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January 14, 2022

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

Subject: ***Quarterly Progress Report (October through December 2021)***
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP, Stanton Street Facility, Marinette, Wisconsin
WID 006 125 215

Dear Mr. Black:

In accordance with Section VI, 21, b (page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009,[1] Tyco Fire Products LP (Tyco) has prepared this quarterly progress report for the U.S. Environmental Protection Agency (EPA) Region 5 and Wisconsin Department of Natural Resources (WDNR) (collectively referred to herein as the Agencies). Progress reports are required to document activities conducted as part of the Resource Conservation and Recovery Act corrective actions at the Tyco facility on Stanton Street in Marinette, Wisconsin. This report covers the period from October 1 through December 31, 2021, and presents a brief description of the work performed, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC and subsequent agreements.

Work Completed during This Reporting Period

Attachment 1 summarizes the operational data for the groundwater collection and treatment system (GWCTS) during the fourth quarter 2021, and Attachment 2 contains the monthly Discharge Monitoring Reports. The GWCTS treats groundwater extracted from the Main Plant (EW-4, EW-5, EW-6 and EW-7) and Wetlands Area (EW-1) to maintain groundwater in those areas at depths below ground surface that prevents surface flooding of the facility. The overall volume of groundwater extracted from the GWCTS during the reporting period was 401,188 gallons (groundwater recovered from the pump down program [PDP] operations described below are not included in this total). Operations continue to include bypassing the first two reaction tanks and the lamella with direct connection of the equalization tank to Reaction Tank 3, then Reaction Tank 4, and then the microfilter. The GWCTS operated continuously except for short-term maintenance or weather-related shutdowns, some weekends and holidays, and two extended maintenance shutdowns that occurred from September 14 to October 14, 2021, and November 29 to December 6, 2021. As indicated and detailed in the third quarter report, the September-October extended shutdown was a result of vibratory shear-enhanced processing (VSEP) unit and microfiltration unit

[1] U.S. Environmental Protection Agency. 2009. *Resource Conservation and Recovery Act Administrative Order on Consent, Ansul, Incorporated.* EPA Docket No. RCRA-05-2009-0007542-S-02-001. February 26.

programming issues, and the VSEP clean-in-place (CIP) pump sensor. Jacobs recalibrated the CIP pump sensor on October 7, 2021, but the additional VSEP and microfiltration communication issues were not able to be addressed at that time. On October 14, 2021, the remaining microfiltration communication issues were addressed with Jacobs onsite support; however, the VSEP communication issues could not all be addressed, and additional work was required to address three drives that were not communicating (one with a bad network cable and two with communication modules that appeared to be damaged). Operation of the GWCTS was resumed with the VSEP bypassed on October 14, 2021; this allowed for intermittent operation during the remainder of October 2021 (with the VSEP bypassed, the reject tank fills more quickly and leads to shutdowns until the tank can be emptied and appropriately disposed of offsite). On November 4, 2021, the VSEP communication issues were addressed with Jacobs onsite support and the VSEP unit was brought back online.

The November-December shutdown occurred after returning from the Thanksgiving holiday. There was an issue with the main computer that would not allow the GWCTS to start up. On December 6, 2021, the main computer issue was addressed with Jacobs remote support. It was determined that the software Wonderware WindowViewer icon was no longer linked to the project. The project had to be opened from the InTouch Directory first for the icon to link back to a project. Operation of the GWCTS was resumed on December 6, 2021.

Pump down operations with the pump house system continued through fourth quarter 2021 in the former Salt Vault and former 8th Street Slip areas. The groundwater generated from the PDP is disposed offsite at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio and is managed separate from the GWCTS. Operations continued under management of Endpoint Solutions of Franklin, Wisconsin. Both the former Salt Vault and former 8th Street Slip areas have maintained the target elevation during the reporting period. From September 25 to December 31, 2021, an additional 237,346 gallons of groundwater was extracted and disposed of offsite as part of the PDP and a total of approximately 1,012,596 gallons for 2021. Details of the pump down operations were reported to the Agencies in biweekly summary reports, with the last report submitted on October 27, 2021 (with data through October 22, 2021). On November 11, 2021, an email was sent to EPA regarding long-term PDP management and providing the notification of moving to post-drawdown monitoring. A teleconference meeting was held on December 1, 2021, with EPA, WDNR, Tyco, and Jacobs to discuss the PDP status and the move to post-drawdown monitoring. Per the Agencies' request, Tyco is preparing a summary of the current PDP operations and monitoring activities that will be sent out in early 2022.

The fall barrier wall groundwater monitoring semiannual water level event was completed on November 16 and 17, 2021, by Endpoint Solutions. The water levels were measured in accordance with the *Revised Barrier Wall Groundwater Monitoring Plan Update* (BWGMPU)[2] and the 2019 Addendum to the 2015 BWGMPU.[3]

Seven pressure transducers (MW003S, MW102S, MW106S, MW108S, MW108D, MW109S, and MW109D) were pulled on October 11, 2021, to allow for per- and polyfluoroalkyl substances sampling activities as part of the WDNR project. These transducers were reinstalled on December 9, 2021. Other pressure transducer–related activities were completed on November 16 and 17, 2021 and December 9, 2021 (MW107D and MW119D were not able to be downloaded during the November event). These activities

[2] CH2M HILL, Inc. 2015. *Revised Barrier Wall Groundwater Monitoring Plan Update*. September 3.

[3] Jacobs. 2019. *Addendum to 2015 Barrier Wall Groundwater Monitoring Plan Update*. June.

included downloading data from each transducer and collecting manual water levels at the time of transducer downloads.

Additional Activities

Follow-on activities as part of the final Wisconsin Pollutant Discharge Elimination System (WPDES) Permit WI-0001040-08-0 (effective January 1, 2021, through December 31, 2025) continued in fourth quarter 2021 and included the following:

- Pump house construction at the former Salt Vault was completed. The pump house is part of the permanent PDP conveyance system that will collect and transfer groundwater from the former Salt Vault and former 8th Street Slip extraction wells, including the two new horizontal extraction wells constructed in December 2020. Minor programming adjustments and fine-tuning of operations are anticipated to continue into first quarter 2022.
- Construction work for the remainder of the permanent PDP conveyance system (conveyance lines from the pump house to the GWCTS) was completed in fourth quarter 2021.
- The associated design efforts for the GWCTS improvements continued in fourth quarter 2021. The *2021 Modified Groundwater Treatment System Design Basis of Design* report was submitted to WDNR on December 30, 2021. This includes the engineering basis of design document and preliminary design drawings as an attachment. Equipment and material procurement has commenced, and construction will begin in 2022.
- Stormwater improvement design and planning that will abandon the subsurface stormwater lines and manage stormwater through aboveground surface flow, as needed, continued and has been approved by WDNR. Equipment and material procurement continued in fourth quarter 2021, and construction will begin in 2022.

The Wetlands Area phyto-plot (Zone 4) had approximately 96 dead trees, which were marked by Sand County Environmental, Inc. of Rhinelander, Wisconsin, cleared near the end of December 2021 by Klaver's Lawn Care of Porterfield, Wisconsin. This was in the area where river levels were overtopping the barrier wall (starting spring 2019 and continuing into 2021) and created standing water that caused some of the trees to die. The dead trees were concentrated in the central area, approximately 50 feet from the western edge of the Wetlands Area, where the standing water occurred. Tyco will continue to monitor this area for additional standing water and may consider using willows trees (the best to withstand standing water) to replant in the future, if necessary.

Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of the WPDES permits obtained from WDNR for operating the GWCTS, which operates under WPDES Permit WI-0001040-08-0. Attachment 2 includes the GWCTS monthly WPDES Discharge Monitoring Reports for September through November 2021. Attachment 1 contains additional data on GWCTS operations.

Weekly groundwater elevation data were collected from monitoring wells in the former 8th Street Slip and former Salt Vault areas in accordance with the PDP requirements and have been reported to the Agencies in the biweekly summary reports through October 22, 2021. Groundwater elevation data continued to be collected weekly through December 31, 2021 (except for the week of Thanksgiving), and the data are included in the 2021 PDP summary table (Attachment 3).

Fall barrier wall groundwater elevation measurements were collected on November 16 and 17, 2021. Groundwater elevation data recorded by transducers and downloaded in November and December 2021 are being compiled and evaluated. These data will be provided in the annual report.

Problems Encountered

Menominee River water levels continued to decline but remained above typical levels through fourth quarter 2021. During portions of the reporting period, the river level remained above the top of the vertical barrier wall in the Wetlands Area of the site; the river ranged from 0.93 foot below to 0.87 foot above the top of the Wetlands Area vertical barrier wall and was below the wall for five of the seven measurements collected and has been frozen and below the wall since the December 2, 2021, measurements. River levels at the weirs did not exceed the weir elevations in the Main Plant throughout the quarter.

Schedule of Upcoming Activities

The following summarizes the activities to be conducted during the next reporting period:

- Submit the quarterly progress report
- Continue PDP operations in the former Salt Vault and former 8th Street Slip areas
- Continue operating the GWCTS
- Complete programming and operations adjustments for the pump house at the former Salt Vault
- Continue GWCTS improvements design and procurement activities and submit the final construction documents
- Continue stormwater improvement planning activities
- Submit *2021 Barrier Wall Groundwater Monitoring Annual Report*

List of Key Correspondence and Document Submittals

Project-related documents submitted to and received from the Agencies during fourth quarter 2021 are summarized in Tables 1 and 2, respectively.

Table 1. Documents Submitted

Quarterly Progress Report (October through December 2021), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Biweekly Summary Report for Pump Down Program	EPA	October 14, 2021
Quarterly Progress Report (Third Quarter 2021)	EPA	October 15, 2021
Biweekly Summary Report for Pump Down Program	EPA	October 27, 2021
Email—Long-term PDP Management—Notification of Post-drawdown Monitoring	EPA	November 11, 2021
Email—Follow-up regarding Long-term PDP Management—Notification of Post-drawdown Monitoring	EPA	November 16, 2021
Email—Draft Reserves for 2022	EPA	December 10, 2021

Table 1. Documents Submitted

Quarterly Progress Report (October through December 2021), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
WPDES Action Plan Submittal (including *2021 Modified Groundwater Treatment System Design Basis of Design* and Preliminary Design Drawings)	WDNR	December 30, 2021

Table 2. Correspondence from Agency

Quarterly Progress Report (October through December 2021), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Submitted By	Date Submitted
Email—Requesting Follow-up Information regarding Long-term PDP Management—Notification of Post-drawdown Monitoring	EPA	November 15, 2021

If you have any questions or require additional information, please contact me at 262-644-6167 or Denice Nelson at 651-280-7259.

