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November 4, 2024

Brian Rath, P.E.
Iowa Department of Natural Resources
6200 Park Avenue
Suite 200
Des Moines, IA 50321

RE: Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Dear Brian Rath, P.E.:

On behalf of the Cedar Rapids Linn County Solid Waste Agency (Agency), Foth Infrastructure & Environment, LLC (Foth) is submitting the notification and placement of notice in the operating record for the Appendix II constituents detected, statistically significant increases (SSIs) over background, and statistically significant levels (SSLs) over the groundwater protection standard (GWPS) for the Fall 2024 semiannual statistical evaluation at Site 1. In accordance with "Unnumbered Amendment Regarding Semiannual Water Quality Reports," the field sampling forms, laboratory reports, and the statistical report associated with the August 2024 monitoring event will be submitted with the 2024 Annual Water Quality Report (AWQR).

1. Report Priority

No actions or activities are on hold due to the completion of the Iowa Department of Natural Resources (IDNR) review or comment. There are no changes to the Hydrologic Monitoring System Plan (HMSP) requested in this report.

2. Summary of the Monitoring Networks and Sampling Schedules

A summary of the groundwater monitoring network and the status of the sampling schedules are outlined in Table 1 of Attachment 1.

In August 2024, semiannual corrective action, background, and delineation monitoring was conducted at upper bedrock wells MW-12, MW-13, MW-16, MW-17, MW-32, MW-37, and MW-101A and deeper bedrock wells MW-14, MW-33, MW-38, MW-101B, and MW-109B. In accordance with Permit Amendment #16, annual detection, assessment, corrective action, and delineation monitoring was also conducted in August 2024 at upper bedrock wells AW-1, AW-2, AW-3, AW-4, AW-5, MW-20, MW-21, MW-23, MW-24, MW-26, MW-28, MW-30, MW-34, MW-35, VP-3, VP-4, MW-105A, MW-106A, MW-107A, and MW-109A and deeper bedrock wells AW-6, CRL-9, MW-11, MW-15, MW-18, MW-19, MW-22, MW-25, MW-31, MW-36, MW-102B, MW-104B, MW-105B, MW-107B, and MW-108B.

The groundwater monitoring locations are depicted in Figure 1 of Attachment 2. Low-flow or no-purge sampling was continued during the August 2024 sampling event in accordance with the standard operating procedures provided in Appendix B of *Response to DNR Comments dated March 10, 2015* (Foth, 2015). The low-flow and no-purge sampling rates and equipment utilized will be identified on the field sampling forms submitted with the 2024 AWQR.

3. Appendix II Detections

The Appendix II constituents detected in the groundwater monitoring wells under the assessment and corrective action monitoring programs during the August 2024 sampling event are presented in Tables 2 and 3 of Attachment 1.

4. Detection Monitoring Statistically Significant Increases (SSIs)

The detection monitoring SSI summary is presented in Table 4 of Attachment 1. No SSIs were identified at deeper bedrock detection monitoring well MW-31. The future monitoring schedule is provided in Table 1 of Attachment 1.

5. Groundwater Assessment, Corrective Action, and Delineation Monitoring SSIs and SSLs

Summaries of the assessment, corrective action, and delineation monitoring SSIs and SSLs are provided in Tables 5 and 6 of Attachment 1. The future monitoring schedules are provided in Table 1 of Attachment 1.

Notably, compliance with the GWPS was newly achieved for thallium in MW-20 and cobalt in MW-105A during the current (Fall 2024) statistical evaluation. In accordance with IAC 113.10(9)e(2), thallium in MW-20 and cobalt in MW-105A will return as assessment constituents in 2027 if the constituent/well pairs remain below the GWPS in the interim statistical evaluations.

In addition, cobalt in MW-35 remained compliant with the GWPS for three consecutive years; therefore, in accordance with IAC 113.10(9)e(2), cobalt in MW-35 will return to an assessment constituent in 2025. Since cobalt is the only corrective action constituent in MW-35, MW-35 will return to an assessment monitoring location in 2025.

6. References

Foth Infrastructure & Environment (Foth), 2015. *Response to DNR Comments dated March 10, 2015, Cedar Rapids/Linn County Solid Waste Agency Site 1, Permit No. 57-SDP-03-75C*. May 6. [Doc. #83348].

Iowa Department of Natural Resources (Matthew R. Phoenix, P.E.), Letter to Karmin McShane, 12 May 2016. “Cedar Rapids/Linn County Solid Waste Agency Sanitary Landfill (Site #1 – Cedar Rapids), 2015 Annual Water Quality Report and 2015 Statistical Notifications, Permit No. 57-SDP-03-75C.” [Doc. #86317].

Iowa Department of Natural Resources (Matthew Graesch), Letter to Karmin McShane, 16 Apr 2019. “Cedar Rapids/Linn County Solid Waste Agency Sanitary Landfill #1, Permit No. 57-SDP-03-75C, 2019 Annual Water Quality Report (Doc No. 94330).” [Doc. #94910].

Thank you for your consideration of this matter. Please contact us at our numbers listed below if you have any questions or need additional information.

Sincerely,

Foth Infrastructure & Environment, LLC

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cc: Garrett Prestegard, Cedar Rapids Linn County Solid Waste Agency
Karmin McShane, Cedar Rapids Linn County Solid Waste Agency
IDNR Field Office #1
Foth Project File

