pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Southcentral Regional Office
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET INDIVIDUAL INDUSTRIAL WASTE (IW) AND IW STORMWATER

Application Type	**Renewal**	Application No.	**PA0034886**
Facility Type	**Industrial**	APS ID	**640759**
Major / Minor	**Minor**	Authorization ID	**1380158**

Applicant and Facility Information

Applicant Name	**ST Products LLC Dba Small Tube Products**	Facility Name	**ST Products LLC**
Applicant Address	PO Box 1017 200 Oliphant Drive Duncansville, PA 16635-1017	Facility Address	PO Box 1017 200 Oliphant Drive Duncansville, PA 16635-1017
Applicant Contact	Ned Oliphant	Facility Contact	Earl Heiber
Applicant Phone	(814) 695-4491	Facility Phone	(814) 695-4491
Client ID	262547	Site ID	254652
SIC Code	3351	Municipality	Allegheny Township
SIC Description	Manufacturing - Copper Rolling And Drawing	County	Blair
Date Application Received	December 28, 2021	EPA Waived?	Yes
Date Application Accepted	January 3, 2022	If No, Reason	

Purpose of Application: This is an application for NPDES renewal.

Summary of Review

The application submitted by the applicant requests a NPDES renewal permit for the Small Tube Products, LLC located at 200 Oliphant Drive, Duncansville, PA 16635 in Blair County, municipality of Allegheny. The existing permit became effective on July 1, 2017 and expired on June 30, 2022. The application for renewal was received by DEP Southcentral Regional Office (SCRO) on January 3, 2022.

The purpose of this Fact Sheet is to present the basis of information used for establishing the proposed NPDES permit effluent limitations. The Fact Sheet includes a description of the facility, a description of the facility's receiving waters, a description of the facility's receiving waters attainment/non-attainment assessment status, and a description of any changes to the proposed monitoring/sampling frequency. Section 6 provides the justification for the proposed NPDES effluent limits derived from technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), total maximum daily loading (TMDL), antidegradation, anti-backsliding, and/or whole effluent toxicity (WET). A brief summary of the outlined descriptions has been included in the Summary of Review section.

The subject facility has multiple outfalls discharging contact cooling water and non-contact cooling water. The maximum average flow rate from 2017 to 2021 (excluding 2020 due to covid) were used for toxics/temperature modeling. The applicant does not anticipate any proposed upgrades to the treatment facility in the next five years. The NPDES application has been processed as an Industrial Wastewater Facility with ELG due to the type of wastewater and the design flow rate for the facility. The applicant disclosed the Act 14 requirement to Blair County Commissioners and Allegheny Township Municipal Building and the notice was received by the parties on November 6, 2021.

Approve	Deny	Signatures	Date
x		Nicholas Hong, P.E. / Environmental Engineer Nick Hong (via electronic signature)	October 24, 2022
X		Daniel W. Martin, P.E. / Environmental Engineer Manager /s/	November 9, 2022

Summary of Review

Utilizing the DEP's web-based Emap-PA information system, the receiving waters has been determined to be Beaverdam Branch. The sequence of receiving streams that the Beaverdam Branch discharges into are Frankstown Branch Juniata River, Juniata River, and the Susquehanna River which eventually drains into the Chesapeake Bay. Since the facility discharges effluent not increasing nitrogen and phosphorus elements, the subject site is not subject to the Chesapeake Bay implementation requirements. The receiving water has protected water usage for trout stocking fish (TSF) and migratory fish (MF). No Class A Wild Trout fisheries are impacted by this discharge. The absence of high quality and/or exceptional value surface waters removes the need for an additional evaluation of anti-degradation requirements.

The Beaverdam Branch is a Category 4a and 5 stream listed in the 2022 Integrated List of All Waters (formerly 303d Listed Streams). This stream is an impaired stream for aquatic life due to (a) metals from acid mine drainage and (2) organic enrichment/oxygen from combined sewer overflows. Other causes are unknown causes are from urban runoff and storm sewers. The receiving waters is subject to the Beaverdam Branch total maximum daily load (TMDL) plan to improve water quality in the subject facility's watershed.

The existing permit and proposed permit differ as follows:

- Temperature limits for Outfalls 001, 002, and 003
- For Outfall 001, monitoring for acrylamide and hexachlorobutadiene. Reduction in monitoring frequency for aluminum, chromium(Hexavalent), iron (total), manganese.
- For Outfall 003, monitoring for acrylamide.

Sludge use and disposal description and location(s): The facility discharges primarily contact and non-contact cooling water. No biosolids/sewage sludge disposal is suspected.

The proposed permit will expire five (5) years from the effective date.

Based on the review in this report, it is recommended that the permit be drafted. DEP will publish notice of the receipt of the NPDES permit application and a tentative decision to issue the individual NPDES permit in the *Pennsylvania Bulletin* in accordance with 25 Pa. Code § 92a.82. Upon publication in the *Pennsylvania Bulletin*, DEP will accept written comments from interested persons for a 30-day period (which may be extended for one additional 15-day period at DEP's discretion), which will be considered in making a final decision on the application. Any person may request or petition for a public hearing with respect to the application. A public hearing may be held if DEP determines that there is significant public interest in holding a hearing. If a hearing is held, notice of the hearing will be published in the *Pennsylvania Bulletin* at least 30 days prior to the hearing and in at least one newspaper of general circulation within the geographical area of the discharge.

Any additional information or public review of documents associated with the discharge or facility may be available at PA DEP Southcentral Regional Office (SCRO), 909 Elmerton Avenue, Harrisburg, PA 17110. To make an appointment for file review, contact the SCRO File Review Coordinator at 717.705.4700.

1.0 Applicant

1.1 General Information

This fact sheet summarizes PA Department of Environmental Protection's review for the NPDES renewal for the following subject facility.

Facility Name:	Small Tube Products, LLC
NPDES Permit #	PA0034886
Physical Address:	200 Oliphant Drive Duncansville, PA 16635
Mailing Address:	200 Oliphant Drive Duncansville, PA 16635
Contact:	Vince Bushell President and CEO 814.693.6000 vbushell@smalltubeproducts.com
Consultant:	There was not a consultant utilized for this NPDES renewal.

1.2 Permit History

Description of Facility

Small Tube Products (STP) is a metal tube mill. The operates as a make-to-order mill producing standard and custom size non-ferrous tube (copper, brass, bronze, copper-nickel, nickel-silver and aluminum) and tube fabrications.

Production at the facility was impacted by COVID in 2020.

Permit submittal included the following information.

- NPDES Application
- Flow Diagrams
- Effluent Sample Data

2.0 Treatment Facility Summary

2.1.1 Site location

The physical address for the facility is 200 Oliphant Drive, Duncansville, PA 16635. A topographical and an aerial photograph of the facility are depicted as Figure 1 and Figure 2.

Figure 1: Topographical map of the subject facility

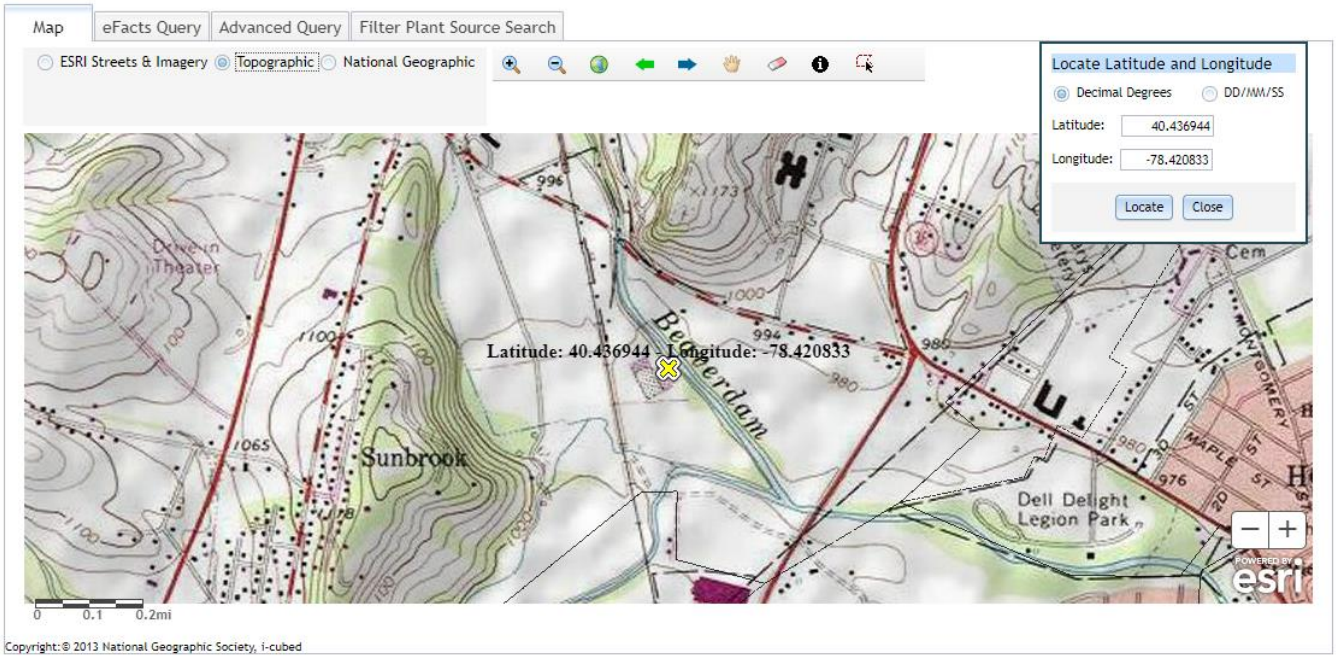
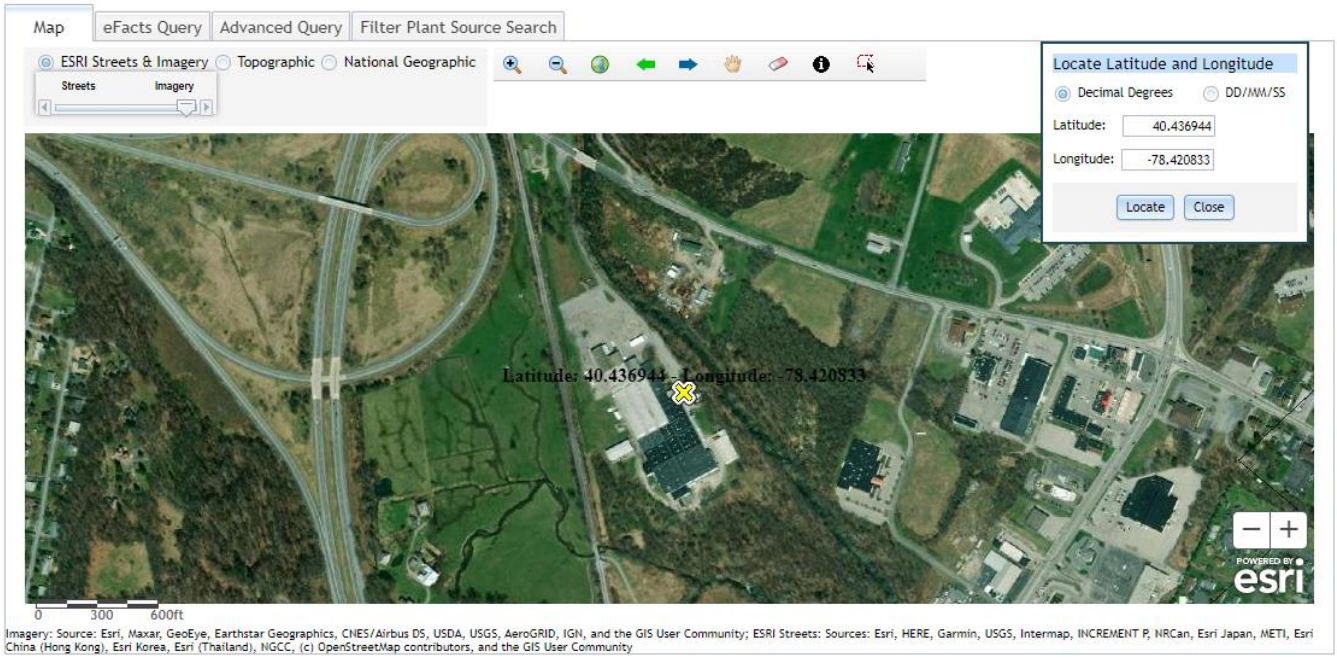


Figure 2: Aerial Photograph of the subject facility



2.1.2 Sources of Wastewater/Stormwater

Well water provides the source of water which eventually discharges to Outfalls 001 and 003.

City water provides the source of water which eventually discharges to Outfalls 001, 002, and 003.

The facility has the following outfall information.

2.2 Description of Wastewater Treatment Process

The facility discharges process water and sanitary wastewater to the Hollidaysburg WWTP.

Discharge to surface waters occurs through Outfalls 001 to 003.

Outfall 001 received contact and non-contact cooling water from the annealing furnace.

Outfall 002 receives non-contact cooling water from the hydraulic system and air compressors.

Outfall 003 receives non-contact cooling water from the annealing furnace.

The average flow rates for the facility from years 2017, 2018, 2019, and 2021 are summarized in the table. The maximum average flow rates were used for modeling. In year 2016 the facility eliminated the 3rd shift workforce. In year 2020, production was impacted due to COVID. The facility did have flow rates in 2020 but the table does not include the data.

Average Flow Rates

Outfall	2017	2018	2019	2021	Average	Max
001	0.1771	0.1373	0.1286	0.1319	0.144	0.177
002	0.0005	0.0012	0.0102	0.0005	0.003	0.010
003	0.0204	0.0183	0.0205	0.0248	0.021	0.025

Notes:

Flow Rate data for 2020 was not used due to reduced production from COVID

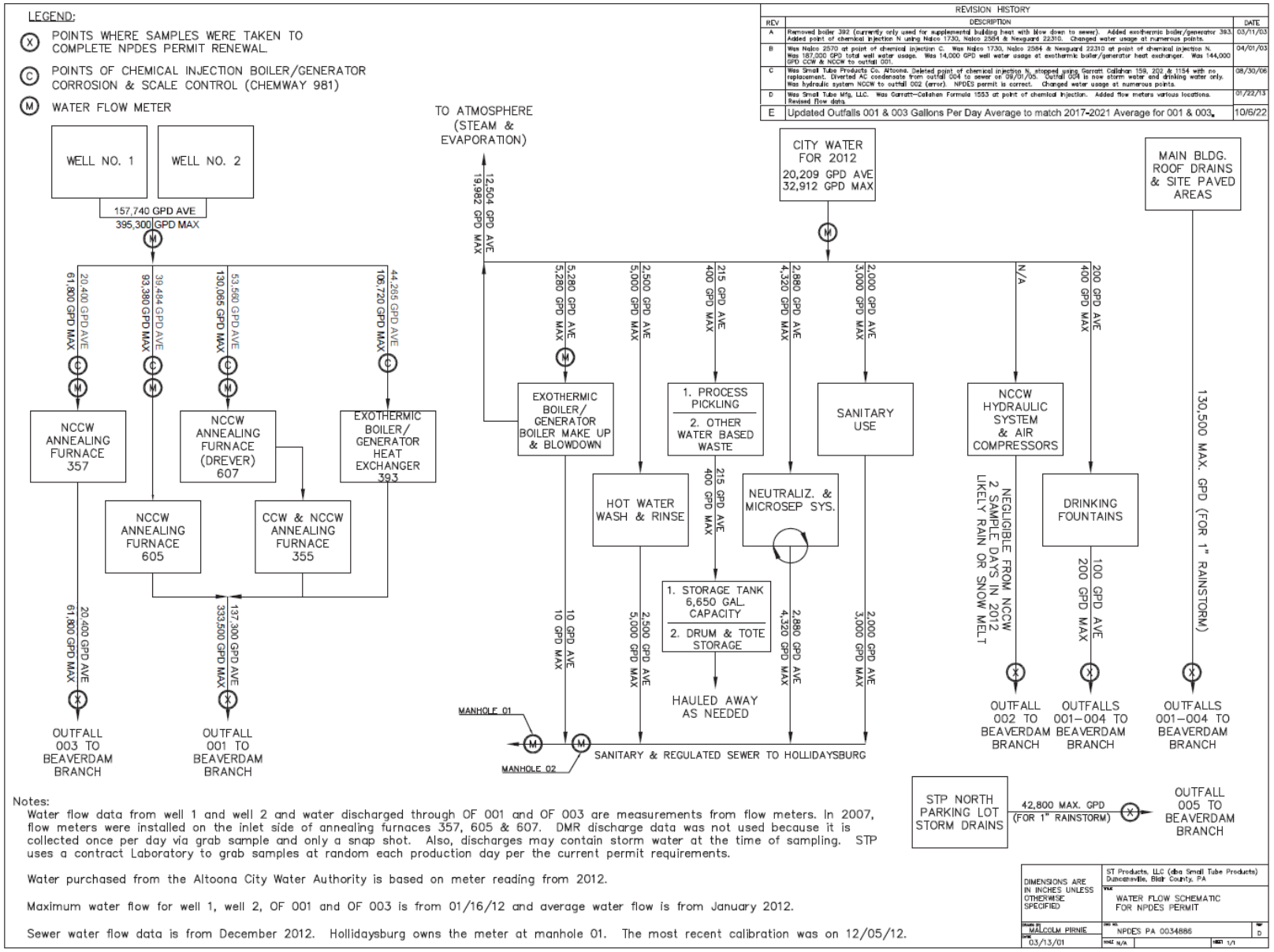
Toxics modeling was completed for both Outfalls 001 and 003. Toxics modelling for Outfall 001 was necessary since the facility discharged both contact and non-contact cooling water.

For Outfall 003, even though the process involves non-contact cooling water, there were several parameters present in the sampling. The facility should investigate the reason for the positive hits for TDS, chloride, sulfate, and various metals. Acrylamide was elevated at < 510 ug/l. Non-contact cooling water should not be in contact with the manufacturing process and should be clear of pollutants.

Modelling for thermal impacts was completed by summing the discharges from Outfalls 001, 002 and 003 and modeling as a single point.

The facility is being evaluated for flow, pH, temperature, aluminum, chromium (total and hexavalent), copper, iron, and lead, manganese, nickel, and zinc. Stormwater is being evaluated for TSS, aluminum, copper, iron, lead, and zinc. The existing permits limits for the facility is summarized in Section 2.4.

A process flow diagram for the facility is depicted.



Notes:
Water flow data from well 1 and well 2 and water discharged through OF 001 and OF 003 are measurements from flow meters. In 2007, flow meters were installed on the inlet side of annealing furnaces 357, 605 & 607. DMR discharge data was not used because it is collected once per day via grab sample and only a snap shot. Also, discharges may contain storm water at the time of sampling. STP uses a contract Laboratory to grab samples at random each production day per the current permit requirements.

Water purchased from the Altoona City Water Authority is based on meter reading from 2012.

Maximum water flow for well 1, well 2, OF 001 and OF 003 is from 01/16/12 and average water flow is from January 2012.

Sewer water flow data is from December 2012. Hollidaysburg owns the meter at manhole 01. The most recent calibration was on 12/05/12.

2.3 Facility Outfall Information

The facility has the following outfall information for wastewater.

Outfall	Latitude	Longitude	Design Flow (MGD)	Wastewater/Stormwater Description
001	40°26'13"	-78°25'15"	0.2276	Process wastewater and non-contact cooling from annealing of copper and copper alloy tubing using furnaces 355, 605, 607, and exothermic boiler/generator. Sanitary wastewater from drinking water fountains, stormwater, and roof drains.
002	40°26'14"	-78°25'16"	0.0143	Non-contact cooling water from air compressors, hydraulic systems and sanitary wastewater from drinking water fountains.
003	40°26'12"	-78°25'14"	0.0881	Non-contact cooling water from annealing of copper, copper alloy, aluminum, and aluminum alloy tubing using furnace 357. Sanitary wastewater from drinking water fountains. Stormwater from roof drains.
004	40°26'15"	-78°25'17"	0	Stormwater only
005	40°26'16"	-78°25'18"	0	Stormwater only

The subject facility outfall is within the vicinity of another sewage/wastewater/stormwater outfall. The Altoona Westerly STP (PA0027022) is located upstream from the subject facility. Other stormwater outfalls exist upstream and downstream from the subject facility. Modelling was not necessary for nearby outfalls as Small Tube discharges contact and non-contact cooling water and Altoona Westerly STP discharges sewage.

