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2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

WESTON DISPOSAL SITE NO. 3 LANDFILL

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2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
WESTON DISPOSAL SITE NO. 3 LANDFILL

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Project no.	**1940100325**
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Date	**January 31, 2021**
Prepared by	**Glenn R. Luke, PE**
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CONTENTS

TABLES

FIGURES

APPENDICES

ACRONYMS AND ABBREVIATIONS

ASD	Alternate Source Demonstration
B	Boron
Ca	Calcium
CCR	Coal Combustion Residuals
Cl	Chloride
CFR	Code of Federal Regulations
F	Fluoride
mg/L	milligrams per liter
NRT	Natural Resource Technology, an OBG Company
OBG	O'Brien & Gere Engineers, Inc.
Ramboll	Ramboll Americas Engineering Solutions, Inc
SO_4	Sulfate
SSI	Statistically Significant Increase
TBD	To be Determined
TDS	Total Dissolved Solids
WDS3	Weston Disposal Site No. 3 Landfill
WPSC	Wisconsin Public Service Corporation

2020 MONITORING PROGRAM SUMMARY

The Weston Disposal Site No. 3 (WDS3) Landfill operated in the Detection Monitoring Program in accordance with Title 40 of the Code of Federal Regulations (40 CFR) 257.94 for the calendar year 2020. In 2020, groundwater analytical data was evaluated for statistically significant increases (SSIs) over background concentrations for Appendix III constituents in groundwater monitoring wells at the WDS3 Landfill. The following constituents and wells had SSIs detected in 2020:

- Boron – LS-106
- Calcium – LS-105, LS-106, and LS-107
- Chloride – LS-106
- Fluoride – LS-100, LS-105, LS-106, and LS-107
- Sulfate – LS-100, LS-105, and LS-107
- Total Dissolved Solids (TDS) – LS-106

Alternate Source Demonstrations (ASDs) prepared in 2020 or in prior years provide justification that the SSIs observed during the Detection Monitoring Program were not due to a release from the CCR unit but were either from naturally occurring conditions (e.g. natural variation in groundwater quality), a result of statistical procedures used to evaluate the results, or potential anthropogenic impacts in the area surrounding WDS3 Landfill.

The WDS3 Landfill remains in the Detection Monitoring Program in accordance with 40 CFR 257.94.

1. INTRODUCTION

This report has been prepared on behalf of Wisconsin Public Service Corporation (WPSC) by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to provide the information required by Title 40 of the Code of Federal Regulations (40 CFR) 257.90(e) for the Weston Disposal Site No. 3 (WDS3) Landfill located in the Town of Knowlton, Wisconsin.

In accordance with 40 CFR 257.90(e), the owner or operator of an existing coal combustion residual (CCR) unit must prepare an annual groundwater monitoring and corrective action report (Annual Report) for the preceding calendar year. The Annual Report must document the status of the groundwater monitoring and corrective action program for the CCR unit and summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. At a minimum, the Annual Report must contain the following information, to the extent available:

1. A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;
2. Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;
3. In addition to all the monitoring data obtained under 40 CFR 257.90 through 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;
4. A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and
5. Other information required to be included in the annual report as specified in 40 CFR 257.90 through 257.98.

This report provides the required information for the WDS3 Landfill for calendar year 2020.

2. MONITORING AND CORRECTIVE ACTION PROGRAM STATUS

The WDS3 Landfill remained in Detection Monitoring (40 CFR 257.94) during 2020. Detection Monitoring Program sampling dates and parameters collected are provided in Table 1. Analytical results from the two sampling rounds collected and those statistically analyzed in 2020 (i.e. Detection Monitoring Round 5) are included in Table 2.

In accordance with 40 CFR 257.93(h)(2), the *Statistical Analysis Plan, Weston Disposal Site No. 3 Landfill* (Natural Resource Technology, an OBG Company, 2017), and within 90 days of completing sampling and analysis (receipt of data); analytical data was evaluated for statistically significant increases (SSIs) over background concentrations for Appendix III constituents in groundwater monitoring wells at the WDS3 Landfill. SSIs and the SSI determination dates are provided in Table 1.

40 CFR 257.94(e)(2) allows 90 days to demonstrate that a SSI was caused by a source other than the CCR unit or resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (i.e., an alternate source demonstration). Alternate source demonstrations (ASDs) were completed for the WDS3 Landfill on the dates provided in Table 1. The ASD documents for 2020 are provided in Appendix A.

Table 1. Detection Monitoring Program Summary

Detection Round	Sampling Date	Parameters Collected	Data Received	SSI Determination Date	SSI Parameters	Resample Date	ASD Date
5	10/24/19	Appendix III	11/27/19	2/25/20	B, Ca, Cl, SO_4, TDS	3/2/20	5/25/20
6	4/14/20	Appendix III	5/27/20	8/25/20	B, Ca, F, SO_4, TDS	9/1/20	11/23/20
7	10/14/20	Appendix III	11/25/20	TBD Before 2/23/21	TBD	TBD	TBD

B – Boron
Ca – Calcium
Cl - Chloride
F - Fluoride
NA – Not applicable
SO_4 – Sulfate
TBD – To Be Determined
TDS – Total Dissolved Solids

The WDS3 Landfill remains in the Detection Monitoring Program in accordance with 40 CFR 257.94.

3. KEY ACTIONS COMPLETED IN 2020

Two groundwater sampling events were completed in 2020 as part of the Detection Monitoring Program, Rounds 6 and 7. One groundwater sample was collected from each background and downgradient well in the monitoring system during each event. Two resampling events were completed in accordance with the *Statistical Analysis Plan, Weston Disposal Site No. 3 Landfill* (Natural Resource Technology, an OBG Company, 2017). Sampling dates are summarized in Table 1. All samples were collected and analyzed in accordance with the *Sampling and Analysis Plan, Weston Disposal Site No. 3 Landfill* (Natural Resource Technology, an OBG Company, 2017). All monitoring data obtained under 40 CFR 257.90 through 257.98 (as applicable) in 2020 are presented in Table 2.

A map showing the groundwater monitoring system, including the CCR unit and all background (upgradient) and downgradient monitoring wells with well identification numbers, for WDS3 Landfill is presented on Figure 1. There were no changes to the monitoring system in 2020.

Statistical evaluation, including SSI determinations, of analytical data from the Detection Monitoring Program for October 24, 2019 (Detection Monitoring Round 5) and April 14, 2020 (Detection Monitoring Round 6) were completed in 2020 and within 90 days of receipt of the analytical data. Statistical evaluation of analytical data was performed in accordance with the *Statistical Analysis Plan, Weston Disposal Site No. 3 Landfill* (Natural Resource Technology, an OBG Company, 2017).

ASDs for Detection Monitoring Round 5, dated May 25, 2020 and Detection Monitoring Round 6, dated November 23, 2020, were prepared for WDS3 Landfill in 2020 and are provided in Appendix A. The ASDs were prepared in accordance with 40 CFR 257.94(e)(2) and provide a description, data, and pertinent information to support an alternate source for wells and parameters with SSIs at the WDS3 Landfill. The ASDs provide justification that the SSIs observed during the Detection Monitoring Program were not due to a release from the CCR unit but were either from naturally occurring conditions (e.g. natural variation in groundwater quality), a result of statistical procedures used to evaluate the results, or potential anthropogenic impacts in the area surrounding WDS3 Landfill.

4. PROBLEMS ENCOUNTERED AND ACTIONS TO RESOLVE PROBLEMS

No problems were encountered during implementation of the Detection Monitoring Program during 2020. Groundwater samples were collected and analyzed in accordance with the *Sampling and Analysis Plan, Weston Disposal Site No. 3 Landfill* (Natural Resource Technology, and OBG Company, 2017), and all data was accepted.

