July 15, 2024

TERON MEINDERS
RYDELL CHEVROLET
1325 E SAN MARNAN DR
WATERLOO IA 50702

Re: Rydell Chevrolet (1325 E San Marnan Dr., Waterloo, IA 50702)
Contaminated Sites Database Site ID No. 2623
Review of Additional Site Assessment Report

Dear Mr. Meinders:

The Iowa Department of Natural Resources (DNR) received the Additional Phase II Site Assessment Report dated March 29, 2024. Thank you for the submission. The report summarizes additional soil, groundwater, and vapor sampling completed at the site per request of the DNR.

Following initial assessment in 2020, the DNR requested additional assessment to investigate the extent of diesel groundwater contamination (plume definition), impact of contamination to site utilities, and vapor intrusion risk within the site building. After email correspondence to clarify additional assessment, expanded assessment activities were completed at the site in February, 2024.

Per the Report, soil sampling resulted in diesel and some volatile organic compound (VOC) detections over laboratory reporting limits, but concentrations were under applicable standards. Groundwater samples yielded diesel and acetone detections, but concentrations were less than applicable standards. Please note, Table 2 in the Additional Phase II Report has contaminant detections listed in mg/L while DRO standards are listed in µg/L. Lastly, vapor sampling indicated multiple VOC detections, with four contaminants over EPA Vapor Intrusion Screening Levels (VISL).

The expanded groundwater sampling indicates the diesel plume has been adequately defined in the downgradient and cross-gradient directions. The diesel plume does not appear to be a risk to current utilities as presented in the report. However, significant diesel contamination remains in the area surrounding P-1. To address potential risk associated with the high levels of diesel contamination, the DNR would recommend establishing an Environmental Covenant (EC) on the property which restricts the installation of drinking and non-drinking water wells and establishes guidelines for any future water line construction at the site. Alternatively, remedial actions and/or expanded groundwater monitoring could be completed to show diesel plume stability and decreasing concentrations (natural attenuation).

With respect to soil vapor samples, interior sub-slab samples at VP-13 and VP-15 exceeded VISL target levels for Ethylbenzene, Chloroform, and 1,1-Dichloroethane. No indoor air sampling was completed during the assessment as current usage of the building may lead to additional VOC detections not associated with a release. However, with confirmation of sub-slab exceedances, indoor air sampling must be completed at the facility. While the DNR acknowledges product usage and storage at the facility may lead to VOC indoor air detections, concentrations may be compared to existing sub-slab sampling results to rule out anomalies.

Per the EPA's 2015 OSWER Technical Guide for Assessing and Mitigating the Vapor Intrusion Pathway document, Section 6.4 states "*Several rounds of sampling are recommended to develop an understanding of temporal variability*.[141]" The footnote adds "[141] *Seasonally variable conditions (e.g., moisture levels, depth to groundwater) can lead to seasonally variable concentrations and distributions of vapors in the vadose zone. Likewise, weather conditions and building operations can lead to time-variable contributions from vapor intrusion (e.g., driving forces for vapor intrusion; see Section 2.3) and ambient air infiltration (see Sections 2.4). Collectively, these processes cause indoor air concentrations of vapor forming chemicals to vary over time (see Section 2.6). An individual sample (or single round of sampling) would be insufficient to characterize seasonal variability, or variability at any other time scale."* Please account for temporal variability when assessing indoor air for this site.

Lastly, exterior samples collected near utility trenches exceeded 1,3-Butadiene target levels, however, the explanation of their presence as presented in the report is accepted at this time. If additional vapor sampling, specifically samples obtained without utilization of a drill rig, indicates the contaminant is present, additional assessment may be required.

Based on the information outlined above, further assessment is needed at the site. Please submit a Work Plan within 45 days that includes an outline for indoor air sampling and the proposed action to address potential risk associated with the diesel groundwater plume.

Thank you for your cooperation with this project. Feel free to contact me with any questions at (515) 721-7024 or by email at andrew.carver@dnr.iowa.gov.

Sincerely,

Digitally signed by Andrew Carver
Date: 2024.07.15 13:27:44 -05'00'

Andrew Carver, CGP
Environmental Specialist
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