Respectfully Yours,

Jacobs

Heather Ziegelbauer
Project Manager

cc: Angela Carey, WDNR
Sarah Krueger, WDNR
Ryan Suennen, Tyco Fire Products
Jeffrey Danko, Johnson Controls
Denice Nelson, Johnson Controls
Mariel Carter, Stephenson Public Library

Attachments

1 Groundwater Collection and Treatment System Operation Summary
2 Discharge Monitoring Reports for the Groundwater Collection and Treatment System
3 2021 Pump Down Program Groundwater Elevation Monitoring

Document Control No.: D3478800.287

Attachment 1
Groundwater Collection and Treatment System Operation Summary

Groundwater Collection and Treatment System Operations for Tyco Fire Products LP, Marinette, Wisconsin, October 1 through December 31, 2021

The following summarizes groundwater collection and treatment system (GWCTS) operations from October 1 through December 31, 2021, at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The GWCTS operated for 8 days in October 2021, 17 days in November 2021, and 19 days in December 2021, for a total of 44 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin, was 5.06 inches of rain and 31.2 inches of snow and ice (http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail).
- An estimated 401,188 gallons of groundwater was extracted (not including volumes extracted as part of the pump down program [PDP]) from the site during the reporting period. Table 1-1 lists the water volumes extracted from each area of the site for this quarter based on the recorded data.
- During the reporting period, an estimated 416,847 gallons of water was discharged to the Menominee River as effluent under the Wisconsin Pollutant Discharge Elimination System permit.
- Approximately 188,800 gallons of reject water was produced this reporting period during system operations and subsequently disposed of offsite.

Table 1-1. Extraction Well Data Summary (October through December 2021)

GWCTS Operations, Tyco Fire Products LP Facility, Marinette, Wisconsin

Extraction Well	Gallons Run, Fourth Quarter 2021 (October 1 through December 31, 2021)
EW-1	38,853
EW-2	Not operated in lieu of ongoing PDP
EW-3	Not operated in lieu of ongoing PDP
EW-4	1,640
EW-5	114,156
EW-6	112,677
EW-7	133,862
Total	**401,188**

Attachment 2
Discharge Monitoring Reports for the Groundwater Collection and Treatment System

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 09/01/2021 - 09/30/2021
Form Due Date: 10/21/2021
Permit Number: 0001040

Date Received:	
DOC:	473965
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.12450	7.2		6.8
	2		0.10940	7.3		7.0
	3		0.06760	7.4		7.0
	4		0.03596	7.6		7.3
	5		0.02999	8.1		7.4
	6		0.11573	7.5		6.4
	7		0.11470	7.2		6.4
	8		0.11141	7.1		7.0
	9		0.10170	7.0		6.8
	10		0.08055	7.2		6.7
	11		0.08612	7.4		6.8
	12		0.09649	7.4		7.0
	13		0.17237	6.9	<2.1	6.2
	14		0.11417	6.9		6.4
	15		0.10014	7.2		6.5
	16		0.10124	7.2		6.9
	17		0.09543	7.2		6.6
	18		0.05353	7.4		6.5
	19		0.05064	7.5		7.1
	20		0.13915	7.1		6.2
	21		0.10442	7.4		6.8
	22		0.09878	7.4		7.1
	23		0.09861	7.3		7.2
	24		0.08317	7.4		7.2
	25		0.05680	7.3		6.9
	26		0.04859	7.4		7.2
	27		0.10376	7.4		7.1
	28		0.09958	7.2		6.9
	29		0.10087	7.3		7.0
	30		0.11228	7.3		7.0
	31					

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
Summary Values	**Monthly Avg**		0.093589333	7.306666667	0	6.846666667
	Monthly Total					
	Daily Max		0.17237	8.1	<2.1	7.4
	Daily Min		0.02999	6.9	<2.1	6.2
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	**LOD**				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	78				
	2	78				
	3	75				
	4	76				
	5	75				
	6	74				
	7	76	430	150	0.1455	<0.97
	8	77				
	9	75				
	10	74				
	11	74				
	12	71				
	13	76				
	14	76				
	15	76				
	16	76				
	17	76				
	18	72				
	19	74				
	20	74				
	21	73				
	22	73				
	23	70				
	24	71				
	25	72				
	26	70				
	27	71				
	28	72				
	29	71				
	30	74				
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
Summary Values	Monthly Avg	74	430	150	0.1455	0
	Monthly Total					
	Daily Max	78	430	150	0.1455	<0.97
	Daily Min	70	430	150	0.1455	<0.97
Limit(s) in Effect	Monthly Avg					57 | 0
	Monthly Total					
	Daily Max			170 | 0	0.81 | 0	57 | 0
	Daily Min					
QA/QC Information	LOD			4.2		0.97
	LOQ			10		2
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010	999580010		999580010

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7	0.0009409	39	0.03783	9.5	0.009215
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.0009409		39		0.03783		9.5		0.009215	
	Monthly Total										
	Daily Max	0.0009409		39		0.03783		9.5		0.009215	
	Daily Min	0.0009409		39		0.03783		9.5		0.009215	
Limit(s) in Effect	**Monthly Avg**			69	0			92	0		
	Monthly Total										
	Daily Max	0.27	0	69	0	0.98	0	92	0	0.44	0
	Daily Min										
QA/QC Information	**LOD**			3.5				0.0025			
	LOQ			10				0.005			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
	Sample Type	GRAB	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7			170	38	1.652
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28	20				
	29					
	30					
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
Summary Values	Monthly Avg	20		170	38	1.652
	Monthly Total					
	Daily Max	20		170	38	1.652
	Daily Min	20		170	38	1.652
Limit(s) in Effect	Monthly Avg	38	0								
	Monthly Total										
	Daily Max	38	0	29							
	Daily Min										
QA/QC Information	LOD	30		0.76	0.48	
	LOQ	100		1.8	1.8	
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	**Day 1**	0.031741	8.0	6.8		
	2	0.022494	7.0	6.3		
	3	0.007368	6.7	6.4		
	4	0				
	5	0				
	6	0				
	7	0.035562	8.6	6.9		
	8	0.029241	7.2	6.4		
	9	0.032088	7.8	6.4		
	10	0.012748	7.8	6.4		
	11	0.012801	8.2	7.1		
	12	0				
	13	0.045189	8.4	6.6		
	14	0.030832	8.2	6.7		
	15	0.027760	7.4	6.4		
	16	0.025025	7.4	6.4		
	17	0.017793	7.6	6.4		
	18	0.012748	8.0	6.6		
	19	0				
	20	0.032982	7.6	6.6		
	21	0.029775	7.6	6.6		
	22	0.027941	7.8	6.4		
	23	0.023710	7.8	6.8		
	24	0.005772	7.7	6.7		
	25	0.016894	7.4	6.7		
	26	0				
	27	0.037796	7.8	6.4		
	28	0.026561	7.4	6.4		
	29	0.024516	7.8	6.4		
	30	0.030734	7.7	6.8		
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.020002367		7.704166667		6.566666667					
	Monthly Total										
	Daily Max	0.045189		8.6		7.1					
	Daily Min	0		6.7		6.3					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	3.2				
	2	2.2				
	3	2.8				
	4					
	5					
	6					
	7					
	8	<1.9	<1.3	<0.97	8.0	11
	9	<1.9				
	10					
	11					
	12					
	13	<1.9				
	14					
	15	<1.9				
	16	2.6				
	17					
	18					
	19					
	20	<1.9				
	21					
	22	<1.9				
	23	<1.9				
	24					
	25					
	26					
	27	<1.9				
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.9		0		0		8		11	
	Monthly Total										
	Daily Max	3.2		<1.3		<0.97		8		11	
	Daily Min	<1.9		<1.3		<0.97		8		11	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.3		0.97		3.5		3	
	LOQ			5.1		2		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8	620				<4.2
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	620								0	
	Monthly Total										
	Daily Max	620								<4.2	
	Daily Min	620								<4.2	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	7.3								4.2	
	LOQ	20								10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010								999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	**Day 1**		12189			
	2		21276	3400	120	
	3		14262			
	4		50			
	5		0			
	6		0			
	7		17993			
	8	0.00101	17081			
	9		16878	3500	52	
	10		14594			
	11		0			
	12		0			
	13		9022			
	14		7975			
	15		0			
	16		0			
	17		0			
	18		0			
	19		0			
	20		0			
	21		0			
	22		0			
	23		0			
	24		0			
	25		0			
	26		0			
	27		0			
	28		0			
	29		0			
	30		0			
	31					

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.00101	4377.333333333	3450	86	
	Monthly Total					
	Daily Max	0.00101	21276	3500	120	
	Daily Min	0.00101	0	3400	52	
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		
	LOQ			50		
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	DAILY	DAILY	DAILY	WEEKLY
Sample Results	Day 1		0.014481	8.9	6.3	
	2		0.019507	7.3	6.1	46
	3		0.011245	7.1	6.9	
	4		0.004956	7.3	6.7	
	5		0			
	6		0			
	7		0.015656	7.2	6.6	
	8		0.019415	7.0	6.4	
	9		0.017026	6.8	6.4	38
	10		0.017019	6.9	6.4	
	11		0.003133	6.8	6.7	
	12		0			
	13		0.002430	8.9	6.1	
	14		0.002439	6.5	6.1	
	15		0			
	16		0			
	17		0			
	18		0			
	19		0			
	20		0			
	21		0			
	22		0			
	23		0			
	24		0			
	25		0			
	26		0			
	27		0			
	28		0			
	29		0			
	30		0			
	31					

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
Summary Values	**Monthly Avg**		0.004243567	7.336363636	6.427272727	42
	Monthly Total					
	Daily Max		0.019507	8.9	6.9	46
	Daily Min		0	6.5	6.1	38
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	**LOD**					2.1
	LOQ					5
	QC Exceedance	N	N	N	N	N
	Lab Certification					999580010

