From: Ziegelbauer, Heather <Heather.Ziegelbauer@jacobs.com>
Sent: Monday, April 15, 2024 6:54 PM
To: Kleinberg, Andrew
Cc: Carey, Angela J - DNR; Ryan Suennen; Finney, David; Krueger, Sarah E - DNR; Denice Karen Nelson; Scott D Wahl; Brandy K Powell
Subject: Quarterly Progress Report - Tyco Fire Products LP Stanton Street Property, Marinette, WI
Attachments: 20240415-TycoQuarterlyReport.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Andrew,
On behalf of Tyco, attached is the quarterly progress report covering the period from January 1 through March 31, 2024 for the Tyco Fire Products LP Stanton Street property, Marinette, WI.

Please let us know if you have any questions.

Regards,

Heather Ziegelbauer, PE* | Jacobs | Project Manager
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April 15, 2024

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

Subject: ***Quarterly Progress Report (January through March 2024)***
Administrative Order on Consent (February 26, 2009)
Tyco Fire Products LP, Stanton Street Facility, Marinette, Wisconsin
WID 006 125 215

Dear Mr. Kleinberg:

In accordance with Section VI, 21, b (page 10) of the Administrative Order on Consent (AOC), dated February 26, 2009,[1] Tyco Fire Products LP (Tyco) has prepared this quarterly progress report for the U.S. Environmental Protection Agency (EPA) Region 5 and Wisconsin Department of Natural Resources (WDNR) (collectively referred to herein as the Agencies). Progress reports are required to document activities conducted as part of the Resource Conservation and Recovery Act (RCRA) corrective actions at the Tyco property on One Stanton Street in Marinette, Wisconsin (Figure 1). This report covers the period from January 1 through March 31, 2024, and presents a brief description of the work performed, data collected, problems encountered, and schedule of activities as required by the 2009 AOC and subsequent agreements.

1.0 Work Completed during This Reporting Period

Groundwater Collection and Treatment

The following subsections summarize the current status of the groundwater collection and treatment components and groundwater system operations during the reporting period. Attachment 1 summarizes the operational data for the groundwater collection and treatment system (GWCTS) during first quarter 2024 and includes Table 1-1, which lists the estimated volumes of water extracted, treated, stored, discharged, and disposed of offsite. Attachment 2 contains the monthly Discharge Monitoring Reports for Wisconsin Pollutant Discharge Elimination System (WPDES) general permit WI-0001040-08-01 for Outfall OF004 (Figure 2) and Sampling Point SP108 (GWCTS effluent).

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

GWCTS Operations Status

The upgraded GWCTS treats groundwater extracted from the Main Plant (FD-1, EW-4, EW-5, EW-6, and EW-7) and Wetlands Area (EW-1) to prevent surface flooding of the facility (Figures 1 and 2). The GWCTS also treats groundwater recovered from the pump down program (PDP) operations, which include the former Salt Vault (HW-1 and HW-2) and former 8th Street Slip (EW--8 and EW-9) areas (Figures 1 and 2). PDP water was also used to fill offsite disposal trucks (disposed of offsite at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio) if additional volume was needed when reject water was being filled into the trucks or instead of frac tank water to optimize operations and maximize efficiencies. PDP operations continued under management of Endpoint Solutions (Endpoint) of Franklin, Wisconsin, during the reporting period, and Endpoint coordinated with Tyco on PDP settings and conveyance to the GWCTS. GWCTS operations continued under management of Tyco operators. The GWCTS operated continuously except for select weekends and holidays and for short-term maintenance. During the reporting period extended maintenance or optimization configuration shutdowns occurred as follows:

- January 26 to February 4, 2024: Shutdown to optimize pH dosing system and make programming, electrical, and feed pump changes.
- February 12 to February 13, 2024: Shutdown to allow for the installation and implementation of several improvements to optimize system operation, for example:
  - New flow meters at extraction well manifolds EW-1, EW-4, EW-5, EW-6, and EW-7 to improve the totalizer readings for these extraction wells
  - Updates and additions to equipment, valves, and piping to optimize operations
  - Upgrades to software
  - Other miscellaneous programming updates
- March 19 to March 22, 2024: The result of the delayed delivery of magnesium chloride required for pre-treatment of groundwater prior to running the water through the membrane filters.

In addition, on January 23 and 24 Tyco had Veolia Water Technologies & Solutions onsite to evaluate their product Foamtrol AF2050 for optimizing system operations. Veolia set up a temporary dosing system at the first reaction tank. After being in place several weeks, it was determined that this system does help with managing operations but is only turned on by the operators as needed.

Main Plant and Wetlands Area Extraction Well Maintenance

During the reporting period, the Main Plant and Wetlands Area vertical extraction wells and their pumps were inspected. The results were as follows:

- EW-1, Wetlands Area: During the inspection on March 13, 2024, the well vault was flooded. The pump was pulled and inspected and the electrical connections were found to be damaged. This was causing the pump to short out intermittently as was noted by the operators beginning in early February 2024. A new pump was ordered for installation in early second quarter 2024. Relocation of this componentry to above-grade to prevent this from occurring in the future is being evaluated.
- EW-4, northeast corner of the Main Plant: Extraction well EW-4 capacity is limited (typically 0.5 gallon per minute [gpm] or less). As such, this pump is not typically operated and the focus of operations in the Main Plant is at EW-5, EW-6, and EW-7. During an inspection of EW-4 on March 13, 2024, the well vault was found to be flooded. The pump was pulled and inspected and the electrical connections

were found to be damaged, which was causing the pump to short out. A new pump was ordered for installation in early second quarter 2024. Pumping of the well was conducted to confirm its performance. The well was pumped dry after approximately 30 gallons of groundwater was removed and after 45 minutes the well had only recovered approximately 50 percent. Tyco is also looking at alternative operations near the area of EW-4 since the capacity of this well is limited (typically 0.5 gpm or less).

- EW-5, south central area of the Main Plant: Based on operations and inspections on this pump conducted in November 2023, this pump is working properly and no maintenance was needed in first quarter 2024.
- EW-6, south central area of the Main Plant: The pump was inspected in November 2023 and later found not to be working properly in late December 2023. A new pump was ordered and replaced on February 13, 2024, and the pump is back to normal operations.
- EW-7, northwest corner of the Main Plant: During change out of the totalizer at this well on February 12, 2024, there was some fouling observed at the manifold and in the piping, however, the fouling was not impacting operation of the pump. Maintenance to clean out the piping and to replace the pump with a higher capacity pump is planned at EW-7 in second quarter 2024; this will allow for increased capacity (instantaneous flows of 15 to 20 gpm) at EW-7, in case this is needed.

GWCTS Treatment System Operations

The GWCTS operated 59 days during the reporting period and treated approximately 670,740 gallons of water from the active Main Plant and Wetlands Area extraction wells, the PDP wells, as well as water from Building 40 sump (Figures 1 and 2). The GWCTS estimated effluent total for the reporting period is 527,296 gallons, and the estimated reject disposed of offsite was 172,680 gallons (disposed of at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio). The monthly Discharge Monitoring Reports results from December 2023, January 2024, and February 2024 (Attachment 2), indicate that treated groundwater GWCTS effluent complies with both the permitted SP108 GWCTS effluent limits and Outfall OF004 discharge requirements. Additional GWCTS operations at the site for the reporting period are summarized as follows:

- **Main Plant and Wetlands Area Extracted Groundwater:** Approximately 541,175 gallons of groundwater was extracted from the Wetlands Area and Main Plant extraction wells during the reporting period. The overall average pumping rate for these wells for the reporting period was 4.1 gpm. For only the days operated (the days when the system was running), the overall average pumping rate for the reporting period was 6.4 gpm. In addition, the French drain extracted approximately 25,661 gallons of groundwater from the Main Plant area. The overall average pumping rate for the reporting period was 0.2 gpm.
- **PDP Area Extracted Groundwater:** Approximately 278,493 gallons of groundwater was extracted from the PDP area during the reporting period. The overall average pumping rate for the reporting period in the former Salt Vault was 1.1 gpm and in the former 8th Street Slip was 1.1 gpm. Average weekly pumping rates (which include both areas) ranged from 0.1 to 3.7 gpm and are summarized graphically in Attachment 3.
- **Total Volume Extracted with Extraction Well Network:** In summary, a total of approximately 845,330 gallons of groundwater was extracted from the site with the GWCTS well network for the reporting period, with an overall average pumping rate of 6.5 gpm.

- **Additional Groundwater and Surface Water Collected:**
  - As noted in the previous quarterly report, at the end of December 2023 approximately 135,000 gallons of water (from mainly construction dewatering operations and the operation of building sumps at the site) remained temporarily stored onsite in 20,000-gallon frac tanks located in the former Salt Vault and former 8th Street Slip areas. This remaining water was disposed of offsite by February 7, 2024, and the associated frac tanks cleaned and removed from the site by mid-February 2024. The frac tank cleaning was estimated to generate an additional 7,200 gallons of water that was also disposed of offsite.
  - In late February and early March 2024, an estimated 35,000 gallons of groundwater was extracted from the Building 40 sump (Figure 2). This water was temporarily stored onsite in 20,000-gallon frac tanks located near Building 40. The water was then either transferred to the PDP building tanks and conveyed to the GWCTS operations for final treatment and discharge or was disposed of offsite.
  - There is no remaining volume of collected groundwater and surface water onsite from all sources stored onsite as of the end of the reporting period.
- **Total Volume of Water Disposed Offsite:** An estimated 579,791 gallons of water (a combination of PDP and FD-1 groundwater that was not treated, reject water, boiler house sump water that was not treated, and frac tank water) was removed from the site during the reporting period and disposed of at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio.

PDP Water Levels

Both the former Salt Vault and former 8th Street Slip areas have maintained average groundwater levels below the target elevation during the reporting period, as indicated by Attachment 4 (the target elevation calculation included in the manual water level measurements table) and Attachment 5 (hydrographs with the manual water level measurement average elevations, which also includes the transducer data collected as part of the pump house system operations). Two additional hydrographs are included (Attachment 5) and provide the individual manual water level data for each well, and the average elevation for each area relative to the river elevation. An inward hydraulic gradient was maintained for each of these areas during the entire reporting period.

French Drain in Cover Area H

As noted in the last quarterly report, a memorandum documenting the installation activities of a shallow French drain in the Main Plant (operational by October 4, 2023) was prepared by Endpoint and submitted on December 6, 2023. EPA provided comments on the French drain memorandum January 3, 2024. A response was submitted on April 3, 2024, to address the Agencies' comments.

Barrier Wall Groundwater Monitoring Activities

No barrier wall groundwater monitoring field activities were completed in first quarter 2024. EPA emailed a letter on February 14, 2024, with the Agencies review comments on the *2022 Barrier Wall Groundwater Monitoring Annual Monitoring Report*.[2] A memorandum was submitted on April 1, 2024 to respond to the comments; as noted in the response, the comments were addressed in the 2023 *Five-Year Technical*

[2] Jacobs. 2023. *2022 Barrier Wall Groundwater Monitoring Annual Report*. April 15.

Review Report (Five-Year Review Report)[3] or the 2023 Barrier Wall Groundwater Monitoring Annual Monitoring Report (included as Appendix A to the Five-Year Report) that was also submitted on April 1, 2024.

Maintenance Inspections

No maintenance inspection field activities were completed in first quarter 2024.

2023 Sediment Sampling Report

As noted in the last quarterly report, the *2023 Sediment Sampling Report*[4] was submitted on December 4, 2023, and describes the activities conducted in 2023 to collect arsenic concentration data from accumulated post-dredging soft sediments in the Menominee River. This work was conducted pursuant to the June 28, 2023 Revised Sediment Sampling Work Plan, and in support of the 2023 Five-Year Review Report. EPA emailed a letter on February 16, 2024, with the Agencies' comments on the *2023 Sediment Sampling Report*. A memorandum was submitted on April 10, 2024, to respond to the comments; as noted in the response, some of the comments were addressed in the 2023 Five-Year Review Report submitted on April 1, 2024.

Quarterly Report Comments

As noted in the last quarterly report, EPA provided comments on the third quarter 2023 quarterly report on December 20, 2023. A response memorandum was submitted via email on January 18, 2024, to address the comments. The fourth quarter 2023 quarterly report as well as this first quarter 2024 report were updated to address the following EPA comments: inclusion of updated aerial imagery on the site figures; updates to the Attachment 3 table to include the 2023 mean conductivity value; and updates to the Attachment 5 PDP hydrographs.

Vapor Intrusion Assessment and Work Plan Comments

As noted in the last quarterly report, the *Revised Vapor Intrusion Assessment and Work Plan*[5] was submitted to EPA and WDNR on March 17, 2021, which included an updated evaluation of potential vapor intrusion at the site and a revised work plan for additional vapor intrusion evaluation activities to be conducted at the site. Comments on the work plan were provided by the Agencies on December 20, 2023. A meeting occurred on April 4, 2024, to discuss the comments with the Agencies. A response to comments document (that also outlines the proposed work plan) will be submitted in second quarter 2024 to address the comments; the work plan will follow once the Agencies have approved the general approach for inclusion in the revised work plan.

Monthly Meetings

Monthly teleconference meetings were attended by EPA, WDNR, Tyco, Jacobs, and Endpoint on January 4, February 1, and March 7, 2024. During each meeting, the status of deliverables and a brief update of completed or upcoming activities were discussed.

[3] Jacobs. 2024. Five-Year Technical Review Report. April 1.

