

March 12, 2020

Ms. Jennifer Dodds
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 Ms. Dodds:

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 February 15, 2020 through February 28, 2020.

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 weekly during the reporting period. The average water level, based on the most recent water level measurements (February 28, 2020) during the reporting period, in the former Salt Vault was 579.42 feet above mean seal level (ft. AMSL), or 1.52 feet above the target level. The average water level in the former 8th Street Slip was 577.05 ft. AMSL, or 0.85 feet below the target level. A cumulative summary of manual water level readings and corrected elevations is attached as Table 1.
- During pumping operations, the total cumulative groundwater recovery rate in the former Salt Vault area averaged 0.88 gallons per minute (gpm) from the four extraction wells which have been primarily operating continuously during the reporting period with the exception of intermittent pumping of wells EW-13 and

EW-14 to address an electrical issue. At this time, no water is being extracted from the wells within the former 8th Street Slip based on the water levels being below target level.

- Off-site transportation of recovered groundwater was conducted during the reporting period. Off-site disposal operations are primarily completed Monday, Wednesday and Friday of each week with generally one (1) truck (approximately 5,000 gallons) each of these days as needed to allow for continuous pumping from the extraction wells.

A summary of pumping and disposal operations for the 2020 season is provided below.

Summary of Pump Down Operations (February 28, 2020)

	Gallons Pumped	Gallons Treated at GWTS ¹	Gallons Transported for Off Site Disposal
This Period	~19,600	~0	~17,550
2020 Operations to Date	~71,000	~0	~69,900

All quantities are estimated

Issues Encountered During Reporting Period

No operational issues occurred during the reporting period with the exception that EW-13 and EW-14 operations have alternated at times as an electrical need was addressed.

Issues To Be Resolved During Next Reporting Period

No issues that require resolution have been identified at this time.

Anticipated Work During Next Reporting Period

The PDP extraction system will continue to be operated on a continuous basis. Manual water level measurements will continue to be collected from the designated monitoring wells and extraction wells on at least a weekly basis.

¹ GWTS – Groundwater Treatment System

If you have any questions regarding this report, please contact me at 715-587-3188 or rick.dewey.bethel@jci.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Rick Bethel". The signature is fluid and cursive, with the first name "Rick" and last name "Bethel" clearly distinguishable.

Rick Bethel
Senior EHS Manager – Environmental Remediation

Attachments:

Table 1 –Pump Down Program Groundwater Elevation Monitoring

cc: Angela Carey – WDNR
Trevor Moen - WDNR
Jeff Danko – Johnson Controls
Ryan Suennen – Tyco Fire Products
Heather Ziegelbauer – Jacobs
Kirk Kapfhammer – Endpoint Solutions