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2	0.0075				
	3					
	4					
	5					
	6					
	7					
	8					
	9	0.0054	<1.9			
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003		003		003		003		003	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	35		457		280		231		112	
	Description	Arsenic, Total Recoverable		Suspended Solids, Total		Mercury, Total Recoverable		Hardness, Total as CaCO3		Chlorine, Total Residual	
	Units	lbs/day		mg/L		ng/L		mg/L		ug/L	
Summary Values	**Monthly Avg**	0.00645		0							
	Monthly Total										
	Daily Max	0.0075		<1.9							
	Daily Min	0.0054		<1.9							
Limit(s) in Effect	**Monthly Avg**									38	
	Monthly Total										
	Daily Max	0.23	0			24				38	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010							

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2	40	1.9	0.1405		
	3					
	4					
	5					
	6					
	7					
	8					
	9	45	2.4	0.1549		
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
Summary Values	**Monthly Avg**	42.5	2.15	0.1477		
	Monthly Total					
	Daily Max	45	2.4	0.1549		
	Daily Min	40	1.9	0.1405		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.76	0.48			
	LOQ	1.8	1.8			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		38			
	Monthly Total					
	Daily Max		38	194	0.22	18
	Daily Min	6				
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		57		69	
	Monthly Total					
	Daily Max		57	0.23	69	0.28
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	**Monthly Avg**	2000				520				92	
	Monthly Total										
	Daily Max	2000		8.10		520		2.10		92	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance										
	Lab Certification										

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**					11
	Monthly Total					
	Daily Max	0.37				11
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**	2.10				
	Monthly Total					
	Daily Max				500	0.17
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max	24			
	Daily Min				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance				
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

First of all my Hg results for OF001, SP107 and SP101 are running late due to Test America running behind so, they will not be on the report on time but can send them when I receive them. Secondly OF003 was shut down since the 14th of September due to mechanical issues so, I do not have the third and fourth weeks sampling and I also did not get the Cl- , Hardness or the Hg tests done.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 10/20/2021 1:27:14 PM

Wastewater Discharge Monitoring Long Report

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 10/01/2021 - 10/31/2021
Form Due Date: 11/21/2021
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	480393
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.10144	7.4		7.2
	2		0.05539	7.4		7.1
	3		0.04826	7.5		7.1
	4		0.10163	7.4		7.0
	5		0.10812	7.2		7.0
	6		0.10525	7.3		7.0
	7		0.12433	7.6		6.7
	8		0.10660	7.4		7.0
	9		0.08014	7.4		7.1
	10		0.09395	7.5		7.0
	11		0.11995	7.2		6.8
	12		0.11831	7.2		6.9
	13		0.11269	7.2		7.0
	14		0.09846	7.4		7.0
	15		0.01280	7.5		7.4
	16		0.00557	7.5		7.4
	17		0.03584	7.4		7.2
	18		0.11062	7.4		7.1
	19		0.08768	7.4		7.2
	20		0.12188	7.2		7.0
	21		0.10787	7.2	<2.1	7.0
	22		0.06752	7.3		7.0
	23		0.00391	7.6		7.4
	24		0.04038	7.8		7.2
	25		0.11206	7.4		6.8
	26		0.11513	7.2		7.0
	27		0.11709	7.4		7.0
	28		0.10517	7.2		6.9
	29		0.08081	7.4		7.1
	30		0.01903	7.5		7.3
	31		0.03452	7.6		7.3

	Sample Point	703		001		001		703		001	
	Description	Menominee River Intake		Combined WW to Menominee River		Combined WW to Menominee River		Menominee River Intake		Combined WW to Menominee River	
	Parameter	211		211		373		35		374	
	Description	Flow Rate		Flow Rate		pH (Maximum)		Arsenic, Total Recoverable		pH (Minimum)	
	Units	gpd		MGD		su		ug/L		su	
Summary Values	**Monthly Avg**			0.082335484		7.390322581		0		7.070967742	
	Monthly Total										
	Daily Max			0.12433		7.8		<2.1		7.4	
	Daily Min			0.00391		7.2		<2.1		6.7	
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max					9	0				
	Daily Min									6	0
QA/QC Information	**LOD**							2.1			
	LOQ							5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification							999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	70				
	2	71				
	3	70				
	4	73				
	5	74	230	60	0.054	<0.49
	6	74				
	7	74				
	8	71				
	9	71				
	10	73				
	11	74				
	12	73				
	13	74				
	14	74				
	15	73				
	16	70				
	17	69				
	18	71				
	19	71				
	20	70				
	21	70				
	22	67				
	23	66				
	24	70				
	25	68				
	26	70				
	27	67				
	28	67				
	29	65				
	30	65				
	31	63				

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	480		231		35		35		87	
	Description	Temperature Maximum		Hardness, Total as CaCO3		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Cadmium, Total Recoverable	
	Units	degF		mg/L		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	70.258064516		230		60		0.054		0	
	Monthly Total										
	Daily Max	74		230		60		0.054		<0.49	
	Daily Min	63		230		60		0.054		<0.49	
Limit(s) in Effect	**Monthly Avg**									57	0
	Monthly Total										
	Daily Max					170	0	0.81	0	57	0
	Daily Min										
QA/QC Information	**LOD**					2.1				0.49	
	LOQ					5				1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5	0.000441	17	0.0153	8.0	0.0072
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.000441		17		0.0153		8		0.0072	
	Monthly Total										
	Daily Max	0.000441		17		0.0153		8		0.0072	
	Daily Min	0.000441		17		0.0153		8		0.0072	
Limit(s) in Effect	**Monthly Avg**			69	0			92	0		
	Monthly Total										
	Daily Max	0.27	0	69	0	0.98	0	92	0	0.44	0
	Daily Min										
QA/QC Information	**LOD**			1.7				0.0025			
	LOQ			5				0.005			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
	Sample Type	GRAB	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5			130	<27	1.11
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25		0.57			
	26					
	27	20				
	28					
	29					
	30					
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
Summary Values	**Monthly Avg**	20	0.57	130	0	1.11
	Monthly Total					
	Daily Max	20	0.57	130	<27	1.11
	Daily Min	20	0.57	130	<27	1.11
Limit(s) in Effect	**Monthly Avg**	38 0				
	Monthly Total					
	Daily Max	38 0	29 0			
	Daily Min					
QA/QC Information	**LOD**	30	0.16	43	27	
	LOQ	100	0.5	100	100	
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	**Day 1**	0.010422	7.3	6.6		
	2	0.006914	7.7	7.2		
	3	0				
	4	0.023801	7.3	6.2		
	5	0.031733	7.0	6.2		
	6	0.027110	7.0	6.1		
	7	0.026333	8.4	6.1		
	8	0.014529	7.7	6.1		
	9	0.010373	6.6	6.1		
	10	0.011717	7.5	6.2		
	11	0.034690	8.2	6.6		
	12	0.032418	8.1	6.6		
	13	0.028259	8.4	6.4		
	14	0.030001	8.7	6.5		
	15	0.001368	8.1	6.2		
	16	0				
	17	0				
	18	0.035999	8.0	7.5		
	19	0.018380	7.8	6.2		
	20	0.023390	7.4	6.2		
	21	0.019859	7.3	6.1		
	22	0.017575	7.5	6.1		
	23	0				
	24	0				
	25	0.027694	8.3	7.2		
	26	0.035500	8.1	6.7		
	27	0.030688	8.2	6.4		
	28	0.021093	7.6	6.4		
	29	0.010707	7.8	6.4		
	30	0.004987	6.9	6.3		
	31	0				

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.017275484		7.716		6.424					
	Monthly Total										
	Daily Max	0.035999		8.7		7.5					
	Daily Min	0		6.6		6.1					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4	4.0		<0.49	4.2	8.8
	5	3.0	<1.4			
	6	2.2				
	7					
	8					
	9					
	10					
	11	2.2				
	12	<1.9				
	13	<1.9				
	14					
	15					
	16					
	17					
	18	<1.9				
	19	<1.9				
	20	<1.9				
	21					
	22					
	23					
	24					
	25	3.6				
	26	2.2				
	27	<1.9				
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	1.433333333		0		0		4.2		8.8	
	Monthly Total										
	Daily Max	4		<1.4		<0.49		4.2		8.8	
	Daily Min	<1.9		<1.4		<0.49		4.2		8.8	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.4		0.49		1.7		1.5	
	LOQ			5.2		1		5		5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4	160				<2.1
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25			0.25	2.25	
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	160				0.25		2.25		0	
	Monthly Total										
	Daily Max	160				0.25		2.25		<2.1	
	Daily Min	160				0.25		2.25		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.16				2.1	
	LOQ	10				0.5				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		0			
	2		0			
	3		0			
	4	0.00042	0			
	5		0			
	6		0			
	7		0			
	8		0			
	9		0			
	10		0			
	11		0			
	12		0			
	13		0			
	14		5072			
	15		0			
	16		0			
	17		0			
	18		7741			
	19		0			
	20		6170	4000	83	
	21		0			
	22		6960			
	23		0			
	24		0			
	25		8847	3700	47	10.5
	26		0			
	27		10028			
	28		7757			
	29		10059			
	30		0			
	31		0			

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.00042	2020.451612903	3850	65	10.5
	Monthly Total					
	Daily Max	0.00042	10059	4000	83	10.5
	Daily Min	0.00042	0	3700	47	10.5
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		0.8
	LOQ			50		2.5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	DAILY	DAILY	DAILY	WEEKLY
Sample Results	Day 1		0			
	2		0			
	3		0			
	4		0			
	5		0			
	6		0			
	7		0			
	8		0			
	9		0			
	10		0			
	11		0			
	12		0			
	13		0			
	14		0.004186	6.5	6.1	
	15		0			
	16		0			
	17		0			
	18		0.003224	8.9	6.1	
	19		0			
	20		0.003000	8.7	6.1	4.5
	21		0			
	22		0.002453	8.9	6.1	
	23		0			
	24		0			
	25	0.21	0.005826	8.7	6.4	4.7
	26		0			
	27		0.004102	8.9	6.5	
	28		0.005606	8.8	7.3	
	29		0.005252	8.2	6.7	
	30		0			
	31		0			

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
Summary Values	Monthly Avg	0.21	0.001085452	8.45	6.4125	4.6
	Monthly Total					
	Daily Max	0.21	0.005826	8.9	7.3	4.7
	Daily Min	0.21	0	6.5	6.1	4.5
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	LOD	0.16				2.1
	LOQ	0.5				5
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010				999580010