[4] Jacobs. 2023. *2023 Sediment Sampling Report*. December 4.

[5] Jacobs. 2021. *Revised Vapor Intrusion Assessment and Work Plan*. March 17.

No Anchoring Signs

During a fall 2023 monthly meeting WDNR identified a "No Anchoring" sign at one of the boat launches along the Menominee River had been vandalized and the contact information was no longer accurate. Tyco drafted new signs and the Agencies provided comments in November 2023. Tyco submitted the proposed design for revised "No Anchoring" signs on January 3, 2024, and EPA approved of the signs via email on January 5, 2024. Tyco emailed on February 29, 2024, photo documentation of the new signs that were posted. Tyco also added these locations to the quarterly inspections.

Additional Activities

WPDES Permit Activities

The following activities required by WPDES Permit WI-0001040-08-0 (effective January 1, 2021, through December 31, 2025) were conducted:

- Documentation of Material Management Plan (MMP) activities for the stormwater trench completed in fall 2023 was prepared and was submitted to WDNR in second quarter 2024 (submitted on April 9, 2024).
- The weir gate at Weir #1 in the northwest corner of the site was moved to Weir #3 along the Turning Basin area (that had no weir gate installed) on February 27, 2024. Weir #3 is where the new stormwater swale and former Coal Dock area that was paved now drain to as part of the fall 2023 stormwater improvements. In early April 2024, a steel plate will be installed at Weir #1; with the recently installed stormwater improvements in the northwest corner of the site, the Weir # 1 opening is no longer needed for stormwater drainage.

Soil Management Plan

Tyco submitted a revised Soil Management Plan (SMP) on February 22, 2024, which includes an introduction, SMP flow chart and supporting materials (including an MMP template for the Tyco site) that addresses the Agencies' comments provided on October 20, 2023. EPA sent email approval of the SMP on March 1, 2024. No soil was generated or disposed of during this reporting period.

ChemDesign Proposed Water Line Work

Tyco leases a portion of the site to ChemDesign. ChemDesign has proposed to construct a new water line on the site in 2024 to provide water to a new building constructed by ChemDesign. Because the new water line will impact a small portion of the cover on the site in Area J (Figure 3), Tyco submitted a memorandum[6] on January 16, 2024, requesting EPA's written approval for this work under Section 13 of the Cover Maintenance Plan[7]. EPA sent email approval of the work on March 1, 2024.

In addition, a ChemDesign MMP for reuse of soils onsite related to this ChemDesign water line construction project was submitted on February 13, 2024, to WDNR. The MMP was requesting an exemption from the Wisconsin Administrative Code Chapter NR 718 Management of Contaminated Soil or Solid Wastes Excavated During Response Actions (NR 718), NR 718.12 (1) (c) location standard

[6] Jacobs. 2024. *Changes to RCRA Site Components Due to ChemDesign New Water Line.* January 16.

[7] CH2M HILL Engineers, Inc. 2010. *Draft Cover Maintenance Plan – Revision 1, Onsite Soil Areas.* Submitted to EPA. December 22. This was approved by EPA/WDNR in 2011.

requirements so that contaminated soil can be managed, stockpiled, and backfilled within the general area from which it is excavated, as allowed in NR 718.12 (1) (d). WDNR sent an email on March 1, 2024, granting the location criteria exemption and approval to manage contaminated soil as backfill within the area from which it is excavated; the email also indicated best management practices for stormwater control be implemented during and following work completion. Documentation of the material management activities will be provided to the Agencies following their completion.

2.0 Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of WPDES Permit WI-0001040-08-0. Attachment 2 includes the GWCTS monthly WPDES Discharge Monitoring Reports for December 2023 through February 2024, and Attachment 1 contains additional data on GWCTS operations.

Weekly groundwater elevation data were collected from monitoring wells in the former 8th Street Slip and former Salt Vault areas in accordance with the PDP requirements, and the data are included in the 2024 PDP summary table (Attachment 4). Water level data from transducers in monitoring wells and pumping rates collected as part of the PDP pump house system are also summarized in a hydrograph and stacked bar chart (with average weekly pumping rates), respectively (Attachments 5 and 3). Although this is the post–drawdown monitoring phase (which requires quarterly manual water level measurements, instead of weekly), weekly water level measurements will continue to be collected until the remaining empty frac tanks and other site storage containers staged in the former Salt Vault and former 8th Street Slip are removed out of the transducer line of sight to the pump house building (Figure 2). Removal of the containers is planned for the second quarter 2024. Jersey barriers will be installed to limit the area used for storage.

3.0 Problems Encountered

There were no new problems encountered during this reporting period.

4.0 Schedule of Upcoming Activities

These were submitted during the next reporting period prior to submitting this quarterly report:

- The combined 2023 annual report and 5-year technical review report (submitted on April 1, 2024)
- Response to Agencies' comments on the 2022 Barrier Wall Groundwater Monitoring Annual *Report* (submitted on April 1, 2024)
- Response to EPA comments on French drain memorandum (submitted on April 3, 2024)
- To WDNR a summary of the MMP stormwater improvement activities conducted in fourth quarter 2023 (submitted on April 9, 2024)
- Response to Agencies' comments on the *2023 Sediment Sampling Report* (submitted on April 10, 2024)

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

- Submit the quarterly progress report

- Continue operating the GWCTS, which includes PDP operations in the former Salt Vault and former 8th Street Slip areas
- Continue measuring weekly PDP water levels in the former Salt Vault and former 8th Street Slip areas until frac tanks and storage containers are removed, at which time monitoring will be converted to monthly
- Review EPA comments on the vapor intrusion work plan and prepare a revised work plan
- Complete the barrier wall groundwater monitoring sampling event
- Conduct vertical barrier wall (from land and water sides, above the waterline), phyto-pumping tree plot, cover area, and monitoring well inspections
- Conduct vertical barrier wall survey
- Address 2024 inspection findings for the vertical barrier wall, phyto-pumping tree plots, cover areas, and monitoring wells, as needed
- Complete remaining 2023 inspection findings for the sheet pile vertical barrier wall and replace missing slurry barrier wall markers in spring or summer 2024
- Complete additional phyto-pumping plot plantings in spring 2024 timeframe near the former Coal Dock area (Zones 6 and 7) to add trees in the open area created by the 2023 stormwater improvements

5.0 List of Key Correspondence and Document Submittals

Project-related documents submitted to and received from the Agencies during first quarter 2024 are summarized in Tables 1 and 2, respectively.

Table 1. Documents Submitted

Quarterly Progress Report (January through March 2024), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Email— Regrading December 22, 2024, EPA Approval Letter for the 2024 Financial Assurance Cost Estimate – Request to review/clarify using the net present value	EPA	January 2, 2024
Email—Revised No Anchoring Sign Updates	EPA	January 3, 2024
Email—January 4th Proposed RCRA Meeting Agenda Items	EPA and WDNR	January 3, 2024
Email— Regarding Draft 2024 Financial Assurance Cost Estimate –Details provided on net present value calculations	EPA	January 16, 2024
Quarterly Progress Report (Fourth Quarter 2023)	EPA	January 16, 2024
Changes to RCRA Site Components Due to ChemDesign New Water Line	EPA	January 16, 2024
Updated 2024-2033 Draft Cost Estimate (to include the Real Discount Rate)	EPA	January 18, 2024
Response to Comments on 2023 Q3 Progress Report Review with Comments	EPA	January 18, 2024

Table 1. Documents Submitted

Quarterly Progress Report (January through March 2024), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Email—Surety Bond proof of coverage	EPA	January 30, 2024
Email—February 1st Proposed RCRA Meeting Agenda Items	EPA and WDNR	January 31, 2024
Material Management Plan – For Installation of ChemDesign's Proposed Water Line	WDNR	February 13, 2024
Revised Soil Management Plan	EPA	February 22, 2024
Email—No Anchoring Sign Updates (photo documentation for signs posted along the Menominee River)	EPA	February 29, 2024
Email—March 7th Proposed RCRA Meeting Agenda Items	EPA and WDNR	March 7, 2024

Table 2. Correspondence from Agency

Quarterly Progress Report (January through March 2024), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Submitted By	Date Submitted
EPA Letter— *French Drain Construction Memo Review with Comments*	EPA	January 3, 2024
Email—No Anchoring Signs Design Approval	EPA	January 5, 2024
Two Emails— Regarding 2024 Financial Assurance Cost Estimate – Request to provide details on net present value calculations and later clarification on using the Real Discount Rate for calculating net present value calculations	EPA	January 16, 2024
EPA Letter—*2024 Financial Assurance Cost Estimate Approval* (for revised draft emailed January 18, 2024)	EPA	January 19, 2024
EPA Letter—*2022 Barrier Wall Annual Groundwater Monitoring Report Review*	EPA	February 14, 2024
EPA Review Letter—*2023 Sediment Sampling Report*	EPA	February 16, 2024
EPA Email— ChemDesign Water Line Installation Memo Approval	EPA	March 1, 2024
EPA Email— Revised Soil Management Plan Approval	EPA	March 1, 2024
WDNR Email— WDNR Review of Material Management Plan for Installation of ChemDesign Water Line	WDNR	March 1, 2024
EPA Email— Digital Submittal of Site Reports & Documents (Approval)	EPA	March 7, 2024
EPA Email— Vapor Intrusion Workplan Meeting (request for meeting framework)	EPA	March 7, 2024
EPA Email— Confirmation the 2024 Financial Assurance is Recorded (and request for physical copy of proof of coverage)	EPA	March 28, 2024

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

Respectfully Yours,

Jacobs

Heather Ziegelbauer
Project Manager

cc: Angela Carey, WDNR
Sarah Krueger, WDNR
Ryan Suennen, Tyco Fire Products
Denice Nelson, Johnson Controls

Scott Wahl, Tyco Fire Products
Mariel Carter, Stephenson Public Library

Figures

1 Site Map
2 Site Plan with Wells
3 Cover Area Location Map

Attachments

1 Groundwater Collection and Treatment System Operation Summary
2 Discharge Monitoring Reports for the Groundwater Collection and Treatment System and Outfall OF004
3 2024 PDP Weekly Average Extraction Rates
4 2024 PDP Groundwater Elevation Monitoring
5 2024 PDP System Hydrographs

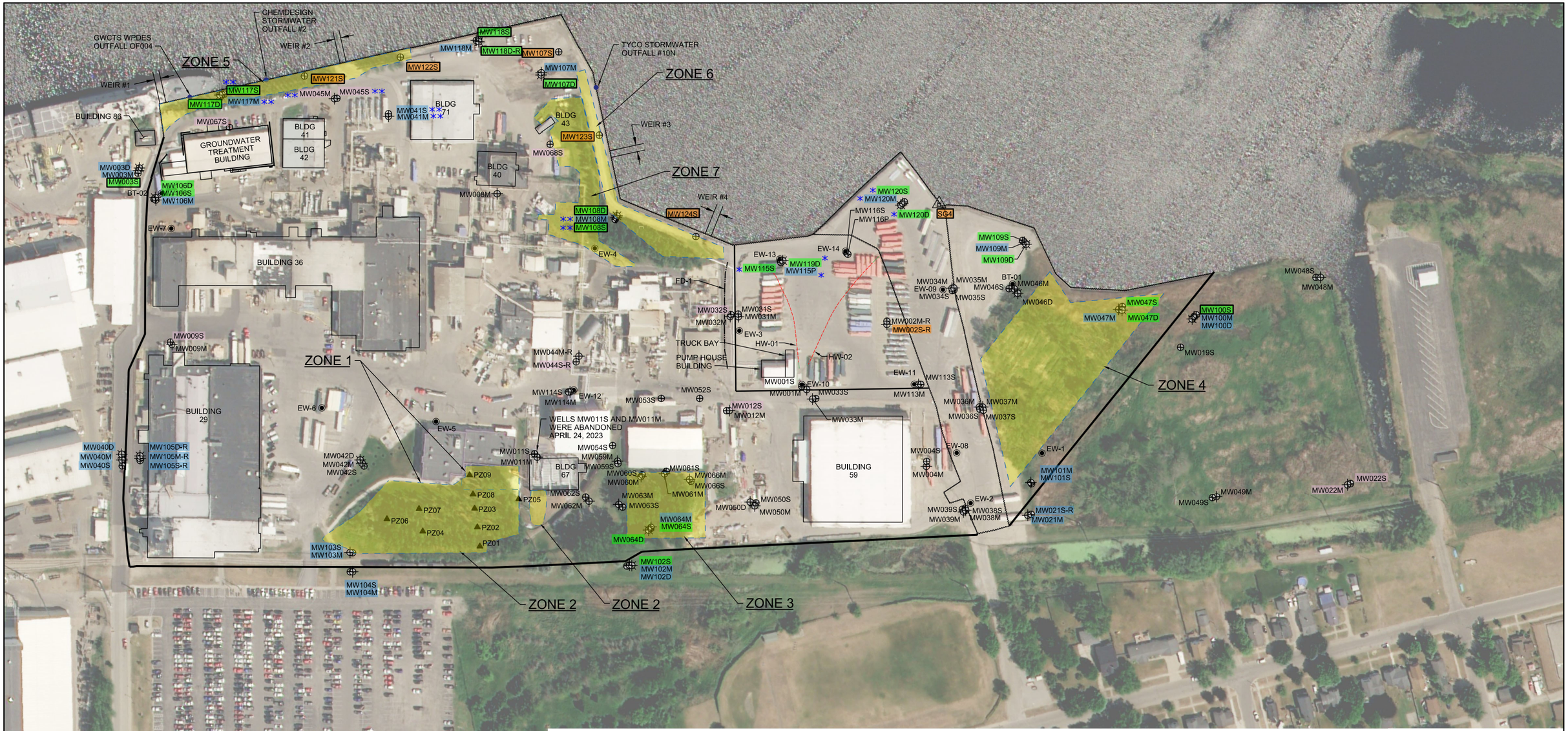
Document Control No.: D3838400.318

Figures

Figure 1. Site Map
Tyco Fire Products LP
Marinette, WI

\\DC1VS01\GISPROJ\T\TYCO\TYCO\MAPFILES\2023\QUARTERLYREPORT\FIGURE 1 - SITE MAP.MXD JHANSEN1 1/12/2024 1:53:12 PM

Jacobs



LEGEND

- EW-5 OR BT-02 — EXTRACTION WELL OR TEST WELL
- MW002S OR MW115P — MONITORING WELL - SHALLOW OR PEAT
- MW002M — MONITORING WELL - MEDIUM
- MW002D — MONITORING WELL - DEEP (BEDROCK)
- PZ04 — PIEZOMETER
- VW-TB01 — VIBRATING WIRE PIEZOMETER
- SG1 — STAFF GAUGE
- SHEET PILE WALL
- SLURRY WALL
- HORIZONTAL WELL (SCREEN)
- HORIZONTAL WELL (RISER)
- FRENCH DRAIN
- * — ARSENIC SAMPLING EVERY 5 YEARS
- ** — VOC SAMPLING EVERY 5 YEARS
- APPROXIMATE OUTFALL LOCATION