2.3.1 Operational Considerations- Chemical Additives

Chemical additives are chemical products introduced into a waste stream that is used for cleaning, disinfecting, or maintenance and which may be detected in effluent discharged to waters of the Commonwealth. Chemicals excluded are those used for neutralization of waste streams, the production of goods, and treatment of wastewater.

The subject facility utilizes the following chemicals as part of their treatment process.

- Chemway 981 for cooling water corrosion inhibitor. Toxics Modeling Spreadsheet (TMS) recommends maximum daily usage at 16.4 lbs/day for Outfall 001 and 15.9 lbs/day for Outfall 003. The TMS usage outputs concur with the requested usage from the facility. For ease in usage limit, the more stringent usage limit of 15.9 lbs/day shall appear in the NPDES permit.

2.4 Existing NPDES Permits Limits

The existing NPDES permit limits are summarized in the table.

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Permit Permit No. PA0034886

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 40° 26' 13.00" , **Longitude** 78° 25' 15.00" , **River Mile Index** 3.9 , **Stream Code** 16317

Receiving Waters: Beaverdam Branch

Type of Effluent: Contact and Noncontact Cooling Water from annealing furnace

1. The permittee is authorized to discharge during the period from **July 1, 2017** through **June 30, 2022**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Daily Maximum	Minimum	Average Monthly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report	Report	XXX	XXX	XXX	XXX	Continuous	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (°F)	XXX	XXX	XXX	XXX	Report	XXX	1/week	I-S
Aluminum, Total	Report	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Chromium, Hexavalent	Report	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Chromium, Total	0.62	1.53	XXX	Report	Report	XXX	1/quarter	8-Hr Composite
Copper, Total	0.31	0.61	XXX	0.16	0.32	0.4	1/quarter	8-Hr Composite
Iron, Total	Report	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Lead, Total	0.21	0.42	XXX	0.11	0.22	0.28	1/quarter	8-Hr Composite
Manganese, Total	Report	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite
Nickel, Total	2.79	5.58	XXX	1.47	2.94	3.68	1/quarter	8-Hr Composite
Zinc, Total	2.13	4.25	XXX	1.12	2.24	2.8	1/quarter	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): at Outfall 001

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PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 002 , **Latitude** 40° 26' 14.00" , **Longitude** 78° 25' 16.00" , **River Mile Index** 4.03 , **Stream Code** 16317

Receiving Waters: Beaverdam Branch

Type of Effluent: Noncontact Cooling Water from air compressors and hydraulic systems

1. The permittee is authorized to discharge during the period from **July 1, 2017** through **June 30, 2022**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (°F)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/week	I-S

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 002

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Permit

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PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. C. For Outfall 003 , **Latitude** 40° 26' 12.00" , **Longitude** 78° 25' 14.00" , **River Mile Index** 3.87 , **Stream Code** 16317

Receiving Waters: Beaverdam Branch

Type of Effluent: Noncontact Cooling Water from annealing furnace and generator/air conditioning

1. The permittee is authorized to discharge during the period from **July 1, 2017** through **June 30, 2022**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (°F)	XXX	XXX	XXX	XXX	Report Daily Max	XXX	1/week	I-S

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 003

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Permit

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PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. D. For Outfall 004 , **Latitude** 40° 26' 14.00" , **Longitude** 78° 25' 17.00" , **River Mile Index** _____ , **Stream Code** _____

Receiving Waters: Beaverdam Branch

Type of Effluent: Stormwater

1. The permittee is authorized to discharge during the period from **July 1, 2017** through **June 30, 2022**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Suspended Solids	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Copper, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Iron, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Lead, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Zinc, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 004

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Permit

Permit No. PA0034886

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. E. For Outfall 005, Latitude 40° 26' 15.00", Longitude 78° 25' 17.00", River Mile Index _____, Stream Code _____

Receiving Waters: Beaverdam Branch

Type of Effluent: Stormwater

1. The permittee is authorized to discharge during the period from July 1, 2017 through June 30, 2022.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Suspended Solids	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Copper, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Iron, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Lead, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Zinc, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 005

3.0 Facility NPDES Compliance History

3.1 Summary of Inspections

A summary of the most recent inspections during the existing permit review cycle is as follows.

The DEP inspector noted the following during the inspection.

12/20/2017: The facility anticipated upgrading Outfall 005 in the next few months. The outfall pipe was severely deteriorated and the ditch leading to the stream was mostly filled with dirt. Outfall 004 also showed signs of deterioration and may need to be upgraded in the future.

01/16/2019: The new NPDES permit contained a benchmark for TSS in the stormwater. If the benchmark is exceeded for two consecutive sampling events, the facility should submit a corrective action plan to address the problem.

01/29/2020: There was nothing significant to report.

02/15/2022: There was nothing significant to report.

3.2 Summary of DMR Data

For Outfall 001, a review of approximately 1-year of DMR data shows that the monthly average flow data for the maximum average flow data for the DMR reviewed was 0.1426 MGD in June 2022. The was an entry on February 2022 for a flow average monthly of 100,000 MGD. We believe this is a data entry error by the applicant.

For Outfall 003, a review of approximately 1-year of DMR data shows that the monthly average flow data for the maximum average flow data for the DMR reviewed was 0.0444 MGD in March 2022. The was an entry on February 2022 for a flow average monthly of 150,000 MGD. We believe this is a data entry error by the applicant.

The off-site laboratory used for the analysis of the parameters was Fairway Laboratories located at 2019 Ninth Avenue, Altoona, PA 16603.

DMR Data for Outfall 001 (from July 1, 2021 to June 30, 2022)

Parameter	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21
Flow (MGD) Average Monthly	0.1426	0.1243	0.1179	0.1415	100000	0.1228	0.1187	0.1182	0.1266	0.1347	0.1413	0.1214
Flow (MGD) Daily Maximum	0.3185	0.2816	0.1931	0.2538	200000	0.1948	0.1679	0.1758	0.1898	0.1883	0.3135	0.2546
pH (S.U.) Minimum	6.61	6.61	6.62	6.59	6.54	6.24	6.83	6.65	6.62	6.73	6.72	6.71
pH (S.U.) Instantaneous Maximum	7.13	7.34	7.13	7.12	7.17	7.28	7.47	7.35	7.44	7.25	7.35	7.24
Temperature (ºF) Daily Maximum	80.2	76.8	75.9	79.3	90.3	74.1	72	76.5	78.6	79	83.7	80.4
Total Aluminum (lbs/day) Average Quarterly	< 0.0686			< 0.07018			< 0.13286			< 0.13936		
Total Aluminum (mg/L) Average Quarterly	< 0.0500			< 0.0500			< 0.1000			< 0.1000		
Hexavalent Chromium (lbs/day) Average Quarterly	< 0.00034			< 0.00035			< 0.00033			< 0.00035		
Hexavalent Chromium (mg/L) Average Quarterly	< 0.0003			< 0.0003			< 0.0003			< 0.0003		
Total Chromium (lbs/day) Average Quarterly	< 0.00686			< 0.00702			< 0.00664			< 0.00697		
Total Chromium (lbs/day) Daily Maximum	< 0.00686			< 0.00702			< 0.00664			< 0.00697		
Total Chromium (mg/L) Average Quarterly	< 0.0050			< 0.005			< 0.0050			< 0.0050		
Total Chromium (mg/L) Daily Maximum	< 0.0050			< 0.005			< 0.0050			< 0.0050		
Total Copper (lbs/day) Average Quarterly	0.11950			0.04941			0.05872			0.18674		
Total Copper (lbs/day) Daily Maximum	0.11950			0.04941			0.05872			0.18674		
Total Copper (mg/L) Average Quarterly	0.0871			0.0352			0.0442			0.134		

Total Copper (mg/L) Daily Maximum	0.0871			0.0352			0.0442			0.134		
Total Iron (lbs/day) Average Quarterly	< 0.27439			< 0.28072			< 0.26571			< 0.27872		
Total Iron (mg/L) Average Quarterly	< 0.0200			< 0.200			< 0.2000			< 0.2000		
Total Lead (lbs/day) Average Quarterly	< 0.01098			< 0.01123			< 0.01063			< 0.01115		
Total Lead (lbs/day) Daily Maximum	< 0.01098			< 0.01123			< 0.01063			< 0.01115		
Total Lead (mg/L) Average Quarterly	< 0.008			< 0.0080			< 0.0080			< 0.0080		
Total Lead (mg/L) Daily Maximum	< 0.008			< 0.0080			< 0.0080			< 0.0080		
Total Manganese (lbs/day) Average Quarterly	< 0.02744			< 0.02807			< 0.02657			< 0.02728		
Total Manganese (mg/L) Average Quarterly	< 0.0200			< 0.0200			< 0.0200			< 0.0200		
Total Nickel (lbs/day) Total Quarterly	< 0.0686			< 0.07018			< 0.06643			< 0.06968		
Total Nickel (lbs/day) Daily Maximum	< 0.0686			< 0.07018			< 0.06643			< 0.06968		
Total Nickel (mg/L) Average Quarterly	< 0.0500			< 0.050			< 0.0500			< 0.0500		
Total Nickel (mg/L) Daily Maximum	< 0.0500			< 0.050			< 0.0500			< 0.0500		
Total Zinc (lbs/day) Average Quarterly	< 0.02744			< 0.02807			< 0.02657			0.12083		
Total Zinc (lbs/day) Daily Maximum	< 0.02744			< 0.02807			< 0.02657			0.12083		
Total Zinc (mg/L) Average Quarterly	< 0.0200			< 0.02			< 0.0200			0.0867		
Total Zinc (mg/L) Daily Maximum	< 0.0200			< 0.02			< 0.0200			0.0867		

DMR Data for Outfall 002 (from July 1, 2021 to June 30, 2022)

Parameter	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21
Flow (MGD) Average Monthly		0.0043									0.00014	
Flow (MGD) Daily Maximum		0.0043									0.00432	
pH (S.U.) Minimum		6.64									7.4	
pH (S.U.) Instantaneous Maximum		6.64									7.4	
Temperature (ºF) Daily Maximum		53.1									77	

DMR Data for Outfall 003 (from July 1, 2021 to June 30, 2022)

Parameter	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21
Flow (MGD) Average Monthly	0.0248	0.0223	0.0217	0.0444	150000	0.022	0.0225	0.0222	0.0237	0.0251	0.0269	0.0227
Flow (MGD) Daily Maximum	0.058	0.0523	0.0327	0.0982	100000	0.0347	0.036	0.0374	0.0359	0.0361	0.0598	0.048
pH (S.U.) Minimum	7.09	6.45	7.01	7.13	6.83	7.08	7.22	7.21	6.57	7.14	7.22	7.13
pH (S.U.) Instantaneous Maximum	7.69	7.64	7.64	7.66	7.85	7.82	7.95	7.92	7.99	7.7	7.89	7.77
Temperature (ºF) Daily Maximum	78.4	79.2	75.2	79.3	70.3	70.9	72.9	72.5	78.6	79.5	83.3	78.8

DMR Data for Outfall 004 (from July 1, 2021 to June 30, 2022)

Parameter	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21
TSS (mg/L) Instantaneous Maximum							4.4					
Total Aluminum (mg/L) Instantaneous Maximum							< 0.1					
Total Copper (mg/L) Instantaneous Maximum							0.0881					
Total Iron (mg/L) Instantaneous Maximum							< 0.2					
Total Lead (mg/L) Instantaneous Maximum							< 0.008					
Total Zinc (mg/L) Instantaneous Maximum							0.0739					

DMR Data for Outfall 005 (from July 1, 2021 to June 30, 2022)

Parameter	JUN-22	MAY-22	APR-22	MAR-22	FEB-22	JAN-22	DEC-21	NOV-21	OCT-21	SEP-21	AUG-21	JUL-21
TSS (mg/L) Instantaneous Maximum							2					
Total Aluminum (mg/L) Instantaneous Maximum							< 0.5					
Total Copper (mg/L) Instantaneous Maximum							0.0655					
Total Iron (mg/L) Instantaneous Maximum							< 1.00					
Total Lead (mg/L) Instantaneous Maximum							< 0.04					
Total Zinc (mg/L) Instantaneous Maximum							< 0.1					

Stormwater Sampling Results

Stormwater Sampling Results fo Outfalls 004 and 005

Outfall	Parameter Name	DMR Value (in mg/l)				Benchmark Value	Statistical Base Code
		Jan 2018 - Dec 2018	Jan 2019 - Dec 2019	Jan 20 - Dec 2020	Jan 21 - Dec 21		
004	Aluminum, Total	0.0825	2.36	0.333	< 0.1	XXX	Instantaneous Maximum
	Copper, Total	0.0774	0.502	0.279	0.0881	XXX	Instantaneous Maximum
	Iron, Total	0.190	1.85	0.371	< 0.2	XXX	Instantaneous Maximum
	Lead, Total	< 0.0040	0.0232	< 0.008	< 0.008	XXX	Instantaneous Maximum
	Total Suspended Solids	4.8	16.0	25	4.4	100	Instantaneous Maximum
	Zinc, Total	0.0670	0.372	0.109	0.0739	XXX	Instantaneous Maximum
005	Aluminum, Total	0.261	0.167	0.655	< 0.5	XXX	Instantaneous Maximum
	Copper, Total	0.236	0.307	0.325	0.0655	XXX	Instantaneous Maximum
	Iron, Total	0.448	0.349	0.967	< 1.00	XXX	Instantaneous Maximum
	Lead, Total	< 0.0040	< 0.0080	< 0.008	< 0.04	XXX	Instantaneous Maximum
	Total Suspended Solids	6.4	17.2	79.5	2	100	Instantaneous Maximum
	Zinc, Total	0.137	0.223	0.253	< 0.1	XXX	Instantaneous Maximum

Notes:
Primary Metals from Appendix B from PAG-03

Outfall	Parameter Name	DMR Value (in mg/l)	Benchmark Value (mg/l)
004	Oil and Grease	<5	≤5
	BOD5	<3	≤10
	COD	<15	≤30
	TSS	2	≤30
	Total Nitrogen	<0.5	≤2
	Total Phosphorus	0.016	≤1
	pH	2.02	6 to 9
005	Oil and Grease	<5.15	≤5
	BOD5	<3	≤10
	COD	<15	≤30
	TSS	<1.6	≤30
	Total Nitrogen	0.745	≤2
	Total Phosphorus	0.014	≤1
	pH	2.92	6 to 9

Notes:
Benchmark values abstracted from No Exposure Instructions

In Outfalls 004 and 005, pH was very acidic at 2.02 and 2.92 S.U.

3.3 Non-Compliance

3.3.1 Non-Compliance- NPDES Effluent

A summary of the non-compliance to the permit limits for the existing permit cycle is as follows.

From the DMR data beginning in July 1, 2017 to August 17, 2022, the following were observed effluent non-compliances.

Summary of No-Compliance with NPDES Permit Limits

MONITORING_PERIOD_BEGIN_DATE	MONITORING_PERIOD_END_DATE	SUBMISSION_DATE	REPORT_FREQUENCY_DESC	NON_COMPLIANCE_DATE	NON_COMPL_TYPE_DESC	NON_COMPL_CATEGORY_DESC
9/1/2018	9/30/2018	10/23/2018	Monthly	10/22/2018	Other	Other Violations
4/1/2022	6/30/2022	8/3/2022	Quarterly	8/3/2022	Late DMR Submission	Other Violations
5/1/2022	5/31/2022	6/29/2022	Monthly	6/29/2022	Late DMR Submission	Other Violations
6/1/2022	6/30/2022	8/3/2022	Monthly	8/3/2022	Late DMR Submission	Other Violations

3.3.2 Non-Compliance- Enforcement Actions

A summary of the non-compliance enforcement actions for the current permit cycle is as follows:

Beginning in July 1, 2017 to August 17, 2022, there were no observed enforcement actions.

3.4 Summary of Biosolids/Sewage Sludge Disposal

A summary of the biosolids/sewage sludge disposed of from the facility is as follows.

The facility discharges primarily contact and non-contact cooling water. No biosolids/sewage sludge disposal is suspected.

3.5 Open Violations

No open violations existed as of October 2022.

4.0 Receiving Waters and Water Supply Information Detail Summary

4.1 Receiving Waters

The receiving waters has been determined to be Beaverdam Branch. The sequence of receiving streams that the Beaverdam Branch discharges into are Frankstown Branch Juniata River, Juniata River, and the Susquehanna River which eventually drains into the Chesapeake Bay.

4.2 Public Water Supply (PWS) Intake

The closest PWS to the subject facility is Mifflintown MA (PWS ID #4340008) located approximately 100 miles downstream of the subject facility on the Juniata River. Based upon the distance and the flow rate of the facility, the PWS should not be impacted.

4.3 Class A Wild Trout Streams

Class A Wild Trout Streams are waters that support a population of naturally produced trout of sufficient size and abundance to support long-term and rewarding sport fishery. DEP classifies these waters as high-quality coldwater fisheries.

The information obtained from EMAP suggests that no Class A Wild Trout Fishery will be impacted by this discharge.

4.4 2022 Integrated List of All Waters (303d Listed Streams)

Section 303(d) of the Clean Water Act requires States to list all impaired surface waters not supporting uses even after appropriate and required water pollution control technologies have been applied. The 303(d) list includes the reason for impairment which may be one or more point sources (i.e. industrial or sewage discharges) or non-point sources (i.e. abandoned mine lands or agricultural runoff and the pollutant causing the impairment such as metals, pH, mercury or siltation).

States or the U.S. Environmental Protection Agency (EPA) must determine the conditions that would return the water to a condition that meets water quality standards. As a follow-up to listing, the state or EPA must develop a Total Maximum Daily Load (TMDL) for each waterbody on the list. A TMDL identifies allowable pollutant loads to a waterbody from both point and non-point sources that will prevent a violation of water quality standards. A TMDL also includes a margin of safety to ensure protection of the water.

The water quality status of Pennsylvania's waters uses a five-part categorization (lists) of waters per their attainment use status. The categories represent varying levels of attainment, ranging from Category 1, where all designated water uses are met to Category 5 where impairment by pollutants requires a TMDL for water quality protection.

The receiving waters is listed in the 2022 Pennsylvania Integrated Water Quality Monitoring and Assessment Report as a Category 4a and 5 waterbody. This stream is an impaired stream for aquatic life due to (a) metals from acid mine drainage and (2) organic enrichment/oxygen from combined sewer overflows. Other causes are unknown causes are from urban runoff and storm sewers. The designated use has been classified as protected waters for trout stocking fishes (TSF) and migratory fishes (MF).

4.5 Low Flow Stream Conditions

Water quality modeling estimates are based upon conservative data inputs. The data are typically estimated using either a stream gauge or through USGS web based StreamStats program. The NPDES effluent limits are based upon the combined flows from both the stream and the facility discharge.

A conservative approach to estimate the impact of the facility discharge using values which minimize the total combined volume of the stream and the facility discharge. The volumetric flow rate for the stream is based upon the seven-day, 10-year low flow (Q710) which is the lowest estimated flow rate of the stream during a 7 consecutive day period that occurs once in 10 -year time period. The facility discharge is based upon a known design capacity of the subject facility.

The closest WQN station to the subject facility is the Beaverdam Branch Juniata River (WQN252). This WQN station is located approximately 3 miles downstream of the subject facility.

The closest gauge station to the subject facility is the Frankstown Branch Juniata River at Williamsburg, PA (USGS station number 1556000). This gauge station is located approximately 17 miles downstream of the subject facility.

For WQM modeling, pH and stream water temperature data from the water quality network station was used. pH was estimated to be 7.3 and the stream water temperature was estimated to be 19.5 C.

The hardness of the stream was estimated by collecting a sample upstream of the facility. The average of the three sampling results was 293 mg/l $CaCO_3$.

The low flow yield and the Q710 for the subject facility was estimated as shown below.

