From: Ziegelbauer, Heather <Heather.Ziegelbauer@jacobs.com>
Sent: Monday, July 15, 2024 5:25 PM
To: Kleinberg, Andrew
Cc: Carey, Angela J - DNR; Ryan Suennen; Finney, David; Krueger, Sarah E - DNR; Denice Nelson; Scott D Wahl; Brandy K Powell
Subject: Quarterly Progress Report - Tyco Fire Products LP Stanton Street Property, Marinette, WI
Attachments: 20240715-TycoQuarterlyReport.pdf

Andrew,
On behalf of Tyco, attached is the quarterly progress report covering the period from April 1 through June 30, 2024 for the Tyco Fire Products LP Stanton Street property, Marinette, WI.

Please let us know if you have any questions.

Regards,

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July 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 (April through June 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 April 1 through June 30, 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 second quarter 2024 reporting period. Attachment 1 provides a summary of the operational data for the groundwater collection and treatment system (GWCTS) during this reporting period 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-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 when GWCTS operations were down for maintenance. 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 shown below. As part of the system optimization process, spare parts with long lead times required for critical processes are being ordered in third quarter to limit extended shutdowns in the future, as noted.

- April 1 to April 9, 2024: The high-purity pH meter that monitors the GWCTS effluent stopped working on Friday, March 29, 2024. After working with the vendor, the issue was identified as a faulty controller board, which was replaced on April 10, 2024. A new high-purity pH meter was also installed at the combined outfall on April 23, 2024. A spare unit will also be ordered in third quarter 2024 to prevent downtime related to the high-purity pH unit from occurring in the future.
- May 7 to May 16, 2024: On May 6, 2024, the GWCTS was temporarily shut down due to an issue with the two microfiltration (MF) units related to a decrease in cleaning efficiency caused by the hot water heater failure (discussed below). The MF units were subsequently deep cleaned through acid soaks, and on May 17, 2024, MF Unit B was back up and running; however, the unit has not returned to previous performance and is slated to have the MF modules replaced in third quarter 2024 (discussed below). On May 17, 2024, MF Unit A, when started, was found to need a new component module. On May 22, 2024 the module was replaced, and some alarms that appeared were addressed with the equipment vendor. During the troubleshooting with the vendor, the programmable logic controller (PLC) ethernet cable was unplugged and was not fully plugged back in, and the daily data from May 22 to May 29, 2024, were lost.
- May 22 to May 23, 2024: The entire site lost power due to a storm for over 12 hours, including at the PDP system and GWCTS.

Other GWCTS maintenance items that limited operations during the reporting period are as follows:

- June 6 to June 13, 2024: The sump pump for the backwash tank at MF Unit B failed. A new pump was ordered and was installed on June 13, 2024. A spare unit will also be ordered in third quarter 2024 to prevent limited operations related to the MF unit from occurring in the future.
- June 14 to 30, 2024: Additional cleanings have been needed for the MF modules since bringing MF Unit B back online; therefore, the unit has been operated intermittently. Replacement MF membranes are on order and will be installed in third quarter 2024, as needed. Additional backup MF membranes will also be ordered to prevent significant downtime related to the MF unit from occurring in the future.

Other GWCTS activities during the reporting period are as follows:

- During the week of April 22, 2024, the immersion hot water heater blew a fuse. The GWCTS continued to operate without hot water for cleaning the equipment. On May 7, 2024, it was determined with the vendor that one of the two elements was defective. Operations were restored using a temporary configuration until a replacement arrived. The replacement arrived on June 19, 2024, and was up and running the following day, June 20, 2024. A backup unit is on order and is anticipated to arrive in early to mid-August 2024.
- The GWCTS has successfully met WPDES permit requirements since being placed in operation, and during this time, lime has not been added or needed as part of normal GWCTS operations. As a result, Fliteway Technologies Inc. dismantled the lime system electrical equipment on May 1, 2024, and MJB Industries Inc. took apart and removed the remainder of the system equipment on May 6, 2024.
- On June 4 and June 24, 2024, Tyco's chemical supplier ChemTreat was onsite to conduct jar testing and follow-up laboratory testing using ferric sulfate to determine whether addition will help with optimization related to reducing solids loadings on the MF units. Tyco is waiting for the report from ChemTreat to confirm any next steps on using ferric sulfate to optimize system chemical addition and operations.

Main Plant and Wetlands Area Extraction Well Maintenance

During the reporting period, the Main Plant and Wetlands Area extraction well maintenance and improvement activities were conducted as follows:

- EW-1, Wetlands Area: As noted in the previous quarterly report, during the inspection conducted on March 13, 2024, the well vault was flooded from surface water intrusion into the vault. The pump was pulled and inspected, and the electrical connections were found to be damaged. A new pump was installed on June 18, 2024, and an extension was added to the well casing to protect the electrical connections and prevent this from occurring in the future.
- EW-4, northeast corner of the Main Plant: As noted in the previous quarterly report, the capacity of extraction well EW-4 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. Tyco will be submitting design documents for a new alternative using a horizontal extraction well (HW-3) in third quarter 2024 for the Agencies' review and approval. To support the proposed well design, Endpoint oversaw a utility locate on May 23, 2024, and on May 28, 2024, the advancement of Geoprobe soil borings in the anticipated alignment of what would be a new horizontal well (HW-3). Four borings were advanced along the proposed alignment from EW-4 toward Building 40 to collect lithology and waste characterization data. These data will be submitted as part of upcoming submittals.
- New proposed EW-15, outside the wall in the northwestern corner of the site: On May 28, 2024, one Geoprobe soil boring was installed in the area of a new proposed vertical extraction well (EW-15) to evaluate lithology information. The intent of EW-15 is to extract groundwater outside the wall to limit the discharge of groundwater to the river between the western extents of the vertical barrier wall and the Fincantieri Marinette Marine Corporation property to the west. Endpoint is preparing design documents for the proposed new extraction well that will be submitted in third quarter 2024 for the Agencies' review and approval.
- EW-6, south central area of the Main Plant: During the week of April 22, 2024, the pump was not running. On April 24, 2024, the remote telemetry unit was checked and a tripped breaker was reset. The breaker tripped again on May 17, 2024, and was reset on May 20, 2024. As a result, a low flow

alarm was added to the PLC for the extraction wells when running in auto. In addition, a new breaker was ordered to have on hand in case it was defective; however, the well has been running without issues since May 20, 2024.

- EW-7, northwest corner of the Main Plant: A higher-capacity pump was installed in July 2024 to allow for increased capacity (instantaneous flows of 15 to 20 gpm) at EW-7, in case it is needed.

GWCTS Operations

As summarized in Attachment 1, Table 1-1, a total of approximately 1,031,633 gallons of groundwater was extracted from the site with the sitewide extraction well network for the reporting period, with an overall average pumping rate of 7.9 gpm. The GWCTS operated 54 days during the reporting period and treated approximately 711,110 gallons (overall average influent rate of 5.4 gpm) of this water, which was extracted from both the active Main Plant and Wetlands Area extraction wells, and a portion of the water from the PDP system wells (Figures 1 and 2). The GWCTS estimated effluent total for the reporting period is 556,253 gallons (overall average effluent rate of 4.2 gpm). The monthly Discharge Monitoring Report results from March 2024, April 2024, and May 2024 (Attachment 2) indicate that treated groundwater GWCTS effluent complies with both the permitted SP108 GWCTS effluent limits and Outfall OF004 discharge requirements.

An estimated 518,223 gallons of water (Attachment 1, Table 1-1, which includes Building 36 water from filling in a lower-level steam tunnel) 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 in Attachment 3 (the target elevation calculation included in the manual water level measurements table) and Attachment 4 (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 4) 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.

In addition, PDP transducers had batteries replaced the week of April 22, 2024. The transducers were recalibrated with manual groundwater level measurements on June 7, 2024. Any remaining trailers in the way of the PDP transducers were removed by the week of May 20, 2024, and jersey barriers were installed the following week to keep trailers and other equipment from being stored in the line of sight. Water levels were collected twice in June 2024. Beginning in July 2024, water level measurements will be collected monthly in the PDP area.

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. Responses to EPA comments on the French drain memorandum were submitted on April 3, 2024.

Barrier Wall Groundwater Monitoring Activities

As noted in the last quarterly report, 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 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.

The spring barrier wall groundwater monitoring and sampling event was conducted the week of June 17, 2024, by Endpoint. The sampling was conducted in accordance with the *Revised Barrier Wall Groundwater Monitoring Plan Update* (2015 Monitoring Plan)[4] and the 2019 Addendum to the 2015 Monitoring Plan.[5]

Four additional monitoring wells were added to the collection of the sitewide water levels at the shallow- and medium-depth wells at monitoring well nests MW028 and MW029 installed as part of the per- and polyfluoroalkyl substances (PFAS) project.

Pressure transducer–related activities were completed by Endpoint as follows:

- Week of May 6, 2024: In-Situ Inc. VuLink data logger/cellular telemetry devices were installed at nine pressure transducers (MW047S, MW120S, MW117S, MW117D, MW115S, MW124S, MW108S, MW118S, and MW064S) to allow for remote telemetry monitoring in the different contained areas. Per the 2023 Annual Report, the pressure transducers at SG-4, Weir 2, and Weir 3 were also removed. Several new transducers were also installed to replace transducers that were reaching their end of life. Activities included downloading data from each transducer and collecting manual water levels at the time of transducer downloads.
- June 5, 2024: Pressure transducers were removed at seven monitoring wells (MW003S, MW003D, MW064D, MW100S, MW102S, MW107D, and MW118D-R) in advance of PFAS sampling, and data will be missing for the period in which the transducers are removed; the transducers were reinstalled on July 9, 2024.

Maintenance Inspections

The following maintenance inspection field activities were completed in second quarter 2024.

Phyto-Plot Inspections

Routine maintenance and inspections were conducted and new trees planted by Sand County Environmental, Inc. of Rhinelander, Wisconsin, in the phyto-plot zones (Figure 2) during the reporting period as follows:

- April 29, 2024: Repaired the deer fence in Zone 4 to keep the deer out and prepared areas in Zone 7 for upcoming new tree plantings.