Table 1. 2020 Pump Down Program Groundwater Elevation Monitoring
 Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9
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Well ID	January 8, 2020		January 15, 2020		January 31, 2020		February 5, 2020		February 12, 2020		February 19, 2020		February 28, 2020	
	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	5.02	582.15	7.81	579.36	8.33	578.84	8.27	578.90	8.32	578.85	8.92	578.25	8.72	578.45
MW001S	5.06	582.20	NM	-	NM	-	7.21	580.05	7.34	579.92	7.94	579.32	7.79	579.47
MW002M-R	8.26	582.32	9.93	580.63	10.53	580.03	10.51	580.05	10.52	580.04	11.14	579.41	10.97	579.58
MW002S-R	8.11	582.21	9.78	580.54	10.08	580.24	10.30	580.02	10.04	580.28	10.98	579.34	10.81	579.51
MW031M	5.54	582.52	7.29	580.76	7.91	580.13	7.95	580.09	7.99	580.05	8.46	579.58	8.38	579.66
MW031S	6.37	582.53	8.40	580.50	8.85	580.05	8.84	580.06	8.95	579.95	9.46	579.44	9.28	579.62
MW113S	8.03	582.26	9.76	580.53	10.31	579.98	10.33	579.96	10.34	579.95	10.97	579.32	10.44	579.85
MW113M	7.57	582.73	9.79	580.51	10.07	580.23	10.07	580.23	10.09	580.21	10.51	579.79	10.77	579.53
MW115P	6.35	582.74	7.09	582.00	8.12	580.97	8.16	580.93	8.34	580.75	9.15	579.94	8.75	580.34
MW115S	6.68	582.32	8.38	580.62	9.44	579.56	9.26	579.74	9.41	579.59	9.65	579.35	9.91	579.09
MW116P	7.68	582.24	8.39	581.53	8.91	581.01	8.98	580.94	9.01	580.91	9.62	580.30	9.52	580.40
MW116S	7.63	582.29	9.24	580.67	9.97	579.94	9.90	580.01	9.02	580.90	10.55	579.36	10.48	579.43
MW119D	6.69	582.05	6.66	582.08	6.69	582.05	6.75	581.99	6.75	581.99	6.80	581.94	6.80	581.94
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	4.91	582.88	24.64	563.11	23.64	564.11	20.28	567.48	12.62	575.16	17.35	570.42	22.46	565.30
EW-11	4.23	583.11	27.06	560.24	26.97	560.33	27.09	560.21	27.02	560.28	28.02	559.28	22.24	565.07
EW-13	2.85	582.97	4.46	581.35	24.18	561.56	8.07	577.73	25.32	560.42	5.91	579.90	22.37	563.38
EW-14	4.51	582.27	5.31	581.47	21.93	564.77	22.44	564.26	6.23	580.55	22.17	564.53	18.72	568.00
MW034M	11.51	576.74	11.33	576.92	11.14	577.11	11.14	577.11	10.95	577.30	11.15	577.10	10.89	577.36
MW034S	11.82	576.40	11.64	576.58	11.47	576.75	11.45	576.77	11.35	576.87	11.42	576.80	11.24	576.98
MW036M	12.50	576.09	12.24	576.35	12.02	576.58	12.01	576.59	10.01	578.62	11.91	576.69	11.80	576.80
MW036S	11.96	576.31	11.66	576.61	11.43	576.84	11.43	576.84	11.32	576.95	11.40	576.87	11.22	577.05
MW038M	11.34	576.35	11.01	576.68	10.84	576.85	10.78	576.91	10.58	577.11	10.82	576.87	10.62	577.07
MW038S	11.33	576.38	11.00	576.71	10.85	576.86	10.80	576.91	10.59	577.12	10.82	576.89	10.55	577.16
MW120D	6.94	581.71	6.26	582.39	6.25	582.40	6.59	582.06	6.66	581.99	6.91	581.74	6.74	581.91
MW120M	12.47	576.52	12.30	576.69	12.21	576.79	12.21	576.79	12.00	577.00	12.20	576.80	11.98	577.02
MW120S	12.02	576.57	11.85	576.74	11.85	576.74	11.73	576.86	11.69	576.90	11.81	576.78	11.61	576.98
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	9.23	577.55	8.90	577.88	8.77	578.01	8.65	578.13	7.50	579.28	8.87	577.91	8.47	578.31
EW-9	8.63	577.07	8.42	577.28	8.33	577.37	8.25	577.45	8.10	577.60	8.24	577.46	8.02	577.68
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	4.45	584.13	4.78	583.80	5.01	583.57	4.71	583.87	5.01	583.57	5.35	583.23	5.00	583.58
MW032M	5.29	582.94	5.29	582.94	5.34	582.89	5.29	582.94	5.43	582.80	5.92	582.31	5.61	582.62
MW032S	4.71	583.65	4.36	584.00	4.94	583.42	4.81	583.55	4.94	583.42	5.39	582.97	5.15	583.21
MW033M	3.51	585.31	3.79	585.03	3.97	584.84	3.73	585.09	3.95	584.86	4.00	584.81	4.23	584.58
MW033S	3.11	584.06	3.46	583.71	3.64	583.53	3.40	583.77	3.67	583.50	4.33	582.84	3.89	583.28
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	1.92	584.17	2.22	583.87	2.42	583.67	2.15	583.94	2.45	583.64	2.82	583.27	2.64	583.45
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	5.44	582.23	5.32	582.35	5.26	582.41	5.29	582.38	5.32	582.35	5.33	582.34	5.34	582.33
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	4.69	582.39	4.70	582.38	4.70	582.38	4.69	582.39	4.69	582.39	4.85	582.23	4.75	582.33
SG4	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
Rough Target Elevation Calc SV*		582.36		580.46		579.89		579.91		579.97		579.31		579.42
Rough Target Elevation Calc 8S*		576.42		576.66		576.81		576.85		577.23		576.85		577.05
Target Elevation (NAVD88)		577.90		577.9		577.9		577.9		577.90		577.90		577.90
SV Variance		4.46		2.56		1.99		2.01		2.07		1.41		1.52
8S Variance		-1.48		-1.24		-1.09		-1.05		-0.67		-1.05		-0.85

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 top 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