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October 16, 2023

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 (July through September 2023)***
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 Stanton Street in Marinette, Wisconsin (Figure 1). This report covers the period from July 1 through September 30, 2023, and presents a brief description of the work performed, data collected, problems encountered, and schedule of activities as required by the February 2009 AOC and subsequent agreements.

Work Completed during This Reporting Period

Groundwater Collection and Treatment

Attachment 1 summarizes the operational data for the groundwater collection and treatment system (GWCTS) during third quarter 2023 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) and the Whole Effluent Toxicity (WET) Test Report Form for Outfall OF004.

As noted in the last quarterly report, the GWCTS upgrades were substantially completed in June 2023, and clean water testing of the system was conducted from the beginning of June 2023 until the end of the month. On June 29, 2023, approximately 5,100 gallons of groundwater was fully treated through the

[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.

improved treatment system and was sampled and sent to a frac tank pending the analytical results from the laboratory to allow for discharge. The upgraded GWCTS treats groundwater extracted from the Main Plant (EW-4, EW-5, EW-6, and EW-7) and Wetlands Area (EW-1) to prevent surface flooding of the facility (Figures 1 and 2). The GWCTS also now 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).

The results from the June 29, 2023, treated groundwater indicate that the GWCTS effluent complies with both the permitted SP108 GWCTS effluent limits and Outfall OF004 discharge requirements, and a courtesy discharge notification email with the laboratory data attached was sent to WDNR on July 12, 2023. Tyco began discharging treated GWCTS effluent water to Outfall OF004 on July 17, 2023, and since then the GWCTS operated continuously except for short-term maintenance and, as the system continues to be optimized, some weekends and holidays. One extended shutdown occurred the week of August 7, 2023. The August 2023 shutdown was a result of a health issue with the Jacobs operator and not being able to find backup support to run the system until the following week. GWCTS operations were conducted under management of Jacobs for the reporting period, training of Tyco operators started at the end of the reporting period, and Tyco will take over operations during fourth quarter 2023.

For the time when the GWCTS was not running (the first several weeks of the reporting period before operations began and the week of August 7, 2023), PDP operations continued with the pump house system in the former Salt Vault and former 8th Street Slip areas. Groundwater generated during this time was disposed of offsite at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio. PDP water was also used to fill offsite disposal trucks if additional volume was needed when reject water was being filled into the trucks to optimize operations and maximize efficiencies. PDP operations continued under management of Endpoint Solutions (Endpoint) of Franklin, Wisconsin, during the reporting period, and Endpoint coordinated with Jacobs on PDP settings and conveyance to the GWCTS.

Approximately 597,181 gallons of groundwater was extracted from the Wetlands Area and Main Plant during the reporting period. The overall average pumping rate for these areas since start-up was 5.5 gallons per minute (gpm). For only the days operated (the days when the system was running), the overall average pumping rate was 8.1 gpm.

Approximately 290,336 gallons of groundwater was extracted from the PDP area during the reporting period. The overall average pumping rate for the reporting period in the former Salt Vault was 1.6 gpm and in the former 8th Street Slip was 0.6 gpm. Average weekly pumping rates (which include both areas) ranged from 1.1 to 3.1 gpm and are summarized in Attachment 3.

As noted in previous quarterly reports, groundwater from mainly construction dewatering operations and the operation of building sumps at the site has been temporarily stored onsite in 20,000-gallon frac tanks located in the former Salt Vault and former 8th Street Slip areas. In mid-September, a pretreatment system that includes bag filters, an oil/water separator, and an organoclay pressure vessel setup was put in place by Endpoint to pretreat the frac tank water prior to sending it to the GWCTS for final treatment. An estimated 20,105 gallons of frac tank water was pretreated and sent to the GWCTS for final treatment. Pretreating frac tank water and sending to the GWCTS for final treatment will continue into the fourth quarter.

An estimated 10,000 gallons of groundwater was also extracted during the reporting period as part of construction dewatering operations at the site (Coal Dock paving is discussed in the “WPDES Permit

Activities" section). This water has been temporarily stored onsite in the 20,000-gallon frac tanks located in the former Salt Vault and former 8th Street Slip areas.

An estimated 550,583 gallons of water (a combination of PDP groundwater, reject water, and frac tank water) was removed from the site during the reporting period and disposed of at the Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio.

The remaining volume of collected groundwater onsite from all sources and stored in frac tanks is approximately 1,000,000 gallons. The stored frac tank water will continue to be disposed of offsite as trucks allow or conveyed to the GWCTS operations for treatment.

PDP Water Levels

Both the former Salt Vault and former 8th Street Slip areas have maintained average groundwater levels below the target elevation during the reporting period, as indicated by the target elevation calculation included in the manual water level measurements table (Attachment 4) and also shown on the hydrographs with the manual water level measurement average elevation (Attachment 5, which also includes the transducer data collected as part of the pump house system operations). Groundwater levels exceeded the target elevation on the following collection dates:

- July 10, 2023 – The water levels in the former Salt Vault were 0.25 foot above the target elevation. This was related to system storage tanks being filled to capacity due to limited truck availability from the disposal facility, which resulted in reduced operations of the system. This will be mitigated with the operation of the improved GWCTS, which commenced on July 17, 2023.
- July 31, 2023 – The water levels in the former Salt Vault were 0.05 foot above the target elevation. This was during the initial start-up of the GWCTS, and the coordination between the different operations of the PDP system, GWCTS, and sending reject offsite to the disposal facility was still being optimized.

Note that during the reporting period, the groundwater levels were well below the river elevation; therefore, an inward gradient was maintained in these areas.

French Drain in Cover Area H

As noted in the last quarterly report, the sealing conducted in August 2022 at Cover Area H (Figure 3) will likely need additional sealing activities in 2023. However, prior to resealing, per the last quarterly report, Tyco reported that it would modify this area by adding a shallow french drain that is tied into the PDP building and conveyed to GWCTS for treatment. Additional information regarding the proposed work was provided on May 16, 2023, and in a revised submittal on May 26, 2023.

EPA provided an approval letter by email on August 3, 2023. Tyco responded with an email on August 24, 2023, acknowledging receipt of the approval letter and the comments within. The design included the addition of a shallow french drain to maintain groundwater levels in this low-lying area to the west of the former Salt Vault. The french drain will further reduce the risk of seasonal flooding and prevent potential mixing of groundwater with stormwater that is conveyed at grade as part of the Outfall 5 and 6 (noted as Weir 4 on Figure 4) permitted stormwater discharge system. The installation work was initiated on September 27, 2023, by Endpoint, and the french drain was operational by October 4, 2023. This area will be resealed in the fourth quarter. A memorandum documenting the activities will be prepared by Endpoint and submitted in the fourth quarter or as part of the next quarterly report.

Barrier Wall Groundwater Monitoring Activities

As noted in the last quarterly report, the spring barrier wall groundwater monitoring and sampling event was conducted the week of June 19, 2023, by Endpoint. The sampling was conducted in accordance with the *Revised Barrier Wall Groundwater Monitoring Plan Update* (BWGMPU)[2] and the 2019 Addendum to the 2015 BWGMPU.[3] Monitoring well nest MW105, which was abandoned in 2022, was reinstalled July 26, 2023 (Attachment 6 includes the well abandonment, installation, and development logs). These wells were sampled on July 31, 2023, following their installation and development. The sitewide water levels at all the BWGMPU wells were measured on July 31, 2023 so the MW105 nest wells were also included in the event. Bedrock test well BT-02 was not abandoned as it was inaccessible due to the placement of an office trailer over this well. Abandonment of BT-02 will be considered in the future as part of a future well installation/abandonment event (details on BT-02 and the abandonment request were included in the May 17, 2023, email correspondence).

Monitoring well nest MW045S and MW045M flush mount covers were reset in place (after being paved over in 2022 during paving work performed by ChemDesign) on July 27, 2023, by Endpoint. MW105 nest and MW045 nest were surveyed on August 18 and 19, 2023, and MW107 flush mount wells were surveyed (because of the Coal Dock paving discussed in the "WPDES Permit Activities" section) on September 23, 2023, by Endpoint, a Wisconsin-licensed surveyor. The updated survey coordinates and elevation data will be provided in the annual report.

Pressure transducer–related activities were completed on August 24, 2023. These activities included downloading data from each transducer and collecting manual water levels at the time of transducer downloads.

Maintenance Inspections

Routine maintenance in phyto-plot Zones 4 and 7 and general inspections of the remaining phyto-plot areas (Zones 1, 2, 3, 5, and 6; Figure 2) were conducted by Sand County Environmental, Inc. (Sand County) of Rhinelander, Wisconsin, during the reporting period. The trees in Zones 1, 2, 3, 5, and 6 appear to be healthy, and there were no major issues or findings to address. The routine maintenance in Zones 4 and 7 included the following:

- Zone 4 – Each month (July, August, and September), weeds were cleared around all the trees.
- Zone 7 – Required fence and irrigation system maintenance was performed during each monthly trip. In early September, the deer fence was moved to make room for the Coal Dock stormwater discussed in the "WPDES Permit Activities" section.
- On September 27, 2023, the last trip was made to shut down for the season. In Zone 7, the irrigation pump was pulled, and the irrigation lines were drained. The entrances and deer fence were also sealed up in Zones 4 and 7. The stormwater work conducted in the Coal Dock area also opened up additional area for planting trees. Sand County estimates that Tyco should be able to fit approximately 38 more hybrid poplars and 65 more willows into the area. Because it is too late in the season to plant these now, they are scheduled to be planted in spring 2024.

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

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

Cover area inspections were completed on September 26, 2023 (Figure 3). There were no issues or findings to address, except for the resealing to be completed in Cover Area H discussed in the previous section "French Drain in Cover Area H."

The survey of the sheet pile vertical barrier wall was completed on September 22 and 23, 2023, by Endpoint. These data are currently being reviewed and will be summarized in the annual report.

In addition, areas identified during the June 27 and 28, 2023, sheet pile vertical barrier wall inspection (Figures 1 and 4) that had small leaks and required follow-up maintenance were addressed by MJB Industries, Inc. in September 2023. For the five bolts along the Main Plant area that had small leaks, marine weld epoxy sealant was reapplied and the bolts were tightened, which eliminated the leaks. During the maintaince, all the bolts along the Main Plant area were tightened and marine weld epoxy sealant was applied as needed.

The vertical barrier wall inspection details will be provided in the annual report.

2023 Sediment Sampling Event

As noted in the last quarterly report, the field team was onsite June 30, 2023, to start the scientific scuba diver portion of the sediment sampling activities, and this work was completed by July 6, 2023. All core percent recoveries were greater than 75 percent; therefore, a second mobilization using alternative collection methods was not required. Per the Agencies' request, initial data were emailed for reference as follows:

- July 14, 2023 – Summary of the measured sediment thicknesses and sample core percent recoveries from the diver conducted sediment sampling event
- September 1, 2023 – Table with latitude and longitude coordinates, surface water elevations, and water depth data and laboratory data reports

The sediment data will be compiled and provided in a report that will be submitted in the fourth quarter.

Quarterly Report Comments

EPA provided comments on the first quarter 2023 quarterly report on June 30, 2023. A response memorandum was submitted via email on August 1, 2023. EPA provided an approval email on October 3, 2023, with two additional comments. Where applicable, the third quarter 2023 quarterly report has been modified to address EPA comments (such as inclusion of updated figures with site features, updates to attachments, and addition of a table that summarizes water pumped, treated, stored, discharged, and disposed of).

Monthly Meetings

Monthly teleconference meetings were attended by EPA, WDNR, Tyco, Jacobs, and Endpoint on July 6, August 4, and September 7, 2023. During each meeting, the status of deliverables and a brief update of completed or upcoming activities were discussed.

Additional Activities

WPDES Permit Activities

Follow-on activities as part of the final WPDES Permit WI-0001040-08-0 (effective January 1, 2021, through December 31, 2025) continued in third quarter 2023, which included the following:

- Activities to implement the GWCTS improvements were completed in third quarter 2023. Groundwater start-up and commissioning activities were conducted at the end of June and into July, and the system is now operating on a routine basis. Details on operations are provided in the previous sections.
- Engineering optimization continued for the portions of the stormwater improvement (approved by WDNR). A materials management plan was submitted for the activities on September 15, 2023, and approved by WDNR with comments on October 2, 2023. Final stormwater construction activities are anticipated to start and be completed in fourth quarter 2023.
- As part of the stormwater improvements work, the WDNR-approved Coal Dock area paving work was conducted in September 2023 by Barley Excavating Inc. of Menominee, Michigan, and Arcadis U.S., Inc. provided oversight. The paving work required grading of the area to remove enough material for the base of the asphalt or concrete to be placed and surface grading to allow for better drainage to Weir 3 (Figure 4). A materials management plan was not needed because less than 2,500 cubic yards of soil was planned to be removed, and the soil was temporarily stockpiled and containerized for offsite disposal within the 15-day accumulation timeframe. Before the start of work, six samples were collected (Figure 4) and then composited and sent to the laboratory for waste characterization analysis. During the work, soils were temporarily stockpiled near the former Salt Vault area, west of Building 59, on an asphalt-paved area. The stockpile area had soil berms wrapped in plastic and silt socks at the entrance. Each day the stockpile was covered with tarps, tarps were weighed down, and the area was secured. A total of 58 rolloff containers (approximately 1,000 tons) were loaded and transported offsite to the Waste Management Chemical Waste Management of the Northwest Subtitle C landfill located in Arlington, Oregon. Attachment 7 includes the laboratory report for the waste characterization sample and a photo log of the soil stockpiling activities.

