

October 28, 2024
 File No. 27223408.24

Mr. Geoff Spain
 Iowa Department of Natural Resources
 Land Quality Bureau
 6200 Park Avenue
 Des Moines, Iowa 50321

Subject: 2024 Semi-Annual Sampling Notification
 Kossuth County Sanitary Landfill
 Permit No. 55-SDP-01-75C

Dear Geoff:

SCS Engineers, on behalf of Kossuth County, is submitting herewith a summary of the 1st 2024 semi-annual groundwater sampling event for the Kossuth County Sanitary Landfill (Landfill) in general accordance with the Iowa Administrative Code (IAC) 567-113.10(5) and 113.10(6).

Groundwater sampling was completed May 22-24, 2024. During the May 2024 sampling event, significantly elevated total suspended solids (TSS) concentrations were measured in monitoring wells MW-12, MW-19, and MWPz-8B2. The inorganic data from these monitoring wells was considered to be not representative of actual aquifer conditions and was not included in the statistical evaluation. Sampling for the inorganic parameters for monitoring wells MW-12, MW-19, and MWPz-8B2, plus monitoring well MWPz-8A, which did not produce a sample during the May 2024 sampling event, will occur prior to the 2nd 2024 statistical evaluation. Organic data collected from monitoring wells MW-12 and MW-19 were included in the statistical evaluation. Monitoring wells MWPz-8A and MWPz-8B2 are not analyzed for organic parameters.

Following the May 2024 sampling event, the associated field sheets were completed. The samples were shipped and received at the laboratory with acceptable preservation requirements and at appropriate temperatures. Statistical evaluation was performed using analytical data received from the laboratory, except as noted above. The field sheets, laboratory analytical reports, data validation documentation, and statistical output from the statistical evaluation will be included in the 2024 Annual Water Quality Report.

Statistical evaluation results for the Landfill 1st 2024 semi-annual sampling event are summarized in Table 1.

Table 1
1st 2024 Statistical Evaluation Summary

Monitoring Point	Monitoring Program	Indicated SSIs	SSLs
MW-27	Background	Background for detection monitoring program.	
MWPz-8A	Background	Background for detection monitoring program.	
MWPz-8B2	Background	Background for detection monitoring program.	
MW-22A	Background	Background for detection monitoring program.	



Monitoring Point	Monitoring Program	Indicated SSIs	SSLs
MW-22B	Corrective Action	Acetone, Benzene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Vinyl Chloride	cis-1,2-Dichloroethene, Vinyl Chloride
MW-23	Assessment	None	None
MW-25	Assessment	None	None
MW-19	Assessment	Acetone, 1,1-Dichloroethane	None
MWPz-16A	Assessment	cis-1,2-Dichloroethene, 1,1-Dichloroethane	None
MW-12	Detection	None	None
MW-18	Assessment	Barium, Cobalt, Acetone, Toluene	None
MW-26	Detection	None	None
MW-20	Assessment	None	None
MW-28	Corrective Action	None	None

There were thirteen well/detected constituent pairs with indicated statistically significant increases (SSIs) above background. The monitoring wells in assessment or corrective action monitoring do not require a retest; therefore, the SSIs were not confirmed.

The exceedances of the groundwater protection standards (GWPSs) at statistically significant levels (SSLs) in monitoring well MW-22B were previously reported.

For monitoring points in the corrective action monitoring program, if the upper confidence limit or any part of the upper confidence band, as appropriate, exceeds the GWPS, the constituent-monitoring point pair would not satisfy the requirement to complete corrective action as specified in IAC 567-113.10(9)"e"(2), which requires three consecutive years of the upper confidence limit or upper confidence band, as appropriate, below the GWPS. The progress of constituent-monitoring point pairs toward satisfying the requirements is shown in Table 2.

**Table 2
 Progress Toward Remedy Completion**

Monitoring Well	Current SSL Above GWPS	Upper Confidence Limit Below GWPS					
		1 st Year		2 nd Year		3 rd Year	
MW-22B	cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA
	Vinyl Chloride	NA	NA	NA	NA	NA	NA

NA indicates that the monitoring well/constituent dataset has not satisfied the statistical requirements of IAC 567-113.10(9)"e"(2), which is identified by the entire confidence interval or confidence band, as appropriate, being below the GWPS.

No changes to the Landfill's monitoring program are recommended based on the 1st 2024 semi-annual sampling event results.

Services were performed in general accordance with IAC 567-113.10 and the current requirements for implementation of the Hydrologic Monitoring System Plan (HMSP) for the Landfill. This correspondence constitutes the 2024 Semi-Annual Sampling Notification.

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If you have any questions regarding this notification, please contact Nathan Ohrt at (319) 331-9613.

Sincerely,



Nathan Ohrt
Senior Project Professional
SCS Engineers



Timothy C. Buelow, P.E.
Senior Project Advisor
SCS Engineers

NPO/TCB

Copies: Mr. Doug Miller, P.E., Kossuth County Engineer's Office