0.04	-	0.02	-	0.02	0.02	-	0.02	-	0.03	-	0.03	-
Calcium	mg/L	Intrawell Background Value (UPL)	79.4		72.3		79.8	114		79.9		67.0		55.0	
		Analytical Result	**80.3**	56.8	65.9	-	67.8	92.2	-	66.6	-	58.4	-	44.2	-
Chloride	mg/L	Intrawell Background Value (UPL)	62.4		36.2		43.0	26.0		33.8		29.8		72.2	
		Analytical Result	56.2	-	**36.3**	**36.9**	33.3	**92.2**	**74.2**	24.3	-	27	-	12.8	-
Fluoride	mg/L	Intrawell Background Value (UPL)	0.339		0.473		0.686	0.232		0.372		0.328		0.367	
		Analytical Result	0.3	-	0.43	-	0.66	0.2	-	0.37	-	**0.34**	**0.36**	**0.47**	0.36
pH	SU	Intrawell Background Value (UPL)	8.3		8.0		8.1	8.5		8.5		8.1		8.2	
		Intrawell Background Value (LPL)	6.6		6.5		6.7	6.3		6.6		6.4		6.7	
		Analytical Result	7.1	7.5	7.3	7.4	7.0	7.2	7.3	6.9	7.4	7.4	7.6	7.5	7.6
Sulfate	mg/L	Intrawell Background Value (UPL)	48.1		48.0		38.5	48.0		49.5		35.3		48.2	
		Analytical Result	37.7	-	39	-	34.1	35.1	-	38.6	-	25.7	-	11.7	-
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	364		355		422	374		382		379		430	
		Analytical Result	**397**	264	322	-	402	**395**	**400**	296	-	336	-	213	-

Analyte	Unit	Description	MW-015S	MW-016D		MW-016I	MW-016S	MW-017I		MW-017S	MW-021D	MW-021I		MW-021S	
			11/10/2020	11/11/2020	2/2/2021	11/10/2020	11/11/2020	11/10/2020	5/27/2021	11/10/2020	11/11/2020	11/11/2020	2/3/2021	11/11/2020	2/3/2021
Boron	mg/L	Intrawell Background Value (UPL)	0.146	0.115		0.156	0.147	0.105		0.0751	0.115	0.0831		0.0695	
		Analytical Result	0.02	0.04	-	0.02	0.02	0.04	-	0.02	0.02	0.02	-	0.02	-
Calcium	mg/L	Intrawell Background Value (UPL)	70.5	100		130	122	112		40.9	82.8	72.8		63.4	
		Analytical Result	45.4	**109**	**106**	44.5	103	38.1	-	33.9	70.9	58.6	-	50.9	-
Chloride	mg/L	Intrawell Background Value (UPL)	28.6	75.5		106	23.6	201		16.1	20.5	22.8		19.9	
		Analytical Result	10.1	**130**	**117**	19.6	21.8	25.5	-	12.9	19.5	18	-	18.1	-
Fluoride	mg/L	Intrawell Background Value (UPL)	1.05	0.220		0.227	0.510	1.25		1.32	0.425	0.409		0.719	
		Analytical Result	0.78	0.21	-	0.2	0.38	1.16	-	0.9	0.38	**0.45**	**0.46**	**0.83**	**0.85**
pH	SU	Intrawell Background Value (UPL)	7.8	7.9		7.9	8.2	8.1	8.1	7.9	8.6	8.6		8.8	
		Intrawell Background Value (LPL)	6.8	6.8		6.8	6.2	6.7	6.7	7.1	6.6	7.3		6.4	
		Analytical Result	7.3	7.2	7.4	6.8	6.5	**8.4**	7.8	7.5	7.0	**7.0**	7.5	7.6	7.7
Sulfate	mg/L	Intrawell Background Value (UPL)	38.9	42.5		45.0	53.2	58.1		17.1	43.2	51.9		24.6	
		Analytical Result	10.3	39.1	-	21.4	34.5	16.8	-	8.2	37.1	36.4	-	16.4	-
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	439	398		595	561	736		299	376	360		324	
		Analytical Result	236	**547**	**573**	273	473	239	-	211	318	266	-	259	-

Notes:
UPL: Upper prediction limit
LPL: Lower prediction limit
Bold values exceed the background value.
Background values are shaded gray.
-: Not analyzed

ATTACHMENT A

March 2021 Certified Statistical Memorandum

Geosyntec consultants

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Columbus, Ohio 43212
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www.geosyntec.com

Memorandum

Date:	March 9, 2021
To:	David Miller (AEP)
Copies to:	Justin Jent (AEP)
From:	Allison Kreinberg (Geosyntec)
Subject:	Evaluation of Detection Monitoring Data at Rockport Plant's Landfill (LF)

In accordance with the United States Environmental Protection Agency's (USEPA's) regulations regarding the disposal of coal combustion residuals (CCR) in landfills and surface impoundments (40 CFR 257 Subpart D, "CCR rule"), the second semi-annual detection monitoring event at the Landfill (LF), an existing CCR unit at the Rockport Power Plant located in Rockport, Indiana was completed on November 10-12, 2020. Based on the results, verification sampling was completed on February 2-4, 2021.

Background values for the LF were previously calculated in January 2018. After a minimum of four detection monitoring events, the results of those events were compared to the existing background and the dataset was updated as appropriate. Revised upper prediction limits (UPLs) were calculated for each Appendix III parameter to represent background values. Lower prediction limits (LPLs) were also calculated for pH. Details on the calculation of these revised background values are described in Geosyntec's *Statistical Analysis Summary* report, dated February 27, 2020.

To achieve an acceptably high statistical power while maintaining a site-wide false-positive rate (SWFPR) of 10% per year or less, prediction limits were calculated based on a one-of-two retesting procedure. With this procedure, a statistically significant increase (SSI) is concluded only if both samples in a series of two exceed the UPL (or are below the LPL for pH). In practice, if the initial result did not exceed the UPL, a second sample was not collected or analyzed.

Detection monitoring results and the relevant background values are compared in Table 1 and noted exceedances are described in the list below.

- Calcium concentrations exceeded the intrawell UPL of 100 mg/L in the initial (109 mg/L) and second (106 mg/L) samples collected at MW-016D. An SSI over background is concluded for calcium at MW-016D.

- Chloride concentrations exceeded the intrawell UPL of 36.2 mg/L in both the initial (36.3 mg/L) and second (36.9 mg/L) samples collected at MW-001I, the intrawell UPL of 26.0 mg/L in both the initial (92.2 mg/L) and second (74.2 mg/L) samples collected at MW-002D, and the intrawell UPL of 75.5 mg/L in both the initial (130 mg/L) and second (117 mg/L) samples collected at MW-016D. SSIs over background are concluded for chloride at MW-001D, MW-002D, and MW-016D.

- Fluoride concentrations exceeded the intrawell UPL of 0.328 mg/L in both the initial (0.34 mg/L) and second (0.36 mg/L) samples collected at MW-002S, the intrawell UPL of 0.409 mg/L in both the initial (0.45 mg/L) and second (0.46 mg/L) samples collected at MW-021I, the intrawell UPL of 0.719 mg/L in both the initial (0.83 mg/L) and second (0.85 mg/L) samples collected at MW-021S. SSIs over background are concluded for fluoride at MW-002S, MW-021I, and MW-021S.

- Total dissolved solids (TDS) concentrations exceeded the intrawell UPL of 374 mg/L in both the initial (395 mg/L) and second (400 mg/L) samples collected at MW-002D, and the intrawell UPL of 398 mg/L in both the initial (547 mg/L) and second (573 mg/L) samples collected at MW-016D. SSIs over background are concluded for TDS at MW-002D and MW-016D.

In response to the exceedances noted above, the Rockport LF CCR unit will either transition to assessment monitoring or an alternative source demonstration (ASD) for calcium, chloride, fluoride, and TDS will be conducted in accordance with 40 CFR 257.94(e)(2). If the ASD is successful, the Rockport LF will remain in detection monitoring.

The statistical analysis was conducted within 90 days of completion of sampling and analysis in accordance with 40 CFR 257.93(h)(2). A certification of these statistics by a qualified professional engineer is provided in Attachment A.

Table 1: Detection Monitoring Data Evalation
Rockport - Landfill

Geosyntec Consultants

Analyte	Unit	Description	MW-001D		MW-001I		MW-001S	MW-002D		MW-002I		MW-002S	
			11/11/2020	2/3/2021	11/11/2020	2/3/2021	11/11/2020	11/11/2020	2/3/2021	11/11/2020	2/3/2021	11/11/2020	2/4/2021
Boron	mg/L	Intrawell Background Value (UPL)	0.151		0.122		0.0686	0.106		0.0632		0.120	
		Analytical Result	0.04	-	0.02	-	0.02	0.02	-	0.02	-	0.03	-
Calcium	mg/L	Intrawell Background Value (UPL)	79.4		72.3		79.8	114		79.9		67.0	
		Analytical Result	**80.3**	56.8	65.9	-	67.8	92.2	-	66.6	-	58.4	-
Chloride	mg/L	Intrawell Background Value (UPL)	62.4		36.2		43.0	26.0		33.8		29.8	
		Analytical Result	56.2	-	**36.3**	**36.9**	33.3	**92.2**	**74.2**	24.3	-	27	-
Fluoride	mg/L	Intrawell Background Value (UPL)	0.339		0.473		0.686	0.232		0.372		0.328	
		Analytical Result	0.3	-	0.43	-	0.66	0.2	-	0.37	-	**0.34**	**0.36**
pH	SU	Intrawell Background Value (UPL)	8.3		8.0		8.1	8.5		8.5		8.1	
		Intrawell Background Value (LPL)	6.6		6.5		6.7	6.3		6.6		6.4	
		Analytical Result	7.1	7.5	7.3	7.4	7.0	7.2	7.3	6.9	7.4	7.4	7.6
Sulfate	mg/L	Intrawell Background Value (UPL)	48.1		48.0		38.5	48.0		49.5		35.3	
		Analytical Result	37.7	-	39	-	34.1	35.1	-	38.6	-	25.7	-
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	364		355		422	374		382		379	
		Analytical Result	**397**	264	322	-	402	**395**	**400**	296	-	336	-

Analyte	Unit	Description	MW-015I		MW-015S	MW-016D		MW-016I	MW-016S	MW-021D	MW-021I		MW-021S	
			11/10/2020	2/3/2021	11/10/2020	11/11/2020	2/2/2021	11/10/2020	11/11/2020	11/11/2020	11/11/2020	2/3/2021	11/11/2020	2/3/2021
Boron	mg/L	Intrawell Background Value (UPL)	0.0976		0.146	0.115		0.156	0.147	0.115	0.0831		0.0695	
		Analytical Result	0.03	-	0.02	0.04	-	0.02	0.02	0.02	0.02	-	0.02	-
Calcium	mg/L	Intrawell Background Value (UPL)	55.0		70.5	100		130	122	82.8	72.8		63.4	
		Analytical Result	44.2	-	45.4	**109**	**106**	44.5	103	70.9	58.6	-	50.9	-
Chloride	mg/L	Intrawell Background Value (UPL)	72.2		28.6	75.5		106	23.6	20.5	22.8		19.9	
		Analytical Result	12.8	-	10.1	**130**	**117**	19.6	21.8	19.5	18	-	18.1	-
Fluoride	mg/L	Intrawell Background Value (UPL)	0.367		1.05	0.220		0.227	0.510	0.425	0.409		0.719	
		Analytical Result	**0.47**	0.36	0.78	0.21	-	0.2	0.38	0.38	**0.45**	**0.46**	**0.83**	**0.85**
pH	SU	Intrawell Background Value (UPL)	8.2		7.8	7.9		7.9	8.2	8.6	8.6		8.8	
		Intrawell Background Value (LPL)	6.7		6.8	6.8		6.8	6.2	6.6	7.3		6.4	
		Analytical Result	7.5	7.6	7.3	7.2	7.4	6.8	6.5	7.0	**7.0**	7.5	7.6	7.7
Sulfate	mg/L	Intrawell Background Value (UPL)	48.2		38.9	42.5		45.0	53.2	43.2	51.9		24.6	
		Analytical Result	11.7	-	10.3	39.1	-	21.4	34.5	37.1	36.4	-	16.4	-
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	430		439	398		595	561	376	360		324	
		Analytical Result	213	-	236	**547**	**573**	273	473	318	266	-	259	-

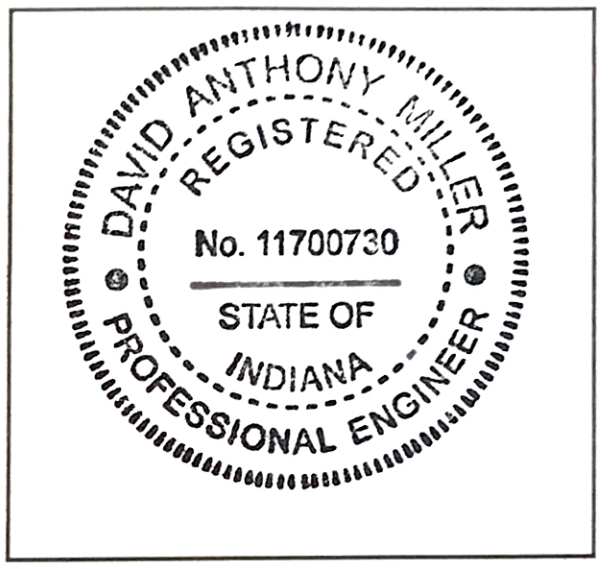
Notes:
UPL: Upper prediction limit
LPL: Lower prediction limit
Bold values exceed the background value.
Background values are shaded gray.
-: Not analyzed

ATTACHMENT A

Certification by a Qualified Professional Engineer

CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I certify that the selected statistical method, described above and in the February 27, 2020 *Statistical Analysis Summary* report, is appropriate for evaluating the groundwater monitoring data for the Rockport LF CCR management area and that the requirements of 40 CFR 257.93(f) have been met.



DAVID ANTHONY MILLER
Printed Name of Licensed Professional Engineer

David Anthony Miller
Signature

11700730	INDIANA	03.10.21
License Number	Licensing State	Date

Geosyntec consultants

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Memorandum

Date:	October 1, 2021
To:	David Miller (AEP)
Copies to:	Justin Jent (AEP)
From:	Allison Kreinberg (Geosyntec)
Subject:	Evaluation of Detection Monitoring Data at Rockport Plant's Landfill (LF)

In accordance with the United States Environmental Protection Agency's (USEPA's) regulations regarding the disposal of coal combustion residuals (CCR) in landfills and surface impoundments (40 CFR 257 Subpart D, "CCR rule") and solid waste permit (74-02) requirements through the Indiana Administrative Code (IAC) Title 329 Article 10 (329 IAC 10), the first semi-annual detection monitoring event of 2021 at the Landfill (LF), an existing CCR unit at the Rockport Power Plant located in Rockport, Indiana was completed on May 25-28, 2021. The initial sampling at MW-07I was completed on August 5, 2021. Based on the results, verification sampling was completed on August 4-5, 2021.

Background values for the LF were previously calculated in January 2018. After a minimum of four detection monitoring events, the results of those events were compared to the existing background and the dataset was updated as appropriate. Revised upper prediction limits (UPLs) were calculated for each Appendix III parameter to represent background values. Lower prediction limits (LPLs) were also calculated for pH. Details on the calculation of these revised background values are described in Geosyntec's *Statistical Analysis Summary* report, dated February 27, 2020.

To achieve an acceptably high statistical power while maintaining a site-wide false-positive rate (SWFPR) of 10% per year or less, prediction limits were calculated based on a one-of-two retesting procedure. With this procedure, a statistically significant increase (SSI) is concluded only if both samples in a series of two exceed the UPL (or are below the LPL for pH). In practice, if the initial result did not exceed the UPL, a second sample was not collected or analyzed.

Detection monitoring results and the relevant background values are compared in Table 1 and noted exceedances are described in the list below.

- Calcium concentrations exceeded the intrawell UPL of 100 mg/L in both the initial (122 mg/L) and second (103 mg/L) samples collected at MW-016D. An SSI over background is concluded for calcium at MW-016D.

- Chloride concentrations exceeded the intrawell UPL of 36.2 mg/L in both the initial (37.8 mg/L) and second (38.2 mg/L) samples collected at MW-001I, the intrawell UPL of 26.0 mg/L in both the initial (82.9 mg/L) and second (94.2 mg/L) samples collected at MW-002D, and the intrawell UPL of 75.5 mg/L in both the initial (110 mg/L) and second (110 mg/L) samples collected at MW-016D. SSIs over background are concluded for chloride at MW-001I, MW-002D, and MW-016D.

- Fluoride concentrations exceeded the intrawell UPL of 0.328 mg/L in both the initial (0.35 mg/L) and second (0.35 mg/L) samples collected at MW-002S, the intrawell UPL 0.367 mg/L in both the initial (0.39 mg/L) and the second (0.38 mg/L) samples collected at MW-015I, the intrawell UPL of 0.409 mg/L in both the initial (0.48 mg/L) and second (0.43 mg/L) samples collected at MW-021I, and the intrawell UPL of 0.719 mg/L in both the initial (0.81 mg/L) and second (0.78 mg/L) samples collected at MW-21S. SSIs over background are concluded for fluoride at MW-002S, MW-015I, MW-021I, and MW-021S.

- Total dissolved solids (TDS) concentrations exceeded the intrawell UPL of 364 mg/L in both the initial (410 mg/L) and second (440 mg/L) samples collected at MW-001D, the intrawell UPL of 422 mg/L in both the initial (430 mg/L) and second (430 mg/L) samples collected at MW-001S, the intrawell UPL of 374 mg/L in both the initial (440 mg/L) and second (420 mg/L) samples collected at MW-002D, and the intrawell UPL of 398 mg/L in both the initial (580 mg/L) and second (570 mg/L) sampling event at MW-016D. SSIs over background are concluded for TDS at MW-001D, MW-001S, MW-002D, and MW-016D.

In response to the exceedances noted above, the Rockport LF CCR unit will either transition to assessment monitoring or an alternative source demonstration (ASD) for calcium, chloride, fluoride, and TDS and will be conducted in accordance with 40 CFR 257.94(e)(2). If the ASD is successful, the Rockport LF will remain in detection monitoring.

The statistical analysis was conducted within 90 days of completion of sampling and analysis in accordance with 40 CFR 257.93(h)(2). A certification of these statistics by a qualified professional engineer is provided in Attachment A.

Table 1: Detection Monitoring Data Evalation
Rockport - Landfill

Geosyntec Consultants

Analyte	Unit	Description	MW-001D		MW-001I		MW-001S		MW-002D		MW-002I		MW-002S		MW-015I	
			5/26/2021	8/5/2021	5/26/2021	8/4/2021	5/26/2021	8/5/2021	5/27/2021	8/5/2021	5/27/2021	8/4/2021	5/27/2021	8/4/2021	5/28/2021	8/4/2021
Boron	mg/L	Intrawell Background Value (UPL)	0.151		0.122		0.0686		0.106		0.0632		0.120		0.0976	
		Analytical Result	0.033	-	0.017	-	0.019	-	0.012	-	0.013	-	0.043	-	0.028	-
Calcium	mg/L	Intrawell Background Value (UPL)	79.4		72.3		79.8		114		79.9		67.0		55.0	
		Analytical Result	77.2	-	67.4	-	66.2	-	88.5	-	70.9	-	59.8	-	53.3	-
Chloride	mg/L	Intrawell Background Value (UPL)	62.4		36.2		43.0		26.0		33.8		29.8		72.2	
		Analytical Result	44.0	-	**37.8**	**38.2**	35.0	-	**82.9**	**94.2**	29.2	-	24.8	-	16.0	-
Conductivity	µS/cm	Intrawell Background Value (UPL)	809		744		919		932		805		591		629	
		Analytical Result	747	--	648	--	793	--	664	--	510	--	500	--	393	--
Fluoride	mg/L	Intrawell Background Value (UPL)	0.339		0.473		0.686		0.232		0.372		0.328		0.367	
		Analytical Result	0.26	-	0.38	-	0.66	-	0.21	-	0.35	-	**0.35**	**0.35**	**0.39**	**0.38**
pH	SU	Intrawell Background Value (UPL)	8.3		8.0		8.1		8.5		8.5		8.1		8.2	
		Intrawell Background Value (LPL)	6.6		6.5		6.7		6.3		6.6		6.4		6.7	
		Analytical Result	7.7	--	7.7	--	7.8	--	**9.5**	7.2	**9.7**	7.3	**9.5**	7.3	7.7	--
Sulfate	mg/L	Intrawell Background Value (UPL)	48.1		48.0		38.5		48.0		49.5		35.3		48.2	
		Analytical Result	38.6	-	38.6	-	31.6	-	37.6	-	40.8	-	30.8	-	14.7	-
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	364		355		422		374		382		379		430	
		Analytical Result	**410**	**440**	350	-	**430**	**430**	**440**	**420**	350	-	370	-	240	-

Analyte	Unit	Description	MW-015S	MW-016D		MW-016I	MW-016S	MW-017I	MW-017S	MW-021D		MW-021I		MW-021S	
			5/28/2021	5/28/2021	8/5/2021	5/28/2021	5/28/2021	8/5/2021	5/27/2021	5/27/2021	8/4/2021	5/27/2021	8/4/2021	5/28/2021	8/4/2021
Boron	mg/L	Intrawell Background Value (UPL)	0.146	0.115		0.156	0.147	0.105	0.0751	0.115		0.0831		0.0695	
		Analytical Result	0.014	0.038	-	0.019	0.021	0.038	0.025	0.014	-	0.011	-	0.011	-
Calcium	mg/L	Intrawell Background Value (UPL)	70.5	100		130	122	112	40.9	82.8		72.8		63.4	
		Analytical Result	66.4	**122**	**103**	50.4	96.8	39.4	35.9	69.8	-	57.1	-	62.6	-
Chloride	mg/L	Intrawell Background Value (UPL)	28.6	75.5		106	23.6	201	16.1	20.5		22.8		19.9	
		Analytical Result	10.6	**110**	**110**	16.5	21.2	31.7	11.0	19.8	-	17.9	-	19.1	-
Conductivity	µS/cm	Intrawell Background Value (UPL)	932	940		1,070	997	1,200	459	701		597		563	
		Analytical Result	430	886	--	460	763	431	389	538	--	413	--	450	--
Fluoride	mg/L	Intrawell Background Value (UPL)	1.05	0.220		0.227	0.510	1.25	1.32	0.425		0.409		0.719	
		Analytical Result	0.81	**0.23**	0.2	0.18	0.41	1.06	0.95	0.40	-	**0.48**	**0.43**	**0.81**	**0.78**
pH	SU	Intrawell Background Value (UPL)	7.8	7.9		7.9	8.2	8.1	7.9	8.6		8.6		8.8	
		Intrawell Background Value (LPL)	6.8	6.8		6.8	6.2	6.7	7.1	6.6		7.3		6.4	
		Analytical Result	7.7	**9.6**	7.2	7.5	7.2	7.5	7.6	**9.7**	7.5	**9.7**	7.4	**10.3**	7.5
Sulfate	mg/L	Intrawell Background Value (UPL)	38.9	42.5		45.0	53.2	58.1	17.1	43.2		51.9		24.6	
		Analytical Result	8.82	40.6	-	18.5	32.2	17	5.92	36.4	-	35.4	-	18.4	-
Total Dissolved Solids	mg/L	Intrawell Background Value (UPL)	439	398		595	561	736	299	376		360		324	
		Analytical Result	250	**580**	**570**	270	480	260	210	330	-	290	-	300	-

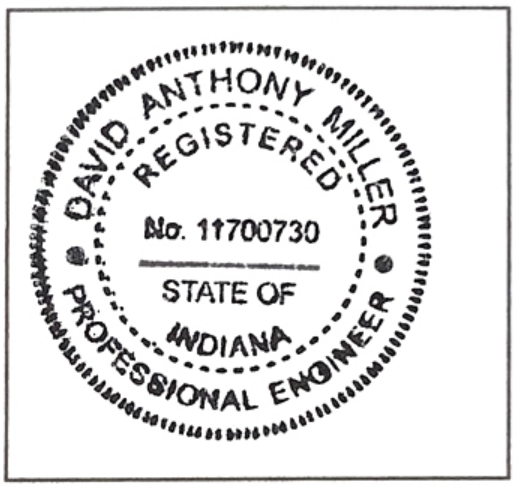
Notes:
UPL: Upper prediction limit
LPL: Lower prediction limit
Bold values exceed the background value.
Background values are shaded gray.
-: Not analyzed

ATTACHMENT A

Certification by a Qualified Professional Engineer

CERTIFICATION BY QUALIFIED PROFESSIONAL ENGINEER

I certify that the selected statistical method, described above and in the February 27, 2020 *Statistical Analysis Summary* report, is appropriate for evaluating the groundwater monitoring data for the Rockport LF CCR management area and that the requirements of 40 CFR 257.93(f) and 329 IAC 10 have been met.



DAVID ANTHONY MILLER

Printed Name of Licensed Professional Engineer

David Anthony Miller

Signature

11700730	INDIANA	10.06.21
License Number	Licensing State	Date

APPENDIX 3 – Alternate Source Demonstrations

Alternate source demonstrations that have been completed as of January 31, 2022 follow.

Alternative Source Demonstration for Appendix III Constituents, CCR Landfill

American Electric Power Service Corporation
Rockport Generating Station, Rockport, Spencer County, Indiana
Project # 7650202784

Prepared for:

American Electric Power Service Corporation
1 Riverside Plaza, Columbus, Ohio 43215

17 May 2021

17 May 2021

Mr. David Miller
Director, Land Environment & Remediation Services
American Electric Power Service Corporation
1 Riverside Plaza
Columbus, OH 43215
Email: damiller@aep.com

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2456 Fortune Drive, Suite 100
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T: 859-255-3308
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Dear Mr. Miller:

Wood Environment & Infrastructure Solutions, Inc. (Wood) has prepared this Alternative Source Demonstration (ASD) for the CCR Landfill located at the AEP Rockport Plant in Rockport, Indiana. As detailed in this report, the results of this ASD conclude that statistically significant increases (SSIs) identified in samples from the waste boundary monitoring wells are not caused by releases from the CCR Landfill. We are available to discuss the details of this report at your convenience should you require additional information.

We very much appreciate working with AEP on this project. If you require additional information about this report, please feel free to contact Kathleen Regan at (859) 566-3724.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

Konrad W. Quast, PhD
Senior Hydrogeologist

Kathleen D. Regan, PE
Senior Associate Engineer
Project Manager

Attachments

/kdr

cc: Justin Jent, PE, American Electric Power Service Corporation

Alternative Source Demonstration for Appendix III Constituents, CCR Landfill

American Electric Power Service Corporation
Rockport Generating Station, Rockport, Spencer County, Indiana
Project # 7650202784

Prepared for:

American Electric Power Service Corporation
1 Riverside Plaza, Columbus, Ohio 43215

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17 May 2021

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Executive Summary

American Electric Power (AEP) operates two units at the Rockport Plant for management of coal combustion residuals (CCR): the bottom ash ponds (BAP), and the CCR Landfill. Both are regulated under the federal CCR Rule (40 CFR Part 257) that became effective in October 2015 and modified in July 2018.

The CCR Landfill has been in the detection phase of groundwater monitoring as part of its compliance with the rule. The most recent statistical analysis of Appendix III constituents identified seven statistically significant increases (SSIs) above background, distributed among four waste boundary monitoring wells. Three waste boundary monitoring wells exhibited SSIs for chloride (MW-1I, MW-2D, and MW-16D). Two of the three wells with a reported SSI for chloride, MW-2D and MW-16D, also exhibited a SSI for total dissolved solids (TDS). Monitoring well MW-16D was also reported to have a third SSI for calcium. The remaining SSI was observed for fluoride in monitoring wells MW-21S and MW-21I, which did not exhibit any other SSI.

This alternative source demonstration (ASD) evaluates the occurrence of SSIs in terms of site geochemistry, hydrogeologic setting, and with respect to supplementary data collected to support the evaluation. Based on the analysis presented in this ASD, CCR Landfill leachate can be excluded as a source of Appendix III SSLs for the following reasons:

- Boron occurs naturally at low concentration in site groundwater, in similar concentrations in background and downgradient wells. Boron occurs at concentrations approximately three orders-of-magnitude greater in the Landfill leachate as compared to site groundwater, and is a conservative ion, making it an excellent indicator for impacts from landfill leachate in groundwater. If landfill leachate were impacting groundwater, boron would be expected to be observed in multiple waste boundary wells and at statistically significant concentrations above background. It does not.

- Sulfate is another typical indicator for CCR leachate impacts, which also occurs naturally in site groundwater (at similar concentration ranges in background and downgradient wells) and is elevated in the CCR Landfill leachate at concentrations approximately three orders-of-magnitude above background monitoring wells. No SSIs for sulfate were determined in any of the waste boundary well samples.

- Chloride is a naturally occurring and conservative ion, which occurs in the CCR Landfill leachate at concentrations about two orders-of-magnitude above groundwater concentrations. Spatial trends indicate that chloride concentrations tend to increase in groundwater moving downgradient from recharge areas. However, because the SSIs indicated for chloride are not associated with SSIs for boron and sulfate, the CCR Landfill leachate is not considered a source for the chloride detected in groundwater.

- The same conclusion can be drawn regarding calcium, total dissolved solids (TDS) and fluoride, for which occasional SSIs are not consistently associated with boron, sulfate, or each other. The SSIs indicated for these constituents appear to be related to the natural variation in groundwater quality, along with a spatial trend of increasing TDS with distance from recharge area.

- The conclusions listed above are also supported by the analytical results for isotope ratios of boron and strontium in leachate and groundwater samples from a previous sampling event. While only a single set of samples to date have been collected, the indication in downgradient wells, including

wells that have shown SSIs, is that the leachate is distinctly different from that of background and downgradient groundwater, and supports no release from the landfill to groundwater.

1.0 Objective

American Electric Power (AEP) operates a CCR Landfill that is used for the management of coal combustion residuals (CCR). The landfill is regulated under the federal CCR Rule (40 CFR Part 257) that became effective in October 2015. During the initial phase of groundwater monitoring (detection monitoring), the CCR Rule requires the owners or operators of regulated units to collect at least eight independent samples from at least one background location and at least three waste boundary wells, analyzed for constituents listed in Appendix III and Appendix IV of the CCR rule. That sampling was completed in July 2017.

Four rounds of detection monitoring have been conducted at the landfill. Each round consists of an initial sampling event, followed by one or two rounds of verification samples based on the results of the initial events. Following completion of the verification sampling for each event, a statistical analysis is conducted to assess whether statistically significant increases (SSIs) above background are detected in the waste boundary monitoring wells for Appendix III constituents. For each semiannual sampling round where SSIs are detected, an alternate source demonstration (ASD) has been performed to assess whether these SSIs were the result of a release of leachate from the CCR landfill.

Previous ASDs performed by Geosyntec and Wood Environment & Infrastructure Solutions, Inc. (Wood) have indicated that the source of previously-identified SSIs result from natural variation in groundwater quality or potential impacts from historical oil and gas operations. The most recent ASD was completed by Wood in October 2020 for the detection monitoring event of May 2020, with verification samples taken in July 2020.

The second semiannual detection monitoring samples for 2020 were taken in November 2020, with verification samples taken in February 2021. Again, a statistical evaluation of monitoring results identified SSIs for several Appendix III constituents. The objective of this ASD is to review these results, and to assess whether the findings of the previous ASDs remain valid; that is, that the SSIs detected in the waste boundary wells, from detection monitoring samples collected in November 2020 and verified in February 2021 samples, are not the result of a release from the landfill.

1.1 Scope

As stated in 40 CFR 257.94(e)(2), the CCR Rule allows 90 days after the initial identification of Appendix III SSIs for the owner or operator to demonstrate that a source other than the regulated unit is responsible for identified SSIs. The regulations allow the ASD to address a number of potential causes of SSIs other than a release from the regulated unit, including error[s] in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

The scope of this ASD is focused on evaluating the second 2020 semiannual detection monitoring results (including verification samples) and assessing whether the data are consistent with the assessment conducted in the most recent ASD report (Wood, October 2020). The ASD will be undertaken to assess, through multiple lines of evidence, whether an alternative source for the SSIs can be supported, following the guidelines published in October 2017 by the Electric Research Power Institute (EPRI, Guidelines for Development of Alternative Source Demonstrations at Coal Combustion Residual Sites). This report does not include evaluations of potential errors in sampling and analysis, or the statistical approaches which were used to identify the SSIs.

1.2 Approach

The ASD presented in this document is based on a geochemical and hydrologic evaluation of groundwater quality at the CCR Landfill. The purpose of this ASD is to evaluate the identified SSIs within

the larger geochemical context of the CCR Landfill groundwater flow system, in order to assess the likelihood that these SSIs are the result of releases from the CCR Landfill. In addition to the groundwater analytical data collected for compliance with the CCR rule, used to support the statistical evaluation, Wood relied on supplemental analytical data, including analyses of the CCR Landfill leachate and monitoring well groundwater analyses of the isotopes of boron and strontium.

1.3 Report Organization

This ASD has been prepared following the *Guidelines for Development of Alternative Source Demonstrations at Coal Combustion Residual Sites* (EPRI, 2017) to the extent applicable. **Section 2** presents a summary the CCR Landfill setting, and a summary of the results from the statistical evaluation of the Appendix III detection monitoring parameters. **Section 3** presents the primary and secondary lines of evidence developed from a geochemical evaluation of the site. **Section 4** presents the technical findings of the ASD and includes certification by an Indiana-licensed Professional Engineer (PE). References are included in **Section 5**.

2.0 Background

2.1 Site Description

The Rockport Power Plant is located in southwest Indiana in Spencer County, on property extending into three Townships: Ohio, Hammond and Grass. Two CCR-regulated units are located on the property, two adjacent bottom ash ponds (BAP) and the CCR Landfill. The general layout of the property and the locations of the CCR units are shown on **Figure 1**. The CCR Landfill, or Landfill, is located about 8,000 feet (1.5 miles) northeast of the generating plant. **Figure 2** shows the general layout of the CCR Landfill and the monitoring well locations.

2.1.1 Landfill Operation

The CCR Landfill is an active disposal unit that primarily contains fly ash, with materials generated by the emission control systems added beginning in 2007. These materials include sodium sulfate generated by the removal of sulfur dioxide by the dry sorbent injection (DSI) system, and granular brominated activated carbon used for mercury removal. To a lesser extent, some bottom ash has also been placed within the CCR Landfill. As shown on **Figure 2**, the active portion of the CCR Landfill directly adjoins a closed portion of the landfill to the northeast.

The CCR Landfill is currently permitted by the Indiana Department of Environmental Management (IDEM) Office of Land Quality, Solid Waste Permits Section, as a Restricted Waste Site (RWS) under Indiana Administrative Code (IAC) 329 Title 10 (Solid Waste CCR Landfill Disposal Facilities) Rule 9-4. The active CCR Landfill is permitted as a RWS Type I, which requires a liner and leachate collection system. The permit was most recently renewed on 10 February 2015.

Leachate from the CCR Landfill cells is collected in lined ponds located north and west of the active CCR Landfill area. These ponds also collect storm water runoff from the CCR Landfill area. Prior to discharge, the leachate commingled with runoff is transferred to the Leachate Treatment Pond (north of the West Leachate Pond). Effluent from the Leachate Treatment Pond is discharged and monitored under National Pollution Discharge Elimination System (NPDES) Permit No. IN0051845 at Station 002.

2.1.2 Groundwater Flow

The principal groundwater flow zone underlying the CCR Landfill consists of the saturated section of the unconsolidated glaciofluvial sand and sand and gravel valley train sediments that fill the Ohio River valley in this area. The depth to water in this zone typically ranges from 20 to 35 feet (ft) below ground surface

(BGS), and the saturated thickness (which generally increases to the southeast) ranges from less than 15 ft to more than 80 ft. A generalized cross-section is presented in **Figure 3.**

Groundwater primarily occurs under unconfined conditions, or semi-confined conditions where the saturated zone is directly overlain by surficial silt and clay. Piezometric data collected from clustered monitoring wells indicate that vertical gradients within the saturated zone are minor, and groundwater flow is primarily horizontal. Groundwater flows into the plant and landfill area from the north, northwest and west, continues flowing under the property generally to the south and east, towards Honey Creek and/or the Ohio River. A potentiometric surface map from 10 November 2020 is presented on **Figure 4**.

2.1.3 Existing Groundwater Monitoring System

In 2015, when the CCR Rule took effect, a monitoring well network was already present at the CCR Landfill for groundwater monitoring under IDEM permit. While the valley train sediments are considered a single well-connected aquifer system, the saturated thickness of the sediments allowed for wells at the CCR Landfill to be installed in clusters, to monitor up to three levels (shallow – "S", intermediate – "I", and deep – "D") within the principal flow zone. However, the valley train sediments that make up the flow zone thin to the north, leaving less saturated overburden upgradient of the CCR Landfill. As a result, only one or two levels could be monitored in some locations.

The official CCR groundwater monitoring network for the CCR Landfill includes five background or cross-gradient wells (MW-6S, MW-8S/I, MW-11S and MW-14S) and 16 waste boundary wells (MW-1S/I/D, MW-2S/I/D, MW-15S/I, MW-16S/I/D, MW-17S/I and MW-21S/I/D). At most locations, the saturated overburden was thick enough to allow installation of screens at three different levels, with the deepest wells being completed just above bedrock at depths of 88 to 100 ft BGS. Two clusters, MW-15 and MW-17, are located just east of the CCR Landfill in an area of relatively shallow bedrock. Therefore, the deeper wells at these locations (designated "I") have completed depths just above bedrock at 66 to 67 ft BGS. A comprehensive summary of analytical data for the groundwater monitoring network since June 2016 is presented on **Table A-1** in **Appendix A**.

2.2 Summary of Previous SSIs and ASDs

Eight baseline monitoring events and one initial detection monitoring event for the CCR Landfill were completed prior to 17 October 2017. On behalf of AEP, Geosyntec submitted these results to Groundwater Stats Consulting, LLC for statistical analysis. Oversight on the use of statistical calculations was provided by Dr. Kirk Cameron of MacStat Consulting, Ltd. According to the report (*Statistical Analysis Summary, Landfill,* Geosyntec 2018), the initial eight rounds of baseline data were used to calculate the upper prediction limits (UPLs) for each of the Appendix III constituents to represent background values. Results from each detection monitoring event conducted to date have been compared to the UPLs established from the eight baseline rounds in order to identify SSIs compared to background.

Following completion of the first detection monitoring event, the initial statistical evaluation identified 11 SSIs for calcium (2), chloride (7), fluoride (1) and TDS (3). On 4 January 2019, Geosyntec prepared an ASD focusing on statistical methods. Geosyntec evaluated the new data and based on multiple lines of evidence, revised the statistical approach for some monitoring wells. Initially, the statistical evaluation included a mixture of interwell (between wells) and intrawell (within one well) techniques. The interwell analysis compares data from waste boundary wells against a background data set composed of results from upgradient and cross-gradient well data. The intrawell approach compares each waste boundary well against a background composed of its own historical data and is used to detect statistically significant increases within samples from an individual well over time (Horsey, HR et. al., 2001). Spatial and temporal

variability observed in samples from the background monitoring wells caused Geosyntec to select an intrawell approach for all Appendix III constituents in all waste boundary monitoring wells.

After using an intrawell approach, the number of SSIs was reduced to eight, distributed among seven waste boundary wells. In January 2019 Geosyntec published an ASD to document changes to the statistical methodologies and attributed the observed SSIs to impacts from historic oil and gas operations. Since the statistical methods were revised, results from all subsequent detection monitoring events have been analyzed following the same approach. A summary of the SSIs identified in each of the detection monitoring events is presented below, in **Exhibit 2-1**.

Exhibit 2-1. Monitoring Wells and Appendix III Parameters with SSIs

Parameter	MW-1S	MW-1I	~~MW-1D~~	MW-2S	MW-2D	MW-16S	MW-16D	MW-17I	MW-21S	MW-21I
Calcium					◆		◆◆★			
Chloride	◆◆	◆◆◆★		◆◆◆	◆◆◆◆◆★	◆	◆◆◆◆◆★		◆	
Fluoride				★				◆◆◆	◆◆★	★
TDS	◆				◆◆★	◆	◆◆◆◆◆★			

◆ 2018-2019 SSI, after verification
◆ May 2020 SSI, after verification
★ November 2020 SSI, after verification

As shown in **Exhibit 2-1**, seven of the SSIs identified in the second round of 2020 were also identified in previous semi-annual sampling events. Two SSIs were newly identified in the second round of 2020, with one in a monitoring well that had not had any SSIs identified previously. Two new SSIs for fluoride were identified in MW-2S and MW-21I, and MW-21I did not have any previous SSIs.

Wood has reviewed its October 2020 ASD with respect to the statistical evaluation of the new semiannual sampling event. The evaluation presented in the October 2020 ASD report is still valid, even in light of the new SSIs identified in monitoring wells MW-2S and MW-21I. Wood has updated the geochemical analysis that forms the basis of the ASD and has included updated graphics to support the findings in this current ASD report.

3.0 Alternative Source Demonstration

The ASD presented below relies on multiple lines of evidence that the SSIs identified in the statistical analysis are not caused by releases of landfill leachate into the groundwater flow system. When taken as a whole, these lines of evidence present a compelling case that the SSIs are not a result of a release from the landfill, but a result of natural variation in groundwater quality, a result of historical oil and gas operations, or from the influence of storm water ponds on groundwater quality. This ASD follows the approach of Wood's October 2020 report, updated with data collected for the second semiannual sampling event for 2020.

In order to evaluate the potential of a release from the CCR Landfill to groundwater, Wood evaluated groundwater quality data, including isotopes, in the context of the geochemical characteristics of CCR Landfill leachate. The results of this evaluation support that CCR Landfill leachate at the Rockport site can

be ruled out as a source of the SSIs identified in waste boundary monitoring wells, through primary and supporting lines of evidence, each of which are described in more detail within this section.

Primary lines of evidence focus on the relationship between source material that could be released into the subsurface (in this case, landfill leachate) and the type and distribution of SSIs identified in groundwater. The lines of evidence supporting the conclusion of this ASD can be summarized as follows:

- SSIs are not identified for the site-specific primary indicator constituents of the Rockport CCR Landfill leachate.
- Geochemical evaluations of the CCR Landfill support that leachate has not affected water quality.
  - Conservative ion ratios and major ion chemistry do not indicate a release from the CCR Landfill.
  - Isotopes of boron and strontium do not indicate a release from the CCR Landfill.

Each of these lines of evidence are described in detail below.

3.1 SSIs Are Not Identified for Primary Indicator Constituents

The primary indicators for CCR leachate typically have much higher concentrations in leachate than in natural groundwater. They are mobile and relatively non-reactive in groundwater, so that groundwater impacted by a CCR leachate release should have elevated concentrations of the indicator constituents relative to background and with relatively similar contributions. The elevated concentrations would be expected to result in SSIs identified by statistical evaluation of the data from the downgradient waste boundary wells, and the SSIs would be expected to be generally consistent between downgradient wells. The primary lines of evidence presented below compare the occurrence of SSIs in groundwater to the composition of landfill leachate.

3.1.1 Site-Specific Leachate Analysis for Primary Indicator Constituents

The composition of landfill leachate is governed by the types of materials placed in the unit and identifying the leachate's primary constituents is key to assessing a potential release to groundwater. Since all Appendix III constituents are naturally occurring, the best indicators of CCR impacts are those constituents that are found at concentrations much higher in the source material than are seen in natural groundwater. AEP conducted sampling of its leachate collection system to identify relative concentrations of Appendix III and IV constituents in the Rockport CCR Landfill leachate.

The leachate collection system for the Landfill discharges into the North and West Leachate Collection Ponds, shown on **Figure 2**, discharge to the Leachate Treatment Pond, directly north of the West Leachate Pond. Five samples were collected from both the West and North Leachate Collection Ponds between 31 October 2018 and 20 March 2019 and results are detailed on **Table A-2** in **Appendix A**. A summary of the range of Appendix III constituent results for leachate pond samples, compared to background and waste boundary well samples, is provided below in **Exhibit 3-1**.

Exhibit 3-1. Summary of Landfill Leachate Pond and Groundwater Concentrations for Appendix III Constituents

Parameter, Units in mg/L	Range for Leachate Ponds		Range for Upgradient (Background) Wells		Range for Downgradient Waste Boundary Wells	
	Min	Max	Min	Max	Min	Max
Boron	9.18	12.3	<0.002	0.115	<0.002	0.139
Calcium	166	368	35.6	79.5	28.7	114
Chloride	847	1,250	1.48	30.0	8.78	214

Exhibit 3-1. Summary of Landfill Leachate Pond and Groundwater Concentrations for Appendix III Constituents

Parameter, Units in mg/L	Range for Leachate Ponds		Range for Upgradient (Background) Wells		Range for Downgradient Waste Boundary Wells	
	Min	Max	Min	Max	Min	Max
Fluoride	<1.50	<1.50	0.25	1.11	0.064	1.16
Total Dissolved Solids (TDS)	22,100	30,900	179	411	196	620
Sulfate	14,100	19,000	1.6	87.1	6.2	54.7

Because the CCR Landfill leachate ponds also receive some storm water runoff, concentrations in at least some of these samples are likely to be diluted compared to concentrated leachate from landfilled materials (depending on the amount of recent rainfall). Nevertheless, pond samples serve as reliable indicators of the relative composition of leachate. As seen in **Exhibit 3-1**, boron and sulfate occur at concentrations as much as three orders-of-magnitude above background groundwater levels. Results for chloride and TDS are as much as two orders-of-magnitude above background concentrations. Calcium and fluoride concentrations are within the same orders-of-magnitude as those detected in background groundwater. These results indicate that boron and sulfate are the best indicator constituents of CCR impacts, followed by TDS and chloride, based on their elevated occurrence in landfill leachate compared to natural groundwater.

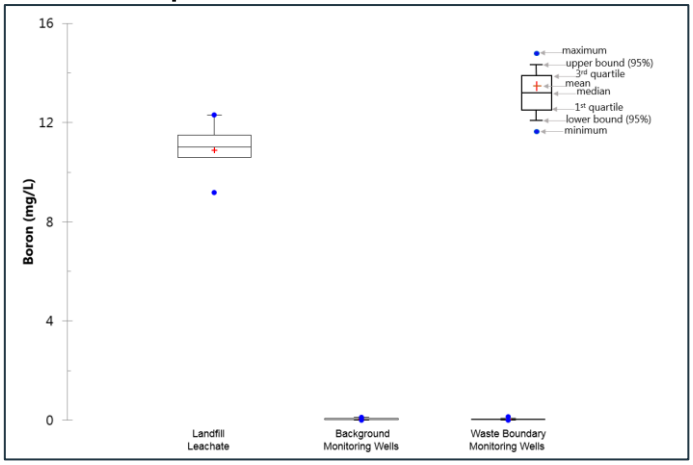
3.1.2 Occurrence of Primary indicator Constituents in Waste Boundary Monitoring Well Samples

Four primary indicator constituents are identified for the Rockport CCR Landfill leachate: boron, sulfate, TDS and chloride. Six SSIs have been identified for chloride, one for TDS and one for fluoride. However, no SSIs were identified in waste boundary wells for either boron or sulfate. Given the predominance of boron and sulfate in the CCR Landfill leachate, and that neither of these constituents are elevated above background, it is concluded that Landfill leachate is not the source of the observed SSIs. This assumption is supported by a more in-depth review of the indicator constituents, presented below.

Boron

No SSIs have been identified for boron. Boron has been identified in background wells at concentrations ranging from <0.002 to 0.115 mg/L. Concentrations in waste boundary well samples range from <0.002 to 0.139 mg/L. Landfill leachate boron concentrations are much higher and range from 9.18 to 12.3 mg/L. The boron results are plotted graphically on **Exhibit 3-2**, which illustrates the range of results for leachate (at the left of the chart) compared to and background and waste boundary groundwater samples. It should be noted that the highest concentration of boron observed in waste boundary groundwater samples (0.139 mg/L) occurred in MW-16I and did not represent an SSI for that well.

Exhibit 3-2. CCR monitoring well and landfill leachate ponds boron concentrations

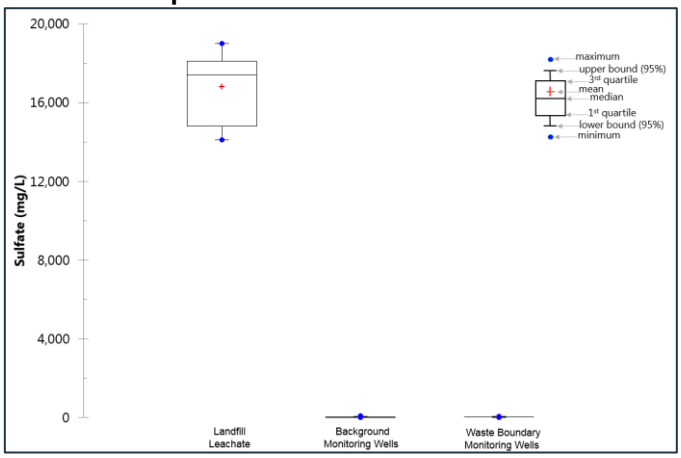


If a release of landfill leachate had occurred, boron concentrations in waste boundary well samples should be clearly higher than the range of background well results, and SSIs would likely be found in at least some of the monitoring wells with other identified SSIs.

Sulfate

No SSIs have been identified for sulfate. Sulfate has been identified in background wells at concentrations ranging from 1.6 to 87.1 mg/L. Concentrations in waste boundary well samples range from 6.2 to 54.7 mg/L. Landfill leachate sulfate concentrations are orders of magnitude higher and range from 14,100 to 19,000 mg/L. The sulfate results are plotted graphically on **Exhibit 3-3**, which clearly shows that leachate concentrations of sulfate are orders-of-magnitude higher than all groundwater samples, and that no discernable difference is present between the background and waste boundary samples. Furthermore, the highest monitoring well concentrations are seen in samples from background well MW-8I (56.7 to 87.1 mg/L).

Exhibit 3-3. CCR monitoring well and landfill leachate ponds sulfate concentrations



It is expected that a release of landfill leachate would elevate groundwater concentrations of all Appendix III constituents present in the leachate in relatively similar proportions. Even if all constituents were not exhibiting statistically significant increases, a pattern of related SSIs would be observed if the increases were caused by landfill leachate. Since all SSIs occurred in absence of a boron or sulfate SSI, and the highest groundwater sulfate concentrations are associated with a background well, it is concluded that the reported SSIs are caused by the natural variation in groundwater quality, potentially impacted by historical oil and gas operations which are assumed to have high chloride and TDS and little to no sulfate, and not by releases from the CCR Landfill.

3.2 Geochemical Evaluations

While the CCR rule requires the use of statistical analyses of samples collected from groundwater monitoring wells to assess potential impacts from CCR units (SSIs), the approach does not consider the site specific hydrogeochemical interactions that can often be complex due to simultaneous operations and natural variation within the context of the local hydrogeologic setting. Since geochemical evaluations rely on interpretation of graphical data, the discussion includes reduced size exhibits imbedded in the text. Full size exhibits are included in **Appendix B**. The major observations and conclusions from the geochemical evaluation are summarized in the sections below.

3.2.1 Indicator Parameter Cross-Plots

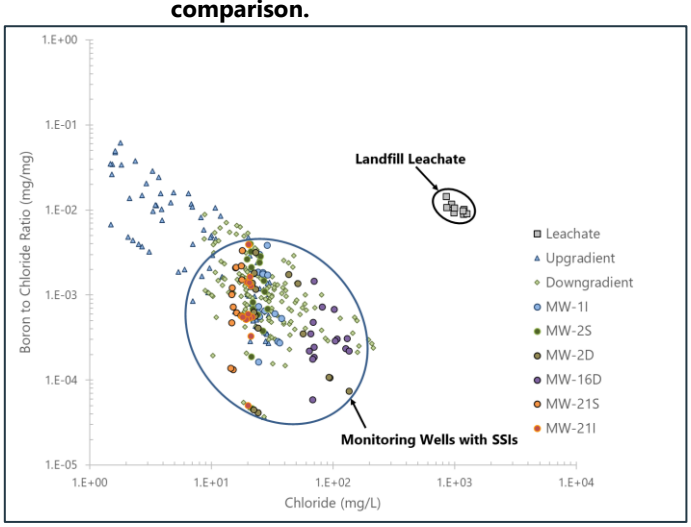
To aid in the interpretation of individual Appendix III and other potential indicator parameters for the assessment of potential releases from the CCR Landfill, ratios of selected Appendix III indicator parameters were calculated and plotted versus concentrations of the conservative ion chloride. The use of these plotting techniques typically provides groupings of end members (sources of water such as background

groundwater or landfill leachate), and potential trends of mixing that are not readily identifiable by analysis of individual indicator parameters on their own.

Plots of the B/Cl and SO4/Cl ratios versus chloride in waste boundary monitoring wells show distinct end member groupings from that of the landfill leachate and support the conclusion that there are no discernable impacts from the CCR Landfill on any of the waste boundary monitoring wells. The graphics presented here include data for all wells in the CCR Landfill system and show that chloride concentrations tend to increase in groundwater moving downgradient from recharge areas represented by upgradient monitoring wells.

Boron to Chloride ratio Versus Chloride Concentration

Exhibit 3-4. Boron to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.

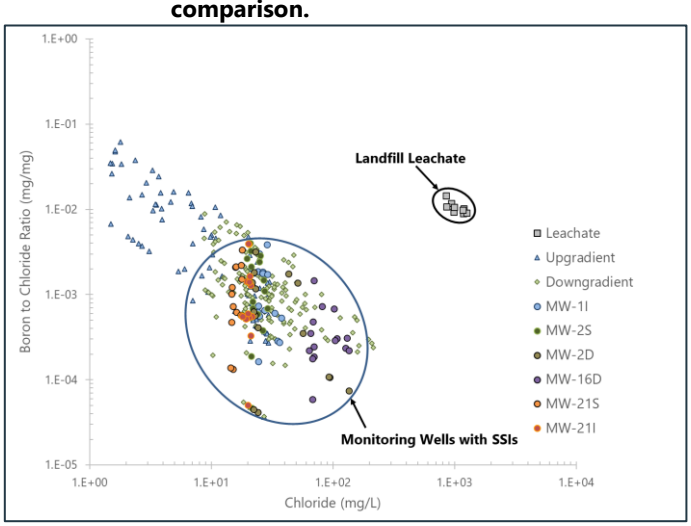


The plotting of B/Cl versus chloride groundwater data shows primarily a single large cluster that trends perpendicular to the composition of leachate samples and is hypothesized as background and natural variability (**Exhibit 3-4**). The data are plotted on log-log scales due to the large range of concentrations and ratios making the separation in groupings appear closer than they are. The Landfill leachate clearly plots as a separate grouping of water quality having greater B/Cl ratios, while the monitoring well data plots along a trend of what can be described as natural variability. Background monitoring well MW-11S plots as upgradient recharge having lower chloride concentration and a higher B/Cl ratio. Moving along the flow path to downgradient monitoring wells, this is followed by a trend of increasing chloride concentrations and salinity with decreasing B/Cl ratios due to geochemical evolution of groundwater and potential mixing with water associated with historic oil and gas operations and or storm water ponds. While chloride increases, boron does not increase at the same rate, resulting in the decreasing trend of B/Cl ratios as chloride concentrations and residence time increases. Thus, it is hypothesized that MW-11S represents an extreme end member of recent recharge, or relatively fresh groundwater, and after flow through the shallow overburden groundwater evolves geochemically to a lower B/Cl ratio, as chloride increases, approaching the larger background cluster values that represent older more mineralized groundwater without a significant source of boron in the aquifer matrix. The extreme end of the groundwater dataset trend is represented by MW-17I, MW-16D, and MW-2D due to higher chloride concentrations, but with lower B/Cl ratios. This plot supports that these wells are not impacted by CCR Landfill leachate but could be influenced by infiltration from the storm water holding ponds or flushing of salts from water holding ponds associated with historic oil and gas operations. If there were impacts from the landfill to groundwater, one would expect a trend of B/Cl ratios versus chloride moving from the groundwater trend toward the leachate values, but this does not occur.

Sulfate to Chloride Ratio Versus Chloride Concentration

Plotting of the SO_4/Cl ratio versus chloride shows similar results to the B/Cl ratios versus chloride concentration plot supporting the conclusion that there are no discernable impacts from the CCR Landfill on groundwater (**Exhibit 3-5**). The SO_4/Cl ratios for leachate group separately and are much higher than groundwater values. The SO_4/Cl ratios for leachate are typically around 15 mg/mg or higher, while groundwater ratios are below a value of 6 mg/mg. Similar to B/Cl ratios, the SO_4/Cl ratios versus chloride plot along a trend line of decreasing ratios as chloride and residence time increases. The extreme end of the groundwater data set trend is represented by MW-17I, MW-16D, and MW-2D variability due to higher chloride concentrations that is clearly different from leachate. Additionally, there is no trend of mixing of even small quantities of leachate with groundwater which would be shown by a deviation from the groundwater trend toward leachate, and the separation is distinct between downgradient groundwater and leachate.

Exhibit 3-5. Sulfate to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.



3.2.2 Isotope Analyses of CCR Related Water Quality and Materials

General Overview of Isotope Analyses

Water samples were collected from selected CCR Landfill monitoring wells and CCR Landfill leachate and submitted for isotope analyses of boron, strontium, and oxygen and hydrogen of water. The results of the isotope analyses serve as additional supporting lines of evidence for interpretations made using major ion and indicator parameter concentrations and reinforce the lack of leachate impacts to groundwater at the CCR Landfill.

Boron and its isotope ratio ($\delta^{11}B$) have been successfully used to identify groundwater pollution sources versus background or naturally occurring detections of constituents of concern (Davidson and Bassett 1993; Vengosh et al. 1994; Kendall et al., 1995; Buszka et al. 2007; Ruhl et al. 2014; Harkness et al. 2017). In particular, boron isotopes have been successfully used to assess CCR related impacts in groundwater. Similarly, strontium and its isotopes ($^{87}Sr/^{86}Sr$) have also been successfully used to identify different groundwater source end members, mixing, and to determine anthropogenic versus geogenic processes associated with constituents of concern and associated with CCR impacts to groundwater (Kendall and Bullen 1995; Ruhl et al. 2014; Meredith 2016; Harkness et al. 2017; Nigroa et al. 2017).

CCR Landfill Isotope Results

Stable isotope analyses are typically performed on a pair of isotopes (e.g. ^{11}B and ^{10}B, or ^{87}Sr and ^{86}Sr) and are reported as a ratio relative to internal standards, in per mil (‰) using Greek "delta" notation (δ). Deviations based on analysis of the standard are corrected for, to provide values that can be compared between different laboratories and equipment. Isotopes commonly reported relative to a standard include boron (eq. 1), where the standard for boron is the National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) NIST SRM 951:

$$\delta^{11}B(‰) = \frac{\left(\frac{^{11}B}{^{10}B}\right)_{Sample} - \left(\frac{^{11}B}{^{10}B}\right)_{Standard}}{\left(\frac{^{11}B}{^{10}B}\right)_{Standard}} \times 1000 \qquad \text{eq. 1}$$

Isotope ratios of strontium can be reported relative to a standard value but are commonly reported as the actual ratio $^{87}Sr/^{86}Sr$. The values for strontium reported here are the actual ratios, but they have been corrected to the National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) NIST SRM 987.

Background monitoring wells for the CCR Landfill show lower boron concentrations and higher $\delta^{11}B$ values compared to Landfill leachate samples (**Exhibit 3-7**). While only a limited number of background and waste boundary wells were tested (including MW-17I with a previous and current SSI, and MW-21S with a previously reported SSI), there is a clear distinction between all the CCR Landfill monitoring wells and the Landfill leachate which indicates that the wells represented are not impacted by the Landfill, and that boron in the monitoring wells is of a different source other than leachate.

In addition, while there is a variation in the leachate boron concentrations, the $\delta^{11}B$ values remain approximately equivalent. This supports the hypothesis that boron is $\delta^{11}B$ values in leachate are dominated by the CCR materials. The range of observed concentrations is related to the amount of water generating the leachate or potentially dilution by fresh water derived from stormwater runoff. The result is a range of boron concentrations having a similar $\delta^{11}B$ value distinctly different from groundwater in both background and downgradient monitoring wells.

Strontium isotope results also support the boron isotope, major ion, and indicator parameter interpretations that there are no identifiable impacts on groundwater from the landfill. There are noticeably lower strontium concentrations and ratios for all CCR Landfill monitoring wells sampled compared to Landfill leachate (**Exhibit 3-8**).

Exhibit 3-6. Boron isotope ratio ($\delta^{11}B$) versus boron concentration for CCR Landfill leachate and monitoring wells for comparison.

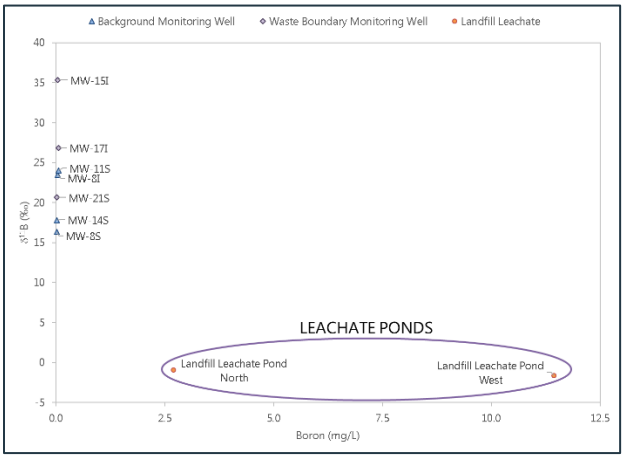
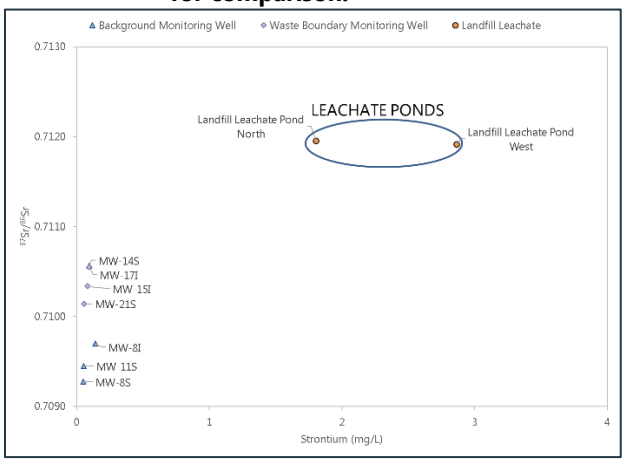


Exhibit 3-7. Strontium isotope ratio ($^{87}Sr/^{86}Sr$) versus strontium concentration for CCR Landfill leachate and monitoring wells for comparison.



3.3 Hydraulic Connection to the Landfill

The groundwater monitoring network and the relationship of the wells to the regulated landfill are shown on **Figure 2**. Recent potentiometric flow data available for the site consistently indicate a local groundwater flow direction to the south and southeast as shown on **Figure 4**. As shown on this figure, several well clusters are downgradient from the landfill are also downgradient of the borrow area storm water ponds. Groundwater monitored by the well clusters downgradient of the storm water ponds are concluded to be unaffected by potential releases from the landfill unit but maybe impacted by the storm water ponds which likely has water with higher salinity, TDS and chloride.

4.0 Summary

As summarized in **Exhibit 2-1** above, in the second semiannual detection monitoring event of 2020, SSIs were identified in six of 16 downgradient monitoring wells, for the following Appendix III constituents (the number of SSIs is indicated in parentheses): calcium (1), chloride (3), fluoride (3), and TDS (2). The following statements summarize how the lines of evidence discussed above apply to each of the constituents with identified SSIs:

- Boron occurs naturally at low concentration in site groundwater, in similar concentrations in background and downgradient wells. Boron occurs at concentrations approximately three orders-of-magnitude in the CCR Landfill leachate as compared to site groundwater, and is a conservative ion, making it an excellent indicator for impacts from landfill leachate impacts in groundwater. If Landfill leachate were impacting groundwater, boron would be expected to be detected in multiple waste boundary wells and at statistically significant concentrations above background, but it does not and the boron that is present has been shown to be isotopically different.

- Sulfate is another common indicator for CCR leachate impacts, which also occurs naturally in site groundwater (at similar concentration ranges in background and downgradient wells) and is elevated in the CCR Landfill leachate at concentrations approximately three orders-of-magnitude above background monitoring wells. No SSIs for sulfate were determined in any of the waste boundary well samples.

- Chloride is a naturally occurring and conservative ion, which occurs in the CCR Landfill leachate at concentrations about two orders-of-magnitude above groundwater concentrations. Spatial trends can be observed in **Exhibits 3-4** and **3-5** and indicate that chloride concentrations tend to increase in groundwater moving downgradient from recharge areas. However, because the SSIs indicated for chloride are not associated with SSIs for boron and sulfate, the CCR Landfill leachate is not considered a source for the chloride detected in groundwater.

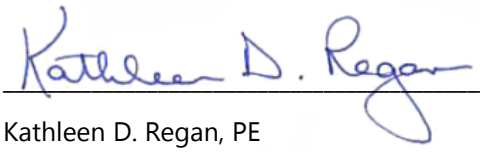
- The same conclusion can be drawn regarding calcium, TDS and fluoride, for which occasional SSIs are not consistently associated with boron, sulfate, or each other. The SSIs indicated for these constituents appear to be related to the natural variation in groundwater quality, along with a spatial trend of increasing TDS with distance from recharge area.

4.1 Conclusion

This ASD has demonstrated, through multiple lines of evidence, that the SSIs identified in the statistical analysis of the second detection monitoring event data are not the result of a release of leachate from the CCR Landfill. Therefore, the unit will continue in detection monitoring.

4.2 Professional Engineer Certification

I certify that the above described Alternative Source demonstration is appropriate for evaluating the groundwater monitoring data for the Rockport Plant CCR Landfill and that the requirements of 40 CFR 257.95(h)(8)(3)(ii) have been met.



17 May 2021

Kathleen D. Regan, PE
Indiana Registered Engineer PE1400182

Date

5.0 References

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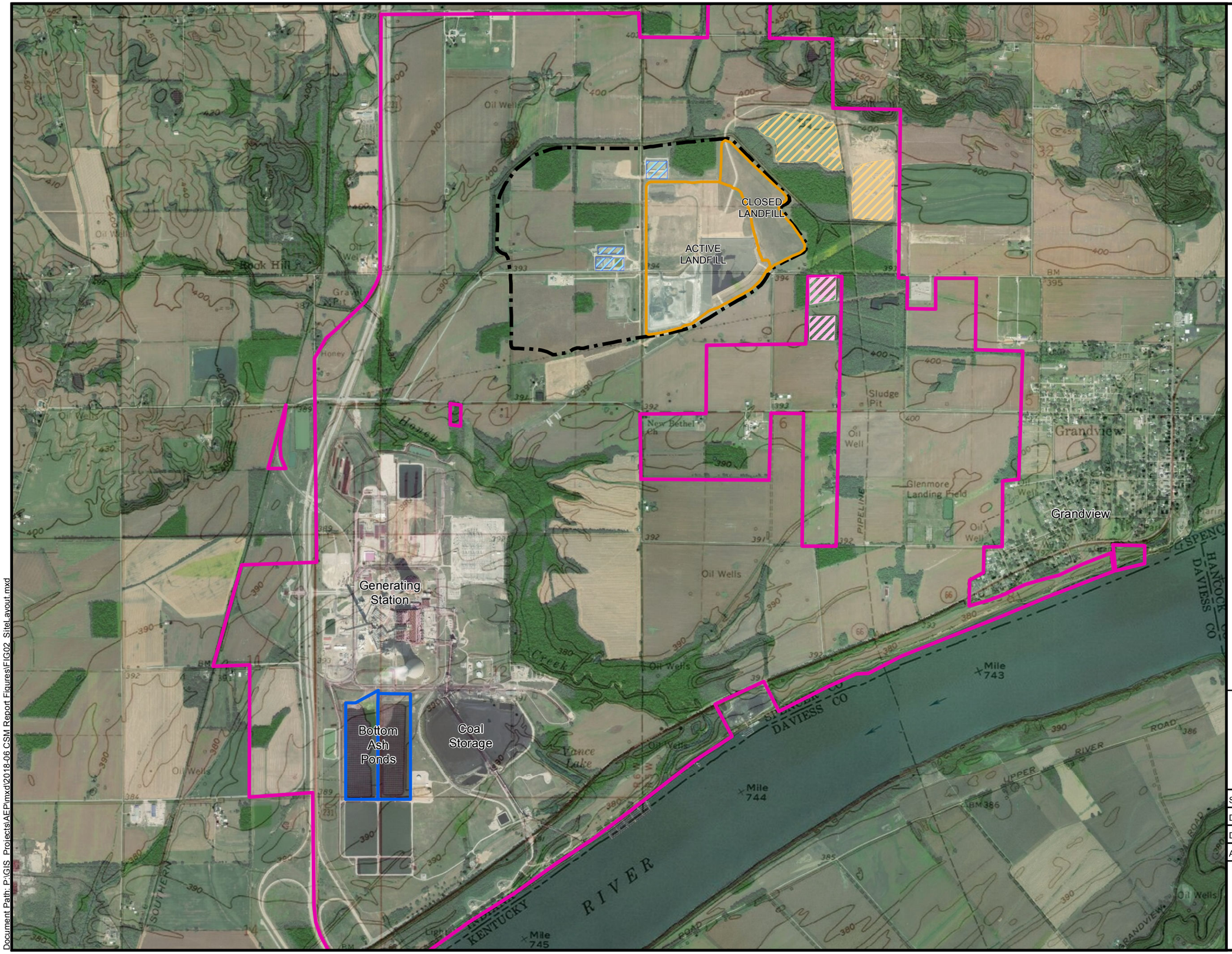
Figures



Legend

- Stormwater Ponds
- Landfill Leachate Ponds
- Grandview Wastewater Ponds
- Property Boundary
- Bottom Ash Ponds (BAP)
- Landfill Area 1A (Active and Closed)
- 1984 Landfill Permit Boundary (Area 1)

Data Sources

Date of Photography: 2016
Source of Photography: U.S. Department of Agriculture, National Agriculture Imagery Program (NAIP)

USGS Rockport and Lewisport (IN/KY) Topographic Quadrangle Maps

0 900 1,800
SCALE IN FEET

SITE LAYOUT

AEP - ROCKPORT, IN

PROJECT NUMBER: 7650202784

SCALE	1" = 1,800'
DATE	5/4/2021
DRAWN BY	TMR
APPROVED BY	KDR

FIG. 1

wood.
2456 Fortune Drive, Suite 100
Lexington, Kentucky 40509
Phone: (859) 255-3308

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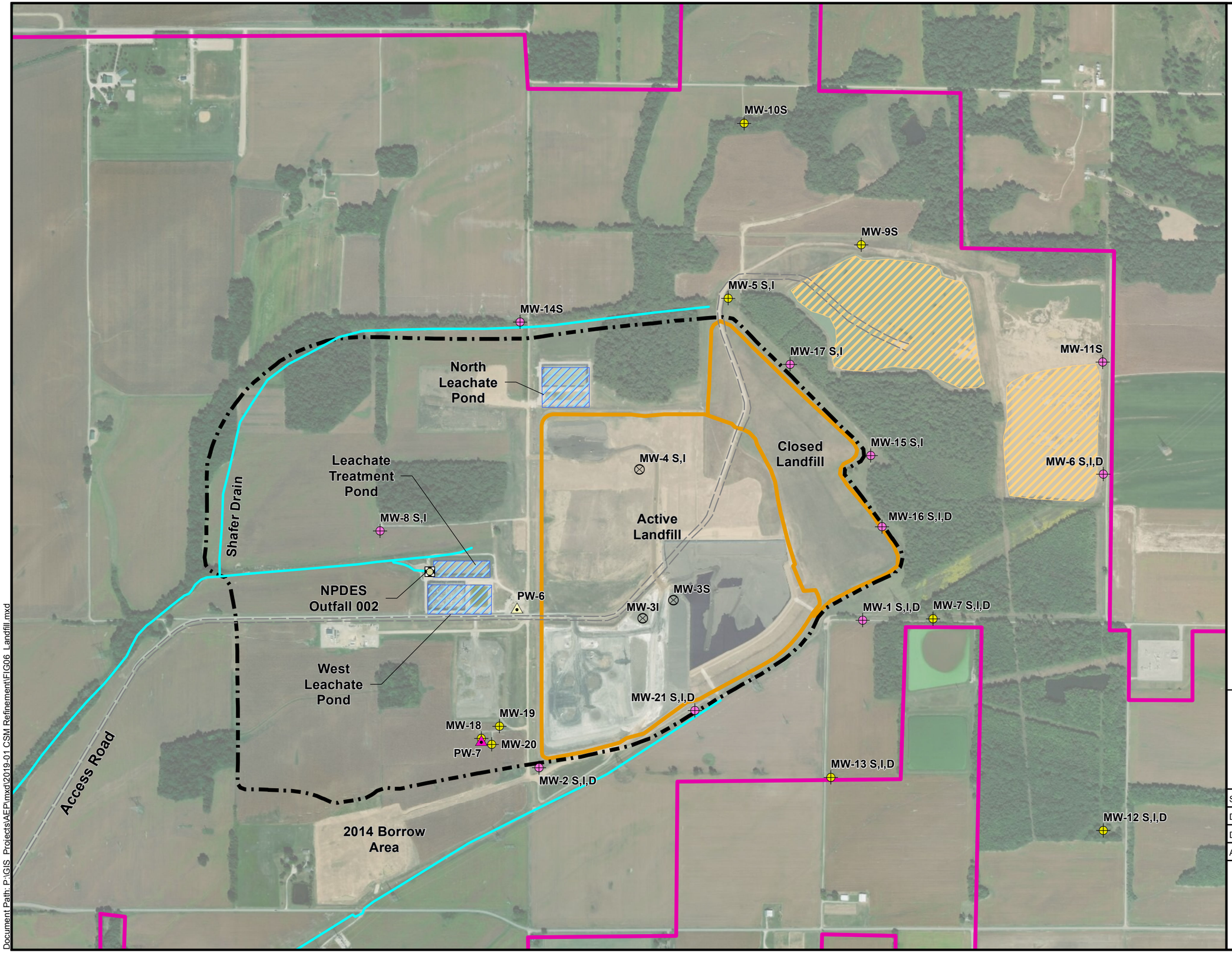


Legend

- Landfill - Monitoring Well
- Landfill - CCR Monitoring Well
- Landfill - Augmentation Water Supply Well
- Landfill - Dust Control Water Supply Well
- Abandoned Monitoring Well
- NPDES Outfall 002
- Access Road
- Drains / Ditches
- Stormwater Ponds
- Landfill Leachate Ponds
- Property Boundary
- 1984 Landfill Permit Boundary (Area 1)
- Landfill Area 1A (Active and Closed)

Data Sources

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

Source: USGS Rockport and Lewisport (IN/KY) Topographic Quadrangle Maps, 1964, photorevised 1982

0 400 800

SCALE IN FEET

LANDFILL LAYOUT

AEP - ROCKPORT, IN

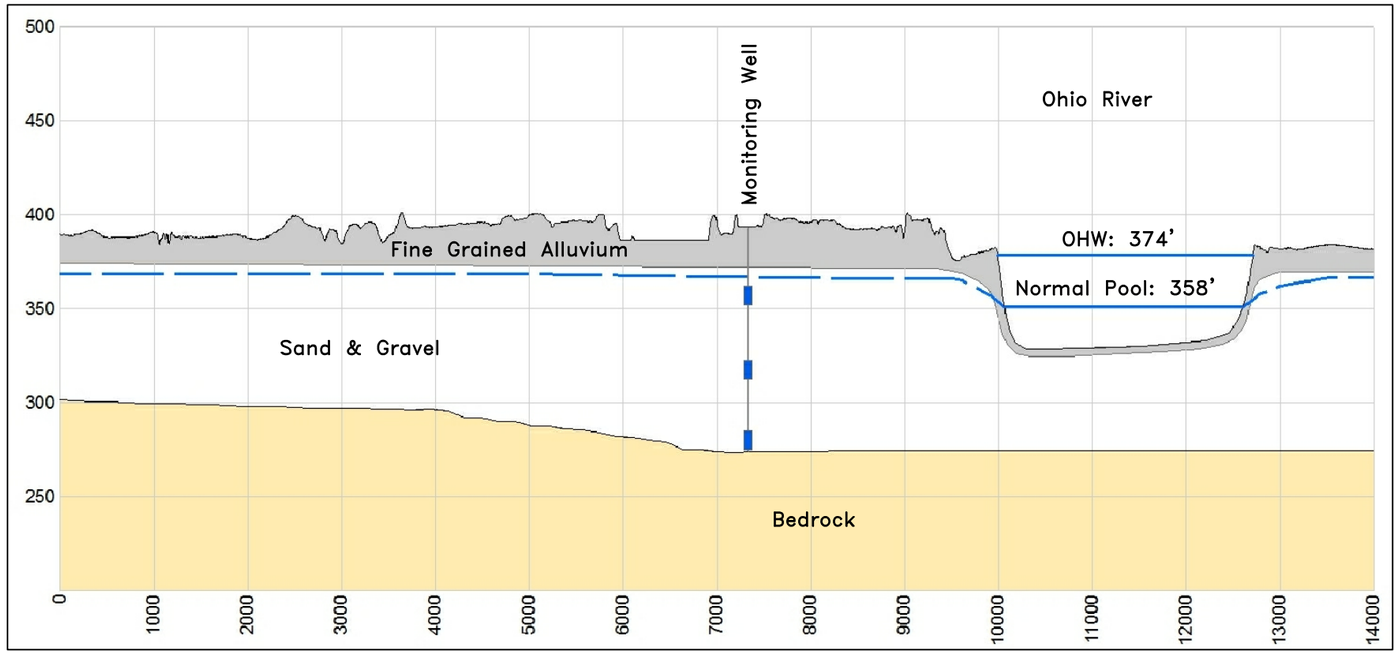
PROJECT NUMBER: 7650202784

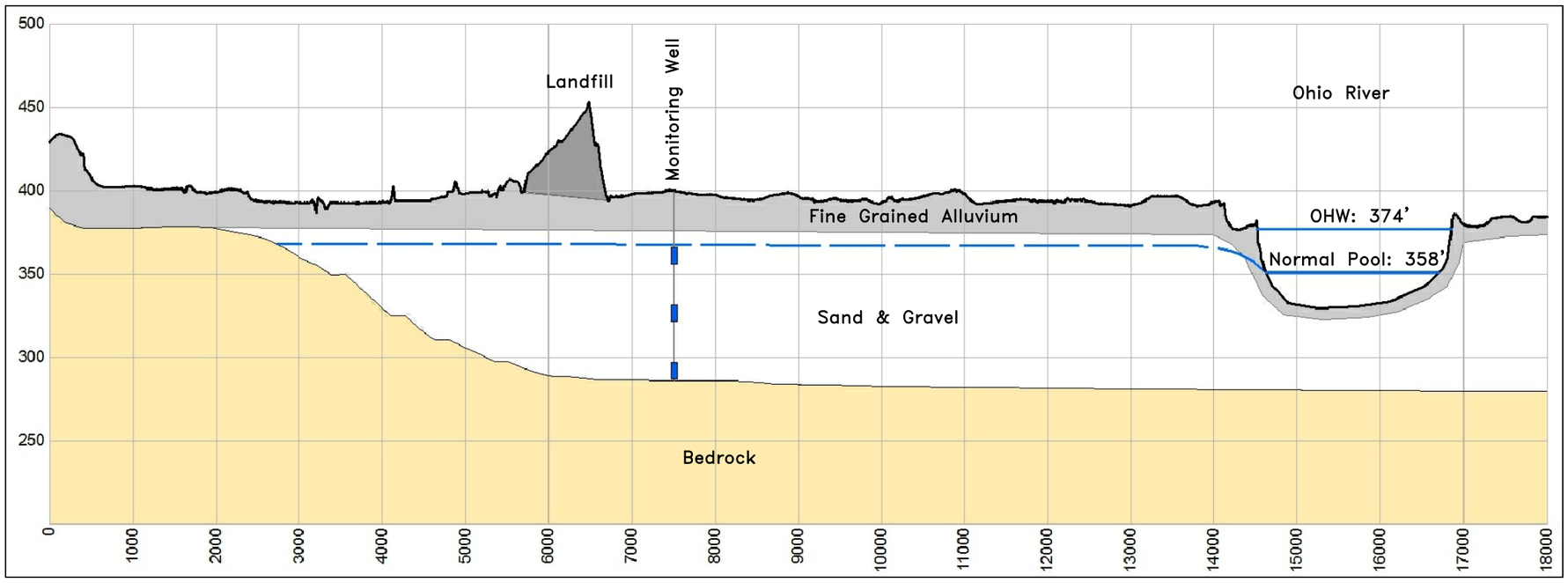
SCALE	1" = 800'
DATE	5/4/2021
DRAWN BY	TMR
APPROVED BY	KDR

FIG. 2

wood.
2456 Fortune Drive, Suite 100
Lexington, Kentucky 40509
Phone: (859) 255-3308