ChemDesign Building 67 Expansion

As noted during the last quarterly report, ChemDesign, which is a long-term tenant on the property, was in the process of expanding existing Building 67 (Figure 2), and the new building layout and related demolition and construction activities were recently determined to impact monitoring wells MW011S and MW011M (Figure 2). On April 6, 2023, an email was sent to the Agencies regarding ChemDesign work. The email was requesting approval to abandon these wells. A memorandum was submitted on April 20, 2023, that further detailed changes to RCRA site components due to ChemDesign Building 67 expansion. A teleconference meeting was held on May 2, 2023, with the Agencies, Tyco, Jacobs, and Endpoint, and the details of the work were discussed. It was later determined that ChemDesign had already moved ahead with components of the work (MW011S/MW011M were abandoned on April 24, 2023, by ChemDesign's contractor, and work in cover areas had already begun to allow for the grading necessary to start the building construction); the memorandum was therefore revised and submitted on May 26, 2023, and updated with the work that was completed.

EPA provided review comments on August 4, 2023, regarding the May 26, 2023, memorandum. Tyco submitted a response memorandum, *Response to EPA Review: ChemDesign Building 67 Expansion Memo*, on August 24, 2023. EPA provided an approval letter emailed on September 12, 2023. Tyco responded

with an email on September 14, 2023, acknowledging receipt of the approval letter and the comment within.

Soil Management Plan

As noted during the last quarterly report, during the May 2, 2023, meeting with the Agencies, Tyco, Jacobs, and Endpoint, it was also discussed that a soil management plan be prepared for the site. The Soil Management Plan was submitted on May 15, 2023. EPA provided review comments on June 30, 2023. Tyco submitted the *Revised Soil Management Plan and Response to Comments* on August 2, 2023, which is currently being reviewed by the Agencies.

Data Collected

Extraction and treatment volumes, analytical testing, and discharge data are required as part of the WPDES permits obtained from WDNR for operating the existing GWCTS, which operates under WPDES Permit WI-0001040-08-0. Attachment 2 includes the GWCTS monthly WPDES Discharge Monitoring Reports for June 2023 through August 2023 and the WET Testing Report Form for WPDES Outfall OF004. Attachment 1 contains additional data on GWCTS operations.

Weekly groundwater elevation data were collected from monitoring wells in the former 8th Street Slip and former Salt Vault areas in accordance with the PDP requirements, and the data are included in the 2023 PDP summary table (Attachment 4). Water level data from transducers in monitoring wells and pumping rates collected as part of the PDP pump house system are also summarized in a hydrograph and stacked bar chart (with average weekly pumping rates), respectively (Attachments 5 and 3). Although this is the post–drawdown monitoring phase (which requires quarterly manual water level measurements, instead of weekly), weekly water level measurements will continue to be collected until the frac tanks staged on the former Salt Vault and former 8th Street Slip are removed out of the transducer line of sight to the pump house building (Figure 2).

Barrier wall groundwater monitoring and water level event data will be included in the annual/5-year review report. Groundwater elevation data recorded by transducers are being compiled and evaluated. The transducer data will also be provided in the annual/5-year review report.

As noted in a prior section, some of the 2023 sediment data were provided via email on July 14 and September 1, 2023, and all the data will be summarized and included in a 2023 sediment sampling report in the fourth quarter.

Problems Encountered

There were no new problems encountered during this reporting period.

Schedule of Upcoming Activities

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

- Submit the quarterly progress report.
- Continue operating the GWCTS.

- Continue measuring weekly PDP water levels in the former Salt Vault and former 8th Street Slip areas until frac tanks are removed.
- Begin implementation of remaining stormwater improvement optimization construction activities.
- Complete installation and operation of the shallow french drain to maintain groundwater levels within the low-lying area to the west of the former Salt Vault.
- Conduct fourth quarter 2023 semiannual barrier wall water level monitoring event.
- Conduct transducer data download activities.
- Conduct vertical barrier wall inspection of the slurry wall.
- Submit the 2023 sediment sampling report.
- Submit the combined 2023 annual report and 5-year technical review report.
- Submit the french drain memorandum.

List of Key Correspondence and Document Submittals

Project-related documents submitted to and received from the Agencies during third quarter 2023 are summarized in Tables 1 and 2, respectively.

Table 1. Documents Submitted
Quarterly Progress Report (July through September 2023), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Email Notification—Courtesy Discharge Notification, WPDES Permit No. WI-0001040-08-0	WDNR	July 12, 2023
Email—Requested Sediment Sampling Event Data	EPA	July 14, 2023
Quarterly Progress Report (Second Quarter 2023)	EPA	July 17, 2023
Response to Comments on Q1 2023 Progress Report Review with Comments	EPA	August 1, 2023
Revised Soil Management Plan and Response to Comments	EPA	August 2, 2023
Email—August 3rd Proposed RCRA Meeting Agenda Items (Note that the meeting was adjusted to August 4.)	EPA and WDNR	August 2, 2023
Email Acknowledgement—Regarding comments from August 3, 2023, *EPA Review: Updated French Drain Installation Memo*	EPA	August 24, 2023
Response to EPA Review: ChemDesign Building 67 Expansion Memo	EPA	August 24, 2023
Email Clarification—Regarding Additional Data Requested for Sediment Sampling Event Data	EPA and WDNR	August 29, 2023
Email Response— Additional Data Requested for Sediment Sampling Event Data (Included Table with Requested Data and Laboratory Data Reports)	EPA and WDNR	September 1, 2023
Email—September 7th Proposed RCRA Meeting Agenda Items	EPA and WDNR	September 6, 2023

Table 1. Documents Submitted

Quarterly Progress Report (July through September 2023), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Submittal	Submitted To	Date Submitted
Email Acknowledgement—Regarding approval and comment from September 12, 2023, *EPA Review: Revised ChemDesign Building 67 Expansion Memo*	EPA	September 14, 2023
Materials Management Plan for Additional Stormwater Work	WDNR	September 15, 2023
Email—Requesting update on Agencies review of the June 13, 2023, *Surface Weighted Average Concentration Response To Comments*	EPA	September 26, 2023

Table 2. Correspondence from Agency

Quarterly Progress Report (July through September 2023), Tyco Fire Products LP Facility, Marinette, Wisconsin

Description of Correspondence	Submitted By	Date Submitted
EPA Review: Updated French Drain Installation Memo (Approval)	EPA	August 3, 2023
EPA Review: Updated ChemDesign Building 67 Expansion Memo	EPA	August 4, 2023
Email Request—Additional Data Requested for Sediment Sampling Event Data	EPA	August 24 and 29, 2023
Email Request—Laboratory Data Requested for Sediment Sampling Event Data	WDNR	August 30, 2023
Review: Revised ChemDesign Building 67 Expansion Memo (Approval)	EPA	September 12, 2023

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, Johnson Controls
Mariel Carter, Stephenson Public Library

Figures

1 Site Map
2 Site Plan with Wells
3 Cover Area Location Map
4 Vertical Barrier Wall Details

Attachments

1 Groundwater Collection and Treatment System Operation Summary
2 Discharge Monitoring Reports for the Groundwater Collection and Treatment System and Outfall OF004 and the WET Report Form for Outfall OF004
3 2023 PDP Weekly Average Extraction Rates
4 2023 PDP Groundwater Elevation Monitoring
5 2023 PDP System Hydrographs
6 MW105 Monitoring Well Nest Abandonment, Installation and Development Logs
7 Coal Dock Area Paving Waste Characterization Laboratory Report and Soil Management Photo Log

Document Control No.: D3766600.309

Figures

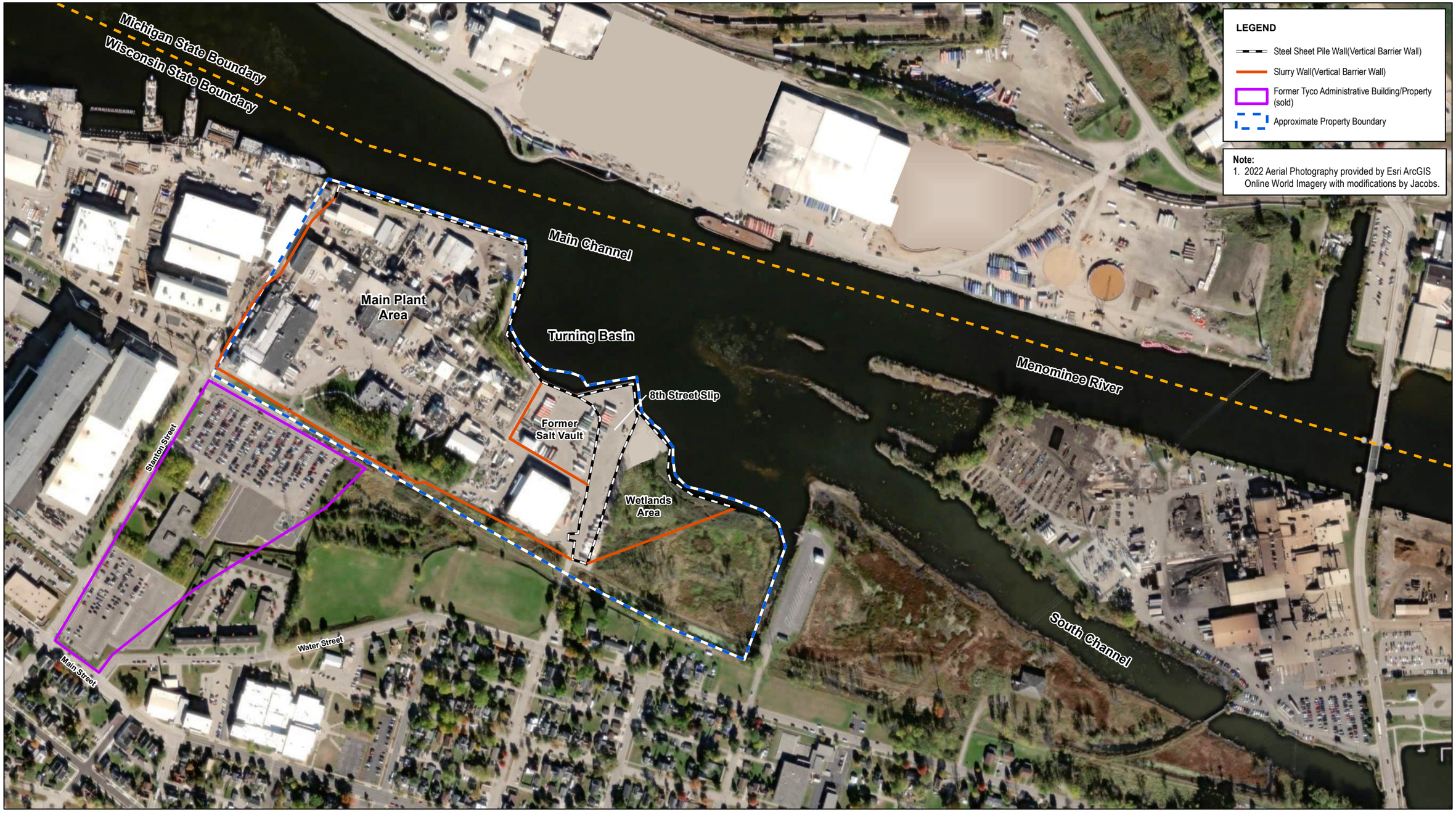
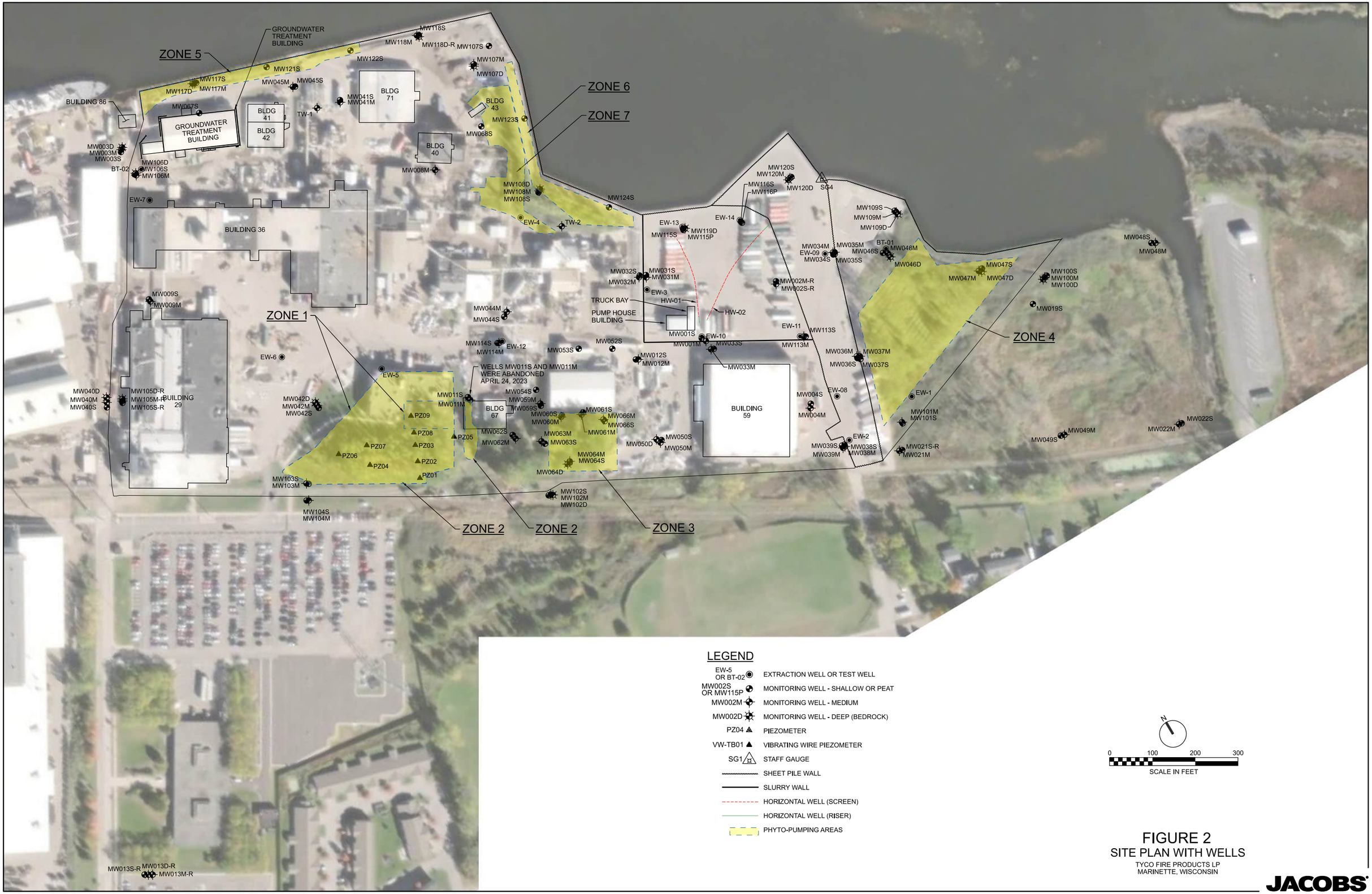


