State Form 4336

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
INDIANAPOLIS

OFFICE MEMORANDUM

Date: July 29, 2024

To: Morgan Willis
Petroleum Remediation

Thru: Jin Wang, Chief JW 07/25/2024
Risk Services Section
OLQ Science Services Branch

From: Liam Brown LEB 7/29/2024
Risk Assessor
OLQ Risk Services Section

Jeanine Mikesell JM 7/25/24
Senior Risk Assessor
OLQ Science Services Branch

Subject: Site Check Report, July 3, 2024
Garcha G Mart
Larwill, IN, Whitley County
FID 17874; Incident 201909510; AI 54526
VFC 83662761

As requested, I evaluated the Site Check Report, dated July 3, 2024, prepared by IWM. My comments follow:

Site Understanding

The site currently operates as a fueling station and convenience store. During an IDEM inspection completed in June 2019, the inspector observed water in the diesel UST, leaking pipe fittings underneath each of the three dispensers, and water with a petroleum sheen within the gasoline sump. Residential properties are located to the west, south, and east of the site, and the site is bordered to the north by HW 30, followed by a vacant gas station and residential properties. A shared UST cavity on the west portion of the site consists of one 10,000-gallon gasoline UST, two 6,000-gallon gasoline USTs, and one 2,000-gallon diesel UST. The site is supplied by municipal water, but the report does not indicate if the site is in a WHPA, but according to SiteSeer, the site is not located within a WHPA. Additionally, it does not outline if any potable wells are in the vicinity of the site.

Risk Evaluation

IWM is using IDEM Published Levels (PLs) as remediation objectives, and they appear to be the updated 2024 PLs—this is acceptable.

The following sections of this memorandum provide an evaluation of risk for the significant exposure scenarios at the site.

Risk Evaluation: Soil Direct Contact Exposure Scenario

SEC advanced five soil borings in (GP-1 – GP-5) in June 2024 and collected seven on-site soil samples. Concentrations of RRCs in soil samples did not exceed the PLs. For this reason, a remedy does not appear warranted for the soil direct contact exposure scenario.

Risk Evaluation: Groundwater Exposure Scenario

SEC installed temporary monitoring wells in borings GP-1 – GP-5 in June 2024 and collected three groundwater samples. Samples were not collected from borings GP-1 or GP-5 since groundwater was not encountered. The concentration of naphthalene in sample GP-3W (8.7 µg/L) slightly exceeded the GWPL (1 µg/L), and the concentration of 1,2,4-trimethylbenzene in GP-3W (60.0 µg/L) was equal to the GWPL (60 µg/L). The concentration of total lead in each sample, ranging from 41.4 µg/L – 389 µg/L), exceeded the GWPL (15 µg/L). The document attributes these exceedances to turbidity which seems reasonable. Refer to other technical staff for comment on the total lead exceedances.

Based on the minimal amount of contamination found on-site, the lack of nearby receptors, and the lack of exposure pathways, a remedy does not appear to be warranted for the on-site groundwater exposure scenario. Additionally, the data may be biased high since these were grab samples—refer to chemistry services for comment of analytical data and QA/QC. A remedy does not appear warranted for the off-site groundwater exposure scenario since only minimal on-site contamination was encountered in GP-3, which is bordered by HW-31, and not within close proximity of receptors.

Risk Evaluation: Vapor Intrusion Exposure Scenario

VI sampling was not performed as part of this site check since the site is an active fueling station—this is acceptable. Since the benzene concentration in groundwater does not exceed the VI investigative prompt of 50 µg/L, a remedy is not warranted for the off-site VI exposure scenario.

Remedy Assessment

Summary Table of Remedy Recommendations

Exposure Scenario	Remedy Warranted	
	On-Site	Off-Site
Soil	No	No
Groundwater	No	No
Vapor	No	No

References Cited

IDEM 2024 R2 Risk-Based Closure Guide

IDEM Published Level Table (Updated 2024)

cc: Aaron Straight, Chemistry Services
Sarah Finley, Geological Services