Document Path: P:\GIS_Projects\AEP\mxd\2019-01 CSM Refinement\FIG06_Landfill.mxd





SCALE: As Shown
VERTICAL EXAGGERATION: 4X

N

wood.
2456 Fortune Drive, Suite 100
Lexington, KY 40509
Phone: (859) 255-3308

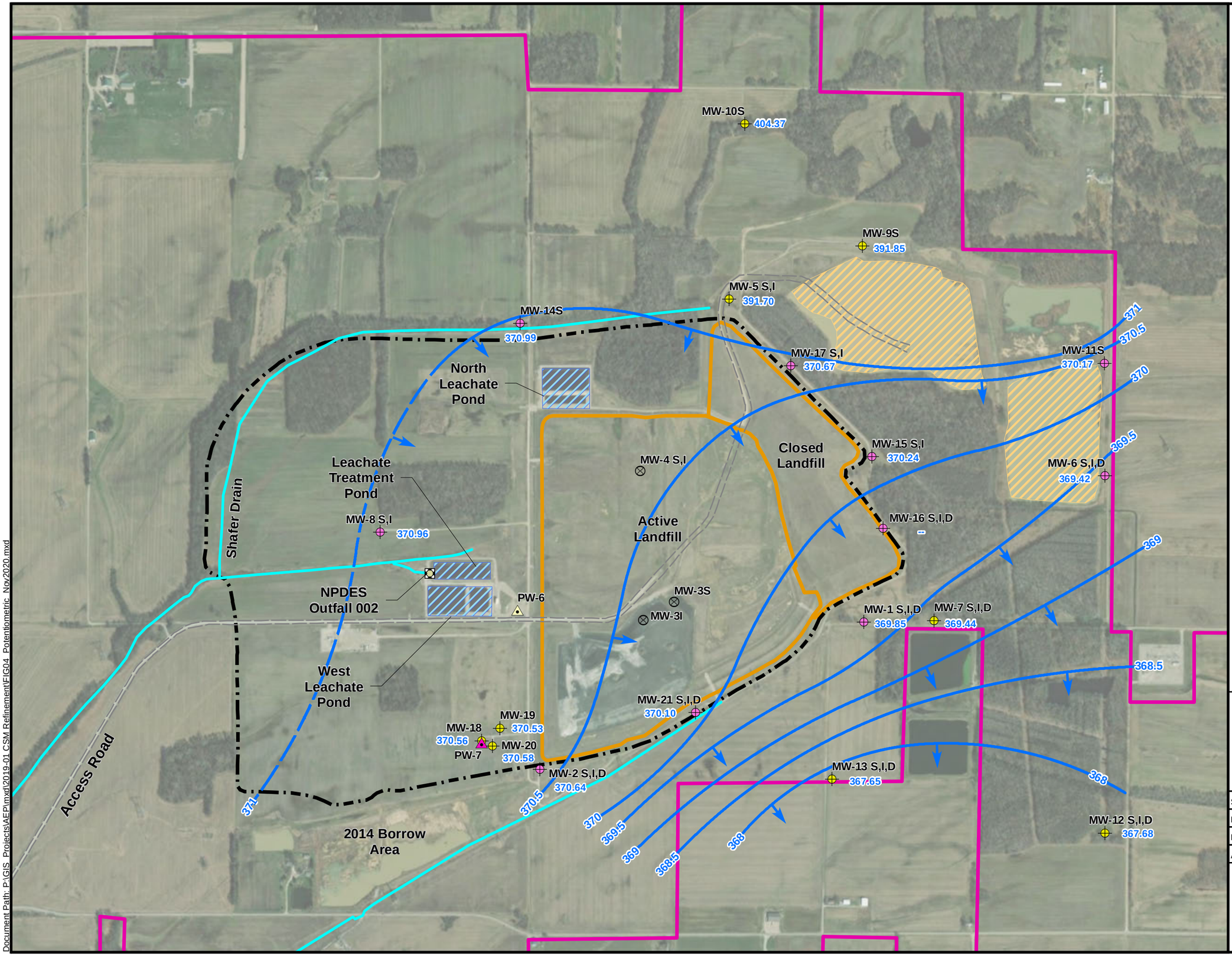
BOTTOM ASH PONDS
AEP - ROCKPORT, INDIANA

GENERALIZED CROSS-SECTIONS

PROJECT NUMBER: 7650202784

SCALE	As Shown
DATE	5/4/2021
DRAWN BY	TMR
APPROVED BY	ALD

FIG 3



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Legend

- Landfill - Monitoring Well
- Landfill - CCR Monitoring Well
- Landfill - Augmentation Water Supply Well
- Landfill - Dust Control Water Supply Well
- Abandoned Monitoring Well
- NPDES Outfall 002
- Access Road
- Drains / Ditches
- Stormwater Ponds
- Landfill Leachate Ponds
- Property Boundary
- 1984 Landfill Permit Boundary (Area 1)
- Landfill Area 1A (Active and Closed)
- Groundwater Elevation Contour Contour Interval: 0.5 Feet
- Groundwater Flow Direction

Data Sources

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

Source: USGS Rockport and Lewisport (IN/KY) Topographic Quadrangle Maps, 1964, photorevised 1982

0 400 800
SCALE IN FEET

POTENTIOMETRIC SURFACE CONTOURS
10 November 2020

AEP - ROCKPORT, IN

PROJECT NUMBER: 7650502784

SCALE	1" = 800'
DATE	5/10/2021
DRAWN BY	DMW
APPROVED BY	TMR

FIG. 4

wood.
2456 Fortune Drive, Suite 100
Lexington, Kentucky 40509
Phone: (859) 255-3308

Appendices

Appendix A
Analytical Data Tables

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/20/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/18/2017	10/4/2017	1/3/2018	6/6/2018	8/16/2018	11/14/2018	2/13/2019	4/1/2019
Field Parameters																		
Elevation	ft NGVD	--	--	369.45	369.29	368.81	368.29	367.61	367.69	367.66	368.33	368.01	366.11	369.43	369.91	368.71	369.68	370.56
pH	S.U.	--	7.09 - 8.14	8.14	7.2	7.09	7.34	7.4	7.1	7.19	7.26	7.08	7.64	7.48	7.3	7.48	7.46	7.35
Specific Conductance	µmhos/cm	--	--	687	612	703	657	470	300	567	536	635	686	590	658	535	530	892
Turbidity	NTU	--	--	0.23	1.5	0.34	0.65	1	2	0.63	0.78	0.4	1.31	1.12	0	0.56	0.8	1.15
Dissolved Oxygen	mg/L	--	--	3.37	4	2.82	3.46	5	4	2.48	2.72	3	3.06	0.61	4.59	2.3	1.1	1.09
Temperature	°C	--	--	15.04	18.9	19.09	15.17	14.8	15.7	16.81	15.81	15.63	12.81	16.23	15.38	14.7	14.9	14.6
ORP	mV	--	--	89.2	111	77.1	52.9	105	46	53.7	16.2	43.8	-20.8	-76.5	302	100.5	172	126.4
Laboratory Parameters																		
Antimony	µg/L	6	--	0.03	0.2	0.02	0.02	0.04	0.04	0.05	0.02	--	--	--	--	0.05	--	--
Arsenic	µg/L	10	--	0.43	0.69	0.38	0.38	0.43	0.76	0.5	0.39	--	--	--	--	0.34	--	--
Barium	µg/L	2000	--	18.5	21.9	17.2	17.9	17.7	36.5	22.3	17.3	--	--	--	--	17.8	--	--
Beryllium	µg/L	4	--	<0.01	0.16	<0.005	<0.005	<0.005	0.023	0.01	<0.004	--	--	--	--	0.03	--	--
Cadmium	µg/L	5	--	0.02	0.22	0.005	0.007	0.02	0.09	0.22	0.01	--	--	--	--	<0.01	--	--
Chromium	µg/L	100	--	0.3	0.7	0.3	0.207	0.72	1.38	0.552	0.255	--	--	--	--	0.25	--	--
Cobalt	µg/L	6	--	0.171	0.398	0.014	0.01	0.052	1.21	0.164	0.02	--	--	--	--	<0.02	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.15	0.74	--	0.09	--	1.3	--	--
Lead	µg/L	15	--	0.204	0.572	0.01	0.022	0.076	1.26	0.526	0.033	--	--	--	--	0.12	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--
Molybdnum	µg/L	100	--	0.65	0.8	0.68	0.74	0.59	0.97	1.64	0.64	--	--	--	--	0.6	--	--
Selenium	µg/L	50	--	1.1	1.1	0.9	0.9	1	1.1	1.1	1.2	--	--	--	--	0.8	--	--
Thallium	µg/L	2	--	<0.02	0.168	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	--	--	--	--	<0.1	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	4.5	--	0.7	--	2	--	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	19.5	19.7	22.4	--	19.5	--	19.7	--	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	5.55	4.29	--	3.8	--	1	--	--
Boron	mg/L	--	0.048	0.037	0.015	0.022	0.02	0.005	0.03	0.031	0.028	0.044	--	0.046	--	0.04	--	--
Calcium	mg/L	--	(79.5) 79	70.7	62.9	68	74.4	65	71.5	72.6	69.2	67.6	--	71.8	--	71.9	--	--
Lithium	mg/L	0.04	--	0.004	0.024	0.002	0.01	0.008	0.01	0.009	0.0007	--	--	--	--	0.03	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	27.3	26.9	26.9	25.6	--	26.8	--	26.8	--	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0015	--	--	0.0027	--	0.0022	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.32	1.24	1.16	1.15	--	1.19	--	1.16	--	--
Sodium	mg/L	--	--	--	--	--	--	--	40.6	35.2	39.6	36.1	--	31.2	--	35	--	--
Strontium	mg/L	--	--	--	--	--	--	--	0.11	0.12	0.105	0.104	--	0.11	--	0.108	--	--
Alkalinity	mg/L	--	--	--	--	--	--	--	278	273	271	269	--	250	--	273	--	--
Bromide	mg/L	--	--	--	--	--	--	--	0.086	0.108	0.104	0.109	--	0.106	--	0.1	--	--
Chloride	mg/L	--	(29.6) 33	29.6	31.1	31.4	31.9	32	30.7	31.3	30.4	33.1	39.9	34.9	37.3	38.1	40.4	38.5
Fluoride	mg/L	4	0.677	0.59	0.65	0.6	0.54	0.57	0.59	0.63	0.58	0.57	--	0.61	--	0.63	--	--
TDS	mg/L	--	(412.7) 419	392	392	411	398	392	384	402	406	396	--	386	--	410	--	--
Sulfate	mg/L	--	(36.95) 37	33.7	35.5	32.4	30.7	30.7	30.5	33.3	33.6	34.6	--	34.2	--	32.3	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	--	<0.07	--	--
Radium-228	pCi/L	--	--	-0.185	0.445	0.244	-0.00464	0.447	-0.172	-0.122	0.133	--	--	--	--	-0.0731	--	--
Radium-226	pCi/L	--	--	0.0665	0.374	-0.00261	0.296	0.487	0.0407	0.0324	0.176	--	--	--	--	0.108	--	--
Radium-226/228	pCi/L	5	--	-0.1185	0.819	0.24139	0.29136	0.934	-0.1313	-0.0896	0.309	--	--	--	--	0.108	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	--	0.4	--	1.65	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--	9	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--	0.8	--	6.24	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.049	0.014	--	<0.002	--	0.035	--	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0001	0.0002	<0.0001	0.0002	--	<0.0002	--	0.0026	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	5/23/2019	7/23/2019	2/18/2020	5/19/2020	11/11/2020
Field Parameters								
Elevation	ft NGVD	--	--	371.82	372.42	370.36	370.78	369.85
pH	S.U.	--	7.09 - 8.14	7.91	7.36	7.12	7.04	7.01
Specific Conductance	µmhos/cm	--	--	593	618	1386	440	691
Turbidity	NTU	--	--	0.05	1.6	0.47	0	0.7
Dissolved Oxygen	mg/L	--	--	0.87	1.5	4.6	1.68	8.97
Temperature	°C	--	--	15.6	18.2	12.43	15.36	14.75
ORP	mV	--	--	-28.8	57	118.1	140	100
Laboratory Parameters								
Antimony	µg/L	6	--	0.02	--	--	--	--
Arsenic	µg/L	10	--	0.29	--	--	--	--
Barium	µg/L	2000	--	17.6	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	--	--
Cadmium	µg/L	5	--	<0.01	--	--	--	--
Chromium	µg/L	100	--	0.2	--	--	--	--
Cobalt	µg/L	6	--	<0.02	--	--	--	--
Copper	µg/L	--	--	0.13	--	--	--	--
Lead	µg/L	15	--	0.03	--	--	--	--
Mercury	µg/L	2	--	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	1	--	--	--	--
Selenium	µg/L	50	--	0.7	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	--	--
Zinc	µg/L	--	--	7.8	--	--	--	--
Silica (Dissolved)	mg/L	--	--	<0.06	--	--	--	--
Aluminum	µg/L	--	--	2	--	--	--	--
Boron	mg/L	--	0.048	<0.02	--	--	0.02	<0.02
Calcium	mg/L	--	(79.5) 79	73.7	--	--	72	67.8
Lithium	mg/L	0.04	--	0.02	--	--	--	--
Magnesium	mg/L	--	--	26.7	--	--	--	--
Manganese	mg/L	--	--	0.001	--	--	--	--
Potassium	mg/L	--	--	1.24	--	--	--	--
Sodium	mg/L	--	--	25.8	--	--	--	--
Strontium	mg/L	--	--	0.106	--	--	--	--
Alkalinity	mg/L	--	--	303	--	--	--	--
Bromide	mg/L	--	--	0.1	--	--	--	--
Chloride	mg/L	--	(29.6) 33	33.7	30	--	34.7	33.3
Fluoride	mg/L	4	0.677	0.55	--	--	0.55	0.66
TDS	mg/L	--	(412.7) 419	388	--	442	350	402
Sulfate	mg/L	--	(36.95) 37	36.3	--	--	37.1	34.1
Sulfide	mg/L	--	--	<0.1	--	--	--	--
Radium-228	pCi/L	--	--	0.173	--	--	--	--
Radium-226	pCi/L	--	--	1.09	--	--	--	--
Radium-226/228	pCi/L	5	--	1.263	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.26	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	0.7	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	--	--	--
Iron (Dissolved)	mg/L	--	--	<0.003	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0004	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/20/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/18/2017	10/4/2017	6/6/2018	8/16/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.42	369.25	368.8	368.24	367.58	367.63	367.62	368.28	367.25	369.39	397.45
pH	S.U.	--	6.43 - 7.90	6.7	7	7.4	7.09	7.6	7.4	7.24	6.89	7.1	7.5	7.31
Specific Conductance	µmhos/cm	--	--	461	479	570	544	370	500	443	402	424	480	533
Turbidity	NTU	--	--	0.9	0.7	0.24	0.35	1	1	0.6	0.36	1	0.32	0
Dissolved Oxygen	mg/L	--	--	0.4	0.3	1.07	0	0.3	1	0.46	27.63	0.5	0.87	0.22
Temperature	°C	--	--	17.5	18.2	16.99	14.53	14.4	15.7	15.44	16.52	16.4	16.25	16.03
ORP	mV	--	--	-21	205	-2.1	4.4	10	36	-26.2	-118.8	-23	-102.2	253
Laboratory Parameters														
Antimony	µg/L	6	--	0.04	0.04	0.01	0.02	0.02	0.01	0.04	0.02	--	--	--
Arsenic	µg/L	10	--	0.86	0.78	0.92	0.8	0.82	0.69	0.89	0.86	--	--	--
Barium	µg/L	2000	--	85.5	86.1	84.9	93.4	90.5	76.7	85	94.3	--	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.004	<0.004	--	--	--
Cadmium	µg/L	5	--	0.08	0.1	0.02	0.02	0.02	0.05	0.01	0.007	--		--
Chromium	µg/L	100	--	0.2	1	0.2	0.051	0.39	0.686	0.155	0.112	--	--	--
Cobalt	µg/L	6	--	0.341	0.364	0.401	0.381	0.424	0.054	0.558	0.569	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.12	0.2	0.48	--
Lead	µg/L	15	--	0.851	1.25	0.156	0.059	0.099	0.427	0.068	0.137	--	--	--
Mercury	µg/L	2	--	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	2.47	2.85	2.89	3.27	3.33	1.82	2.87	2.85	--	--	--
Selenium	µg/L	50	--	<0.03	0.04	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	--	--	--
Thallium	µg/L	2	--	0.03	0.02	0.02	0.03	0.104	0.03	0.02	0.02	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	1	4.2	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	18.5	18.9	20.7	17.8	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	1	2	2.96	--
Boron	mg/L	--	0.093	0.075	0.014	0.018	0.015	0.004	0.045	0.049	0.047	0.018	0.11	0.056
Calcium	mg/L	--	(79.5) 71	67.4	60	64.5	63.9	60.9	66.9	65.7	64.8	68.1	66.4	--
Lithium	mg/L	0.04	--	0.005	0.022	0.007	0.005	0.005	0.006	0.008	0.0005	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	20.8	21.2	20.6	21.5	21	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.599	--	0.316	--
Potassium	mg/L	--	--	--	--	--	--	--	1.34	1.08	0.98	0.92	1.31	--
Sodium	mg/L	--	--	--	--	--	--	--	19.8	19.5	19.1	19.2	18.1	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0934	0.0926	0.086	0.0911	0.093	--
Alkalinity	mg/L	--	--	--	--	--	--	--	222	225	226	222	230	--
Bromide	mg/L	--	--	--	--	--	--	--	0.061	0.087	0.081	0.072	0.081	--
Chloride	mg/L	--	(29.6) 27.4	24.9	24.8	24.3	24.1	24.4	24.1	26.5	26.5	27.5	28.6	--
Fluoride	mg/L	4	0.428	0.37	0.4	0.37	0.31	0.33	0.35	0.38	0.34	0.37	0.42	--
TDS	mg/L	--	(412.7) 349	323	315	331	334	316	300	323	330	327	321	--
Sulfate	mg/L	--	(47.8) 48	44.3	46.7	42.4	40.7	41.4	41.2	43.8	43.3	44.1	42	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	--
Radium-228	pCi/L	--	--	0.0603	0.105	1.42	0.662	0.108	-0.0752	0.3	2.21	--	--	--
Radium-226	pCi/L	--	--	0.33	1.57	0.276	0.65	0.513	0.15	0.33	0.323	--	--	--
Radium-226/228	pCi/L	5	--	0.3903	1.675	1.696	1.312	0.621	0.0748	0.63	2.533	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.37	--	0.4	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.3	--	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.51	--	1	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.03	<0.0004	0.035	0.048	0.011	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.583	0.1	0.455	0.445	0.303	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/14/2018	2/13/2019	4/1/2019	5/23/2019	7/23/2019	9/11/2019	11/22/2019	5/19/2020	7/16/2020	11/11/2020	2/3/2021
Field Parameters														
Elevation	ft NGVD	--	--	368.74	369.73	370.51	371.86	372.45	--	370.95	370.40	370.81	369.90	368.07
pH	S.U.	--	6.43 - 7.90	7.75	7.5	7.37	7.01	7.21	7.25	7.05	7.22	7.44	7.34	7.37
Specific Conductance	µmhos/cm	--	--	425	443	802	503	493	481	491	566	575	590	549
Turbidity	NTU	--	--	0.61	1	1.06	0.06	2.1	0.58	1.7	0	2.96	1.38	2.8
Dissolved Oxygen	mg/L	--	--	0.19	2	1.28	0.73	0.57	0.26	2.1	0.28	1.64	0.18	0.2
Temperature	°C	--	--	14.68	14.7	14.6	16.79	16.4	17.5	14	15.23	17.24	15.42	14.4
ORP	mV	--	--	62.9	155	134.2	5.2	27	-35.8	-206	42	18	70	143
Laboratory Parameters														
Antimony	µg/L	6	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--
Arsenic	µg/L	10	--	0.82	--	--	0.73	--	--	0.71	--	--	--	--
Barium	µg/L	2000	--	85.6	--	--	83.8	--	--	11	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--
Cadmium	µg/L	5	--	0.02	--	--	<0.01	--	--	0.03	--	--	--	--
Chromium	µg/L	100	--	<0.04	--	--	0.04	--	--	0.2	--	--	--	--
Cobalt	µg/L	6	--	0.48	--	--	0.368	--	--	0.838	--	--	--	--
Copper	µg/L	--	--	0.22	--	--	0.08	--	--	0.5	--	--	--	--
Lead	µg/L	15	--	0.07	--	--	<0.02	--	--	0.291	--	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	--	--	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	2.96	--	--	2.38	--	--	3.1	--	--	--	--
Selenium	µg/L	50	--	<0.03	--	--	<0.03	--	--	<0.03	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	--	--	<0.1	--	--	--	--
Zinc	µg/L	--	--	1	--	--	0.9	--	--	3	--	--	--	--
Silica (Dissolved)	mg/L	--	--	18.2	--	--	18	--	--	17.5	--	--	--	--
Aluminum	µg/L	--	--	3	--	--	<1	--	--	<5	--	--	--	--
Boron	mg/L	--	0.093	0.05	--	--	0.02	--	--	0.01	0.02	--	<0.02	--
Calcium	mg/L	--	(79.5) 71	65.5	--	--	67.7	--	--	66.7	71.2	--	65.9	--
Lithium	mg/L	0.04	--	0.03	--	--	<0.009	--	--	0.00355	--	--	--	--
Magnesium	mg/L	--	--	20.6	--	--	20.6	--	--	20.7	--	--	--	--
Manganese	mg/L	--	--	0.515	--	--	0.37	--	--	0.784	--	--	--	--
Potassium	mg/L	--	--	0.97	--	--	0.98	--	--	0.9	--	--	--	--
Sodium	mg/L	--	--	18.5	--	--	18.2	--	--	18.1	--	--	--	--
Strontium	mg/L	--	--	0.0882	--	--	0.0912	--	--	0.0917	--	--	--	--
Alkalinity	mg/L	--	--	227	--	--	243	--	--	210	--	--	--	--
Bromide	mg/L	--	--	0.08	--	--	0.09	--	--	0.08	--	--	--	--
Chloride	mg/L	--	(29.6) 27.4	28.8	30.1	34.1	33.1	30.6	33.5	35	37.7	35.4	36.3	36.9
Fluoride	mg/L	4	0.428	0.41	--	--	0.42	--	--	0.37	0.4	0.39	0.43	--
TDS	mg/L	--	(412.7) 349	308	--	--	341	--	--	348	323	340	322	--
Sulfate	mg/L	--	(47.8) 48	40.7	--	--	40.2	--	--	39.7	40.1	--	39.0	--
Sulfide	mg/L	--	--	<0.07	--	--	<0.1	--	--	<0.2	--	--	--	--
Radium-228	pCi/L	--	--	0.415	--	--	0.71	--	--	0.546	--	--	--	--
Radium-226	pCi/L	--	--	0.288	--	--	0.37	--	--	0.421	--	--	--	--
Radium-226/228	pCi/L	5	--	0.703	--	--	1.08	--	--	0.967	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.12	--	--	0.43	--	--	<0.2	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	0.9	--	--	<0.7	--	--	1	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	--	1	--	--	<5	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.053	--	--	0.034	--	--	0.05	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.508	--	--	0.397	--	--	0.758	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/8/2016	7/19/2016	9/20/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.6	369.43	368.97	368.42	367.75	367.81	367.81	368.34	367.44	366.27
pH	S.U.	--	6.74 - 8.16	7.6	7.1	7.36	7.5	7.4	7.33	7.25	8.06	7.3	7.68
Specific Conductance	µmhos/cm	--	--	496	471	464	842	400	558	394	525	448	539
Turbidity	NTU	--	--	8.8	2	6.27	4	5	1.93	2.15	2.47	2	3.89
Dissolved Oxygen	mg/L	--	--	0.5	0.2	0.55	0.8	2	0.25	0.53	0.81	0.4	1.83
Temperature	°C	--	--	19.4	16.7	15.77	14.8	14.7	15.14	15.84	21.46	16.5	6.7
ORP	mV	--	--	63	220	92.8	252	182	49.6	132.7	152.8	-14	-5.3
Laboratory Parameters													
Antimony	µg/L	6	--	0.05	0.03	0.03	0.03	0.03	0.02	0.02	0.02	--	--
Arsenic	µg/L	10	--	1.29	0.73	1.07	0.65	0.77	0.58	0.75	0.59	--	--
Barium	µg/L	2000	--	255	147	160	147	162	139	142	139	--	--
Beryllium	µg/L	4	--	0.01	<0.005	0.007	<0.005	<0.005	<0.005	0.006	<0.004	--	--
Cadmium	µg/L	5	--	0.13	0.07	0.04	0.04	0.15	0.04	0.04	0.05	--	
Chromium	µg/L	100	--	0.3	1.5	0.3	0.072	0.439	0.687	0.174	0.131	--	--
Cobalt	µg/L	6	--	3.64	0.373	0.836	0.329	0.577	0.173	0.44	0.212	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.93	1.02	--
Lead	µg/L	15	--	1.13	1.37	0.5	0.222	0.807	1.92	0.419	0.355	--	--
Mercury	µg/L	2	--	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	3.44	3.59	3.6	3.24	2.43	3.4	3.05	2.94	--	--
Selenium	µg/L	50	--	0.07	0.03	0.07	0.03	0.03	0.03	0.06	<0.03	--	--
Thallium	µg/L	2	--	0.04	0.02	0.056	0.02	0.05	0.03	0.04	0.03	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	4.5	4.5	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	18.9	19.4	21.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	8.08	14.6	--
Boron	mg/L	--	0.066	0.017	0.015	0.016	0.018	0.006	0.055	0.046	0.019	0.002	--
Calcium	mg/L	--	(79.5) 75	63.6	57.9	65.2	69.3	63.4	70	67.8	63.9	65.7	--
Lithium	mg/L	0.04	--	<0.0002	0.017	0.0005	0.004	0.007	0.007	0.009	0.002	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	21.9	22.2	20.7	20.9	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.511	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.13	1.13	0.89	0.89	--
Sodium	mg/L	--	--	--	--	--	--	--	19.4	19.3	18.8	18	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0985	0.101	0.0885	0.092	--
Alkalinity	mg/L	--	--	--	--	--	--	--	206	202	206	220	--
Bromide	mg/L	--	--	--	--	--	--	--	0.09	0.115	0.109	0.03	--
Chloride	mg/L	--	(29.6) 50	27.3	29.8	29.8	39.3	40.6	40.3	40.9	39.3	10.3	--
Fluoride	mg/L	4	0.321	0.28	0.3	0.28	0.29	0.26	0.26	0.28	0.24	0.85	0.31
TDS	mg/L	--	(412.7) 369	331	329	288	339	323	330	342	338	339	--
Sulfate	mg/L	--	(45.1) 45	40.2	40.6	32.3	33.6	36.4	37	39.5	39.6	10.4	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	0.558	0.06	0.525	0.566	0.315	0.0844	0.511	0.444	--	--
Radium-226	pCi/L	--	--	0.526	0.135	0.932	6.73	0.334	0.154	0.213	0.502	--	--
Radium-226/228	pCi/L	5	--	1.084	0.195	1.457	7.296	0.649	0.2384	0.724	0.946	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.58	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	4.2	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.052	0.012	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.553	0.62	0.486	0.616	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/7/2018	8/16/2018	11/14/2018	2/13/2019	5/23/2019	7/23/2019	11/22/2019	2/17/2020	5/19/2020	11/11/2020	2/3/2021
Field Parameters														
Elevation	ft NGVD	--	--	369.56	369.94	368.73	369.71	371.84	372.45	367.22	369.34	370.40	369.91	376.09
pH	S.U.	--	6.74 - 8.16	8.24	7.35	7.77	7.41	7.18	7.3	7.26	7.38	7.05	7.14	7.5
Specific Conductance	µmhos/cm	--	--	508	568	457	317	0.504	510	609	817	454	664	467
Turbidity	NTU	--	--	1.71	0	1.03	2	0.3	1.5	2.53	0.98	0	0.43	2.9
Dissolved Oxygen	mg/L	--	--	0.25	0.26	0.2	10	3.68	2.1	3.57	6.09	9.13	0	4.8
Temperature	°C	--	--	15.85	16.71	14.06	14	17.02	16.7	14.31	13.25	15.71	15.84	13.2
ORP	mV	--	--	-112	200	53	188	55.9	44	51.3	211.2	152	95	145
Laboratory Parameters														
Antimony	µg/L	6	--	--	--	0.03	--	0.05	--	0.04	--	--	--	--
Arsenic	µg/L	10	--	--	--	0.62	--	0.47	--	0.57	--	--	--	--
Barium	µg/L	2000	--	--	--	101	--	99.2	--	101	--	--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	<0.02	--	<0.02	--	--	--	--
Cadmium	µg/L	5	--	--	--	0.02	--	0.02	--	0.03	--	--	--	--
Chromium	µg/L	100	--	--	--	0.07	--	0.1	--	0.2	--	--	--	--
Cobalt	µg/L	6	--	--	--	0.04	--	0.058	--	0.097	--	--	--	--
Copper	µg/L	--	--	0.55	--	0.75	--	0.83	--	0.4	--	--	--	--
Lead	µg/L	15	--	--	--	0.07	--	0.138	--	0.2	--	--	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	--	--	2	--	1	--	1	--	--	--	--
Selenium	µg/L	50	--	--	--	0.04	--	0.09	--	0.08	--	--	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	<0.1	--	<0.1	--	--	--	--
Zinc	µg/L	--	--	2	--	1	--	65.9	--	2	--	--	--	--
Silica (Dissolved)	mg/L	--	--	17.9	--	19	--	17.8	--	18.5	--	--	--	--
Aluminum	µg/L	--	--	16.1	--	<1	--	4	--	<5	--	--	--	--
Boron	mg/L	--	0.066	0.103	0.02	0.1	<0.02	0.02	--	0.04	--	0.04	0.04	--
Calcium	mg/L	--	(79.5) 75	70.9	--	71.9	--	73.6	--	72.5	--	59.9	80.3	56.8
Lithium	mg/L	0.04	--	--	--	0.01	--	0.01	--	0.0038	--	--	--	--
Magnesium	mg/L	--	--	20.4	--	22.1	--	18.3	--	22.2	--	--	--	--
Manganese	mg/L	--	--	0.216	--	0.138	--	0.169	--	0.163	--	--	--	--
Potassium	mg/L	--	--	1.34	--	1.71	--	1.23	--	1.3	--	--	--	--
Sodium	mg/L	--	--	18.2	--	20.9	--	18.7	--	26	--	--	--	--
Strontium	mg/L	--	--	0.359	--	0.272	--	0.553	--	0.194	--	--	--	--
Alkalinity	mg/L	--	--	218	--	222	--	208	--	260	--	--	--	--
Bromide	mg/L	--	--	0.113	--	0.1	--	0.09	--	0.1	--	--	--	--
Chloride	mg/L	--	(29.6) 50	43.1	43.8	46.9	43.8	32.1	--	49.1	--	23.8	56.2	--
Fluoride	mg/L	4	0.321	0.3	--	0.3	--	0.27	--	0.27	--	0.3	0.30	--
TDS	mg/L	--	(412.7) 369	345	--	340	--	346	--	398	257	261	397	264
Sulfate	mg/L	--	(45.1) 45	39.5	--	39.8	--	45.3	39.2	41.2	--	23.3	37.7	--
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	<0.1	--	<0.2	--	--	--	--
Radium-228	pCi/L	--	--	--	--	0.295	--	0.55	--	0.197	--	--	--	--
Radium-226	pCi/L	--	--	--	--	0.0679	--	0.652	--	0.11	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.3629	--	1.202	--	0.307	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.98	--	0.78	--	0.8	--	2.19	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	11.8	--	2	--	2	--	3	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	2	--	5.05	--	3	--	<5	--	--	--	--
Iron (Dissolved)	mg/L	--	--	<0.002	--	0.02	--	<0.003	--	<0.02	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0605	--	0.144	--	0.148	--	0.131	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/9/2017	5/9/2017	7/19/2017	10/4/2017	6/6/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.34	369.03	369.02	368.77	366.24	368.15	368.06	368.22	366.68	369.94
pH	S.U.	--	6.30 - 8.44	6.4	7.68	7.63	7.34	7.65	7.66	7.12	7.46	7.17	7.62
Specific Conductance	µmhos/cm	--	--	423	465	440	459	341	522	354	409	509	470
Turbidity	NTU	--	--	3.1	1.85	0.51	0.96	0.74	1.31	2.68	4.81	1.55	1.84
Dissolved Oxygen	mg/L	--	--	2.8	1.85	4.67	3.91	4.18	3.63	4.52	2.62	2.63	4.66
Temperature	°C	--	--	17.5	16.34	15.81	16.03	15.1	15.73	15.67	16.06	16.42	16.48
ORP	mV	--	--	34	64	90.4	-19	165	13.1	165.7	-5.9	26.6	59.1
Laboratory Parameters													
Antimony	µg/L	6	--	<0.02	0.02	0.04	0.02	0.02	0.02	0.04	0.12	--	--
Arsenic	µg/L	10	--	0.97	1.09	0.94	0.94	0.92	0.95	0.95	0.96	--	--
Barium	µg/L	2000	--	16	14	12.4	12.4	11	12.3	12.3	13.6	--	--
Beryllium	µg/L	4	--	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.01	0.01	0.02	0.02	0.09	0.009	0.01	0.03	--	
Chromium	µg/L	100	--	0.4	0.6	0.3	0.337	0.329	0.67	0.37	0.41	--	--
Cobalt	µg/L	6	--	0.177	0.09	0.017	0.019	0.014	0.051	0.064	0.121	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.33	0.2	1.58
Lead	µg/L	15	--	0.158	0.105	0.101	0.022	0.063	0.042	0.047	0.243	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2.03	2.39	2.07	1.91	2.14	1.92	1.75	1.81	--	--
Selenium	µg/L	50	--	0.3	0.3	0.2	0.3	0.4	0.3	0.2	0.3	--	--
Thallium	µg/L	2	--	<0.02	<0.01	<0.01	<0.01	0.074	<0.01	<0.01	0.03	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	3.3	5.3
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	28.6	28.8	31.9	26.7
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	36.6	14.7	15.3
Boron	mg/L	--	0.109	<0.002	0.015	0.014	0.018	0.004	0.069	0.084	0.052	0.045	0.073
Calcium	mg/L	--	(79.5) 66	59.4	51.6	57.4	62.4	51.6	57.9	59	53.3	60.7	57
Lithium	mg/L	0.04	--	0.0004	0.018	0.005	0.008	0.009	0.0007	0.002	0.005	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	21.2	21.9	19.5	22.8	21.3
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0124	--	0.0063
Potassium	mg/L	--	--	--	--	--	--	--	0.73	0.81	0.65	0.64	0.68
Sodium	mg/L	--	--	--	--	--	--	--	13.4	14	11.8	16.3	22.1
Strontium	mg/L	--	--	--	--	--	--	--	0.0837	0.0855	0.0756	0.0888	0.0906
Alkalinity	mg/L	--	--	--	--	--	--	--	174	191	188	207	215
Bromide	mg/L	--	--	--	--	--	--	--	0.02	0.071	0.116	0.06	0.063
Chloride	mg/L	--	(29.6) 24	21.5	21.8	23.8	21.8	21.2	21	20.8	19.6	21.2	25.3
Fluoride	mg/L	4	0.299	0.26	0.29	0.26	0.26	0.25	0.26	0.26	0.23	0.25	0.29
TDS	mg/L	--	(412.7) 343	298	265	301	316	284	285	321	308	323	329
Sulfate	mg/L	--	(35.08) 35	26	27.6	26.2	24.1	25.9	26.6	30.3	33.8	30	28.9
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4
Radium-228	pCi/L	--	--	-0.035	0.54	0	0.228	0.343	0.0555	-0.0726	0.631	--	--
Radium-226	pCi/L	--	--		0.12	0.172	0.143	0.311	0.465	0.434	0.0617	--	--
Radium-226/228	pCi/L	5	--	-0.035	0.66	0.172	0.371	0.654	0.5205	0.3614	0.6927	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	0.27
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	0.6
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	2
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.053	0.013	<0.002
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.0001	<0.0001	<0.0001	0.0021	0.0003

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	2/13/2019	4/1/2019	5/22/2019	7/23/2019	9/11/2019	11/14/2019	5/18/2020	7/16/2020	11/11/2020	2/4/2021
Field Parameters														
Elevation	ft NGVD	--	--	367.91	368.87	369.97	371.02	371.37	370.52	370.86	369.39	377.69	370.64	368.33
pH	S.U.	--	6.30 - 8.44	7.53	7.77	7.72	7.66	7.45	7.33	7.54	7.43	7.55	7.4	7.62
Specific Conductance	µmhos/cm	--	--	425	451	491	500	486	473	657	462	584	588	562
Turbidity	NTU	--	--	2.15	0.8	1.51	1.08	1.7	0.83	0.2	1.64	0.53	0.56	0.3
Dissolved Oxygen	mg/L	--	--	3.7	3.1	4.7	5.77	1.3	1.78	3.59	2.3	3.24	3.98	5.1
Temperature	°C	--	--	14.51	14.6	14.5	15.93	16.2	16.4	15.18	16.64	14.96	15.54	13.8
ORP	mV	--	--	23	71	-17.9	-3.2	55	7.7	4	27	48	85	72
Laboratory Parameters														
Antimony	µg/L	6	--	0.04	--	--	0.03	--	--	<0.02	--	--	--	--
Arsenic	µg/L	10	--	0.82	--	--	0.78	--	--	0.76	--	--	--	--
Barium	µg/L	2000	--	16.5	--	--	18	--	--	19.3	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--
Cadmium	µg/L	5	--	0.11			0.08	--	--	<0.01	--	--	--	--
Chromium	µg/L	100	--	0.1	--	--	0.1	--	--	0.255	--	--	--	--
Cobalt	µg/L	6	--	<0.02	--	--	0.02	--	--	<0.02	--	--	--	--
Copper	µg/L	--	--	0.28	--	--	0.56	--	--	<0.2	--	--	--	--
Lead	µg/L	15	--	0.04	--	--	0.133	--	--	<0.05	--	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	--	--	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	2	--	--	2	--	--	1	--	--	--	--
Selenium	µg/L	50	--	0.2	--	--	1	--	--	1.1	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	--	--	<0.1	--	--	--	--
Zinc	µg/L	--	--	89.4	--	--	7.5	--	--	<0.7	--	--	--	--
Silica (Dissolved)	mg/L	--	--	26.8	--	--	25	--	--	25.2	--	--	--	--
Aluminum	µg/L	--	--	7.27	--	--	6.68	--	--	<5	--	--	--	--
Boron	mg/L	--	0.109	0.06	--	--	<0.02	--	--	0.03	0.02	--	0.03	--
Calcium	mg/L	--	(79.5) 66	54.7	--	--	51.3	--	--	59.2	53.7	--	58.4	--
Lithium	mg/L	0.04	--	<0.009	--	--	<0.009	--	--	0.00413	--	--	--	--
Magnesium	mg/L	--	--	20.9	--	--	19	--	--	20.4	--	--	--	--
Manganese	mg/L	--	--	0.0025	--	--	0.0017	--	--	0.001	--	--	--	--
Potassium	mg/L	--	--	0.68	--	--	0.66	--	--	0.7	--	--	--	--
Sodium	mg/L	--	--	23.7	--	--	26	--	--	32.9	--	--	--	--
Strontium	mg/L	--	--	0.086	--	--	0.0803	--	--	0.0909	--	--	--	--
Alkalinity	mg/L	--	--	207	--	--	220	--	--	221	--	--	--	--
Bromide	mg/L	--	--	<0.04	--	--	<0.04	--	--	0.08	--	--	--	--
Chloride	mg/L	--	(29.6) 24	24.8	26.5	26.1	26.4	26.8	26.6	27.3	28.9	28.7	27.0	--
Fluoride	mg/L	4	0.299	0.28	--	--	0.3	--	--	0.28	0.34	0.33	0.34	0.36
TDS	mg/L	--	(412.7) 343	272	--	--	352	339	--	336	344	347	336	--
Sulfate	mg/L	--	(35.08) 35	24.7	--	--	26.2	--	--	27.8	24.9	--	25.7	--
Sulfide	mg/L	--	--	<0.1	--	--	<0.1	--	--	<0.2	--	--	--	--
Radium-228	pCi/L	--	--	0.146	--	--	0.54	--	--	0.161	--	--	--	--
Radium-226	pCi/L	--	--	0.0173	--	--	0.0674	--	--	0.0407	--	--	--	--
Radium-226/228	pCi/L	5	--	0.1633	--	--	0.6074	--	--	0.2017	--	--	--	--
Copper (Dissolved)	µg/L	--	--	1.84	--	--	0.87	--	--	1.84	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	5	--	--	4	--	--	2	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	1	--	--	5.16	--	--	<5	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.003	--	--	0.003	--	--	<0.02	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0005	--	--	0.0009	--	--	<0.0005	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	1/3/2018	6/6/2018	8/16/2018
Field Parameters															
Elevation	ft NGVD	--	--	369.26	368.97	368.94	368.7	366.31	368.06	368.01	368.16	366.64	365.54	369.85	369.32
pH	S.U.	--	6.43 - 8.69	7.89	7.14	7.45	7.26	7.7	7.64	8.42	6.98	7.16	7.84	7.55	7.52
Specific Conductance	µmhos/cm	--	--	581	542	513	495	370	557	383	431	553	568	802	614
Turbidity	NTU	--	--	2.02	1.41	0.94	1.83	3.99	16	24.3	6.25	10.3	1.3	0.91	0
Dissolved Oxygen	mg/L	--	--	1.54	7.64	1.96	3.62	--	10.86	1.97	22.85	0.71	1.12	1.1	0.06
Temperature	°C	--	--	15.88	15.93	17.11	15.97	14.38	14.74	15.42	16.34	15.68	11.06	15.3	16.03
ORP	mV	--	--	65.9	29.8	-29.6	-11.6	161.9	-52.8	156.9	-180.6	-63.4	-51.8	-55.4	-46
Laboratory Parameters															
Antimony	µg/L	6	--	0.06	0.06	0.07	0.13	0.1	0.1	0.15	0.11	--	--	--	--
Arsenic	µg/L	10	--	0.64	0.68	0.55	0.61	0.65	0.74	0.9	0.76	--	--	--	--
Barium	µg/L	2000	--	78.5	84	67.1	60.1	59.4	58.4	59.3	62.9	--	--	--	--
Beryllium	µg/L	4	--	<0.005	0.006	<0.005	<0.005	<0.005	0.01	0.022	0.02	--	--	--	--
Cadmium	µg/L	5	--	0.03	0.05	0.05	0.07	0.16	0.22	0.09	0.05	--		--	--
Chromium	µg/L	100	--	0.2	0.6	0.1	0.143	0.154	1.01	0.829	0.567	--	--	--	--
Cobalt	µg/L	6	--	0.606	0.76	0.415	0.26	0.28	0.581	1.28	0.995	--	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	2.21	1.82	--	0.2	--
Lead	µg/L	15	--	0.208	0.454	0.178	0.231	0.383	0.588	1.39	1.19	--	--	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	4.91	5	4.21	3.14	2.07	2.06	2.17	2.07	--	--	--	--
Selenium	µg/L	50	--	0.7	0.7	0.6	0.4	0.2	0.2	0.4	0.2	--	--	--	--
Thallium	µg/L	2	--	0.051	0.04	0.04	0.02	0.03	0.03	0.04	0.064	--	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	4.4	3.4	--	20.8	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	16.3	16.8	18.9	--	16.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	315	244	--	9.39	--
Boron	mg/L	--	0.043	0.019	0.009	0.025	0.013	<0.002	0.024	0.034	0.025	0.03	--	0.052	0.03
Calcium	mg/L	--	(79.5) 78	74	67.5	66.8	73.9	63.9	71.5	71	68.9	72.5	--	72.7	--
Lithium	mg/L	0.04	--	0.005	0.021	0.002	0.006	0.007	0.005	0.007	<0.0002	--	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	22.8	23.6	22.8	23.7	--	23.7	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.463	--	--	0.564	--
Potassium	mg/L	--	--	--	--	--	--	--	1.09	1.2	1.01	1.05	--	1.14	--
Sodium	mg/L	--	--	--	--	--	--	--	14.7	15.3	15.8	16.8	--	16.9	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0919	0.0977	0.0885	0.0946	--	0.0959	--
Alkalinity	mg/L	--	--	--	--	--	--	--	223	218	236	252	--	254	--
Bromide	mg/L	--	--	--	--	--	--	--	0.05	0.071	0.072	0.075	--	0.077	--
Chloride	mg/L	--	(29.6) 32	28.6	29.7	28	25.8	27.1	25.8	28.6	29.7	29.8	28.8	31.8	31.5
Fluoride	mg/L	4	0.371	0.3	0.33	0.31	0.36	0.3	0.31	0.31	0.28	0.28	--	0.32	--
TDS	mg/L	--	(412.7) 375	332	363	330	326	314	312	343	346	343	--	356	--
Sulfate	mg/L	--	(48.53) 49	42.9	54.7	41.1	36.9	39.2	39.2	42.4	44.1	45.5	--	43.2	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	--
Radium-228	pCi/L	--	--	-0.0463	0.62	0.241	0.137	0.648	0.146	0.163	0.195	--	--	--	--
Radium-226	pCi/L	--	--	0.398	0.342	0.267	0.288	0.197	0.289	0.328	0.341	--	--	--	--
Radium-226/228	pCi/L	5	--	0.3517	0.962	0.508	0.425	0.845	0.435	0.491	0.536	--	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	--	1.96	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.3	--	--	21.7	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--	154	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.053	0.016	0.03	0.054	--	0.238	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.258	0.331	0.333	0.323	--	0.563	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	2/13/2019	5/22/2019	11/14/2019	5/18/2020	11/11/2020
Field Parameters									
Elevation	ft NGVD	--	--	367.97	368.87	371.17	371.18	369.44	370.65
pH	S.U.	--	6.43 - 8.69	7.2	7.55	7.34	7.39	7.8	6.86
Specific Conductance	µmhos/cm	--	--	434	435	481	576	420	558
Turbidity	NTU	--	--	17.03	2.8	0	4.1	2.08	2.72
Dissolved Oxygen	mg/L	--	--	0.13	10	0.71	0.33	5.14	7.66
Temperature	°C	--	--	14.25	14.3	16.09	15.93	15.94	4.84
ORP	mV	--	--	36.8	-17	-83.8	-115	-58	25
Laboratory Parameters									
Antimony	µg/L	6	--	0.02	--	0.03	0.05	--	--
Arsenic	µg/L	10	--	0.49	--	0.4	0.39	--	--
Barium	µg/L	2000	--	95	--	102	90.8	--	--
Beryllium	µg/L	4	--	<0.02	--	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	0.04	--	0.003	0.12	--	--
Chromium	µg/L	100	--	0.327	--	0.06	0.1	--	--
Cobalt	µg/L	6	--	0.492	--	0.347	0.141	--	--
Copper	µg/L	--	--	1.52	--	0.24	<0.2	--	--
Lead	µg/L	15	--	0.467	--	0.143	0.07	--	--
Mercury	µg/L	2	--	--	--	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2	--	2.13	2.14	--	--
Selenium	µg/L	50	--	0.2	--	0.05	0.9	--	--
Thallium	µg/L	2	--	<0.1	--	<0.1	<0.1	--	--
Zinc	µg/L	--	--	35.2	--	7.4	1	--	--
Silica (Dissolved)	mg/L	--	--	16.9	--	15.9	15	--	--
Aluminum	µg/L	--	--	91.9	--	6.25	<5	--	--
Boron	mg/L	--	0.043	0.05	<0.02	<0.02	0.01	<0.02	<0.02
Calcium	mg/L	--	(79.5) 78	64.8	--	64.3	63.4	61.9	66.6
Lithium	mg/L	0.04	--	<0.009	--	<0.009	0.00402	--	--
Magnesium	mg/L	--	--	21.2	--	20.4	19.4	--	--
Manganese	mg/L	--	--	0.576	--	0.699	0.272	--	--
Potassium	mg/L	--	--	0.89	--	0.92	0.9	--	--
Sodium	mg/L	--	--	15.3	--	13.5	13.2	--	--
Strontium	mg/L	--	--	0.0864	--	0.083	0.0803	--	--
Alkalinity	mg/L	--	--	247	--	241	208	--	--
Bromide	mg/L	--	--	0.06	--	0.05	0.04	--	--
Chloride	mg/L	--	(29.6) 32	27.9	31.5	25.4	23.3	24.4	24.3
Fluoride	mg/L	4	0.371	0.32	--	0.32	0.33	0.36	0.37
TDS	mg/L	--	(412.7) 375	308	--	328	296	297	296
Sulfate	mg/L	--	(48.53) 49	39	--	39.2	39.3	40.5	38.6
Sulfide	mg/L	--	--	<0.1	--	<0.1	<0..2	--	--
Radium-228	pCi/L	--	--	0.291	--	0.451	0.191	--	--
Radium-226	pCi/L	--	--	0.258	--	0.194	0.0689	--	--
Radium-226/228	pCi/L	5	--	0.549	--	0.645	0.2599	--	--
Copper (Dissolved)	µg/L	--	--	0.2	--	0.64	1.08	--	--
Zinc (Dissolved)	µg/L	--	--	2	--	0.9	2	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	1	<5	--	--
Iron (Dissolved)	mg/L	--	--	0.037	--	0.02	<0.02	--	--
Manganese (Dissolved)	mg/L	--	--	0.565	--	0.643	0.251	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	6/7/2018	8/16/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.22	368.96	368.9	368.68	366.41	368.04	367.96	367.95	366.6	369.84	369.25
pH	S.U.	--	6.45 -8.63	7.86	7.47	7.29	7.1	7.4	7.39	7.3	8.51	7.24	7.55	7.33
Specific Conductance	µmhos/cm	--	--	586	524	551	516	386	568	388	516	428	460	830
Turbidity	NTU	--	--	2.31	3.15	3.5	0.79	3.45	2.67	2.32	1.72	1.82	5.05	0
Dissolved Oxygen	mg/L	--	--	0.45	0.31	1.77	0.31	5.47	0.79	0.87	0.45	0.84	6.83	0.74
Temperature	°C	--	--	15.8	15.79	19.32	15.58	14.22	14.45	15.65	16.06	15.71	15.35	17.83
ORP	mV	--	--	-2.7	-168.3	45	-0.7	206.9	-87.3	143.6	-24.8	-41	32.3	-24
Laboratory Parameters														
Antimony	µg/L	6	--	0.03	0.06	0.02	0.02	0.03	0.03	0.04	0.02	--	--	--
Arsenic	µg/L	10	--	0.78	0.82	0.81	0.61	0.62	0.59	0.65	0.62	--	--	--
Barium	µg/L	2000	--	185	195	180	172	157	160	159	169	--	--	--
Beryllium	µg/L	4	--	<0.005	0.006	0.007	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	--
Cadmium	µg/L	5	--	0.12	0.12	0.07	0.1	0.26	0.09	0.08	0.08	--		--
Chromium	µg/L	100	--	0.2	0.4	0.3	0.05	0.277	0.562	0.188	0.162	--	--	--
Cobalt	µg/L	6	--	0.473	0.439	0.425	0.212	0.327	0.252	0.335	0.353	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.16	1.96	2.09	--
Lead	µg/L	15	--	0.648	0.359	0.247	0.021	0.378	0.045	0.144	0.075	--	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	2.11	2.16	1.97	2.09	1.8	2.13	1.9	1.89	--	--	--
Selenium	µg/L	50	--	<0.03	<0.03	0.05	0.09	0.08	0.03	0.06	0.04	--	--	--
Thallium	µg/L	2	--	0.02	0.02	0.03	0.01	0.02	0.02	0.02	0.02	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	6	3.5	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.5	17.9	20.5	17.4	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	17.5	20.7	70.5	--
Boron	mg/L	--	0.074	<0.002	0.01	0.013	0.014	<0.002	0.03	0.027	0.073	0.041	0.076	0.038
Calcium	mg/L	--	(79.5) 81	75.6	65.8	66.7	73.9	64.2	74.2	70.8	64.7	67.7	78.6	--
Lithium	mg/L	0.04	--	0.002	0.018	0.002	0.007	0.007	0.008	0.011	0.0006	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	24.3	23.9	21.9	22.6	26.4	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.657	--	0.943	--
Potassium	mg/L	--	--	--	--	--	--	--	1.17	1.21	1.32	1.1	1.28	--
Sodium	mg/L	--	--	--	--	--	--	--	17.3	16.9	16	15.8	16.4	--
Strontium	mg/L	--	--	--	--	--	--	--	0.104	0.104	0.0894	0.0952	0.111	--
Alkalinity	mg/L	--	--	--	--	--	--	--	249	248	261	248	263	--
Bromide	mg/L	--	--	--	--	--	--	--	0.06	0.079	0.156	0.083	0.073	--
Chloride	mg/L	--	(29.6) 25	24.2	24.2	22.8	22.2	22.3	21.7	23.1	23	22.4	43.1	93.0 ?
Fluoride	mg/L	4	0.222	0.19	0.21	0.2	0.19	0.19	0.2	0.21	0.18	0.2	0.22	--
TDS	mg/L	--	(412.7) 358	341	339	338	327	318	318	343	340	332	361	--
Sulfate	mg/L	--	(46.44) 46	42.1	44.2	39.6	35.4	38.3	37.6	40.5	40.5	42.3	39.8	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	--
Radium-228	pCi/L	--	--	0.0495	0.195	0.451	0.473	0.506	1.11	0.0264	0.257	--	--	--
Radium-226	pCi/L	--	--	-0.0267	0.133	-0.00345	1.77	0.772	0.185	0.429	0.115	--	--	--
Radium-226/228	pCi/L	5	--	0.0228	0.328	0.44755	2.243	1.278	1.295	0.4554	0.372	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.11	--	0.12	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.8	--	0.5	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.14	--	2.75	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.055	0.017	0.005	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.565	0.602	0.662	0.619	0.621	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/12/2018	2/13/2019	5/22/2019	7/24/2019	9/11/2019	11/14/2019	2/18/2020	5/18/2020	7/15/2020	11/11/2020	2/3/2021
Field Parameters														
Elevation	ft NGVD	--	--	367.91	368.89	371.01	371.37	-----	371.11	-----	369.47	370.67	370.61	368.29
pH	S.U.	--	6.45 -8.63	7.36	7.32	7.25	6.28	7.15	7.3	7.08	7.76	7.26	7.22	7.34
Specific Conductance	µmhos/cm	--	--	464	391	803	834	705	726	1377	617	781	725	674
Turbidity	NTU	--	--	5.4	2.1	1.25	3	1.9	9.2	2.13	2.92	0.88	1.35	1
Dissolved Oxygen	mg/L	--	--	0.86	0.37	2.29	0.9	0.58	0.3	0.57	0.07	0	0	0.2
Temperature	°C	--	--	14.61	13.7	15.57	15.8	16.5	14.94	12.75	15.06	15.56	14.25	13.8
ORP	mV	--	--	-25.4	-164	-71.2	8	-109	-73	-76.4	-90	-40	-113	-145
Laboratory Parameters														
Antimony	µg/L	6	--	0.03	--	<0.02	--	--	0.04	--	--	--	--	--
Arsenic	µg/L	10	--	0.58	--	0.53	--	--	0.62	--	--	--	--	--
Barium	µg/L	2000	--	190	--	248	--	--	193	--	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	<0.02	--	--	<0.02	--	--	--	--	--
Cadmium	µg/L	5	--	0.17	--	0.3	--	--	0.19	--	--	--	--	--
Chromium	µg/L	100	--	0.2	--	<0.04	--	--	0.334	--	--	--	--	--
Cobalt	µg/L	6	--	0.5	--	0.488	--	--	0.537	--	--	--	--	--
Copper	µg/L	--	--	0.22	--	0.18	--	--	0.4	--	--	--	--	--
Lead	µg/L	15	--	0.14	--	0.129	--	--	0.416	--	--	--	--	--
Mercury	µg/L	2	--	--	--	<0.002	--	--	<0.002	--	--	--	--	--
Molybdnum	µg/L	100	--	2	--	2	--	--	2.28	--	--	--	--	--
Selenium	µg/L	50	--	<0.03	--	<0.03	--	--	0.04	--	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	<0.1	--	--	<0.1	--	--	--	--	--
Zinc	µg/L	--	--	0.9	--	533	--	--	2	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	17.8	--	17.1	--	--	16.5	--	--	--	--	--
Aluminum	µg/L	--	--	15.4	--	3	--	--	10	--	--	--	--	--
Boron	mg/L	--	0.074	0.07	--	<0.02	--	--	0.02	--	<0.02	--	<0.02	--
Calcium	mg/L	--	(79.5) 81	72.4	--	98.5	114	103	76.9	--	88.7	--	92.2	--
Lithium	mg/L	0.04	--	<0.009	--	0.02	--	--	0.00298	--	--	--	--	--
Magnesium	mg/L	--	--	24.5	--	32.2	--	--	24.7	--	--	--	--	--
Manganese	mg/L	--	--	0.717	--	0.941	--	--	0.855	--	--	--	--	--
Potassium	mg/L	--	--	0.99	--	1.2	--	--	1	--	--	--	--	--
Sodium	mg/L	--	--	14.8	--	20.7	--	--	16.9	--	--	--	--	--
Strontium	mg/L	--	--	0.102	--	0.138	--	--	0.108	--	--	--	--	--
Alkalinity	mg/L	--	--	247	--	261	--	--	252	--	--	--	--	--
Bromide	mg/L	--	--	<0.04	--	0.08	--	--	0.06	--	--	--	--	--
Chloride	mg/L	--	(29.6) 25	51.3	40.9	135	156	110	56.5	76.3	93.6	96.2	92.2	74.2
Fluoride	mg/L	4	0.222	0.2	--	0.18	--	SSI ↓	0.18	--	0.21	0.2	0.20	--
TDS	mg/L	--	(412.7) 358	348	--	531	540	443	356	--	399	411	395	400
Sulfate	mg/L	--	(46.44) 46	36.1	--	33.3	--	--	38.9	--	36.2	--	35.1	--
Sulfide	mg/L	--	--	<0.1	--	<0.1	--	--	<0.2	--	--	--	--	--
Radium-228	pCi/L	--	--	0.0387	--	0.553	--	--	0.803	--	--	--	--	--
Radium-226	pCi/L	--	--	0.245	--	0.207	--	--	0.334	--	--	--	--	--
Radium-226/228	pCi/L	5	--	0.2837	--	0.76	--	--	1.137	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.11	--	0.39	--	--	1.64	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	1	--	3	--	--	2	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	1	--	--	<5	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.007	--	0.009	--	--	<0.02	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.702	--	0.948	--	--	0.8	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-5S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	11/10/2020
Field Parameters					
Elevation	ft NGVD	--	--	392.55	391.70
pH	S.U.	--	7.56	7.56	6.77
Specific Conductance	µmhos/cm	--	--	1202	2050
Turbidity	NTU	--	--	0.43	6.72
Dissolved Oxygen	mg/L	--	--	1.09	4
Temperature	°C	--	--	12.53	16.51
ORP	mV	--	--	71.3	11
Laboratory Parameters					
Antimony	µg/L	6	--	0.1	--
Arsenic	µg/L	10	--	0.85	--
Barium	µg/L	2000	--	158	--
Beryllium	µg/L	4	--	<0.02	--
Cadmium	µg/L	5	--	0.08	--
Chromium	µg/L	100	--	<0.04	--
Cobalt	µg/L	6	--	8.15	--
Copper	µg/L	--	--	0.43	--
Lead	µg/L	15	--	0.05	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	1	--
Selenium	µg/L	50	--	0.8	--
Thallium	µg/L	2	--	<0.1	--
Zinc	µg/L	--	--	5	--
Silica (Dissolved)	mg/L	--	--	21.5	--
Aluminum	µg/L	--	--	2	--
Boron	mg/L	--	0.102	0.102	0.057
Calcium	mg/L	--	86.3	86.3	93.5
Lithium	mg/L	0.04	--	<0.009	--
Magnesium	mg/L	--	--	22.2	--
Manganese	mg/L	--	--	0.522	--
Potassium	mg/L	--	--	1.78	--
Sodium	mg/L	--	--	188	--
Strontium	mg/L	--	--	0.3	--
Alkalinity	mg/L	--	--	229	--
Bromide	mg/L	--	--	1.05	--
Chloride	mg/L	--	364	364	451
Fluoride	mg/L	4	0.21	0.21	0.23
TDS	mg/L	--	840	840	1030
Sulfate	mg/L	--	41.2	41.2	47.1
Sulfide	mg/L	--	--	<0.1	--
Radium-228	pCi/L	--	--	0.915	--
Radium-226	pCi/L	--	--	0.799	--
Radium-226/228	pCi/L	5	--	1.714	--
Copper (Dissolved)	µg/L	--	--	0.11	--
Zinc (Dissolved)	µg/L	--	--	6.1	--
Aluminum (Dissolved)	µg/L	--	--	2	--
Iron (Dissolved)	mg/L	--	--	0.01	--
Manganese (Dissolved)	mg/L	--	--	0.555	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/18/2016	9/20/2016	11/16/2016	1/10/2017	3/8/2017	5/8/2017	7/18/2017	10/3/2017	6/5/2018	8/15/2018	9/26/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.59	368.99	368.14	367.39	367.54	367.81	368.48	367.6	369.94	370.04	368.35
pH	S.U.	--	7.9	7.5	7.4	8.1	7.9	7.9	7.6	7.7	7.3	7.52	7.7	7.9
Specific Conductance	µmhos/cm	--	--	401	430	741	360	300	441	292	347	330	483	321
Turbidity	NTU	--	--	1	0.5	1	2	1	1	1	1	0.47	0	8
Dissolved Oxygen	mg/L	--	--	7.1	5.7	1	6	5	5	7	7	5.82	8.1	5.1
Temperature	°C	--	--	16.8	19	15	14.8	14.7	15.5	15.2	16.4	16.28	16	15.5
ORP	mV	--	--	53	71	258	146	36	49	74	0.3	-9.3	155	133
Laboratory Parameters														
Antimony	µg/L	6	--	0.03	0.03	0.03	0.03	0.03	0.03	0.02	--	--	0.03	0.03
Arsenic	µg/L	10	--	0.26	0.26	0.26	0.28	0.26	0.28	0.27	--	--	0.25	0.25
Barium	µg/L	2000	--	13.6	13.6	14.1	14.8	15.8	15.4	14.3	--	--	14.8	13.5
Beryllium	µg/L	4	--	0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	<0.004	<0.02
Cadmium	µg/L	5	--	0.25	0.02	0.02	0.008	0.05	0.009	0.04	--	--	0.06	0.04
Chromium	µg/L	100	--	0.4	0.3	0.2	0.599	1.37	0.583	0.291	--	--	0.42	0.265
Cobalt	µg/L	6	--	0.052	0.019	0.027	0.045	0.049	0.061	0.026	--	--	0.039	<0.02
Copper	µg/L	--	--	--	--	--	--	--	--	0.37	0.31	0.46	0.42	0.29
Lead	µg/L	15	--	0.074	0.034	0.05	0.032	0.113	0.083	0.056	--	--	0.247	0.03
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	3.28	3.34	2.8	2.93	3.29	2.73	4.36	--	--	2.22	2.37
Selenium	µg/L	50	--	0.3	0.2	0.3	0.4	0.7	0.8	0.4	--	--	0.4	0.2
Thallium	µg/L	2	--	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	--	--	0.01	<0.1
Zinc	µg/L	--	--	--	--	--	--	--	--	1	0.5	2.5	1	0.7
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	14.4	14.6	16.9	15.4	15.2	16.8
Aluminum	µg/L	--	--	--	--	--	--	--	--	8.57	17.8	10.4	13.8	3
Boron	mg/L	--	0.012	0.014	0.012	0.028	0.006	0.032	0.051	0.078	0.094	0.09	0.101	0.08
Calcium	mg/L	--	46.1	46.3	44.4	50.8	47.8	53.2	50.3	47	44.8	45.2	52.8	44.1
Lithium	mg/L	0.04	--	0.015	0.004	0.006	0.014	0.009	0.011	<0.0002	--	--	0.005	0.02
Magnesium	mg/L	--	--	--	--	--	--	23.3	23.5	20.9	19.8	19.3	24	18.8
Manganese	mg/L	--	--	--	--	--	--	--	--	0.0007	--	0.0024	0.0021	<0.0002
Potassium	mg/L	--	--	--	--	--	--	0.7	0.75	0.82	0.78	0.57	0.91	0.71
Sodium	mg/L	--	--	--	--	--	--	38.9	34.9	26.3	23.2	15.6	25.6	26.1
Strontium	mg/L	--	--	--	--	--	--	0.0661	0.067	0.0574	0.0548	0.0555	0.065	0.051
Alkalinity	mg/L	--	--	--	--	--	--	260	272	241	249	237	267	241
Bromide	mg/L	--	--	--	--	--	--	<0.02	0.072	<0.05	0.04	0.03	0.04	<0.04
Chloride	mg/L	--	8.44	8.35	6.04	7.04	7.03	3.32	8.68	4.88	3.28	2.38	11.9	6.83
Fluoride	mg/L	4	0.73	0.79	0.73	0.69	0.65	0.25	0.69	0.57	0.71	0.89	0.81	0.84
TDS	mg/L	--	294	290	266	279	287	296	305	274	261	225	277	261
Sulfate	mg/L	--	18.8	18.3	10.9	14.3	14	6.9	17.5	9.6	7.5	3.8	15.6	9.8
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.4	<0.1
Radium-228	pCi/L	--	--	0.101	0.798	-0.249	0.501	0.297	-0.337	0.954	--	--	0.328	0.367
Radium-226	pCi/L	--	--	0	0.0671	0.202	0.0815	-0.00471	0.12	-0.0229	--	--	0.0553	0.089
Radium-226/228	pCi/L	5	--	0.101	0.8651	-0.047	0.5825	0.29229	-0.217	0.954	--	--	0.3833	0.456
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	1.85	--	0.4	2.17	1.86
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.2	--	0.9	3.1	3
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	4.34	--	1	2.51	109
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.023	<0.002	0.003	0.163
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	<0.0001	<0.0001	0.0002	0.0007	0.0015	<0.0002	0.0121