Figure 1. Site Map
Tyco Fire Products LP Facility
Marinette, WI

Jacobs

\\DC1VS01\GISPROJ\T\TYCO\TYCO\MAPFILES\2023\QUARTERLYREPORT\FIGURE 1-1 - SITE MAP.MXD, DATE SAVED: 10/16/2023 9:59:41 AM, USER NAME: JHANSEN1



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)
- PHYTO-PUMPING AREAS

N

0 100 200 300

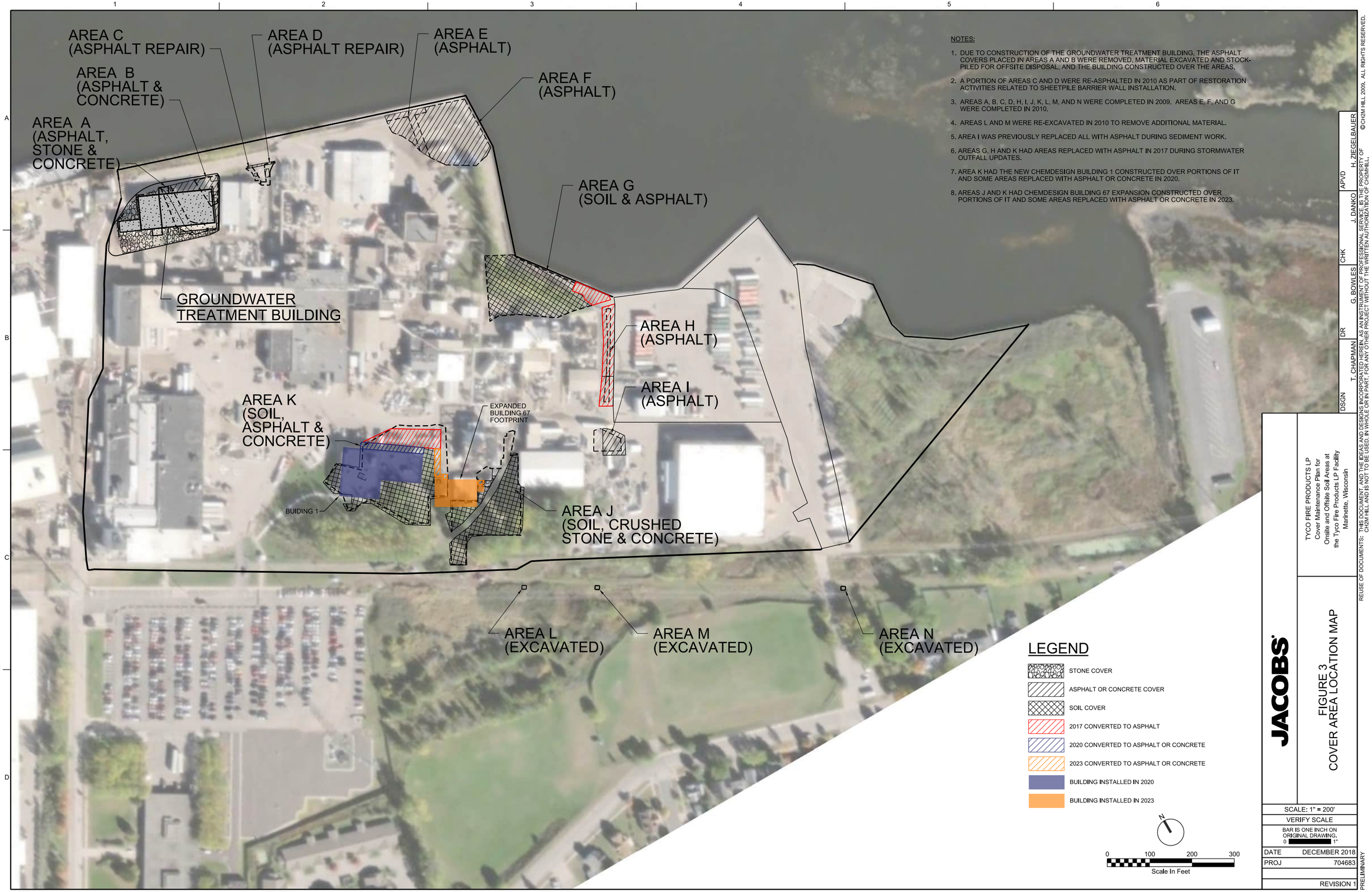
SCALE IN FEET

FIGURE 2
SITE PLAN WITH WELLS

TYCO FIRE PRODUCTS LP
MARINETTE, WISCONSIN

JACOBS

FILENAME: PGETAMW_2023_D3630600.dgn PLOT DATE: 10/13/2023 PLOT TIME: 9:23:11 AM



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

JACOBS

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

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

MENOMINEE RIVER

2010 SHEET PILE WALL

WEIR #1

WEIR #2

WEIR #3

WEIR #4

PT "A"

PT "B"

PT "C"

PT "D"

PT "E"

PT "F"

PT "G"

PT "H"

PT "I"

PT "J"

PT "K"

PT "M"

H-PILE WALL

BUILDING 86

GROUNDWATER TREATMENT BUILDING

BLDG 41

BLDG 42

BLDG 71

BLDG 40

BLDG 43

COAL DOCK AREA

TURNING BASIN AREA

BUILDING 36

2009 SLURRY WALL

MAIN PLANT AREA

BUILDING 29

BLDG 67

BUILDING 59

FORMER SALT VAULT

FORMER EIGHTH STREET SLIP

WETLANDS AREA

STANTON STREET

WATER STREET

N

0 80 160 240

SCALE IN FEET

LEGEND

- 1998-2000 SHEET PILE WALL
- 2009 SLURRY WALL
- 2009 JET GROUTING LOCATION
- 2010 SHEET PILE WALL
- 2010 H-PILE WALL AND TIE-RODS
- 1998-2000 SLURRY WALL
- 2013 H-PILE WALL AND TIE-RODS
- CORNER POINT LOCATIONS
- DIMPLE LOCATION
- APROXIMATE WASTE CHARACTERIZATION SAMPLE LOCATION

FIGURE 4
VERTICAL BARRIER WALL DETAILS

TYCO FIRE PRODUCTS LP
MARINETTE, WISCONSIN

JACOBS

FILENAME: Figure_4_D3478800.dgn PLOT DATE: 10/13/2023 PLOT TIME: 9:17:41 AM

Attachment 1
Groundwater Collection and Treatment System Operation Summary

Groundwater Collection and Treatment System Operations for Tyco Fire Products LP, Marinette, Wisconsin, July 1 through September 30, 2023

The following summarizes groundwater collection and treatment system (GWCTS) operations from July 1 through September 30, 2023, at the Tyco Fire Products LP facility on Stanton Street in Marinette, Wisconsin:

- The GWCTS operated for 11 days in July 2023, 18 days in August 2023, and 22 days in September 2023, for a total of 51 days.
- For the reporting period, the precipitation recorded from the weather station in Marinette, Wisconsin, was 6.84 inches of rain (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 (July through September 2023)
GWCTS Operations, Tyco Fire Products LP Facility, Marinette, Wisconsin

Item Description	Estimated Gallons, Third Quarter 2023	Comments
Total GWCTS Extracted Groundwater	887,517	
Pump Down Program (PDP) Area Extracted Groundwater	290,336	Some PDP groundwater was disposed offsite and included in the "Water Disposed Offsite" total
Wetlands Area and Main Plant Extracted Groundwater	597,181	
Additional Groundwater Extracted from Non-GWCTS Sources	10,000	From Coal Dock paving construction dewatering, added to frac tank storage onsite
GWCTS Influent	767,790	
GWCTS Reject Water Produced	173,770	Included as part of the "Water Disposed of Offsite" total
GWCTS Effluent	604,897	
Outfall OF004 Combined Effluent	3,433,347	Represents the combined GWCTS and facility wastewater
Frac Tank Water Processed through the GWCTS	20,105	Frac tank water consists of water collected in 2023 from construction dewatering activities and water from building sumps and roof drains.
Water Disposed of Offsite (combination of PDP groundwater, reject water, and frac tank water)	550,583	Disposed of at Waste Management Vickery Deepwell Hazardous Waste disposal facility in Vickery, Ohio
Remaining Water Stored in Frac Tanks Onsite (at end of quarter)	1,000,000	Water will continue to be conveyed to the GWCTS and disposed of offsite as trucks allow.

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

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: One Stanton St
Marinette, WI 54143
Facility Contact: Mike Elliott, EHS Manager
Phone Number: 715-735-7415
Reporting Period: 06/01/2023 - 06/30/2023
Form Due Date: 07/21/2023
Permit Number: 0001040

Date Received:	
DOC:	517360
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	703	101	101	101
	Description	Menominee River Intake	Menominee River Intake	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	35	211	373	374
	Description	Flow Rate	Arsenic, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)
	Units	gpd	ug/L	MGD	su	su
	Sample Type	TOT DAILY	GRAB	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	DAILY	DAILY	DAILY
Sample Results	Day 1			0.03927	7.2	6.6
	2			0.02458	7.8	6.4
	3			0.00716	8.0	6.3
	4			0		
	5			0.03220	7.6	7.0
	6			0.04586	7.6	6.4
	7			0.03886	7.7	6.5
	8			0.04034	7.9	6.8
	9			0.03352	8.6	6.7
	10			0.01128	7.6	6.6
	11			0		
	12			0.03444	7.8	6.6
	13			0.03685	7.5	6.6
	14			0.04268	8.0	6.5
	15			0.04847	7.8	6.6
	16			0.01882	7.7	6.3
	17			0		
	18			0		
	19			0.03855	7.6	6.6
	20			0.05391	7.4	6.8
	21			0.05078	7.4	6.4
	22			0.04789	7.8	6.8
	23			0.03331	8.5	7.2
	24			0		
	25			0		
	26			0.04907	8.1	7.4
	27			0.04964	7.7	7.2
	28			0.05012	7.7	7.4
	29			0.04921	8.0	7.4
	30			0.01461	7.6	7.0
	31					

	Sample Point	703	703	101	101	101
	Description	Menominee River Intake	Menominee River Intake	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	35	211	373	374
	Description	Flow Rate	Arsenic, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)
	Units	gpd	ug/L	MGD	su	su
Summary Values	**Monthly Avg**			0.029714	7.775	6.754166667
	Monthly Total					
	Daily Max			0.05391	8.6	7.4
	Daily Min			0	7.2	6.3
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max				9 0	
	Daily Min					6 0
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	457	651	87
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP	GRAB	24 HR FLOW PROP
	Frequency	DAILY	DAILY	3/WEEK	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5			5.0		
	6			3.2		
	7			2.2		
	8					
	9					
	10					
	11					
	12			<1.9		<0.49
	13			<1.9		
	14			<1.9	<1.4	
	15					
	16					
	17					
	18					
	19			<1.9		
	20			<1.9		
	21			<1.9		
	22					
	23					
	24					
	25					
	26			<1.9		
	27			<1.9		
	28			<1.9		
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		457		651		87	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					0.866666667		0		0	
	Monthly Total										
	Daily Max					5		<1.4		<0.49	
	Daily Min					<1.9		<1.4		<0.49	
Limit(s) in Effect	**Monthly Avg**					31	0	26	0	260	0
	Monthly Total	446	0	0	0						
	Daily Max					60	0	52	0	690	0
	Daily Min										
QA/QC Information	**LOD**							1.4		0.49	
	LOQ							5.3		1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	315	553	507	280
	Description	Copper, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ng/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12	7.1	7.4	140		
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					0.36
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		315		553		507		280	
	Description	Copper, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable	
	Units	ug/L		ug/L		ug/L		ug/L		ng/L	
Summary Values	**Monthly Avg**	7.1		7.4		140				0.36	
	Monthly Total										
	Daily Max	7.1		7.4		140				0.36	
	Daily Min	7.1		7.4		140				0.36	
Limit(s) in Effect	**Monthly Avg**	2070	0	2380	0	1480	0				
	Monthly Total										
	Daily Max	3380	0	3980	0	2610	0	2130			
	Daily Min										
QA/QC Information	**LOD**	1.7		1.5		3.6				0.2	
	LOQ	5		5		10				0.5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010				999580010	