Enclosures
Attachment 1: Tables
Attachment 2: Figure

Attachment 1
Tables

Table 1
Monitoring Program Implementation Schedule
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Monitoring Well	Monitoring Program	Sampling Date and Constituents [1,2]	Upcoming Sampling Dates and Constituents [2]		Full Appendix II Sample Dates	
		Aug. 2024	Spring 2025	Fall 2025	Previously Collected	Next Event
Upper Bedrock Monitoring Locations						
Downgradient Monitoring Locations						
AW-1	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
AW-2	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
AW-3	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Mar. 2016, Jun. 2016, Aug. 2020	Fall 2025
AW-4	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Mar. 2016, Jun. 2016, Aug. 2020	Fall 2025
AW-5	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2015, Aug. 2020	Fall 2025
MW-12	Corrective Action	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-13	Corrective Action	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-16	Corrective Action	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-17	Corrective Action	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-20	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2015, Aug. 2020	Fall 2025
MW-21	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-23	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-24	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-26	Assessment	Appendix II, TSS		Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020, Jan. 2023, Mar. 2023	Fall 2028
MW-28	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2015, Aug. 2020	Fall 2025
MW-30	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-32	Corrective Action	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-34	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-35	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
VP-3	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2015, Aug. 2020	Fall 2025
VP-4	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Jul. 2019, Sep. 2009, Sep. 2015, Aug. 2020	Fall 2025
Background Monitoring Locations						
MW-37	Background	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2015, Sep. 2015, Mar. 2016, Aug. 2020	Fall 2025
MW-101A	Background	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Oct. 2015, Mar. 2016, Aug. 2020	Fall 2025
Delineation Monitoring Locations						
MW-105A	Delineation	Appendix I, TSS		Appendix I, TSS	N/A - Delineation Monitoring	N/A
MW-106A	Delineation	Appendix I, TSS		Appendix I, TSS	N/A - Delineation Monitoring	N/A
MW-107A	Delineation	Appendix I, TSS		Appendix I, TSS	N/A - Delineation Monitoring	N/A
MW-109A	Delineation	Appendix I, TSS		Appendix I, TSS	N/A - Delineation Monitoring	N/A

Table 1
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Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Monitoring Well	Monitoring Program	Sampling Date and Constituents [1,2]	Upcoming Sampling Dates and Constituents [2]		Full Appendix II Sample Dates	
		Aug. 2024	Spring 2025	Fall 2025	Previously Collected	Next Event
Deeper Bedrock Monitoring Locations						
Downgradient Monitoring Locations						
AW-6	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
CRL-9	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-11	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-14	Corrective Action	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sept. 2015, Aug. 2020	Fall 2025
MW-15	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Jun. 2016, Aug. 2016, Aug. 2020	Fall 2025
MW-18	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Jul. 2015, Sep. 2015, Aug. 2020	Fall 2025
MW-19	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Jul. 2015, Sep. 2015, Aug. 2020	Fall 2025
MW-22	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-25	Assessment	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2015, Aug. 2020	Fall 2025
MW-31	Detection	Appendix I, TSS		Appendix I, TSS	Aug. 2008, Mar. 2009	N/A - Detection
MW-33	Corrective Action	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
MW-36	Corrective Action	Appendix II, TSS		Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Aug. 2020	Fall 2025
Background Monitoring Locations						
MW-38	Background	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Aug. 2008, Mar. 2009, Sep. 2010, Sep. 2015, Mar. 2016, Aug. 2016, Aug. 2020	Fall 2025
MW-101B	Background	Appendix II, TSS	Appendix II, TSS	Full Appendix II, TSS	Sep. 2015, Mar. 2016, Sep. 2016, Aug. 2020	Fall 2025
Delineation Monitoring Locations						
MW-102B	Delineation	Appendix I, TSS		Appendix I, TSS	N/A - Delineation Monitoring	N/A
MW-104B	Delineation	Arsenic, TSS [3]		Arsenic, TSS [3]	N/A - Delineation Monitoring	N/A
MW-105B	Delineation	Appendix I, TSS		Appendix I, TSS	N/A - Delineation Monitoring	N/A
MW-107B	Delineation	Appendix I, TSS		Appendix I, TSS	N/A - Delineation Monitoring	N/A
MW-108B	Delineation	Appendix I without Cobalt, TSS [4]		Appendix I without Cobalt, TSS [4]	N/A - Delineation Monitoring	N/A
MW-109B	Delineation	Appendix I, TSS	Appendix I, TSS	Appendix I, TSS	N/A - Delineation Monitoring	N/A

Comments:

N/A = Not Applicable

[1] In Aug. 2024, semiannual corrective action, background, and delineation monitoring was continued at upper bedrock wells MW-12, MW-13, MW-16, MW-17, MW-32, MW-37, and MW-101A and deeper bedrock wells MW-14, MW-33, MW-38, MW-101B, and MW-109B. In accordance with Permit Amendment #16, annual detection, assessment, corrective action, and delineation monitoring was also conducted in Aug. 2024 at upper bedrock wells AW-1, AW-2, AW-3, AW-4, AW-5, MW-20, MW-21, MW-23, MW-24, MW-26, MW-28, MW-30, MW-34, MW-35, VP-3, VP-4, MW-105A, MW-106A, MW-107A, and MW-109A and deeper bedrock wells AW-6, CRL-9, MW-11, MW-15, MW-18, MW-19, MW-22, MW-25, MW-31, MW-36, MW-102B, MW-104B, MW-105B, MW-107B, and MW-108B.

Table 1
Monitoring Program Implementation Schedule
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Comments (Continued):

(2) Appendix II locations were sampled for the Appendix I and detected Appendix II constituents in Aug. 2024, and will be sampled for the Appendix I and detected Appendix II constituents in Spring 2025. Except for MW-26, the five-year resampling of the full Appendix II list will be conducted at assessment, corrective action, and background monitoring wells in Fall 2025 in accordance with Permit Amendment #6. At MW-26, resampling for the full Appendix II list is scheduled for Fall 2028.

(3) The Iowa Department of Natural Resources (IDNR) approved retaining MW-104B as an arsenic delineation monitoring well in the letter dated May 12, 2016 (IDNR, 2016).

(4) The IDNR approved the removal of cobalt from the list of analytes at MW-108B in the letter dated April 16, 2019 (IDNR, 2019).

