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January 17, 2023

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 2022)*
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 (RCRA) corrective actions at the Tyco facility on Stanton Street in Marinette, Wisconsin. This report covers the period from October 1 through December 31, 2022, 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 2022, and Attachment 2 contains the monthly Discharge Monitoring Reports for Wisconsin Pollutant Discharge Elimination System (WPDES) outfall OF003. 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 levels in those areas below ground surface and prevent surface flooding of the facility. Because the GWCTS was shut down on September 20, 2022, as part of the GWCTS improvements, there was no groundwater extracted and treated by the GWCTS during the reporting period (groundwater recovered from the pump down program [PDP] operations described as follows is not included in this total). The GWCTS will remain shut down until the improvements are in place and operational (planned for 2023). Groundwater was pumped during the reporting period from construction dewatering operations during ongoing stormwater construction work at the site. An estimated 1,000,000 gallons has been pumped to date (for both third and fourth quarters 2022). This pumped water has been temporarily stored onsite in 20,000-gallon frac tanks, located in the former Salt Vault and former 8th Street Slip areas.

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.

A portion of this volume has been disposed offsite (an estimated 300,000 gallons) at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio. Tyco mobilized a mobile treatment system to treat the remaining water onsite prior to its discharge to the City of Marinette municipal wastewater treatment plant. Tyco has obtained a Temporary Discharge Permit (Permit No. 2001) to perform this work, along with sampling requirements associated with discharge monitoring. Treatment and final disposition of the water is anticipated to be completed in January 2023. Final volumes of disposed and treated water will be provided in the annual report.

Pump down operations with the pump house system continued through fourth quarter 2022 in the former Salt Vault and former 8th Street Slip areas. The groundwater generated from the PDP is disposed offsite at the Vickery disposal facility, and is managed separately 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 average groundwater levels below the target elevation during the reporting period, as indicated by the target elevation calculation included in the manual water level measurements table (Attachment 3) and also shown on the hydrographs of transducer data collected as part of the pump house system operations (Attachment 4). From October 1 to December 31, 2022, approximately 267,800 gallons of groundwater was extracted and disposed offsite as part of the PDP. As noted last quarter, starting August 16, 2022, through the end of that reporting period, the totalizer for EW-9 in the former 8th Street Slip was not working. It was determined that EW-9 had a recording issue due to lower flow rates and was recalibrated on October 18, 2022. Average weekly pumping rates (which include both areas) ranged from 0.17 to 3.84 gpm and are summarized in Attachment 4. The pump house system was typically operated at a pumping rate of 0 to 3 gpm in each area. The system occasionally had lower or higher average daily pumping rates that would coincide with days when trucks were not available or additional volume was needed to generate the minimum volumes required by the disposal/trucking contractor, respectively. In the future, when the modified GWCTS is in place, a more consistent range of daily average pumping rates is expected. The overall average pumping rate for the reporting period in the former Salt Vault was 1.4 gpm and in the former 8th Street Slip was 0.7 gpm. The overall rate of extraction across the PDP areas for the reporting period was 2.0 gpm.

As noted during the last quarterly report, cover area repairs were completed in August 2022. In Cover Area D (Figure 1), where the asphalt was replaced and monitoring well nest MWO45 was covered over by asphalt during the repair, MWO45S was uncovered. MWO45M has not yet been located and is still covered, and location of the well will be attempted again in spring 2023. It was also noted during the reporting period that Cover Area H (Figure 1), which was sealed over, appears to have not bonded well and will be evaluated in the spring for any additional resealing needs.

The fall barrier wall groundwater monitoring semiannual water level event was completed on December 13 and 14, 2022, 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

Five pressure transducers (MW003S, MW064D, MW100S, MW102S, and MW118D) were temporarily removed on October 14, 2022, to allow for per- and polyfluoroalkyl substances sampling activities as part of the WDNR project. These transducers were reinstalled on December 13 and 14, 2022. Other pressure transducer-related activities were completed on December 13 and 14, 2022. These activities included downloading data from each transducer and collecting manual water levels at the time of transducer

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.

downloads. Following the event, it was determined the equipment to download the data was not working properly and a new unit was ordered; once the equipment arrives in January 2023, the full transducer data set will be collected in January 2023.

Additional Activities

Follow-on activities as part of the final WPDES Permit WI-0001040-08-0 (effective January 1, 2021, through December 31, 2025) continued in fourth quarter 2022 and included the following:

- Activities to implement the GWCTS improvements continued in fourth quarter 2022, including equipment and material procurement, and construction activities. Procurement activities included and will continue to include actively tracking long-lead items and other potential supply-chain issues that could cause potential construction delays. Construction activities included continuing building demolition activities inside the main GWCTS building (draining the lines and equipment and breaking down equipment for offsite disposal or clean steel components for recycling), installing portions of the equipment and tank pads, installing two new sumps in the main GWCTS building, installing electrical conduit and mechanical piping, placing new influent and reject tanks, starting to erect the building for the new building addition, delivering the microfiltration units, delivering the reverse osmosis units, and delivering the chemical systems, as well as other tanks and equipment components.
- Stormwater improvement (approved by WDNR) construction that resulted in the abandonment of the subsurface stormwater lines and management of stormwater through aboveground surface flow, as needed, was completed under management of Arcadis. Equipment and material procurement continued in fourth quarter 2022, and construction was completed for the season in December 2022. Portions of the work will need to be further optimized in spring 2023, with engineering optimization planning occurring over winter 2023.
- Soil excavated during the reporting period from the previous activities was either placed in rolloff boxes for transport and disposal or appropriately stockpiled and contained onsite until disposal can occur (anticipated to be spring 2023 after freezing conditions end). An estimated 4,000 tons of soil remain onsite. Additional excavation may occur as part of the final optimization activities in spring 2023. The further accounting of soils will be provided in the next quarterly report, after the excavation work is completed.

One of the three stilling pipes for housing pressure transducers installed in September 2022 was moved from the Turning Basin Weir 4 location and placed in a stilling well installed (with the same construction as the other recently installed stilling wells noted in the quarterly report for third quarter 2022) near staff gauge SG4 in November 2022. The new transducer was set to log "linear average" to compare surface water elevations with the existing SG4 staff gauge and its transducer that is set to log "linear."

