



April 17, 2014

Mr. Kevin Turner
USEPA Region 5
8588 Route 148
Marion, IL 62959

Ms. Michelle Kaysen
USEPA Region 5, Mail Code LU-9J
77 West Jackson Boulevard
Chicago, IL 60604

RE: First Quarter 2014 Progress Report, Hartford Petroleum Release Site

Dear Ms. Kaysen and Mr. Turner,

Trihydro Corporation (Trihydro) is submitting this quarterly report summarizing the progress and status of activities performed at the Hartford Petroleum Release Site (Hartford Site) on behalf of Apex Oil Company, Inc. (Apex) for the time period from January 1 to March 31, 2014.

1. Apex submitted the following deliverables during the First Quarter 2014:

- The *Final Interim In-Home Effectiveness Monitoring Plan, Hartford Petroleum Release Site, Hartford, Illinois* was submitted to the United States Environmental Protection Agency (USEPA) and Illinois Environmental Protection Agency (Illinois EPA) on January 3, 2014 via standard mail.
- The *Draft Evaluation of West Birch Effectiveness and Event Based Monitoring Results, Hartford Petroleum Release Site* was submitted to the USEPA and Illinois EPA on January 14, 2014 via email.
- The *Fourth Quarter 2013 Progress Report for the Hartford Petroleum Release Site* was submitted to the USEPA and Illinois EPA on February 4, 2014 via email.
- The *Draft LNAPL Component of the Conceptual Site Model for the Hartford Petroleum Release Site* was submitted to the USEPA and Illinois EPA on February 21, 2014 via the Document Tool on Trihydro's Project Direct website.

2. Apex submitted the following requests and notifications pertaining to activities at the Hartford Site:

- The USEPA, Illinois EPA, and Hartford Working Group were provided notification regarding elevated total organic vapor concentrations (measured above the 350 ppmv action level) in sub-slab soil vapor beneath 117 West Birch Street during weekly in-home screening activities.



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- City of Wood River and Village of Hartford were provided the analytical results for the first batch of treated groundwater collected from the temporary treatment system installed in Area A of the Hartford Petroleum Release Site on March 3, 2014.
 - USEPA, Illinois EPA, Village of Hartford, City of Wood River, and Hartford Working Group were provided notification on March 6, 2014 of the initiation of focused pumping in Area A of the Hartford Petroleum Release Site.
3. Apex participated in the following meetings and teleconferences during the First Quarter 2014:
- A monthly status call with the Hartford Working Group was completed on January 21, 2014.
 - A meeting was conducted with the USEPA, Illinois EPA, and Hartford Working Group on January 28, 2014 at the Apex Offices in Clayton, Missouri to discuss Area A pilot test preparation activities, the draft light non-aqueous phase liquid (LNAPL) component to the Conceptual Site Model (CSM), as well as in-home and soil vapor extraction (SVE) system effectiveness monitoring results collected along West Birch Street.
 - A teleconference was conducted on February 11, 2014 with the USEPA to discuss the status of the Area A pilot test preparation activities.
 - A monthly status call with the Hartford Working Group was completed on February 18, 2014.
 - A meeting was conducted with the USEPA, Illinois EPA, and Hartford Working Group on March 18, 2014 at the Jenner & Block LLP Offices in Chicago, Illinois to discuss the preliminary Area A pilot test results and the draft LNAPL component to the CSM.
4. Summary of In-Home Effectiveness Monitoring Activities:
- Weekly in-home effectiveness monitoring was performed within twelve structures at the Hartford Site during the First Quarter 2014, excluding the week of December 29, 2013 through January 4, 2014 per approval from the USEPA.
 - In-home screening was conducted daily (excluding weekends) within 117 West Birch Street between February 24 and March 11, 2014 due to elevated total organic vapor concentrations within the sub-slab soil vapor. A sub-slab and indoor air sample were collected from the structure for laboratory analysis on February 24, 2014. In addition, field screening of vapor samples collected from monitoring points MP-078A and MP-079A was routinely performed over this timeframe. Daily in-home screening was discontinued once the total organic vapor concentrations within the sub-slab probes was measured below the 350 parts per million by volume action level within this structure.
 - Quarterly in-home effectiveness monitoring was performed in as many as 40 structures in January 2014 in conjunction with the SVE system effectiveness monitoring conducted by the Hartford Working Group.