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/1/2018	11/14/2018	12/12/2018	5/23/2019	11/14/2019	5/19/2020	11/12/2020
Field Parameters										
Elevation	ft NGVD	--	--	368.89	368.72	368.4	372.52	370.42	370.70	369.42
pH	S.U.	--	7.9	7.31	7.91	7.46	7.42	7.29	7.67	7.1
Specific Conductance	µmhos/cm	--	--	430	221	464	473	452	373	366
Turbidity	NTU	--	--	0.51	0.4	0.53	1.4	0.21	5.46	1.72
Dissolved Oxygen	mg/L	--	--	7.53	5.5	4.42	6.4	5.85	7.17	8.47
Temperature	°C	--	--	15.04	14.4	14.71	16.6	14.4	15.47	17.96
ORP	mV	--	--	115.3	126	196	70	291.1	150	84
Laboratory Parameters										
Antimony	µg/L	6	--	0.02	0.03	0.03	0.03	0.03	--	--
Arsenic	µg/L	10	--	0.23	0.23	0.24	0.22	0.23	--	--
Barium	µg/L	2000	--	12.1	11.8	13.4	15.9	15	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	0.01	<0.01	<0.01	0.03	<0.01	--	--
Chromium	µg/L	100	--	0.221	0.218	0.212	0.285	0.284	--	--
Cobalt	µg/L	6	--	<0.02	<0.02	<0.02	<0.02	<0.02	--	--
Copper	µg/L	--	--	0.17	0.18	0.26	0.51	<0.2	--	--
Lead	µg/L	15	--	<0.02	0.02	<0.02	0.04	<0.05	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2.38	2.18	2.2	2	2	--	--
Selenium	µg/L	50	--	0.2	0.2	0.4	0.6	0.4	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	<0.7	1	2	<0.7	<0.7	--	--
Silica (Dissolved)	mg/L	--	--	15.3	15.2	15.9	15.8	15	--	--
Aluminum	µg/L	--	--	2	5.28	3	2	<5	--	--
Boron	mg/L	--	0.012	0.04	0.04	0.102	0.02	0.01	<0.02	<0.02
Calcium	mg/L	--	46.1	42.3	38.8	46.8	52.5	47.8	43.1	43.0
Lithium	mg/L	0.04	--	<0.009	0.01	<0.009	0.02	0.00645	--	--
Magnesium	mg/L	--	--	19.3	17.5	20.8	22.9	20	--	--
Manganese	mg/L	--	--	0.0007	0.0002	0.0003	0.0003	<0.0005	--	--
Potassium	mg/L	--	--	0.5	0.92	0.86	0.62	0.4	--	--
Sodium	mg/L	--	--	22	20.2	23.3	25.5	29.6	--	--
Strontium	mg/L	--	--	0.0519	0.0524	0.0595	0.691	0.0627	--	--
Alkalinity	mg/L	--	--	230	242	247	264	262	--	--
Bromide	mg/L	--	--	<0.04	<0.04	<0.04	<0.04	<0.04	--	--
Chloride	mg/L	--	8.44	3.52	3.91	6.48	9.64	5.36	1.49	2.07
Fluoride	mg/L	4	0.73	0.86	0.88	0.88	0.95	0.9	1.02	1.11
TDS	mg/L	--	294	225	196	240	315	277	214	225
Sulfate	mg/L	--	18.8	4.9	5.2	10	16.8	12	1.6	4.4
Sulfide	mg/L	--	--	<0.1	<0.07	<0.07	<0.1	<0.2	--	--
Radium-228	pCi/L	--	--	0.354	0.387	-0.368	0.343	-0.011	--	--
Radium-226	pCi/L	--	--	0.0398	0.0239	0.0533	0.0431	0.0416	--	--
Radium-226/228	pCi/L	5	--	0.3938	0.4109	0.0533	0.3861	0.0416	--	--
Copper (Dissolved)	µg/L	--	--	0.14	0.53	0.17	1.22	0.4	--	--
Zinc (Dissolved)	µg/L	--	--	0.7	<0.7	2	1	0.9	--	--
Aluminum (Dissolved)	µg/L	--	--	1	2	8.1	1	<5	--	--
Iron (Dissolved)	mg/L	--	--	<0.003	0.005	0.01	<0.003	<0.02	--	--
Manganese (Dissolved)	mg/L	--	--	0.0003	<0.0002	0.0007	0.0002	<0.0005	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/25/2018	10/31/2018	11/15/2018	12/12/2018	5/23/2019	11/14/2019	5/20/2020	11/11/2020
Field Parameters											
Elevation	ft NGVD	--	--	369.18	368.75	368.62	368.48	372.32	370.28	370.42	369.32
pH	S.U.	--	7.6	7.8	7.25	7.35	7.44	7.66	7.32	7.49	7.58
Specific Conductance	µmhos/cm	--	--	332	467	344	458	453	374	431	310
Turbidity	NTU	--	--	6.5	0.76	0.74	0.25	0.36	0.46	0.4	2.3
Dissolved Oxygen	mg/L	--	--	1.7	0.27	2.78	0.79	1.02	2.15	2.34	10
Temperature	°C	--	--	16.4	15.9	14.2	14.71	16.5	14.4	14.57	15.1
ORP	mV	--	--	149	24.9	140.5	163	168.8	301.7	188	111
Laboratory Parameters											
Antimony	µg/L	6	--	0.25	0.25	0.25	0.23	0.23	0.2	--	--
Arsenic	µg/L	10	--	0.2	0.2	0.19	0.19	0.19	0.19	--	--
Barium	µg/L	2000	--	31.9	32.2	31.9	30.5	35.8	28.5	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	0.11	0.01	0.01	0.01	0.01	0.02	--	--
Chromium	µg/L	100	--	0.05	0.1	<0.04	0.05	0.07	0.222	--	--
Cobalt	µg/L	6	--	0.313	0.452	0.42	0.362	0.436	0.525	--	--
Copper	µg/L	--	--	2.36	0.78	0.92	1.21	0.6	0.7	--	--
Lead	µg/L	15	--	0.05	0.118	<0.02	<0.02	<0.02	<0.05	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	5.31	4.7	4.46	4.17	4.4	4.43	--	--
Selenium	µg/L	50	--	0.6	0.7	0.8	0.6	0.6	0.4	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	--	--
Zinc	µg/L	--	--	3	<0.7	0.7	2	1	1	--	--
Silica (Dissolved)	mg/L	--	--	19.9	18.1	18.8	18.6	18.1	16.6	--	--
Aluminum	µg/L	--	--	6.57	5.88	5.54	3	4	<5	--	--
Boron	mg/L	--	0.06	0.06	0.04	0.03	0.06	<0.02	0.01	<0.02	<0.02
Calcium	mg/L	--	42.2	43.1	42.4	43.1	47.2	47.4	44.7	50.8	46.3
Lithium	mg/L	0.04	--	0.01	<0.009	0.034	<0.009	0.01	0.0054	--	--
Magnesium	mg/L	--	--	13.9	15.1	14.6	16.1	15.7	14	--	--
Manganese	mg/L	--	--	0.185	0.24	0.247	0.249	0.272	0.276	--	--
Potassium	mg/L	--	--	0.93	0.76	0.78	0.88	1.13	0.8	--	--
Sodium	mg/L	--	--	35.7	35.9	32.9	32.7	29.9	26.6	--	--
Strontium	mg/L	--	--	0.0482	0.0528	0.0549	0.061	0.0622	0.0582	--	--
Alkalinity	mg/L	--	--	267	259	246	257	278	227	--	--
Bromide	mg/L	--	--	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	--	--
Chloride	mg/L	--	5.18	2.91	3.47	3.94	3.84	2.7	2.26	3.09	2.52
Fluoride	mg/L	4	0.89	0.88	0.86	0.86	0.86	0.85	0.89	0.94	1.04
TDS	mg/L	--	281	274	245	248	245	268	224	229	211
Sulfate	mg/L	--	9.9	5.4	4.9	6.3	7.3	4.1	4.1	7.1	5.6
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	<0.2	--	--
Radium-228	pCi/L	--	--	0.218	0.216	0.675	0.488	0.496	0.296	--	--
Radium-226	pCi/L	--	--	0.35	0.323	0.638	0.489	0.557	0.215	--	--
Radium-226/228	pCi/L	5	--	0.568	0.539	1.313	0.977	1.053	0.511	--	--
Copper (Dissolved)	µg/L	--	--	2.79	1.09	0.86	0.74	2.58	0.5	--	--
Zinc (Dissolved)	µg/L	--	--	4	1	<0.7	<0.7	3	0.9	--	--
Aluminum (Dissolved)	µg/L	--	--	30.9	1	8.05	4	4	<5	--	--
Iron (Dissolved)	mg/L	--	--	0.064	<0.003	0.003	0.004	0.003	<0.02	--	--
Manganese (Dissolved)	mg/L	--	--	0.254	0.232	0.246	0.231	0.256	0.238	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/25/2018	10/31/2018	11/14/2018	12/12/2018	5/23/2019	11/14/2019	5/18/2020	11/11/2020
Field Parameters											
Elevation	ft NGVD	--	--	369.15	368.72	369.6	368.44	372.31	370.23	370.6	369.29
pH	S.U.	--	7.5	7.7	7.21	7.54	7.4	7.55	7.73	7.34	7.49
Specific Conductance	µmhos/cm	--	--	369	521	365	513	681	730	539	416
Turbidity	NTU	--	--	9	0	8.4	0.25	1.2	1.2	0.44	1.5
Dissolved Oxygen	mg/L	--	--	0.4	0.34	0.42	0.15	0.9	2.19	9.55	6.4
Temperature	°C	--	--	16.2	16	13.5	15.07	18.6	14.1	14.64	15.2
ORP	mV	--	--	155	54.3	131	110	145	126.6	127	109
Laboratory Parameters											
Antimony	µg/L	6	--	0.02	0.03	0.03	0.02	<0.02	0.05	--	--
Arsenic	µg/L	10	--	0.89	1.3	1.05	0.93	0.94	1.08	--	--
Barium	µg/L	2000	--	77.1	75.7	73.6	76.5	112	76	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	0.03	0.01	0.02	0.01	0.01	0.01	--	--
Chromium	µg/L	100	--	0.04	0.346	0.2	0.05	0.08	0.09	--	--
Cobalt	µg/L	6	--	0.392	0.806	0.598	0.404	0.578	0.429	--	--
Copper	µg/L	--	--	0.45	1.18	1.6	1.64	0.17	0.5	--	--
Lead	µg/L	15	--	<0.02	0.205	0.167	<0.02	<0.02	<0.05	--	--
Mercury	µg/L	2	--	--	--	--	--	0.002	<0.002	--	--
Molybdnum	µg/L	100	--	3.23	2.79	2.83	3.02	2.81	3.13	--	--
Selenium	µg/L	50	--	7.3	8.5	8.2	4.3	0.09	9.3	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	<0.7	2	73.1	2	<0.7	<0.7	--	--
Silica (Dissolved)	mg/L	--	--	19.5	17.5	17.6	18	18.2	16.5	--	--
Aluminum	µg/L	--	--	2	142	70.3	3	1	6	--	--
Boron	mg/L	--	0.094	0.05	0.03	0.05	0.115	0.03	0.02	<0.02	<0.02
Calcium	mg/L	--	61.9	61.7	57.2	53.1	60.1	78.9	62	62.4	61.7
Lithium	mg/L	0.04	--	0.02	0.009	0.01	<0.009	0.01	0.00722	--	--
Magnesium	mg/L	--	--	16.8	16.9	15.2	17.1	22.1	17.4	--	--
Manganese	mg/L	--	--	0.147	0.145	0.156	0.144	0.278	0.12	--	--
Potassium	mg/L	--	--	1.2	1.04	1.43	1.47	1.29	1.05	--	--
Sodium	mg/L	--	--	29	27.8	26.5	29	35.5	30	--	--
Strontium	mg/L	--	--	0.0919	0.093	0.0927	0.102	0.14	0.0949	--	--
Alkalinity	mg/L	--	--	260	260	266	271	305	265	--	--
Bromide	mg/L	--	--	<0.04	<0.04	<0.04	<0.04	0.07	<0.04	--	--
Chloride	mg/L	--	12.3	10.9	10.2	10	10.8	25.1	12.2	15.6	9.36
Fluoride	mg/L	4	0.39	0.41	0.41	0.42	0.42	0.36	0.41	0.43	0.46
TDS	mg/L	--	331	310	295	276	296	408	310	311	286
Sulfate	mg/L	--	27.3	24.1	23	22.2	23.6	39.5	25.4	29.8	20.1
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	<0.2	--	--
Radium-228	pCi/L	--	--	0.29	0.21	0.275	-0.0272	0.586	0.179	--	--
Radium-226	pCi/L	--	--	0.295	0.122	0.102	0.423	0.543	0.108	--	--
Radium-226/228	pCi/L	5	--	0.585	0.332	0.377	0.423	0.423	0.423	--	--
Copper (Dissolved)	µg/L	--	--	1.27	0.44	0.7	0.5	0.53	0.4	--	--
Zinc (Dissolved)	µg/L	--	--	2	0.9	2	2	1	2	--	--
Aluminum (Dissolved)	µg/L	--	--	31.6	3	2	45.3	15.6	10	--	--
Iron (Dissolved)	mg/L	--	--	0.082	<0.003	0.004	0.117	0.007	<0.02	--	--
Manganese (Dissolved)	mg/L	--	--	0.127	0.137	0.135	0.142	0.263	0.123	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-7S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/30/2018	11/14/2018	12/12/2018	5/22/2019	11/12/2020
Field Parameters									
Elevation	ft NGVD	--	--	369.5	368.76	368.68	368.47	371.91	369.63
pH	S.U.	--	7.4	7.4	7.33	7.31	7.3	8.39	6.72
Specific Conductance	µmhos/cm	--	--	417	611	455	629	527	678
Turbidity	NTU	--	--	106	104	42.6	44	4.77	9.78
Dissolved Oxygen	mg/L	--	--	0.4	0.32	0.7	0.23	0.65	0.4
Temperature	°C	--	--	15.4	15.01	13.9	14.43	14.69	14.47
ORP	mV	--	--	106	85.4	48.2	92	0.1	135
Laboratory Parameters									
Antimony	µg/L	6	--	0.14	0.15	0.06	0.09	0.02	--
Arsenic	µg/L	10	--	1.48	2.01	0.7	1.06	0.11	--
Barium	µg/L	2000	--	18.7	24.3	12.9	15.4	8.42	--
Beryllium	µg/L	4	--	0.101	0.127	0.05	0.07	<0.02	--
Cadmium	µg/L	5	--	0.05	0.06	0.02	0.05	0.02	--
Chromium	µg/L	100	--	2.08	2.45	0.831	1.48	0.1	--
Cobalt	µg/L	6	--	6.48	9.82	3.47	4.98	0.255	--
Copper	µg/L	--	--	4.4	5.36	1.91	2.76	0.51	--
Lead	µg/L	15	--	4.69	6.69	2.38	3.56	0.205	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--
Molybdnum	µg/L	100	--	<0.4	<0.4	<0.4	<0.4	<0.4	--
Selenium	µg/L	50	--	0.6	0.8	0.3	0.4	0.2	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	7.9	9.5	14	5	39.1	--
Silica (Dissolved)	mg/L	--	--	20.8	18.7	18.6	19.3	18.4	--
Aluminum	µg/L	--	--	1520	1850	681	1170	39.3	--
Boron	mg/L	--	0.079	0.04	0.07	0.135	0.08	0.03	<0.02
Calcium	mg/L	--	70.2	73.7	68.3	66.2	67.1	62.4	68.5
Lithium	mg/L	0.04	--	0.02	0.01	<0.009	<0.009	<0.009	--
Magnesium	mg/L	--	--	25.4	25.7	24.3	24.6	21.7	--
Manganese	mg/L	--	--	0.334	0.49	0.182	0.248	0.0145	--
Potassium	mg/L	--	--	1.33	1.39	1.81	1.3	0.87	--
Sodium	mg/L	--	--	17.9	19.1	18.9	18.7	17	--
Strontium	mg/L	--	--	0.083	0.0857	0.0883	0.0874	0.0803	--
Alkalinity	mg/L	--	--	256	261	255	261	242	--
Bromide	mg/L	--	--	0.09	0.09	0.09	0.09	0.1	--
Chloride	mg/L	--	32.8	32.2	33.5	33.2	33.6	35.4	27.7
Fluoride	mg/L	4	0.52	0.54	0.53	0.54	0.55	0.55	0.60
TDS	mg/L	--	358	370	358	354	353	353	346
Sulfate	mg/L	--	32	32.2	33.1	33.1	33.7	34.1	36.1
Sulfide	mg/L	--	--	<0.1	<0.1	<00.07	<0.07	<0.1	--
Radium-228	pCi/L	--	--	0.48	0.601	0.254	0.191	0.27	--
Radium-226	pCi/L	--	--	0.271	0.245	0.211	0.507	0.0334	--
Radium-226/228	pCi/L	5	--	0.751	0.846	0.465	0.698	0.3034	--
Copper (Dissolved)	µg/L	--	--	1.01	0.07	1.62	0.2	0.17	--
Zinc (Dissolved)	µg/L	--	--	2	<0.7	3	<0.7	<0.7	--
Aluminum (Dissolved)	µg/L	--	--	311	3	2	3	2	--
Iron (Dissolved)	mg/L	--	--	0.618	0.004	0.005	0.007	<0.003	--
Manganese (Dissolved)	mg/L	--	--	0.0797	0.0021	0.0012	0.0026	0.0009	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-7I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/30/2018	11/15/2018	12/12/2018	5/22/2019	11/12/2020
Field Parameters									
Elevation	ft NGVD	--	--	369.01	368.51	368.5	368.27	371.73	369.44
pH	S.U.	--	7.4	7.5	7.3	7.03	7.27	8.4	6.72
Specific Conductance	µmhos/cm	--	--	419	613	460	645	573	712
Turbidity	NTU	--	--	19	14.4	7.05	19.9	1.6	1.43
Dissolved Oxygen	mg/L	--	--	0.3	0.36	0.95	0.21	0.7	0.29
Temperature	°C	--	--	15.5	15.17	13.78	14.46	15.1	15.02
ORP	mV	--	--	57	-19.2	68.4	44	-71.2	-57
Laboratory Parameters									
Antimony	µg/L	6	--	0.02	0.03	<0.02	<0.02	0.02	--
Arsenic	µg/L	10	--	0.28	0.43	0.24	0.26	0.23	--
Barium	µg/L	2000	--	175	230	162	147	116	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.05	0.06	0.03	0.03	0.35	--
Chromium	µg/L	100	--	0.2	0.315	0.09	0.07	0.09	--
Cobalt	µg/L	6	--	3.07	8.34	1.11	1.67	1.1	--
Copper	µg/L	--	--	0.55	1.45	0.59	0.76	0.4	--
Lead	µg/L	15	--	0.45	0.6	0.05	0.145	0.228	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--
Molybdnum	µg/L	100	--	4.2	4.31	<0.4	3.45	3.63	--
Selenium	µg/L	50	--	0.05	0.09	0.05	0.05	0.04	--
Thallium	µg/L	2	--	<0.1	0.1	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	2	15.1	1	2	3	--
Silica (Dissolved)	mg/L	--	--	20.5	18.1	18.5	18.8	18.4	--
Aluminum	µg/L	--	--	74.1	304	69.9	39.5	27.7	--
Boron	mg/L	--	0.07	0.04	0.06	0.09	0.08	0.03	<0.02
Calcium	mg/L	--	75.3	75.4	68.8	68.8	73.7	73.7	71.4
Lithium	mg/L	0.04	--	0.01	<0.009	<0.009	<0.009	<0.009	--
Magnesium	mg/L	--	--	21.9	21.7	21.4	22.8	21.5	--
Manganese	mg/L	--	--	2.76	4	1.08	2.89	0.821	--
Potassium	mg/L	--	--	1.22	0.97	1.57	1.19	1.08	--
Sodium	mg/L	--	--	19.8	20.1	21.5	21.3	18.1	--
Strontium	mg/L	--	--	0.0928	0.0932	0.1	0.103	0.11	--
Alkalinity	mg/L	--	--	236	237	233	229	232	--
Bromide	mg/L	--	--	0.1	0.1	0.1	0.1	0.1	--
Chloride	mg/L	--	45	45.8	48.2	47.6	48.8	49	53.3
Fluoride	mg/L	4	0.33	0.34	0.34	0.35	0.35	0.33	0.36
TDS	mg/L	--	312	348	338	354	347	376	357
Sulfate	mg/L	--	38.4	38.9	38.9	39	39.1	43.1	42.6
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	--
Radium-228	pCi/L	--	--	-0.0705	0.369	0.123	0.089	0.643	--
Radium-226	pCi/L	--	--	4.16	0.513	0.605	0.934	0.155	--
Radium-226/228	pCi/L	5	--	4.16	0.882	0.728	1.023	0.798	--
Copper (Dissolved)	µg/L	--	--	0.93	0.24	1.56	0.72	0.15	--
Zinc (Dissolved)	µg/L	--	--	2	0.9	3	2	2	--
Aluminum (Dissolved)	µg/L	--	--	1	10.6	2	137	2	--
Iron (Dissolved)	mg/L	--	--	<0.003	0.01	0.006	0.128	<0.003	--
Manganese (Dissolved)	mg/L	--	--	0.172	0.51	0.243	3.9	0.121	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-7D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/31/2018	11/15/2018	12/12/2018	5/22/2019	11/12/2020
Field Parameters									
Elevation	ft NGVD	--	--	369.08	368.65	368.57	368.35	371.82	369.50
pH	S.U.	--	7.2	7.5	6.91	7.26	7.18	7.91	6.64
Specific Conductance	µmhos/cm	--	--	419	617	444	622	549	1760
Turbidity	NTU	--	--	10.8	1.02	5.96	0	0.01	0.07
Dissolved Oxygen	mg/L	--	--	0.7	3.72	11.3	0.52	2	0
Temperature	°C	--	--	15.2	14.79	13.32	15.23	16.25	15.17
ORP	mV	--	--	57	26.4	26.4	-5	-40.4	-11
Laboratory Parameters									
Antimony	µg/L	6	--	0.04	0.03	0.04	0.06	0.02	--
Arsenic	µg/L	10	--	0.91	0.8	0.87	0.85	0.72	--
Barium	µg/L	2000	--	286	283	268	320	284	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.02	0.02	0.04	<0.01	<0.01	--
Chromium	µg/L	100	--	0.2	0.334	0.1	0.1	0.07	--
Cobalt	µg/L	6	--	2.52	2.46	2.24	2.24	1.88	--
Copper	µg/L	--	--	0.34	0.44	0.57	1.59	0.08	--
Lead	µg/L	15	--	0.1	0.164	0.101	0.144	<0.02	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--
Molybdnum	µg/L	100	--	4.09	9.76	7.38	5.43	3.49	--
Selenium	µg/L	50	--	0.05	0.05	0.03	<0.03	<0.03	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	1	2	4	3	5.1	--
Silica (Dissolved)	mg/L	--	--	216	19.2	19.9	19.8	19.2	--
Aluminum	µg/L	--	--	31.4	56.7	16.5	<1	1	--
Boron	mg/L	--	0.06	0.04	0.05	0.07	0.04	0.02	<0.02
Calcium	mg/L	--	80.1	79.2	75	62.8	77.4	76.7	153
Lithium	mg/L	0.04	--	<0.009	0.01	0.02	<0.009	<0.009	--
Magnesium	mg/L	--	--	25	25.8	21	25.7	24.3	--
Manganese	mg/L	--	--	1.89	1.66	1.34	1.51	1.49	--
Potassium	mg/L	--	--	1.22	1.07	1.39	1.25	0.94	--
Sodium	mg/L	--	--	14.2	15.4	12.9	15.3	13.9	--
Strontium	mg/L	--	--	0.137	0.141	0.125	0.146	0.138	--
Alkalinity	mg/L	--	--	273	293	296	300	296	--
Bromide	mg/L	--	--	0.09	0.08	0.08	0.08	0.009	--
Chloride	mg/L	--	17.3	17.5	17.2	16.9	17.2	19.1	360
Fluoride	mg/L	4	0.27	0.26	0.26	0.26	0.27	0.26	0.25
TDS	mg/L	--	359	358	3.46	340	344	371	899
Sulfate	mg/L	--	36.9	36.3	36	35.4	35.5	35.2	33.8
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	--
Radium-228	pCi/L	--	--	0.36	0.202	0.548	0.159	0.89	--
Radium-226	pCi/L	--	--	0.983	0.107	0.45	0.717	0.265	--
Radium-226/228	pCi/L	5	--	1.343	0.309	0.998	0.876	1.155	--
Copper (Dissolved)	µg/L	--	--	0.55	0.17	2.01	0.18	0.77	--
Zinc (Dissolved)	µg/L	--	--	2	2	4	1	3	--
Aluminum (Dissolved)	µg/L	--	--	6.36	6.44	2	3	2	--
Iron (Dissolved)	mg/L	--	--	0.103	0.081	0.08	0.093	0.072	--
Manganese (Dissolved)	mg/L	--	--	1.76	1.6	1.47	1.35	1.5	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/19/2016	9/21/2016	11/17/2016	1/9/2017	3/7/2017	5/9/2017	7/18/2017	10/4/2017	12/12/2017	6/5/2018	11/13/2018	5/23/2019	11/21/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	369.78	369.44	369.25	368.53	368.39	368.39	368.81	367.5	366.59	369.59	368.9	371.48	371.51	370.01
pH	S.U.	--	7.3	7.2	7.1	7.9	7.6	7.6	7.4	7.4	7.75	7.7	7.59	7.58	7.38	7.43	6.29
Specific Conductance	µmhos/cm	--	--	516	540	811	450	260	444	410	395	460	400	354	440	495	567
Turbidity	NTU	--	--	1.1	2	2	3	4	8	1	2.46	6	3.48	2.6	0.69	53.7	0
Dissolved Oxygen	mg/L	--	--	3.2	3.6	1	2	4	2	3.2	3.12	0.8	2.1	3.8	6.54	6.51	4.63
Temperature	°C	--	--	20.7	21.6	16.2	14	14.2	15.6	15.8	16.57	14.1	15.05	14.4	16.17	12.82	14.81
ORP	mV	--	--	29	18	275	131	50	50	65	29.9	-17	-33.7	158	54.2	110.9	164
Laboratory Parameters																	
Antimony	µg/L	6	--	0.3	0.02	0.03	0.02	0.04	0.03	0.02	--	--	--	0.05	<0.02	0.04	--
Arsenic	µg/L	10	--	1.78	1.33	1.26	1.56	1.53	2.09	1.19	--	--	--	1.61	1.52	1.97	--
Barium	µg/L	2000	--	13.1	12.2	10.9	13.8	14.5	16.9	10.9	--	--	--	10.4	9.22	16.6	--
Beryllium	µg/L	4	--	0.232	<0.005	<0.005	0.006	0.009	0.01	<0.004	--	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.31	0.02	0.05	0.01	0.26	0.09	0.13	--	--		0.03	<0.01	0.03	--
Chromium	µg/L	100	--	0.6	0.4	0.156	1.04	0.881	0.423	0.277	--	--	--	0.578	0.235	0.378	--
Cobalt	µg/L	6	--	0.453	0.125	0.113	0.447	0.433	0.981	0.052	--	--	--	0.207	0.058	0.669	--
Copper	µg/L	--	--	--	--	--	--	--	--	0.18	0.12	--	0.25	1.7	0.13	0.5	--
Lead	µg/L	15	--	0.364	0.066	0.065	0.19	0.278	0.389	0.038	--	--	--	0.152	0.03	0.33	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.015	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	1.1	0.8	0.71	0.77	1.56	0.75	0.83	--	--	--	0.9	0.9	0.5	--
Selenium	µg/L	50	--	0.6	0.2	0.2	0.2	0.2	0.3	0.2	--	--	--	0.5	0.6	1	--
Thallium	µg/L	2	--	0.276	0.03	<0.01	0.01	0.17	<0.01	<0.01	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	0.7	0.6	--	1	3	2	2	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	21.5	21.2	24.7	--	21.7	21.4	<0.06	20.9	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	7.37	10.6	--	53	31	8.03	164	--
Boron	mg/L	--	0.01	0.012	0.011	0.032	<0.002	0.043	0.028	0.022	0.016	--	0.058	0.04	<0.02	0.01	<0.02
Calcium	mg/L	--	42.7	41.5	42.7	42.9	45.8	44.8	42.9	44.4	39.8	--	42.3	35.6	35.9	39	42.2
Lithium	mg/L	0.04	--	0.025	0.001	0.002	0.002	0.006	0.006	0.001	--	--	--	<0.009	0.02	0.00311	--
Magnesium	mg/L	--	--	--	--	--	--	19.6	20	20	17.6	--	18.8	16	16.1	16.9	--
Manganese	mg/L	--	--	--	--	--	--	--	--	0.0021	--	--	0.0323	0.0154	0.0033	0.0413	--
Potassium	mg/L	--	--	--	--	--	--	0.91	0.89	0.77	0.65	--	0.82	0.88	0.76	1	--
Sodium	mg/L	--	--	--	--	--	--	41.2	40.5	42.1	43.2	--	40.1	34.6	37.4	39.7	--
Strontium	mg/L	--	--	--	--	--	--	0.0562	0.0564	0.0543	0.0494	--	0.0555	0.0464	0.0458	0.0478	--
Alkalinity	mg/L	--	--	--	--	--	--	162	181	167	171	--	181	159	150	173	--
Bromide	mg/L	--	--	--	--	--	--	0.03	0.062	0.04	0.06	--	<0.02	<0.04	<0.04	0.1	--
Chloride	mg/L	--	23.7	23.5	22.1	21.1	20.8	21.4	22.8	22.7	22.4	22.5	23.8	22.9	23.6	23.1	27.2
Fluoride	mg/L	4	0.56	0.56	0.54	0.55	0.47	0.52	0.52	0.47	0.52	0.56	0.59	0.57	0.58	0.49	0.5
TDS	mg/L	--	345	321	332	322	300	320	319	319	317	--	324	288	312	324	342
Sulfate	mg/L	--	26.5	26.4	23.4	21.7	22.1	21.7	21.8	22.3	23.1	24.9	21.2	19.5	20.4	20	23.8
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.455	1.16	0.343	0.394	0.26	-0.175	1.5	--	--	--	0.346	0.113	0.0252	--
Radium-226	pCi/L	--	--	0.122	0.131	0.147	0.282	0.0561	0.127	0.153	--	--	--	0.137	0.0183	0.296	--
Radium-226/228	pCi/L	5	--	0.577	1.291	0.49	0.676	0.3161	-0.048	1.653	--	--	--	0.483	0.1313	0.3212	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.96	--	--	0.44	0.29	0.48	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.5	--	--	0.7	2	2	0.7	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2	--	--	1	1	7.36	10	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.004	<0.0004	<0.0004	0.014	--	0.002	0.003	0.007	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	0.0002	0.0004	0.0002	0.0004	--	0.0012	0.0006	0.0007	<0.0005	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.96
pH	S.U.	--	7.3	6.8
Specific Conductance	µmhos/cm	--	--	633
Turbidity	NTU	--	--	5.16
Dissolved Oxygen	mg/L	--	--	3.21
Temperature	°C	--	--	17.04
ORP	mV	--	--	94
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.01	<0.02
Calcium	mg/L	--	42.7	43.5
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	23.7	27.1
Fluoride	mg/L	4	0.56	0.56
TDS	mg/L	--	345	326
Sulfate	mg/L	--	26.5	23.3
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/19/2016	9/21/2016	11/17/2016	1/9/2017	3/6/2017	5/9/2017	7/18/2017	10/4/2017	12/12/2017	6/4/2018	11/14/2018	5/23/2019	11/22/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	370.06	369.7	369.51	368.84	368.68	368.68	369.07	367.78	366.87	369.85	367.78	371.38	371.37	369.87
pH	S.U.	--	7.2	7.2	7.44	7.6	7.6	7.4	7.2	7.3	7.56	7.9	7.68	7.22	7.22	6.73	7.83
Specific Conductance	µmhos/cm	--	--	580	455	968	420	80	507	485	471	390	619	453	607	525	601
Turbidity	NTU	--	--	9	3.29	1	5	10	2	1	6.26	1	3.18	9	2.4	8	0
Dissolved Oxygen	mg/L	--	--	0.6	0.17	0.8	1	4.5	0.3	0.2	0.31	9.7	2.46	0.37	2.53	1.3	0
Temperature	°C	--	--	21	15.39	17.1	14	14.4	15	16.2	15.51	14.4	17.42	13.8	19.41	13.6	15.09
ORP	mV	--	--	-60	-63.9	-1	29	25	52	-15	-67.4	111	-75.3	190	-8.1	-185	21
Laboratory Parameters																	
Antimony	µg/L	6	--	0.27	0.07	0.1	0.08	0.08	0.08	0.07	--	--	--	0.17	0.17	0.16	--
Arsenic	µg/L	10	--	11.5	2.08	1.39	2.58	2.78	2.09	1.31	--	--	--	3.41	1.07	1.6	--
Barium	µg/L	2000	--	70.1	57	58.4	54.9	56.9	57.8	60.4	--	--	--	57.9	63.8	58.5	--
Beryllium	µg/L	4	--	0.119	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.28	0.02	0.04	0.02	0.04	0.05	0.02	--	--		0.15	0.02	0.08	--
Chromium	µg/L	100	--	0.5	0.1	0.055	0.817	0.511	0.23	0.077	--	--	--	0.07	0.05	0.1	--
Cobalt	µg/L	6	--	0.961	0.643	0.646	0.671	0.656	0.77	0.672	--	--	--	1.01	0.55	0.741	--
Copper	µg/L	--	--	--	--	--	--	--	--	0.11	0.13	--	0.42	1.45	0.2	0.5	--
Lead	µg/L	15	--	0.242	0.02	0.032	0.025	0.032	0.054	0.01	--	--	--	0.111	<0.02	<0.05	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	3	2.34	2.47	2.31	2.73	2.29	2.58	--	--	--	2.7	2.72	2.43	--
Selenium	µg/L	50	--	7.5	2.7	3	2.3	2.9	4.5	4.7	--	--	--	2.5	3.7	1.4	--
Thallium	µg/L	2	--	0.166	0.03	0.03	0.04	0.05	0.03	0.03	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	0.7	0.9	--	3.2	9.2	21.9	3	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	14.6	14.7	17.1	--	16.4	14.1	<0.06	13.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	2	1	--	0.8	8.7	<1	<5	--
Boron	mg/L	--	0.017	0.016	0.017	0.028	0.006	0.083	0.045	0.026	0.096	--	0.044	0.06	0.03	0.02	0.02
Calcium	mg/L	--	72	67.9	67.4	77.5	79.5	74.7	71.9	72.2	74.7	--	76.7	67.7	70.7	66.9	68.8
Lithium	mg/L	0.04	--	0.007	0.008	0.009	0.005	0.01	0.001	<0.0002	--	--	--	0.02	0.02	0.00419	--
Magnesium	mg/L	--	--	--	--	--	--	22.3	22.9	22.2	22.5	--	23.5	21.4	22.4	20.7	--
Manganese	mg/L	--	--	--	--	--	--	--	--	0.357	--	--	0.32	0.509	0.407	0.443	--
Potassium	mg/L	--	--	--	--	--	--	1.84	1.73	1.48	2.02	--	1.6	2.28	1.76	1.76	--
Sodium	mg/L	--	--	--	--	--	--	29.4	28.5	29.7	28.6	--	32.5	31.5	31.6	29.2	--
Strontium	mg/L	--	--	--	--	--	--	0.146	0.148	0.14	0.146	--	0.152	0.139	0.138	0.129	--
Alkalinity	mg/L	--	--	--	--	--	--	245	246	247	237	--	268	250	250	268	--
Bromide	mg/L	--	--	--	--	--	--	0.04	0.065	0.062	0.064	--	0.05	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	21.7	22	21.5	21.3	20.9	20.7	21.2	20.9	20.1	19.3	20.9	20.6	21	19.7	20.4
Fluoride	mg/L	4	0.35	0.34	0.29	0.29	0.25	0.28	0.28	0.25	0.27	0.29	0.29	0.33	0.34	0.3	0.32
TDS	mg/L	--	370	358	376	387	371	391	376	379	378	--	407	390	371	381	357
Sulfate	mg/L	--	87.5	86.3	79.2	77.5	80	80.3	81.9	83.4	85.9	87.1	79	68.2	62.3	68.3	61.7
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.07	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.4275	0.157	0.42	1.1	0.372	0.45	0.616	--	--	--	0.354	0.43	0.479	--
Radium-226	pCi/L	--	--	0.824	0.521	0.746	0.725	0.643	0.561	0.463	--	--	--	0.676	0.663	0.723	--
Radium-226/228	pCi/L	5	--	1.2515	0.678	1.166	1.825	1.015	1.011	1.079	--	--	--	1.03	1.093	1.202	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.52	--	--	0.27	0.17	0.45	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.4	--	--	16.8	<0.7	2	0.9	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.46	--	--	<0.8	<1	2	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	0.36	0.405	0.35	0.515	--	1.08	0.213	0.334	0.333	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	0.349	0.39	0.324	0.363	--	0.31	0.358	0.368	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.84
pH	S.U.	--	7.2	7.38
Specific Conductance	µmhos/cm	--	--	621
Turbidity	NTU	--	--	6.98
Dissolved Oxygen	mg/L	--	--	0.48
Temperature	°C	--	--	17.23
ORP	mV	--	--	-8
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.017	<0.02
Calcium	mg/L	--	72	66.8
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	21.7	19.3
Fluoride	mg/L	4	0.35	0.38
TDS	mg/L	--	370	343
Sulfate	mg/L	--	87.5	56.7
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-11S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/18/2016	9/20/2016	11/16/2016	1/9/2017	3/7/2017	5/19/2017	7/18/2017	10/3/2017	12/12/2017	6/5/2018	11/14/2018	5/23/2019	11/15/2019	5/20/2020
Field Parameters																	
Elevation	ft NGVD	--	--	369.93	369.4	368.47	367.7	367.51	367.92	368.57	367.86	366.6	369.69	369.27	373.25	371.21	
pH	S.U.	--	7.9	7.3	7.3	8.4	8.1	7.9	7.78	7.7	7.2	8.3	7.21	7.55	7.71	7.76	7.4
Specific Conductance	µmhos/cm	--	--	272	330	433	200	70	307	386	267	260	360	309	440	533	435
Turbidity	NTU	--	--	0.81	0.4	1	0.8	0.3	2.64	0.4	0.5	0.6	0.39	0.2	1	1.97	0.18
Dissolved Oxygen	mg/L	--	--	9.3	7.4	2	7	7	6.99	6.1	8	19.4	6.94	6.9	9	5.53	8.95
Temperature	°C	--	--	16.1	22.4	14.7	14.8	15	15.7	17.1	15.4	13.4	14.97	13.25	17.3	15.3	13.75
ORP	mV	--	--	24	167	227	126	47	75.6	73	-13	73	-2.7	152	240	114.7	216
Laboratory Parameters																	
Antimony	µg/L	6	--	0.04	0.04	0.05	0.04	0.04	0.04	<0.05	--	--	--	0.05	0.05	0.04	--
Arsenic	µg/L	10	--	0.53	0.42	0.45	0.52	0.52	0.48	0.5	--	--	--	0.38	0.36	0.43	--
Barium	µg/L	2000	--	9.79	11.3	7.91	6.52	7.09	7.73	8.16	--	--	--	12.5	13.7	10.8	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.02	--	--	--	<0.02	0.03	<0.02	--
Cadmium	µg/L	5	--	0.03	0.03	0.02	0.01	0.007	0.03	<0.02	--	--		0.03	0.02	<0.01	--
Chromium	µg/L	100	--	0.5	0.8	0.416	0.725	1.25	0.567	0.568	--	--	--	0.384	0.483	0.468	--
Cobalt	µg/L	6	--	0.043	0.029	0.027	0.022	0.027	0.03	0.02	--	--	--	<0.02	0.03	<0.02	--
Copper	µg/L	--	--	--	--	--	--	--	--	0.44	0.26	--	0.25	0.44	2.07	0.3	--
Lead	µg/L	15	--	0.02	0.046	0.027	0.02	0.02	0.023	0.06	--	--	--	0.03	<0.02	<0.05	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	0.002	0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	4.36	3.37	4.71	6.09	6.03	4.86	4.69	--	--	--	2.4	2.04	2.15	--
Selenium	µg/L	50	--	0.08	0.1	0.07	0.05	0.2	0.2	0.3	--	--	--	0.04	<0.03	0.06	--
Thallium	µg/L	2	--	0.01	0.01	0.02	0.01	0.01	0.01	0.2	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	7	<0.4	--	2	<0.7	<0.7	0.8	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	24.9	24.4	27.3	--	25.8	26.6	24.5	25	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	10	3.63	--	2	3	3	<5	--
Boron	mg/L	--	0.062	0.062	0.077	0.053	0.029	0.057	0.047	0.067	0.09	--	0.076	0.11	0.08	0.052	0.04
Calcium	mg/L	--	41.6	38.8	45.1	37.3	40.4	42.8	41.2	44.2	43.7	--	55.8	56.4	54.3	47.6	55.8
Lithium	mg/L	0.04	--	0.024	0.004	0.005	0.003	0.013	0.009	0.002	--	--	--	0.01	0.01	0.00669	--
Magnesium	mg/L	--	--	--	--	--	--	17.2	17.7	18.8	17.6	--	24.8	19.5	17.7	17	--
Manganese	mg/L	--	--	--	--	--	--	--	--	<0.0001	--	--	<0.0002	0.0004	<0.0002	0.0006	--
Potassium	mg/L	--	--	--	--	--	--	0.42	0.42	0.42	0.48	--	0.37	0.88	0.4	0.5	--
Sodium	mg/L	--	--	--	--	--	--	5.72	5.58	6.82	7.26	--	7.11	5.35	4.43	4.47	--
Strontium	mg/L	--	--	--	--	--	--	0.0508	0.0535	0.0532	0.0537	--	0.0706	0.0774	0.0707	0.0638	--
Alkalinity	mg/L	--	--	--	--	--	--	153	175	187	167	--	226	246	235	223	--
Bromide	mg/L	--	--	--	--	--	--	<0.02	<0.06	<0.02	<0.02	--	<0.02	<0.04	<0.4	<0.04	--
Chloride	mg/L	--	1.82	1.83	1.62	1.54	2.12	4.63	9.87	8.19	3.68	2.4	6.98	1.79	1.62	1.48	2.68
Fluoride	mg/L	4	0.74	0.76	0.73	0.92	0.96	1	0.86	0.75	0.89	0.82	0.62	0.72	0.82	0.77	0.58
TDS	mg/L	--	212	201	196	182	179	197	239	224	200	--	276	238	279	216	246
Sulfate	mg/L	--	10.9	10.6	5.3	4.1	7.6	13.7	16.4	15.6	9.3	8	21.7	5.9	14.7	2.7	13.5
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.07	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.231	0.741	0.179	1.96	0.0959	0.0337	0.771	--	--	--	0.419	0.805	1.72	--
Radium-226	pCi/L	--	--	0.584	-0.0127	0.109	0.141	0.0906	0.091	0.0225	--	--	--	0.217	0.0772	0.0737	--
Radium-226/228	pCi/L	5	--	0.815	0.7283	0.288	2.101	0.1865	0.1247	0.7935	--	--	--	0.636	0.8822	1.7937	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.82	--	--	0.63	0.71	0.26	0.3	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	9	--	--	2	1	<0.7	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	66.5	--	--	2.92	3	2	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.014	--	0.008	0.04	0.004	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	<0.0001	0.0002	0.0001	<0.0002	--	<0.002	0.0005	<0.0002	<0.0005	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-11S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/11/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.17
pH	S.U.	--	7.9	7.36
Specific Conductance	µmhos/cm	--	--	302
Turbidity	NTU	--	--	1.7
Dissolved Oxygen	mg/L	--	--	8.2
Temperature	°C	--	--	14.4
ORP	mV	--	--	173
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.062	0.04
Calcium	mg/L	--	41.6	52.4
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	1.82	1.52
Fluoride	mg/L	4	0.74	0.83
TDS	mg/L	--	212	211
Sulfate	mg/L	--	10.9	2.9
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-12S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	11/1/2018	11/14/2008	12/11/2018	5/22/2019	11/21/2019	11/11/2020
Field Parameters										
Elevation	ft NGVD	--	--	367.81	367.96	367.93	368.21	372.14	368.42	367.68
pH	S.U.	--	7.2	5.9	7.6	6.83	7.12	7.31	7.52	7.19
Specific Conductance	µmhos/cm	--	--	522	551	517	816	757	728	712
Turbidity	NTU	--	--	9	1.14	2.14	23.7	13.8	5.1	3.13
Dissolved Oxygen	mg/L	--	--	0.2	3.13	0.36	0.29	0	10.83	1.93
Temperature	°C	--	--	14.5	14.05	13.16	13.36	14.8	12.81	13.23
ORP	mV	--	--	68	-34.8	184.2	-10	9	144.1	81
Laboratory Parameters										
Antimony	µg/L	6	--	0.06	0.03	0.17	0.06	0.07	0.19	--
Arsenic	µg/L	10	--	0.3	0.27	0.25	0.61	0.45	0.44	--
Barium	µg/L	2000	--	26.8	26.3	25.3	31	29.7	28.8	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.06	0.05	0.13	0.04	0.09	0.09	--
Chromium	µg/L	100	--	0.276	0.1	0.1	0.639	0.476	0.315	--
Cobalt	µg/L	6	--	0.642	0.4783	0.439	1.23	0.924	0.955	--
Copper	µg/L	--	--	0.5	0.36	0.55	1.08	1.59	1.2	--
Lead	µg/L	15	--	0.34	0.08	0.08	0.904	0.538	0.526	--
Mercury	µg/L	2	--	--	--	--	--	0.002	<0.002	--
Molybdnum	µg/L	100	--	2	2	2	2	1	1	--
Selenium	µg/L	50	--	0.2	0.07	0.1	0.2	0.09	0.3	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	1	0.8	2	2	19.3	8.2	--
Silica (Dissolved)	mg/L	--	--	21.5	20	20	20.3	19.3	18.8	--
Aluminum	µg/L	--	--	45.2	8.53	3	291	119	106	--
Boron	mg/L	--	0.067	0.04	0.07	0.03	0.12	0.02	0.03	<0.02
Calcium	mg/L	--	86.3	87	86.4	80.2	89.3	84.9	88.7	83.4
Lithium	mg/L	0.04	--	0.01	0.01	0.01	<0.009	0.01	0.00591	--
Magnesium	mg/L	--	--	31.6	33.7	30.5	33	30.3	32.3	--
Manganese	mg/L	--	--	0.0864	0.0758	0.0811	0.106	0.163	0.116	--
Potassium	mg/L	--	--	1.18	1.26	1.57	1.87	1.19	1.49	--
Sodium	mg/L	--	--	30.2	33.9	32.1	32.4	30.5	29.6	--
Strontium	mg/L	--	--	0.103	0.111	0.114	0.119	0.114	0.114	--
Alkalinity	mg/L	--	--	392	358	374	361	354	348	--
Bromide	mg/L	--	--	0.1	0.1	0.1	0.1	0.1	0.2	--
Chloride	mg/L	--	30.1	30.1	29.9	29.4	29.5	29.7	28.7	27.4
Fluoride	mg/L	4	0.35	0.36	0.36	0.37	0.36	0.38	0.32	0.39
TDS	mg/L	--	445	446	434	422	437	455	456	420
Sulfate	mg/L	--	37.2	37.1	37.1	36.4	36.7	37.4	37.8	37.5
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.562	0.306	0.941	0.569	0.568	0.613	--
Radium-226	pCi/L	--	--	0.5	0.202	0.244	0.314	0.379	0.226	--
Radium-226/228	pCi/L	5	--	1.062	0.508	1.185	0.883	0.947	0.839	--
Copper (Dissolved)	µg/L	--	--	0.66	0.38	1.41	0.7	0.33	1.96	--
Zinc (Dissolved)	µg/L	--	--	3	2	3	4	7.5	5	--
Aluminum (Dissolved)	µg/L	--	--	2	1	1	76.2	2	<5	--
Iron (Dissolved)	mg/L	--	--	0.025	0.01	0.006	0.238	0.05	<0.02	--
Manganese (Dissolved)	mg/L	--	--	0.0847	0.0797	0.0677	0.103	0.144	0.0388	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-12I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	11/1/2018	11/14/2018	12/11/2018	5/22/2019	11/14/2019	11/12/2020
Field Parameters										
Elevation	ft NGVD	--	--	369.85	367.84	367.81	368.16	371.95	368.3	367.52
pH	S.U.	--	0	7.15	7.74	7.01	7.12	7.27	7.33	7.05
Specific Conductance	µmhos/cm	--	--	662	622	579	901	882	811	870
Turbidity	NTU	--	--	1.48	8.76	2.54	2.3	39.5	3	0.97
Dissolved Oxygen	mg/L	--	--	1.2	2.68	9.27	1.99	0.2	2.59	0.27
Temperature	°C	--	--	15.21	13.94	12.9	12.92	14.8	13.7	12.29
ORP	mV	--	--	-35.1	-87.8	-54.9	-52	-57	-10.1	-59
Laboratory Parameters										
Antimony	µg/L	6	--	<0.01	<0.02	<0.02	<0.02	0.12	0.03	--
Arsenic	µg/L	10	--	10.1	9.24	8.79	9.32	12.6	10.3	--
Barium	µg/L	2000	--	370	374	365	377	395	393	--
Beryllium	µg/L	4	--	0.006	<0.02	0.02	<0.02	0.04	<0.02	--
Cadmium	µg/L	5	--	<0.005	0.02	<0.01	0.17	0.16	0.02	--
Chromium	µg/L	100	--	0.101	0.289	0.05	0.2	1.32	0.2	--
Cobalt	µg/L	6	--	1.5	1.67	1.42	1.58	2.7	1.54	--
Copper	µg/L	--	--	1.15	1.23	0.44	0.56	8.39	1	--
Lead	µg/L	15	--	0.063	0.21	0.03	0.07	1.47	0.07	--
Mercury	µg/L	2	--	--	--	--	--	0.002	<0.002	--
Molybdnum	µg/L	100	--	2.92	2.87	2.87	3.13	2.8	3.01	--
Selenium	µg/L	50	--	0.04	0.06	<0.003	<0.03	0.1	<0.03	--
Thallium	µg/L	2	--	0.01	<0.1	<0.1	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	1	2	1	3	6.3	17.5	--
Silica (Dissolved)	mg/L	--	--	20.9	18.8	19.2	12.6	19	17.8	--
Aluminum	µg/L	--	--	48.8	64.6	5.87	5.67	581	10	--
Boron	mg/L	--	0.115	0.062	0.115	0.03	0.05	0.03	0.02	<0.02
Calcium	mg/L	--	94.1	100	94.8	90.9	95.6	99.2	93.9	93.2
Lithium	mg/L	0.04	--	0.009	<0.009	0.03	0.01	0.01	0.00469	--
Magnesium	mg/L	--	--	32.5	32.6	30.5	31	31.5	29.9	--
Manganese	mg/L	--	--	1.17	1.2	1.08	1.12	2.13	1.08	--
Potassium	mg/L	--	--	2.03	2.43	2.28	2.26	2.13	1.9	--
Sodium	mg/L	--	--	43.2	45	43.9	42	45.7	49.4	--
Strontium	mg/L	--	--	0.134	0.138	0.144	0.142	0.15	0.14	--
Alkalinity	mg/L	--	--	433	448	433	441	458	431	--
Bromide	mg/L	--	--	0.139	0.1	0.1	0.1	0.1	0.1	--
Chloride	mg/L	--	33	34	33.9	33.7	33.1	33.4	32.8	33.3
Fluoride	mg/L	4	0.24	0.25	0.25	0.25	0.23	0.25	0.22	0.27
TDS	mg/L	--	499	506	493	484	485	532	484	497
Sulfate	mg/L	--	31.5	30.9	31	30.7	31	32.5	32.3	32.3
Sulfide	mg/L	--	--	<0.4	<0.1	<0.07	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	-0.0683	0.788	1.19	1.04	1.17	0.863	--
Radium-226	pCi/L	--	--	0.463	0.516	0.51	0.83	0.565	0.578	--
Radium-226/228	pCi/L	5	--	0.463	1.304	1.7	1.87	1.735	1.441	--
Copper (Dissolved)	µg/L	--	--	0.19	0.35	0.42	1.08	0.64	1.68	--
Zinc (Dissolved)	µg/L	--	--	1	10.2	2	8.1	1	3	--
Aluminum (Dissolved)	µg/L	--	--	2.36	5.95	2	3	16.6	<5	--
Iron (Dissolved)	mg/L	--	--	1.15	1.18	1.09	1.16	1.51	1.15	--
Manganese (Dissolved)	mg/L	--	--	1.12	1.16	1.06	1.16	1.11	1.14	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-12D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/30/2018	11/14/2018	12/11/2018	5/22/2019	11/15/2019	11/12/2020
Field Parameters										
Elevation	ft NGVD	--	--	367.91	367.91	367.86	368.25	372.03	368.34	367.59
pH	S.U.	--	7.3	7.16	8.06	7.08	7.17	7.41	7.42	7.06
Specific Conductance	µmhos/cm	--	--	530	510	449	717	686	850	684
Turbidity	NTU	--	--	9.68	12.7	5.25	2.2	1.4	7.41	1.51
Dissolved Oxygen	mg/L	--	--	1.68	1.41	4.9	1.4	0.7	7.97	0.31
Temperature	°C	--	--	15.56	15.16	12	12.56	15.1	13.4	12.79
ORP	mV	--	--	-52.6	-90.9	-40.8	-69	-56	89.2	-77
Laboratory Parameters										
Antimony	µg/L	6	--	0.02	0.06	<0.02	<0.02	0.02	0.25	--
Arsenic	µg/L	10	--	11.9	9.78	9.95	9.64	13.3	7.64	--
Barium	µg/L	2000	--	282	268	272	271	282	273	--
Beryllium	µg/L	4	--	0.006	<0.02	<0.02	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	<0.005	0.05	<0.01	0.01	0.04	0.08	--
Chromium	µg/L	100	--	0.108	0.266	0.1	0.2	0.06	0.453	--
Cobalt	µg/L	6	--	0.462	0.538	0.378	0.4	0.554	0.679	--
Copper	µg/L	--	--	0.51	41	0.64	0.24	0.46	2.74	--
Lead	µg/L	15	--	0.127	0.329	0.111	0.05	0.02	0.502	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	3.09	2.96	2.94	3.13	3.57	4.24	--
Selenium	µg/L	50	--	<0.03	0.07	<0.03	<0.03	<0.03	0.06	--
Thallium	µg/L	2	--	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	1	3	2	0.8	1	11.5	--
Silica (Dissolved)	mg/L	--	--	21.1	18.9	19.5	19.5	18.8	17.8	--
Aluminum	µg/L	--	--	14	53.9	26.1	5.83	3	105	--
Boron	mg/L	--	0.098	0.112	0.09	0.03	0.09	<0.02	<0.02	<0.02
Calcium	mg/L	--	90.8	95.1	86.9	86.1	82.9	84.5	80.3	91.1
Lithium	mg/L	0.04	--	0.013	<0.009	<0.009	<0.009	0.02	0.00169	--
Magnesium	mg/L	--	--	30.3	29.6	28.5	26.7	26.5	27.2	--
Manganese	mg/L	--	--	0.989	0.902	0.878	0.743	0.979	0.933	--
Potassium	mg/L	--	--	1.16	0.89	1.34	1.45	0.76	0.8	--
Sodium	mg/L	--	--	10.5	11.3	11	10.2	9.06	9.66	--
Strontium	mg/L	--	--	0.161	0.161	0.171	0.158	0.147	0.142	--
Alkalinity	mg/L	--	--	373	353	371	384	368	347	--
Bromide	mg/L	--	--	0.081	0.08	0.07	0.07	0.07	0.1	--
Chloride	mg/L	--	16.1	17.2	17	16.6	16.7	15.9	16.1	17.9
Fluoride	mg/L	4	0.27	0.26	0.26	0.26	0.26	0.26	0.23	0.30
TDS	mg/L	--	328	386	381	374	380	393	376	389
Sulfate	mg/L	--	15.6	14.2	14.2	13.8	13.9	14.8	15.9	16.4
Sulfide	mg/L	--	--	<0.04	<0.1	<0.07	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.643	0.405	0.589	1.69	0.698	0.529	--
Radium-226	pCi/L	--	--	0.702	0.454	0.608	0.766	0.548	0.574	--
Radium-226/228	pCi/L	5	--	1.345	0.859	1.197	2.456	1.246	1.103	--
Copper (Dissolved)	µg/L	--	--	0.35	0.21	0.12	0.44	0.25	<0.2	--
Zinc (Dissolved)	µg/L	--	--	3.3	2	1	1	0.7	4	--
Aluminum (Dissolved)	µg/L	--	--	7.24	2	2	5.13	1	<5	--
Iron (Dissolved)	mg/L	--	--	1.29	0.965	0.996	1.12	1.62	0.616	--
Manganese (Dissolved)	mg/L	--	--	0.994	0.88	0.801	0.832	1.03	0.906	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-13I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/31/2018	11/15/2018	12/11/2018	5/21/2019	11/12/2020
Field Parameters									
Elevation	ft NGVD	--	--	368.83	368.45	368.41	368.31	371.99	369.21
pH	S.U.	--	7.5	7.36	8.12	7.21	7.36	7.54	7.33
Specific Conductance	µmhos/cm	--	--	411	397	451	555	522	494
Turbidity	NTU	--	--	2.14	0.93	0.31	0.45	1.4	2.53
Dissolved Oxygen	mg/L	--	--	0.37	1.15	8.64	0.57	0.4	3.21
Temperature	°C	--	--	15.71	15.25	13.17	14.13	16.5	13.4
ORP	mV	--	--	-15.8	-74.3	44.5	-72	-30	87
Laboratory Parameters									
Antimony	µg/L	6	--	0.02	<0.02	<0.02	0.04	<0.2	--
Arsenic	µg/L	10	--	1.74	1.66	1.6	1.84	2.41	--
Barium	µg/L	2000	--	149	139	141	144	151	--
Beryllium	µg/L	4	--	0.006	<0.02	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	<0.005	<0.01	<0.01	<0.01	<0.01	--
Chromium	µg/L	100	--	0.04	0.1	0.06	0.07	<0.04	--
Cobalt	µg/L	6	--	0.5	0.554	0.477	0.574	0.577	--
Copper	µg/L	--	--	0.39	0.62	0.1	0.58	0.09	--
Lead	µg/L	15	--	0.01	0.04	<0.02	<0.02	<0.02	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--
Molybdnum	µg/L	100	--	4.49	4.23	4.09	4.29	4.11	--
Selenium	µg/L	50	--	<0.03	<0.03	<0.03	<0.03	<0.03	--
Thallium	µg/L	2	--	0.04	<0.1	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	20.1	61.3	<0.7	2	<0.7	--
Silica (Dissolved)	mg/L	--	--	19.6	17.9	17.9	18.4	17.6	--
Aluminum	µg/L	--	--	2.54	10.6	2	<1	1	--
Boron	mg/L	--	0.042	0.09	0.05	<0.02	0.04	0.02	<0.02
Calcium	mg/L	--	67.5	66	58.1	59.7	65.6	67.9	59.1
Lithium	mg/L	0.04	--	0.018	0.01	<0.009	<0.009	<0.009	--
Magnesium	mg/L	--	--	20.4	19.1	19.2	20.9	19.4	--
Manganese	mg/L	--	--	0.491	0.448	0.447	0.523	0.469	--
Potassium	mg/L	--	--	1.23	0.93	1.32	1.24	0.99	--
Sodium	mg/L	--	--	15.2	15.4	15.6	16.4	15.7	--
Strontium	mg/L	--	--	0.0781	0.0744	0.0834	0.0879	0.0831	--
Alkalinity	mg/L	--	--	231	228	231	241	235	--
Bromide	mg/L	--	--	0.04	<0.04	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	20	20.6	20.5	20.3	20.4	20.1	19.1
Fluoride	mg/L	4	0.38	0.38	0.38	0.38	0.38	0.37	0.46
TDS	mg/L	--	297	319	305	310	310	318	292
Sulfate	mg/L	--	40.6	41.6	41.5	41.3	40.7	41.6	39.8
Sulfide	mg/L	--	--	<0.4	<0.1	<0.07	<0.07	<0.1	--
Radium-228	pCi/L	--	--	-0.268	0.658	0.682	0.3	0.76	--
Radium-226	pCi/L	--	--	0.456	0.509	0.669	0.589	0.646	--
Radium-226/228	pCi/L	5	--	0.456	1.167	1.351	0.889	1.406	--
Copper (Dissolved)	µg/L	--	--	0.11	0.39	0.2	0.2	0.15	--
Zinc (Dissolved)	µg/L	--	--	0.7	6.3	<0.7	3	<0.7	--
Aluminum (Dissolved)	µg/L	--	--	1	1	1	5	<1	--
Iron (Dissolved)	mg/L	--	--	0.185	0.189	0.193	0.26	0.278	--
Manganese (Dissolved)	mg/L	--	--	0.493	0.467	0.461	0.483	0.418	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-13D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/31/2018	11/15/2018	12/11/2018	5/21/2019	11/12/2020
Field Parameters									
Elevation	ft NGVD	--	--	368.79	368.43	368.39	368.29	371.95	369.16
pH	S.U.	--	7.4	7.03	8.11	7.17	7.29	7.45	7.29
Specific Conductance	µmhos/cm	--	--	406	382	427	540	524	521
Turbidity	NTU	--	--	5.34	10.6	4.66	3.22	2	31.2
Dissolved Oxygen	mg/L	--	--	1.34	1.4	5.45	0.51	1.7	1.34
Temperature	°C	--	--	16.29	14.99	12.18	14.06	18.7	15.2
ORP	mV	--	--	-71.4	-95.1	-48.5	-94	-48	-51
Laboratory Parameters									
Antimony	µg/L	6	--	0.01	0.02	0.05	0.03	0.07	--
Arsenic	µg/L	10	--	6.44	5.62	7.55	5.3	20.8	--
Barium	µg/L	2000	--	206	204	198	219	265	--
Beryllium	µg/L	4	--	0.007	<0.02	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	<0.005	0.04	<0.01	<0.01	<0.01	--
Chromium	µg/L	100	--	0.071	0.353	0.209	0.06	0.2	--
Cobalt	µg/L	6	--	1.15	1.31	1.05	0.935	1.1	--
Copper	µg/L	--	--	0.26	1.02	0.55	0.28	1.11	--
Lead	µg/L	15	--	0.071	0.438	0.173	<0.02	0.07	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--
Molybdnum	µg/L	100	--	2.88	2.59	2.77	3.23	3.21	--
Selenium	µg/L	50	--	<0.03	0.1	0.07	<0.03	0.04	--
Thallium	µg/L	2	--	0.02	<0.1	>0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	0.6	2	1	2	1	--
Silica (Dissolved)	mg/L	--	--	19.3	17.6	17.9	17.9	17.4	--
Aluminum	µg/L	--	--	21.8	162	58.8	2	12.4	--
Boron	mg/L	--	0.037	0.071	0.111	119	0.03	0.02	<0.02
Calcium	mg/L	--	65.9	68.9	63.4	60.8	67.4	66.2	64.6
Lithium	mg/L	0.04	--	0.016	<0.009	<0.009	<0.009	<0.009	--
Magnesium	mg/L	--	--	21.8	21.7	20.1	22.5	19.7	--
Manganese	mg/L	--	--	0.762	0.669	0.648	0.677	0.997	--
Potassium	mg/L	--	--	1.06	1.14	1.45	1.16	0.82	--
Sodium	mg/L	--	--	11.2	11.6	11.4	11.2	9.25	--
Strontium	mg/L	--	--	0.0852	0.0867	0.0913	0.098	0.0882	--
Alkalinity	mg/L	--	--	231	243	223	252	237	--
Bromide	mg/L	--	--	0.05	<0.04	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	16.3	17	16.9	16.6	16.5	15.9	18.2
Fluoride	mg/L	4	0.28	0.27	0.27	0.28	0.27	0.26	0.30
TDS	mg/L	--	287	296	299	296	305	303	311
Sulfate	mg/L	--	35.5	34.8	34.7	34.1	33.3	33.9	38.8
Sulfide	mg/L	--	--	<0.4	<0.1	<0.07	<0.07	<0.1	--
Radium-228	pCi/L	--	--	0.141	-0.293	-0.157	0.226	0.844	--
Radium-226	pCi/L	--	--	0.501	0.356	0.242	0.389	0.586	--
Radium-226/228	pCi/L	5	--	0.642	0.356	0.242	0.615	1.43	--
Copper (Dissolved)	µg/L	--	--	0.07	0.11	0.09	0.21	0.56	--
Zinc (Dissolved)	µg/L	--	--	0.5	1	<0.7	1	<0.7	--
Aluminum (Dissolved)	µg/L	--	--	11	3	2	20.5	1	--
Iron (Dissolved)	mg/L	--	--	1.29	0.915	0.995	1.13	0.866	--
Manganese (Dissolved)	mg/L	--	--	0.74	0.625	0.702	0.612	0.777	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-14S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/20/2016	9/21/2016	11/17/2016	1/9/2017	3/7/2017	5/19/2017	7/18/2017	10/4/2017	12/12/2017	6/5/2018	11/13/2018	5/23/2019	11/16/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	370.07	369.7	369.34	368.92	368.49	368.63	369.88	368.43	368.41	368.94	369.27	371.36	371.63	369.98
pH	S.U.	--	7.2	7.1	7	7.7	7.5	7.4	6.95	7.3	7	7.6	7.55	7.55	7.15	7.51	7.68
Specific Conductance	µmhos/cm	--	--	576	640	955	530	80	441	496	488	490	450	309	604	655	550
Turbidity	NTU	--	--	3.9	6	1	2	0.7	2.07	1	0.5	1	0.6	0.2	0.61	9.8	0.52
Dissolved Oxygen	mg/L	--	--	3.8	3.3	1	3.4	3	3.82	3.7	4	10.2	5.42	6.9	2.57	0.455	3.22
Temperature	°C	--	--	18.7	22.6	15.2	14.4	13.9	14.54	15.9	15.3	13.5	14.98	13.25	17.01	12.4	15.74
ORP	mV	--	--	43	53	282	147	75	55.6	67	-23	133	-7.9	152	-203.7	-9	150
Laboratory Parameters																	
Antimony	µg/L	6	--	0.02	0.02	0.03	0.02	0.02	0.06	<0.05	--	--	--	<0.02	<0.02	0.03	--
Arsenic	µg/L	10	--	1.54	1.29	0.75	0.91	0.76	0.75	0.7	--	--	--	0.64	0.62	0.62	--
Barium	µg/L	2000	--	31	27.8	26.3	27	26.3	25	27	--	--	--	27	28.9	32.9	--
Beryllium	µg/L	4	--	0.008	0.005	<0.005	<0.005	<0.005	<0.004	<0.02	--	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.21	0.07	0.03	0.05	0.01	0.08	<0.02	--	--		0.05	0.01	<0.01	--
Chromium	µg/L	100	--	0.3	0.3	0.162	0.575	0.66	0.301	0.258	--	--	--	0.2	0.2	0.438	--
Cobalt	µg/L	6	--	0.573	0.333	0.088	0.187	0.083	0.065	0.03	--	--	--	0.03	0.03	0.04	--
Copper	µg/L	--	--	--	--	--	--	--	--	2.38	0.15	--	0.38	0.24	0.25	<0.2	--
Lead	µg/L	15	--	0.307	0.31	0.549	0.115	0.061	0.071	0.116	--	--	--	0.05	0.04	<0.05	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	1.51	1.43	1.26	1.62	1.84	1.35	1.67	--	--	--	1	1	1	--
Selenium	µg/L	50	--	1.4	1.2	1.2	1.1	1.1	1.2	1.3	--	--	--	1.1	0.9	0.9	--
Thallium	µg/L	2	--	<0.01	<0.01	0.02	0.054	0.055	0.01	0.07	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	9	0.8	--	1	1	<0.7	<0.7	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	20.3	20.2	23.3	--	20.4	20.2	<0.06	19.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	11.4	2	--	5.75	7.32	4	5	--
Boron	mg/L	--	0.011	0.008	0.01	0.008	<0.002	0.031	0.017	0.03	0.042	--	0.046	0.04	<0.02	0.01	<0.02
Calcium	mg/L	--	59.2	56.3	59.5	65.4	65.7	63.4	59.8	65.6	67	--	61.1	59.2	66.9	65.1	66.6
Lithium	mg/L	0.04	--	0.018	0.006	0.004	0.006	0.005	0.001	<0.0002	--	--	--	<0.009	0.01	0.00367	--
Magnesium	mg/L	--	--	--	--	--	--	27.6	28.1	29.3	29.9	--	27.4	26.4	30	29.8	--
Manganese	mg/L	--	--	--	--	--	--	--	--	0.0006	--	--	0.0014	0.0015	0.0008	0.002	--
Potassium	mg/L	--	--	--	--	--	--	0.5	0.54	0.49	0.59	--	0.51	0.55	0.53	0.5	--
Sodium	mg/L	--	--	--	--	--	--	33	29.4	30.1	29.9	--	29.2	24.9	23.3	23.7	--
Strontium	mg/L	--	--	--	--	--	--	0.101	0.102	0.103	0.106	--	0.101	0.0954	0.109	0.111	--
Alkalinity	mg/L	--	--	--	--	--	--	232	258	257	249	--	260	259	275	252	--
Bromide	mg/L	--	--	--	--	--	--	<0.02	<0.06	0.03	0.04	--	<0.02	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	28.6	29.4	28.1	27.8	27.2	26.8	29.4	29.6	29.9	30	27.1	29	28.6	28.9	28.6
Fluoride	mg/L	4	0.39	0.39	0.36	0.35	0.33	0.36	0.37	0.33	0.34	0.34	0.39	0.37	0.37	0.38	0.33
TDS	mg/L	--	368	364	361	362	344	354	376	377	376	--	360	344	390	374	411
Sulfate	mg/L	--	34.9	36.5	32.5	29.1	30.7	29.9	32.3	33.1	34.8	35.5	29.4	30.8	32.4	32.8	32.5
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	-0.343	0.769	0.693	0.601	-0.193	-0.019	1.73	--	--	--	0.334	0.271	1.1	--
Radium-226	pCi/L	--	--	0.594	0.131	0.413	0.179	0.0525	0.0316	0.153	--	--	--	0.0534	0.0483	0.112	--
Radium-226/228	pCi/L	5	--	0.251	0.9	1.106	0.78	-0.1405	0.0126	1.883	--	--	--	0.3874	0.3193	1.212	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.94	--	--	0.43	0.64	0.31	0.6	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	7	--	--	5.7	3	<0.7	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	11.3	--	--	1	<1	1	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.016	--	0.002	<0.003	<0.003	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	<0.0001	0.0021	0.0001	<0.0002	--	<0.0002	0.0005	<0.0002	<0.0005	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-14S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.99
pH	S.U.	--	7.2	6.68
Specific Conductance	µmhos/cm	--	--	742
Turbidity	NTU	--	--	3.29
Dissolved Oxygen	mg/L	--	--	2.77
Temperature	°C	--	--	15.64
ORP	mV	--	--	101
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.011	<0.02
Calcium	mg/L	--	59.2	66.4
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	28.6	26.3
Fluoride	mg/L	4	0.39	0.39
TDS	mg/L	--	368	370
Sulfate	mg/L	--	34.9	31.4
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/7/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/7/2017	5/10/2017	7/19/2017	10/4/2017	6/5/2018	11/13/2018	5/23/2019	7/23/2019	9/11/2019	11/15/2019
Field Parameters																		
Elevation	ft NGVD	--	--	370	369.87	369.49	368.87	367.92	367.84	367.86	368.75	367.84	396.63	368.96	371.96	372.79	372.26	371.11
pH	S.U.	--	7.1 - 7.7	7.2	7.1	7.2	7.7	7.2	7.2	7.3	7.3	7.35	7.16	7.46	7.5	5.74	7.38	7.38
Specific Conductance	µmhos/cm	--	--	512	512	510	904	470	60	419	368	393	416	317	348	362	269	467
Turbidity	NTU	--	--	7.6	2.2	1	1	1	0.5	2	2	2.34	0.33	0.41	1.51	8.3	3	10
Dissolved Oxygen	mg/L	--	--	0.5	0.5	1	1	1	6	0.4	0.3	0.07	1.9	0.77	0.4	1	0	0
Temperature	°C	--	--	16.5	17.7	19.1	15.5	13.8	13.9	14.6	15.7	14.7	14.96	12.94	15.21	15.8	16.55	13.4
ORP	mV	--	--	57	124	181	-10	179	64	65	24	18.1	-37.7	19.3	-218	47	63	64
Laboratory Parameters																		
Antimony	µg/L	6	--	0.04	0.04	0.02	0.04	0.04	0.03	0.04	0.02	--	--	<0.02	0.02	--	--	0.03
Arsenic	µg/L	10	--	0.32	0.24	0.21	0.18	0.26	0.21	0.21	0.23	--	--	0.13	0.12	--	--	0.16
Barium	µg/L	2000	--	4.71	5.85	3.21	3.27	6.05	4.98	3.54	3.11	--	--	2.46	2.54	--	--	3.17
Beryllium	µg/L	4	--	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.004	--	--	<0.02	<0.02	--	--	<0.02
Cadmium	µg/L	5	--	0.14	0.25	0.05	0.05	0.06	0.04	0.05	0.05	--		0.04	0.1	--	--	0.06
Chromium	µg/L	100	--	0.2	1.7	0.5	0.058	0.493	0.934	0.198	0.096	--	--	0.05	0.08	--	--	0.1
Cobalt	µg/L	6	--	3.03	1.17	1.09	0.794	1.75	1.26	1.2	1.25	--	--	0.74	0.775	--	--	2.15
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.4	0.26	0.24	0.37	0.32	--	--	0.2
Lead	µg/L	15	--	0.286	0.101	0.098	0.037	0.039	0.024	0.062	0.083	--	--	0.03	0.05	--	--	0.1
Mercury	µg/L	2	--	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	<0.002	--	--	<0.002
Molybdnum	µg/L	100	--	2.52	2.89	2.54	1.57	0.78	1.17	2.08	2.87	--	--	2.54	3.47	--	--	2.18
Selenium	µg/L	50	--	0.4	0.7	0.5	0.3	0.3	0.5	0.5	0.2	--	--	0.1	0.06	--	--	0.2
Thallium	µg/L	2	--	0.03	<0.01	0.02	0.02	0.03	0.04	0.02	0.02	--	--	<0.1	<0.1	--	--	<0.1
Zinc	µg/L	--	--	--	--	--	--	--	--	--	3.5	1	21	2	2	--	--	2
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	13.1	12.7	15.8	13.1	12.4	<0.06	--	--	11.9
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	15.9	6.68	4.42	6.41	11.7	--	--	10
Boron	mg/L	--	0.15	0.011	0.012	0.008	<0.002	<0.002	0.084	0.077	0.073	0.095	0.078	0.04	<0.02	--	--	0.01
Calcium	mg/L	--	(79.5) 71	46.9	43.6	46.6	52.3	63.6	62.9	45.7	44.4	48.3	44.7	41.8	41.3	--	--	40.2
Lithium	mg/L	0.04	--	0.007	0.022	0.005	0.005	0.008	0.008	0.003	0.0009	--	--	<0.009	<0.009	--	--	0.00357
Magnesium	mg/L	--	--	--	--	--	--	--	28.2	19.3	17.2	18.5	16.9	15.1	13.9	--	--	15.1
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.489	--	0.391	0.444	0.452	--	--	0.743
Potassium	mg/L	--	--	--	--	--	--	--	1.07	1.11	1.03	1.27	0.93	1.16	0.68	--	--	0.8
Sodium	mg/L	--	--	--	--	--	--	--	35.5	44.7	39.2	42.3	35.9	27.2	17.3	--	--	19.7
Strontium	mg/L	--	--	--	--	--	--	--	0.0903	0.0711	0.061	0.0662	0.0638	0.0574	0.0502	--	--	0.0522
Alkalinity	mg/L	--	--	--	--	--	--	--	294	257	235	267	239	226	197	--	--	209
Bromide	mg/L	--	--	--	--	--	--	--	0.04	0.062	0.05	0.074	0.03	<0.04	<0.04	--	--	<0.04
Chloride	mg/L	--	(29.6) 26	21.2	18.7	18.9	18.3	21.9	16.1	14.1	11.8	13.3	8.84	8.78	8.88	--	--	9.48
Fluoride	mg/L	4	0.86	0.65	0.65	0.63	0.5	0.36	0.42	0.65	0.66	0.62	0.69	0.72	0.88	0.87	0.81	0.7
TDS	mg/L	--	(412.7) 407	338	319	329	338	374	342	294	263	300	274	232	207	--	--	234
Sulfate	mg/L	--	(33.67) 34	30.3	27.7	25.1	23.2	28.3	23.4	21	20.3	23.2	16.3	13.1	10.2	--	--	8.4
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.07	<0.1	--	--	<0.2
Radium-228	pCi/L	--	--	0.0335	-0.092	0.302	1.11	-0.0122	-0.108	0.106	-0.0928	--	--	0.482	0.439	--	--	1.47
Radium-226	pCi/L	--	--	0.384	--	0.116	0.139	0.189	0.0973	0.135	0.0916	--	--	-0.0262	0.282	--	--	0.0996
Radium-226/228	pCi/L	5	--	0.4175	-0.092	0.418	1.249	0.1768	-0.0107	0.241	0.0916	--	--	0.482	0.721	--	--	1.5696
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.37	--	0.51	1.59	0.53	--	--	2.06
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.6	--	1	2	<0.7	--	--	2
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	3.7	--	2	3	2	--	--	<5
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.014	<0.002	0.004	<0.003	--	--	<0.02
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.448	0.361	0.284	0.379	0.349	0.332	0.289	--	--	0.257