Table 2
August 2024 Appendix II Detections - Upper Bedrock Assessment and Corrective Action Monitoring Locations
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Constituent	Unit	AW-1 (d)	AW-2 (d)	AW-3 (d)	AW-4 (d)	AW-5 (d)	MW-12 (d)	MW-13 (d)	MW-16 (d)	MW-17 (d)	MW-20 (d)	MW-21 (d)	MW-23 (d)
1,1-Dichloroethane	ug/L	0.443 J	1.29	0.309 J			4.29	1.74	1.32			0.822 J	
1,2-Dichlorobenzene	ug/L	0.574 J					2.71	2.15	1.32				
1,2-Dichloropropane	ug/L						0.318 J						
1,4-Dichlorobenzene	ug/L	1.26					8.01	12.4	5.18			0.348 J	
2-Butanone	ug/L												
Acetone	ug/L				4.64 J								
Antimony	mg/L				0.00282								
Arsenic	mg/L	0.0461	0.0166	0.00251	0.00408	0.0016 J	0.114	0.0351	0.0638	0.0707	0.0218	0.00116 J	
Barium	mg/L	0.178 J	0.468	0.0705	0.09	0.193	0.514	0.956	0.148	0.145	0.161	0.146	0.119
Benzene	ug/L	0.33 J					0.854	4.11	0.567				
Cadmium	mg/L		0.000104 J		0.000476							0.000181 J	
Chlorobenzene	ug/L	5.7	2.26				3.98	3.93	2.01			1.03	
Chloroethane	ug/L							2.19 J					
Chromium	mg/L				0.00147 J								
cis-1,2-Dichloroethene	ug/L	0.756 J	3.12				4.21		0.443 J			0.365 J	
Cobalt	mg/L	0.00136	0.00169		0.0037	0.00294	0.00445	0.00148	0.000804	0.0052	0.00209	0.00137	0.000883
Copper	mg/L				0.0917	0.00503							0.00228 J
Lead	mg/L	0.000817	0.00109								0.000339 J		
Nickel	mg/L	0.0246	0.0132		0.0894	0.0107	0.0822	0.0118	0.0293	0.00784	0.0193	0.0275	0.0128
Selenium	mg/L					0.0172					0.00141 J		
Silver	mg/L	0.000705 J	0.000691 J			0.000991 J					0.000893 J		
Thallium	mg/L	0.00161	0.00341				0.00255				0.00157	0.00166	0.000868 J
Toluene	ug/L												
Total Suspended Solids	mg/L	27.8	17.7	1.75 J	2.5	4.88	23	127	56	61	15		
trans-1,2-Dichloroethene	ug/L						0.308 J						
Vanadium	mg/L				0.00254 J			0.0024 J					
Vinyl Chloride	ug/L		0.693 J				0.589 J						
Zinc	mg/L	0.0231	0.0136 J						0.0506		0.0334	0.0512	0.0668

(d) = downgradient

(b) = background

Table 2
August 2024 Appendix II Detections - Upper Bedrock Assessment and Corrective Action Monitoring Locations
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Constituent	Unit	MW-24 (d)	MW-26 (d)	MW-28 (d)	MW-30 (d)	MW-32 (d)	MW-34 (d)	MW-35 (d)	MW-37 (b)	MW-101A (b)	VP-3 (d)	VP-4 (d)
1,1-Dichloroethane	ug/L	0.347 J		0.308 J	11.1		2.17				0.318 J	
1,2-Dichlorobenzene	ug/L	5.54				0.45 J	1.12					
1,2-Dichloropropane	ug/L				0.353 J							
1,4-Dichlorobenzene	ug/L	11.7				2.47	3.69					
2-Butanone	ug/L						2.2 J					
Acetone	ug/L											
Antimony	mg/L											
Arsenic	mg/L	0.0304	0.000928 J		0.0128	0.247	0.0359	0.00291			0.0077	0.00344
Barium	mg/L	0.899	0.159	0.206	0.135	0.886	0.336	0.149	0.0518	0.129	0.774	0.067
Benzene	ug/L	8.11			1.1	0.691	1.11					
Cadmium	mg/L							0.00017 J				
Chlorobenzene	ug/L	63	0.544 J			12	2.94				0.7 J	
Chloroethane	ug/L				8.99							
Chromium	mg/L						0.00132 J					
cis-1,2-Dichloroethene	ug/L	0.284 J			7.11		0.64 J				0.329 J	
Cobalt	mg/L	0.000266 J			0.00179	0.00845	0.0034	0.00389		0.000513		
Copper	mg/L	0.0212				0.00222 J	0.0028 J					
Lead	mg/L	0.000885				0.00051	0.00035 J					
Nickel	mg/L	0.00758			0.0257	0.0766	0.0471	0.0278		0.00231 J		
Selenium	mg/L							0.00683		0.00259 J		
Silver	mg/L											
Thallium	mg/L	0.000714 J			0.000693 J							
Toluene	ug/L						68.9					
Total Suspended Solids	mg/L	10.6	11.8	14	16	53	47	4.88			21	2.88
trans-1,2-Dichloroethene	ug/L				0.881 J		0.893 J					
Vanadium	mg/L					0.00153 J	0.00243 J					
Vinyl Chloride	ug/L	0.493 J			1.15		0.759 J					
Zinc	mg/L	0.0219		0.0121 J	0.158			0.0264				

(d) = downgradient

(b) = background

Table 3
August 2024 Appendix II Detections - Deeper Bedrock Assessment and Corrective Action Monitoring Locations
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Constituent	Unit	AW-6 (d)	CRL-9 (d)	MW-11 (d)	MW-14 (d)	MW-15 (d)	MW-18 (d)	MW-19 (d)	MW-22 (d)	MW-25 (d)	MW-33 (d)	MW-36 (d)	MW-38 (b)	MW-101B (b)
1,1-Dichloroethane	ug/L	1.8		1.78	1.74				1.71		0.275 J			
1,2-Dichlorobenzene	ug/L				1.43				0.605 J					
1,4-Dichlorobenzene	ug/L				7.57				1.36		1.04	1.43		
Arsenic	mg/L	0.000805 J	0.0487		0.0151	0.00061 J	0.00347	0.000834 J	0.0551	0.00161 J	0.0503	0.0692	0.00102 J	0.000612 J
Barium	mg/L	0.174	0.454	0.0571	0.736	0.0414	0.0197	0.0327	0.558	0.195	0.666	0.594	0.0457	0.122
Benzene	ug/L		2.62		0.86						0.299 J	0.294 J		
Chlorobenzene	ug/L		0.432 J		2.26				3.01	0.971 J	6.92	6.98		
Chloroethane	ug/L				1.37 J					0.876 J				
Chromium	mg/L		0.00185 J											
cis-1,2-Dichloroethene	ug/L				0.81 J			0.228 J	0.757 J	1.1	0.232 J			
Cobalt	mg/L	0.0104	0.00408	0.00097	0.000543	0.00515			0.00254		0.00139	0.0013		0.000175 J
Copper	mg/L	0.00234 J												
Nickel	mg/L	0.0286	0.0173	0.00441 J	0.0148	0.0136	0.00643	0.0144	0.0304		0.00722	0.00749		
Selenium	mg/L	0.00157 J												0.00217 J
Silver	mg/L	0.000766 J						0.000889 J						
Thallium	mg/L	0.000782 J												
Total Suspended Solids	mg/L	4.75	22.5		61	3.63	3.4	5.2	33.5	4.25	12.3	23.5		
trans-1,2-Dichloroethene	ug/L								0.376 J					
Vanadium	mg/L		0.0012 J						0.00114 J					
Vinyl Chloride	ug/L								0.343 J	0.68 J				
Zinc	mg/L		0.0139 J											