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

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

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

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

- Week of May 20, 2024:
  - Zones 1, 2, and 5: Trees looked healthy and no maintenance was conducted in these zones.
  - Zone 3: Some dead branches were removed from one tree in Zone 3, which had a little bit of canker. Because of the maturity and health of the rest of the trees in this zone, it is unlikely to spread. A single row of dead trees was observed in the middle of the planting, likely due to canker. This area will be continue to be monitored.
  - Zone 4: Trees looked healthy, and the vast majority (90 percent) of the trees recently replanted survived and are growing rapidly.
  - Zone 6: Trees looked healthy. The weed barriers in this area were trimmed to ensure continued healthy growth.
  - Zone 7: The original area has 22 hybrid poplar trees replanted and an additional 73 new hybrid poplar trees planted in the expanded area. In total, Zone 7 now contains 136 hybrid poplar trees, including the new plantings, replanted, and previously planted trees (Attachment 5). An additional 89 willows trees, planted previously, are also in this area.

Cover Area Inspections

Cover area inspections were completed by Tyco on May 21, 2024 (Figure 3). There were no issues or findings to address, except the following:

- The former Salt Vault and former 8th Street Slip had minor asphalt sealing and crack repairs needed. Repairs will be completed this summer (2024) and documented in the next quarterly report.
- Cover Area K also had a small area along Building 67 where some of the soil washed; this area will have soil added and be reseeded. Repairs will be completed this summer (2024) and documented in the next quarterly report.

Vertical Barrier Wall Inspections

Endpoint completed the visual inspection for the barrier markers on the west, south, and east sides of the site on April 26, 2024, and replaced the various markers, as necessary. The spare markers ran out for some of them and were ordered. As of the week of June 13, 2024, all missing slurry wall barrier wall markers have been replaced.

The waterside (above-water line) inspection of the sheet pile vertical barrier wall (Figure 1) along the Menominee River was completed by Endpoint the week of June 17, 2024. The landside portion was completed by Endpoint on July 8, 2024, with the survey to be completed later in July 2024. No major issues were identified during the waterside and landside sheet pile wall inspections, and Endpoint is preparing documentation to summarize the inspection that will be reported in third quarter 2024.

2023 Sediment Sampling Report

As noted in the last quarterly report, the *2023 Sediment Sampling Report*[6] 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

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

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.

Monthly Meetings

Monthly teleconference meetings were attended by EPA, WDNR, Tyco, Jacobs, and Endpoint on April 4, May 2, and June 13, 2024. During each meeting, the status of deliverables and a brief update of completed or upcoming activities were discussed.

Vapor Intrusion Assessment and Work Plan Comments

As noted in the last quarterly report, the *Revised Vapor Intrusion Assessment and Work Plan*[7] 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. EPA sent an email out on April 23, 2024, indicating that it will send out an agenda to further discuss the vapor intrusion work plan and have subsequently, during the June 13, 2024 monthly meeting, indicated that the discussion will occur during the August 2024 monthly meeting. Per the Agencies' request, Tyco will wait to submit the response to comments document (that will also outline or include the proposed work plan) until third or fourth quarter 2024 once the Agencies have agreed to the general approach for inclusion in the revised work plan.

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:

- As noted in the last quarterly report, 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). On June 21, 2024, WDNR emailed that it had no comments on the documentation provided and considers the *Wisconsin Administrative Code* Chapter NR 718 Material Management requirements complete.
- As noted in the previous quarterly report, the planned steel plate was installed at Weir #1 on April 24, 2024; 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 Activities

No soil disposal occurred during this reporting period.

The ChemDesign (who Tyco leases a portion of the site to) new water line work to provide water to a new building constructed by ChemDesign has been postponed from the week of July 8, 2024, to later in third

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

quarter 2024. As noted in the last quarterly report, the new water line will impact a small portion of the cover on the site in Area J (Figure 3), as detailed in a memorandum[8] submitted by Tyco on January 16, 2024, and approved by EPA in an email on March 1, 2024. Documentation of the material management activities will be provided to the Agencies following their completion in accordance with the February 13, 2024 ChemDesign MMP for reuse of soils onsite approved by WDNR in an email sent 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.

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 March 2024 through May 2024, and Attachment 1 contains additional data on GWCTS operations.

Approximately 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 3). Water level data from transducers in monitoring wells collected as part of the PDP pump house system are also summarized in a hydrograph (Attachment 4). Since the remaining empty frac tanks and other site storage containers staged in the former Salt Vault and former 8th Street Slip were removed by the week of May 20, 2024, jersey barriers were installed to limit the area used for storage, and trailers and other equipment are now out of the transducer line of sight to the pump house building (Figure 2), water levels were collected twice in June 2024 and will move to monthly water level measurements in July 2024. Although this is the post–drawdown monitoring phase (which requires quarterly manual water level measurements, instead of monthly), monthly water level measurements will continue to be collected through the end of 2024.

Spring barrier wall groundwater monitoring event data are not yet available and will be included in the annual report. Groundwater elevation data recorded by transducers are being compiled and evaluated. The transducer data will also be provided in the annual report.

3.0 Problems Encountered

There were no new problems encountered during this reporting period.

4.0 Schedule of Upcoming Activities

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 PDP water levels monthly in the former Salt Vault and former 8th Street Slip areas until end of 2024, at which time monitoring will be converted to quarterly.

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

- Continue review of EPA comments on the vapor intrusion work plan and prepare a revised work plan.
- Conduct and complete vertical barrier wall inspection from the land side (July 8, 2024).
- Conduct vertical barrier wall survey.
- Address 2024 inspection findings for the vertical barrier wall, including completing remaining 2023 inspection findings for the sheet pile vertical barrier wall.
- Perform new phyto-pumping tree plot maintenance.
- Address 2024 inspection findings for the cover areas and monitoring wells, as needed.

5.0 List of Key Correspondence and Document Submittals

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

Table 1. Documents Submitted

Quarterly Progress Report (April through June 2024), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
2023 Five-Year Technical Review Report (includes the required *2023 Barrier Wall Groundwater Monitoring Annual Report* components as Appendix A)	EPA	April 1, 2024
Response to Comments on 2022 Barrier Wall Annual Groundwater Monitoring Report Review	EPA	April 1, 2024
Response to Review Comments: French Drain Construction Memo	EPA	April 3, 2024
Email—April 4th Proposed RCRA Meeting Agenda Items	EPA and WDNR	April 3, 2024
Email—PDF of the vapor intrusion work plan presentation slides from April 4, 2024 meeting	EPA and WDNR	April 4, 2024
Summary of MMP Activities, Stormwater Separation Project	WDNR	April 9, 2024
Response to Comments on 2023 Sediment Sampling Report	EPA	April 10, 2024
Quarterly Progress Report (First Quarter 2024)	EPA	April 15, 2024
Email—May 2nd Proposed RCRA Meeting Agenda Items	EPA and WDNR	May 1, 2024
Email—June 13th Proposed RCRA Meeting Agenda Items	EPA and WDNR	June 13, 2024

Table 2. Correspondence from Agency

Quarterly Progress Report (April through June 2024), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Submitted By	Date Submitted
EPA Email—Regarding standby trust alongside the surety bond for the 2024 Financial Assurance	EPA	April 19, 2024
EPA Email—Regarding plans to send agenda and meeting dates to have a follow up meeting to further discuss the vapor intrusion work plan	EPA	April 23, 2024
WDNR Email—WDNR Review and closeout of *Summary of MMP Activities, Stormwater Separation Project*	WDNR	June 21, 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 Groundwater Elevation Monitoring
4	2024 PDP System Hydrographs
5	Phyto-Plot Zone 7—May 2024 Expansion and Replanting

Document Control No.: D3838400.319

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

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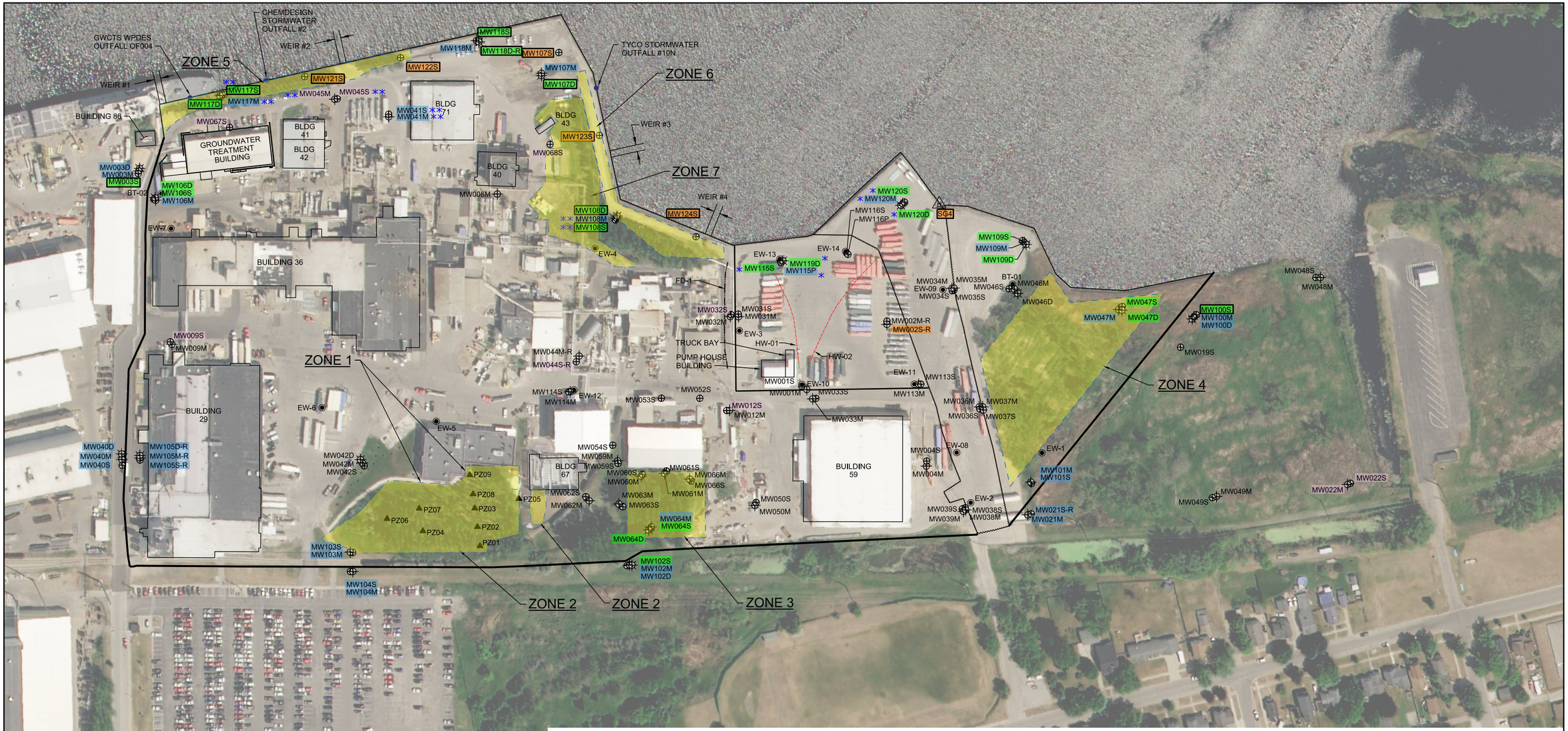

