1610 North 2nd Street
Suite 201
Milwaukee, Wisconsin 53212
United States
T +1.414.272.2426
F +1.414.272.4408
www.jacobs.com

October 15, 2021

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 (July through September 2021)***
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP, Stanton Street Facility, Marinette, Wisconsin
WID 006 125 215

Dear Mr. Black:

In accordance with Section VI, 21, b (page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009,[1] Tyco Fire Products LP (Tyco) has prepared this quarterly progress report for the U.S. Environmental Protection Agency (EPA) Region 5 and Wisconsin Department of Natural Resources (WDNR) (collectively referred to herein as the Agencies). Progress reports are required to document activities conducted as part of the Resource Conservation and Recovery Act corrective actions at the Tyco facility on Stanton Street in Marinette, Wisconsin. This report covers the period from July 1 through September 30, 2021, and presents a brief description of the work performed, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC and subsequent agreements.

Work Completed during This Reporting Period

Attachment 1 summarizes the operational data for the groundwater collection and treatment system (GWCTS) during the third quarter 2021, and Attachment 2 contains the monthly Discharge Monitoring Reports. Operations continue to include bypassing the first two reaction tanks and the lamella with direct connection of the equalization tank to Reaction Tank 3, then Reaction Tank 4, and then the microfilter. The GWCTS operated continuously except for short-term maintenance, some weekends and holidays, and one extended maintenance shutdown that occurred from September 14 to October 14, 2021. The extended shutdown was a result of vibratory shear-enhanced processing (VSEP) unit and microfiltration unit programming issues, and the VSEP clean-in-place (CIP) pump sensor. Jacobs recalibrated the CIP pump sensor on October 7, 2021, but the additional VSEP and microfiltration communication issues were not able to be addressed at that time. On October 14, 2021, the remaining microfiltration communication issues were addressed with Jacobs onsite support; however, the VSEP communications issues could not all be addressed and additional work will be required to address three drives that are not communicating (one with a bad network cable and two with communication modules that appear to be damaged).

[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.

Operation of the GWCTS was resumed with the VSEP bypassed on October 14, 2021. The overall volume of groundwater extracted during the reporting period was 684,667 gallons.

Pump down operations with the temporary system continued through third quarter 2021 in the former Salt Vault and former 8th Street Slip areas. Operations continued under management of Endpoint Solutions of Franklin, Wisconsin. From July 3 to September 24, 2021, an additional 210,400 gallons of groundwater was extracted and disposed offsite as part of the pump down program (PDP). Details of the pump down operations are reported to the Agencies in biweekly summary reports. As of August 5, 2021, the former Salt Vault has achieved and maintained the target elevation. The former 8th Street Slip area has maintained groundwater elevations below the target elevation since May 6, 2020.

As indicated and detailed in the second quarter report, the spring barrier wall groundwater monitoring and sampling event started on June 24, 2021, and was completed on July 8, 2021, by Endpoint Solutions. The sampling was conducted in accordance with the *Revised Barrier Wall Groundwater Monitoring Plan Update* (BWGMPU)[2] and the 2019 Addendum to the 2015 BWGMPU.[3]

Pressure transducer–related activities were completed on August 26, 2021. These activities included downloading data from each transducer and collecting manual water levels at the time of transducer downloads. Monitoring well nests MW047 and MW100 were not accessible because of dense vegetation and river levels.

Additional Activities

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

- Pump house construction continued at the former Salt Vault. The pump house is part of the permanent PDP conveyance system that will collect and transfer groundwater from the former Salt Vault and former 8th Street Slip extraction wells, including the two new horizontal extraction wells constructed in December 2020. The pump house and extraction well connection to the pump house are largely completed with minor programming adjustments and fine-tuning of operations anticipated in fourth quarter 2021.
- Construction work started in third quarter 2021 for the remainder of the permanent PDP conveyance system (conveyance lines from the pump house to the GWCTS). Construction work will be completed in fourth quarter 2021.
- The associated design efforts for the GWCTS improvements continued in third quarter 2021.
- Stormwater improvement design and planning that will abandon the subsurface stormwater lines and manage stormwater through aboveground surface flow, as needed, continued and has been approved by WDNR. Equipment and material procurement has commenced and construction will begin in 2022.

[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.

Data Collected

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

Weekly groundwater elevation data were collected from monitoring wells in the former 8th Street Slip and former Salt Vault areas in accordance with the PDP requirements and have been reported to the Agencies in the biweekly summary reports.

Groundwater elevation data recorded by transducers and downloaded August 2021 are being compiled and evaluated. The transducer data will be provided in the annual report.

Problems Encountered

Menominee River water levels continued to decline but remained above typical levels through third quarter 2021. During portions of the reporting period, the river level remained above the top of the vertical barrier wall in the Wetlands Area of the site; the river ranged from 1.13 feet below to 0.23 feet above the top of the Wetlands Area vertical barrier wall and was below for 61% of the 18 measurements collected. River levels did not exceed the weir elevations in the Main Plant throughout the quarter.

