

September 25, 2026

Alexis Slade
Environmental Engineer
Iowa Department of Natural Resources
6200 Park Avenue, Suite 200
Des Moines, Iowa 50321



**RE: LEACHATE HEAD LEVELS
CELL NW1
CELL 4A
SCISWA SLF
IDNR PERMIT NO. 63-SDP-02-77P
HLW PN 6009-26A.200**

Dear Ms Slade:

In 2025 elevated leachate levels were noted at two (2) leachate head monitoring points in the Subtitle D composite lined disposal areas at the SCISWA SLF. Elevated levels were noted at LHPZ-NW1 in Cell NW1 (installed in 2024) and at LHPZ-4A in Cell 4A (installed in 2009). Measurements from LHPZ-NW1 and LHPZ-4A covering the period July 1, 2026 to September 23, 2026 are documented in the spreadsheets in Attachment A. Each of these points is discussed below.

LHPZ-NW1/Cell NW1

IDNR was notified of elevated leachate levels at LHPZ-NW-1 on November 14, 2025 (Doc #114738). The letter included a number of steps that would be undertaken to try to determine the cause of the elevated leachate levels. IDNR approved the letter on November 24, 2025.

Excavation was completed to expose the sump in Cell NW1. When the rock in the sump was exposed it was noted that some of the rock backfill had been impacted by silt that could potentially reduce the flow rate from the drainage layer sand into the rock backfill of the sump. A portion of the impacted rock was removed from the sump in Cell NW1 and replaced with clean rock backfill. The drainage layer sand immediately over the sump was also removed and replaced with clean rock backfill to increase flow from the drainage layer sand to the leachate sump and ultimately to the leachate pump. Additional perforations were also added to the riser pipe in the sump. The work was documented in the Construction Certification Report dated July 27, 2026 (Doc #117653).

The work was completed on July 16, 2026. As documented by the results in Attachment A, the levels in LHPZ-NW1 showed a significant decrease immediately upon completion of the work with a steady decline noted thereafter except for a short period August 8, 2026 – August 11, 2026 when the leachate pump in the sump was not operational. The decline in leachate levels resumed when pump operations were restored. The measurements in the tables document that the leachate level at LHPZ-NW1 has remained below the regulatory limit (12") since August 20, 2026. Based on these results this remedy is considered to be complete.



LHPZ-4A/Cell 4A

IDNR was notified of elevated leachate levels at LHPZ-4A in the 2025 Annual Water Quality Report (AWQR) dated January 30, 2026 (Doc #115951). The AWQR noted that the components of the leachate pumping system in Cell 4A would be evaluated to try to determine the cause of the elevated leachate levels. IDNR approved the AWQR on June 4, 2026.

The rock backfill in the leachate sump in Cell 4A was chemically treated and mechanically surged to increase flow from the drainage layer sand to the leachate sump and ultimately to the leachate pump.

The work was conducted August 24, 2026 through August 27, 2026. As documented by the results in Attachment A, the levels in LHPZ-4A showed a significant decrease immediately upon completion of the work with a steady decline noted in the weeks thereafter. The measurements in the tables document that the leachate level at LHPZ-4A has remained below the regulatory limit (12") since August 31, 2026. Based on these results this remedy is considered to be complete.

The facility plans to resume leachate recirculation activities in the Subtitle D composite lined disposal areas that are monitored by LHPZ-NW1 and LHPZ-4A. Recirculation will start with relatively small volumes (approximately 10,000 gallons) in infiltration trenches to document that the recirculation is not having any adverse effects on leachate levels in LHPZ-NW1 and LHPZ-4A. If no effects are noted, recirculation volumes will be increased incrementally. The results of the leachate recirculation and related leachate head monitoring point measurements will be included in the 2026 AWQR, which will be submitted to IDNR prior to January 31, 2027.

Please contact me if you have any questions.

Respectfully submitted,
HLW Engineering Group, LLC



Douglas J. Luzbetak, P.E.
Project Manager

cc: Jennifer Murphy, Executive Director, SCISWA SLF

ATTACHMENT A

Monthly Leachate Monitoring		
Month: July 2026		
Test Date: 7/29/26		
Location	TD	DTW
LW-477	40.5	25.4
LW-478R	86.9	87.7
LW-479	36.9	24.8
LW-471R	20.1	20.1
LHPZ-NW1	53.3	
LHPZ-4A	-36.0	

Test Date: 7/29/26

Location	TD	DTW
LW-477	40.5	25.4
LW-478R	86.9	87.7
LW-479	36.9	24.8
LW-471R	20.1	20.1
LHPZ-NW1	53.3	
LHPZ-4A	-36.0	