LEGEND

- 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 2024 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 MONITORING PLAN FOR WELL LOCATIONS MONITORED AS PART OF PUMP DOWN PROGRAM.
4. 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

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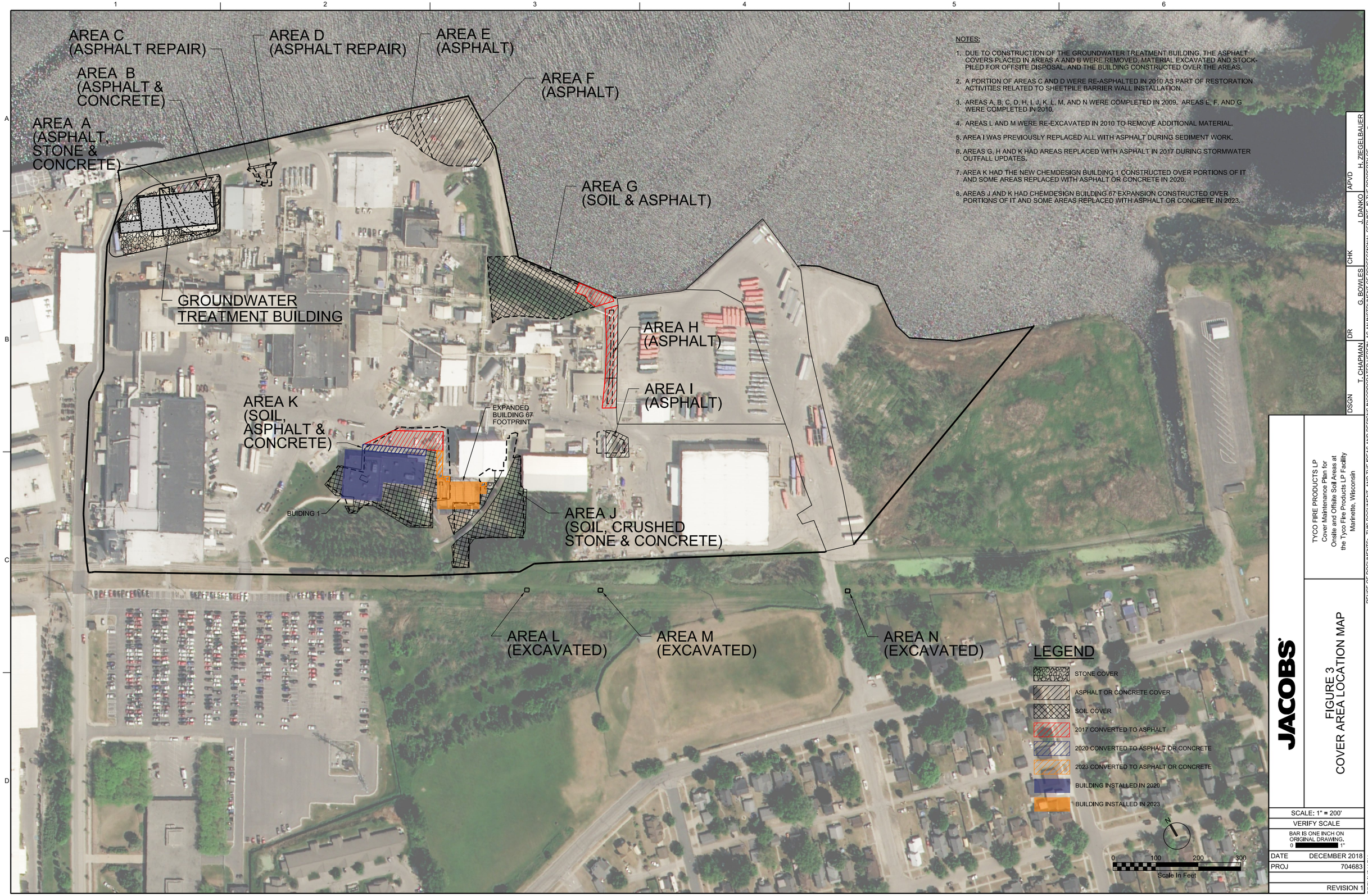

NOTES:

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, April through June 2024

The following summarizes groundwater collection and treatment system operations from April 1 through June 30, 2024, at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The groundwater collection and treatment system operated for 17 days in April 2024, 16 days in May 2024, and 21 days in June 2024, for a total of 54 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin, was 14.73 inches of rain and 3.5 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.

Table 1-1. GWCTS Operations Summary (April through June 2024)

Tyco Fire Products LP, Marinette, Wisconsin

Item Description	Beginning of 2nd Quarter 2024	End of 2nd Quarter 2024	Estimated Gallons, 2nd Quarter 2024	Average Rate* (gallons per minute)	Comments
Total GW Extracted	-	-	1,031,633	7.9	Total GW extracted from the site at all extraction wells in all areas
PDP Total	-	-	304,250	2.3	Some PDP GW was treated at the GWCTS and the remainder disposed of offsite
SV Total	-	-	163,284	1.2	
SV - Totalizer HW-2-2	432,708	438,569	5,861	0.0	
SV - Totalizer HW-2-1	479,762	534,067	54,305	0.4	
SV - Totalizer HW-1-2	486,935	589,319	102,384	0.8	
SV - Totalizer HW-1-1	520,785	521,519	734	0.0	
8SS Total	-	-	140,966	1.1	
8SS - Totalizer Well #9	742,216	785,185	42,968	0.3	
8SS - Totalizer Well #8	577,800	675,798	97,998	0.7	
Totalizer FD-1 in MP	50,352	89,291	38,939	0.3	Some French drain GW was treated at the GWCTS and the remainder disposed of offsite
WA and MP Total	-	-	688,443	5.3	All treated by GWCTS
WA - Totalizer EW-1	0	8,669	8,669	0.1	
MP - Totalizer EW-4	0	0	0	0.0	
MP - Totalizer EW-5	55,183	208,982	153,799	1.2	
MP - Totalizer EW-6	129,034	326,674	197,640	1.5	
MP - Totalizer EW-7	195,953	524,288	328,335	2.5	
Additional Water Collected (from Non-GWCTS Sources)	-	-	19,150	-	Building 36 filling in lower level steam tunnel (estimated 19,150 gallons disposed offsite)**
Remaining Water Stored in Frac Tanks Onsite	0	0	0	-	No water remained stored in frac tanks at the end of the reporting period
GWCTS Operations	-	-	-	-	
Totalizer GWCTS Influent	2,817,510	3,528,620	711,110	5.4	Consists of WA and MP GW, and component of PDP and FD-1 GW
GWCTS Effluent	1,822,557	2,378,810	556,253	4.2	
GWCTS Reject Water	268,115	446,665	178,550	1.4	Water is disposed of offsite
Outfall OF004 Discharge	10,228,812	13,191,405	2,962,593	22.6	Combined GWCTS effluent and facility wastewater effluent discharged to river
Total Water Disposed of Offsite (based on totalizer values)	-	-	518,223	-	Consists of PDP and FD-1 GW that was not treated, reject water, Building 36 steam tunnel water – Water was disposed of at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio

GWCTS = groundwater collection and treatment system
PDP = pump down program
MP = Main Plant
WA = Wetlands Area
GW = groundwater
SV = former Salt Vault
8SS = former 8th Street Slip

*Pumping averages are calculated as if the pump or system were operating 24-hours a day, 7-days a week

**The week of April 8, 2024, the lower-level steam tunnel located in a in the southeast corner of Building 36 was filled in with concrete. Water displaced during the work was temporarily stored onsite in 20,000-gallon frac tanks near the building and was then disposed of offsite the week of April 15, 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: 03/01/2024 - 03/31/2024
Form Due Date: 04/21/2024
Permit Number: 0001040

Date Received:	
DOC:	537050
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: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 03/01/2024 - 03/31/2024
Form Due Date: 04/21/2024
Permit Number: 0001040

Date Received:	
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FID:	438039470
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	0.043018	7.7	7.2		
	2	0.017047	7.6	7.2		
	3	0				
	4	0.035911	7.4	7.1		
	5	0.061784	7.4	7.1		
	6	0.050668	7.5	7.2		
	7	0.039333	7.4	7.0		
	8	0.036229	7.4	7.0		
	9	0.005207	7.3	6.8		
	10	0				
	11	0.040563	7.5	7.2		
	12	0.038956	7.3	6.8		
	13	0.031675	7.2	6.8		
	14	0.035026	7.5	6.8		
	15	0.029343	7.4	6.6		
	16	0.006791	7.3	7.1		
	17	0				
	18	0.039037	7.5	7.3		
	19	0.033249	7.6	7.4		
	20	0.027081	7.6	7.2		
	21	0.045173	7.6	7.1		
	22	0.023327	7.8	7.2		
	23	0				
	24	0				
	25	0.046181	7.4	7.2		
	26	0.045461	7.6	7.3		
	27	0.039658	7.5	7.1		
	28	0.035335	7.4	6.9		
	29	0.018031	7.4	6.9		
	30	0				
	31	0				