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	5/19/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.36
pH	S.U.	--	7.1 - 7.7	7.55
Specific Conductance	µmhos/cm	--	--	400
Turbidity	NTU	--	--	0
Dissolved Oxygen	mg/L	--	--	0
Temperature	°C	--	--	14.71
ORP	mV	--	--	135
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.15	<0.02
Calcium	mg/L	--	(79.5) 71	42.4
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	(29.6) 26	10.3
Fluoride	mg/L	4	0.86	0.86
TDS	mg/L	--	(412.7) 407	218
Sulfate	mg/L	--	(33.67) 34	9.1
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.24
pH	S.U.	--	7.1 - 7.7	7.33
Specific Conductance	µmhos/cm	--	--	455
Turbidity	NTU	--	--	8.91
Dissolved Oxygen	mg/L	--	--	0.12
Temperature	°C	--	--	15.34
ORP	mV	--	--	22
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.15	<0.02
Calcium	mg/L	--	(79.5) 71	45.4
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	(29.6) 26	10.1
Fluoride	mg/L	4	0.86	0.78
TDS	mg/L	--	(412.7) 407	236
Sulfate	mg/L	--	(33.67) 34	10.3
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/7/2016	7/19/2016	9/21/2016	11/16/2016	1/10/2017	3/7/2017	5/10/2017	7/18/2017	10/4/2017	12/12/2017	1/3/2018
Field Parameters														
Elevation	ft NGVD	--	--	370	369.88	369.51	368.86	368.12	368.07	368.27	368.74	367.82	366.73	366.49
pH	S.U.	--	6.77 - 7.86	7.2	7.1	7.1	7.5	7.7	7.5	7.2	7.2	7.34	7.8	7.79
Specific Conductance	µmhos/cm	--	--	555	574	530	874	420	60	457	400	368	350	474
Turbidity	NTU	--	--	0.9	0.6	0.7	0.2	1	2	1	1	1.09	1	1.12
Dissolved Oxygen	mg/L	--	--	0.2	0.4	0.4	1.3	0.2	2	0.3	0.3	0.49	0.9	0.41
Temperature	°C	--	--	15.1	18.2	17.6	15.6	13.9	13.6	14.8	16.3	14.68	12.8	12.38
ORP	mV	--	--	52.5	-86	-54	259	-87	-42	51	-50	-79.7	-52	-77.2
Laboratory Parameters														
Antimony	µg/L	6	--	0.01	0.25	0.01	0.04	0.01	0.02	0.02	0.02	--	--	--
Arsenic	µg/L	10	--	25.2	27.9	21.1	23.6	20.2	20.4	20.2	23.6	--	--	--
Barium	µg/L	2000	--	118	132	119	107	91.2	88.9	86.1	94.8	--	--	--
Beryllium	µg/L	4	--	<0.005	0.165	<0.005	0.005	<0.005	<0.005	<0.004	<0.004	--	--	--
Cadmium	µg/L	5	--	0.02	0.23	0.009	0.06	0.005	0.03	0.03	0.02	--		--
Chromium	µg/L	100	--	0.2	0.5	0.1	0.132	0.35	0.7	0.134	0.089	--	--	--
Cobalt	µg/L	6	--	1.24	1.66	1.32	1.03	1	0.903	1.02	1.25	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.26	0.1	--	--
Lead	µg/L	15	--	0.026	0.254	0.026	0.213	0.01	0.065	0.09	0.082	--	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	5.76	6.74	5.75	6.73	7.63	7.91	6.52	5.58	--	--	--
Selenium	µg/L	50	--	<0.03	0.2	<0.03	<0.03	<0.03	0.07	0.04	<0.03	--	--	--
Thallium	µg/L	2	--	0.04	0.273	0.03	0.04	0.04	0.112	0.03	0.04	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	0.7	--	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	15	14	16.1	--	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	9.25	6.63	--	--
Boron	mg/L	--	0.072	0.06	0.032	0.03	0.022	0.019	0.047	0.038	0.05	0.08	--	0.04
Calcium	mg/L	--	(79.5) 54	44.1	44.6	46.1	51.4	46.5	51.1	46.6	43.9	44.6	--	--
Lithium	mg/L	0.04	--	0.005	0.018	0.004	0.004	0.011	0.006	0.002	<0.0002	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	13.3	12.7	11.1	11.2	--	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.134	--	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.01	1.02	0.94	1.05	--	--
Sodium	mg/L	--	--	--	--	--	--	--	62.3	56.1	51.8	45.4	--	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0865	0.088	0.0841	0.0871	--	--
Alkalinity	mg/L	--	--	--	--	--	--	--	229	239	224	202	--	--
Bromide	mg/L	--	--	--	--	--	--	--	0.084	0.101	0.081	0.067	--	--
Chloride	mg/L	--	(29.6) 70	59.3	53.8	43.4	44.9	48.3	38.5	32.7	27.1	23.7	22.8	--
Fluoride	mg/L	4	0.382	0.25	0.25	0.23	0.25	0.34	0.32	0.31	0.22	0.23	0.22	--
TDS	mg/L	--	(412.7) 398	380	356	334	340	351	331	322	300	287	--	--
Sulfate	mg/L	--	(47.44) 47	42.5	41	34	33.6	35.4	31.1	29.7	26.6	27.3	26.7	
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	--
Radium-228	pCi/L	--	--	0.254	0.455	0.076	1.23	0.682	0.155	-0.367	1.49	--	--	--
Radium-226	pCi/L	--	--	0.609	0.636	0.428	0.517	0.187	0.71	0.189	0.153	--	--	--
Radium-226/228	pCi/L	5	--	0.863	1.091	0.504	1.747	0.869	0.865	-0.178	1.643	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.1	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.19	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.742	0.709	0.789	0.949	--	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.138	0.139	0.112	0.119	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2016	11/13/2018	5/23/2019	11/15/2019	5/19/2020	11/10/2020	2/3/2021
Field Parameters											
Elevation	ft NGVD	--	--	369.64	370.28	369.01	372.01	371.09	370.42	370.28	368.37
pH	S.U.	--	6.77 - 7.86	8.06	7.36	7.6	7.29	7.38	7.49	7.52	7.57
Specific Conductance	µmhos/cm	--	--	420	527	412	414	495	435	381	400
Turbidity	NTU	--	--	0.88	0	0.18	0.95	7	0	1.35	0.4
Dissolved Oxygen	mg/L	--	--	1.89	0.25	0.31	1.61	0	0	6.34	0.1
Temperature	°C	--	--	14.9	17.77	12.52	18.94	13.7	14.47	16.12	13.6
ORP	mV	--	--	-94	-63	-63.7	-207.7	-85	-39	-70	-84
Laboratory Parameters											
Antimony	µg/L	6	--	--	--	<0.02	<0.02	0.04		--	--
Arsenic	µg/L	10	--	--	--	23.8	25.8	26.5		--	--
Barium	µg/L	2000	--	--	--	93.3	95	88.9		--	--
Beryllium	µg/L	4	--	--	--	<0.02	<0.02	<0.02		--	--
Cadmium	µg/L	5	--	--	--	<0.01	0.01	0.05		--	--
Chromium	µg/L	100	--	--	--	<0.04	0.06	0.1		--	--
Cobalt	µg/L	6	--	--	--	1.12	1.12	1.07		--	--
Copper	µg/L	--	--	0.15	--	0.12	0.1	0.6		--	--
Lead	µg/L	15	--	--	--	0.03	<0.02	0.2		--	--
Mercury	µg/L	2	--	--	--	--	<0.002	<0.002		--	--
Molybdnum	µg/L	100	--	--	--	5.03	5.63	5.95		--	--
Selenium	µg/L	50	--	--	--	0.04	<0.03	0.04		--	--
Thallium	µg/L	2	--	--	--	<0.1	<0.1	<0.1		--	--
Zinc	µg/L	--	--	2.5	--	0.8	7.9	2		--	--
Silica (Dissolved)	mg/L	--	--	13.9	--	13.8	<0.06	12.5		--	--
Aluminum	µg/L	--	--	4.24	--	7.01	3	21.2		--	--
Boron	mg/L	--	0.072	0.066	--	0.07	0.03	0.03	0.03	0.03	--
Calcium	mg/L	--	(79.5) 54	47	--	39.9	47.8	45.2	49.2	44.2	--
Lithium	mg/L	0.04	--	--	--	<0.009	0.01	0.00289		--	--
Magnesium	mg/L	--	--	11.8	--	9.98	11.7	11		--	--
Manganese	mg/L	--	--	0.13	--	0.106	0.128	0.116		--	--
Potassium	mg/L	--	--	0.96	--	1.21	0.9	0.9		--	--
Sodium	mg/L	--	--	42	--	29.9	29.9	24.2		--	--
Strontium	mg/L	--	--	0.0955	--	0.0827	0.0942	0.0887		--	--
Alkalinity	mg/L	--	--	226	--	199	208	198		--	--
Bromide	mg/L	--	--	0.071	--	0.06	0.04	<0.04		--	--
Chloride	mg/L	--	(29.6) 70	25.1	--	23.7	18	16.9	19	12.8	--
Fluoride	mg/L	4	0.382	0.26	--	0.25	0.26	0.27	0.25	0.47	0.36
TDS	mg/L	--	(412.7) 398	279	--	248	260	248	253	213	--
Sulfate	mg/L	--	(47.44) 47	25.3	--	25.3	20.9	17.6	17.8	11.7	--
Sulfide	mg/L	--	--	<0.4	--	<0.07	<0.1	<0.2		--	--
Radium-228	pCi/L	--	--	--	--	0.283	0.423	1.63		--	--
Radium-226	pCi/L	--	--	--	--	0.0962	0.557	0.194		--	--
Radium-226/228	pCi/L	5	--	--	--	0.3792	0.98	1.824		--	--
Copper (Dissolved)	µg/L	--	--	0.36	--	0.2	0.83	<0.2		--	--
Zinc (Dissolved)	µg/L	--	--	2	--	0.8	1	1		--	--
Aluminum (Dissolved)	µg/L	--	--	1	--	1	2	<5		--	--
Iron (Dissolved)	mg/L	--	--	0.879	--	0.848	0.826	0.623		--	--
Manganese (Dissolved)	mg/L	--	--	0.126	--	0.121	0.116	0.118		--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/10/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.7	369.61	369.16	368.56	367.84	367.87	367.88	368.53	367.58	366.38
pH	S.U.	--	5.88 - 8.55	7.53	7.1	7.31	6.9	7.16	7.1	8.26	6.34	7.25	7.34
Specific Conductance	µmhos/cm	--	--	0.822	764	719	669	677	804	581	595	647	872
Turbidity	NTU	--	--	0.74	0.34	5.21	0.5	0.25	0.42	1.78	0.57	0.72	0.54
Dissolved Oxygen	mg/L	--	--	0.34	0.4	7.29	0.62	0.55	0.18	0.69	22.45	0.31	0.82
Temperature	°C	--	--	15.7	16.39	17.48	16.91	14.47	18.48	16.01	15.63	15.99	14.46
ORP	mV	--	--	112.4	56.2	153.4	233.5	83	56.1	177.3	-118.9	13.6	-12.2
Laboratory Parameters													
Antimony	µg/L	6	--	0.03	0.03	0.25	0.02	0.02	0.02	0.02	0.02	--	--
Arsenic	µg/L	10	--	0.37	0.37	0.38	0.34	0.42	0.31	0.39	0.33	--	--
Barium	µg/L	2000	--	32.3	29.9	29.5	25.3	25.1	25.7	29.8	25.6	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.03	0.03	0.1	0.006	0.008	0.004	0.01	0.04	--	
Chromium	µg/L	100	--	0.2	0.5	0.3	1.03	0.081	0.463	0.196	0.101	--	--
Cobalt	µg/L	6	--	0.073	0.025	0.07	0.028	0.014	0.012	0.063	0.01	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.1	0.19	--
Lead	µg/L	15	--	0.074	0.057	0.182	<0.004	0.039	0.006	0.027	0.01	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	1.15	1.21	1.11	1.19	1.21	1.32	1.14	0.98	--	--
Selenium	µg/L	50	--	0.6	0.6	0.8	0.4	0.4	0.4	0.3	0.4	--	--
Thallium	µg/L	2	--	0.01	<0.01	<0.01	<0.01	0.02	0.02	0.01	0.01	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	2	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	24	24.1	27.6	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	2.1	7.43	--
Boron	mg/L	--	0.088	0.028	0.025	0.024	0.025	0.017	0.038	0.082	0.037	0.061	--
Calcium	mg/L	--	(79.5) 114	96.2	83	93.5	96.4	94.6	106	105	91.8	108	109
Lithium	mg/L	0.04	--	0.007	0.031	0.005	0.018	0.013	0.013	0.008	0.01	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	36.4	36.6	31.4	38.2	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0028	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.01	1.3	0.97	1.03	--
Sodium	mg/L	--	--	--	--	--	--	--	36.9	36.7	28.7	35.7	--
Strontium	mg/L	--	--	--	--	--	--	--	0.129	0.132	0.108	0.133	--
Alkalinity	mg/L	--	--	--	--	--	--	--	423	431	436	438	--
Bromide	mg/L	--	--	--	--	--	--	--	0.1	0.158	0.162	0.206	--
Chloride	mg/L	--	(29.6) 24	18.7	19	17.1	16.4	17.5	19.3	22.9	19.8	19.3	--
Fluoride	mg/L	4	0.506	0.44	0.46	0.38	0.3	0.35	0.36	0.38	0.33	0.41	--
TDS	mg/L	--	(412.7) 517	483	471	509	486	474	473	499	484	503	517
Sulfate	mg/L	--	(52.4) 52	46.9	50.1	42.1	38.3	39.2	39.6	42.3	40.7	45	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	-0.0274	0.34	-0.131	0.0963	1.8	0.169	-0.045	2.76	--	--
Radium-226	pCi/L	--	--	0.163	0.707	0.0255	0.198	0.193	0.113	0.145	0.0933	--	--
Radium-226/228	pCi/L	5	--	0.1356	1.047	-0.1055	0.2943	1.993	0.282	0.1	2.8533	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.1	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.9	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.051	0.015	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.0013	0.0145	0.0007	0.0127	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2018	11/14/2018	2/11/2019	5/22/2019	11/15/2019	5/19/2020	7/15/2020	11/11/2020
Field Parameters												
Elevation	ft NGVD	--	--	369.62	370.12	368.86	369.84	371.94	370.84	370.40	370.95	392.06
pH	S.U.	--	5.88 - 8.55	7.23	7.07	7.02	7.12	7.1	7	7.54	7.06	6.5
Specific Conductance	µmhos/cm	--	--	770	920	720	570	774	961	675	823	948
Turbidity	NTU	--	--	2.2	0	0.3	1.3	0.18	4.2	1.54	2.35	2.28
Dissolved Oxygen	mg/L	--	--	7.8	0	1.35	0.41	0.34	0.39	0.48	1.63	0.11
Temperature	°C	--	--	15.73	17.04	14.2	14.4	14.54	12.05	15.03	18.03	14.73
ORP	mV	--	--	-36.9	147	142	183	-211.4	121	110	57	137
Laboratory Parameters												
Antimony	µg/L	6	--	--	--	0.05	--	0.03	0.03	--	--	--
Arsenic	µg/L	10	--	--	--	0.34	--	0.26	0.3	--	--	--
Barium	µg/L	2000	--	--	--	29.9	--	21.9	27.2	--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	<0.02	<0.02	--	--	--
Cadmium	µg/L	5	--	--	--	0.08	--	0.01	0.05	--	--	--
Chromium	µg/L	100	--	--	--	0.07	--	0.1	0.09	--	--	--
Cobalt	µg/L	6	--	--	--	<0.02	--	<0.02	0.059	--	--	--
Copper	µg/L	--	--	1.19	--	1.46	--	0.66	0.3	--	--	--
Lead	µg/L	15	--	--	--	0.112	--	<0.02	0.07	--	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	--	--	0.9	--	0.9	0.8	--	--	--
Selenium	µg/L	50	--	--	--	3.2	--	0.6	1	--	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	<0.1	<0.1	--	--	--
Zinc	µg/L	--	--	5	--	31.6	--	<0.7	0.8	--	--	--
Silica (Dissolved)	mg/L	--	--	24.9	--	24.9	--	23.3	22.3	--	--	--
Aluminum	µg/L	--	--	5.68	--	3	--	1	<5	--	--	--
Boron	mg/L	--	0.088	0.109	0.034	0.107	0.02	0.03	0.02	0.03	--	0.02
Calcium	mg/L	--	(79.5) 114	108	109	104	--	99.2	92.2	104	--	103
Lithium	mg/L	0.04	--	--	--	0.02	--	0.01	0.00639	--	--	--
Magnesium	mg/L	--	--	38.8	--	37.4	--	34.5	35.5	--	--	--
Manganese	mg/L	--	--	0.0062	--	0.004	--	0.0035	0.0115	--	--	--
Potassium	mg/L	--	--	1.1	--	1.28	--	0.95	0.9	--	--	--
Sodium	mg/L	--	--	38	--	44.4	--	29.4	29.6	--	--	--
Strontium	mg/L	--	--	0.137	--	0.138	--	0.21	0.118	--	--	--
Alkalinity	mg/L	--	--	463	--	510	--	478	445	--	--	--
Bromide	mg/L	--	--	0.118	--	0.1	--	0.08	0.1	--	--	--
Chloride	mg/L	--	(29.6) 24	17.3	--	16.2	--	18	20.7	26.7	25.8	21.8
Fluoride	mg/L	4	0.506	0.42	--	0.39	--	0.38	0.32	0.34	0.37	0.38
TDS	mg/L	--	(412.7) 517	520	533	548	517	493	497	470	489	473
Sulfate	mg/L	--	(52.4) 52	40.8	--	40.3	--	34.5	35.2	34.9	--	34.5
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	<0.1	<0.2	--	--	--
Radium-228	pCi/L	--	--	--	--	0.0697	--	0.299	0.179	--	--	--
Radium-226	pCi/L	--	--	--	--	0.0503	--	0.0904	0.0453	--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.12	--	0.3894	0.2243	--	--	--
Copper (Dissolved)	µg/L	--	--	1.21	--	2.59	--	0.38	1.7	--	--	--
Zinc (Dissolved)	µg/L	--	--	5.2	--	4	--	<0.7	2	--	--	--
Aluminum (Dissolved)	µg/L	--	--	1	--	1	--	3	<5	--	--	--
Iron (Dissolved)	mg/L	--	--	0.004	--	<0.003	--	<0.003	<0.02	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0047	--	0.0023	--	<0.0027	0.0009	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/19/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.79	369.62	369.18	368.57	367.84	367.87	367.87	368.58	367.58	366.39
pH	S.U.	--	6.73 - 7.90	7.69	7.56	7.37	7.08	7.36	7.28	6.96	7.2	7.46	7.68
Specific Conductance	µmhos/cm	--	--	957	870	867	702	674	779	569	665	644	821
Turbidity	NTU	--	--	0.42	0.46	1.37	1.4	0.18	1.41	2.27	3.15	0.7	1.9
Dissolved Oxygen	mg/L	--	--	0.29	8.08	0.68	0.53	0.46	0.34	0.21	0.29	0.28	0.38
Temperature	°C	--	--	16.2	16.86	15.43	15.64	14.71	15.19	15.48	15.99	15.71	13.08
ORP	mV	--	--	224.4	-158.9	54.7	242.3	86.1	53.5	49.8	-3.1	4.1	-25.6
Laboratory Parameters													
Antimony	µg/L	6	--	0.02	0.01	0.01	0.05	0.01	0.02	0.06	0.02	--	--
Arsenic	µg/L	10	--	0.71	0.75	0.75	0.67	0.72	0.68	0.7	0.73	--	--
Barium	µg/L	2000	--	267	267	262	234	220	221	206	238	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.06	0.03	0.03	0.05	0.04	0.03	0.08	0.03	--	
Chromium	µg/L	100	--	0.1	0.2	0.1	0.082	0.085	0.422	0.204	0.118	--	--
Cobalt	µg/L	6	--	0.602	0.627	0.576	0.546	0.514	0.58	0.56	0.599	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.56	0.46	--
Lead	µg/L	15	--	0.023	0.025	0.023	0.053	0.01	0.034	0.153	0.065	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	1.02	1.02	1.03	0.93	1	1.17	0.91	1.07	--	--
Selenium	µg/L	50	--	0.2	0.2	0.1	0.2	0.1	0.2	0.4	0.2	--	--
Thallium	µg/L	2	--	0.085	0.06	0.074	0.069	0.071	0.075	0.075	0.07	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2.7	0.8	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	19.9	20	22.8	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	15.5	14	--
Boron	mg/L	--	0.107	0.031	0.027	0.026	0.024	0.015	0.1	0.032	0.044	0.05	--
Calcium	mg/L	--	(79.5) 114	110	93.9	95.9	96.2	89.3	101	86.7	91.3	84	71.9
Lithium	mg/L	0.04	--	0.005	0.005	0.006	0.013	0.01	0.013	0.01	0.003	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	27.6	24.7	25.6	23	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	1.03	--	--
Potassium	mg/L	--	--	--	--	--	--	--	2.9	2.47	2.62	3.21	--
Sodium	mg/L	--	--	--	--	--	--	--	46.2	41.4	50	69.2	--
Strontium	mg/L	--	--	--	--	--	--	--	0.155	0.139	0.14	0.135	--
Alkalinity	mg/L	--	--	--	--	--	--	--	368	376	369	359	--
Bromide	mg/L	--	--	--	--	--	--	--	0.1	0.152	0.154	0.206	--
Chloride	mg/L	--	(29.6) 114	80.4	86.8	90.2	59.1	44.1	39.3	37.9	50.2	70.8	71.2
Fluoride	mg/L	4	0.192	0.1	0.15	0.1	0.1	0.1	0.16	0.1	0.08	0.1	--
TDS	mg/L	--	(412.7) 589	539	532	544	508	481	460	461	465	495	487
Sulfate	mg/L	--	(43.51) 44	38.7	42.2	36.8	33	34	35.4	35.1	36.1	40.4	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	0.357	1	0.977	0.174	2.27	0.182	0.427	0.513	--	--
Radium-226	pCi/L	--	--	0.235	0.576	0.248	0.413	0.362	0.399	0.511	0.274	--	--
Radium-226/228	pCi/L	5	--	0.592	1.576	1.225	0.587	2.632	0.581	0.938	0.787	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.14	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.051	0.014	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	1.03	1.06	1.04	0.873	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2018	11/14/2018	2/11/2019	5/22/2019	11/15/2019	5/19/2020	11/10/2020
Field Parameters											
Elevation	ft NGVD	--	--	369.62	370.06	368.78	369.77	371.86	370.76	370.89	370.03
pH	S.U.	--	6.73 - 7.90	7.37	7.23	7.3	7.4	7.31	7.35	7.79	6.83
Specific Conductance	µmhos/cm	--	--	720	797	545	476	641	659	481	567
Turbidity	NTU	--	--	0.89	0	0.41	0.8	0.2	1.1	1.22	2.56
Dissolved Oxygen	mg/L	--	--	0.46	0	0.95	0.36	0.25	0.01	0.12	0.2
Temperature	°C	--	--	15.93	15.56	14.42	14.5	14.58	12	14.85	16.03
ORP	mV	--	--	-68.4	120	148	122	-21107	137	114	48
Laboratory Parameters											
Antimony	µg/L	6	--	--	--	<0.02	--	<0.02	0.03	--	--
Arsenic	µg/L	10	--	--	--	0.66	--	0.64	0.72	--	--
Barium	µg/L	2000	--	--	--	153	--	151	126	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	--	--	0.02	--	0.02	0.04	--	--
Chromium	µg/L	100	--	--	--	0.05	--	<0.04	0.1	--	--
Cobalt	µg/L	6	--	--	--	0.336	--	0.346	0.58	--	--
Copper	µg/L	--	--	0.62	--	0.45	--	0.46	1.34	--	--
Lead	µg/L	15	--	--	--	<0.02	--	0.02	0.1	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	--	--	1	--	1	1	--	--
Selenium	µg/L	50	--	--	--	0.2	--	0.1	0.4	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	<0.1	<0.1	--	--
Zinc	µg/L	--	--	0.6	--	0.8	--	<0.7	1	--	--
Silica (Dissolved)	mg/L	--	--	19.8	--	18.5	--	18	17.2	--	--
Aluminum	µg/L	--	--	10.2	--	5	--	4	10	--	--
Boron	mg/L	--	0.107	0.046	--	0.139	0.02	0.03	0.02	0.02	0.02
Calcium	mg/L	--	(79.5) 114	82.9	61.6	53.7	--	56	41	51.9	44.5
Lithium	mg/L	0.04	--	--	--	<0.009	--	0.02	0.00427	--	--
Magnesium	mg/L	--	--	23.1	--	14.8	--	15.1	11.4	--	--
Manganese	mg/L	--	--	0.902	--	0.613	--	0.626	0.685	--	--
Potassium	mg/L	--	--	3.05	--	3.16	--	2.55	2.2	--	--
Sodium	mg/L	--	--	66	--	74.4	--	68.4	58.9	--	--
Strontium	mg/L	--	--	0.136	--	0.09	--	0.0898	0.0688	--	--
Alkalinity	mg/L	--	--	359	--	300	--	261	252	--	--
Bromide	mg/L	--	--	0.168	--	0.1	--	0.1	0.1	--	--
Chloride	mg/L	--	(29.6) 114	58.6	61.1	47.8	--	45.5	31.2	31.3	19.6
Fluoride	mg/L	4	0.192	0.17	--	0.17	--	0.17	0.14	0.14	0.20
TDS	mg/L	--	(412.7) 589	480	456	408	--	405	343	350	273
Sulfate	mg/L	--	(43.51) 44	38.7	--	32.5	--	33.2	25.2	25.8	21.4
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	<0.1	<0.2	--	--
Radium-228	pCi/L	--	--	--	--	0.483	--	0.269	0.482	--	--
Radium-226	pCi/L	--	--	--	--	0.162	--	0.156	0.212	--	--
Radium-226/228	pCi/L	5	--	--	--	0.645	--	0.425	0.694	--	--
Copper (Dissolved)	µg/L	--	--	0.57	--	1.43	--	1.14	0.3	--	--
Zinc (Dissolved)	µg/L	--	--	0.7	--	2	--	<0.7	1	--	--
Aluminum (Dissolved)	µg/L	--	--	0.8	--	1	--	1	<5	--	--
Iron (Dissolved)	mg/L	--	--	0.024	--	0.004	--	<0.003	<0.02	--	--
Manganese (Dissolved)	mg/L	--	--	0.849	--	0.616	--	0.615	0.447	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/20/2016	11/17/2016	1/11/2017	3/8/2017	5/10/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.85	369.68	369.23	368.64	367.91	367.94	367.96	368.64	367.68	366.47
pH	S.U.	--	6.04 - 9.13	6.8	7.31	7.26	7.29	7.48	7.44	7.54	9.03	7.6	7.74
Specific Conductance	µmhos/cm	--	--	519	582	538	613	525	614	436	597	516	692
Turbidity	NTU	--	--	1.8	0.24	0.31	0.55	0.4	0.81	1.74	0.41	2.95	1.85
Dissolved Oxygen	mg/L	--	--	0.4	--	1.33	0.55	0.49	0.11	0.29	0.32	0.21	0.47
Temperature	°C	--	--	16.8	16.96	16.04	15.1	14.55	15.2	15.46	15.62	15.77	13.14
ORP	mV	--	--	-19	23.5	35.7	108	14.6	2.1	36.6	108.9	-26.4	-36.7
Laboratory Parameters													
Antimony	µg/L	6	--	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.03	--	--
Arsenic	µg/L	10	--	0.48	0.4	0.31	0.32	0.34	0.31	0.33	0.39	--	--
Barium	µg/L	2000	--	240	246	221	217	210	224	212	247	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.08	0.08	0.02	0.05	0.02	0.01	0.07	0.1	--	
Chromium	µg/L	100	--	0.3	0.4	0.1	1.21	0.112	0.188	0.151	0.141	--	--
Cobalt	µg/L	6	--	0.617	0.547	0.418	0.452	0.354	0.401	0.466	0.571	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	2.21	0.11	--
Lead	µg/L	15	--	0.078	0.04	0.021	0.066	0.008	0.022	0.07	0.103	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2.06	2.31	1.96	1.98	1.99	2.27	1.9	2.03	--	--
Selenium	µg/L	50	--	0.04	0.04	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	--	--
Thallium	µg/L	2	--	0.03	0.069	0.02	0.02	0.02	0.04	0.02	0.02	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	12.8	52.4	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.1	17.6	20.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	6.2	3.72	--
Boron	mg/L	--	0.113	0.033	0.013	0.012	0.014	0.004	0.023	0.102	0.017	0.059	--
Calcium	mg/L	--	(79.5) 88	84.3	68.7	70.5	77.9	72.4	79.2	75.8	71.7	80.4	80.1
Lithium	mg/L	0.04	--	0.001	0.013	0.003	0.006	0.013	0.007	0.008	0.0006	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	22.4	22.2	21	23.3	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.975	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.12	1.54	0.97	1.33	--
Sodium	mg/L	--	--	--	--	--	--	--	22.3	21.6	22.1	24.7	--
Strontium	mg/L	--	--	--	--	--	--	--	0.142	0.143	0.128	0.146	--
Alkalinity	mg/L	--	--	--	--	--	--	--	202	210	215	195	--
Bromide	mg/L	--	--	--	--	--	--	--	0.15	0.204	<0.05	0.233	--
Chloride	mg/L	--	(29.6) 73	68.7	69.6	67.6	63.6	67.9	65.4	69.9	69.6	81.5	86
Fluoride	mg/L	4	0.251	0.2	0.22	0.22	0.17	0.21	0.22	0.22	0.17	0.22	--
TDS	mg/L	--	(412.7) 384	350	321	342	356	343	347	367	363	383	--
Sulfate	mg/L	--	(39.69) 40	36.4	37.4	33.4	33.2	34	35.3	37.2	36.8	40	37.9
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	-0.173	0.294	1.1	0.285	0.92	0.583	-0.121	0.222	--	--
Radium-226	pCi/L	--	--	0.0514	--	0.248	0.624	0.796	0.228	0.151	0.292	--	--
Radium-226/228	pCi/L	5	--	-0.1216	0.294	1.348	0.909	1.716	0.811	0.03	0.514	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.18	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.004	0.002	0.098	0.051	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.862	0.948	0.989	0.947	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2018	11/14/2018	2/11/2019	4/1/2019	5/22/2019	7/23/2019	9/11/2019	11/15/2019	2/18/2020	5/19/2020	7/15/2020	11/11/2020	2/2/2021
Field Parameters																	
Elevation	ft NGVD	--	--	369.69	370.13	368.87	369.84	370.82	371.96	372.67	-----	370.78	369.44	370.44	370.98	370.05	368.20
pH	S.U.	--	6.04 - 9.13	7.32	7.26	7.35	7.37	7.28	7.31	7.02	7.28	7.31	7.17	7.7	7.22	7.15	7.39
Specific Conductance	µmhos/cm	--	--	690	782	607	510	945	755	731	813	1070	1869	799	969	1050	953
Turbidity	NTU	--	--	0.9	0	0.35	1.4	0.91	0.3	1.9	0.43	0.3	0.2	0.39	0.41	0.35	0.7
Dissolved Oxygen	mg/L	--	--	0.44	0	0.94	1.48	0.64	0.26	0.5	0.36	0.01	0.42	0.18	0	0.29	3.5
Temperature	°C	--	--	15.94	15.88	14.45	13.2	13.5	14.43	15.9	17.5	14.4	11.76	14.81	17.56	14.67	13.2
ORP	mV	--	--	-70.7	-11	62.8	60	-16.7	-216.5	50	-52.5	45	109.3	-22	-3	91	85
Laboratory Parameters																	
Antimony	µg/L	6	--	--	--	<0.02	--	--	0.02	--	--	0.02	--	--	--	--	--
Arsenic	µg/L	10	--	--	--	0.32	--	--	0.39	--	--	0.35	--	--	--	--	--
Barium	µg/L	2000	--	--	--	270	--	--	286	--	--	348	--	--	--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--	--
Cadmium	µg/L	5	--	--	--	0.04	--	--	<0.01	--	--	0.05	--	--	--	--	--
Chromium	µg/L	100	--	--	--	0.05	--	--	0.25	--	--	0.1	--	--	--	--	--
Cobalt	µg/L	6	--	--	--	0.472	--	--	0.64	--	--	0.632	--	--	--	--	--
Copper	µg/L	--	--	0.07	--	0.23	--	--	0.17	--	--	<0.2	--	--	--	--	--
Lead	µg/L	15	--	--	--	0.03	--	--	0.02	--	--	<0.05	--	--	--	--	--
Mercury	µg/L	2	--	--	--		--	--	<0.002	--	--	<0.002	--	--	--	--	--
Molybdnum	µg/L	100	--	--	--	2	--	--	2	--	--	2	--	--	--	--	--
Selenium	µg/L	50	--	--	--	0.03	--	--	<0.03	--	--	<0.03	--	--	--	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	--	<0.1	--	--	<0.1	--	--	--	--	--
Zinc	µg/L	--	--	7.1	--	15.4	--	--	1	--	--	2	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	18.5	--	18.2	--	--	17.9	--	--	17.1	--	--	--	--	--
Aluminum	µg/L	--	--	2.86	--	1	--	--	2	--	--	<5	--	--	--	--	--
Boron	mg/L	--	0.113	0.033	--	0.07	--	--	0.03	--	--	0.03	--	0.03	--	0.04	--
Calcium	mg/L	--	(79.5) 88	90.2	83.8	84.1	--	--	88.5	95.6	109	100	--	108	102	109	106
Lithium	mg/L	0.04	--	--	--	<0.009	--	--	0.02	--	--	0.00427	--	--	--	--	--
Magnesium	mg/L	--	--	27.1	--	24.3	--	--	25.4	--	--	28.3	--	--	--	--	--
Manganese	mg/L	--	--	1.2	--	1	--	--	1.17	--	--	1.04	--	--	--	--	--
Potassium	mg/L	--	--	1.22	--	1.27	--	--	1.27	--	--	1.57	--	--	--	--	--
Sodium	mg/L	--	--	26.7	--	30	--	--	30.8	--	--	44.6	--	--	--	--	--
Strontium	mg/L	--	--	0.18	--	0.166	--	--	0.176	--	--	0.203	--	--	--	--	--
Alkalinity	mg/L	--	--	235	--	238	--	--	249	--	--	304	--	--	--	--	--
Bromide	mg/L	--	--	0.303	--	0.275	--	--	0.344	--	--	0.425	--	--	--	--	--
Chloride	mg/L	--	(29.6) 73	108	99.7	102	109	107	104	106	125	127	133	135	133	130	117
Fluoride	mg/L	4	0.251	0.22	--	0.21	--	--	0.2	--	--	0.17	--	0.17	0.2	0.21	--
TDS	mg/L	--	(412.7) 384	434	447	434	439	429	460	457	523	537	579	558	519	547	573
Sulfate	mg/L	--	(39.69) 40	38.6	--	38.6	--	--	38	--	--	40.8	38.9	40.1	--	39.1	--
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	--	<0.1	--	--	<0.2	--	--	--	--	--
Radium-228	pCi/L	--	--	--	--	0.138	--	--	0.688	--	--	0.411	--	--	--	--	--
Radium-226	pCi/L	--	--	--	--	0.179	--	--	0.551	--	--	0.158	--	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.317	--	--	1.239	--	--	0.569	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.35	--	1.5	--	--	0.25	--	--	1.98	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	1	--	3	--	--	<0.7	--	--	3	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	2	--	2	--	--	<1	--	--	<5	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.058	--	0.023	--	--	0.067	--	--	<0.02	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	1.19	--	1	--	--	1.23	--	--	1.07	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/8/2016	7/20/2016	9/20/2016	11/16/2016	1/10/2017	3/7/2017	5/9/2017	7/19/2017	10/4/2017	6/5/2018	11/13/2018	5/23/2019	11/15/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	370.14	370.11	369.81	369.37	368.47	368.21	368.24	368.89	373.03	369.48	368.74	371.85	371.44	370.99
pH	S.U.	--	7.11 - 7.97	7.77	7.3	7.65	7.7	7.6	7.5	7.3	7.5	7.44	7.41	7.51	7.58	7.64	7.8
Specific Conductance	µmhos/cm	--	--	350	373	344	146	310	60	357	287	351	319	280	322	396	358
Turbidity	NTU	--	--	0.6	0.7	0.79	1	1	1	3	1	0.47	0.4	0.89	0	4	0.7
Dissolved Oxygen	mg/L	--	--	0.6	1.2	0.37	0.1	0.2	1	0.2	0.2	0.38	10.12	1.07	1.56	1.3	0
Temperature	°C	--	--	14.7	17.9	14.55	14.7	13.8	13.5	14.9	14.3	16.82	14.39	13.45	15	13.4	14.43
ORP	mV	--	--	80	44	49.4	-40	62	47	45	30	-50.3	-84.3	121	-48.2	38	23
Laboratory Parameters																	
Antimony	µg/L	6	--	0.01	0.03	0.02	0.03	0.03	0.04	0.04	0.02	--	--	0.02	0.02	0.02	--
Arsenic	µg/L	10	--	0.24	0.26	0.22	0.2	0.21	0.2	0.22	0.22	--	--	0.17	0.18	0.24	--
Barium	µg/L	2000	--	2.12	2.74	2.24	2.4	3.45	3.94	4.37	2.25	--	--	2.11	2.3	2.2	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.02	0.08	0.01	0.02	0.02	0.09	0.02	0.06	--	--	0.02	0.03	0.03	--
Chromium	µg/L	100	--	0.5	0.2	0.1	0.066	0.489	0.776	0.233	0.124	--	--	0.07	0.06	0.1	--
Cobalt	µg/L	6	--	0.047	0.105	0.034	0.029	0.04	0.076	0.138	0.053	--	--	0.05	0.04	0.157	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.38	0.69	0.23	0.21	0.39	0.5	--
Lead	µg/L	15	--	0.024	0.098	0.025	0.02	0.02	0.079	0.108	0.038	--	--	0.03	0.05	0.1	--
Mercury	µg/L	2	--	<0.002	0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	3.98	4.2	4.08	3.39	0.44	0.7	1.14	4.38	--	--	3.73	4.78	4.67	--
Selenium	µg/L	50	--	0.07	0.06	0.08	0.1	0.2	0.1	0.1	0.08	--	--	0.3	0.2	0.4	--
Thallium	µg/L	2	--	0.01	0.01	0.01	0.053	0.02	0.02	<0.01	0.03	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	5.7	0.7	<0.7	14.4	1	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	14	13.7	15.8	13.5	13.2	<0.06	12.2	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	9.55	10.2	4.01	2	17.4	21.3	--
Boron	mg/L	--	0.065	0.015	0.016	0.016	0.017	0.006	0.058	0.041	0.02	0.033	0.045	0.05	0.03	0.02	0.02
Calcium	mg/L	--	(79.5) 41	36.9	34.8	34.8	35.9	32.3	40	35.5	34.4	34.1	32.4	33.1	32.7	28.7	32.8
Lithium	mg/L	0.04	--	<0.0002	0.02	0.003	0.004	0.003	0.008	0.003	<0.0002	--	--	<0.009	0.01	0.00355	--
Magnesium	mg/L	--	--	--	--	--	--	--	19.2	17.5	13.7	12.9	13	13.7	12.9	11.2	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0428	--	0.0311	0.0418	0.0377	0.179	--
Potassium	mg/L	--	--	--	--	--	--	--	0.88	0.79	0.49	0.47	0.5	0.59	0.62	0.6	--
Sodium	mg/L	--	--	--	--	--	--	--	42.5	35.3	31.9	27.7	24.5	25.8	26.5	26.8	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0566	0.0529	0.0363	0.0345	0.0357	0.0374	0.0347	0.031	--
Alkalinity	mg/L	--	--	--	--	--	--	--	231	221	196	189	188	202	193	174	--
Bromide	mg/L	--	--	--	--	--	--	--	0.02	0.05	<0.02	<0.02	0.04	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	(29.6) 16	13.9	15.4	12.3	11.4	11	10.7	10.4	10.8	10.5	10.8	11.5	12	12.6	12.7
Fluoride	mg/L	4	1.08	0.85	0.86	0.73	0.7	0.48	0.46	0.58	0.82	0.89	0.98	0.91	1.08	0.96	0.95
TDS	mg/L	--	(412.7) 269	272	235	233	232	262	251	250	201	214	214	196	217	207	200
Sulfate	mg/L	--	(16.46) 16.5	14.3	14.8	10.9	10.5	10.7	12	13.1	10.2	10.7	9.5	8.4	7.7	6.2	6.5
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.783	-0.0129	0.027	0.791	-0.155	0.36	0.315	1.07	--	--	-0.0735	0.34	1.03	--
Radium-226	pCi/L	--	--	0.253	0.0439	0.0489	0.803	0.17	0.11	0.118	0.678	--	--	0.0202	0.0449	0.0579	--
Radium-226/228	pCi/L	5	--	1.036	0.031	0.0759	1.594	0.015	0.47	0.433	1.748	--	--	0.0202	0.0202	1.0879	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.35	--	0.56	0.7	2.05	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	1	1	<0.7	0.9	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.2	--	6.2	2	1	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.026	0.004	0.004	0.01	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.0028	0.0013	0.0322	0.0881	0.0304	0.041	0.0332	0.0662	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.67
pH	S.U.	--	7.11 - 7.97	7.51
Specific Conductance	µmhos/cm	--	--	403
Turbidity	NTU	--	--	0.95
Dissolved Oxygen	mg/L	--	--	8.47
Temperature	°C	--	--	16.15
ORP	mV	--	--	71
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.065	0.02
Calcium	mg/L	--	(79.5) 41	33.9
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	(29.6) 16	12.9
Fluoride	mg/L	4	1.08	0.90
TDS	mg/L	--	(412.7) 269	211
Sulfate	mg/L	--	(16.46) 16.5	8.2
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/8/2016	7/20/2016	9/20/2016	11/16/2016	1/10/2017	3/7/2017	5/9/2017	7/19/2017	10/4/2017	12/12/2017	1/3/2018	6/5/2018	8/16/2018	9/26/2018
Field Parameters																	
Elevation	ft NGVD	--	--	370.09	370.13	369.82	369.12	368.47	368.23	368.25	368.89	368.07	367.23	366.84	369.46	370.64	370.06
pH	S.U.	--	6.82 - 7.96	7.55	7.2	7.1	7.8	7.5	7.5	7.2	7.3	7.37	7.49	7.8	7.36	7.48	7.48
Specific Conductance	µmhos/cm	--	--	839	914	1000	607	670	60	768	678	786	530	848	652	728	453
Turbidity	NTU	--	--	13.4	9.8	--	0.1	2	9	2	1	74.99	1.74	12	1.28	0	0.58
Dissolved Oxygen	mg/L	--	--	0.8	0.8	0.9	1.3	0.3	1	0.3	0.2	0.26	0.1	2.34	0.2	0.17	0.37
Temperature	°C	--	--	14.1	16.4	18.3	14.4	13.7	13.8	14.7	14.7	17.05	8.97	7.25	15.11	17.06	14.18
ORP	mV	--	--	116	-73	-40	204	-52	8	46	-59	-90.8	-54	-40.5	-99.8	-69	-77.9
Laboratory Parameters																	
Antimony	µg/L	6	--	0.07	0.05	0.04	0.03	0.02	0.02	0.02	0.02	--	--	--	--	--	--
Arsenic	µg/L	10	--	7.14	7.41	6.45	3.38	3.94	4.61	3.61	3.76	--	--	--	--	--	--
Barium	µg/L	2000	--	168	190	198	149	148	159	133	140	--	--	--	--	--	--
Beryllium	µg/L	4	--	0.02	0.006	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	--	--	--	--
Cadmium	µg/L	5	--	0.12	0.13	0.04	0.04	0.008	0.007	0.03	0.02	--	--	--	--	--	--
Chromium	µg/L	100	--	0.6	2.1	0.1	0.059	0.254	0.776	0.196	0.127	--	--	--	--	--	--
Cobalt	µg/L	6	--	1.24	0.778	0.472	0.37	0.391	0.406	0.394	0.372	--	--	--	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.26	0.24	--	--	0.52	--	--
Lead	µg/L	15	--	1.19	0.284	0.133	0.049	0.02	0.026	0.115	0.02	--	--	--	--	--	--
Mercury	µg/L	2	--	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--
Molybdnum	µg/L	100	--	3.6	3.66	3.08	3.37	3.2	3.62	3.26	3.42	--	--	--	--	--	--
Selenium	µg/L	50	--	0.1	0.05	0.05	<0.03	<0.03	0.05	0.03	<0.03	--	--	--	--	--	--
Thallium	µg/L	2	--	0.03	0.02	0.02	0.056	0.02	0.02	0.01	0.05	--	--	--	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	4.3	30.8	--	--	2.4	--	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.1	17	19.8	--	--	16.5	--	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	3.39	21.5	--	--	5.91	--	--
Boron	mg/L	--	0.098	0.058	0.056	0.051	0.041	0.034	0.079	0.083	0.052	0.061	--	--	0.081	--	--
Calcium	mg/L	--	(79.5) 96	73.7	83.1	88.9	80	72.3	81.4	69.6	64.4	63	--	--	51.2	--	--
Lithium	mg/L	0.04	--	<0.0002	0.004	0.005	0.006	0.009	0.008	0.005	<0.0002	--	--	--	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	21	19.6	17.4	16.5	--	--	13.4	--	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.155	--	--	--	0.122	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.28	1.36	1.04	1.12	--	--	0.94	--	--
Sodium	mg/L	--	--	--	--	--	--	--	101	93.6	95.4	94.6	--	--	89.1	--	--
Strontium	mg/L	--	--	--	--	--	--	--	0.153	0.14	0.119	0.12	--	--	0.104	--	--
Alkalinity	mg/L	--	--	--	--	--	--	--	221	226	229	245	--	--	238	--	--
Bromide	mg/L	--	--	--	--	--	--	--	0.347	0.396	0.372	0.283	--	--	0.213	--	
Chloride	mg/L	--	(29.6) 241	195	209	214	164	159	158	151	145	115	86	110	80.2	61.1	--
Fluoride	mg/L	4	0.656	0.57	0.56	0.52	0.56	0.56	0.58	0.61	0.63	0.66	0.76	0.65	0.87	0.98	1.03
TDS	mg/L	--	(412.7) 657	609	569	620	540	513	549	528	509	486	--	471	418	376	--
Sulfate	mg/L	--	(50.8) 51	43.1	49.3	48.1	44.1	43.2	44.9	43.5	44.7	46.6	44.8	--	41	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	0.615	0.386	1	0.499	0.531	0.33	0.191	0.791	--	--	--	--	--	--
Radium-226	pCi/L	--	--	1.31	0.781	0.587	0.263	0.979	0.693	0.816	0.0231	--	--	--	--	--	--
Radium-226/228	pCi/L	5	--	1.925	1.167	1.587	0.762	1.51	1.023	1.007	0.8141	--	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.33	--	--	--	0.57	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.2	--	--	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--	--	2.64	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.896	0.909	0.741	0.603	--	--	0.546	--	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.185	0.188	0.141	0.144	--	--	0.113	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	2/11/2019	4/1/2019	5/23/2019	7/23/2019	9/11/2019	11/15/2019	5/19/2020	11/10/2020
Field Parameters												
Elevation	ft NGVD	--	--	369.35	369.89	369.89	372.03	373.11	-----	371.60	370.47	370.86
pH	S.U.	--	6.82 - 7.96	7.55	7.68	7.68	7.51	6.65	7.63	7.44	7.94	7.59
Specific Conductance	µmhos/cm	--	--	450	391	391	570	488	363	654	487	437
Turbidity	NTU	--	--	7.42	6.9	6.9	3.67	6.4	5	7	1.02	8.35
Dissolved Oxygen	mg/L	--	--	0.76	0.47	0.47	0.91	1.1	0	0	0	0.42
Temperature	°C	--	--	12.6	13.5	13.5	17.85	14.8	15.49	13	14.72	17.14
ORP	mV	--	--	-77.4	-55	-55	-94.3	-5.3	-112	-87	-56	-70
Laboratory Parameters												
Antimony	µg/L	6	--	0.02	--	--	0.02	--	--	0.06	--	--
Arsenic	µg/L	10	--	3.65	--	--	3.72	--	--	4.5	--	--
Barium	µg/L	2000	--	86.8	--	--	91.8	--	--	87.9	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	--	--	<0.02	--	--
Cadmium	µg/L	5	--	0.03	--	--	<0.01	--	--	0.05	--	--
Chromium	µg/L	100	--	<0.04	--	--	<0.04	--	--	0.1	--	--
Cobalt	µg/L	6	--	0.186	--	--	0.22	--	--	0.306	--	--
Copper	µg/L	--	--	0.26	--	--	0.07	--	--	0.5	--	--
Lead	µg/L	15	--	0.03	--	--	0.02	--	--	0.2	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	--	--	<0.002	--	--
Molybdnum	µg/L	100	--	4.09	--	--	3.01	--	--	2.4	--	--
Selenium	µg/L	50	--	<0.03	--	--	<0.03	--	--	0.03	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	--	--	<0.1	--	--
Zinc	µg/L	--	--	2	--	--	15.1	--	--	2	--	--
Silica (Dissolved)	mg/L	--	--	15.8	--	--	<0.06	--	--	14	--	--
Aluminum	µg/L	--	--	2	--	--	1	--	--	7	--	--
Boron	mg/L	--	0.098	0.07	--	--	0.04	--	--	0.04	0.04	0.04
Calcium	mg/L	--	(79.5) 96	36.5	--	--	45.1	--	--	43.9	40.3	38.1
Lithium	mg/L	0.04	--	<0.009	--	--	0.01	--	--	0.00504	--	--
Magnesium	mg/L	--	--	9.44	--	--	11.8	--	--	12	--	--
Manganese	mg/L	--	--	0.0779	--	--	0.112	--	--	0.121	--	--
Potassium	mg/L	--	--	0.83	--	--	0.84	--	--	0.9	--	--
Sodium	mg/L	--	--	74.7	--	--	60.5	--	--	49.7	--	--
Strontium	mg/L	--	--	0.0796	--	--	0.098	--	--	0.103	--	--
Alkalinity	mg/L	--	--	231	--	--	201	--	--	205	--	--
Bromide	mg/L	--	--	0.1	--	--	0.2	--	--	2	--	--
Chloride	mg/L	--	(29.6) 241	50.1	--	--	60.2	--	--	41.2	32.8	25.5
Fluoride	mg/L	4	0.656	1.00	1.05	1.08	1.07	1.06	1.08	0.95	1.07	1.16
TDS	mg/L	--	(412.7) 657	328	--	--	352	--	--	309	273	239
Sulfate	mg/L	--	(50.8) 51	29.6	--	--	32.8	--	--	23.2	20.7	16.8
Sulfide	mg/L	--	--	<0.1	--	--	<0.1	--	--	<0.02	--	--
Radium-228	pCi/L	--	--	0.275	--	--	-0.107	--	--	1.33	--	--
Radium-226	pCi/L	--	--	0.351	--	--	0.403	--	--	0.184	--	--
Radium-226/228	pCi/L	5	--	0.626	--	--	0.403	--	--	1.514	--	--
Copper (Dissolved)	µg/L	--	--	1.62	--	--	1.24	--	--	2.03	--	--
Zinc (Dissolved)	µg/L	--	--	3	--	--	3	--	--	3	--	--
Aluminum (Dissolved)	µg/L	--	--	3	--	--	5.77	--	--	<5	--	--
Iron (Dissolved)	mg/L	--	--	0.348	--	--	0.418	--	--	0.364	--	--
Manganese (Dissolved)	mg/L	--	--	0.0765	--	--	0.106	--	--	0.114	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	12/12/2017	6/6/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.38	369.28	368.85	368.52	367.76	366.84	367.86	368.72	367.13	366.24	369.54
pH	S.U.	--	5.99 - 9.07	6.6	7.54	7.59	7.5	7.32	7.6	8.86	7.23	7.53	8	7.77
Specific Conductance	µmhos/cm	--	--	387	450	454	501	410	540	344	398	402	390	400
Turbidity	NTU	--	--	2.5	0.91	0.78	0.46	1.03	2.6	0.71	2.28	3.31	6	2.1
Dissolved Oxygen	mg/L	--	--	2.3	4.37	5.67	4.46	6.66	4.2	3.36	32.59	4.01	6.2	3.36
Temperature	°C	--	--	16.4	17.49	18.53	18.78	15.15	14.9	16.27	18.01	16.21	14.9	16.2
ORP	mV	--	--	36	13.1	48.9	46.9	198.4	150	160.1	-167.7	76.7	56	43
Laboratory Parameters														
Antimony	µg/L	6	--	0.03	0.02	0.02	0.02	0.03	0.03	0.04	0.05	--	--	0.04
Arsenic	µg/L	10	--	0.53	0.47	0.46	0.43	0.47	0.49	0.47	0.42	--	--	0.45
Barium	µg/L	2000	--	18.5	19.6	19.4	19.1	19.3	21.9	17.7	21.9	--	--	18.5
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.004	<0.04	--	--	<0.004
Cadmium	µg/L	5	--	0.02	0.02	0.006	0.02	0.01	0.01	0.01	0.01	--		0.01
Chromium	µg/L	100	--	0.4	0.7	0.3	0.292	0.401	0.536	0.3	0.272	--	--	0.233
Cobalt	µg/L	6	--	0.104	0.033	0.03	0.023	0.022	0.053	0.027	0.006	--	--	0.02
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.27	0.35	--	0.52
Lead	µg/L	15	--	0.095	0.042	0.025	0.023	0.024	0.095	0.023	0.024	--	--	0.024
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	1.78	1.85	1.74	1.63	1.74	2	1.62	2.31	--	--	2.04
Selenium	µg/L	50	--	0.7	0.5	0.2	0.2	0.1	0.1	0.1	0.2	--	--	0.3
Thallium	µg/L	2	--	0.01	0.01	<0.01	<0.01	0.058	<0.01	<0.01	<0.01	--	--	<0.01
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	214	--	3.7
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	23.5	22.8	26.2	--	22.5
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	1	16.5	--	6.55
Boron	mg/L	--	0.046	0.002	0.011	0.007	0.015	0.002	0.018	0.033	0.034	0.027	--	0.039
Calcium	mg/L	--	(79.5) 62	55.1	52.8	52	60	54.4	59	56	55.9	59.8	--	52.8
Lithium	mg/L	0.04	--	0.003	0.013	0.003	0.009	0.007	0.002	0.005	<0.0002	--	--	0.005
Magnesium	mg/L	--	--	--	--	--	--	--	21.3	20.5	20.7	21.8	--	19.2
Manganese	mg/L	--	--	--	--	--	--	--	--	--	<0.0001	--	--	0.0008
Potassium	mg/L	--	--	--	--	--	--	--	0.6	0.69	0.57	0.61	--	0.58
Sodium	mg/L	--	--	--	--	--	--	--	18.9	16.6	20.6	19.3	--	15.5
Strontium	mg/L	--	--	--	--	--	--	--	0.0604	0.0601	0.58	0.061	--	0.0554
Alkalinity	mg/L	--	--	--	--	--	--	--	202	195	212	210	--	183
Bromide	mg/L	--	--	--	--	--	--	--	<0.02	0.03	0.061	<0.02	--	0.02
Chloride	mg/L	--	(29.6) 16	15	15.1	14.7	14.7	14.4	14.8	15.7	15.9	17.7	18	17.5
Fluoride	mg/L	4	0.689	0.61	0.064	0.62	0.63	0.54	0.58	0.6	0.54	0.6	0.6	0.66
TDS	mg/L	--	(412.7) 313	275	292	285	294	287	298	296	304	300	--	283
Sulfate	mg/L	--	23.6	21.2	21.1	17.4	14.9	15.9	16.5	17.6	18.8	20.1	21.1	18.7
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4
Radium-228	pCi/L	--	--	0.129	0.0598	0.213	0.14	1.71	-0.0315	0.0831	0.989	--	--	--
Radium-226	pCi/L	--	--	0.0309	0.513	0.239	0.344	0.357	0.0305	0.152	0.109	--	--	--
Radium-226/228	pCi/L	5	--	0.1599	0.5728	0.452	0.484	2.067	-0.001	0.2351	1.098	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.2	--	--	0.29
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	5.1	--	--	1
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	18.3	--	--	1
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.008	0.017	--	0.005
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0001	0.0001	0.0029	<0.0002	--	<0.0002

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/14/2018	2/12/2019	4/1/2019	5/21/2019	11/14/2019	2/18/2020	5/19/2020	7/16/2020	11/11/2020	2/3/2021
Field Parameters													
Elevation	ft NGVD	--	--	368.42	370.37	371.3	371.43	370.65	369.05	369.92	400.27	370.10	367.97
pH	S.U.	--	5.99 - 9.07	7.34	7.74	7.8	7.59	7.54	7.53	8.11	7.93	7.59	7.68
Specific Conductance	µmhos/cm	--	--	380	318	404	424	530	856	347	416	499	529
Turbidity	NTU	--	--	1.67	2.8	2.45	0.29	2.8	8.71	0.65	0.46	1.9	1.3
Dissolved Oxygen	mg/L	--	--	9.55	7.1	3.89	5.26	7	6.64	5.6	7.8	6.95	6.5
Temperature	°C	--	--	14.14	15.2	14.3	15.98	15.5	11.8	12.23	15.6	15.76	13.4
ORP	mV	--	--	165.5	189	21.1	-194.8	121	132.4	136	141	148	178
Laboratory Parameters													
Antimony	µg/L	6	--	0.02	--	--	<0.02	0.03	--	--	--	--	--
Arsenic	µg/L	10	--	0.44	--	--	0.44	0.46	--	--	--	--	--
Barium	µg/L	2000	--	17.8	--	--	15.9	16.2	--	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	<0.02	--	--	--	--	--
Cadmium	µg/L	5	--	0.01	--	--	0.01	0.01	--	--	--	--	--
Chromium	µg/L	100	--	0.232	--	--	0.287	0.418	--	--	--	--	--
Cobalt	µg/L	6	--	0.06	--	--	0.02	0.03	--	--	--	--	--
Copper	µg/L	--	--	0.53	--	--	0.13	0.4	--	--	--	--	--
Lead	µg/L	15	--	0.07	--	--	0.02	<0.05	--	--	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	<0.002	--	--	--	--	--
Molybdnum	µg/L	100	--	2	--	--	2	2	--	--	--	--	--
Selenium	µg/L	50	--	0.3	--	--	0.1	0.1	--	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	<0.1	--	--	--	--	--
Zinc	µg/L	--	--	0.8	--	--	<0.7	<0.7	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	23.2	--	--	21.3	18.8	--	--	--	--	--
Aluminum	µg/L	--	--	17	--	--	5.26	10	--	--	--	--	--
Boron	mg/L	--	0.046	0.06	<0.02	--	<0.02	0.01	--	<0.02	--	<0.02	--
Calcium	mg/L	--	(79.5) 62	55	--	--	52.5	50.4	--	49.1	--	50.9	--
Lithium	mg/L	0.04	--	0.03	--	--	<0.009	0.00321	--	--	--	--	--
Magnesium	mg/L	--	--	19.6	--	--	17	17.3	--	--	--	--	--
Manganese	mg/L	--	--	0.0041	--	--	0.0009	0.002	--	--	--	--	--
Potassium	mg/L	--	--	0.88	--	--	0.55	0.3	--	--	--	--	--
Sodium	mg/L	--	--	17.1	--	--	13	15.3	--	--	--	--	--
Strontium	mg/L	--	--	0.0553	--	--	0.0506	0.0508	--	--	--	--	--
Alkalinity	mg/L	--	--	193	--	--	167	171	--	--	--	--	--
Bromide	mg/L	--	--	<0.04	--	--	<0.04	<0.04	--	--	--	--	--
Chloride	mg/L	--	(29.6) 16	17.9	17.9	17.5	16	17.4	--	18	16.1	18.1	--
Fluoride	mg/L	4	0.689	0.66	--	--	0.65	0.73	0.79	0.76	0.77	0.83	0.85
TDS	mg/L	--	(412.7) 313	278	--	--	258	241	--	238	228	259	--
Sulfate	mg/L	--	23.6	17.0	--	--	14.1	15.8	--	15.1	--	16.4	--
Sulfide	mg/L	--	--	<0.07	--	--	<0.1	<0.2	--	--	--	--	--
Radium-228	pCi/L	--	--	0.0549	--	--	0.366	0.39	--	--	--	--	--
Radium-226	pCi/L	--	--	0.0246	--	--	-0.0257	0.0413	--	--	--	--	--
Radium-226/228	pCi/L	5	--	0.0795	--	--	0.366	0.4313	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.13	--	--	0.27	<0.2	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	<0.7	--	--	<0.7	0.8	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	2	--	--	5	<5	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	<0.003	--	--	<0.003	<0.02	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	<0.0002	--	--	<0.0002	<0.0005	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	6/6/2018	11/13/2018	5/21/2019	11/14/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	369.3	369.19	368.77	368.43	367.68	367.8	368.03	368.24	367	369.44	368.39	371.41	370.62	369.92
pH	S.U.	--	6.63 - 8.69	7.99	7.56	7.56	7.3	7.35	7.5	8.56	7.44	7.44	7.54	7.69	7.31	7.48	7.38
Specific Conductance	µmhos/cm	--	--	548	500	488	432	397	520	361	422	399	430	402	403	526	386
Turbidity	NTU	--	--	0.73	0.65	1.04	0.97	2.82	2.5	1.34	1.02	3.21	1.71	1.18	0	4	1.08
Dissolved Oxygen	mg/L	--	--	0.5	1.63	1.49	1.88	1.53	0.3	0.55	0.76	0.2	0.17	0.22	0.36	0.4	2.47
Temperature	°C	--	--	16.88	17.39	16.17	16.95	13.68	15.1	16.39	17.11	15.47	15.55	14.87	16.34	15.6	14.95
ORP	mV	--	--	-9.2	-185.2	-16.7	105.2	21.1	-3	160.7	2.1	-10.3	-13.4	8.7	67.5	31	109
Laboratory Parameters																	
Antimony	µg/L	6	--	0.02	0.02	0.02	0.02	0.02	0.03	0.05	0.03	--	0.02	<0.02	<0.02	0.05	--
Arsenic	µg/L	10	--	1.55	1.67	1.55	1.41	1.39	1.08	1.19	1.38	--	0.98	1.63	0.65	1.12	--
Barium	µg/L	2000	--	127	136	121	126	126	123	116	123	--	121	120	106	110	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.004	<0.004	--	<0.004	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.02	0.02	0.02	0.04	0.02	0.01	0.01	0.01	--		0.03	0.01	0.07	--
Chromium	µg/L	100	--	0.1	0.2	0.1	0.386	1.04	0.349	0.125	0.143	--	0.061	0.1	0.1	0.2	--
Cobalt	µg/L	6	--	0.514	0.558	0.422	0.524	0.437	0.437	0.412	0.517	--	0.398	0.685	0.275	0.664	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.07	0.09	0.11	0.51	0.77	0.3	--
Lead	µg/L	15	--	0.02	0.021	0.046	0.035	<0.004	0.01	0.022	0.033	--	0.026	0.181	0.02	0.08	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	4.92	5.25	4.46	4.4	4.63	4.31	4.06	4.18	--	4.69	5.13	5.01	4.85	--
Selenium	µg/L	50	--	<0.03	0.05	0.03	0.09	0.07	0.07	0.05	0.05	--	<0.03	<0.03	<0.03	0.1	--
Thallium	µg/L	2	--	0.03	0.03	0.02	0.02	0.04	0.02	0.03	0.03	--	0.03	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	0.6	0.9	1	11.1	1	1	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.8	18.1	19.7	17.6	17.7	16.6	15.4	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	4.55	2.56	3.39	17.2	6.03	10	--
Boron	mg/L	--	0.092	0.007	0.012	0.011	0.012	<0.002	0.028	0.027	0.08	0.029	0.034	0.08	<0.02	0.01	<0.02
Calcium	mg/L	--	(979.5) 73	69	64.7	65.1	68.4	59.5	66.5	62.9	60.1	63.9	66.5	61.5	62.4	56.5	58.5
Lithium	mg/L	0.04	--	<0.0002	0.019	0.004	0.006	0.005	0.007	0.008	0.004	--	0.007	<0.009	<0.009	0.00335	--
Magnesium	mg/L	--	--	--	--	--	--	--	20.9	20.1	18.4	20	21.2	19.3	17.5	16.8	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.428	--	0.476	0.535	0.371	0.582	--
Potassium	mg/L	--	--	--	--	--	--	--	0.92	1.08	1.26	0.8	0.9	1.21	0.82	0.7	--
Sodium	mg/L	--	--	--	--	--	--	--	16	15.4	13	15	15.5	14.7	13.3	14.4	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0931	0.0922	0.0805	0.0889	0.096	0.0887	0.0829	0.0797	--
Alkalinity	mg/L	--	--	--	--	--	--	--	212	222	221	215	230	224	199	199	--
Bromide	mg/L	--	--	--	--	--	--	--	0.03	0.05	<0.02	0.04	0.04	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	(79.5) 22	21.1	21.7	20.4	20	19.9	19.6	21	20.4	20.5	20.6	20.2	18.1	17.5	19.3
Fluoride	mg/L	4	0.38	0.33	0.36	0.34	0.34	0.3	0.32	0.34	0.3	0.31	0.38	0.36	0.36	0.38	0.35
TDS	mg/L	--	(412.7) 359	331	334	305	317	292	275	306	322	306	317	294	278	262	283
Sulfate	mg/L	--	50	46.2	47.9	43.2	40.4	41	39.6	42.4	43.6	45.7	44.6	43.4	36	35.5	38.8
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.126	0.036	0.676	0.0796	1.78	0.281	0.108	0.45	--	--	0.638	0.458	0.113	--
Radium-226	pCi/L	--	--	0.223	1.37	0.305	0.576	0.953	0.601	0.483	0.775	--	--	0.315	0.284	0.579	--
Radium-226/228	pCi/L	5	--	0.349	1.406	0.981	0.6556	2.733	0.882	0.591	1.225	--	--	0.953	0.742	0.692	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.09	--	0.11	0.23	0.21	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.7	--	1	1	<0.7	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	<0.8	<1	4	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.019	<0.0004	0.078	0.062	0.024	0.028	<0.003	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.37	0.427	0.425	0.441	0.427	0.441	0.346	0.315	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/11/2020	2/3/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.10	368.10
pH	S.U.	--	6.63 - 8.69	7	7.53
Specific Conductance	µmhos/cm	--	--	518	452
Turbidity	NTU	--	--	3.55	0.3
Dissolved Oxygen	mg/L	--	--	0.02	0.2
Temperature	°C	--	--	15.73	14.7
ORP	mV	--	--	61	75
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.092	<0.02	--
Calcium	mg/L	--	(979.5) 73	58.6	--
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	--
Chloride	mg/L	--	(79.5) 22	18.0	--
Fluoride	mg/L	4	0.38	0.45	0.46
TDS	mg/L	--	(412.7) 359	266	--
Sulfate	mg/L	--	50	36.4	--
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	1/3-11/18	6/6/2018	11/13/2018	5/22/2019	11/14/2019	5/19/2020
Field Parameters																		
Elevation	ft NGVD	--	--	369.44	369.34	368.92	368.59	367.86	368.07	367.86	368.42	367.17	366.66	369.58	368.38	371.4	370.64	
pH	S.U.	--	6.71 - 8.73	8.14	7.76	7.69	7.47	7.19	7.6	7.44	8.48	7.48	7.03	7.65	7.66	7.47	7.41	7.55
Specific Conductance	µmhos/cm	--	--	591	544	478	585	441	60	493	531	449	564	470	451	511	670	449
Turbidity	NTU	--	--	2.82	0.48	1.93	0.33	3.09	1.9	1.42	0.55	1.01	1.11	2.43	1.87	0.87	11	1.18
Dissolved Oxygen	mg/L	--	--	0.53	0.17	0.49	0	1.82	0.2	0.22	0.47	0.31	18.7	0.18	0.33	1.88	0	0.66
Temperature	°C	--	--	15.24	16.81	15.93	15.25	12.99	15	16.7	17.58	16.26	14.93	15.45	14.15	15.44	16.2	14.87
ORP	mV	--	--	80.4	26.3	78.1	51.1	141.4	51	40	168.3	21.3	170.4	25.1	23.2	37.3	56	35
Laboratory Parameters																		
Antimony	µg/L	6	--	0.08	0.08	0.06	0.06	0.07	0.07	0.08	0.12	--	--	0.11	0.07	0.08	0.19	--
Arsenic	µg/L	10	--	1.07	1.06	0.95	0.86	0.99	0.92	0.97	1.04	--	--	0.84	0.89	1.04	1.08	--
Barium	µg/L	2000	--	241	240	226	206	220	220	216	226	--	--	218	201	202	203	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.004	<0.004	--	--	0.005	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.02	0.03	0.02	0.03	0.02	0.02	0.04	0.02	--		0.13	0.02	0.03	0.16	--
Chromium	µg/L	100	--	0.2	0.3	0.1	0.05	0.124	0.433	0.165	0.11	--	--	0.091	0.06	<0.04	0.759	--
Cobalt	µg/L	6	--	0.216	0.21	0.195	0.171	0.202	0.182	0.208	0.203	--	--	0.196	0.224	0.234	0.397	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.11	2.7	--	1.16	0.16	0.16	1.02	--
Lead	µg/L	15	--	0.107	0.075	0.066	0.056	0.091	0.092	0.118	0.089	--	--	0.229	0.1	0.09	0.776	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	6.31	6.66	6.13	5.33	6.09	5.68	5.07	5.29	--	--	5.17	4.76	5.37	5.29	--
Selenium	µg/L	50	--	0.2	0.2	0.3	0.3	0.2	0.5	0.6	0.5	--	--	0.2	0.05	0.04	0.08	--
Thallium	µg/L	2	--	0.03	0.02	0.03	0.02	0.04	0.02	0.02	0.03	--	--	0.03	<0.1	<0.1	0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	187	--	6.5	1	1	4	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.5	17.6	19.6	--	17.6	17	16.9	16	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	6.79	14.1	--	17.2	9.86	5	65.5	--
Boron	mg/L	--	0.071	0.022	0.015	0.015	0.013	0.004	0.024	0.107	0.015	0.092	0.088	0.03	0.04	<0.02	0.01	0.02
Calcium	mg/L	--	(79.5) 83	74.2	60.6	70.4	74.7	67.3	76.2	71.5	70.9	67.8	--	70.7	62.1	69.3	69.4	69.2
Lithium	mg/L	0.04	--	0.002	0.025	0.005	0.007	0.009	0.005	0.013	0.0005	--	--	0.006	0.01	<0.009	0.0044	--
Magnesium	mg/L	--	--	--	--	--	--	--	25	24.3	23.9	22.7	--	23.6	21.3	23.1	22.3	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.592	--	--	0.596	0.634	0.717	0.803	--
Potassium	mg/L	--	--	--	--	--	--	--	2.11	2.41	2.44	3.91	--	1.97	3.95	2.81	3.49	--
Sodium	mg/L	--	--	--	--	--	--	--	18.1	17.2	19.7	20.8	--	15.7	17.7	15.1	17.2	--
Strontium	mg/L	--	--	--	--	--	--	--	0.144	0.142	0.144	0.168	--	0.147	0.191	0.189	0.21	--
Alkalinity	mg/L	--	--	--	--	--	--	--	247	271	277	262	--	268	268	286	266	--
Bromide	mg/L	--	--	--	--	--	--	--	<0.05	0.08	0.07	<0.05	--	0.05	0.05	0.04	0.05	--
Chloride	mg/L	--	(29.6) 20	19.2	19.6	18.9	19.1	19.4	18.9	19.9	19.5	18.5	--	19.9	18.8	19.1	19.2	19.9
Fluoride	mg/L	4	0.407	0.36	0.38	0.36	0.33	0.36	0.33	0.35	0.3	0.32	--	0.4	0.34	0.36	0.32	0.26
TDS	mg/L	--	(412.7) 365	328	299	315	346	332	304	339	332	339	--	347	314	348	323	328
Sulfate	mg/L	--	43.22	39.2	41	35.5	32	34.4	35.1	37.1	36.5	37.4	--	38.4	35.2	36.8	38.6	33.3
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.07	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.441	0.77	0.604	0.688	0.722	0.518	0.0415	0.501	--	--	--	1.47	0.59	0.525	--
Radium-226	pCi/L	--	--	0.126	0.658	0.23	0.39	0.422	0.42	0.408	0.355	--	--	--	0.469	0.669	0.403	--
Radium-226/228	pCi/L	5	--	0.567	1.428	0.834	1.078	1.144	0.938	0.4495	0.856	--	--	--	1.939	1.259	0.928	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.39	--	--	0.08	1.33	0.85	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.4	--	--	0.7	3	3	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.16	--	--	2	1	2	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.053	0.016	--	<0.002	0.007	0.005	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.616	0.625	0.62	0.646	--	0.567	0.657	0.684	0.611	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/11/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.09
pH	S.U.	--	6.71 - 8.73	6.99
Specific Conductance	µmhos/cm	--	--	599
Turbidity	NTU	--	--	1.65
Dissolved Oxygen	mg/L	--	--	0.36
Temperature	°C	--	--	15.31
ORP	mV	--	--	120
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.071	<0.02
Calcium	mg/L	--	(79.5) 83	70.9
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	(29.6) 20	19.5
Fluoride	mg/L	4	0.407	0.38
TDS	mg/L	--	(412.7) 365	318
Sulfate	mg/L	--	43.22	37.1
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

Prepared by: kdr 05/04/2021
Checked by: dmw 05/05/2021

Notes:

GWPS - Groundwater Protection Standard
MCL - USEPA Maximum Contaminant Levels
RSL - USEPA Generic Tables for Residential Tapwater, May 2018, TR=1E-06, THQ=1.0
Field Parameter Units
ft NGVD - Feet, National Geodetic Vertical Datum of 1929 (also known as mean sea level (MSL)
°C - degrees Celcius
S.U. - Standard Units
µmhos/cm - micromhos per centimeter
mg/L - milligrams per liter
ORP - milliVolts (mV)
NTU - Nephelometric Turbidity Units
Laboratory Parameter Units
pCi/L picoCuries per Liter

Table A-2
Summary of Leachate Pond Data
CCR Landfill
Rockport Plant, Rockport, Indiana

Source: American Electric Power

		Combined North/West Leachate Pond			North Leachate Pond					West Leachate Pond
		7/13/2016	7/19/2016	1/24/2017	7/13/2016	7/19/2016	9/14/2016	1/24/2017	9/29/2017	9/29/2017
Parameter	**Unit**									
Boron	mg/L	1.19	2.17	2.77	0.634	0.684	0.818	2.07	2.7	11.44
Calcium	mg/L	22.8	41.3	149	19.9	22.5	21.8	80.8	-	-
Chloride	mg/L	38.5	63.7	191	17.3	19.7	9.31	18.4	-	-
Fluoride	mg/L	0.27	0.41	0.32	0.25	0.2	0.57	0.23	-	-
Total Dissolved Solids	mg/L	918	1870	1870	332	434	310	656	-	-
Sulfate	mg/L	617	1180	1020	168	254	97.6	365	-	-
pH	SU	-	-	-	-	-	-	-	-	-

Notes:

mg/L: milligrams per liter

SU: standard unit

-: Not sampled

Laboratory data reports incorrectly identified Combined North/West Leachate Pond as North/South Leachate Pond. There is no South Leachate Pond.

Prepared by: kdr 6/1/2020

Checked by: tmr 6/1/2020

Table A-3
Summary of Isotope Data
CCR Landfill
Rockport Plant, Rockport, Indiana

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Sample Identifier	B (mg/L)	$\delta^{11}B$	Sr (mg/L)	$^{87}Sr/^{86}Sr$
Landfill Leachate Pond North	2.7	-0.93	1.80	0.711955
Landfill Leachate Pond West	11.4	-1.64	2.86	0.711919
MW-17I	0.058	26.86	0.093	0.710547
MW-8I	0.037	23.51	0.140	0.709697
MW-8S	0.020	16.33	0.048	0.709272
MW-11S	0.060	24.01	0.052	0.709447
MW-14S	0.017	17.78	0.094	0.710566
MW-15I	0.042	35.32	0.082	0.710333
MW-21S	0.016	20.66	0.055	0.710142

Note: monitoring well boron concentrations are averages of first eight rounds of sampling.

Appendix B
Full Size Geochemical Exhibits

Exhibit 3-2. CCR monitoring well and landfill leachate ponds boron concentrations.

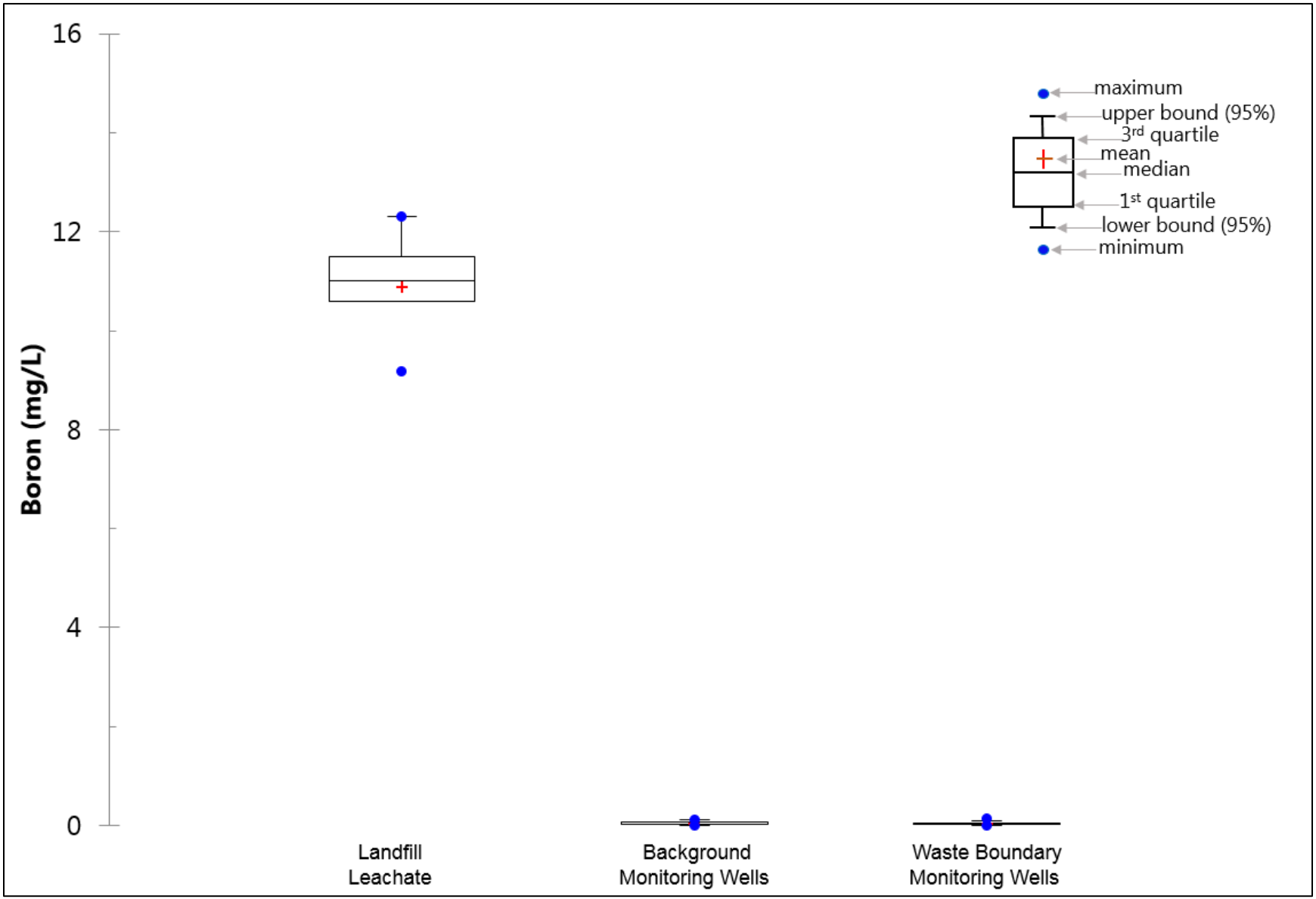


Exhibit 3-3. CCR monitoring well and landfill leachate ponds sulfate concentrations.

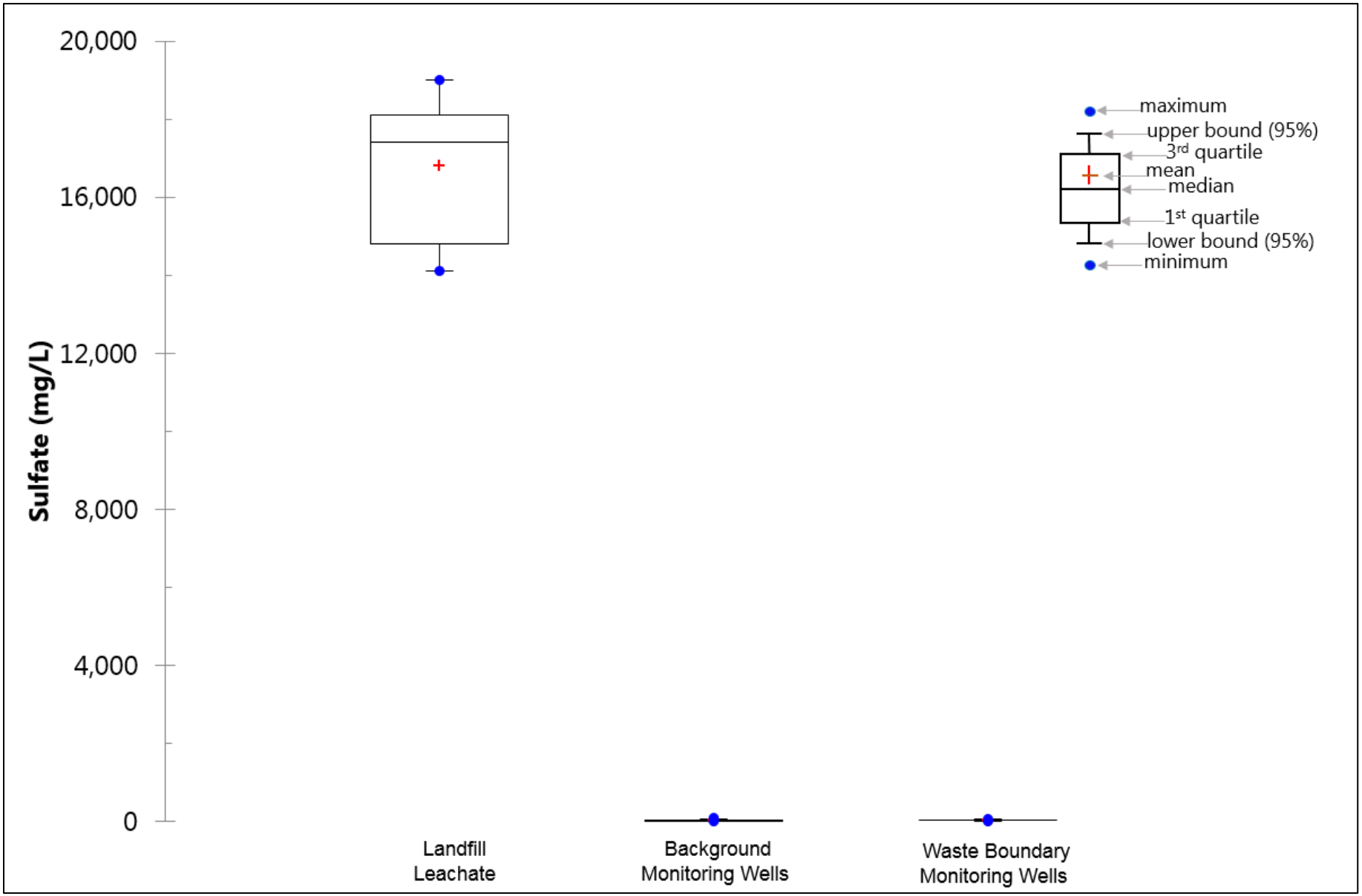


Exhibit 3-4. Boron to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.

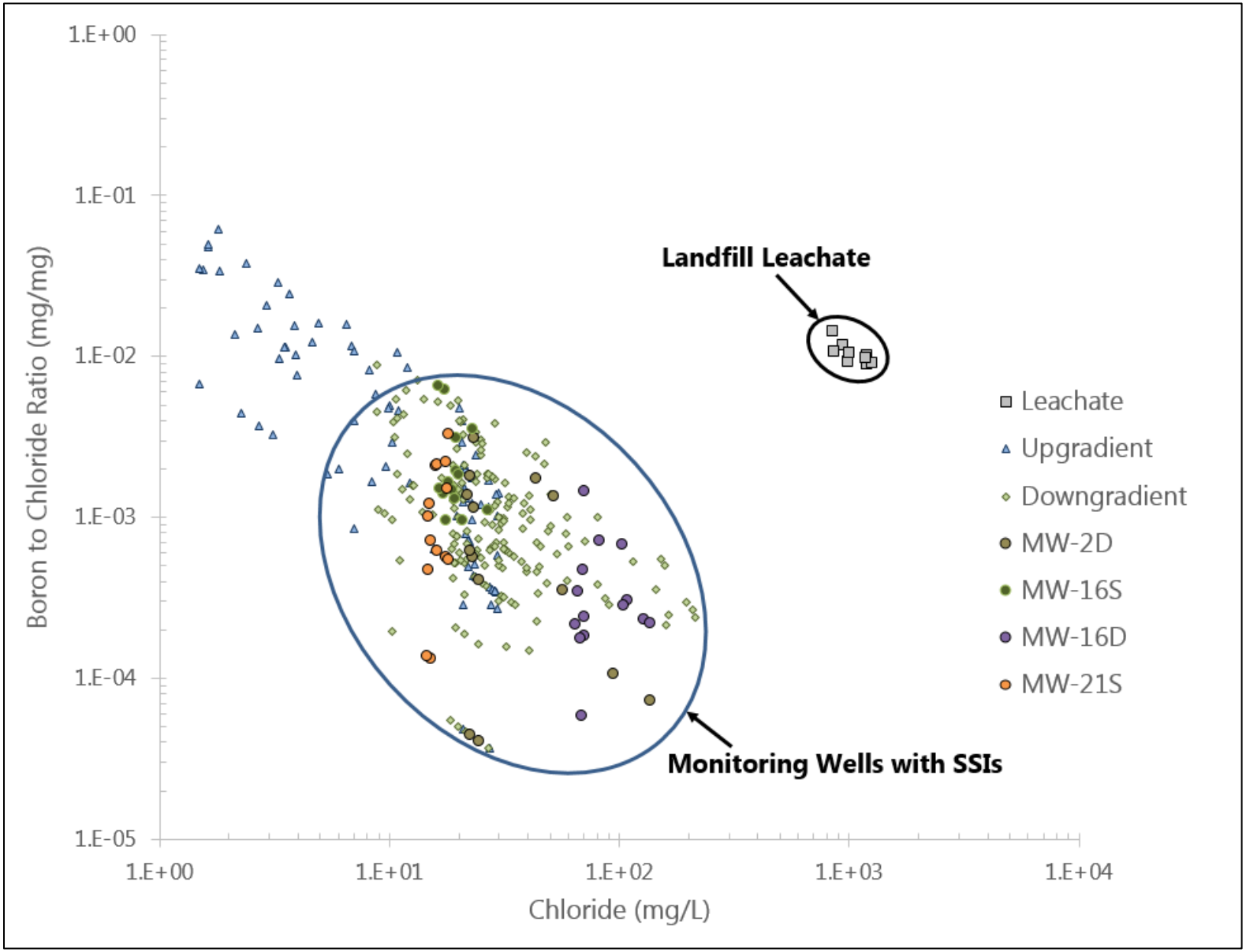


Exhibit 3-5. Sulfate to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.

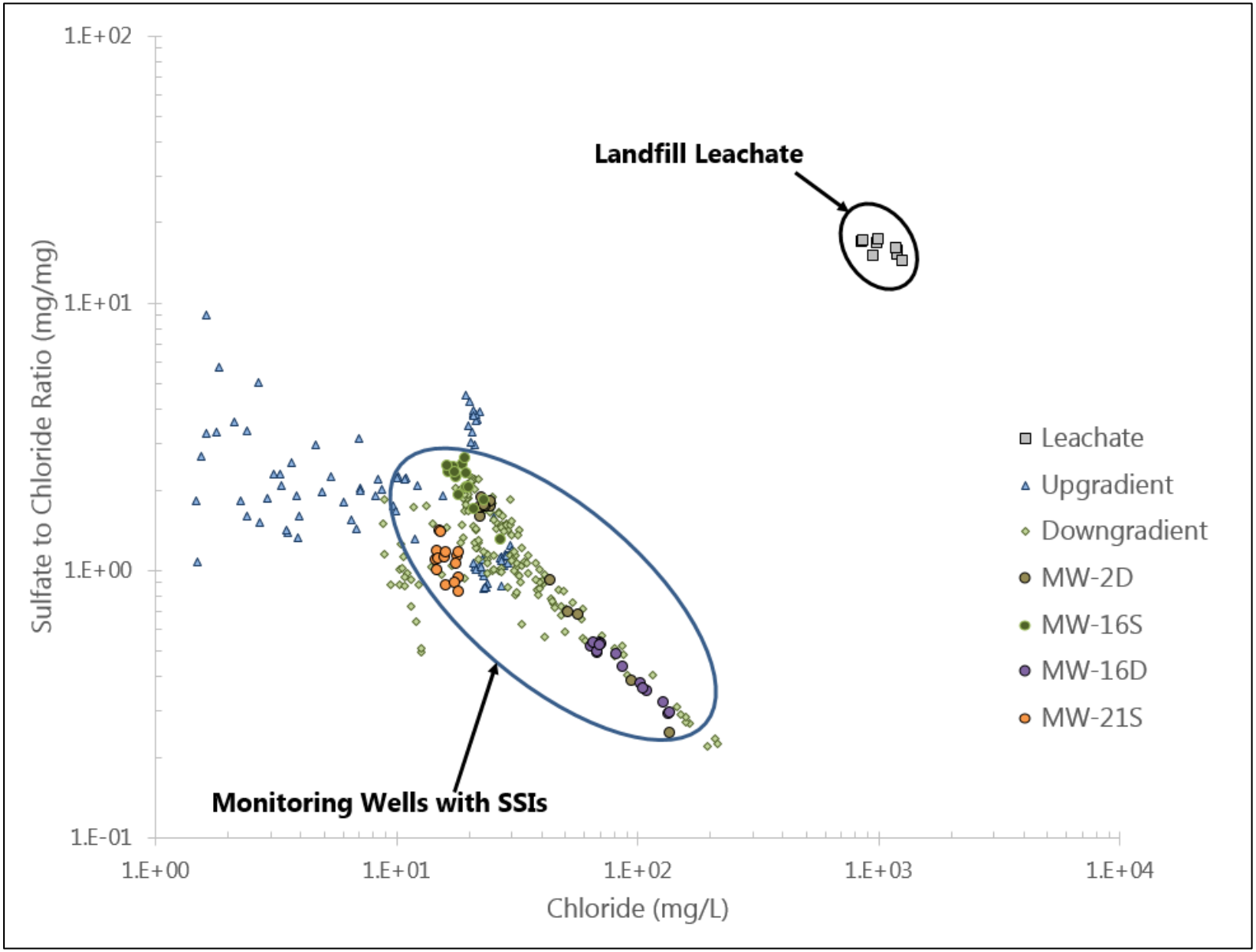


Exhibit 3-6. Boron isotope ratio (δ11B) versus boron concentration for CCR Landfill leachate and monitoring wells for comparison.

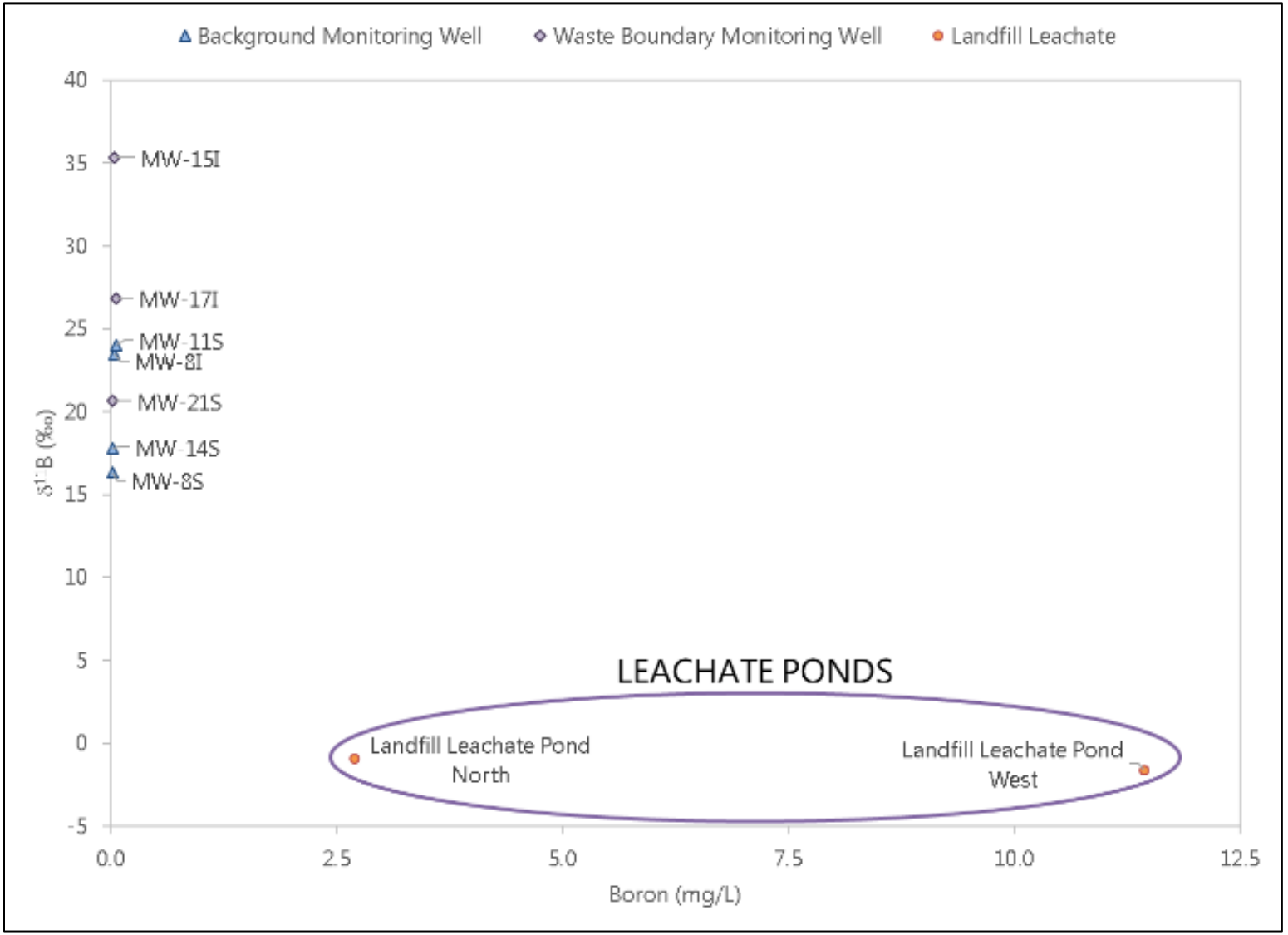
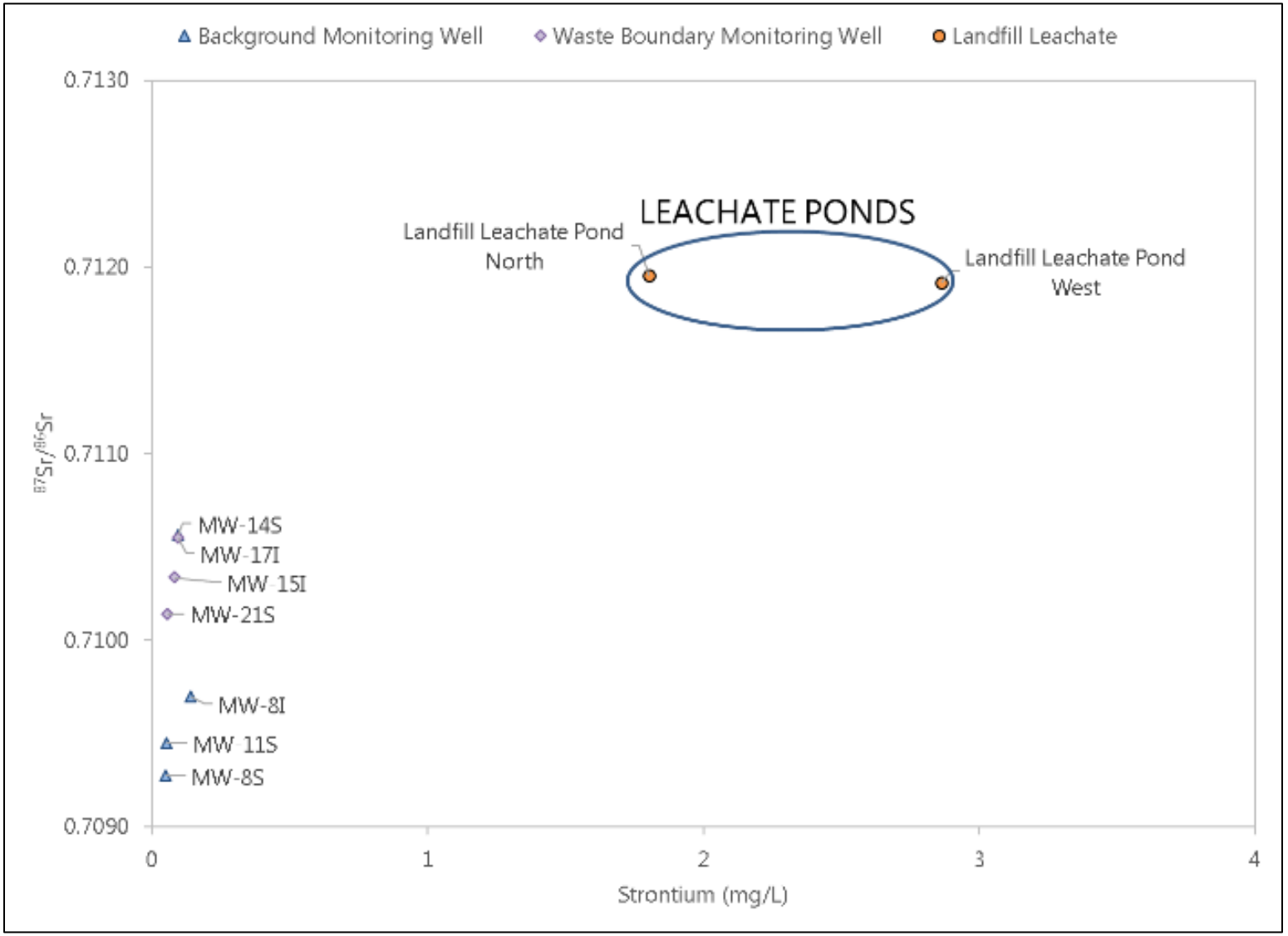


Exhibit 3-7. Strontium isotope ratio ($^{87}Sr/^{86}Sr$) versus strontium concentration for CCR Landfill leachate and monitoring wells for comparison.