NW 1/2		
Date	Gallons pumped to lagoon	Head well
7/1/2026	51201	37
7/6/2026		36.7
7/17/2026		21.2
7/18/2026		19.7
7/20/2026		18.8
7/21/2026		17.3
7/22/2026		16.8
7/23/2026		16.1
7/24/2026		15.4
7/27/2026		14.5
7/29/2026	32445704	15.7
7/31/2026	32455705	15.1

5 replaced paddle wheel in flow
7 meter

[illegible][illegible]

Monthly Leachate Monitoring		
Month: August		
Test Date:		
Location	TD	DTW
LW-477	40.5	25.8
LW-478R	86.9	dry 86.4
LW-479	36.9	24.8
LW-471R	20.1	dry @ 20.0
LHPZ-NW1	53.3	11.2
LHPZ-4A	-36.0	under treatment

readings taken by T. Whipple for August

NW 1/2		
Date	Gallons pumped to lagoon	Head well
8/1/2026	32464558	14.2
8/3/2026	32480560	12.9
8/4/2026	32485617	12.6
8/5/2026	32492422	12.2
8/8/2026		20.5
8/9/2026	32511647	23.8
8/10/2026	32511867	29
8/11/2026	32521336	33.7
8/14/2026	32548771	14
8/14/2026	32551405	13.6
8/17/2026	32564296	12.2
8/18/2026	32575048	12.1
8/19/2026	32580836	12
8/20/2026	32556559	11.9
8/25/2026	32695914	11
8/26/2026	32626681	10.7
8/28/2026	32629552	10.5
8/29/2026	32635279	10.4

pump not working

4A			
Date	GALLONS pumped to lagoon	INCHES leachate head on liner	INCHES leachate head in sump
8/4/2026	50858657	34.5	
8/9/2026	50898657	35.2	
8/10/2026	50858657	39.3	
8/11/2026	50858657	38.7	
8/14/2026	50868923	39.3	
8/17/2026	50873360	39.6	
8/18/2026	50876623	40.1	
8/19/2026	50877114	41	
8/20/2026	508776003	41.2	
8/26/2026		28.8	
8/27/2026		28.8	
8/28/2026	6:30 AM	28.6	57.8
	7:30 AM	28	40
	8:30 AM	26.9	35.7
	9:30 AM	25.2	32.1
	11:30 AM	23.5	27.1
	12:30 - 1:00 shut off pump to back flush		
	2:30 PM	21.2	22.4
8/29/2026	12:00 PM	18.7	45.2
8/30/2026	11:30AM	16.2	47.8
8/31/2026	6:30 AM	16.1	51.4
	8:00AM	15.6	35.8
	4:00PM	11.8	19

Thorpe well treatment 8/23 - 8/27 man. op pump

Monthly Leachate Monitoring		
Month: September		
Test Date:		
Location	TD	DTW
LW-477		
LW-478R		
LW-479		
LW-471R		
LHPZ-NW1		
LHPZ-4A		

NW 1/2			
Date	Gallons pumped to lagoon	INCHES leachate head on liner	INCHES leachate head in sump
9/1/2026	35260267	10.1	20.2
9/2/2026	32655955	9.9	
9/3/2026	32659511	9.9	
9/4/2026	32663761	9.8	
9/5/2026	32668041	9.8	
9/8/2026	32680916	9.4	27
9/9/2026	32685198	9.2	
9/11/2026	32694487	8.9	
9/12/2026	32698037	9	
9/14/2026	32706563	8.7	
9/15/2026	32710823	8.8	
9/16/2026	32714372	8.7	
9/17/2026	32717920	8.6	
9/22/2026	32737644	8.6	
9/23/2026	32741867	8.5	

4A			
Date	GALLONS pumped to lagoon	INCHES leachate head on liner	INCHES leachate head in sump
9/1/2026	50879905	8.4	
9/2/2026	50883305	5.6	
9/2/2026	50883458	5	
9/3/2026	50884265	3.8	
9/4/2026	50884268	2.7	41.7
9/4/2026	50884270	2.3	20.7
9/5/2026	50884272	2.1	40.6
9/8/2026	50884717	2.1	43.3
9/11/2026	50893844	2.3	33.4
9/12/2026	50907790	2.1	44
9/14/2026	50923339	2.1	33.4
9/15/2026	50929643	2.3	44
9/16/2026	50946053	2.1	38.5
9/17/2026	50952334	2.1	42.3
9/18/2026	50957715	2.1	33
22-Sep	50994645	2.1	34.7
23-Sep	51004095	2.1	38.9

hours

8371.7
8374.6

8377.8
8380.8
8383.8
8383.8
8386.7
8386.7
8386
8389
8392
8392