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	DAILY	WEEKLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12		<2.1	0.000609		
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27	0.06773148				
	28					
	29					
	30					
	31					

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
Summary Values	**Monthly Avg**	0.06773148	0	0.000609		
	Monthly Total					
	Daily Max	0.06773148	<2.1	0.000609		
	Daily Min	0.06773148	<2.1	0.000609		
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**		2.1			
	LOQ		5			
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
	Sample Type	24 HR FLOW PROP	GRAB	BLANK	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1				0.03927	7.2
	2				0.02458	7.8
	3				0.00716	8.0
	4				0	
	5				0.03220	7.6
	6				0.04586	7.6
	7				0.03886	7.7
	8				0.04034	7.9
	9				0.03352	8.6
	10				0.01128	7.6
	11				0	
	12				0.03444	7.8
	13				0.03685	7.5
	14				0.04268	8.0
	15				0.04847	7.8
	16				0.01882	7.7
	17				0	
	18				0	
	19				0.03855	7.6
	20				0.05391	7.4
	21				0.05078	7.4
	22				0.04789	7.8
	23				0.03331	8.5
	24				0	
	25				0	
	26				0.04907	8.1
	27			0.39	0.04964	7.7
	28				0.05012	7.7
	29				0.04921	8.0
	30				0.01461	7.6
	31					

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
Summary Values	**Monthly Avg**			0.39	0.029714	7.775
	Monthly Total					
	Daily Max			0.39	0.05391	8.6
	Daily Min			0.39	0	7.2
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9 0
	Daily Min					
QA/QC Information	**LOD**			0.2		
	LOQ			0.5		
	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	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	6.6				
	2	6.4				
	3	6.3				
	4					
	5	7.0				
	6	6.4				
	7	6.5				
	8	6.8				
	9	6.7				
	10	6.6				
	11					
	12	6.6				
	13	6.6				
	14	6.5		<2.1	0.000756	
	15	6.6				
	16	6.3				
	17					
	18					
	19	6.6				
	20	6.8	<20			
	21	6.4				
	22	6.8				
	23	7.2				
	24					
	25					
	26	7.4				
	27	7.2				0.44
	28	7.4				
	29	7.4				
	30	7.0				
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	374		112		35		35		280	
	Description	pH (Minimum)		Chlorine, Total Residual		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Mercury, Total Recoverable	
	Units	su		ug/L		ug/L		lbs/day		ng/L	
Summary Values	**Monthly Avg**	6.754166667		0		0		0.000756		0.44	
	Monthly Total										
	Daily Max	7.4		<20		<2.1		0.000756		0.44	
	Daily Min	6.3		<20		<2.1		0.000756		0.44	
Limit(s) in Effect	**Monthly Avg**			38	0						
	Monthly Total										
	Daily Max			38	0	194	0	0.22	0	18	0
	Daily Min	6	0								
QA/QC Information	**LOD**			30		2.1				0.2	
	LOQ			100		5				0.5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010				999580010	

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14		<0.49	0.0001764	4.5	0.00162
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	280		87		87		147		147	
	Description	Mercury, Total Recoverable		Cadmium, Total Recoverable		Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable	
	Units	mg/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**			0		0.0001764		4.5		0.00162	
	Monthly Total										
	Daily Max			<0.49		0.0001764		4.5		0.00162	
	Daily Min			<0.49		0.0001764		4.5		0.00162	
Limit(s) in Effect	**Monthly Avg**			57	0			69	0		
	Monthly Total										
	Daily Max			57	0	0.23	0	69	0	0.28	0
	Daily Min										
QA/QC Information	**LOD**			0.49				1.7			
	LOQ			1				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14	1.7	0.000612	52	0.01872	6.3
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	1.7		0.000612		52		0.01872		6.3	
	Monthly Total										
	Daily Max	1.7		0.000612		52		0.01872		6.3	
	Daily Min	1.7		0.000612		52		0.01872		6.3	
Limit(s) in Effect	**Monthly Avg**	2000	0			520	0			92	0
	Monthly Total										
	Daily Max	2000	0	8.10	0	520	0	2.10	0	92	0
	Daily Min										
QA/QC Information	**LOD**	1.5				3.6				3.6	
	LOQ	5				10				5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14	0.002268	240		1.9	1.9
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	152		231		480		1352		1353	
	Description	Cyanide, Amenable		Hardness, Total as CaCO3		Temperature Maximum		PFOA		PFOS	
	Units	lbs/day		mg/L		degF		ng/L		ng/L	
Summary Values	**Monthly Avg**	0.002268		240				1.9		1.9	
	Monthly Total										
	Daily Max	0.002268		240				1.9		1.9	
	Daily Min	0.002268		240				1.9		1.9	
Limit(s) in Effect	**Monthly Avg**									11	0
	Monthly Total										
	Daily Max	0.37	0							11	0
	Daily Min										
QA/QC Information	**LOD**							0.81		0.52	
	LOQ							1.9		1.9	
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010							

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14	0.3073611				
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		108		108		108		108	
	Description	Combined Process WW & GW		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	1353		211		457		35		35	
	Description	PFOS		Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		Arsenic, Total Recoverable	
	Units	mg/day		MGD		mg/L		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.3073611									
	Monthly Total										
	Daily Max	0.3073611									
	Daily Min	0.3073611									
Limit(s) in Effect	**Monthly Avg**	2.10	0								
	Monthly Total										
	Daily Max							500		0.17	
	Daily Min										
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

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

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

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

General Remarks

SP704 is still not running yet so, no flows or sampling.
OF004 is only running SP101 throw it at this time. There is no GW yet.
Temperatures are not being taken yet until GW is running.
SP108 is not running at this time so, no sampling was done or flow readings
Also, no sampling will be taken from SP703 any more

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 7/17/2023 9:55:19 AM

Wastewater Discharge Monitoring Long Report

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 07/01/2023 - 07/31/2023
Form Due Date: 08/21/2023
Permit Number: 0001040

For DNR Use Only

Date Received:	
DOC:	523433
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	703	101	101	101
	Description	Menominee River Intake	Menominee River Intake	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	35	211	373	374
	Description	Flow Rate	Arsenic, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)
	Units	gpd	ug/L	MGD	su	su
	Sample Type	TOT DAILY	GRAB	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	DAILY	DAILY	DAILY
Sample Results	Day 1			0		
	2			0		
	3			0		
	4			0		
	5			0.01248	7.9	7.5
	6			0.01026	7.7	6.8
	7			0.01628	7.6	6.7
	8			0		
	9			0		
	10			0.05446	8.1	7.4
	11			0.04875	7.8	7.4
	12			0.06162	7.8	7.3
	13			0.04214	8.2	7.2
	14			0.02709	7.8	6.9
	15			0		
	16			0		
	17			0.04156	7.8	7.1
	18			0.04640	7.6	6.8
	19			0.03197	7.7	6.9
	20			0.04902	7.6	7.0
	21			0.04392	7.8	7.0
	22			0		
	23			0		
	24			0.04825	7.6	7.0
	25			0.05724	7.5	7.1
	26			0.05274	8.0	7.0
	27			0.05650	8.2	7.0
	28			0.03953	7.8	6.8
	29			0		
	30			0		
	31			0.05932	7.4	7.1

	Sample Point	703		703		101		101		101	
	Description	Menominee River Intake		Menominee River Intake		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	211		35		211		373		374	
	Description	Flow Rate		Arsenic, Total Recoverable		Flow Rate		pH (Maximum)		pH (Minimum)	
	Units	gpd		ug/L		MGD		su		su	
Summary Values	**Monthly Avg**					0.02579129		7.784210526		7.052631579	
	Monthly Total										
	Daily Max					0.06162		8.2		7.5	
	Daily Min					0		7.4		6.7	
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max							9	0		
	Daily Min									6	0
QA/QC Information	**LOD**										
	LOQ										
	QC Exceedance	N		N		N		N		N	
	Lab Certification										

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	457	651	87
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP	GRAB	24 HR FLOW PROP
	Frequency	DAILY	DAILY	3/WEEK	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5			6.1		
	6			5.4		
	7			5.4		
	8					
	9					
	10			<1.9		
	11			2.1		<0.49
	12			<1.9		
	13				1.4	
	14					
	15					
	16					
	17			5.5		
	18			<1.9		
	19			<1.9		
	20					
	21					
	22					
	23					
	24			<1.9		
	25			<1.9		
	26			<1.9		
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	379		376		457		651		87	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					2.041666667		1.4		0	
	Monthly Total										
	Daily Max					6.1		1.4		<0.49	
	Daily Min					<1.9		1.4		<0.49	
Limit(s) in Effect	**Monthly Avg**					31	0	26	0	260	0
	Monthly Total	446	0	0	0						
	Daily Max					60	0	52	0	690	0
	Daily Min										
QA/QC Information	**LOD**							1.3		0.49	
	LOQ							4.8		1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	315	553	507	280
	Description	Copper, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ng/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11	3.8	5.6	70		
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					0.22
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		315		553		507		280	
	Description	Copper, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable	
	Units	ug/L		ug/L		ug/L		ug/L		ng/L	
Summary Values	**Monthly Avg**	3.8		5.6		70				0.22	
	Monthly Total										
	Daily Max	3.8		5.6		70				0.22	
	Daily Min	3.8		5.6		70				0.22	
Limit(s) in Effect	**Monthly Avg**	2070	0	2380	0	1480	0				
	Monthly Total										
	Daily Max	3380	0	3980	0	2610	0	2130			
	Daily Min										
QA/QC Information	**LOD**	1.7		1.5		3.6				0.2	
	LOQ	5		5		10				0.5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010				999580010	

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	DAILY	WEEKLY
Sample Results	**Day 1**				0	
	2				0	
	3				0	
	4				0	
	5				0	
	6				0	
	7				0	
	8				0	
	9				0	
	10				0	
	11	0.0439747	<2.1	0.000861	0	
	12				0	
	13				0	
	14				0	
	15				0	
	16				0	
	17				0	
	18				7260	
	19				14710	26000
	20				13145	
	21				6655	
	22				0	
	23				0	
	24				21585	
	25				27960	19000
	26				21040	
	27				11400	
	28				10940	
	29				0	
	30				0	
	31				19285	

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
Summary Values	**Monthly Avg**	0.0439747	0	0.000861	4967.096774194	22500
	Monthly Total					
	Daily Max	0.0439747	<2.1	0.000861	27960	26000
	Daily Min	0.0439747	<2.1	0.000861	0	19000
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**		2.1			100*Footnote
	LOQ		5			250*Footnote
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			999580010

*Footnote: QA/QC Information is not identical for each day, so the value shown is the maximum of all values for LOD/LOQ data or the first Lab found for Lab Cert data.

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
	Sample Type	24 HR FLOW PROP	GRAB	BLANK	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1				0	
	2				0	
	3				0	
	4				0	
	5				0	
	6				0	
	7				0	
	8				0	
	9				0	
	10				0	
	11				0	
	12				0	
	13				0	
	14				0	
	15				0	
	16				0	
	17				0	
	18				0.050498	7.5
	19	7.5			0.048016	7.7
	20				0.061104	7.6
	21				0	
	22				0	
	23				0	
	24				0.078792	7.5
	25	33			0.084966	7.6
	26		31	0.38	0.068563	8.3
	27				0.058270	7.7
	28				0.037805	7.7
	29				0	
	30				0	
	31				0.074257	7.6

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
Summary Values	**Monthly Avg**	20.25	31	0.38	0.018137774	7.688888889
	Monthly Total					
	Daily Max	33	31	0.38	0.084966	8.3
	Daily Min	7.5	31	0.38	0	7.5
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9 0
	Daily Min					
QA/QC Information	**LOD**		0.99	0.2		
	LOQ		2.5	0.5		
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010	999580010	999580010		

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18	6.4				
	19	7.0				
	20	6.5				
	21					
	22					
	23					
	24	6.0				
	25	6.7		<2.1	0.001008	0.23
	26	6.3	<10			
	27	6.5				
	28	6.6				
	29					
	30					
	31	6.3				

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	374		112		35		35		280	
	Description	pH (Minimum)		Chlorine, Total Residual		Arsenic, Total Recoverable		Arsenic, Total Recoverable		Mercury, Total Recoverable	
	Units	su		ug/L		ug/L		lbs/day		ng/L	
Summary Values	**Monthly Avg**	6.477777778		0		0		0.001008		0.23	
	Monthly Total										
	Daily Max	7		<10		<2.1		0.001008		0.23	
	Daily Min	6		<10		<2.1		0.001008		0.23	
Limit(s) in Effect	**Monthly Avg**			38	0						
	Monthly Total										
	Daily Max			38	0	194	0	0.22	0	18	0
	Daily Min	6	0								
QA/QC Information	**LOD**			30		2.1				0.2	
	LOQ			100		5				0.5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010				999580010	