5. Summary of West Birch Street Investigation Activities:

- Monthly screening within select monitoring points and nested soil vapor monitoring wells installed on West Birch and West Arbor Streets was conducted on February 14 and March 25, 2014.
- Competency testing of the bentonite seals separating the monitoring intervals and individual probes in each monitoring point and nested soil vapor monitoring wells was conducted on February 25, 2014.
- Pneumatic testing to estimate the soil gas permeability of the formation surrounding the screened interval of the monitoring points and nested soil vapor monitoring wells was conducted on February 25, 2014.

6. Summary of Additional LNAPL Recovery Pilot Test Implementation Activities:

- Baseline monitoring activities in Area A continued in the First Quarter 2014 including weekly fluid level gauging and vapor screening in selected monitoring points, groundwater monitoring wells, multiphase extraction wells, and SVE wells.
- The Application for Permit for Construction/Operation Approval (WPC-PS-1) to temporarily discharge treated groundwater to the Village of Hartford combined sewer system during the focused pumping pilot test was issued by the Illinois EPA on January 23, 2014.
- Additional groundwater samples were collected and analyzed to establish baseline conditions from three monitoring locations in Area A on February 19, 2014.
- Connection of the 6-inch discharge line to the 21-inch sewer beneath North Market Street and construction of the temporary groundwater treatment system, as well as the LNAPL storage area was completed between February 24 and March 6, 2014.
- Treatment of 10,000 gallons of groundwater and sampling of the effluent water following the final treatment vessel was performed on February 28, 2014. The analytical results were submitted to the Village of Hartford and City of Wood River on March 3, 2014.
- Step testing of the production well installed in Area A was performed between March 7 and March 8, 2014.
- Focused pumping in Area A at a rate of 300 gallons per minute, as well as associated pilot test monitoring activities as described in the *Final LNAPL Recovery Pilot Test Work Plan Addendum* began on March 8, 2014.

7. Summary of Dissolved Phase Investigation Implementation Activities:

- Quarterly manual gauging of fluid levels within 382 groundwater monitoring wells and monitoring points was completed during the week of January 13 and January 17, 2014.
- Monthly manual gauging of fluid levels in select groundwater monitoring wells and monitoring points was performed on January 13, February 18, and March 20, 2014.



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- A groundwater sample was collected and analyzed from one monitoring well on February 14, 2014.

8. Activities Planned During the Second Quarter 2014 at the Hartford Site:

- Continue weekly in-home effectiveness monitoring within twelve structures in accordance with the *Final In-Home Effectiveness Monitoring Plan*.
- Conduct river stage triggered monitoring in accordance with the triggers established within the *Final In-Home Effectiveness Monitoring*.
- Conduct quarterly in-home effectiveness monitoring in April 2014 in accordance with the *Final In-Home Effectiveness Monitoring Plan*.
- Continue implementation of the dissolved phase investigation activities in accordance with the *Final Dissolved Phase Investigation Work Plan* including: (1) monthly and quarterly fluid level gauging, (2) groundwater sampling, and (3) data reduction, analysis, and reporting.
- Continue implementation of the focused pumping pilot test in accordance with the *Final LNAPL Recovery Pilot Test Work Plan Addendum*.
- Respond to USEPA, Illinois EPA and Hartford Working Group comments and subsequently finalize the *LNAPL Component of the Comprehensive Conceptual Site Model*.
- Participate in routine teleconferences and meetings with the USEPA, Illinois EPA, and Hartford Working Group.

We appreciate your continued engagement with this project. If you have any questions or require any additional information, please contact me at (513) 429-7452.

Sincerely,

A handwritten signature in blue ink, appearing to read "Paul Michalski".

Paul Michalski, P.G.
Team Leader
Trihydro Corporation