

**DATE:** September 20, 2024

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

**FROM:** Caleb Gourley, *Staff Scientist, Harbor*

**RE:** Bi-weekly Site Inspection  
NABORS Landfill  
Mountain Home, AR  
*Harbor Project No: ENSF-23299*

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Harbor visited the NABORS landfill in Mountain Home, Arkansas on September 18, 2024, to conduct the bi-weekly site inspection to assess the general condition of the landfill and the leachate collection system. The leachate collection system was last fully repaired by Advanced Fluid Technologies (AFT) in October and November of 2022; however, within a few weeks of these repairs, the system began malfunctioning. By March 2023, most of the leachate collection 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.

Upon commencement of the subcontract with EnSafe, Inc. (EnSafe) in April 2024, Harbor retained Comfort Systems USA (CSUSA) to begin repairs of the leachate collection system. CSUSA conducted partial repairs of the system; however, they were unable or unwilling to conduct all of the repairs necessary and have since been terminated as the repair contractor. Harbor contacted Landmarc Environmental (Landmarc), a company specializing in leachate collection system installation and service, to assess the leachate collection system (LCS). Landmarc accompanied Harbor during the 9/5/2024 inspection to assess the LCS. Findings of that assessment are summarized in the previous bi-weekly inspection report.

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

- Vertical leachate collection sump (VLCS)-1 was at 3/4 capacity.
  - VLCS-2 appeared to be functioning correctly. The sump was at approximately 1/2 capacity.
  - Minimal stormwater was observed in the leachate tank battery secondary containment. As such, no stormwater was released (See photograph 1).
  - LCS-1 was running manually at the time of the inspection. The display functioned correctly, however the station displayed a low alarm.
  - The panel displays were off at LCS-2 through LCS-4, and LCS-8 through LCS-9. The VFDs did not activate when the sump was placed in "hand" or "auto" mode.
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- LCS-5 is not functioning correctly. The station displayed a "station ok" message but the VFD did not activate when placed in hand or auto.
- LCS-6 displayed a pump fault; however, the green strobe was active.
- LCS-7 displayed a pump fault; however, the red strobe was active.
- The closure turf is damaged around several vent pipes near LCS-4. A turbine vent near LCS-8 has also detached (see photograph 2). A turbine vent near LCS-6 has also detached.
- Another damaged turbine vent was observed on the north side of Area 1-2 near coordinates 36.461550, -92.451120 (see photograph 3-4).
- 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 is allowing 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 September 15, 2024, 417 Services hauled 72 loads of leachate totaling 273,800 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**

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**Legend**

Landfill Boundary

VLCS Points

LCS Points





**Attachment B**

**Site Photographs**

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**Photograph 1:** View of minimal stormwater in leachate tank battery.



**Photograph 2:** View of detached turbine vent near LCS-8.



**Photograph 3:** View of damaged turbine vent on north side of Area 1-2.



**Photograph 4:** View of damaged turbine vent on north side of Area 1-2.

## **Attachment C**

### **Field Notes and Leachate Collection System Status Inspection Form**

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## ATTACHMENTS

Nabors Leachate Management 9/18/24  
Bi-weekly site visit  
weather: 80's, sunny, slight breeze

1110: C. Gouly on-site

1113: Arrive at VLCS-2

1116: Arrive at VLCS-1

1120: Arrive at leachate containment

- minimal sw in containment

- none released

- tank level @ 21.7"

1124: Arrive at LCS-1

- manually on, turned off

1132: Arrive at LCS-2

- station not operational

1134: Arrive at LCS-3

- station not operational

1136: Arrive at LCS-4

- non/op

1138: Arrive at LCS-5

1142: Arrive at LCS-9

1147: Arrive at LCS-8

1149: Arrive at LCS-7

1152: Arrive at LCS-6

1200: C. Gouly off-site





## Leachate Collection System Status

Date: 9/18/24 Arrival Time: 1110 Location: NABORS Landfill Leachate Tank Battery Level (inches): 21.7"  
 Weather Conditions: 80's, sunny, slight breeze

Panel Number	Display Functioning (Yes/No)	Leachate Level (inches)	Green Flashing? (Yes/No)	Amber Flashing? (Yes/No)	Red Flashing? (Yes/No)	Working in Hand? (Yes/No)	Working in Auto? (Yes/No)	VFD Status	Hours	Alarm	Comments	
VLCS-1	N/A	N/A	N/A	N/A	✓	-	-	N/A	N/A	N/A	Sump status:	3/4 full
VLCS-2	N/A	N/A	N/A	N/A	✓	-	-	N/A	N/A	N/A	Sump status:	1/2 full
LCS-1	Y	0.0	Y	✓	✓	-	-	-	147	Y	Low alarm	
LCS-2	✓	-	-	-	-	-	-	-	-	-	station not operational	
LCS-3	✓	-	-	-	-	-	-	-	-	-	" "	
LCS-4	✓	-	-	-	-	-	-	-	-	-	" "	
LCS-5	Y	9.7	✓	✓	✓	✓	✓	-	0	✓	station ok	
LCS-6	Y	9.4	Y	✓	✓	✓	✓	-	26	Y	Pump fault	
LCS-7	Y	0.0	✓	✓	Y	✓	✓	-	29	Y	Pump fault	
LCS-8	✓	-	-	-	-	-	-	-	-	-	station not operational	
LCS-9	✓	-	-	-	-	-	-	-	-	-	" "	
General Comments:												



End of Report

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