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25		<0.49	0.0003479	4.6	0.003266
	26	0.05976642				
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	280		87		87		147		147	
	Description	Mercury, Total Recoverable		Cadmium, Total Recoverable		Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable	
	Units	mg/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.05976642		0		0.0003479		4.6		0.003266	
	Monthly Total										
	Daily Max	0.05976642		<0.49		0.0003479		4.6		0.003266	
	Daily Min	0.05976642		<0.49		0.0003479		4.6		0.003266	
Limit(s) in Effect	**Monthly Avg**			57	0			69	0		
	Monthly Total										
	Daily Max			57	0	0.23	0	69	0	0.28	0
	Daily Min										
QA/QC Information	**LOD**			0.49				1.7			
	LOQ			1				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25	1.7	0.001207	41	0.02911	<3.6
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	1.7		0.001207		41		0.02911		0	
	Monthly Total										
	Daily Max	1.7		0.001207		41		0.02911		<3.6	
	Daily Min	1.7		0.001207		41		0.02911		<3.6	
Limit(s) in Effect	**Monthly Avg**	2000	0			520	0			92	0
	Monthly Total										
	Daily Max	2000	0	8.10	0	520	0	2.10	0	92	0
	Daily Min										
QA/QC Information	**LOD**	1.5				3.6				3.6	
	LOQ	5				10				50	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25	0.002556	280		1.2	0.96
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**	0.002556	280		1.2	0.96
	Monthly Total					
	Daily Max	0.002556	280		1.2	0.96
	Daily Min	0.002556	280		1.2	0.96
Limit(s) in Effect	**Monthly Avg**					11 0
	Monthly Total					
	Daily Max	0.37 0				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		999580010			

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	Day 1		0			
	2		0			
	3		0			
	4		0			
	5		0			
	6		0			
	7		0			
	8		0			
	9		0			
	10		0			
	11		0			
	12		0			
	13		0			
	14		0			
	15		0			
	16		0			
	17		0			
	18		0.003393			
	19		0.011556	<1.9	<2.1	0.000378
	20		0.007799			
	21		0.005399			
	22		0			
	23		0			
	24		0.014657			
	25	0.30914016	0.021996	<1.9	4.3	
	26		0.012808			
	27		0.008965			
	28		0.007285			
	29		0			
	30		0			
	31		0.0132270			

	Sample Point	004		108		108		108		108	
	Description	Combined Process WW & GW		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	1353		211		457		35		35	
	Description	PFOS		Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		Arsenic, Total Recoverable	
	Units	mg/day		MGD		mg/L		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.30914016		0.003454355		0		2.15		0.000378	
	Monthly Total										
	Daily Max	0.30914016		0.021996		<1.9		4.3		0.000378	
	Daily Min	0.30914016		0		<1.9		<2.1		0.000378	
Limit(s) in Effect	**Monthly Avg**	2.10	0								
	Monthly Total										
	Daily Max							500	0	0.17	0
	Daily Min										
QA/QC Information	**LOD**							2.1			
	LOQ							5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010			

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17				
	18				
	19			<0.72	<0.46
	20				
	21				
	22				
	23				
	24				
	25				
	26	<0.20	0.0097084		
	27				
	28				
	29				
	30				
	31				

	Sample Point	108		108		108		108			
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent			
	Parameter	280		280		1352		1353			
	Description	Mercury, Total Recoverable		Mercury, Total Recoverable		PFOA		PFOS			
	Units	ng/L		mg/day		ng/L		ng/L			
Summary Values	**Monthly Avg**	0		0.0097084		0		0			
	Monthly Total										
	Daily Max	<0.2		0.0097084		<0.72		<0.46			
	Daily Min	<0.2		0.0097084		<0.72		<0.46			
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	24	0								
	Daily Min										
QA/QC Information	**LOD**	0.2				0.72		0.46			
	LOQ	0.5				1.7		1.7			
	QC Exceedance	N		N		N		N			
	Lab Certification	999580010									

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

General Remarks

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 8/21/2023 11:17:46 AM

Wastewater Discharge Monitoring Long Report

For DNR Use Only

Facility Name: TYCO FIRE PRODUCTS LP
Contact Address: □□
□□ , □□
Facility Contact: , □□
Phone Number: □□
Reporting Period: 08/01/2023 - 08/31/2023
Form Due Date: 09/21/2023
Permit Number: 0001040

Date Received:	
DOC:	523434
FIN:	7245
FID:	438039470
Region:	Northeast Region
Permit Drafter:	Laura K Rodriguez Alvarez
Reviewer:	Laura A Gerold
Office:	Green Bay

	Sample Point	703	703	101	101	101
	Description	Menominee River Intake	Menominee River Intake	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	35	211	373	374
	Description	Flow Rate	Arsenic, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)
	Units	gpd	ug/L	MGD	su	su
	Sample Type	TOT DAILY	GRAB	CONTINUOUS	CONTINUOUS	CONTINUOUS
	Frequency	DAILY	MONTHLY	DAILY	DAILY	DAILY
Sample Results	Day 1			0.063970	7.5	7.2
	2			0.066498	7.5	7.2
	3			0.045554	7.9	7.1
	4			0.047770	8.0	7.1
	5			0		
	6			0		
	7			0.058932	8.2	7.4
	8			0.067499	7.8	7.4
	9			0.067237	7.9	7.5
	10			0.058669	8.1	7.6
	11			0.054662	7.9	7.4
	12			0.022266	7.9	7.6
	13			0		
	14			0.057968	8.3	7.8
	15			0.064162	8.1	7.7
	16			0.053364	8.4	7.2
	17			0.054067	8.5	7.4
	18			0.038403	8.2	7.6
	19			0		
	20			0		
	21			0.047791	8.3	7.2
	22			0.048198	8.4	7.6
	23			0.064592	8.4	7.7
	24			0.067149	8.5	7.8
	25			0.051338	8.4	7.5
	26			0.012979	8.2	7.2
	27			0		
	28			0.052448	8.1	7.5
	29			0.063959	7.8	7.2
	30			0.061919	7.7	7.2
	31			0.057594	7.8	7.1

	Sample Point	703	703	101	101	101
	Description	Menominee River Intake	Menominee River Intake	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	211	35	211	373	374
	Description	Flow Rate	Arsenic, Total Recoverable	Flow Rate	pH (Maximum)	pH (Minimum)
	Units	gpd	ug/L	MGD	su	su
Summary Values	**Monthly Avg**			0.043515742	8.072	7.408
	Monthly Total					
	Daily Max			0.067499	8.5	7.8
	Daily Min			0	7.5	7.1
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max				9 0	
	Daily Min					6 0
QA/QC Information	**LOD**					
	LOQ					
	QC Exceedance	N	N	N	N	N
	Lab Certification					

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	379	376	457	651	87
	Description	pH Total Exceedance Time Minutes	pH Exceedances Greater Than 60 Minutes	Suspended Solids, Total	Oil & Grease (Hexane)	Cadmium, Total Recoverable
	Units	minutes	Number	mg/L	mg/L	ug/L
	Sample Type	CONTINUOUS	CONTINUOUS	24 HR FLOW PROP	GRAB	24 HR FLOW PROP
	Frequency	DAILY	DAILY	3/WEEK	MONTHLY	MONTHLY
Sample Results	**Day 1**			<1.9		
	2			<1.9		
	3			<1.9		
	4					
	5					
	6					
	7					
	8			<1.9		
	9			<1.9		
	10			<1.9	<1.3	<0.49
	11					
	12					
	13					
	14					
	15			<1.9		
	16					
	17			<1.9		
	18					
	19					
	20					
	21					
	22			<1.9		
	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	379		376		457		651		87	
	Description	pH Total Exceedance Time Minutes		pH Exceedances Greater Than 60 Minutes		Suspended Solids, Total		Oil & Grease (Hexane)		Cadmium, Total Recoverable	
	Units	minutes		Number		mg/L		mg/L		ug/L	
Summary Values	**Monthly Avg**					0		0		0	
	Monthly Total										
	Daily Max					<1.9		<1.3		<0.49	
	Daily Min					<1.9		<1.3		<0.49	
Limit(s) in Effect	**Monthly Avg**					31	0	26	0	260	0
	Monthly Total	446	0	0	0						
	Daily Max					60	0	52	0	690	0
	Daily Min										
QA/QC Information	**LOD**							1.3		0.49	
	LOQ							4.8		1	
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010		999580010	

	Sample Point	101	101	101	101	101
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent
	Parameter	147	315	553	507	280
	Description	Copper, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Total Toxic Organics	Mercury, Total Recoverable
	Units	ug/L	ug/L	ug/L	ug/L	ng/L
	Sample Type	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	24 HR FLOW PROP	GRAB
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10	4.3	4.5	29		
	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					
	22					
	23					0.33
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	101		101		101		101		101	
	Description	Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent		Metal Finishing Effluent	
	Parameter	147		315		553		507		280	
	Description	Copper, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Total Toxic Organics		Mercury, Total Recoverable	
	Units	ug/L		ug/L		ug/L		ug/L		ng/L	
Summary Values	**Monthly Avg**	4.3		4.5		29				0.33	
	Monthly Total										
	Daily Max	4.3		4.5		29				0.33	
	Daily Min	4.3		4.5		29				0.33	
Limit(s) in Effect	**Monthly Avg**	2070	0	2380	0	1480	0				
	Monthly Total										
	Daily Max	3380	0	3980	0	2610	0	2130			
	Daily Min										
QA/QC Information	**LOD**	1.7		1.5		3.6				0.2	
	LOQ	5		5		10				0.5	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010		999580010		999580010				999580010	

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	CONTINUOUS	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	DAILY	WEEKLY
Sample Results	Day 1				22105	23000
	2				27260	
	3				15955	
	4				6510	
	5				0	
	6				0	
	7				0	
	8				0	
	9				0	
	10		<2.1	0.001029	0	
	11				0	
	12				0	
	13				0	
	14				13440	
	15				5770	
	16				14370	
	17				29690	12000
	18				13910	
	19				13910	
	20				13910	
	21				17455	
	22				24875	16000
	23	0.08078532			24685	
	24				17630	
	25				0	
	26				0	
	27				0	
	28				11985	
	29				12025	
	30				18205	
	31				14420	

	Sample Point	101	101	101	704	704
	Description	Metal Finishing Effluent	Metal Finishing Effluent	Metal Finishing Effluent	GWCTS Influent	GWCTS Influent
	Parameter	280	35	35	211	35
	Description	Mercury, Total Recoverable	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Flow Rate	Arsenic, Total Recoverable
	Units	mg/day	ug/L	lbs/day	gpd	ug/L
Summary Values	**Monthly Avg**	0.08078532	0	0.001029	10261.612903226	17000
	Monthly Total					
	Daily Max	0.08078532	<2.1	0.001029	29690	23000
	Daily Min	0.08078532	<2.1	0.001029	0	12000
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					
	Daily Min					
QA/QC Information	**LOD**		2.1			10
	LOQ		5			250
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			999580010

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
	Sample Type	24 HR FLOW PROP	GRAB	BLANK	CONTINUOUS	CONTINUOUS
	Frequency	WEEKLY	MONTHLY	MONTHLY	DAILY	DAILY
Sample Results	Day 1	33			0.080590	7.67
	2				0.086141	7.64
	3				0.079331	7.55
	4				0.036901	7.85
	5				0	
	6				0	
	7				0	
	8				0	
	9				0	
	10				0	
	11				0	
	12				0	
	13				0	
	14				0.069921	6.9
	15				0.063501	6.84
	16				0.064982	7.51
	17	27			0.075685	8.0
	18				0.048079	7.8
	19				0	
	20				0.000005	6.65
	21				0.063300	7.81
	22	22			0.070515	7.9
	23		20	0.55	0.081225	8.38
	24				0.080319	
	25				0	
	26				0	
	27				0	
	28				0.067469	8.0
	29				0.073918	7.29
	30				0.077698	7.45
	31				0.070030	7.71

	Sample Point	704	704	107	004	004
	Description	GWCTS Influent	GWCTS Influent	Mercury Field Blank Results	Combined Process WW & GW	Combined Process WW & GW
	Parameter	457	280	280	211	373
	Description	Suspended Solids, Total	Mercury, Total Recoverable	Mercury, Total Recoverable	Flow Rate	pH (Maximum)
	Units	mg/L	ng/L	ng/L	MGD	su
Summary Values	**Monthly Avg**	27.333333333	20	0.55	0.038374516	7.585294118
	Monthly Total					
	Daily Max	33	20	0.55	0.086141	8.38
	Daily Min	22	20	0.55	0	6.65
Limit(s) in Effect	**Monthly Avg**					
	Monthly Total					
	Daily Max					9 0
	Daily Min					
QA/QC Information	**LOD**		0.2	0.2		
	LOQ		0.5	0.5		
	QC Exceedance	N	N	N	N	N
	Lab Certification	999580010	999580010	999580010		

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
	Sample Type	CONTINUOUS	GRAB	24 HR FLOW PROP	CALCULATED	GRAB
	Frequency	DAILY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	Day 1	6.43				
	2	6.68				
	3	6.54				
	4	6.1				
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14	6.3				
	15	6.35				
	16	6.1				
	17	6.4		<2.1	0.001323	
	18	6.3				
	19					
	20	6.4				
	21	6.1				
	22	6.1				
	23	6.37				<0.20
	24		<10			
	25					
	26					
	27					
	28	6.1				
	29	6.1				
	30	6.1				
	31	6.1				