5. KEY ACTIVITIES FOR 2021

The following key activities are planned for 2021:

- Continuation of the Detection Monitoring Program with semi-annual sampling scheduled for the 2nd and 4th quarters of 2021.
- Complete statistical evaluation of analytical data from the downgradient wells, using background data to determine whether a SSI over background concentrations has occurred for Appendix III parameters.
- If an SSI is identified, potential alternate sources (i.e., a source other than the CCR unit caused the SSI or that that SSI resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality) will be evaluated. If an alternate source is demonstrated to be the cause of the SSI, a written demonstration will be completed within 90 days of the SSI determination and will be included in the annual groundwater monitoring and corrective action report for 2021.
  - If an alternate source(s) is not identified to be the cause of the SSI, the applicable requirements of 40 CFR 257.94 through 257.98 (e.g., assessment monitoring) will apply in 2021, including associated recordkeeping/notifications required by 40 CFR 257.105 through 257.108.

6. REFERENCES

Natural Resource Technology, an OBG Company, 2017, *Sampling and Analysis Plan, Weston Disposal Site No. 3 Landfill, Town of Knowlton, Wisconsin, October 3, 2017.*

Natural Resource Technology, an OBG Company, 2017, *Statistical Analysis Plan, Weston Disposal Site No. 3 Landfill, Town of Knowlton, Wisconsin, October 17, 2017.*

TABLES

Weston Disposal Site #3 CCR
Table 2. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2019 to 12/31/2020

Well Id	Date Sampled	Lab Id	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-100	10/24/2019	AE41530	0.0230	9.600	0.510	<0.070	5.500	18.000
	4/14/2020	AE45278	0.0140	11.000	0.540	0.013	5.900	14.000
	9/1/2020	AE48236				0.015	5.910	
	10/14/2020	AE49163	0.0373	10.200	0.610	0.030	5.770	20.000
LS-101	10/24/2019	AE41531	0.0120	3.100	0.280	<0.070	5.300	2.600
	4/14/2020	AE45279	0.0080	2.400	0.170	0.022	5.990	2.600
	9/1/2020	AE48237				0.009	5.850	
	10/14/2020	AE49164	<0.0173	7.780	0.400	0.030	5.810	3.900
LS-105	10/24/2019	AE41532	0.0260	18.000	0.540	0.073	5.500	16.000
	4/14/2020	AE45280	0.0170	17.000	0.820	0.039	6.120	14.000
	9/1/2020	AE48238				0.055	6.080	
	10/14/2020	AE49165	0.0399	17.500	0.600	0.065	5.730	17.000
LS-106	10/24/2019	AE41533	0.2600	22.000	8.400	<0.070	5.600	6.500
	3/2/2020	AE44199	0.0790	14.000			6.370	
	4/14/2020	AE45281	0.0690	4.800	1.300	0.049	6.430	4.300
	9/1/2020	AE48239				0.035	6.210	
	10/14/2020	AE49166	0.1850	15.300	1.300	0.120	5.940	3.100
LS-107	10/24/2019	AE41534	0.0180	19.000	1.800	<0.070	5.500	24.000
	4/14/2020	AE45282	0.0140	18.000	2.100	0.029	5.840	27.000
	9/1/2020	AE48240				0.013	5.770	
	10/14/2020	AE49167	0.0213	27.400	9.200	0.029	5.560	42.000

Weston Disposal Site #3 CCR
Table 2. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2019 to 12/31/2020

Well Id	Date Sampled	Lab Id	TDS, mg/L
LS-100	10/24/2019	AE41530	50.000
	4/14/2020	AE45278	42.000
	10/14/2020	AE49163	56.000
LS-101	10/24/2019	AE41531	27.000
	4/14/2020	AE45279	24.000
	10/14/2020	AE49164	120.000
LS-105	10/24/2019	AE41532	86.000
	4/14/2020	AE45280	62.000
	10/14/2020	AE49165	110.000
LS-106	10/24/2019	AE41533	130.000
	4/14/2020	AE45281	20.000
	10/14/2020	AE49166	160.000
LS-107	10/24/2019	AE41534	76.000
	4/14/2020	AE45282	82.000
	10/14/2020	AE49167	160.000

FIGURES

Y:\GIS\Projects\16\11660\MXD\2020Annual_GWM_CAR\Figure 1_GW Samp Well Loc_Weston_DS3.mxd

PROJECT: 71202 | DATED: 12/10/2020 | DESIGNER: STOLZSD

CCR RULE DOWNGRADIENT MONITORING WELL LOCATION

CCR RULE UPGRADIENT MONITORING WELL LOCATION

WESTON DISPOSAL SITE NO. 3 LANDFILL

0 125 250 Feet

GROUNDWATER SAMPLING WELL LOCATION MAP

2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT
WESTON DISPOSAL SITE NO. 3 LANDFILL
TOWN OF KNOWLTON, WISCONSIN

FIGURE 1

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APPENDIX A
ALTERNATE SOURCE DEMONSTRATIONS (ASD)

APPENDIX A1

40 CFR SECTION 257.94(E)(2) ALTERNATE SOURCE DEMONSTRATION (ASD) DETECTION MONITORING ROUND 5, WISCONSIN PUBLIC SERVICE CORPORATION (WPSC) WESTON DISPOSAL SITE NO. 3 LANDFILL

RAMBOLL

ENVIRONMENT
& HEALTH

Mr. Tim Muehlfeld
WEC Business Services, LLC
333 W. Everett Street – A231
Milwaukee, WI 53203

RE: 40 CFR Section 257.94(e)(2) Alternate Source Demonstration (ASD) Detection Monitoring Round 5, Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Landfill

Dear Mr. Muehlfeld:

Date May 25, 2020

This document has been prepared by O'Brien & Gere Engineers, Inc., a Ramboll company (Ramboll) to provide pertinent information for an alternate source demonstration (ASD) as allowed by 40 CFR Section 257.94(e)(2) for the Weston Disposal Site No. 3 (WDS3) Landfill, located in the Town of Knowlton, Wisconsin (Figure 1).

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OVERVIEW

Detection Monitoring Round 5 samples were collected on October 24, 2019 for which analytical data was received on November 27, 2019. Analytical data is presented in the attached Table 1. In accordance with 40 CFR Section 257.93(h)(2), statistical analysis of the data from Detection Monitoring Round 5 to identify statistically significant increases (SSIs) of 40 CFR Part 257 Subpart D Appendix III parameters over background concentrations was completed within 90 days of receipt of the analytical data (February 25, 2019). The statistical determination using interwell statistics identified the following SSIs at downgradient monitoring wells:

- Boron above the background prediction interval at LS-106
- Calcium above the background prediction interval at well LS-105, LS-106 and LS-107
- Chloride above the background prediction interval at well LS-106
- Sulfate above the background prediction interval at LS-100, LS-105 and LS-107
- Total dissolved solids (TDS) above the background prediction interval at LS-106

The concentrations of calcium, chloride, sulfate and TDS detected in monitoring wells during Detection Monitoring Round 5 were stable and consistent with detections during previous monitoring rounds. *Alternate Source Demonstration, Weston Disposal Site No. 3, Town of Knowlton, WI,* dated April 15, 2018 and *40 CFR Section 257.94(e)(2) Alternate Source Demonstration (ASD) Detection Monitoring Round 4, Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Landfill*, dated December 9, 2019 provided several lines of evidence which attributed these SSIs to sources other than the CCR unit. The stable concentrations of these parameters continue to support the conclusions of the previous ASDs, and these SSIs do not indicate a release from the CCR unit.

Boron at LS-106 was also addressed in the April 15, 2018 ASD, which supported that boron concentrations observed at LS-106 were from a source(s) other than

the CCR Unit. During Detection Monitoring Round 5, an observed increase in concentration warranted resampling and further evaluation to determine the applicability of the April 15, 2018 ASD for boron at LS-106. It is important to note that the concentration in Detection Monitoring Round 5 (0.26 mg/L) is within the range of concentrations detected during the CCR rule background monitoring period (Q3 2015 to Q2 2017).