Schedule of Upcoming Activities

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

- Submit the quarterly progress report
- Continue PDP operations in the former Salt Vault and former 8th Street Slip areas
- Continue operating the GWCTS
- Complete conveyance improvements construction
- Complete programming and operations adjustments for the pump house at the former Salt Vault
- Continue GWCTS improvements design and submit the basis of design report
- Continue stormwater improvement planning activities
- Conduct fourth quarter 2021 semiannual barrier wall groundwater monitoring water levels
- Conduct transducer data download activities

List of Key Correspondence and Document Submittals

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

Table 1. Documents Submitted
Quarterly Progress Report (July through September 2021), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Biweekly Summary Report for Pump Down Program	EPA	July 8, 2021
Quarterly Progress Report (Second Quarter 2021)	EPA	July 15, 2021

Table 1. Documents Submitted

Quarterly Progress Report (July through September 2021), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Biweekly Summary Report for Pump Down Program	EPA	July 20, 2021
Biweekly Summary Report for Pump Down Program	EPA	August 4, 2021
Biweekly Summary Report for Pump Down Program	EPA	August 18, 2021
Biweekly Summary Report for Pump Down Program	EPA	August 31, 2021
Biweekly Summary Report for Pump Down Program	EPA	September 14, 2021
Biweekly Summary Report for Pump Down Program	EPA	September 29, 2021

Table 2. Correspondence from Agency

Quarterly Progress Report (July through September 2021), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Submitted By	Date Submitted
Email Approval—WPDES Outfall Summary Report	WDNR	July 14, 2021

If you have any questions or require additional information, please contact me at 262-644-6167 or Jeffrey Danko at 262-349-2528.

Respectfully Yours,

Jacobs

Heather Ziegelbauer
Project Manager

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

Attachments

1 Groundwater Collection and Treatment System Operation Summary
2 Discharge Monitoring Reports for the Groundwater Collection and Treatment System

Document Control No.: D3478800.285

Attachment 1
Groundwater Collection and Treatment System Operation Summary

Groundwater Collection and Treatment System Operations for Tyco Fire Products LP, Marinette, Wisconsin, July 1 through September 30, 2021

The following summarizes groundwater collection and treatment system (GWCTS) operations from July 1 through September 30, 2021, at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The GWCTS operated for 26 days in July 2021, 26 days in August 2021, and 12 days in September 2021, for a total of 64 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin, was 10.81 inches of rain (http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail).
- An estimated 684,667 gallons of groundwater was extracted (not including volumes extracted as part of the pump down program [PDP]) from the site during the reporting period. Table 1-1 lists the water volumes extracted from each area of the site for this quarter based on the recorded data.
- During the reporting period, an estimated 737,235 gallons of water was discharged to the Menominee River as effluent under the Wisconsin Pollutant Discharge Elimination System permit.
- Approximately 223,050 gallons of reject water was produced this reporting period during system operations and subsequently disposed of offsite.

Table 1-1. Extraction Well Data Summary (July through September 2021)

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

Extraction Well	Gallons Run, Third Quarter 2021 (July 1 through September 30, 2021)
EW-1	60,752
EW-2	Not operated in lieu of ongoing PDP
EW-3	Not operated in lieu of ongoing PDP
EW-4	3,499
EW-5	180,220
EW-6	208,828
EW-7	231,368
Total	**684,667**

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: 06/01/2021 - 06/30/2021
Form Due Date: 07/21/2021
Permit Number: 0001040

Date Received:	
DOC:	468588
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.13611	7.0		6.6
	2		0.11515	7.0		6.8
	3		0.13299	7.3		7.0
	4		0.14101	7.3		7.0
	5		0.11771	7.2		7.0
	6		0.11282	7.0		6.9
	7		0.15340	7.1		6.9
	8		0.13794	7.5		6.9
	9		0.13230	8.0	<2.1	7.5
	10		0.13582	7.6		7.5
	11		0.11146	7.6		7.4
	12		0.07862	7.8		7.4
	13		0.10227	7.9		7.5
	14		0.13210	7.4		7.2
	15		0.12407	7.2		7.0
	16		0.12839	7.0		6.8
	17		0.11235	6.9		6.8
	18		0.09359	7.1		6.8
	19		0.06238	7.1		6.9
	20		0.08664	7.1		6.4
	21		0.10741	6.8		6.5
	22		0.11281	7.0		6.6
	23		0.11824	6.8		6.6
	24		0.12838	6.8		6.3
	25		0.09369	7.0		6.7
	26		0.25581	7.0		6.3
	27		0.12919	6.8		6.4
	28		0.11706	6.7		6.5
	29		0.19809	7.2		6.3
	30		0.18436	7.2		6.7
	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**		0.126405333	7.18	0	6.84
	Monthly Total					
	Daily Max		0.25581	8	<2.1	7.5
	Daily Min		0.06238	6.7	<2.1	6.3
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	**LOD**				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	67				
	2	67				
	3	68				
	4	71				
	5	73				
	6	69				
	7	74				
	8	73	240	88	0.1012	0.77
	9	73				
	10	74				
	11	71				
	12	74				
	13	76				
	14	75				
	15	73				
	16	73				
	17	76				
	18	78				
	19	73				
	20	72				
	21	75				
	22	74				
	23	74				
	24	74				
	25	72				
	26	70				
	27	73				
	28	74				
	29	74				
	30	75				
	31					

