

July 10, 2025

Mr. Michael Smith, P.E.
Land Quality Bureau
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



**RE: 2025 Semi-Annual Water Quality Report/Notification Letter
Rural Iowa Sanitary Landfill 42-SDP-01-72P**

Dear Mr. Smith:

HMSP

At the Rural Iowa Sanitary Landfill, the following monitoring wells are the upgradient/background wells for the facility: MW-36, MW-37, MW-39, MW-40, and MW-47.

The following downgradient monitoring points remain in the Detection Monitoring system: MW-29, MW-33, MW-50, MW-51, GU-1, GU-2, and GU-3.

The following downgradient monitoring points are in the Assessment Monitoring system: MW-9, MW-35R, and MW-48A.

The wells that are included in the Corrective Action monitoring system; MW-49A, MW-7, MW-7A, MW-7B, MW-13R, MW-14, Tile ACM-1, and PECS-1.

Notification of Results of the Spring Sampling, Analysis, and Statistical Evaluation

Wells in the Detection Monitoring System

Concentrations of *inorganic* compounds that exceed the Prediction Limit:
None.

Concentrations of *VOC* that exceed the Prediction Limit:
None.

Wells in the Assessment Monitoring System

Verified concentrations of *inorganic* compounds that exceed the Prediction Limit:
None.

Verified concentrations of *VOC* that exceed the Prediction Limit:
MW-35R - chloroethene

Historic Appendix II Compound Detections (beyond the Appendix I List) are tabulated below.

Bis (2-ethylhexyl)phthalate (ug/L) – full Appendix II sample is indicated by green highlight

Date	MW48A	MW49A	MW7	MW-9	MW13R	MW14	MW31R	MW35R	MW211
6/22/09	NT	<8	NT	NT	NT	NT	NT	NT	NT
2/23/10	<8	<8	NT	NT	NT	NT	NT	NT	NT
4/12/10	<8	<8	NT	NT	NT	NT	NT	NT	NT
4/20/12	NT	NT	15.0	NT	<8	<8	NT	<8	<8
10/17/12	NT	NT	<11	NT	9.0	<8	NT	<8	<8
4/3/13	NT	NT	<10	NT	<10	NT	22.0	NT	NT
10/9/13	NT	NT	<10	NT	<10	NT	<8	NT	NT
4/15/14	NT	NT	<10	NT	<10	NT	<10	NT	NT
10/23/14	NT	NT	<10	NT	<10	NT	64.0	NT	NT
4/1/15	17.0	<8	<10	NT	<10	NT	<10	NT	NT
11/5/15	<10	NT	<10	NT	<10	NT	<10	NT	NT
4/21/16	<10	NT	<10	NT	<10	NT	<10	NT	NT
10/17/16	<10	NT	<10	NT	<10	NT	<10	NT	NT
4/21/17	<6	NT	<6	NT	<6	NT	<6	NT	NT
10/16/17	<6	NT	<6	NT	16.0	18.0	NT	<8	<6
4/24/18	NT	NT	NT	<6	NT	NT	NT	NT	NT
10/25/18	NT	NT	NT	NT	NT	NT	<6	NT	NT
4/15/19	NT	NT	NT	<6	NT	NT	NT	NT	NT
10/7/2019	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/22/2020	<6	<6	NT	NT	NT	NT	NT	NT	NT
10/1/2020	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/8/2021	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/29/2021	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/25/2022	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/17/2022	NT	NT	9.0	NT	7.0	11.0	NT	78.0	<6
1/5/2023	NT	NT	<6	NT	<6	<6	NT	79.0	NT
4/10/2023	NT	NT	NT	NT	NT	NT	NT	6.0	NT
10/27/2023	NT	NT	NT	NT	NT	NT	9.0	15.0	NT
4/2/2024	NT	NT	NT	<6	NT	NT	<6	<6	NT
10/10/2024	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/15/2025	<6	<6	NT	NT	NT	NT	NT	NT	NT

Dichlorodifluoromethane (ug/L) - full Appendix II sample is indicated by green highlight