Gauge Station Data			
USGS Station Number	1556000		
Station Name	Frankstown Br Juniata River at Williamsburg, PA		
Q710	47.8	ft^3/sec	
Drainage Area (DA)	291	mi^2	
Calculations			
The low flow yield of the gauge station is:			
Low Flow Yield (LFY) = Q710 / DA			
LFY =	(47.8 ft^3/sec / 291 mi^2)		
LFY =	0.1643	$ft^3/sec/mi^2$	
The low flow at the subject site is based upon the DA of		42.4	mi^2
Q710 = (LFY@gauge station)(DA@Subject Site)			
Q710 = (0.1643 $ft^3/sec/mi^2$)(42.4 mi^2)			
Q710 =	6.965	ft^3/sec	

4.6.1 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	001	Design Flow (MGD)	.2276
Latitude	40º 26' 14.00"	Longitude	-78º 25' 14.20"
Quad Name		Quad Code	
Wastewater Description:	Noncontact Cooling Water (NCCW)		

Receiving Waters	Beaverdam Branch (TSF)	Stream Code	16317
NHD Com ID	65608866	RMI	4.04
Drainage Area	42.4	Yield (cfs/mi^2)	0.1643
Q_{7-10} Flow (cfs)	6.965	Q_{7-10} Basis	Streamstats/streamgauge
Elevation (ft)	978	Slope (ft/ft)	
Watershed No.	11-A	Chapter 93 Class.	TSF, MF
Existing Use	Same as Chapter 93 class	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	CAUSE UNKNOWN, METALS, ORGANIC ENRICHMENT		
Source(s) of Impairment	ACID MINE DRAINAGE, COMBINED SEWER OVERFLOWS, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final	Name	Beaverdam Branch Watershed

Background/Ambient Data		Data Source
pH (SU)	7.3	WQN 252; median July to Sept
Temperature (°C)	19.5	WQN 252; median July to Sept
Hardness (mg/L)	293	NPDES app; average of 3 samples
Other:		

Nearest Downstream Public Water Supply Intake		Mifflintown MA	
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	37	Distance from Outfall (mi)	100

4.6.2 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	002	Design Flow (MGD)	.0143
Latitude	40º 26' 14.82"	Longitude	-78º 25' 15.11"
Quad Name		Quad Code	
Wastewater Description:	Noncontact Cooling Water (NCCW)		

Receiving Waters	Beaverdam Branch (TSF)	Stream Code	16317
NHD Com ID	65608866	RMI	4.04
Drainage Area	42.4	Yield (cfs/mi^2)	0.1643
Q_{7-10} Flow (cfs)	6.965	Q_{7-10} Basis	Streamstats/streamgauge
Elevation (ft)		Slope (ft/ft)	
Watershed No.	11-A	Chapter 93 Class.	TSF. MF
Existing Use	Same as Chapter 93 class.	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	CAUSE UNKNOWN, METALS, ORGANIC ENRICHMENT		
Source(s) of Impairment	ACID MINE DRAINAGE, COMBINED SEWER OVERFLOWS, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final	Name	Beaverdam Branch Watershed

Background/Ambient Data		Data Source
pH (SU)	7.3	WQN 252; median July to Sept
Temperature (°C)	19.5	WQN 252; median July to Sept
Hardness (mg/L)	293	NPDES app; average of 3 samples
Other:		

Nearest Downstream Public Water Supply Intake		Mifflintown MA	
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	37	Distance from Outfall (mi)	100

4.6.3 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	003	Design Flow (MGD)	.0881
Latitude	40º 26' 13.12"	Longitude	-78º 25' 13.10"
Quad Name		Quad Code	
Wastewater Description:	Noncontact Cooling Water (NCCW)		

Receiving Waters	Beaverdam Branch (TSF)	Stream Code	16317
NHD Com ID	65608866	RMI	4.04
Drainage Area	42.4	Yield (cfs/mi^2)	0.1643
Q_{7-10} Flow (cfs)	6.965	Q_{7-10} Basis	Streamstats/streamgauge
Elevation (ft)		Slope (ft/ft)	
Watershed No.	11-A	Chapter 93 Class.	TSF, MF
Existing Use	Same as Chapter 93 class.	Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	CAUSE UNKNOWN, METALS, ORGANIC ENRICHMENT		
Source(s) of Impairment	ACID MINE DRAINAGE, COMBINED SEWER OVERFLOWS, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final	Name	Beaverdam Branch Watershed

Background/Ambient Data		Data Source
pH (SU)	7.3	WQN 252; median July to Sept
Temperature (°C)	19.5	WQN 252; median July to Sept
Hardness (mg/L)	293	NPDES app; average of 3 samples
Other:		

Nearest Downstream Public Water Supply Intake		Mifflintown MA	
PWS Waters	Juniata River	Flow at Intake (cfs)	
PWS RMI	37	Distance from Outfall (mi)	100

4.6.4 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	004	Design Flow (MGD)	0
Latitude	40º 26' 15.31"	Longitude	-78º 25' 15.56"
Quad Name		Quad Code	
Wastewater Description:	Stormwater		
Receiving Waters	Beaverdam Branch (TSF)	Stream Code	16317
NHD Com ID	65608866	RMI	
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	11-A	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	CAUSE UNKNOWN, METALS, ORGANIC ENRICHMENT		
Source(s) of Impairment	ACID MINE DRAINAGE, COMBINED SEWER OVERFLOWS, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final	Name	Beaverdam Branch Watershed

4.6.5 Summary of Discharge, Receiving Waters and Water Supply Information

Outfall No.	005	Design Flow (MGD)	0
Latitude	40º 26' 15.86"	Longitude	-78º 25' 16.06"
Quad Name		Quad Code	
Wastewater Description:	Stormwater		
Receiving Waters	Beaverdam Branch (TSF)	Stream Code	16317
NHD Com ID	65608866	RMI	
Drainage Area		Yield (cfs/mi^2)	
Q_{7-10} Flow (cfs)		Q_{7-10} Basis	
Elevation (ft)		Slope (ft/ft)	
Watershed No.	11-A	Chapter 93 Class.	TSF, MF
Existing Use		Existing Use Qualifier	
Exceptions to Use		Exceptions to Criteria	
Assessment Status	Impaired		
Cause(s) of Impairment	CAUSE UNKNOWN, METALS, ORGANIC ENRICHMENT		
Source(s) of Impairment	ACID MINE DRAINAGE, COMBINED SEWER OVERFLOWS, URBAN RUNOFF/STORM SEWERS		
TMDL Status	Final	Name	Beaverdam Branch Watershed

5.0: Overview of Presiding Water Quality Standards

5.1 General

There are at least six (6) different policies which determines the effluent performance limits for the NPDES permit. The policies are technology based effluent limits (TBEL), water quality based effluent limits (WQBEL), antidegradation, total maximum daily loading (TMDL), anti-backsliding, and whole effluent toxicity (WET) The effluent performance limitations enforced are the selected permit limits that is most protective to the designated use of the receiving waters. An overview of each of the policies that are applicable to the subject facility has been presented in Section 6.

5.2.1 Technology-Based Limitations

TBEL treatment requirements under section 301(b) of the Act represent the minimum level of control that must be imposed in a permit issued under section 402 of the Act (40 CFR 125.3). Available TBEL requirements for the state of Pennsylvania are itemized in PA Code 25, Chapter 92a.47.

Parameter	Limit (mg/l)	SBC	Federal Regulation	State Regulation
pH	6.0 – 9.0 S.U.	Min – Max	133.102(c)	95.2(1)

5.3 Water Quality-Based Limitations

WQBEL are based on the need to attain or maintain the water quality criteria and to assure protection of designated and existing uses (PA Code 25, Chapter 92a.2). The subject facility that is typically enforced is the more stringent limit of either the TBEL or the WQBEL.

Determination of WQBEL is calculated by spreadsheet analysis or by a computer modeling program developed by DEP. DEP permit engineers utilize the following computing programs for WQBEL permit limitations: (1) MS Excel worksheet for Total Residual Chorine (TRC); (2) WQM 7.0 for Windows Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen Version 1.1 (WQM Model) (3) Toxics using DEP Toxics Management Spreadsheet for Toxics pollutants and (4) Thermal Discharge Limit Calculations

The modeling point nodes utilized for this facility are summarized below.

	General Data 1 (Modeling Point	***General Data 2 (Modeling Point***	***Units***
Stream Code	16317	16317	
River Mile Index	4.04	2.63	miles
Elevation	978	941	feet
Latitude	40.436944	40.429088	
Longitude	-78.420833	-78.398131	
Drainage Area	Stream stats	Stream stats	sq miles
Low Flow Yield	0.1643	0.1643	cfs/sq mile

5.3.1 Water Quality Modeling 7.0

The facility is not subject to WQM.

5.3.2 Toxics Modeling

The Toxics Management Spreadsheet model is a computer model that is used to determine effluent limitations for toxics (and other substances) for single discharge wasteload allocations. This computer model uses a mass-balance water quality analysis that includes consideration for mixing, first-order decay, and other factors used to determine recommended water quality-based effluent limits. Toxics Management Spreadsheet does not assume that all discharges completely mix with the

stream. The point of compliance with water quality criteria are established using criteria compliance times (CCTs). The available CCTs are either acute fish criterion (AFC), chronic fish criterion (CFC), or human health criteria (THH & CRL).

Acute Fish Criterion (AFC) measures the criteria compliance time as either the maximum criteria compliance time (i.e.15 minutes travel time downstream of the current discharge) or the complete mix time whichever comes first. AFC is evaluated at Q710 conditions.

Chronic Fish Criterion (CFC) measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the complete mix time whichever comes first. CFC is evaluated at Q710 conditions.

Threshold Human Health (THH) measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the estimated travel time downstream to the nearest potable water supply intake whichever comes first. THH is evaluated at Q710 conditions.

Cancer Risk Level (CRL) measures the criteria compliance time as either the maximum criteria compliance time (i.e. 12 hours travel time downstream of the current discharge) or the complete mix time whichever comes first. CRL is evaluated at Qh (harmonic mean or normal flow) conditions.

The Toxics Model requires several input values for calculating output values. The source of data originates from either EMAP, the National Map, or Stream Stats. Data for stream gauge information, if any, was abstracted from USGS Low-Flow, Base-Flow, and Mean-Flow Regression Equations for Pennsylvania Streams authored by Marla H. Stuckey (Scientific Investigations Report 2006-5130).

5.3.2.1 Determining if NPDES Permit Will Require Monitoring/Limits in the Proposed Permit for Toxic Pollutants

To determine if Toxics modeling is necessary, DEP has developed a Toxics Management Spreadsheet to identify toxics of concern. Toxic pollutants whose maximum concentrations as reported in the permit application or on DMRs are greater than the most stringent applicable water quality criterion are pollutants of concern. A Reasonable Potential Analysis was utilized to determine (a) if the toxic parameters modeled would require monitoring or (b) if permit limitations would be required for the parameters. The toxics reviewed for reasonable potential were the pollutants in Groups 1 through 5.

Based upon the SOP- Establishing Water Quality-Based Effluent Limitations (WQBELs) and Permit Conditions for Toxic Pollutants (Revised January 10, 2019), monitoring and/or limits will be established as follows.

(a) When reasonable potential is demonstrated, establish limits where the maximum reported concentration equals or exceeds 50% of the WQBEL.
(b) For non-conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 25% - 50% of the WQBEL.
(c) For conservative pollutants, establish monitoring requirements where the maximum reported concentration is between 10% - 50% of the WQBEL.

Applicable monitoring or permit limits for toxics are summarized in Section 6.

The Toxics Management Spreadsheet output has been included in Attachment B.

5.3.3 Whole Effluent Toxicity (WET)

The facility is not subject to WET.

5.4 Total Maximum Daily Loading (TMDL)

5.4.1 TMDL

The goal of the Clean Water Act (CWA), which governs water pollution, is to ensure that all of the Nation's waters are clean and healthy enough to support aquatic life and recreation. To achieve this goal, the CWA created programs designed to regulate and reduce the amount of pollution entering United States waters. Section 303(d) of the CWA requires states to assess their waterbodies to identify those not meeting water quality standards. If a waterbody is not meeting standards, it

is listed as impaired and reported to the U.S. Environmental Protection Agency. The state then develops a plan to clean up the impaired waterbody. This plan includes the development of a Total Maximum Daily Load (TMDL) for the pollutant(s) that were found to be the cause of the water quality violations. A Total Maximum Daily Load (TMDL) calculates the maximum amount of a specific pollutant that a waterbody can receive and still meet water quality standards.

A TMDL for a given pollutant and waterbody is composed of the sum of individual wasteload allocations (WLAs) for point sources and load allocations (LAs) for nonpoint sources and natural background levels. In addition, the TMDL must include an implicit or explicit margin of safety (MOS) to account for the uncertainty in the relationship between pollutant loads and the quality of the receiving waterbody. The TMDL components are illustrated using the following equation:

$$TMDL = \Sigma WLAs + \Sigma LAs + MOS$$

Pennsylvania has committed to restoring all impaired waters by developing TMDLs and TMDL alternatives for all impaired waterbodies. The TMDL serves as the starting point or planning tool for restoring water quality.

5.4.1.1 Local TMDL

The subject facility does not discharge into the Beaverdam Branch TMDL.

A Total Maximum Daily Load (TMDL) was developed for a stream segment in the Beaverdam Branch Watershed. This was done to address impairments noted on the 1996, 1998, and 2002 Pennsylvania Section 303(d) lists, and the 2004 and 2006 Integrated Lists required under the Clean Water Act and covers one segment on this list. High levels of metals caused these impairments. The sources of the impairments are listed as urban runoff/storm sewers and combined sewer overflows (CSOs). The TMDL addresses the two primary metals (iron and aluminum) identified as the causes of impairment in the watershed.

Beaverdam Branch flows about six miles from its headwaters to its confluence with the Frankstown Branch Juniata River. The entire length of Beaverdam Branch is listed as impaired, as well as three of its tributaries: Mill Run, Sugar Run, and Burgoon Run. These three tributaries all flow into Beaverdam Branch in its headwaters. The watershed is located predominantly in Blair County with a very small portion in Cambria County, draining approximately 87 square miles in State Water Plan Subbasin 11A.

The Beaverdam Branch Watershed is affected by pollution from urban runoff/storm sewers. This pollution has caused high levels of metals throughout the entire stream. The majority of the watershed flows through the urban areas of Altoona and Hollidaysburg. Beaverdam Branch is impacted by abandoned mine drainage (AMD).

The facility discharges contact and non-contact cooling water that should not detrimentally impact the TMDL.

5.4.1.2 Chesapeake Bay TMDL Requirement

The Chesapeake Bay Watershed is a large ecosystem that encompasses approximately 64,000 square miles in Maryland, Delaware, Virginia, West Virginia, Pennsylvania, New York and the District of Columbia. An ecosystem is composed of interrelated parts that interact with each other to form a whole. All of the plants and animals in an ecosystem depend on each other in some way. Every living thing needs a healthy ecosystem to survive. Human activities affect the Chesapeake Bay ecosystem by adding pollution, using resources and changing the character of the land.

Most of the Chesapeake Bay and many of its tidal tributaries have been listed as impaired under Section 303(d) of the federal Water Pollution Control Act ("Clean Water Act"), 33 U.S.C. § 1313(d). While the Chesapeake Bay is outside the boundaries of Pennsylvania, more than half of the State lies within the watershed. Two major rivers in Pennsylvania are part of the Chesapeake Bay Watershed. They are (a) the Susquehanna River and (b) the Potomac River. These two rivers total 40 percent of the entire Chesapeake Bay watershed.

The overall management approach needed for reducing nitrogen, phosphorus and sediment are provided in the Bay TMDL document and the Phase I, II, and III WIPs which is described in the Bay TMDL document and Executive Order 13508.

The Bay TMDL is a comprehensive pollution reduction effort in the Chesapeake Bay watershed identifying the necessary pollution reductions of nitrogen, phosphorus and sediment across the seven Bay watershed jurisdictions of Delaware, Maryland, New York, Pennsylvania, Virginia, West Virginia and the District of Columbia to meet applicable water quality standards in the Bay and its tidal waters.

The Watershed Implementation Plans (WIPs) provides objectives for how the jurisdictions in partnership with federal and local governments will achieve the Bay TMDL's nutrient and sediment allocations.

Phase 3 WIP provides an update on Chesapeake Bay TMDL implementation activities for point sources and DEP's current implementation strategy for wastewater. The latest revision of the supplement was September 13, 2021.

The Chesapeake Bay TMDL (Appendix Q) categorizes point sources into four sectors:

- Sector A- significant sewage dischargers;
- Sector B- significant industrial waste (IW) dischargers;
- Sector C- non-significant dischargers (both sewage and IW facilities); and
- Sector D- combined sewer overflows (CSOs).

All sectors contain a listing of individual facilities with NPDES permits that were believed to be discharging at the time the TMDL was published (2010). All sectors with the exception of the non-significant dischargers have individual wasteload allocations (WLAs) for TN and TP assigned to specific facilities. Non-significant dischargers have a bulk or aggregate allocation for TN and TP based on the facilities in that sector that were believed to be discharging at that time and their estimated nutrient loads.

Cap Loads will be established in permits as Net Annual TN and TP loads (lbs/yr) that apply during the period of October 1 – September 30. For facilities that have received Cap Loads in any other form, the Cap Loads will be modified accordingly when the permits are renewed.

Offsets have been incorporated into Cap Loads in several permits issued to date. From this point forward, permits will be issued with the WLAs as Cap Loads and will identify Offsets separately to facilitate nutrient trading activities and compliance with the TMDL.

Based upon the supplement the subject facility has been categorized as a Sector C discharger. The supplement defines Sector C as a non-significant dischargers include sewage facilities (Phase 4 facilities: ≥ 0.2 MGD and < 0.4 MGD and Phase 5 facilities: > 0.002 MGD and < 0.2 MGD), small flow/single residence sewage treatment facilities (≤ 0.002 MGD), and non-significant IW facilities, all of which may be covered by statewide General Permits or may have individual NPDES permits.

At this time, there are approximately 850 Phase 4 and 5 sewage facilities, approximately 715 small flow sewage treatment facilities covered by a statewide General Permit, and approximately 300 non-significant IW facilities.

For non-significant IW facilities, monitoring and reporting of TN and TP will be required throughout the permit term in renewed or amended permits anytime the facility has the potential to introduce a net TN or TP increase to the load contained within the intake water used in processing. In general, facilities that discharge groundwater and cooling water with no addition of chemicals containing N or P do not require monitoring.

Non-significant IW facilities that propose expansion or production increases and as a result will discharge at least 75 lbs/day TN or 25 lbs/day TP (on an annual average basis), will be classified as Significant IW dischargers and receive Cap Loads in their permits based on existing performance (existing TN/TP concentrations at current average annual flow).

In general, for new non-significant IW discharges (including existing facilities discharging without a permit), DEP will issue permits containing Cap Loads of "0" and these facilities will be expected to purchase credits and/or apply offsets to achieve compliance.

Since this facility discharges cooling water, no addition of nitrogen or phosphorus is anticipated. This facility is not subject to Sector C monitoring requirements.

5.5 Anti-Degradation Requirement

Chapter 93.4a of the PA regulations requires that surface water of the Commonwealth of Pennsylvania may not be degraded below levels that protect the existing uses. The regulations specifically state that *Existing instream water uses and the level of water quality necessary to protect the existing uses shall be maintained and protected*. Antidegradation requirements are implemented through DEP's guidance manual entitled Water Quality Antidegradation Implementation Guidance (Document #391-0300-02).

The policy requires DEP to protect the existing uses of all surface waters and the existing quality of High Quality (HQ) and Exceptional Value (EV) Waters. Existing uses are protected when DEP makes a final decision on any permit or approval for an activity that may affect a protected use. Existing uses are protected based upon DEP's evaluation of the best available information (which satisfies DEP protocols and Quality Assurance/Quality Control (QA/QC) procedures) that indicates the protected use of the waterbody.

For a new, additional, or increased point source discharge to an HQ or EV water, the person proposing the discharge is required to utilize a nondischarge alternative that is cost-effective and environmentally sound when compared with the cost of the proposed discharge. If a nondischarge alternative is not cost-effective and environmentally sound, the person must use the best available combination of treatment, pollution prevention, and wastewater reuse technologies and assure that any discharge is nondegrading. In the case of HQ waters, DEP may find that after satisfaction of intergovernmental coordination and public participation requirements lower water quality is necessary to accommodate important economic or social development in the area in which the waters are located. In addition, DEP will assure that cost-effective and reasonable best management practices for nonpoint source control in HQ and EV waters are achieved.

The subject facility's discharge will be to a non-special protection waters and the permit conditions are imposed to protect existing instream water quality and uses. Neither HQ waters or EV waters is impacted by this discharge.