(d) = downgradient

(b) = background

Table 4
Summary of Well/Detected Constituent Pairs With No Previous SSIs
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Well	Constituent [1]	Units	Most Recent Result (Aug. 2024)	Background Standard [2]
Deeper Bedrock Monitoring Locations				
Detection Monitoring Locations				
MW-31	Barium	mg/L	0.0961	0.138
	Total Suspended Solids	mg/L	2.13	N/A

* Current result is above background, if confirmed by retest sample(s) an SSI will be identified (1-of-2 retesting plan for groundwater prediction limits and DQR constituents).

** Current result is a confirmed SSI. Appendix II sampling will be completed within 90 days.

Comments:

[1] List contains constituents detected above the laboratory method detection limit (MDL) and includes J-flagged concentrations.

[2] Source of background standards are provided in the Fall 2024 statistical evaluation memo, which will be submitted with the 2024 AWQR. N/A = not applicable.

• No SSIs were identified at deeper bedrock detection monitoring well MW-31. The future sampling schedule is provided in Table 1.

Table 5
Summary of Ongoing and Newly Identified SSIs
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Well	Constituent [1]	Units	Most Recent Result [2]	Background Standard [3]	Lower Confidence Limit	GWPS [3]	Sample Dates		
							Initial Exceedance (above background)	Resample(s) [4]	5th Background Sample
Upper Bedrock Monitoring Locations									
Assessment Monitoring Locations									
AW-3	Arsenic	mg/L	0.00251	0.00205	0.003	0.01	Fall 2011	N/S	Mar. 2010
AW-4	Arsenic	mg/L	0.00408	0.00205	0.001	0.01	Spring 2012	N/S	Mar. 2010
	Cadmium	mg/L	0.000476	0.0002	0.0002	0.005	Fall 2019	N/S	Mar. 2010
	Copper	mg/L	0.0917	0.0225	0.02	1.3	Sep. 2015	Jan. 2016	Mar. 2010
	Nickel	mg/L	0.0894	0.0522	0.024	0.1	Fall 2019	N/S	Mar. 2010
AW-5	Barium	mg/L	0.193	0.1285	0.13	2	Fall 2011	N/S	Mar. 2010
	Selenium	mg/L	0.0172	0.005	0.002	0.05	Fall 2020	N/A	Mar. 2010
MW-21	Barium	mg/L	0.146	0.1285	0.24	2	Fall 2011	N/S	Mar. 2010
	Chlorobenzene	ug/L	1.03	1.00	1.2	100	Fall 2009	N/S	Mar. 2010
	Thallium	mg/L	0.00166	0.001	0.001	0.002	Spring 2015	N/S	Mar. 2010
MW-23	No SSIs								
MW-26	Barium	mg/L	0.159	0.1285	0.19	2	Fall 2011	N/S	Mar. 2010
MW-28	Barium	mg/L	0.206	0.1285	0.24	2	Fall 2011	N/S	Mar. 2010
VP-3	Arsenic	mg/L	0.0077	0.00205	0.005	0.01	Fall 2010	N/S	Mar. 2010
	Barium	mg/L	0.774	0.1285	0.51	2	Fall 2011	N/S	Mar. 2010
VP-4	Arsenic	mg/L	0.00344	0.00205	0.003	0.01	Fall 2011	N/S	Sep. 2010
Corrective Action Monitoring Locations - Assessment Constituents									
AW-1	1,4-Dichlorobenzene	ug/L	1.26	1.00	1.0	75	Fall 2009	N/S	Mar. 2010
	Barium	mg/L	0.178 J	0.1285	0.31	2	Fall 2011	N/S	Mar. 2010
	Chlorobenzene	ug/L	5.7	1.00	4.8	100	Fall 2009	N/S	Mar. 2010
	Thallium	mg/L	0.00161	0.001	0.0007	0.002	Spring 2017	N/S	Sep. 2010
AW-2	1,1-Dichloroethane	ug/L	1.29	1.00	1.1	140	Spring 2010	N/S	Mar. 2010
	Barium	mg/L	0.468	0.1285	0.35	2	Fall 2011	N/S	Mar. 2010
	Chlorobenzene	ug/L	2.26	1.00	1.8	100	Fall 2009	N/S	Mar. 2010
	cis-1,2-Dichloroethene	ug/L	3.12	1.00	3.5	70	Fall 2009	N/S	Mar. 2010
MW-12	1,1-Dichloroethane	ug/L	4.29	1.00	12.6	140	Spring 2010	N/S	Mar. 2010
	1,2-Dichlorobenzene	ug/L	2.71	1.00	0.9	600	Fall 2010	N/A	Mar. 2010
	1,4-Dichlorobenzene	ug/L	8.01	1.00	2.1	75	Fall 2009	N/S	Mar. 2010
	Barium	mg/L	0.514	0.1285	0.16	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	0.854	0.500	1.25	5	Fall 2009	N/S	Mar. 2010
	Chlorobenzene	ug/L	3.98	1.00	3.6	100	Fall 2009	N/S	Mar. 2010
	cis-1,2-Dichloroethene	ug/L	4.21	1.00	4.2	70	Fall 2009	N/S	Mar. 2010