During other site work, which included preparing for sampling activities that included some of the Stanton Street site wells, Tyco's contractor Arcadis noted that all three of the MW013 monitoring wells (background well cluster at the southwest corner of the site) were damaged during grading and installation of a new parking lot constructed by KKIL within that area. The monitoring wells are a component of the water level data collection included in the barrier monitoring program. Because Arcadis was working with a driller to install other wells nearby, it was able to coordinate installation of new replacement wells and abandonment of the old wells. MW013S, MW013M, and MW013D were all abandoned on November 2, 2022. The replacement wells were installed directly to the east of the existing well cluster. The replacement MW013 cluster installation dates are as follows: MW013D-R on November 3, 2022; MW013S-R and MW013M-R on October 26, 2022. Email notification was provided to the

Agencies of the abandonment and reinstallation on November 17, 2022. Additional details (updated survey information, abandonment and installation logs) will be provided in the annual report.

As part of the stormwater work, monitoring well nest MW106 was converted from a stickup to a flush mount protective casing by Endpoint in November 2022. In December 2022, the new elevations for monitoring well nests MW013 and MW106 were surveyed by Arcadis and, in addition, monitoring wells along Stanton Street and in the area and in the coal dock area (where some of the construction work was completed) were resurveyed (monitoring well nests MW040 and MW003 and MW107D) in case there was any slight movement of the wells during the construction work. Updated survey information will be provided in the annual report.

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 existing GWCTS, which operates under WPDES Permit WI-0001040-08-0. Attachment 2 includes the GWCTS monthly WPDES Discharge Monitoring Reports for September 2022 through November 2022 for WPDES outfall OF003; there was no discharge in October and November at OF003. 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 the data are included in the 2022 PDP summary table (Attachment 3). Water level data from transducers in monitoring wells and pumping rates collected as part of the PDP pump house system are also summarized in a hydrograph and stacked bar chart (with average weekly pumping rates), respectively (Attachment 4).

Groundwater elevation data recorded by transducers and downloaded in December 2022 are being compiled and evaluated and additional data will be collected in January 2023. The transducer data will be provided in the annual report.

Problems Encountered

There were no new problems encountered during this reporting period.

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 with shutdown of the GWCTS until upgrades are complete
- Continue procurement and construction activities (including actively tracking long-lead items and other potential supply-chain issues that could cause potential construction delays) to implement the GWCTS improvements
- Initiate startup activities for the GWCTS improvements
- Planning for remaining stormwater improvement construction activities to be implemented in spring 2023

- Submit 2022 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 2022 are summarized in Tables 1 and 2, respectively.

Table 1. Documents Submitted

Quarterly Progress Report (October through December 2022), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Quarterly Progress Report (Third Quarter 2022)	EPA	October 17, 2022
Email Notification—MW013 Nest Abandonment and Reinstallation Activities	EPA	November 17, 2022
Sediment Sampling Work Plan	EPA	December 9, 2022
Email—Draft Reserves for 2023	EPA	December 16, 2022

Table 2. Correspondence from Agency

Quarterly Progress Report (October through December 2022), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Submitted By	Date Submitted
None for fourth quarter 2022		

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
Denice Nelson, Johnson Controls
Mariel Carter, Stephenson Public Library

Figure

1 Area Location Map

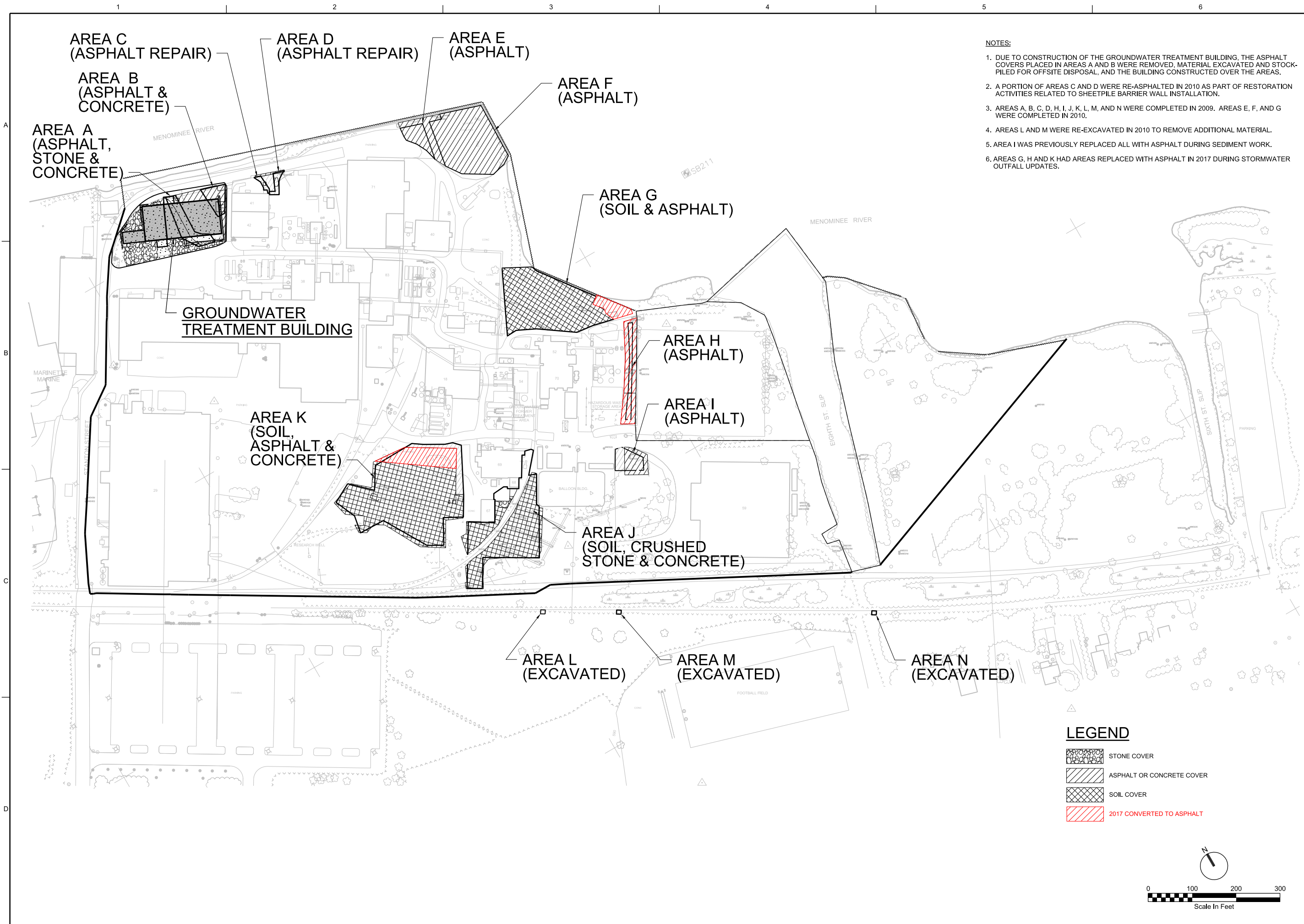
Attachments

- 1 Groundwater Collection and Treatment System Operation Summary
- 2 Discharge Monitoring Reports for the Groundwater Collection and Treatment System
- 3 2022 Pump Down Program Groundwater Elevation Monitoring
- 4 Fourth Quarter 2022 PDP Pump House System Hydrograph and Pumping Rates