40 CFR Section 257.94(e)(2) allows the owner or operator 90 days from the date of determination to demonstrate that a source other than the coal combustion residual (CCR) unit caused the SSI, or that the apparent SSI was from a source other than the CCR unit, or that the SSI resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Pursuant to 40 CFR Section 257.94(e)(2), the following demonstrates that sources other than WDS3 Landfill were the cause of the SSI, specifically boron concentrations elevated above previously observed concentrations. This ASD was completed within 90 days of determination of the SSIs (February 25, 2020) as required by 40 CFR Section 257.94(e)(2).

ALTERNATE SOURCE DEMONSTRATION

To further evaluate the boron concentration detected in LS-106 during Detection Monitoring Round 5, well LS-106 was resampled on March 2, 2020 and analyzed for boron (dissolved and total) and calcium (dissolved and total) to assist in evaluation of boron concentrations, in accordance the *Statistical Analysis Plan, Weston Disposal Site No. 3, Town of Knowlton, WI*, dated October 17, 2017 (NRT, an OBG Company 2017) (SAP). Analytical results were received on March 25, 2020 and are included in Table 1. The concentration of boron in the sample collected during the resample event (0.079 mg/L) remained above the background prediction interval (0.043 mg/L) but decreased to a concentration consistent with boron concentrations previously observed at LS-106 and addressed in the prior ASD, dated April 15, 2018 (Figure A, below).

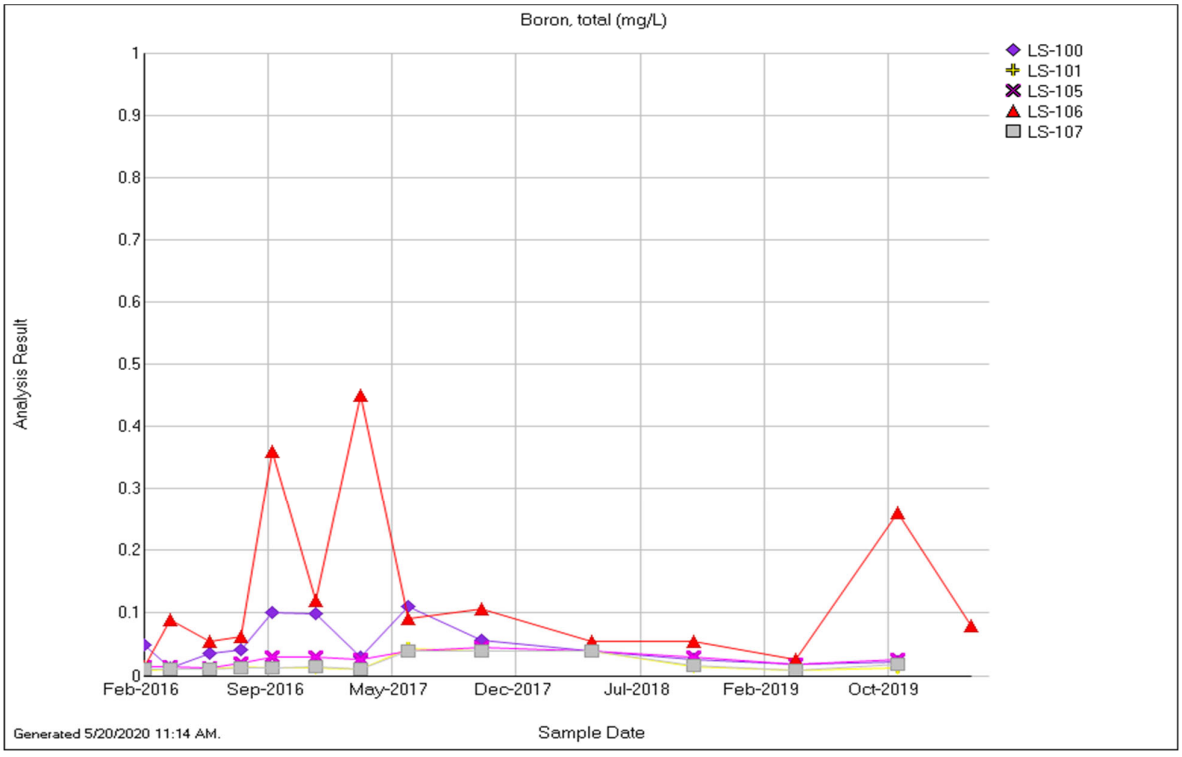

Figure A. Concentrations of boron in groundwater monitoring wells

The elevated concentration of boron and, to a lesser degree, calcium (Figure B) reported in Detection Monitoring Round 5 are likely the result of the low pH measured and/or elevated turbidity in groundwater during this event. Boron is a conservative indicator of CCR impacts but is also naturally occurring at low concentrations in groundwater. If present in the aquifer, the boron can be adsorbed to iron oxyhydroxides that form naturally in the aquifer materials. Based on the field documentation, the iron oxyhydroxides are present within and around this well as purge water was noted to contain "rusty chunks" or be "rusty, thick" upon initiation of purging. Calcium concentrations in groundwater are a result of equilibrium with aquifer minerals such as calcium carbonate.

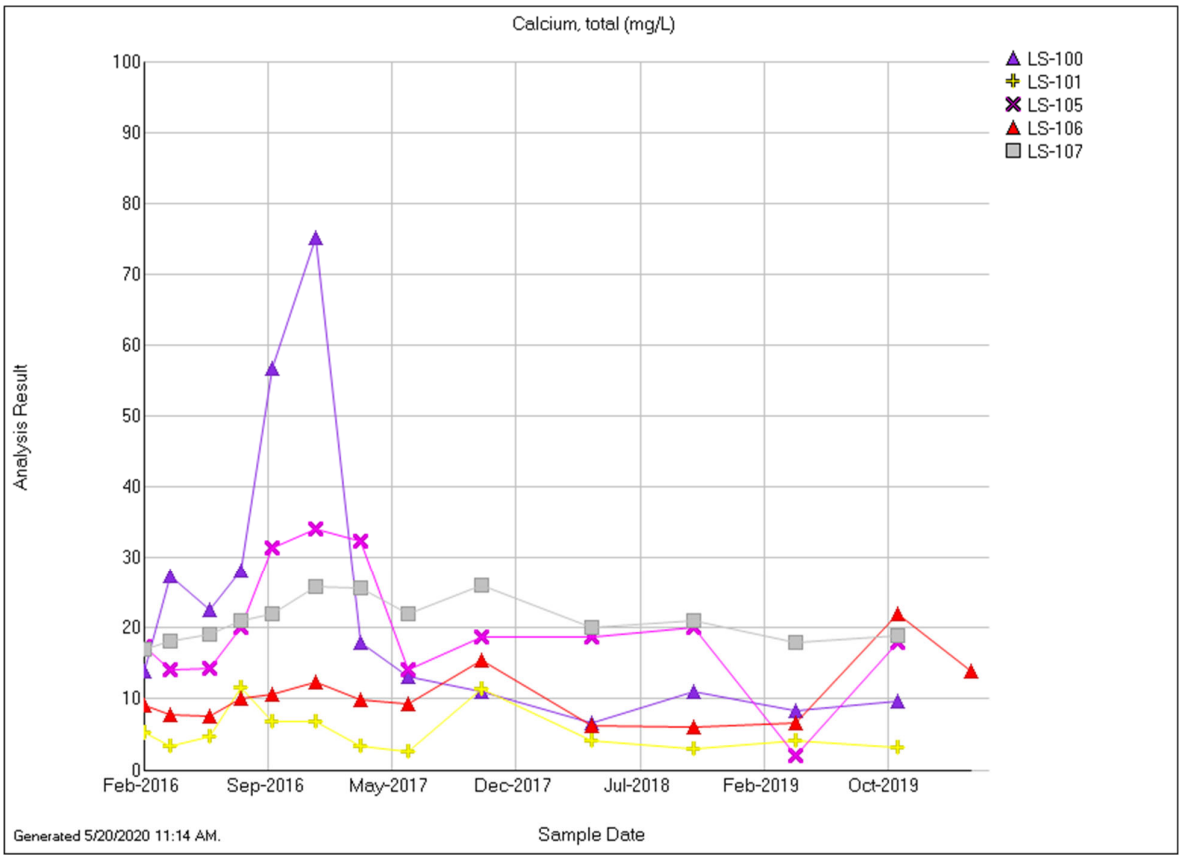

Figure B. Concentrations of calcium in groundwater monitoring wells

At low pH conditions in the aquifer the iron oxyhydroxides become more soluble and dissolve, releasing adsorbed boron (and/or other inorganic constituents) back into the groundwater. Calcium carbonate is also more soluble at low pH. The pH measured in LS-106 during Detection Monitoring Round 5 (5.64 SU) was the lowest recorded in this well (Figure C, below). This low pH resulted in elevated concentrations of boron and calcium as minerals were dissolved and inorganic constituents mobilized. The resample pH was measured at 6.37 SU, which is similar to historical measurements, and the concentration of boron and calcium decreased to concentrations consistent with previously observed results.

