

August 18, 2021

Mr. Christopher Black
U.S. Environmental Protection Agency, Region 5
Land, Chemicals and Redevelopment Division
77 West Jackson Blvd, LR-16J
Chicago, IL 60604-3590

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

Dear Mr. Black:

The information provided herein is a summary of activities conducted at the Tyco Fire Products LP (Tyco) site associated with the Pump Down Program (PDP) for the former Salt Vault and 8th Street Slip areas. The PDP is required as part of the Administrative Order on Consent between Tyco and the U.S. Environmental Protection Agency (USEPA). This summary report covers the period from July 31, 2021 through August 13, 2021.

Summary of Work during Reporting Period

Work conducted during the reporting period included:

- Collection of manual water level readings at the designated monitoring points and extraction wells. The average water level, based on the most recent water level measurements (August 12, 2021) during the reporting period, in the former Salt Vault was 576.31 feet above mean sea level (ft. AMSL), or 1.59 feet below the target level. The average water level in the former 8th Street Slip was 577.55 ft. AMSL, or 0.35 feet below the target level. A cumulative summary of manual water level readings and corrected elevations is attached as Table 1.
- No operation of the four extraction wells within the former Salt Vault (EW-10, EW-11, EW-13 and EW-14) occurred during this reporting period. Pumping from the newly installed horizontal wells HW-01 and HW-02 has replaced operation of the four extraction wells.
- Groundwater was extracted from the wells (EW-8 and EW-9) within the 8th Street Slip intermittently during the reporting period as operations of the permanent PDP

system were tested. Water levels in the 8th Street Slip remain below the target elevation.

- Operation of the newly installed horizontal wells was continuous during the reporting period with the exception of Thursday (August 12) through Friday (August 13) as piping modifications were being made. Water levels in the former Salt Vault were below the target elevation during this time.

A summary of pumping and disposal operations for the 2021 season is provided below.

Summary of Pump Down Operations (August 13, 2021)

	Gallons Pumped	Gallons Treated at GWTS ¹	Gallons Transported for Off Site Disposal
This Period	~38,000	~0	~35,300
2021 Operations to Date	~630,850	~0	~610,150

All quantities are estimated.

Issues Encountered During Reporting Period

No issues were encountered during this reporting period that require resolution.

Issues To Be Resolved During Next Reporting Period

No operational issues were encountered during this reporting period that require resolution.

Anticipated Work During Next Reporting Period

At this time, permanent PDP extraction system operations within the area of the former Salt Vault and former 8th Street Slip have been reinitiated following the primary completion of the construction of the extraction system and connection to the newly constructed PDP building. Process and control installation activities are ongoing at this time; however, it is anticipated that operations of the PDP system will be continued while systems are finalized.

¹ GWTS – Groundwater Treatment System

Finally, manual water level measurements will continue to be collected from the designated monitoring wells and extraction wells on a weekly basis.

If you have any questions regarding this report, please contact me at 262-349-2528 or jeffrey.howard.danko@jci.com.

Sincerely,



Jeffrey Danko
Director – Remediation Programs

Attachments:

Table 1 –Pump Down Program Groundwater Elevation Monitoring

cc: Angela Carey – WDNR
Trevor Moen - WDNR
Laura Gerold - WDNR
Ryan Suennen – Tyco Fire Products
Heather Ziegelbauer – Jacobs
Kirk Kapfhammer – Endpoint Solutions Corp.