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
Summary Values	Monthly Avg	72.833333333	240	88	0.1012	0.77
	Monthly Total					
	Daily Max	78	240	88	0.1012	0.77
	Daily Min	67	240	88	0.1012	0.77
Limit(s) in Effect	Monthly Avg					57 / 0
	Monthly Total					
	Daily Max			170 / 0	0.81 / 0	57 / 0
	Daily Min					
QA/QC Information	LOD			2.1		0.49
	LOQ			5		1
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010	999580010		999580010

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8	0.00089	26	0.0299	4.1	0.004715
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.00089		26		0.0299		4.1		0.004715	
	Monthly Total										
	Daily Max	0.00089		26		0.0299		4.1		0.004715	
	Daily Min	0.00089		26		0.0299		4.1		0.004715	
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				2.5			
	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					
	9					
	10		<0.16			
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22	30		120	18	0.76959
	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	30	0	120	18	0.76959
	Monthly Total					
	Daily Max	30	<0.16	120	18	0.76959
	Daily Min	30	<0.16	120	18	0.76959
Limit(s) in Effect	Monthly Avg	38 0				
	Monthly Total					
	Daily Max	38 0	29 0			
	Daily Min					
QA/QC Information	LOD	30	0.16	0.73	0.46	
	LOQ	100	0.5	1.7	1.7	
	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**	0.04616	7.5	7.0		
	2	0.00934	7.4	6.8		
	3	0.01430	7.4	6.6		
	4	0.02982	7.3	6.4		
	5	0.01084	6.9	6.4		
	6	0				
	7	0.03779	7.5	6.6		
	8	0.02218	7.3	6.5		
	9	0.02023	7.8	6.4		
	10	0.02602	7.2	6.4		
	11	0.00468	7.3	6.4		
	12	0.00495	6.9	6.8		
	13	0				
	14	0.02464	7.0	6.2		
	15	0.01890	6.8	6.2		
	16	0.01945	7.2	6.2		
	17	0.03924	7.0	6.3		
	18	0.00784	7.3	6.3		
	19	0.00821	7.2	6.4		
	20	0				
	21	0.03516	7.8	6.8		
	22	0.02896	7.9	6.6		
	23	0.02703	7.4	6.5		
	24	0.01882	7.7	6.6		
	25	0.00870	7.4	6.6		
	26	0.00790	7.8	7.0		
	27	0				
	28	0.04481	8.2	6.8		
	29	0.02126	7.4	6.5		
	30	0.01876	7.6	6.6		
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.018533		7.392307692		6.534615385					
	Monthly Total										
	Daily Max	0.04616		8.2		7					
	Daily Min	0		6.8		6.2					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	2.0				
	2	4.0				
	3	13.0				
	4					
	5					
	6					
	7					
	8	<1.9				
	9	<1.9	<1.4	<0.49	4.2	6.1
	10	<1.9				
	11					
	12					
	13					
	14					
	15	5.0				
	16	<1.9				
	17	3.6				
	18					
	19					
	20					
	21					
	22	2.2				
	23	2.6				
	24	<1.9				
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	2.7		0		0		4.2		6.1	
	Monthly Total										
	Daily Max	13		<1.4		<0.49		4.2		6.1	
	Daily Min	<1.9		<1.4		<0.49		4.2		6.1	
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			5.4		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	130				<2.1
	9					
	10			0.18	0.0098627	
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	130				0.18		0.0098627		0	
	Monthly Total										
	Daily Max	130				0.18		0.0098627		<2.1	
	Daily Min	130				0.18		0.0098627		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.16				2.1	
	LOQ	10				0.5				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		18310			
	2		12390	5800	260	
	3		0			
	4		0			
	5		0			
	6		0			
	7		0			
	8	0.000378	0			
	9		13190	5800	220	
	10		5649			
	11		13440			178
	12		8495			
	13		0			
	14		22286			
	15		21871			
	16		12392	4800	210	
	17		11378			
	18		7451			
	19		7946			
	20		0			
	21		24742			
	22		23005			
	23		6087			
	24		24520	3800	160	
	25		5410			
	26		0			
	27		0			
	28		8791			
	29		10024			
	30		28559			
	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**	0.000378	9531.2	5050	212.5	178
	Monthly Total					
	Daily Max	0.000378	28559	5800	260	178
	Daily Min	0.000378	0	3800	160	178
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		1.6
	LOQ			50		5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	003	003	003	003
	Description	Mercury Field Blank Results	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	211	373	374	35
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Arsenic, Total Recoverable
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	DAILY	DAILY	DAILY	WEEKLY
Sample Results	Day 1		0.009005	8.9	6.1	
	2		0.020173	8.2	6.7	48
	3		0			
	4		0			
	5		0			
	6		0			
	7		0			
	8		0			
	9		0.015757	8.8	6.8	54
	10	<0.16	0.006889	7.7	6.1	
	11		0.013772	8.5	6.8	
	12		0.009106	8.1	7.0	
	13		0			
	14		0.022914	7.1	6.4	
	15		0.023702	7.0	6.1	
	16		0.014464	7.1	6.2	48
	17		0.014580	8.0	6.4	
	18		0.009535	8.9	7.0	
	19		0.008147	8.9	6.6	
	20		0			
	21		0.025787	8.9	6.6	
	22		0.024763	8.8	6.9	
	23		0.007241	8.9	7.0	
	24		0.027403	8.7	6.3	38
	25		0.005926	6.4	6.1	
	26		0			
	27		0			
	28		0.012849	6.4	6.2	
	29		0.011703	6.9	6.2	
	30		0.020768	6.9	6.5	
	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	0.010149467	7.955	6.5	47
	Monthly Total					
	Daily Max	<0.16	0.027403	8.9	7	54
	Daily Min	<0.16	0	6.4	6.1	38
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	**LOD**	0.16				2.1
	LOQ	0.5				5
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010				999580010