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	374	112	35	35	280
	Description	pH (Minimum)	Chlorine, Total Residual	Arsenic, Total Recoverable	Arsenic, Total Recoverable	Mercury, Total Recoverable
	Units	su	ug/L	ug/L	lbs/day	ng/L
Summary Values	**Monthly Avg**	6.268823529	0	0	0.001323	0
	Monthly Total					
	Daily Max	6.68	<10	<2.1	0.001323	<0.2
	Daily Min	6.1	<10	<2.1	0.001323	<0.2
Limit(s) in Effect	**Monthly Avg**		38 0			
	Monthly Total					
	Daily Max		38 0	194 0	0.22 0	18 0
	Daily Min	6 0				
QA/QC Information	**LOD**		30	2.1		0.2
	LOQ		100	5		0.5
	QC Exceedance	N	N	N	N	N
	Lab Certification			999580010		999580010

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	280	87	87	147	147
	Description	Mercury, Total Recoverable	Cadmium, Total Recoverable	Cadmium, Total Recoverable	Copper, Total Recoverable	Copper, Total Recoverable
	Units	mg/day	ug/L	lbs/day	ug/L	lbs/day
	Sample Type	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17		<0.49	0.0003087	5.9	0.003717
	18					
	19					
	20					
	21					
	22					
	23	0.1354832				
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	280		87		87		147		147	
	Description	Mercury, Total Recoverable		Cadmium, Total Recoverable		Cadmium, Total Recoverable		Copper, Total Recoverable		Copper, Total Recoverable	
	Units	mg/day		ug/L		lbs/day		ug/L		lbs/day	
Summary Values	**Monthly Avg**	0.1354832		0		0.0003087		5.9		0.003717	
	Monthly Total										
	Daily Max	0.1354832		<0.49		0.0003087		5.9		0.003717	
	Daily Min	0.1354832		<0.49		0.0003087		5.9		0.003717	
Limit(s) in Effect	**Monthly Avg**			57	0			69	0		
	Monthly Total										
	Daily Max			57	0	0.23	0	69	0	0.28	0
	Daily Min										
QA/QC Information	**LOD**			0.49				1.7			
	LOQ			1				5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification			999580010				999580010			

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	315	315	553	553	152
	Description	Nickel, Total Recoverable	Nickel, Total Recoverable	Zinc, Total Recoverable	Zinc, Total Recoverable	Cyanide, Amenable
	Units	ug/L	lbs/day	ug/L	lbs/day	ug/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14					
	15					
	16					
	17	2.0	0.00126	17	0.01071	<5.0
	18					
	19					
	20					
	21					
	22					
	23					
	24					
	25					
	26					
	27					
	28					
	29					
	30					
	31					

	Sample Point	004		004		004		004		004	
	Description	Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW		Combined Process WW & GW	
	Parameter	315		315		553		553		152	
	Description	Nickel, Total Recoverable		Nickel, Total Recoverable		Zinc, Total Recoverable		Zinc, Total Recoverable		Cyanide, Amenable	
	Units	ug/L		lbs/day		ug/L		lbs/day		ug/L	
Summary Values	**Monthly Avg**	2		0.00126		17		0.01071		0	
	Monthly Total										
	Daily Max	2		0.00126		17		0.01071		<5	
	Daily Min	2		0.00126		17		0.01071		<5	
Limit(s) in Effect	**Monthly Avg**	2000	0			520	0			92	0
	Monthly Total										
	Daily Max	2000	0	8.10	0	520	0	2.10	0	92	0
	Daily Min										
QA/QC Information	**LOD**	1.5				3.6				5	
	LOQ	5				10				10	
	QC Exceedance	N		N		N		N		N	
	Lab Certification	999580010				999580010				999580010	

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
	Sample Type	CALCULATED	24 HR FLOW PROP	MEASURE	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	WEEKLY	MONTHLY	MONTHLY
Sample Results	Day 1					
	2			96		
	3			99		
	4			98		
	5					
	6					
	7					
	8					
	9					
	10					
	11					
	12					
	13					
	14			85		
	15			99		
	16			101		
	17	0.00315	310	102	1.5	1.0
	18			96		
	19					
	20			82		
	21			91		
	22			91		
	23					
	24					
	25					
	26					
	27					
	28			95		
	29			93		
	30			89		
	31					

	Sample Point	004	004	004	004	004
	Description	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW	Combined Process WW & GW
	Parameter	152	231	480	1352	1353
	Description	Cyanide, Amenable	Hardness, Total as CaCO3	Temperature Maximum	PFOA	PFOS
	Units	lbs/day	mg/L	degF	ng/L	ng/L
Summary Values	**Monthly Avg**	0.00315	310	94.071428571	1.5	1
	Monthly Total					
	Daily Max	0.00315	310	102	1.5	1
	Daily Min	0.00315	310	82	1.5	1
Limit(s) in Effect	**Monthly Avg**					11 0
	Monthly Total					
	Daily Max	0.37 0				11 0
	Daily Min					
QA/QC Information	**LOD**				0.74	0.47
	LOQ				1.7	1.7
	QC Exceedance	N	N	N	N	N
	Lab Certification		999580010			

	Sample Point	004	108	108	108	108
	Description	Combined Process WW & GW	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	1353	211	457	35	35
	Description	PFOS	Flow Rate	Suspended Solids, Total	Arsenic, Total Recoverable	Arsenic, Total Recoverable
	Units	mg/day	MGD	mg/L	ug/L	lbs/day
	Sample Type	CALCULATED	CONTINUOUS	24 HR FLOW PROP	24 HR FLOW PROP	CALCULATED
	Frequency	MONTHLY	DAILY	WEEKLY	WEEKLY	WEEKLY
Sample Results	**Day 1**		0.018395	<1.9	2.2	0.00033
	2		0.019566			
	3		0.014261			
	4		0.006211			
	5		0			
	6		0			
	7		0			
	8		0			
	9		0			
	10		0			
	11		0			
	12		0			
	13		0			
	14		0.007391			
	15		0.000701			
	16		0.011232			
	17	0.026846	0.022910	<1.9	8.2	0.001558
	18		0.010309			
	19		0			
	20		0			
	21		0.013715			
	22		0.020870	<1.9	2.6	0.000442
	23		0.017235			
	24		0.013799			
	25		0			
	26		0			
	27		0			
	28		0.009854			
	29		0.008803			
	30		0.015103			
	31		0.011605			

	Sample Point	004		108		108		108		108	
	Description	Combined Process WW & GW		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent	
	Parameter	1353		211		457		35		35	
	Description	PFOS		Flow Rate		Suspended Solids, Total		Arsenic, Total Recoverable		Arsenic, Total Recoverable	
	Units	mg/day		MGD		mg/L		ug/L		lbs/day	
Summary Values	Monthly Avg	0.026846		0.00716		0		4.333333333		0.000776667	
	Monthly Total										
	Daily Max	0.026846		0.02291		<1.9		8.2		0.001558	
	Daily Min	0.026846		0		<1.9		2.2		0.00033	
Limit(s) in Effect	Monthly Avg	2.10	0								
	Monthly Total										
	Daily Max							500	0	0.17	0
	Daily Min										
QA/QC Information	LOD							2.1			
	LOQ							5			
	QC Exceedance	N		N		N		N		N	
	Lab Certification					999580010		999580010			

	Sample Point	108	108	108	108
	Description	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent	GWCTS Effluent
	Parameter	280	280	1352	1353
	Description	Mercury, Total Recoverable	Mercury, Total Recoverable	PFOA	PFOS
	Units	ng/L	mg/day	ng/L	ng/L
	Sample Type	24 HR FLOW PROP	CALCULATED	24 HR FLOW PROP	24 HR FLOW PROP
	Frequency	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Sample Results	**Day 1**				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	11				
	12				
	13				
	14				
	15				
	16				
	17			<0.72	<0.46
	18				
	19				
	20				
	21				
	22				
	23	<0.20	0.0130642		
	24				
	25				
	26				
	27				
	28				
	29				
	30				
	31				

	Sample Point	108		108		108		108			
	Description	GWCTS Effluent		GWCTS Effluent		GWCTS Effluent		GWCTS Effluent			
	Parameter	280		280		1352		1353			
	Description	Mercury, Total Recoverable		Mercury, Total Recoverable		PFOA		PFOS			
	Units	ng/L		mg/day		ng/L		ng/L			
Summary Values	**Monthly Avg**	0		0.0130642		0		0			
	Monthly Total										
	Daily Max	<0.2		0.0130642		<0.72		<0.46			
	Daily Min	<0.2		0.0130642		<0.72		<0.46			
Limit(s) in Effect	**Monthly Avg**										
	Monthly Total										
	Daily Max	24	0								
	Daily Min										
QA/QC Information	**LOD**	0.2				0.72		0.46			
	LOQ	0.5				1.7		1.7			
	QC Exceedance	N		N		N		N			
	Lab Certification	999580010									

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

General Remarks

The sampler was not working properly the second day of the third week of sampling for TSS at SP101 so, there is only 2 results that week.
SP704, SP108 & OF004 were shut down the whole second week so, there are no samples taken. Jacobs could not be here on site and we were not trained yet. Min. & Max. pH at OF004 were missed on 8/24/23 also by Jacobs.

Laboratory Quality Control Comments

Submitted by Anne Fleury(afleury16) on 9/21/2023 12:09:56 PM

WHOLE EFFLUENT TOXICITY (WET) TEST REPORT FORM

GENERAL INFORMATION

FACILITY:	**Tyco Fire Protection Products**	WPDES PERMIT NO.:	WI-0001040-08-0
OUTFALL NO.:	004	LABORATORY NAME:	ECT-Superior, WI
RECEIVING WATER:	Menominee River	PROJECT # :	6540

SAMPLE INFORMATION

SAMPLE NO.	SAMPLE COLLECTION			SAMPLE TEMP °C		pH at LAB	HAND DELIVER? (If Yes, ≤ 4 hr?)	HOLD TIME ≤ 36 HR?	SAMPLE ACCEP-TABLE?
	SAMPLE TYPE	BEGINNING DATE	END DATE	COLLECTION	AT LAB				
1	EFF-24C	8/28/2023	8/29/2023	2.5	3.7	7.26	☐ Yes ☑ No	☑ Yes ☐ No	☑ Yes ☐ No
2	EFF-24C	8/30/2023	8/31/2023	3.0	7.3	7.58	☐ Yes ☑ No	☑ Yes ☐ No	☑ Yes ☐ No
3							☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
4							☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No

Describe any unusual conditions during sampling that may influence test results. (see Part 6.1.2 of the Methods Manual for examples.)

COMMENTS:

TEST INFORMATION

	ACUTE		
Date Test Initiated:	**8/30/2023**		
Tests Are For:	WPDES Compliance (Required by Permit)		
Date of Initial Test:			
ZID/IWC Info.:	ZID Compliance Concentration =	N/A	
Dilution Water:	*C.dubia*	FHM	Other
	☐ RW	☐ RW	☐ RW
	☑ LW	☑ LW	☐ LW

QA/QC CONDITIONS

	ACUTE
Temperatures maintained during test? (20 ± 1°C)	☑ Yes ☐ No
Dissolved oxygen ≥ 4.0 mg/l throughout test?	☑ Yes ☐ No
Effluent pH maintained within 6.0 - 9.0 s.u. throughout test?	☑ Yes ☐ No
Concurrent or monthly reference tests within acceptable limits?	☑ Yes ☐ No
Tests conducted in a carbon dioxide atmosphere throughout test?	☑ Yes ☐ No
Were effluent samples modified prior to testing? (ex. filtration, aeration, chem addition)	☐ Yes ☑ No

COMMENTS:

WATER CHEMISTRY (All values reported in mg/L, except pH)

SAMPLE TYPE	NO.	HARDNESS	ALKALINITY	TOTAL AMMONIA	pH (after Warming to 20°C)	TOTAL RESIDUAL CHLORINE	Conductivity (after warming to 20°C)
Rec.Water	NA	NA	NA	NA	NA	NA	NA
Effluent	#1	372	24	1.4	7.43	*ND	1293
	#2	548	44	0.7	7.70	*ND	1481
Lab Water	LAB	44	44	NA	7.96	NA	148
	MHSW	84	64	NA	7.90	NA	353

COMMENTS: **MHSW was the primary control/ dilution water and LAB water was the secondary control for the acute test.**
ND=Not Detected

WHOLE EFFLUENT TOXICITY (WET) TEST REPORT FORM

ACUTE TEST CONTROL PERFORMANCE

Primary Controls		Secondary Controls	
Fathead Minnow	*Ceriodaphnia dubia*	Fathead Minnow	*Ceriodaphnia dubia*
Survival ≥ 90% ☑ Yes ☐ No	Survival ≥ 90% ☑ Yes ☐ No	Survival ≥ 90% ☑ Yes ☐ No	Survival ≥ 90% ☑ Yes ☐ No

COMMENTS:

ACUTE TEST DATA

SPECIES	EFFLUENT TREATMENT	Percent Survival By Replicate				Mean Percent Survival
		1	2	3	4	
Fathead Minnow	Secondary Control	100	90	100	100	97.5
	Primary Control	100	100	100	100	100.0
	6.25%	100	100	100	100	100.0
Age of Organism:	12.5%	100	100	100	100	100.0
12 Days	25%	80	100	100	100	95.0
	50%	100	90	100	100	97.5
	100%	100	100	100	100	100.0

FATHEAD MINNOW ACUTE RESULTS: LC_{50} = **>100** **C.I.% =** **NA** TU_a = **1.0**

Please describe any unusual behavior and/or appearance of organisms.(see Part 6.1.2 of the Methods Manual for ex.)

