

August 15, 2018

Mr. Conor Neal
Hydrogeologist
Land & Chemicals Division
US Environmental Protection Agency, Mail Code LU-9J
77 West Jackson Blvd
Chicago, IL 60604-3590

RE: Bi-Weekly Summary Report for Pump Down Program
Tyco Fire Products LP Site
Marinette, WI

Dear Mr. Neal:

The information provided herein is a summary of activities conducted at the Tyco Fire Products LP (Tyco) site associated with the Pump Down Program for the former Salt Vault and 8th Street Slip areas. The Pump Down Program is required as part of the Administrative Order on Consent between Tyco and U.S. Environmental Protection Agency (USEPA). This summary report covers the period from July 28, 2018 through August 10, 2018.

Summary of Work during Reporting Period

Work conducted during the reporting period included:

- Manual water level readings at the designated monitoring points and extraction wells were collected at least weekly during the reporting period. The average water level, based on the most recent water level measurements during the reporting period, in the former Salt Vault was 578.05 feet above mean seal level (ft. AMSL), or 0.15 feet above the target level. The average water level in the former 8th Street Slip was 575.20ft. AMSL, or 2.70 feet below the target level. A cumulative summary of manual water level readings and corrected elevations is attached as Table 1.
- Total groundwater recovery rates in the former Salt Vault area averaged 1.08 gallons per minute (gpm) per well from the four extraction wells during the reporting period (Note: The extraction wells in the former Salt Vault operated continuously during the reporting period with the exception of the limited down time to perform maintenance on each pump as describe below). Total groundwater

recovery rates in the former 8th Street Slip averaged 2.93 gpm per well from the two extraction wells during pumping operations or an average of 1.73 gpm assuming continuous operation during the reporting period.

- Off-site transportation of recovered groundwater was conducted during the reporting period. Off-site disposal operations are limited to five days per week with generally 2 trucks (approximately 10,000 gallons) per day.

A summary of pumping and disposal operations for the 2018 season is provided below.

Summary of Pump Down Operations (through July 27, 2018)

	Gallons Pumped	Gallons Treated at GWTS ¹	Gallons Transported for Off Site Disposal
This Period	~82,330	~0	~83,980
2018 Operations To Date	~862,420	~0	~864,420 ²

All quantities are estimated

Issues Encountered during Reporting Period

The groundwater elevation within the former Salt Vault remains slightly above the target elevation. However, the average water level remains below the Menominee River elevation and the main plant cell indicating that an inward gradient is present, reducing the risk of a release from the area. We continue to evaluate the data collected to obtain an understanding of potential causes of further drawdown resistance and actions necessary to obtain/maintain compliance.

The natural reduction in pumping rates has eliminated the need for the temporary system shut downs.

As previously reported, the internal hose element in the pump for extraction well EW-8 failed on July 25, 2018 and automatically ceased operation. The pump was subsequently repaired on July 30, 2018 and operation of the extraction well recommenced. At the time of the repair, the contractor also ordered additional parts and supplies to perform general maintenance on all the pumps for the temporary extraction system.

¹ GWTS – Groundwater Treatment System

² Volume includes stormwater recovered in secondary containment structure

Prior to arrival of the parts and supplies, the internal hose element in the pump for extraction well EW-11 failed overnight on August 5-6, 2018 and the automatic shut off failed to operate on the pump, which continued to operate until the leak was observed at 5:30 A.M. on August 6, 2018. A small volume (unknown quantity due to mixing with contained stormwater from a weekend rain event) of recovered groundwater leaked from the pump, but was captured within the secondary containment system. No release from the containment system occurred.

On the afternoon of August 6, 2018, the internal hose element in the pump for extraction well EW-11 was replaced and the pump recommenced operation. The remaining pumps also had general maintenance completed on August 7, 2018 consisting of replacement of the internal hose element and lubricating oil and testing the float valve operation in each pump.

Issues To Be Resolved During Next Reporting Period

Groundwater recovery and water level monitoring will continue in the former Salt Vault area, with the intent to achieve the target elevation during the reporting period. We will continue to evaluate the conditions in the pump down area and address necessary actions.

Anticipated Work During Next Reporting Period

Manual water level measurements will be collected from the designated monitoring wells on a weekly basis. Groundwater elevation data will be provided in the next bi-weekly summary report. Extracted groundwater will continue to be transported to Vickery for disposal, with limited transport to the Heritage facility, as available.

If you have any questions regarding this report, please contact Jeff Danko at 262-951-6888 or jeff.danko-ext@jci.com.

Sincerely,



Jeffrey Danko
Environmental Project Geologist

Attachments:

Table 1 –Pump Down Program Groundwater Elevation Monitoring

cc: Angela Carey – WDNR
Trevor Moen - WDNR
Joseph Janeczek – Johnson Controls
Richard Mator – Johnson Controls
Ryan Suennen – Tyco Fire Products