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.026583355		7.470833333		7.0625					
	Monthly Total										
	Daily Max	0.061784		7.8		7.4					
	Daily Min	0		7.2		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	<1.9				
	5	7.0				
	6	2.0				
	7					
	8					
	9					
	10					
	11	3.4		<0.97	12	14
	12	3.4				
	13	3.2				
	14					
	15					
	16					
	17					
	18	4.0	1.5			
	19	3.2				
	20	2.8				
	21					
	22					
	23					
	24					
	25	2.0				
	26	<1.9				
	27	<1.9				
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	2.583333333		1.5		0		12		14	
	Monthly Total										
	Daily Max	7		1.5		<0.97		12		14	
	Daily Min	<1.9		1.5		<0.97		12		14	
Limit(s) in Effect	**Monthly Avg**	31	0	26	0	260	0	2070	0	2380	0
	Monthly Total										
	Daily Max	60	0	52	0	690	0	3380	0	3980	0
	Daily Min										
QA/QC Information	**LOD**			1.4		0.97		3.5		3	
	LOQ			5.2		2		10		10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	553	507	280	280	35
	Description	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable	Mercury, Total Recoverable	Arsenic, Total Recoverable
	Units	ug/L	ug/L	ng/L	mg/day	ug/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	GRAB	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11	210				<4.2
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	210								0	
	Monthly Total										
	Daily Max	210								<4.2	
	Daily Min	210								<4.2	
Limit(s) in Effect	**Monthly Avg**	1480	0								
	Monthly Total										
	Daily Max	2610	0	2130							
	Daily Min										
QA/QC Information	**LOD**	7.3								4.2	
	LOQ	20								10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010								999580010	

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	MONTHLY
Sample Results	Day 1		17040			
	2		7120			
	3		0			
	4		17500			
	5		18575	17000	34	
	6		27125			
	7		22310			
	8		16995			
	9		0			
	10		0			
	11	0.001428	13625			
	12		18195	24000	73	
	13		20455			
	14		22700			
	15		17100			
	16		0			
	17		0			
	18		9160	6000	250	
	19		5			
	20		0			
	21		0			
	22		0			
	23		0			
	24		0			
	25		3825			
	26		15585	1800	22	
	27		13355			
	28		8835			1.5
	29		495			
	30		0			
	31		0			

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.001428	8709.677419355	12200	94.75	1.5
	Monthly Total					
	Daily Max	0.001428	27125	24000	250	1.5
	Daily Min	0.001428	0	1800	22	1.5
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			100		0.2
	LOQ			500		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		0.055580	6.9	6.0	
	2		0.025170	6.9	6.0	
	3		0			
	4		0.061616	7.2	6.0	
	5		0.070953	7.2	6.2	
	6		0.074700	7.5	6.1	
	7		0.060995	7.3	6.1	
	8		0.045380	7.8	6.0	
	9		0.005765	7.6	6.5	
	10		0			
	11		0.062254	7.3	6.0	
	12		0.059013	7.0	6.1	
	13		0.055229	7.2	6.1	
	14		0.058341	7.5	6.1	
	15		0.044877	7.3	6.0	
	16		0.008385	7.4	6.8	
	17		0.001295	7.4	7.0	
	18		0.060387	7.2	6.0	
	19		0.041809	7.3	6.5	
	20		0.034855	7.5	7.0	
	21		0.052530	7.4	6.9	
	22		0.020775	7.8	6.9	
	23		0			
	24		0			
	25		0.055964	7.2	6.2	
	26		0.061653	7.2	6.0	
	27		0.052621	7.2	6.0	<9
	28	<0.20	0.044380	7.2	6.2	
	29		0.017590	7.2	6.8	
	30		0			
	31		0			

	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		0.036519903		7.308		6.3		0	
	Monthly Total										
	Daily Max	<0.2		0.0747		7.8		7		<9	
	Daily Min	<0.2		0		6.9		6		<9	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max					9	0			38	0
	Daily Min							6	7		
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	<4.2	0.002058			<0.97
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28			1.0	0.1682	
	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		0.002058		1		0.1682		0					
	Monthly Total														
	Daily Max	<4.2		0.002058		1		0.1682		<0.97					
	Daily Min	<4.2		0.002058		1		0.1682		<0.97					
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**	4.2				0.2				0.97					
	LOQ	10				0.5				2					
	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	0.0004753	9.9	0.004851	4.1	0.002009
	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	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**	0.0004753		9.9		0.004851		4.1		0.002009	
	Monthly Total										
	Daily Max	0.0004753		9.9		0.004851		4.1		0.002009	
	Daily Min	0.0004753		9.9		0.004851		4.1		0.002009	
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**			3.5				3			
	LOQ			10				10			
	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	60	0.0294	<3.6	0.001764	750
	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	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**	60		0.0294		0		0.001764		750	
	Monthly Total										
	Daily Max	60		0.0294		<3.6		0.001764		750	
	Daily Min	60		0.0294		<3.6		0.001764		750	
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**	7.3				3.6					
	LOQ	20				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	66				0.013677
	2	73				0.006816
	3	71				0
	4	77				0.013556
	5	66				0.015643
	6	67				0.020505
	7	74				0.018570
	8	74				0.011995
	9	72				0
	10					0
	11	75				0.011779
	12	69	4.3	0.63	0.14090517	0.015418
	13	72				0.015869
	14	71				0.016881
	15	67				0.014092
	16	74				0
	17	70				0
	18	71				0.007806
	19	69				0.000329
	20	67				0
	21	67				0.000330
	22	66				0
	23					0
	24					0
	25	73				0.002864
	26	69				0.013623
	27	67				0.010591
	28	66				0.004655
	29	67				0.000445
	30					0
	31					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**	70		4.3		0.63		0.14090517		0.006949806	
	Monthly Total										
	Daily Max	77		4.3		0.63		0.14090517		0.020505	
	Daily Min	66		4.3		0.63		0.14090517		0	
Limit(s) in Effect	**Monthly Avg**					11	0	2.1	0		
	Monthly Total										
	Daily Max					11	0				
	Daily Min										
QA/QC Information	**LOD**			0.72		0.46					
	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	4.2	2.7	0.000351		
	6					
	7					
	8					
	9					
	10					
	11					
	12	<1.9	4.6	0.000598		
	13					
	14					
	15					
	16					
	17					
	18	<1.9	<2.1	0.0000021		
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26	<1.9	<2.1	0.000231		
	27					
	28				<0.20	0.0034448
	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**	1.05		1.825		0.000295525		0		0.0034448	
	Monthly Total										
	Daily Max	4.2		4.6		0.000598		<0.2		0.0034448	
	Daily Min	<1.9		<2.1		2.1E-06		<0.2		0.0034448	
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	<0.78	<0.49
	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	<0.78		<0.49	
	Daily Min	<0.78		<0.49	
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
QA/QC Information	**LOD**	0.78		0.49	
	LOQ	1.8		1.8	
	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

The bottle for ULL Hg for SP101 was broken in transit and it was sent late in the month so, I could not resample due to the month was over when I was told.

Laboratory Quality Control Comments

pH on OF004 did run at 6.0 for 7 different times but, system goes into recycle so, nothing went out

Exceedence Comments

pH issues due to the probe but the system goes into recycle so, nothing went out. It ran at 6.0 for 7 different times.

Submitted by Anne Fleury(afleury16) on 4/11/2024 10:41:34 AM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 04/01/2024 - 04/30/2024
Form Due Date: 05/21/2024
Permit Number: 0001040