- ARSENIC SAMPLING LOCATION AND MANUAL WATER LEVEL MEASUREMENT
- TRANSDUCER GROUNDWATER ELEVATION MEASUREMENT LOCATION AND ARSENIC SAMPLING LOCATION
- BOX AROUND HIGHLIGHTING INDICATES TRANSDUCER DATA WILL BE ANALYZED USING SERIES SEE
- TRANSDUCER WATER LEVEL MEASUREMENT AND MANUAL WATER ELEVATION MEASUREMENT AT TIME OF ARSENIC SAMPLING
- MANUAL GROUNDWATER ELEVATION MEASUREMENT ONLY AT TIME OF ARSENIC SAMPLING EVENTS
- PHYTO-PUMPING AREAS

NOTES:

1. EXCEPT FOR THE SALT VAULT AND 8TH STREET SLIP, ARSENIC SAMPLING WAS CONDUCTED ANNUALLY IN 2023 AND SAMPLING FREQUENCY WILL CONTINUE TO BE RE-EVALUATED IN ANNUAL REPORTS.
2. MW002S, MW115S, MW120S, AND MW120D ARE EQUIPPED WITH TRANSDUCERS IN THE FORMER SALT VAULT/ 8TH STREET SLIP AREAS TO MONITOR THE PUMP DOWN PROGRAM AND WILL BE EVALUATED ANNUALLY TO DETERMINE WHETHER TRANSDUCERS AT THESE MONITORING WELL LOCATIONS ARE STILL NEEDED.
3. SEE FIGURE 4-1 OF 2015 BWGMPU FOR WELL LOCATIONS MONITORED AS PART OF PUMP DOWN PROGRAM.
4. MONITORING WELL NEST MW105 WAS ABANDONED ON JULY 25, 2022 AND REPLACED ON JULY 26, 2023.
5. IMAGERY SOURCE: PLÉIADES NEO (PNEO) SATELLITE ACQUISITION DATE: 6/7/2023

N

0 100 200 300

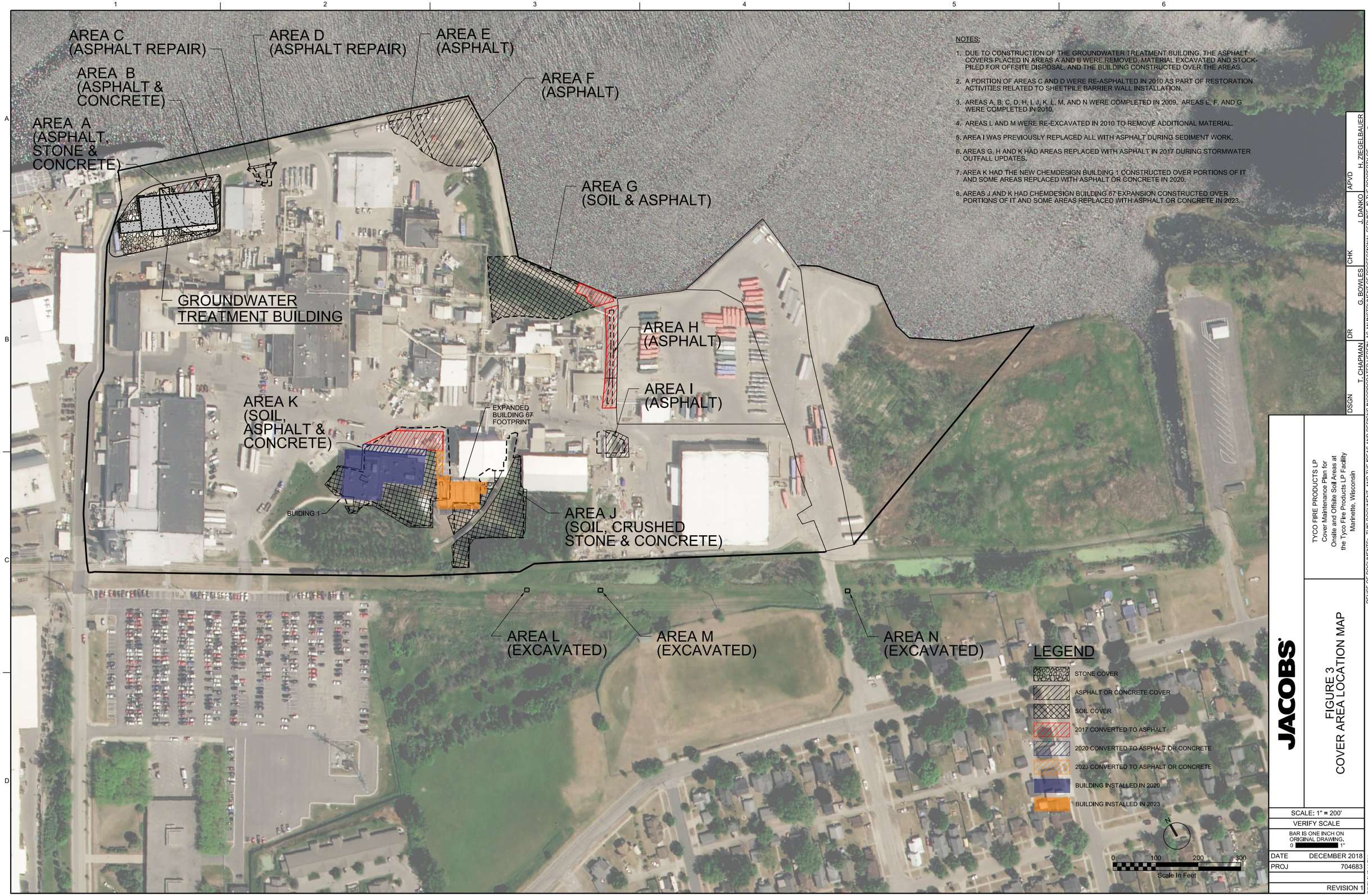
SCALE IN FEET

FIGURE 2
SITE PLAN WITH WELLS

TYCO FIRE PRODUCTS LP
MARINETTE, WISCONSIN

Jacobs

FILENAME: Figure1-2_2023_D3630600.dgn PLOT DATE: 4/1/2024 PLOT TIME: 1:09:09 PM



NOTES:

1. DUE TO CONSTRUCTION OF THE GROUNDWATER TREATMENT BUILDING, THE ASPHALT COVERS PLACED IN AREAS A AND B WERE REMOVED, MATERIAL EXCAVATED AND STOCK-PILED FOR OFFSITE DISPOSAL, AND THE BUILDING CONSTRUCTED OVER THE AREAS.
2. A PORTION OF AREAS C AND D WERE RE-ASPHALTED IN 2010 AS PART OF RESTORATION ACTIVITIES RELATED TO SHEETPILE BARRIER WALL INSTALLATION.
3. AREAS A, B, C, D, H, I, J, K, L, M, AND N WERE COMPLETED IN 2009. AREAS E, F, AND G WERE COMPLETED IN 2010.
4. AREAS L AND M WERE RE-EXCAVATED IN 2010 TO REMOVE ADDITIONAL MATERIAL.
5. AREA I WAS PREVIOUSLY REPLACED ALL WITH ASPHALT DURING SEDIMENT WORK.
6. AREAS G, H AND K HAD AREAS REPLACED WITH ASPHALT IN 2017 DURING STORMWATER OUTFALL UPDATES.
7. AREA K HAD THE NEW CHEMDESIGN BUILDING 1 CONSTRUCTED OVER PORTIONS OF IT AND SOME AREAS REPLACED WITH ASPHALT OR CONCRETE IN 2020.
8. AREAS J AND K HAD CHEMDESIGN BUILDING 67 EXPANSION CONSTRUCTED OVER PORTIONS OF IT AND SOME AREAS REPLACED WITH ASPHALT OR CONCRETE IN 2023.

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

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

JACOBS

FIGURE 3
COVER AREA LOCATION MAP

SCALE: 1" = 200'
VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING.
0 1"
DATE DECEMBER 2018
PROJ 704683
REVISION 1

PRELIMINARY

FILENAME: O&M-Fig3_2023_Overall.dgn PLOT DATE: 1/11/2024 PLOT TIME: 7:33:38 AM

Attachment 1
Groundwater Collection and Treatment System Operation Summary

Groundwater Collection and Treatment System Operations for Tyco Fire Products LP, Marinette, Wisconsin, January 1 through March 31, 2024

The following summarizes groundwater collection and treatment system operations from January 1 through March 31, 2024, at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The groundwater collection and treatment system operated for 20 days in January 2024, 19 days in February 2024, and 20 days in March 2024, for a total of 59 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin, was 3.84 inches of rain and 25 inches of snow (http://www.ncdc.noaa.gov/cdo-web/datasets/GHCND/stations/GHCND:USC00475091/detail).
- Table 1-1 lists the estimated volumes of water extracted, treated, and discharged under the Wisconsin Pollutant Discharge Elimination System permit as well as the volumes disposed of offsite and those currently stored onsite and awaiting treatment or disposal. Note totalizers were replaced at some extraction wells during this reporting period to improve the totalizer readings for these extraction wells going forward.

Table 1-1. GWCTS Operations Summary (January through March 2024)

Tyco Fire Products LP, Marinette, Wisconsin

Item Description	Beginning of 1st Quarter	End of 1st Quarter	Estimated Gallons, 1st Quarter 2024	Comments
Total GWCTS Extracted	-	-	845,330	Total from GWCTS extraction well network
PDP Total	-	-	278,493	Some PDP GW was treated at the GWCTS and the remainder disposed of offsite
Totalizer HW-2-2	430,766	432,708	1,942	
Totalizer HW-2-1	431,034	479,762	48,729	
Totalizer HW-1-2	431,304	486,935	55,631	
Totalizer HW-1-1	487,504	520,785	33,280	
Totalizer Well #9	683,433	742,216	58,783	
Totalizer Well #8	497,672	577,800	80,128	
Totalizer FD-1 in MP	24,691	50,352	25,661	Some French drain GW was treated at the GWCTS and the remainder disposed of offsite
WA and MP	NA*	NA*	541,175	All treated by GWCTS, totalizer replaced during the reporting period, will be included in future reports
Additional Water Collected (from Non-GWCTS Sources)	-	-	42,200	Building 40 sump water (estimated 35,000 gallons – approximately 20,000 was treated at the GWCTS and 15,000 disposed offsite), frac tank cleaning water (estimated 7,200 gallons disposed offsite)
Remaining Water Stored in Frac Tanks Onsite	135,000	0	135,000	An estimated 135,000 gallons was stored in frac tanks at the start of 1st quarter 2024, this volume was disposed offsite during the quarter
GWCTS Operations	-	-	-	
Totalizer GWCTS Influent	2,146,770	2,817,510	670,740	Consists of WA and MP GW, component of PDP and FD-1 GW and component of Building 40 sump water
GWCTS Effluent	NA**	NA**	527,296	
GWCTS Reject Water	NA***	NA***	172,680	Water is disposed of offsite
Outfall OF004 Discharge	NA**	NA**	3,298,441	Combined GWCTS effluent and facility wastewater effluent discharged to river
Total Water Disposed of Offsite	-	-	579,791	Consists of PDP and FD-1 GW that was not treated, reject water, boiler house sump water that was not treated and remaining frac tank water and cleaning water – Water was disposed of at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio

NA = Not available
GWCTS = groundwater collection and treatment system
PDP = pump down program
MP = Main Plant
WA = Wetlands Area
GW = groundwater

* = EW-1, EW-4, EW-5, EW-6, and EW-7 totalizer were replaced on February 12 and 13, 2024

** = In early April 2024 it was determined that some of the totalizer readings were programmed into the PLC incorrectly, however the daily totals were logging correctly. Daily totals were added up to determine the estimated volume

*** = Reject from January and February 2024 was generally directly loaded from the tank to the trucks and there is no totalizer value. For March 2024 the reject was conveyed and will continue to be conveyed to the PDP building going forward and a totalizer value was used. Estimated reject volume is based on the estimated volume disposed based on the truck volume recorded for January and February 2024 and the totalizer value for March 2024.