5.6 Anti-Backsliding

Anti-backsliding is a federal regulation which prohibits a permit from being renewed, reissued, or modified containing effluent limitations which are less stringent than the comparable effluent limitations in the previous permit (40 CFR 122.l.1 and 40 CFR 122.l.2). A review of the existing permit limitations with the proposed permit limitations confirm that the facility is consistent with anti-backsliding requirements. The facility has proposed effluent limitations that are as stringent as the existing permit.

6.0 NPDES Parameter Details

The basis for the proposed sampling and their monitoring frequency that will appear in the permit for each individual parameter are itemized in this Section. The final limits are the more stringent of technology based effluent treatment (TBEL) requirements, water quality based (WQBEL) limits, TMDL, antidegradation, anti-degradation, or WET.

The reader will find in this section:

a) a justification of recommended permit monitoring requirements and limitations for each parameter in the proposed NPDES permit;
b) a summary of changes from the existing NPDES permit to the proposed permit; and
c) a summary of the proposed NPDES effluent limits.

6.1 Recommended Monitoring Requirements and Effluent Limitations

Toxics:

Outfall 001 includes effluent limits for toxics due to the manufacturing process units. The process includes both contact and non-contact cooling water.

Outfall 003 includes effluent limits for toxics due to non-contact cooling water. Sampling data shows hits of metals. Separate toxics modeling was conducted on Outfall 001 and 003.

The facility is subject to federal effluent limit guidelines (ELG). ELGs base permit limits on production. The maximum monthly production from years 2017 to 2021 was used for determining ELG permit limits.

Summary of Facility Production		
Year / Parameter	**Max Monthly Production**	**Avg Annual Production**
	lbs	**lbs**
2017	1,687,796	1,367,130
2018	1,874,359	1,448,664
2019	1,787,690	1,149,973
2020	1,490,682	989,803
2021	1,738,357	1,441,788
Max	1,874,359	1,448,664

For ELG parameters, the tables below summarizes the maximum daily loading and average monthly loading.

ELG Limits - Maximum Daily

Pollutant	Maximum for any 1 day	
	lb/million off -lbs	Daily Maximum (lbs)
Chromium	0.545	1.02
Copper	2.356	4.42
Lead	0.186	0.35
Nickel	2.38	4.46
Zinc	1.81	3.39

Notes: 40 CFR 468.12.f

- NPDES Effluent Limit (lbs)= Max Monthly Production (lbs) * lb/million off lbs

ELG Limits - Monthly Average

Pollutant	Maximum for monthly average			Daily Maximum (mg/l)	Instantaneous Maximum (mg/l)
	lb/million off -lbs	Average Monthly (lbs)	Average Monthly (mg/l)		
Chromium[1]	0.223	0.42	-----	-----	-----
Copper	1.24	2.32	1.57	3.15	3.94
Lead	0.161	0.30	0.20	0.41	0.51
Nickel	1.574	2.95	2.00	4.00	5.00
Zinc	0.756	1.42	0.96	1.92	2.40

Notes: 40 CFR 468.12.f

- NPDES Effluent Limit (lbs)= Max Monthly Production (lbs) * lb/million off lbs
- NPDES Effluent Limit (mg/l) = NPDES Effluent (lbs) / 8.34 / 0.177 MGD

Maximum flow Rate = 0.177 MGD

Daily Maximum = Average Monthly x 2

Instaneous Maximum = Average Monthly x 2.5

-[1] There is no water quality criteria for total chromium

Negation of Anti-backsliding for ELG parameters:

The April 2017 Fact Sheet included water quality based effluent limits for copper, lead, and nickel. This was due to elevated sampling data (copper at 0.158 mg/l, lead at 0.106 mg/l, and 1.486 mg/l). As water quality based effluent limits were more stringent than ELG, water quality based effluent limits were included in the current permit.

For the quarterly monitoring results from November 1, 2017 to July 1, 2022, copper ranged from 0.0186 to 0.134 The permit limit is 0.32 mg/l. The monitoring data is generally at least 2x (0.32/0.134) less than the permit limit.

For the quarterly monitoring results from November 1, 2017 to July 1, 2022, lead was non-detect except for one data point in April 2019. Nickel was mostly non-detect at <0.004 mg/l or <0.008 mg/l. The permit limit is 0.11 mg/l. The monitoring data is generally at least 13x (0.11/0.008) less than the permit limit.

For the quarterly monitoring results from November 1, 2017 to July 1, 2022, lead was non-detect except for one data point in April 2019. Nickel was mostly non-detect at <0.004 mg/l or <0.008 mg/l. The permit limit is 0.11 mg/l. The monitoring data is generally at least 13x (0.11/0.008) less than the permit limit.

For the quarterly monitoring results from November 1, 2017 to July 1, 2022, nickel was mostly non-detect at <0.01 mg/l or <0.05 mg/l. The permit limit is 1.47 mg/l. The monitoring data is generally at least 30x (1.47/0.05) less than the permit limit.

TMS Run #2 was modelled using the monitoring data from November 1, 2017 to July 1, 2022. Hexavalent chromium and total copper were recommended for monitoring. No reasonable potential was observed.

Anti-backsliding for parameters was overridden using less stringent ELG permit levels for the aforementioned justification. Potentially, the previous Fact Sheet review contained an outlier sample. Quarterly monitoring results from November 1, 2017 to July 1, 2022 generally support the less stringent ELG permit limits.

Temperature:

Thermal modelling was conducted by combining the average flow rates from Outfalls 001, 002, and 003. Thermal Modeling is a Case 2 modelling. Case 2 has source water originating from a well.

Outfalls 001, 002, and 003 will include temperature limits in the proposed permits. Contact or non-contact cooling water is generated from various units.

The thermal modeling worksheets are included in the attachment. Based upon the discharge flow rate and Q710, the maximum temperature that the facility can discharge is 110 F in all months except July when the discharge temperature shall not exceed 102.9 F. Based upon the 12 months of DMR beginning July 2021 and ending June 2022, the facility can meet the temperature limits with no issues.

Stormwater:

Outfalls 004 and 005 include effluent limits for stormwater monitoring.

A summary of the recommended monitoring requirements and effluent limitations are itemized in the tables. The tables are categorized by (a) Conventional pollutants and (b) Toxics

6.1.1 Conventional Pollutants and Disinfection- Outfall 001

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection
Small Tube Products, LLC; PA0034886; Outfall 001

Parameter	Permit Limitation Required by[1]:	Recommendation	
pH (S.U.)	TBEL	Monitoring:	The monitoring frequency shall be daily as a grab sample (Table 6-4).
		Effluent Limit:	Effluent limits may range from pH = 6.0 to 9.0
		Rationale:	The monitoring frequency has been assigned in accordance with Table 6-4 and the effluent limits assigned by Chapter 95.2(1).
Temperature (F)	WQBEL- Thermal Discharge Calc	Monitoring:	The monitoring frequency shall be 1x/week
		Effluent Limit:	Effluent limits shall not exceed 110 F in all months except for July. The maximum discharge temperture for July shall not exceed 102.9 F
		Rationale:	Thermal Discharge Calculation Modeling recommends maximum discharge temperature

Notes:

1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other

2 Monitoring frequency based on flow rate of 0.177 MGD.

3 Table 6-4 (Self Monitoring Requirements for Industrial Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits) (Document # 362-0400-001) Revised 10/97

4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)

5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021

6.1.2 Toxics for Outfall 001

Summary of Proposed NPDES Parameter Details for Toxics

Small Tube Products, LLC; PA0034886; Outfall 001

Parameter	Permit Limitation Required by[1]:	Recommendation	
Aluminum, total	Antibacksliding	Monitoring:	Monitoring shall be 2x/yr
		Effluent Limit:	No effluent requirements.
		Rationale:	The results of the monitoring data showed the samples were <0.05 mg/l or <0.100 mg/l. Due to anti-backsliding the parameters will continue to the proposed permit. Favorable results in the next renewal may eliminate monitoring for this parameter
Acrylamide	WQBEL	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	No effluent requirements.
		Rationale:	TMS recommends permit limits. Monitoring has been recommended to collect additional samples to determine impacts. Future renewals may reduce or eliminate monitoring.
Chromium, hexavalent	Antibacksliding	Monitoring:	Monitoring shall be 2x/yr
		Effluent Limit:	No effluent requirements.
		Rationale:	The results of the monitoring data showed the samples were <0.0003 mg/l or <0.05 mg/l. There was one data point at 0.0600 mg/l. Due to anti-backsliding the parameters will continue to the proposed permit. Favorable results in the next renewal may eliminate monitoring for this parameter
Chromium, total	ELG	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	Effluent limits shall not exceed 0.42 lbs as an average monthly.
		Rationale:	Effluent limits were established by federal ELG
Copper, total	ELG	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	Effluent limits shall not exceed 2.32 lbs as an average monthly and 1.57 mg/l as an average monthly..
		Rationale:	Effluent limits were established by federal ELG
Hexachlorobutadiene	WQBEL	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	No effluent requirements.
		Rationale:	TMS recommends permit limits. Monitoring has been recommended to collect additional samples to determine impacts. Future renewals may reduce or eliminate monitoring.
Iron, total	Antibacksliding	Monitoring:	Monitoring shall be 2x/yr
		Effluent Limit:	No effluent requirements.
		Rationale:	The results of the monitoring data showed the samples were non-detect ranging from <0.02 mg/l to <0.3 mg/l. Due to anti-backsliding the parameters will continue to the proposed permit. Favorable results in the next renewal may eliminate monitoring for this parameter
Lead, total	ELG	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	Effluent limits shall not exceed 0.30 lbs as an average monthly and 0.20 mg/l as an average monthly..
		Rationale:	Effluent limits were established by federal ELG
Manganese, total	Antibacksliding	Monitoring:	Monitoring shall be 2x/yr
		Effluent Limit:	No effluent requirements.
		Rationale:	The results of the monitoring data showed the samples were <0.01 mg/l or <0.02 mg/l. Due to anti-backsliding the parameters will continue to the proposed permit. Favorable results in the next renewal may eliminate monitoring for this parameter
Nickel, total	ELG	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	Effluent limits shall not exceed 2.95 lbs as an average monthly and 2.0 mg/l as an average monthly..
		Rationale:	Effluent limits were established by federal ELG
Zinc, total	ELG	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	Effluent limits shall not exceed 1.42 lbs as an average monthly and 0.96 mg/l as an average monthly..
		Rationale:	Effluent limits were established by federal ELG

Notes:

1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other

2 Monitoring frequency based on flow rate of 0.177 MGD.

3 Table 6-4 (Self Monitoring Requirements for Industrial Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits) (Document # 362-0400-001) Revised 10/97

4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)

5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021

6.1.3 Conventional Pollutants and Disinfection- Outfall 002

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection			
Small Tube Products, LLC; PA0034886; Outfall 002			
Parameter	**Permit Limitation Required by[1]:**	**Recommendation**	
pH (S.U.)	TBEL	Monitoring:	The monitoring frequency shall be daily as a grab sample (Table 6-4).
		Effluent Limit:	Effluent limits may range from pH = 6.0 to 9.0
		Rationale:	The monitoring frequency has been assigned in accordance with Table 6-4 and the effluent limits assigned by Chapter 95.2(1).
Temperature (F)	WQBEL- Thermal Discharge Calc	Monitoring:	The monitoring frequency shall be 1x/wk as an instream sample.
		Effluent Limit:	Effluent limits shall not exceed 110 F in all months except for July. The maximum discharge temperture for July shall not exceed 102.9 F
		Rationale:	The monitoring frequency has been assigned in accordance with Table 6-4 and the effluent limits assigned by DEP Thermal Worksheet.
Notes:			
1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other			
2 Monitoring frequency based on flow rate of 0.01 MGD for Outfall 002			
3 Table 6-4 (Self Monitoring Requirements for Industrial Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits) (Document # 362-0400-001) Revised 10/97			
4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)			
5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021			

6.1.4 Conventional Pollutants and Disinfection- Outfall 003

Summary of Proposed NPDES Parameter Details for Conventional Pollutants and Disinfection			
Small Tube Products, LLC; PA0034886; Outfall 003			
Parameter	**Permit Limitation Required by[1]:**	**Recommendation**	
pH (S.U.)	TBEL	Monitoring:	The monitoring frequency shall be daily as a grab sample (Table 6-4).
		Effluent Limit:	Effluent limits may range from pH = 6.0 to 9.0
		Rationale:	The monitoring frequency has been assigned in accordance with Table 6-4 and the effluent limits assigned by Chapter 95.2(1).
Temperature (F)	WQBEL- Thermal Discharge Calc	Monitoring:	The monitoring frequency shall be 1x/week
		Effluent Limit:	Effluent limits shall not exceed 110 F in all months except for July. The maximum discharge temperture for July shall not exceed 102.9 F
		Rationale:	Thermal Discharge Calculation Modeling recommends maximum discharge temperature
Notes:			
1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other			
2 Monitoring frequency based on flow rate of 0.025 MGD.			
3 Table 6-4 (Self Monitoring Requirements for Industrial Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits) (Document # 362-0400-001) Revised 10/97			
4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)			
5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021			

6.1.5 Conventional Pollutants and Disinfection- Outfall 003

Summary of Proposed NPDES Parameter Details for Toxics

Small Tube Products, LLC; PA0034886; Outfall 003

Parameter	Permit Limitation Required by[1]:	Recommendation	
Acrylamide	WQBEL	Monitoring:	Monitoring shall be 1x/quarter.
		Effluent Limit:	No effluent requirements.
		Rationale:	TMS recommends permit limits. Monitoring has been recommended to collect additional samples to determine impacts. Future renewals may reduce or eliminate monitoring.

Notes:

1 The NPDES permit was limited by (a) anti-Backsliding, (b) Anti-Degradation, (c) SOP, (d) TBEL, (e) TMDL, (f) WQBEL, (g) WET, or (h) Other

2 Monitoring frequency based on flow rate of 0.025 MGD.

3 Table 6-4 (Self Monitoring Requirements for Industrial Discharges) in Technical Guidance for the Development and Specification of Effluent Limitations and Other Permit Conditions in NPDES Permits) (Document # 362-0400-001) Revised 10/97

4 Water Quality Antidegradation Implementaton Guidance (Document # 391-0300-002)

5 Chesapeake Bay Phase 3 Watershed Implementation Plan Wastewater Supplement, Revised September 13, 2021

6.2 Summary of Changes From Existing Permit to Proposed Permit

A summary of how the proposed NPDES permit differs from the existing NPDES permit is summarized as follows.

Changes in Permit Monitoring or Effluent Quality- Outfall 001

Parameter	Existing Permit	Draft Permit
Temperature	Monitoring shall be required 1x/wk	Effluent limits shall not exceed 110 F in all months except for July. The maximum discharge temperture for July shall not exceed 102.9 F. Monitoring shall be 1x/wk.
Acrylamide	No monitoring or effluent limits	TMS recommends permit limits. Monitoring has been recommended to collect additional samples to determine impacts. Future renewals may reduce or eliminate monitoring. Monitoring shall be 1x/quarter.
Hexachlorobutadiene	No monitoring or effluent limits	TMS recommends permit limits. Monitoring has been recommended to collect additional samples to determine impacts. Future renewals may reduce or eliminate monitoring. Monitoring shall be 1x/quarter.
Aluminum, Chromium(Hexavalent), Iron (total), Manganese	Monitoring shall be required 1x/quarter	Monitoring shall be 2x/yr

Changes in Permit Monitoring or Effluent Quality- Outfall 002 and 003

Parameter	Existing Permit	Draft Permit
Temperature	Monitoring shall be required 1x/wk	Effluent limits shall not exceed 110 F in all months except for July. The maximum discharge temperture for July shall not exceed 102.9 F. Monitoring shall be 1x/wk.

Changes in Permit Monitoring or Effluent Quality- Outfall 003

Parameter	Existing Permit	Draft Permit
Acrylamide	No monitoring or effluent limits	TMS recommends permit limits. Monitoring has been recommended to collect additional samples to determine impacts. Future renewals may reduce or eliminate monitoring. Monitoring shall be 1x/quarter.

6.3.1 Summary of Proposed NPDES Effluent Limits

The limitations and monitoring requirements specified below are proposed for the draft permit, and reflect the most stringent limitations amongst technology, water quality and BPJ. Instantaneous Maximum (IMAX) limits are determined using multipliers of 2 (conventional pollutants) or 2.5 (toxic pollutants). Sample frequencies and types are derived from the "NPDES Permit Writer's Manual" (362-0400-001), SOPs and/or BPJ.

The proposed NPDES effluent limitations are summarized in the table below.

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. A. For Outfall 001 , **Latitude** 40° 26' 13.00" , **Longitude** 78° 25' 15.00" , **River Mile Index** 4.04 , **Stream Code** 16317

Receiving Waters: Beaverdam Branch (TSF)

Type of Effluent: Contact and Noncontact Cooling Water (NCCW)

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [2] Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Flow (MGD)	Report Avg Mo	Report	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (°F) Aug 1 - Jun 30	XXX	XXX	XXX	XXX	110	XXX	1/week	I-S
Temperature (deg F) (°F) Jul 1 - 31	XXX	XXX	XXX	XXX	102.9	XXX	1/week	I-S
Aluminum, Total	Report SEMI AVG	XXX	XXX	Report SEMI AVG	XXX	XXX	1/6 months	8-Hr Composite
Chromium, Hexavalent	Report SEMI AVG	XXX	XXX	Report SEMI AVG	XXX	XXX	1/6 months	8-Hr Composite
Chromium, Total	0.42	1.02	XXX	XXX	XXX	XXX	1/quarter	8-Hr Composite
Copper, Total	2.32	4.42	XXX	1.57	3.15	3.94	1/quarter	8-Hr Composite
Iron, Total	Report SEMI AVG	XXX	XXX	Report SEMI AVG	XXX	XXX	1/6 months	8-Hr Composite
Lead, Total	0.30	0.35	XXX	0.20	0.41	0.51	1/quarter	8-Hr Composite
Manganese, Total	Report SEMI AVG	XXX	XXX	Report SEMI AVG	XXX	XXX	1/6 months	8-Hr Composite

Outfall 001, Continued (from Permit Effective Date through Permit Expiration Date)

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) [1]		Concentrations (mg/L)				Minimum [2] Measurement Frequency	Required Sample Type
	Average Quarterly	Daily Maximum	Minimum	Average Quarterly	Daily Maximum	Instant. Maximum		
Nickel, Total	2.95 Total Qrtly	4.46	XXX	2.00	4.00	5	1/quarter	8-Hr Composite
Zinc, Total	1.42	3.39	XXX	0.96	1.92	2.4	1/quarter	8-Hr Composite
Acrylamide	Report	XXX	XXX	Report	Report	XXX	1/quarter	8-Hr Composite
Hexachlorobutadiene	Report	XXX	XXX	Report	Report	XXX	1/quarter	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 001

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. B. For Outfall 002 , **Latitude** 40º 26' 14.00" , **Longitude** 78º 25' 16.00" , **River Mile Index** 4.04 , **Stream Code** 16317

Receiving Waters: Beaverdam Branch (TSF)

Type of Effluent: Noncontact Cooling Water (NCCW)

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Flow (MGD)	Report	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (ºF) Aug 1 - Jun 30	XXX	XXX	XXX	XXX	110 Daily Max	XXX	1/week	I-S
Temperature (deg F) (ºF) Jul 1 - 31	XXX	XXX	XXX	XXX	102.9 Daily Max	XXX	1/week	I-S

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 002

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. C. For Outfall 003 , **Latitude** 40º 26' 12.00" , **Longitude** 78º 25' 14.00" , **River Mile Index** 4.04 , **Stream Code** 16317

Receiving Waters: Beaverdam Branch (TSF)

Type of Effluent: Noncontact Cooling Water (NCCW)

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Quarterly	Average Weekly	Minimum	Average Quarterly	Maximum	Instant. Maximum		
Flow (MGD)	Report Avg Mo	Report Daily Max	XXX	XXX	XXX	XXX	1/day	Measured
pH (S.U.)	XXX	XXX	6.0 Inst Min	XXX	XXX	9.0	1/day	Grab
Temperature (deg F) (ºF) Aug 1 - Jun 30	XXX	XXX	XXX	XXX	110 Daily Max	XXX	1/week	I-S
Temperature (deg F) (ºF) Jul 1 - 31	XXX	XXX	XXX	XXX	102.9 Daily Max	XXX	1/week	I-S
Acrylamide	Report	XXX	XXX	Report	XXX	XXX	1/quarter	8-Hr Composite

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 003

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. D. For Outfall 004 , **Latitude** 40° 26' 14.00" , **Longitude** 78° 25' 17.00" , **River Mile Index** _____ , **Stream Code** _____

Receiving Waters: Beaverdam Branch (TSF)

Type of Effluent: Stormwater

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Suspended Solids	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Copper, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Iron, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Lead, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Zinc, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 004

PART A - EFFLUENT LIMITATIONS, MONITORING, RECORDKEEPING AND REPORTING REQUIREMENTS

I. E. For Outfall 005 , **Latitude** 40° 26' 15.00" , **Longitude** 78° 25' 17.00" , **River Mile Index** _____ , **Stream Code** _____

Receiving Waters: Beaverdam Branch (TSF)

Type of Effluent: Stormwater

1. The permittee is authorized to discharge during the period from **Permit Effective Date** through **Permit Expiration Date**.
2. Based on the anticipated wastewater characteristics and flows described in the permit application and its supporting documents and/or amendments, the following effluent limitations and monitoring requirements apply (see also Additional Requirements and Footnotes).