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2	0.00816	<1.9		3.9	
	3					
	4					
	5					
	6					
	7					
	8					
	9	0.00702				
	10			0.31		
	11					
	12					
	13					
	14					
	15					
	16	0.00576				
	17					10
	18					
	19					
	20					
	21					
	22					
	23					
	24	0.00874				
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003		003		003		003		003	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	35		457		280		231		112	
	Description	Arsenic, Total Recoverable		Suspended Solids, Total		Mercury, Total Recoverable		Hardness, Total as CaCO3		Chlorine, Total Residual	
	Units	lbs/day		mg/L		ng/L		mg/L		ug/L	
Summary Values	**Monthly Avg**	0.00742		0		0.31		3.9		10	
	Monthly Total										
	Daily Max	0.00874		<1.9		0.31		3.9		10	
	Daily Min	0.00576		<1.9		0.31		3.9		10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max	0.23	0			24	0			38	0
	Daily Min										
QA/QC Information	**LOD**					0.16				30	
	LOQ					0.5				100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010		999580010			

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2	43	1.4	0.1070384		
	3					
	4					
	5					
	6					
	7					
	8					
	9	49	2.7	0.1612413		
	10					
	11					
	12					
	13					
	14					
	15					
	16	50	2.1	0.1151199		
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24	34	1.0	0.103875		
	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**	44	1.8	0.12181865		
	Monthly Total					
	Daily Max	50	2.7	0.1612413		
	Daily Min	34	1	0.103875		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.72	0.46			
	LOQ	1.8	1.8			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

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

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

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

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

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

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

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

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

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

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

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

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

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

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 7/13/2021 1:47:12 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: 07/01/2021 - 07/31/2021
Form Due Date: 08/21/2021
Permit Number: 0001040

Date Received:	
DOC:	473963
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.10390	7.4		7.1
	2		0.08772	7.6		7.3
	3		0.05649	7.6		7.4
	4		0.05887	7.6		7.4
	5		0.22595	7.6		6.8
	6		0.20855	7.4	2.3	6.9
	7		0.19913	7.2		6.9
	8		0.12126	7.3		7.2
	9		0.09227	7.4		7.2
	10		0.07935	7.6		7.3
	11		0.09245	7.6		7.1
	12		0.11012	7.4		7.2
	13		0.12820	7.3		7.0
	14		0.26912	7.6		7.0
	15		0.12110	7.6		7.3
	16		0.08796	7.6		7.4
	17		0.05665	7.6		7.4
	18		0.05426	7.7		7.5
	19		0.10104	7.4		7.2
	20		0.11065	7.5		7.3
	21		0.10523	7.6		7.3
	22		0.18930	7.4		7.2
	23		0.15333	7.4		7.0
	24		0.11381	7.4		7.1
	25		0.04726	7.6		7.2
	26		0.21790	7.6		6.2
	27		0.10841	7.3		7.0
	28		0.15760	7.4		7.1
	29		0.09924	7.5		7.2
	30		0.08646	7.7		7.4
	31		0.05389	7.6		7.3

