



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Eric J. Holcomb
Governor

Bruno L. Pigott
Commissioner

October 25, 2021

Mitch Reberger
Reberger Dry Cleaners, LLC, Reberger Ventures, Inc.
Charles K. Reberger Realty, LLC
2144 West State Road 340
Brazil, IN 47834

Mitch Reberger & Jacqueline Reberger
Reberger Land Holdings, LLC, Estate of Charles K. Reberger
218 E. Forest Acres Drive
Brazil, IN 47834

Dear Mr. and Ms. Reberger

Re: 3rd and 4th Quarter 2020 Groundwater Monitoring Report
and Summer 2020 Vapor Intrusion Assessment
Summary
Former Reberger Dry Cleaners
113 E National Avenue
Brazil, Indiana
VRP # 6190601

The Indiana Department of Environmental Management (IDEM) has reviewed the above-mentioned documents (EnviroForensics) for the Former Reberger Dry Cleaners site located at 113 E National Avenue in Brazil, Indiana.

The reports were uploaded to the IDEM Virtual File Cabinet (VFC) under the following document #s:

- 3rd and 4th Quarter 2020 Groundwater Monitoring: 83084021
- Summer 2020 Vapor Intrusion Assessment Summary: 83092923

Further site history can be found in the VFC located on the IDEM website www.idem.in.gov. This technical letter contains a brief background summary including comments generated during our review of the above-mentioned reports.

Background

The Former Reberger Dry Cleaners Site is located in downtown Brazil, Indiana and has active commercial tenants in the structures to the west and east of the Site building. The Site was reportedly used for dry cleaning operations from the early to mid-1960's until the business closed in January 2017. Mr. Charles Reberger purchased the Site in 1990, and operated a dry cleaning business (Reberger Dry Cleaners) using tetrachloroethylene (PCE) until 2008, when PCE was replaced by Exxon Mobil DF-2000, a petroleum based solvent. Dry cleaning operations occurred on the first floor of the Site building, and the second floor was used for storage of equipment. The Site building has a full crawlspace, and entrances from the north off East National Avenue, and to the south off an alley. Chlorinated solvents continued to be used as spot-cleaners at Reberger Dry Cleaners until the business closed. The Site building is currently vacant and in need of repairs.

EnviroForensics, LLC (EFI) began environmental investigation at the Site in November 2014. The IDEM State Cleanup Program assigned Site Number #0000421 to the Site and issued the Site a *Special Notice of Potential Liability and Request for Information* letter on February 4, 2015. Additional investigation and remediation efforts were completed while the Site was managed under the State Cleanup Section. The project entered the Voluntary Remediation Program (VRP) on October 30, 2019.

PCE and 1,2,4-trimethylbenzene (1,2,4-TMB) are the primary contaminants of concern (COCs) in soil at this Site, and PCE, trichloroethylene (TCE), vinyl chloride (VC), 1,2,4-TMB, and 1,3,5-trimethylbenzene (1,3,5-TMB) are primary COCs in groundwater. During the October 2019 groundwater monitoring event, PCE, TCE, cis-1,2-dichloroethylene, and VC were detected above their Groundwater Screening Levels (GWSLs) in MW-1S. PCE was detected above the GWSL in MW-1D, and vinyl chloride was detected above its GWSL in MW-5S. No other GWSL exceedances were noted in October 2019. The October 2020 groundwater monitoring event showed a similar contaminant profile. EFI proposed to cease groundwater monitoring, and to address vapor intrusion concerns in a Remediation Work Plan (RWP).

Groundwater remediation conducted at the Site has consisted of injections of 3-D Microemulsion, an organic substrate to promote Enhanced Reductive Dechlorination (ERD), Chemical Reducing Solution, a liquid iron-based reagent for the enhanced in-situ chemical reduction, and Bio-Dechlor INOCULUM Plus, a dehalogenating bacteria to further support ERD. Eight rounds of post-injection groundwater monitoring followed remediation. Groundwater sample results collected from the post-injection monitoring events indicate reductive dichlorination is occurring as expected. Analytical results show decreases in PCE and TCE concentrations in the source area with corresponding increase in daughter products (cis-1,2-DCE, VC, and ethene). Increases in PCE and TCE concentrations at well MW-1S are noted during the 3rd and 4th Quarters of 2019. Increases in methane indicate that optimal reducing conditions have been reached.

Soil Vapor Extraction (SVE) pilot testing at 115 East National Avenue (the commercial structure adjacent to the Site building) took place starting January 23, 2019 and ran for 22 days. EFI conducted a round of indoor air (IA) and soil gas (SG) sampling at this structure on March 20, 2019. No commercial indoor air screening level (CIASL) exceedances were observed, and the results indicated significant decreases in PCE and TCE in the IA and sub-slab soil gas (SGss) samples. However, the PCE and TCE concentrations in SGss samples were between approximately two and four times higher than the applicable commercial screening levels, respectively. Based on these results, the system was restarted on May 5, 2019, and ran until October 3, 2019. Confirmatory VI sampling was then conducted in November 2019 and July 2020.

Comments

Groundwater Monitoring

Overall, IDEM agrees with EFI in ceasing groundwater monitoring in response to the given lines of evidence (LOEs). An Environmental Restrictive Covenant (ERC) is expected to be recorded for the property to consider groundwater exposure pathways incomplete.

Summer 2020 Vapor Intrusion

EFI plans to engage adjacent property owners to evaluate and determine a path to closure, which IDEM finds acceptable.

A Remediation Work Plan (RWP) is expected to be developed to present a closure strategy. If you have any questions, please contact me at (317) 232-8591, (800) 451-6027, or at ndhill@idem.in.gov.

Sincerely,



Nick Daily-Hill,
Project Manager
Voluntary Remediation Program
Office of Land Quality

cc: Nicholas Hill, EnviroForensics, LLC

It is the goal of IDEM to enable remediation sites to move forward in a timely manner. If an impasse has been reached over technical issues, a Technical Review Panel of non OLQ scientists is available to review and offer a non-binding opinion to help resolve technical disagreements with the VRP and State Cleanup Program project managers. The goal is to facilitate progress at your site. This review process is available immediately. If you would like to request a review by the Panel, please contact Kevin Davis, Remediation Services Branch Chief for the Office of Land Quality, at 317-232-4535 or kdavis2@idem.in.gov.

Any decision produced by the Technical Review Panel is not an agency action as defined in IC § 4-21.5-1-4 or an order as defined in IC §4-21.5-1-9. This decision is not subject to administrative review because it is not a determination of any legal rights, duties, privileges, immunities, or other legal interests, and because it is issued pursuant to an informal procedure for dispute resolution as allowed by IC 4-21.5-3-34 (a).