Document Control No.: D3630600.294



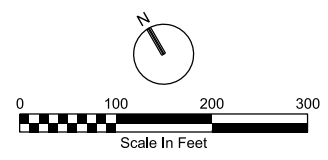
Figure



- NOTES:**
1. DUE TO CONSTRUCTION OF THE GROUNDWATER TREATMENT BUILDING, THE ASPHALT COVERS PLACED IN AREAS A AND B WERE REMOVED, MATERIAL EXCAVATED AND STOCK-PILED FOR OFFSITE DISPOSAL, AND THE BUILDING CONSTRUCTED OVER THE AREAS.
 2. A PORTION OF AREAS C AND D WERE RE-ASPHALTED IN 2010 AS PART OF RESTORATION ACTIVITIES RELATED TO SHEETPILE BARRIER WALL INSTALLATION.
 3. AREAS A, B, C, D, H, I, J, K, L, M, AND N WERE COMPLETED IN 2009. AREAS E, F, AND G WERE COMPLETED IN 2010.
 4. AREAS L AND M WERE RE-EXCAVATED IN 2010 TO REMOVE ADDITIONAL MATERIAL.
 5. AREA I WAS PREVIOUSLY REPLACED ALL WITH ASPHALT DURING SEDIMENT WORK.
 6. AREAS G, H AND K HAD AREAS REPLACED WITH ASPHALT IN 2017 DURING STORMWATER OUTFALL UPDATES.

LEGEND

-  STONE COVER
-  ASPHALT OR CONCRETE COVER
-  SOIL COVER
-  2017 CONVERTED TO ASPHALT



JACOBS

TYCO FIRE PRODUCTS LP
Cover Maintenance Plan for
Onsite and Offsite Soil Areas at
the Tyco Fire Products LP Facility
Marquette, Wisconsin

**FIGURE 1
AREA LOCATION MAP**

SCALE: 1" = 200'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.

DATE: DECEMBER 2018
PROJ: 704683

REVISION 1

PRELIMINARY
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 DSGN: T. CHAPMAN
 DR: G. BOWLES
 CHK: J. DANKO
 APVD: H. ZIEGELBAUER

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, 2022

The following summarizes groundwater collection and treatment system (GWCTS) operations from October 1 through December 31, 2022, at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The GWCTS operated for 0 days in October 2022, 0 days in November 2022, and 0 days in December 2022, for a total of 0 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin, was 6.67 inches of rain and 14.5 inches of snow (<http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail>).
- An estimated 0 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. Additionally, water was pumped from construction excavation activities, and was either disposed of offsite or treated by the mobile treatment system that was discharged to the City of Marinette municipal wastewater treatment plant. An estimated 1,000,000 gallons was removed and an estimated 300,000 gallons disposed offsite during both third and fourth quarters 2022; final volumes of disposed and treated water will be provided in the annual report.
- During the reporting period, an estimated 0 gallons of water was discharged to the Menominee River as effluent under the Wisconsin Pollutant Discharge Elimination System permit.
- Approximately 0 gallons of reject water was produced this reporting period during system operations and an estimated 250,000 gallons of reject water was produced from the mobile treatment system and subsequently disposed of offsite.

Table 1-1. Extraction Well Data Summary (October through December 2022)

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

Extraction Well	Gallons Run, Fourth Quarter 2022 (October 1 through December 31, 2022)
EW-1	0
EW-2	Not operated in lieu of ongoing PDP
EW-3	Not operated in lieu of ongoing PDP
EW-4	0
EW-5	0
EW-6	0
EW-7	0
Extraction Well Total	0

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: 09/01/2022 - 09/30/2022
 Form Due Date: 10/21/2022
 Permit Number: 0001040

Date Received:
 DOC: 498802
 FIN: 7245
 FID: 438039470
 Region: Northeast Region
 Permit Drafter: Jason R Knutson
 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		0.13430	7.7		7.0
	2		0.17060	8.3		7.3
	3		0.07020	8.0		7.5
	4		0.07090	8.0		7.3
	5		0.08990	8.2		7.5
	6		0.13990	7.6		7.5
	7		0.14040	7.6		7.5
	8		0.11280	7.8		7.4
	9		0.09820	8.2		7.4
	10		0.08660	8.0		7.6
	11		0.16850	8.1		7.6
	12		0.14920	8.1		7.6
	13		0.09490	7.8		7.5
	14		0.10250	7.6		7.3
	15		0.09950	8.0		6.7
	16		0.02940	8.3		7.2
	17		0.01100	8.0		7.7
	18		0.01840	8.1		7.6
	19		0.11350	7.9		7.2
	20		0.13120	7.6		7.2
	21		0.11000	7.6		7.4
	22		0.11620	7.7		7.6
	23		0.10460	7.7		7.5
	24		0.05290	7.8		7.8
	25		0.11940	8.4		7.4
	26		0.12500	7.6		7.4
	27		0.13040	7.5		7.1
	28		0.12070	7.6		7.4
	29		0.12640	7.4		7.3
	30		0.04720	7.8		7.3
	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		0.102823333	7.866666667		7.393333333
	Monthly Total					
	Daily Max		0.1706	8.4		7.8
	Daily Min		0.011	7.4		6.7
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9	0	
	Daily Min					6
QA/QC Information	LOD					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	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	75				
	2	76				
	3	72				
	4	70				
	5	71				
	6	76				
	7	77				
	8	76				
	9	80				
	10	71				
	11	69				
	12	73				
	13	76	240	140	0.1106	<0.49
	14	75				
	15	77				
	16	77				
	17	75				
	18	73				
	19	79				
	20	77				
	21	75				
	22	73				
	23	73				
	24	68				
	25	69				
	26	73				
	27	73				
	28	73				
	29	72				
	30	71				
	31					