Alternative Source Demonstration for Appendix III Constituents, CCR Landfill

American Electric Power Service Corporation
Rockport Generating Station, Rockport, Spencer County, Indiana
Project # 7650202784

Prepared for:

American Electric Power Service Corporation
1 Riverside Plaza, Columbus, Ohio 43215

4 January 2022

4 January 2022

Mr. David Miller
Director, Land Environment & Remediation Services
American Electric Power Service Corporation
1 Riverside Plaza
Columbus, OH 43215
Email: damiller@aep.com

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2456 Fortune Drive, Suite 100
Lexington, KY 40509
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T: 859-255-3308
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Dear Mr. Miller:

Wood Environment & Infrastructure Solutions, Inc. (Wood) has prepared this Alternative Source Demonstration (ASD) for the CCR Landfill located at the AEP Rockport Plant in Rockport, Indiana. As detailed in this report, the results of this ASD conclude that statistically significant increases (SSIs) identified in samples from the waste boundary monitoring wells are not caused by releases from the CCR Landfill. We are available to discuss the details of this report at your convenience should you require additional information.

We very much appreciate working with AEP on this project. If you require additional information about this report, please feel free to contact Tom Reed at (859) 566-3722.

Sincerely,

Wood Environment & Infrastructure Solutions, Inc.

Konrad W. Quast, PhD
Senior Hydrogeologist

Thomas M. Reed, PG
Project Manager

Attachments

/kdr

cc: Justin Jent, PE, American Electric Power Service Corporation

Alternative Source Demonstration for Appendix III Constituents, CCR Landfill

American Electric Power Service Corporation
Rockport Generating Station, Rockport, Spencer County, Indiana
Project # 7650202784

Prepared for:

American Electric Power Service Corporation
1 Riverside Plaza, Columbus, Ohio 43215

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4 January 2022

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Executive Summary

American Electric Power (AEP) operates two units at the Rockport Plant for management of coal combustion residuals (CCR): the bottom ash ponds (BAP), and the CCR Landfill. Both are regulated under the federal CCR Rule (40 CFR Part 257) that became effective in October 2015 and modified in July 2018.

The CCR Landfill has been in the detection phase of groundwater monitoring as part of its compliance with the rule. The most recent statistical analysis of Appendix III constituents identified 12 statistically significant increases (SSIs) above background, distributed among nine waste boundary monitoring wells. Three waste boundary monitoring wells exhibited SSIs for chloride (MW-1I, MW-2D, and MW-16D). Two of the three wells also exhibited SSIs for TDS (MW-2D and MW-16D). SSIs for TDS were also observed in wells MW-1S and MW-1D. Four waste boundary wells exhibited SSIs for fluoride (MW-2S, MW-15I, MW-21S, and MW-21I). Finally, one waste boundary well exhibited an SSI for calcium (MW-16D).

This alternative source demonstration (ASD) evaluates the occurrence of SSIs in terms of site geochemistry, hydrogeologic setting, and with respect to supplementary data collected to support the evaluation. Based on the analysis presented in this ASD, CCR Landfill leachate can be excluded as a source of Appendix III SSLs for the following reasons:

- Boron occurs naturally at low concentration in site groundwater, in similar concentrations in background and downgradient wells. Boron occurs at concentrations approximately three orders-of-magnitude greater in the Landfill leachate as compared to site groundwater, and is a conservative ion, making it an excellent indicator for impacts from landfill leachate in groundwater. If landfill leachate were impacting groundwater, boron would be expected to be observed in multiple waste boundary wells and at statistically significant concentrations above background. It does not.

- Sulfate is another typical indicator for CCR leachate impacts, which also occurs naturally in site groundwater (at similar concentration ranges in background and downgradient wells) and is elevated in the CCR Landfill leachate at concentrations approximately three orders-of-magnitude above background monitoring wells. No SSIs for sulfate were determined in any of the waste boundary well samples.

- Chloride is a naturally occurring and conservative ion, which occurs in the CCR Landfill leachate at concentrations about two orders-of-magnitude above groundwater concentrations. Spatial trends indicate that chloride concentrations tend to increase in groundwater moving downgradient from recharge areas. However, because the SSIs indicated for chloride are not associated with SSIs for boron and sulfate, the CCR Landfill leachate is not considered a source for the chloride detected in groundwater.

- The same conclusion can be drawn regarding calcium, total dissolved solids (TDS) and fluoride, for which occasional SSIs are not consistently associated with boron, sulfate, or each other. The SSIs indicated for these constituents appear to be related to the natural variation in groundwater quality, along with a spatial trend of increasing TDS with distance from recharge area.

- The conclusions listed above are also supported by the analytical results for isotope ratios of boron and strontium in leachate and groundwater samples from a previous sampling event. While only a single set of samples to date have been collected, the indication in downgradient wells, including wells that have shown SSIs, is that the leachate is distinctly different from that of background and downgradient groundwater, and supports no release from the landfill to groundwater.

1.0 Objective

American Electric Power (AEP) operates a CCR Landfill that is used for the management of coal combustion residuals (CCR). The landfill is regulated under the federal CCR Rule (40 CFR Part 257) that became effective in October 2015. During the initial phase of groundwater monitoring (detection monitoring), the CCR Rule requires the owners or operators of regulated units to collect at least eight independent samples from at least one background location and at least three waste boundary wells, analyzed for constituents listed in Appendix III and Appendix IV of the CCR rule. That sampling was completed in July 2017.

Six rounds of detection monitoring have been conducted at the landfill. Each round consists of an initial sampling event, followed by one or two rounds of verification samples based on the results of the initial events. Following completion of the verification sampling for each event, a statistical analysis is conducted to assess whether statistically significant increases (SSIs) above background are detected in the waste boundary monitoring wells for Appendix III constituents. For each semiannual sampling round where SSIs are detected, an alternate source demonstration (ASD) has been performed to assess whether these SSIs were the result of a release of leachate from the CCR landfill.

Previous ASDs performed by Geosyntec and Wood Environment & Infrastructure Solutions, Inc. (Wood) have indicated that the source of previously identified SSIs result from natural variation in groundwater quality or potential impacts from historical oil and gas operations. The most recent ASD was completed by Wood in May 2021 for the detection monitoring event of November 2020, with verification samples taken in February 2021.

The first semiannual detection monitoring samples for 2021 were taken in May 2021, with verification samples taken in August 2021. Again, a statistical evaluation of monitoring results identified SSIs for several Appendix III constituents. The objective of this ASD is to review these results, and to assess whether the findings of the previous ASDs remain valid; that is, that the SSIs detected in the waste boundary wells, from detection monitoring samples collected in May 2021 and verified in August 2021 samples, are not the result of a release from the landfill.

1.1 Scope

As stated in 40 CFR 257.94(e)(2), the CCR Rule allows 90 days after the initial identification of Appendix III SSIs for the owner or operator to demonstrate that a source other than the regulated unit is responsible for identified SSIs. The regulations allow the ASD to address a number of potential causes of SSIs other than a release from the regulated unit, including error[s] in sampling, analysis, statistical evaluation, or natural variation in groundwater quality.

The scope of this ASD is focused on evaluating the first 2021 semiannual detection monitoring results (including verification samples) and assessing whether the data are consistent with the assessment conducted in the most recent ASD report (Wood, May 2021). The ASD will be undertaken to assess, through multiple lines of evidence, whether an alternative source for the SSIs can be supported, following the guidelines published in October 2017 by the Electric Research Power Institute (EPRI, Guidelines for Development of Alternative Source Demonstrations at Coal Combustion Residual Sites). This report does not include evaluations of potential errors in sampling and analysis, or the statistical approaches which were used to identify the SSIs.

1.2 Approach

The ASD presented in this document is based on a geochemical and hydrologic evaluation of groundwater quality at the CCR Landfill. The purpose of this ASD is to evaluate the identified SSIs within

the larger geochemical context of the CCR Landfill groundwater flow system, in order to assess the likelihood that these SSIs are the result of releases from the CCR Landfill. In addition to the groundwater analytical data collected for compliance with the CCR rule, used to support the statistical evaluation, Wood relied on supplemental analytical data, including analyses of the CCR Landfill leachate and monitoring well groundwater analyses of the isotopes of boron and strontium.

1.3 Report Organization

This ASD has been prepared following the *Guidelines for Development of Alternative Source Demonstrations at Coal Combustion Residual Sites* (EPRI, 2017) to the extent applicable. **Section 2** presents a summary the CCR Landfill setting, and a summary of the results from the statistical evaluation of the Appendix III detection monitoring parameters. **Section 3** presents the primary and secondary lines of evidence developed from a geochemical evaluation of the site. **Section 4** presents the technical findings of the ASD and includes certification by an Indiana-licensed Professional Engineer (PE). References are included in **Section 5**.

2.0 Background

2.1 Site Description

The Rockport Power Plant is located in southwest Indiana in Spencer County, on property extending into three Townships: Ohio, Hammond and Grass. Two CCR-regulated units are located on the property, two adjacent bottom ash ponds (BAP) and the CCR Landfill. The general layout of the property and the locations of the CCR units are shown on **Figure 1**. The CCR Landfill, or Landfill, is located about 8,000 feet (1.5 miles) northeast of the generating plant. **Figure 2** shows the general layout of the CCR Landfill and the monitoring well locations.

2.1.1 Landfill Operation

The CCR Landfill is an active disposal unit that primarily contains fly ash, with materials generated by the emission control systems added beginning in 2007. These materials include sodium sulfate generated by the removal of sulfur dioxide by the dry sorbent injection (DSI) system, and granular brominated activated carbon used for mercury removal. To a lesser extent, some bottom ash has also been placed within the CCR Landfill. As shown on **Figure 2**, the active portion of the CCR Landfill directly adjoins a closed portion of the landfill to the northeast.

The CCR Landfill is currently permitted by the Indiana Department of Environmental Management (IDEM) Office of Land Quality, Solid Waste Permits Section, as a Restricted Waste Site (RWS) under Indiana Administrative Code (IAC) 329 Title 10 (Solid Waste CCR Landfill Disposal Facilities) Rule 9-4. The active CCR Landfill is permitted as a RWS Type I, which requires a liner and leachate collection system. The permit was most recently renewed on 10 February 2015.

Leachate from the CCR Landfill cells is collected in lined ponds located north and west of the active CCR Landfill area. These ponds also collect storm water runoff from the CCR Landfill area. Prior to discharge, the leachate commingled with runoff is transferred to the Leachate Treatment Pond (north of the West Leachate Pond). Effluent from the Leachate Treatment Pond is discharged and monitored under National Pollution Discharge Elimination System (NPDES) Permit No. IN0051845 at Station 002.

2.1.2 Groundwater Flow

The principal groundwater flow zone underlying the CCR Landfill consists of the saturated section of the unconsolidated glaciofluvial sand and sand and gravel valley train sediments that fill the Ohio River valley in this area. The depth to water in this zone typically ranges from 20 to 35 feet (ft) below ground surface

(BGS), and the saturated thickness (which generally increases to the southeast) ranges from less than 15 ft to more than 80 ft. A generalized cross-section is presented in **Figure 3.**

Groundwater primarily occurs under unconfined conditions, or semi-confined conditions where the saturated zone is directly overlain by surficial silt and clay. Piezometric data collected from clustered monitoring wells indicate that vertical gradients within the saturated zone are minor, and groundwater flow is primarily horizontal. Groundwater flows into the plant and landfill area from the north, northwest and west, continues flowing under the property generally to the south and east, towards Honey Creek and/or the Ohio River. A potentiometric surface map from 14 May 2021 is presented on **Figure 4**.

2.1.3 Existing Groundwater Monitoring System

In 2015, when the CCR Rule took effect, a monitoring well network was already present at the CCR Landfill for groundwater monitoring under IDEM permit. While the valley train sediments are considered a single well-connected aquifer system, the saturated thickness of the sediments allowed for wells at the CCR Landfill to be installed in clusters, to monitor up to three levels (shallow – "S", intermediate – "I", and deep – "D") within the principal flow zone. However, the valley train sediments that make up the flow zone thin to the north, leaving less saturated overburden upgradient of the CCR Landfill. As a result, only one or two levels could be monitored in some locations.

The official CCR groundwater monitoring network for the CCR Landfill includes five background or cross-gradient wells (MW-6S, MW-8S/I, MW-11S and MW-14S) and 16 waste boundary wells (MW-1S/I/D, MW-2S/I/D, MW-15S/I, MW-16S/I/D, MW-17S/I and MW-21S/I/D). At most locations, the saturated overburden was thick enough to allow installation of screens at three different levels, with the deepest wells being completed just above bedrock at depths of 88 to 100 ft BGS. Two clusters, MW-15 and MW-17, are located just east of the CCR Landfill in an area of relatively shallow bedrock. Therefore, the deeper wells at these locations (designated "I") have completed depths just above bedrock at 66 to 67 ft BGS. A comprehensive summary of analytical data for the groundwater monitoring network since June 2016 is presented on **Table A-1** in **Appendix A**.

2.2 Summary of Previous SSIs and ASDs

Eight baseline monitoring events and one initial detection monitoring event for the CCR Landfill were completed prior to 17 October 2017. On behalf of AEP, Geosyntec submitted these results to Groundwater Stats Consulting, LLC for statistical analysis. Oversight on the use of statistical calculations was provided by Dr. Kirk Cameron of MacStat Consulting, Ltd. According to the report (*Statistical Analysis Summary, Landfill,* Geosyntec 2018), the initial eight rounds of baseline data were used to calculate the upper prediction limits (UPLs) for each of the Appendix III constituents to represent background values. Results from each detection monitoring event conducted to date have been compared to the UPLs established from the eight baseline rounds in order to identify SSIs compared to background.

Following completion of the first detection monitoring event, the initial statistical evaluation identified 11 SSIs for calcium (2), chloride (7), fluoride (1) and TDS (3). On 4 January 2019, Geosyntec prepared an ASD focusing on statistical methods. Geosyntec evaluated the new data and based on multiple lines of evidence, revised the statistical approach for some monitoring wells. Initially, the statistical evaluation included a mixture of interwell (between wells) and intrawell (within one well) techniques. The interwell analysis compares data from waste boundary wells against a background data set composed of results from upgradient and cross-gradient well data. The intrawell approach compares each waste boundary well against a background composed of its own historical data and is used to detect statistically significant increases within samples from an individual well over time (Horsey, HR et. al., 2001). Spatial and temporal

variability observed in samples from the background monitoring wells caused Geosyntec to select an intrawell approach for all Appendix III constituents in all waste boundary monitoring wells.

After using an intrawell approach, the number of SSIs was reduced to eight, distributed among seven waste boundary wells. In January 2019 Geosyntec published an ASD to document changes to the statistical methodologies and attributed the observed SSIs to impacts from historic oil and gas operations. Since the statistical methods were revised, results from all subsequent detection monitoring events have been analyzed following the same approach. A summary of the SSIs identified in each of the detection monitoring events is presented below, in **Exhibit 2-1**.

Exhibit 2-1. Monitoring Wells and Appendix III Parameters with SSIs

Parameter	MW-1S	MW-1I	MW-1D	MW-2S	MW-2D	MW-15I	MW-16S	MW-16D	MW-17I	MW-21S	MW-21I
Calcium					◆			◆◆◆★			
Chloride	◆◆	◆◆◆◆★		◆◆◆	◆◆◆◆◆★		◆	◆◆◆◆◆★		◆	
Fluoride				◆★		★			◆◆◆	◆◆★	◆★
TDS	◆★		★		◆◆★		◆	◆◆◆◆◆★			

◆ 2018-2019 SSI, after verification
◆ May 2020 SSI, after verification
◆ November 2020 SSI, after verification
★ May 2021 SSI, after verification

As shown in **Exhibit 2-1**, 10 of the SSIs identified in the first round of 2021 were identified in previous semi-annual sampling events. Two SSIs were newly identified in the first round of 2021, in monitoring wells that had not had any SSIs identified previously. One new SSI for fluoride was identified in MW-15I and one new SSI for TDS was identified in MW-1D.

Wood has reviewed its May 2021 ASD with respect to the statistical evaluation of the new semiannual sampling event. The evaluation presented in the May 2021 ASD report is still valid, even in light of the new SSIs identified in monitoring wells MW-15I and MW-1D. Wood has updated the geochemical analysis that forms the basis of the ASD and has included updated graphics to support the findings in this current ASD report.

3.0 Alternative Source Demonstration

The ASD presented below relies on multiple lines of evidence that the SSIs identified in the statistical analysis are not caused by releases of landfill leachate into the groundwater flow system. When taken as a whole, these lines of evidence present a compelling case that the SSIs are not a result of a release from the landfill, but a result of natural variation in groundwater quality, a result of historical oil and gas operations, or from the influence of storm water ponds on groundwater quality. This ASD follows the approach of Wood's May 2021 report, updated with data collected for the first semiannual sampling event for 2021.

In order to evaluate the potential of a release from the CCR Landfill to groundwater, Wood evaluated groundwater quality data, including isotopes, in the context of the geochemical characteristics of CCR Landfill leachate. The results of this evaluation support that CCR Landfill leachate at the Rockport site can be ruled out as a source of the SSIs identified in waste boundary monitoring wells, through primary and supporting lines of evidence, each of which are described in more detail within this section.

Primary lines of evidence focus on the relationship between source material that could be released into the subsurface (in this case, landfill leachate) and the type and distribution of SSIs identified in groundwater. The lines of evidence supporting the conclusion of this ASD can be summarized as follows:

- SSIs are not identified for the site-specific primary indicator constituents of the Rockport CCR Landfill leachate.
- Geochemical evaluations of the CCR Landfill support that leachate has not affected water quality.
  - Conservative ion ratios and major ion chemistry do not indicate a release from the CCR Landfill.
  - Isotopes of boron and strontium do not indicate a release from the CCR Landfill.

Each of these lines of evidence are described in detail below.

3.1 SSIs Are Not Identified for Primary Indicator Constituents

The primary indicators for CCR leachate typically have much higher concentrations in leachate than in natural groundwater. They are mobile and relatively non-reactive in groundwater, so that groundwater impacted by a CCR leachate release should have elevated concentrations of the indicator constituents relative to background and with relatively similar contributions. The elevated concentrations would be expected to result in SSIs identified by statistical evaluation of the data from the downgradient waste boundary wells, and the SSIs would be expected to be generally consistent between downgradient wells. The primary lines of evidence presented below compare the occurrence of SSIs in groundwater to the composition of landfill leachate.

3.1.1 Site-Specific Leachate Analysis for Primary Indicator Constituents

The composition of landfill leachate is governed by the types of materials placed in the unit and identifying the leachate's primary constituents is key to assessing a potential release to groundwater. Since all Appendix III constituents are naturally occurring, the best indicators of CCR impacts are those constituents that are found at concentrations much higher in the source material than are seen in natural groundwater. AEP conducted sampling of its leachate collection system to identify relative concentrations of Appendix III and IV constituents in the Rockport CCR Landfill leachate.

The leachate collection system for the Landfill discharges into the North and West Leachate Collection Ponds, shown on **Figure 2**, discharge to the Leachate Treatment Pond, directly north of the West Leachate Pond. Five samples were collected from both the West and North Leachate Collection Ponds between 31 October 2018 and 20 March 2019 and results are detailed on **Table A-2** in **Appendix A**. A summary of the range of Appendix III constituent results for leachate pond samples, compared to background and waste boundary well samples, is provided below in **Exhibit 3-1**.

Exhibit 3-1. Summary of Landfill Leachate Pond and Groundwater Concentrations for Appendix III Constituents

Parameter, Units in mg/L	Range for Leachate Ponds		Range for Upgradient (Background) Wells		Range for Downgradient Waste Boundary Wells	
	Min	Max	Min	Max	Min	Max
Boron	9.18	12.3	<0.002	0.115	<0.002	0.139

Exhibit 3-1. Summary of Landfill Leachate Pond and Groundwater Concentrations for Appendix III Constituents

Parameter, Units in mg/L	Range for Leachate Ponds		Range for Upgradient (Background) Wells		Range for Downgradient Waste Boundary Wells	
	Min	Max	Min	Max	Min	Max
Calcium	166	368	35.6	82.0	28.7	122
Chloride	847	1,250	1.29	30.0	8.78	214
Fluoride	<1.50	<1.50	0.25	1.21	0.064	1.16
Total Dissolved Solids (TDS)	22,100	30,900	179	430	196	620
Sulfate	14,100	19,000	0.83	87.1	5.9	54.7

Because the CCR Landfill leachate ponds also receive some storm water runoff, concentrations in at least some of these samples are likely to be diluted compared to concentrated leachate from landfilled materials (depending on the amount of recent rainfall). Nevertheless, pond samples serve as reliable indicators of the relative composition of leachate. As seen in **Exhibit 3-1**, boron and sulfate occur at concentrations as much as three orders-of-magnitude above background groundwater levels. Results for chloride and TDS are as much as two orders-of-magnitude above background concentrations. Calcium and fluoride concentrations are within the same orders-of-magnitude as those detected in background groundwater. These results indicate that boron and sulfate are the best indicator constituents of CCR impacts, followed by TDS and chloride, based on their elevated occurrence in landfill leachate compared to natural groundwater.

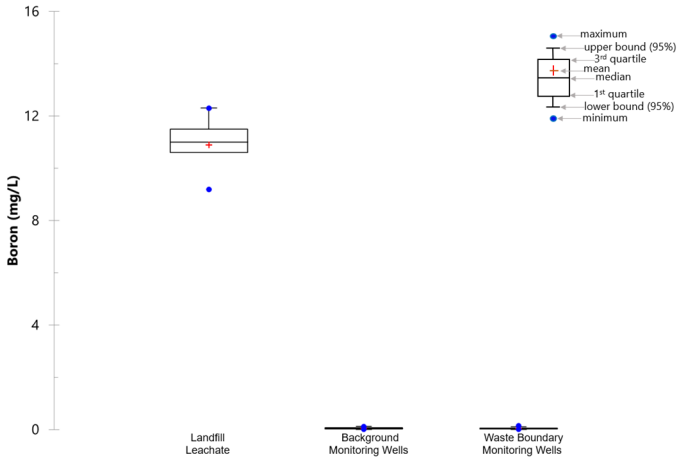
3.1.2 Occurrence of Primary indicator Constituents in Waste Boundary Monitoring Well Samples

Four primary indicator constituents are identified for the Rockport CCR Landfill leachate: boron, sulfate, TDS and chloride. Three SSIs have been identified for chloride, four for TDS and four for fluoride. However, no SSIs were identified in waste boundary wells for either boron or sulfate. Given the predominance of boron and sulfate in the CCR Landfill leachate, and that neither of these constituents are elevated above background, it is concluded that Landfill leachate is not the source of the observed SSIs. This assumption is supported by a more in-depth review of the indicator constituents, presented below.

Boron

No SSIs have been identified for boron. Boron has been identified in background wells at concentrations ranging from <0.002 to 0.115 mg/L. Concentrations in waste boundary well samples range from <0.002 to 0.139 mg/L. Landfill leachate boron concentrations are much higher and range from 9.18 to 12.3 mg/L. The boron results are plotted graphically on **Exhibit 3-2**, which illustrates the range of results for leachate (at the left of the chart) compared to and background and waste boundary groundwater samples. It should be noted that the highest concentration of boron

Exhibit 3-2. CCR monitoring well and landfill leachate ponds boron concentrations



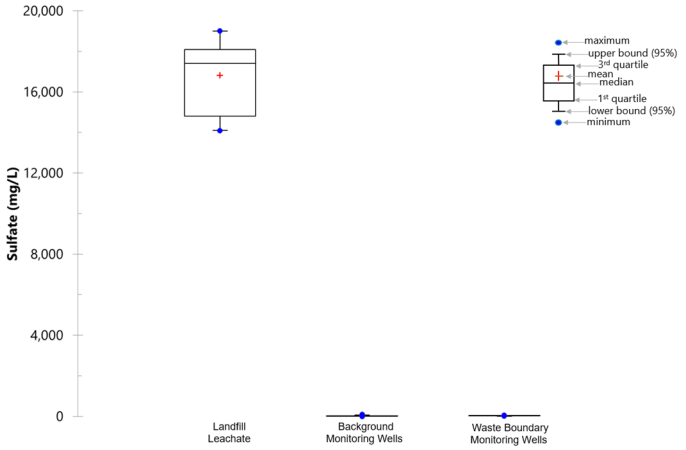
observed in waste boundary groundwater samples (0.139 mg/L) occurred in MW-16I and did not represent an SSI for that well.

If a release of landfill leachate had occurred, boron concentrations in waste boundary well samples should be clearly higher than the range of background well results, and SSIs would likely be found in at least some of the monitoring wells with other identified SSIs.

Sulfate

No SSIs have been identified for sulfate. Sulfate has been identified in background wells at concentrations ranging from 1.6 to 87.1 mg/L. Concentrations in waste boundary well samples range from 5.9 to 54.7 mg/L. Landfill leachate sulfate concentrations are orders of magnitude higher and range from 14,100 to 19,000 mg/L. The sulfate results are plotted graphically on **Exhibit 3-3**, which clearly shows that leachate concentrations of sulfate are orders-of-magnitude higher than all groundwater samples, and that no discernable difference is present between the background and waste boundary samples. Furthermore, the highest monitoring well concentrations are seen in samples from background well MW-8I (56.7 to 87.1 mg/L).

Exhibit 3-3. CCR monitoring well and landfill leachate ponds sulfate concentrations



It is expected that a release of landfill leachate would elevate groundwater concentrations of all Appendix III constituents present in the leachate in relatively similar proportions. Even if all constituents were not exhibiting statistically significant increases, a pattern of related SSIs would be observed if the increases were caused by landfill leachate. Since all SSIs occurred in absence of a boron or sulfate SSI, and the highest groundwater sulfate concentrations are associated with a background well, it is concluded that the reported SSIs are caused by the natural variation in groundwater quality, potentially impacted by historical oil and gas operations which are assumed to have high chloride and TDS and little to no sulfate, and not by releases from the CCR Landfill.

3.2 Geochemical Evaluations

While the CCR rule requires the use of statistical analyses of samples collected from groundwater monitoring wells to assess potential impacts from CCR units (SSIs), the approach does not consider the site specific hydrogeochemical interactions that can often be complex due to simultaneous operations and natural variation within the context of the local hydrogeologic setting. Since geochemical evaluations rely on interpretation of graphical data, the discussion includes reduced size exhibits imbedded in the text. Full size exhibits are included in **Appendix B**. The major observations and conclusions from the geochemical evaluation are summarized in the sections below.

3.2.1 Indicator Parameter Cross-Plots

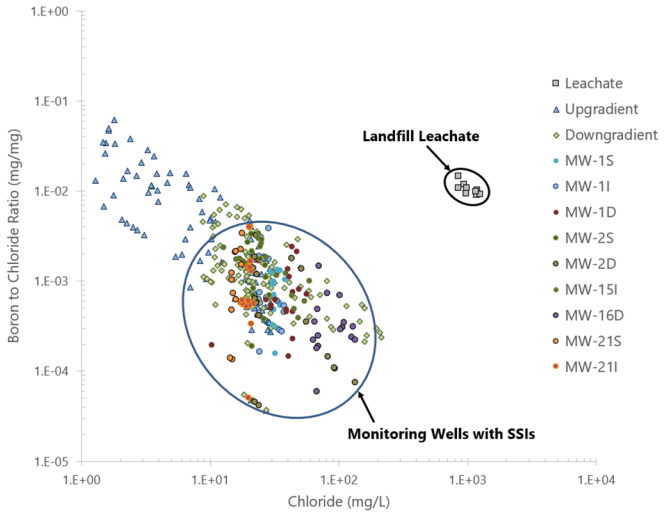
To aid in the interpretation of individual Appendix III and other potential indicator parameters for the assessment of potential releases from the CCR Landfill, ratios of selected Appendix III indicator parameters were calculated and plotted versus concentrations of the conservative ion chloride. The use of these

plotting techniques typically provides groupings of end members (sources of water such as background groundwater or landfill leachate), and potential trends of mixing that are not readily identifiable by analysis of individual indicator parameters on their own.

Plots of the B/Cl and SO4/Cl ratios versus chloride in waste boundary monitoring wells show distinct end member groupings from that of the landfill leachate and support the conclusion that there are no discernable impacts from the CCR Landfill on any of the waste boundary monitoring wells. The graphics presented here include data for all wells in the CCR Landfill system and show that chloride concentrations tend to increase in groundwater moving downgradient from recharge areas represented by upgradient monitoring wells.

Boron to Chloride ratio Versus Chloride Concentration

Exhibit 3-4. Boron to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.

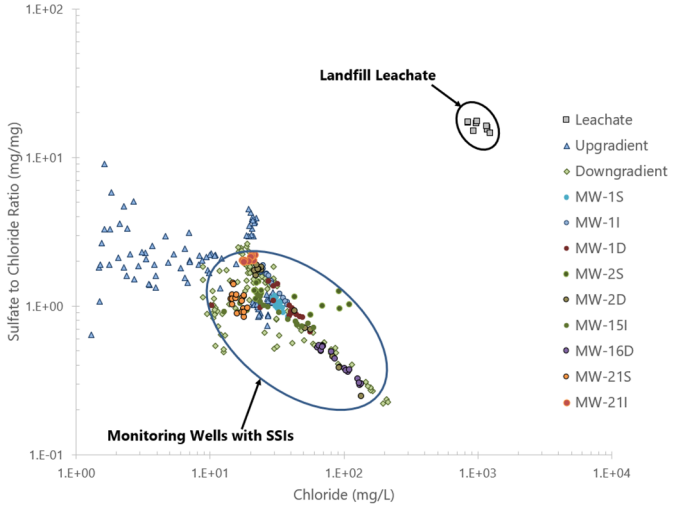


The plotting of B/Cl versus chloride groundwater data shows primarily a single large cluster that trends perpendicular to the composition of leachate samples and is hypothesized as background and natural variability (**Exhibit 3-4**). The data are plotted on log-log scales due to the large range of concentrations and ratios making the separation in groupings appear closer than they are. The Landfill leachate clearly plots as a separate grouping of water quality having greater B/Cl ratios, while the monitoring well data plots along a trend of what can be described as natural variability. Background monitoring well MW-11S plots as upgradient recharge having lower chloride concentration and a higher B/Cl ratio. Moving along the flow path to downgradient monitoring wells, this is followed by a trend of increasing chloride concentrations and salinity with decreasing B/Cl ratios due to geochemical evolution of groundwater and potential mixing with water associated with historic oil and gas operations and or storm water ponds. While chloride increases, boron does not increase at the same rate, resulting in the decreasing trend of B/Cl ratios as chloride concentrations and residence time increases. Thus, it is hypothesized that MW-11S represents an extreme end member of recent recharge, or relatively fresh groundwater, and after flow through the shallow overburden groundwater evolves geochemically to a lower B/Cl ratio, as chloride increases, approaching the larger background cluster values that represent older more mineralized groundwater without a significant source of boron in the aquifer matrix. The extreme end of the groundwater dataset trend is represented by MW-17I, MW-16D, and MW-2D due to higher chloride concentrations, but with lower B/Cl ratios. This plot supports that these wells are not impacted by CCR Landfill leachate but could be influenced by infiltration from the storm water holding ponds or flushing of salts from water holding ponds associated with historic oil and gas operations. If there were impacts from the landfill to groundwater, one would expect a trend of B/Cl ratios versus chloride moving from the groundwater trend toward the leachate values, but this does not occur.

Sulfate to Chloride Ratio Versus Chloride Concentration

Plotting of the SO_4/Cl ratio versus chloride shows similar results to the B/Cl ratios versus chloride concentration plot supporting the conclusion that there are no discernable impacts from the CCR Landfill on groundwater (**Exhibit 3-5**). The SO_4/Cl ratios for leachate group separately and are much higher than groundwater values. The SO_4/Cl ratios for leachate are typically around 15 mg/mg or higher, while groundwater ratios are below a value of 6 mg/mg. Similar to B/Cl ratios, the SO_4/Cl ratios versus chloride plot along a trend line of decreasing ratios as chloride and residence time increases. The extreme end of the groundwater data set trend is represented by MW-17I, MW-16D, and MW-2D variability due to higher chloride concentrations that is clearly different from leachate. Additionally, there is no trend of mixing of even small quantities of leachate with groundwater which would be shown by a deviation from the groundwater trend toward leachate, and the separation is distinct between downgradient groundwater and leachate.

Exhibit 3-5. Sulfate to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.



3.2.2 Isotope Analyses of CCR Related Water Quality and Materials

General Overview of Isotope Analyses

Water samples were collected from selected CCR Landfill monitoring wells and CCR Landfill leachate and submitted for isotope analyses of boron, strontium, and oxygen and hydrogen of water. The results of the isotope analyses serve as additional supporting lines of evidence for interpretations made using major ion and indicator parameter concentrations and reinforce the lack of leachate impacts to groundwater at the CCR Landfill.

Boron and its isotope ratio ($\delta^{11}B$) have been successfully used to identify groundwater pollution sources versus background or naturally occurring detections of constituents of concern (Davidson and Bassett 1993; Vengosh et al. 1994; Kendall et al., 1995; Buszka et al. 2007; Ruhl et al. 2014; Harkness et al. 2017). In particular, boron isotopes have been successfully used to assess CCR related impacts in groundwater. Similarly, strontium and its isotopes ($^{87}Sr/^{86}Sr$) have also been successfully used to identify different groundwater source end members, mixing, and to determine anthropogenic versus geogenic processes associated with constituents of concern and associated with CCR impacts to groundwater (Kendall and Bullen 1995; Ruhl et al. 2014; Meredith 2016; Harkness et al. 2017; Nigroa et al. 2017).

CCR Landfill Isotope Results

Stable isotope analyses are typically performed on a pair of isotopes (e.g. ^{11}B and ^{10}B, or ^{87}Sr and ^{86}Sr) and are reported as a ratio relative to internal standards, in per mil (‰) using Greek "delta" notation (δ). Deviations based on analysis of the standard are corrected for, to provide values that can be compared between different laboratories and equipment. Isotopes commonly reported relative to a standard include

boron (eq. 1), where the standard for boron is the National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) NIST SRM 951:

$$\delta^{11}B(‰) = \frac{\left(\frac{\delta^{11}B}{\delta^{10}B}\right)_{Sample} - \left(\frac{\delta^{11}B}{\delta^{10}B}\right)_{Standard}}{\left(\frac{\delta^{11}B}{\delta^{10}B}\right)_{Standard}} \times 1000 \qquad \text{eq. 1}$$

Isotope ratios of strontium can be reported relative to a standard value but are commonly reported as the actual ratio $^{87}Sr/^{86}Sr$. The values for strontium reported here are the actual ratios, but they have been corrected to the National Institute of Standards and Technology (NIST) Standard Reference Material (SRM) NIST SRM 987.

Background monitoring wells for the CCR Landfill show lower boron concentrations and higher $\delta^{11}B$ values compared to Landfill leachate samples (**Exhibit 3-7**). While only a limited number of background and waste boundary wells were tested (including MW-17I with a previous and current SSI, and MW-21S with a previously reported SSI), there is a clear distinction between all the CCR Landfill monitoring wells and the Landfill leachate which indicates that the wells represented are not impacted by the Landfill, and that boron in the monitoring wells is of a different source other than leachate.

In addition, while there is a variation in the leachate boron concentrations, the $\delta^{11}B$ values remain approximately equivalent. This supports the hypothesis that boron is $\delta^{11}B$ values in leachate are dominated by the CCR materials. The range of observed concentrations is related to the amount of water generating the leachate or potentially dilution by fresh water derived from stormwater runoff. The result is a range of boron concentrations having a similar $\delta^{11}B$ value distinctly different from groundwater in both background and downgradient monitoring wells.

Strontium isotope results also support the boron isotope, major ion, and indicator parameter interpretations that there are no identifiable impacts on groundwater from the landfill. There are noticeably lower strontium concentrations and ratios for all CCR Landfill monitoring wells sampled compared to Landfill leachate (**Exhibit 3-8**).

Exhibit 3-6. Boron isotope ratio ($\delta^{11}B$) versus boron concentration for CCR Landfill leachate and monitoring wells for comparison.

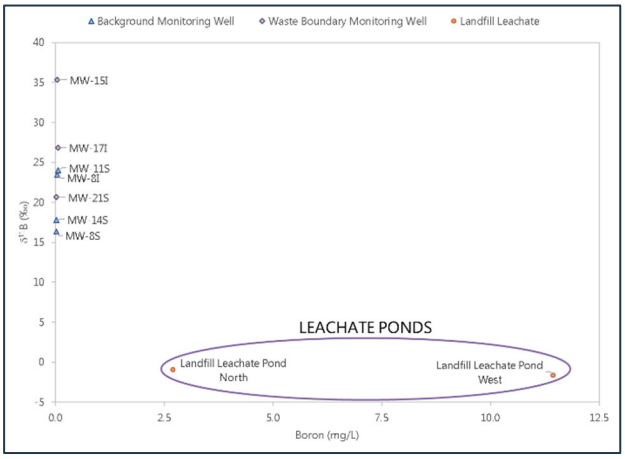
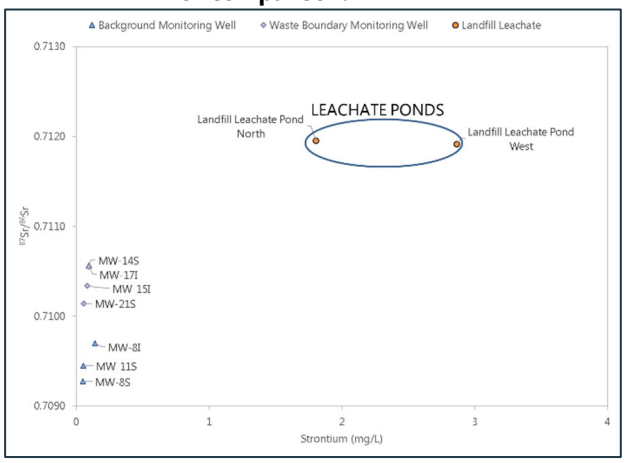


Exhibit 3-7. Strontium isotope ratio ($^{87}Sr/^{86}Sr$) versus strontium concentration for CCR Landfill leachate and monitoring wells for comparison.



3.3 Hydraulic Connection to the Landfill

The groundwater monitoring network and the relationship of the wells to the regulated landfill are shown on **Figure 2**. Recent potentiometric flow data available for the site consistently indicate a local groundwater flow direction to the south and southeast as shown on **Figure 4**. As shown on this figure, several well clusters are downgradient from the landfill are also downgradient of the borrow area storm water ponds. Groundwater monitored by the well clusters downgradient of the storm water ponds are concluded to be unaffected by potential releases from the landfill unit but maybe impacted by the storm water ponds which likely has water with higher salinity, TDS and chloride.

4.0 Summary

As summarized in **Exhibit 2-1** above, in the first semiannual detection monitoring event of 2021, SSIs were identified in nine of 16 downgradient monitoring wells, for the following Appendix III constituents (the number of SSIs is indicated in parentheses): calcium (1), chloride (3), fluoride (4), and TDS (4). The following statements summarize how the lines of evidence discussed above apply to each of the constituents with identified SSIs:

- Boron occurs naturally at low concentration in site groundwater, in similar concentrations in background and downgradient wells. Boron occurs at concentrations approximately three orders-of-magnitude in the CCR Landfill leachate as compared to site groundwater, and is a conservative ion, making it an excellent indicator for impacts from landfill leachate impacts in groundwater. If Landfill leachate were impacting groundwater, boron would be expected to be detected in multiple waste boundary wells and at statistically significant concentrations above background, but it does not and the boron that is present has been shown to be isotopically different.

- Sulfate is another common indicator for CCR leachate impacts, which also occurs naturally in site groundwater (at similar concentration ranges in background and downgradient wells) and is elevated in the CCR Landfill leachate at concentrations approximately three orders-of-magnitude above background monitoring wells. No SSIs for sulfate were determined in any of the waste boundary well samples.

- Chloride is a naturally occurring and conservative ion, which occurs in the CCR Landfill leachate at concentrations about two orders-of-magnitude above groundwater concentrations. Spatial trends can be observed in **Exhibits 3-4** and **3-5** and indicate that chloride concentrations tend to increase in groundwater moving downgradient from recharge areas. However, because the SSIs indicated for chloride are not associated with SSIs for boron and sulfate, the CCR Landfill leachate is not considered a source for the chloride detected in groundwater.

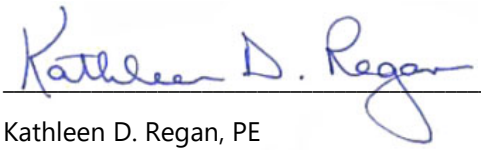
- The same conclusion can be drawn regarding calcium, TDS and fluoride, for which occasional SSIs are not consistently associated with boron, sulfate, or each other. The SSIs indicated for these constituents appear to be related to the natural variation in groundwater quality, along with a spatial trend of increasing TDS with distance from recharge area.

4.1 Conclusion

This ASD has demonstrated, through multiple lines of evidence, that the SSIs identified in the statistical analysis of the second detection monitoring event data are not the result of a release of leachate from the CCR Landfill. Therefore, the unit will continue in detection monitoring.

4.2 Professional Engineer Certification

I certify that the above described Alternative Source demonstration is appropriate for evaluating the groundwater monitoring data for the Rockport Plant CCR Landfill and that the requirements of 40 CFR 257.95(h)(8)(3)(ii) have been met.



4 January 2022

Kathleen D. Regan, PE
Indiana Registered Engineer PE1400182

Date

5.0 References

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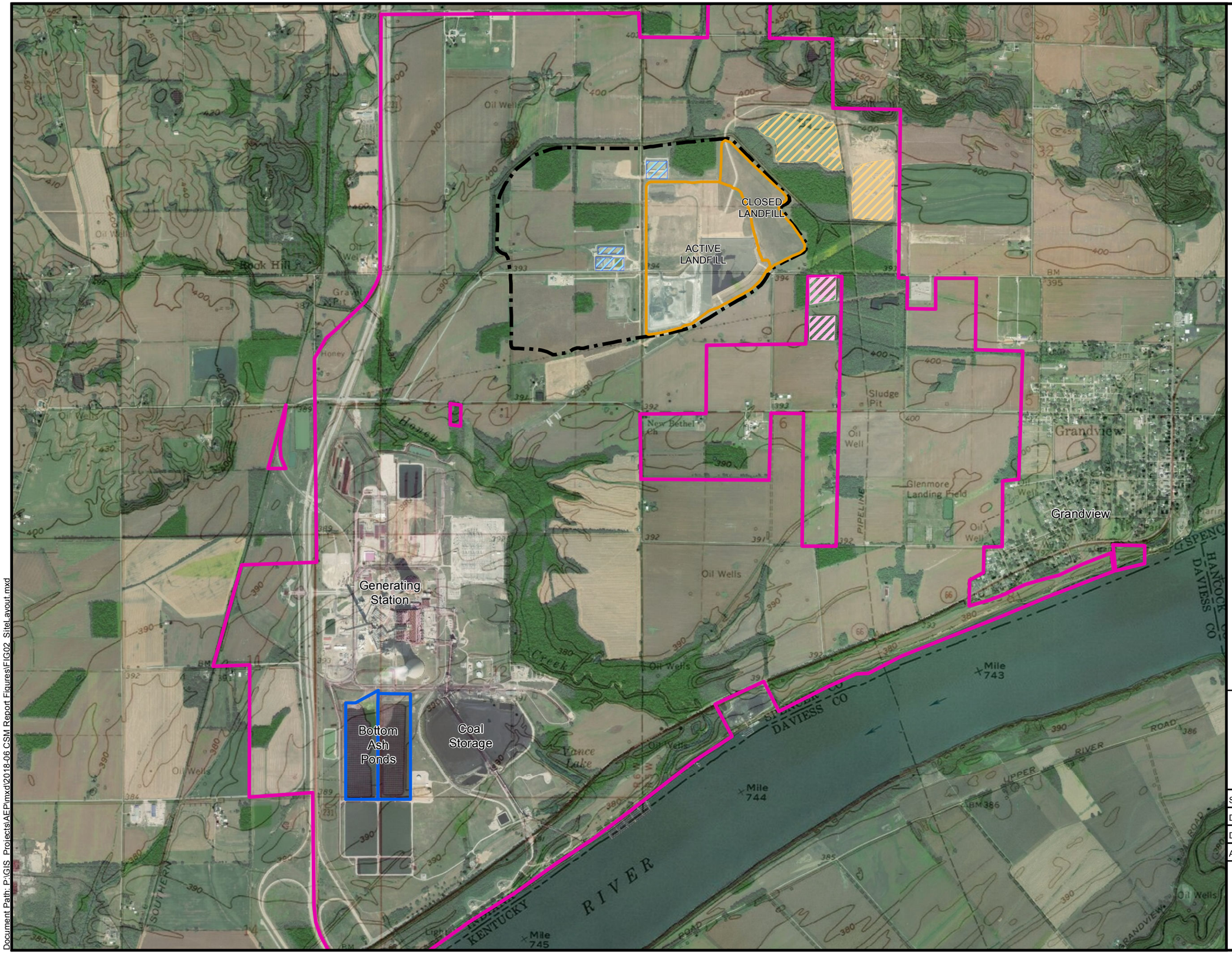
Figures



Legend

- Stormwater Ponds
- Landfill Leachate Ponds
- Grandview Wastewater Ponds
- Property Boundary
- Bottom Ash Ponds (BAP)
- Landfill Area 1A (Active and Closed)
- 1984 Landfill Permit Boundary (Area 1)

Data Sources

Date of Photography: 2016
Source of Photography: U.S. Department of Agriculture, National Agriculture Imagery Program (NAIP)

USGS Rockport and Lewisport (IN/KY) Topographic Quadrangle Maps

0 900 1,800
SCALE IN FEET

SITE LAYOUT

AEP - ROCKPORT, IN

PROJECT NUMBER: 7650202784

SCALE	1" = 1,800'
DATE	5/4/2021
DRAWN BY	TMR
APPROVED BY	KDR

FIG. 1

wood.
2456 Fortune Drive, Suite 100
Lexington, Kentucky 40509
Phone: (859) 255-3308

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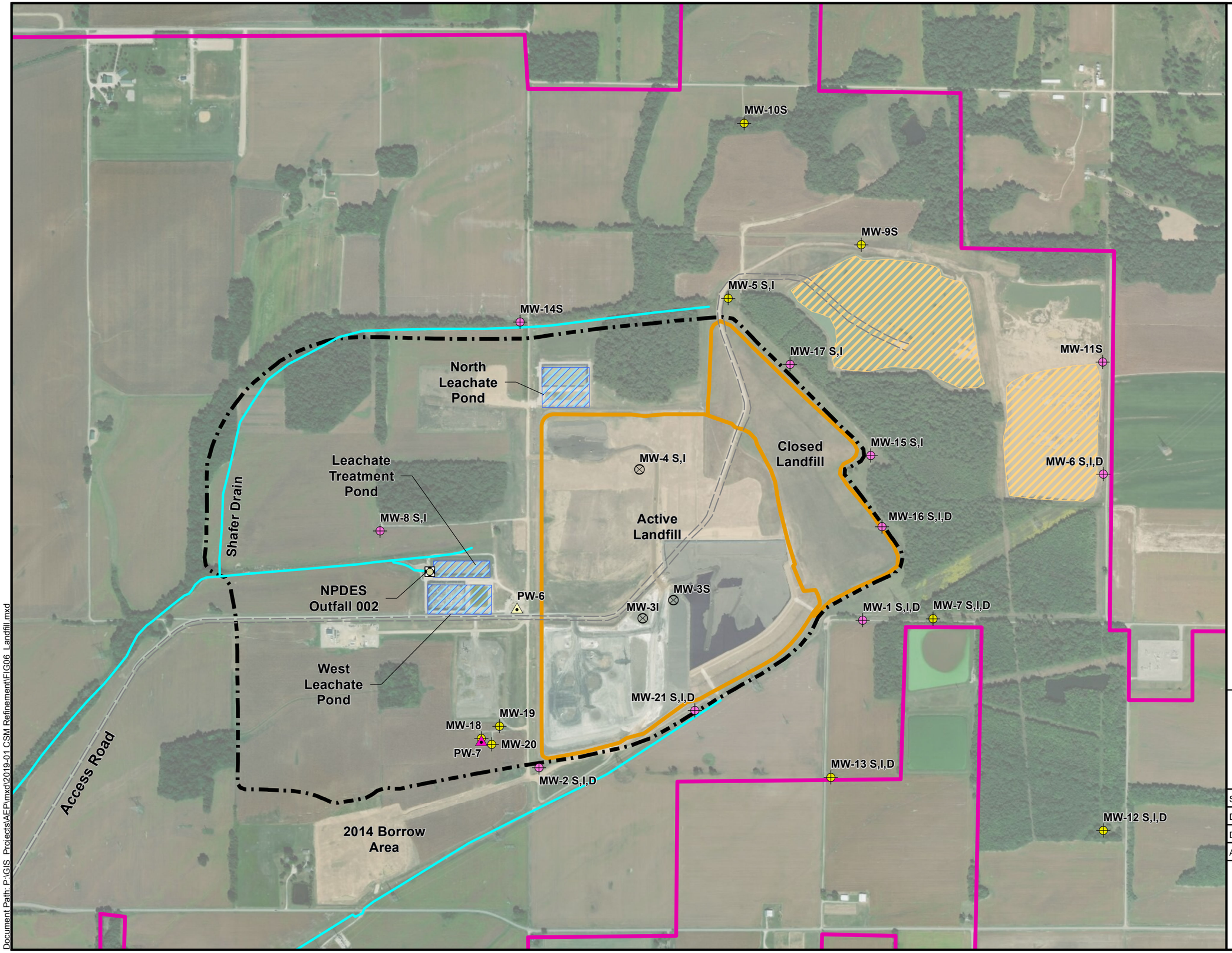

Legend

- Landfill - Monitoring Well
- Landfill - CCR Monitoring Well
- Landfill - Augmentation Water Supply Well
- Landfill - Dust Control Water Supply Well
- Abandoned Monitoring Well
- NPDES Outfall 002
- Access Road
- Drains / Ditches
- Stormwater Ponds
- Landfill Leachate Ponds
- Property Boundary
- 1984 Landfill Permit Boundary (Area 1)
- Landfill Area 1A (Active and Closed)

Data Sources

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

Source: USGS Rockport and Lewisport (IN/KY) Topographic Quadrangle Maps, 1964, photorevised 1982

0 400 800

SCALE IN FEET

LANDFILL LAYOUT

AEP - ROCKPORT, IN

PROJECT NUMBER: 7650202784

SCALE	1" = 800'
DATE	5/4/2021
DRAWN BY	TMR
APPROVED BY	KDR

FIG. 2

wood.
2456 Fortune Drive, Suite 100
Lexington, Kentucky 40509
Phone: (859) 255-3308

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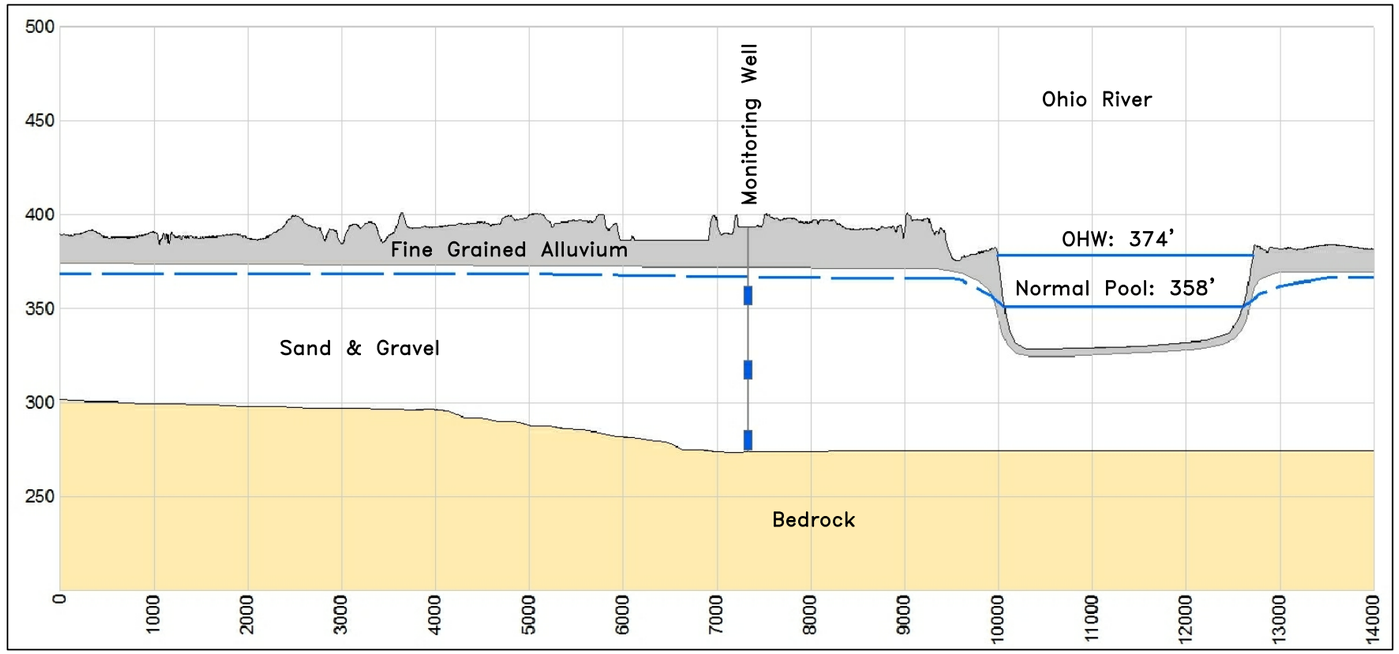
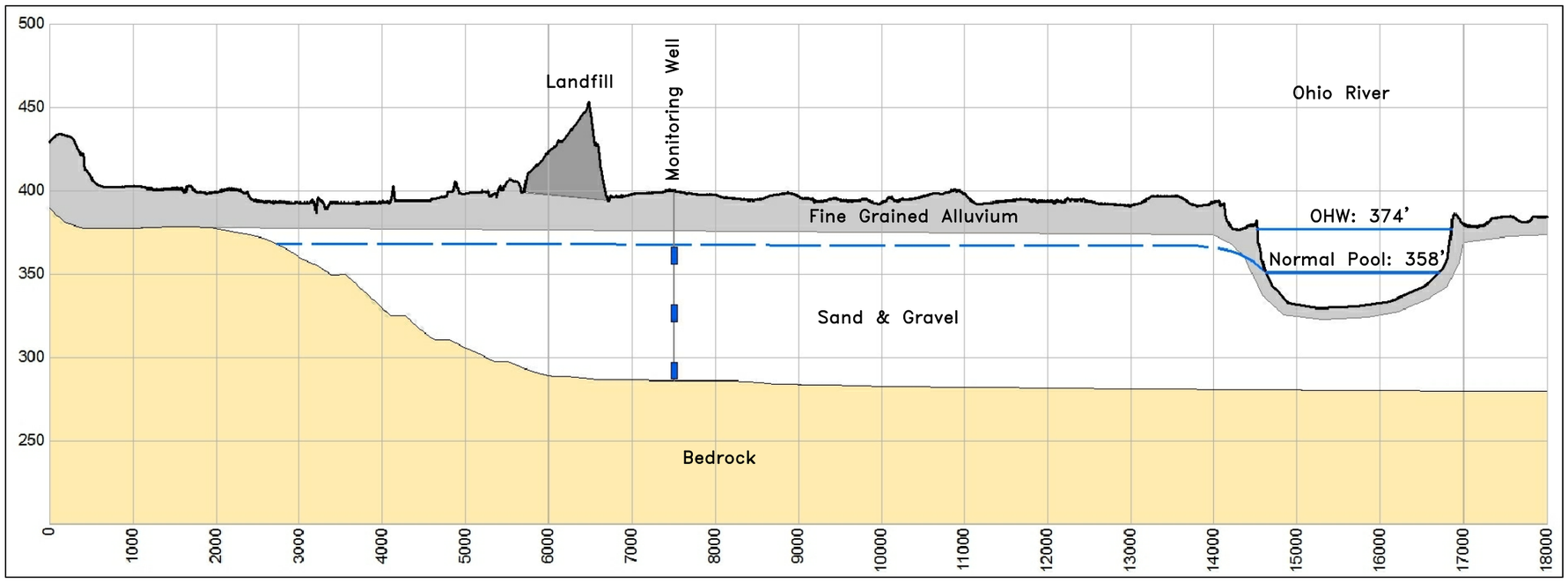




SCALE: As Shown
VERTICAL EXAGGERATION: 4X

N

wood.
2456 Fortune Drive, Suite 100
Lexington, KY 40509
Phone: (859) 255-3308

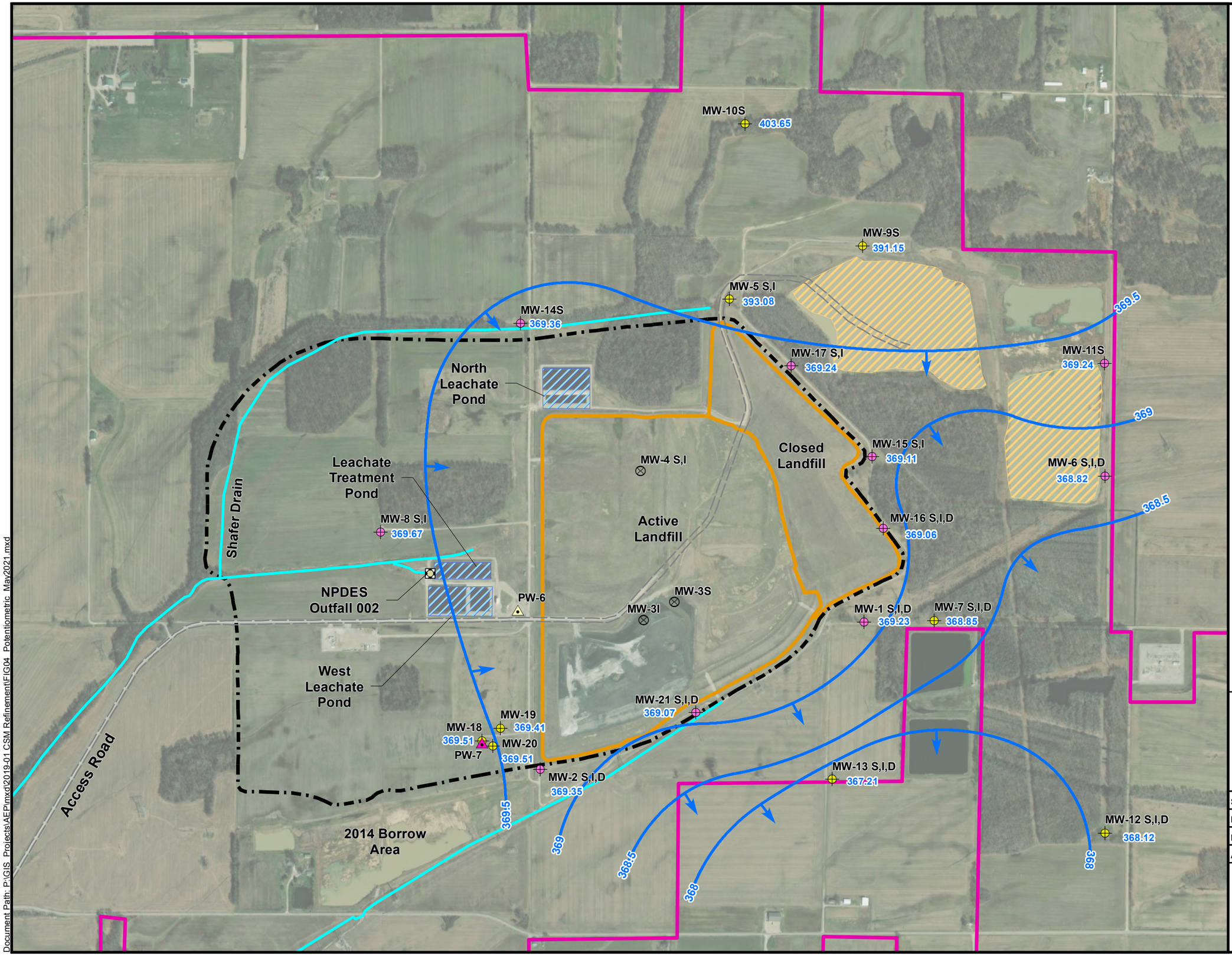
BOTTOM ASH PONDS
AEP - ROCKPORT, INDIANA

GENERALIZED CROSS-SECTIONS

PROJECT NUMBER: 7650202784

SCALE	As Shown
DATE	5/4/2021
DRAWN BY	TMR
APPROVED BY	ALD

FIG 3



Legend

- Landfill - Monitoring Well
- Landfill - CCR Monitoring Well
- Landfill - Augmentation Water Supply Well
- Landfill - Dust Control Water Supply Well
- Abandoned Monitoring Well
- NPDES Outfall 002
- Access Road
- Drains / Ditches
- Stormwater Ponds
- Landfill Leachate Ponds
- Property Boundary
- 1984 Landfill Permit Boundary (Area 1)
- Landfill Area 1A (Active and Closed)
- Groundwater Elevation Contour
  Contour Interval: 0.5 Feet
- Groundwater Flow Direction

Data Sources

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

Source: USGS Rockport and Lewisport (IN/KY) Topographic Quadrangle Maps, 1964, photorevised 1982

0 400 800
SCALE IN FEET

POTENTIOMETRIC SURFACE CONTOURS
24 May 2021

AEP - ROCKPORT, IN
PROJECT NUMBER: 7650502784

SCALE	1" = 800'
DATE	1/4/2022
DRAWN BY	DMW
APPROVED BY	TMR

FIG. 4

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Lexington, Kentucky 40509
Phone: (859) 255-3308