Date Received:	
DOC:	545999
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
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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	0.03300	8.0	7.2		
	2	0.04213	7.8	7.3		
	3	0.05240	7.6	7.2		
	4	0.04680	7.6	7.2		
	5	0.04240	8.7	6.7		
	6	0				
	7	0				
	8	0.04610	7.5	7.1		
	9	0.04690	7.6	7.2		
	10	0.05440	7.7	7.2		
	11	0.04390	7.6	7.0		
	12	0.02050	7.4	6.8		
	13	0.00650	7.7	6.9		
	14	0				
	15	0.05210	7.6	7.2		
	16	0.05590	7.8	7.2		
	17	0.05260	7.8	7.5		
	18	0.04790	7.7	7.1		
	19	0.01250	8.0	7.3		
	20	0				
	21	0				
	22	0.04150	7.1	6.7		
	23	0.04060	7.6	6.8		
	24	0.04440	7.3	6.6		
	25	0.04060	7.3	6.5		
	26	0.01510	7.0	6.5		
	27	0.01110	7.1	6.7		
	28	0				
	29	0.04050	8.1	7.1		
	30	0.04300	7.7	6.8		
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.031094333		7.6375		6.991666667					
	Monthly Total										
	Daily Max	0.0559		8.7		7.5					
	Daily Min	0		7		6.5					
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**	2.8				
	2	<1.9	<1.3			
	3	<1.9				
	4					
	5					
	6					
	7					
	8	2.0				
	9	<1.9		<0.49	3.2	3.7
	10	2.0				
	11					
	12					
	13					
	14					
	15	3.4				
	16	2.0				
	17	2.4				
	18					
	19					
	20					
	21					
	22	2.0				
	23	<1.9				
	24	<1.9				
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	457		651		87		147		315	
	Description	Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable		Copper, Total Recoverable		Nickel, Total Recoverable	
	Units	mg/L		mg/L		ug/L		ug/L		ug/L	
Summary Values	**Monthly Avg**	1.383333333		0		0		3.2		3.7	
	Monthly Total										
	Daily Max	3.4		<1.3		<0.49		3.2		3.7	
	Daily Min	<1.9		<1.3		<0.49		3.2		3.7	
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					
	9	130				<2.1
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24			1.1	0.1852873	
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	553		507		280		280		35	
	Description	Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable		Mercury, Total Recoverable		Arsenic, Total Recoverable	
	Units	ug/L		ug/L		ng/L		mg/day		ug/L	
Summary Values	**Monthly Avg**	130				1.1		0.1852873		0	
	Monthly Total										
	Daily Max	130				1.1		0.1852873		<2.1	
	Daily Min	130				1.1		0.1852873		<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		0			
	3		0			
	4		0			
	5		0			
	6		0			
	7		0			
	8		0			
	9	0.000819	0			
	10		6945			
	11		6775	28000	69	
	12		6775			
	13		13080			
	14		0			
	15		0			
	16		15365	41000	310	
	17		21110			
	18		14485			
	19		22990			
	20		11765			
	21		5			
	22		0			
	23		15710	32000	290	
	24		8200			25
	25		16935			
	26		19765			
	27		16550			
	28		6165			
	29		0			
	30		20740			
	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**	0.000819	7445.333333333	33666.666666667	223	25
	Monthly Total					
	Daily Max	0.000819	22990	41000	310	25
	Daily Min	0.000819	0	28000	69	25
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			420		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		0.040310	7.7	6.8	
	2		0.040400	7.2	6.8	
	3		0.042800	7.3	7.0	
	4		0.039530	10.1	6.9	
	5		0.032950	8.6	6.4	
	6		0			
	7		0			
	8		0.045260	7.2	6.2	
	9		0.047925	7.4	6.9	
	10		0.061908	7.4	5.6	
	11		0.048231	7.3	5.8	
	12		0.048231	7.3	5.7	
	13		0.022646	7.1	6.1	
	14		0.008584	7.6	6.3	
	15		0.000615	7.1	6.3	
	16		0.062793	7.5	6.4	
	17		0.068444	7.2	6.6	
	18		0.065093	7.2	6.4	
	19		0.063266	7.0	6.2	
	20		0.019187	6.8	6.1	
	21		0.000005	6.4	6.2	
	22		0			
	23		0.057167	6.9	6.0	
	24	<0.20	0.048113	14.0	6.0	<10
	25		0.058086	7.9	6.8	
	26		0.060269	6.9	6.7	
	27		0.026311	7.0	6.7	
	28		0.016782	7.1	6.9	
	29		0			
	30		0.061450	6.9	6.8	
	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		0.036211867		7.619230769		6.407692308		0	
	Monthly Total										
	Daily Max	<0.2		0.068444		14		7		<10	
	Daily Min	<0.2		0		6.4		5.6		<10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max					9	2			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	<2.1	0.00084			<0.49
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24			0.48	0.0877416	
	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		0.00084		0.48		0.0877416		0					
	Monthly Total														
	Daily Max	<2.1		0.00084		0.48		0.0877416		<0.49					
	Daily Min	<2.1		0.00084		0.48		0.0877416		<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	0.000196	4.0	0.0016	3.3	0.00132
	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	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**	0.000196		4		0.0016		3.3		0.00132	
	Monthly Total										
	Daily Max	0.000196		4		0.0016		3.3		0.00132	
	Daily Min	0.000196		4		0.0016		3.3		0.00132	
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	33	0.0132	<3.6	0.00144	170
	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	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**	33		0.0132		0		0.00144		170	
	Monthly Total										
	Daily Max	33		0.0132		<3.6		0.00144		170	
	Daily Min	33		0.0132		<3.6		0.00144		170	
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	68				0
	2	65				0
	3	62				0
	4	66				0.000025
	5	63				0
	6					0
	7					0
	8	70				0
	9	64				0
	10	73				0
	11	70	3.5	0.80	0.146236	0.007063
	12	70				0.005386
	13	69				0.006931
	14	70				0.002424
	15	75				0
	16	70				0.010983
	17	66				0.017284
	18	66				0.012983
	19	68				0.016741
	20	69				0.007927
	21	65				0
	22					
	23	73				0.011452
	24					0.006293
	25	75				0.013256
	26	76				0.016284
	27	77				0.014006
	28	79				0.004657
	29					0
	30	77				0.013780
	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	69.84	3.5	0.8	0.146236	0.005775
	Monthly Total					
	Daily Max	79	3.5	0.8	0.146236	0.017284
	Daily Min	62	3.5	0.8	0.146236	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					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11	<1.9	3.5	0.00021		
	12					
	13					
	14					
	15					
	16	<1.9	4.0	0.00036		
	17					
	18					
	19					
	20					
	21					
	22					
	23	<1.9	<2.1	0.000189		
	24				<0.20	0.00477
	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		2.5		0.000253		0		0.00477	
	Monthly Total										
	Daily Max	<1.9		4		0.00036		<0.2		0.00477	
	Daily Min	<1.9		<2.1		0.000189		<0.2		0.00477	
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	<0.75	<0.48
	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	<0.75		<0.48	
	Daily Min	<0.75		<0.48	
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
QA/QC Information	**LOD**	0.75		0.48	
	LOQ	1.8		1.8	
	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

At OF004 the high and low pH issues did go into recycle right away so nothing went out. On the 4th & 24th were the days they were calibrating the probes.

Laboratory Quality Control Comments

Exceedence Comments

pH issues were due to probe calibrations and system goes into recycle

Submitted by Anne Fleury(afleury16) on 5/20/2024 10:05:46 AM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 05/01/2024 - 05/31/2024
Form Due Date: 06/21/2024
Permit Number: 0001040

Date Received:	
DOC:	546000
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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Reporting Period: 05/01/2024 - 05/31/2024
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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	0.043981	7.4	6.6		
	2	0.043508	7.2	6.8		
	3	0.033615	7.2	6.6		
	4	0				
	5	0				
	6	0.026718	7.7	7.2		
	7	0.044876	8.2	6.8		
	8	0.041399	7.2	6.6		
	9	0.043179	7.5	6.6		
	10	0.019258	7.3	6.5		
	11	0.006479	7.5	7.0		
	12	0				
	13	0.033704	7.4	7.2		
	14	0.032231	7.4	6.9		
	15	0.042062	7.6	7.0		
	16	0.040496	7.8	7.0		
	17	0.016908	8.1	6.8		
	18	0.004267	7.8	6.6		
	19	0				
	20	0.034506	7.8	6.9		
	21	0.034296	7.4	6.6		
	22	0.033364	7.8	6.7		
	23	0.028796	7.5	6.6		
	24	0.014897	7.3	6.7		
	25	0				
	26	0				
	27	0				
	28	0.031828	8.3	7.8		
	29	0.028973	8.0	7.4		
	30	0.032790	8.0	7.4		
	31	0.017871	7.8	7.0		

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		373		374		379		376	
	Description	Flow Rate		pH (Maximum)		pH (Minimum)		pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes	
	Units	MGD		su		su		minutes		Number	
Summary Values	**Monthly Avg**	0.023548452		7.633333333		6.8875					
	Monthly Total										
	Daily Max	0.044876		8.3		7.8					
	Daily Min	0		7.2		6.5					
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**	5.6				
	2	3.0	<1.3	<0.49	4.6	3.7
	3					
	4					
	5					
	6	5.6				
	7					
	8	3.6				
	9	3.2				
	10					
	11					
	12					
	13	3.6				
	14					
	15	2.2				
	16	2.8				
	17					
	18					
	19					
	20	4.2				
	21					
	22	2.6				
	23	4.4				
	24					
	25					
	26					
	27					
	28	4.0				
	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**	3.733333333		0		0		4.6		3.7	
	Monthly Total										
	Daily Max	5.6		<1.3		<0.49		4.6		3.7	
	Daily Min	2.2		<1.3		<0.49		4.6		3.7	
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			4.9		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	110				<2.1
	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			1.3	0.1427504	
	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				1.3		0.1427504		0	
	Monthly Total										
	Daily Max	110				1.3		0.1427504		<2.1	
	Daily Min	110				1.3		0.1427504		<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**		31825			
	2	0.000756	21585			
	3		15515			
	4		0			
	5		0			
	6		1955	22000	410	
	7		0			
	8		5			
	9		0			
	10		0			
	11		0			
	12		0			
	13		0			
	14		0			
	15		0			
	16		0			
	17		1680			
	18		0			
	19		0			
	20		1325	41000	780	
	21		0			
	22		0			
	23		0			
	24		0			
	25		0			
	26		0			
	27		0			
	28		0			
	29		0			12
	30		19430			
	31		17220			

	Sample Point	101	704	704	704	704
	Description	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent	GWCTS Influent	GWCTS Influent
	Parameter	35	211	35	457	280
	Description	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable	Suspended Solids, Total	Mercury, Total Recoverable
	Units	lbs/day	gpd	ug/L	mg/L	ng/L
Summary Values	**Monthly Avg**	0.000756	3565.806451613	31500	595	12
	Monthly Total					
	Daily Max	0.000756	31825	41000	780	12
	Daily Min	0.000756	0	22000	410	12
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**			42		0.2
	LOQ			100		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		0.066712	6.9	6.7	
	2		0.072713	6.7	6.6	
	3		0.066129	6.6	6.5	
	4		0.047389	6.6	6.5	
	5		0			
	6		0.026848	6.2	6.1	
	7		0.036904	6.1	6.0	
	8		0.048760	6.1	6.0	
	9		0.048600	8.0	6.0	
	10		0.050750	6.5	6.0	
	11		0.019315	6.0	5.9	
	12		0.007485	6.2	5.9	
	13		0.033874	6.3	6.0	
	14		0.043500	6.0	5.8	
	15		0.037640	7.4	5.8	
	16		0.050520	6.6	6.4	
	17		0.048100	6.6	6.5	
	18		0.018957	6.5	6.2	
	19		0.004855	7.6	6.0	
	20		0.036451	6.8	6.5	
	21		0.044946	7.3	6.6	
	22		0.037640	7.4	5.8	
	23		0			
	24		0.014897			
	25		0			
	26		0			
	27		0			
	28		0.031828			
	29	<0.20	0.028973			
	30		0.058619	7.2	6.9	<10
	31		0.032615	9.3	6.2	