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
Summary Values	**Monthly Avg**		0.119273226	7.5	2.3	7.158064516
	Monthly Total					
	Daily Max		0.26912	7.7	2.3	7.5
	Daily Min		0.04726	7.2	2.3	6.2
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	**LOD**				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	74				
	2	74				
	3	73				
	4	78				
	5	79				
	6	76	250	77	0.13398	0.49
	7	71				
	8	73				
	9	73				
	10	73				
	11	71				
	12	75				
	13	76				
	14	76				
	15	78				
	16	76				
	17	76				
	18	78				
	19	78				
	20	78				
	21	78				
	22	77				
	23	76				
	24	78				
	25	78				
	26	79				
	27	77				
	28	82				
	29	76				
	30	73				
	31	74				

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	480		231		35		35		87	
	Description	Temperature Maximum		Hardness, Total as CaCO3		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Cadmium, Total Recoverable	
	Units	degF		mg/L		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	75.935483871		250		77		0.13398		0.49	
	Monthly Total										
	Daily Max	82		250		77		0.13398		0.49	
	Daily Min	71		250		77		0.13398		0.49	
Limit(s) in Effect	**Monthly Avg**									57	0
	Monthly Total										
	Daily Max					170	0	0.81	0	57	0
	Daily Min										
QA/QC Information	**LOD**					2.1				0.49	
	LOQ					5				1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010		999580010				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6	0.0008526	36	0.06264	<2.5	0.00435
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	001		001		001		001		001	
	Description	Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River		Combined WW to Menominee River	
	Parameter	87		147		147		152		152	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.0008526		36		0.06264		0		0.00435	
	Monthly Total										
	Daily Max	0.0008526		36		0.06264		<2.5		0.00435	
	Daily Min	0.0008526		36		0.06264		<2.5		0.00435	
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				2.5			
	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			140	34	2.68736
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14		1.2			
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27	10				
	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	10	1.2	140	34	2.68736
	Monthly Total					
	Daily Max	10	1.2	140	34	2.68736
	Daily Min	10	1.2	140	34	2.68736
Limit(s) in Effect	Monthly Avg	38 | 0				
	Monthly Total					
	Daily Max	38 | 0	29 | 0			
	Daily Min					
QA/QC Information	LOD	30	0.16	0.75	0.48	
	LOQ	100	0.52	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**	0.01834	8.2	6.6		
	2	0.00713	8.3	6.6		
	3	0				
	4	0				
	5	0				
	6	0.02654	8.6	6.9		
	7	0.02340	8.0	6.6		
	8	0.01610	7.6	6.6		
	9	0.00740	7.7	6.4		
	10	0.00075	7.4	6.6		
	11	0				
	12	0.02265	8.0	6.9		
	13	0.02492	7.9	6.9		
	14	0.01665	7.9	6.9		
	15	0.01645	7.6	6.8		
	16	0.00776	8.1	6.6		
	17	0.00604	8.8	7.0		
	18	0				
	19	0.02916	7.4	6.8		
	20	0.02267	7.8	6.8		
	21	0.02224	8.2	6.4		
	22	0.01712	8.2	6.5		
	23	0.00667	7.8	6.6		
	24	0.00593	7.5	7.2		
	25	0				
	26	0.01815	7.8	6.9		
	27	0.02876	7.6	6.8		
	28	0.02824	8.1	6.8		
	29	0.01769	8.2	7.1		
	30	0.00840	8.3	6.8		
	31	0.00534	8.3	6.5		

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.013048387		7.972		6.744					
	Monthly Total										
	Daily Max	0.02916		8.8		7.2					
	Daily Min	0		7.4		6.4					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	4.8	<1.4	<0.49	3.8	7.1
	2					
	3					
	4					
	5					
	6	2.8				
	7	<1.9				
	8					
	9					
	10					
	11					
	12	5.0				
	13	<1.9				
	14	2.2				
	15					
	16					
	17					
	18					
	19	4.6				
	20	<1.9				
	21	3.0				
	22					
	23	5.0				
	24					
	25					
	26	4.8				
	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**	2.683333333		0		0		3.8		7.1	
	Monthly Total										
	Daily Max	5		<1.4		<0.49		3.8		7.1	
	Daily Min	<1.9		<1.4		<0.49		3.8		7.1	
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**	120				<2.1
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14			0.38	0.0189309	
	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**	120				0.38		0.0189309		0	
	Monthly Total										
	Daily Max	120				0.38		0.0189309		<2.1	
	Daily Min	120				0.38		0.0189309		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.16				2.1	
	LOQ	10				0.52				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1	0.000315	21866			
	2		9476			
	3		0			
	4		0			
	5		0			
	6		13215	4200	300	
	7		12628			
	8		12791			
	9		4866			
	10		3211			
	11		0			
	12		10475			
	13		9593			
	14		8025	3800	280	395
	15		17681			
	16		0			
	17		9588			
	18		0			
	19		27202			
	20		19380			
	21		18762	4700	310	
	22		14932			
	23		7721			
	24		7700			
	25		0			
	26		16565	3100	100	
	27		13179			
	28		11668			
	29		9124			
	30		3492			
	31		5395			