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Appendices

Appendix A
Analytical Data Tables

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/20/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/18/2017	10/4/2017	1/3/2018	6/6/2018	8/16/2018	11/14/2018	2/13/2019	4/1/2019
Field Parameters																		
Elevation	ft NGVD	--	--	369.45	369.29	368.81	368.29	367.61	367.69	367.66	368.33	368.01	366.11	369.43	369.91	368.71	369.68	370.56
pH	S.U.	--	7.09 - 8.14	8.14	7.2	7.09	7.34	7.4	7.1	7.19	7.26	7.08	7.64	7.48	7.3	7.48	7.46	7.35
Specific Conductance	µmhos/cm	--	--	687	612	703	657	470	300	567	536	635	686	590	658	535	530	892
Turbidity	NTU	--	--	0.23	1.5	0.34	0.65	1	2	0.63	0.78	0.4	1.31	1.12	0	0.56	0.8	1.15
Dissolved Oxygen	mg/L	--	--	3.37	4	2.82	3.46	5	4	2.48	2.72	3	3.06	0.61	4.59	2.3	1.1	1.09
Temperature	℃	--	--	15.04	18.9	19.09	15.17	14.8	15.7	16.81	15.81	15.63	12.81	16.23	15.38	14.7	14.9	14.6
ORP	mV	--	--	89.2	111	77.1	52.9	105	46	53.7	16.2	43.8	-20.8	-76.5	302	100.5	172	126.4
Laboratory Parameters																		
Antimony	µg/L	6	--	0.03	0.2	0.02	0.02	0.04	0.04	0.05	0.02	--	--	--	--	0.05	--	--
Arsenic	µg/L	10	--	0.43	0.69	0.38	0.38	0.43	0.76	0.5	0.39	--	--	--	--	0.34	--	--
Barium	µg/L	2000	--	18.5	21.9	17.2	17.9	17.7	36.5	22.3	17.3	--	--	--	--	17.8	--	--
Beryllium	µg/L	4	--	<0.01	0.16	<0.005	<0.005	<0.005	0.023	0.01	<0.004	--	--	--	--	0.03	--	--
Cadmium	µg/L	5	--	0.02	0.22	0.005	0.007	0.02	0.09	0.22	0.01	--	--	--	--	<0.01	--	--
Chromium	µg/L	100	--	0.3	0.7	0.3	0.207	0.72	1.38	0.552	0.255	--	--	--	--	0.25	--	--
Cobalt	µg/L	6	--	0.171	0.398	0.014	0.01	0.052	1.21	0.164	0.02	--	--	--	--	<0.02	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.15	0.74	--	0.09	--	1.3	--	--
Lead	µg/L	15	--	0.204	0.572	0.01	0.022	0.076	1.26	0.526	0.033	--	--	--	--	0.12	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--	--
Molybdnum	µg/L	100	--	0.65	0.8	0.68	0.74	0.59	0.97	1.64	0.64	--	--	--	--	0.6	--	--
Selenium	µg/L	50	--	1.1	1.1	0.9	0.9	1	1.1	1.1	1.2	--	--	--	--	0.8	--	--
Thallium	µg/L	2	--	<0.02	0.168	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	--	--	--	--	<0.1	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	4.5	--	0.7	--	2	--	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	19.5	19.7	22.4	--	19.5	--	19.7	--	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	5.55	4.29	--	3.8	--	1	--	--
Boron	mg/L	--	0.048	0.037	0.015	0.022	0.02	0.005	0.03	0.031	0.028	0.044	--	0.046	--	0.04	--	--
Calcium	mg/L	--	(79.5) 79	70.7	62.9	68	74.4	65	71.5	72.6	69.2	67.6	--	71.8	--	71.9	--	--
Lithium	mg/L	0.04	--	0.004	0.024	0.002	0.01	0.008	0.01	0.009	0.0007	--	--	--	--	0.03	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	27.3	26.9	26.9	25.6	--	26.8	--	26.8	--	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0015	--	--	0.0027	--	0.0022	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.32	1.24	1.16	1.15	--	1.19	--	1.16	--	--
Sodium	mg/L	--	--	--	--	--	--	--	40.6	35.2	39.6	36.1	--	31.2	--	35	--	--
Strontium	mg/L	--	--	--	--	--	--	--	0.11	0.12	0.105	0.104	--	0.11	--	0.108	--	--
Alkalinity	mg/L	--	--	--	--	--	--	--	278	273	271	269	--	250	--	273	--	--
Bromide	mg/L	--	--	--	--	--	--	--	0.086	0.108	0.104	0.109	--	0.106	--	0.1	--	--
Chloride	mg/L	--	(29.6) 33	29.6	31.1	31.4	31.9	32	30.7	31.3	30.4	33.1	39.9	34.9	37.3	38.1	40.4	38.5
Fluoride	mg/L	4	0.677	0.59	0.65	0.6	0.54	0.57	0.59	0.63	0.58	0.57	--	0.61	--	0.63	--	--
TDS	mg/L	--	(412.7) 419	392	392	411	398	392	384	402	406	396	--	386	--	410	--	--
Sulfate	mg/L	--	(36.95) 37	33.7	35.5	32.4	30.7	30.7	30.5	33.3	33.6	34.6	--	34.2	--	32.3	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	--	<0.07	--	--
Radium-228	pCi/L	--	--	-0.185	0.445	0.244	-0.00464	0.447	-0.172	-0.122	0.133	--	--	--	--	-0.0731	--	--
Radium-226	pCi/L	--	--	0.0665	0.374	-0.00261	0.296	0.487	0.0407	0.0324	0.176	--	--	--	--	0.108	--	--
Radium-226/228	pCi/L	5	--	-0.1185	0.819	0.24139	0.29136	0.934	-0.1313	-0.0896	0.309	--	--	--	--	0.108	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	--	0.4	--	1.65	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--	9	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--	0.8	--	6.24	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.049	0.014	--	<0.002	--	0.035	--	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0001	0.0002	<0.0001	0.0002	--	<0.0002	--	0.0026	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	5/23/2019	7/23/2019	2/18/2020	5/19/2020	11/11/2020	5/26/2021
Field Parameters									
Elevation	ft NGVD	--	--	371.82	372.42	370.36	370.78	369.85	369.23
pH	S.U.	--	7.09 - 8.14	7.91	7.36	7.12	7.04	7.01	7.75
Specific Conductance	µmhos/cm	--	--	593	618	1386	440	691	793
Turbidity	NTU	--	--	0.05	1.6	0.47	0	0.7	0
Dissolved Oxygen	mg/L	--	--	0.87	1.5	4.6	1.68	8.97	0
Temperature	℃	--	--	15.6	18.2	12.43	15.36	14.75	15.6
ORP	mV	--	--	-28.8	57	118.1	140	100	222
Laboratory Parameters									
Antimony	µg/L	6	--	0.02	--	--	--	--	--
Arsenic	µg/L	10	--	0.29	--	--	--	--	--
Barium	µg/L	2000	--	17.6	--	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	--	--	--
Cadmium	µg/L	5	--	<0.01	--	--	--	--	--
Chromium	µg/L	100	--	0.2	--	--	--	--	--
Cobalt	µg/L	6	--	<0.02	--	--	--	--	--
Copper	µg/L	--	--	0.13	--	--	--	--	--
Lead	µg/L	15	--	0.03	--	--	--	--	--
Mercury	µg/L	2	--	<0.002	--	--	--	--	--
Molybdnum	µg/L	100	--	1	--	--	--	--	--
Selenium	µg/L	50	--	0.7	--	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	--	--	--
Zinc	µg/L	--	--	7.8	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	<0.06	--	--	--	--	--
Aluminum	µg/L	--	--	2	--	--	--	--	--
Boron	mg/L	--	0.048	<0.02	--	--	0.02	<0.02	0.019
Calcium	mg/L	--	(79.5) 79	73.7	--	--	72	67.8	66.2
Lithium	mg/L	0.04	--	0.02	--	--	--	--	--
Magnesium	mg/L	--	--	26.7	--	--	--	--	--
Manganese	mg/L	--	--	0.001	--	--	--	--	--
Potassium	mg/L	--	--	1.24	--	--	--	--	--
Sodium	mg/L	--	--	25.8	--	--	--	--	--
Strontium	mg/L	--	--	0.106	--	--	--	--	--
Alkalinity	mg/L	--	--	303	--	--	--	--	--
Bromide	mg/L	--	--	0.1	--	--	--	--	0.1
Chloride	mg/L	--	(29.6) 33	33.7	30	--	34.7	33.3	35
Fluoride	mg/L	4	0.677	0.55	--	--	0.55	0.66	0.66
TDS	mg/L	--	(412.7) 419	388	--	442	350	402	430
Sulfate	mg/L	--	(36.95) 37	36.3	--	--	37.1	34.1	31.6
Sulfide	mg/L	--	--	<0.1	--	--	--	--	--
Radium-228	pCi/L	--	--	0.173	--	--	--	--	--
Radium-226	pCi/L	--	--	1.09	--	--	--	--	--
Radium-226/228	pCi/L	5	--	1.263	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.26	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	0.7	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	<0.003	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0004	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/20/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/18/2017	10/4/2017	6/6/2018	8/16/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.42	369.25	368.8	368.24	367.58	367.63	367.62	368.28	367.25	369.39	397.45
pH	S.U.	--	6.43 - 7.90	6.7	7	7.4	7.09	7.6	7.4	7.24	6.89	7.1	7.5	7.31
Specific Conductance	µmhos/cm	--	--	461	479	570	544	370	500	443	402	424	480	533
Turbidity	NTU	--	--	0.9	0.7	0.24	0.35	1	1	0.6	0.36	1	0.32	0
Dissolved Oxygen	mg/L	--	--	0.4	0.3	1.07	0	0.3	1	0.46	27.63	0.5	0.87	0.22
Temperature	°C	--	--	17.5	18.2	16.99	14.53	14.4	15.7	15.44	16.52	16.4	16.25	16.03
ORP	mV	--	--	-21	205	-2.1	4.4	10	36	-26.2	-118.8	-23	-102.2	253
Laboratory Parameters														
Antimony	µg/L	6	--	0.04	0.04	0.01	0.02	0.02	0.01	0.04	0.02	--	--	--
Arsenic	µg/L	10	--	0.86	0.78	0.92	0.8	0.82	0.69	0.89	0.86	--	--	--
Barium	µg/L	2000	--	85.5	86.1	84.9	93.4	90.5	76.7	85	94.3	--	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.004	<0.004	--	--	--
Cadmium	µg/L	5	--	0.08	0.1	0.02	0.02	0.02	0.05	0.01	0.007	--		--
Chromium	µg/L	100	--	0.2	1	0.2	0.051	0.39	0.686	0.155	0.112	--	--	--
Cobalt	µg/L	6	--	0.341	0.364	0.401	0.381	0.424	0.054	0.558	0.569	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.12	0.2	0.48	--
Lead	µg/L	15	--	0.851	1.25	0.156	0.059	0.099	0.427	0.068	0.137	--	--	--
Mercury	µg/L	2	--	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	2.47	2.85	2.89	3.27	3.33	1.82	2.87	2.85	--	--	--
Selenium	µg/L	50	--	<0.03	0.04	<0.03	<0.03	<0.03	0.04	<0.03	<0.03	--	--	--
Thallium	µg/L	2	--	0.03	0.02	0.02	0.03	0.104	0.03	0.02	0.02	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	1	4.2	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	18.5	18.9	20.7	17.8	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	1	2	2.96	--
Boron	mg/L	--	0.093	0.075	0.014	0.018	0.015	0.004	0.045	0.049	0.047	0.018	0.11	0.056
Calcium	mg/L	--	(79.5) 71	67.4	60	64.5	63.9	60.9	66.9	65.7	64.8	68.1	66.4	--
Lithium	mg/L	0.04	--	0.005	0.022	0.007	0.005	0.005	0.006	0.008	0.0005	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	20.8	21.2	20.6	21.5	21	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.599	--	0.316	--
Potassium	mg/L	--	--	--	--	--	--	--	1.34	1.08	0.98	0.92	1.31	--
Sodium	mg/L	--	--	--	--	--	--	--	19.8	19.5	19.1	19.2	18.1	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0934	0.0926	0.086	0.0911	0.093	--
Alkalinity	mg/L	--	--	--	--	--	--	--	222	225	226	222	230	--
Bromide	mg/L	--	--	--	--	--	--	--	0.061	0.087	0.081	0.072	0.081	--
Chloride	mg/L	--	(29.6) 27.4	24.9	24.8	24.3	24.1	24.4	24.1	26.5	26.5	27.5	28.6	--
Fluoride	mg/L	4	0.428	0.37	0.4	0.37	0.31	0.33	0.35	0.38	0.34	0.37	0.42	--
TDS	mg/L	--	(412.7) 349	323	315	331	334	316	300	323	330	327	321	--
Sulfate	mg/L	--	(47.8) 48	44.3	46.7	42.4	40.7	41.4	41.2	43.8	43.3	44.1	42	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	--
Radium-228	pCi/L	--	--	0.0603	0.105	1.42	0.662	0.108	-0.0752	0.3	2.21	--	--	--
Radium-226	pCi/L	--	--	0.33	1.57	0.276	0.65	0.513	0.15	0.33	0.323	--	--	--
Radium-226/228	pCi/L	5	--	0.3903	1.675	1.696	1.312	0.621	0.0748	0.63	2.533	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.37	--	0.4	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.3	--	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.51	--	1	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.03	<0.0004	0.035	0.048	0.011	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.583	0.1	0.455	0.445	0.303	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/14/2018	2/13/2019	4/1/2019	5/23/2019	7/23/2019	9/11/2019	11/22/2019	5/19/2020	7/16/2020	11/11/2020	2/3/2021	5/26/2021
Field Parameters															
Elevation	ft NGVD	--	--	368.74	369.73	370.51	371.86	372.45	--	370.95	370.40	370.81	369.90	368.07	369.25
pH	S.U.	--	6.43 - 7.90	7.75	7.5	7.37	7.01	7.21	7.25	7.05	7.22	7.44	7.34	7.37	7.72
Specific Conductance	µmhos/cm	--	--	425	443	802	503	493	481	491	566	575	590	549	648
Turbidity	NTU	--	--	0.61	1	1.06	0.06	2.1	0.58	1.7	0	2.96	1.38	2.8	0
Dissolved Oxygen	mg/L	--	--	0.19	2	1.28	0.73	0.57	0.26	2.1	0.28	1.64	0.18	0.2	0
Temperature	°C	--	--	14.68	14.7	14.6	16.79	16.4	17.5	14	15.23	17.24	15.42	14.4	18
ORP	mV	--	--	62.9	155	134.2	5.2	27	-35.8	-206	42	18	70	143	178
Laboratory Parameters															
Antimony	µg/L	6	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--	--
Arsenic	µg/L	10	--	0.82	--	--	0.73	--	--	0.71	--	--	--	--	--
Barium	µg/L	2000	--	85.6	--	--	83.8	--	--	11	--	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--	--
Cadmium	µg/L	5	--	0.02	--	--	<0.01	--	--	0.03	--	--	--	--	--
Chromium	µg/L	100	--	<0.04	--	--	0.04	--	--	0.2	--	--	--	--	--
Cobalt	µg/L	6	--	0.48	--	--	0.368	--	--	0.838	--	--	--	--	--
Copper	µg/L	--	--	0.22	--	--	0.08	--	--	0.5	--	--	--	--	--
Lead	µg/L	15	--	0.07	--	--	<0.02	--	--	0.291	--	--	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	--	--	<0.002	--	--	--	--	--
Molybdnum	µg/L	100	--	2.96	--	--	2.38	--	--	3.1	--	--	--	--	--
Selenium	µg/L	50	--	<0.03	--	--	<0.03	--	--	<0.03	--	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	--	--	<0.1	--	--	--	--	--
Zinc	µg/L	--	--	1	--	--	0.9	--	--	3	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	18.2	--	--	18	--	--	17.5	--	--	--	--	--
Aluminum	µg/L	--	--	3	--	--	<1	--	--	<5	--	--	--	--	--
Boron	mg/L	--	0.093	0.05	--	--	0.02	--	--	0.01	0.02	--	<0.02	--	0.017
Calcium	mg/L	--	(79.5) 71	65.5	--	--	67.7	--	--	66.7	71.2	--	65.9	--	67.4
Lithium	mg/L	0.04	--	0.03	--	--	<0.009	--	--	0.00355	--	--	--	--	--
Magnesium	mg/L	--	--	20.6	--	--	20.6	--	--	20.7	--	--	--	--	--
Manganese	mg/L	--	--	0.515	--	--	0.37	--	--	0.784	--	--	--	--	--
Potassium	mg/L	--	--	0.97	--	--	0.98	--	--	0.9	--	--	--	--	--
Sodium	mg/L	--	--	18.5	--	--	18.2	--	--	18.1	--	--	--	--	--
Strontium	mg/L	--	--	0.0882	--	--	0.0912	--	--	0.0917	--	--	--	--	--
Alkalinity	mg/L	--	--	227	--	--	243	--	--	210	--	--	--	--	--
Bromide	mg/L	--	--	0.08	--	--	0.09	--	--	0.08	--	--	--	--	0.09
Chloride	mg/L	--	(29.6) 27.4	28.8	30.1	34.1	33.1	30.6	33.5	35	37.7	35.4	36.3	36.9	37.8
Fluoride	mg/L	4	0.428	0.41	--	--	0.42	--	--	0.37	0.4	0.39	0.43	--	0.38
TDS	mg/L	--	(412.7) 349	308	--	--	341	--	--	348	323	340	322	--	350
Sulfate	mg/L	--	(47.8) 48	40.7	--	--	40.2	--	--	39.7	40.1	--	39.0	--	38.6
Sulfide	mg/L	--	--	<0.07	--	--	<0.1	--	--	<0.2	--	--	--	--	--
Radium-228	pCi/L	--	--	0.415	--	--	0.71	--	--	0.546	--	--	--	--	--
Radium-226	pCi/L	--	--	0.288	--	--	0.37	--	--	0.421	--	--	--	--	--
Radium-226/228	pCi/L	5	--	0.703	--	--	1.08	--	--	0.967	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.12	--	--	0.43	--	--	<0.2	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	0.9	--	--	<0.7	--	--	1	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	--	1	--	--	<5	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.053	--	--	0.034	--	--	0.05	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.508	--	--	0.397	--	--	0.758	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/8/2016	7/19/2016	9/20/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.6	369.43	368.97	368.42	367.75	367.81	367.81	368.34	367.44	366.27
pH	S.U.	--	6.74 - 8.16	7.6	7.1	7.36	7.5	7.4	7.33	7.25	8.06	7.3	7.68
Specific Conductance	µmhos/cm	--	--	496	471	464	842	400	558	394	525	448	539
Turbidity	NTU	--	--	8.8	2	6.27	4	5	1.93	2.15	2.47	2	3.89
Dissolved Oxygen	mg/L	--	--	0.5	0.2	0.55	0.8	2	0.25	0.53	0.81	0.4	1.83
Temperature	°C	--	--	19.4	16.7	15.77	14.8	14.7	15.14	15.84	21.46	16.5	6.7
ORP	mV	--	--	63	220	92.8	252	182	49.6	132.7	152.8	-14	-5.3
Laboratory Parameters													
Antimony	µg/L	6	--	0.05	0.03	0.03	0.03	0.03	0.02	0.02	0.02	--	--
Arsenic	µg/L	10	--	1.29	0.73	1.07	0.65	0.77	0.58	0.75	0.59	--	--
Barium	µg/L	2000	--	255	147	160	147	162	139	142	139	--	--
Beryllium	µg/L	4	--	0.01	<0.005	0.007	<0.005	<0.005	<0.005	0.006	<0.004	--	--
Cadmium	µg/L	5	--	0.13	0.07	0.04	0.04	0.15	0.04	0.04	0.05	--	
Chromium	µg/L	100	--	0.3	1.5	0.3	0.072	0.439	0.687	0.174	0.131	--	--
Cobalt	µg/L	6	--	3.64	0.373	0.836	0.329	0.577	0.173	0.44	0.212	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.93	1.02	--
Lead	µg/L	15	--	1.13	1.37	0.5	0.222	0.807	1.92	0.419	0.355	--	--
Mercury	µg/L	2	--	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	3.44	3.59	3.6	3.24	2.43	3.4	3.05	2.94	--	--
Selenium	µg/L	50	--	0.07	0.03	0.07	0.03	0.03	0.03	0.06	<0.03	--	--
Thallium	µg/L	2	--	0.04	0.02	0.056	0.02	0.05	0.03	0.04	0.03	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	4.5	4.5	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	18.9	19.4	21.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	8.08	14.6	--
Boron	mg/L	--	0.066	0.017	0.015	0.016	0.018	0.006	0.055	0.046	0.019	0.002	--
Calcium	mg/L	--	(79.5) 75	63.6	57.9	65.2	69.3	63.4	70	67.8	63.9	65.7	--
Lithium	mg/L	0.04	--	<0.0002	0.017	0.0005	0.004	0.007	0.007	0.009	0.002	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	21.9	22.2	20.7	20.9	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.511	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.13	1.13	0.89	0.89	--
Sodium	mg/L	--	--	--	--	--	--	--	19.4	19.3	18.8	18	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0985	0.101	0.0885	0.092	--
Alkalinity	mg/L	--	--	--	--	--	--	--	206	202	206	220	--
Bromide	mg/L	--	--	--	--	--	--	--	0.09	0.115	0.109	0.03	--
Chloride	mg/L	--	(29.6) 50	27.3	29.8	29.8	39.3	40.6	40.3	40.9	39.3	10.3	--
Fluoride	mg/L	4	0.321	0.28	0.3	0.28	0.29	0.26	0.26	0.28	0.24	0.85	0.31
TDS	mg/L	--	(412.7) 369	331	329	288	339	323	330	342	338	339	--
Sulfate	mg/L	--	(45.1) 45	40.2	40.6	32.3	33.6	36.4	37	39.5	39.6	10.4	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	0.558	0.06	0.525	0.566	0.315	0.0844	0.511	0.444	--	--
Radium-226	pCi/L	--	--	0.526	0.135	0.932	6.73	0.334	0.154	0.213	0.502	--	--
Radium-226/228	pCi/L	5	--	1.084	0.195	1.457	7.296	0.649	0.2384	0.724	0.946	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.58	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	4.2	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.052	0.012	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.553	0.62	0.486	0.616	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-1D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/7/2018	8/16/2018	11/14/2018	2/13/2019	5/23/2019	7/23/2019	11/22/2019	2/17/2020	5/19/2020	11/11/2020	2/3/2021	5/26/2021
Field Parameters															
Elevation	ft NGVD	--	--	369.56	369.94	368.73	369.71	371.84	372.45	367.22	369.34	370.40	369.91	376.09	368.95
pH	S.U.	--	6.74 - 8.16	8.24	7.35	7.77	7.41	7.18	7.3	7.26	7.38	7.05	7.14	7.5	7.68
Specific Conductance	µmhos/cm	--	--	508	568	457	317	0.504	510	609	817	454	664	467	747
Turbidity	NTU	--	--	1.71	0	1.03	2	0.3	1.5	2.53	0.98	0	0.43	2.9	0
Dissolved Oxygen	mg/L	--	--	0.25	0.26	0.2	10	3.68	2.1	3.57	6.09	9.13	0	4.8	0
Temperature	°C	--	--	15.85	16.71	14.06	14	17.02	16.7	14.31	13.25	15.71	15.84	13.2	15.9
ORP	mV	--	--	-112	200	53	188	55.9	44	51.3	211.2	152	95	145	200
Laboratory Parameters															
Antimony	µg/L	6	--	--	--	0.03	--	0.05	--	0.04	--	--	--	--	--
Arsenic	µg/L	10	--	--	--	0.62	--	0.47	--	0.57	--	--	--	--	--
Barium	µg/L	2000	--	--	--	101	--	99.2	--	101	--	--	--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	<0.02	--	<0.02	--	--	--	--	--
Cadmium	µg/L	5	--	--	--	0.02	--	0.02	--	0.03	--	--	--	--	--
Chromium	µg/L	100	--	--	--	0.07	--	0.1	--	0.2	--	--	--	--	--
Cobalt	µg/L	6	--	--	--	0.04	--	0.058	--	0.097	--	--	--	--	--
Copper	µg/L	--	--	0.55	--	0.75	--	0.83	--	0.4	--	--	--	--	--
Lead	µg/L	15	--	--	--	0.07	--	0.138	--	0.2	--	--	--	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--	<0.002	--	--	--	--	--
Molybdnum	µg/L	100	--	--	--	2	--	1	--	1	--	--	--	--	--
Selenium	µg/L	50	--	--	--	0.04	--	0.09	--	0.08	--	--	--	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	<0.1	--	<0.1	--	--	--	--	--
Zinc	µg/L	--	--	2	--	1	--	65.9	--	2	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	17.9	--	19	--	17.8	--	18.5	--	--	--	--	--
Aluminum	µg/L	--	--	16.1	--	<1	--	4	--	<5	--	--	--	--	--
Boron	mg/L	--	0.066	0.103	0.02	0.1	<0.02	0.02	--	0.04	--	0.04	0.04	--	0.033
Calcium	mg/L	--	(79.5) 75	70.9	--	71.9	--	73.6	--	72.5	--	59.9	80.3	56.8	77.2
Lithium	mg/L	0.04	--	--	--	0.01	--	0.01	--	0.0038	--	--	--	--	--
Magnesium	mg/L	--	--	20.4	--	22.1	--	18.3	--	22.2	--	--	--	--	--
Manganese	mg/L	--	--	0.216	--	0.138	--	0.169	--	0.163	--	--	--	--	--
Potassium	mg/L	--	--	1.34	--	1.71	--	1.23	--	1.3	--	--	--	--	--
Sodium	mg/L	--	--	18.2	--	20.9	--	18.7	--	26	--	--	--	--	--
Strontium	mg/L	--	--	0.359	--	0.272	--	0.553	--	0.194	--	--	--	--	--
Alkalinity	mg/L	--	--	218	--	222	--	208	--	260	--	--	--	--	--
Bromide	mg/L	--	--	0.113	--	0.1	--	0.09	--	0.1	--	--	--	--	0.11
Chloride	mg/L	--	(29.6) 50	43.1	43.8	46.9	43.8	32.1	--	49.1	--	23.8	56.2	--	44
Fluoride	mg/L	4	0.321	0.3	--	0.3	--	0.27	--	0.27	--	0.3	0.30	--	0.26
TDS	mg/L	--	(412.7) 369	345	--	340	--	346	--	398	257	261	397	264	410
Sulfate	mg/L	--	(45.1) 45	39.5	--	39.8	--	45.3	39.2	41.2	--	23.3	37.7	--	38.6
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	<0.1	--	<0.2	--	--	--	--	--
Radium-228	pCi/L	--	--	--	--	0.295	--	0.55	--	0.197	--	--	--	--	--
Radium-226	pCi/L	--	--	--	--	0.0679	--	0.652	--	0.11	--	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.3629	--	1.202	--	0.307	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.98	--	0.78	--	0.8	--	2.19	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	11.8	--	2	--	2	--	3	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	2	--	5.05	--	3	--	<5	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	<0.002	--	0.02	--	<0.003	--	<0.02	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0605	--	0.144	--	0.148	--	0.131	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/9/2017	5/9/2017	7/19/2017	10/4/2017	6/6/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.34	369.03	369.02	368.77	366.24	368.15	368.06	368.22	366.68	369.94
pH	S.U.	--	6.30 - 8.44	6.4	7.68	7.63	7.34	7.65	7.66	7.12	7.46	7.17	7.62
Specific Conductance	µmhos/cm	--	--	423	465	440	459	341	522	354	409	509	470
Turbidity	NTU	--	--	3.1	1.85	0.51	0.96	0.74	1.31	2.68	4.81	1.55	1.84
Dissolved Oxygen	mg/L	--	--	2.8	1.85	4.67	3.91	4.18	3.63	4.52	2.62	2.63	4.66
Temperature	°C	--	--	17.5	16.34	15.81	16.03	15.1	15.73	15.67	16.06	16.42	16.48
ORP	mV	--	--	34	64	90.4	-19	165	13.1	165.7	-5.9	26.6	59.1
Laboratory Parameters													
Antimony	µg/L	6	--	<0.02	0.02	0.04	0.02	0.02	0.02	0.04	0.12	--	--
Arsenic	µg/L	10	--	0.97	1.09	0.94	0.94	0.92	0.95	0.95	0.96	--	--
Barium	µg/L	2000	--	16	14	12.4	12.4	11	12.3	12.3	13.6	--	--
Beryllium	µg/L	4	--	<0.01	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.01	0.01	0.02	0.02	0.09	0.009	0.01	0.03	--	
Chromium	µg/L	100	--	0.4	0.6	0.3	0.337	0.329	0.67	0.37	0.41	--	--
Cobalt	µg/L	6	--	0.177	0.09	0.017	0.019	0.014	0.051	0.064	0.121	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.33	0.2	1.58
Lead	µg/L	15	--	0.158	0.105	0.101	0.022	0.063	0.042	0.047	0.243	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2.03	2.39	2.07	1.91	2.14	1.92	1.75	1.81	--	--
Selenium	µg/L	50	--	0.3	0.3	0.2	0.3	0.4	0.3	0.2	0.3	--	--
Thallium	µg/L	2	--	<0.02	<0.01	<0.01	<0.01	0.074	<0.01	<0.01	0.03	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	3.3	5.3
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	28.6	28.8	31.9	26.7
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	36.6	14.7	15.3
Boron	mg/L	--	0.109	<0.002	0.015	0.014	0.018	0.004	0.069	0.084	0.052	0.045	0.073
Calcium	mg/L	--	(79.5) 66	59.4	51.6	57.4	62.4	51.6	57.9	59	53.3	60.7	57
Lithium	mg/L	0.04	--	0.0004	0.018	0.005	0.008	0.009	0.0007	0.002	0.005	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	21.2	21.9	19.5	22.8	21.3
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0124	--	0.0063
Potassium	mg/L	--	--	--	--	--	--	--	0.73	0.81	0.65	0.64	0.68
Sodium	mg/L	--	--	--	--	--	--	--	13.4	14	11.8	16.3	22.1
Strontium	mg/L	--	--	--	--	--	--	--	0.0837	0.0855	0.0756	0.0888	0.0906
Alkalinity	mg/L	--	--	--	--	--	--	--	174	191	188	207	215
Bromide	mg/L	--	--	--	--	--	--	--	0.02	0.071	0.116	0.06	0.063
Chloride	mg/L	--	(29.6) 24	21.5	21.8	23.8	21.8	21.2	21	20.8	19.6	21.2	25.3
Fluoride	mg/L	4	0.299	0.26	0.29	0.26	0.26	0.25	0.26	0.26	0.23	0.25	0.29
TDS	mg/L	--	(412.7) 343	298	265	301	316	284	285	321	308	323	329
Sulfate	mg/L	--	(35.08) 35	26	27.6	26.2	24.1	25.9	26.6	30.3	33.8	30	28.9
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4
Radium-228	pCi/L	--	--	-0.035	0.54	0	0.228	0.343	0.0555	-0.0726	0.631	--	--
Radium-226	pCi/L	--	--		0.12	0.172	0.143	0.311	0.465	0.434	0.0617	--	--
Radium-226/228	pCi/L	5	--	-0.035	0.66	0.172	0.371	0.654	0.5205	0.3614	0.6927	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	0.27
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	0.6
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	2
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.053	0.013	<0.002
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.0001	<0.0001	<0.0001	0.0021	0.0003

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	2/13/2019	4/1/2019	5/22/2019	7/23/2019	9/11/2019	11/14/2019	5/18/2020	7/16/2020	11/11/2020	2/4/2021	5/27/2021
Field Parameters															
Elevation	ft NGVD	--	--	367.91	368.87	369.97	371.02	371.37	370.52	370.86	369.39	377.69	370.64	368.33	369.35
pH	S.U.	--	6.30 - 8.44	7.53	7.77	7.72	7.66	7.45	7.33	7.54	7.43	7.55	7.4	7.62	9.5
Specific Conductance	µmhos/cm	--	--	425	451	491	500	486	473	657	462	584	588	562	500
Turbidity	NTU	--	--	2.15	0.8	1.51	1.08	1.7	0.83	0.2	1.64	0.53	0.56	0.3	0
Dissolved Oxygen	mg/L	--	--	3.7	3.1	4.7	5.77	1.3	1.78	3.59	2.3	3.24	3.98	5.1	4.8
Temperature	°C	--	--	14.51	14.6	14.5	15.93	16.2	16.4	15.18	16.64	14.96	15.54	13.8	16.36
ORP	mV	--	--	23	71	-17.9	-3.2	55	7.7	4	27	48	85	72	73
Laboratory Parameters															
Antimony	µg/L	6	--	0.04	--	--	0.03	--	--	<0.02	--	--	--	--	--
Arsenic	µg/L	10	--	0.82	--	--	0.78	--	--	0.76	--	--	--	--	--
Barium	µg/L	2000	--	16.5	--	--	18	--	--	19.3	--	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--	--
Cadmium	µg/L	5	--	0.11			0.08	--	--	<0.01	--	--	--	--	--
Chromium	µg/L	100	--	0.1	--	--	0.1	--	--	0.255	--	--	--	--	--
Cobalt	µg/L	6	--	<0.02	--	--	0.02	--	--	<0.02	--	--	--	--	--
Copper	µg/L	--	--	0.28	--	--	0.56	--	--	<0.2	--	--	--	--	--
Lead	µg/L	15	--	0.04	--	--	0.133	--	--	<0.05	--	--	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	--	--	<0.002	--	--	--	--	--
Molybdnum	µg/L	100	--	2	--	--	2	--	--	1	--	--	--	--	--
Selenium	µg/L	50	--	0.2	--	--	1	--	--	1.1	--	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	--	--	<0.1	--	--	--	--	--
Zinc	µg/L	--	--	89.4	--	--	7.5	--	--	<0.7	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	26.8	--	--	25	--	--	25.2	--	--	--	--	--
Aluminum	µg/L	--	--	7.27	--	--	6.68	--	--	<5	--	--	--	--	--
Boron	mg/L	--	0.109	0.06	--	--	<0.02	--	--	0.03	0.02	--	0.03	--	0.043
Calcium	mg/L	--	(79.5) 66	54.7	--	--	51.3	--	--	59.2	53.7	--	58.4	--	59.8
Lithium	mg/L	0.04	--	<0.009	--	--	<0.009	--	--	0.00413	--	--	--	--	--
Magnesium	mg/L	--	--	20.9	--	--	19	--	--	20.4	--	--	--	--	--
Manganese	mg/L	--	--	0.0025	--	--	0.0017	--	--	0.001	--	--	--	--	--
Potassium	mg/L	--	--	0.68	--	--	0.66	--	--	0.7	--	--	--	--	--
Sodium	mg/L	--	--	23.7	--	--	26	--	--	32.9	--	--	--	--	--
Strontium	mg/L	--	--	0.086	--	--	0.0803	--	--	0.0909	--	--	--	--	--
Alkalinity	mg/L	--	--	207	--	--	220	--	--	221	--	--	--	--	--
Bromide	mg/L	--	--	<0.04	--	--	<0.04	--	--	0.08	--	--	--	--	0.09
Chloride	mg/L	--	(29.6) 24	24.8	26.5	26.1	26.4	26.8	26.6	27.3	28.9	28.7	27.0	--	24.8
Fluoride	mg/L	4	0.299	0.28	--	--	0.3	--	--	0.28	0.34	0.33	0.34	0.36	0.35
TDS	mg/L	--	(412.7) 343	272	--	--	352	339	--	336	344	347	336	--	370
Sulfate	mg/L	--	(35.08) 35	24.7	--	--	26.2	--	--	27.8	24.9	--	25.7	--	30.8
Sulfide	mg/L	--	--	<0.1	--	--	<0.1	--	--	<0.2	--	--	--	--	--
Radium-228	pCi/L	--	--	0.146	--	--	0.54	--	--	0.161	--	--	--	--	--
Radium-226	pCi/L	--	--	0.0173	--	--	0.0674	--	--	0.0407	--	--	--	--	--
Radium-226/228	pCi/L	5	--	0.1633	--	--	0.6074	--	--	0.2017	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	1.84	--	--	0.87	--	--	1.84	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	5	--	--	4	--	--	2	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	1	--	--	5.16	--	--	<5	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.003	--	--	0.003	--	--	<0.02	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0005	--	--	0.0009	--	--	<0.0005	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	1/3/2018	6/6/2018	8/16/2018
Field Parameters															
Elevation	ft NGVD	--	--	369.26	368.97	368.94	368.7	366.31	368.06	368.01	368.16	366.64	365.54	369.85	369.32
pH	S.U.	--	6.43 - 8.69	7.89	7.14	7.45	7.26	7.7	7.64	8.42	6.98	7.16	7.84	7.55	7.52
Specific Conductance	µmhos/cm	--	--	581	542	513	495	370	557	383	431	553	568	802	614
Turbidity	NTU	--	--	2.02	1.41	0.94	1.83	3.99	16	24.3	6.25	10.3	1.3	0.91	0
Dissolved Oxygen	mg/L	--	--	1.54	7.64	1.96	3.62	--	10.86	1.97	22.85	0.71	1.12	1.1	0.06
Temperature	°C	--	--	15.88	15.93	17.11	15.97	14.38	14.74	15.42	16.34	15.68	11.06	15.3	16.03
ORP	mV	--	--	65.9	29.8	-29.6	-11.6	161.9	-52.8	156.9	-180.6	-63.4	-51.8	-55.4	-46
Laboratory Parameters															
Antimony	µg/L	6	--	0.06	0.06	0.07	0.13	0.1	0.1	0.15	0.11	--	--	--	--
Arsenic	µg/L	10	--	0.64	0.68	0.55	0.61	0.65	0.74	0.9	0.76	--	--	--	--
Barium	µg/L	2000	--	78.5	84	67.1	60.1	59.4	58.4	59.3	62.9	--	--	--	--
Beryllium	µg/L	4	--	<0.005	0.006	<0.005	<0.005	<0.005	0.01	0.022	0.02	--	--	--	--
Cadmium	µg/L	5	--	0.03	0.05	0.05	0.07	0.16	0.22	0.09	0.05	--		--	--
Chromium	µg/L	100	--	0.2	0.6	0.1	0.143	0.154	1.01	0.829	0.567	--	--	--	--
Cobalt	µg/L	6	--	0.606	0.76	0.415	0.26	0.28	0.581	1.28	0.995	--	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	2.21	1.82	--	0.2	--
Lead	µg/L	15	--	0.208	0.454	0.178	0.231	0.383	0.588	1.39	1.19	--	--	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	4.91	5	4.21	3.14	2.07	2.06	2.17	2.07	--	--	--	--
Selenium	µg/L	50	--	0.7	0.7	0.6	0.4	0.2	0.2	0.4	0.2	--	--	--	--
Thallium	µg/L	2	--	0.051	0.04	0.04	0.02	0.03	0.03	0.04	0.064	--	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	4.4	3.4	--	20.8	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	16.3	16.8	18.9	--	16.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	315	244	--	9.39	--
Boron	mg/L	--	0.043	0.019	0.009	0.025	0.013	<0.002	0.024	0.034	0.025	0.03	--	0.052	0.03
Calcium	mg/L	--	(79.5) 78	74	67.5	66.8	73.9	63.9	71.5	71	68.9	72.5	--	72.7	--
Lithium	mg/L	0.04	--	0.005	0.021	0.002	0.006	0.007	0.005	0.007	<0.0002	--	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	22.8	23.6	22.8	23.7	--	23.7	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.463	--	--	0.564	--
Potassium	mg/L	--	--	--	--	--	--	--	1.09	1.2	1.01	1.05	--	1.14	--
Sodium	mg/L	--	--	--	--	--	--	--	14.7	15.3	15.8	16.8	--	16.9	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0919	0.0977	0.0885	0.0946	--	0.0959	--
Alkalinity	mg/L	--	--	--	--	--	--	--	223	218	236	252	--	254	--
Bromide	mg/L	--	--	--	--	--	--	--	0.05	0.071	0.072	0.075	--	0.077	--
Chloride	mg/L	--	(29.6) 32	28.6	29.7	28	25.8	27.1	25.8	28.6	29.7	29.8	28.8	31.8	31.5
Fluoride	mg/L	4	0.371	0.3	0.33	0.31	0.36	0.3	0.31	0.31	0.28	0.28	--	0.32	--
TDS	mg/L	--	(412.7) 375	332	363	330	326	314	312	343	346	343	--	356	--
Sulfate	mg/L	--	(48.53) 49	42.9	54.7	41.1	36.9	39.2	39.2	42.4	44.1	45.5	--	43.2	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	--
Radium-228	pCi/L	--	--	-0.0463	0.62	0.241	0.137	0.648	0.146	0.163	0.195	--	--	--	--
Radium-226	pCi/L	--	--	0.398	0.342	0.267	0.288	0.197	0.289	0.328	0.341	--	--	--	--
Radium-226/228	pCi/L	5	--	0.3517	0.962	0.508	0.425	0.845	0.435	0.491	0.536	--	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	--	1.96	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.3	--	--	21.7	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--	154	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.053	0.016	0.03	0.054	--	0.238	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.258	0.331	0.333	0.323	--	0.563	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	2/13/2019	5/22/2019	11/14/2019	5/18/2020	11/11/2020	5/27/2021
Field Parameters										
Elevation	ft NGVD	--	--	367.97	368.87	371.17	371.18	369.44	370.65	369.39
pH	S.U.	--	6.43 - 8.69	7.2	7.55	7.34	7.39	7.8	6.86	9.66
Specific Conductance	µmhos/cm	--	--	434	435	481	576	420	558	510
Turbidity	NTU	--	--	17.03	2.8	0	4.1	2.08	2.72	0
Dissolved Oxygen	mg/L	--	--	0.13	10	0.71	0.33	5.14	7.66	0
Temperature	°C	--	--	14.25	14.3	16.09	15.93	15.94	4.84	16.6
ORP	mV	--	--	36.8	-17	-83.8	-115	-58	25	-95
Laboratory Parameters										
Antimony	µg/L	6	--	0.02	--	0.03	0.05	--	--	--
Arsenic	µg/L	10	--	0.49	--	0.4	0.39	--	--	--
Barium	µg/L	2000	--	95	--	102	90.8	--	--	--
Beryllium	µg/L	4	--	<0.02	--	<0.02	<0.02	--	--	--
Cadmium	µg/L	5	--	0.04	--	0.003	0.12	--	--	--
Chromium	µg/L	100	--	0.327	--	0.06	0.1	--	--	--
Cobalt	µg/L	6	--	0.492	--	0.347	0.141	--	--	--
Copper	µg/L	--	--	1.52	--	0.24	<0.2	--	--	--
Lead	µg/L	15	--	0.467	--	0.143	0.07	--	--	--
Mercury	µg/L	2	--	--	--	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	2	--	2.13	2.14	--	--	--
Selenium	µg/L	50	--	0.2	--	0.05	0.9	--	--	--
Thallium	µg/L	2	--	<0.1	--	<0.1	<0.1	--	--	--
Zinc	µg/L	--	--	35.2	--	7.4	1	--	--	--
Silica (Dissolved)	mg/L	--	--	16.9	--	15.9	15	--	--	--
Aluminum	µg/L	--	--	91.9	--	6.25	<5	--	--	--
Boron	mg/L	--	0.043	0.05	<0.02	<0.02	0.01	<0.02	<0.02	0.013
Calcium	mg/L	--	(79.5) 78	64.8	--	64.3	63.4	61.9	66.6	70.9
Lithium	mg/L	0.04	--	<0.009	--	<0.009	0.00402	--	--	--
Magnesium	mg/L	--	--	21.2	--	20.4	19.4	--	--	--
Manganese	mg/L	--	--	0.576	--	0.699	0.272	--	--	--
Potassium	mg/L	--	--	0.89	--	0.92	0.9	--	--	--
Sodium	mg/L	--	--	15.3	--	13.5	13.2	--	--	--
Strontium	mg/L	--	--	0.0864	--	0.083	0.0803	--	--	--
Alkalinity	mg/L	--	--	247	--	241	208	--	--	--
Bromide	mg/L	--	--	0.06	--	0.05	0.04	--	--	0.06
Chloride	mg/L	--	(29.6) 32	27.9	31.5	25.4	23.3	24.4	24.3	29.2
Fluoride	mg/L	4	0.371	0.32	--	0.32	0.33	0.36	0.37	0.35
TDS	mg/L	--	(412.7) 375	308	--	328	296	297	296	350
Sulfate	mg/L	--	(48.53) 49	39	--	39.2	39.3	40.5	38.6	40.8
Sulfide	mg/L	--	--	<0.1	--	<0.1	<0..2	--	--	--
Radium-228	pCi/L	--	--	0.291	--	0.451	0.191	--	--	--
Radium-226	pCi/L	--	--	0.258	--	0.194	0.0689	--	--	--
Radium-226/228	pCi/L	5	--	0.549	--	0.645	0.2599	--	--	--
Copper (Dissolved)	µg/L	--	--	0.2	--	0.64	1.08	--	--	--
Zinc (Dissolved)	µg/L	--	--	2	--	0.9	2	--	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	1	<5	--	--	--
Iron (Dissolved)	mg/L	--	--	0.037	--	0.02	<0.02	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.565	--	0.643	0.251	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	6/7/2018	8/16/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.22	368.96	368.9	368.68	366.41	368.04	367.96	367.95	366.6	369.84	369.25
pH	S.U.	--	6.45 -8.63	7.86	7.47	7.29	7.1	7.4	7.39	7.3	8.51	7.24	7.55	7.33
Specific Conductance	µmhos/cm	--	--	586	524	551	516	386	568	388	516	428	460	830
Turbidity	NTU	--	--	2.31	3.15	3.5	0.79	3.45	2.67	2.32	1.72	1.82	5.05	0
Dissolved Oxygen	mg/L	--	--	0.45	0.31	1.77	0.31	5.47	0.79	0.87	0.45	0.84	6.83	0.74
Temperature	°C	--	--	15.8	15.79	19.32	15.58	14.22	14.45	15.65	16.06	15.71	15.35	17.83
ORP	mV	--	--	-2.7	-168.3	45	-0.7	206.9	-87.3	143.6	-24.8	-41	32.3	-24
Laboratory Parameters														
Antimony	µg/L	6	--	0.03	0.06	0.02	0.02	0.03	0.03	0.04	0.02	--	--	--
Arsenic	µg/L	10	--	0.78	0.82	0.81	0.61	0.62	0.59	0.65	0.62	--	--	--
Barium	µg/L	2000	--	185	195	180	172	157	160	159	169	--	--	--
Beryllium	µg/L	4	--	<0.005	0.006	0.007	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	--
Cadmium	µg/L	5	--	0.12	0.12	0.07	0.1	0.26	0.09	0.08	0.08	--		--
Chromium	µg/L	100	--	0.2	0.4	0.3	0.05	0.277	0.562	0.188	0.162	--	--	--
Cobalt	µg/L	6	--	0.473	0.439	0.425	0.212	0.327	0.252	0.335	0.353	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.16	1.96	2.09	--
Lead	µg/L	15	--	0.648	0.359	0.247	0.021	0.378	0.045	0.144	0.075	--	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	2.11	2.16	1.97	2.09	1.8	2.13	1.9	1.89	--	--	--
Selenium	µg/L	50	--	<0.03	<0.03	0.05	0.09	0.08	0.03	0.06	0.04	--	--	--
Thallium	µg/L	2	--	0.02	0.02	0.03	0.01	0.02	0.02	0.02	0.02	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	6	3.5	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.5	17.9	20.5	17.4	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	17.5	20.7	70.5	--
Boron	mg/L	--	0.074	<0.002	0.01	0.013	0.014	<0.002	0.03	0.027	0.073	0.041	0.076	0.038
Calcium	mg/L	--	(79.5) 81	75.6	65.8	66.7	73.9	64.2	74.2	70.8	64.7	67.7	78.6	--
Lithium	mg/L	0.04	--	0.002	0.018	0.002	0.007	0.007	0.008	0.011	0.0006	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	24.3	23.9	21.9	22.6	26.4	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.657	--	0.943	--
Potassium	mg/L	--	--	--	--	--	--	--	1.17	1.21	1.32	1.1	1.28	--
Sodium	mg/L	--	--	--	--	--	--	--	17.3	16.9	16	15.8	16.4	--
Strontium	mg/L	--	--	--	--	--	--	--	0.104	0.104	0.0894	0.0952	0.111	--
Alkalinity	mg/L	--	--	--	--	--	--	--	249	248	261	248	263	--
Bromide	mg/L	--	--	--	--	--	--	--	0.06	0.079	0.156	0.083	0.073	--
Chloride	mg/L	--	(29.6) 25	24.2	24.2	22.8	22.2	22.3	21.7	23.1	23	22.4	43.1	93.0 ?
Fluoride	mg/L	4	0.222	0.19	0.21	0.2	0.19	0.19	0.2	0.21	0.18	0.2	0.22	--
TDS	mg/L	--	(412.7) 358	341	339	338	327	318	318	343	340	332	361	--
Sulfate	mg/L	--	(46.44) 46	42.1	44.2	39.6	35.4	38.3	37.6	40.5	40.5	42.3	39.8	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	--
Radium-228	pCi/L	--	--	0.0495	0.195	0.451	0.473	0.506	1.11	0.0264	0.257	--	--	--
Radium-226	pCi/L	--	--	-0.0267	0.133	-0.00345	1.77	0.772	0.185	0.429	0.115	--	--	--
Radium-226/228	pCi/L	5	--	0.0228	0.328	0.44755	2.243	1.278	1.295	0.4554	0.372	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.11	--	0.12	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.8	--	0.5	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.14	--	2.75	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.055	0.017	0.005	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.565	0.602	0.662	0.619	0.621	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-2D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/12/2018	2/13/2019	5/22/2019	7/24/2019	9/11/2019	11/14/2019	2/18/2020	5/18/2020	7/15/2020	11/11/2020	2/3/2021	5/27/2021
Field Parameters															
Elevation	ft NGVD	--	--	367.91	368.89	371.01	371.37	-----	371.11	-----	369.47	370.67	370.61	368.29	369.31
pH	S.U.	--	6.45 -8.63	7.36	7.32	7.25	6.28	7.15	7.3	7.08	7.76	7.26	7.22	7.34	9.45
Specific Conductance	µmhos/cm	--	--	464	391	803	834	705	726	1377	617	781	725	674	664
Turbidity	NTU	--	--	5.4	2.1	1.25	3	1.9	9.2	2.13	2.92	0.88	1.35	1	0
Dissolved Oxygen	mg/L	--	--	0.86	0.37	2.29	0.9	0.58	0.3	0.57	0.07	0	0	0.2	5.72
Temperature	°C	--	--	14.61	13.7	15.57	15.8	16.5	14.94	12.75	15.06	15.56	14.25	13.8	16.69
ORP	mV	--	--	-25.4	-164	-71.2	8	-109	-73	-76.4	-90	-40	-113	-145	-85
Laboratory Parameters															
Antimony	µg/L	6	--	0.03	--	<0.02	--	--	0.04	--	--	--	--	--	--
Arsenic	µg/L	10	--	0.58	--	0.53	--	--	0.62	--	--	--	--	--	--
Barium	µg/L	2000	--	190	--	248	--	--	193	--	--	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	<0.02	--	--	<0.02	--	--	--	--	--	--
Cadmium	µg/L	5	--	0.17	--	0.3	--	--	0.19	--	--	--	--	--	--
Chromium	µg/L	100	--	0.2	--	<0.04	--	--	0.334	--	--	--	--	--	--
Cobalt	µg/L	6	--	0.5	--	0.488	--	--	0.537	--	--	--	--	--	--
Copper	µg/L	--	--	0.22	--	0.18	--	--	0.4	--	--	--	--	--	--
Lead	µg/L	15	--	0.14	--	0.129	--	--	0.416	--	--	--	--	--	--
Mercury	µg/L	2	--	--	--	<0.002	--	--	<0.002	--	--	--	--	--	--
Molybdnum	µg/L	100	--	2	--	2	--	--	2.28	--	--	--	--	--	--
Selenium	µg/L	50	--	<0.03	--	<0.03	--	--	0.04	--	--	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	<0.1	--	--	<0.1	--	--	--	--	--	--
Zinc	µg/L	--	--	0.9	--	533	--	--	2	--	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	17.8	--	17.1	--	--	16.5	--	--	--	--	--	--
Aluminum	µg/L	--	--	15.4	--	3	--	--	10	--	--	--	--	--	--
Boron	mg/L	--	0.074	0.07	--	<0.02	--	--	0.02	--	<0.02	--	<0.02	--	0.012
Calcium	mg/L	--	(79.5) 81	72.4	--	98.5	114	103	76.9	--	88.7	--	92.2	--	88.5
Lithium	mg/L	0.04	--	<0.009	--	0.02	--	--	0.00298	--	--	--	--	--	--
Magnesium	mg/L	--	--	24.5	--	32.2	--	--	24.7	--	--	--	--	--	--
Manganese	mg/L	--	--	0.717	--	0.941	--	--	0.855	--	--	--	--	--	--
Potassium	mg/L	--	--	0.99	--	1.2	--	--	1	--	--	--	--	--	--
Sodium	mg/L	--	--	14.8	--	20.7	--	--	16.9	--	--	--	--	--	--
Strontium	mg/L	--	--	0.102	--	0.138	--	--	0.108	--	--	--	--	--	--
Alkalinity	mg/L	--	--	247	--	261	--	--	252	--	--	--	--	--	--
Bromide	mg/L	--	--	<0.04	--	0.08	--	--	0.06	--	--	--	--	--	0.07
Chloride	mg/L	--	(29.6) 25	51.3	40.9	135	156	110	56.5	76.3	93.6	96.2	92.2	74.2	82.9
Fluoride	mg/L	4	0.222	0.2	--	0.18	--	SSI ↓	0.18	--	0.21	0.2	0.20	--	0.21
TDS	mg/L	--	(412.7) 358	348	--	531	540	443	356	--	399	411	395	400	440
Sulfate	mg/L	--	(46.44) 46	36.1	--	33.3	--	--	38.9	--	36.2	--	35.1	--	37.6
Sulfide	mg/L	--	--	<0.1	--	<0.1	--	--	<0.2	--	--	--	--	--	--
Radium-228	pCi/L	--	--	0.0387	--	0.553	--	--	0.803	--	--	--	--	--	--
Radium-226	pCi/L	--	--	0.245	--	0.207	--	--	0.334	--	--	--	--	--	--
Radium-226/228	pCi/L	5	--	0.2837	--	0.76	--	--	1.137	--	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.11	--	0.39	--	--	1.64	--	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	1	--	3	--	--	2	--	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	<1	--	1	--	--	<5	--	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.007	--	0.009	--	--	<0.02	--	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.702	--	0.948	--	--	0.8	--	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-5S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	11/10/2020	5/27/2021
Field Parameters						
Elevation	ft NGVD	--	--	392.55	391.70	393.08
pH	S.U.	--	7.56	7.56	6.77	7.59
Specific Conductance	µmhos/cm	--	--	1202	2050	826
Turbidity	NTU	--	--	0.43	6.72	31.76
Dissolved Oxygen	mg/L	--	--	1.09	4	7.3
Temperature	°C	--	--	12.53	16.51	18.5
ORP	mV	--	--	71.3	11	-76
Laboratory Parameters						
Antimony	µg/L	6	--	0.1	--	--
Arsenic	µg/L	10	--	0.85	--	--
Barium	µg/L	2000	--	158	--	--
Beryllium	µg/L	4	--	<0.02	--	--
Cadmium	µg/L	5	--	0.08	--	--
Chromium	µg/L	100	--	<0.04	--	--
Cobalt	µg/L	6	--	8.15	--	--
Copper	µg/L	--	--	0.43	--	--
Lead	µg/L	15	--	0.05	--	--
Mercury	µg/L	2	--	--	--	--
Molybdnum	µg/L	100	--	1	--	--
Selenium	µg/L	50	--	0.8	--	--
Thallium	µg/L	2	--	<0.1	--	--
Zinc	µg/L	--	--	5	--	--
Silica (Dissolved)	mg/L	--	--	21.5	--	--
Aluminum	µg/L	--	--	2	--	--
Boron	mg/L	--	0.102	0.102	0.057	0.07
Calcium	mg/L	--	86.3	86.3	93.5	71.5
Lithium	mg/L	0.04	--	<0.009	--	--
Magnesium	mg/L	--	--	22.2	--	--
Manganese	mg/L	--	--	0.522	--	--
Potassium	mg/L	--	--	1.78	--	--
Sodium	mg/L	--	--	188	--	--
Strontium	mg/L	--	--	0.3	--	--
Alkalinity	mg/L	--	--	229	--	--
Bromide	mg/L	--	--	1.05	--	0.38
Chloride	mg/L	--	364	364	451	147
Fluoride	mg/L	4	0.21	0.21	0.23	0.24
TDS	mg/L	--	840	840	1030	580
Sulfate	mg/L	--	41.2	41.2	47.1	52.6
Sulfide	mg/L	--	--	<0.1	--	--
Radium-228	pCi/L	--	--	0.915	--	--
Radium-226	pCi/L	--	--	0.799	--	--
Radium-226/228	pCi/L	5	--	1.714	--	--
Copper (Dissolved)	µg/L	--	--	0.11	--	--
Zinc (Dissolved)	µg/L	--	--	6.1	--	--
Aluminum (Dissolved)	µg/L	--	--	2	--	--
Iron (Dissolved)	mg/L	--	--	0.01	--	--
Manganese (Dissolved)	mg/L	--	--	0.555	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/18/2016	9/20/2016	11/16/2016	1/10/2017	3/8/2017	5/8/2017	7/18/2017	10/3/2017	6/5/2018	8/15/2018	9/26/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.59	368.99	368.14	367.39	367.54	367.81	368.48	367.6	369.94	370.04	368.35
pH	S.U.	--	7.9	7.5	7.4	8.1	7.9	7.9	7.6	7.7	7.3	7.52	7.7	7.9
Specific Conductance	µmhos/cm	--	--	401	430	741	360	300	441	292	347	330	483	321
Turbidity	NTU	--	--	1	0.5	1	2	1	1	1	1	0.47	0	8
Dissolved Oxygen	mg/L	--	--	7.1	5.7	1	6	5	5	7	7	5.82	8.1	5.1
Temperature	°C	--	--	16.8	19	15	14.8	14.7	15.5	15.2	16.4	16.28	16	15.5
ORP	mV	--	--	53	71	258	146	36	49	74	0.3	-9.3	155	133
Laboratory Parameters														
Antimony	µg/L	6	--	0.03	0.03	0.03	0.03	0.03	0.03	0.02	--	--	0.03	0.03
Arsenic	µg/L	10	--	0.26	0.26	0.26	0.28	0.26	0.28	0.27	--	--	0.25	0.25
Barium	µg/L	2000	--	13.6	13.6	14.1	14.8	15.8	15.4	14.3	--	--	14.8	13.5
Beryllium	µg/L	4	--	0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	<0.004	<0.02
Cadmium	µg/L	5	--	0.25	0.02	0.02	0.008	0.05	0.009	0.04	--	--	0.06	0.04
Chromium	µg/L	100	--	0.4	0.3	0.2	0.599	1.37	0.583	0.291	--	--	0.42	0.265
Cobalt	µg/L	6	--	0.052	0.019	0.027	0.045	0.049	0.061	0.026	--	--	0.039	<0.02
Copper	µg/L	--	--	--	--	--	--	--	--	0.37	0.31	0.46	0.42	0.29
Lead	µg/L	15	--	0.074	0.034	0.05	0.032	0.113	0.083	0.056	--	--	0.247	0.03
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	3.28	3.34	2.8	2.93	3.29	2.73	4.36	--	--	2.22	2.37
Selenium	µg/L	50	--	0.3	0.2	0.3	0.4	0.7	0.8	0.4	--	--	0.4	0.2
Thallium	µg/L	2	--	0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	--	--	0.01	<0.1
Zinc	µg/L	--	--	--	--	--	--	--	--	1	0.5	2.5	1	0.7
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	14.4	14.6	16.9	15.4	15.2	16.8
Aluminum	µg/L	--	--	--	--	--	--	--	--	8.57	17.8	10.4	13.8	3
Boron	mg/L	--	0.012	0.014	0.012	0.028	0.006	0.032	0.051	0.078	0.094	0.09	0.101	0.08
Calcium	mg/L	--	46.1	46.3	44.4	50.8	47.8	53.2	50.3	47	44.8	45.2	52.8	44.1
Lithium	mg/L	0.04	--	0.015	0.004	0.006	0.014	0.009	0.011	<0.0002	--	--	0.005	0.02
Magnesium	mg/L	--	--	--	--	--	--	23.3	23.5	20.9	19.8	19.3	24	18.8
Manganese	mg/L	--	--	--	--	--	--	--	--	0.0007	--	0.0024	0.0021	<0.0002
Potassium	mg/L	--	--	--	--	--	--	0.7	0.75	0.82	0.78	0.57	0.91	0.71
Sodium	mg/L	--	--	--	--	--	--	38.9	34.9	26.3	23.2	15.6	25.6	26.1
Strontium	mg/L	--	--	--	--	--	--	0.0661	0.067	0.0574	0.0548	0.0555	0.065	0.051
Alkalinity	mg/L	--	--	--	--	--	--	260	272	241	249	237	267	241
Bromide	mg/L	--	--	--	--	--	--	<0.02	0.072	<0.05	0.04	0.03	0.04	<0.04
Chloride	mg/L	--	8.44	8.35	6.04	7.04	7.03	3.32	8.68	4.88	3.28	2.38	11.9	6.83
Fluoride	mg/L	4	0.73	0.79	0.73	0.69	0.65	0.25	0.69	0.57	0.71	0.89	0.81	0.84
TDS	mg/L	--	294	290	266	279	287	296	305	274	261	225	277	261
Sulfate	mg/L	--	18.8	18.3	10.9	14.3	14	6.9	17.5	9.6	7.5	3.8	15.6	9.8
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.4	<0.1
Radium-228	pCi/L	--	--	0.101	0.798	-0.249	0.501	0.297	-0.337	0.954	--	--	0.328	0.367
Radium-226	pCi/L	--	--	0	0.0671	0.202	0.0815	-0.00471	0.12	-0.0229	--	--	0.0553	0.089
Radium-226/228	pCi/L	5	--	0.101	0.8651	-0.047	0.5825	0.29229	-0.217	0.954	--	--	0.3833	0.456
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	1.85	--	0.4	2.17	1.86
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.2	--	0.9	3.1	3
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	4.34	--	1	2.51	109
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.023	<0.002	0.003	0.163
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	<0.0001	<0.0001	0.0002	0.0007	0.0015	<0.0002	0.0121