Low pH is not an indicator of CCR impacts, but likely reflects increased precipitation and infiltration (rain can have a pH of approximately 5.6 SU; USEPA, https://www.epa.gov/acidrain/what-acid-rain). The low pH occurs for a limited duration, as indicated by the rebound of the pH measurement in the resample event.

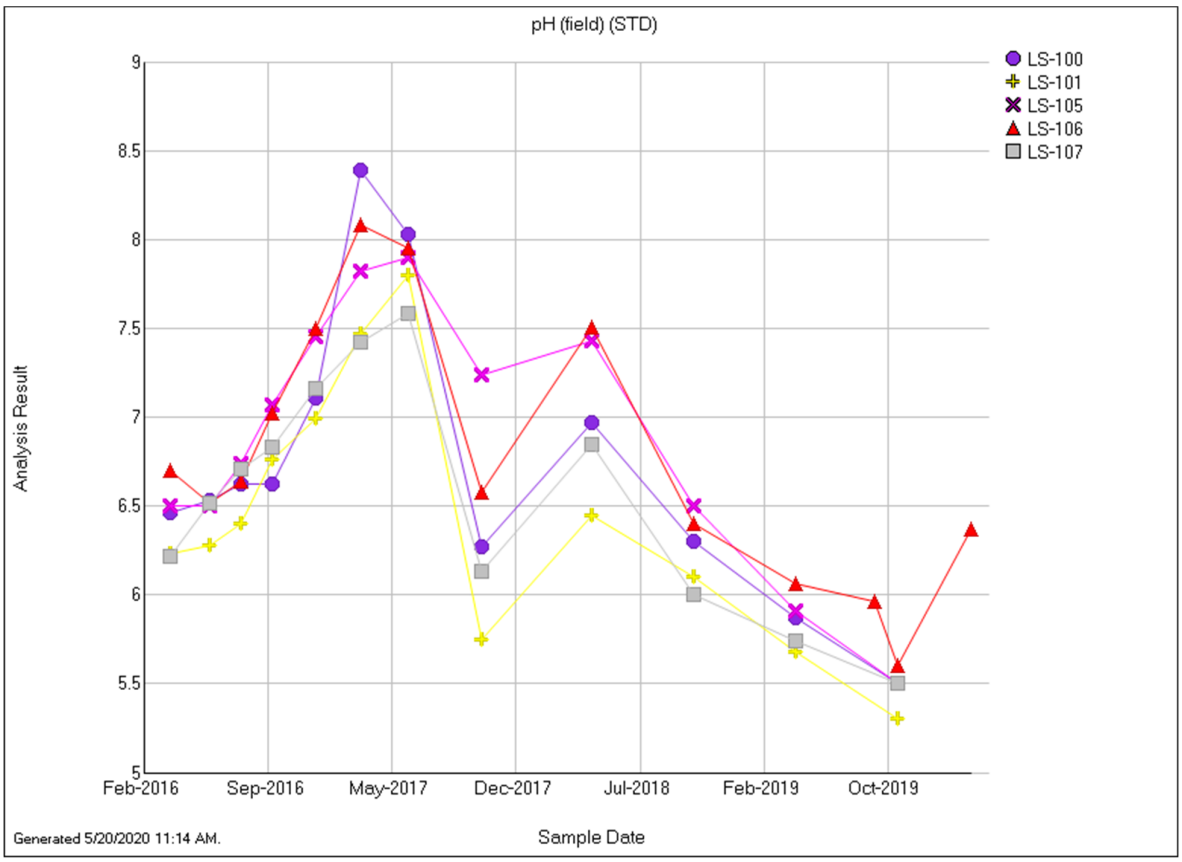

Figure C. pH in groundwater monitoring wells

CONCLUSIONS AND CERTIFICATION

This document has been prepared on behalf of WPSC by Ramboll to provide pertinent information for an ASD as allowed by 40 CFR Section257.94(e)(2) for the Weston Disposal Site No. 3 Landfill located in the Town of Knowlton, Wisconsin. Statistical analysis of the Detection Monitoring Round 5 samples for SSIs of 40 CFR Part 257 Appendix III parameters over background concentrations was completed within 90 days of receipt of the analytical data (November 27, 2019). The determination identified the following SSIs (concentrations greater than background prediction intervals) that had concentrations elevated from those previously observed in the April 15, 2018 and December 9, 2019 ASDs at downgradient monitoring wells:

- Boron at LS-106, elevated above recently observed concentrations and those addressed in the April 15, 2018 ASD

40 CFR Section 257.94(e)(2) allows the owner or operator 90 days from the date of determination to demonstrate that a source other than the CCR unit caused the SSI, or that the apparent SSI was from a source other than the CCR unit, or that the SSI resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Pursuant to 40 CFR Section 257.94(e)(2), this document demonstrates that sources other than WDS3 Landfill were the cause of the apparent SSI listed above. This ASD was completed within 90 days of determination of the SSIs (February 25, 2020) as required by 40 CFR Section 257.94(e)(2).

Pursuant to 40 CFR Section 257.94(e)(2), the following lines of evidence were presented to demonstrate the applicability of the April 15, 2018 ASD for boron at LS-106 and that the increased concentration and SSI was due to alternate sources:

- Resample concentrations in general alignment with those addressed in the April 15, 2018 ASD
- Low pH during the sampling event contributing to increased concentrations of boron

The preceding information serves as the ASD prepared in accordance with 40 CFR Section 257.94(e)(2) and supports the position that the SSIs observed during Detection Monitoring Round 5 are not due to a release from the CCR unit but were from naturally occurring conditions and potential anthropogenic impacts in the area surrounding WDS3 Landfill. Therefore, no further action (i.e. assessment monitoring) is warranted and WDS3 Landfill will remain in detection monitoring.

If you have any questions regarding this document, please do not hesitate to contact us.

Sincerely,

Glenn R. Luke, PE
Managing Engineer
Professional Engineer No. 42834-6
State of Wisconsin
O'Brien & Gere Engineers, Inc., a Ramboll company
Date: May 25, 2020

I, Glenn R. Luke, a qualified professional engineer in good standing in the State of Wisconsin, certify that enclosed information is accurate as of the date of my signature below. The content of this report is not to be used for other than its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Nathaniel R. Keller, PG
Senior Hydrogeologist
Professional Geologist No. 1283-013
State of Wisconsin
O'Brien & Gere Engineers, Inc., a Ramboll company
Date: May 25, 2020

I, Nathaniel R. Keller, a qualified professional geologist, certify that the enclosed information is accurate as of the date of my signature below. The content of this report is not to be used for other than its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Tables