	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		0.032742581		6.82173913		6.213043478		0	
	Monthly Total										
	Daily Max	<0.2		0.072713		9.3		6.9		<10	
	Daily Min	<0.2		0		6		5.8		<10	
Limit(s) in Effect	**Monthly Avg**									38	0
	Monthly Total										
	Daily Max					9	1			38	0
	Daily Min							6	12		
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	<2.1	0.000504			<0.49
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29			0.76	0.08345408	
	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		0.000504		0.76		0.08345408		0					
	Monthly Total														
	Daily Max	<2.1		0.000504		0.76		0.08345408		<0.49					
	Daily Min	<2.1		0.000504		0.76		0.08345408		<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	<0.49	4.8	0.001152	4.9	0.001176
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	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		4.8		0.001152		4.9		0.001176	
	Monthly Total										
	Daily Max	<0.49		4.8		0.001152		4.9		0.001176	
	Daily Min	<0.49		4.8		0.001152		4.9		0.001176	
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	56	0.01344	<3.6	0.000864	540
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	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**	56		0.01344		0		0.000864		540	
	Monthly Total										
	Daily Max	56		0.01344		<3.6		0.000864		540	
	Daily Min	56		0.01344		<3.6		0.000864		540	
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	78				0.019892
	2	75				0.025453
	3	76				0.016714
	4					0.013719
	5					0
	6	81	2.0	<0.51	0.05189454	0
	7	79				0.002209
	8	78				0
	9	78				0.000660
	10	73				0
	11	76				0
	12					0
	13	82				0
	14	79				0
	15	81				0
	16	77				0
	17	80				0
	18	78				0.001377
	19					0
	20	84				0
	21	82				0.001746
	22	81				0
	23	81				0
	24					0
	25					0
	26					0
	27					0
	28					0
	29					0
	30	80				0.015489
	31	80				0.012571

	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**	79		2		0		0.05189454		0.003542903	
	Monthly Total										
	Daily Max	84		2		<0.51		0.05189454		0.025453	
	Daily Min	73		2		<0.51		0.05189454		0	
Limit(s) in Effect	**Monthly Avg**					11	0	2.1	0		
	Monthly Total										
	Daily Max					11	0				
	Daily Min										
QA/QC Information	**LOD**			0.8		0.51					
	LOQ			1.9		1.9					
	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	<1.9	2.7			
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21	<1.9	35	0.00035		
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29				0.42	
	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		18.85		0.00035		0.42			
	Monthly Total										
	Daily Max	<1.9		35		0.00035		0.42			
	Daily Min	<1.9		2.7		0.00035		0.42			
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	<0.75	<0.48
	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	<0.75		<0.48	
	Daily Min	<0.75		<0.48	
Limit(s) in Effect	**Monthly Avg**				
	Monthly Total				
	Daily Max				
	Daily Min				
QA/QC Information	**LOD**	0.75		0.48	
	LOQ	1.8		1.8	
	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

Fliteway said the computer monitoring system had a few connection errors so, I am missing a flow on the sampling dates of the 6th and the 29th for SP108.

Laboratory Quality Control Comments

The pH issues all went into recycle and nothing was sent out. Operators working on probe issues.

Exceedence Comments

We had some pH issues with the probe, but the system does go into recycle so nothing went out.

Submitted by Anne Fleury(afleury16) on 6/20/2024 11:02:25 AM

Attachment 3
2024 PDP Groundwater Elevation Monitoring

Attachment 3. 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

Attachment 3. 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	April 9, 2024		April 16, 2024		April 23, 2024		April 30, 2024		May 7, 2024		May 14, 2024		May 21, 2024		May 28, 2024		June 5, 2024		June 11, 2024		June 17, 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)
Wells Inside Former Salt Vault																							
MW001M	6.394	10.52	576.62	10.65	576.49	10.34	576.80	10.55	576.59	10.52	576.62	10.31	576.83	10.42	576.72	10.38	576.76	9.85	577.29	10.05	577.09	10.14	577.00
MW001S	6.023	10.75	576.46	10.91	576.30	10.61	576.60	10.83	576.38	10.75	576.46	10.62	576.59	10.69	576.52	10.66	576.55	10.13	577.08	10.32	576.89	10.37	576.84
MW002M-R	14.800	13.87	576.53	13.97	576.43	13.67	576.73	13.95	576.45	13.81	576.59	13.64	576.76	13.72	576.68	13.73	576.67	13.20	577.20	13.39	577.01	13.46	576.94
MW002S-R	3.467	13.82	576.46	13.94	576.34	13.63	576.65	13.87	576.41	13.78	576.50	13.58	576.70	13.66	576.62	13.68	576.60	13.13	577.15	13.31	576.97	13.43	576.85
MW031M	8.950	11.27	576.68	11.47	576.48	11.03	576.93	11.33	576.62	11.33	576.62	11.73	576.22	11.78	576.17	11.73	576.22	10.61	577.35	10.83	577.13	10.95	577.01
MW031S	1.014	12.54	576.33	12.58	576.29	12.52	576.35	12.48	576.39	12.50	576.37	12.43	576.44	12.33	576.54	12.18	576.69	11.90	576.97	11.88	576.99	12.07	576.80
MW113S	0.791	13.73	576.53	13.83	576.43	13.53	576.73	13.77	576.49	13.73	576.53	13.49	576.77	13.52	576.74	13.59	576.67	13.06	577.20	13.21	577.05	13.37	576.89
MW113M	0.742	11.46	578.77	11.52	578.71	11.32	578.91	11.40	578.83	11.39	578.84	11.26	578.97	11.28	578.95	11.22	579.01	10.87	579.36	11.08	579.15	11.22	579.01
MW115P	1.909	12.13	576.94	11.06	578.01	10.84	578.23	11.39	577.68	11.57	577.50	11.54	577.53	11.66	577.41	11.56	577.51	11.26	577.81	11.48	577.59	11.61	577.46
MW115S	2.009	12.55	576.40	12.67	576.28	12.32	576.63	12.60	576.35	12.52	576.43	12.37	576.58	12.47	576.48	12.44	576.51	11.87	577.08	12.12	576.83	12.18	576.77
MW116P	4.295	12.59	577.26	12.69	577.16	12.61	577.24	12.59	577.26	12.67	577.18	12.58	577.27	12.48	577.37	12.43	577.42	12.27	577.58	12.27	577.58	12.22	577.63
MW116S	1.716	13.45	576.38	13.56	576.27	13.26	576.57	13.52	576.31	13.36	576.47	13.21	576.62	13.39	576.44	13.34	576.49	12.73	577.10	13.02	576.81	13.06	576.77
MW119D	6.257	9.51	579.21	9.52	579.20	9.46	579.26	9.38	579.34	9.36	579.36	9.28	579.44	9.23	579.49	9.14	579.58	9.09	579.63	9.04	579.68	9.01	579.71
EW-3	No Data		-		-		-		-		-		-		-		-		-		-		-
EW-10	No Data	10.32	576.73	10.62	576.43	10.13	576.92	10.32	576.73	10.24	576.81	9.94	577.11	9.83	577.22	9.74	577.31	9.37	577.68	9.59	577.46	9.58	577.47
EW-11	3.066	9.28	577.40	9.40	577.28	9.11	577.57	9.31	577.37	9.23	577.45	9.06	577.62	9.15	577.53	9.12	577.56	8.65	578.03	8.85	577.83	8.92	577.76
EW-13	5.580	8.37	576.74	8.71	576.40	8.30	576.81	8.59	576.52	8.64	576.47	8.43	576.68	8.52	576.59	8.42	576.69	7.95	577.16	8.15	576.96	8.17	576.94
EW-14	5.011	9.52	576.55	9.77	576.30	9.31	576.76	9.64	576.43	9.62	576.45	9.40	576.67	9.53	576.54	9.47	576.60	8.86	577.22	9.17	576.90	9.28	576.79
Wells Inside Former 8th Street Slip																							
MW034M	0.53	13.04	575.18	12.39	575.83	12.24	575.98	12.12	576.10	12.04	576.18	11.96	576.26	12.61	575.61	12.56	575.66	12.31	575.91	12.49	575.73	12.18	576.04
MW034S	1.991	13.28	574.90	12.78	575.40	12.60	575.58	12.47	575.71	12.40	575.78	12.32	575.86	12.81	575.37	12.77	575.41	12.50	575.68	12.71	575.47	12.64	575.54
MW036M	30.975	13.82	574.66	13.67	574.81	13.40	575.09	13.33	575.16	13.25	575.24	13.14	575.35	13.15	575.34	12.86	575.63	12.50	576.00	12.64	575.86	12.87	575.62
MW036S	0.921	13.37	574.88	13.19	575.06	12.95	575.30	12.84	575.41	12.77	575.48	12.65	575.60	12.70	575.55	12.45	575.80	12.06	576.19	12.16	576.09	12.42	575.83
MW038M	0.124	11.30	574.84	11.24	574.90	10.88	575.26	10.84	575.30	10.69	575.45	10.61	575.53	10.52	575.62	10.02	576.12	9.54	576.60	9.73	576.41	10.13	576.01
MW038S	1.213	13.07	574.75	12.98	574.84	12.59	575.23	12.61	575.21	12.48	575.34	12.32	575.50	12.22	575.60	11.67	576.15	11.21	576.61	11.45	576.37	11.83	575.99
MW120D	11.349	8.97	579.80	8.70	580.07	9.00	579.77	8.48	580.29	8.28	580.49	8.44	580.33	8.42	580.35	8.39	580.38	8.22	580.55	8.24	580.53	8.05	580.72
MW120M	26.307	13.41	575.39	13.29	575.51	13.19	575.61	13.13	575.67	13.02	575.78	12.97	575.84	13.15	575.65	13.09	575.71	12.91	575.90	13.01	575.79	13.10	575.70
MW120S	2.867	12.21	576.31	12.35	576.17	12.22	576.30	12.25	576.27	12.14	576.38	12.17	576.35	12.20	576.32	12.23	576.29	12.06	576.46	12.16	576.36	12.22	576.30
EW-2	No Data		-		-		-		-		-		-		-		-		-		-		-
EW-8	No Data	12.15	571.94	12.74	571.35	12.27	571.82	12.49	571.60	12.51	571.58	12.43	571.66	12.47	571.62	8.20	575.90	7.70	576.40	11.17	572.92	8.42	575.68
EW-9	4.234	13.05	570.30	7.95	575.41	7.74	575.62	7.62	575.74	7.67	575.69	7.52	575.84	12.35	571.00	12.38	570.97	12.12	571.23	13.74	569.61	7.86	575.50
Wells Outside Pump Down Program Area																							
MW004M	No Data		-		-		-		-		-		-		-		-		-		-		-
MW004S	1.813	4.55	584.19	4.72	584.02	4.49	584.25	4.36	584.38	4.35	584.39	4.30	584.44	4.37	584.37	4.06	584.68	4.02	584.72	4.39	584.35	4.68	584.06
MW032M	7.113	5.97	582.34	6.24	582.07	5.95	582.36	5.72	582.59	5.86	582.45	5.88	582.43	5.88	582.43	5.63	582.68	5.56	582.75	5.88	582.43	6.00	582.31
MW032S	2.508	4.40	584.09	4.80	583.69	4.43	584.06	4.24	584.25	4.37	584.12	4.43	584.06	4.46	584.03	4.03	584.46	4.15	584.34	5.55	582.94	4.79	583.70
MW033M	10.388	3.29	584.10	3.52	583.87	3.29	584.10	3.13	584.26	3.15	584.24	3.12	584.27	3.23	584.16	2.81	584.59	2.88	584.52	3.24	584.15	3.15	584.24
MW033S	1.087	3.11	584.21	3.36	583.96	3.20	584.12	2.94	584.38	4.38	582.94	4.14	583.18	3.01	584.31	3.53	583.79	3.24	584.08	3.05	584.27	3.33	583.99
MW039M	No Data		-		-		-		-		-		-		-		-		-		-		-
MW039S	1.786	1.98	584.22	2.14	584.06	1.91	584.29	1.76	584.44	1.76	584.44	1.73	584.47	1.78	584.42	1.44	584.76	1.43	584.77	1.79	584.41	2.08	584.12
MW035M	No Data		-		-		-		-		-		-		-		-		-		-		-
MW035S	1.692	5.78	581.87	5.89	581.76	5.84	581.81	5.64	582.01	5.76	581.89	5.82	581.83	5.83	581.82	5.64	582.01	5.74	581.91	5.97	581.68	6.20	581.45
MW037M	No Data		-		-		-		-		-		-		-		-		-		-		-
MW037S	1.264	4.89	582.18	5.07	582.00	5.00	582.07	4.83	582.24	4.97	582.10	4.99	582.08	5.02	582.05	4.78	582.29	4.94	582.13	5.16	581.91	5.48	581.59
SG4	No Data	8.20	579.25	7.70	579.75	8.20	579.25	7.40	580.05	7.10	580.35	7.35	580.10	7.30	580.15	7.30	580.15	7.10	580.35	7.05	580.40	7.10	580.35
	Target Elevation Calc SV		576.72		576.60		576.89		576.68		576.74		576.85		576.79		576.82		577.38		577.19		577.09
	Target Elevation Calc 8SS		575.11		575.32		575.54		575.60		575.70		575.79		575.63		575.85		576.17		576.01		575.88
	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
	SV Variance		-1.18		-1.30		-1.01		-1.22		-1.16		-1.05		-1.11		-1.08		-0.52		-0.71		-0.81
	8SS Variance		-2.79		-2.58		-2.36		-2.30		-2.20		-2.11		-2.27		-2.05		-1.73		-1.89		-2.02