	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**	0.000315	9307.580645161	3950	247.5	395
	Monthly Total					
	Daily Max	0.000315	27202	4700	310	395
	Daily Min	0.000315	0	3100	100	395
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		8
	LOQ			130		25
	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		0.024128	7.0	6.5	
	2		0.013072	8.2	6.8	
	3		0			
	4		0			
	5		0			
	6		0.010466	8.0	6.2	26
	7		0.014943	6.6	6.1	
	8		0.014368	6.7	6.1	
	9		0.012573	6.6	6.1	
	10		0.003665	6.7	6.5	
	11		0			
	12		0.007579	6.6	6.2	
	13		0.011079	6.5	6.2	
	14	<0.16	0.011395	6.5	6.1	44
	15		0.016851	8.9	6.1	
	16		0.011775	6.3	6.1	
	17		0.005010	6.5	6.1	
	18		0			
	19		0.021898	6.5	6.2	
	20		0.012728	8.9	6.1	
	21		0.022558	8.9	6.2	42
	22		0.015650	8.9	6.1	
	23		0.015682	6.7	6.2	
	24		0.005264	6.7	6.2	
	25		0			
	26		0.014223	7.0	6.1	41
	27		0.016341	7.1	6.4	
	28		0.013555	6.8	6.2	
	29		0.011924	6.8	6.1	
	30		0.008546	7.0	6.5	
	31		0.003245	6.7	6.2	

	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	0.010274774	7.164	6.224	38.25
	Monthly Total					
	Daily Max	<0.16	0.024128	8.9	6.8	44
	Daily Min	<0.16	0	6.3	6.1	26
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	LOD	0.16				2.1
	LOQ	0.52				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	0.002262	<1.9		3.7	
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14	0.00418		<0.16		
	15					
	16					
	17					
	18					
	19					
	20					
	21	0.00790				
	22					10
	23					
	24					
	25					
	26	0.0048626				
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
Summary Values	**Monthly Avg**	0.00480115	0	0	3.7	10
	Monthly Total					
	Daily Max	0.0079	<1.9	<0.16	3.7	10
	Daily Min	0.002262	<1.9	<0.16	3.7	10
Limit(s) in Effect	**Monthly Avg**					38 0
	Monthly Total					
	Daily Max	0.23 0		24 0		38 0
	Daily Min					
QA/QC Information	**LOD**			0.16		30
	LOQ			0.52		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	52	2.7	0.1070982		
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14	55	2.3	0.0993301		
	15					
	16					
	17					
	18					
	19					
	20					
	21	47	1.9	0.1624405		
	22					
	23					
	24					
	25					
	26	49	2.6	0.140153		
	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**	50.75	2.375	0.12725545		
	Monthly Total					
	Daily Max	55	2.7	0.1624405		
	Daily Min	47	1.9	0.0993301		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.73	0.46			
	LOQ	1.9	1.9			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

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

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

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

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

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

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

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

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

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

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

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

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

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

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 8/17/2021 10:10:43 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: 08/01/2021 - 08/31/2021
Form Due Date: 09/21/2021
Permit Number: 0001040

Date Received:	
DOC:	473964
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Trevor J Moen
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	001	001	703	001
	Description	Menominee River Intake	Combined WW to Menominee River	Combined WW to Menominee River	Menominee River Intake	Combined WW to Menominee River
	Parameter	211	211	373	35	374
	Description	Flow Rate	Flow Rate	pH (Maximum)	Arsenic, Total Recoverable	pH (Minimum)
	Units	gpd	MGD	su	ug/L	su
	Sample Type	TOT DAILY	CONTINUOUS	CONTINUOUS	GRAB	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	MONTHLY	DAILY
Sample Results	Day 1		0.051480	7.7		7.4
	2		0.104320	7.5		7.2
	3		0.094440	7.4		7.1
	4		0.097950	7.2		7.0
	5		0.103420	7.4		7.0
	6		0.098550	7.5		6.8
	7		0.195320	7.5		6.5
	8		0.129430	7.2		6.4
	9		0.105800	7.1		6.7
	10		0.132990	7.0		6.4
	11		0.164360	7.2		6.2
	12		0.106010	7.3		7.0
	13		0.081870	7.5		7.3
	14		0.052310	7.6		7.3
	15		0.052520	7.6		7.2
	16		0.096160	7.4		7.2
	17		0.116790	7.4	<2.1	7.0
	18		0.123130	7.2		6.9
	19		0.105790	7.2		6.7
	20		0.087060	7.3		6.9
	21		0.048830	7.6		7.4
	22		0.059510	7.8		7.4
	23		0.124250	7.4		7.0
	24		0.107960	7.4		7.0
	25		0.127200	7.3		7.0
	26		0.252550	7.2		6.8
	27		0.175200	7.2		6.8
	28		0.068040	7.5		7.0
	29		0.040700	7.3		7.0
	30		0.127700	7.3		7.0
	31		0.114310	7.2		7.0