Table 5
Summary of Ongoing and Newly Identified SSIs
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Well	Constituent [1]	Units	Most Recent Result [2]	Background Standard [3]	Lower Confidence Limit	GWPS [3]	Sample Dates		
							Initial Exceedance (above background)	Resample(s) [4]	5th Background Sample
Upper Bedrock Monitoring Locations									
Corrective Action Monitoring Locations - Assessment Constituents Continued									
MW-12	Nickel	mg/L	0.0822	0.0522	0.065	0.1	Fall 2009	N/S	Mar. 2010
Cont.	Thallium	mg/L	0.00255	0.001	0.0012	0.002	Spring 2013	N/S	Mar. 2010
MW-13	1,1-Dichloroethane	ug/L	1.74	1.00	2.0	140	Spring 2010	N/S	Mar. 2010
	1,2-Dichlorobenzene	ug/L	2.15	1.00	2.2	600	Fall 2010	N/S	Mar. 2010
	1,4-Dichlorobenzene	ug/L	12.4	1.00	11.9	75	Fall 2009	N/S	Mar. 2010
	Barium	mg/L	0.956	0.1285	0.56	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	4.11	0.500	3.88	5	Fall 2009	N/S	Mar. 2010
	Chlorobenzene	ug/L	3.93	1.00	4.2	100	Fall 2009	N/S	Mar. 2010
MW-16	1,1-Dichloroethane	ug/L	1.32	1.00	1.9	140	Spring 2010	N/S	Mar. 2010
	1,2-Dichlorobenzene	ug/L	1.32	1.00	0.5	600	Spring 2010	N/S	Mar. 2010
	1,4-Dichlorobenzene	ug/L	5.18	1.00	2.4	75	Fall 2010	N/S	Mar. 2010
	Barium	mg/L	0.148	0.1285	0.06	2	Spring 2011	N/S	Mar. 2010
	Benzene	ug/L	0.567	0.500	1.63	5	Fall 2009	N/S	Mar. 2010
	Chlorobenzene	ug/L	2.01	1.00	1.4	100	Fall 2010	N/S	Mar. 2010
MW-17	Barium	mg/L	0.145	0.1285	0.13	2	Fall 2011	N/S	Mar. 2010
MW-20	Arsenic	mg/L	0.0218	0.00205	0.002	0.01	Spring 2012	N/S	Mar. 2010
	Barium	mg/L	0.161	0.1285	0.15	2	Fall 2011	N/S	Mar. 2010
MW-24	1,2-Dichlorobenzene	ug/L	5.54	1.00	3.9	600	Spring 2010	N/S	Mar. 2010
	1,4-Dichlorobenzene	ug/L	11.7	1.00	7.4	75	Fall 2009	N/S	Mar. 2010
	Barium	mg/L	0.899	0.1285	0.81	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	8.11	0.500	4.10	5	Fall 2009	N/S	Mar. 2010
	Chlorobenzene	ug/L	63	1.00	28.7	100	Fall 2009	N/S	Mar. 2010
MW-30	1,1-Dichloroethane	ug/L	11.1	1.00	8.4	140	Spring 2010	N/S	Mar. 2010
	Barium	mg/L	0.135	0.1285	0.18	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	1.1	0.500	1.67	5	Fall 2009	N/S	Mar. 2010
	Chloroethane	ug/L	8.99	4.00	9.6	2800	Fall 2009	N/S	Mar. 2010
	cis-1,2-Dichloroethene	ug/L	7.11	1.00	5.0	70	Fall 2009	N/S	Mar. 2010
	Vinyl Chloride	ug/L	1.15	1.00	1.03	2	Fall 2010	N/S	Mar. 2010
	Zinc	mg/L	0.158	0.0805	0.07	2	Fall 2011	N/S	Mar. 2010
MW-32	1,4-Dichlorobenzene	ug/L	2.47	1.00	3.3	75	Fall 2009	N/S	Mar. 2010
	Barium	mg/L	0.886	0.1285	0.72	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	0.691	0.500	1.49	5	Fall 2009	N/S	Mar. 2010
	Chlorobenzene	ug/L	12	1.00	9.0	100	Fall 2009	N/S	Mar. 2010