Parameter	Effluent Limitations						Monitoring Requirements	
	Mass Units (lbs/day) (1)		Concentrations (mg/L)				Minimum (2) Measurement Frequency	Required Sample Type
	Average Monthly	Average Weekly	Minimum	Average Monthly	Maximum	Instant. Maximum		
Total Suspended Solids	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Aluminum, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Copper, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Iron, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Lead, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab
Zinc, Total	XXX	XXX	XXX	XXX	XXX	Report	1/year	Grab

Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s):

at Outfall 005

6.3.2 Summary of Proposed Permit Part C Conditions

The subject facility has the following Part C conditions.

- Stormwater Requirements
- Chemical Additives / Maximum additive usage

Tools and References Used to Develop Permit	
☐	WQM for Windows Model (see Attachment)
☒	Toxics Management Spreadsheet (see Attachment)
☐	TRC Model Spreadsheet (see Attachment)
☒	Temperature Model Spreadsheet (see Attachment)
☐	Water Quality Toxics Management Strategy, 361-0100-003, 4/06.
☐	Technical Guidance for the Development and Specification of Effluent Limitations, 362-0400-001, 10/97.
☐	Policy for Permitting Surface Water Diversions, 362-2000-003, 3/98.
☐	Policy for Conducting Technical Reviews of Minor NPDES Renewal Applications, 362-2000-008, 11/96.
☐	Technology-Based Control Requirements for Water Treatment Plant Wastes, 362-2183-003, 10/97.
☐	Technical Guidance for Development of NPDES Permit Requirements Steam Electric Industry, 362-2183-004, 12/97.
☐	Pennsylvania CSO Policy, 385-2000-011, 9/08.
☐	Water Quality Antidegradation Implementation Guidance, 391-0300-002, 11/03.
☐	Implementation Guidance Evaluation & Process Thermal Discharge (316(a)) Federal Water Pollution Act, 391-2000-002, 4/97.
☐	Determining Water Quality-Based Effluent Limits, 391-2000-003, 12/97.
☐	Implementation Guidance Design Conditions, 391-2000-006, 9/97.
☐	Technical Reference Guide (TRG) WQM 7.0 for Windows, Wasteload Allocation Program for Dissolved Oxygen and Ammonia Nitrogen, Version 1.0, 391-2000-007, 6/2004.
☐	Interim Method for the Sampling and Analysis of Osmotic Pressure on Streams, Brines, and Industrial Discharges, 391-2000-008, 10/1997.
☐	Implementation Guidance for Section 95.6 Management of Point Source Phosphorus Discharges to Lakes, Ponds, and Impoundments, 391-2000-010, 3/99.
☐	Technical Reference Guide (TRG) PENTOXSD for Windows, PA Single Discharge Wasteload Allocation Program for Toxics, Version 2.0, 391-2000-011, 5/2004.
☐	Implementation Guidance for Section 93.7 Ammonia Criteria, 391-2000-013, 11/97.
☐	Policy and Procedure for Evaluating Wastewater Discharges to Intermittent and Ephemeral Streams, Drainage Channels and Swales, and Storm Sewers, 391-2000-014, 4/2008.
☐	Implementation Guidance Total Residual Chlorine (TRC) Regulation, 391-2000-015, 11/1994.
☐	Implementation Guidance for Temperature Criteria, 391-2000-017, 4/09.
☐	Implementation Guidance for Section 95.9 Phosphorus Discharges to Free Flowing Streams, 391-2000-018, 10/97.
☐	Implementation Guidance for Application of Section 93.5(e) for Potable Water Supply Protection Total Dissolved Solids, Nitrite-Nitrate, Non-Priority Pollutant Phenolics and Fluorides, 391-2000-019, 10/97.
☐	Field Data Collection and Evaluation Protocol for Determining Stream and Point Source Discharge Design Hardness, 391-2000-021, 3/99.
☐	Implementation Guidance for the Determination and Use of Background/Ambient Water Quality in the Determination of Wasteload Allocations and NPDES Effluent Limitations for Toxic Substances, 391-2000-022, 3/1999.
☐	Design Stream Flows, 391-2000-023, 9/98.
☐	Field Data Collection and Evaluation Protocol for Deriving Daily and Hourly Discharge Coefficients of Variation (CV) and Other Discharge Characteristics, 391-2000-024, 10/98.
☐	Evaluations of Phosphorus Discharges to Lakes, Ponds and Impoundments, 391-3200-013, 6/97.
☐	Pennsylvania's Chesapeake Bay Tributary Strategy Implementation Plan for NPDES Permitting, 4/07.
☒	SOP: New and Reissuance Industrial Waste and Industrial Stormwater, Revised, October 11, 2013
☐	Other:

Attachment A

Stream Stats/Gauge Data

Table 1. List of U.S. Geological Survey streamgage locations in and near Pennsylvania with updated streamflow statistics.—Continued

[Latitude and Longitude in decimal degrees; mi², square miles]

Streamgage number	Streamgage name	Latitude	Longitude	Drainage area (mi²)	Regulated[1]
01541303	West Branch Susquehanna River at Hyde, Pa.	41.005	-78.457	474	Y
01541308	Bradley Run near Ashville, Pa.	40.509	-78.584	6.77	N
01541500	Clearfield Creek at Dimeling, Pa.	40.972	-78.406	371	Y
01542000	Moshannon Creek at Osceola Mills, Pa.	40.850	-78.268	68.8	N
01542500	WB Susquehanna River at Karthaus, Pa.	41.118	-78.109	1,462	Y
01542810	Waldy Run near Emporium, Pa.	41.579	-78.293	5.24	N
01543000	Driftwood Branch Sinnemahoning Creek at Sterling Run, Pa.	41.413	-78.197	272	N
01543500	Sinnemahoning Creek at Sinnemahoning, Pa.	41.317	-78.103	685	N
01544000	First Fork Sinnemahoning Creek near Sinnemahoning, Pa.	41.402	-78.024	245	Y
01544500	Kettle Creek at Cross Fork, Pa.	41.476	-77.826	136	N
01545000	Kettle Creek near Westport, Pa.	41.320	-77.874	233	Y
01545500	West Branch Susquehanna River at Renovo, Pa.	41.325	-77.751	2,975	Y
01545600	Young Womans Creek near Renovo, Pa.	41.390	-77.691	46.2	N
01546000	North Bald Eagle Creek at Milesburg, Pa.	40.942	-77.794	119	N
01546400	Spring Creek at Houserville, Pa.	40.834	-77.828	58.5	N
01546500	Spring Creek near Axemann, Pa.	40.890	-77.794	87.2	N
01547100	Spring Creek at Milesburg, Pa.	40.932	-77.786	142	N
01547200	Bald Eagle Creek below Spring Creek at Milesburg, Pa.	40.943	-77.786	265	N
01547500	Bald Eagle Creek at Blanchard, Pa.	41.052	-77.604	339	Y
01547700	Marsh Creek at Blanchard, Pa.	41.060	-77.606	44.1	N
01547800	South Fork Beech Creek near Snow Shoe, Pa.	41.024	-77.904	12.2	N
01547950	Beech Creek at Monument, Pa.	41.112	-77.702	152	N
01548005	Bald Eagle Creek near Beech Creek Station, Pa.	41.081	-77.549	562	Y
01548500	Pine Creek at Cedar Run, Pa.	41.522	-77.447	604	N
01549000	Pine Creek near Waterville, Pa.	41.313	-77.379	750	N
01549500	Blockhouse Creek near English Center, Pa.	41.474	-77.231	37.7	N
01549700	Pine Creek below Little Pine Creek near Waterville, Pa.	41.274	-77.324	944	Y
01550000	Lycoming Creek near Trout Run, Pa.	41.418	-77.033	173	N
01551500	WB Susquehanna River at Williamsport, Pa.	41.236	-76.997	5,682	Y
01552000	Loyalsock Creek at Loyalsockville, Pa.	41.325	-76.912	435	N
01552500	Muncy Creek near Sonestown, Pa.	41.357	-76.535	23.8	N
01553130	Sand Spring Run near White Deer, Pa.	41.059	-77.077	4.93	N
01553500	West Branch Susquehanna River at Lewisburg, Pa.	40.968	-76.876	6,847	Y
01553700	Chillisquaque Creek at Washingtonville, Pa.	41.062	-76.680	51.3	N
01554000	Susquehanna River at Sunbury, Pa.	40.835	-76.827	18,300	Y
01554500	Shamokin Creek near Shamokin, Pa.	40.810	-76.584	54.2	N
01555000	Penns Creek at Penns Creek, Pa.	40.867	-77.048	301	N
01555500	East Mahantango Creek near Dalmatia, Pa.	40.611	-76.912	162	N
01556000	Frankstown Branch Juniata River at Williamsburg, Pa.	40.463	-78.200	291	N
01557500	Bald Eagle Creek at Tyrone, Pa.	40.684	-78.234	44.1	N
01558000	Little Juniata River at Spruce Creek, Pa.	40.613	-78.141	220	N
01559000	Juniata River at Huntingdon, Pa.	40.485	-78.019	816	LF
01559500	Standing Stone Creek near Huntingdon, Pa.	40.524	-77.971	128	N
01559700	Sulphur Springs Creek near Manns Choice, Pa.	39.978	-78.619	5.28	N
01560000	Dunning Creek at Belden, Pa.	40.072	-78.493	172	N

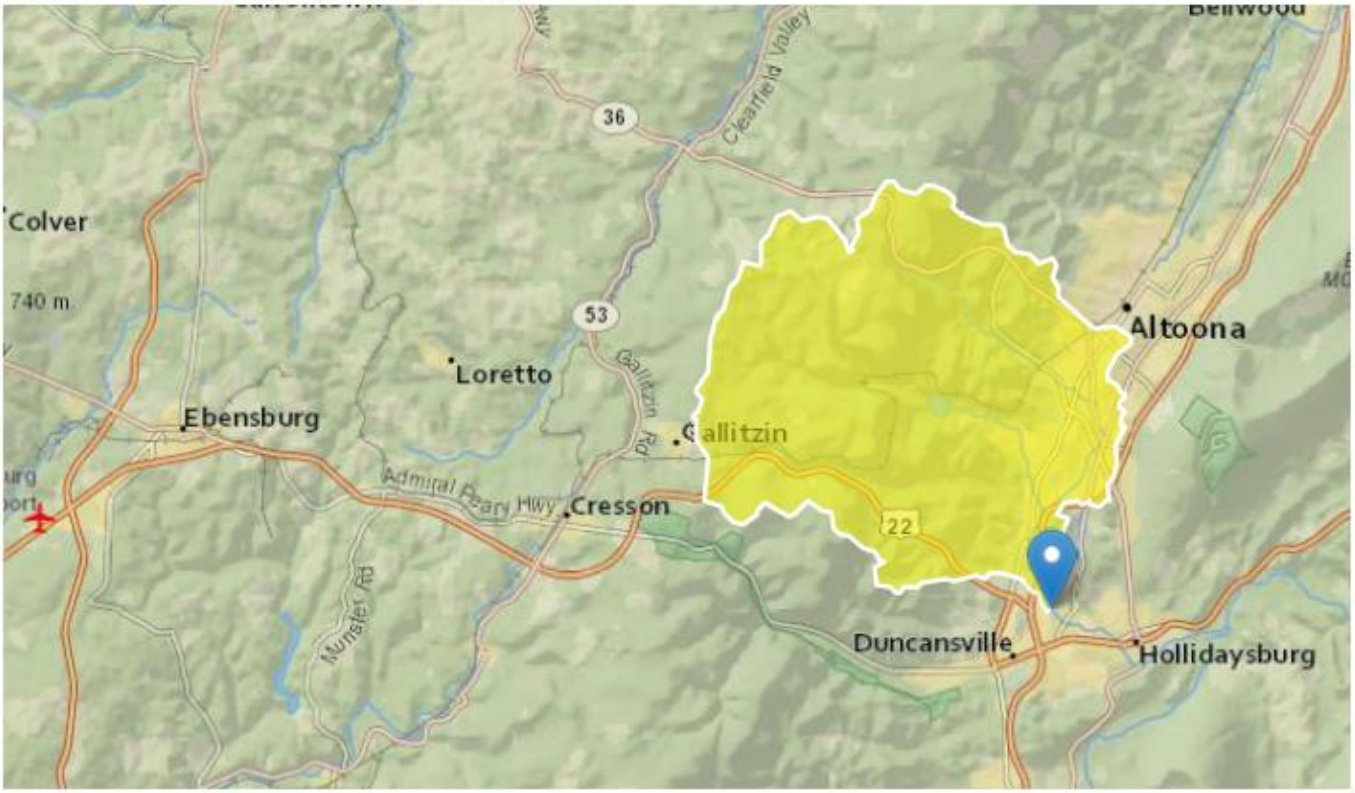
Table 2. Selected low-flow statistics for streamgage locations in and near Pennsylvania.—Continued

[ft³/s; cubic feet per second; —, statistic not computed; <, less than]

Streamgage number	Period of record used in analysis[1]	Number of years used in analysis	1-day, 10-year (ft³/s)	7-day, 10-year (ft³/s)	7-day, 2-year (ft³/s)	30-day, 10-year (ft³/s)	30-day, 2-year (ft³/s)	90-day, 10-year (ft³/s)
01546000	1912–1934	17	1.8	2.2	6.8	3.7	12.1	11.2
01546400	1986–2008	23	13.5	14.0	19.6	15.4	22.3	18.7
01546500	1942–2008	67	26.8	29.0	41.3	31.2	44.2	33.7
01547100	1969–2008	40	102	105	128	111	133	117
01547200	1957–2008	52	99.4	101	132	106	142	115
01547500	[2]1971–2008	38	28.2	109	151	131	172	153
01547500	[3]1956–1969	14	90.0	94.9	123	98.1	131	105
01547700	1957–2008	52	.5	.6	2.7	1.1	3.9	2.2
01547800	1971–1981	11	1.6	1.8	2.4	2.1	2.9	3.5
01547950	1970–2008	39	12.1	13.6	28.2	17.3	36.4	23.8
01548005	[2]1971–2000	25	142	151	206	178	241	223
01548005	[3]1912–1969	58	105	114	147	125	165	140
01548500	1920–2008	89	21.2	24.2	50.1	33.6	68.6	49.3
01549000	1910–1920	11	26.0	32.9	78.0	46.4	106	89.8
01549500	1942–2008	67	.6	.8	2.5	1.4	3.9	2.6
01549700	1959–2008	50	33.3	37.2	83.8	51.2	117	78.4
01550000	1915–2008	94	6.6	7.6	16.8	11.2	24.6	18.6
01551500	[2]1963–2008	46	520	578	1,020	678	1,330	919
01551500	[3]1901–1961	61	400	439	742	523	943	752
01552000	1927–2008	80	20.5	22.2	49.5	29.2	69.8	49.6
01552500	1942–2008	67	.9	1.2	3.1	1.7	4.4	3.3
01553130	1969–1981	13	1.0	1.1	1.5	1.3	1.8	1.7
01553500	[2]1968–2008	41	760	838	1,440	1,000	1,850	1,470
01553500	[3]1941–1966	26	562	619	880	690	1,090	881
01553700	1981–2008	28	9.1	10.9	15.0	12.6	17.1	15.2
01554000	[2]1981–2008	28	1,830	1,990	3,270	2,320	4,210	3,160
01554000	[3]1939–1979	41	1,560	1,630	2,870	1,880	3,620	2,570
01554500	1941–1993	53	16.2	22.0	31.2	25.9	35.7	31.4
01555000	1931–2008	78	33.5	37.6	58.8	43.4	69.6	54.6
01555500	1931–2008	78	4.9	6.5	18.0	9.4	24.3	16.6
01556000	1918–2008	91	43.3	47.8	66.0	55.1	75.0	63.7
01557500	1946–2008	63	2.8	3.2	6.3	4.2	8.1	5.8
01558000	1940–2008	69	56.3	59.0	79.8	65.7	86.2	73.7
01559000	1943–2008	66	104	177	249	198	279	227
01559500	1931–1958	28	9.3	10.5	15.0	12.4	17.8	15.8
01559700	1963–1978	16	.1	.1	.2	.1	.3	.2
01560000	1941–2008	68	8.5	9.4	15.6	12.0	20.2	16.2
01561000	1932–1958	27	.4	.5	1.6	.8	2.5	1.7
01562000	1913–2008	96	64.1	67.1	106	77.4	122	94.5
01562500	1931–1957	27	1.1	1.6	3.8	2.3	5.4	3.7
01563200	[2]1974–2008	35	—	—	—	112	266	129
01563200	[3]1948–1972	25	10.3	28.2	86.1	64.5	113	95.5
01563500	[2]1974–2008	35	384	415	519	441	580	493
01563500	[3]1939–1972	34	153	242	343	278	399	333
01564500	1940–2008	69	3.6	4.2	10.0	6.2	14.4	10.6

StreamStats Report

Region ID: PA
Workspace ID: PA20220302175419129000
Clicked Point (Latitude, Longitude): 40.43723, -78.42047
Time: 2022-03-02 12:54:40 -0500



ST Products, LLC PA0034886 Modeling Point #1 March 2022

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	42.4	square miles
PRECIP	Mean Annual Precipitation	42	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	1.8	miles per square mile
ROCKDEP	Depth to rock	4.3	feet
CARBON	Percentage of area of carbonate rock	5.13	percent

Low-Flow Statistics Parameters [100.0 Percent (42.4 square miles) Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	42.4	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	42	inches	35	50.4
STRDEN	Stream Density	1.8	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	4.3	feet	3.32	5.65
CARBON	Percent Carbonate	5.13	percent	0	99

Low-Flow Statistics Flow Report [100.0 Percent (42.4 square miles) Low Flow Region 2]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	5.36	ft^3/s	38	38
30 Day 2 Year Low Flow	7.18	ft^3/s	33	33
7 Day 10 Year Low Flow	2.57	ft^3/s	51	51
30 Day 10 Year Low Flow	3.46	ft^3/s	46	46
90 Day 10 Year Low Flow	5.3	ft^3/s	36	36