Attachment 2
Discharge Monitoring Reports for the Groundwater Collection and Treatment System and Outfall OF004

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 12/01/2023 - 12/31/2023
Form Due Date: 01/21/2024
Permit Number: 0001040

Date Received:	
DOC:	530988
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	703	101	101	101
	Description	Menominee River Intake	Menominee River Intake	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	35	211	373	374
	Description	Flow Rate	Arsenic, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)
	Units	gpd	ug/L	MGD	su	su
	Sample Type	TOT DAILY	GRAB	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	DAILY	DAILY	DAILY
Sample Results	Day 1			0.035381	8.1	7.4
	2			0		
	3			0		
	4			0.056816	7.9	7.6
	5			0.051533	7.8	7.5
	6			0.041331	7.7	7.2
	7			0.047578	7.6	6.9
	8			0.036789	8.0	7.4
	9			0		
	10			0		
	11			0.036026	7.8	7.4
	12			0.040352	7.5	7.3
	13			0.047803	7.6	7.2
	14			0.047826	7.7	7.2
	15			0.032205	7.7	7.2
	16			0		
	17			0		
	18			0.041589	7.6	7.2
	19			0.046920	7.6	7.2
	20			0.063279	7.5	7.0
	21			0.034466	7.2	6.8
	22			0.019417	7.4	7.0
	23			0		
	24			0		
	25			0		
	26			0		
	27			0		
	28			0		
	29			0		
	30			0		
	31			0		

	Sample Point	703	703	101	101	101
	Description	Menominee River Intake	Menominee River Intake	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	35	211	373	374
	Description	Flow Rate	Arsenic, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)
	Units	gpd	ug/L	MGD	su	su
Summary Values	**Monthly Avg**			0.021913258	7.66875	7.21875
	Monthly Total					
	Daily Max			0.063279	8.1	7.6
	Daily Min			0	7.2	6.8
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max				9 0	
	Daily Min					6 0
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	457	651	87
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP	GRAB	24 HR FLOW PROP
	Frequency	DAILY	DAILY	3/WEEK	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4			2.0		
	5			2.0		
	6			<1.9	<1.3	<0.49
	7					
	8					
	9					
	10					
	11			3.8		
	12			2.2		
	13			<1.9		
	14					
	15					
	16					
	17					
	18			3.2		
	19			<1.9		
	20			<1.9		
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		457		651		87	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					1.466666667		0		0	
	Monthly Total										
	Daily Max					3.8		<1.3		<0.49	
	Daily Min					<1.9		<1.3		<0.49	
Limit(s) in Effect	**Monthly Avg**					31	0	26	0	260	0
	Monthly Total	446	0	0	0						
	Daily Max					60	0	52	0	690	0
	Daily Min										
QA/QC Information	**LOD**							1.3		0.49	
	LOQ							5		1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	315	553	507	280
	Description	Copper, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ng/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6	2.5	3.9	61		
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					0.33
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		315		553		507		280	
	Description	Copper, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable	
	Units	ug/L		ug/L		ug/L		ug/L		ng/L	
Summary Values	**Monthly Avg**	2.5		3.9		61				0.33	
	Monthly Total										
	Daily Max	2.5		3.9		61				0.33	
	Daily Min	2.5		3.9		61				0.33	
Limit(s) in Effect	**Monthly Avg**	2070	0	2380	0	1480	0				
	Monthly Total										
	Daily Max	3380	0	3980	0	2610	0	2130			
	Daily Min										
QA/QC Information	**LOD**	1.7		1.5		3.6				0.2	
	LOQ	5		5		10				0.5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010				999580010	

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	DAILY	WEEKLY
Sample Results	Day 1				19961	
	2				0	
	3				0	
	4				19875	6500
	5				21460	
	6		<2.1	0.000714	23405	
	7				24965	
	8				0	
	9				0	
	10				0	
	11				19160	18000
	12				21800	
	13				23820	
	14				19440	
	15				0	
	16				0	
	17				0	
	18				14570	<210
	19				15490	
	20	0.07914291			18730	
	21				13000	
	22				0	
	23				0	
	24				0	
	25				0	
	26				0	
	27				0	
	28				0	
	29				0	
	30				0	
	31				0	

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
Summary Values	**Monthly Avg**	0.07914291	0	0.000714	8247.612903226	8166.666666667
	Monthly Total					
	Daily Max	0.07914291	<2.1	0.000714	24965	18000
	Daily Min	0.07914291	<2.1	0.000714	0	<210
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**		2.1			210
	LOQ		5			500
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			999580010

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
	Sample Type	24 HR FLOW PROP	GRAB	BLANK	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1				0.050668	8.2
	2				0	
	3				0	
	4	35			0.072878	7.9
	5				0.068916	8.0
	6				0.063933	8.1
	7				0.070027	8.2
	8				0	
	9				0	
	10				0	
	11	31			0.054414	8.0
	12				0.058584	8.1
	13				0.066689	8.3
	14				0.063261	8.6
	15				0	
	16				0	
	17				0	
	18	16			0.057786	8.8
	19				0.063201	8.9
	20		38	<0.20	0.074013	9.0
	21				0.056290	9.0
	22				0	
	23				0	
	24				0	
	25				0	
	26				0	
	27				0	
	28				0	
	29				0	
	30				0	
	31				0	

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
Summary Values	**Monthly Avg**	27.333333333	38	0	0.026472903	8.392307692
	Monthly Total					
	Daily Max	35	38	<0.2	0.074013	9
	Daily Min	16	38	<0.2	0	7.9
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9 2
	Daily Min					
QA/QC Information	**LOD**		0.2	0.2		
	LOQ		0.5	0.5		
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010	999580010	999580010		

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**	6.7				
	2					
	3					
	4	6.8				
	5	6.7				
	6	6.7				
	7	6.8				
	8					
	9					
	10					
	11	6.8		<2.1	0.000945	
	12	7.0				
	13	7.1				
	14	7.5	<10			
	15					
	16					
	17					
	18	6.9				
	19	7.1				
	20	6.3				0.33
	21	6.7				
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	374		112		35		35		280	
	Description	pH (Minimum)		Chlorine, Total Residual		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Mercury, Total Recoverable	
	Units	su		ug/L		ug/L		lbs/day		ng/L	
Summary Values	**Monthly Avg**	6.853846154		0		0		0.000945		0.33	
	Monthly Total										
	Daily Max	7.5		<10		<2.1		0.000945		0.33	
	Daily Min	6.3		<10		<2.1		0.000945		0.33	
Limit(s) in Effect	**Monthly Avg**			38	0						
	Monthly Total										
	Daily Max			38	0	194	0	0.22	0	18	0
	Daily Min	6	0								
QA/QC Information	**LOD**			30		2.1				0.2	
	LOQ			100		5				0.5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010				999580010	

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20	0.09256797	<0.49	0.0002205	2.6	0.00117
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	280		87		87		147		147	
	Description	Mercury, Total Recoverable		Cadmium, Total Recoverable		Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable	
	Units	mg/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.09256797		0		0.0002205		2.6		0.00117	
	Monthly Total										
	Daily Max	0.09256797		<0.49		0.0002205		2.6		0.00117	
	Daily Min	0.09256797		<0.49		0.0002205		2.6		0.00117	
Limit(s) in Effect	**Monthly Avg**			57	0			69	0		
	Monthly Total										
	Daily Max			57	0	0.23	0	69	0	0.28	0
	Daily Min										
QA/QC Information	**LOD**			0.49				1.7			
	LOQ			1				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11	3.2	0.00144	45	0.02025	<3.6
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	3.2		0.00144		45		0.02025		0	
	Monthly Total										
	Daily Max	3.2		0.00144		45		0.02025		<3.6	
	Daily Min	3.2		0.00144		45		0.02025		<3.6	
Limit(s) in Effect	**Monthly Avg**	2000	0			520	0			92	0
	Monthly Total										
	Daily Max	2000	0	8.10	0	520	0	2.10	0	92	0
	Daily Min										
QA/QC Information	**LOD**	1.5				3.6				3.6	
	LOQ	5				10				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1			70		
	2					
	3					
	4			74		
	5			68		
	6			73		
	7			74		
	8					
	9					
	10					
	11	0.0000036		73	1.7	0.64
	12			71		
	13			69		
	14			68		
	15					
	16					
	17					
	18			80		
	19			69		
	20			72		
	21			72		
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	152		231		480		1352		1353	
	Description	Cyanide, Amenable		Hardness, Total as CaCO3		Temperature Maximum		PFOA		PFOS	
	Units	lbs/day		mg/L		degF		ng/L		ng/L	
Summary Values	**Monthly Avg**	3.6E-06				71.769230769		1.7		0.64	
	Monthly Total										
	Daily Max	3.6E-06				80		1.7		0.64	
	Daily Min	3.6E-06				68		1.7		0.64	
Limit(s) in Effect	**Monthly Avg**									11	0
	Monthly Total										
	Daily Max	0.37	0							11	0
	Daily Min										
QA/QC Information	**LOD**							0.78		0.5	
	LOQ							1.8		1.8	
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	Day 1		0.017593			
	2		0			
	3		0			
	4		0.013173	<1.9	<2.1	0.000231
	5		0.017726			
	6		0.020783			
	7		0.020320			
	8		0			
	9		0			
	10		0			
	11	0.13198656	0.014304	<1.9	<2.1	0.000252
	12		0.016629			
	13		0.017109			
	14		0.013721			
	15		0			
	16		0			
	17		0			
	18		0.011391	<1.9	<2.1	0.000189
	19		0.013121			
	20		0.015438			
	21		0.010705			
	22		0			
	23		0			
	24		0			
	25		0			
	26		0			
	27		0			
	28		0			
	29		0			
	30		0			
	31		0			

	Sample Point	004		108		108		108		108	
	Description	Combined Process WW & GW		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	1353		211		457		35		35	
	Description	PFOS		Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		Arsenic, Total Recoverable	
	Units	mg/day		MGD		mg/L		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.13198656		0.006516548		0		0		0.000224	
	Monthly Total										
	Daily Max	0.13198656		0.020783		<1.9		<2.1		0.000252	
	Daily Min	0.13198656		0		<1.9		<2.1		0.000189	
Limit(s) in Effect	**Monthly Avg**	2.10	0								
	Monthly Total										
	Daily Max							500	0	0.17	0
	Daily Min										
QA/QC Information	**LOD**							2.1			
	LOQ							5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010			

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18			<0.76	<0.48
	19				
	20	0.22	0.0128722		
	21				
	22				
	23				
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				

	Sample Point	108		108		108		108			
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent			
	Parameter	280		280		1352		1353			
	Description	Mercury, Total Recoverable		Mercury, Total Recoverable		PFOA		PFOS			
	Units	ng/L		mg/day		ng/L		ng/L			
Summary Values	**Monthly Avg**	0.22		0.0128722		0		0			
	Monthly Total										
	Daily Max	0.22		0.0128722		<0.76		<0.48			
	Daily Min	0.22		0.0128722		<0.76		<0.48			
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	24	0								
	Daily Min										
QA/QC Information	**LOD**	0.2				0.76		0.48			
	LOQ	0.5				1.8		1.8			
	QC Exceedance	N		N		N		N			
	Lab Certification	999580010									

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

General Remarks

Hardness test was missed on my end, I forgot to write it down on the sheet for Eurofins to run the test. There were no readings during the fourth week of sampling due the plant being shut down for the holidays from Dec. 23 - Jan. 2.

Laboratory Quality Control Comments

Outfall OF004 pH probe was faulty on the 20th & 21st and was reading 9 but the WW (SP101) & GW (SP108) were both reading below 9. The probe was calibrated, and a new replacement has been ordered.

Exceedence Comments

Outfall OF004 pH probe was faulty on the 20th & 21st and was reading 9 but the WW (SP101) & GW (SP108) were both reading below 9. The probe was calibrated, and a new replacement has been ordered.

Submitted by Anne Fleury(afleury16) on 1/19/2024 10:43:47 AM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 01/01/2024 - 01/31/2024
Form Due Date: 02/21/2024
Permit Number: 0001040

Date Received:	
DOC:	537048
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

Sample Point(s) active?

