

Mustonen, Kevin

From: Mustonen, Kevin
Sent: Friday, May 30, 2008 4:07 PM
To: Larsen, Sarah
Subject: Leak #3534, Junction F'n'F - AMR review

RE: hydro review of TPT's 2-25-08 "Annual Monitoring Report" recommending continued quarterly groundwater monitoring, semi-annual sub-slab soil vapor and indoor air monitoring, and potable well sampling on the following schedule: quarterly (PW-5497 and PW-4621), semi-annually (PW-2), and annually (PW-5492, PW-5506A, and PW-5506B).

I also reviewed MSA's 5-20-08 "Curtis Oil Excavation Report" which covered the removal of an unused UST.

Sarah,

I have reviewed the aforementioned reports and I have the following comments and recommendations.

COMMENTS

- 1) The AMR contained new information from the following activities:
 - a. Three rounds of quarterly groundwater sampling.
 - b. Potable well sampling (different wells are on different sampling schedules).
 - c. One round of indoor air and sub-slab soil vapor sampling.
- 2) During the last year, the analytical data collected from the monitoring wells continued (more or less) the previously established trends. The results were either below the reporting limits (MW-4, MW-6, and MW-7) or fluctuated between (what appears to be) set highs and lows (MW-1, MW-2b, MW-3b, MW-5, and MW-8). According to TPT's groundwater flow maps, the flow directions have varied significantly over the last year and have included flow to the northeast, the southeast, and the southwest. I am unsure if that is a true representation of the flow conditions at the site or if errors have been introduced at some point during the data collection and analysis process.
- 3) Of the five water supply wells that were sampled last year, none of them had VOC detections with the exception of a 1.5 ug/L benzene detection in the Radco well on 9-28-07. The normal reporting limit for benzene using EPA Method 8260 is 1.0 ug/L, so at this point I am not putting too much faith in that low-level detection. Additional monitoring of some of the nearby water supply wells will be needed.
- 4) An indoor air sample and a sub-slab soil vapor sample were collected from the site building on 10-23-07. Two compounds were detected in the indoor air at levels above their "action levels." The detections were 124-TMB at 119 ug/m³ and 135-TMB at 10.0 ug/m³. TMBs were not detected in the sub-slab soil vapor sample, so the results may be indicative of an indoor air source which could include VOCs off-gassing from the construction materials used during the building's remodel or car exhaust coming through the building's drive-through window. I didn't realize the building had a drive-through window until it was mentioned (for the first time) in this report. Additional indoor air and soil vapor monitoring will be needed.

- 5) There were three pages missing from the Abandoned Tank Removal Report that MSA prepared for Petrofund staff. The most pertinent information that was missing was the size of the tank that was removed and the date that the removal took place (I tried contacting Lynette Carney w/MSA to get the information but she was out of the office for a few days). Some contaminated soil was encountered during the tank removal; however, it appears as if the site's monitoring well network should have adequately addressed any groundwater impacts issues that may have resulted from this tank. Additional site work relating to this tank does not appear to be warranted and the report does not require a response.
- 6) Based on the information contained in the latest AMR, I have updated my risk evaluation of the site to include the following:
 - a. MW-8 is the discharge compliance monitoring point for the nearby wetlands. During the last eight rounds of monitoring, MW-8 had one exceedance (benzene) of the Class 2B surface water chronic standards. MW-8's analytical results are trending downward and the release does not appear to be impacting the wetlands at levels above the standards.
 - b. Overall, the analytical data for the plume (we have 35+ rounds of sampling from many of the monitoring wells) indicates that it is stable to mildly fluctuating. I think we can discontinue groundwater monitoring at the site.
 - c. The indoor air samples collected to date are not conclusive (with respect to possible vapor intrusion issues) and additional sampling should be conducted.
 - d. Additional sampling of the nearby water supply wells should be conducted to help determine the validity of previous low-level detections.

RECOMMENDATIONS

(Suggested language to be included in a Request for Additional Work letter. Please review for clarity and grammar.)

Minnesota Pollution Control Agency (MPCA) staff have reviewed the "Annual Monitoring Report", dated February 25, 2008, submitted by Twin Ports Testing (TPT), your environmental consultant for this site. Based on the information provided in the report, it has been determined that additional work is required at the site. Please complete the following activities:

- 1) Sampling of the monitoring wells associated with this site can be discontinued.
- 2) Collect groundwater samples from the following water supply wells. The samples collected must be analyzed for volatile organic compounds (VOCs), and gasoline range organics (GRO).
 - a. Quarterly: PW-4621 and PW-5497.
 - b. Annually: PW-2, PW-5492, and PW-5506A.
- 3) Collect semi-annual air samples from the following locations. The samples collected must be analyzed for VOCs using EPA Test Method TO-15.
 - a. The previously used indoor air sampling location for Casa Latte.
 - b. The sub-slab soil vapor monitoring point installed at Casa Latte.

In order to minimize cross-contamination, the indoor air samples should be collected before the sub-slab vapor samples. The indoor air samples and the soil vapor samples should be collected no more than two days apart.

- 4) After completing the work listed above, complete and submit MPCA Guidance Document 4-08 *Annual Monitoring Report* detailing the results. This report is due by May 31, 2009.