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20	0.0001125	<1.9			10
	21					
	22					
	23					
	24					
	25	0.0002283		0.45		
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003		003		003		003		003	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	35		457		280		231		112	
	Description	Arsenic, Total Recoverable		Suspended Solids, Total		Mercury, Total Recoverable		Hardness, Total as CaCO3		Chlorine, Total Residual	
	Units	lbs/day		mg/L		ng/L		mg/L		ug/L	
Summary Values	**Monthly Avg**	0.0001704		0		0.45				10	
	Monthly Total										
	Daily Max	0.0002283		<1.9		0.45				10	
	Daily Min	0.0001125		<1.9		0.45				10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max	0.23	0			24	0			38	0
	Daily Min										
QA/QC Information	**LOD**					0.16				30	
	LOQ					0.5				100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010					

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20	1.8	<0.48	0.004548		
	21					
	22					
	23					
	24					
	25	1.4	<0.49	0.008832		
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
Summary Values	**Monthly Avg**	1.6	0	0.00669		
	Monthly Total					
	Daily Max	1.8	<0.49	0.008832		
	Daily Min	1.4	<0.48	0.004548		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.75	0.48			
	LOQ	1.8	1.8			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		38			
	Monthly Total					
	Daily Max		38	194	0.22	18
	Daily Min	6				
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		57		69	
	Monthly Total					
	Daily Max		57	0.23	69	0.28
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	**Monthly Avg**	2000				520				92	
	Monthly Total										
	Daily Max	2000		8.10		520		2.10		92	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance										
	Lab Certification										

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**					11
	Monthly Total					
	Daily Max	0.37				11
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**	2.10				
	Monthly Total					
	Daily Max				500	0.17
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max	24			
	Daily Min				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance				
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

Hardness test was missed on my part I forgot to ask T.A. to run it for OF003.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 11/19/2021 12:28:53 PM

Wastewater Discharge Monitoring Long Report

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 11/01/2021 - 11/30/2021
Form Due Date: 12/21/2021
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	480394
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.12579	7.4		7.1
	2		0.11936	7.3		7.1
	3		0.10971	7.7		7.2
	4		0.11378	7.4		7.2
	5		0.08239	7.5		7.2
	6		0.06700	7.5		7.2
	7		0.02443	7.5		7.3
	8		0.08709	7.6		7.0
	9		0.06960	7.3		6.9
	10		0.11135	7.3		6.7
	11		0.15020	7.2		6.5
	12		0.09869	7.2		7.0
	13		0.07246	7.4		7.0
	14		0.02277	7.3		7.0
	15		0.08044	7.2		6.9
	16		0.09424	7.4		7.0
	17		0.09250	7.4		7.1
	18		0.06455	7.5	<2.1	7.1
	19		0.07433	7.4		7.0
	20		0.05990	7.5		7.1
	21		0.05338	7.5		7.2
	22		0.07399	7.4		7.1
	23		0.08948	7.3		7.2
	24		0.06779	7.5		7.2
	25		0.01771	7.6		7.4
	26		0.01324	7.6		7.4
	27		0.04199	7.6		7.2
	28		0.04383	7.4		7.1
	29		0.10858	7.4		6.8
	30		0.10710	7.3		6.6
	31					

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
Summary Values	Monthly Avg		0.077922333	7.42	0	7.06
	Monthly Total					
	Daily Max		0.1502	7.7	<2.1	7.4
	Daily Min		0.01324	7.2	<2.1	6.5
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	LOD				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	67				
	2	66	230	50	0.05	<0.49
	3	66				
	4	66				
	5	62				
	6	63				
	7	61				
	8	69				
	9	68				
	10	69				
	11	65				
	12	63				
	13	61				
	14	59				
	15	65				
	16	64				
	17	65				
	18	63				
	19	62				
	20	62				
	21	59				
	22	60				
	23	61				
	24	61				
	25	59				
	26	55				
	27	53				
	28	52				
	29	60				
	30	60				
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	480		231		35		35		87	
	Description	Temperature Maximum		Hardness, Total as CaCO3		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Cadmium, Total Recoverable	
	Units	degF		mg/L		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	62.2		230		50		0.05		0	
	Monthly Total										
	Daily Max	69		230		50		0.05		<0.49	
	Daily Min	52		230		50		0.05		<0.49	
Limit(s) in Effect	**Monthly Avg**									57	0
	Monthly Total										
	Daily Max					170	0	0.81	0	57	0
	Daily Min										
QA/QC Information	**LOD**					2.1				0.49	
	LOQ					5				1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2	<0.00049	17	0.017	<0.0025	<0.0025
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0		17		0.017		0		0	
	Monthly Total										
	Daily Max	<0.00049		17		0.017		<0.0025		<0.0025	
	Daily Min	<0.00049		17		0.017		<0.0025		<0.0025	
Limit(s) in Effect	**Monthly Avg**			69	0			92	0		
	Monthly Total										
	Daily Max	0.27	0	69	0	0.98	0	92	0	0.44	0
	Daily Min										
QA/QC Information	**LOD**			1.7				0.0025			
	LOQ			5				0.005			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
	Sample Type	GRAB	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2			91	11	0.49761
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15	40				
	16					
	17					
	18		0.52			
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
Summary Values	**Monthly Avg**	40	0.52	91	11	0.49761
	Monthly Total					
	Daily Max	40	0.52	91	11	0.49761
	Daily Min	40	0.52	91	11	0.49761
Limit(s) in Effect	**Monthly Avg**	38 | 0				
	Monthly Total					
	Daily Max	38 | 0	29 | 0			
	Daily Min					
QA/QC Information	**LOD**	30	0.16	0.81	0.52	
	LOQ	100	0.5	1.9	1.9	
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	**Day 1**	0.042039	8.6	7.4		
	2	0.037147	8.4	7.4		
	3	0.021802	8.6	7.2		
	4	0.025586	7.9	6.8		
	5	0.010171	7.8	6.5		
	6	0.009429	7.9	7.3		
	7	0				
	8	0.035321	8.4	7.0		
	9	0.023671	7.8	6.4		
	10	0.029846	7.8	6.5		
	11	0.027984	8.2	6.3		
	12	0.019835	7.3	6.2		
	13	0.013381	7.3	6.2		
	14	0				
	15	0.024630	7.6	6.6		
	16	0.029422	7.6	6.2		
	17	0.025043	7.5	6.2		
	18	0.021572	7.2	6.2		
	19	0.026119	7.4	6.2		
	20	0.020303	7.3	6.5		
	21	0				
	22	0.045244	8.2	6.8		
	23	0.026084	8.6	6.6		
	24	0.016033	7.9	6.9		
	25	0				
	26	0				
	27	0				
	28	0				
	29	0.043565	7.6	6.4		
	30	0.040971	8.0	6.5		
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.0205066		7.865217391		6.62173913					
	Monthly Total										
	Daily Max	0.045244		8.6		7.4					
	Daily Min	0		7.2		6.2					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	<1.9		<0.49	4.7	3.2
	2	<1.9				
	3	<1.9				
	4					
	5					
	6					
	7					
	8	4.8				
	9	<1.9	<1.3			
	10	<1.9				
	11					
	12					
	13					
	14					
	15	4.6				
	16	<1.9				
	17	2.0				
	18					
	19					
	20					
	21					
	22	<1.9				
	23	<1.9				
	24	<1.9				
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	0.95		0		0		4.7		3.2	
	Monthly Total										
	Daily Max	4.8		<1.3		<0.49		4.7		3.2	
	Daily Min	<1.9		<1.3		<0.49		4.7		3.2	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.3		0.49		1.7		1.5	
	LOQ			5		1		5		5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	110				<2.1
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18			0.4	0.03270	
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	110				0.4		0.0327		0	
	Monthly Total										
	Daily Max	110				0.4		0.0327		<2.1	
	Daily Min	110				0.4		0.0327		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.16				2.1	
	LOQ	10				0.5				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	**Day 1**	<0.000735	5474			
	2		6111	4000	64	
	3		7415			
	4		12249			
	5		9614			
	6		8216			
	7		0			
	8		11073			
	9		11844			
	10		17227	7100	330	
	11		0			
	12		5381			
	13		10052			
	14		0			
	15		11036	4000	590	
	16		5050			
	17		11584			
	18		11451			186
	19		12524			
	20		0			
	21		0			
	22		18282	2300	440	
	23		5462			
	24		0			
	25		0			
	26		0			
	27		0			
	28		0			
	29		0			
	30		0			
	31					

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0	6001.5	4350	356	186
	Monthly Total					
	Daily Max	<0.000735	18282	7100	590	186
	Daily Min	<0.000735	0	2300	64	186
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		1.6
	LOQ			50		5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	DAILY	DAILY	DAILY	WEEKLY
Sample Results	Day 1		0.004224	6.9	6.5	
	2		0.004107	6.8	6.5	<2.1
	3		0.004789	7.3	6.1	
	4		0.014324	8.9	6.5	
	5		0.013117	8.9	7.7	
	6		0.008216	8.9	7.3	
	7		0			
	8		0.011073	7.3	6.3	
	9		0.007962	8.3	7.3	
	10		0.013968	7.6	6.5	29
	11		0.007141	6.9	6.7	
	12		0.005381	7.0	6.3	
	13		0.010052	7.0	6.4	
	14		0			
	15		0.011036	8.0	6.9	33
	16		0.005050	8.7	7.1	
	17		0.011584	7.4	6.8	
	18	0.28	0.011451	8.9	6.1	
	19		0.012524	7.5	6.1	
	20		0			
	21		0			
	22		0.018282	7.8	6.6	25
	23		0.005462	8.2	6.5	
	24		0			
	25		0			
	26		0			
	27		0			
	28		0			
	29		0			
	30		0			
	31					

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
Summary Values	Monthly Avg	0.28	0.005991433	7.805263158	6.642105263	21.75
	Monthly Total					
	Daily Max	0.28	0.018282	8.9	7.7	33
	Daily Min	0.28	0	6.8	6.1	<2.1
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	LOD	0.16				2.1
	LOQ	0.5				5
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010				999580010

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2	<0.0000719	<1.9		<0.23	
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10	0.0033785				10
	11					
	12					
	13					
	14					
	15	0.003036				
	16					
	17					
	18			0.24		
	19					
	20					
	21					
	22	0.0038125				
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003		003		003		003		003	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	35		457		280		231		112	
	Description	Arsenic, Total Recoverable		Suspended Solids, Total		Mercury, Total Recoverable		Hardness, Total as CaCO3		Chlorine, Total Residual	
	Units	lbs/day		mg/L		ng/L		mg/L		ug/L	
Summary Values	**Monthly Avg**	0.00255675		0		0.24		0		10	
	Monthly Total										
	Daily Max	0.0038125		<1.9		0.24		<0.23		10	
	Daily Min	<7.19E-05		<1.9		0.24		<0.23		10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max	0.23	0			24	0			38	0
	Daily Min										
QA/QC Information	**LOD**					0.16				30	
	LOQ					0.5				100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010		999580010			