Table 5
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Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Well	Constituent [1]	Units	Most Recent Result [2]	Background Standard [3]	Lower Confidence Limit	GWPS [3]	Sample Dates		
							Initial Exceedance (above background)	Resample(s) [4]	5th Background Sample
Upper Bedrock Monitoring Locations									
Corrective Action Monitoring Locations - Assessment Constituents Continued									
MW-32	Cobalt	mg/L	0.00845	0.008	0.002	0.008	Spring 2022	N/S	Mar. 2010
Cont.	Nickel	mg/L	0.0766	0.0522	0.017	0.1	Spring 2015	N/S	Mar. 2010
MW-34	1,1-Dichloroethane	ug/L	2.17	1.00	8.0	140	Spring 2010	N/S	Mar. 2010
	1,2-Dichlorobenzene	ug/L	1.12	1.00	1.3	600	Spring 2010	N/S	Mar. 2010
	1,4-Dichlorobenzene	ug/L	3.69	1.00	3.1	75	Fall 2009	N/S	Mar. 2010
	Barium	mg/L	0.336	0.1285	0.25	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	1.11	0.500	2.23	5	Fall 2009	N/S	Mar. 2010
	Chlorobenzene	ug/L	2.94	1.00	2.9	100	Fall 2009	N/S	Mar. 2010
	Toluene	ug/L	68.9	1.00	0.5	1000	Fall 2017	N/S	Mar. 2010
MW-35	Arsenic	mg/L	0.00291	0.00205	0.004	0.01	Fall 2011	N/S	Mar. 2010
	Barium	mg/L	0.149	0.1285	0.14	2	Fall 2011	N/S	Mar. 2010
	Selenium	mg/L	0.00683	0.005	0.003	0.05	Fall 2020	N/S	Mar. 2010
Delineation Monitoring Locations - Assessment Constituents									
MW-105A	No SSIs								
MW-106A	Barium	mg/L	0.23	0.1285	0.16	2	Sep. 2013	Nov. 2013	Sep. 2014
	Nickel	mg/L	0.0555	0.0522	0.020	0.1	Fall 2019	N/S	Sep. 2014
MW-107A	Barium	mg/L	0.199	0.1285	0.10	2	Fall 2022	N/S	Sep. 2014
MW-109A	Barium	mg/L	0.191	0.1285	0.19	2	Mar. 2018	Jun. 2018	Nov. 2018
	Selenium	mg/L	0.00822	0.005	0.003	0.05	Jun. 2018	Sep. 2018	Nov. 2018
Deeper Bedrock Monitoring Locations									
Assessment Monitoring Locations									
MW-11	1,1-Dichloroethane	ug/L	1.78	1.00	1.19	140	Fall 2009	N/S	Mar. 2010
	Cobalt	mg/L	0.00097	0.0008717	0.0007	0.0021	Fall 2016	N/S	Sep. 2010
MW-15	Cobalt	mg/L	0.00515	0.0008717	0.0015	0.0021	Fall 2016	N/S	Mar. 2011
	Nickel	mg/L	0.0136	0.00735	0.006	0.1	Mar. 2016	Jun. 2016	Mar. 2011
MW-18	Arsenic	mg/L	0.00347	0.00225	0.0009	0.01	Aug. 2024	N/S	Mar. 2010
MW-19	Nickel	mg/L	0.0144	0.00735	0.008	0.1	Mar. 2015	Jun. 2015	Mar. 2010
MW-25	Barium	mg/L	0.195	0.138	0.18	2	Fall 2011	N/S	Mar. 2010
	cis-1,2-Dichloroethene	ug/L	1.1	1.00	0.50	70	Spring 2016	N/S	Mar. 2010
Corrective Action Monitoring Locations - Assessment Constituents									
AW-6	1,1-Dichloroethane	ug/L	1.8	1.00	2.1	140	Fall 2009	N/S	Mar. 2010
	Barium	mg/L	0.174	0.138	0.10	2	Fall 2011	N/S	Mar. 2010
	Nickel	mg/L	0.0286	0.00735	0.026	0.1	Spring 2015	N/S	Mar. 2010

Table 5
Summary of Ongoing and Newly Identified SSIs
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Well	Constituent [1]	Units	Most Recent Result [2]	Background Standard [3]	Lower Confidence Limit	GWPS [3]	Sample Dates		
							Initial Exceedance (above background)	Resample(s) [4]	5th Background Sample
Deeper Bedrock Monitoring Locations									
Corrective Action Monitoring Locations - Assessment Constituents Continued									
CRL-9	Barium	mg/L	0.454	0.138	0.44	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	2.62	0.500	1.51	5	Fall 2009	N/S	Mar. 2010
	Nickel	mg/L	0.0173	0.00735	0.018	0.1	Spring 2015	N/S	Mar. 2010
MW-14	1,1-Dichloroethane	ug/L	1.74	1.00	1.7	140	Fall 2010	N/S	Mar. 2010
	1,2-Dichlorobenzene	ug/L	1.43	1.00	1.2	600	Fall 2011	N/S	Mar. 2010
	1,4-Dichlorobenzene	ug/L	7.57	1.00	5.1	75	Spring 2011	N/S	Mar. 2010
	Barium	mg/L	0.736	0.138	0.14	2	Fall 2011	N/S	Mar. 2010
	Benzene	ug/L	0.86	0.500	2.25	5	Fall 2009	N/S	Mar. 2010
	Chlorobenzene	ug/L	2.26	1.00	2.8	100	Fall 2010	N/S	Mar. 2010
	Nickel	mg/L	0.0148	0.00735	0.014	0.1	Fall 2009	N/S	Mar. 2010
MW-22	1,1-Dichloroethane	ug/L	1.71	1.00	1.7	140	Fall 2009	N/S	Mar. 2010
	1,4-Dichlorobenzene	ug/L	1.36	1.00	1.1	75	Fall 2011	N/S	Mar. 2010
	Barium	mg/L	0.558	0.138	0.61	2	Fall 2011	N/S	Mar. 2010
	Chlorobenzene	ug/L	3.01	1.00	3.1	100	Fall 2009	N/S	Mar. 2010
	Nickel	mg/L	0.0304	0.00735	0.029	0.1	Spring 2015	N/S	Mar. 2010
MW-33	1,4-Dichlorobenzene	ug/L	1.04	1.00	0.5	75	Fall 2023	N/S	Mar. 2010
	Barium	mg/L	0.666	0.138	0.45	2	Fall 2011	N/S	Mar. 2010
	Chlorobenzene	ug/L	6.92	1.00	3.6	100	Fall 2009	N/S	Mar. 2010
	Cobalt	mg/L	0.00139	0.0008717	0.0012	0.0021	Fall 2016	N/S	Mar. 2010
MW-36	1,4-Dichlorobenzene	ug/L	1.43	1.00	1.8	75	Spring 2011	N/S	Mar. 2010
	Barium	mg/L	0.594	0.138	0.60	2	Fall 2011	N/S	Mar. 2010
	Chlorobenzene	ug/L	6.98	1.00	6.5	100	Fall 2010	N/S	Mar. 2010
	Cobalt	mg/L	0.0013	0.0008717	0.0013	0.0021	Fall 2016	N/S	Mar. 2010
	Nickel	mg/L	0.00749	0.00735	0.007	0.1	Spring 2015	N/S	Mar. 2010
Delineation Monitoring Locations - Assessment Constituents									
MW-102B	Cobalt	mg/L	0.00106	0.0008717	0.0007	0.0021	Aug. 2016	N/S	Sep. 2014
MW-104B	No SSI for Arsenic								
MW-105B	1,1-Dichloroethane	ug/L	5.29	1.00	2.8	140	Sep. 2013	Nov. 2013	Sep. 2014
	Arsenic	mg/L	0.00602	0.00225	0.0008	0.01	Aug. 2019	N/S	Sep. 2014
	Nickel	mg/L	0.0131	0.00735	0.010	0.1	Mar. 2015	N/S	Sep. 2014
MW-107B	Barium	mg/L	0.326	0.138	0.29	2	Sep. 2013	Nov. 2013	Sep. 2014
	Cobalt	mg/L	0.00224	0.0008717	0.0019	0.0021	Aug. 2016	N/S	Sep. 2014