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

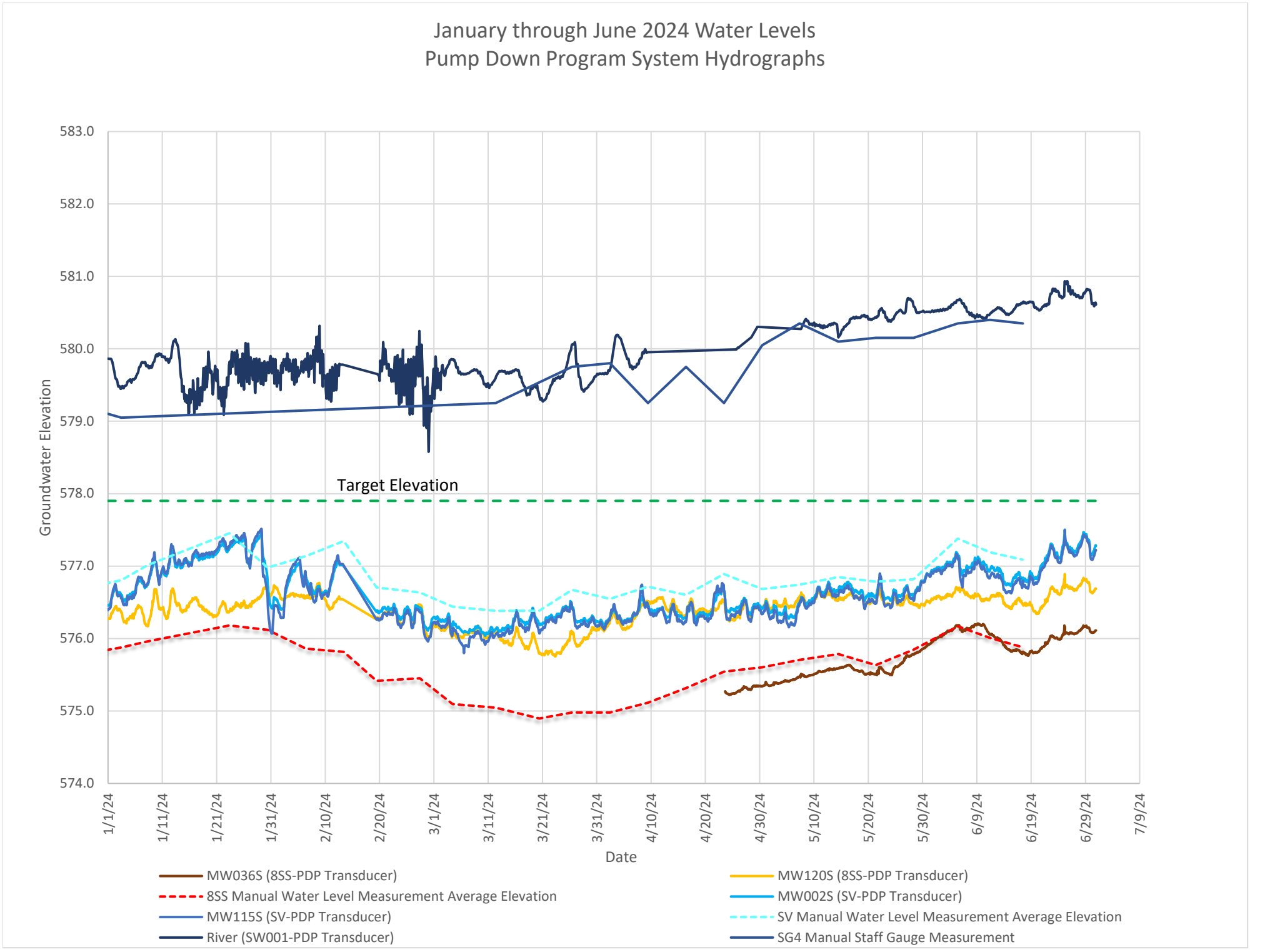
Area Definitions - SV - former Salt Vault, 8SS - former 8th Street Slip

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

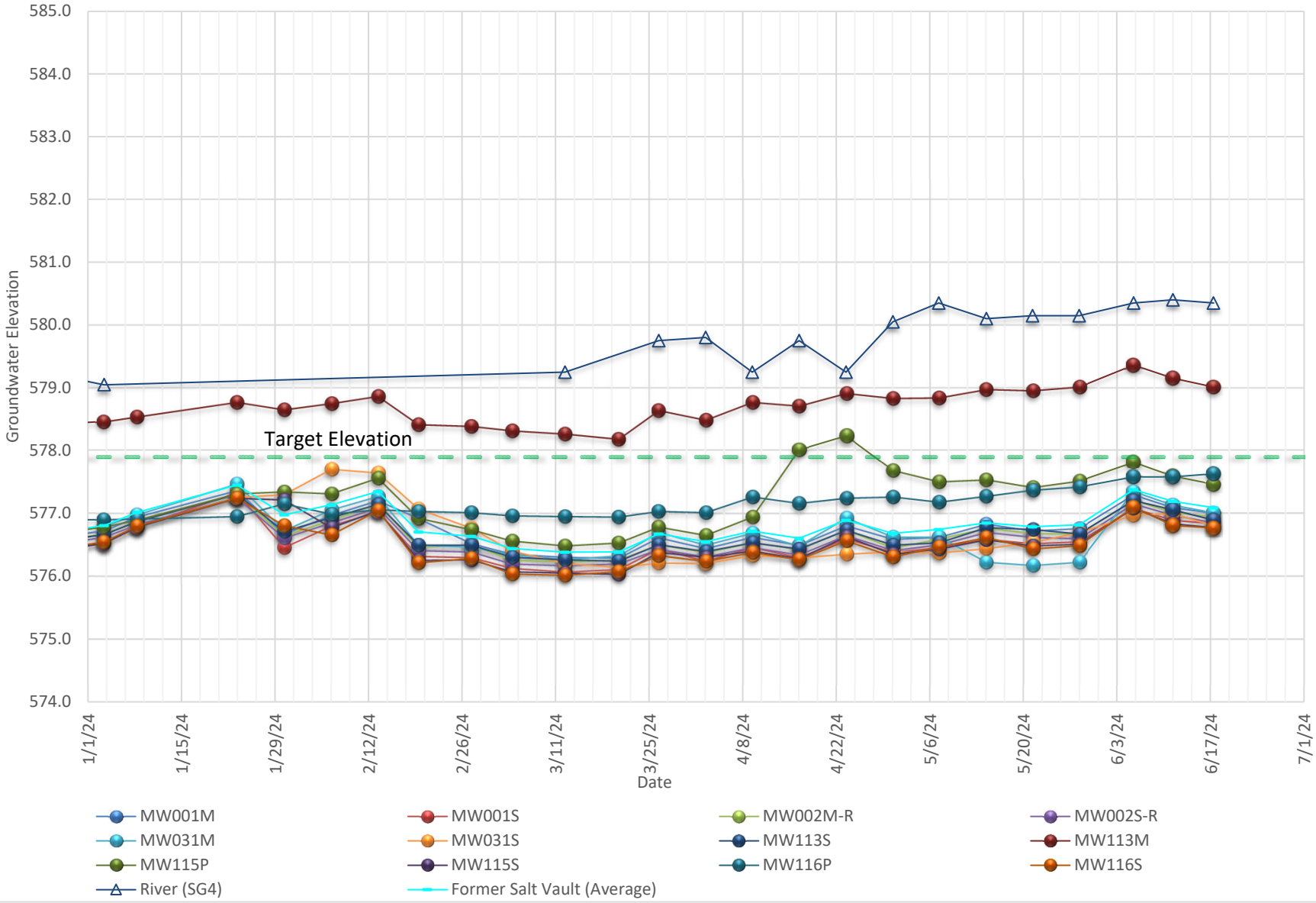
ID = identification; DTW = depth to water