Table 1 Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

TABLES

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

Well Id	Date Sampled	Lab Id	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-100	02/18/2016	40128408001	0.0480	13.900	4.000	<0.200		12.500
	04/05/2016	40130257002	0.0120	27.300	4.300	<0.200	6.460	16.600
	06/15/2016	40133877003	0.0350	22.500	3.600	<0.200	6.530	13.100
	08/10/2016	40136543003	0.0410	28.200	4.900	<0.200	6.620	20.700
	10/05/2016	40139741002	0.1000	56.800	0.970	<0.100	6.620	4.500
	12/21/2016	40143755003	0.0980	75.200	21.000	<0.100	7.110	202.000
	03/10/2017	40146662002	0.0290	17.900	3.600	<0.100	8.390	30.000
	06/02/2017	40151013002	0.1100	13.100	1.600	<0.100	8.030	31.500
	10/11/2017	40158568002	0.0559	11.000	0.860	<0.100	6.270	15.700
	04/26/2018	40168127002	0.0292	6.550	0.720	<0.100	6.970	13.100
	10/25/2018	AE31422	0.0250	11.000	0.290	0.066	6.300	17.000
	04/24/2019	AE36960	0.0180	8.300	0.530	0.040	5.870	13.000
	10/24/2019	AE41530	0.0230	9.600	0.510	<0.070	5.500	18.000
LS-101	02/18/2016	40128408002	0.0086	5.200	2.900	<0.200		5.600
	04/05/2016	40130257003	0.0096	3.400	2.300	<0.200	6.230	5.600
	06/15/2016	40133877002	0.0097	4.700	2.600	<0.200	6.280	4.800
	08/10/2016	40136543002	0.0140	11.600	2.400	<0.200	6.400	4.100
	10/05/2016	40139741003	0.0120	6.800	2.000	<0.100	6.760	13.300
	12/21/2016	40143755002	0.0120	6.900	0.820	<0.100	6.990	4.300
	03/10/2017	40146662003	0.0092	3.300	<0.500	<0.100	7.470	4.400
	06/02/2017	40151013003	0.0430	2.500	0.720	<0.100	7.800	4.100
	10/11/2017	40158568003	0.0138	11.400	0.760	<0.100	5.750	5.900
	04/26/2018	40168127003	<0.0067	4.180	0.540	<0.100	6.450	4.100
	10/25/2018	AE31423	0.0140	3.000	0.400	0.061	6.100	3.100
	04/24/2019	AE36961	0.0081	4.200	0.620	<0.040	5.680	2.600
	10/24/2019	AE41531	0.0120	3.100	0.280	<0.070	5.300	2.600
LS-105	02/18/2016	40128408003	0.0140	17.300	4.200	<0.200		9.200
	04/05/2016	40130257004	0.0140	14.200	3.500	<0.200	6.500	10.000
	06/15/2016	40133877004	0.0130	14.300	3.500	<0.200	6.500	9.100
	08/10/2016	40136543004	0.0200	20.100	2.900	<0.200	6.740	4.800
	10/05/2016	40139741004	0.0300	31.400	12.400	<1.000	7.070	67.800
	12/21/2016	40143755005	0.0300	34.000	10.600	<0.500	7.450	58.600
	03/10/2017	40146662004	0.0260	32.300	7.200	<0.100	7.820	50.400
	06/02/2017	40151013004	0.0330	14.200	2.600	<0.100	7.900	26.500
	10/11/2017	40158568004	0.0452	18.800	3.600	<0.500	7.240	31.000
	04/26/2018	40168127004	0.0161	18.700	2.600	<0.500	7.430	15.900

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

Well Id	Date Sampled	Lab Id	TDS, mg/L
LS-100	02/18/2016	40128408001	122.000
	04/05/2016	40130257002	150.000
	06/15/2016	40133877003	148.000
	08/10/2016	40136543003	182.000
	10/05/2016	40139741002	306.000
	12/21/2016	40143755003	360.000
	03/10/2017	40146662002	98.000
	06/02/2017	40151013002	94.000
	10/11/2017	40158568002	80.000
	04/26/2018	40168127002	82.000
	10/25/2018	AE31422	50.000
	04/24/2019	AE36960	30.000
	10/24/2019	AE41530	50.000
LS-101	02/18/2016	40128408002	50.000
	04/05/2016	40130257003	52.000
	06/15/2016	40133877002	44.000
	08/10/2016	40136543002	84.000
	10/05/2016	40139741003	70.000
	12/21/2016	40143755002	60.000
	03/10/2017	40146662003	28.000
	06/02/2017	40151013003	30.000
	10/11/2017	40158568003	62.000
	04/26/2018	40168127003	58.000
	10/25/2018	AE31423	44.000
	04/24/2019	AE36961	<20.000
	10/24/2019	AE41531	27.000
LS-105	02/18/2016	40128408003	98.000
	04/05/2016	40130257004	94.000
	06/15/2016	40133877004	80.000
	08/10/2016	40136543004	148.000
	10/05/2016	40139741004	204.000
	12/21/2016	40143755005	196.000
	03/10/2017	40146662004	178.000
	06/02/2017	40151013004	96.000
	10/11/2017	40158568004	100.000
	04/26/2018	40168127004	118.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-105	10/25/2018	AE31424	0.0300	20.000	0.740	0.085	6.500	16.000
	04/24/2019	AE36962	0.0180	2.100	1.200	0.057	5.910	19.000
	10/24/2019	AE41532	0.0260	18.000	0.540	0.073	5.500	16.000
LS-106	02/18/2016	40128408004	0.0150	9.200	4.200	<0.200		6.700
	04/05/2016	40130257005	0.0890	7.700	3.200	<0.200	6.700	6.600
	06/15/2016	40133877005	0.0540	7.600	3.200	<0.200	6.520	5.500
	08/10/2016	40136543005	0.0630	10.100	<10.000	<1.000	6.640	<10.000
	10/05/2016	40139741005	0.3600	10.700	2.800	<0.500	7.020	<5.000
	12/21/2016	40143755006	0.1200	12.300	<2.500	<0.500	7.500	5.700
	03/10/2017	40146662005	0.4500	9.900	<2.500	<0.500	8.080	5.200
	06/02/2017	40151013005	0.0910	9.400	4.100	<0.500	7.950	11.800
	10/11/2017	40158568005	0.1060	15.500	3.600	<0.500	6.580	11.400
	04/26/2018	40168127005	0.0544	6.160	<2.500	<0.500	7.510	<5.000
	10/25/2018	AE31425	0.0540	6.000	0.470	0.066	6.400	3.200
	04/24/2019	AE36963	0.0250	6.600	8.400	0.053	6.060	6.300
	09/13/2019	AE40532			11.000		5.960	
	10/24/2019	AE41533	0.2600	22.000	8.400	<0.070	5.600	6.500
	03/02/2020	AE44199	0.0790	14.000			6.370	
LS-107	02/18/2016	40128408005	0.0100	17.000	9.400	<0.200		9.000
	04/05/2016	40130257006	0.0097	18.200	7.400	<0.200	6.220	9.200
	06/15/2016	40133877001	0.0089	19.100	7.900	<0.200	6.520	10.800
	08/10/2016	40136543001	0.0120	21.000	6.900	<0.200	6.710	10.000
	10/05/2016	40139741006	0.0120	22.000	5.400	<0.100	6.830	10.000
	12/20/2016	40143755001	0.0140	25.900	4.700	<0.100	7.160	12.500
	03/10/2017	40146662006	0.0110	25.700	3.800	<0.100	7.420	15.200
	06/02/2017	40151013006	0.0310	21.900	5.400	<0.100	7.580	19.900
	10/11/2017	40158568006	0.0143	26.000	6.200	<0.100	6.130	25.500
	04/26/2018	40168127006	0.0097	20.100	3.000	<0.100	6.850	17.500
	10/25/2018	AE31426	0.0170	21.000	2.700	0.065	6.000	26.000
	04/24/2019	AE36964	0.0091	18.000	1.800	0.040	5.740	21.000
	10/24/2019	AE41534	0.0180	19.000	1.800	<0.070	5.500	24.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			TDS, mg/L
LS-105	10/25/2018	AE31424	110.000
	04/24/2019	AE36962	110.000
	10/24/2019	AE41532	86.000
LS-106	02/18/2016	40128408004	70.000
	04/05/2016	40130257005	94.000
	06/15/2016	40133877005	110.000
	08/10/2016	40136543005	94.000
	10/05/2016	40139741005	228.000
	12/21/2016	40143755006	186.000
	03/10/2017	40146662005	544.000
	06/02/2017	40151013005	72.000
	10/11/2017	40158568005	108.000
	04/26/2018	40168127005	88.000
	10/25/2018	AE31425	58.000
	04/24/2019	AE36963	52.000
	10/24/2019	AE41533	130.000
LS-107	02/18/2016	40128408005	88.000
	04/05/2016	40130257006	94.000
	06/15/2016	40133877001	112.000
	08/10/2016	40136543001	118.000
	10/05/2016	40139741006	118.000
	12/20/2016	40143755001	72.000
	03/10/2017	40146662006	134.000
	06/02/2017	40151013006	110.000
	10/11/2017	40158568006	134.000
	04/26/2018	40168127006	128.000
	10/25/2018	AE31426	120.000
	04/24/2019	AE36964	86.000
	10/24/2019	AE41534	76.000