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2	1.4	<0.52	<0.007783		
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10	30	1.9	0.1005841		
	11					
	12					
	13					
	14					
	15	55	2.2	0.0920172		
	16					
	17					
	18					
	19					
	20					
	21					
	22	36	1.8	0.1247202		
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
Summary Values	**Monthly Avg**	30.6	1.475	0.079330375		
	Monthly Total					
	Daily Max	55	2.2	0.1247202		
	Daily Min	1.4	<0.52	<0.007783		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.77	0.49			
	LOQ	1.9	1.9			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		38			
	Monthly Total					
	Daily Max		38	194	0.22	18
	Daily Min	6				
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**		57		69	
	Monthly Total					
	Daily Max		57	0.23	69	0.28
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	**Monthly Avg**	2000				520				92	
	Monthly Total										
	Daily Max	2000		8.10		520		2.10		92	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance										
	Lab Certification										

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**					11
	Monthly Total					
	Daily Max	0.37				11
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
Summary Values	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	**Monthly Avg**	2.10				
	Monthly Total					
	Daily Max				500	0.17
	Daily Min					
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance					
	Lab Certification					

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19				
	20				
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
Summary Values	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max	24			
	Daily Min				
QA/QC Information	**LOD**				
	LOQ				
	QC Exceedance				
	Lab Certification				

Footnotes (DNR Use Only; Instructions for completing this form that are unique for your facility may be displayed here.)

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 12/16/2021 11:07:24 AM

Attachment 3
2021 Pump Down Program Groundwater Elevation Monitoring

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

Target Elevation	577.9

Well ID	January 6, 2021		January 12, 2021		January 19, 2021		January 27, 2021		February 3, 2021		February 10, 2021		February 17, 2021		February 23, 2021		March 4, 2021		March 11, 2021		March 16, 2021		March 25, 2021		March 31, 2021		April 5, 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)	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	8.08	579.04	8.24	578.88	8.25	578.87	8.27	578.85	8.35	578.77	9.04	578.08	9.10	578.02	8.79	578.33	8.82	578.30	7.68	579.44	7.69	579.43	8.01	579.11	6.58	580.54	6.03	581.09
MW001S	8.60	578.60	8.75	578.45	8.75	578.45	8.63	578.57	8.78	578.42	8.59	578.61	8.62	578.58	8.32	578.88	8.34	578.86	7.15	580.05	7.24	579.96	7.48	579.72	6.69	580.51	6.15	581.05
MW002M-R	11.75	578.76	11.38	579.14	11.50	579.02	11.48	579.04	11.43	579.09	11.72	578.79	11.79	578.72	11.48	579.04	11.47	579.05	10.34	580.19	10.40	580.13	10.62	579.91	9.85	580.69	9.34	581.20
MW002S-R	10.66	579.62	10.96	579.32	11.32	578.96	11.30	578.98	11.36	578.92	11.61	578.67	11.71	578.57	11.36	578.92	11.33	578.95	10.22	580.06	10.26	580.02	10.48	579.80	9.74	580.54	9.19	581.09
MW031M	9.10	578.93	8.87	579.16	8.84	579.19	8.64	579.39	8.94	579.09	9.14	578.88	9.13	578.90	8.74	579.29	8.79	579.24	NM	-	7.76	580.27	8.03	580.00	7.24	580.80	6.80	581.24
MW031S	9.70	579.17	9.58	579.29	9.67	579.20	9.62	579.25	9.65	579.22	9.93	578.94	9.82	579.05	9.67	579.20	9.08	579.79	NM	-	8.58	580.29	8.92	579.95	8.20	580.67	7.81	581.06
MW113S	11.63	578.65	11.23	579.05	11.30	578.98	11.26	579.02	11.32	578.96	11.57	578.71	11.65	578.63	11.30	578.98	11.30	578.98	10.22	580.06	10.21	580.07	10.47	579.81	9.70	580.58	9.12	581.16
MW113M	11.30	578.97	11.09	579.18	11.05	579.22	11.07	579.20	11.22	579.05	11.36	578.91	11.43	578.84	11.15	579.12	11.21	579.06	10.48	579.80	10.36	579.92	10.52	579.76	8.92	581.36	8.57	581.71
MW115P	10.06	579.02	10.25	578.83	10.24	578.84	10.21	578.87	9.83	579.25	10.05	579.03	10.30	578.78	9.98	579.10	9.49	579.59	7.68	581.40	7.53	581.55	8.02	581.06	7.82	581.26	7.83	581.25
MW115S	9.60	579.37	9.69	579.28	9.70	579.27	9.63	579.34	10.37	578.60	10.60	578.37	10.69	578.28	10.33	578.64	10.34	578.63	9.75	579.22	9.18	579.79	9.57	579.40	8.34	580.63	7.84	581.13
MW116P	10.33	579.53	10.20	579.66	10.30	579.56	10.26	579.60	10.37	579.49	10.51	579.35	10.65	579.21	10.51	579.35	10.49	579.37	9.85	580.01	9.69	580.18	9.67	580.20	9.57	580.30	9.20	580.67
MW116S	11.23	578.64	10.88	578.99	10.85	579.02	10.84	579.03	10.92	578.95	11.18	578.69	11.26	578.60	10.96	578.91	10.88	578.99	9.71	580.16	9.83	580.04	10.06	579.81	9.29	580.58	8.71	581.17
MW119D	7.14	581.58	7.23	581.49	7.25	581.47	7.21	581.51	7.38	581.34	7.42	581.30	7.56	581.16	7.55	581.17	7.67	581.05	7.66	581.06	7.70	581.02	7.71	581.01	7.74	580.98	7.73	580.99
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	24.12	562.90	25.03	561.99	24.81	562.21	24.96	562.06	24.93	562.09	24.35	562.67	24.72	562.30	23.78	563.24	24.75	562.27	23.89	563.13	24.84	562.18	25.78	561.24	6.51	580.55	6.12	580.94
EW-11	24.22	562.44	22.10	564.56	20.93	565.73	21.73	564.93	22.84	563.82	22.51	564.15	28.16	558.49	28.73	557.92	22.62	564.04	22.31	564.35	25.11	561.55	24.89	561.77	5.68	581.01	5.26	581.43
EW-13	25.37	559.68	24.30	560.75	22.13	562.93	22.63	562.43	21.91	563.15	21.79	563.27	26.54	558.50	26.75	558.29	21.18	563.88	21.30	563.76	18.24	566.83	18.61	566.46	4.55	580.57	4.05	581.07
EW-14	22.15	563.86	22.91	563.10	18.42	567.61	20.86	565.16	18.21	567.82	22.09	563.92	22.04	563.97	21.86	564.15	22.04	563.97	20.61	565.41	15.14	570.91	16.07	569.97	5.58	580.51	5.17	580.92
MW034M	13.36	574.86	13.27	574.95	14.10	574.12	14.06	574.16	14.26	573.96	13.43	574.79	13.40	574.82	13.98	574.24	14.24	573.98	13.42	574.80	13.98	574.24	14.03	574.19	13.51	574.71	13.99	574.23
MW034S	13.97	574.21	13.85	574.33	14.43	573.75	14.17	574.01	14.61	573.57	13.98	574.20	13.84	574.34	14.28	573.90	14.55	573.63	13.93	574.25	14.20	573.98	14.64	573.54	14.06	574.12	14.21	573.97
MW036M	14.31	574.22	14.48	574.05	14.74	573.79	14.65	573.88	14.88	573.64	14.81	573.72	14.40	574.13	14.52	574.01	14.92	573.60	14.59	573.94	14.62	573.91	15.04	573.48	14.74	573.79	14.63	573.90
MW036S	13.89	574.36	14.03	574.22	14.25	574.00	14.13	574.12	14.43	573.82	14.22	574.03	13.99	574.26	14.08	574.17	14.44	573.81	14.17	574.08	14.15	574.10	14.59	573.66	14.34	573.91	14.20	574.05
MW038M	11.75	574.39	11.91	574.23	12.23	573.91	12.16	573.98	12.38	573.76	12.09	574.05	NM	-	12.00	574.14	12.38	573.76	12.10	574.04	12.06	574.08	12.52	573.62	12.28	573.86	12.02	574.12
MW038S	13.55	574.27	13.73	574.09	14.06	573.76	13.93	573.89	14.21	573.61	13.91	573.91	13.65	574.17	13.85	573.97	14.21	573.61	13.87	573.95	13.89	573.93	14.39	573.43	14.06	573.76	13.82	574.00
MW120D	6.97	581.63	7.13	581.47	7.14	581.46	7.13	581.47	7.22	581.38	7.39	581.21	7.20	581.40	7.36	581.24	7.38	581.22	7.06	581.54	7.12	581.48	7.37	581.23	7.60	581.00	7.14	581.46
MW120M	14.20	574.71	14.20	574.71	14.36	574.54	14.28	574.63	14.54	574.36	14.40	574.50	14.31	574.60	14.32	574.59	14.54	574.36	14.35	574.55	14.28	574.63	14.26	574.65	14.24	574.67	14.19	574.72
MW120S	13.73	574.79	13.69	574.83	13.81	574.71	13.71	574.81	13.88	574.64	13.95	574.57	13.98	574.54	13.85	574.67	14.08	574.44	13.94	574.58	13.78	574.74	13.64	574.88	13.65	574.87	13.55	574.97
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	11.61	574.04	11.10	574.55	16.34	569.30	12.11	573.54	19.56	566.08	NM	-	11.52	574.13	19.87	565.77	18.15	567.49	11.64	574.01	16.48	569.16	19.43	566.21	7.89	577.77	17.91	567.73
EW-9	10.83	574.18	10.18	574.83	19.80	565.19	11.81	573.20	19.82	565.17	12.91	572.09	10.73	574.28	20.13	564.86	20.58	564.41	10.39	574.62	20.36	564.63	20.42	564.57	10.86	574.15	17.41	567.58
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	6.31	582.43	6.21	582.53	5.93	582.81	6.02	582.72	6.29	582.45	6.42	582.32	6.59	582.15	6.47	582.27	6.11	582.63	5.61	583.13	5.46	583.28	5.17	583.57	5.13	583.61	5.13	583.61
MW032M	6.46	581.90	6.33	582.03	6.23	582.13	6.30	582.06	6.49	581.87	6.64	581.72	6.71	581.64	6.45	581.91	6.34	582.02	5.87	582.49	5.68	582.68	5.81	582.55	5.83	582.53	5.68	582.68
MW032S	6.20	582.30	6.10	582.40	5.79	582.71	5.91	582.59	6.16	582.34	6.22	582.28	6.42	582.08	6.14	582.36	5.71	582.79	5.26	583.24	5.18	583.32	5.12	583.38	4.94	583.56	5.12	583.38
MW033M	5.20	582.53	5.19	582.54	4.83	582.91	4.87	582.87	5.32	582.41	5.34	582.39	5.47	582.26	5.38	582.35	5.05	582.68	4.49	583.25	4.29	583.46	4.23	583.52	4.01	583.74	4.05	583.70
MW033S	4.95	582.38	4.90	582.43	4.59	582.74	4.71	582.62	4.96	582.37	5.08	582.25	5.20	582.13	5.11	582.22	4.77	582.56	4.25	583.08	4.07	583.26	3.91	583.42	3.76	583.57	3.76	583.57
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	3.75	582.45	3.68	582.52	3.38	582.82	3.41	582.79	3.77	582.43	3.85	582.35	4.04	582.16	3.91	582.29	3.55	582.65	3.07	583.13	2.91	583.29	2.64	583.56	2.59	583.61	2.58	583.62
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	6.02	581.63	5.93	581.72	5.72	581.93	5.77	581.88	6.33	581.32	6.63	581.02	6.97	580.68	6.83	580.82	6.48	581.17	5.38	582.27	5.43	582.22	5.55	582.10	5.71	581.94	5.64	582.01
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	5.41	581.66	5.35	581.72	5.05	582.02	5.11	581.96	5.76	581.31	6.01	581.06	6.40	580.67	6.19	580.88	5.77	581.30	4.63	582.44	4.77	582.30	4.84	582.23	4.94	582.13	5.04	582.03
SG4	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	6.60	580.85	5.85	581.60
Rough Target Elevation Calc SV*		578.97		579.07		579.02		579.07		578.91		578.66		578.62		578.93		578.98		579.87		579.99		579.73		580.69		581.19
Rough Target Elevation Calc 8S*		574.48		574.43		574.07		574.18		573.92		574.22		574.41		574.21		573.90		574.27		574.20		573.93		574.21		574.24
Target Elevation (NAVD88)		577.90		577.9		577.9		577.9		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90
SV Variance		1.07		1.17		1.12		1.17		1.01		0.76		0.72		1.03		1.08		1.97		2.09		1.83		2.79		3.29
8S Variance		-3.42		-3.47		-3.83		-3.72		-3.98		-3.68		-3.49		-3.69		-4.00		-3.63		-3.70		-3.97		-3.69		-3.66