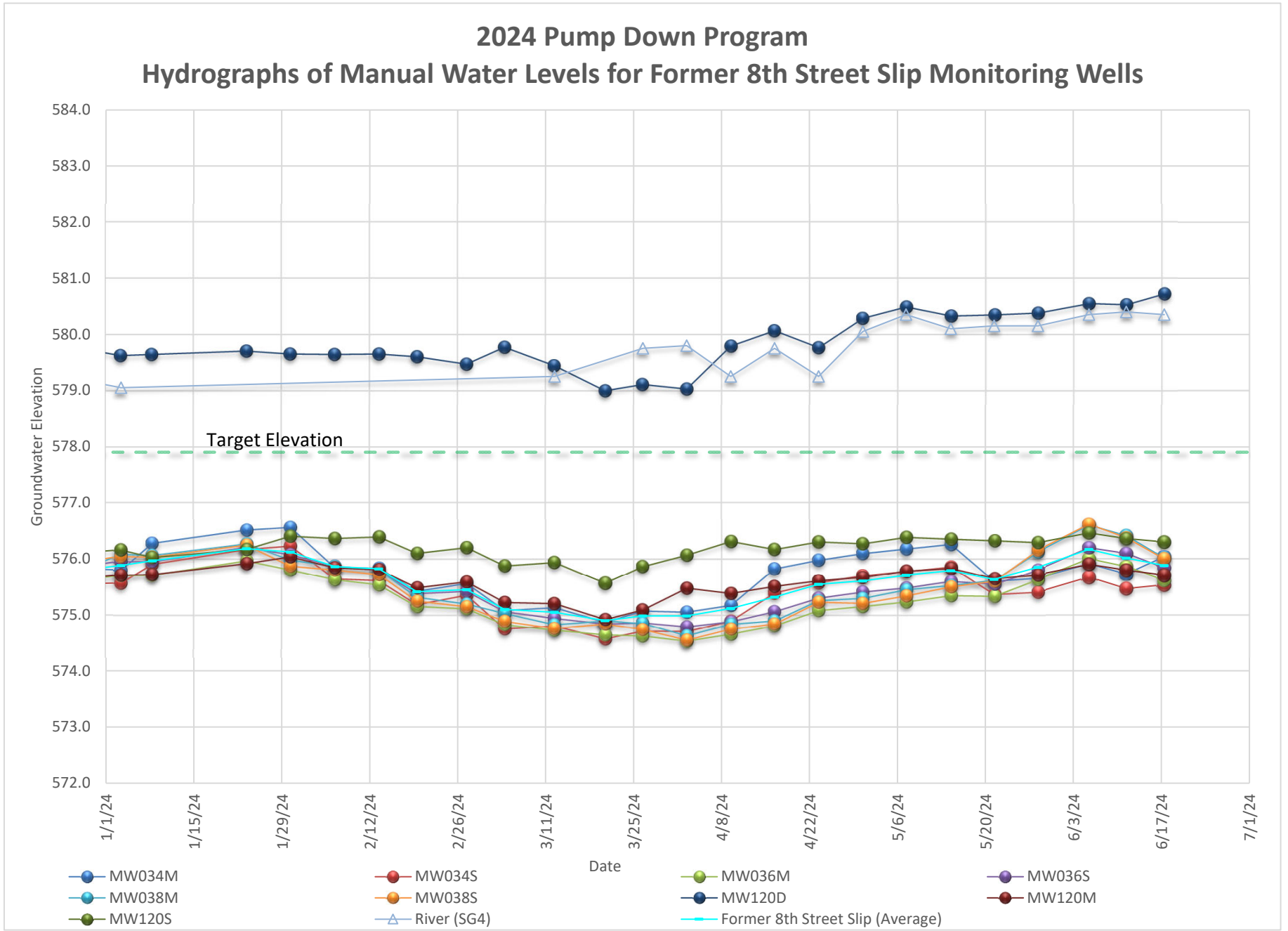
NM = Not Measured; MW = Monitoring Well

Attachment 4
2024 PDP System Hydrographs

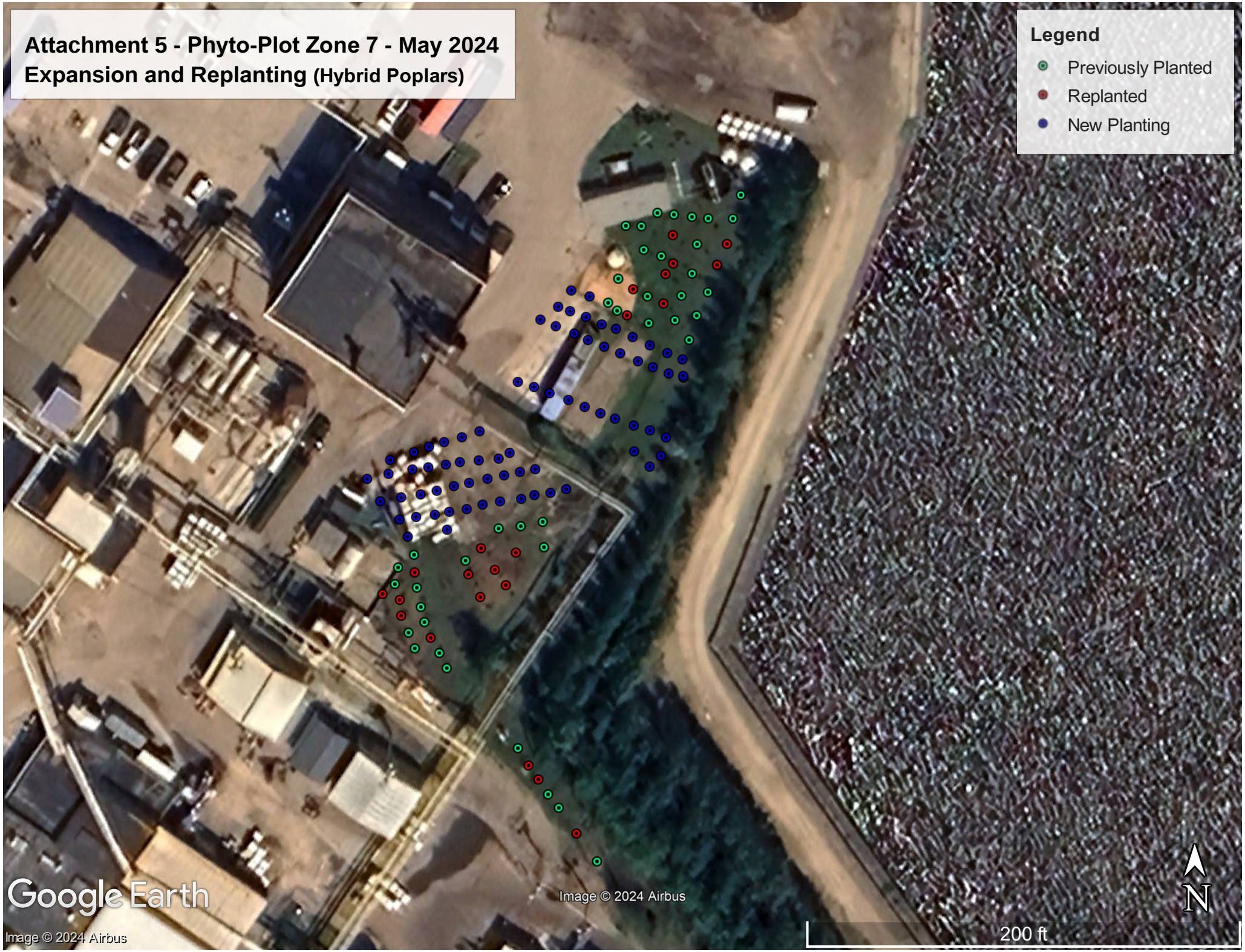

January through June 2024 Water Levels
Pump Down Program System Hydrographs
583.0
582.0
581.0
580.0
579.0
578.0
577.0
576.0
575.0
574.0
Groundwater Elevation
Target Elevation
1/1/24
1/11/24
1/21/24
1/31/24
2/10/24
2/20/24
3/1/24
3/11/24
3/21/24
3/31/24
4/10/24
4/20/24
4/30/24
5/10/24
5/20/24
5/30/24
6/9/24
6/19/24
6/29/24
7/9/24
Date
MW036S (8SS-PDP Transducer)
MW120S (8SS-PDP Transducer)
8SS Manual Water Level Measurement Average Elevation
MW002S (SV-PDP Transducer)
MW115S (SV-PDP Transducer)
SV Manual Water Level Measurement Average Elevation
River (SW001-PDP Transducer)
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
Groundwater Elevation
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
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
4/22/24
5/6/24
5/20/24
6/3/24
6/17/24
7/1/24
Date
MW034M
MW034S
MW036M
MW036S
MW038M
MW038S
MW120D
MW120M
MW120S
River (SG4)
Former 8th Street Slip (Average)

Attachment 5
Phyto-Plot Zone 7—May 2024 Expansion and Replanting


Attachment 5 - Phyto-Plot Zone 7 - May 2024
Expansion and Replanting (Hybrid Poplars)
Legend
Previously Planted
Replanted
New Planting
Google Earth
Image © 2024 Airbus
Image © 2024 Airbus
N
200 ft