APPENDIX A2
40 CFR SECTION 257.94(E)(2) ALTERNATE SOURCE DEMONSTRATION (ASD) DETECTION MONITORING ROUND 6, WISCONSIN PUBLIC SERVICE CORPORATION (WPSC) WESTON DISPOSAL SITE NO. 3 LANDFILL

RAMBOLL

ENVIRONMENT
& HEALTH

Mr. Bob Meidl
WEC Business Services, LLC
333 W. Everett Street – A231
Milwaukee, WI 53203

RE: 40 CFR Section 257.94(e)(2) Alternate Source Demonstration (ASD) Detection Monitoring Round 6, Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Landfill

Dear Mr. Meidl:

Date November 23, 2020

This document has been prepared by Ramboll Americas Engineering Solutions, Inc. (Ramboll) to provide pertinent information for an alternate source demonstration (ASD) as allowed by 40 CFR Section 257.94(e)(2) for the Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 (WDS3) Landfill, located in the Town of Knowlton, Wisconsin.

OVERVIEW

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Detection Monitoring Round 6 samples were collected on April 14, 2020 for which analytical data was received on May 27, 2020. Analytical data is presented in the attached Table 1. In accordance with 40 CFR Section 257.93(h)(2), statistical analysis of the data from Detection Monitoring Round 6 to identify statistically significant increases (SSIs) of 40 CFR Part 257 Subpart D Appendix III parameters over background concentrations was completed within 90 days of receipt of the analytical data (August 25, 2020). The statistical determination using interwell statistics identified the following SSIs at downgradient monitoring wells:

- Boron above the background prediction interval at LS-106
- Calcium above the background prediction interval at well LS-105 and LS-107
- Sulfate above the background prediction interval at LS-100, LS-105 and LS-107
- Fluoride above detection limits in LS-100, LS-105, LS-106, and LS-107

The concentrations of calcium, boron, and sulfate detected in monitoring wells during Detection Monitoring Round 6 were stable and consistent with detections and SSIs during previous monitoring rounds. The following documents provided several lines of evidence which attributed these SSIs to sources other than the CCR unit.:

- *Alternate Source Demonstration, Weston Disposal Site No. 3, Town of Knowlton, WI*, dated April 15, 2018
- *40 CFR Section 257.94(e)(2) Alternate Source Demonstration (ASD) Detection Monitoring Round 4, Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Landfill*, dated December 9, 2019
- *40 CFR Section 257.94(e)(2) Alternate Source Demonstration (ASD) Detection Monitoring Round 5, Wisconsin Public Service Corporation (WPSC) Weston Disposal Site No. 3 Landfill*, dated April 25, 2020

The stable concentrations of these parameters continue to support the conclusions of the previous ASDs, and these SSIs do not indicate a release from the CCR unit.

Fluoride concentrations detected in downgradient monitoring wells ranged from 0.013 mg/L to 0.049 mg/L. Fluoride was not detected above the detection limit in LS-101 (background well) during the background monitoring period (February 2016 through June 2017). As stated in the *Statistical Analysis Plan,* dated October 17, 2017:

> ***"The Double Quantification Rule will be used when all background data are non-detects for a particular constituent. This rule determines an SSI if any constituent in a sample and a verification resample are in exceedance, or two consecutive sampling events are in exceedance. This method reduces SWFPR and enhances statistical power as downgradient well-constituent pairs analyzed using this rule are not included in comparisons for SWFPR calculations."***

Following detections of fluoride in all downgradient wells, the monitoring wells were resampled in accordance with the Statistical Analysis Plan on September 1, 2020. Fluoride was again detected at concentrations consistent with Detection Monitoring Round 6. 40 CFR Section 257.94(e)(2) allows the owner or operator 90 days from the date of determination to demonstrate that a source other than the coal combustion residual (CCR) unit caused the SSI, or that the apparent SSI was from a source other than the CCR unit, or that the SSI resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Pursuant to 40 CFR Section 257.94(e)(2), the following demonstrates that sources other than WDS3 Landfill were the cause of the SSI, specifically variability (lowering) of detection limits. This ASD was completed within 90 days of determination of the SSIs (November 23, 2020) as required by 40 CFR Section 257.94(e)(2).

ALTERNATE SOURCE DEMONSTRATION

Detections of fluoride have been reported periodically following a reduction in detection limits that occurred when the sample analysis was switched from Pace Analytical Laboratories to the We Energies Laboratory after Detection Monitoring Round 2 in May 2018 (Figure 1). During the background sampling period and the Detection Monitoring Rounds 1 and 2, the detection limit for fluoride in LS-101 ranged from 0.1 to 0.2 mg/L, while the reporting limit ranged from 0.3 to 0.4 mg/L. As described in the Statistical Analysis Plan (OBG, 2017), non-detect values will be reported at the reporting limit. The concentrations of fluoride detected in downgradient monitoring wells (<0.06 mg/L during Detection Monitoring Round 6 and the resample) are below both the detection and reporting limit during background monitoring and significantly lower than the federal maximum contaminant level (MCL) of 4 mg/L.

In accordance with the Double Quantification Rule, SSIs were reported for fluoride following the resample because all background data was non-detect. However, because of the change in detection limits, samples collected during background monitoring from LS-101 may have had similar concentrations that were not detected, because of the historically elevated detection limits. Additional data from LS-101 collected during Detection Monitoring Rounds 1-4 (2017-2019) were added to the background data set to evaluate background concentrations using samples that were analyzed with lower detection limits. Following evaluation, four additional sample results from LS-101 were included in the background data set, two were non-detect, the other two samples reported concentrations of 0.061 mg/L and 0.022 mg/L. Due to large percentage of non-detect results, the background limit is equal to the largest concentration detected (0.061 mg/L). Based on the revised background limit, none of the fluoride concentrations exceeded the statistical limit during Detection Monitoring Round 6.

Based on this discussion, the apparent SSIs reported for LS-100, LS-105, LS-106, and LS-107 during Detection Monitoring Round 6 and the resample event are related to the statistical procedures used to evaluate background and not attributable to a release from the landfill. The updated background limit indicates that no SSIs were detected for fluoride.