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

Target Elevation	577.9

Well ID	April 8, 2021		April 13, 2021		April 20, 2021		May 6, 2021		May 11, 2021		May 18, 2021		May 25, 2021		May 27, 2021		June 3, 2021		June 8, 2021		June 17, 2021		June 24, 2021		July 1, 2021		July 8, 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)	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	8.24	578.88	9.37	577.75	9.52	577.60	9.51	577.61	9.66	577.46	9.36	577.76	9.10	578.02	9.48	577.64	9.43	577.69	9.78	577.34	9.64	577.48	10.30	576.82	9.34	577.78	8.05	579.07
MW001S	8.45	578.75	9.63	577.57	9.71	577.49	9.73	577.47	9.89	577.31	9.57	577.63	9.31	577.89	9.69	577.51	9.67	577.53	10.02	577.18	9.83	577.37	10.54	576.66	9.50	577.70	8.20	579.00
MW002M-R	11.53	578.99	12.65	577.85	12.82	577.68	12.83	577.67	13.02	577.48	12.69	577.81	12.44	578.07	12.84	577.66	12.77	577.73	13.09	577.41	12.95	577.55	13.63	576.86	12.65	577.85	11.38	579.14
MW002S-R	11.42	578.86	12.62	577.66	12.75	577.53	12.73	577.55	12.94	577.34	12.60	577.68	12.38	577.90	12.79	577.49	12.70	577.58	13.04	577.24	12.90	577.38	13.52	576.75	12.56	577.72	11.30	578.98
MW031M	8.85	579.18	10.06	577.96	10.61	577.40	10.26	577.76	10.31	577.71	9.90	578.12	9.71	578.31	10.26	577.76	10.15	577.87	10.42	577.60	10.33	577.69	10.96	577.05	10.11	577.91	8.79	579.24
MW031S	9.94	578.93	10.93	577.94	11.67	577.20	11.35	577.52	11.39	577.48	10.98	577.89	10.69	578.18	11.39	577.48	11.32	577.55	11.47	577.40	11.51	577.36	12.02	576.85	11.22	577.65	9.92	578.95
MW113S	11.33	578.95	12.53	577.74	12.69	577.58	12.68	577.59	12.86	577.41	12.52	577.75	12.28	577.99	12.72	577.55	12.62	577.65	12.98	577.29	12.80	577.47	13.41	576.86	12.51	577.76	11.23	579.05
MW113M	9.78	580.50	10.47	579.81	10.83	579.44	10.57	579.71	10.71	579.57	10.55	579.73	10.35	579.93	10.74	579.54	10.64	579.64	10.89	579.38	10.88	579.39	11.25	579.02	10.62	579.66	9.75	580.53
MW115P	8.62	580.46	9.04	580.04	10.28	578.80	11.62	577.45	10.73	578.35	10.47	578.61	10.22	578.86	10.71	578.37	10.51	578.57	10.85	578.23	10.76	578.32	11.28	577.80	10.98	578.10	9.99	579.09
MW115S	10.07	578.90	11.27	577.70	11.68	577.29	11.41	577.56	11.54	577.43	11.18	577.79	10.96	578.01	11.47	577.50	11.36	577.61	11.67	577.30	11.55	577.42	12.16	576.80	11.27	577.70	9.95	579.02
MW116P	9.53	580.34	10.32	579.54	10.75	579.11	10.99	578.87	11.08	578.78	11.02	578.84	10.89	578.97	11.12	578.74	11.04	578.82	11.18	578.68	11.20	578.66	11.29	578.57	11.43	578.43	11.06	578.80
MW116S	10.96	578.91	12.13	577.73	12.28	577.58	12.32	577.54	12.48	577.38	12.17	577.69	11.93	577.93	12.34	577.52	12.28	577.58	12.58	577.28	12.45	577.41	13.11	576.75	12.12	577.74	10.83	579.04
MW119D	7.70	581.02	7.71	581.01	7.77	580.95	7.85	580.87	7.87	580.85	7.89	580.83	7.88	580.84	7.88	580.84	7.89	580.83	7.91	580.81	7.93	580.79	7.93	580.79	7.92	580.80	8.92	579.80
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	8.21	578.85	9.34	577.71	9.80	577.25	9.56	577.49	9.63	577.42	9.31	577.74	9.06	578.00	9.56	577.49	9.48	577.57	9.73	577.32	9.65	577.40	10.33	576.72	9.35	577.70	8.03	579.03
EW-11	7.03	579.65	7.99	578.69	8.30	578.38	8.29	578.39	8.42	578.26	8.16	578.52	7.95	578.73	8.36	578.32	8.32	578.36	8.61	578.07	8.54	578.14	9.08	577.60	8.21	578.47	7.06	579.62
EW-13	6.25	578.87	7.38	577.73	7.71	577.40	7.58	577.53	7.82	577.29	7.33	577.78	7.10	578.01	7.56	577.55	7.46	577.65	7.74	577.37	7.65	577.46	8.32	576.79	7.42	577.69	6.10	579.02
EW-14	6.79	579.29	8.17	577.91	8.85	577.22	8.59	577.49	8.59	577.49	8.15	577.93	7.98	578.10	8.59	577.49	8.45	577.63	8.69	577.39	8.63	577.45	9.24	576.83	8.50	577.58	7.15	578.93
MW034M	13.32	574.90	13.18	575.04	12.91	575.31	12.41	575.81	12.32	575.90	12.16	576.06	11.94	576.28	11.93	576.29	11.70	576.52	11.64	576.58	11.47	576.75	11.28	576.94	11.14	577.08	10.91	577.31
MW034S	13.87	574.31	13.68	574.50	13.36	574.82	12.85	575.33	12.72	575.46	12.56	575.62	12.33	575.85	12.29	575.89	12.05	576.13	11.98	576.20	11.08	577.10	11.59	576.59	11.40	576.78	11.20	576.98
MW036M	14.54	573.99	14.26	574.28	13.93	574.61	13.35	575.20	13.12	575.44	12.93	575.63	12.69	575.87	12.71	575.85	12.43	576.14	12.41	576.16	12.15	576.42	12.03	576.55	11.88	576.70	11.65	576.93
MW036S	14.15	574.10	13.88	574.37	13.50	574.75	12.90	575.35	12.67	575.58	12.42	575.83	12.20	576.05	12.18	576.07	11.93	576.32	11.84	576.41	11.61	576.64	11.48	576.77	11.32	576.93	11.11	577.14
MW038M	12.31	573.83	11.63	574.51	11.22	574.92	10.48	575.66	10.28	575.86	10.03	576.11	9.74	576.40	9.78	576.36	9.50	576.64	9.46	576.68	9.23	576.91	9.06	577.08	8.99	577.15	8.74	577.40
MW038S	13.75	574.07	13.42	574.40	12.96	574.86	12.18	575.64	12.00	575.82	11.73	576.09	11.45	576.37	11.48	576.34	11.23	576.59	11.14	576.68	11.02	576.80	10.73	577.09	10.68	577.14	10.44	577.38
MW120D	7.01	581.59	7.32	581.28	7.50	581.10	7.40	581.20	7.33	581.27	7.45	581.15	7.15	581.45	7.34	581.26	7.38	581.22	7.38	581.22	7.47	581.13	7.39	581.21	7.35	581.25	7.06	581.54
MW120M	14.14	574.77	14.04	574.87	13.86	575.05	13.52	575.40	13.36	575.56	13.22	575.71	13.02	575.91	13.04	575.89	12.82	576.11	12.74	576.20	12.53	576.41	12.43	576.51	12.20	576.75	11.92	577.03
MW120S	13.58	574.94	13.61	574.91	13.46	575.06	13.17	575.35	13.12	575.40	13.02	575.50	12.83	575.69	12.86	575.66	12.65	575.87	12.57	575.95	12.32	576.20	12.21	576.31	11.98	576.54	11.65	576.87
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	11.54	574.11	11.44	574.21	10.83	574.83	8.64	577.02	8.43	577.23	8.23	577.43	7.96	577.70	7.99	577.67	7.68	577.98	7.64	578.02	NM	-	7.24	578.42	8.16	577.50	6.99	578.67
EW-9	10.66	574.35	10.48	574.53	10.15	574.86	8.08	576.93	7.92	577.09	7.81	577.20	7.58	577.43	7.51	577.50	7.32	577.70	7.22	577.80	NM	-	6.84	578.18	6.63	578.39	6.71	578.31
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	5.13	583.61	4.93	583.81	5.01	583.73	4.75	583.99	4.92	583.82	5.16	583.58	4.97	583.77	5.17	583.57	5.08	583.66	5.35	583.39	5.59	583.15	5.65	583.09	5.24	583.50	4.89	583.85
MW032M	5.75	582.61	5.69	582.67	5.96	582.40	5.68	582.68	5.83	582.53	5.93	582.43	5.72	582.64	6.03	582.33	5.82	582.54	6.11	582.25	6.26	582.10	6.38	581.98	5.88	582.48	5.47	582.89
MW032S	5.12	583.38	4.92	583.58	5.01	583.49	4.73	583.77	4.86	583.64	5.12	583.38	5.06	583.44	5.21	583.29	5.20	583.30	5.34	583.16	5.66	582.84	5.80	582.70	5.33	583.17	5.00	583.50
MW033M	4.02	583.73	3.82	583.94	3.97	583.78	3.71	584.05	3.87	583.89	4.10	583.65	3.93	583.82	4.13	583.62	4.03	583.72	4.31	583.44	4.54	583.20	4.71	583.03	4.16	583.59	3.82	583.94
MW033S	3.76	583.57	3.57	583.76	3.69	583.64	3.41	583.92	3.52	583.81	3.82	583.51	3.66	583.67	3.87	583.46	3.77	583.56	4.06	583.27	4.28	583.05	4.45	582.88	3.91	583.42	3.57	583.76
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	2.78	583.42	2.38	583.82	2.47	583.73	2.20	584.00	2.39	583.81	2.62	583.58	2.42	583.78	2.63	583.57	2.53	583.67	2.83	583.37	3.05	583.15	3.08	583.12	2.68	583.52	2.32	583.88
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-	NM	-	NM	-
MW035S	5.62	582.03	5.58	582.07	5.79	581.86	5.65	582.00	5.82	581.83	5.96	581.69	5.86	581.79	6.11	581.54	5.98	581.67	6.57	581.08	7.05	580.60	7.05	580.60	5.75	581.90	5.56	582.09
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	4.96	582.11	4.88	582.19	5.01	582.06	4.91	582.16	5.05	582.02	5.24	581.83	5.17	581.90	5.43	581.64	5.46	581.61	5.99	581.08	6.59	580.47	6.51	580.56	5.18	581.89	4.92	582.15
SG4	5.80	581.65	6.22	581.23	5.50	581.95	6.89	580.56	6.00	581.45	6.00	581.45	5.90	581.55	6.21	581.24	6.00	581.45	6.19	581.26	6.00	581.45	5.20	582.25	6.00	581.45	5.90	581.55
Rough Target Elevation Calc SV*		579.08		577.97		577.68		577.80		577.66		577.98		578.22		577.76		577.84		577.54		577.65		577.04		577.95		579.20
Rough Target Elevation Calc 8S*		574.36		574.61		574.92		575.47		575.63		575.82		576.05		576.05		576.29		576.36		576.66		576.73		576.88		577.13
Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90
SV Variance		1.18		0.07		-0.22		-0.10		-0.24		0.08		0.32		-0.14		-0.06		-0.36		-0.25		-0.86		0.05		1.30
8S Variance		-3.54		-3.29		-2.98		-2.43		-2.27		-2.08		-1.85		-1.85		-1.61		-1.54		-1.24		-1.17		-1.02		-0.77