Table 1. 2021 Pump Down Program Groundwater Elevation Monitoring
 Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9
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Well ID	July 15, 2021		July 22, 2021		July 27, 2021		July 29, 2021		August 3, 2021		August 5, 2021		August 12, 2021	
	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)
MW001M	7.32	579.80	7.09	580.03	6.80	580.32	10.39	576.73	9.35	577.77	9.55	577.57	11.05	576.06
MW001S	7.46	579.74	7.23	579.97	6.88	580.32	10.60	576.60	9.52	577.68	9.76	577.44	11.27	575.93
MW002M-R	10.64	579.89	10.38	580.15	10.08	580.45	13.68	576.81	12.63	577.87	12.86	577.64	14.32	576.16
MW002S-R	10.55	579.73	10.23	580.05	9.94	580.34	13.65	576.62	12.58	577.70	12.77	577.51	14.28	575.99
MW031M	8.01	580.02	7.80	580.23	7.47	580.57	11.05	576.96	9.98	578.04	10.25	577.77	11.66	576.35
MW031S	9.17	579.70	8.92	579.95	8.58	580.29	12.32	576.55	11.07	577.80	11.36	577.51	13.04	575.83
MW113S	10.47	579.81	10.19	580.09	9.91	580.37	13.56	576.71	12.51	577.76	12.70	577.57	14.15	576.12
MW113M	9.28	581.00	9.23	581.05	9.00	581.28	11.10	579.17	10.58	579.70	10.73	579.55	11.46	578.81
MW115P	9.45	579.63	9.28	579.80	9.06	580.02	11.32	577.76	10.75	578.33	10.95	578.13	11.97	577.10
MW115S	9.19	579.78	8.97	580.00	8.63	580.34	12.33	576.63	11.26	577.71	11.51	577.46	13.02	575.94
MW116P	10.66	579.20	10.46	579.40	10.22	579.64	10.61	579.25	10.71	579.15	10.80	579.06	10.83	579.03
MW116S	10.11	579.76	9.85	580.02	9.52	580.35	13.18	576.68	12.16	577.70	12.37	577.49	14.00	575.85
MW119D	7.88	580.84	7.83	580.89	7.76	580.96	7.75	580.97	7.75	580.97	7.78	580.94	7.73	580.99
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	7.23	579.83	7.01	580.05	6.75	580.31	10.41	576.64	9.28	577.77	9.55	577.50	10.92	576.13
EW-11	6.45	580.24	6.26	580.43	5.95	580.74	9.05	577.63	8.26	578.42	8.43	578.25	9.53	577.15
EW-13	5.34	579.78	6.11	579.01	4.76	580.36	8.43	576.68	7.38	577.73	7.60	577.51	NM	-
EW-14	6.38	579.71	6.13	579.96	5.87	580.22	9.39	576.68	8.29	577.79	8.53	577.55	9.58	576.49
MW034M	10.73	577.49	10.66	577.56	10.54	577.68	10.76	577.46	10.51	577.71	10.49	577.73	10.89	577.33
MW034S	11.01	577.17	10.91	577.27	10.79	577.39	11.06	577.12	10.78	577.40	10.73	577.45	11.09	577.09
MW036M	11.46	577.13	11.36	577.23	11.22	577.37	11.54	577.04	11.24	577.35	11.18	577.41	11.17	577.42
MW036S	10.90	577.35	10.83	577.42	10.65	577.60	10.95	577.30	10.66	577.59	10.63	577.62	10.57	577.68
MW038M	8.61	577.53	8.40	577.74	8.28	577.86	8.64	577.50	8.30	577.84	8.29	577.85	8.32	577.82
MW038S	10.29	577.54	10.06	577.77	9.95	577.88	10.33	577.50	9.99	577.84	9.96	577.87	10.05	577.78
MW120D	7.34	581.26	7.27	581.33	6.93	581.67	7.06	581.54	7.29	581.31	7.33	581.27	7.08	581.52
MW120M	11.79	577.16	11.72	577.24	11.51	577.45	11.62	577.34	11.50	577.46	11.48	577.48	11.32	577.64
MW120S	11.57	576.95	11.37	577.15	11.22	577.31	11.19	577.34	11.18	577.35	11.15	577.38	10.87	577.66
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	6.70	578.96	6.64	579.02	6.49	579.17	6.83	578.83	6.75	578.91	6.46	579.20	8.37	577.29
EW-9	6.21	578.81	6.11	578.91	6.02	579.00	6.45	578.57	6.01	579.01	5.97	579.05	8.67	576.34
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	4.82	583.92	5.22	583.52	4.90	583.84	4.84	583.90	5.12	583.62	5.29	583.45	5.12	583.62
MW032M	5.65	582.71	5.89	582.47	5.62	582.74	5.06	583.30	5.91	582.45	6.00	582.36	5.87	582.49
MW032S	5.12	583.38	5.34	583.16	5.01	583.49	5.23	583.26	5.21	583.29	5.37	583.13	5.16	583.34
MW033M	3.82	583.94	4.20	583.55	3.86	583.90	3.82	583.94	4.11	583.64	4.27	583.48	4.10	583.65
MW033S	3.55	583.78	3.95	583.38	3.61	583.72	3.54	583.79	3.85	583.48	4.00	583.33	3.82	583.51
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	2.25	583.95	2.65	583.55	2.32	583.88	2.29	583.91	2.56	583.64	2.75	583.45	2.56	583.64
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	5.49	582.16	6.04	581.61	5.44	582.21	5.53	582.12	5.85	581.80	5.96	581.69	5.66	581.99
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	4.86	582.21	5.46	581.61	4.82	582.25	4.86	582.21	5.17	581.90	5.34	581.73	5.05	582.02
SG4	5.90	581.55	6.00	581.45	5.74	581.71	5.90	581.55	5.85	581.60	6.35	581.10	5.80	581.65
Rough Target Elevation Calc SV*		579.92		580.15		580.46		576.95		577.97		577.75		576.31
Rough Target Elevation Calc 8S*		577.29		577.42		577.57		577.32		577.57		577.60		577.55
Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90		577.90
SV Variance		2.02		2.25		2.56		-0.95		0.07		-0.15		-1.59
8S Variance		-0.61		-0.48		-0.33		-0.58		-0.33		-0.30		-0.35

Notes:
 Measurements were collected from top of casing (TOC). All depth measurements are in feet.
 Elevations are reported in feet above mean sea level (AMSL) relative to the North American Vertical Datum 1988 (NAVD88)
 Shaded = Well part of evaluation during Drawdown and Interim Phases
 Bold = Well part of Target Elevation calculation
 - = Information not applicable or not collected
 Area Definitions - SV - Salt Vault, 8SS - 8th Street Slip
 *Wells identified for target elevation calculation are for during the drawdown and interim phases. Only wells outside the steepest portion of the cone of depression will be included in the calculation of the average elevations. The average elevation of all suitable measured wells will be considered the calculated elevation to compare against the target elevation. The number of post-drawdown phase wells used for this calculation may be reduced and will be determined based on results observed during the drawdown phase.
 ID = identification; DTW = depth to water
 NM = Not Measured; MW = Monitoring Well