	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**		0.107933871	7.367741935	0	6.95483871
	Monthly Total					
	Daily Max		0.25255	7.8	<2.1	7.4
	Daily Min		0.0407	7	<2.1	6.2
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max			9 0		
	Daily Min					6 0
QA/QC Information	**LOD**				2.1	
	LOQ				5	
	QC Exceedance	N	N	N	N	N
	Lab Certification				999580010	

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	74				
	2	76				
	3	78				
	4	79				
	5	78				
	6	75				
	7	75				
	8	75				
	9	80	280	100	0.088	<0.49
	10	81				
	11	79				
	12	77				
	13	75				
	14	72				
	15	74				
	16	76				
	17	77				
	18	77				
	19	77				
	20	77				
	21	73				
	22	74				
	23	77				
	24	76				
	25	77				
	26	78				
	27	77				
	28	76				
	29	78				
	30	79				
	31	79				

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	480	231	35	35	87
	Description	Temperature Maximum	Hardness, Total as CaCO3	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Cadmium, Total Recoverable
	Units	degF	mg/L	ug/L	lbs/day	ug/L
Summary Values	Monthly Avg	76.64516129	280	100	0.088	0
	Monthly Total					
	Daily Max	81	280	100	0.088	<0.49
	Daily Min	72	280	100	0.088	<0.49
Limit(s) in Effect	Monthly Avg					57 / 0
	Monthly Total					
	Daily Max			170 / 0	0.81 / 0	57 / 0
	Daily Min					
QA/QC Information	LOD			2.1		0.49
	LOQ			5		1
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010	999580010		999580010

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	87	147	147	152	152
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9	0.0004312	25	0.022	0.0044	0.003872
	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**	0.0004312		25		0.022		0.0044		0.003872	
	Monthly Total										
	Daily Max	0.0004312		25		0.022		0.0044		0.003872	
	Daily Min	0.0004312		25		0.022		0.0044		0.003872	
Limit(s) in Effect	**Monthly Avg**			69	0			92	0		
	Monthly Total										
	Daily Max	0.27	0	69	0	0.98	0	92	0	0.44	0
	Daily Min										
QA/QC Information	**LOD**			1.7				0.0025			
	LOQ			5				0.005			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	001	001	001	001	001
	Description	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River	Combined WW to Menominee River
	Parameter	112	280	1352	1353	1353
	Description	Chlorine, Total Residual	Mercury, Total Recoverable	PFOA	PFOS	PFOS
	Units	ug/L	ng/L	ng/L	ng/L	mg/day
	Sample Type	GRAB	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9			210	41	1.644018
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17	30	6.69			
	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	30	6.69	210	41	1.644018
	Monthly Total					
	Daily Max	30	6.69	210	41	1.644018
	Daily Min	30	6.69	210	41	1.644018
Limit(s) in Effect	Monthly Avg	38 | 0				
	Monthly Total					
	Daily Max	38 | 0	29 | 0			
	Daily Min					
QA/QC Information	LOD	30	0.16	3.8	2.4	
	LOQ	100	0.5	8.9	8.9	
	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				
	2	0.026934	7.2	6.6		
	3	0.020519	7.8	6.4		
	4	0.018188	7.4	6.5		
	5	0.015217	7.7	6.6		
	6	0.008134	7.3	6.6		
	7	0.006193	7.6	6.6		
	8	0				
	9	0.032997	7.4	6.6		
	10	0.022412	7.8	6.6		
	11	0.021528	7.4	6.4		
	12	0.021121	7.4	6.3		
	13	0.007798	7.4	6.4		
	14	0				
	15	0				
	16	0.023719	7.4	6.4		
	17	0.024514	7.4	6.4		
	18	0.029959	7.5	6.5		
	19	0.019567	7.6	6.5		
	20	0.027729	7.6	6.4		
	21	0				
	22	0				
	23	0.057220	7.6	6.8		
	24	0.021675	7.6	6.5		
	25	0.033646	7.8	6.0		
	26	0.029528	7.4	7.0		
	27	0.011725	7.5	6.6		
	28	0				
	29	0				
	30	0.036321	8.0	7.5		
	31	0.030066	7.6	7.1		