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/1/2018	11/14/2018	12/12/2018	5/23/2019	11/14/2019	5/19/2020	11/12/2020	5/25/2021
Field Parameters											
Elevation	ft NGVD	--	--	368.89	368.72	368.4	372.52	370.42	370.70	369.42	368.82
pH	S.U.	--	7.9	7.31	7.91	7.46	7.42	7.29	7.67	7.1	8
Specific Conductance	µmhos/cm	--	--	430	221	464	473	452	373	366	354
Turbidity	NTU	--	--	0.51	0.4	0.53	1.4	0.21	5.46	1.72	2.9
Dissolved Oxygen	mg/L	--	--	7.53	5.5	4.42	6.4	5.85	7.17	8.47	3.5
Temperature	°C	--	--	15.04	14.4	14.71	16.6	14.4	15.47	17.96	16.8
ORP	mV	--	--	115.3	126	196	70	291.1	150	84	219
Laboratory Parameters											
Antimony	µg/L	6	--	0.02	0.03	0.03	0.03	0.03	--	--	--
Arsenic	µg/L	10	--	0.23	0.23	0.24	0.22	0.23	--	--	--
Barium	µg/L	2000	--	12.1	11.8	13.4	15.9	15	--	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	--	--	--
Cadmium	µg/L	5	--	0.01	<0.01	<0.01	0.03	<0.01	--	--	--
Chromium	µg/L	100	--	0.221	0.218	0.212	0.285	0.284	--	--	--
Cobalt	µg/L	6	--	<0.02	<0.02	<0.02	<0.02	<0.02	--	--	--
Copper	µg/L	--	--	0.17	0.18	0.26	0.51	<0.2	--	--	--
Lead	µg/L	15	--	<0.02	0.02	<0.02	0.04	<0.05	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	2.38	2.18	2.2	2	2	--	--	--
Selenium	µg/L	50	--	0.2	0.2	0.4	0.6	0.4	--	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--
Zinc	µg/L	--	--	<0.7	1	2	<0.7	<0.7	--	--	--
Silica (Dissolved)	mg/L	--	--	15.3	15.2	15.9	15.8	15	--	--	--
Aluminum	µg/L	--	--	2	5.28	3	2	<5	--	--	--
Boron	mg/L	--	0.012	0.04	0.04	0.102	0.02	0.01	<0.02	<0.02	0.017
Calcium	mg/L	--	46.1	42.3	38.8	46.8	52.5	47.8	43.1	43.0	43.4
Lithium	mg/L	0.04	--	<0.009	0.01	<0.009	0.02	0.00645	--	--	--
Magnesium	mg/L	--	--	19.3	17.5	20.8	22.9	20	--	--	--
Manganese	mg/L	--	--	0.0007	0.0002	0.0003	0.0003	<0.0005	--	--	--
Potassium	mg/L	--	--	0.5	0.92	0.86	0.62	0.4	--	--	--
Sodium	mg/L	--	--	22	20.2	23.3	25.5	29.6	--	--	--
Strontium	mg/L	--	--	0.0519	0.0524	0.0595	0.691	0.0627	--	--	--
Alkalinity	mg/L	--	--	230	242	247	264	262	--	--	--
Bromide	mg/L	--	--	<0.04	<0.04	<0.04	<0.04	<0.04	--	--	--
Chloride	mg/L	--	8.44	3.52	3.91	6.48	9.64	5.36	1.49	2.07	1.29
Fluoride	mg/L	4	0.73	0.86	0.88	0.88	0.95	0.9	1.02	1.11	1.21
TDS	mg/L	--	294	225	196	240	315	277	214	225	210
Sulfate	mg/L	--	18.8	4.9	5.2	10	16.8	12	1.6	4.4	0.83
Sulfide	mg/L	--	--	<0.1	<0.07	<0.07	<0.1	<0.2	--	--	--
Radium-228	pCi/L	--	--	0.354	0.387	-0.368	0.343	-0.011	--	--	--
Radium-226	pCi/L	--	--	0.0398	0.0239	0.0533	0.0431	0.0416	--	--	--
Radium-226/228	pCi/L	5	--	0.3938	0.4109	0.0533	0.3861	0.0416	--	--	--
Copper (Dissolved)	µg/L	--	--	0.14	0.53	0.17	1.22	0.4	--	--	--
Zinc (Dissolved)	µg/L	--	--	0.7	<0.7	2	1	0.9	--	--	--
Aluminum (Dissolved)	µg/L	--	--	1	2	8.1	1	<5	--	--	--
Iron (Dissolved)	mg/L	--	--	<0.003	0.005	0.01	<0.003	<0.02	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0003	<0.0002	0.0007	0.0002	<0.0005	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/25/2018	10/31/2018	11/15/2018	12/12/2018	5/23/2019	11/14/2019	5/20/2020	11/11/2020	5/25/2021
Field Parameters												
Elevation	ft NGVD	--	--	369.18	368.75	368.62	368.48	372.32	370.28	370.42	369.32	368.71
pH	S.U.	--	7.6	7.8	7.25	7.35	7.44	7.66	7.32	7.49	7.58	8.03
Specific Conductance	µmhos/cm	--	--	332	467	344	458	453	374	431	310	385
Turbidity	NTU	--	--	6.5	0.76	0.74	0.25	0.36	0.46	0.4	2.3	9.9
Dissolved Oxygen	mg/L	--	--	1.7	0.27	2.78	0.79	1.02	2.15	2.34	10	0
Temperature	°C	--	--	16.4	15.9	14.2	14.71	16.5	14.4	14.57	15.1	17.2
ORP	mV	--	--	149	24.9	140.5	163	168.8	301.7	188	111	102
Laboratory Parameters												
Antimony	µg/L	6	--	0.25	0.25	0.25	0.23	0.23	0.2	--	--	--
Arsenic	µg/L	10	--	0.2	0.2	0.19	0.19	0.19	0.19	--	--	--
Barium	µg/L	2000	--	31.9	32.2	31.9	30.5	35.8	28.5	--	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	--	--
Cadmium	µg/L	5	--	0.11	0.01	0.01	0.01	0.01	0.02	--	--	--
Chromium	µg/L	100	--	0.05	0.1	<0.04	0.05	0.07	0.222	--	--	--
Cobalt	µg/L	6	--	0.313	0.452	0.42	0.362	0.436	0.525	--	--	--
Copper	µg/L	--	--	2.36	0.78	0.92	1.21	0.6	0.7	--	--	--
Lead	µg/L	15	--	0.05	0.118	<0.02	<0.02	<0.02	<0.05	--	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	5.31	4.7	4.46	4.17	4.4	4.43	--	--	--
Selenium	µg/L	50	--	0.6	0.7	0.8	0.6	0.6	0.4	--	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	--	--	--
Zinc	µg/L	--	--	3	<0.7	0.7	2	1	1	--	--	--
Silica (Dissolved)	mg/L	--	--	19.9	18.1	18.8	18.6	18.1	16.6	--	--	--
Aluminum	µg/L	--	--	6.57	5.88	5.54	3	4	<5	--	--	--
Boron	mg/L	--	0.06	0.06	0.04	0.03	0.06	<0.02	0.01	<0.02	<0.02	0.016
Calcium	mg/L	--	42.2	43.1	42.4	43.1	47.2	47.4	44.7	50.8	46.3	43.5
Lithium	mg/L	0.04	--	0.01	<0.009	0.034	<0.009	0.01	0.0054	--	--	--
Magnesium	mg/L	--	--	13.9	15.1	14.6	16.1	15.7	14	--	--	--
Manganese	mg/L	--	--	0.185	0.24	0.247	0.249	0.272	0.276	--	--	--
Potassium	mg/L	--	--	0.93	0.76	0.78	0.88	1.13	0.8	--	--	--
Sodium	mg/L	--	--	35.7	35.9	32.9	32.7	29.9	26.6	--	--	--
Strontium	mg/L	--	--	0.0482	0.0528	0.0549	0.061	0.0622	0.0582	--	--	--
Alkalinity	mg/L	--	--	267	259	246	257	278	227	--	--	--
Bromide	mg/L	--	--	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	--	--	--
Chloride	mg/L	--	5.18	2.91	3.47	3.94	3.84	2.7	2.26	3.09	2.52	1.77
Fluoride	mg/L	4	0.89	0.88	0.86	0.86	0.86	0.85	0.89	0.94	1.04	1.05
TDS	mg/L	--	281	274	245	248	245	268	224	229	211	220
Sulfate	mg/L	--	9.9	5.4	4.9	6.3	7.3	4.1	4.1	7.1	5.6	3.38
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	<0.2	--	--	--
Radium-228	pCi/L	--	--	0.218	0.216	0.675	0.488	0.496	0.296	--	--	--
Radium-226	pCi/L	--	--	0.35	0.323	0.638	0.489	0.557	0.215	--	--	--
Radium-226/228	pCi/L	5	--	0.568	0.539	1.313	0.977	1.053	0.511	--	--	--
Copper (Dissolved)	µg/L	--	--	2.79	1.09	0.86	0.74	2.58	0.5	--	--	--
Zinc (Dissolved)	µg/L	--	--	4	1	<0.7	<0.7	3	0.9	--	--	--
Aluminum (Dissolved)	µg/L	--	--	30.9	1	8.05	4	4	<5	--	--	--
Iron (Dissolved)	mg/L	--	--	0.064	<0.003	0.003	0.004	0.003	<0.02	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.254	0.232	0.246	0.231	0.256	0.238	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-6D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/25/2018	10/31/2018	11/14/2018	12/12/2018	5/23/2019	11/14/2019	5/18/2020	11/11/2020	5/25/2021
Field Parameters												
Elevation	ft NGVD	--	--	369.15	368.72	369.6	368.44	372.31	370.23	370.6	369.29	368.74
pH	S.U.	--	7.5	7.7	7.21	7.54	7.4	7.55	7.73	7.34	7.49	7.95
Specific Conductance	µmhos/cm	--	--	369	521	365	513	681	730	539	416	536
Turbidity	NTU	--	--	9	0	8.4	0.25	1.2	1.2	0.44	1.5	1.9
Dissolved Oxygen	mg/L	--	--	0.4	0.34	0.42	0.15	0.9	2.19	9.55	6.4	0
Temperature	°C	--	--	16.2	16	13.5	15.07	18.6	14.1	14.64	15.2	19.4
ORP	mV	--	--	155	54.3	131	110	145	126.6	127	109	108
Laboratory Parameters												
Antimony	µg/L	6	--	0.02	0.03	0.03	0.02	<0.02	0.05	--	--	--
Arsenic	µg/L	10	--	0.89	1.3	1.05	0.93	0.94	1.08	--	--	--
Barium	µg/L	2000	--	77.1	75.7	73.6	76.5	112	76	--	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	--	--
Cadmium	µg/L	5	--	0.03	0.01	0.02	0.01	0.01	0.01	--	--	--
Chromium	µg/L	100	--	0.04	0.346	0.2	0.05	0.08	0.09	--	--	--
Cobalt	µg/L	6	--	0.392	0.806	0.598	0.404	0.578	0.429	--	--	--
Copper	µg/L	--	--	0.45	1.18	1.6	1.64	0.17	0.5	--	--	--
Lead	µg/L	15	--	<0.02	0.205	0.167	<0.02	<0.02	<0.05	--	--	--
Mercury	µg/L	2	--	--	--	--	--	0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	3.23	2.79	2.83	3.02	2.81	3.13	--	--	--
Selenium	µg/L	50	--	7.3	8.5	8.2	4.3	0.09	9.3	--	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--
Zinc	µg/L	--	--	<0.7	2	73.1	2	<0.7	<0.7	--	--	--
Silica (Dissolved)	mg/L	--	--	19.5	17.5	17.6	18	18.2	16.5	--	--	--
Aluminum	µg/L	--	--	2	142	70.3	3	1	6	--	--	--
Boron	mg/L	--	0.094	0.05	0.03	0.05	0.115	0.03	0.02	<0.02	<0.02	0.019
Calcium	mg/L	--	61.9	61.7	57.2	53.1	60.1	78.9	62	62.4	61.7	59.5
Lithium	mg/L	0.04	--	0.02	0.009	0.01	<0.009	0.01	0.00722	--	--	--
Magnesium	mg/L	--	--	16.8	16.9	15.2	17.1	22.1	17.4	--	--	--
Manganese	mg/L	--	--	0.147	0.145	0.156	0.144	0.278	0.12	--	--	--
Potassium	mg/L	--	--	1.2	1.04	1.43	1.47	1.29	1.05	--	--	--
Sodium	mg/L	--	--	29	27.8	26.5	29	35.5	30	--	--	--
Strontium	mg/L	--	--	0.0919	0.093	0.0927	0.102	0.14	0.0949	--	--	--
Alkalinity	mg/L	--	--	260	260	266	271	305	265	--	--	--
Bromide	mg/L	--	--	<0.04	<0.04	<0.04	<0.04	0.07	<0.04	--	--	--
Chloride	mg/L	--	12.3	10.9	10.2	10	10.8	25.1	12.2	15.6	9.36	6.44
Fluoride	mg/L	4	0.39	0.41	0.41	0.42	0.42	0.36	0.41	0.43	0.46	0.47
TDS	mg/L	--	331	310	295	276	296	408	310	311	286	300
Sulfate	mg/L	--	27.3	24.1	23	22.2	23.6	39.5	25.4	29.8	20.1	15.6
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	<0.2	--	--	--
Radium-228	pCi/L	--	--	0.29	0.21	0.275	-0.0272	0.586	0.179	--	--	--
Radium-226	pCi/L	--	--	0.295	0.122	0.102	0.423	0.543	0.108	--	--	--
Radium-226/228	pCi/L	5	--	0.585	0.332	0.377	0.423	0.423	0.423	--	--	--
Copper (Dissolved)	µg/L	--	--	1.27	0.44	0.7	0.5	0.53	0.4	--	--	--
Zinc (Dissolved)	µg/L	--	--	2	0.9	2	2	1	2	--	--	--
Aluminum (Dissolved)	µg/L	--	--	31.6	3	2	45.3	15.6	10	--	--	--
Iron (Dissolved)	mg/L	--	--	0.082	<0.003	0.004	0.117	0.007	<0.02	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.127	0.137	0.135	0.142	0.263	0.123	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-7S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/30/2018	11/14/2018	12/12/2018	5/22/2019	11/12/2020	5/25/2021
Field Parameters										
Elevation	ft NGVD	--	--	369.5	368.76	368.68	368.47	371.91	369.63	368.59
pH	S.U.	--	7.4	7.4	7.33	7.31	7.3	8.39	6.72	7.72
Specific Conductance	µmhos/cm	--	--	417	611	455	629	527	678	725
Turbidity	NTU	--	--	106	104	42.6	44	4.77	9.78	7.7
Dissolved Oxygen	mg/L	--	--	0.4	0.32	0.7	0.23	0.65	0.4	0
Temperature	°C	--	--	15.4	15.01	13.9	14.43	14.69	14.47	15.2
ORP	mV	--	--	106	85.4	48.2	92	0.1	135	227
Laboratory Parameters										
Antimony	µg/L	6	--	0.14	0.15	0.06	0.09	0.02	--	--
Arsenic	µg/L	10	--	1.48	2.01	0.7	1.06	0.11	--	--
Barium	µg/L	2000	--	18.7	24.3	12.9	15.4	8.42	--	--
Beryllium	µg/L	4	--	0.101	0.127	0.05	0.07	<0.02	--	--
Cadmium	µg/L	5	--	0.05	0.06	0.02	0.05	0.02	--	--
Chromium	µg/L	100	--	2.08	2.45	0.831	1.48	0.1	--	--
Cobalt	µg/L	6	--	6.48	9.82	3.47	4.98	0.255	--	--
Copper	µg/L	--	--	4.4	5.36	1.91	2.76	0.51	--	--
Lead	µg/L	15	--	4.69	6.69	2.38	3.56	0.205	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--	--
Molybdnum	µg/L	100	--	<0.4	<0.4	<0.4	<0.4	<0.4	--	--
Selenium	µg/L	50	--	0.6	0.8	0.3	0.4	0.2	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	7.9	9.5	14	5	39.1	--	--
Silica (Dissolved)	mg/L	--	--	20.8	18.7	18.6	19.3	18.4	--	--
Aluminum	µg/L	--	--	1520	1850	681	1170	39.3	--	--
Boron	mg/L	--	0.079	0.04	0.07	0.135	0.08	0.03	<0.02	0.015
Calcium	mg/L	--	70.2	73.7	68.3	66.2	67.1	62.4	68.5	78.2
Lithium	mg/L	0.04	--	0.02	0.01	<0.009	<0.009	<0.009	--	--
Magnesium	mg/L	--	--	25.4	25.7	24.3	24.6	21.7	--	--
Manganese	mg/L	--	--	0.334	0.49	0.182	0.248	0.0145	--	--
Potassium	mg/L	--	--	1.33	1.39	1.81	1.3	0.87	--	--
Sodium	mg/L	--	--	17.9	19.1	18.9	18.7	17	--	--
Strontium	mg/L	--	--	0.083	0.0857	0.0883	0.0874	0.0803	--	--
Alkalinity	mg/L	--	--	256	261	255	261	242	--	--
Bromide	mg/L	--	--	0.09	0.09	0.09	0.09	0.1	--	--
Chloride	mg/L	--	32.8	32.2	33.5	33.2	33.6	35.4	27.7	19.5
Fluoride	mg/L	4	0.52	0.54	0.53	0.54	0.55	0.55	0.60	0.59
TDS	mg/L	--	358	370	358	354	353	353	346	380
Sulfate	mg/L	--	32	32.2	33.1	33.1	33.7	34.1	36.1	34.8
Sulfide	mg/L	--	--	<0.1	<0.1	<00.07	<0.07	<0.1	--	--
Radium-228	pCi/L	--	--	0.48	0.601	0.254	0.191	0.27	--	--
Radium-226	pCi/L	--	--	0.271	0.245	0.211	0.507	0.0334	--	--
Radium-226/228	pCi/L	5	--	0.751	0.846	0.465	0.698	0.3034	--	--
Copper (Dissolved)	µg/L	--	--	1.01	0.07	1.62	0.2	0.17	--	--
Zinc (Dissolved)	µg/L	--	--	2	<0.7	3	<0.7	<0.7	--	--
Aluminum (Dissolved)	µg/L	--	--	311	3	2	3	2	--	--
Iron (Dissolved)	mg/L	--	--	0.618	0.004	0.005	0.007	<0.003	--	--
Manganese (Dissolved)	mg/L	--	--	0.0797	0.0021	0.0012	0.0026	0.0009	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-7I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/30/2018	11/15/2018	12/12/2018	5/22/2019	11/12/2020	5/26/2021
Field Parameters										
Elevation	ft NGVD	--	--	369.01	368.51	368.5	368.27	371.73	369.44	368.59
pH	S.U.	--	7.4	7.5	7.3	7.03	7.27	8.4	6.72	7.71
Specific Conductance	µmhos/cm	--	--	419	613	460	645	573	712	744
Turbidity	NTU	--	--	19	14.4	7.05	19.9	1.6	1.43	6.3
Dissolved Oxygen	mg/L	--	--	0.3	0.36	0.95	0.21	0.7	0.29	0
Temperature	°C	--	--	15.5	15.17	13.78	14.46	15.1	15.02	14.9
ORP	mV	--	--	57	-19.2	68.4	44	-71.2	-57	-7
Laboratory Parameters										
Antimony	µg/L	6	--	0.02	0.03	<0.02	<0.02	0.02	--	--
Arsenic	µg/L	10	--	0.28	0.43	0.24	0.26	0.23	--	--
Barium	µg/L	2000	--	175	230	162	147	116	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	0.05	0.06	0.03	0.03	0.35	--	--
Chromium	µg/L	100	--	0.2	0.315	0.09	0.07	0.09	--	--
Cobalt	µg/L	6	--	3.07	8.34	1.11	1.67	1.1	--	--
Copper	µg/L	--	--	0.55	1.45	0.59	0.76	0.4	--	--
Lead	µg/L	15	--	0.45	0.6	0.05	0.145	0.228	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--	--
Molybdnum	µg/L	100	--	4.2	4.31	<0.4	3.45	3.63	--	--
Selenium	µg/L	50	--	0.05	0.09	0.05	0.05	0.04	--	--
Thallium	µg/L	2	--	<0.1	0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	2	15.1	1	2	3	--	--
Silica (Dissolved)	mg/L	--	--	20.5	18.1	18.5	18.8	18.4	--	--
Aluminum	µg/L	--	--	74.1	304	69.9	39.5	27.7	--	--
Boron	mg/L	--	0.07	0.04	0.06	0.09	0.08	0.03	<0.02	0.017
Calcium	mg/L	--	75.3	75.4	68.8	68.8	73.7	73.7	71.4	75
Lithium	mg/L	0.04	--	0.01	<0.009	<0.009	<0.009	<0.009	--	--
Magnesium	mg/L	--	--	21.9	21.7	21.4	22.8	21.5	--	--
Manganese	mg/L	--	--	2.76	4	1.08	2.89	0.821	--	--
Potassium	mg/L	--	--	1.22	0.97	1.57	1.19	1.08	--	--
Sodium	mg/L	--	--	19.8	20.1	21.5	21.3	18.1	--	--
Strontium	mg/L	--	--	0.0928	0.0932	0.1	0.103	0.11	--	--
Alkalinity	mg/L	--	--	236	237	233	229	232	--	--
Bromide	mg/L	--	--	0.1	0.1	0.1	0.1	0.1	--	0.16
Chloride	mg/L	--	45	45.8	48.2	47.6	48.8	49	53.3	56.6
Fluoride	mg/L	4	0.33	0.34	0.34	0.35	0.35	0.33	0.36	0.34
TDS	mg/L	--	312	348	338	354	347	376	357	380
Sulfate	mg/L	--	38.4	38.9	38.9	39	39.1	43.1	42.6	42
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	--	--
Radium-228	pCi/L	--	--	-0.0705	0.369	0.123	0.089	0.643	--	--
Radium-226	pCi/L	--	--	4.16	0.513	0.605	0.934	0.155	--	--
Radium-226/228	pCi/L	5	--	4.16	0.882	0.728	1.023	0.798	--	--
Copper (Dissolved)	µg/L	--	--	0.93	0.24	1.56	0.72	0.15	--	--
Zinc (Dissolved)	µg/L	--	--	2	0.9	3	2	2	--	--
Aluminum (Dissolved)	µg/L	--	--	1	10.6	2	137	2	--	--
Iron (Dissolved)	mg/L	--	--	<0.003	0.01	0.006	0.128	<0.003	--	--
Manganese (Dissolved)	mg/L	--	--	0.172	0.51	0.243	3.9	0.121	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-7D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/31/2018	11/15/2018	12/12/2018	5/22/2019	11/12/2020	5/26/2021
Field Parameters										
Elevation	ft NGVD	--	--	369.08	368.65	368.57	368.35	371.82	369.50	368.68
pH	S.U.	--	7.2	7.5	6.91	7.26	7.18	7.91	6.64	7.47
Specific Conductance	µmhos/cm	--	--	419	617	444	622	549	1760	1870
Turbidity	NTU	--	--	10.8	1.02	5.96	0	0.01	0.07	0.4
Dissolved Oxygen	mg/L	--	--	0.7	3.72	11.3	0.52	2	0	0
Temperature	°C	--	--	15.2	14.79	13.32	15.23	16.25	15.17	14.9
ORP	mV	--	--	57	26.4	26.4	-5	-40.4	-11	86
Laboratory Parameters										
Antimony	µg/L	6	--	0.04	0.03	0.04	0.06	0.02	--	--
Arsenic	µg/L	10	--	0.91	0.8	0.87	0.85	0.72	--	--
Barium	µg/L	2000	--	286	283	268	320	284	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	0.02	0.02	0.04	<0.01	<0.01	--	--
Chromium	µg/L	100	--	0.2	0.334	0.1	0.1	0.07	--	--
Cobalt	µg/L	6	--	2.52	2.46	2.24	2.24	1.88	--	--
Copper	µg/L	--	--	0.34	0.44	0.57	1.59	0.08	--	--
Lead	µg/L	15	--	0.1	0.164	0.101	0.144	<0.02	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--	--
Molybdnum	µg/L	100	--	4.09	9.76	7.38	5.43	3.49	--	--
Selenium	µg/L	50	--	0.05	0.05	0.03	<0.03	<0.03	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	1	2	4	3	5.1	--	--
Silica (Dissolved)	mg/L	--	--	216	19.2	19.9	19.8	19.2	--	--
Aluminum	µg/L	--	--	31.4	56.7	16.5	<1	1	--	--
Boron	mg/L	--	0.06	0.04	0.05	0.07	0.04	0.02	<0.02	0.019
Calcium	mg/L	--	80.1	79.2	75	62.8	77.4	76.7	153	168
Lithium	mg/L	0.04	--	<0.009	0.01	0.02	<0.009	<0.009	--	--
Magnesium	mg/L	--	--	25	25.8	21	25.7	24.3	--	--
Manganese	mg/L	--	--	1.89	1.66	1.34	1.51	1.49	--	--
Potassium	mg/L	--	--	1.22	1.07	1.39	1.25	0.94	--	--
Sodium	mg/L	--	--	14.2	15.4	12.9	15.3	13.9	--	--
Strontium	mg/L	--	--	0.137	0.141	0.125	0.146	0.138	--	--
Alkalinity	mg/L	--	--	273	293	296	300	296	--	--
Bromide	mg/L	--	--	0.09	0.08	0.08	0.08	0.009	--	1.16
Chloride	mg/L	--	17.3	17.5	17.2	16.9	17.2	19.1	360	420
Fluoride	mg/L	4	0.27	0.26	0.26	0.26	0.27	0.26	0.25	0.23
TDS	mg/L	--	359	358	3.46	340	344	371	899	990
Sulfate	mg/L	--	36.9	36.3	36	35.4	35.5	35.2	33.8	33
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.07	<0.1	--	--
Radium-228	pCi/L	--	--	0.36	0.202	0.548	0.159	0.89	--	--
Radium-226	pCi/L	--	--	0.983	0.107	0.45	0.717	0.265	--	--
Radium-226/228	pCi/L	5	--	1.343	0.309	0.998	0.876	1.155	--	--
Copper (Dissolved)	µg/L	--	--	0.55	0.17	2.01	0.18	0.77	--	--
Zinc (Dissolved)	µg/L	--	--	2	2	4	1	3	--	--
Aluminum (Dissolved)	µg/L	--	--	6.36	6.44	2	3	2	--	--
Iron (Dissolved)	mg/L	--	--	0.103	0.081	0.08	0.093	0.072	--	--
Manganese (Dissolved)	mg/L	--	--	1.76	1.6	1.47	1.35	1.5	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/19/2016	9/21/2016	11/17/2016	1/9/2017	3/7/2017	5/9/2017	7/18/2017	10/4/2017	12/12/2017	6/5/2018	11/13/2018	5/23/2019	11/21/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	369.78	369.44	369.25	368.53	368.39	368.39	368.81	367.5	366.59	369.59	368.9	371.48	371.51	370.01
pH	S.U.	--	7.3	7.2	7.1	7.9	7.6	7.6	7.4	7.4	7.75	7.7	7.59	7.58	7.38	7.43	6.29
Specific Conductance	µmhos/cm	--	--	516	540	811	450	260	444	410	395	460	400	354	440	495	567
Turbidity	NTU	--	--	1.1	2	2	3	4	8	1	2.46	6	3.48	2.6	0.69	53.7	0
Dissolved Oxygen	mg/L	--	--	3.2	3.6	1	2	4	2	3.2	3.12	0.8	2.1	3.8	6.54	6.51	4.63
Temperature	°C	--	--	20.7	21.6	16.2	14	14.2	15.6	15.8	16.57	14.1	15.05	14.4	16.17	12.82	14.81
ORP	mV	--	--	29	18	275	131	50	50	65	29.9	-17	-33.7	158	54.2	110.9	164
Laboratory Parameters																	
Antimony	µg/L	6	--	0.3	0.02	0.03	0.02	0.04	0.03	0.02	--	--	--	0.05	<0.02	0.04	--
Arsenic	µg/L	10	--	1.78	1.33	1.26	1.56	1.53	2.09	1.19	--	--	--	1.61	1.52	1.97	--
Barium	µg/L	2000	--	13.1	12.2	10.9	13.8	14.5	16.9	10.9	--	--	--	10.4	9.22	16.6	--
Beryllium	µg/L	4	--	0.232	<0.005	<0.005	0.006	0.009	0.01	<0.004	--	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.31	0.02	0.05	0.01	0.26	0.09	0.13	--	--		0.03	<0.01	0.03	--
Chromium	µg/L	100	--	0.6	0.4	0.156	1.04	0.881	0.423	0.277	--	--	--	0.578	0.235	0.378	--
Cobalt	µg/L	6	--	0.453	0.125	0.113	0.447	0.433	0.981	0.052	--	--	--	0.207	0.058	0.669	--
Copper	µg/L	--	--	--	--	--	--	--	--	0.18	0.12	--	0.25	1.7	0.13	0.5	--
Lead	µg/L	15	--	0.364	0.066	0.065	0.19	0.278	0.389	0.038	--	--	--	0.152	0.03	0.33	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.015	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	1.1	0.8	0.71	0.77	1.56	0.75	0.83	--	--	--	0.9	0.9	0.5	--
Selenium	µg/L	50	--	0.6	0.2	0.2	0.2	0.2	0.3	0.2	--	--	--	0.5	0.6	1	--
Thallium	µg/L	2	--	0.276	0.03	<0.01	0.01	0.17	<0.01	<0.01	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	0.7	0.6	--	1	3	2	2	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	21.5	21.2	24.7	--	21.7	21.4	<0.06	20.9	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	7.37	10.6	--	53	31	8.03	164	--
Boron	mg/L	--	0.01	0.012	0.011	0.032	<0.002	0.043	0.028	0.022	0.016	--	0.058	0.04	<0.02	0.01	<0.02
Calcium	mg/L	--	42.7	41.5	42.7	42.9	45.8	44.8	42.9	44.4	39.8	--	42.3	35.6	35.9	39	42.2
Lithium	mg/L	0.04	--	0.025	0.001	0.002	0.002	0.006	0.006	0.001	--	--	--	<0.009	0.02	0.00311	--
Magnesium	mg/L	--	--	--	--	--	--	19.6	20	20	17.6	--	18.8	16	16.1	16.9	--
Manganese	mg/L	--	--	--	--	--	--	--	--	0.0021	--	--	0.0323	0.0154	0.0033	0.0413	--
Potassium	mg/L	--	--	--	--	--	--	0.91	0.89	0.77	0.65	--	0.82	0.88	0.76	1	--
Sodium	mg/L	--	--	--	--	--	--	41.2	40.5	42.1	43.2	--	40.1	34.6	37.4	39.7	--
Strontium	mg/L	--	--	--	--	--	--	0.0562	0.0564	0.0543	0.0494	--	0.0555	0.0464	0.0458	0.0478	--
Alkalinity	mg/L	--	--	--	--	--	--	162	181	167	171	--	181	159	150	173	--
Bromide	mg/L	--	--	--	--	--	--	0.03	0.062	0.04	0.06	--	<0.02	<0.04	<0.04	0.1	--
Chloride	mg/L	--	23.7	23.5	22.1	21.1	20.8	21.4	22.8	22.7	22.4	22.5	23.8	22.9	23.6	23.1	27.2
Fluoride	mg/L	4	0.56	0.56	0.54	0.55	0.47	0.52	0.52	0.47	0.52	0.56	0.59	0.57	0.58	0.49	0.5
TDS	mg/L	--	345	321	332	322	300	320	319	319	317	--	324	288	312	324	342
Sulfate	mg/L	--	26.5	26.4	23.4	21.7	22.1	21.7	21.8	22.3	23.1	24.9	21.2	19.5	20.4	20	23.8
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.455	1.16	0.343	0.394	0.26	-0.175	1.5	--	--	--	0.346	0.113	0.0252	--
Radium-226	pCi/L	--	--	0.122	0.131	0.147	0.282	0.0561	0.127	0.153	--	--	--	0.137	0.0183	0.296	--
Radium-226/228	pCi/L	5	--	0.577	1.291	0.49	0.676	0.3161	-0.048	1.653	--	--	--	0.483	0.1313	0.3212	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.96	--	--	0.44	0.29	0.48	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.5	--	--	0.7	2	2	0.7	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2	--	--	1	1	7.36	10	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.004	<0.0004	<0.0004	0.014	--	0.002	0.003	0.007	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	0.0002	0.0004	0.0002	0.0004	--	0.0012	0.0006	0.0007	<0.0005	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020	5/27/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.96	369.67
pH	S.U.	--	7.3	6.8	7.75
Specific Conductance	µmhos/cm	--	--	633	513
Turbidity	NTU	--	--	5.16	3.62
Dissolved Oxygen	mg/L	--	--	3.21	0.86
Temperature	°C	--	--	17.04	17.54
ORP	mV	--	--	94	132
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.01	<0.02	0.014
Calcium	mg/L	--	42.7	43.5	39.7
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	0.03
Chloride	mg/L	--	23.7	27.1	26.8
Fluoride	mg/L	4	0.56	0.56	0.59
TDS	mg/L	--	345	326	330
Sulfate	mg/L	--	26.5	23.3	19.8
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/19/2016	9/21/2016	11/17/2016	1/9/2017	3/6/2017	5/9/2017	7/18/2017	10/4/2017	12/12/2017	6/4/2018	11/14/2018	5/23/2019	11/22/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	370.06	369.7	369.51	368.84	368.68	368.68	369.07	367.78	366.87	369.85	367.78	371.38	371.37	369.87
pH	S.U.	--	7.2	7.2	7.44	7.6	7.6	7.4	7.2	7.3	7.56	7.9	7.68	7.22	7.22	6.73	7.83
Specific Conductance	µmhos/cm	--	--	580	455	968	420	80	507	485	471	390	619	453	607	525	601
Turbidity	NTU	--	--	9	3.29	1	5	10	2	1	6.26	1	3.18	9	2.4	8	0
Dissolved Oxygen	mg/L	--	--	0.6	0.17	0.8	1	4.5	0.3	0.2	0.31	9.7	2.46	0.37	2.53	1.3	0
Temperature	°C	--	--	21	15.39	17.1	14	14.4	15	16.2	15.51	14.4	17.42	13.8	19.41	13.6	15.09
ORP	mV	--	--	-60	-63.9	-1	29	25	52	-15	-67.4	111	-75.3	190	-8.1	-185	21
Laboratory Parameters																	
Antimony	µg/L	6	--	0.27	0.07	0.1	0.08	0.08	0.08	0.07	--	--	--	0.17	0.17	0.16	--
Arsenic	µg/L	10	--	11.5	2.08	1.39	2.58	2.78	2.09	1.31	--	--	--	3.41	1.07	1.6	--
Barium	µg/L	2000	--	70.1	57	58.4	54.9	56.9	57.8	60.4	--	--	--	57.9	63.8	58.5	--
Beryllium	µg/L	4	--	0.119	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.28	0.02	0.04	0.02	0.04	0.05	0.02	--	--		0.15	0.02	0.08	--
Chromium	µg/L	100	--	0.5	0.1	0.055	0.817	0.511	0.23	0.077	--	--	--	0.07	0.05	0.1	--
Cobalt	µg/L	6	--	0.961	0.643	0.646	0.671	0.656	0.77	0.672	--	--	--	1.01	0.55	0.741	--
Copper	µg/L	--	--	--	--	--	--	--	--	0.11	0.13	--	0.42	1.45	0.2	0.5	--
Lead	µg/L	15	--	0.242	0.02	0.032	0.025	0.032	0.054	0.01	--	--	--	0.111	<0.02	<0.05	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	3	2.34	2.47	2.31	2.73	2.29	2.58	--	--	--	2.7	2.72	2.43	--
Selenium	µg/L	50	--	7.5	2.7	3	2.3	2.9	4.5	4.7	--	--	--	2.5	3.7	1.4	--
Thallium	µg/L	2	--	0.166	0.03	0.03	0.04	0.05	0.03	0.03	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	0.7	0.9	--	3.2	9.2	21.9	3	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	14.6	14.7	17.1	--	16.4	14.1	<0.06	13.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	2	1	--	0.8	8.7	<1	<5	--
Boron	mg/L	--	0.017	0.016	0.017	0.028	0.006	0.083	0.045	0.026	0.096	--	0.044	0.06	0.03	0.02	0.02
Calcium	mg/L	--	72	67.9	67.4	77.5	79.5	74.7	71.9	72.2	74.7	--	76.7	67.7	70.7	66.9	68.8
Lithium	mg/L	0.04	--	0.007	0.008	0.009	0.005	0.01	0.001	<0.0002	--	--	--	0.02	0.02	0.00419	--
Magnesium	mg/L	--	--	--	--	--	--	22.3	22.9	22.2	22.5	--	23.5	21.4	22.4	20.7	--
Manganese	mg/L	--	--	--	--	--	--	--	--	0.357	--	--	0.32	0.509	0.407	0.443	--
Potassium	mg/L	--	--	--	--	--	--	1.84	1.73	1.48	2.02	--	1.6	2.28	1.76	1.76	--
Sodium	mg/L	--	--	--	--	--	--	29.4	28.5	29.7	28.6	--	32.5	31.5	31.6	29.2	--
Strontium	mg/L	--	--	--	--	--	--	0.146	0.148	0.14	0.146	--	0.152	0.139	0.138	0.129	--
Alkalinity	mg/L	--	--	--	--	--	--	245	246	247	237	--	268	250	250	268	--
Bromide	mg/L	--	--	--	--	--	--	0.04	0.065	0.062	0.064	--	0.05	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	21.7	22	21.5	21.3	20.9	20.7	21.2	20.9	20.1	19.3	20.9	20.6	21	19.7	20.4
Fluoride	mg/L	4	0.35	0.34	0.29	0.29	0.25	0.28	0.28	0.25	0.27	0.29	0.29	0.33	0.34	0.3	0.32
TDS	mg/L	--	370	358	376	387	371	391	376	379	378	--	407	390	371	381	357
Sulfate	mg/L	--	87.5	86.3	79.2	77.5	80	80.3	81.9	83.4	85.9	87.1	79	68.2	62.3	68.3	61.7
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.07	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.4275	0.157	0.42	1.1	0.372	0.45	0.616	--	--	--	0.354	0.43	0.479	--
Radium-226	pCi/L	--	--	0.824	0.521	0.746	0.725	0.643	0.561	0.463	--	--	--	0.676	0.663	0.723	--
Radium-226/228	pCi/L	5	--	1.2515	0.678	1.166	1.825	1.015	1.011	1.079	--	--	--	1.03	1.093	1.202	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.52	--	--	0.27	0.17	0.45	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.4	--	--	16.8	<0.7	2	0.9	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	2.46	--	--	<0.8	<1	2	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	0.36	0.405	0.35	0.515	--	1.08	0.213	0.334	0.333	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	0.349	0.39	0.324	0.363	--	0.31	0.358	0.368	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-8I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020	5/27/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.84	369.5
pH	S.U.	--	7.2	7.38	8.33
Specific Conductance	µmhos/cm	--	--	621	530
Turbidity	NTU	--	--	6.98	33.42
Dissolved Oxygen	mg/L	--	--	0.48	5.35
Temperature	°C	--	--	17.23	20.33
ORP	mV	--	--	-8	143
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.017	<0.02	0.02
Calcium	mg/L	--	72	66.8	68.1
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	0.03
Chloride	mg/L	--	21.7	19.3	18.8
Fluoride	mg/L	4	0.35	0.38	0.36
TDS	mg/L	--	370	343	390
Sulfate	mg/L	--	87.5	56.7	56
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-11S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/18/2016	9/20/2016	11/16/2016	1/9/2017	3/7/2017	5/19/2017	7/18/2017	10/3/2017	12/12/2017	6/5/2018	11/14/2018	5/23/2019	11/15/2019	5/20/2020
Field Parameters																	
Elevation	ft NGVD	--	--	369.93	369.4	368.47	367.7	367.51	367.92	368.57	367.86	366.6	369.69	369.27	373.25	371.21	
pH	S.U.	--	7.9	7.3	7.3	8.4	8.1	7.9	7.78	7.7	7.2	8.3	7.21	7.55	7.71	7.76	7.4
Specific Conductance	µmhos/cm	--	--	272	330	433	200	70	307	386	267	260	360	309	440	533	435
Turbidity	NTU	--	--	0.81	0.4	1	0.8	0.3	2.64	0.4	0.5	0.6	0.39	0.2	1	1.97	0.18
Dissolved Oxygen	mg/L	--	--	9.3	7.4	2	7	7	6.99	6.1	8	19.4	6.94	6.9	9	5.53	8.95
Temperature	°C	--	--	16.1	22.4	14.7	14.8	15	15.7	17.1	15.4	13.4	14.97	13.25	17.3	15.3	13.75
ORP	mV	--	--	24	167	227	126	47	75.6	73	-13	73	-2.7	152	240	114.7	216
Laboratory Parameters																	
Antimony	µg/L	6	--	0.04	0.04	0.05	0.04	0.04	0.04	<0.05	--	--	--	0.05	0.05	0.04	--
Arsenic	µg/L	10	--	0.53	0.42	0.45	0.52	0.52	0.48	0.5	--	--	--	0.38	0.36	0.43	--
Barium	µg/L	2000	--	9.79	11.3	7.91	6.52	7.09	7.73	8.16	--	--	--	12.5	13.7	10.8	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.02	--	--	--	<0.02	0.03	<0.02	--
Cadmium	µg/L	5	--	0.03	0.03	0.02	0.01	0.007	0.03	<0.02	--	--		0.03	0.02	<0.01	--
Chromium	µg/L	100	--	0.5	0.8	0.416	0.725	1.25	0.567	0.568	--	--	--	0.384	0.483	0.468	--
Cobalt	µg/L	6	--	0.043	0.029	0.027	0.022	0.027	0.03	0.02	--	--	--	<0.02	0.03	<0.02	--
Copper	µg/L	--	--	--	--	--	--	--	--	0.44	0.26	--	0.25	0.44	2.07	0.3	--
Lead	µg/L	15	--	0.02	0.046	0.027	0.02	0.02	0.023	0.06	--	--	--	0.03	<0.02	<0.05	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	0.002	0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	4.36	3.37	4.71	6.09	6.03	4.86	4.69	--	--	--	2.4	2.04	2.15	--
Selenium	µg/L	50	--	0.08	0.1	0.07	0.05	0.2	0.2	0.3	--	--	--	0.04	<0.03	0.06	--
Thallium	µg/L	2	--	0.01	0.01	0.02	0.01	0.01	0.01	0.2	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	7	<0.4	--	2	<0.7	<0.7	0.8	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	24.9	24.4	27.3	--	25.8	26.6	24.5	25	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	10	3.63	--	2	3	3	<5	--
Boron	mg/L	--	0.062	0.062	0.077	0.053	0.029	0.057	0.047	0.067	0.09	--	0.076	0.11	0.08	0.052	0.04
Calcium	mg/L	--	41.6	38.8	45.1	37.3	40.4	42.8	41.2	44.2	43.7	--	55.8	56.4	54.3	47.6	55.8
Lithium	mg/L	0.04	--	0.024	0.004	0.005	0.003	0.013	0.009	0.002	--	--	--	0.01	0.01	0.00669	--
Magnesium	mg/L	--	--	--	--	--	--	17.2	17.7	18.8	17.6	--	24.8	19.5	17.7	17	--
Manganese	mg/L	--	--	--	--	--	--	--	--	<0.0001	--	--	<0.0002	0.0004	<0.0002	0.0006	--
Potassium	mg/L	--	--	--	--	--	--	0.42	0.42	0.42	0.48	--	0.37	0.88	0.4	0.5	--
Sodium	mg/L	--	--	--	--	--	--	5.72	5.58	6.82	7.26	--	7.11	5.35	4.43	4.47	--
Strontium	mg/L	--	--	--	--	--	--	0.0508	0.0535	0.0532	0.0537	--	0.0706	0.0774	0.0707	0.0638	--
Alkalinity	mg/L	--	--	--	--	--	--	153	175	187	167	--	226	246	235	223	--
Bromide	mg/L	--	--	--	--	--	--	<0.02	<0.06	<0.02	<0.02	--	<0.02	<0.04	<0.4	<0.04	--
Chloride	mg/L	--	1.82	1.83	1.62	1.54	2.12	4.63	9.87	8.19	3.68	2.4	6.98	1.79	1.62	1.48	2.68
Fluoride	mg/L	4	0.74	0.76	0.73	0.92	0.96	1	0.86	0.75	0.89	0.82	0.62	0.72	0.82	0.77	0.58
TDS	mg/L	--	212	201	196	182	179	197	239	224	200	--	276	238	279	216	246
Sulfate	mg/L	--	10.9	10.6	5.3	4.1	7.6	13.7	16.4	15.6	9.3	8	21.7	5.9	14.7	2.7	13.5
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.07	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.231	0.741	0.179	1.96	0.0959	0.0337	0.771	--	--	--	0.419	0.805	1.72	--
Radium-226	pCi/L	--	--	0.584	-0.0127	0.109	0.141	0.0906	0.091	0.0225	--	--	--	0.217	0.0772	0.0737	--
Radium-226/228	pCi/L	5	--	0.815	0.7283	0.288	2.101	0.1865	0.1247	0.7935	--	--	--	0.636	0.8822	1.7937	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.82	--	--	0.63	0.71	0.26	0.3	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	9	--	--	2	1	<0.7	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	66.5	--	--	2.92	3	2	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.014	--	0.008	0.04	0.004	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	<0.0001	0.0002	0.0001	<0.0002	--	<0.002	0.0005	<0.0002	<0.0005	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-11S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/11/2020	5/25/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.17	369.24
pH	S.U.	--	7.9	7.36	7.72
Specific Conductance	µmhos/cm	--	--	302	413
Turbidity	NTU	--	--	1.7	2.5
Dissolved Oxygen	mg/L	--	--	8.2	4.4
Temperature	°C	--	--	14.4	15.3
ORP	mV	--	--	173	112
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.062	0.04	0.038
Calcium	mg/L	--	41.6	52.4	53.9
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	--
Chloride	mg/L	--	1.82	1.52	2.28
Fluoride	mg/L	4	0.74	0.83	0.66
TDS	mg/L	--	212	211	240
Sulfate	mg/L	--	10.9	2.9	10.7
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-12S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	11/1/2018	11/14/2008	12/11/2018	5/22/2019	11/21/2019	11/11/2020	5/28/2021
Field Parameters											
Elevation	ft NGVD	--	--	367.81	367.96	367.93	368.21	372.14	368.42	367.68	368.12
pH	S.U.	--	7.2	5.9	7.6	6.83	7.12	7.31	7.52	7.19	7.65
Specific Conductance	µmhos/cm	--	--	522	551	517	816	757	728	712	806
Turbidity	NTU	--	--	9	1.14	2.14	23.7	13.8	5.1	3.13	0
Dissolved Oxygen	mg/L	--	--	0.2	3.13	0.36	0.29	0	10.83	1.93	0
Temperature	°C	--	--	14.5	14.05	13.16	13.36	14.8	12.81	13.23	15.3
ORP	mV	--	--	68	-34.8	184.2	-10	9	144.1	81	106
Laboratory Parameters											
Antimony	µg/L	6	--	0.06	0.03	0.17	0.06	0.07	0.19	--	--
Arsenic	µg/L	10	--	0.3	0.27	0.25	0.61	0.45	0.44	--	--
Barium	µg/L	2000	--	26.8	26.3	25.3	31	29.7	28.8	--	--
Beryllium	µg/L	4	--	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	0.06	0.05	0.13	0.04	0.09	0.09	--	--
Chromium	µg/L	100	--	0.276	0.1	0.1	0.639	0.476	0.315	--	--
Cobalt	µg/L	6	--	0.642	0.4783	0.439	1.23	0.924	0.955	--	--
Copper	µg/L	--	--	0.5	0.36	0.55	1.08	1.59	1.2	--	--
Lead	µg/L	15	--	0.34	0.08	0.08	0.904	0.538	0.526	--	--
Mercury	µg/L	2	--	--	--	--	--	0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2	2	2	2	1	1	--	--
Selenium	µg/L	50	--	0.2	0.07	0.1	0.2	0.09	0.3	--	--
Thallium	µg/L	2	--	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	1	0.8	2	2	19.3	8.2	--	--
Silica (Dissolved)	mg/L	--	--	21.5	20	20	20.3	19.3	18.8	--	--
Aluminum	µg/L	--	--	45.2	8.53	3	291	119	106	--	--
Boron	mg/L	--	0.067	0.04	0.07	0.03	0.12	0.02	0.03	<0.02	0.02
Calcium	mg/L	--	86.3	87	86.4	80.2	89.3	84.9	88.7	83.4	91.9
Lithium	mg/L	0.04	--	0.01	0.01	0.01	<0.009	0.01	0.00591	--	--
Magnesium	mg/L	--	--	31.6	33.7	30.5	33	30.3	32.3	--	--
Manganese	mg/L	--	--	0.0864	0.0758	0.0811	0.106	0.163	0.116	--	--
Potassium	mg/L	--	--	1.18	1.26	1.57	1.87	1.19	1.49	--	--
Sodium	mg/L	--	--	30.2	33.9	32.1	32.4	30.5	29.6	--	--
Strontium	mg/L	--	--	0.103	0.111	0.114	0.119	0.114	0.114	--	--
Alkalinity	mg/L	--	--	392	358	374	361	354	348	--	--
Bromide	mg/L	--	--	0.1	0.1	0.1	0.1	0.1	0.2	--	--
Chloride	mg/L	--	30.1	30.1	29.9	29.4	29.5	29.7	28.7	27.4	26.8
Fluoride	mg/L	4	0.35	0.36	0.36	0.37	0.36	0.38	0.32	0.39	0.41
TDS	mg/L	--	445	446	434	422	437	455	456	420	430
Sulfate	mg/L	--	37.2	37.1	37.1	36.4	36.7	37.4	37.8	37.5	38.2
Sulfide	mg/L	--	--	<0.1	<0.1	<0.07	<0.1	<0.1	<0.2	--	--
Radium-228	pCi/L	--	--	0.562	0.306	0.941	0.569	0.568	0.613	--	--
Radium-226	pCi/L	--	--	0.5	0.202	0.244	0.314	0.379	0.226	--	--
Radium-226/228	pCi/L	5	--	1.062	0.508	1.185	0.883	0.947	0.839	--	--
Copper (Dissolved)	µg/L	--	--	0.66	0.38	1.41	0.7	0.33	1.96	--	--
Zinc (Dissolved)	µg/L	--	--	3	2	3	4	7.5	5	--	--
Aluminum (Dissolved)	µg/L	--	--	2	1	1	76.2	2	<5	--	--
Iron (Dissolved)	mg/L	--	--	0.025	0.01	0.006	0.238	0.05	<0.02	--	--
Manganese (Dissolved)	mg/L	--	--	0.0847	0.0797	0.0677	0.103	0.144	0.0388	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-12I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	11/1/2018	11/14/2018	12/11/2018	5/22/2019	11/14/2019	11/12/2020	5/28/2021
Field Parameters											
Elevation	ft NGVD	--	--	369.85	367.84	367.81	368.16	371.95	368.3	367.52	368.06
pH	S.U.	--	0	7.15	7.74	7.01	7.12	7.27	7.33	7.05	7.6
Specific Conductance	µmhos/cm	--	--	662	622	579	901	882	811	870	921
Turbidity	NTU	--	--	1.48	8.76	2.54	2.3	39.5	3	0.97	0
Dissolved Oxygen	mg/L	--	--	1.2	2.68	9.27	1.99	0.2	2.59	0.27	0
Temperature	°C	--	--	15.21	13.94	12.9	12.92	14.8	13.7	12.29	14.8
ORP	mV	--	--	-35.1	-87.8	-54.9	-52	-57	-10.1	-59	4
Laboratory Parameters											
Antimony	µg/L	6	--	<0.01	<0.02	<0.02	<0.02	0.12	0.03	--	--
Arsenic	µg/L	10	--	10.1	9.24	8.79	9.32	12.6	10.3	--	--
Barium	µg/L	2000	--	370	374	365	377	395	393	--	--
Beryllium	µg/L	4	--	0.006	<0.02	0.02	<0.02	0.04	<0.02	--	--
Cadmium	µg/L	5	--	<0.005	0.02	<0.01	0.17	0.16	0.02	--	--
Chromium	µg/L	100	--	0.101	0.289	0.05	0.2	1.32	0.2	--	--
Cobalt	µg/L	6	--	1.5	1.67	1.42	1.58	2.7	1.54	--	--
Copper	µg/L	--	--	1.15	1.23	0.44	0.56	8.39	1	--	--
Lead	µg/L	15	--	0.063	0.21	0.03	0.07	1.47	0.07	--	--
Mercury	µg/L	2	--	--	--	--	--	0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2.92	2.87	2.87	3.13	2.8	3.01	--	--
Selenium	µg/L	50	--	0.04	0.06	<0.003	<0.03	0.1	<0.03	--	--
Thallium	µg/L	2	--	0.01	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	1	2	1	3	6.3	17.5	--	--
Silica (Dissolved)	mg/L	--	--	20.9	18.8	19.2	12.6	19	17.8	--	--
Aluminum	µg/L	--	--	48.8	64.6	5.87	5.67	581	10	--	--
Boron	mg/L	--	0.115	0.062	0.115	0.03	0.05	0.03	0.02	<0.02	0.018
Calcium	mg/L	--	94.1	100	94.8	90.9	95.6	99.2	93.9	93.2	111
Lithium	mg/L	0.04	--	0.009	<0.009	0.03	0.01	0.01	0.00469	--	--
Magnesium	mg/L	--	--	32.5	32.6	30.5	31	31.5	29.9	--	--
Manganese	mg/L	--	--	1.17	1.2	1.08	1.12	2.13	1.08	--	--
Potassium	mg/L	--	--	2.03	2.43	2.28	2.26	2.13	1.9	--	--
Sodium	mg/L	--	--	43.2	45	43.9	42	45.7	49.4	--	--
Strontium	mg/L	--	--	0.134	0.138	0.144	0.142	0.15	0.14	--	--
Alkalinity	mg/L	--	--	433	448	433	441	458	431	--	--
Bromide	mg/L	--	--	0.139	0.1	0.1	0.1	0.1	0.1	--	--
Chloride	mg/L	--	33	34	33.9	33.7	33.1	33.4	32.8	33.3	33.4
Fluoride	mg/L	4	0.24	0.25	0.25	0.25	0.23	0.25	0.22	0.27	0.29
TDS	mg/L	--	499	506	493	484	485	532	484	497	520
Sulfate	mg/L	--	31.5	30.9	31	30.7	31	32.5	32.3	32.3	31.8
Sulfide	mg/L	--	--	<0.4	<0.1	<0.07	<0.1	<0.1	<0.2	--	--
Radium-228	pCi/L	--	--	-0.0683	0.788	1.19	1.04	1.17	0.863	--	--
Radium-226	pCi/L	--	--	0.463	0.516	0.51	0.83	0.565	0.578	--	--
Radium-226/228	pCi/L	5	--	0.463	1.304	1.7	1.87	1.735	1.441	--	--
Copper (Dissolved)	µg/L	--	--	0.19	0.35	0.42	1.08	0.64	1.68	--	--
Zinc (Dissolved)	µg/L	--	--	1	10.2	2	8.1	1	3	--	--
Aluminum (Dissolved)	µg/L	--	--	2.36	5.95	2	3	16.6	<5	--	--
Iron (Dissolved)	mg/L	--	--	1.15	1.18	1.09	1.16	1.51	1.15	--	--
Manganese (Dissolved)	mg/L	--	--	1.12	1.16	1.06	1.16	1.11	1.14	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-12D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/30/2018	11/14/2018	12/11/2018	5/22/2019	11/15/2019	11/12/2020	5/27/2021
Field Parameters											
Elevation	ft NGVD	--	--	367.91	367.91	367.86	368.25	372.03	368.34	367.59	368.18
pH	S.U.	--	7.3	7.16	8.06	7.08	7.17	7.41	7.42	7.06	7.78
Specific Conductance	µmhos/cm	--	--	530	510	449	717	686	850	684	746
Turbidity	NTU	--	--	9.68	12.7	5.25	2.2	1.4	7.41	1.51	0
Dissolved Oxygen	mg/L	--	--	1.68	1.41	4.9	1.4	0.7	7.97	0.31	0
Temperature	°C	--	--	15.56	15.16	12	12.56	15.1	13.4	12.79	16.4
ORP	mV	--	--	-52.6	-90.9	-40.8	-69	-56	89.2	-77	-22
Laboratory Parameters											
Antimony	µg/L	6	--	0.02	0.06	<0.02	<0.02	0.02	0.25	--	--
Arsenic	µg/L	10	--	11.9	9.78	9.95	9.64	13.3	7.64	--	--
Barium	µg/L	2000	--	282	268	272	271	282	273	--	--
Beryllium	µg/L	4	--	0.006	<0.02	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	<0.005	0.05	<0.01	0.01	0.04	0.08	--	--
Chromium	µg/L	100	--	0.108	0.266	0.1	0.2	0.06	0.453	--	--
Cobalt	µg/L	6	--	0.462	0.538	0.378	0.4	0.554	0.679	--	--
Copper	µg/L	--	--	0.51	41	0.64	0.24	0.46	2.74	--	--
Lead	µg/L	15	--	0.127	0.329	0.111	0.05	0.02	0.502	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	3.09	2.96	2.94	3.13	3.57	4.24	--	--
Selenium	µg/L	50	--	<0.03	0.07	<0.03	<0.03	<0.03	0.06	--	--
Thallium	µg/L	2	--	<0.01	<0.1	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	1	3	2	0.8	1	11.5	--	--
Silica (Dissolved)	mg/L	--	--	21.1	18.9	19.5	19.5	18.8	17.8	--	--
Aluminum	µg/L	--	--	14	53.9	26.1	5.83	3	105	--	--
Boron	mg/L	--	0.098	0.112	0.09	0.03	0.09	<0.02	<0.02	<0.02	0.016
Calcium	mg/L	--	90.8	95.1	86.9	86.1	82.9	84.5	80.3	91.1	91.1
Lithium	mg/L	0.04	--	0.013	<0.009	<0.009	<0.009	0.02	0.00169	--	--
Magnesium	mg/L	--	--	30.3	29.6	28.5	26.7	26.5	27.2	--	--
Manganese	mg/L	--	--	0.989	0.902	0.878	0.743	0.979	0.933	--	--
Potassium	mg/L	--	--	1.16	0.89	1.34	1.45	0.76	0.8	--	--
Sodium	mg/L	--	--	10.5	11.3	11	10.2	9.06	9.66	--	--
Strontium	mg/L	--	--	0.161	0.161	0.171	0.158	0.147	0.142	--	--
Alkalinity	mg/L	--	--	373	353	371	384	368	347	--	--
Bromide	mg/L	--	--	0.081	0.08	0.07	0.07	0.07	0.1	--	0.08
Chloride	mg/L	--	16.1	17.2	17	16.6	16.7	15.9	16.1	17.9	18.2
Fluoride	mg/L	4	0.27	0.26	0.26	0.26	0.26	0.26	0.23	0.30	0.28
TDS	mg/L	--	328	386	381	374	380	393	376	389	410
Sulfate	mg/L	--	15.6	14.2	14.2	13.8	13.9	14.8	15.9	16.4	14.8
Sulfide	mg/L	--	--	<0.04	<0.1	<0.07	<0.1	<0.1	<0.2	--	--
Radium-228	pCi/L	--	--	0.643	0.405	0.589	1.69	0.698	0.529	--	--
Radium-226	pCi/L	--	--	0.702	0.454	0.608	0.766	0.548	0.574	--	--
Radium-226/228	pCi/L	5	--	1.345	0.859	1.197	2.456	1.246	1.103	--	--
Copper (Dissolved)	µg/L	--	--	0.35	0.21	0.12	0.44	0.25	<0.2	--	--
Zinc (Dissolved)	µg/L	--	--	3.3	2	1	1	0.7	4	--	--
Aluminum (Dissolved)	µg/L	--	--	7.24	2	2	5.13	1	<5	--	--
Iron (Dissolved)	mg/L	--	--	1.29	0.965	0.996	1.12	1.62	0.616	--	--
Manganese (Dissolved)	mg/L	--	--	0.994	0.88	0.801	0.832	1.03	0.906	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-13S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/24/2018	10/29/2018	11/12/2018	5/22/2019	11/12/2020	5/27/2021
Field Parameters	**Units**								
Elevation	ft NGVD	--	--	368.86	368.5	368.49	372.06	367.65	367.21
pH	S.U.	--	7.09 - 8.14					7.42	8.03
Specific Conductance	µmhos/cm	--	--					458	626
Turbidity	NTU	--	--					2.23	0
Dissolved Oxygen	mg/L	--	--					7.4	2.3
Temperature	°C	--	--					14.46	16.1
ORP	mV	--	--					129	184
Laboratory Parameters									
Antimony	µg/L	6	--					--	--
Arsenic	µg/L	10	--					--	--
Barium	µg/L	2000	--					--	--
Beryllium	µg/L	4	--					--	--
Cadmium	µg/L	5	--					--	--
Chromium	µg/L	100	--					--	--
Cobalt	µg/L	6	--					--	--
Copper	µg/L	--	--					--	--
Lead	µg/L	15	--					--	--
Mercury	µg/L	2	--					--	--
Molybdnum	µg/L	100	--					--	--
Selenium	µg/L	50	--					--	--
Thallium	µg/L	2	--					--	--
Zinc	µg/L	--	--					--	--
Silica (Dissolved)	mg/L	--	--					--	--
Aluminum	µg/L	--	--					--	--
Boron	mg/L	--	0.048					0.078	0.097
Calcium	mg/L	--	(79.5) 79					54.7	63.5
Lithium	mg/L	0.04	--					--	--
Magnesium	mg/L	--	--					--	--
Manganese	mg/L	--	--					--	--
Potassium	mg/L	--	--					--	--
Sodium	mg/L	--	--					--	--
Strontium	mg/L	--	--					--	--
Alkalinity	mg/L	--	--					--	--
Bromide	mg/L	--	--					--	<0.02
Chloride	mg/L	--	(29.6) 33					8.44	14.4
Fluoride	mg/L	4	0.677					0.39	0.33
TDS	mg/L	--	(412.7) 419					271	330
Sulfate	mg/L	--	(36.95) 37					25.1	26
Sulfide	mg/L	--	--					--	--
Radium-228	pCi/L	--	--					--	--
Radium-226	pCi/L	--	--					--	--
Radium-226/228	pCi/L	5	--					--	--
Copper (Dissolved)	µg/L	--	--					--	--
Zinc (Dissolved)	µg/L	--	--					--	--
Aluminum (Dissolved)	µg/L	--	--					--	--
Iron (Dissolved)	mg/L	--	--					--	--
Manganese (Dissolved)	mg/L	--	--					--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-13I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/31/2018	11/15/2018	12/11/2018	5/21/2019	11/12/2020	5/27/2021
Field Parameters										
Elevation	ft NGVD	--	--	368.83	368.45	368.41	368.31	371.99	369.21	368.73
pH	S.U.	--	7.5	7.36	8.12	7.21	7.36	7.54	7.33	8.05
Specific Conductance	µmhos/cm	--	--	411	397	451	555	522	494	549
Turbidity	NTU	--	--	2.14	0.93	0.31	0.45	1.4	2.53	0
Dissolved Oxygen	mg/L	--	--	0.37	1.15	8.64	0.57	0.4	3.21	0
Temperature	°C	--	--	15.71	15.25	13.17	14.13	16.5	13.4	17.9
ORP	mV	--	--	-15.8	-74.3	44.5	-72	-30	87	173
Laboratory Parameters										
Antimony	µg/L	6	--	0.02	<0.02	<0.02	0.04	<0.2	--	--
Arsenic	µg/L	10	--	1.74	1.66	1.6	1.84	2.41	--	--
Barium	µg/L	2000	--	149	139	141	144	151	--	--
Beryllium	µg/L	4	--	0.006	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	<0.005	<0.01	<0.01	<0.01	<0.01	--	--
Chromium	µg/L	100	--	0.04	0.1	0.06	0.07	<0.04	--	--
Cobalt	µg/L	6	--	0.5	0.554	0.477	0.574	0.577	--	--
Copper	µg/L	--	--	0.39	0.62	0.1	0.58	0.09	--	--
Lead	µg/L	15	--	0.01	0.04	<0.02	<0.02	<0.02	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--	--
Molybdnum	µg/L	100	--	4.49	4.23	4.09	4.29	4.11	--	--
Selenium	µg/L	50	--	<0.03	<0.03	<0.03	<0.03	<0.03	--	--
Thallium	µg/L	2	--	0.04	<0.1	<0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	20.1	61.3	<0.7	2	<0.7	--	--
Silica (Dissolved)	mg/L	--	--	19.6	17.9	17.9	18.4	17.6	--	--
Aluminum	µg/L	--	--	2.54	10.6	2	<1	1	--	--
Boron	mg/L	--	0.042	0.09	0.05	<0.02	0.04	0.02	<0.02	0.011
Calcium	mg/L	--	67.5	66	58.1	59.7	65.6	67.9	59.1	57.2
Lithium	mg/L	0.04	--	0.018	0.01	<0.009	<0.009	<0.009	--	--
Magnesium	mg/L	--	--	20.4	19.1	19.2	20.9	19.4	--	--
Manganese	mg/L	--	--	0.491	0.448	0.447	0.523	0.469	--	--
Potassium	mg/L	--	--	1.23	0.93	1.32	1.24	0.99	--	--
Sodium	mg/L	--	--	15.2	15.4	15.6	16.4	15.7	--	--
Strontium	mg/L	--	--	0.0781	0.0744	0.0834	0.0879	0.0831	--	--
Alkalinity	mg/L	--	--	231	228	231	241	235	--	--
Bromide	mg/L	--	--	0.04	<0.04	<0.04	<0.04	<0.04	--	0.02
Chloride	mg/L	--	20	20.6	20.5	20.3	20.4	20.1	19.1	18.7
Fluoride	mg/L	4	0.38	0.38	0.38	0.38	0.38	0.37	0.46	0.45
TDS	mg/L	--	297	319	305	310	310	318	292	300
Sulfate	mg/L	--	40.6	41.6	41.5	41.3	40.7	41.6	39.8	37.2
Sulfide	mg/L	--	--	<0.4	<0.1	<0.07	<0.07	<0.1	--	--
Radium-228	pCi/L	--	--	-0.268	0.658	0.682	0.3	0.76	--	--
Radium-226	pCi/L	--	--	0.456	0.509	0.669	0.589	0.646	--	--
Radium-226/228	pCi/L	5	--	0.456	1.167	1.351	0.889	1.406	--	--
Copper (Dissolved)	µg/L	--	--	0.11	0.39	0.2	0.2	0.15	--	--
Zinc (Dissolved)	µg/L	--	--	0.7	6.3	<0.7	3	<0.7	--	--
Aluminum (Dissolved)	µg/L	--	--	1	1	1	5	<1	--	--
Iron (Dissolved)	mg/L	--	--	0.185	0.189	0.193	0.26	0.278	--	--
Manganese (Dissolved)	mg/L	--	--	0.493	0.467	0.461	0.483	0.418	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-13D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	9/26/2018	10/31/2018	11/15/2018	12/11/2018	5/21/2019	11/12/2020	5/27/2021
Field Parameters										
Elevation	ft NGVD	--	--	368.79	368.43	368.39	368.29	371.95	369.16	368.71
pH	S.U.	--	7.4	7.03	8.11	7.17	7.29	7.45	7.29	7.73
Specific Conductance	µmhos/cm	--	--	406	382	427	540	524	521	586
Turbidity	NTU	--	--	5.34	10.6	4.66	3.22	2	31.2	21
Dissolved Oxygen	mg/L	--	--	1.34	1.4	5.45	0.51	1.7	1.34	0
Temperature	°C	--	--	16.29	14.99	12.18	14.06	18.7	15.2	17.6
ORP	mV	--	--	-71.4	-95.1	-48.5	-94	-48	-51	26
Laboratory Parameters										
Antimony	µg/L	6	--	0.01	0.02	0.05	0.03	0.07	--	--
Arsenic	µg/L	10	--	6.44	5.62	7.55	5.3	20.8	--	--
Barium	µg/L	2000	--	206	204	198	219	265	--	--
Beryllium	µg/L	4	--	0.007	<0.02	<0.02	<0.02	<0.02	--	--
Cadmium	µg/L	5	--	<0.005	0.04	<0.01	<0.01	<0.01	--	--
Chromium	µg/L	100	--	0.071	0.353	0.209	0.06	0.2	--	--
Cobalt	µg/L	6	--	1.15	1.31	1.05	0.935	1.1	--	--
Copper	µg/L	--	--	0.26	1.02	0.55	0.28	1.11	--	--
Lead	µg/L	15	--	0.071	0.438	0.173	<0.02	0.07	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	--	--
Molybdnum	µg/L	100	--	2.88	2.59	2.77	3.23	3.21	--	--
Selenium	µg/L	50	--	<0.03	0.1	0.07	<0.03	0.04	--	--
Thallium	µg/L	2	--	0.02	<0.1	>0.1	<0.1	<0.1	--	--
Zinc	µg/L	--	--	0.6	2	1	2	1	--	--
Silica (Dissolved)	mg/L	--	--	19.3	17.6	17.9	17.9	17.4	--	--
Aluminum	µg/L	--	--	21.8	162	58.8	2	12.4	--	--
Boron	mg/L	--	0.037	0.071	0.111	119	0.03	0.02	<0.02	0.012
Calcium	mg/L	--	65.9	68.9	63.4	60.8	67.4	66.2	64.6	66.6
Lithium	mg/L	0.04	--	0.016	<0.009	<0.009	<0.009	<0.009	--	--
Magnesium	mg/L	--	--	21.8	21.7	20.1	22.5	19.7	--	--
Manganese	mg/L	--	--	0.762	0.669	0.648	0.677	0.997	--	--
Potassium	mg/L	--	--	1.06	1.14	1.45	1.16	0.82	--	--
Sodium	mg/L	--	--	11.2	11.6	11.4	11.2	9.25	--	--
Strontium	mg/L	--	--	0.0852	0.0867	0.0913	0.098	0.0882	--	--
Alkalinity	mg/L	--	--	231	243	223	252	237	--	--
Bromide	mg/L	--	--	0.05	<0.04	<0.04	<0.04	<0.04	--	0.03
Chloride	mg/L	--	16.3	17	16.9	16.6	16.5	15.9	18.2	18
Fluoride	mg/L	4	0.28	0.27	0.27	0.28	0.27	0.26	0.30	0.29
TDS	mg/L	--	287	296	299	296	305	303	311	320
Sulfate	mg/L	--	35.5	34.8	34.7	34.1	33.3	33.9	38.8	37.4
Sulfide	mg/L	--	--	<0.4	<0.1	<0.07	<0.07	<0.1	--	--
Radium-228	pCi/L	--	--	0.141	-0.293	-0.157	0.226	0.844	--	--
Radium-226	pCi/L	--	--	0.501	0.356	0.242	0.389	0.586	--	--
Radium-226/228	pCi/L	5	--	0.642	0.356	0.242	0.615	1.43	--	--
Copper (Dissolved)	µg/L	--	--	0.07	0.11	0.09	0.21	0.56	--	--
Zinc (Dissolved)	µg/L	--	--	0.5	1	<0.7	1	<0.7	--	--
Aluminum (Dissolved)	µg/L	--	--	11	3	2	20.5	1	--	--
Iron (Dissolved)	mg/L	--	--	1.29	0.915	0.995	1.13	0.866	--	--
Manganese (Dissolved)	mg/L	--	--	0.74	0.625	0.702	0.612	0.777	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-14S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	7/20/2016	9/21/2016	11/17/2016	1/9/2017	3/7/2017	5/19/2017	7/18/2017	10/4/2017	12/12/2017	6/5/2018	11/13/2018	5/23/2019	11/16/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	370.07	369.7	369.34	368.92	368.49	368.63	369.88	368.43	368.41	368.94	369.27	371.36	371.63	369.98
pH	S.U.	--	7.2	7.1	7	7.7	7.5	7.4	6.95	7.3	7	7.6	7.55	7.55	7.15	7.51	7.68
Specific Conductance	µmhos/cm	--	--	576	640	955	530	80	441	496	488	490	450	309	604	655	550
Turbidity	NTU	--	--	3.9	6	1	2	0.7	2.07	1	0.5	1	0.6	0.2	0.61	9.8	0.52
Dissolved Oxygen	mg/L	--	--	3.8	3.3	1	3.4	3	3.82	3.7	4	10.2	5.42	6.9	2.57	0.455	3.22
Temperature	°C	--	--	18.7	22.6	15.2	14.4	13.9	14.54	15.9	15.3	13.5	14.98	13.25	17.01	12.4	15.74
ORP	mV	--	--	43	53	282	147	75	55.6	67	-23	133	-7.9	152	-203.7	-9	150
Laboratory Parameters																	
Antimony	µg/L	6	--	0.02	0.02	0.03	0.02	0.02	0.06	<0.05	--	--	--	<0.02	<0.02	0.03	--
Arsenic	µg/L	10	--	1.54	1.29	0.75	0.91	0.76	0.75	0.7	--	--	--	0.64	0.62	0.62	--
Barium	µg/L	2000	--	31	27.8	26.3	27	26.3	25	27	--	--	--	27	28.9	32.9	--
Beryllium	µg/L	4	--	0.008	0.005	<0.005	<0.005	<0.005	<0.004	<0.02	--	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.21	0.07	0.03	0.05	0.01	0.08	<0.02	--	--		0.05	0.01	<0.01	--
Chromium	µg/L	100	--	0.3	0.3	0.162	0.575	0.66	0.301	0.258	--	--	--	0.2	0.2	0.438	--
Cobalt	µg/L	6	--	0.573	0.333	0.088	0.187	0.083	0.065	0.03	--	--	--	0.03	0.03	0.04	--
Copper	µg/L	--	--	--	--	--	--	--	--	2.38	0.15	--	0.38	0.24	0.25	<0.2	--
Lead	µg/L	15	--	0.307	0.31	0.549	0.115	0.061	0.071	0.116	--	--	--	0.05	0.04	<0.05	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	1.51	1.43	1.26	1.62	1.84	1.35	1.67	--	--	--	1	1	1	--
Selenium	µg/L	50	--	1.4	1.2	1.2	1.1	1.1	1.2	1.3	--	--	--	1.1	0.9	0.9	--
Thallium	µg/L	2	--	<0.01	<0.01	0.02	0.054	0.055	0.01	0.07	--	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	9	0.8	--	1	1	<0.7	<0.7	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	20.3	20.2	23.3	--	20.4	20.2	<0.06	19.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	11.4	2	--	5.75	7.32	4	5	--
Boron	mg/L	--	0.011	0.008	0.01	0.008	<0.002	0.031	0.017	0.03	0.042	--	0.046	0.04	<0.02	0.01	<0.02
Calcium	mg/L	--	59.2	56.3	59.5	65.4	65.7	63.4	59.8	65.6	67	--	61.1	59.2	66.9	65.1	66.6
Lithium	mg/L	0.04	--	0.018	0.006	0.004	0.006	0.005	0.001	<0.0002	--	--	--	<0.009	0.01	0.00367	--
Magnesium	mg/L	--	--	--	--	--	--	27.6	28.1	29.3	29.9	--	27.4	26.4	30	29.8	--
Manganese	mg/L	--	--	--	--	--	--	--	--	0.0006	--	--	0.0014	0.0015	0.0008	0.002	--
Potassium	mg/L	--	--	--	--	--	--	0.5	0.54	0.49	0.59	--	0.51	0.55	0.53	0.5	--
Sodium	mg/L	--	--	--	--	--	--	33	29.4	30.1	29.9	--	29.2	24.9	23.3	23.7	--
Strontium	mg/L	--	--	--	--	--	--	0.101	0.102	0.103	0.106	--	0.101	0.0954	0.109	0.111	--
Alkalinity	mg/L	--	--	--	--	--	--	232	258	257	249	--	260	259	275	252	--
Bromide	mg/L	--	--	--	--	--	--	<0.02	<0.06	0.03	0.04	--	<0.02	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	28.6	29.4	28.1	27.8	27.2	26.8	29.4	29.6	29.9	30	27.1	29	28.6	28.9	28.6
Fluoride	mg/L	4	0.39	0.39	0.36	0.35	0.33	0.36	0.37	0.33	0.34	0.34	0.39	0.37	0.37	0.38	0.33
TDS	mg/L	--	368	364	361	362	344	354	376	377	376	--	360	344	390	374	411
Sulfate	mg/L	--	34.9	36.5	32.5	29.1	30.7	29.9	32.3	33.1	34.8	35.5	29.4	30.8	32.4	32.8	32.5
Sulfide	mg/L	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	-0.343	0.769	0.693	0.601	-0.193	-0.019	1.73	--	--	--	0.334	0.271	1.1	--
Radium-226	pCi/L	--	--	0.594	0.131	0.413	0.179	0.0525	0.0316	0.153	--	--	--	0.0534	0.0483	0.112	--
Radium-226/228	pCi/L	5	--	0.251	0.9	1.106	0.78	-0.1405	0.0126	1.883	--	--	--	0.3874	0.3193	1.212	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	0.94	--	--	0.43	0.64	0.31	0.6	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	7	--	--	5.7	3	<0.7	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	11.3	--	--	1	<1	1	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.016	--	0.002	<0.003	<0.003	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	<0.0001	0.0021	0.0001	<0.0002	--	<0.0002	0.0005	<0.0002	<0.0005	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-14S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020	5/28/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.99	369.36
pH	S.U.	--	7.2	6.68	7.82
Specific Conductance	µmhos/cm	--	--	742	706
Turbidity	NTU	--	--	3.29	1.1
Dissolved Oxygen	mg/L	--	--	2.77	2.61
Temperature	°C	--	--	15.64	15
ORP	mV	--	--	101	97
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.011	<0.02	0.012
Calcium	mg/L	--	59.2	66.4	82
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	--
Chloride	mg/L	--	28.6	26.3	25.4
Fluoride	mg/L	4	0.39	0.39	0.38
TDS	mg/L	--	368	370	430
Sulfate	mg/L	--	34.9	31.4	31
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/7/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/7/2017	5/10/2017	7/19/2017	10/4/2017	6/5/2018	11/13/2018	5/23/2019	7/23/2019	9/11/2019	11/15/2019
Field Parameters																		
Elevation	ft NGVD	--	--	370	369.87	369.49	368.87	367.92	367.84	367.86	368.75	367.84	396.63	368.96	371.96	372.79	372.26	371.11
pH	S.U.	--	7.1 - 7.7	7.2	7.1	7.2	7.7	7.2	7.2	7.3	7.3	7.35	7.16	7.46	7.5	5.74	7.38	7.38
Specific Conductance	µmhos/cm	--	--	512	512	510	904	470	60	419	368	393	416	317	348	362	269	467
Turbidity	NTU	--	--	7.6	2.2	1	1	1	0.5	2	2	2.34	0.33	0.41	1.51	8.3	3	10
Dissolved Oxygen	mg/L	--	--	0.5	0.5	1	1	1	6	0.4	0.3	0.07	1.9	0.77	0.4	1	0	0
Temperature	°C	--	--	16.5	17.7	19.1	15.5	13.8	13.9	14.6	15.7	14.7	14.96	12.94	15.21	15.8	16.55	13.4
ORP	mV	--	--	57	124	181	-10	179	64	65	24	18.1	-37.7	19.3	-218	47	63	64
Laboratory Parameters																		
Antimony	µg/L	6	--	0.04	0.04	0.02	0.04	0.04	0.03	0.04	0.02	--	--	<0.02	0.02	--	--	0.03
Arsenic	µg/L	10	--	0.32	0.24	0.21	0.18	0.26	0.21	0.21	0.23	--	--	0.13	0.12	--	--	0.16
Barium	µg/L	2000	--	4.71	5.85	3.21	3.27	6.05	4.98	3.54	3.11	--	--	2.46	2.54	--	--	3.17
Beryllium	µg/L	4	--	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.004	--	--	<0.02	<0.02	--	--	<0.02
Cadmium	µg/L	5	--	0.14	0.25	0.05	0.05	0.06	0.04	0.05	0.05	--		0.04	0.1	--	--	0.06
Chromium	µg/L	100	--	0.2	1.7	0.5	0.058	0.493	0.934	0.198	0.096	--	--	0.05	0.08	--	--	0.1
Cobalt	µg/L	6	--	3.03	1.17	1.09	0.794	1.75	1.26	1.2	1.25	--	--	0.74	0.775	--	--	2.15
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.4	0.26	0.24	0.37	0.32	--	--	0.2
Lead	µg/L	15	--	0.286	0.101	0.098	0.037	0.039	0.024	0.062	0.083	--	--	0.03	0.05	--	--	0.1
Mercury	µg/L	2	--	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	<0.002	--	--	<0.002
Molybdnum	µg/L	100	--	2.52	2.89	2.54	1.57	0.78	1.17	2.08	2.87	--	--	2.54	3.47	--	--	2.18
Selenium	µg/L	50	--	0.4	0.7	0.5	0.3	0.3	0.5	0.5	0.2	--	--	0.1	0.06	--	--	0.2
Thallium	µg/L	2	--	0.03	<0.01	0.02	0.02	0.03	0.04	0.02	0.02	--	--	<0.1	<0.1	--	--	<0.1
Zinc	µg/L	--	--	--	--	--	--	--	--	--	3.5	1	21	2	2	--	--	2
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	13.1	12.7	15.8	13.1	12.4	<0.06	--	--	11.9
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	15.9	6.68	4.42	6.41	11.7	--	--	10
Boron	mg/L	--	0.15	0.011	0.012	0.008	<0.002	<0.002	0.084	0.077	0.073	0.095	0.078	0.04	<0.02	--	--	0.01
Calcium	mg/L	--	(79.5) 71	46.9	43.6	46.6	52.3	63.6	62.9	45.7	44.4	48.3	44.7	41.8	41.3	--	--	40.2
Lithium	mg/L	0.04	--	0.007	0.022	0.005	0.005	0.008	0.008	0.003	0.0009	--	--	<0.009	<0.009	--	--	0.00357
Magnesium	mg/L	--	--	--	--	--	--	--	28.2	19.3	17.2	18.5	16.9	15.1	13.9	--	--	15.1
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.489	--	0.391	0.444	0.452	--	--	0.743
Potassium	mg/L	--	--	--	--	--	--	--	1.07	1.11	1.03	1.27	0.93	1.16	0.68	--	--	0.8
Sodium	mg/L	--	--	--	--	--	--	--	35.5	44.7	39.2	42.3	35.9	27.2	17.3	--	--	19.7
Strontium	mg/L	--	--	--	--	--	--	--	0.0903	0.0711	0.061	0.0662	0.0638	0.0574	0.0502	--	--	0.0522
Alkalinity	mg/L	--	--	--	--	--	--	--	294	257	235	267	239	226	197	--	--	209
Bromide	mg/L	--	--	--	--	--	--	--	0.04	0.062	0.05	0.074	0.03	<0.04	<0.04	--	--	<0.04
Chloride	mg/L	--	(29.6) 26	21.2	18.7	18.9	18.3	21.9	16.1	14.1	11.8	13.3	8.84	8.78	8.88	--	--	9.48
Fluoride	mg/L	4	0.86	0.65	0.65	0.63	0.5	0.36	0.42	0.65	0.66	0.62	0.69	0.72	0.88	0.87	0.81	0.7
TDS	mg/L	--	(412.7) 407	338	319	329	338	374	342	294	263	300	274	232	207	--	--	234
Sulfate	mg/L	--	(33.67) 34	30.3	27.7	25.1	23.2	28.3	23.4	21	20.3	23.2	16.3	13.1	10.2	--	--	8.4
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.07	<0.1	--	--	<0.2
Radium-228	pCi/L	--	--	0.0335	-0.092	0.302	1.11	-0.0122	-0.108	0.106	-0.0928	--	--	0.482	0.439	--	--	1.47
Radium-226	pCi/L	--	--	0.384	--	0.116	0.139	0.189	0.0973	0.135	0.0916	--	--	-0.0262	0.282	--	--	0.0996
Radium-226/228	pCi/L	5	--	0.4175	-0.092	0.418	1.249	0.1768	-0.0107	0.241	0.0916	--	--	0.482	0.721	--	--	1.5696
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.37	--	0.51	1.59	0.53	--	--	2.06
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.6	--	1	2	<0.7	--	--	2
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	3.7	--	2	3	2	--	--	<5
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.014	<0.002	0.004	<0.003	--	--	<0.02
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.448	0.361	0.284	0.379	0.349	0.332	0.289	--	--	0.257