	Sample Point	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	
	Parameter	480		231		35		35	
	Description	Temperature Maximum		Hardness, Total as CaCO3		Arsenic, Total Recoverable		Arsenic, Total Recoverable	
	Units	degF		mg/L		ug/L		lbs/day	
Summary Values	Monthly Avg	73.8333333333		240		140		0.1106	
	Monthly Total								
	Daily Max	80		240		140		0.1106	
	Daily Min	68		240		140		0.1106	
Limit(s) in Effect	Monthly Avg							57	0
	Monthly Total								
	Daily Max					170	0	0.81	0
	Daily Min								
QA/QC Information	LOD					2.1		0.49	
	LOQ					5		1	
	QC Exceedance	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						
	8						
	9						
	10						
	11						
	12						
	13		0.0003871	26	0.02054	<3.6	0.002844
	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	0.0003871		26		0.02054		0		0.002844	
	Monthly Total										
	Daily Max	0.0003871		26		0.02054		<3.6		0.002844	
	Daily Min	0.0003871		26		0.02054		<3.6		0.002844	
Limit(s) in Effect	Monthly Avg			69		0		92		0	
	Monthly Total										
	Daily Max	0.27		0		69		0		0.98	
	Daily Min										
QA/QC Information	LOD			1.7				3.6			
	LOQ			5				5			
	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					
	8	<5				
	9					
	10					
	11					
	12					
	13			260	39	1.402713
	14					
	15					
	16					
	17					
	18					
	19					
	20		2.0			
	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	0		2		260		39		1.402713	
	Monthly Total										
	Daily Max	<5		2		260		39		1.402713	
	Daily Min	<5		2		260		39		1.402713	
Limit(s) in Effect	Monthly Avg	38	0								
	Monthly Total										
	Daily Max	38	0	29	0						
	Daily Min										
QA/QC Information	LOD	30		0.079		0.8		0.51			
	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	0.032095	8.8	6.2		
	2	0.014118	7.4	6.1		
	3	0				
	4	0				
	5	0				
	6	0.051971	7.4	6.6		
	7	0.048565	7.8	6.4		
	8	0.035470	7.4	6.6		
	9	0.020421	7.7	6.7		
	10	0				
	11	0				
	12	0.053066	7.6	6.6		
	13	0.020395	7.4	6.4		
	14	0.044357	7.4	6.5		
	15	0.023630	7.3	6.4		
	16	0.012552	7.4	6.4		
	17	0				
	18	0				
	19	0.045890	7.5	6.4		
	20	0.037381	7.0	6.2		
	21	0.024503	7.0	6.2		
	22	0.025490	7.8	6.1		
	23	0.018816	7.1	6.1		
	24	0				
	25	0				
	26	0.062631	7.8	6.3		
	27	0.042228	7.6	6.2		
	28	0.038008	7.2	6.2		
	29	0.042340	7.3	6.2		
	30	0.020540	7.2	6.1		
	31					

	Sample Point	101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes	
	Units	MGD		su		su		minutes	
Summary Values	Monthly Avg	0.023815567		7.480952381		6.328571429			
	Monthly Total								
	Daily Max	0.062631		8.8		6.7			
	Daily Min	0		7		6.1			
Limit(s) in Effect	Monthly Avg								
	Monthly Total						446	0	0
	Daily Max			9	0				
	Daily Min					6	0		
QA/QC Information	LOD								
	LOQ								
	QC Exceedance	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	5.0				
	2					
	3					
	4					
	5					
	6	<1.9	<1.4	<0.49	4.0	4.0
	7	<1.9				
	8					
	9					
	10					
	11					
	12	<1.9				
	13	5.0				
	14	3.8				
	15	3.6				
	16					
	17					
	18					
	19	5.0				
	20	<1.9				
	21					
	22	5.6				
	23					
	24					
	25					
	26	<1.9				
	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	2.333333333		0		0		4		4	
	Monthly Total										
	Daily Max	5.6		<1.4		<0.49		4		4	
	Daily Min	<1.9		<1.4		<0.49		4		4	
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					
	5					
	6	150				<2.1
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20			0.40	0.0566696	
	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	150				0.4		0.0566696		0	
	Monthly Total										
	Daily Max	150				0.4		0.0566696		<2.1	
	Daily Min	150				0.4		0.0566696		<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				0.079				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		4985			
	2		2699			
	3		0			
	4		0			
	5		0			
	6	0.000903	4798	1700	28	
	7		10616			
	8		10790			
	9		3842			
	10		0			
	11		0			
	12		9409	2200	23	
	13		7477			
	14		5797			
	15		4976			
	16		9135			
	17		0			
	18		0			
	19		8586	2300	35	
	20		3285			2.1
	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	0.000903	2879.8333333333	2066.666666667	28.666666667	2.1
	Monthly Total					
	Daily Max	0.000903	10790	2300	35	2.1
	Daily Min	0.000903	0	1700	23	2.1
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	LOD			21		0.079
	LOQ			50		0.5
	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		0.005475	7.1	7.0	
	2		0.003096	7.0	6.9	
	3		0			
	4		0			
	5		0			
	6		0.003315	7.1	7.0	<2.1
	7		0.008038	7.3	7.0	
	8		0.007750	7.7	7.1	
	9		0.005282	8.4	7.7	
	10		0			
	11		0			
	12		0.004347	7.7	7.4	<2.1
	13		0.006974	7.5	7.3	
	14		0.005292	7.7	7.3	
	15		0.007192	7.5	7.4	
	16		0.006559	7.6	7.3	
	17		0			
	18		0			
	19		0.005744	7.6	7.3	<2.1
	20	0.12	0.004988	7.3	7.2	
	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	0.12	0.0024684	7.5	7.223076923	0	
	Monthly Total						
	Daily Max	0.12	0.008038	8.4	7.7	<2.1	
	Daily Min	0.12	0	7	6.9	<2.1	
Limit(s) in Effect	Monthly Avg						
	Monthly Total						
	Daily Max			9	0	680	0
	Daily Min				6	0	
QA/QC Information	LOD	0.079				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	0.000063	<1.9		0.94	
	7					
	8					
	9					
	10					
	11					
	12	0.000084				
	13					
	14					
	15					
	16					
	17					
	18					
	19	0.000105				
	20			0.099		<1.0
	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	8.4E-05		0		0.099		0.94		0	
	Monthly Total										
	Daily Max	0.000105		<1.9		0.099		0.94		<1	
	Daily Min	6.3E-05		<1.9		0.099		0.94		<1	
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					0.079				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					
	3					
	4					
	5					
	6	2.1	<0.48	0.00603072		
	7					
	8					
	9					
	10					
	11					
	12	1.8	<0.51	0.00840225		
	13					
	14					
	15					
	16					
	17					
	18					
	19	1.6	<0.51	0.0111027		
	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	1.833333333	0	0.00851189		
	Monthly Total					
	Daily Max	2.1	<0.51	0.0111027		
	Daily Min	1.6	<0.48	0.00603072		
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	LOD	1.8	1.8			
	LOQ	0.81	0.51			
	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

The GW system was shut down on 9-21-22 for remodeling so, there is no 4th week samples for SP704 or OF003. I will let you know when we up and running again.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 10/18/2022 3:50:44 PM