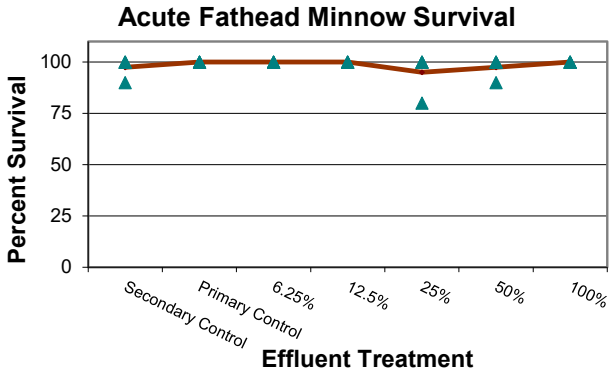
COMMENTS:

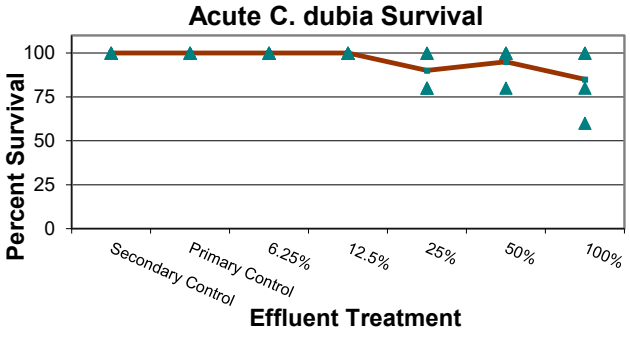
SPECIES	EFFLUENT TREATMENT	Percent Survival By Replicate				Mean Percent Survival
		1	2	3	4	
Ceriodaphnia dubia	Secondary Control	100	100	100	100	100.0
	Primary Control	100	100	100	100	100.0
	6.25%	100	100	100	100	100.0
Age of Organism:	12.5%	100	100	100	100	100.0
< 24 Hours Old	25%	80	100	80	100	90.0
	50%	80	100	100	100	95.0
	100%	100	60	80	100	85.0

***Ceriodaphnia dubia* ACUTE RESULTS:** LC_{50} = **>100** **C.I.% =** **NA** TU_a = **1.0**

Please describe any unusual behavior and/or appearance of organisms.(see Part 6.1.2 of the Methods Manual for ex.)

COMMENTS:





Facility : Tyco Fire Protection Products
Permit # : WI-0001040-08-0
Acute Test Date : 8/30/2023

WHOLE EFFLUENT TOXICITY (WET) TEST REPORT FORM

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

LAB REPRESENTATIVE:	Patrick S. Poirier		SIGNATURE:		
PHONE:	715-392-6635	LAB CERT #:	816079220	DATE:	9/5/2023
PERMITTEE REPRESENTATIVE:			SIGNATURE:		
PHONE:			DATE:		

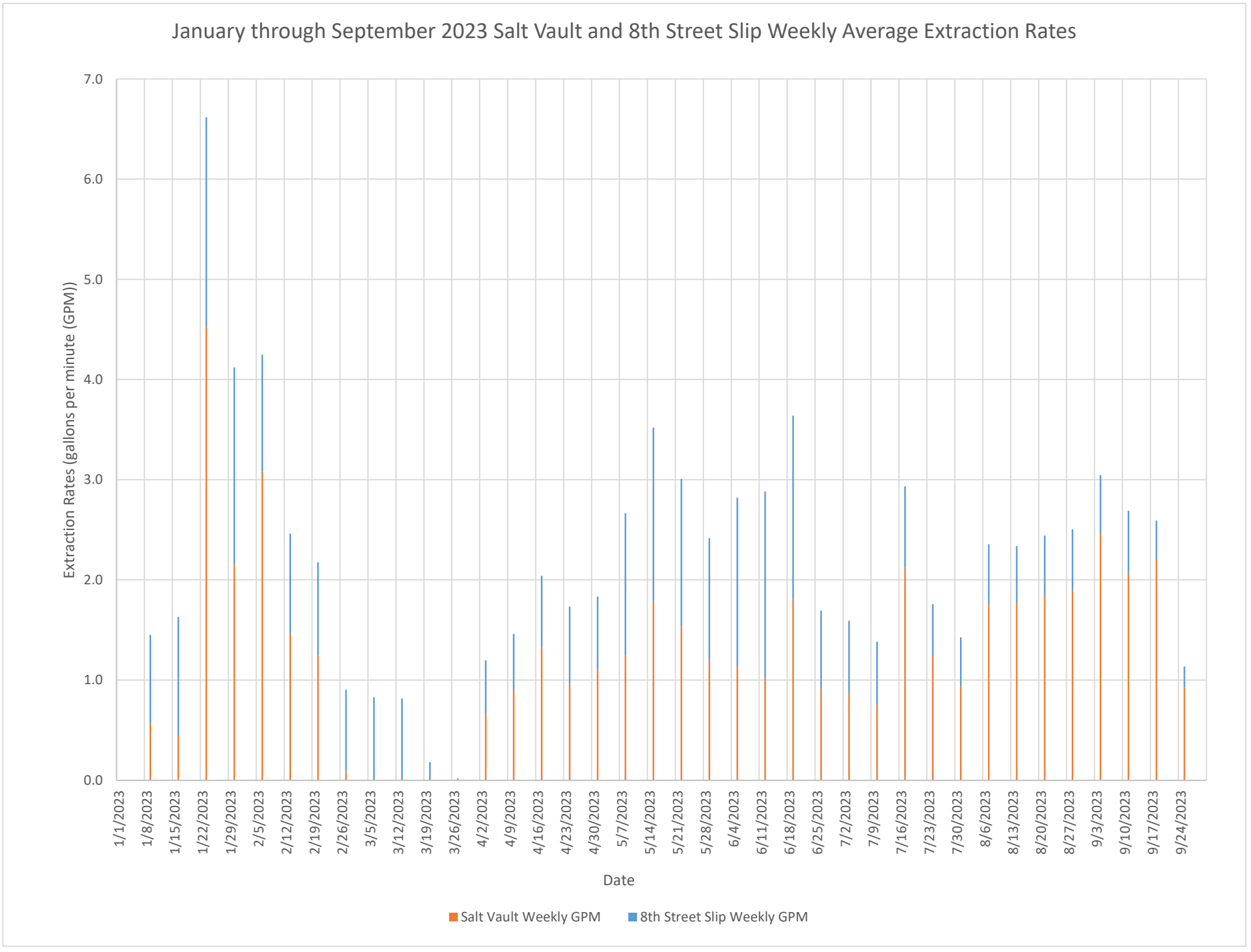
Send *all 3 pages* of this form (plus any attachments or additional information which you believe to be relevant to the test) to: Biomonitoring Coordinator, Bureau of Watershed Management, Department of Natural Resources, 101 South Webster St., P.O. Box 7921, Madison, WI 53707-7921; according to the timelines specified in your WPDES permit.

Copies of the State of Wisconsin Aquatic Life Toxicity Testing Methods Manual (Methods Manual) and the WET Guidance Document can be obtained from the Biomonitoring Coordinator at the address given above or at: http://dnr.wi.gov/org/water/wm/ww/biomon/biomon.htm

TO BE COMPLETED BY THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES			
Date Received:		DID TESTS PASS?	
ACUTE	Fathead Minnow	☐ Yes ☐ No ☐ Inconclusive ☐ Unacceptable	
	Ceriodaphnia dubia	☐ Yes ☐ No ☐ Inconclusive ☐ Unacceptable	
Retests Required?	☐ Yes ☐ No	____ Both species C.dubia only FHM only	
Due To:	☐ Failure ☐ QA Problem		
WET Limit Violation?	☐ Yes ☐ No limit in permit	Results Entered Into Database? ☐ Yes ☐ No	
COMMENTS:			
REVIEWED BY:		**DATE:**	
CC:		BASIN ENGINEER	
		PERMIT COORDINATOR	
		PERMIT FILE	

Facility : Tyco Fire Protection Products
Permit # : WI-0001040-08-0
Acute Test Date : 8/30/2023

Attachment 3
2023 PDP Weekly Average Extraction Rates


January through September 2023 Salt Vault and 8th Street Slip Weekly Average Extraction Rates
Extraction Rates (gallons per minute (GPM))
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
1/1/2023
1/8/2023
1/15/2023
1/22/2023
1/29/2023
2/5/2023
2/12/2023
2/19/2023
2/26/2023
3/5/2023
3/12/2023
3/19/2023
3/26/2023
4/2/2023
4/9/2023
4/16/2023
4/23/2023
4/30/2023
5/7/2023
5/14/2023
5/21/2023
5/28/2023
6/4/2023
6/11/2023
6/18/2023
6/25/2023
7/2/2023
7/9/2023
7/16/2023
7/23/2023
7/30/2023
8/6/2023
8/13/2023
8/20/2023
8/27/2023
9/3/2023
9/10/2023
9/17/2023
9/24/2023
Date
Salt Vault Weekly GPM
8th Street Slip Weekly GPM

