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Sent: Thursday, February 24, 2022 9:02 AM
To: Rice, Caroline M - DNR
Cc: Ross, Issac A - DNR; Jeanne Tarvin; Marla
Subject: Dodgeville NAPA Ramboll SI Response for the Trace-Mitchell Real Estate, LLC Site Located at 1305 North Johns Street - BRRTS NO. 02-25-587099

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Hi Caroline,

Following is the email response that Ramboll has prepared according to our February 10, 2021 conference call.

Ramboll's site investigation concludes:

1. In June 2020, AEI Consultants, Inc. prepared a Phase I Environmental Site Assessment (ESA) for a potential property transaction. The ESA concluded that there was a Recognized Environmental Condition (the site was used for dry cleaning). The prior owner stated that the dry cleaning operations used solvent-based chemicals in a closed-loop dry cleaning system machine located in the northeast portion of the building.
2. Based on six soil borings advanced at the site, the geology consists of fill from 2 to 8 feet below ground surface (bgs) underlain by native soils comprised primarily of silty clay to the top of bedrock. Limestone bedrock was encountered at the site at 5 to 18 feet bgs and slopes to the southwest. According to available regional groundwater data, groundwater in the site area is in bedrock at approximately 51 feet bgs with groundwater flowing to the southeast and deeper groundwater flowing to the southwest. The site is located within an area-wide chlorinated volatile organic compounds (cVOC) groundwater plume.
3. Six soil borings were advanced at the site to evaluate the soil for potential cVOC impacts. Boring and soil sampling was biased towards areas in and around the building where historical dry cleaning operations occurred (the dry cleaning machine was formerly located in the northeast portion of the building in the area near a floor drain). Borings were advanced at the floor drain, outside the back door (adjacent to the former dry cleaner operations), near the shed (potential dry cleaner chemical storage area), and adjacent to utility lines (underground gas, sewer, and water) to identify potential preferential pathways for vapor intrusion. Soil samples for volatile organic compounds (VOC) analysis were collected from depths ranging from 0.5 to 18 feet bgs. There were no VOC detections above the laboratory method detection limits in any of the borings except for the soil sample collected from near the drain in the northeast corner of the building (where there were reported concentrations of ethylbenzene, dichlorodifluoromethane [DCDFM]¹, and styrene); however, at concentrations below the applicable Wisconsin Administrative Code Chapter NR 720 Residual Contaminant Levels. There were no cVOC analytes detected in any of the soil samples collected at the site (including the suspected source area and the drain near the former dry cleaning machine).

4. Ramboll performed two rounds of sub-slab vapor testing at the site, one in July 2020 (during the cooling season) and one in March 2021 (during the heating season). The July 2020 sub-slab soil vapor sampling documented tetrachloroethene (PCE) and ethylbenzene concentrations above the residential vapor risk screening levels (VRSLs) in two locations in the northeast portion of the building but these concentrations are well below the small commercial VRSLs across the entire building footprint. The subsequent March 2021 sub-slab soil vapor sampling event documented PCE and ethylbenzene sub-slab soil vapor concentrations well below the residential VRSLs across the entire building footprint. Based on sub-slab vapor testing during both the cooling and heating season, the sub-slab soil vapor concentrations are below the applicable small commercial VRSLs (and below the residential VRSLs during the March 2021 heating season sub-slab sampling event). Therefore, vapor intrusion at the site is not a threat to building occupants based on the commercial site use, and no vapor mitigation or further testing is necessary. Given the low detections of cVOC soil vapor concentrations below the building and the absence of cVOC soil concentrations in soil samples along the utility corridors, soil vapor migration along the utility lines is not a pathway concern.
5. Although Ramboll was not able to identify a source of PCE and ethylbenzene in soil, soil vapor concentrations beneath the slab-on-grade NAPA building are likely the result of de minimis concentrations either related to the historical dry cleaning operation (PCE) or from the current NAPA housekeeping and chemical management practices (PCE and ethylbenzene) of auto parts maintenance products (brake cleaners, degreasers/solvents, auto paint, gasoline and gasoline additives, etc.).

Based on the site investigation activities, there is no evidence of a release to soil and the latest (March 2021) sub-slab soil vapor sampling documents, no residential VRSL exceedances. Therefore, the sub-slab vapor testing has documented no vapor intrusion risk to building occupants as long as the site use remains commercial or industrial and vapor mitigation is not required. Note also that the low permeability silty clays at the site would impede or lessen the effects of vapor intrusion into the on-site building. Based on the investigation data collected to date, Ramboll recommends no further action for the site. If the WDNR concurs with Ramboll's site investigation activity results and conclusions, Ramboll will prepare a case closure package (WDNR Form 4400-202) for submittal to the WDNR along with an agency review fee. Ramboll appreciates your assistance in our mutual goal of completing this investigation.

[1] DCDFM was detected at concentrations above the commercial VSRLs; however, it was determined to be related to a building material artifact (observed foam insulation installed below the concrete floor slab) and not to a release or discharge of a hazardous chemical to the environment.

Warm Regards,

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