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: 10/01/2022 - 10/31/2022
 Form Due Date: 11/21/2022
 Permit Number: 0001040

Date Received:
 DOC: 504155
 FIN: 7245
 FID: 438039470
 Region: Northeast Region
 Permit Drafter: Jason R Knutson
 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		0.00640	8.2		7.9
	2		0.02480	8.0		7.3
	3		0.09860	7.7		7.1
	4		0.09990	7.6		7.3
	5		0.09940	7.6		7.3
	6		0.12050	7.5		7.2
	7		0.01900	8.0		7.3
	8		0.01640	8.0		7.8
	9		0.02370	8.0		7.8
	10		0.13100	7.5		7.2
	11		0.12780	7.6		7.3
	12		0.20130	8.8		7.4
	13		0.12177	8.4		7.3
	14		0.07973	7.9		7.3
	15		0.01020	8.0		7.8
	16		0.04710	8.0		7.4
	17		0.13040	7.8		7.4
	18		0.14650	7.6		7.4
	19		0.12170	7.7		7.4
	20		0.15920	7.8		7.4
	21		0.06100	7.8		7.6
	22		0.01190	7.9		7.8
	23		0.06620	7.8		7.5
	24		0.11290	7.8		7.3
	25		0.14130	7.7		7.3
	26		0.09010	7.8		7.5
	27		0.13390	7.6		7.4
	28		0.07540	7.6		7.4
	29		0.05220	7.8		7.6
	30		0.05410	7.8		7.6
	31		0.08570	7.9		7.4

	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		0.086132258	7.84516129		7.441935484
	Monthly Total					
	Daily Max		0.2013	8.8		7.9
	Daily Min		0.0064	7.5		7.1
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9	0	
	Daily Min					6
QA/QC Information	LOD					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	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	69				
	3	71				
	4	74				
	5	75				
	6	71				
	7	69				
	8	67				
	9	69				
	10	72	240	57	0.06213	<0.49
	11	72				
	12	70				
	13	72				
	14	70				
	15	63				
	16	65				
	17	69				
	18	67				
	19	69				
	20	69				
	21	67				
	22	64				
	23	64				
	24	68				
	25	67				
	26	64				
	27	66				
	28	66				
	29	62				
	30	60				
	31	67				

	Sample Point	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	
	Parameter	480		231		35		35	
	Description	Temperature Maximum		Hardness, Total as CaCO3		Arsenic, Total Recoverable		Arsenic, Total Recoverable	
	Units	degF		mg/L		ug/L		lbs/day	
Summary Values	Monthly Avg	68		240		57		0.06213	
	Monthly Total								
	Daily Max	75		240		57		0.06213	
	Daily Min	60		240		57		0.06213	
Limit(s) in Effect	Monthly Avg							57	0
	Monthly Total								
	Daily Max					170	0	0.81	0
	Daily Min								
QA/QC Information	LOD					2.1		0.49	
	LOQ					5		1	
	QC Exceedance	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					
	8					
	9					
	10	0.0005341	25	0.025	<5.0	0.00545
	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	0.0005341		25		0.025		0		0.00545	
	Monthly Total										
	Daily Max	0.0005341		25		0.025		<5		0.00545	
	Daily Min	0.0005341		25		0.025		<5		0.00545	
Limit(s) in Effect	Monthly Avg			69		0		92		0	
	Monthly Total										
	Daily Max	0.27		0		69		0		0.98	
	Daily Min										
QA/QC Information	LOD			1.7				5			
	LOQ			5				10			
	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					
	8					
	9					
	10			100	11	0.546139
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18			1.1		
	19		<10			
	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	0		1.1		100		11		0.546139	
	Monthly Total										
	Daily Max	<10		1.1		100		11		0.546139	
	Daily Min	<10		1.1		100		11		0.546139	
Limit(s) in Effect	Monthly Avg	38	0								
	Monthly Total										
	Daily Max	38	0	29	0						
	Daily Min										
QA/QC Information	LOD	30		0.079		0.78		0.5			
	LOQ	100		0.5		1.8		1.8			
	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				
	2	0				
	3	0.043447	7.2	6.2		
	4	0.033934	7.2	6.4		
	5	0.032444	7.1	6.2		
	6	0.040832	7.6	6.4		
	7	0.010545	7.8	7.2		
	8	0				
	9	0				
	10	0.041842	7.3	6.4		
	11	0.043387	7.2	6.4		
	12	0.040327	7.6	6.5		
	13	0.046764	7.6	6.4		
	14	0.024057	7.6	6.3		
	15	0				
	16	0				
	17	0.059785	7.7	6.5		
	18	0.047945	7.2	6.4		
	19	0.055101	7.2	6.2		
	20	0.053271	7.0	6.2		
	21	0.015980	7.4	6.3		
	22	0				
	23	0				
	24	0.050532	7.5	6.2		
	25	0.042971	7.3	6.7		
	26	0.031309	8.8	6.3		
	27	0.048982	8.6	6.2		
	28	0.015403	7.2	6.2		
	29	0				
	30	0				
	31	0.023221	7.4	6.3		

	Sample Point	101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes	
	Units	MGD		su		su		minutes	
Summary Values	Monthly Avg	0.025873516		7.5		6.376190476			
	Monthly Total								
	Daily Max	0.059785		8.8		7.2			
	Daily Min	0		7		6.2			
Limit(s) in Effect	Monthly Avg								
	Monthly Total						446	0	0
	Daily Max			9	0				
	Daily Min					6	0		
QA/QC Information	LOD								
	LOQ								
	QC Exceedance	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	6.0				
	4	4.8				
	5	4.8				
	6					
	7					
	8					
	9					
	10	2.4				
	11	<1.9	<1.4	<0.49	4.0	4.5
	12	5.6				
	13					
	14					
	15					
	16					
	17	13.0				
	18	8.2				
	19	4.2				
	20					
	21					
	22					
	23					
	24	2.6				
	25	10.0				
	26	8.8				
	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	5.866666667		0		0		4		4.5	
	Monthly Total										
	Daily Max	13		<1.4		<0.49		4		4.5	
	Daily Min	<1.9		<1.4		<0.49		4		4.5	
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			5.3		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					
	5					
	6					
	7					
	8					
	9					
	10					
	11	61				<2.1
	12					
	13					
	14					
	15					
	16					
	17					
	18			0.31	0.05633072	
	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	61				0.31		0.05633072		0	
	Monthly Total										
	Daily Max	61				0.31		0.05633072		<2.1	
	Daily Min	61				0.31		0.05633072		<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				0.079				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					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11	0.000756				
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	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	0.000756				
	Monthly Total					
	Daily Max	0.000756				
	Daily Min	0.000756				
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	LOD					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	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					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18	<0.079				
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	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				
	Monthly Total					
	Daily Max	<0.079				
	Daily Min	<0.079				
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9		680
	Daily Min				6	
QA/QC Information	LOD	0.079				
	LOQ	0.5				
	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					
	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	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										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	Monthly Avg									38	
	Monthly Total										
	Daily Max	0.23				24				38	
	Daily Min										
QA/QC Information	LOD										
	LOQ										
	QC Exceedance										
	Lab Certification										