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	5/19/2020
Field Parameters				
Elevation	ft NGVD	--	--	370.36
pH	S.U.	--	7.1 - 7.7	7.55
Specific Conductance	µmhos/cm	--	--	400
Turbidity	NTU	--	--	0
Dissolved Oxygen	mg/L	--	--	0
Temperature	°C	--	--	14.71
ORP	mV	--	--	135
Laboratory Parameters				
Antimony	µg/L	6	--	--
Arsenic	µg/L	10	--	--
Barium	µg/L	2000	--	--
Beryllium	µg/L	4	--	--
Cadmium	µg/L	5	--	--
Chromium	µg/L	100	--	--
Cobalt	µg/L	6	--	--
Copper	µg/L	--	--	--
Lead	µg/L	15	--	--
Mercury	µg/L	2	--	--
Molybdnum	µg/L	100	--	--
Selenium	µg/L	50	--	--
Thallium	µg/L	2	--	--
Zinc	µg/L	--	--	--
Silica (Dissolved)	mg/L	--	--	--
Aluminum	µg/L	--	--	--
Boron	mg/L	--	0.15	<0.02
Calcium	mg/L	--	(79.5) 71	42.4
Lithium	mg/L	0.04	--	--
Magnesium	mg/L	--	--	--
Manganese	mg/L	--	--	--
Potassium	mg/L	--	--	--
Sodium	mg/L	--	--	--
Strontium	mg/L	--	--	--
Alkalinity	mg/L	--	--	--
Bromide	mg/L	--	--	--
Chloride	mg/L	--	(29.6) 26	10.3
Fluoride	mg/L	4	0.86	0.86
TDS	mg/L	--	(412.7) 407	218
Sulfate	mg/L	--	(33.67) 34	9.1
Sulfide	mg/L	--	--	--
Radium-228	pCi/L	--	--	--
Radium-226	pCi/L	--	--	--
Radium-226/228	pCi/L	5	--	--
Copper (Dissolved)	µg/L	--	--	--
Zinc (Dissolved)	µg/L	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--
Iron (Dissolved)	mg/L	--	--	--
Manganese (Dissolved)	mg/L	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020	5/28/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.24	369.11
pH	S.U.	--	7.1 - 7.7	7.33	7.73
Specific Conductance	µmhos/cm	--	--	455	430
Turbidity	NTU	--	--	8.91	1.8
Dissolved Oxygen	mg/L	--	--	0.12	0
Temperature	°C	--	--	15.34	14.91
ORP	mV	--	--	22	110
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.15	<0.02	0.014
Calcium	mg/L	--	(79.5) 71	45.4	66.4
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	--
Chloride	mg/L	--	(29.6) 26	10.1	10.6
Fluoride	mg/L	4	0.86	0.78	0.81
TDS	mg/L	--	(412.7) 407	236	250
Sulfate	mg/L	--	(33.67) 34	10.3	8.82
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/7/2016	7/19/2016	9/21/2016	11/16/2016	1/10/2017	3/7/2017	5/10/2017	7/18/2017	10/4/2017	12/12/2017	1/3/2018
Field Parameters														
Elevation	ft NGVD	--	--	370	369.88	369.51	368.86	368.12	368.07	368.27	368.74	367.82	366.73	366.49
pH	S.U.	--	6.77 - 7.86	7.2	7.1	7.1	7.5	7.7	7.5	7.2	7.2	7.34	7.8	7.79
Specific Conductance	µmhos/cm	--	--	555	574	530	874	420	60	457	400	368	350	474
Turbidity	NTU	--	--	0.9	0.6	0.7	0.2	1	2	1	1	1.09	1	1.12
Dissolved Oxygen	mg/L	--	--	0.2	0.4	0.4	1.3	0.2	2	0.3	0.3	0.49	0.9	0.41
Temperature	°C	--	--	15.1	18.2	17.6	15.6	13.9	13.6	14.8	16.3	14.68	12.8	12.38
ORP	mV	--	--	52.5	-86	-54	259	-87	-42	51	-50	-79.7	-52	-77.2
Laboratory Parameters														
Antimony	µg/L	6	--	0.01	0.25	0.01	0.04	0.01	0.02	0.02	0.02	--	--	--
Arsenic	µg/L	10	--	25.2	27.9	21.1	23.6	20.2	20.4	20.2	23.6	--	--	--
Barium	µg/L	2000	--	118	132	119	107	91.2	88.9	86.1	94.8	--	--	--
Beryllium	µg/L	4	--	<0.005	0.165	<0.005	0.005	<0.005	<0.005	<0.004	<0.004	--	--	--
Cadmium	µg/L	5	--	0.02	0.23	0.009	0.06	0.005	0.03	0.03	0.02	--		--
Chromium	µg/L	100	--	0.2	0.5	0.1	0.132	0.35	0.7	0.134	0.089	--	--	--
Cobalt	µg/L	6	--	1.24	1.66	1.32	1.03	1	0.903	1.02	1.25	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.26	0.1	--	--
Lead	µg/L	15	--	0.026	0.254	0.026	0.213	0.01	0.065	0.09	0.082	--	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	5.76	6.74	5.75	6.73	7.63	7.91	6.52	5.58	--	--	--
Selenium	µg/L	50	--	<0.03	0.2	<0.03	<0.03	<0.03	0.07	0.04	<0.03	--	--	--
Thallium	µg/L	2	--	0.04	0.273	0.03	0.04	0.04	0.112	0.03	0.04	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	0.7	--	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	15	14	16.1	--	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	9.25	6.63	--	--
Boron	mg/L	--	0.072	0.06	0.032	0.03	0.022	0.019	0.047	0.038	0.05	0.08	--	0.04
Calcium	mg/L	--	(79.5) 54	44.1	44.6	46.1	51.4	46.5	51.1	46.6	43.9	44.6	--	--
Lithium	mg/L	0.04	--	0.005	0.018	0.004	0.004	0.011	0.006	0.002	<0.0002	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	13.3	12.7	11.1	11.2	--	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.134	--	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.01	1.02	0.94	1.05	--	--
Sodium	mg/L	--	--	--	--	--	--	--	62.3	56.1	51.8	45.4	--	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0865	0.088	0.0841	0.0871	--	--
Alkalinity	mg/L	--	--	--	--	--	--	--	229	239	224	202	--	--
Bromide	mg/L	--	--	--	--	--	--	--	0.084	0.101	0.081	0.067	--	--
Chloride	mg/L	--	(29.6) 70	59.3	53.8	43.4	44.9	48.3	38.5	32.7	27.1	23.7	22.8	--
Fluoride	mg/L	4	0.382	0.25	0.25	0.23	0.25	0.34	0.32	0.31	0.22	0.23	0.22	--
TDS	mg/L	--	(412.7) 398	380	356	334	340	351	331	322	300	287	--	--
Sulfate	mg/L	--	(47.44) 47	42.5	41	34	33.6	35.4	31.1	29.7	26.6	27.3	26.7	
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	--
Radium-228	pCi/L	--	--	0.254	0.455	0.076	1.23	0.682	0.155	-0.367	1.49	--	--	--
Radium-226	pCi/L	--	--	0.609	0.636	0.428	0.517	0.187	0.71	0.189	0.153	--	--	--
Radium-226/228	pCi/L	5	--	0.863	1.091	0.504	1.747	0.869	0.865	-0.178	1.643	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.28	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.1	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.19	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.742	0.709	0.789	0.949	--	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.138	0.139	0.112	0.119	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-15I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2016	11/13/2018	5/23/2019	11/15/2019	5/19/2020	11/10/2020	2/3/2021	5/28/2021
Field Parameters												
Elevation	ft NGVD	--	--	369.64	370.28	369.01	372.01	371.09	370.42	370.28	368.37	369.35
pH	S.U.	--	6.77 - 7.86	8.06	7.36	7.6	7.29	7.38	7.49	7.52	7.57	7.72
Specific Conductance	µmhos/cm	--	--	420	527	412	414	495	435	381	400	393
Turbidity	NTU	--	--	0.88	0	0.18	0.95	7	0	1.35	0.4	2.96
Dissolved Oxygen	mg/L	--	--	1.89	0.25	0.31	1.61	0	0	6.34	0.1	0
Temperature	°C	--	--	14.9	17.77	12.52	18.94	13.7	14.47	16.12	13.6	14.92
ORP	mV	--	--	-94	-63	-63.7	-207.7	-85	-39	-70	-84	-106
Laboratory Parameters												
Antimony	µg/L	6	--	--	--	<0.02	<0.02	0.04		--	--	--
Arsenic	µg/L	10	--	--	--	23.8	25.8	26.5		--	--	--
Barium	µg/L	2000	--	--	--	93.3	95	88.9		--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	<0.02	<0.02		--	--	--
Cadmium	µg/L	5	--	--	--	<0.01	0.01	0.05		--	--	--
Chromium	µg/L	100	--	--	--	<0.04	0.06	0.1		--	--	--
Cobalt	µg/L	6	--	--	--	1.12	1.12	1.07		--	--	--
Copper	µg/L	--	--	0.15	--	0.12	0.1	0.6		--	--	--
Lead	µg/L	15	--	--	--	0.03	<0.02	0.2		--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	<0.002		--	--	--
Molybdnum	µg/L	100	--	--	--	5.03	5.63	5.95		--	--	--
Selenium	µg/L	50	--	--	--	0.04	<0.03	0.04		--	--	--
Thallium	µg/L	2	--	--	--	<0.1	<0.1	<0.1		--	--	--
Zinc	µg/L	--	--	2.5	--	0.8	7.9	2		--	--	--
Silica (Dissolved)	mg/L	--	--	13.9	--	13.8	<0.06	12.5		--	--	--
Aluminum	µg/L	--	--	4.24	--	7.01	3	21.2		--	--	--
Boron	mg/L	--	0.072	0.066	--	0.07	0.03	0.03	0.03	0.03	--	0.028
Calcium	mg/L	--	(79.5) 54	47	--	39.9	47.8	45.2	49.2	44.2	--	53.3
Lithium	mg/L	0.04	--	--	--	<0.009	0.01	0.00289		--	--	--
Magnesium	mg/L	--	--	11.8	--	9.98	11.7	11		--	--	--
Manganese	mg/L	--	--	0.13	--	0.106	0.128	0.116		--	--	--
Potassium	mg/L	--	--	0.96	--	1.21	0.9	0.9		--	--	--
Sodium	mg/L	--	--	42	--	29.9	29.9	24.2		--	--	--
Strontium	mg/L	--	--	0.0955	--	0.0827	0.0942	0.0887		--	--	--
Alkalinity	mg/L	--	--	226	--	199	208	198		--	--	--
Bromide	mg/L	--	--	0.071	--	0.06	0.04	<0.04		--	--	--
Chloride	mg/L	--	(29.6) 70	25.1	--	23.7	18	16.9	19	12.8	--	16
Fluoride	mg/L	4	0.382	0.26	--	0.25	0.26	0.27	0.25	0.47	0.36	0.39
TDS	mg/L	--	(412.7) 398	279	--	248	260	248	253	213	--	240
Sulfate	mg/L	--	(47.44) 47	25.3	--	25.3	20.9	17.6	17.8	11.7	--	14.7
Sulfide	mg/L	--	--	<0.4	--	<0.07	<0.1	<0.2		--	--	--
Radium-228	pCi/L	--	--	--	--	0.283	0.423	1.63		--	--	--
Radium-226	pCi/L	--	--	--	--	0.0962	0.557	0.194		--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.3792	0.98	1.824		--	--	--
Copper (Dissolved)	µg/L	--	--	0.36	--	0.2	0.83	<0.2		--	--	--
Zinc (Dissolved)	µg/L	--	--	2	--	0.8	1	1		--	--	--
Aluminum (Dissolved)	µg/L	--	--	1	--	1	2	<5		--	--	--
Iron (Dissolved)	mg/L	--	--	0.879	--	0.848	0.826	0.623		--	--	--
Manganese (Dissolved)	mg/L	--	--	0.126	--	0.121	0.116	0.118		--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/10/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.7	369.61	369.16	368.56	367.84	367.87	367.88	368.53	367.58	366.38
pH	S.U.	--	5.88 - 8.55	7.53	7.1	7.31	6.9	7.16	7.1	8.26	6.34	7.25	7.34
Specific Conductance	µmhos/cm	--	--	0.822	764	719	669	677	804	581	595	647	872
Turbidity	NTU	--	--	0.74	0.34	5.21	0.5	0.25	0.42	1.78	0.57	0.72	0.54
Dissolved Oxygen	mg/L	--	--	0.34	0.4	7.29	0.62	0.55	0.18	0.69	22.45	0.31	0.82
Temperature	°C	--	--	15.7	16.39	17.48	16.91	14.47	18.48	16.01	15.63	15.99	14.46
ORP	mV	--	--	112.4	56.2	153.4	233.5	83	56.1	177.3	-118.9	13.6	-12.2
Laboratory Parameters													
Antimony	µg/L	6	--	0.03	0.03	0.25	0.02	0.02	0.02	0.02	0.02	--	--
Arsenic	µg/L	10	--	0.37	0.37	0.38	0.34	0.42	0.31	0.39	0.33	--	--
Barium	µg/L	2000	--	32.3	29.9	29.5	25.3	25.1	25.7	29.8	25.6	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.03	0.03	0.1	0.006	0.008	0.004	0.01	0.04	--	
Chromium	µg/L	100	--	0.2	0.5	0.3	1.03	0.081	0.463	0.196	0.101	--	--
Cobalt	µg/L	6	--	0.073	0.025	0.07	0.028	0.014	0.012	0.063	0.01	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.1	0.19	--
Lead	µg/L	15	--	0.074	0.057	0.182	<0.004	0.039	0.006	0.027	0.01	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	1.15	1.21	1.11	1.19	1.21	1.32	1.14	0.98	--	--
Selenium	µg/L	50	--	0.6	0.6	0.8	0.4	0.4	0.4	0.3	0.4	--	--
Thallium	µg/L	2	--	0.01	<0.01	<0.01	<0.01	0.02	0.02	0.01	0.01	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	2	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	24	24.1	27.6	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	2.1	7.43	--
Boron	mg/L	--	0.088	0.028	0.025	0.024	0.025	0.017	0.038	0.082	0.037	0.061	--
Calcium	mg/L	--	(79.5) 114	96.2	83	93.5	96.4	94.6	106	105	91.8	108	109
Lithium	mg/L	0.04	--	0.007	0.031	0.005	0.018	0.013	0.013	0.008	0.01	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	36.4	36.6	31.4	38.2	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0028	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.01	1.3	0.97	1.03	--
Sodium	mg/L	--	--	--	--	--	--	--	36.9	36.7	28.7	35.7	--
Strontium	mg/L	--	--	--	--	--	--	--	0.129	0.132	0.108	0.133	--
Alkalinity	mg/L	--	--	--	--	--	--	--	423	431	436	438	--
Bromide	mg/L	--	--	--	--	--	--	--	0.1	0.158	0.162	0.206	--
Chloride	mg/L	--	(29.6) 24	18.7	19	17.1	16.4	17.5	19.3	22.9	19.8	19.3	--
Fluoride	mg/L	4	0.506	0.44	0.46	0.38	0.3	0.35	0.36	0.38	0.33	0.41	--
TDS	mg/L	--	(412.7) 517	483	471	509	486	474	473	499	484	503	517
Sulfate	mg/L	--	(52.4) 52	46.9	50.1	42.1	38.3	39.2	39.6	42.3	40.7	45	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	-0.0274	0.34	-0.131	0.0963	1.8	0.169	-0.045	2.76	--	--
Radium-226	pCi/L	--	--	0.163	0.707	0.0255	0.198	0.193	0.113	0.145	0.0933	--	--
Radium-226/228	pCi/L	5	--	0.1356	1.047	-0.1055	0.2943	1.993	0.282	0.1	2.8533	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.1	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.9	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.051	0.015	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.0013	0.0145	0.0007	0.0127	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2018	11/14/2018	2/11/2019	5/22/2019	11/15/2019	5/19/2020	7/15/2020	11/11/2020	5/28/2021
Field Parameters													
Elevation	ft NGVD	--	--	369.62	370.12	368.86	369.84	371.94	370.84	370.40	370.95	392.06	369.06
pH	S.U.	--	5.88 - 8.55	7.23	7.07	7.02	7.12	7.1	7	7.54	7.06	6.5	7.2
Specific Conductance	µmhos/cm	--	--	770	920	720	570	774	961	675	823	948	763
Turbidity	NTU	--	--	2.2	0	0.3	1.3	0.18	4.2	1.54	2.35	2.28	12.87
Dissolved Oxygen	mg/L	--	--	7.8	0	1.35	0.41	0.34	0.39	0.48	1.63	0.11	0.56
Temperature	°C	--	--	15.73	17.04	14.2	14.4	14.54	12.05	15.03	18.03	14.73	15.35
ORP	mV	--	--	-36.9	147	142	183	-211.4	121	110	57	137	66
Laboratory Parameters													
Antimony	µg/L	6	--	--	--	0.05	--	0.03	0.03	--	--	--	--
Arsenic	µg/L	10	--	--	--	0.34	--	0.26	0.3	--	--	--	--
Barium	µg/L	2000	--	--	--	29.9	--	21.9	27.2	--	--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	<0.02	<0.02	--	--	--	--
Cadmium	µg/L	5	--	--	--	0.08	--	0.01	0.05	--	--	--	--
Chromium	µg/L	100	--	--	--	0.07	--	0.1	0.09	--	--	--	--
Cobalt	µg/L	6	--	--	--	<0.02	--	<0.02	0.059	--	--	--	--
Copper	µg/L	--	--	1.19	--	1.46	--	0.66	0.3	--	--	--	--
Lead	µg/L	15	--	--	--	0.112	--	<0.02	0.07	--	--	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--	--	--	--
Molybdnum	µg/L	100	--	--	--	0.9	--	0.9	0.8	--	--	--	--
Selenium	µg/L	50	--	--	--	3.2	--	0.6	1	--	--	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	<0.1	<0.1	--	--	--	--
Zinc	µg/L	--	--	5	--	31.6	--	<0.7	0.8	--	--	--	--
Silica (Dissolved)	mg/L	--	--	24.9	--	24.9	--	23.3	22.3	--	--	--	--
Aluminum	µg/L	--	--	5.68	--	3	--	1	<5	--	--	--	--
Boron	mg/L	--	0.088	0.109	0.034	0.107	0.02	0.03	0.02	0.03	--	0.02	0.021
Calcium	mg/L	--	(79.5) 114	108	109	104	--	99.2	92.2	104	--	103	96.8
Lithium	mg/L	0.04	--	--	--	0.02	--	0.01	0.00639	--	--	--	--
Magnesium	mg/L	--	--	38.8	--	37.4	--	34.5	35.5	--	--	--	--
Manganese	mg/L	--	--	0.0062	--	0.004	--	0.0035	0.0115	--	--	--	--
Potassium	mg/L	--	--	1.1	--	1.28	--	0.95	0.9	--	--	--	--
Sodium	mg/L	--	--	38	--	44.4	--	29.4	29.6	--	--	--	--
Strontium	mg/L	--	--	0.137	--	0.138	--	0.21	0.118	--	--	--	--
Alkalinity	mg/L	--	--	463	--	510	--	478	445	--	--	--	--
Bromide	mg/L	--	--	0.118	--	0.1	--	0.08	0.1	--	--	--	--
Chloride	mg/L	--	(29.6) 24	17.3	--	16.2	--	18	20.7	26.7	25.8	21.8	21.2
Fluoride	mg/L	4	0.506	0.42	--	0.39	--	0.38	0.32	0.34	0.37	0.38	0.41
TDS	mg/L	--	(412.7) 517	520	533	548	517	493	497	470	489	473	480
Sulfate	mg/L	--	(52.4) 52	40.8	--	40.3	--	34.5	35.2	34.9	--	34.5	32.2
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	<0.1	<0.2	--	--	--	--
Radium-228	pCi/L	--	--	--	--	0.0697	--	0.299	0.179	--	--	--	--
Radium-226	pCi/L	--	--	--	--	0.0503	--	0.0904	0.0453	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.12	--	0.3894	0.2243	--	--	--	--
Copper (Dissolved)	µg/L	--	--	1.21	--	2.59	--	0.38	1.7	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	5.2	--	4	--	<0.7	2	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	1	--	1	--	3	<5	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.004	--	<0.003	--	<0.003	<0.02	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0047	--	0.0023	--	<0.0027	0.0009	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/20/2016	9/21/2016	11/17/2016	1/11/2017	3/8/2017	5/19/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.79	369.62	369.18	368.57	367.84	367.87	367.87	368.58	367.58	366.39
pH	S.U.	--	6.73 - 7.90	7.69	7.56	7.37	7.08	7.36	7.28	6.96	7.2	7.46	7.68
Specific Conductance	µmhos/cm	--	--	957	870	867	702	674	779	569	665	644	821
Turbidity	NTU	--	--	0.42	0.46	1.37	1.4	0.18	1.41	2.27	3.15	0.7	1.9
Dissolved Oxygen	mg/L	--	--	0.29	8.08	0.68	0.53	0.46	0.34	0.21	0.29	0.28	0.38
Temperature	°C	--	--	16.2	16.86	15.43	15.64	14.71	15.19	15.48	15.99	15.71	13.08
ORP	mV	--	--	224.4	-158.9	54.7	242.3	86.1	53.5	49.8	-3.1	4.1	-25.6
Laboratory Parameters													
Antimony	µg/L	6	--	0.02	0.01	0.01	0.05	0.01	0.02	0.06	0.02	--	--
Arsenic	µg/L	10	--	0.71	0.75	0.75	0.67	0.72	0.68	0.7	0.73	--	--
Barium	µg/L	2000	--	267	267	262	234	220	221	206	238	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.06	0.03	0.03	0.05	0.04	0.03	0.08	0.03	--	
Chromium	µg/L	100	--	0.1	0.2	0.1	0.082	0.085	0.422	0.204	0.118	--	--
Cobalt	µg/L	6	--	0.602	0.627	0.576	0.546	0.514	0.58	0.56	0.599	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.56	0.46	--
Lead	µg/L	15	--	0.023	0.025	0.023	0.053	0.01	0.034	0.153	0.065	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	1.02	1.02	1.03	0.93	1	1.17	0.91	1.07	--	--
Selenium	µg/L	50	--	0.2	0.2	0.1	0.2	0.1	0.2	0.4	0.2	--	--
Thallium	µg/L	2	--	0.085	0.06	0.074	0.069	0.071	0.075	0.075	0.07	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2.7	0.8	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	19.9	20	22.8	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	15.5	14	--
Boron	mg/L	--	0.107	0.031	0.027	0.026	0.024	0.015	0.1	0.032	0.044	0.05	--
Calcium	mg/L	--	(79.5) 114	110	93.9	95.9	96.2	89.3	101	86.7	91.3	84	71.9
Lithium	mg/L	0.04	--	0.005	0.005	0.006	0.013	0.01	0.013	0.01	0.003	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	27.6	24.7	25.6	23	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	1.03	--	--
Potassium	mg/L	--	--	--	--	--	--	--	2.9	2.47	2.62	3.21	--
Sodium	mg/L	--	--	--	--	--	--	--	46.2	41.4	50	69.2	--
Strontium	mg/L	--	--	--	--	--	--	--	0.155	0.139	0.14	0.135	--
Alkalinity	mg/L	--	--	--	--	--	--	--	368	376	369	359	--
Bromide	mg/L	--	--	--	--	--	--	--	0.1	0.152	0.154	0.206	--
Chloride	mg/L	--	(29.6) 114	80.4	86.8	90.2	59.1	44.1	39.3	37.9	50.2	70.8	71.2
Fluoride	mg/L	4	0.192	0.1	0.15	0.1	0.1	0.1	0.16	0.1	0.08	0.1	--
TDS	mg/L	--	(412.7) 589	539	532	544	508	481	460	461	465	495	487
Sulfate	mg/L	--	(43.51) 44	38.7	42.2	36.8	33	34	35.4	35.1	36.1	40.4	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	0.357	1	0.977	0.174	2.27	0.182	0.427	0.513	--	--
Radium-226	pCi/L	--	--	0.235	0.576	0.248	0.413	0.362	0.399	0.511	0.274	--	--
Radium-226/228	pCi/L	5	--	0.592	1.576	1.225	0.587	2.632	0.581	0.938	0.787	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.14	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.051	0.014	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	1.03	1.06	1.04	0.873	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2018	11/14/2018	2/11/2019	5/22/2019	11/15/2019	5/19/2020	11/10/2020	5/28/2021
Field Parameters												
Elevation	ft NGVD	--	--	369.62	370.06	368.78	369.77	371.86	370.76	370.89	370.03	368.99
pH	S.U.	--	6.73 - 7.90	7.37	7.23	7.3	7.4	7.31	7.35	7.79	6.83	7.5
Specific Conductance	µmhos/cm	--	--	720	797	545	476	641	659	481	567	460
Turbidity	NTU	--	--	0.89	0	0.41	0.8	0.2	1.1	1.22	2.56	5.86
Dissolved Oxygen	mg/L	--	--	0.46	0	0.95	0.36	0.25	0.01	0.12	0.2	1.95
Temperature	°C	--	--	15.93	15.56	14.42	14.5	14.58	12	14.85	16.03	15.32
ORP	mV	--	--	-68.4	120	148	122	-21107	137	114	48	19
Laboratory Parameters												
Antimony	µg/L	6	--	--	--	<0.02	--	<0.02	0.03	--	--	--
Arsenic	µg/L	10	--	--	--	0.66	--	0.64	0.72	--	--	--
Barium	µg/L	2000	--	--	--	153	--	151	126	--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	<0.02	<0.02	--	--	--
Cadmium	µg/L	5	--	--	--	0.02	--	0.02	0.04	--	--	--
Chromium	µg/L	100	--	--	--	0.05	--	<0.04	0.1	--	--	--
Cobalt	µg/L	6	--	--	--	0.336	--	0.346	0.58	--	--	--
Copper	µg/L	--	--	0.62	--	0.45	--	0.46	1.34	--	--	--
Lead	µg/L	15	--	--	--	<0.02	--	0.02	0.1	--	--	--
Mercury	µg/L	2	--	--	--	--	--	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	--	--	1	--	1	1	--	--	--
Selenium	µg/L	50	--	--	--	0.2	--	0.1	0.4	--	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	<0.1	<0.1	--	--	--
Zinc	µg/L	--	--	0.6	--	0.8	--	<0.7	1	--	--	--
Silica (Dissolved)	mg/L	--	--	19.8	--	18.5	--	18	17.2	--	--	--
Aluminum	µg/L	--	--	10.2	--	5	--	4	10	--	--	--
Boron	mg/L	--	0.107	0.046	--	0.139	0.02	0.03	0.02	0.02	0.02	0.019
Calcium	mg/L	--	(79.5) 114	82.9	61.6	53.7	--	56	41	51.9	44.5	50.4
Lithium	mg/L	0.04	--	--	--	<0.009	--	0.02	0.00427	--	--	--
Magnesium	mg/L	--	--	23.1	--	14.8	--	15.1	11.4	--	--	--
Manganese	mg/L	--	--	0.902	--	0.613	--	0.626	0.685	--	--	--
Potassium	mg/L	--	--	3.05	--	3.16	--	2.55	2.2	--	--	--
Sodium	mg/L	--	--	66	--	74.4	--	68.4	58.9	--	--	--
Strontium	mg/L	--	--	0.136	--	0.09	--	0.0898	0.0688	--	--	--
Alkalinity	mg/L	--	--	359	--	300	--	261	252	--	--	--
Bromide	mg/L	--	--	0.168	--	0.1	--	0.1	0.1	--	--	--
Chloride	mg/L	--	(29.6) 114	58.6	61.1	47.8	--	45.5	31.2	31.3	19.6	16.5
Fluoride	mg/L	4	0.192	0.17	--	0.17	--	0.17	0.14	0.14	0.20	0.18
TDS	mg/L	--	(412.7) 589	480	456	408	--	405	343	350	273	270
Sulfate	mg/L	--	(43.51) 44	38.7	--	32.5	--	33.2	25.2	25.8	21.4	18.5
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	<0.1	<0.2	--	--	--
Radium-228	pCi/L	--	--	--	--	0.483	--	0.269	0.482	--	--	--
Radium-226	pCi/L	--	--	--	--	0.162	--	0.156	0.212	--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.645	--	0.425	0.694	--	--	--
Copper (Dissolved)	µg/L	--	--	0.57	--	1.43	--	1.14	0.3	--	--	--
Zinc (Dissolved)	µg/L	--	--	0.7	--	2	--	<0.7	1	--	--	--
Aluminum (Dissolved)	µg/L	--	--	0.8	--	1	--	1	<5	--	--	--
Iron (Dissolved)	mg/L	--	--	0.024	--	0.004	--	<0.003	<0.02	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.849	--	0.616	--	0.615	0.447	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/20/2016	11/17/2016	1/11/2017	3/8/2017	5/10/2017	7/18/2017	10/4/2017	1/3/2018
Field Parameters													
Elevation	ft NGVD	--	--	369.85	369.68	369.23	368.64	367.91	367.94	367.96	368.64	367.68	366.47
pH	S.U.	--	6.04 - 9.13	6.8	7.31	7.26	7.29	7.48	7.44	7.54	9.03	7.6	7.74
Specific Conductance	µmhos/cm	--	--	519	582	538	613	525	614	436	597	516	692
Turbidity	NTU	--	--	1.8	0.24	0.31	0.55	0.4	0.81	1.74	0.41	2.95	1.85
Dissolved Oxygen	mg/L	--	--	0.4	--	1.33	0.55	0.49	0.11	0.29	0.32	0.21	0.47
Temperature	°C	--	--	16.8	16.96	16.04	15.1	14.55	15.2	15.46	15.62	15.77	13.14
ORP	mV	--	--	-19	23.5	35.7	108	14.6	2.1	36.6	108.9	-26.4	-36.7
Laboratory Parameters													
Antimony	µg/L	6	--	0.02	0.02	0.02	0.02	0.01	0.02	0.03	0.03	--	--
Arsenic	µg/L	10	--	0.48	0.4	0.31	0.32	0.34	0.31	0.33	0.39	--	--
Barium	µg/L	2000	--	240	246	221	217	210	224	212	247	--	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--
Cadmium	µg/L	5	--	0.08	0.08	0.02	0.05	0.02	0.01	0.07	0.1	--	
Chromium	µg/L	100	--	0.3	0.4	0.1	1.21	0.112	0.188	0.151	0.141	--	--
Cobalt	µg/L	6	--	0.617	0.547	0.418	0.452	0.354	0.401	0.466	0.571	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	2.21	0.11	--
Lead	µg/L	15	--	0.078	0.04	0.021	0.066	0.008	0.022	0.07	0.103	--	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--
Molybdnum	µg/L	100	--	2.06	2.31	1.96	1.98	1.99	2.27	1.9	2.03	--	--
Selenium	µg/L	50	--	0.04	0.04	<0.03	<0.03	<0.03	0.05	<0.03	<0.03	--	--
Thallium	µg/L	2	--	0.03	0.069	0.02	0.02	0.02	0.04	0.02	0.02	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	12.8	52.4	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.1	17.6	20.3	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	6.2	3.72	--
Boron	mg/L	--	0.113	0.033	0.013	0.012	0.014	0.004	0.023	0.102	0.017	0.059	--
Calcium	mg/L	--	(79.5) 88	84.3	68.7	70.5	77.9	72.4	79.2	75.8	71.7	80.4	80.1
Lithium	mg/L	0.04	--	0.001	0.013	0.003	0.006	0.013	0.007	0.008	0.0006	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	22.4	22.2	21	23.3	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.975	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.12	1.54	0.97	1.33	--
Sodium	mg/L	--	--	--	--	--	--	--	22.3	21.6	22.1	24.7	--
Strontium	mg/L	--	--	--	--	--	--	--	0.142	0.143	0.128	0.146	--
Alkalinity	mg/L	--	--	--	--	--	--	--	202	210	215	195	--
Bromide	mg/L	--	--	--	--	--	--	--	0.15	0.204	<0.05	0.233	--
Chloride	mg/L	--	(29.6) 73	68.7	69.6	67.6	63.6	67.9	65.4	69.9	69.6	81.5	86
Fluoride	mg/L	4	0.251	0.2	0.22	0.22	0.17	0.21	0.22	0.22	0.17	0.22	--
TDS	mg/L	--	(412.7) 384	350	321	342	356	343	347	367	363	383	--
Sulfate	mg/L	--	(39.69) 40	36.4	37.4	33.4	33.2	34	35.3	37.2	36.8	40	37.9
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	-0.173	0.294	1.1	0.285	0.92	0.583	-0.121	0.222	--	--
Radium-226	pCi/L	--	--	0.0514	--	0.248	0.624	0.796	0.228	0.151	0.292	--	--
Radium-226/228	pCi/L	5	--	-0.1216	0.294	1.348	0.909	1.716	0.811	0.03	0.514	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.18	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.004	0.002	0.098	0.051	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.862	0.948	0.989	0.947	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-16D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/6/2018	8/16/2018	11/14/2018	2/11/2019	4/1/2019	5/22/2019	7/23/2019	9/11/2019	11/15/2019	2/18/2020	5/19/2020	7/15/2020	11/11/2020	2/2/2021	5/28/2021
Field Parameters																		
Elevation	ft NGVD	--	--	369.69	370.13	368.87	369.84	370.82	371.96	372.67	-----	370.78	369.44	370.44	370.98	370.05	368.20	369.11
pH	S.U.	--	6.04 - 9.13	7.32	7.26	7.35	7.37	7.28	7.31	7.02	7.28	7.31	7.17	7.7	7.22	7.15	7.39	9.64
Specific Conductance	µmhos/cm	--	--	690	782	607	510	945	755	731	813	1070	1869	799	969	1050	953	886
Turbidity	NTU	--	--	0.9	0	0.35	1.4	0.91	0.3	1.9	0.43	0.3	0.2	0.39	0.41	0.35	0.7	0
Dissolved Oxygen	mg/L	--	--	0.44	0	0.94	1.48	0.64	0.26	0.5	0.36	0.01	0.42	0.18	0	0.29	3.5	0
Temperature	°C	--	--	15.94	15.88	14.45	13.2	13.5	14.43	15.9	17.5	14.4	11.76	14.81	17.56	14.67	13.2	15.97
ORP	mV	--	--	-70.7	-11	62.8	60	-16.7	-216.5	50	-52.5	45	109.3	-22	-3	91	85	40
Laboratory Parameters																		
Antimony	µg/L	6	--	--	--	<0.02	--	--	0.02	--	--	0.02	--	--	--	--	--	--
Arsenic	µg/L	10	--	--	--	0.32	--	--	0.39	--	--	0.35	--	--	--	--	--	--
Barium	µg/L	2000	--	--	--	270	--	--	286	--	--	348	--	--	--	--	--	--
Beryllium	µg/L	4	--	--	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--	--	--	--
Cadmium	µg/L	5	--	--	--	0.04	--	--	<0.01	--	--	0.05	--	--	--	--	--	--
Chromium	µg/L	100	--	--	--	0.05	--	--	0.25	--	--	0.1	--	--	--	--	--	--
Cobalt	µg/L	6	--	--	--	0.472	--	--	0.64	--	--	0.632	--	--	--	--	--	--
Copper	µg/L	--	--	0.07	--	0.23	--	--	0.17	--	--	<0.2	--	--	--	--	--	--
Lead	µg/L	15	--	--	--	0.03	--	--	0.02	--	--	<0.05	--	--	--	--	--	--
Mercury	µg/L	2	--	--	--		--	--	<0.002	--	--	<0.002	--	--	--	--	--	--
Molybdnum	µg/L	100	--	--	--	2	--	--	2	--	--	2	--	--	--	--	--	--
Selenium	µg/L	50	--	--	--	0.03	--	--	<0.03	--	--	<0.03	--	--	--	--	--	--
Thallium	µg/L	2	--	--	--	<0.1	--	--	<0.1	--	--	<0.1	--	--	--	--	--	--
Zinc	µg/L	--	--	7.1	--	15.4	--	--	1	--	--	2	--	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	18.5	--	18.2	--	--	17.9	--	--	17.1	--	--	--	--	--	--
Aluminum	µg/L	--	--	2.86	--	1	--	--	2	--	--	<5	--	--	--	--	--	--
Boron	mg/L	--	0.113	0.033	--	0.07	--	--	0.03	--	--	0.03	--	0.03	--	0.04	--	0.038
Calcium	mg/L	--	(79.5) 88	90.2	83.8	84.1	--	--	88.5	95.6	109	100	--	108	102	109	106	122
Lithium	mg/L	0.04	--	--	--	<0.009	--	--	0.02	--	--	0.00427	--	--	--	--	--	--
Magnesium	mg/L	--	--	27.1	--	24.3	--	--	25.4	--	--	28.3	--	--	--	--	--	--
Manganese	mg/L	--	--	1.2	--	1	--	--	1.17	--	--	1.04	--	--	--	--	--	--
Potassium	mg/L	--	--	1.22	--	1.27	--	--	1.27	--	--	1.57	--	--	--	--	--	--
Sodium	mg/L	--	--	26.7	--	30	--	--	30.8	--	--	44.6	--	--	--	--	--	--
Strontium	mg/L	--	--	0.18	--	0.166	--	--	0.176	--	--	0.203	--	--	--	--	--	--
Alkalinity	mg/L	--	--	235	--	238	--	--	249	--	--	304	--	--	--	--	--	--
Bromide	mg/L	--	--	0.303	--	0.275	--	--	0.344	--	--	0.425	--	--	--	--	--	--
Chloride	mg/L	--	(29.6) 73	108	99.7	102	109	107	104	106	125	127	133	135	133	130	117	110
Fluoride	mg/L	4	0.251	0.22	--	0.21	--	--	0.2	--	--	0.17	--	0.17	0.2	0.21	--	0.23
TDS	mg/L	--	(412.7) 384	434	447	434	439	429	460	457	523	537	579	558	519	547	573	580
Sulfate	mg/L	--	(39.69) 40	38.6	--	38.6	--	--	38	--	--	40.8	38.9	40.1	--	39.1	--	40.6
Sulfide	mg/L	--	--	<0.4	--	<0.07	--	--	<0.1	--	--	<0.2	--	--	--	--	--	--
Radium-228	pCi/L	--	--	--	--	0.138	--	--	0.688	--	--	0.411	--	--	--	--	--	--
Radium-226	pCi/L	--	--	--	--	0.179	--	--	0.551	--	--	0.158	--	--	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--	0.317	--	--	1.239	--	--	0.569	--	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.35	--	1.5	--	--	0.25	--	--	1.98	--	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	1	--	3	--	--	<0.7	--	--	3	--	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	2	--	2	--	--	<1	--	--	<5	--	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	0.058	--	0.023	--	--	0.067	--	--	<0.02	--	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	1.19	--	1	--	--	1.23	--	--	1.07	--	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/8/2016	7/20/2016	9/20/2016	11/16/2016	1/10/2017	3/7/2017	5/9/2017	7/19/2017	10/4/2017	6/5/2018	11/13/2018	5/23/2019	11/15/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	370.14	370.11	369.81	369.37	368.47	368.21	368.24	368.89	373.03	369.48	368.74	371.85	371.44	370.99
pH	S.U.	--	7.11 - 7.97	7.77	7.3	7.65	7.7	7.6	7.5	7.3	7.5	7.44	7.41	7.51	7.58	7.64	7.8
Specific Conductance	µmhos/cm	--	--	350	373	344	146	310	60	357	287	351	319	280	322	396	358
Turbidity	NTU	--	--	0.6	0.7	0.79	1	1	1	3	1	0.47	0.4	0.89	0	4	0.7
Dissolved Oxygen	mg/L	--	--	0.6	1.2	0.37	0.1	0.2	1	0.2	0.2	0.38	10.12	1.07	1.56	1.3	0
Temperature	°C	--	--	14.7	17.9	14.55	14.7	13.8	13.5	14.9	14.3	16.82	14.39	13.45	15	13.4	14.43
ORP	mV	--	--	80	44	49.4	-40	62	47	45	30	-50.3	-84.3	121	-48.2	38	23
Laboratory Parameters																	
Antimony	µg/L	6	--	0.01	0.03	0.02	0.03	0.03	0.04	0.04	0.02	--	--	0.02	0.02	0.02	--
Arsenic	µg/L	10	--	0.24	0.26	0.22	0.2	0.21	0.2	0.22	0.22	--	--	0.17	0.18	0.24	--
Barium	µg/L	2000	--	2.12	2.74	2.24	2.4	3.45	3.94	4.37	2.25	--	--	2.11	2.3	2.2	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.02	0.08	0.01	0.02	0.02	0.09	0.02	0.06	--	--	0.02	0.03	0.03	--
Chromium	µg/L	100	--	0.5	0.2	0.1	0.066	0.489	0.776	0.233	0.124	--	--	0.07	0.06	0.1	--
Cobalt	µg/L	6	--	0.047	0.105	0.034	0.029	0.04	0.076	0.138	0.053	--	--	0.05	0.04	0.157	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.38	0.69	0.23	0.21	0.39	0.5	--
Lead	µg/L	15	--	0.024	0.098	0.025	0.02	0.02	0.079	0.108	0.038	--	--	0.03	0.05	0.1	--
Mercury	µg/L	2	--	<0.002	0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	3.98	4.2	4.08	3.39	0.44	0.7	1.14	4.38	--	--	3.73	4.78	4.67	--
Selenium	µg/L	50	--	0.07	0.06	0.08	0.1	0.2	0.1	0.1	0.08	--	--	0.3	0.2	0.4	--
Thallium	µg/L	2	--	0.01	0.01	0.01	0.053	0.02	0.02	<0.01	0.03	--	--	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	5.7	0.7	<0.7	14.4	1	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	14	13.7	15.8	13.5	13.2	<0.06	12.2	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	9.55	10.2	4.01	2	17.4	21.3	--
Boron	mg/L	--	0.065	0.015	0.016	0.016	0.017	0.006	0.058	0.041	0.02	0.033	0.045	0.05	0.03	0.02	0.02
Calcium	mg/L	--	(79.5) 41	36.9	34.8	34.8	35.9	32.3	40	35.5	34.4	34.1	32.4	33.1	32.7	28.7	32.8
Lithium	mg/L	0.04	--	<0.0002	0.02	0.003	0.004	0.003	0.008	0.003	<0.0002	--	--	<0.009	0.01	0.00355	--
Magnesium	mg/L	--	--	--	--	--	--	--	19.2	17.5	13.7	12.9	13	13.7	12.9	11.2	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.0428	--	0.0311	0.0418	0.0377	0.179	--
Potassium	mg/L	--	--	--	--	--	--	--	0.88	0.79	0.49	0.47	0.5	0.59	0.62	0.6	--
Sodium	mg/L	--	--	--	--	--	--	--	42.5	35.3	31.9	27.7	24.5	25.8	26.5	26.8	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0566	0.0529	0.0363	0.0345	0.0357	0.0374	0.0347	0.031	--
Alkalinity	mg/L	--	--	--	--	--	--	--	231	221	196	189	188	202	193	174	--
Bromide	mg/L	--	--	--	--	--	--	--	0.02	0.05	<0.02	<0.02	0.04	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	(29.6) 16	13.9	15.4	12.3	11.4	11	10.7	10.4	10.8	10.5	10.8	11.5	12	12.6	12.7
Fluoride	mg/L	4	1.08	0.85	0.86	0.73	0.7	0.48	0.46	0.58	0.82	0.89	0.98	0.91	1.08	0.96	0.95
TDS	mg/L	--	(412.7) 269	272	235	233	232	262	251	250	201	214	214	196	217	207	200
Sulfate	mg/L	--	(16.46) 16.5	14.3	14.8	10.9	10.5	10.7	12	13.1	10.2	10.7	9.5	8.4	7.7	6.2	6.5
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.783	-0.0129	0.027	0.791	-0.155	0.36	0.315	1.07	--	--	-0.0735	0.34	1.03	--
Radium-226	pCi/L	--	--	0.253	0.0439	0.0489	0.803	0.17	0.11	0.118	0.678	--	--	0.0202	0.0449	0.0579	--
Radium-226/228	pCi/L	5	--	1.036	0.031	0.0759	1.594	0.015	0.47	0.433	1.748	--	--	0.0202	0.0202	1.0879	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.35	--	0.56	0.7	2.05	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	1	1	<0.7	0.9	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.2	--	6.2	2	1	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	<0.0004	0.026	0.004	0.004	0.01	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.0028	0.0013	0.0322	0.0881	0.0304	0.041	0.0332	0.0662	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/10/2020	5/27/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.67	369.24
pH	S.U.	--	7.11 - 7.97	7.51	7.58
Specific Conductance	µmhos/cm	--	--	403	389
Turbidity	NTU	--	--	0.95	24.31
Dissolved Oxygen	mg/L	--	--	8.47	0
Temperature	°C	--	--	16.15	20.2
ORP	mV	--	--	71	-53
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.065	0.02	0.025
Calcium	mg/L	--	(79.5) 41	33.9	35.9
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	0.03
Chloride	mg/L	--	(29.6) 16	12.9	11
Fluoride	mg/L	4	1.08	0.90	0.95
TDS	mg/L	--	(412.7) 269	211	210
Sulfate	mg/L	--	(16.46) 16.5	8.2	5.92
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/8/2016	7/20/2016	9/20/2016	11/16/2016	1/10/2017	3/7/2017	5/9/2017	7/19/2017	10/4/2017	12/12/2017	1/3/2018	6/5/2018	8/16/2018	9/26/2018
Field Parameters																	
Elevation	ft NGVD	--	--	370.09	370.13	369.82	369.12	368.47	368.23	368.25	368.89	368.07	367.23	366.84	369.46	370.64	370.06
pH	S.U.	--	6.82 - 7.96	7.55	7.2	7.1	7.8	7.5	7.5	7.2	7.3	7.37	7.49	7.8	7.36	7.48	7.48
Specific Conductance	µmhos/cm	--	--	839	914	1000	607	670	60	768	678	786	530	848	652	728	453
Turbidity	NTU	--	--	13.4	9.8	--	0.1	2	9	2	1	74.99	1.74	12	1.28	0	0.58
Dissolved Oxygen	mg/L	--	--	0.8	0.8	0.9	1.3	0.3	1	0.3	0.2	0.26	0.1	2.34	0.2	0.17	0.37
Temperature	°C	--	--	14.1	16.4	18.3	14.4	13.7	13.8	14.7	14.7	17.05	8.97	7.25	15.11	17.06	14.18
ORP	mV	--	--	116	-73	-40	204	-52	8	46	-59	-90.8	-54	-40.5	-99.8	-69	-77.9
Laboratory Parameters																	
Antimony	µg/L	6	--	0.07	0.05	0.04	0.03	0.02	0.02	0.02	0.02	--	--	--	--	--	--
Arsenic	µg/L	10	--	7.14	7.41	6.45	3.38	3.94	4.61	3.61	3.76	--	--	--	--	--	--
Barium	µg/L	2000	--	168	190	198	149	148	159	133	140	--	--	--	--	--	--
Beryllium	µg/L	4	--	0.02	0.006	<0.005	<0.005	<0.005	<0.005	<0.004	<0.004	--	--	--	--	--	--
Cadmium	µg/L	5	--	0.12	0.13	0.04	0.04	0.008	0.007	0.03	0.02	--	--	--	--	--	--
Chromium	µg/L	100	--	0.6	2.1	0.1	0.059	0.254	0.776	0.196	0.127	--	--	--	--	--	--
Cobalt	µg/L	6	--	1.24	0.778	0.472	0.37	0.391	0.406	0.394	0.372	--	--	--	--	--	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.26	0.24	--	--	0.52	--	--
Lead	µg/L	15	--	1.19	0.284	0.133	0.049	0.02	0.026	0.115	0.02	--	--	--	--	--	--
Mercury	µg/L	2	--	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	--	--
Molybdnum	µg/L	100	--	3.6	3.66	3.08	3.37	3.2	3.62	3.26	3.42	--	--	--	--	--	--
Selenium	µg/L	50	--	0.1	0.05	0.05	<0.03	<0.03	0.05	0.03	<0.03	--	--	--	--	--	--
Thallium	µg/L	2	--	0.03	0.02	0.02	0.056	0.02	0.02	0.01	0.05	--	--	--	--	--	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	4.3	30.8	--	--	2.4	--	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.1	17	19.8	--	--	16.5	--	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	3.39	21.5	--	--	5.91	--	--
Boron	mg/L	--	0.098	0.058	0.056	0.051	0.041	0.034	0.079	0.083	0.052	0.061	--	--	0.081	--	--
Calcium	mg/L	--	(79.5) 96	73.7	83.1	88.9	80	72.3	81.4	69.6	64.4	63	--	--	51.2	--	--
Lithium	mg/L	0.04	--	<0.0002	0.004	0.005	0.006	0.009	0.008	0.005	<0.0002	--	--	--	--	--	--
Magnesium	mg/L	--	--	--	--	--	--	--	21	19.6	17.4	16.5	--	--	13.4	--	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.155	--	--	--	0.122	--	--
Potassium	mg/L	--	--	--	--	--	--	--	1.28	1.36	1.04	1.12	--	--	0.94	--	--
Sodium	mg/L	--	--	--	--	--	--	--	101	93.6	95.4	94.6	--	--	89.1	--	--
Strontium	mg/L	--	--	--	--	--	--	--	0.153	0.14	0.119	0.12	--	--	0.104	--	--
Alkalinity	mg/L	--	--	--	--	--	--	--	221	226	229	245	--	--	238	--	--
Bromide	mg/L	--	--	--	--	--	--	--	0.347	0.396	0.372	0.283	--	--	0.213	--	
Chloride	mg/L	--	(29.6) 241	195	209	214	164	159	158	151	145	115	86	110	80.2	61.1	--
Fluoride	mg/L	4	0.656	0.57	0.56	0.52	0.56	0.56	0.58	0.61	0.63	0.66	0.76	0.65	0.87	0.98	1.03
TDS	mg/L	--	(412.7) 657	609	569	620	540	513	549	528	509	486	--	471	418	376	--
Sulfate	mg/L	--	(50.8) 51	43.1	49.3	48.1	44.1	43.2	44.9	43.5	44.7	46.6	44.8	--	41	--	--
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	--	<0.4	--	--
Radium-228	pCi/L	--	--	0.615	0.386	1	0.499	0.531	0.33	0.191	0.791	--	--	--	--	--	--
Radium-226	pCi/L	--	--	1.31	0.781	0.587	0.263	0.979	0.693	0.816	0.0231	--	--	--	--	--	--
Radium-226/228	pCi/L	5	--	1.925	1.167	1.587	0.762	1.51	1.023	1.007	0.8141	--	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.33	--	--	--	0.57	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.2	--	--	--	1	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2	--	--	--	2.64	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.896	0.909	0.741	0.603	--	--	0.546	--	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.185	0.188	0.141	0.144	--	--	0.113	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-17I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/13/2018	2/11/2019	4/1/2019	5/23/2019	7/23/2019	9/11/2019	11/15/2019	5/19/2020	11/10/2020	5/27/2021
Field Parameters													
Elevation	ft NGVD	--	--	369.35	369.89	369.89	372.03	373.11	-----	371.60	370.47	370.86	369.38
pH	S.U.	--	6.82 - 7.96	7.55	7.68	7.68	7.51	6.65	7.63	7.44	7.94	7.59	7.76
Specific Conductance	µmhos/cm	--	--	450	391	391	570	488	363	654	487	437	389
Turbidity	NTU	--	--	7.42	6.9	6.9	3.67	6.4	5	7	1.02	8.35	14.91
Dissolved Oxygen	mg/L	--	--	0.76	0.47	0.47	0.91	1.1	0	0	0	0.42	0
Temperature	°C	--	--	12.6	13.5	13.5	17.85	14.8	15.49	13	14.72	17.14	20.46
ORP	mV	--	--	-77.4	-55	-55	-94.3	-5.3	-112	-87	-56	-70	-55
Laboratory Parameters													
Antimony	µg/L	6	--	0.02	--	--	0.02	--	--	0.06	--	--	--
Arsenic	µg/L	10	--	3.65	--	--	3.72	--	--	4.5	--	--	--
Barium	µg/L	2000	--	86.8	--	--	91.8	--	--	87.9	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	--	--	<0.02	--	--	--
Cadmium	µg/L	5	--	0.03	--	--	<0.01	--	--	0.05	--	--	--
Chromium	µg/L	100	--	<0.04	--	--	<0.04	--	--	0.1	--	--	--
Cobalt	µg/L	6	--	0.186	--	--	0.22	--	--	0.306	--	--	--
Copper	µg/L	--	--	0.26	--	--	0.07	--	--	0.5	--	--	--
Lead	µg/L	15	--	0.03	--	--	0.02	--	--	0.2	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	--	--	<0.002	--	--	--
Molybdnum	µg/L	100	--	4.09	--	--	3.01	--	--	2.4	--	--	--
Selenium	µg/L	50	--	<0.03	--	--	<0.03	--	--	0.03	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	--	--	<0.1	--	--	--
Zinc	µg/L	--	--	2	--	--	15.1	--	--	2	--	--	--
Silica (Dissolved)	mg/L	--	--	15.8	--	--	<0.06	--	--	14	--	--	--
Aluminum	µg/L	--	--	2	--	--	1	--	--	7	--	--	--
Boron	mg/L	--	0.098	0.07	--	--	0.04	--	--	0.04	0.04	0.04	0.043
Calcium	mg/L	--	(79.5) 96	36.5	--	--	45.1	--	--	43.9	40.3	38.1	41
Lithium	mg/L	0.04	--	<0.009	--	--	0.01	--	--	0.00504	--	--	--
Magnesium	mg/L	--	--	9.44	--	--	11.8	--	--	12	--	--	--
Manganese	mg/L	--	--	0.0779	--	--	0.112	--	--	0.121	--	--	--
Potassium	mg/L	--	--	0.83	--	--	0.84	--	--	0.9	--	--	--
Sodium	mg/L	--	--	74.7	--	--	60.5	--	--	49.7	--	--	--
Strontium	mg/L	--	--	0.0796	--	--	0.098	--	--	0.103	--	--	--
Alkalinity	mg/L	--	--	231	--	--	201	--	--	205	--	--	--
Bromide	mg/L	--	--	0.1	--	--	0.2	--	--	2	--	--	0.08
Chloride	mg/L	--	(29.6) 241	50.1	--	--	60.2	--	--	41.2	32.8	25.5	30
Fluoride	mg/L	4	0.656	1.00	1.05	1.08	1.07	1.06	1.08	0.95	1.07	1.16	1.07
TDS	mg/L	--	(412.7) 657	328	--	--	352	--	--	309	273	239	280
Sulfate	mg/L	--	(50.8) 51	29.6	--	--	32.8	--	--	23.2	20.7	16.8	15.5
Sulfide	mg/L	--	--	<0.1	--	--	<0.1	--	--	<0.02	--	--	--
Radium-228	pCi/L	--	--	0.275	--	--	-0.107	--	--	1.33	--	--	--
Radium-226	pCi/L	--	--	0.351	--	--	0.403	--	--	0.184	--	--	--
Radium-226/228	pCi/L	5	--	0.626	--	--	0.403	--	--	1.514	--	--	--
Copper (Dissolved)	µg/L	--	--	1.62	--	--	1.24	--	--	2.03	--	--	--
Zinc (Dissolved)	µg/L	--	--	3	--	--	3	--	--	3	--	--	--
Aluminum (Dissolved)	µg/L	--	--	3	--	--	5.77	--	--	<5	--	--	--
Iron (Dissolved)	mg/L	--	--	0.348	--	--	0.418	--	--	0.364	--	--	--
Manganese (Dissolved)	mg/L	--	--	0.0765	--	--	0.106	--	--	0.114	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	12/12/2017	6/6/2018
Field Parameters														
Elevation	ft NGVD	--	--	369.38	369.28	368.85	368.52	367.76	366.84	367.86	368.72	367.13	366.24	369.54
pH	S.U.	--	5.99 - 9.07	6.6	7.54	7.59	7.5	7.32	7.6	8.86	7.23	7.53	8	7.77
Specific Conductance	µmhos/cm	--	--	387	450	454	501	410	540	344	398	402	390	400
Turbidity	NTU	--	--	2.5	0.91	0.78	0.46	1.03	2.6	0.71	2.28	3.31	6	2.1
Dissolved Oxygen	mg/L	--	--	2.3	4.37	5.67	4.46	6.66	4.2	3.36	32.59	4.01	6.2	3.36
Temperature	°C	--	--	16.4	17.49	18.53	18.78	15.15	14.9	16.27	18.01	16.21	14.9	16.2
ORP	mV	--	--	36	13.1	48.9	46.9	198.4	150	160.1	-167.7	76.7	56	43
Laboratory Parameters														
Antimony	µg/L	6	--	0.03	0.02	0.02	0.02	0.03	0.03	0.04	0.05	--	--	0.04
Arsenic	µg/L	10	--	0.53	0.47	0.46	0.43	0.47	0.49	0.47	0.42	--	--	0.45
Barium	µg/L	2000	--	18.5	19.6	19.4	19.1	19.3	21.9	17.7	21.9	--	--	18.5
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.006	<0.005	<0.004	<0.04	--	--	<0.004
Cadmium	µg/L	5	--	0.02	0.02	0.006	0.02	0.01	0.01	0.01	0.01	--		0.01
Chromium	µg/L	100	--	0.4	0.7	0.3	0.292	0.401	0.536	0.3	0.272	--	--	0.233
Cobalt	µg/L	6	--	0.104	0.033	0.03	0.023	0.022	0.053	0.027	0.006	--	--	0.02
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.27	0.35	--	0.52
Lead	µg/L	15	--	0.095	0.042	0.025	0.023	0.024	0.095	0.023	0.024	--	--	0.024
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--
Molybdnum	µg/L	100	--	1.78	1.85	1.74	1.63	1.74	2	1.62	2.31	--	--	2.04
Selenium	µg/L	50	--	0.7	0.5	0.2	0.2	0.1	0.1	0.1	0.2	--	--	0.3
Thallium	µg/L	2	--	0.01	0.01	<0.01	<0.01	0.058	<0.01	<0.01	<0.01	--	--	<0.01
Zinc	µg/L	--	--	--	--	--	--	--	--	--	2	214	--	3.7
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	23.5	22.8	26.2	--	22.5
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	1	16.5	--	6.55
Boron	mg/L	--	0.046	0.002	0.011	0.007	0.015	0.002	0.018	0.033	0.034	0.027	--	0.039
Calcium	mg/L	--	(79.5) 62	55.1	52.8	52	60	54.4	59	56	55.9	59.8	--	52.8
Lithium	mg/L	0.04	--	0.003	0.013	0.003	0.009	0.007	0.002	0.005	<0.0002	--	--	0.005
Magnesium	mg/L	--	--	--	--	--	--	--	21.3	20.5	20.7	21.8	--	19.2
Manganese	mg/L	--	--	--	--	--	--	--	--	--	<0.0001	--	--	0.0008
Potassium	mg/L	--	--	--	--	--	--	--	0.6	0.69	0.57	0.61	--	0.58
Sodium	mg/L	--	--	--	--	--	--	--	18.9	16.6	20.6	19.3	--	15.5
Strontium	mg/L	--	--	--	--	--	--	--	0.0604	0.0601	0.58	0.061	--	0.0554
Alkalinity	mg/L	--	--	--	--	--	--	--	202	195	212	210	--	183
Bromide	mg/L	--	--	--	--	--	--	--	<0.02	0.03	0.061	<0.02	--	0.02
Chloride	mg/L	--	(29.6) 16	15	15.1	14.7	14.7	14.4	14.8	15.7	15.9	17.7	18	17.5
Fluoride	mg/L	4	0.689	0.61	0.064	0.62	0.63	0.54	0.58	0.6	0.54	0.6	0.6	0.66
TDS	mg/L	--	(412.7) 313	275	292	285	294	287	298	296	304	300	--	283
Sulfate	mg/L	--	23.6	21.2	21.1	17.4	14.9	15.9	16.5	17.6	18.8	20.1	21.1	18.7
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4
Radium-228	pCi/L	--	--	0.129	0.0598	0.213	0.14	1.71	-0.0315	0.0831	0.989	--	--	--
Radium-226	pCi/L	--	--	0.0309	0.513	0.239	0.344	0.357	0.0305	0.152	0.109	--	--	--
Radium-226/228	pCi/L	5	--	0.1599	0.5728	0.452	0.484	2.067	-0.001	0.2351	1.098	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.2	--	--	0.29
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	5.1	--	--	1
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	18.3	--	--	1
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.008	0.017	--	0.005
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0001	0.0001	0.0029	<0.0002	--	<0.0002

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21S

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/14/2018	2/12/2019	4/1/2019	5/21/2019	11/14/2019	2/18/2020	5/19/2020	7/16/2020	11/11/2020	2/3/2021	5/28/2021
Field Parameters														
Elevation	ft NGVD	--	--	368.42	370.37	371.3	371.43	370.65	369.05	369.92	400.27	370.10	367.97	369.07
pH	S.U.	--	5.99 - 9.07	7.34	7.74	7.8	7.59	7.54	7.53	8.11	7.93	7.59	7.68	10.28
Specific Conductance	µmhos/cm	--	--	380	318	404	424	530	856	347	416	499	529	450
Turbidity	NTU	--	--	1.67	2.8	2.45	0.29	2.8	8.71	0.65	0.46	1.9	1.3	0
Dissolved Oxygen	mg/L	--	--	9.55	7.1	3.89	5.26	7	6.64	5.6	7.8	6.95	6.5	5.78
Temperature	°C	--	--	14.14	15.2	14.3	15.98	15.5	11.8	12.23	15.6	15.76	13.4	17
ORP	mV	--	--	165.5	189	21.1	-194.8	121	132.4	136	141	148	178	86
Laboratory Parameters														
Antimony	µg/L	6	--	0.02	--	--	<0.02	0.03	--	--	--	--	--	--
Arsenic	µg/L	10	--	0.44	--	--	0.44	0.46	--	--	--	--	--	--
Barium	µg/L	2000	--	17.8	--	--	15.9	16.2	--	--	--	--	--	--
Beryllium	µg/L	4	--	<0.02	--	--	<0.02	<0.02	--	--	--	--	--	--
Cadmium	µg/L	5	--	0.01	--	--	0.01	0.01	--	--	--	--	--	--
Chromium	µg/L	100	--	0.232	--	--	0.287	0.418	--	--	--	--	--	--
Cobalt	µg/L	6	--	0.06	--	--	0.02	0.03	--	--	--	--	--	--
Copper	µg/L	--	--	0.53	--	--	0.13	0.4	--	--	--	--	--	--
Lead	µg/L	15	--	0.07	--	--	0.02	<0.05	--	--	--	--	--	--
Mercury	µg/L	2	--	--	--	--	<0.002	<0.002	--	--	--	--	--	--
Molybdnum	µg/L	100	--	2	--	--	2	2	--	--	--	--	--	--
Selenium	µg/L	50	--	0.3	--	--	0.1	0.1	--	--	--	--	--	--
Thallium	µg/L	2	--	<0.1	--	--	<0.1	<0.1	--	--	--	--	--	--
Zinc	µg/L	--	--	0.8	--	--	<0.7	<0.7	--	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	23.2	--	--	21.3	18.8	--	--	--	--	--	--
Aluminum	µg/L	--	--	17	--	--	5.26	10	--	--	--	--	--	--
Boron	mg/L	--	0.046	0.06	<0.02	--	<0.02	0.01	--	<0.02	--	<0.02	--	0.011
Calcium	mg/L	--	(79.5) 62	55	--	--	52.5	50.4	--	49.1	--	50.9	--	62.6
Lithium	mg/L	0.04	--	0.03	--	--	<0.009	0.00321	--	--	--	--	--	--
Magnesium	mg/L	--	--	19.6	--	--	17	17.3	--	--	--	--	--	--
Manganese	mg/L	--	--	0.0041	--	--	0.0009	0.002	--	--	--	--	--	--
Potassium	mg/L	--	--	0.88	--	--	0.55	0.3	--	--	--	--	--	--
Sodium	mg/L	--	--	17.1	--	--	13	15.3	--	--	--	--	--	--
Strontium	mg/L	--	--	0.0553	--	--	0.0506	0.0508	--	--	--	--	--	--
Alkalinity	mg/L	--	--	193	--	--	167	171	--	--	--	--	--	--
Bromide	mg/L	--	--	<0.04	--	--	<0.04	<0.04	--	--	--	--	--	--
Chloride	mg/L	--	(29.6) 16	17.9	17.9	17.5	16	17.4	--	18	16.1	18.1	--	19.1
Fluoride	mg/L	4	0.689	0.66	--	--	0.65	0.73	0.79	0.76	0.77	0.83	0.85	0.81
TDS	mg/L	--	(412.7) 313	278	--	--	258	241	--	238	228	259	--	300
Sulfate	mg/L	--	23.6	17.0	--	--	14.1	15.8	--	15.1	--	16.4	--	18.4
Sulfide	mg/L	--	--	<0.07	--	--	<0.1	<0.2	--	--	--	--	--	--
Radium-228	pCi/L	--	--	0.0549	--	--	0.366	0.39	--	--	--	--	--	--
Radium-226	pCi/L	--	--	0.0246	--	--	-0.0257	0.0413	--	--	--	--	--	--
Radium-226/228	pCi/L	5	--	0.0795	--	--	0.366	0.4313	--	--	--	--	--	--
Copper (Dissolved)	µg/L	--	--	0.13	--	--	0.27	<0.2	--	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	<0.7	--	--	<0.7	0.8	--	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	2	--	--	5	<5	--	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	<0.003	--	--	<0.003	<0.02	--	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	<0.0002	--	--	<0.0002	<0.0005	--	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	6/6/2018	11/13/2018	5/21/2019	11/14/2019	5/19/2020
Field Parameters																	
Elevation	ft NGVD	--	--	369.3	369.19	368.77	368.43	367.68	367.8	368.03	368.24	367	369.44	368.39	371.41	370.62	369.92
pH	S.U.	--	6.63 - 8.69	7.99	7.56	7.56	7.3	7.35	7.5	8.56	7.44	7.44	7.54	7.69	7.31	7.48	7.38
Specific Conductance	µmhos/cm	--	--	548	500	488	432	397	520	361	422	399	430	402	403	526	386
Turbidity	NTU	--	--	0.73	0.65	1.04	0.97	2.82	2.5	1.34	1.02	3.21	1.71	1.18	0	4	1.08
Dissolved Oxygen	mg/L	--	--	0.5	1.63	1.49	1.88	1.53	0.3	0.55	0.76	0.2	0.17	0.22	0.36	0.4	2.47
Temperature	°C	--	--	16.88	17.39	16.17	16.95	13.68	15.1	16.39	17.11	15.47	15.55	14.87	16.34	15.6	14.95
ORP	mV	--	--	-9.2	-185.2	-16.7	105.2	21.1	-3	160.7	2.1	-10.3	-13.4	8.7	67.5	31	109
Laboratory Parameters																	
Antimony	µg/L	6	--	0.02	0.02	0.02	0.02	0.02	0.03	0.05	0.03	--	0.02	<0.02	<0.02	0.05	--
Arsenic	µg/L	10	--	1.55	1.67	1.55	1.41	1.39	1.08	1.19	1.38	--	0.98	1.63	0.65	1.12	--
Barium	µg/L	2000	--	127	136	121	126	126	123	116	123	--	121	120	106	110	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.004	<0.004	--	<0.004	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.02	0.02	0.02	0.04	0.02	0.01	0.01	0.01	--		0.03	0.01	0.07	--
Chromium	µg/L	100	--	0.1	0.2	0.1	0.386	1.04	0.349	0.125	0.143	--	0.061	0.1	0.1	0.2	--
Cobalt	µg/L	6	--	0.514	0.558	0.422	0.524	0.437	0.437	0.412	0.517	--	0.398	0.685	0.275	0.664	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.07	0.09	0.11	0.51	0.77	0.3	--
Lead	µg/L	15	--	0.02	0.021	0.046	0.035	<0.004	0.01	0.022	0.033	--	0.026	0.181	0.02	0.08	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	4.92	5.25	4.46	4.4	4.63	4.31	4.06	4.18	--	4.69	5.13	5.01	4.85	--
Selenium	µg/L	50	--	<0.03	0.05	0.03	0.09	0.07	0.07	0.05	0.05	--	<0.03	<0.03	<0.03	0.1	--
Thallium	µg/L	2	--	0.03	0.03	0.02	0.02	0.04	0.02	0.03	0.03	--	0.03	<0.1	<0.1	<0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	0.6	0.9	1	11.1	1	1	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.8	18.1	19.7	17.6	17.7	16.6	15.4	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	4.55	2.56	3.39	17.2	6.03	10	--
Boron	mg/L	--	0.092	0.007	0.012	0.011	0.012	<0.002	0.028	0.027	0.08	0.029	0.034	0.08	<0.02	0.01	<0.02
Calcium	mg/L	--	(979.5) 73	69	64.7	65.1	68.4	59.5	66.5	62.9	60.1	63.9	66.5	61.5	62.4	56.5	58.5
Lithium	mg/L	0.04	--	<0.0002	0.019	0.004	0.006	0.005	0.007	0.008	0.004	--	0.007	<0.009	<0.009	0.00335	--
Magnesium	mg/L	--	--	--	--	--	--	--	20.9	20.1	18.4	20	21.2	19.3	17.5	16.8	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.428	--	0.476	0.535	0.371	0.582	--
Potassium	mg/L	--	--	--	--	--	--	--	0.92	1.08	1.26	0.8	0.9	1.21	0.82	0.7	--
Sodium	mg/L	--	--	--	--	--	--	--	16	15.4	13	15	15.5	14.7	13.3	14.4	--
Strontium	mg/L	--	--	--	--	--	--	--	0.0931	0.0922	0.0805	0.0889	0.096	0.0887	0.0829	0.0797	--
Alkalinity	mg/L	--	--	--	--	--	--	--	212	222	221	215	230	224	199	199	--
Bromide	mg/L	--	--	--	--	--	--	--	0.03	0.05	<0.02	0.04	0.04	<0.04	<0.04	<0.04	--
Chloride	mg/L	--	(79.5) 22	21.1	21.7	20.4	20	19.9	19.6	21	20.4	20.5	20.6	20.2	18.1	17.5	19.3
Fluoride	mg/L	4	0.38	0.33	0.36	0.34	0.34	0.3	0.32	0.34	0.3	0.31	0.38	0.36	0.36	0.38	0.35
TDS	mg/L	--	(412.7) 359	331	334	305	317	292	275	306	322	306	317	294	278	262	283
Sulfate	mg/L	--	50	46.2	47.9	43.2	40.4	41	39.6	42.4	43.6	45.7	44.6	43.4	36	35.5	38.8
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	<0.4	<0.1	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.126	0.036	0.676	0.0796	1.78	0.281	0.108	0.45	--	--	0.638	0.458	0.113	--
Radium-226	pCi/L	--	--	0.223	1.37	0.305	0.576	0.953	0.601	0.483	0.775	--	--	0.315	0.284	0.579	--
Radium-226/228	pCi/L	5	--	0.349	1.406	0.981	0.6556	2.733	0.882	0.591	1.225	--	--	0.953	0.742	0.692	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.09	--	0.11	0.23	0.21	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.7	--	1	1	<0.7	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	1	--	<0.8	<1	4	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	0.019	<0.0004	0.078	0.062	0.024	0.028	<0.003	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.37	0.427	0.425	0.441	0.427	0.441	0.346	0.315	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21I

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/11/2020	2/3/2021	5/27/2021
Field Parameters						
Elevation	ft NGVD	--	--	370.10	368.10	369.06
pH	S.U.	--	6.63 - 8.69	7	7.53	9.72
Specific Conductance	µmhos/cm	--	--	518	452	413
Turbidity	NTU	--	--	3.55	0.3	0
Dissolved Oxygen	mg/L	--	--	0.02	0.2	0
Temperature	°C	--	--	15.73	14.7	16.98
ORP	mV	--	--	61	75	-10
Laboratory Parameters						
Antimony	µg/L	6	--	--	--	--
Arsenic	µg/L	10	--	--	--	--
Barium	µg/L	2000	--	--	--	--
Beryllium	µg/L	4	--	--	--	--
Cadmium	µg/L	5	--	--	--	--
Chromium	µg/L	100	--	--	--	--
Cobalt	µg/L	6	--	--	--	--
Copper	µg/L	--	--	--	--	--
Lead	µg/L	15	--	--	--	--
Mercury	µg/L	2	--	--	--	--
Molybdnum	µg/L	100	--	--	--	--
Selenium	µg/L	50	--	--	--	--
Thallium	µg/L	2	--	--	--	--
Zinc	µg/L	--	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--	--
Aluminum	µg/L	--	--	--	--	--
Boron	mg/L	--	0.092	<0.02	--	0.011
Calcium	mg/L	--	(979.5) 73	58.6	--	57.1
Lithium	mg/L	0.04	--	--	--	--
Magnesium	mg/L	--	--	--	--	--
Manganese	mg/L	--	--	--	--	--
Potassium	mg/L	--	--	--	--	--
Sodium	mg/L	--	--	--	--	--
Strontium	mg/L	--	--	--	--	--
Alkalinity	mg/L	--	--	--	--	--
Bromide	mg/L	--	--	--	--	<0.02
Chloride	mg/L	--	(79.5) 22	18.0	--	17.9
Fluoride	mg/L	4	0.38	0.45	0.46	0.48
TDS	mg/L	--	(412.7) 359	266	--	290
Sulfate	mg/L	--	50	36.4	--	35.4
Sulfide	mg/L	--	--	--	--	--
Radium-228	pCi/L	--	--	--	--	--
Radium-226	pCi/L	--	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	6/9/2016	7/19/2016	9/21/2016	11/16/2016	1/11/2017	3/8/2017	5/9/2017	7/19/2017	10/4/2017	1/3-11/18	6/6/2018	11/13/2018	5/22/2019	11/14/2019	5/19/2020
Field Parameters																		
Elevation	ft NGVD	--	--	369.44	369.34	368.92	368.59	367.86	368.07	367.86	368.42	367.17	366.66	369.58	368.38	371.4	370.64	
pH	S.U.	--	6.71 - 8.73	8.14	7.76	7.69	7.47	7.19	7.6	7.44	8.48	7.48	7.03	7.65	7.66	7.47	7.41	7.55
Specific Conductance	µmhos/cm	--	--	591	544	478	585	441	60	493	531	449	564	470	451	511	670	449
Turbidity	NTU	--	--	2.82	0.48	1.93	0.33	3.09	1.9	1.42	0.55	1.01	1.11	2.43	1.87	0.87	11	1.18
Dissolved Oxygen	mg/L	--	--	0.53	0.17	0.49	0	1.82	0.2	0.22	0.47	0.31	18.7	0.18	0.33	1.88	0	0.66
Temperature	°C	--	--	15.24	16.81	15.93	15.25	12.99	15	16.7	17.58	16.26	14.93	15.45	14.15	15.44	16.2	14.87
ORP	mV	--	--	80.4	26.3	78.1	51.1	141.4	51	40	168.3	21.3	170.4	25.1	23.2	37.3	56	35
Laboratory Parameters																		
Antimony	µg/L	6	--	0.08	0.08	0.06	0.06	0.07	0.07	0.08	0.12	--	--	0.11	0.07	0.08	0.19	--
Arsenic	µg/L	10	--	1.07	1.06	0.95	0.86	0.99	0.92	0.97	1.04	--	--	0.84	0.89	1.04	1.08	--
Barium	µg/L	2000	--	241	240	226	206	220	220	216	226	--	--	218	201	202	203	--
Beryllium	µg/L	4	--	<0.005	<0.005	<0.005	<0.005	0.01	<0.005	<0.004	<0.004	--	--	0.005	<0.02	<0.02	<0.02	--
Cadmium	µg/L	5	--	0.02	0.03	0.02	0.03	0.02	0.02	0.04	0.02	--		0.13	0.02	0.03	0.16	--
Chromium	µg/L	100	--	0.2	0.3	0.1	0.05	0.124	0.433	0.165	0.11	--	--	0.091	0.06	<0.04	0.759	--
Cobalt	µg/L	6	--	0.216	0.21	0.195	0.171	0.202	0.182	0.208	0.203	--	--	0.196	0.224	0.234	0.397	--
Copper	µg/L	--	--	--	--	--	--	--	--	--	0.11	2.7	--	1.16	0.16	0.16	1.02	--
Lead	µg/L	15	--	0.107	0.075	0.066	0.056	0.091	0.092	0.118	0.089	--	--	0.229	0.1	0.09	0.776	--
Mercury	µg/L	2	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	--	--	--	<0.002	<0.002	--
Molybdnum	µg/L	100	--	6.31	6.66	6.13	5.33	6.09	5.68	5.07	5.29	--	--	5.17	4.76	5.37	5.29	--
Selenium	µg/L	50	--	0.2	0.2	0.3	0.3	0.2	0.5	0.6	0.5	--	--	0.2	0.05	0.04	0.08	--
Thallium	µg/L	2	--	0.03	0.02	0.03	0.02	0.04	0.02	0.02	0.03	--	--	0.03	<0.1	<0.1	0.1	--
Zinc	µg/L	--	--	--	--	--	--	--	--	--	1	187	--	6.5	1	1	4	--
Silica (Dissolved)	mg/L	--	--	--	--	--	--	--	--	17.5	17.6	19.6	--	17.6	17	16.9	16	--
Aluminum	µg/L	--	--	--	--	--	--	--	--	--	6.79	14.1	--	17.2	9.86	5	65.5	--
Boron	mg/L	--	0.071	0.022	0.015	0.015	0.013	0.004	0.024	0.107	0.015	0.092	0.088	0.03	0.04	<0.02	0.01	0.02
Calcium	mg/L	--	(79.5) 83	74.2	60.6	70.4	74.7	67.3	76.2	71.5	70.9	67.8	--	70.7	62.1	69.3	69.4	69.2
Lithium	mg/L	0.04	--	0.002	0.025	0.005	0.007	0.009	0.005	0.013	0.0005	--	--	0.006	0.01	<0.009	0.0044	--
Magnesium	mg/L	--	--	--	--	--	--	--	25	24.3	23.9	22.7	--	23.6	21.3	23.1	22.3	--
Manganese	mg/L	--	--	--	--	--	--	--	--	--	0.592	--	--	0.596	0.634	0.717	0.803	--
Potassium	mg/L	--	--	--	--	--	--	--	2.11	2.41	2.44	3.91	--	1.97	3.95	2.81	3.49	--
Sodium	mg/L	--	--	--	--	--	--	--	18.1	17.2	19.7	20.8	--	15.7	17.7	15.1	17.2	--
Strontium	mg/L	--	--	--	--	--	--	--	0.144	0.142	0.144	0.168	--	0.147	0.191	0.189	0.21	--
Alkalinity	mg/L	--	--	--	--	--	--	--	247	271	277	262	--	268	268	286	266	--
Bromide	mg/L	--	--	--	--	--	--	--	<0.05	0.08	0.07	<0.05	--	0.05	0.05	0.04	0.05	--
Chloride	mg/L	--	(29.6) 20	19.2	19.6	18.9	19.1	19.4	18.9	19.9	19.5	18.5	--	19.9	18.8	19.1	19.2	19.9
Fluoride	mg/L	4	0.407	0.36	0.38	0.36	0.33	0.36	0.33	0.35	0.3	0.32	--	0.4	0.34	0.36	0.32	0.26
TDS	mg/L	--	(412.7) 365	328	299	315	346	332	304	339	332	339	--	347	314	348	323	328
Sulfate	mg/L	--	43.22	39.2	41	35.5	32	34.4	35.1	37.1	36.5	37.4	--	38.4	35.2	36.8	38.6	33.3
Sulfide	mg/L	--	--	--	--	--	--	--	--	--	<0.4	--	--	<0.4	<0.07	<0.1	<0.2	--
Radium-228	pCi/L	--	--	0.441	0.77	0.604	0.688	0.722	0.518	0.0415	0.501	--	--	--	1.47	0.59	0.525	--
Radium-226	pCi/L	--	--	0.126	0.658	0.23	0.39	0.422	0.42	0.408	0.355	--	--	--	0.469	0.669	0.403	--
Radium-226/228	pCi/L	5	--	0.567	1.428	0.834	1.078	1.144	0.938	0.4495	0.856	--	--	--	1.939	1.259	0.928	--
Copper (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	0.39	--	--	0.08	1.33	0.85	<0.2	--
Zinc (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.4	--	--	0.7	3	3	1	--
Aluminum (Dissolved)	µg/L	--	--	--	--	--	--	--	--	--	2.16	--	--	2	1	2	<5	--
Iron (Dissolved)	mg/L	--	--	--	--	--	--	--	<0.0004	<0.0004	0.053	0.016	--	<0.002	0.007	0.005	<0.02	--
Manganese (Dissolved)	mg/L	--	--	--	--	--	--	--	0.616	0.625	0.62	0.646	--	0.567	0.657	0.684	0.611	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

MW-21D

Parameter	Units	GWPS (MCL or RSL)	Appendix III UPL	11/11/2020	5/27/2021
Field Parameters					
Elevation	ft NGVD	--	--	370.09	369.05
pH	S.U.	--	6.71 - 8.73	6.99	9.68
Specific Conductance	µmhos/cm	--	--	599	538
Turbidity	NTU	--	--	1.65	0
Dissolved Oxygen	mg/L	--	--	0.36	0
Temperature	°C	--	--	15.31	19.48
ORP	mV	--	--	120	-6
Laboratory Parameters					
Antimony	µg/L	6	--	--	--
Arsenic	µg/L	10	--	--	--
Barium	µg/L	2000	--	--	--
Beryllium	µg/L	4	--	--	--
Cadmium	µg/L	5	--	--	--
Chromium	µg/L	100	--	--	--
Cobalt	µg/L	6	--	--	--
Copper	µg/L	--	--	--	--
Lead	µg/L	15	--	--	--
Mercury	µg/L	2	--	--	--
Molybdnum	µg/L	100	--	--	--
Selenium	µg/L	50	--	--	--
Thallium	µg/L	2	--	--	--
Zinc	µg/L	--	--	--	--
Silica (Dissolved)	mg/L	--	--	--	--
Aluminum	µg/L	--	--	--	--
Boron	mg/L	--	0.071	<0.02	0.014
Calcium	mg/L	--	(79.5) 83	70.9	69.8
Lithium	mg/L	0.04	--	--	--
Magnesium	mg/L	--	--	--	--
Manganese	mg/L	--	--	--	--
Potassium	mg/L	--	--	--	--
Sodium	mg/L	--	--	--	--
Strontium	mg/L	--	--	--	--
Alkalinity	mg/L	--	--	--	--
Bromide	mg/L	--	--	--	0.04
Chloride	mg/L	--	(29.6) 20	19.5	19.8
Fluoride	mg/L	4	0.407	0.38	0.4
TDS	mg/L	--	(412.7) 365	318	330
Sulfate	mg/L	--	43.22	37.1	36.4
Sulfide	mg/L	--	--	--	--
Radium-228	pCi/L	--	--	--	--
Radium-226	pCi/L	--	--	--	--
Radium-226/228	pCi/L	5	--	--	--
Copper (Dissolved)	µg/L	--	--	--	--
Zinc (Dissolved)	µg/L	--	--	--	--
Aluminum (Dissolved)	µg/L	--	--	--	--
Iron (Dissolved)	mg/L	--	--	--	--
Manganese (Dissolved)	mg/L	--	--	--	--

Table A-1
Summary of Analytical Data
CCR Landfill
Rockport Plant, Rockport, Indiana

Prepared by: SMC 01/03/2021
Checked by: TMR 01/03/2021

Notes:

GWPS - Groundwater Protection Standard
MCL - USEPA Maximum Contaminant Levels
RSL - USEPA Generic Tables for Residential Tapwater, May 2018, TR=1E-06, THQ=1.0
Field Parameter Units
ft NGVD - Feet, National Geodetic Vertical Datum of 1929 (also known as mean sea level (MSL)
°C - degrees Celcius
S.U. - Standard Units
µmhos/cm - micromhos per centimeter
mg/L - milligrams per liter
ORP - milliVolts (mV)
NTU - Nephelometric Turbidity Units
Laboratory Parameter Units
pCi/L picoCuries per Liter

Table A-2
Summary of Leachate Pond Data
CCR Landfill
Rockport Plant, Rockport, Indiana

Source: American Electric Power

		Combined North/West Leachate Pond			North Leachate Pond					West Leachate Pond
		7/13/2016	7/19/2016	1/24/2017	7/13/2016	7/19/2016	9/14/2016	1/24/2017	9/29/2017	9/29/2017
Parameter	**Unit**									
Boron	mg/L	1.19	2.17	2.77	0.634	0.684	0.818	2.07	2.7	11.44
Calcium	mg/L	22.8	41.3	149	19.9	22.5	21.8	80.8	-	-
Chloride	mg/L	38.5	63.7	191	17.3	19.7	9.31	18.4	-	-
Fluoride	mg/L	0.27	0.41	0.32	0.25	0.2	0.57	0.23	-	-
Total Dissolved Solids	mg/L	918	1870	1870	332	434	310	656	-	-
Sulfate	mg/L	617	1180	1020	168	254	97.6	365	-	-
pH	SU	-	-	-	-	-	-	-	-	-

Notes:

mg/L: milligrams per liter

SU: standard unit

-: Not sampled

Laboratory data reports incorrectly identified Combined North/West Leachate Pond as North/South Leachate Pond. There is no South Leachate Pond.

Prepared by: kdr 6/1/2020

Checked by: tmr 6/1/2020

Table A-3
Summary of Isotope Data
CCR Landfill
Rockport Plant, Rockport, Indiana

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Sample Identifier	B (mg/L)	$\delta^{11}B$	Sr (mg/L)	$^{87}Sr/^{86}Sr$
Landfill Leachate Pond North	2.7	-0.93	1.80	0.711955
Landfill Leachate Pond West	11.4	-1.64	2.86	0.711919
MW-17I	0.058	26.86	0.093	0.710547
MW-8I	0.037	23.51	0.140	0.709697
MW-8S	0.020	16.33	0.048	0.709272
MW-11S	0.060	24.01	0.052	0.709447
MW-14S	0.017	17.78	0.094	0.710566
MW-15I	0.042	35.32	0.082	0.710333
MW-21S	0.016	20.66	0.055	0.710142

Note: monitoring well boron concentrations are averages of first eight rounds of sampling.

Appendix B
Full Size Geochemical Exhibits

Exhibit 3-2. CCR monitoring well and landfill leachate ponds boron concentrations.

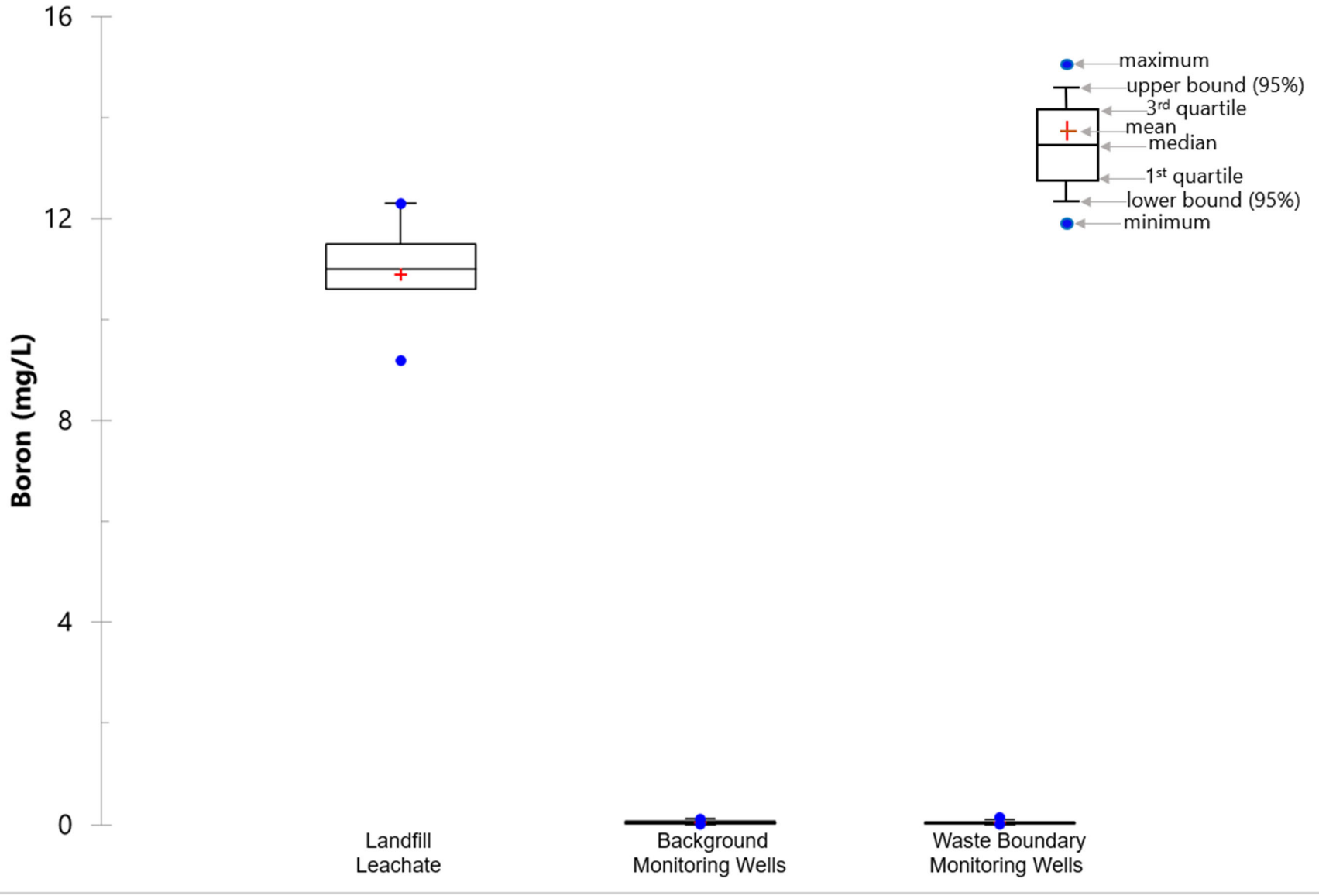


Exhibit 3-3. CCR monitoring well and landfill leachate ponds sulfate concentrations.

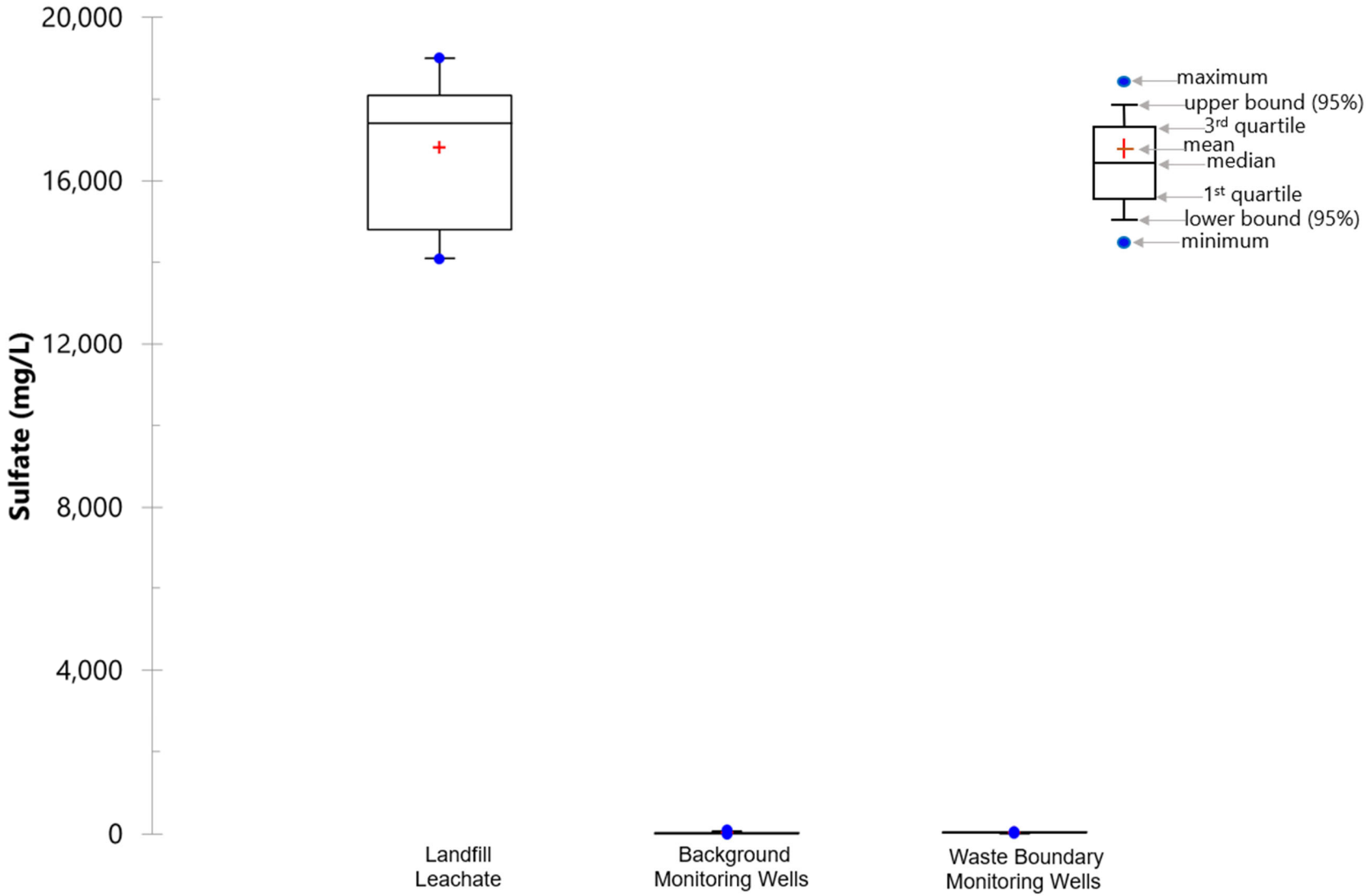


Exhibit 3-4. Boron to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.

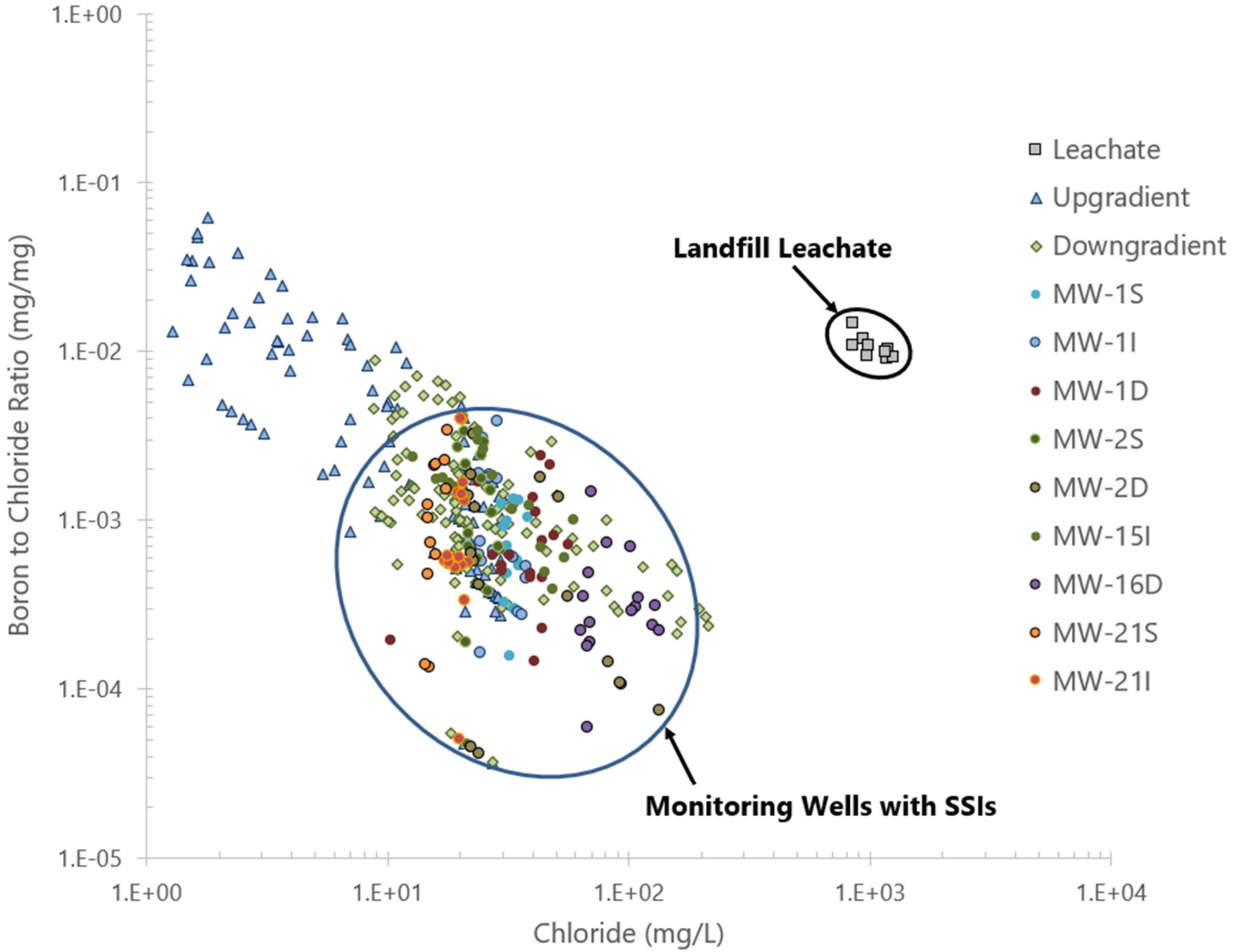


Exhibit 3-5. Sulfate to chloride ratio versus chloride concentration for CCR Landfill groundwater monitoring wells and leachate for comparison.

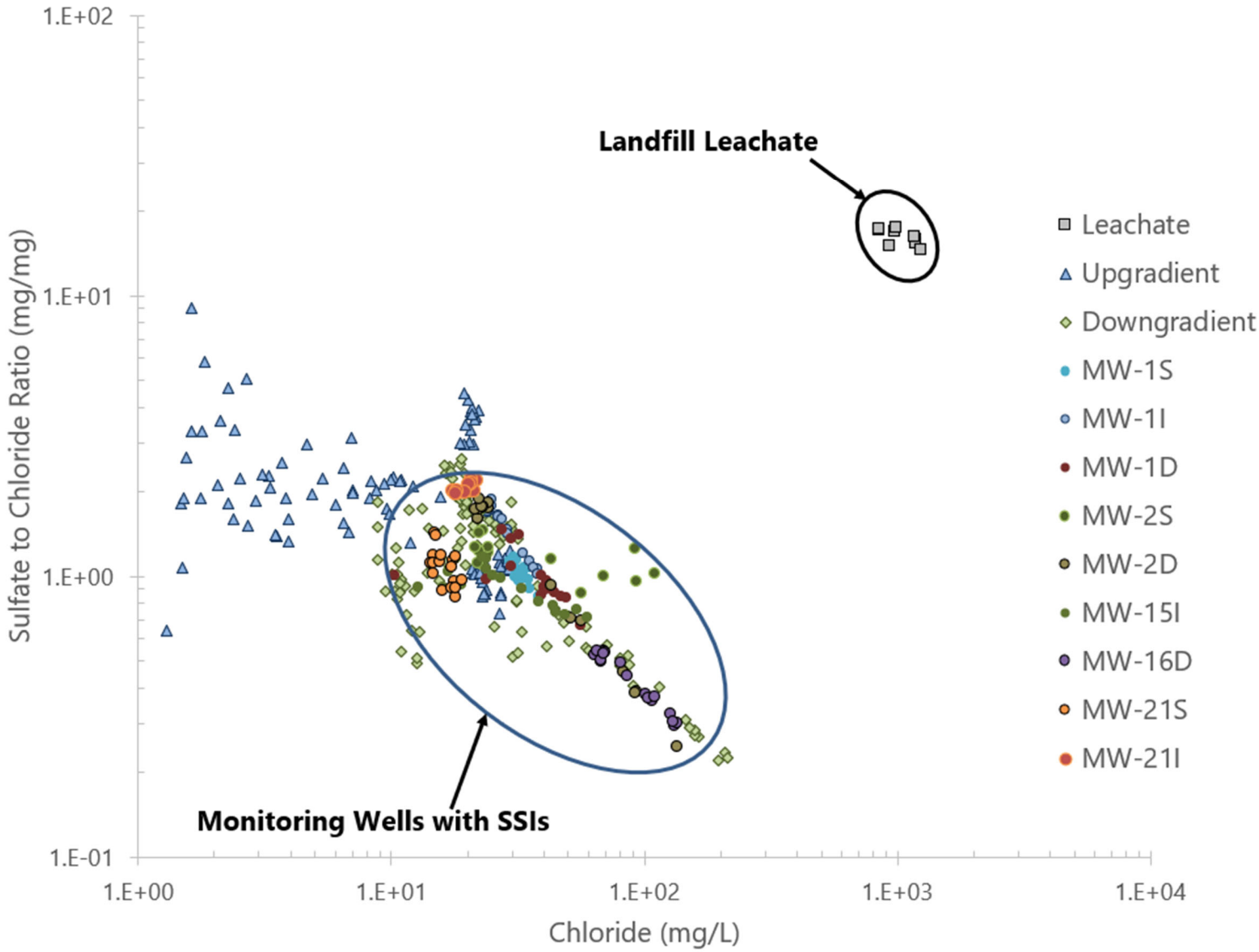


Exhibit 3-6. Boron isotope ratio (δ11B) versus boron concentration for CCR Landfill leachate and monitoring wells for comparison.

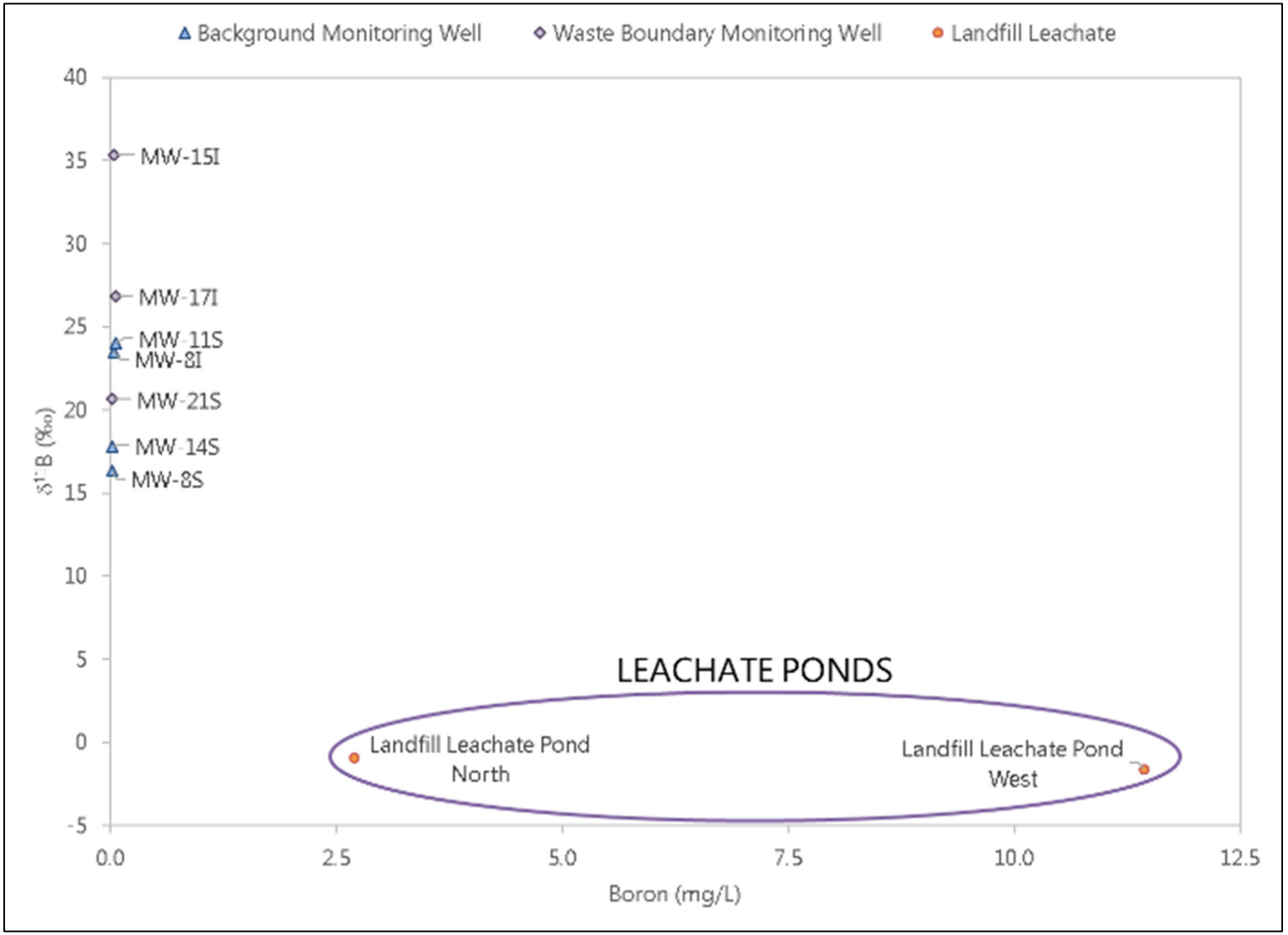
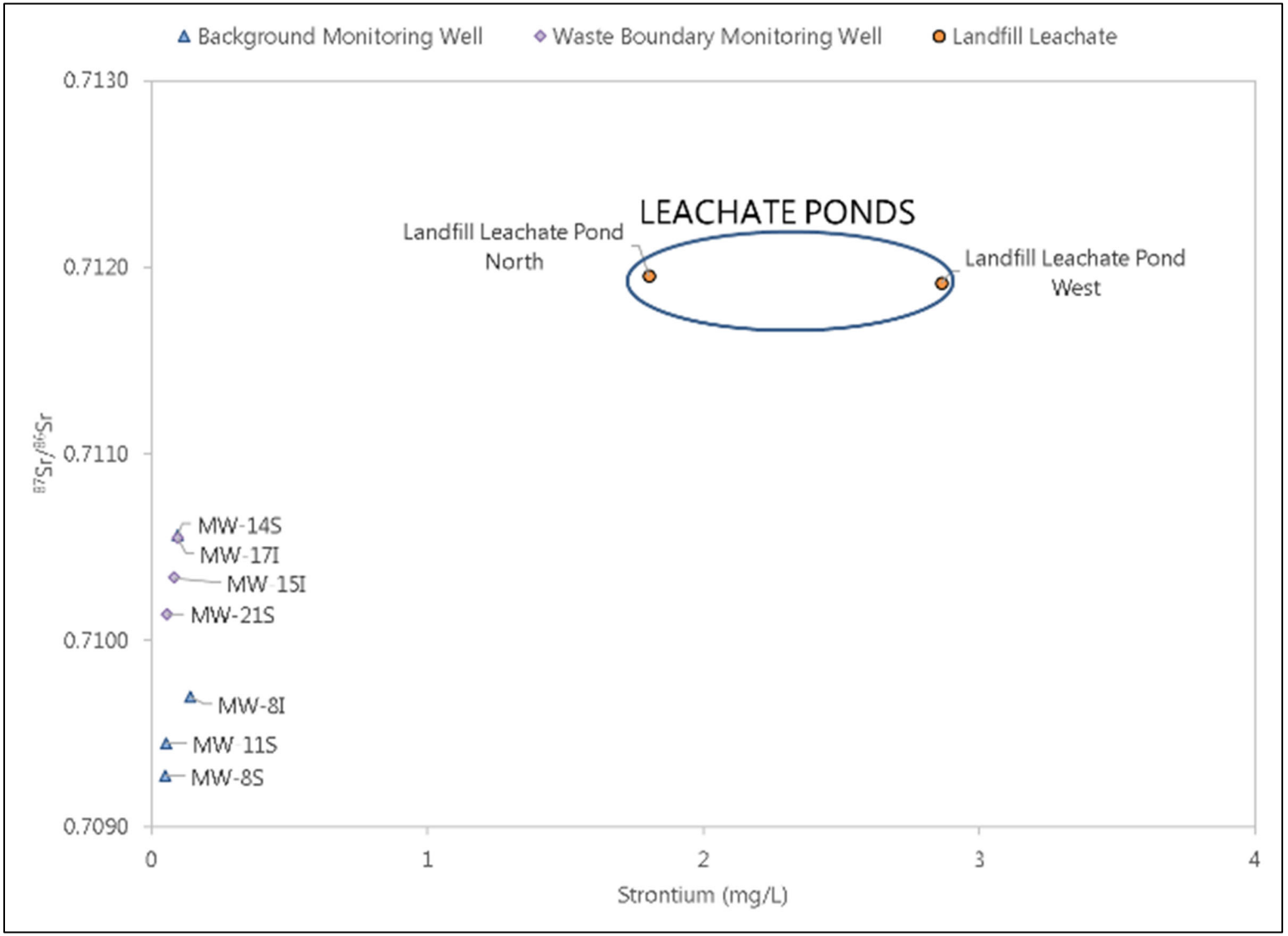


Exhibit 3-7. Strontium isotope ratio ($^{87}Sr/^{86}Sr$) versus strontium concentration for CCR Landfill leachate and monitoring wells for comparison.



APPENDIX 4 – Notices for Monitoring Program Transitions

No monitoring program transitions have been necessary at this time.

APPENDIX 5 – Well Installation/Decommissioning Logs

There were no wells installed or decommissioned during the reporting year.