Table 5
Summary of Ongoing and Newly Identified SSIs
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Well	Constituent [1]	Units	Most Recent Result [2]	Background Standard [3]	Lower Confidence Limit	GWPS [3]	Sample Dates		
							Initial Exceedance (above background)	Resample(s) [4]	5th Background Sample
Deeper Bedrock Monitoring Locations									
Delineation Monitoring Locations - Assessment Constituents Continued									
MW-107B	Nickel	mg/L	0.0113	0.00735	0.011	0.1	Mar. 2015	N/S	Sep. 2014
Cont.	Thallium	mg/L	0.00181	0.001	0.0019	0.002	Mar. 2015	N/S	Sep. 2014
MW-108B	Barium	mg/L	0.189	0.138	0.17	2	Nov. 2017	Mar. 2018	Nov. 2018
MW-109B	1,4-Dichlorobenzene	ug/L	1.48	1.00	1.1	75	Nov. 2017	Mar. 2018	Nov. 2018
	Barium	mg/L	0.681	0.138	0.66	2	Nov. 2017	Mar. 2018	Nov. 2018
	Chlorobenzene	ug/L	7.14	1.00	6.4	100	Nov. 2017	Mar. 2018	Nov. 2018
	Nickel	mg/L	0.032	0.00735	0.035	0.1	Nov. 2017	Mar. 2018	Nov. 2018

* For assessment monitoring locations, all current results are below background. If confirmed by a second event, location may return to detection monitoring in accordance with IAC 113.10(6)e. However, three consecutive events will be utilized to make the determination to return to detection monitoring to limit frequent fluctuation of wells moving between the detection and assessment monitoring program.

** LCL has exceeded the GWPS, this well/constituent pair is now identified as an SSL.

*** Non-MSWLF Unit source of the SSI identified.

Comments:

N/A = Not applicable.

N/S = Not resampled; SSI was declared in lieu of conducting resample(s).

GWPS = Groundwater Protection Standard

[1] List contains constituents which have been identified as SSIs in Fall 2024. Unless otherwise noted, all current results listed in this table are above background. SSIs were declared in lieu of conducting resample(s).

[2] Most recent results are from Aug. 2024.

[3] Source of background standards and GWPS values are provided in the Fall 2024 statistical evaluation memo, which will be submitted with the 2024 AWQR. N/A = not applicable.

[4] Upper and deeper bedrock detection, assessment, and corrective action monitoring locations initiated the Appendix I/II monitoring required by the 2007 rule revisions with assessment monitoring for the full Appendix II list starting in Aug. 2008. Since locations were already in assessment monitoring, the initial statistical exceedances over background were declared as SSIs in lieu of conducting resample(s).

• No SSLs were identified for the upper and deeper bedrock assessment monitoring locations. None of the upper and deeper bedrock assessment monitoring locations have had all Appendix II constituents below background for three consecutive sampling events; therefore, the upper and deeper bedrock assessment monitoring locations will not exit assessment monitoring at this time. Details regarding the future sampling schedules are provided in Table 1.

• No SSLs were identified for the assessment constituents in the upper and deeper bedrock corrective action monitoring locations. These locations will continue corrective action monitoring in 2025 as listed in Table 1. A summary of the statistical comparisons for the corrective action constituents is provided in Table 6.

• No SSLs were identified for the assessment constituents in the upper and deeper bedrock delineation monitoring wells. These locations will continue delineation monitoring in 2025 as listed in Table 1. A summary of the statistical comparisons for the corrective action constituents is provided in Table 6.

Table 6
Summary of Ongoing and Newly Identified SSLs
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
Permit No. 57-SDP-03-75C