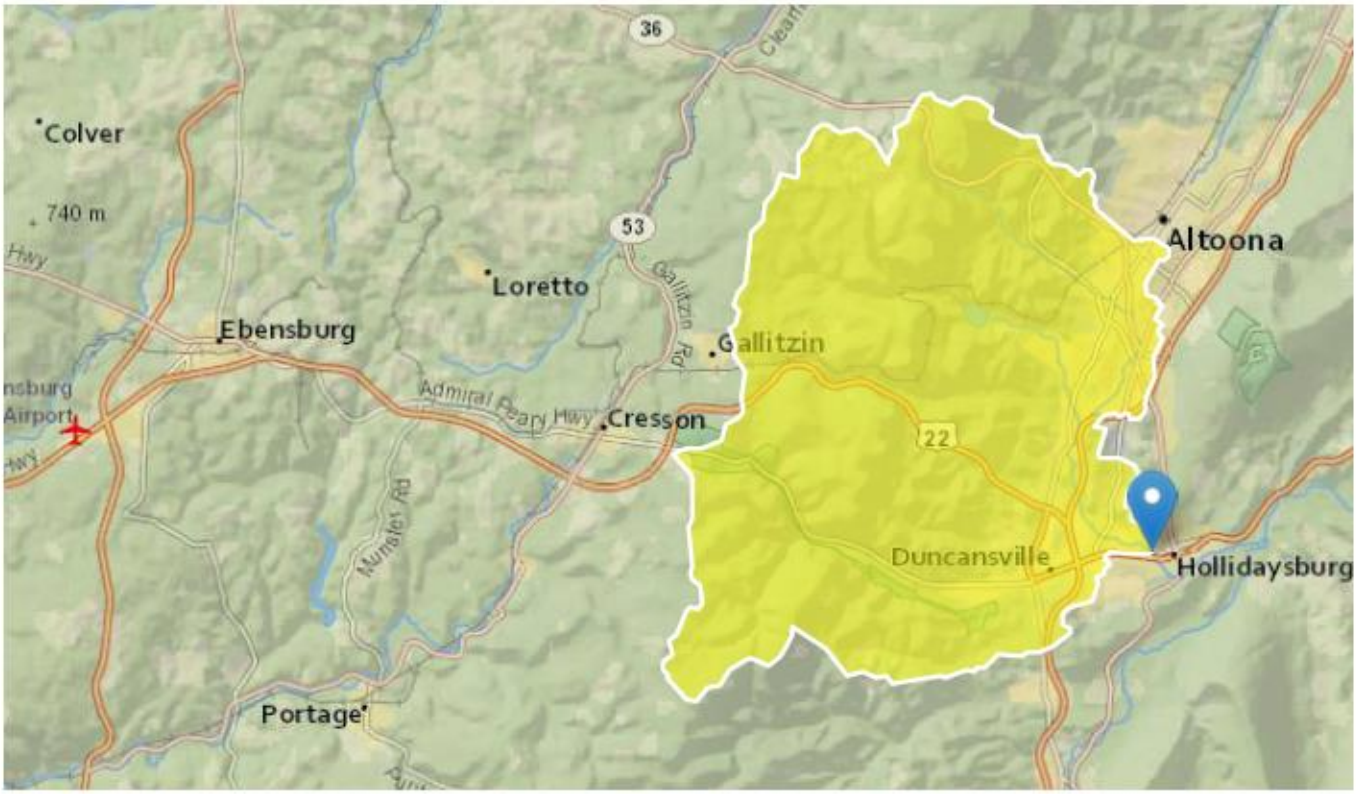
Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

Application Version: 4.7.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

StreamStats Report

Region ID: PA
Workspace ID: PA20220302175758673000
Clicked Point (Latitude, Longitude): 40.42898, -78.39809
Time: 2022-03-02 12:58:18 -0500



ST Products, LLC PA0034886 Modeling Point #2 March 2022

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	71.9	square miles
PRECIP	Mean Annual Precipitation	42	inches
STRDEN	Stream Density -- total length of streams divided by drainage area	1.87	miles per square mile
ROCKDEP	Depth to rock	4.3	feet
CARBON	Percentage of area of carbonate rock	3.98	percent

Low-Flow Statistics Parameters [100.0 Percent (71.9 square miles) Low Flow Region 2]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	71.9	square miles	4.93	1280
PRECIP	Mean Annual Precipitation	42	inches	35	50.4
STRDEN	Stream Density	1.87	miles per square mile	0.51	3.1
ROCKDEP	Depth to Rock	4.3	feet	3.32	5.65
CARBON	Percent Carbonate	3.98	percent	0	99

Low-Flow Statistics Flow Report [100.0 Percent (71.9 square miles) Low Flow Region 2]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	SE	ASEp
7 Day 2 Year Low Flow	9.12	ft^3/s	38	38
30 Day 2 Year Low Flow	12.2	ft^3/s	33	33
7 Day 10 Year Low Flow	4.48	ft^3/s	51	51
30 Day 10 Year Low Flow	6	ft^3/s	46	46
90 Day 10 Year Low Flow	9.09	ft^3/s	36	36

Low-Flow Statistics Citations

Stuckey, M.H.,2006, Low-flow, base-flow, and mean-flow regression equations for Pennsylvania streams: U.S. Geological Survey Scientific Investigations Report 2006-5130, 84 p. (http://pubs.usgs.gov/sir/2006/5130/)

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Application Version: 4.7.0
StreamStats Services Version: 1.2.22
NSS Services Version: 2.1.2

Attachment B

Toxics Management Spreadsheet Output Values

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: **ST Products** NPDES Permit No.: **PA0034886** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Contact Cooling Water & NCCW**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.177	290	6.94						

					0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		440									
	Chloride (PWS)	mg/L		67.8									
	Bromide	mg/L	<	0.072									
	Sulfate (PWS)	mg/L		60.7									
	Fluoride (PWS)	mg/L		0.53									
Group 2	Total Aluminum	µg/L		16.3									
	Total Antimony	µg/L	<	0.348									
	Total Arsenic	µg/L		0.5									
	Total Barium	µg/L		79.4									
	Total Beryllium	µg/L	<	0.676									
	Total Boron	µg/L		0.196									
	Total Cadmium	µg/L	<	0.123									
	Total Chromium (III)	µg/L	<	0.002									
	Hexavalent Chromium	µg/L		0.00017									
	Total Cobalt	µg/L		0.143									
	Total Copper	µg/L		62.5									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L		0.038									
	Dissolved Iron	µg/L		13									
	Total Iron	µg/L		10									
	Total Lead	µg/L		0.211									
	Total Manganese	µg/L		5.38									
	Total Mercury	µg/L	<	0.0001									
	Total Nickel	µg/L		2.82									
	Total Phenols (Phenolics) (PWS)	µg/L	<	1.25									
	Total Selenium	µg/L	<	1.67									
	Total Silver	µg/L	<	1.37									
	Total Thallium	µg/L	<	0.068									
	Total Zinc	µg/L		11.9									
	Total Molybdenum	µg/L		0.284									
	Acrolein	µg/L	<	1.95									
	Acrylamide	µg/L	<	510									
	Acrylonitrile	µg/L	<	0.51									
	Benzene	µg/L	<	0.43									
	Bromoform	µg/L	<	0.34									

Group 3	Carbon Tetrachloride	µg/L	<	0.51									
	Chlorobenzene	µg/L	<	0.21									
	Chlorodibromomethane	µg/L	<	0.4									
	Chloroethane	µg/L	<	0.42									
	2-Chloroethyl Vinyl Ether	µg/L	<	4									
	Chloroform	µg/L		0.56									
	Dichlorobromomethane	µg/L	<	0.39									
	1,1-Dichloroethane	µg/L	<	0.42									
	1,2-Dichloroethane	µg/L	<	0.39									
	1,1-Dichloroethylene	µg/L	<	0.33									
	1,2-Dichloropropane	µg/L	<	0.42									
	1,3-Dichloropropylene	µg/L	<	0.26									
	1,4-Dioxane	µg/L	<	0.35									
	Ethylbenzene	µg/L	<	0.27									
	Methyl Bromide	µg/L	<	0.46									
	Methyl Chloride	µg/L	<	0.36									
	Methylene Chloride	µg/L	<	0.45									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.36									
	Tetrachloroethylene	µg/L	<	0.39									
	Toluene	µg/L	<	0.33									
	1,2-trans-Dichloroethylene	µg/L	<	0.39									
	1,1,1-Trichloroethane	µg/L	<	0.38									
	1,1,2-Trichloroethane	µg/L	<	0.24									
	Trichloroethylene	µg/L	<	0.46									
	Vinyl Chloride	µg/L	<	0.46									
Group 4	2-Chlorophenol	µg/L	<	0.65									
	2,4-Dichlorophenol	µg/L	<	1.25									
	2,4-Dimethylphenol	µg/L	<	1.3									
	4,6-Dinitro-o-Cresol	µg/L	<	4.5									
	2,4-Dinitrophenol	µg/L	<	4.3									
	2-Nitrophenol	µg/L	<	1.25									
	4-Nitrophenol	µg/L	<	0.95									
	p-Chloro-m-Cresol	µg/L	<	2									
	Pentachlorophenol	µg/L	<	4.85									
	Phenol	µg/L	<	1.25									
	2,4,6-Trichlorophenol	µg/L	<	1.2									
Group 5	Acenaphthene	µg/L	<	1.3									
	Acenaphthylene	µg/L	<	1.1									
	Anthracene	µg/L	<	0.65									
	Benzidine	µg/L	<	1.75									
	Benzo(a)Anthracene	µg/L	<	1.05									
	Benzo(a)Pyrene	µg/L	<	1.45									
	3,4-Benzofluoranthene	µg/L	<	1.55									
	Benzo(ghi)Perylene	µg/L	<	1.6									
	Benzo(k)Fluoranthene	µg/L	<	2									
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.75									
	Bis(2-Chloroethyl)Ether	µg/L	<	1.25									
	Bis(2-Chloroisopropyl)Ether	µg/L	<	1.7									
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	3.2									
	4-Bromophenyl Phenyl Ether	µg/L	<	0.95									
	Butyl Benzyl Phthalate	µg/L		0.65									
	2-Chloronaphthalene	µg/L	<	1.4									
	4-Chlorophenyl Phenyl Ether	µg/L	<	1.45									
	Chrysene	µg/L	<	2.25									
	Dibenzo(a,h)Anthrancene	µg/L	<	1.4									
	1,2-Dichlorobenzene	µg/L	<	1.6									
	1,3-Dichlorobenzene	µg/L	<	0.85									
	1,4-Dichlorobenzene	µg/L	<	0.75									
	3,3-Dichlorobenzidine	µg/L	<	0.65									
	Diethyl Phthalate	µg/L	<	1.35									
	Dimethyl Phthalate	µg/L	<	1.15									
	Di-n-Butyl Phthalate	µg/L	<	1.45									
	2,4-Dinitrotoluene	µg/L	<	3.85									

	2,6-Dinitrotoluene	µg/L	<	1.6									
	Di-n-Octyl Phthalate	µg/L		2.72									
	1,2-Diphenylhydrazine	µg/L	<	1									
	Fluoranthene	µg/L	<	1.75									
	Fluorene	µg/L	<	1.25									
	Hexachlorobenzene	µg/L	<	1.25									
	Hexachlorobutadiene	µg/L	<	1.35									
	Hexachlorocyclopentadiene	µg/L	<	1.1									
	Hexachloroethane	µg/L	<	1.3									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	1.25									
	Isophorone	µg/L	<	1.15									
	Naphthalene	µg/L	<	1.25									
	Nitrobenzene	µg/L	<	1.3									
	n-Nitrosodimethylamine	µg/L	<	2									
	n-Nitrosodi-n-Propylamine	µg/L	<	1.55									
	n-Nitrosodiphenylamine	µg/L	<	1.35									
	Phenanthrene	µg/L	<	1.05									
	Pyrene	µg/L	<	0.8									
	1,2,4-Trichlorobenzene	µg/L	<	0.36									
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											
	Chemway 981	µg/L		9999999999									

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

ST Products, NPDES Permit No. PA0034886, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Beaverdam Branch**

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	016317	4.04	978	42.4			Yes
End of Reach 1	016317	2.63	941	71.9			Yes

$Q_{7\text{-}10}$

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	4.04	0.1643										293	7.3		
End of Reach 1	2.63	0.1643										293	7.3		

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	4.04														
End of Reach 1	2.63														

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Total Copper	Report	Report	Report	Report	Report	µg/L	403	AFC	Discharge Conc > 10% WQBEL (no RP)
Acrylamide	0.015	0.024	10.4	16.3	26.1	µg/L	10.4	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Hexachlorobutadiene	0.002	0.003	1.49	2.32	3.73	µg/L	1.49	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Chemway 981	16.4	25.6	11,105	17,326	27,763	µg/L	11,105	CFC	Discharge Conc ≥ 50% WQBEL (RP)

Run #2

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: **ST Products** NPDES Permit No.: **PA0034886** Outfall No.: **001**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Contact Cooling Water & NCCW**

Discharge Characteristics									
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.177	290	6.94						

					0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		440									
	Chloride (PWS)	mg/L		67.8									
	Bromide	mg/L	<	0.072									
	Sulfate (PWS)	mg/L		60.7									
	Fluoride (PWS)	mg/L		0.53									
Group 2	Total Aluminum	µg/L	<	100									
	Total Antimony	µg/L	<	0.348									
	Total Arsenic	µg/L		0.5									
	Total Barium	µg/L		79.4									
	Total Beryllium	µg/L	<	0.676									
	Total Boron	µg/L		0.196									
	Total Cadmium	µg/L	<	0.123									
	Total Chromium (III)	µg/L	<	5									
	Hexavalent Chromium	µg/L		60									
	Total Cobalt	µg/L		0.143									
	Total Copper	µg/L		134									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L		0.038									
	Dissolved Iron	µg/L		13									
	Total Iron	µg/L	<	300									
	Total Lead	µg/L	<	8									
	Total Manganese	µg/L	<	20									
	Total Mercury	µg/L	<	0.0001									
	Total Nickel	µg/L	<	50									
	Total Phenols (Phenolics) (PWS)	µg/L	<	1.25									
	Total Selenium	µg/L	<	1.67									
	Total Silver	µg/L	<	1.37									
	Total Thallium	µg/L	<	0.068									
	Total Zinc	µg/L		86.7									
	Total Molybdenum	µg/L		0.284									
	Acrolein	µg/L	<	1.95									
	Acrylamide	µg/L	<	510									
	Acrylonitrile	µg/L	<	0.51									
	Benzene	µg/L	<	0.43									
	Bromoform	µg/L	<	0.34									
	Carbon Tetrachloride	µg/L	<	0.51									
	Chlorobenzene	µg/L	<	0.21									
	Chlorodibromomethane	µg/L	<	0.4									
	Chloroethane	µg/L	<	0.42									
	2-Chloroethyl Vinyl Ether	µg/L	<	4									

Group 3	Chloroform	µg/L		0.56									
	Dichlorobromomethane	µg/L	<	0.39									
	1,1-Dichloroethane	µg/L	<	0.42									
	1,2-Dichloroethane	µg/L	<	0.39									
	1,1-Dichloroethylene	µg/L	<	0.33									
	1,2-Dichloropropane	µg/L	<	0.42									
	1,3-Dichloropropylene	µg/L	<	0.26									
	1,4-Dioxane	µg/L	<	0.35									
	Ethylbenzene	µg/L	<	0.27									
	Methyl Bromide	µg/L	<	0.46									
	Methyl Chloride	µg/L	<	0.36									
	Methylene Chloride	µg/L	<	0.45									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.36									
	Tetrachloroethylene	µg/L	<	0.39									
	Toluene	µg/L	<	0.33									
	1,2-trans-Dichloroethylene	µg/L	<	0.39									
	1,1,1-Trichloroethane	µg/L	<	0.38									
	1,1,2-Trichloroethane	µg/L	<	0.24									
	Trichloroethylene	µg/L	<	0.46									
	Vinyl Chloride	µg/L	<	0.46									
Group 4	2-Chlorophenol	µg/L	<	0.65									
	2,4-Dichlorophenol	µg/L	<	1.25									
	2,4-Dimethylphenol	µg/L	<	1.3									
	4,6-Dinitro-o-Cresol	µg/L	<	4.5									
	2,4-Dinitrophenol	µg/L	<	4.3									
	2-Nitrophenol	µg/L	<	1.25									
	4-Nitrophenol	µg/L	<	0.95									
	p-Chloro-m-Cresol	µg/L	<	2									
	Pentachlorophenol	µg/L	<	4.85									
	Phenol	µg/L	<	1.25									
	2,4,6-Trichlorophenol	µg/L	<	1.2									
Group 5	Acenaphthene	µg/L	<	1.3									
	Acenaphthylene	µg/L	<	1.1									
	Anthracene	µg/L	<	0.65									
	Benzidine	µg/L	<	1.75									
	Benzo(a)Anthracene	µg/L	<	1.05									
	Benzo(a)Pyrene	µg/L	<	1.45									
	3,4-Benzofluoranthene	µg/L	<	1.55									
	Benzo(ghi)Perylene	µg/L	<	1.6									
	Benzo(k)Fluoranthene	µg/L	<	2									
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.75									
	Bis(2-Chloroethyl)Ether	µg/L	<	1.25									
	Bis(2-Chloroisopropyl)Ether	µg/L	<	1.7									
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	3.2									
	4-Bromophenyl Phenyl Ether	µg/L	<	0.95									
	Butyl Benzyl Phthalate	µg/L		0.65									
	2-Chloronaphthalene	µg/L	<	1.4									
	4-Chlorophenyl Phenyl Ether	µg/L	<	1.45									
	Chrysene	µg/L	<	2.25									
	Dibenzo(a,h)Anthrancene	µg/L	<	1.4									
	1,2-Dichlorobenzene	µg/L	<	1.6									
	1,3-Dichlorobenzene	µg/L	<	0.85									
	1,4-Dichlorobenzene	µg/L	<	0.75									
	3,3-Dichlorobenzidine	µg/L	<	0.65									
	Diethyl Phthalate	µg/L	<	1.35									
	Dimethyl Phthalate	µg/L	<	1.15									
	Di-n-Butyl Phthalate	µg/L	<	1.45									
	2,4-Dinitrotoluene	µg/L	<	3.85									
	2,6-Dinitrotoluene	µg/L	<	1.6									
	Di-n-Octyl Phthalate	µg/L		2.72									
	1,2-Diphenylhydrazine	µg/L	<	1									
	Fluoranthene	µg/L	<	1.75									
	Fluorene	µg/L	<	1.25									
	Hexachlorobenzene	µg/L	<	1.25									
	Hexachlorobutadiene	µg/L	<	1.35									
	Hexachlorocyclopentadiene	µg/L	<	1.1									
	Hexachloroethane	µg/L	<	1.3									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	1.25									

	Isophorone	µg/L	<	1.15									
	Naphthalene	µg/L	<	1.25									
	Nitrobenzene	µg/L	<	1.3									
	n-Nitrosodimethylamine	µg/L	<	2									
	n-Nitrosodi-n-Propylamine	µg/L	<	1.55									
	n-Nitrosodiphenylamine	µg/L	<	1.35									
	Phenanthrene	µg/L	<	1.05									
	Pyrene	µg/L	<	0.8									
	1,2,4-Trichlorobenzene	µg/L	<	0.36									
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											
	Chemway 981	µg/L		9999999999									

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

ST Products, NPDES Permit No. PA0034886, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Beaverdam Branch**

No. Reaches to Model: **1**

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	016317	4.04	978	42.4			Yes
End of Reach 1	016317	2.63	941	71.9			Yes

Q_{7-10}

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	4.04	0.1643										293	7.3		
End of Reach 1	2.63	0.1643										293	7.3		

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	4.04														
End of Reach 1	2.63														

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

Pollutants	*Mass Limits* AML (lbs/day)	*Mass Limits* MDL (lbs/day)	*Concentration Limits* AML	*Concentration Limits* MDL	*Concentration Limits* IMAX	*Concentration Limits* Units	Governing WQBEL	WQBEL Basis	Comments
Hexavalent Chromium	Report	Report	Report	Report	Report	µg/L	171	AFC	Discharge Conc > 10% WQBEL (no RP)
Total Copper	Report	Report	Report	Report	Report	µg/L	403	AFC	Discharge Conc > 10% WQBEL (no RP)
Acrylamide	0.015	0.024	10.4	16.3	26.1	µg/L	10.4	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Hexachlorobutadiene	0.002	0.003	1.49	2.32	3.73	µg/L	1.49	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Chemway 981	16.4	25.6	11,105	17,326	27,763	µg/L	11,105	CFC	Discharge Conc ≥ 50% WQBEL (RP)

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Discharge Information

Instructions | Discharge | Stream

Facility: **ST Products** NPDES Permit No.: **PA0034886** Outfall No.: **003**

Evaluation Type: **Major Sewage / Industrial Waste** Wastewater Description: **Contact Cooling Water & NCCW**

Discharge Characteristics								
Design Flow (MGD)*	Hardness (mg/l)*	pH (SU)*	Partial Mix Factors (PMFs)				Complete Mix Times (min)	
			AFC	CFC	THH	CRL	Q_{7-10}	Q_h
0.025	295	7.79						