	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					
	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					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					9
	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	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

With the ground water system being under construction there were no sampling done for SP704 or OF003 for the month. Also, for the Amenable CN- results for OF001 were done past the hold time due to problems at the lab (Test America) This information was sent to Laura Gerold also.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 11/18/2022 8:00:09 AM

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: 11/01/2022 - 11/30/2022
 Form Due Date: 12/21/2022
 Permit Number: 0001040

Date Received:
 DOC: 504156
 FIN: 7245
 FID: 438039470
 Region: Northeast Region
 Permit Drafter: Jason R Knutson
 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		0.14460	7.5		7.2
	2		0.12520	7.7		7.4
	3		0.13050	7.6		7.3
	4		0.24910	7.7		7.4
	5		0.18080	7.5		7.3
	6		0.08260	7.6		7.4
	7		0.16000	7.6		7.1
	8		0.15630	7.3		7.2
	9		0.13600	7.5		7.1
	10		0.14720	7.7		7.0
	11		0.04890	7.7		7.2
	12		0.00580	7.8		7.0
	13		0.01110	7.8		7.6
	14		0.11350	7.6		7.2
	15		0.16600	7.5		7.1
	16		0.15480	7.5		7.1
	17		0.14460	7.4		7.0
	18		0.10360	7.5		7.0
	19		0.07470	7.6		7.5
	20		0.11150	7.6		7.5
	21		0.14810	7.7		7.1
	22		0.12780	7.5		7.2
	23		0.10940	7.6		7.2
	24		0.07260	7.7		7.6
	25		0.07430	7.6		7.3
	26		0.08450	7.6		7.5
	27		0.09120	7.7		7.3
	28		0.12470	7.5		7.3
	29		0.11500	7.4		7.1
	30		0.09350	7.6		7.1
	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			0.116263333		7.586666667				7.243333333	
	Monthly Total										
	Daily Max			0.2491		7.8				7.6	
	Daily Min			0.0058		7.3				7	
Limit(s) in Effect	Monthly Avg										
	Monthly Total										
	Daily Max					9	0				
	Daily Min									6	0
QA/QC Information	LOD										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	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	68					
	2	70					
	3	69					
	4						
	5						
	6						
	7						
	8						
	9			35	83	0.09379	<0.49
	10						
	11	69					
	12	59					
	13	57					
	14	65					
	15	62					
	16	60					
	17	64					
	18	63					
	19	53					
	20	52					
	21	58					
	22	61					
	23	61					
	24	56					
	25	53					
	26	53					
	27	53					
	28	60					
	29	59					
	30	59					
	31						

	Sample Point	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	
	Parameter	480		231		35		35	
	Description	Temperature Maximum		Hardness, Total as CaCO3		Arsenic, Total Recoverable		Arsenic, Total Recoverable	
	Units	degF		mg/L		ug/L		lbs/day	
Summary Values	Monthly Avg	60.173913043		35		83		0.09379	
	Monthly Total								
	Daily Max	70		35		83		0.09379	
	Daily Min	52		35		83		0.09379	
Limit(s) in Effect	Monthly Avg							57	0
	Monthly Total								
	Daily Max					170	0	0.81	0
	Daily Min								
QA/QC Information	LOD					2.1		0.49	
	LOQ					5		1	
	QC Exceedance	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					
	8					
	9	0.0005537	24	0.02712	5.1	0.005763
	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	0.0005537		24		0.02712		5.1		0.005763	
	Monthly Total										
	Daily Max	0.0005537		24		0.02712		5.1		0.005763	
	Daily Min	0.0005537		24		0.02712		5.1		0.005763	
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				5			
	LOQ			5				10			
	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					
	8					
	9			160	16	0.824704
	10	<10				
	11					
	12					
	13					
	14		2.9			
	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	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	0		2.9		160		16		0.824704	
	Monthly Total										
	Daily Max	<10		2.9		160		16		0.824704	
	Daily Min	<10		2.9		160		16		0.824704	
Limit(s) in Effect	Monthly Avg	38	0								
	Monthly Total										
	Daily Max	38	0	29	0						
	Daily Min										
QA/QC Information	LOD	30		0.079		0.76		0.49			
	LOQ	100		0.5		1.8		1.8			
	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	0.057048	7.9	6.3		
	2	0.036172	8.9	6.7		
	3	0.031256	7.4	6.4		
	4	0.037554	7.1	6.2		
	5	0				
	6	0				
	7	0.058021	7.6	6.8		
	8	0.047339	7.2	6.5		
	9	0.040769	7.0	6.4		
	10	0.023691	8.0	6.2		
	11	0.011941	8.7	6.2		
	12	0				
	13	0				
	14	0.034546	8.0	6.9		
	15	0.051593	8.2	6.8		
	16	0.048865	8.2	6.6		
	17	0.049310	8.6	6.6		
	18	0.024825	7.8	6.6		
	19	0				
	20	0				
	21	0.047745	7.6	6.8		
	22	0.036282	8.2	6.9		
	23	0.020273	8.0	6.8		
	24	0				
	25	0				
	26	0				
	27	0				
	28	0.047764	7.1	6.4		
	29	0.030985	8.5	6.2		
	30	0.024699	7.2	6.2		
	31					