Date	MW48A	MW49A	MW7	MW-9	MW13R	MW14	MW31R	MW35R	MW211
6/22/09	NT	<1	NT	NT	NT	NT	NT	NT	NT
2/23/10	<1	<1	NT	NT	NT	NT	NT	NT	NT
4/12/10	<1	<1	NT	NT	NT	NT	NT	NT	NT
4/20/12	NT	NT	1.0	NT	<1	<1	NT	<1	<1
10/17/12	NT	NT	<1	NT	<1	<1	NT	<1	<1
4/3/13	NT	NT	<1	NT	NT	NT	1.3	NT	NT
10/9/13	NT	NT	<1	NT	NT	NT	<1	NT	NT
4/15/14	NT	NT	<1	NT	NT	NT	1.5	NT	NT
10/23/14	NT	NT	<1	NT	NT	NT	1.2	NT	NT
4/1/15	<1	1.1	<1	NT	NT	NT	<1	NT	NT
11/5/15	NT	<1	<1	NT	NT	NT	<1	NT	NT
4/21/16	NT	<1	<1	NT	NT	NT	<1	NT	NT
10/17/16	NT	<2	<2	NT	NT	NT	<2	NT	NT
4/21/17	NT	<1	<1	NT	NT	NT	<1	NT	NT
10/16/17	NT	<1	<1	NT	<1	<1	NT	<1	<1
4/24/18	NT	NT	NT	<1	NT	NT	NT	NT	NT
10/25/18	NT	NT	NT	NT	NT	NT	<1	NT	NT
4/15/19	NT	NT	NT	<1	NT	NT	NT	NT	NT
10/7/2019	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/22/2020	<1	<1	NT	NT	NT	NT	NT	NT	NT
10/1/2020	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/8/2021	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/29/2021	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/25/2022	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/17/2022	NT	NT	<1	NT	<1	<1	NT	<1	<1
4/10/2023	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/27/2023	NT	NT	NT	NT	NT	NT	<1	NT	NT
4/2/2024	NT	NT	NT	<1	NT	NT	NT	NT	NT
10/10/2024	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/15/2025	<1	<1	NT	NT	NT	NT	NT	NT	NT

3+4-methyl phenol (ug/L) - full Appendix II sample is indicated by green highlight

Date	MW48A	MW49A	MW7	MW-9	MW13R	MW14	MW31R	MW35R	MW211
6/22/09	NT	<8	NT	NT	NT	NT	NT	NT	NT
2/23/10	<8	<8	NT	NT	NT	NT	NT	NT	NT
4/12/10	<8	<8	NT	NT	NT	NT	NT	NT	NT
4/20/12	NT	NT	<8	NT	<8	<8	NT	<8	<8
10/17/12	NT	NT	<8	NT	<8	<8	NT	<8	<8
4/3/13	NT	NT	NT	NT	NT	NT	<8	NT	NT
10/9/13	NT	NT	NT	NT	NT	NT	<8	NT	NT
4/15/14	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/23/14	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/1/15	<8	<8	NT	NT	NT	NT	NT	NT	NT
11/5/15	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/21/16	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/17/16	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/21/17	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/16/17	NT	NT	<8	NT	12.0	<8	NT	<11	<8
4/24/18	NT	NT	NT	<8	<10	NT	NT	NT	NT
10/25/18	NT	NT	NT	NT	<10	NT	<8	NT	NT
4/15/19	NT	NT	NT	<8	<10	NT	NT	NT	NT
10/7/2019	NT	NT	NT	NT	<10	NT	NT	NT	NT
4/22/2020	<8	<8	NT	NT	<10	NT	NT	NT	NT
10/1/2020	NT	NT	NT	NT	<10	NT	NT	NT	NT
4/8/2021	NT	NT	NT	NT	<10	NT	NT	NT	NT
10/29/2021	NT	NT	NT	NT	<10	NT	NT	NT	NT
4/25/2022	NT	NT	NT	NT	<10	NT	NT	NT	NT
10/17/2022	NT	NT	<8	NT	<8	<8	NT	<8	<8
4/10/2023	NT	NT	NT	NT	NT	NT	NT	NT	NT
10/27/2023	NT	NT	NT	NT	NT	NT	<8	NT	NT
4/2/2024	NT	NT	NT	<8	NT	NT	NT	NT	NT
10/10/2024	NT	NT	NT	NT	NT	NT	NT	NT	NT
4/15/2025	<8	<8	NT	NT	NT	NT	NT	NT	NT

Full Appendix II sample collection events are highlighted green.

