

May 7, 2024

Mr. Mick Leat, Environmental Engineer
IDNR – Land Quality Bureau
Wallace State Office Building
502 East Grand Avenue
Des Moines, Iowa 50319-0034



**RE: CONFIRMATION OF ALTERNATE SOURCE DEMONSTRATION – MW-28
SOUTH CENTRAL IOWA SANITARY LANDFILL
IDNR PERMIT NO. 61-SDP-01-78P**

Dear Mr. Leat:

This letter is submitted on behalf of the South Central Iowa Landfill Agency (SCILA) in accordance with requirements to do so annually. In accordance with the approved Alternate Source Demonstration (ASD) at MW-28 and IDNR Correspondence dated April 23, 2021 (Doc #100343) and June 6, 2022 (Doc #103331), an annual confirmation of the ASD is made.

The reducing conditions at MW-28 were confirmed on April 15, 2024, by collecting field measurements of several field parameters. The annual parameters are summarized in Table 1 below.

Table 1 - Field Indicator Compounds - MW-28 (Exline Formation)

Compound	10-15-21	9-13-22	4-12-23	4-15-24
Air Temperature, F	55-60	85	77	75
pH, Field	6.42	6.25	6.47	6.51
Water Temp., C	17.2	18.9	8.0	9.6
Water Temp., F	63.0	66.0	46.4	49.3
D.O. %	2.7	9.8	9.0	9.0
D.O. mg/L	0.26	0.95	1.01	1.02
Conductivity, us/cm	1701	1574	1669	1579
ORP, mv	-63.6	-11.5	-31.4	-47.1

Oxidizing conditions within the adjacent pond were historically established using the same field parameters.

Field Indicator Compounds – Pond (Pleasanton Formation)

Compound	10-15-21	9-13-22
Air Temperature, F	55-60	85
pH, Field	7.69	7.54
Water Temp., C	15.4	21.8
Water Temp., F	59.7	71.2
D.O. %	92.2	92.8
D.O. mg/L	9.2	8.27
Conductivity, us/cm	654	734
ORP, mv	+77.1	+14.4

The reducing conditions documented at MW-28 are considered to be the primary cause of elevated arsenic, barium, cobalt, and nickel in groundwater in the vicinity of MW-28.

It is recommended that the subsurface conditions at MW-28 be reevaluated annually through 2026 to verify that the justification of the Alternate Source Demonstration at MW-28 remains unchanged.

Please contact me directly with any questions, comments, or requests for additional information.

Respectfully submitted,
HLW ENGINEERING GROUP



Todd Whipple, CPG.
Project Manager

cc: Marcia Beeler, Manager