TECHNICAL MEMORANDUM



DATE: January 21, 2025

TO: Emily Brickman, P.G., Senior Project Manager – Geologist, EnSafe

FROM: Thomas Huetter, P.G., Senior Project Manager, Harbor

RE: Bi-weekly Site Inspection

NABORS Landfill Mountain Home, AR

Harbor Project No: ENSF-23299

Harbor visited the NABORS landfill in Mountain Home, Arkansas on January 17, 2025, to conduct the bi-weekly site inspection to assess the general condition of the landfill and the leachate collection system (LCS). The LCS was last fully repaired by Advanced Fluid Technologies (AFT) in October and November of 2022; however, within a few weeks of these repairs, the LCS began malfunctioning. By March 2023, most of the LCS points were malfunctioning. A quote was then requested and received from AFT to again repair the system. No authorization for the subsequent repairs was provided prior to the expiration of Harbor's contract with DEQ in June 2023.

Landmarc Environmental (Landmarc), a company specializing in LCS installation and service, conducted initial repairs on December 3-4, 2024. A report summarizing these activities was submitted on January 20, 2025.

The LCS remains largely unchanged from previous inspections. Findings and observations from the current landfill inspection are summarized below:

- Vertical leachate collection sump (VLCS)-1 is functioning correctly and was observed at 2/3 capacity (see photographs 1 and 2).
- VLCS-2 appeared to be functioning correctly, and the sump was at approximately 1/3 capacity (see photographs 3 and 4).
- Approximately 4-5 inches of stormwater was observed in the leachate tank battery containment (see photograph 5). The pH of the stormwater was measured at 8.48 and approximately two inches of stormwater was released while on site (see photograph 6).
- The panel displays were off at all LCS stations except LCS-2, LCS-5 and LCS-7.
- LCS-2 level remained at 26.2 inches and did not activate when the switch was placed in "hand" or "auto" mode. LCS-2 also displayed a pump fault alarm.
- LCS-5 level remained at 9.7 inches and did not activate when the sump was placed in "hand" or "auto" mode.
- LCS-7 level remained at 0.0 inches and did not activate when the sump was placed in "hand" or "auto" mode. LCS-7 also displayed a pump fault alarm.

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- The display at LCS-9 had been removed (see photograph 7). In addition, the cover for the LCS-9 sump had either been manually removed or had fallen off (see photograph 8).
- The closure turf has some significant rills present between LCS-1 and LCS-2 on the north side of Area 1-2. These rills have sediment deposited in them which allows vegetation to grow. An erosional washout is present along the road between LCS-4 and LCS-5.

Attachment A is a map showing the LCS points. Photographs are included in Attachment B. Copies of the field notes and the LCS status form are included in Attachment C.

The leachate collection system has been functioning at a minimal level, resulting in some leachate generation, mainly by placing some of the LCS points in "hand" mode. Harbor contract water hauler 417 Services LLC (417 Services) began hauling leachate on July 2, 2024. As of January 9, 2025, 417 Services hauled 187 loads of leachate totaling 716,550 gallons to the City of Springfield, Missouri wastewater treatment plant under wastewater contribution permit #593.

Attachments:

Attachment A – Site Map

Attachment B – Site Photographs

Attachment C - Field Notes and Leachate Collection System Status Form



Attachment A

Site Map





Attachment B

Site Photographs





Photograph 1: View of VLCS-1.



Photograph 2: Leachate at 2/3 full in VLCS-1 sump.





Photograph 3: View of VLCS-2.



Photograph 4: Leachate at 2/3 full in VLCS-1 sump.





Photograph 5: View of approximately 4-5 inches of stormwater in secondary containment.



Photograph 6: View of stormwater in secondary containment after release of approximately two inches.





Photograph 7: View of missing display in LCS-9 panel.



Photograph 8: View of cover removed from LCS-9 sump.



Attachment C

Field Notes and Leachate Collection System
Status Inspection Form



1/17/26 1/17/25 NABORS LE BI-WEEKLY SITE 1233: AMRIKE AT LCS- 4 IN SPECTION NO DISPURY, NO RESPONSE IN WEATHER: PARTLY CLOUDY, MID SOS, HAND LIGHT BREEZE 1244: BACK AT TANK FARM. 1/25: T. HIETTER ON SITE. APPROX. 2" STORM WATER RELEASED 1129: ARRIVE AT VLCS-Z, SUMP TANK LEVEL UP GULHTLY TO 179.3" x /3 Fure 1307: J.H. OFF SITE 1133: ARRIVE AT ALES - 1, 2/3 FURL 1140: ARRIVE AT TANK BATTERY TANK LEVEL @ 178.7". APPROX. 4-5" + STORMWATER IN SECONDARY CONTAINMENT, 8.48 PH 1147: ARRIVE OF LCS-1 - DISPLAN OFF NO CHANGE 1201: ARRIVE AT LCS-2 1208: ARRIVE AT LUS-3 12131 AMINE AT US-4 1214: ARRIVE AT LUS 5 - 9.7" STATION ON O HOURS 1224: ARRIVE AT LCS-9 1233: ALMINE AT LCS-8, NO DISPLAT 1235: ARRIVE AT CCS-7 - 0.0" 29 HOURS, PUMP FOULT, VFD COMES ON 10 HAMP





Leachate Collection System Status

Date: 1/17/2025	Arrival Time: //25	Location:	NABORS Landfill	Leachate Tank Battery Level (inches):	178.7	
Weather Conditions:	PARTLY CLOUDY,	WINDY	MID-505			

Panel Number	Display Functioning (Yes/No)	Leachate Level (inches)	Green Flashing? (Yes/No)	Amber Flashing? (Yes/No)	Red Flashing? (Yes/No)		Working in Auto? (Yes/No)	VFD Status	Hours	Alarm	Comments	
VLCS-1	N/A	N/A	N/A	N/A	No	_	-	N/A	N/A	N/A	Sump status:	2/3 Fuce
VLCS-2	N/A	N/A	N/A	N/A	No		-	N/A	N/A	N/A	Sump status:	1/3 Fuel
LCS-1	Ho	11	M	N	N	_	_	-	-			
LCS-2	Y	24.2	N	M	М	4	?	/	1853	N	PUMP F	AUCT
LCS-3	V	-	И	Ы	н	Ý	?	?	٠.	1.	VFO FAN COMES	
LCS-4	Ж	_	14	14	N	K	7	?	7	7		
LCS-5	Y	9.7	4	N	7	N	7	OK.	0	6.K	NO SOL	N 641
LCS-6	7	_	7	7	N	N	H	<i>(</i>		-		
LCS-7	~	0.0	N	7	N	N	7	OK	29	Y	PUMP	FAULT
LCS-8	N	-	12	N	2	7	7	G	-	_		
LCS-9	N	-	N	N	H	N	N	7			4	
General (Comments:											



End of Report