	Sample Point	101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes	
	Units	MGD		su		su		minutes	
Summary Values	Monthly Avg	0.025355933		7.86		6.525			
	Monthly Total								
	Daily Max	0.058021		8.9		6.9			
	Daily Min	0		7		6.2			
Limit(s) in Effect	Monthly Avg								
	Monthly Total						446	0	0
	Daily Max			9	0				
	Daily Min					6	0		
QA/QC Information	LOD								
	LOQ								
	QC Exceedance	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	15.0				
	2	5.6				
	3	5.4				
	4					
	5					
	6					
	7					
	8	6.5				
	9	7.4	<1.6			
	10	7.8		<0.49	4.4	1.5
	11					
	12					
	13					
	14					
	15	12.0				
	16	5.6				
	17	6.2				
	18					
	19					
	20					
	21					
	22	<1.9				
	23					
	24					
	25					
	26					
	27					
	28	3.0				
	29	2.0				
	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	6.375		0		0		4.4		1.5	
	Monthly Total										
	Daily Max	15		<1.6		<0.49		4.4		1.5	
	Daily Min	<1.9		<1.6		<0.49		4.4		1.5	
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			1.6		0.49		1.7		1.5	
	LOQ			6.2		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					
	5					
	6					
	7					
	8					
	9					
	10	68				<2.1
	11					
	12					
	13					
	14			0.53	0.0448945	
	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	68				0.53		0.0448945		0	
	Monthly Total										
	Daily Max	68				0.53		0.0448945		<2.1	
	Daily Min	68				0.53		0.0448945		<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				0.079				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					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10	0.000042				
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	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	4.2E-05				
	Monthly Total					
	Daily Max	4.2E-05				
	Daily Min	4.2E-05				
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	LOD					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	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					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14	0.089				
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	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	0.089				
	Monthly Total					
	Daily Max	0.089				
	Daily Min	0.089				
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9		680
	Daily Min				6	
QA/QC Information	LOD	0.079				
	LOQ	0.5				
	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					
	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	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										
	Monthly Total										
	Daily Max										
	Daily Min										
Limit(s) in Effect	Monthly Avg									38	
	Monthly Total										
	Daily Max	0.23				24				38	
	Daily Min										
QA/QC Information	LOD										
	LOQ										
	QC Exceedance										
	Lab Certification										

	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					
	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					
	Monthly Total					
	Daily Max					
	Daily Min					
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max					9
	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	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				
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	22				
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	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

Temperature chart stopped working for 7 days so, there are missed temps. Everything is all good now.
The ground water system is still down due to remodeling so, there are no readings for that side

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 12/20/2022 1:46:46 PM

Attachment 3
2022 Pump Down Program Groundwater Elevation
Monitoring

Attachment 3. 2022 Pump Down Program Groundwater Elevation Monitoring
 Tyco Fire Products LP, Marinette, Wisconsin