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.017635806		7.539130435		6.57826087					
	Monthly Total										
	Daily Max	0.05722		8		7.5					
	Daily Min	0		7.2		6					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2	2.8		<0.49	6.0	17
	3	2.2	<1.4			
	4	2.0				
	5					
	6					
	7					
	8					
	9	3.6				
	10	2.0				
	11	3.0				
	12					
	13					
	14					
	15					
	16	<1.9				
	17	2.6				
	18	3.6				
	19					
	20					
	21					
	22					
	23	2.0				
	24	2.8				
	25	7.8				
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	2.866666667		0		0		6		17	
	Monthly Total										
	Daily Max	7.8		<1.4		<0.49		6		17	
	Daily Min	<1.9		<1.4		<0.49		6		17	
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	390				<2.1
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17			0.26	0.0185816	
	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**	390				0.26		0.0185816		0	
	Monthly Total										
	Daily Max	390				0.26		0.0185816		<2.1	
	Daily Min	390				0.26		0.0185816		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.16				2.1	
	LOQ	10				0.5				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		6411			
	2	0.000462	12792	3800	93	
	3		18973			
	4		19494			
	5		10733			
	6		15803			
	7		7070			
	8		0			
	9		16695	4200	130	
	10		13171			
	11		5691			
	12		8631			
	13		10501			
	14		8464			
	15		0			
	16		15488	4100	160	
	17		13730			21.6
	18		10826			
	19		10786			
	20		7572			
	21		0			
	22		0			
	23		12918	3700	150	
	24		4820			
	25		0			
	26		0			
	27		4582			
	28		5660			
	29		0			
	30		12609			
	31		11321			

	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**	0.000462	8540.032258065	3950	133.25	21.6
	Monthly Total					
	Daily Max	0.000462	19494	4200	160	21.6
	Daily Min	0.000462	0	3700	93	21.6
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			21		0.16
	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		0.003982	6.7	6.3	
	2		0.013047	8.9	6.1	32
	3		0.018565	8.9	6.1	
	4		0.024440	8.9	6.4	
	5		0.010301	8.9	6.1	
	6		0.022165	8.8	6.7	
	7		0.009083	8.8	8.4	
	8		0			
	9		0.017950	8.4	7.1	21
	10		0.014339	8.2	6.6	
	11		0.005878	7.4	7.4	
	12		0.009641	7.5	7.1	
	13		0.011567	8.0	7.2	
	14		0.005551	7.5	7.1	
	15		0			
	16		0.016902	7.9	7.1	33
	17	<0.16	0.014089	7.6	7.0	
	18		0.011882	7.4	7.0	
	19		0.012230	7.6	7.2	
	20		0.010757	7.6	7.3	
	21		0.004240	7.7	7.3	
	22		0			
	23		0.010887	7.6	7.1	44
	24		0.004384	7.3	7.2	
	25		0			
	26		0			
	27		0.007699	7.3	7.0	
	28		0.006133	7.2	7.1	
	29		0			
	30		0.010749	7.4	6.7	
	31		0.014778	7.2	6.8	

	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	0.009394806	7.868	6.936	32.5
	Monthly Total					
	Daily Max	<0.16	0.02444	8.9	8.4	44
	Daily Min	<0.16	0	6.7	6.1	21
Limit(s) in Effect	Monthly Avg					
	Monthly Total					
	Daily Max			9 0		680 0
	Daily Min				6 0	
QA/QC Information	LOD	0.16				2.1
	LOQ	0.5				5
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010				999580010

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2	0.00348	<1.9			
	3					
	4					
	5					
	6					
	7					
	8					
	9	0.00314				
	10					
	11					
	12					
	13					
	14					
	15					
	16	0.00465				
	17			<0.16		1
	18					
	19					
	20					
	21					
	22					
	23	0.00399				
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	003	003	003	003	003
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	35	457	280	231	112
	Description	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable	Hardness, Total as CaCO3	Chlorine, Total Residual
	Units	lbs/day	mg/L	ng/L	mg/L	ug/L
Summary Values	**Monthly Avg**	0.003815	0	0		1
	Monthly Total					
	Daily Max	0.00465	<1.9	<0.16		1
	Daily Min	0.00314	<1.9	<0.16		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**			0.16		30
	LOQ			0.5		100
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010	999580010		

	Sample Point	003	003	003	004	004
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	Combined Process WW & GW	Combined Process WW & GW
	Parameter	1352	1353	1353	211	373
	Description	PFOA	PFOS	PFOS	Flow Rate	pH (Maximum)
	Units	ng/L	ng/L	mg/day	MGD	su
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	WEEKLY	WEEKLY	DAILY	DAILY
Sample Results	Day 1					
	2	32	1.5	0.074172		
	3					
	4					
	5					
	6					
	7					
	8					
	9	34	1.8	0.1224558		
	10					
	11					
	12					
	13					
	14					
	15					
	16	50	2.3	0.1473357		
	17					
	18					
	19					
	20					
	21					
	22					
	23	45	1.8	0.029007		
	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**	40.25	1.85	0.093242625		
	Monthly Total					
	Daily Max	50	2.3	0.1473357		
	Daily Min	32	1.5	0.029007		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9
	Daily Min					
QA/QC Information	**LOD**	0.73	0.47			
	LOQ	1.8	1.8			
	QC Exceedance	N	N	N	N	N
	Lab Certification					

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

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

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

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

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

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

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

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

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

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

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
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	20				
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	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	N	N	N	N
	Lab Certification				

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

General Remarks

On page 10 I forgot to get a sample from OF003 for Hardness Total as CaCO3. That was my fault and it was too late too retrieve one.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 9/14/2021 11:56:25 AM