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

Target Elevation	577.9

Well ID	July 15, 2021		July 22, 2021		July 27, 2021		July 29, 2021		August 3, 2021		August 5, 2021		August 12, 2021		August 19, 2021		August 26, 2021		September 2, 2021		September 9, 2021		September 16, 2021		September 23, 2021		September 29, 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)	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	10.20	576.92	11.28	575.83	10.60	576.52	10.86	576.25	10.90	576.21	10.82	576.29	10.83	576.28
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	10.37	576.83	11.61	575.59	10.83	576.37	11.10	576.10	11.15	576.05	11.05	576.15	10.61	576.59
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	12.50	578.00	14.56	575.92	13.91	576.58	14.18	576.31	14.24	576.24	14.09	576.40	13.88	576.61
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	13.43	576.84	14.47	575.80	13.86	576.41	14.10	576.17	14.14	576.13	14.01	576.26	13.83	576.44
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	10.99	577.02	12.13	575.87	11.39	576.62	11.74	576.27	11.13	576.88	11.55	576.46	11.27	576.74
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	12.14	576.73	13.41	575.46	12.61	576.26	13.00	575.87	12.52	576.35	12.78	576.09	12.46	576.41
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	13.32	576.95	14.33	575.94	13.78	576.49	14.02	576.25	13.97	576.30	13.92	576.35	13.76	576.51
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	11.16	579.11	11.81	578.46	11.47	578.80	11.72	578.55	11.47	578.80	11.68	578.59	11.64	578.63
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	11.68	577.39	12.64	576.43	12.14	576.93	12.34	576.73	12.12	576.95	12.32	576.75	12.20	576.87
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	12.17	576.79	13.58	575.38	12.64	576.32	13.07	575.89	12.95	576.01	12.81	576.15	12.56	576.40
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	11.17	578.69	11.36	578.50	11.56	578.30	11.70	578.16	11.76	578.10	11.97	577.88	12.07	577.78
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	13.02	576.84	14.34	575.51	13.48	576.37	13.75	576.10	14.15	575.70	13.65	576.20	13.41	576.44
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	7.72	581.00	7.74	580.98	7.73	580.99	7.79	580.93	7.83	580.89	7.85	580.87	7.89	580.83
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	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	10.24	576.81	11.27	575.78	10.71	576.34	10.98	576.07	10.42	576.63	10.81	576.24	10.60	576.45
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	8.97	577.71	9.88	576.80	9.43	577.25	9.69	576.99	9.45	577.23	9.62	577.06	9.43	577.25
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	-	8.23	576.88	9.58	575.52	9.76	575.34	9.32	575.78	8.73	576.38	8.91	576.20	8.62	576.49
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	9.33	576.74	10.29	575.78	9.71	576.36	9.88	576.19	9.42	576.65	9.86	576.21	9.61	576.46
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	10.29	577.93	11.49	576.73	11.26	576.96	11.30	576.92	11.16	577.06	10.56	577.66	10.57	577.65
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	10.54	577.64	11.64	576.54	11.48	576.70	11.47	576.71	11.33	576.85	10.83	577.35	10.83	577.35
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	11.06	577.53	11.58	577.00	11.77	576.81	11.97	576.61	11.85	576.73	11.45	577.14	11.41	577.18
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	10.43	577.82	10.97	577.28	11.21	577.04	11.34	576.91	11.25	577.00	10.86	577.39	10.84	577.41
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	8.12	578.02	8.65	577.49	9.06	577.08	9.30	576.84	9.32	576.82	8.71	577.43	8.65	577.49
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	9.78	578.05	10.33	577.50	10.73	577.09	11.01	576.81	11.09	576.73	10.36	577.47	10.32	577.51
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	7.27	581.33	7.28	581.32	7.18	581.42	7.56	581.04	7.60	581.00	7.20	581.40	7.51	581.09
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	11.34	577.62	11.76	577.19	11.78	577.17	11.81	577.14	11.72	577.24	11.49	577.47	11.54	577.42
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	10.94	577.59	11.16	577.37	11.19	577.34	11.30	577.22	11.32	577.20	11.07	577.46	11.23	577.30
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	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	6.25	579.42	7.84	577.82	8.36	577.30	8.55	577.11	11.35	574.30	11.41	574.24	6.76	578.90
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	5.76	579.26	8.56	576.45	8.19	576.82	8.12	576.89	8.11	576.90	8.99	576.02	6.08	578.94
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	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	5.52	583.22	5.78	582.96	5.71	583.03	5.87	582.87	6.01	582.73	6.10	582.64	6.26	582.48
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	6.14	582.22	6.36	582.00	6.20	582.16	6.50	581.86	6.53	581.83	6.50	581.86	6.67	581.68
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	5.56	582.94	5.87	582.63	5.66	582.84	5.91	582.59	6.00	582.50	6.10	582.40	6.27	582.23
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	4.48	583.26	4.77	582.97	4.66	583.08	4.82	582.92	4.96	582.78	5.03	582.70	5.21	582.52
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	4.22	583.11	4.49	582.84	4.40	582.93	4.57	582.76	4.72	582.61	4.80	582.53	4.96	582.37
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	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	2.97	583.23	3.23	582.97	3.15	583.05	3.33	582.87	3.46	582.74	3.55	582.65	3.73	582.47
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	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	6.12	581.53	6.67	580.98	6.12	581.53	6.26	581.39	6.40	581.25	6.79	580.86	7.18	580.47
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	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	5.53	581.54	6.14	580.93	5.52	581.55	5.61	581.46	5.85	581.22	6.30	580.77	6.64	580.42
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	6.04	581.41	7.10	580.35	5.90	581.55	6.00	581.45	6.25	581.20	6.00	581.45	6.20	581.25
Rough Target Elevation Calc SV*		579.92		580.15		580.46		576.95		577.97		577.75		576.31		577.20		575.98		576.67		576.38		576.47		576.50		576.71
Rough Target Elevation Calc 8S*		577.29		577.42		577.57		577.32		577.57		577.60		577.55		577.78		577.14		577.02		576.90		576.95		577.42		577.41
Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90		577.90		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		-0.70		-1.92		-1.23		-1.52		-1.43		-1.40		-1.19
8S Variance		-0.61		-0.48		-0.33		-0.58		-0.33		-0.30		-0.35		-0.12		-0.76		-0.88		-1.00		-0.95		-0.48		-0.49