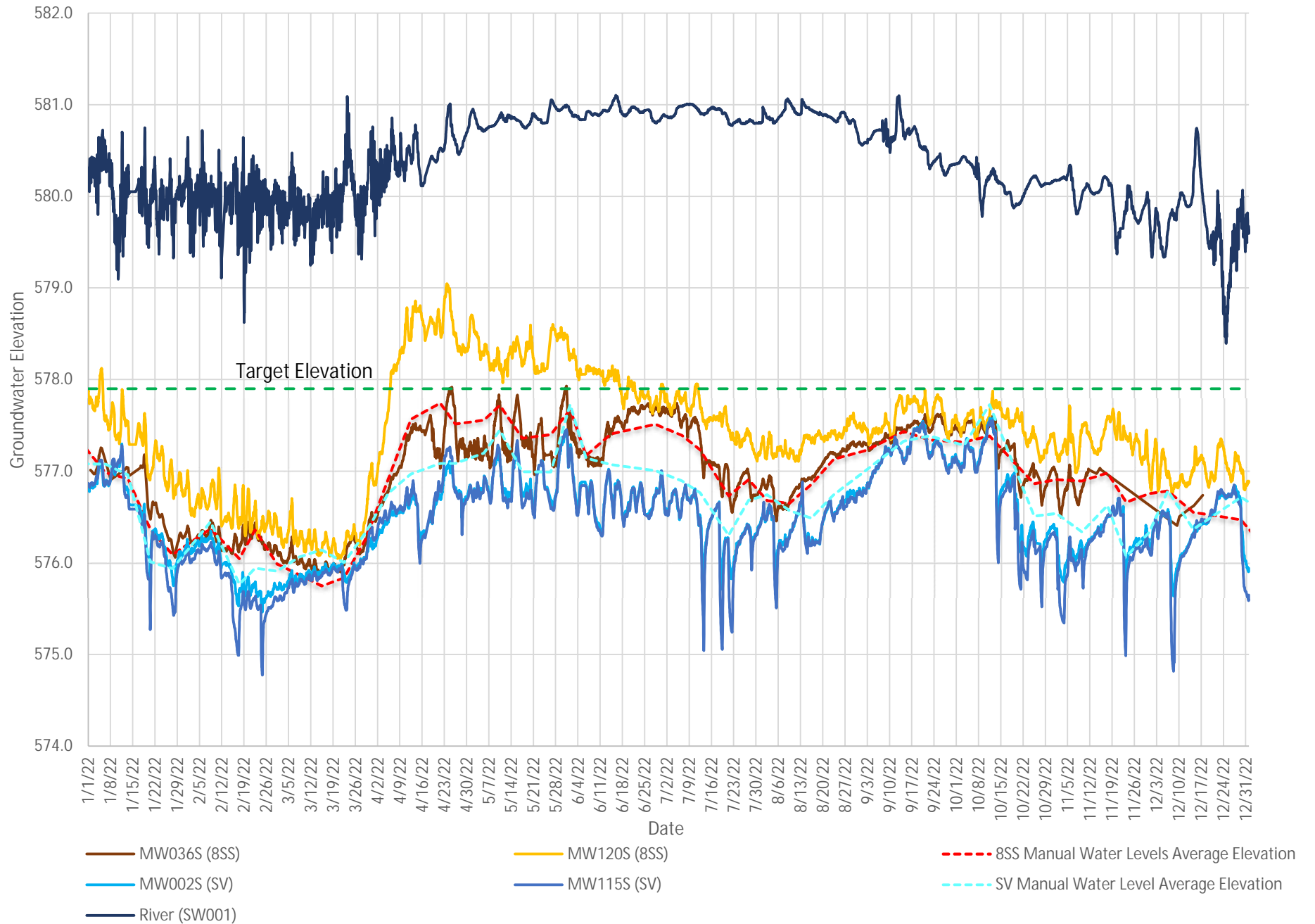
Target Elevation	577.9
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Well ID	November 1, 2022		November 9, 2022		November 17, 2022		November 23, 2022		November 30, 2022		December 6, 2022		December 14, 2022		December 29, 2022	
	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	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	10.71	576.43	11.01	576.13	10.63	576.51	11.27	575.87	10.83	576.31	10.42	576.72	10.70	576.44	10.40	576.74
MW001S	10.91	576.30	11.03	576.18	10.84	576.37	11.49	575.71	11.07	576.14	10.67	576.54	10.92	576.29	10.59	576.62
MW002M-R	14.00	576.40	14.26	576.14	13.92	576.48	14.54	575.86	14.07	576.33	13.76	576.64	14.02	576.38	13.83	576.57
MW002S-R	13.95	576.33	14.15	576.13	13.88	576.40	14.40	575.88	14.11	576.17	13.72	576.56	13.98	576.30	13.84	576.44
MW031M	11.42	576.53	11.70	576.25	11.39	576.56	11.89	576.06	11.51	576.44	11.18	576.78	11.39	576.56	11.28	576.67
MW031S	12.63	576.24	12.87	576.00	12.55	576.32	12.79	576.08	13.75	575.12	12.34	576.53	12.51	576.36	12.40	576.47
MW113S	13.90	576.36	14.03	576.23	13.79	576.47	14.34	575.92	14.02	576.24	13.65	576.61	13.92	576.34	13.62	576.64
MW113M	11.97	578.26	11.90	578.33	11.80	578.43	12.15	578.08	11.98	578.25	11.84	578.39	13.91	576.32	11.72	578.51
MW115P	12.57	576.50	12.72	576.35	12.53	576.54	13.04	576.03	12.66	576.41	12.39	576.68	12.65	576.42	12.20	576.87
MW115S	12.70	576.26	12.96	576.00	12.62	576.34	13.44	575.52	12.80	576.16	12.42	576.54	12.60	576.36	12.75	576.21
MW116P	12.68	577.17	12.90	576.95	12.90	576.95	12.93	576.92	12.93	576.92	12.94	576.91	12.95	576.90	12.95	576.90
MW116S	13.54	576.29	13.84	575.99	13.45	576.38	14.12	575.71	13.66	576.17	13.27	576.56	13.51	576.32	13.55	576.28
MW119D	8.83	579.89	8.89	579.83	8.89	579.83	9.01	579.71	8.97	579.75	9.09	579.63	9.10	579.62	9.30	579.42
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	10.74	576.31	10.88	576.17	10.68	576.37	11.35	575.70	10.81	576.24	10.56	576.49	10.78	576.27	10.38	576.67
EW-11	9.58	577.10	9.67	577.01	9.56	577.12	9.96	576.72	9.62	577.06	9.44	577.24	9.57	577.11	9.28	577.40
EW-13	8.80	576.31	8.94	576.17	8.79	576.32	9.55	575.55	8.88	576.23	8.52	576.59	8.81	576.30	8.50	576.61
EW-14	9.75	576.32	10.00	576.07	9.66	576.41	10.94	575.13	9.79	576.28	9.52	576.55	9.74	576.33	9.45	576.62
MW034M	11.26	576.96	10.96	577.26	10.85	577.37	11.55	576.67	11.72	576.50	11.75	576.47	11.86	576.36	11.78	576.44
MW034S	11.51	576.67	11.29	576.89	11.16	577.02	11.75	576.43	12.00	576.18	12.02	576.16	12.21	575.97	12.00	576.18
MW036M	11.82	576.69	12.08	576.42	11.70	576.81	12.12	576.38	11.99	576.52	11.99	576.52	12.13	576.37	12.09	576.41
MW036S	11.31	576.94	11.43	576.82	12.20	576.05	11.57	576.68	11.49	576.76	11.48	576.77	11.63	576.62	11.50	576.75
MW038M	9.09	577.05	9.41	576.73	9.01	577.13	9.50	576.64	9.12	577.02	9.24	576.90	9.32	576.82	9.15	576.99
MW038S	10.77	577.05	11.13	576.69	10.64	577.18	11.24	576.58	10.82	577.00	9.85	577.98	10.96	576.86	11.05	576.77
MW120D	8.62	580.17	8.29	580.50	8.15	580.64	8.58	580.21	9.37	579.41	8.87	579.91	8.01	580.78	8.84	579.94
MW120M	11.98	576.93	11.90	577.01	11.77	577.14	12.16	576.74	12.18	576.72	12.23	576.67	12.32	576.58	13.38	575.50
MW120S	11.55	576.97	11.21	577.31	11.38	577.14	11.35	577.17	11.19	577.33	11.71	576.81	11.70	576.82	11.80	576.72
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	7.20	576.90	9.06	575.04	7.19	576.91	7.80	576.30	7.39	576.71	7.34	576.76	7.48	576.62	9.52	574.58
EW-9	8.20	575.16	3.50	579.87	6.43	576.94	10.35	573.01	10.44	572.92	NM	-	NM	-	NM	-
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	6.38	582.36	5.90	582.84	5.86	582.88	5.88	582.86	5.89	582.85	6.05	582.69	6.16	582.58	6.10	582.64
MW032M	7.00	581.31	6.66	581.65	6.69	581.62	6.87	581.44	6.81	581.50	7.04	581.27	6.11	582.20	7.02	581.29
MW032S	6.33	582.15	5.70	582.79	5.86	582.63	5.85	582.64	5.90	582.59	6.16	582.33	6.80	581.68	6.12	582.37
MW033M	5.20	582.18	4.83	582.56	4.78	582.61	4.69	582.70	4.74	582.65	4.91	582.47	5.00	582.38	5.00	582.38
MW033S	5.02	582.30	4.50	582.82	4.52	582.80	4.48	582.84	4.51	582.81	4.69	582.63	4.81	582.51	4.66	582.66
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	3.81	582.39	3.30	582.90	3.31	582.89	3.27	582.93	3.28	582.92	3.46	582.74	3.57	582.63	3.48	582.72
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	7.45	580.20	6.48	581.17	6.41	581.24	6.63	581.02	6.55	581.10	6.92	580.73	6.81	580.84	6.98	580.67
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	6.81	580.25	5.73	581.34	5.72	581.35	5.89	581.18	5.79	581.28	6.21	580.86	6.15	580.92	6.35	580.72
SG4	7.60	579.85	7.20	580.25	7.09	580.36	7.60	579.85	7.40	580.05	7.80	579.65	NM	-	NM	-
Rough Target Elevation Calc SV*		576.54		576.34		576.63		576.07		576.33		576.79		576.37		576.72
Rough Target Elevation Calc 8S*		576.91		576.89		576.98		576.66		576.75		576.78		576.55		576.47
Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90
SV Variance		-1.36		-1.56		-1.27		-1.83		-1.57		-1.11		-1.53		-1.18
8S Variance		-0.99		-1.01		-0.92		-1.24		-1.15		-1.12		-1.35		-1.43

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.
 Corrected groundwater elevation is calculated using the 2022 calculated mean conductivity value (from the last 5 years of data)
 ID = identification; DTW = depth to water
 NM = Not Measured; MW = Monitoring Well

Attachment 4
Fourth Quarter 2022 PDP Pump House System
Hydrograph and Pumping Rates

January through December 2022 Water Levels Pump Down Program System Hydrographs



October through December 2022 Former Salt Vault and Former 8th Street Slip Weekly Average Extraction Rates