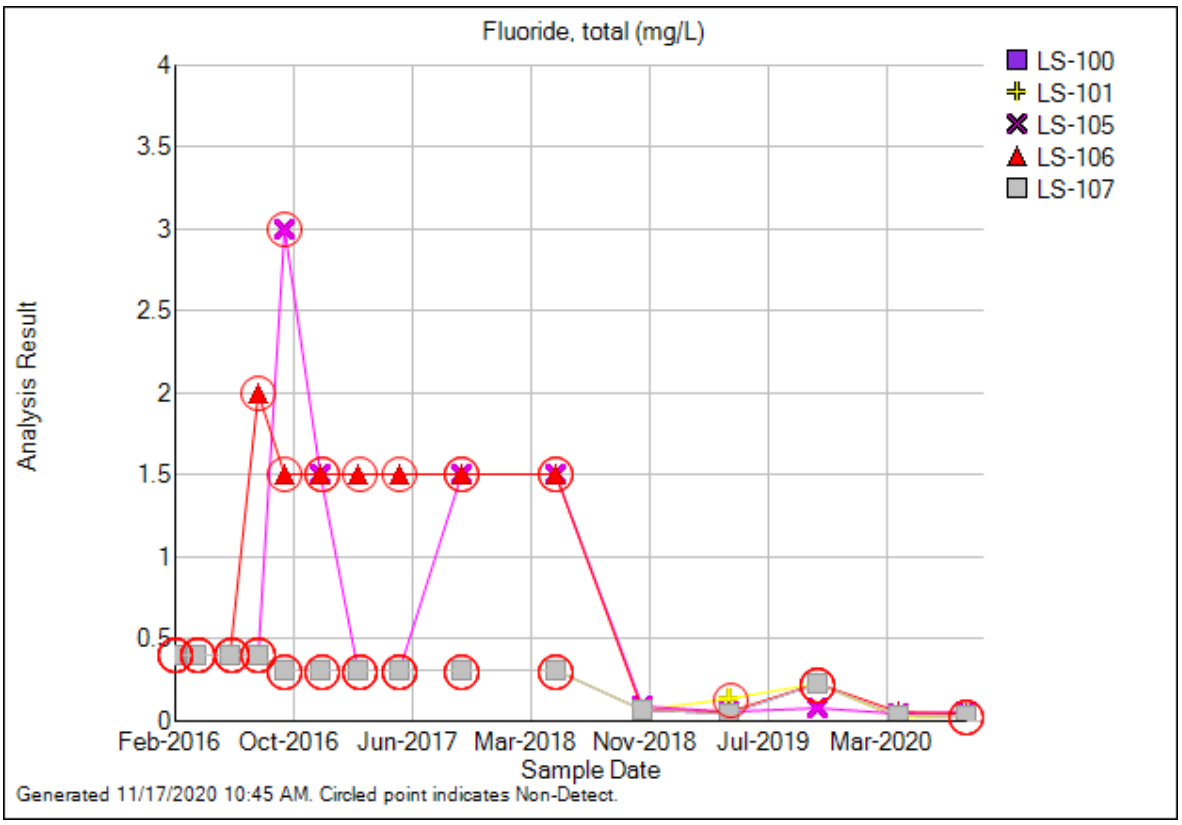

Figure 1. Concentrations of fluoride at Weston Disposal Site #3 Ash Landfill.

CONCLUSIONS AND CERTIFICATION

This document has been prepared on behalf of WPSC by Ramboll to provide pertinent information for an ASD as allowed by 40 CFR Section257.94(e)(2) for the Weston Disposal Site No. 3 Landfill located in the Town of Knowlton, Wisconsin. Statistical analysis of the Detection Monitoring Round 6 samples for SSIs of 40 CFR Part 257 Appendix III parameters over background concentrations was completed within 90 days of receipt of the analytical data (August 25, 2020). The determination identified the following SSIs (concentrations greater than background prediction intervals) that had concentrations elevated from those previously observed or documented in the April 15, 2018, December 9, 2019, and May 25, 2020 ASDs at downgradient monitoring wells:

- Fluoride concentrations above the detection limit at downgradient wells LS-100, LS-105, LS-106, and LS-107

40 CFR Section 257.94(e)(2) allows the owner or operator 90 days from the date of determination to demonstrate that a source other than the CCR unit caused the SSI, or that the apparent SSI was from a source other than the CCR unit, or that the SSI resulted from errors in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. Pursuant to 40 CFR Section 257.94(e)(2), this document demonstrates that sources other than WDS3 Landfill were the cause of the apparent SSI listed above. This ASD was completed within 90 days of determination of the SSIs (November 23, 2020) as required by 40 CFR Section 257.94(e)(2).

Pursuant to 40 CFR Section 257.94(e)(2), the following lines of evidence were presented to demonstrate that fluoride concentrations detected in the downgradient wells are a result of the following:

- Variability in laboratory detection limits between background monitoring and detection monitoring events.

The preceding information serves as the ASD prepared in accordance with 40 CFR Section 257.94(e)(2) and supports the position that the SSIs observed during Detection Monitoring Round 6 are not due to a release from the CCR unit but were a result of statistical procedures used to evaluate the results from the WDS3 Landfill. Therefore, no further action (i.e. assessment monitoring) is warranted and WDS3 Landfill will remain in detection monitoring.

If you have any questions regarding this document, please do not hesitate to contact us.

Sincerely,

Glenn R. Luke, PE
Managing Engineer
Professional Engineer No. 42834-6
State of Wisconsin
Ramboll Americas Engineering Solutions, Inc.
Date: November 23, 2020

I, Glenn R. Luke, a qualified professional engineer in good standing in the State of Wisconsin, certify that enclosed information is accurate as of the date of my signature below. The content of this report is not to be used for other than its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Nathaniel R. Keller, PG
Senior Hydrogeologist
Professional Geologist No. 1283-013
State of Wisconsin
Ramboll Americas Engineering Solutions, Inc.
Date: May 25, 2020

I, Nathaniel R. Keller, a qualified professional geologist, certify that the enclosed information is accurate as of the date of my signature below. The content of this report is not to be used for other than its intended purpose and meaning, or for extrapolations beyond the interpretations contained herein.

Tables

Table 1 Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

TABLES

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

Well Id	Date Sampled	Lab Id	B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-100	2/18/2016	40128408001	0.0480	13.900	4.000 J	<0.200 U		12.500
	4/5/2016	40130257002	0.0120	27.300	4.300	<0.200 U	6.460	16.600
	6/15/2016	40133877003	0.0350	22.500	3.600 J	<0.200 U	6.530	13.100
	8/10/2016	40136543003	0.0410	28.200	4.900	<0.200 U	6.620	20.700
	10/5/2016	40139741002	0.1000	56.800	0.970 J	<0.100 U	6.620	4.500
	12/21/2016	40143755003	0.0980	75.200	21.000	<0.100 U	7.110	202.000
	3/10/2017	40146662002	0.0290	17.900	3.600	<0.100 U	8.390	30.000
	6/2/2017	40151013002	0.1100	13.100	1.600 J	<0.100 U	8.030	31.500
	10/11/2017	40158568002	0.0559	11.000	0.860 J	<0.100 U	6.270	15.700
	4/26/2018	40168127002	0.0292 J	6.550	0.720 J	<0.100 U	6.970	13.100
	10/25/2018	AE31422	0.0250	11.000	0.290	0.066	6.300	17.000
	4/24/2019	AE36960	0.0180	8.300	0.530	0.040	5.870	13.000
	10/24/2019	AE41530	0.0230	9.600	0.510	<0.070 U	5.500	18.000
	4/14/2020	AE45278	0.0140	11.000	0.540	0.013	5.900	14.000
LS-101	2/18/2016	40128408002	0.0086	5.200	2.900 J	<0.200 U		5.600
	4/5/2016	40130257003	0.0096	3.400	2.300 J	<0.200 U	6.230	5.600
	6/15/2016	40133877002	0.0097 J	4.700	2.600 J	<0.200 U	6.280	4.800
	8/10/2016	40136543002	0.0140	11.600	2.400 J	<0.200 U	6.400	4.100
	10/5/2016	40139741003	0.0120	6.800	2.000 J	<0.100 U	6.760	13.300
	12/21/2016	40143755002	0.0120	6.900	0.820 J	<0.100 U	6.990	4.300