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

Target Elevation	577.9

Well ID	October 7, 2021		October 14, 2021		October 21, 2021		October 29, 2021		November 4, 2021		November 10, 2021		November 18, 2021		December 2, 2021		December 9, 2021		December 16, 2021		December 23, 2021		December 30, 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)	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	10.53	576.59	10.49	576.63	10.05	577.07	10.16	576.96	9.98	577.14	9.97	577.15	10.12	577.00	11.60	575.51	10.58	576.54	10.44	576.68	10.40	576.72	10.20	576.92
MW001S	10.74	576.46	10.80	576.40	10.32	576.88	10.35	576.85	10.21	576.99	10.14	577.06	10.40	576.80	11.87	575.33	10.77	576.43	10.71	576.49	10.61	576.59	10.43	576.77
MW002M-R	13.78	576.71	13.77	576.72	13.50	576.99	13.47	577.02	13.31	577.19	13.27	577.23	13.62	576.87	14.82	575.66	13.82	576.67	13.80	576.69	13.72	576.77	13.52	576.97
MW002S-R	13.74	576.53	13.72	576.55	13.42	576.85	13.40	576.87	13.24	577.04	13.19	577.09	13.51	576.76	14.64	575.63	13.85	576.42	13.76	576.51	13.68	576.59	13.47	576.80
MW031M	11.21	576.80	11.16	576.85	10.78	577.23	10.79	577.22	10.64	577.37	10.57	577.45	11.21	576.80	12.57	575.43	11.27	576.74	11.11	576.90	11.15	576.86	10.89	577.12
MW031S	12.42	576.45	12.36	576.51	11.93	576.94	11.96	576.91	11.82	577.05	11.70	577.17	11.82	577.05	13.84	575.03	12.45	576.42	12.23	576.64	12.33	576.54	12.05	576.82
MW113S	13.68	576.59	13.65	576.62	13.34	576.93	13.32	576.95	13.16	577.11	13.13	577.14	13.76	576.51	14.56	575.71	13.74	576.53	13.66	576.61	13.58	576.69	13.38	576.89
MW113M	11.60	578.67	11.59	578.68	11.40	578.87	11.37	578.90	11.40	578.87	11.42	578.85	12.05	578.22	12.26	578.01	11.69	578.58	11.49	578.78	11.54	578.73	11.41	578.86
MW115P	12.15	576.92	12.10	576.97	11.85	577.22	11.83	577.24	11.77	577.30	11.77	577.30	12.22	576.85	12.91	576.16	12.17	576.90	12.05	577.02	11.20	577.88	11.22	577.86
MW115S	12.49	576.47	12.44	576.52	12.04	576.92	12.09	576.87	11.89	577.08	11.87	577.10	12.47	576.49	14.04	574.92	12.49	576.47	12.36	576.60	12.07	576.89	12.09	576.87
MW116P	12.20	577.65	12.14	577.71	12.22	577.63	12.08	577.77	12.33	577.52	12.32	577.53	12.41	577.44	12.34	577.51	12.60	577.25	12.56	577.29	12.62	577.23	12.66	577.19
MW116S	13.34	576.52	13.30	576.56	12.94	576.92	12.99	576.87	12.79	577.07	12.77	577.09	13.26	576.60	14.96	574.89	13.36	576.50	13.21	576.65	13.19	576.67	12.99	576.87
MW119D	7.93	580.79	7.90	580.82	7.97	580.75	7.98	580.74	8.01	580.71	8.09	580.63	8.19	580.53	8.32	580.40	8.45	580.27	7.48	581.24	8.55	580.17	8.56	580.16
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	10.52	576.53	10.51	576.54	10.09	576.96	10.17	576.88	8.98	578.08	9.92	577.13	10.29	576.76	11.56	575.49	10.51	576.54	10.17	576.88	10.37	576.68	10.19	576.86
EW-11	9.43	577.25	9.38	577.30	9.10	577.58	9.11	577.57	9.99	576.69	8.99	577.69	9.94	576.74	10.19	576.49	9.44	577.24	9.33	577.35	9.26	577.42	9.06	577.62
EW-13	8.59	576.52	8.56	576.55	8.20	576.91	8.21	576.90	8.03	577.08	7.98	577.13	8.27	576.84	9.91	575.19	8.62	576.49	7.95	577.16	8.39	576.72	NM	-
EW-14	9.55	576.52	9.49	576.58	8.10	577.98	9.11	576.96	9.01	577.06	8.93	577.14	9.89	576.18	10.65	575.42	9.59	576.48	9.03	577.04	9.43	576.64	9.22	576.85
MW034M	10.46	577.76	10.29	577.93	10.44	577.78	10.80	577.42	11.27	576.95	10.80	577.42	11.64	576.58	12.37	575.85	11.33	576.89	11.37	576.85	11.06	577.16	10.67	577.55
MW034S	10.69	577.49	10.50	577.68	10.65	577.53	10.97	577.21	11.44	576.74	11.04	577.14	11.83	576.35	12.46	575.72	11.51	576.67	11.48	576.70	11.27	576.91	10.86	577.32
MW036M	11.27	577.32	11.11	577.48	11.35	577.24	11.42	577.17	11.67	576.91	11.74	576.84	12.17	576.40	12.40	576.17	11.79	576.79	11.74	576.84	11.58	577.00	11.81	576.77
MW036S	10.70	577.55	10.53	577.72	10.79	577.46	10.82	577.43	11.12	577.13	11.15	577.10	11.63	576.62	11.75	576.50	11.24	577.01	11.21	577.04	11.04	577.21	11.22	577.03
MW038M	8.53	577.61	8.33	577.81	8.71	577.43	8.71	577.43	8.92	577.22	9.10	577.04	9.67	576.47	9.93	576.21	9.01	577.13	8.99	577.15	8.82	577.32	8.68	577.46
MW038S	10.18	577.65	10.02	577.81	10.45	577.37	10.44	577.38	10.63	577.19	10.83	576.99	11.34	576.48	11.74	576.08	10.70	577.12	10.67	577.15	10.49	577.33	11.01	576.81
MW120D	7.49	581.11	7.42	581.18	7.72	580.88	7.68	580.92	7.87	580.73	7.90	580.70	8.27	580.33	8.36	580.24	8.14	580.46	8.93	579.67	8.30	580.30	8.41	580.19
MW120M	11.41	577.55	11.19	577.78	10.96	578.01	11.41	577.55	11.76	577.19	11.70	577.26	11.76	577.19	12.08	576.87	11.74	577.21	11.64	577.32	11.49	577.47	11.38	577.58
MW120S	11.04	577.49	10.86	577.67	10.30	578.23	10.91	577.62	11.17	577.36	11.34	577.18	11.30	577.22	11.28	577.24	11.04	577.49	10.87	577.66	10.66	577.87	10.74	577.79
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	6.64	579.02	6.49	579.17	7.89	577.77	7.91	577.75	7.01	578.65	8.42	577.24	10.11	575.55	12.42	573.23	7.10	578.56	7.48	578.18	8.53	577.13	NM	-
EW-9	5.92	579.10	5.72	579.30	5.90	579.12	7.40	577.62	8.58	576.43	6.22	578.80	11.67	573.34	13.48	571.52	8.68	576.33	7.37	577.65	7.41	577.61	NM	-
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	6.37	582.37	6.24	582.50	6.30	582.44	6.43	582.31	6.57	582.17	6.65	582.09	6.62	582.12	6.43	582.31	6.39	582.35	5.68	583.06	5.75	582.99	5.75	582.99
MW032M	6.66	581.70	6.53	581.83	6.62	581.74	6.68	581.67	6.86	581.49	7.01	581.34	7.06	581.29	7.02	581.33	6.79	581.56	6.26	582.10	6.59	581.77	6.57	581.79
MW032S	6.34	582.16	6.11	582.39	6.32	582.18	6.51	581.99	6.50	582.00	6.89	581.60	6.99	581.50	6.98	581.51	6.70	581.79	6.22	582.28	5.93	582.57	5.78	582.72
MW033M	5.30	582.43	5.15	582.58	5.26	582.47	5.35	582.38	5.47	582.26	5.56	582.16	5.49	582.24	5.40	582.33	5.26	582.47	4.56	583.18	4.63	583.11	4.67	583.07
MW033S	5.05	582.28	4.90	582.43	5.00	582.33	5.09	582.24	5.23	582.10	5.31	582.02	5.26	582.07	5.16	582.17	5.02	582.31	4.31	583.02	4.41	582.92	4.42	582.91
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	3.81	582.39	3.70	582.50	3.74	582.46	3.87	582.33	4.03	582.17	4.11	582.08	4.01	582.19	3.86	582.34	3.83	582.37	3.10	583.10	3.20	583.00	3.20	583.00
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	7.15	580.50	7.23	580.42	6.83	580.82	6.95	580.70	7.36	580.29	7.49	580.16	7.22	580.43	6.52	581.13	6.64	581.01	5.61	582.04	6.02	581.63	6.05	581.60
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	6.62	580.44	6.21	580.86	6.25	580.82	6.42	580.65	6.78	580.28	6.92	580.14	6.55	580.52	5.81	581.26	6.04	581.03	5.86	581.21	5.24	581.83	5.30	581.77
SG4	6.20	581.25	5.90	581.55	6.00	581.45	5.10	582.35	6.90	580.55	6.30	581.15	6.70	580.75	NM	-	NM	-	NM	-	NM	-	NM	-
Rough Target Elevation Calc SV*	576.78		576.80		577.16		577.14		577.29		577.33		576.91		575.61		576.73		576.86		576.91		577.09	
Rough Target Elevation Calc 8S*	577.55		577.73		577.63		577.40		577.09		577.12		576.67		576.33		577.04		577.09		577.28		577.29	
Target Elevation (NAVD88)	577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90	
SV Variance	-1.12		-1.10		-0.74		-0.76		-0.61		-0.57		-0.99		-2.29		-1.17		-1.04		-0.99		-0.81	
8S Variance	-0.35		-0.17		-0.27		-0.50		-0.81		-0.78		-1.23		-1.57		-0.86		-0.81		-0.62		-0.61	

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