No - 703 sample point (Menominee River Intake)
Yes - 101 sample point (Metal Finishing Effluent)
Yes - 704 sample point (GWCTS Influent)
Yes - 107 sample point (Mercury Field Blank Results)
Yes - 004 sample point (Combined Process WW & GW)
Yes - 108 sample point (GWCTS Effluent)

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
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Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	Day 1	0				
	2	0.041563	7.3	6.2		
	3	0.049400	7.2	7.0		
	4	0.043304	7.4	7.0		
	5	0.031442	7.4	6.8		
	6	0				
	7	0				
	8	0.041527	7.8	7.5		
	9	0.040272	7.7	7.4		
	10	0.027118	7.7	7.5		
	11	0.023437	7.8	7.4		
	12	0.033003	7.5	6.8		
	13	0				
	14	0				
	15	0				
	16	0.025550	7.8	7.4		
	17	0.025209	7.9	7.0		
	18	0.044383	7.5	7.0		
	19	0.029184	7.6	6.9		
	20	0				
	21	0				
	22	0.046302	7.9	7.2		
	23	0.029006	7.6	7.2		
	24	0.034520	7.8	7.2		
	25	0.030021	7.8	7.0		
	26	0.021372	8.0	7.4		
	27	0				
	28	0				
	29	0.028546	7.5	7.0		
	30	0.028598	7.4	7.0		
	31	0.031820	7.5	6.8		

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.022760548		7.623809524		7.080952381					
	Monthly Total										
	Daily Max	0.0494		8		7.5					
	Daily Min	0		7.2		6.2					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2	17.0				
	3	2.2				
	4	<1.9				
	5					
	6					
	7					
	8	2.6		<0.49	3.7	4.9
	9	<1.9				
	10	<1.9	<1.3			
	11					
	12					
	13					
	14					
	15					
	16	5.4				
	17	4.8				
	18	<1.9				
	19					
	20					
	21					
	22	3.6				
	23	3.0				
	24	4.8				
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	3.616666667		0		0		3.7		4.9	
	Monthly Total										
	Daily Max	17		<1.3		<0.49		3.7		4.9	
	Daily Min	<1.9		<1.3		<0.49		3.7		4.9	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.3		0.49		1.7		1.5	
	LOQ			5.1		1		5		5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8	110				<2.1
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24			0.42	0.05494902	
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	110				0.42		0.05494902		0	
	Monthly Total										
	Daily Max	110				0.42		0.05494902		<2.1	
	Daily Min	110				0.42		0.05494902		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.2				2.1	
	LOQ	10				0.5				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		0			
	2		1285			
	3		8095	25000	19	
	4		8640			
	5		4810			
	6		0			
	7		0			
	8	0.000735	10585	9900	140	
	9		9690			
	10		7405			
	11		7955			
	12		7020			
	13		5490			
	14		0			
	15		0			
	16		0			
	17		6105	22000	450	
	18		11310			
	19		8370			
	20		0			
	21		0			
	22		8650	6400	23	
	23		7445			
	24		10385			1.8
	25		10185			
	26		6800			
	27		0			
	28		0			
	29		6545			
	30		1165			
	31		4635			

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.000735	4921.612903226	15825	158	1.8
	Monthly Total					
	Daily Max	0.000735	11310	25000	450	1.8
	Daily Min	0.000735	0	6400	19	1.8
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			100		0.2
	LOQ			1000		0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	004	004	004	004
	Description	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	211	373	374	112
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Chlorine, Total Residual
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	GRAB
	Frequency	MONTHLY	DAILY	DAILY	DAILY	MONTHLY
Sample Results	Day 1		0			
	2		0.00285	9.1	6.2	
	3		0.00505	9.3	6.7	
	4		0.00808	9.3	6.8	
	5		0.00357	9.3	6.8	
	6		0			
	7		0			
	8		0.00805	9.0	6.9	
	9		0.00839	8.9	6.8	
	10		0.00511	8.6	6.8	
	11		0.00716	8.7	7.0	
	12		0.00564	8.2	6.8	
	13		0.00493	7.7	6.4	
	14		0			
	15		0			
	16		0			
	17		0.00498	7.7	6.7	
	18		0.00810	7.6	6.7	<10
	19		0.00715	7.7	6.7	
	20		0			
	21		0			
	22		0.00651	8.1	6.9	
	23		0.00589	7.6	6.6	
	24	0.36	0.00729	7.4	6.1	
	25		0.00863	7.5	6.1	
	26		0.00621	7.7	6.1	
	27		0			
	28		0			
	29		0.00551	7.1	6.1	
	30		0.00105	7.1	6.4	
	31		0	7.0	6.3	

	Sample Point	107		004		004		004		004	
	Description	Mercury Field Blank Results		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	280		211		373		374		112	
	Description	Mercury, Total Recoverable		Flow Rate		pH (Maximum)		pH (Minimum)		Chlorine, Total Residual	
	Units	ng/L		MGD		su		su		ug/L	
Summary Values	**Monthly Avg**	0.36		0.003875806		8.123809524		6.566666667		0	
	Monthly Total										
	Daily Max	0.36		0.00863		9.3		7		<10	
	Daily Min	0.36		0		7		6.1		<10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max					9	5			38	0
	Daily Min							6	0		
QA/QC Information	**LOD**	0.2								30	
	LOQ	0.5								100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010									

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	35	35	280	280	87
	Description	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable	Mercury, Total Recoverable	Cadmium, Total Recoverable
	Units	ug/L	lbs/day	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17	<2.1	0.000084			<0.49
	18					
	19					
	20					
	21					
	22					
	23					
	24			<0.20	0.0055288	
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004					
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW					
	Parameter	35		35		280		280		87					
	Description	Arsenic, Total Recoverable		Arsenic, Total Recoverable		Mercury, Total Recoverable		Mercury, Total Recoverable		Cadmium, Total Recoverable					
	Units	ug/L		lbs/day		ng/L		mg/day		ug/L					
Summary Values	**Monthly Avg**	0		8.4E-05		0		0.0055288		0					
	Monthly Total														
	Daily Max	<2.1		8.4E-05		<0.2		0.0055288		<0.49					
	Daily Min	<2.1		8.4E-05		<0.2		0.0055288		<0.49					
Limit(s) in Effect	**Monthly Avg**									57	0				
	Monthly Total														
	Daily Max	194	0	0.22	0	18	0			57	0				
	Daily Min														
QA/QC Information	**LOD**	2.1				0.2				0.49					
	LOQ	5				0.5				1					
	QC Exceedance	N		N		N		N		N					
	Lab Certification	999580010				999580010				999580010					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	87	147	147	315	315
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable	Nickel, Total Recoverable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17	0.0000196	3.2	0.000128	7.1	0.000284
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	87		147		147		315		315	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable		Nickel, Total Recoverable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	1.96E-05		3.2		0.000128		7.1		0.000284	
	Monthly Total										
	Daily Max	1.96E-05		3.2		0.000128		7.1		0.000284	
	Daily Min	1.96E-05		3.2		0.000128		7.1		0.000284	
Limit(s) in Effect	**Monthly Avg**			69	0			2000	0		
	Monthly Total										
	Daily Max	0.23	0	69	0	0.28	0	2000	0	8.1	0
	Daily Min										
QA/QC Information	**LOD**			1.7				1.5			
	LOQ			5				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	553	553	152	152	231
	Description	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable	Hardness, Total as CaCO3
	Units	ug/L	lbs/day	ug/L	lbs/day	mg/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17	77	0.00308	9.8	0.000392	440
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	553		553		152		152		231	
	Description	Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable		Hardness, Total as CaCO3	
	Units	ug/L		lbs/day		ug/L		lbs/day		mg/L	
Summary Values	**Monthly Avg**	77		0.00308		9.8		0.000392		440	
	Monthly Total										
	Daily Max	77		0.00308		9.8		0.000392		440	
	Daily Min	77		0.00308		9.8		0.000392		440	
Limit(s) in Effect	**Monthly Avg**	520	0			92	0				
	Monthly Total										
	Daily Max	520	0	2.1	0	92	0	0.37	0		
	Daily Min										
QA/QC Information	**LOD**	3.6				3.6					
	LOQ	10				5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	004	004	004	004	108
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	GWCTS Effluent
	Parameter	480	1352	1353	1353	211
	Description	Temperature Maximum	PFOA	PFOS	PFOS	Flow Rate
	Units	degF	ng/L	ng/L	mg/day	MGD
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	DAILY
Sample Results	Day 1					0
	2	74				0.002858
	3	72				0.005053
	4	72				0.008078
	5	70				0.003574
	6					0
	7					0
	8	74				0.008050
	9					0.008392
	10					0.005111
	11					0.007163
	12					0.005643
	13					0.004928
	14					0
	15					0
	16					0
	17	74	2.3	<0.48	0.00903264	0.004981
	18	74				0.008095
	19	75				0.007149
	20					0
	21					0
	22	74				0.006512
	23	72				0.005892
	24	72				0.007294
	25	72				0.008632
	26	69				0.006207
	27					0
	28					0
	29	73				0.005513
	30	72				0.001046
	31	70				0

	Sample Point	004		004		004		004		108	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		GWCTS Effluent	
	Parameter	480		1352		1353		1353		211	
	Description	Temperature Maximum		PFOA		PFOS		PFOS		Flow Rate	
	Units	degF		ng/L		ng/L		mg/day		MGD	
Summary Values	**Monthly Avg**	72.4375		2.3		0		0.00903264		0.003876484	
	Monthly Total										
	Daily Max	75		2.3		<0.48		0.00903264		0.008632	
	Daily Min	69		2.3		<0.48		0.00903264		0	
Limit(s) in Effect	**Monthly Avg**					11	0	2.1	0		
	Monthly Total										
	Daily Max					11	0				
	Daily Min										
QA/QC Information	**LOD**			0.76		0.48					
	LOQ			1.8		1.8					
	QC Exceedance	N		N		N		N		N	
	Lab Certification			998204680		998204680					

	Sample Point	108	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	457	35	35	280	280
	Description	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable	Mercury, Total Recoverable
	Units	mg/L	ug/L	lbs/day	ng/L	mg/day
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3	<1.9	2.9	0.000116		
	4					
	5					
	6					
	7					
	8	<1.9	<2.1	0.000147		
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17	<1.9	<2.1	0.000084		
	18					
	19					
	20					
	21					
	22	<1.9	<2.1	0.000105		
	23					
	24				0.20	0.0055288
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	108		108		108		108		108	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	457		35		35		280		280	
	Description	Suspended Solids, Total		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Mercury, Total Recoverable		Mercury, Total Recoverable	
	Units	mg/L		ug/L		lbs/day		ng/L		mg/day	
Summary Values	**Monthly Avg**	0		0.725		0.000113		0.2		0.0055288	
	Monthly Total										
	Daily Max	<1.9		2.9		0.000147		0.2		0.0055288	
	Daily Min	<1.9		<2.1		8.4E-05		0.2		0.0055288	
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max			500	0	0.17	0	24	0		
	Daily Min										
QA/QC Information	**LOD**			2.1				0.2			
	LOQ			5				0.5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010				999580010			

	Sample Point	108	108
	Description	GWCTS Effluent	GWCTS Effluent
	Parameter	1352	1353
	Description	PFOA	PFOS
	Units	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY
Sample Results	**Day 1**		
	2		
	3		
	4		
	5		
	6		
	7		
	8	<0.84	<0.54
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	19		
	20		
	21		
	22		
	23		
	24		
	25		
	26		
	27		
	28		
	29		
	30		
	31		

	Sample Point	108		108	
	Description	GWCTS Effluent		GWCTS Effluent	
	Parameter	1352		1353	
	Description	PFOA		PFOS	
	Units	ng/L		ng/L	
Summary Values	**Monthly Avg**	0		0	
	Monthly Total				
	Daily Max	<0.84		<0.54	
	Daily Min	<0.84		<0.54	
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
QA/QC Information	**LOD**	0.84		0.54	
	LOQ	2		2	
	QC Exceedance	N		N	
	Lab Certification	998204680		998204680	

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

General Remarks

With the operators still getting the hang of the new system they did miss some temperatures from the 9th - 13th
At OF004 they did have some pH probe issues going on from the 3rd-5th and also the 8th so, it read a little higher than 9.0. System did go into recycle so, nothing went out.

Laboratory Quality Control Comments

Exceedence Comments

As I stated on the report the pH probe was not working properly at OF004 and they had a couple days of pH over 9.0 (9.1 & 9.3). We are waiting for Jacobs to install a new pH system. Everything is working fine now. The system does go into recycle when it gets to 9.0.

Submitted by Anne Fleury(afleury16) on 2/12/2024 1:17:06 PM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 02/01/2024 - 02/29/2024
Form Due Date: 03/21/2024
Permit Number: 0001040

Date Received:	
DOC:	537049
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

Sample Point(s) active?