					0 if left blank		*0.5 if left blank*		*0 if left blank*			*1 if left blank*	
	Discharge Pollutant	Units	Max Discharge Conc		Trib Conc	Stream Conc	Daily CV	Hourly CV	Stream CV	Fate Coeff	FOS	Criteria Mod	Chem Transl
Group 1	Total Dissolved Solids (PWS)	mg/L		420									
	Chloride (PWS)	mg/L		49									
	Bromide	mg/L	<	0.072									
	Sulfate (PWS)	mg/L		63.7									
	Fluoride (PWS)	mg/L		0.538									
Group 2	Total Aluminum	µg/L	<	43.5									
	Total Antimony	µg/L	<	0.348									
	Total Arsenic	µg/L	<	1									
	Total Barium	µg/L		80.2									
	Total Beryllium	µg/L	<	0.676									
	Total Boron	µg/L		0.0583									
	Total Cadmium	µg/L	<	0.123									
	Total Chromium (III)	µg/L	<	0.002									
	Hexavalent Chromium	µg/L		0.00014									
	Total Cobalt	µg/L		0.139									
	Total Copper	µg/L		12.4									
	Free Cyanide	µg/L											
	Total Cyanide	µg/L	<	0.006									
	Dissolved Iron	µg/L	<	20									
	Total Iron	µg/L		42.6									
	Total Lead	µg/L		0.074									
	Total Manganese	µg/L		0.618									
	Total Mercury	µg/L	<	0.0001									
	Total Nickel	µg/L		2.2									
	Total Phenols (Phenolics) (PWS)	µg/L	<	0.25									
	Total Selenium	µg/L	<	1.67									
	Total Silver	µg/L	<	1.37									
	Total Thallium	µg/L	<	0.068									
	Total Zinc	µg/L		4.05									
	Total Molybdenum	µg/L		0.284									
	Acrolein	µg/L	<	1.95									
	Acrylamide	µg/L	<	510									
	Acrylonitrile	µg/L	<	0.51									
	Benzene	µg/L	<	0.43									
	Bromoform	µg/L	<	0.34									

Group 3	Carbon Tetrachloride	µg/L	<	0.51									
	Chlorobenzene	µg/L	<	0.21									
	Chlorodibromomethane	µg/L	<	0.32									
	Chloroethane	µg/L	<	0.42									
	2-Chloroethyl Vinyl Ether	µg/L	<	4									
	Chloroform	µg/L	<	0.51									
	Dichlorobromomethane	µg/L	<	0.39									
	1,1-Dichloroethane	µg/L	<	0.42									
	1,2-Dichloroethane	µg/L	<	0.39									
	1,1-Dichloroethylene	µg/L	<	0.33									
	1,2-Dichloropropane	µg/L	<	0.42									
	1,3-Dichloropropylene	µg/L	<	0.26									
	1,4-Dioxane	µg/L	<	0.33									
	Ethylbenzene	µg/L	<	0.27									
	Methyl Bromide	µg/L	<	0.46									
	Methyl Chloride	µg/L	<	0.36									
	Methylene Chloride	µg/L	<	0.45									
	1,1,2,2-Tetrachloroethane	µg/L	<	0.36									
	Tetrachloroethylene	µg/L	<	0.39									
	Toluene	µg/L	<	0.33									
	1,2-trans-Dichloroethylene	µg/L	<	0.39									
	1,1,1-Trichloroethane	µg/L	<	0.38									
	1,1,2-Trichloroethane	µg/L	<	0.24									
	Trichloroethylene	µg/L	<	0.46									
	Vinyl Chloride	µg/L	<	0.46									
Group 4	2-Chlorophenol	µg/L	<	0.13									
	2,4-Dichlorophenol	µg/L	<	0.25									
	2,4-Dimethylphenol	µg/L	<	0.26									
	4,6-Dinitro-o-Cresol	µg/L	<	0.9									
	2,4-Dinitrophenol	µg/L	<	0.86									
	2-Nitrophenol	µg/L	<	0.25									
	4-Nitrophenol	µg/L	<	0.19									
	p-Chloro-m-Cresol	µg/L	<	0.4									
	Pentachlorophenol	µg/L	<	0.97									
	Phenol	µg/L	<	0.25									
	2,4,6-Trichlorophenol	µg/L	<	0.24									
Group 5	Acenaphthene	µg/L	<	1.3									
	Acenaphthylene	µg/L	<	1.1									
	Anthracene	µg/L	<	0.65									
	Benzidine	µg/L	<	1.75									
	Benzo(a)Anthracene	µg/L	<	1.05									
	Benzo(a)Pyrene	µg/L	<	1.45									
	3,4-Benzofluoranthene	µg/L	<	1.55									
	Benzo(ghi)Perylene	µg/L	<	1.6									
	Benzo(k)Fluoranthene	µg/L	<	2									
	Bis(2-Chloroethoxy)Methane	µg/L	<	0.75									
	Bis(2-Chloroethyl)Ether	µg/L	<	1.25									
	Bis(2-Chloroisopropyl)Ether	µg/L	<	1.7									
	Bis(2-Ethylhexyl)Phthalate	µg/L	<	3.2									
	4-Bromophenyl Phenyl Ether	µg/L	<	0.95									
	Butyl Benzyl Phthalate	µg/L	<	1.9									
	2-Chloronaphthalene	µg/L	<	1.4									
	4-Chlorophenyl Phenyl Ether	µg/L	<	1.45									
	Chrysene	µg/L	<	2.25									
	Dibenzo(a,h)Anthrancene	µg/L	<	1.4									
	1,2-Dichlorobenzene	µg/L	<	1.6									
	1,3-Dichlorobenzene	µg/L	<	0.85									
	1,4-Dichlorobenzene	µg/L	<	0.75									
	3,3-Dichlorobenzidine	µg/L	<	0.65									
	Diethyl Phthalate	µg/L	<	1.35									
	Dimethyl Phthalate	µg/L	<	1.15									
	Di-n-Butyl Phthalate	µg/L	<	1.45									
	2,4-Dinitrotoluene	µg/L	<	3.85									

	2,6-Dinitrotoluene	µg/L	<	1.6									
	Di-n-Octyl Phthalate	µg/L		4.71									
	1,2-Diphenylhydrazine	µg/L	<	1									
	Fluoranthene	µg/L	<	1.75									
	Fluorene	µg/L	<	1.25									
	Hexachlorobenzene	µg/L	<	1.25									
	Hexachlorobutadiene	µg/L	<	1.35									
	Hexachlorocyclopentadiene	µg/L	<	1.1									
	Hexachloroethane	µg/L	<	1.3									
	Indeno(1,2,3-cd)Pyrene	µg/L	<	1.25									
	Isophorone	µg/L	<	1.15									
	Naphthalene	µg/L	<	1.25									
	Nitrobenzene	µg/L	<	1.3									
	n-Nitrosodimethylamine	µg/L	<	2									
	n-Nitrosodi-n-Propylamine	µg/L	<	1.55									
	n-Nitrosodiphenylamine	µg/L	<	1.35									
	Phenanthrene	µg/L	<	1.05									
	Pyrene	µg/L	<	0.8									
	1,2,4-Trichlorobenzene	µg/L	<	0.36									
Group 6	Aldrin	µg/L	<										
	alpha-BHC	µg/L	<										
	beta-BHC	µg/L	<										
	gamma-BHC	µg/L	<										
	delta BHC	µg/L	<										
	Chlordane	µg/L	<										
	4,4-DDT	µg/L	<										
	4,4-DDE	µg/L	<										
	4,4-DDD	µg/L	<										
	Dieldrin	µg/L	<										
	alpha-Endosulfan	µg/L	<										
	beta-Endosulfan	µg/L	<										
	Endosulfan Sulfate	µg/L	<										
	Endrin	µg/L	<										
	Endrin Aldehyde	µg/L	<										
	Heptachlor	µg/L	<										
	Heptachlor Epoxide	µg/L	<										
	PCB-1016	µg/L	<										
	PCB-1221	µg/L	<										
	PCB-1232	µg/L	<										
	PCB-1242	µg/L	<										
	PCB-1248	µg/L	<										
	PCB-1254	µg/L	<										
	PCB-1260	µg/L	<										
	PCBs, Total	µg/L	<										
	Toxaphene	µg/L	<										
	2,3,7,8-TCDD	ng/L	<										
Group 7	Gross Alpha	pCi/L											
	Total Beta	pCi/L	<										
	Radium 226/228	pCi/L	<										
	Total Strontium	µg/L	<										
	Total Uranium	µg/L	<										
	Osmotic Pressure	mOs/kg											
	Chemway 981	µg/L		9999999999									

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Toxics Management Spreadsheet
Version 1.3, March 2021

Stream / Surface Water Information

ST Products, NPDES Permit No. PA0034886, Outfall 001

Instructions | Discharge | *Stream*

Receiving Surface Water Name: **Beaverdam Branch**

No. Reaches to Model: 1

- (●) Statewide Criteria
- ( ) Great Lakes Criteria
- ( ) ORSANCO Criteria

Location	Stream Code*	RMI*	Elevation (ft)*	DA (mi^2)*	Slope (ft/ft)	PWS Withdrawal (MGD)	Apply Fish Criteria*
Point of Discharge	016317	4.04	978	42.4			Yes
End of Reach 1	016317	2.63	941	71.9			Yes

Q_{7-10}

Location	RMI	LFY (cfs/mi^2)*	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness*	pH*	Hardness	pH
Point of Discharge	4.04	0.1643										293	7.3		
End of Reach 1	2.63	0.1643										293	7.3		

Q_h

Location	RMI	LFY (cfs/mi^2)	Flow (cfs)		W/D Ratio	Width (ft)	Depth (ft)	Velocity (fps)	Travel Time (days)	Tributary		Stream		Analysis	
			Stream	Tributary						Hardness	pH	Hardness	pH	Hardness	pH
Point of Discharge	4.04														
End of Reach 1	2.63														

☑ ***Recommended WQBELs & Monitoring Requirements***

No. Samples/Month: 4

	Mass Limits		*Concentration Limits*						
Pollutants	AML (lbs/day)	MDL (lbs/day)	AML	MDL	IMAX	Units	Governing WQBEL	WQBEL Basis	Comments
Acrylamide	0.015	0.024	73.4	115	184	µg/L	73.4	CRL	Discharge Conc ≥ 50% WQBEL (RP)
Chemway 981	15.9	24.7	76,072	118,685	190,181	µg/L	76,072	CFC	Discharge Conc ≥ 50% WQBEL (RP)

Attachment C

Thermal Discharge Limit Calc

Facility:	**ST Products**
Permit Number:	PA0034886
Stream Name:	Beaverdam Branch
Analyst/Engineer:	DEP
Stream Q7-10 (cfs):	6.965

	Facility Flows				Stream Flows			
	Intake (Stream) (MGD)	Intake (External) (MGD)	Consumptive Loss (MGD)	Discharge Flow (MGD)	PMF	Upstream Stream Flow (cfs)	Adjusted Stream Flow (cfs)	Downstream Stream Flow (cfs)
Jan 1-31	0	0.212	0	0.212	1.00	21.52	21.52	21.85
Feb 1-29	0	0.212	0	0.212	1.00	24.38	24.38	24.71
Mar 1-31	0	0.212	0	0.212	1.00	45.27	45.27	45.60
Apr 1-15	0	0.212	0	0.212	1.00	62.41	62.41	62.73
Apr 16-30	0	0.212	0	0.212	1.00	62.41	62.41	62.73
May 1-15	0	0.212	0	0.212	1.00	35.38	35.38	35.71
May 16-31	0	0.212	0	0.212	1.00	35.38	35.38	35.71
Jun 1-15	0	0.212	0	0.212	1.00	20.62	20.62	20.94
Jun 16-30	0	0.212	0	0.212	1.00	20.62	20.62	20.94
Jul 1-31	0	0.212	0	0.212	1.00	9.47	9.47	9.80
Aug 1-15	0	0.212	0	0.212	1.00	9.68	9.68	10.01
Aug 16-31	0	0.212	0	0.212	1.00	9.68	9.68	10.01
Sep 1-15	0	0.212	0	0.212	1.00	7.52	7.52	7.85
Sep 16-30	0	0.212	0	0.212	1.00	7.52	7.52	7.85
Oct 1-15	0	0.212	0	0.212	1.00	8.92	8.92	9.24
Oct 16-31	0	0.212	0	0.212	1.00	8.92	8.92	9.24
Nov 1-15	0	0.212	0	0.212	1.00	12.61	12.61	12.93
Nov 16-30	0	0.212	0	0.212	1.00	12.61	12.61	12.93
Dec 1-31	0	0.212	0	0.212	1.00	20.90	20.90	21.22

Please forward all comments to Tom Starosta at 717-787-4317, tstarosta@state.pa.us.

Version 2.0 -- 07/01/2005 Reference: Implementation Guidance for Temperature Criteria, DEP-ID: 391-2000-017

NOTE: The user can only edit fields that are blue.

NOTE: MGD x 1.547 = cfs.

Facility:	**ST Products**							
Permit Number:	PA0034886							
Stream:	Beaverdam Branch							
	TSF			**TSF**		**TSF**		**PMF**
	Ambient Stream	Ambient Stream	Target Maximum	Daily		Daily		
	Temperature (ºF)	Temperature (ºF)	Stream Temp.[1]	WLA[2]		WLA[3]	at Discharge	
	(Default)	(Site-specific data)	(ºF)	(Million BTUs/day)		(ºF)	Flow (MGD)	
Jan 1-31	34	0	40	N/A -- Case 2		110.0	0.212	1.00
Feb 1-29	35	0	40	N/A -- Case 2		110.0	0.212	1.00
Mar 1-31	39	0	46	N/A -- Case 2		110.0	0.212	1.00
Apr 1-15	46	0	52	N/A -- Case 2		110.0	0.212	1.00
Apr 16-30	52	0	58	N/A -- Case 2		110.0	0.212	1.00
May 1-15	56	0	64	N/A -- Case 2		110.0	0.212	1.00
May 16-31	60	0	68	N/A -- Case 2		110.0	0.212	1.00
Jun 1-15	65	0	70	N/A -- Case 2		110.0	0.212	1.00
Jun 16-30	69	0	72	N/A -- Case 2		110.0	0.212	1.00
Jul 1-31	73	0	74	N/A -- Case 2		102.9	0.212	1.00
Aug 1-15	72	0	80	N/A -- Case 2		110.0	0.212	1.00
Aug 16-31	70	0	87	N/A -- Case 2		110.0	0.212	1.00
Sep 1-15	68	0	84	N/A -- Case 2		110.0	0.212	1.00
Sep 16-30	62	0	78	N/A -- Case 2		110.0	0.212	1.00
Oct 1-15	57	0	72	N/A -- Case 2		110.0	0.212	1.00
Oct 16-31	53	0	66	N/A -- Case 2		110.0	0.212	1.00
Nov 1-15	47	0	58	N/A -- Case 2		110.0	0.212	1.00
Nov 16-30	41	0	50	N/A -- Case 2		110.0	0.212	1.00
Dec 1-31	36	0	42	N/A -- Case 2		110.0	0.212	1.00

[1] This is the maximum of the TSF WQ criterion or the ambient temperature. The ambient temperature may be either the design (median) temperature for TSF, or the ambient stream temperature based on site-specific data entered by the user. A minimum of 1ºF above ambient stream temperature is allocated.

[2] The WLA expressed in Million BTUs/day is valid for Case 1 scenarios, and disabled for Case 2 scenarios.

[3] The WLA expressed in ºF is valid only if the limit is tied to a daily discharge flow limit (may be used for Case 1 or Case 2). WLAs greater than 110ºF are displayed as 110ºF.

Attachment D

Correspondence

NPDES Renewal Questions PA0034886 Date: 10/06/22

1. Question:
   Data summarized in the Pollutant Groups must report the detection limits as a numerical value. Reporting as <MDL is not acceptable. As an example, report <1 ug/l and not < MDL. Reporting as ND is also not acceptable.

   Response:
   I added the less than values. I can add the what the units each Pollutant was measured in, but I did not this time because they all matched what was in parentheses to the left.

   See Attachments:
   - Application_Industrial Wastewater Discharge_Outfall 001_Pollutant Groups 1-5 Tables Corrections_10-04-22
   - Application_Industrial Wastewater Discharge_Outfall 003_Pollutant Groups 1-5 Tables Corrections_10-04-22

2. Question:
   Confirm if there are any proposed upgrades to the treatment facility in the next 5 years.

   Response:
   No, there is not any proposed upgrades to the Outfalls 001, 002, 003, 004, or 005. In the next 5 years.

3. Question:
   The average flow rates in the NPDES permit application (pg 4) do not match the flow rates on the Water Flow Schematic.

   Response:
   Revised with the additions of the updated 2022 Permit Average GPD Flow for Outfall 001 and 003. Look at answers to questions 4 & 5 and we can edit the document more if need be.

   See Attachments:

   - Water Flow Schematic_REV E_10-06-22

4. Question:

   For Outfall 002, the NCCW flow rate for hydraulic system and air compressor on the Water Flow Schematic was reported as negligible. The flow rate from the previous renewal was 0.0143 MGD. Clarify why there is so much difference in flow rate.

   Response:

   I have assisted with this position since fall of 2019. My understanding that Outfall 002 is Negligible from Non-Contact Cooling Water (NCCW). In 2020 it recorded no days of flow, and in 2021 it recorded only 4 days flow with an average of 0.0005 MGD because of likely Rain or Snow melt. What I believe to be the case related to current Permit Outfall 002 MGD being at 0.0143 is because in the past due to maintenance on the 357 Furnace which during functioning production water flows out of Outfall 003. During the Maintenance water was redirected to Outfall 002 while the maintenance was being conducted. Through my records it happened in 2019 (Outfall 002 Avg = 0.0102), 2016(Outfall 002 Avg = 0.0072), and 2015(Outfall 002 Avg = 0.0072). Other than those 3 years where one event offsets the year it stays Negligible with the aspect of rain and snow melt. I can Update the Average and Max to represent 2017-2021. Let me know your thoughts?