Well [1]	Constituent [1]	Units	Most Recent Result [1]	Upper Confidence Limit [2]	GWPS [3]	Initial Exceedance	Consecutive Compliance Dates		
							1st Occurrence	Most Recent	Duration
Upper Bedrock Monitoring Locations									
Corrective Action Monitoring Locations									
AW-1	Arsenic	mg/L	0.0461	0.0479	0.01	Fall 2011	N/A	N/A	N/A
AW-2	Arsenic	mg/L	0.0166	0.0173	0.01	Spring 2012	N/A	N/A	N/A
	Thallium	mg/L	0.00341	0.00368	0.002	Spring 2010	N/A	N/A	N/A
MW-12	Arsenic	mg/L	0.114	0.1363	0.01	Fall 2010	N/A	N/A	N/A
MW-13	Arsenic	mg/L	0.0351	0.0552	0.01	Fall 2010	N/A	N/A	N/A
MW-16	Arsenic	mg/L	0.0638	0.1295	0.01	Fall 2011	N/A	N/A	N/A
MW-17	Arsenic	mg/L	0.0707	0.0684	0.01	Fall 2010	N/A	N/A	N/A
MW-20	Thallium	mg/L	0.00157	0.00199	0.002	Fall 2013	Fall 2024	Fall 2024	1 year
MW-24	Arsenic	mg/L	0.0304	0.0283	0.01	Fall 2011	N/A	N/A	N/A
MW-30	Arsenic	mg/L	0.0128	0.0125	0.01	Fall 2010	N/A	N/A	N/A
MW-32	Arsenic	mg/L	0.247	0.0889	0.01	Fall 2011	N/A	N/A	N/A
MW-34	Arsenic	mg/L	0.0359	0.0342	0.01	Fall 2011	N/A	N/A	N/A
	Vinyl Chloride	ug/L	0.759 J	3.10	2	Spring 2010	N/A	N/A	N/A
MW-35	Cobalt	mg/L	0.00389	0.00597	0.008	Spring 2014	Fall 2022	Fall 2024	**3 years***
Delineation Monitoring Locations									
MW-105A	Cobalt	mg/L	0.00424	0.00645	0.008	Spring 2015	Fall 2024	Fall 2024	1 year
MW-106A	Arsenic	mg/L	0.0128	0.0133	0.01	Fall 2016	N/A	N/A	N/A
	Cobalt	mg/L	0.03	0.01887	0.008	Fall 2015	N/A	N/A	N/A
Deeper Bedrock Monitoring Locations									
Corrective Action Monitoring Locations									
AW-6	Cobalt	mg/L	0.0104	0.00919	0.0021	Fall 2016	N/A	N/A	N/A
CRL-9	Arsenic	mg/L	0.0487	0.0367	0.01	Fall 2011	N/A	N/A	N/A
	Cobalt	mg/L	0.00408	0.0400	0.0021	Fall 2016	N/A	N/A	N/A
MW-14	Arsenic	mg/L	0.0151	0.0264	0.01	Fall 2011	N/A	N/A	N/A
MW-22	Arsenic	mg/L	0.0551	0.0517	0.01	Fall 2011	N/A	N/A	N/A
	Cobalt	mg/L	0.00254	0.00315	0.0021	Spring 2019	N/A	N/A	N/A
MW-33	Arsenic	mg/L	0.0503	0.0386	0.01	Fall 2011	N/A	N/A	N/A
MW-36	Arsenic	mg/L	0.0692	0.0694	0.01	Fall 2011	N/A	N/A	N/A
Delineation Monitoring Locations									
MW-105B	Cobalt	mg/L	0.00315	0.00333	0.0021	Spring 2019	N/A	N/A	N/A
MW-109B	Arsenic	mg/L	0.0214	0.0210	0.01	Winter 2018	N/A	N/A	N/A
	Cobalt	mg/L	0.0173	0.01838	0.0021	Fall 2018	N/A	N/A	N/A
	Thallium	mg/L	0.00342	0.00497	0.002	Fall 2018	N/A	N/A	N/A

Table 6
Summary of Ongoing and Newly Identified SSLs
Fall 2024 Statistical Notifications
Cedar Rapids Linn County Solid Waste Agency Site 1
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* This well/contaminant pair has been compliant for 3 consecutive years and no longer has an SSL.

** Non-MSWLF Unit source of the SSL identified.

Comments:

GWPS = Groundwater Protection Standard

N/A = Not applicable; indicates the analyte/well pair has not achieved compliance with the GWPS (i.e., upper confident limit or the upper 95% confidence limit on the trend line is lower than the GWPS for a period of three consecutive years).

(1) The most recent results are from the Aug. 2024 event.

(2) If a decreasing trend was identified, the value is the upper 95% confidence limit on the trend line.

(3) Source of GWPS values are provided in the Fall 2024 statistical evaluation memo, which will be submitted with the 2024 AWQR. N/A = not applicable.

• For the corrective action constituents in the upper bedrock corrective action and delineation monitoring locations, SSLs over the GWPS remained for arsenic in AW-1, AW-2, MW-12, MW-13, MW-16, MW-17, MW-24, MW-30, MW-32, MW-34, and MW-106A; for cobalt in MW-106A; for thallium in AW-2; and for vinyl chloride in MW-34. While compliance with the GWPS was not achieved, statistically significant decreasing trends were identified for arsenic in AW-1, MW-12, MW-17, MW-24, MW-30, MW-34 and MW-106A; thallium in AW-2; and vinyl chloride in MW-34.

• Compliance with the GWPS was achieved for cobalt in MW-35 starting with the Fall 2022 statistical evaluation and remained below the GWPS through the current (Fall 2024) statistical evaluation. Therefore, in accordance with IAC 113.10(9)e(2), cobalt in MW-35 will return to an assessment constituent in 2025. Since cobalt is the only corrective action constituent in MW-35, MW-35 will return to an assessment monitoring location in 2025.

• Compliance with the GWPS was newly achieved for thallium in MW-20 and cobalt in MW-105A during the current (Fall 2024) statistical evaluation. In accordance with IAC 113.10(9)e(2), thallium in MW-20 and cobalt in MW-105A will return as assessment constituents in 2027 if the constituent/well pairs remain below the GWPS in the interim statistical evaluations.

• For the corrective action constituents in the deeper bedrock corrective action and delineation monitoring locations, SSLs over the GWPS remained for arsenic in CRL-9, MW-14, MW-22, MW-33, MW-36, and MW-109B; for cobalt in AW-6, CRL-9, MW-22, MW-105B, and MW-109B; and for thallium in MW-109B. While compliance with the GWPS was not achieved, a statistically significant decreasing trend was identified for cobalt in MW-109B.

• As noted above, MW-35 will return to assessment monitoring in 2025. No additional changes are recommended for the upper bedrock corrective action and delineation monitoring locations based on the corrective action statistical results conducted during the Fall 2024 statistical evaluation. No changes are recommended for the deeper bedrock corrective action and delineation monitoring locations based on the corrective action statistical results conducted during the Fall 2024 statistical evaluation.

Attachment 2
Figure

NOTES:

1. Aerial imagery was flown in Spring 2023 and provided by Linn County, Iowa.

LEGEND

- MW-38 — Deeper Bedrock Background Well
- MW-27 — Deeper Bedrock Monitoring Well
- MW-37 — Upper Bedrock Background Well
- MW-26 — Upper Bedrock Monitoring Well
- Parcels

This drawing is neither a legally recorded map nor a survey and is not intended to be used as one. This drawing is a compilation of records, information and data used for reference purposes only.

N

0 250 500 Feet

Cedar Rapids Linn County Solid Waste Agency

FIGURE 1

HMSP MONITORING NETWORK

Date: NOVEMBER 2023	Revision Date:	
Drawn By: DAT	Checked By: GMN	Project: 23C071.00

Path: Q:\Cedar Rapids Linn Co SWA IA\23C071.00\GIS\mxd\2023 AWQR\Figure 1 - HMSP Monitoring Network.mxd Date: 11/28/2023