No - 703 sample point (Menominee River Intake)
Yes - 101 sample point (Metal Finishing Effluent)
Yes - 704 sample point (GWCTS Influent)
Yes - 107 sample point (Mercury Field Blank Results)
Yes - 004 sample point (Combined Process WW & GW)
Yes - 108 sample point (GWCTS Effluent)

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
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Phone Number: □□
Reporting Period: 02/01/2024 - 02/29/2024
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Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	373	374	379	376
	Description	Flow Rate	pH (Maximum)	pH (Minimum)	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes
	Units	MGD	su	su	minutes	Number
	Sample Type	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	DAILY	DAILY	DAILY	DAILY
Sample Results	Day 1	0.036512	7.3	7.0		
	2	0.026966	7.3	6.9		
	3	0.016092	7.3	7.0		
	4	0				
	5	0.029712	7.7	6.9		
	6	0.030471	7.3	6.9		
	7	0.037207	7.3	7.0		
	8	0.028581	7.3	6.8		
	9	0.018082	7.5	6.9		
	10	0				
	11	0				
	12	0.029997	7.6	7.4		
	13	0.050527	7.5	7.3		
	14	0.044707	7.6	7.3		
	15	0.065538	7.7	7.2		
	16	0.047525	7.8	7.2		
	17	0.006394	7.9	7.5		
	18	0				
	19	0.056539	7.8	7.1		
	20	0.047378	7.4	6.6		
	21	0.047894	7.6	6.7		
	22	0.036046	7.6	7.0		
	23	0.031713	7.8	6.8		
	24	0.013367	7.6	7.4		
	25	0.006385	7.6	7.4		
	26	0.050346	7.9	7.5		
	27	0.050291	7.8	7.4		
	28	0.037039	7.8	7.3		
	29	0.051798	7.8	7.3		
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.030934724		7.592		7.112					
	Monthly Total										
	Daily Max	0.065538		7.9		7.5					
	Daily Min	0		7.3		6.6					
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total							446	0	0	0
	Daily Max			9	0						
	Daily Min					6	0				
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	457	651	87	147	315
	Description	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable
	Units	mg/L	mg/L	ug/L	ug/L	ug/L
	Sample Type	24 HR FLOW PROP	GRAB	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	3/WEEK	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5	41				
	6	2.8				
	7	<1.9		<0.49	5.4	7.3
	8		2.0			
	9					
	10					
	11					
	12	2.0				
	13	<1.9				
	14	2.8				
	15					
	16					
	17					
	18					
	19	<1.9				
	20	2.0				
	21	3.2				
	22					
	23					
	24					
	25					
	26	2.4				
	27	5.0				
	28	12				
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	6.1		2		0		5.4		7.3	
	Monthly Total										
	Daily Max	41		2		<0.49		5.4		7.3	
	Daily Min	<1.9		2		<0.49		5.4		7.3	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.3		0.49		1.7		1.5	
	LOQ			4.8		1		5		5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7	79				<2.1
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26			0.45	0.08586495	
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	79				0.45		0.08586495		0	
	Monthly Total										
	Daily Max	79				0.45		0.08586495		<2.1	
	Daily Min	79				0.45		0.08586495		<2.1	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	3.6				0.2				2.1	
	LOQ	10				0.5				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		1020			
	2		0			
	3		440			
	4		0			
	5		2655			
	6		3970			
	7	0.000651	2370			
	8		9395			
	9		6930			
	10		0			
	11		0			
	12		0	27000	1200	
	13		0			
	14		10285			
	15		17360			
	16		15080			
	17		3570			
	18		0			
	19		12460	30000	240	
	20		10025			
	21		25680			
	22		26480			
	23		22645			
	24		6615			
	25		5315			
	26		15010	5700	96	25
	27		9440			
	28		16470			
	29		20360			
	30					
	31					

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.000651	8399.137931034	20900	512	25
	Monthly Total					
	Daily Max	0.000651	26480	30000	1200	25
	Daily Min	0.000651	0	5700	96	25
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			100		0.2
	LOQ			250		0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010	999580010	999580010

	Sample Point	107	004	004	004	004
	Description	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	211	373	374	112
	Description	Mercury, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)	Chlorine, Total Residual
	Units	ng/L	MGD	su	su	ug/L
	Sample Type	BLANK	CONTINUOUS	CONTINUOUS	CONTINUOUS	GRAB
	Frequency	MONTHLY	DAILY	DAILY	DAILY	MONTHLY
Sample Results	Day 1		0.049975	7.1	6.7	
	2		0.038945	7.1	6.8	
	3		0.024855	7.1	6.8	
	4		0			
	5		0.045900	6.9	6.4	
	6		0.048795	7.0	6.7	
	7		0.055850	6.9	6.0	
	8		0.048529	7.2	6.1	
	9		0.034212	6.8	6.5	
	10		0			
	11		0			
	12		0			
	13		0.046280	7.1	6.7	
	14		0.052135	7.2	6.3	
	15		0.072665	7.3	6.6	
	16		0.052183	7.4	6.5	
	17		0.006394	7.6	6.7	
	18		0			
	19		0.068633	7.1	6.6	
	20		0.056077	6.8	6.1	
	21		0.066511	7.0	6.2	
	22		0.056775	7.0	6.0	
	23		0.047523	7.2	6.0	
	24		0.017658	7.1	6.1	
	25		0.011778	6.8	6.0	
	26	<0.20	0.065459	7.1	6.2	<10
	27		0.056777	6.4	6.2	
	28		0.053927	6.9	6.0	
	29		0.067886	6.8	6.1	
	30					
	31					

	Sample Point	107		004		004		004		004	
	Description	Mercury Field Blank Results		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	280		211		373		374		112	
	Description	Mercury, Total Recoverable		Flow Rate		pH (Maximum)		pH (Minimum)		Chlorine, Total Residual	
	Units	ng/L		MGD		su		su		ug/L	
Summary Values	**Monthly Avg**	0		0.039507655		7.0375		6.345833333		0	
	Monthly Total										
	Daily Max	<0.2		0.072665		7.6		6.8		<10	
	Daily Min	<0.2		0		6.4		6		<10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max					9	0			38	0
	Daily Min							6	5		
QA/QC Information	**LOD**	0.2								30	
	LOQ	0.5								100	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010									

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	35	35	280	280	87
	Description	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable	Mercury, Total Recoverable	Cadmium, Total Recoverable
	Units	ug/L	lbs/day	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19	3.7	0.002109			<0.49
	20					
	21					
	22					
	23					
	24					
	25					
	26			0.49	0.1215641	
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004					
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW					
	Parameter	35		35		280		280		87					
	Description	Arsenic, Total Recoverable		Arsenic, Total Recoverable		Mercury, Total Recoverable		Mercury, Total Recoverable		Cadmium, Total Recoverable					
	Units	ug/L		lbs/day		ng/L		mg/day		ug/L					
Summary Values	**Monthly Avg**	3.7		0.002109		0.49		0.1215641		0					
	Monthly Total														
	Daily Max	3.7		0.002109		0.49		0.1215641		<0.49					
	Daily Min	3.7		0.002109		0.49		0.1215641		<0.49					
Limit(s) in Effect	**Monthly Avg**									57	0				
	Monthly Total														
	Daily Max	194	0	0.22	0	18	0			57	0				
	Daily Min														
QA/QC Information	**LOD**	2.1				0.2				0.49					
	LOQ	5				0.5				1					
	QC Exceedance	N		N		N		N		N					
	Lab Certification	999580010				999580010				999580010					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	87	147	147	315	315
	Description	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable	Nickel, Total Recoverable	Nickel, Total Recoverable
	Units	lbs/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19	0.0002793	3.2	0.001824	6.2	0.003534
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	87		147		147		315		315	
	Description	Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable		Nickel, Total Recoverable	
	Units	lbs/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.0002793		3.2		0.001824		6.2		0.003534	
	Monthly Total										
	Daily Max	0.0002793		3.2		0.001824		6.2		0.003534	
	Daily Min	0.0002793		3.2		0.001824		6.2		0.003534	
Limit(s) in Effect	**Monthly Avg**			69	0			2000	0		
	Monthly Total										
	Daily Max	0.23	0	69	0	0.28	0	2000	0	8.1	0
	Daily Min										
QA/QC Information	**LOD**			1.7				1.5			
	LOQ			5				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	553	553	152	152	231
	Description	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable	Cyanide, Amenable	Hardness, Total as CaCO3
	Units	ug/L	lbs/day	ug/L	lbs/day	mg/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19	59	0.03363	<3.6	0.002052	510
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	553		553		152		152		231	
	Description	Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable		Cyanide, Amenable		Hardness, Total as CaCO3	
	Units	ug/L		lbs/day		ug/L		lbs/day		mg/L	
Summary Values	**Monthly Avg**	59		0.03363		0		0.002052		510	
	Monthly Total										
	Daily Max	59		0.03363		<3.6		0.002052		510	
	Daily Min	59		0.03363		<3.6		0.002052		510	
Limit(s) in Effect	**Monthly Avg**	520	0			92	0				
	Monthly Total										
	Daily Max	520	0	2.1	0	92	0	0.37	0		
	Daily Min										
QA/QC Information	**LOD**	3.6				3.6					
	LOQ	10				5					
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	004	004	004	004	108
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	GWCTS Effluent
	Parameter	480	1352	1353	1353	211
	Description	Temperature Maximum	PFOA	PFOS	PFOS	Flow Rate
	Units	degF	ng/L	ng/L	mg/day	MGD
	Sample Type	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	CONTINUOUS
	Frequency	WEEKLY	MONTHLY	MONTHLY	MONTHLY	DAILY
Sample Results	Day 1	71				0
	2	67				0
	3	71				0
	4					0
	5	73				0.001495
	6	72				0.001255
	7	64				0
	8	76				0.005364
	9	75				0.006402
	10					0
	11					0
	12	68				0
	13	69				0
	14	74				0.008125
	15	69				0.015250
	16	70				0.012963
	17	66				0.000529
	18					0
	19	72	3.8	0.81	0.21069639	0.011368
	20	67				0.010627
	21	67				0.020921
	22	70				0.020090
	23	70				0.018313
	24	69				0.017658
	25	73				0.005853
	26	74				0.011284
	27	73				0.007417
	28	69				0.014887
	29	65				0.015516
	30					
	31					

	Sample Point	004		004		004		004		108	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		GWCTS Effluent	
	Parameter	480		1352		1353		1353		211	
	Description	Temperature Maximum		PFOA		PFOS		PFOS		Flow Rate	
	Units	degF		ng/L		ng/L		mg/day		MGD	
Summary Values	**Monthly Avg**	70.16		3.8		0.81		0.21069639		0.007079897	
	Monthly Total										
	Daily Max	76		3.8		0.81		0.21069639		0.020921	
	Daily Min	64		3.8		0.81		0.21069639		0	
Limit(s) in Effect	**Monthly Avg**					11	0	2.1	0		
	Monthly Total										
	Daily Max					11	0				
	Daily Min										
QA/QC Information	**LOD**			0.74		0.47					
	LOQ			1.7		1.7					
	QC Exceedance	N		N		N		N		N	
	Lab Certification			998204680		998204680					

	Sample Point	108	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	457	35	35	280	280
	Description	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable	Mercury, Total Recoverable
	Units	mg/L	ug/L	lbs/day	ng/L	mg/day
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12	<1.9	<2.1			
	13					
	14					
	15					
	16					
	17					
	18					
	19	<1.9	<2.1	0.000189		
	20					
	21					
	22					
	23					
	24					
	25					
	26	<1.9	<2.1	0.000189	<0.20	0.0085532
	27					
	28					
	29					
	30					
	31					

	Sample Point	108		108		108		108		108	
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	457		35		35		280		280	
	Description	Suspended Solids, Total		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Mercury, Total Recoverable		Mercury, Total Recoverable	
	Units	mg/L		ug/L		lbs/day		ng/L		mg/day	
Summary Values	**Monthly Avg**	0		0		0.000189		0		0.0085532	
	Monthly Total										
	Daily Max	<1.9		<2.1		0.000189		<0.2		0.0085532	
	Daily Min	<1.9		<2.1		0.000189		<0.2		0.0085532	
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max			500	0	0.17	0	24	0		
	Daily Min										
QA/QC Information	**LOD**			2.1				0.2			
	LOQ			5				0.5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010				999580010			

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

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

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

General Remarks

There was no sample ran at SP108 for PFOS and PFOA for the month because I missed it somehow.

Laboratory Quality Control Comments

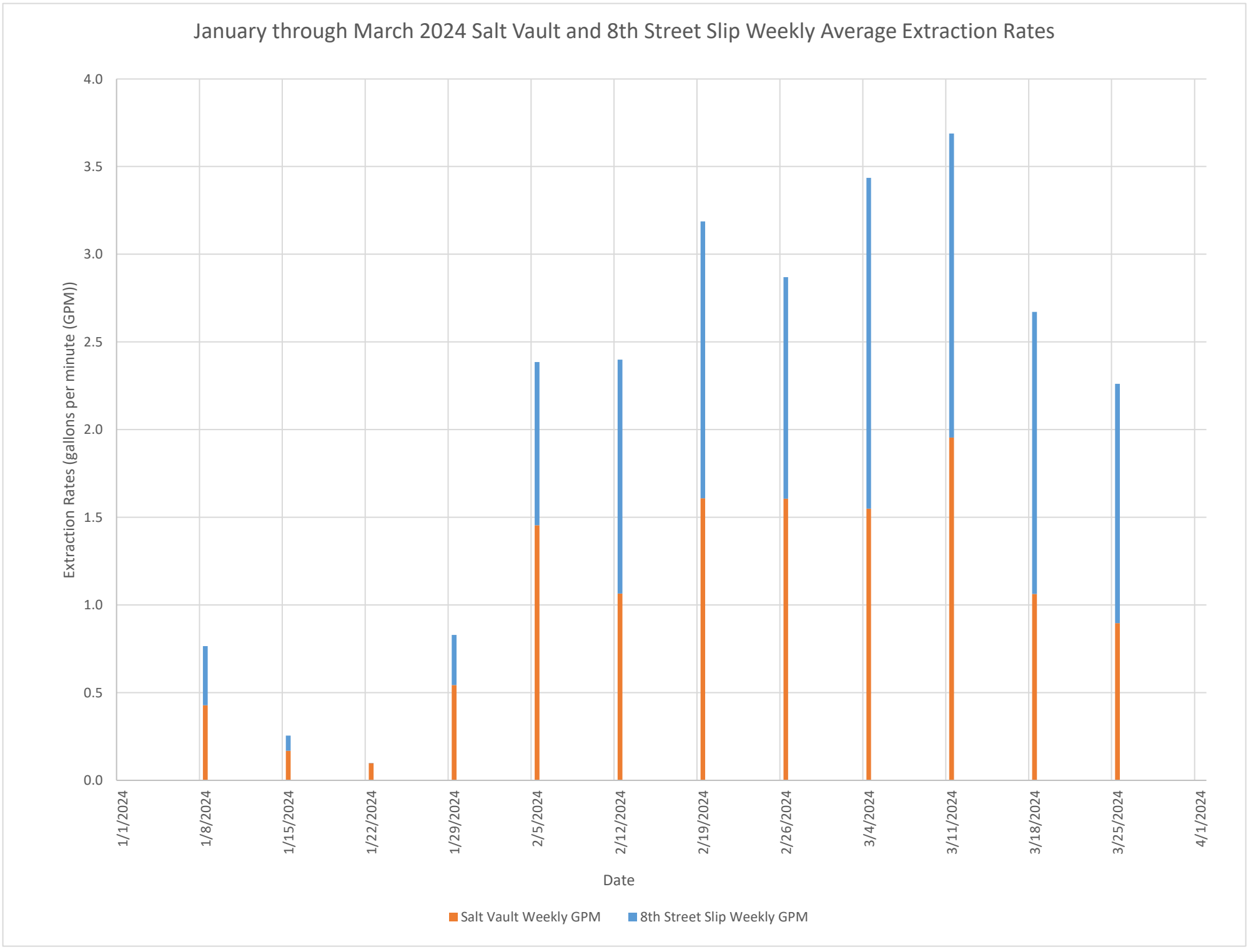
The couple of days that the pH was at 6.0 for the low the system did go into recycle so, nothing low went out.