   See Attachments

   - Summary of Average Flow Rates 2014-2021

Attachment E

Monitoring Data

Monitoring Data for Aluminum, Total
Beginning November 1, 2017 to July 1, 2022

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Aluminum, Total	01105	< 0.1536	Monitor and Report	lbs/day	Average Monthly
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Aluminum, Total	01105	FF	Monitor and Report	lbs/day	Average Monthly
					Final Effluent	Aluminum, Total	01105	FF	Monitor and Report	mg/L	Average Monthly
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Aluminum, Total	01105	FF	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Aluminum, Total	01105	FF	Monitor and Report	lbs/day	Average Monthly
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1443	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1427	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.100	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1571	Monitor and Report	lbs/day	Average Quarterly
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.0721	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.0500	Monitor and Report	mg/L	Average Quarterly
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1484	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.100	Monitor and Report	mg/L	Average Quarterly
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1400	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1425	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.100	Monitor and Report	mg/L	Average Quarterly
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1358	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1314	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1	Monitor and Report	mg/L	Average Quarterly
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.13836	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1	Monitor and Report	mg/L	Average Quarterly
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.13694	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.100	Monitor and Report	mg/L	Average Quarterly
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.13928	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.100	Monitor and Report	mg/L	Average Quarterly
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1439	Monitor and Report	lbs/day	Average Quarterly
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.12585	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1	Monitor and Report	mg/L	Average Quarterly
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.13936	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.13286	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.07018	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.0500	Monitor and Report	mg/L	Average Quarterly
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.0686	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.0500	Monitor and Report	mg/L	Average Quarterly
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Aluminum, Total	01105	< 0.14203	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Aluminum, Total	01105	< 0.1000	Monitor and Report	mg/L	Average Quarterly

Monitoring Data for Chromium, Hexavalent
Beginning November 1, 2017 to July 1, 2022

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Chromium, Hexavalent	01032	0.0922	Monitor and Report	lbs/day	Average Monthly
					Final Effluent	Chromium, Hexavalent	01032	0.0600	Monitor and Report	mg/L	Average Monthly
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Chromium, Hexavalent	01032	FF	Monitor and Report	lbs/day	Average Monthly
					Final Effluent	Chromium, Hexavalent	01032	FF	Monitor and Report	mg/L	Average Monthly
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Chromium, Hexavalent	01032	FF	Monitor and Report	lbs/day	Average Monthly
					Final Effluent	Chromium, Hexavalent	01032	FF	Monitor and Report	mg/L	Average Monthly
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0721	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0714	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0786	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0721	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0742	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.05	Monitor and Report	mg/L	Average Quarterly
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0700	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0713	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0679	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0657	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.05	Monitor and Report	mg/L	Average Quarterly
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.06918	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.05	Monitor and Report	mg/L	Average Quarterly
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.06847	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.05	Monitor and Report	mg/L	Average Quarterly
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.06964	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.0004	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0003	Monitor and Report	mg/L	Average Quarterly
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.06293	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.00035	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0003	Monitor and Report	mg/L	Average Quarterly
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.00033	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0003	Monitor and Report	mg/L	Average Quarterly
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.00035	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0003	Monitor and Report	mg/L	Average Quarterly
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.00034	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0003	Monitor and Report	mg/L	Average Quarterly
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Chromium, Hexavalent	01032	< 0.07102	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Chromium, Hexavalent	01032	< 0.0500	Monitor and Report	mg/L	Average Quarterly

Monitoring Data for Iron, Total
Beginning November 1, 2017 to July 1, 2022

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Iron, Total	01045	< 0.0615	Monitor and Report	lbs/day	Average Monthly
					Final Effluent	Iron, Total	01045	< 0.0400	Monitor and Report	mg/L	Average Monthly
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Iron, Total	01045	FF	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Iron, Total	01045	FF	Monitor and Report	lbs/day	Average Monthly
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Iron, Total	01045	FF	Monitor and Report	lbs/day	Average Monthly
					Final Effluent	Iron, Total	01045	FF	Monitor and Report	mg/L	Average Monthly
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Iron, Total	01045	< 0.0577	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.0400	Monitor and Report	mg/L	Average Quarterly
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Iron, Total	01045	< 0.0400	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.0571	Monitor and Report	lbs/day	Average Quarterly
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Iron, Total	01045	< 0.0629	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.0400	Monitor and Report	mg/L	Average Quarterly
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Iron, Total	01045	< 0.0577	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.0400	Monitor and Report	mg/L	Average Quarterly
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Iron, Total	01045	< 0.300	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.4451	Monitor and Report	lbs/day	Average Quarterly
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Iron, Total	01045	< 0.2801	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2000	Monitor and Report	mg/L	Average Quarterly
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Iron, Total	01045	< 0.2000	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2851	Monitor and Report	lbs/day	Average Quarterly
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Iron, Total	01045	< 0.2716	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2000	Monitor and Report	mg/L	Average Quarterly
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Iron, Total	01045	< 0.2	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2627	Monitor and Report	lbs/day	Average Quarterly
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Iron, Total	01045	< 0.41508	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2	Monitor and Report	mg/L	Average Quarterly
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Iron, Total	01045	< 0.200	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.27389	Monitor and Report	lbs/day	Average Quarterly
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Iron, Total	01045	< 0.27856	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.200	Monitor and Report	mg/L	Average Quarterly
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Iron, Total	01045	< 0.2878	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2000	Monitor and Report	mg/L	Average Quarterly
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Iron, Total	01045	< 0.2000	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2517	Monitor and Report	lbs/day	Average Quarterly
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Iron, Total	01045	< 0.27872	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.2000	Monitor and Report	mg/L	Average Quarterly
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Iron, Total	01045	< 0.2000	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.26571	Monitor and Report	lbs/day	Average Quarterly
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Iron, Total	01045	< 0.28072	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.200	Monitor and Report	mg/L	Average Quarterly
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Iron, Total	01045	< 0.0200	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.27439	Monitor and Report	lbs/day	Average Quarterly
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Iron, Total	01045	< 0.2000	Monitor and	mg/L	Average Quarterly
					Final Effluent	Iron, Total	01045	< 0.28406	Monitor and Report	lbs/day	Average Quarterly

Monitoring Data for Manganese
Beginning November 1, 2017 to July 1, 2022

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0100	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Manganese, Total	01055	< 0.0154	Monitor and Report	lbs/day	Average Monthly
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Manganese, Total	01055	FF	Monitor and Report	lbs/day	Average Monthly
					Final Effluent	Manganese, Total	01055	FF	Monitor and Report	mg/L	Average Monthly
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Manganese, Total	01055	FF	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Manganese, Total	01055	FF	Monitor and Report	lbs/day	Average Monthly
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0144	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0100	Monitor and Report	mg/L	Average Quarterly
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0143	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0100	Monitor and Report	mg/L	Average Quarterly
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0157	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0100	Monitor and Report	mg/L	Average Quarterly
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0289	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0297	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0280	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0285	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0272	Monitor and Report	lbs/day	Average Quarterly
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Manganese, Total	01055	< 0.02	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0263	Monitor and Report	lbs/day	Average Quarterly
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Manganese, Total	01055	< 0.02767	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.02	Monitor and Report	mg/L	Average Quarterly
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Manganese, Total	01055	< 0.02739	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.020	Monitor and Report	mg/L	Average Quarterly
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Manganese, Total	01055	< 0.02786	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.02	Monitor and Report	mg/L	Average Quarterly
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0288	Monitor and Report	lbs/day	Average Quarterly
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.02517	Monitor and Report	lbs/day	Average Quarterly
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Manganese, Total	01055	< 0.02728	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.02657	Monitor and Report	lbs/day	Average Quarterly
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Manganese, Total	01055	< 0.02807	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Manganese, Total	01055	< 0.02744	Monitor and Report	lbs/day	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Manganese, Total	01055	< 0.0200	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Manganese, Total	01055	< 0.02841	Monitor and Report	lbs/day	Average Quarterly

Period Begin	Period End	Date	Outfall	Discharge	Monitoring Location	Parameter Name	Code	DMR Value	Permit Limit	Units	Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Chromium, Total	01034	< 0.0077	0.62	lbs/day	Average Monthly
					Final Effluent	Chromium, Total	01034	< 0.0077	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Chromium, Total	01034	FF	0.62	lbs/day	Average Monthly
					Final Effluent	Chromium, Total	01034	FF	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Chromium, Total	01034	FF	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	FF	Monitor and Report	mg/L	Daily Maximum
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Chromium, Total	01034	FF	0.62	lbs/day	Average Monthly
					Final Effluent	Chromium, Total	01034	FF	Monitor and Report	mg/L	Average Monthly
					Final Effluent	Chromium, Total	01034	FF	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	FF	Monitor and Report	mg/L	Daily Maximum
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0500	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0072	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0500	Monitor and Report	mg/L	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0072	1.53	lbs/day	Daily Maximum
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0071	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0071	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0079	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0079	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0029	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0020	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0029	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0020	Monitor and Report	mg/L	Daily Maximum
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0074	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0074	1.53	lbs/day	Daily Maximum
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0070	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0070	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0071	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	0.0050	Monitor and Report	mg/L	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0071	1.53	lbs/day	Daily Maximum
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0068	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0068	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0066	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0066	1.53	lbs/day	Daily Maximum
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00692	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.00692	1.53	lbs/day	Daily Maximum
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00685	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00685	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Daily Maximum
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.006964	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.006964	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Daily Maximum
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0072	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0072	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Chromium, Total	01034	< 0.00629	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00629	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00697	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.00697	1.53	lbs/day	Daily Maximum
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Chromium, Total	01034	< 0.00664	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.00664	1.53	lbs/day	Daily Maximum
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00702	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00702	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.005	Monitor and Report	mg/L	Daily Maximum
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00686	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00686	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Chromium, Total	01034	< 0.00710	0.62	lbs/day	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Average Quarterly
					Final Effluent	Chromium, Total	01034	< 0.00710	1.53	lbs/day	Daily Maximum
					Final Effluent	Chromium, Total	01034	< 0.0050	Monitor and Report	mg/L	Daily Maximum

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Copper, Total	01042	0.0458	0.31	lbs/day	Average Monthly
					Final Effluent	Copper, Total	01042	0.0298	0.16	mg/L	Average Monthly
					Final Effluent	Copper, Total	01042	0.0458	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0298	0.32	mg/L	Daily Maximum
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Copper, Total	01042	FF	0.31	lbs/day	Average Monthly
					Final Effluent	Copper, Total	01042	FF	0.16	mg/L	Average Monthly
					Final Effluent	Copper, Total	01042	FF	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	FF	0.32	mg/L	Daily Maximum
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Copper, Total	01042	FF	0.16	mg/L	Average Monthly
					Final Effluent	Copper, Total	01042	FF	0.31	lbs/day	Average Monthly
					Final Effluent	Copper, Total	01042	FF	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	FF	0.32	mg/L	Daily Maximum
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Copper, Total	01042	0.0186	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0268	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0268	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0186	0.32	mg/L	Daily Maximum
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Copper, Total	01042	0.0587	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0411	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0587	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0411	0.32	mg/L	Daily Maximum
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Copper, Total	01042	0.0402	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0256	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0402	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0256	0.32	mg/L	Daily Maximum
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Copper, Total	01042	0.0475	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0329	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0475	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0329	0.32	mg/L	Daily Maximum
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Copper, Total	01042	0.0708	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0477	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0708	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0477	0.32	mg/L	Daily Maximum
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Copper, Total	01042	0.0511	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0716	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0716	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0511	0.32	mg/L	Daily Maximum
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Copper, Total	01042	0.0281	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0401	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0281	0.32	mg/L	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0401	0.61	lbs/day	Daily Maximum
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Copper, Total	01042	0.0506	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0687	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0506	0.32	mg/L	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0687	0.61	lbs/day	Daily Maximum
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Copper, Total	01042	0.021	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0276	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.021	0.32	mg/L	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0276	0.61	lbs/day	Daily Maximum
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Copper, Total	01042	0.0438	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0606	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0606	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0438	0.32	mg/L	Daily Maximum
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Copper, Total	01042	0.05505	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0402	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.05505	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0402	0.32	mg/L	Daily Maximum
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Copper, Total	01042	0.0431	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.06003	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0431	0.32	mg/L	Daily Maximum
					Final Effluent	Copper, Total	01042	0.06003	0.61	lbs/day	Daily Maximum
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Copper, Total	01042	0.0478	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0332	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0478	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0332	0.32	mg/L	Daily Maximum
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Copper, Total	01042	0.035	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.04405	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.035	0.32	mg/L	Daily Maximum
					Final Effluent	Copper, Total	01042	0.04405	0.61	lbs/day	Daily Maximum
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Copper, Total	01042	0.18674	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.134	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.18674	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.134	0.32	mg/L	Daily Maximum
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Copper, Total	01042	0.0442	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.05872	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.05872	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0442	0.32	mg/L	Daily Maximum
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Copper, Total	01042	0.04941	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0352	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.04941	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0352	0.32	mg/L	Daily Maximum
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Copper, Total	01042	0.1195	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.0871	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.1195	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.0871	0.32	mg/L	Daily Maximum
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Copper, Total	01042	0.18038	0.31	lbs/day	Average Quarterly
					Final Effluent	Copper, Total	01042	0.127	0.16	mg/L	Average Quarterly
					Final Effluent	Copper, Total	01042	0.18038	0.61	lbs/day	Daily Maximum
					Final Effluent	Copper, Total	01042	0.127	0.32	mg/L	Daily Maximum

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Lead, Total	01051	< 0.0123	0.21	lbs/day	Average Monthly
					Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Monthly
					Final Effluent	Lead, Total	01051	< 0.0123	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Lead, Total	01051	FF	0.11	mg/L	Average Monthly
					Final Effluent	Lead, Total	01051	FF	0.21	lbs/day	Average Monthly
					Final Effluent	Lead, Total	01051	FF	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	FF	0.42	lbs/day	Daily Maximum
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Lead, Total	01051	FF	0.11	mg/L	Average Monthly
					Final Effluent	Lead, Total	01051	FF	0.21	lbs/day	Average Monthly
					Final Effluent	Lead, Total	01051	FF	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	FF	0.22	mg/L	Daily Maximum
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0115	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0115	0.42	lbs/day	Daily Maximum
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0114	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0114	0.42	lbs/day	Daily Maximum
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0126	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0126	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Lead, Total	01051	< 0.0040	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0058	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0040	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0058	0.42	lbs/day	Daily Maximum
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Lead, Total	01051	< 0.0119	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0119	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0112	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	0.0080	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0112	0.42	lbs/day	Daily Maximum
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Lead, Total	01051	< 0.0114	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0114	0.42	lbs/day	Daily Maximum
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0109	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0109	0.42	lbs/day	Daily Maximum
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Lead, Total	01051	< 0.008	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0105	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.008	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0105	0.42	lbs/day	Daily Maximum
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Lead, Total	01051	< 0.01107	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.008	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.008	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.01107	0.42	lbs/day	Daily Maximum
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Lead, Total	01051	< 0.01096	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.008	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01096	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.008	0.22	mg/L	Daily Maximum
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Lead, Total	01051	< 0.008	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01114	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.008	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.01114	0.42	lbs/day	Daily Maximum
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0115	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0115	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Lead, Total	01051	< 0.01007	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01007	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01115	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.01115	0.42	lbs/day	Daily Maximum
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Lead, Total	01051	< 0.01063	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01063	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Lead, Total	01051	< 0.01123	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01123	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Lead, Total	01051	< 0.008	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01098	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.008	0.22	mg/L	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.01098	0.42	lbs/day	Daily Maximum
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Lead, Total	01051	< 0.01136	0.21	lbs/day	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.0080	0.11	mg/L	Average Quarterly
					Final Effluent	Lead, Total	01051	< 0.01136	0.42	lbs/day	Daily Maximum
					Final Effluent	Lead, Total	01051	< 0.0080	0.22	mg/L	Daily Maximum

Monitoring Period Begin Date	Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/01/2017	11/30/2017	12/14/2017	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Monthly
					Final Effluent	Nickel, Total	01067	< 0.0768	2.79	lbs/day	Average Monthly
					Final Effluent	Nickel, Total	01067	< 0.0768	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
12/01/2017	12/31/2017	01/23/2018	001	Yes	Final Effluent	Nickel, Total	01067	FF	2.79	lbs/day	Average Monthly
					Final Effluent	Nickel, Total	01067	FF	1.47	mg/L	Average Monthly
					Final Effluent	Nickel, Total	01067	FF	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	FF	2.94	mg/L	Daily Maximum
01/01/2018	01/31/2018	02/27/2018	001	Yes	Final Effluent	Nickel, Total	01067	FF	2.79	lbs/day	Average Monthly
					Final Effluent	Nickel, Total	01067	FF	1.47	mg/L	Average Monthly
					Final Effluent	Nickel, Total	01067	FF	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	FF	5.58	lbs/day	Daily Maximum
01/01/2018	03/31/2018	03/26/2018	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	0.0721	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0721	2.79	lbs/day	Total Quarterly
04/01/2018	06/30/2018	06/19/2018	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0714	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0714	2.79	lbs/day	Total Quarterly
07/01/2018	09/30/2018	09/26/2018	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0786	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0786	2.79	lbs/day	Total Quarterly
10/01/2018	12/31/2018	11/16/2018	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0100	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0144	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0100	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0144	2.79	lbs/day	Total Quarterly
01/01/2019	03/31/2019	04/25/2019	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0742	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0742	2.79	lbs/day	Total Quarterly
04/01/2019	06/30/2019	07/23/2019	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0700	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0700	2.79	lbs/day	Total Quarterly
07/01/2019	09/30/2019	09/20/2019	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0713	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0713	2.79	lbs/day	Total Quarterly
10/01/2019	12/31/2019	11/20/2019	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0679	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0679	2.79	lbs/day	Total Quarterly
01/01/2020	03/31/2020	04/15/2020	001	Yes	Final Effluent	Nickel, Total	01067	< 0.05	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0657	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.05	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0657	2.79	lbs/day	Total Quarterly
04/01/2020	06/30/2020	07/21/2020	001	Yes	Final Effluent	Nickel, Total	01067	< 0.05	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.06918	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.05	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06918	2.79	lbs/day	Total Quarterly
07/01/2020	09/30/2020	10/13/2020	001	Yes	Final Effluent	Nickel, Total	01067	< 0.050	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.06847	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.050	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06847	2.79	lbs/day	Total Quarterly
10/01/2020	12/31/2020	11/03/2020	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.06964	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06964	2.79	lbs/day	Total Quarterly
01/01/2021	03/31/2021	04/28/2021	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0719	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0719	2.79	lbs/day	Total Quarterly
04/01/2021	06/30/2021	07/16/2021	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.06293	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06293	2.79	lbs/day	Total Quarterly
07/01/2021	09/30/2021	10/25/2021	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06968	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06968	2.79	lbs/day	Total Quarterly
10/01/2021	12/31/2021	12/23/2021	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06643	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.06643	2.79	lbs/day	Total Quarterly
01/01/2022	03/31/2022	04/27/2022	001	Yes	Final Effluent	Nickel, Total	01067	< 0.050	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.07018	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.050	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.07018	2.79	lbs/day	Total Quarterly
04/01/2022	06/30/2022	08/03/2022	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0686	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.0686	2.79	lbs/day	Total Quarterly
07/01/2022	09/30/2022	09/16/2022	001	Yes	Final Effluent	Nickel, Total	01067	< 0.0500	1.47	mg/L	Average Quarterly
					Final Effluent	Nickel, Total	01067	< 0.0500	2.94	mg/L	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.07102	5.58	lbs/day	Daily Maximum
					Final Effluent	Nickel, Total	01067	< 0.07102	2.79	lbs/day	Total Quarterly

Monitoring Period End Date	DMR Received Date	Outfall	Discharge	Monitoring Location	Parameter Name	Parameter Code	DMR Value	Permit Limit	Units	Statistical Base Code
11/30/2017	12/14/2017	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0307	2.13	lbs/day	Average Monthly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Monthly
				Final Effluent	Zinc, Total	01092	< 0.0307	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
12/31/2017	01/23/2018	001	Yes	Final Effluent	Zinc, Total	01092	FF	2.13	lbs/day	Average Monthly
				Final Effluent	Zinc, Total	01092	FF	1.12	mg/L	Average Monthly
				Final Effluent	Zinc, Total	01092	FF	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	FF	2.24	mg/L	Daily Maximum
01/31/2018	02/27/2018	001	Yes	Final Effluent	Zinc, Total	01092	FF	2.13	lbs/day	Average Monthly
				Final Effluent	Zinc, Total	01092	FF	1.12	mg/L	Average Monthly
				Final Effluent	Zinc, Total	01092	FF	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	FF	2.24	mg/L	Daily Maximum
03/31/2018	03/26/2018	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0289	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0289	4.25	lbs/day	Daily Maximum
06/30/2018	06/19/2018	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0285	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0285	4.25	lbs/day	Daily Maximum
09/30/2018	09/26/2018	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0314	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0314	4.25	lbs/day	Daily Maximum
12/31/2018	11/16/2018	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0289	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0289	4.25	lbs/day	Daily Maximum
03/31/2019	04/25/2019	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0297	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0297	4.25	lbs/day	Daily Maximum
06/30/2019	07/23/2019	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0280	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0280	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
09/30/2019	09/20/2019	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0285	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0285	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
12/31/2019	11/20/2019	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0272	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0272	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
03/31/2020	04/15/2020	001	Yes	Final Effluent	Zinc, Total	01092	< 0.02	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0263	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0263	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.02	2.24	mg/L	Daily Maximum
06/30/2020	07/21/2020	001	Yes	Final Effluent	Zinc, Total	01092	< 0.02	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02767	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02767	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.02	2.24	mg/L	Daily Maximum
09/30/2020	10/13/2020	001	Yes	Final Effluent	Zinc, Total	01092	< 0.02739	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02739	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.02	2.24	mg/L	Daily Maximum
12/31/2020	11/03/2020	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02786	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.02786	4.25	lbs/day	Daily Maximum
03/31/2021	04/28/2021	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0288	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0288	4.25	lbs/day	Daily Maximum
06/30/2021	07/16/2021	001	Yes	Final Effluent	Zinc, Total	01092	< 0.02517	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.02517	4.25	lbs/day	Daily Maximum
09/30/2021	10/25/2021	001	Yes	Final Effluent	Zinc, Total	01092	0.0867	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	0.12083	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	0.12083	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	0.0867	2.24	mg/L	Daily Maximum
12/31/2021	12/23/2021	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02657	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02657	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
03/31/2022	04/27/2022	001	Yes	Final Effluent	Zinc, Total	01092	< 0.02807	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.02807	4.25	lbs/day	Daily Maximum
06/30/2022	08/03/2022	001	Yes	Final Effluent	Zinc, Total	01092	< 0.02744	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.02744	4.25	lbs/day	Daily Maximum
09/30/2022	09/16/2022	001	Yes	Final Effluent	Zinc, Total	01092	< 0.0200	1.12	mg/L	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02841	2.13	lbs/day	Average Quarterly
				Final Effluent	Zinc, Total	01092	< 0.02841	4.25	lbs/day	Daily Maximum
				Final Effluent	Zinc, Total	01092	< 0.0200	2.24	mg/L	Daily Maximum