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-101	3/10/2017	40146662003	0.0092 J	3.300	<0.500 U	<0.100 U	7.470	4.400
	6/2/2017	40151013003	0.0430	2.500	0.720 J	<0.100 U	7.800	4.100
	10/11/2017	40158568003	0.0138 J	11.400	0.760 J	<0.100 U	5.750	5.900
	4/26/2018	40168127003	<0.0067 U	4.180	0.540 J	<0.100 U	6.450	4.100
	10/25/2018	AE31423	0.0140	3.000	0.400	0.061	6.100	3.100
	4/24/2019	AE36961	0.0081	4.200	0.620	<0.040 U	5.680	2.600
	10/24/2019	AE41531	0.0120	3.100	0.280	<0.070 U	5.300	2.600
	4/14/2020	AE45279	0.0080	2.400	0.170	0.022	5.990	2.600
LS-105	2/18/2016	40128408003	0.0140	17.300	4.200	<0.200 U		9.200
	4/5/2016	40130257004	0.0140	14.200	3.500 J	<0.200 U	6.500	10.000
	6/15/2016	40133877004	0.0130	14.300	3.500 J	<0.200 U	6.500	9.100
	8/10/2016	40136543004	0.0200	20.100	2.900 J	<0.200 U	6.740	4.800
	10/5/2016	40139741004	0.0300	31.400	12.400 J	<1.000 U	7.070	67.800
	12/21/2016	40143755005	0.0300	34.000	10.600	<0.500 U	7.450	58.600
	3/10/2017	40146662004	0.0260	32.300	7.200	<0.100 U	7.820	50.400
	6/2/2017	40151013004	0.0330 J	14.200	2.600	<0.100 U	7.900	26.500
	10/11/2017	40158568004	0.0452	18.800	3.600 J	<0.500 U	7.240	31.000
	4/26/2018	40168127004	0.0161 J	18.700	2.600 J	<0.500 U	7.430	15.900
	10/25/2018	AE31424	0.0300	20.000	0.740	0.085	6.500	16.000
	4/24/2019	AE36962	0.0180	2.100	1.200	0.057	5.910	19.000
	10/24/2019	AE41532	0.0260	18.000	0.540	0.073	5.500	16.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-105	4/14/2020	AE45280	0.0170	17.000	0.820	0.039	6.120	14.000
LS-106	2/18/2016	40128408004	0.0150	9.200	4.200	<0.200 U		6.700
	4/5/2016	40130257005	0.0890	7.700	3.200 J	<0.200 U	6.700	6.600
	6/15/2016	40133877005	0.0540	7.600	3.200 J	<0.200 U	6.520	5.500
	8/10/2016	40136543005	0.0630	10.100	<10.000 U	<1.000 U	6.640	<10.000 U
	10/5/2016	40139741005	0.3600	10.700	2.800 J	<0.500 U	7.020	<5.000 U
	12/21/2016	40143755006	0.1200	12.300	<2.500 U	<0.500 U	7.500	5.700 J
	3/10/2017	40146662005	0.4500	9.900	<2.500 U	<0.500 U	8.080	5.200 J
	6/2/2017	40151013005	0.0910	9.400	4.100 J	<0.500 U	7.950	11.800 J
	10/11/2017	40158568005	0.1060	15.500	3.600 J	<0.500 U	6.580	11.400 J
	4/26/2018	40168127005	0.0544	6.160	<2.500 U	<0.500 U	7.510	<5.000 U
	10/25/2018	AE31425	0.0540	6.000	0.470	0.066	6.400	3.200
	4/24/2019	AE36963	0.0250	6.600	8.400	0.053	6.060	6.300
	9/13/2019	AE40532			11.000		5.960	
	10/24/2019	AE41533	0.2600	22.000	8.400	<0.070 U	5.600	6.500
	3/2/2020	AE44199	0.0790	14.000			6.370	
	4/14/2020	AE45281	0.0690	4.800	1.300	0.049	6.430	4.300
LS-107	2/18/2016	40128408005	0.0100	17.000	9.400	<0.200 U		9.000
	4/5/2016	40130257006	0.0097	18.200	7.400	<0.200 U	6.220	9.200
	6/15/2016	40133877001	0.0089 J	19.100	7.900	<0.200 U	6.520	10.800
	8/10/2016	40136543001	0.0120	21.000	6.900	<0.200 U	6.710	10.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			B, tot, mg/L	Ca, tot, mg/L	Cl, tot, mg/L	F, tot, mg/L	pH (field), STD	SO4, tot, mg/L
LS-107	10/5/2016	40139741006	0.0120	22.000	5.400	<0.100 U	6.830	10.000
	12/20/2016	40143755001	0.0140	25.900	4.700	<0.100 U	7.160	12.500
	3/10/2017	40146662006	0.0110	25.700	3.800	<0.100 U	7.420	15.200
	6/2/2017	40151013006	0.0310 J	21.900	5.400	<0.100 U	7.580	19.900
	10/11/2017	40158568006	0.0143 J	26.000	6.200	<0.100 U	6.130	25.500
	4/26/2018	40168127006	0.0097 J	20.100	3.000	<0.100 U	6.850	17.500
	10/25/2018	AE31426	0.0170	21.000	2.700	0.065	6.000	26.000
	4/24/2019	AE36964	0.0091	18.000	1.800	0.040	5.740	21.000
	10/24/2019	AE41534	0.0180	19.000	1.800	<0.070 U	5.500	24.000
	4/14/2020	AE45282	0.0140	18.000	2.100	0.029	5.840	27.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

Well Id	Date Sampled	Lab Id	TDS, mg/L
LS-100	2/18/2016	40128408001	122.000
	4/5/2016	40130257002	150.000
	6/15/2016	40133877003	148.000
	8/10/2016	40136543003	182.000
	10/5/2016	40139741002	306.000
	12/21/2016	40143755003	360.000
	3/10/2017	40146662002	98.000
	6/2/2017	40151013002	94.000
	10/11/2017	40158568002	80.000
	4/26/2018	40168127002	82.000
	10/25/2018	AE31422	50.000
	4/24/2019	AE36960	30.000
	10/24/2019	AE41530	50.000
	4/14/2020	AE45278	42.000
LS-101	2/18/2016	40128408002	50.000
	4/5/2016	40130257003	52.000
	6/15/2016	40133877002	44.000
	8/10/2016	40136543002	84.000
	10/5/2016	40139741003	70.000
	12/21/2016	40143755002	60.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			TDS, mg/L
LS-101	3/10/2017	40146662003	28.000
	6/2/2017	40151013003	30.000
	10/11/2017	40158568003	62.000
	4/26/2018	40168127003	58.000
	10/25/2018	AE31423	44.000
	4/24/2019	AE36961	<20.000 U
	10/24/2019	AE41531	27.000
	4/14/2020	AE45279	24.000
LS-105	2/18/2016	40128408003	98.000
	4/5/2016	40130257004	94.000
	6/15/2016	40133877004	80.000
	8/10/2016	40136543004	148.000
	10/5/2016	40139741004	204.000
	12/21/2016	40143755005	196.000
	3/10/2017	40146662004	178.000
	6/2/2017	40151013004	96.000
	10/11/2017	40158568004	100.000
	4/26/2018	40168127004	118.000
	10/25/2018	AE31424	110.000
	4/24/2019	AE36962	110.000
	10/24/2019	AE41532	86.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			TDS, mg/L
LS-105	4/14/2020	AE45280	62.000
LS-106	2/18/2016	40128408004	70.000
	4/5/2016	40130257005	94.000
	6/15/2016	40133877005	110.000
	8/10/2016	40136543005	94.000
	10/5/2016	40139741005	228.000
	12/21/2016	40143755006	186.000
	3/10/2017	40146662005	544.000
	6/2/2017	40151013005	72.000
	10/11/2017	40158568005	108.000
	4/26/2018	40168127005	88.000
	10/25/2018	AE31425	58.000
	4/24/2019	AE36963	52.000
	10/24/2019	AE41533	130.000
	4/14/2020	AE45281	20.000
LS-107	2/18/2016	40128408005	88.000
	4/5/2016	40130257006	94.000
	6/15/2016	40133877001	112.000
	8/10/2016	40136543001	118.000
	10/5/2016	40139741006	118.000
	12/20/2016	40143755001	72.000

Weston Disposal Site #3 CCR
Table 1. Weston Disposal Site No. 3 Landfill: Appendix III Analytical Results

Date Range: 10/01/2015 to 05/18/2020

			TDS, mg/L
LS-107	3/10/2017	40146662006	134.000
	6/2/2017	40151013006	110.000
	10/11/2017	40158568006	134.000
	4/26/2018	40168127006	128.000
	10/25/2018	AE31426	120.000
	4/24/2019	AE36964	86.000
	10/24/2019	AE41534	76.000
	4/14/2020	AE45282	82.000