Exceedence Comments

We had a couple pH readings at 6.0 and the system does go into recycle so nothing went out.

Submitted by Anne Fleury(afleury16) on 3/19/2024 12:27:27 PM

Attachment 3
2024 PDP Weekly Average Extraction Rates


January through March 2024 Salt Vault and 8th Street Slip Weekly Average Extraction Rates
Extraction Rates (gallons per minute (GPM))
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
1/1/2024
1/8/2024
1/15/2024
1/22/2024
1/29/2024
2/5/2024
2/12/2024
2/19/2024
2/26/2024
3/4/2024
3/11/2024
3/18/2024
3/25/2024
4/1/2024
Date
Salt Vault Weekly GPM
8th Street Slip Weekly GPM

Attachment 4
2024 PDP Groundwater Elevation Monitoring

Attachment 4. 2024 Pump Down Program Groundwater Elevation Monitoring

Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9

Well ID	Mean Conductivity (mS/cm-measured) Last 5 Years	January 3, 2024		January 8, 2024		January 23, 2024		January 30, 2024		February 6, 2024		February 13, 2024		February 19, 2024		February 27, 2024		March 4, 2024		March 12, 2024		March 20, 2024		March 26, 2024		April 2, 2024	
		DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)	DTW	Corrected Groundwater Elevation (for equivalent fresh water)
Wells Inside Former Salt Vault																											
MW001M	6.394	10.42	576.72	10.20	576.94	9.78	577.36	10.47	576.67	10.17	576.97	9.94	577.20	10.22	576.92	10.62	576.52	10.79	576.35	10.84	576.30	10.85	576.29	10.53	576.61	10.70	576.44
MW001S	6.023	10.68	576.53	10.43	576.78	9.88	577.33	10.75	576.46	10.41	576.80	10.18	577.03	10.89	576.32	10.91	576.30	11.08	576.13	11.14	576.07	11.10	576.11	10.77	576.44	10.97	576.24
MW002M-R	14.800	13.73	576.67	13.53	576.87	13.10	577.31	13.76	576.64	13.51	576.89	13.26	577.14	13.94	576.46	13.90	576.50	14.14	576.26	14.17	576.23	14.14	576.26	13.90	576.50	14.02	576.38
MW002S-R	3.467	13.66	576.62	13.46	576.82	13.03	577.25	13.67	576.61	13.43	576.85	13.19	577.09	13.87	576.41	13.89	576.39	14.08	576.20	14.11	576.17	14.08	576.20	13.85	576.43	13.97	576.31
MW031M	8.950	11.16	576.80	10.98	576.98	10.49	577.47	11.23	576.73	10.90	577.06	10.69	577.27	11.46	576.49	11.49	576.46	11.61	576.34	11.69	576.26	11.63	576.32	11.26	576.70	11.46	576.49
MW031S	1.014	12.35	576.52	12.08	576.79	11.62	577.25	11.57	577.30	11.17	577.70	11.23	577.64	11.80	577.07	12.11	576.76	12.47	576.40	12.67	576.20	12.73	576.14	12.66	576.21	12.67	576.20
MW113S	0.791	13.60	576.66	13.39	576.87	12.96	577.30	13.55	576.71	13.33	576.93	13.12	577.14	13.77	576.49	13.77	576.49	13.96	576.30	14.00	576.26	14.02	576.24	13.76	576.50	13.87	576.39
MW113M	0.742	11.77	578.46	11.69	578.54	11.46	578.77	11.58	578.65	11.48	578.75	11.37	578.86	11.81	578.42	11.84	578.39	11.91	578.32	11.96	578.27	12.04	578.19	11.59	578.64	11.74	578.49
MW115P	1.909	12.29	576.78	12.18	576.89	11.76	577.31	11.73	577.34	11.76	577.31	11.51	577.56	12.15	576.92	12.33	576.74	12.51	576.56	12.59	576.48	12.54	576.53	12.29	576.78	12.42	576.65
MW115S	2.009	12.43	576.52	12.17	576.78	11.71	577.24	11.74	577.21	12.18	576.77	11.91	577.04	12.70	576.25	12.69	576.26	12.88	576.07	12.90	576.05	12.92	576.03	12.57	576.38	12.65	576.30
MW116P	4.295	12.95	576.90	12.94	576.91	12.90	576.95	12.70	577.15	12.86	576.99	12.79	577.06	12.82	577.03	12.84	577.01	12.89	576.96	12.90	576.95	12.91	576.94	12.82	577.03	12.84	577.01
MW116S	1.716	13.28	576.55	13.03	576.80	12.58	577.25	13.02	576.81	13.17	576.66	12.78	577.05	13.61	576.22	13.54	576.29	13.79	576.04	13.81	576.02	13.75	576.08	13.50	576.33	13.59	576.24
MW119D	6.257	9.33	579.39	9.36	579.36	9.42	579.30	9.41	579.31	9.41	579.31	9.40	579.32	9.44	579.28	9.45	579.27	9.51	579.21	9.52	579.20	9.58	579.14	9.56	579.16	9.54	579.18
EW-3	No Data	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-		-
EW-10	No Data	10.38	576.67	10.24	576.81	9.77	577.28	10.31	576.74	10.07	576.98	9.90	577.15	10.68	576.37	10.73	576.32	10.87	576.18	10.96	576.09	10.81	576.24	10.52	576.53	10.68	576.37
EW-11	3.066	9.36	577.32	9.21	577.47	8.76	577.92	9.23	577.45	9.01	577.67	8.86	577.82	9.44	577.24	9.49	577.19	9.64	577.04	9.66	577.02	9.71	576.97	9.34	577.34	9.49	577.19
EW-13	5.580	8.46	576.65	8.38	576.73	7.89	577.22	8.33	576.78	8.15	576.96	8.00	577.11	8.72	576.39	8.78	576.33	8.90	576.21	9.00	576.10	8.82	576.29	8.63	576.48	8.61	576.50
EW-14	5.011	9.43	576.64	9.30	576.77	8.81	577.27	9.57	576.50	9.25	576.82	8.97	577.11	9.80	576.27	9.82	576.25	9.97	576.10	10.02	576.05	9.89	576.18	9.60	576.47	9.77	576.30
Wells Inside Former 8th Street Slip																											
MW034M	0.53	12.42	575.80	11.94	576.28	11.71	576.51	11.66	576.56	12.37	575.85	12.38	575.84	12.79	575.43	12.65	575.57	13.13	575.09	13.08	575.14	13.34	574.88	13.14	575.08	13.16	575.06
MW034S	1.991	12.61	575.57	12.27	575.91	12.01	576.17	11.95	576.23	12.53	575.65	12.56	575.62	12.99	575.19	12.82	575.36	13.42	574.76	13.37	574.81	13.60	574.58	13.46	574.72	13.47	574.71
MW036M	30.975	12.79	575.70	12.78	575.71	12.53	575.97	12.69	575.81	12.86	575.63	12.95	575.54	13.33	575.16	13.37	575.12	13.65	574.83	13.75	574.73	13.83	574.65	13.85	574.63	13.94	574.54
MW036S	0.921	12.30	575.95	12.30	575.95	12.05	576.20	12.18	576.07	12.38	575.87	12.45	575.80	12.87	575.38	12.83	575.42	13.19	575.06	13.31	574.94	13.41	574.84	13.39	574.86	13.46	574.79
MW038M	0.124	10.06	576.08	10.08	576.06	9.88	576.26	10.16	575.98	10.27	575.87	10.33	575.81	10.82	575.32	10.94	575.20	11.11	575.03	11.31	574.83	11.24	574.90	11.29	574.85	11.51	574.63
MW038S	1.213	11.78	576.04	11.79	576.03	11.58	576.24	11.95	575.87	12.02	575.80	12.10	575.72	12.57	575.25	12.67	575.15	12.93	574.89	13.06	574.76	12.98	574.84	13.08	574.74	13.27	574.55
MW120D	11.349	9.14	579.63	9.12	579.65	9.06	579.71	9.11	579.66	9.12	579.65	9.11	579.66	9.16	579.61	9.29	579.47	8.99	579.78	9.32	579.44	9.76	579.00	9.65	579.11	9.73	579.03
MW120M	26.307	13.09	575.71	13.08	575.72	12.89	575.92	12.77	576.04	12.96	575.85	12.99	575.82	13.31	575.49	13.21	575.59	13.57	575.23	13.59	575.21	13.87	574.92	13.70	575.10	13.32	575.48
MW120S	2.867	12.36	576.16	12.49	576.03	12.35	576.17	12.12	576.40	12.16	576.36	12.13	576.39	12.42	576.10	12.32	576.20	12.64	575.88	12.58	575.94	12.95	575.57	12.65	575.87	12.45	576.07
EW-2	No Data	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-		-
EW-8	No Data	8.21	575.89	8.17	575.93	7.98	576.12	10.68	573.41	10.69	573.40	10.70	573.39	12.13	571.96	11.92	572.17	12.09	572.00	12.33	571.76	12.45	571.64	12.11	571.98	12.80	571.29
EW-9	4.234	10.04	573.32	9.51	573.85	7.19	576.17	7.18	576.18	12.60	570.75	12.16	571.19	13.50	569.85	13.23	570.12	14.44	568.91	12.71	570.64	13.41	569.94	13.02	570.33	13.21	570.14
Wells Outside Pump Down Program Area																											
MW004M	No Data	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-		-
MW004S	1.813	5.75	582.99	5.88	582.86	6.09	582.65	5.56	583.18	5.41	583.33	5.30	583.44	5.38	583.36	5.47	583.27	5.62	583.12	5.52	583.22	5.84	582.90	5.29	583.45	5.14	583.60
MW032M	7.113	6.84	581.47	6.86	581.45	7.08	581.23	6.55	581.76	6.52	581.79	6.49	581.82	6.76	581.55	6.77	581.54	6.75	581.56	6.79	581.52	7.11	581.20	6.40	581.91	6.37	581.94
MW032S	2.508	5.54	582.95	5.75	582.74	6.02	582.47	5.13	583.36	5.19	583.30	5.15	583.34	5.45	583.04	5.52	582.97	5.58	582.91	5.47	583.02	5.84	582.65	4.91	583.58	4.92	583.57
MW033M	10.388	4.52	582.87	4.65	582.74	4.85	582.54	4.28	583.11	4.16	583.23	4.07	583.32	4.22	583.17	4.29	583.10	4.43	582.96	4.32	583.07	4.62	582.77	4.03	583.36	3.88	583.51
MW033S	1.087	4.32	583.00	4.47	582.85	4.68	582.64	4.10	583.22	3.98	583.34	3.87	583.45	4.02	583.30	4.11	583.21	4.23	583.09	4.16	583.16	NM	582.89	3.89	583.43	3.72	583.60
MW039M	No Data	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-		-		-
MW039S	1.786	3.20	583.00	3.32	582.88	3.52	582.68	3.09	583.11	2.85	583.35	2.72	583.48	2.82	583.38	2.90	583.30	3.04	583.16	2.95	583.25	3.25	582.95	2.68	583.52	2.56	583.64
MW035M	No Data	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-		-
MW035S	1.692	7.13	580.52	7.16	580.49	7.55	580.10	6.44	581.21	6.31	581.34	6.16	581.49	6.57	581.08	6.35	581.30	6.17	581.48	6.13	581.52	6.45	581.20	5.57	582.08	5.86	581.79
MW037M	No Data	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-		-
MW037S	1.264	6.40	580.67	6.47	580.60	6.86	580.20	5.65	581.42	5.54	581.53	5.35	581.72	5.77	581.30	5.64	581.43	5.29	581.78	5.29	581.78	5.33	581.74	4.82	582.25	5.06	582.01
SG4	No Data	8.40	579.05	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	8.20	579.25	NM	-	7.70	579.75	7.65	579.80
	Target Elevation Calc SV		576.80		577.02		577.45		576.98		577.14		577.35		576.71		576.64		576.44		576.38		576.39		576.67		576.55
	Target Elevation Calc 8SS		575.88		575.96		576.18		576.12		575.86		575.82		575.41		575.45		575.10		575.04		574.90		574.98		574.98
	Target Elevation (NAVD88)		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90		577.90
	SV Variance		-1.10		-0.88		-0.45		-0.92		-0.76		-0.55		-1.19		-1.26		-1.46		-1.52		-1.51		-1.23		-1.35
	8SS Variance		-2.02		-1.94		-1.72		-1.78		-2.04		-2.08		-2.49		-2.45		-2.80		-2.86		-3.00		-2.92		-2.92

Notes:

Measurements were collected from top of casing (TOC). All depth measurements are in feet.