Current Appendix II Compound Detections

None

Wells in the Corrective Action Monitoring System

Verified concentrations of *inorganic* compounds that exceed the Prediction Limit:

MW-7 – arsenic
 MW-7A – none
 MW-7B – arsenic
 MW-13R – arsenic
 MW-14 – cobalt
 MW-49A – cobalt, nickel

Verified concentrations of *VOC* that exceed the Prediction Limit:

MW-7 – benzene, chloroethane

MW-13R - 1,4-dichlorobenzene, benzene, chlorobenzene

MW-14 - chloroethane

MW-49A - benzene, chloroethane, cis-1,2-dichloroethene, vinyl chloride

ACM Tile 1 – 1,1-dichloroethane, 1,4-dichlorobenzene, benzene, chlorobenzene, chloroethane, cis-1,2-dichloroethene, vinyl chloride

Performance of the Passive Engineered Conveyance System (PECS)

PEC 1 – *VOC* are not detected and confirms the adequate function of the PECS.

Identified SSL and Confidence Limit Evaluation

The following Site-Specific GWPS were approved by the IDNR in the Letter dated April 17, 2020 (Doc #97535).

<u>Compound</u>	<u>Site-Specific GWPS</u>
Arsenic	89.3 ug/L
Cobalt	12.4 ug/L

The Site-Specific GWPS are not to be set lower than the Site Prediction Limit calculated from the site background data. For all other compounds the published IAC 567, Chapter 137 Statewide Standard are utilized as the GWPS.

Comparison of the 95% LCL and the 95% UCL to the GWPS for compounds that have been previously identified as SSL are summarized as:

Well	Compound	Result	95% LCL	95% UCL	Site-Specific GWPS
MW-7	arsenic	608.0 ug/L	81.634 ug/L	550.866 ug/L	89.3 ug/L

Well	Compound	Result	95% LCL	95% UCL	Site-Specific GWPS
MW-13R	arsenic	183 ug/L	67.270 ug/L	205.930 ug/L	89.3 ug/L
MW-13R	benzene	3.1 ug/L	1.230 ug/L	3.320 ug/L	5.0 ug/L

Well	Compound	Result	95% LCL	95% UCL	Site-Specific GWPS
MW-14	cobalt	14.3 ug/L	10.019 ug/L	20.681 ug/L	12.4 ug/L

Well	Compound	Result	95% LCL	95% UCL	Site-Specific GWPS
MW-49A	cobalt	13.2 ug/L	9.993 ug/L	21.907 ug/L	12.4 ug/L

95% LCL that exceeds the GWPS

95% UCL that exceeds the GWPS

The 95% UCL must remain below the GWPS for three (3) years to demonstrate that the SLL has been mitigated, however, none listed above have yet demonstrated three (3) years of compliance. Remedial actions are in place related to MW-7, MW-13R, MW-14, and MW-49A.

Wells returning to detection monitoring

None.

This notification is intended to satisfy requirements of Iowa Administrative Code (IAC) 567-113.10(5)"c"(1); 113.10(6)"d"(1); and 113.10(6)"g".

The water quality results for the Spring of 2025 will be fully evaluated in the Annual Water Quality Report in accordance with the unnumbered permit amendments dated May 22, 2013, July 10, 2014, and IAC 567-113.10(10).

Please feel free to contact our office at (515) 733-4144 with any questions you may have.

Sincerely,
HLW Engineering Group

A handwritten signature in blue ink, appearing to read "Todd Whipple".

Todd Whipple, CPG
Project Manager

cc: *Tanner Krum, Manager*

GROUND WATER STATISTICS
FOR THE
RURAL IOWA SANITARY LANDFILL

First Semi-Annual Monitoring Event in 2025

Prepared for:
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July 2025