Elevations are reported in feet relative to the North American Vertical Datum 1988 (NAVD88)

Shaded/Bold = Well part of Target Elevation calculation

- = Information not applicable or not collected

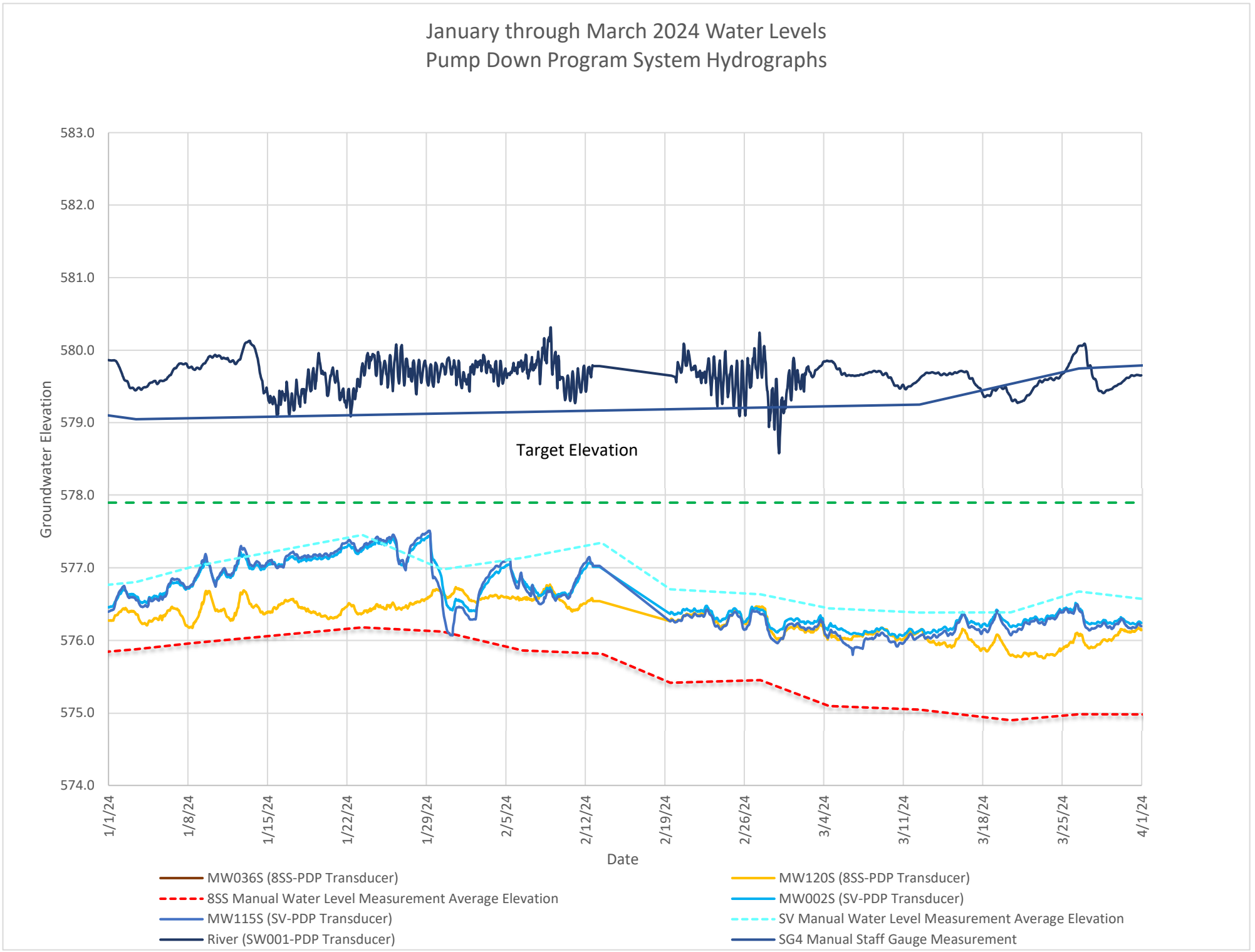
Area Definitions - SV - former Salt Vault, 8SS - former 8th Street Slip

Corrected groundwater elevation is calculated using the 2023 calculated mean conductivity value (from the last 5 years of data)

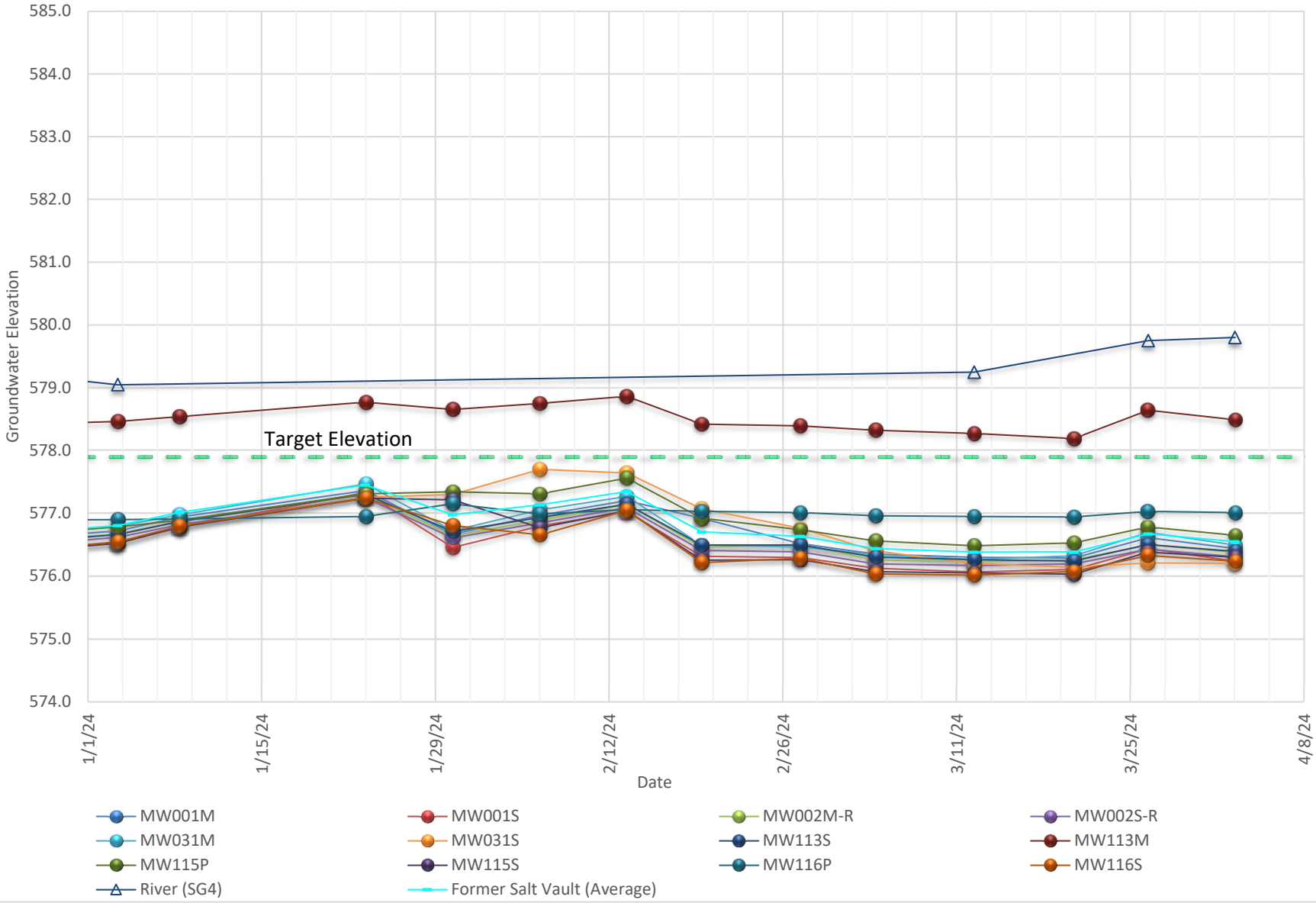
ID = identification; DTW = depth to water

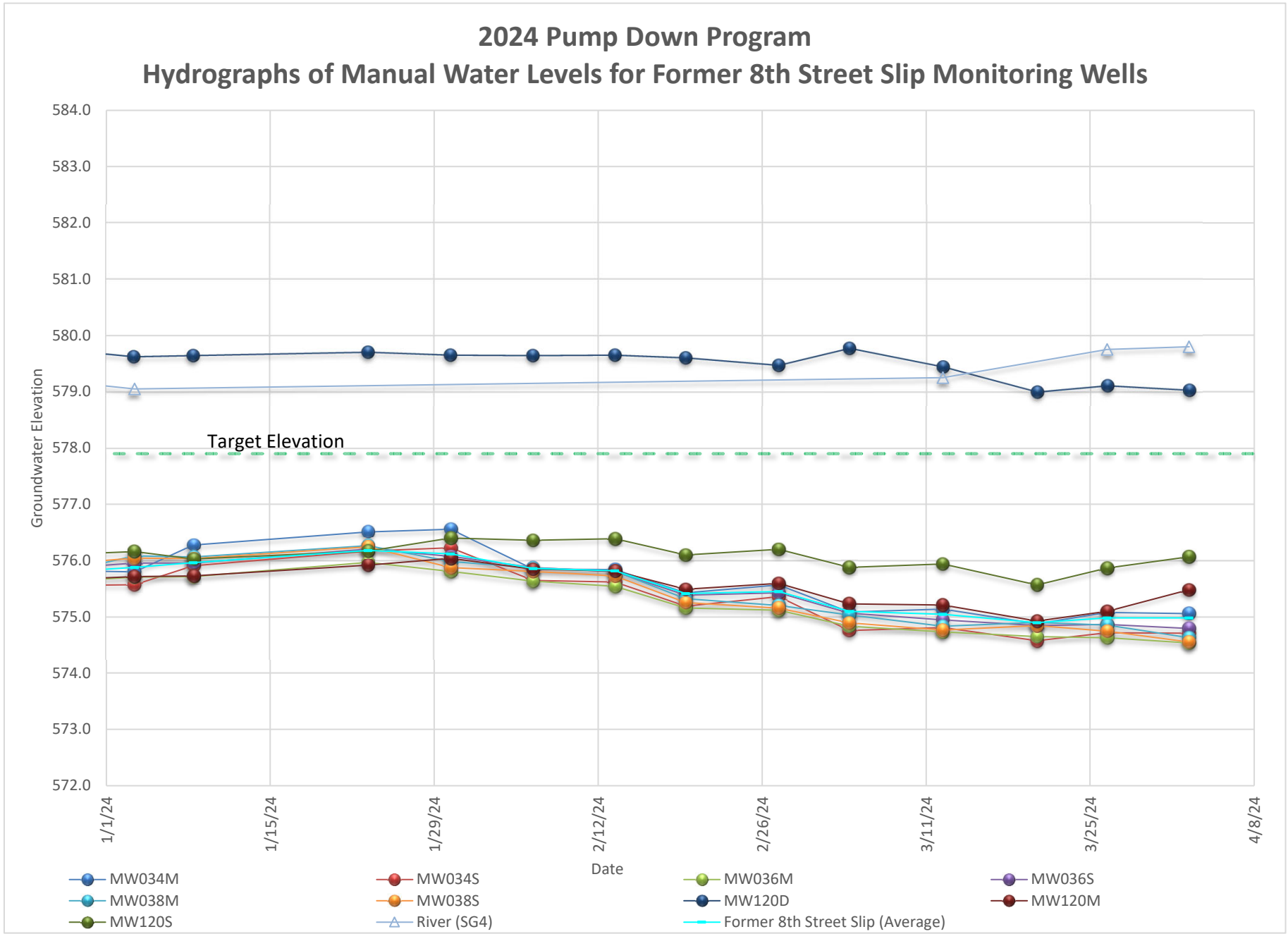
NM = Not Measured; MW = Monitoring Well

Attachment 5
2024 PDP System Hydrographs


January through March 2024 Water Levels
Pump Down Program System Hydrographs
583.0
582.0
581.0
580.0
579.0
578.0
577.0
576.0
575.0
574.0
Groundwater Elevation
Target Elevation
1/1/24
1/8/24
1/15/24
1/22/24
1/29/24
2/5/24
2/12/24
2/19/24
2/26/24
3/4/24
3/11/24
3/18/24
3/25/24
4/1/24
Date
MW036S (8SS-PDP Transducer)
8SS Manual Water Level Measurement Average Elevation
MW115S (SV-PDP Transducer)
River (SW001-PDP Transducer)
MW120S (8SS-PDP Transducer)
MW002S (SV-PDP Transducer)
SV Manual Water Level Measurement Average Elevation
SG4 Manual Staff Gauge Measurement

2024 Pump Down Program
Hydrographs of Manual Water Levels for Former Salt Vault Monitoring Wells




2024 Pump Down Program
Hydrographs of Manual Water Levels for Former 8th Street Slip Monitoring Wells
584.0
583.0
582.0
581.0
580.0
579.0
578.0
577.0
576.0
575.0
574.0
573.0
572.0
Groundwater Elevation
Target Elevation
1/1/24
1/15/24
1/29/24
2/12/24
2/26/24
3/11/24
3/25/24
4/8/24
Date
MW034M
MW034S
MW036M
MW036S
MW038M
MW038S
MW120D
MW120M
MW120S
River (SG4)
Former 8th Street Slip (Average)