Attachment 4
2023 PDP Groundwater Elevation Monitoring

Attachment 4. 2023 Pump Down Program Groundwater Elevation Monitoring

Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9

Well ID	January 4, 2023		January 16, 2023		January 24, 2023		January 31, 2023		February 7, 2023		February 14, 2023		February 21, 2023		March 1, 2023		March 7, 2023		March 16, 2023		March 22, 2023		March 27, 2023		April 3, 2023	
	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	10.63	576.51	10.31	576.83	11.43	575.71	11.32	575.82	11.63	575.51	11.38	575.76	11.37	575.77	10.98	576.16	10.83	576.31	10.48	576.66	10.21	576.93	10.04	577.10	9.74	577.40
MW001S	10.82	576.39	10.50	576.71	11.64	575.56	11.59	575.61	11.87	575.33	11.64	575.56	11.62	575.58	NM	-	NM	-	10.72	576.49	10.47	576.74	10.26	576.95	10.02	577.19
MW002M-R	14.02	576.38	13.63	576.77	14.72	575.67	14.59	575.81	14.99	575.40	14.70	575.69	14.71	575.68	14.30	576.10	14.24	576.16	13.83	576.57	13.59	576.81	13.39	577.01	13.16	577.25
MW002S-R	13.97	576.31	13.56	576.72	14.64	575.64	14.57	575.71	14.86	575.42	14.64	575.64	14.67	575.61	14.28	576.00	14.20	576.08	13.77	576.51	13.49	576.79	13.36	576.92	13.08	577.20
MW031M	11.39	576.56	11.16	576.80	12.13	575.82	12.16	575.79	12.31	575.64	12.20	575.75	12.16	575.79	11.69	576.26	11.61	576.34	11.16	576.80	10.89	577.07	10.78	577.18	10.48	577.48
MW031S	12.60	576.27	12.24	576.63	14.42	574.45	13.26	575.61	13.54	575.33	13.35	575.52	13.38	575.49	12.81	576.06	12.77	576.10	12.29	576.58	12.02	576.85	11.87	577.00	11.65	577.22
MW113S	13.82	576.44	13.45	576.81	14.55	575.71	14.47	575.79	14.82	575.44	14.59	575.67	14.59	575.67	14.22	576.04	14.11	576.15	13.71	576.55	13.44	576.82	13.27	576.99	13.02	577.24
MW113M	11.85	578.38	11.55	578.68	12.22	578.01	12.26	577.97	12.36	577.87	12.28	577.95	12.29	577.94	12.04	578.19	11.88	578.35	11.59	578.64	11.31	578.92	11.26	578.97	10.94	579.29
MW115P	12.26	576.81	11.24	577.83	12.99	576.08	13.06	576.01	13.37	575.70	13.24	575.83	13.24	575.83	12.85	576.22	12.79	576.28	12.30	576.77	11.13	577.94	10.29	578.78	9.62	579.45
MW115S	12.68	576.28	12.29	576.67	13.55	575.41	13.36	575.60	13.68	575.28	13.40	575.56	13.48	575.48	12.93	576.03	12.85	576.11	12.39	576.57	12.12	576.84	11.96	577.00	11.71	577.25
MW116P	12.96	576.89	12.96	576.89	13.00	576.85	12.95	576.90	12.95	576.90	12.94	576.91	12.95	576.90	12.95	576.90	12.94	576.91	12.95	576.90	12.91	576.94	12.94	576.91	11.96	577.89
MW116S	13.55	576.28	13.05	576.78	14.54	575.29	14.17	575.66	14.64	575.18	14.22	575.61	14.27	575.56	13.81	576.02	13.73	576.10	13.26	576.57	12.95	576.88	12.81	577.02	12.51	577.32
MW119D	9.21	579.51	9.24	579.48	9.29	579.43	9.29	579.43	9.36	579.36	9.42	579.30	9.44	579.28	9.46	579.26	9.50	579.22	9.45	579.27	9.49	579.23	9.48	579.24	9.41	579.31
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	10.68	576.37	10.22	576.83	11.10	575.95	11.30	575.75	11.59	575.46	11.45	575.60	11.36	575.69	NM	-	NM	-	NM	-	9.98	577.07	NM	-	9.43	577.62
EW-11	9.54	577.14	9.23	577.45	10.05	576.63	10.18	576.50	10.33	576.35	10.12	576.56	10.14	576.54	NM	-	NM	-	NM	-	9.08	577.60	NM	-	8.55	578.13
EW-13	8.72	576.39	8.39	576.72	9.42	575.68	9.34	575.76	9.68	575.42	9.50	575.60	9.43	575.67	NM	-	NM	-	NM	-	NM	-	7.77	577.34	7.44	577.67
EW-14	9.71	576.36	9.32	576.75	10.60	575.47	10.36	575.71	10.70	575.37	10.45	575.62	10.43	575.64	10.02	576.05	9.97	576.10	9.49	576.58	9.24	576.83	8.99	577.09	8.06	578.02
Wells Inside Former 8th Street Slip																										
MW034M	12.14	576.08	12.60	575.62	12.66	575.56	12.92	575.30	12.80	575.42	12.88	575.34	12.78	575.44	12.80	575.42	12.91	575.31	12.11	576.11	11.50	576.72	11.28	576.94	11.50	576.72
MW034S	12.52	575.66	12.21	575.97	13.02	575.16	13.28	574.90	13.21	574.97	13.23	574.95	13.11	575.07	13.16	575.02	13.25	574.93	12.48	575.70	11.83	576.35	11.55	576.63	11.62	576.56
MW036M	12.52	575.98	12.45	576.05	13.13	575.36	13.23	575.26	13.04	575.45	13.05	575.44	13.07	575.42	12.99	575.50	13.14	575.35	12.68	575.82	12.27	576.23	11.99	576.52	11.64	576.87
MW036S	12.02	576.23	11.92	576.33	12.68	575.57	12.68	575.57	12.55	575.70	12.56	575.69	12.59	575.66	12.51	575.74	12.66	575.59	12.19	576.06	11.74	576.51	11.47	576.78	11.08	577.17
MW038M	9.74	576.40	9.59	576.55	NM	-	10.43	575.71	10.19	575.95	10.21	575.93	10.28	575.86	NM	-	10.27	575.87	9.81	576.33	9.36	576.78	9.08	577.06	8.49	577.65
MW038S	11.51	576.31	11.29	576.53	12.34	575.48	12.16	575.66	11.96	575.86	11.92	575.90	11.99	575.83	11.90	575.92	11.95	575.87	11.57	576.25	11.06	576.76	10.78	577.04	10.11	577.72
MW120D	8.33	580.46	8.59	580.20	9.15	579.63	9.26	579.52	9.02	579.76	9.20	579.58	9.05	579.73	9.00	579.78	9.04	579.74	9.05	579.73	8.51	580.28	8.86	579.92	8.91	579.87
MW120M	12.55	576.35	12.56	576.34	12.94	575.95	13.23	575.65	13.11	575.78	13.30	575.58	13.22	575.66	13.24	575.64	13.38	575.50	12.88	576.01	12.48	576.42	12.20	576.70	11.83	577.08
MW120S	11.75	576.77	11.80	576.72	12.22	576.30	12.35	576.17	12.53	575.99	12.58	575.94	12.58	575.94	12.63	575.89	12.90	575.62	12.25	576.27	11.84	576.68	11.62	576.90	11.01	577.51
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	7.91	576.19	7.81	576.29	12.90	571.19	8.57	575.53	8.38	575.72	8.35	575.75	8.44	575.66	8.32	575.78	8.49	575.61	7.97	576.13	7.53	576.57	7.29	576.81	6.73	577.37
EW-9	11.69	571.66	12.24	571.11	16.10	567.24	NM	-	NM	-	NM	-	8.34	575.02	NM	-	NM	-	NM	-	NM	-	6.79	576.57	10.32	573.04
Wells Outside Pump Down Program Area																										
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	5.78	582.96	5.50	583.24	5.46	583.28	5.63	583.11	5.84	582.90	5.70	583.04	5.53	583.21	5.53	583.21	5.25	583.49	4.82	583.92	4.68	584.06	4.51	584.23	4.08	584.66
MW032M	6.47	581.84	6.46	581.85	6.65	581.66	6.88	581.43	6.69	581.62	6.70	581.61	5.35	582.96	6.55	581.76	6.26	582.05	6.09	582.22	6.01	582.30	5.99	582.32	5.56	582.75
MW032S	5.42	583.07	5.33	583.16	5.30	583.19	5.58	582.91	5.59	582.90	5.49	583.00	6.67	581.81	5.29	583.20	5.04	583.45	4.64	583.85	4.59	583.90	4.46	584.03	3.98	584.51
MW033M	4.60	582.79	4.39	583.00	4.25	583.14	4.53	582.86	4.68	582.71	4.49	582.90	4.32	583.07	4.31	583.08	3.84	583.55	3.72	583.67	3.51	583.88	3.11	584.28	2.83	584.57
MW033S	4.48	582.84	4.12	583.20	4.04	583.28	4.28	583.04	4.37	582.95	4.26	583.06	4.09	583.23	4.11	583.21	4.04	583.28	3.45	583.87	3.24	584.08	3.33	583.99	2.60	584.72
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	3.08	583.12	2.93	583.27	2.89	583.31	3.05	583.15	3.25	582.95	3.09	583.11	2.95	583.25	2.96	583.24	2.65	583.55	2.24	583.96	2.08	584.12	1.92	584.28	1.50	584.70
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	5.99	581.66	6.33	581.32	6.49	581.16	6.98	580.67	7.24	580.41	6.94	580.71	6.71	580.94	6.91	580.74	6.28	581.37	5.91	581.74	5.65	582.00	5.64	582.01	5.62	582.03
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	5.59	581.48	5.67	581.40	5.72	581.35	6.29	580.78	6.57	580.49	6.25	580.82	5.99	581.08	6.21	580.86	5.48	581.59	5.12	581.95	4.91	582.16	4.80	582.27	4.74	582.33
SG4	7.15	580.30	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
Target Elevation Calc SV		576.58		576.94		575.73		575.94		575.64		575.87		575.86		576.32		576.41		576.79		577.06		577.21		577.48
Target Elevation Calc 8SS		576.22		576.26		575.63		575.53		575.64		575.60		575.61		575.59		575.51		576.07		576.56		576.82		577.16
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		-1.32		-0.96		-2.17		-1.96		-2.26		-2.03		-2.04		-1.58		-1.49		-1.11		-0.84		-0.69		-0.42
8SS Variance		-1.68		-1.64		-2.27		-2.37		-2.26		-2.30		-2.29		-2.31		-2.39		-1.83		-1.34		-1.08		-0.74

Attachment 4. 2023 Pump Down Program Groundwater Elevation Monitoring

Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9

Well ID	April 11, 2023		April 18, 2023		April 25, 2023		May 3, 2023		May 9, 2023		May 16, 2023		May 23, 2023		May 31, 2023		June 6, 2023		June 15, 2023		June 19, 2023		June 27, 2023		July 10, 2023	
	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	9.56	577.58	9.51	577.63	9.34	577.80	9.29	577.85	9.41	577.73	9.55	577.59	9.73	577.41	9.68	577.46	9.27	577.87	9.72	577.42	10.05	577.09	9.46	577.68	9.03	578.11
MW001S	9.77	577.44	9.82	577.39	9.58	577.63	9.51	577.70	9.67	577.54	9.78	577.43	9.95	577.26	9.92	577.29	9.50	577.71	9.96	577.25	10.36	576.85	9.67	577.54	9.28	577.93
MW002M-R	12.91	577.50	12.88	577.53	12.69	577.72	12.71	577.70	12.80	577.61	12.92	577.49	13.12	577.29	13.06	577.35	12.58	577.83	13.07	577.34	13.40	577.00	12.87	577.54	12.42	577.99
MW002S-R	12.78	577.50	12.78	577.50	12.58	577.70	12.58	577.70	12.68	577.60	12.83	577.45	13.02	577.26	12.92	577.36	12.46	577.82	12.95	577.33	13.32	576.96	12.79	577.49	12.36	577.92
MW031M	10.30	577.66	10.32	577.64	10.15	577.81	10.04	577.92	10.11	577.85	10.30	577.66	10.43	577.53	10.53	577.43	10.03	577.93	10.49	577.47	10.80	577.16	10.17	577.79	9.77	578.19
MW031S	11.40	577.47	11.45	577.42	11.25	577.62	11.17	577.70	11.24	577.63	11.42	577.45	11.57	577.30	11.59	577.28	11.12	577.75	11.62	577.25	11.93	576.94	11.31	577.56	10.91	577.96
MW113S	12.71	577.55	12.73	577.53	12.53	577.73	12.50	577.76	12.61	577.65	12.73	577.53	12.90	577.36	12.86	577.40	12.43	577.83	12.91	577.35	13.23	577.03	12.67	577.59	12.25	578.01
MW113M	10.65	579.58	10.66	579.57	10.59	579.64	10.56	579.67	10.57	579.66	10.65	579.58	10.82	579.41	10.88	579.35	10.69	579.54	11.01	579.22	11.21	579.02	10.91	579.32	10.72	579.51
MW115P	9.30	579.77	9.46	579.61	9.37	579.70	9.52	579.55	9.60	579.47	9.98	579.09	10.66	578.41	10.72	578.35	10.60	578.47	10.89	578.18	11.18	577.89	10.91	578.16	10.65	578.42
MW115S	11.50	577.46	11.51	577.45	11.34	577.62	11.29	577.67	11.44	577.52	11.59	577.37	11.75	577.21	11.70	577.26	11.23	577.73	11.79	577.17	12.12	576.84	11.44	577.52	11.02	577.94
MW116P	11.10	578.75	11.47	578.38	11.68	578.17	11.61	578.24	11.84	578.01	11.72	578.13	11.80	578.05	11.69	578.16	11.62	578.23	11.43	578.42	11.55	578.30	11.53	578.32	11.42	578.43
MW116S	12.35	577.48	12.32	577.51	12.17	577.66	12.22	577.61	12.39	577.44	12.54	577.29	12.68	577.15	12.66	577.17	12.10	577.73	12.71	577.12	13.03	576.80	12.36	577.47	11.96	577.87
MW119D	9.35	579.37	9.23	579.49	9.14	579.58	9.08	579.64	9.11	579.61	8.91	579.81	8.85	579.87	8.81	579.91	8.74	579.98	8.74	579.98	8.74	579.98	8.89	579.83	13.80	574.92
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	9.36	577.69	9.36	577.69	9.33	577.72	9.32	577.73	9.44	577.61	9.47	577.58	9.63	577.42	9.57	577.48	9.24	577.81	9.65	577.40	9.87	577.18	9.45	577.60	9.08	577.97
EW-11	8.25	578.43	8.27	578.41	8.17	578.51	8.07	578.61	8.21	578.47	8.25	578.43	8.52	578.16	8.47	578.21	8.17	578.51	8.57	578.11	8.90	577.78	8.43	578.25	8.04	578.64
EW-13	7.28	577.83	7.34	577.77	7.14	577.97	7.17	577.94	7.99	577.12	7.38	577.73	7.60	577.51	7.55	577.56	7.22	577.89	7.67	577.44	8.05	577.06	7.42	577.69	7.09	578.02
EW-14	8.34	577.74	8.42	577.66	8.26	577.82	8.34	577.74	8.45	577.63	8.61	577.47	8.77	577.31	8.71	577.37	8.22	577.86	8.79	577.29	9.11	576.96	8.50	577.58	8.13	577.95
Wells Inside Former 8th Street Slip																										
MW034M	11.00	577.22	11.00	577.22	10.84	577.38	10.73	577.49	10.94	577.28	10.82	577.40	10.91	577.31	10.93	577.29	11.05	577.17	11.28	576.94	11.40	576.82	11.25	576.97	11.02	577.20
MW034S	11.19	576.99	11.12	577.06	10.99	577.19	10.88	577.30	11.09	577.09	10.95	577.23	11.02	577.16	11.04	577.14	11.18	577.00	11.42	576.76	11.55	576.63	11.40	576.78	11.11	577.07
MW036M	11.11	577.41	10.92	577.60	10.74	577.78	10.62	577.91	11.10	577.42	10.93	577.59	11.13	577.39	11.19	577.33	11.36	577.16	11.69	576.82	11.83	576.68	11.42	577.09	11.17	577.35
MW036S	10.55	577.70	10.37	577.88	10.16	578.09	10.02	578.23	10.52	577.73	10.36	577.89	10.54	577.71	10.60	577.65	10.78	577.47	11.11	577.14	11.27	576.98	10.90	577.35	10.64	577.61
MW038M	7.91	578.23	7.66	578.48	7.49	578.65	7.36	578.78	8.05	578.09	7.96	578.18	8.22	577.92	8.32	577.82	8.60	577.54	9.00	577.14	9.16	576.98	8.53	577.61	8.32	577.82
MW038S	9.54	578.29	9.23	578.60	9.09	578.74	8.99	578.84	9.74	578.09	9.65	578.18	9.90	577.93	10.20	577.63	10.28	577.55	10.72	577.10	10.90	576.92	10.21	577.62	9.92	577.91
MW120D	8.68	580.11	8.53	580.26	8.35	580.44	8.23	580.56	8.00	580.79	8.21	580.58	7.98	580.81	8.13	580.66	8.01	580.78	8.25	580.54	8.15	580.64	8.22	580.57	8.32	580.47
MW120M	11.40	577.51	11.33	577.59	11.26	577.66	11.15	577.77	11.33	577.59	11.16	577.76	11.28	577.64	11.25	577.67	11.38	577.54	11.52	577.39	11.69	577.22	11.89	577.02	11.65	577.26
MW120S	10.52	578.00	10.55	577.97	10.60	577.92	10.47	578.05	10.58	577.94	10.41	578.11	10.60	577.92	10.62	577.90	10.68	577.84	10.78	577.74	10.98	577.54	10.99	577.53	10.80	577.72
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	6.60	577.50	5.97	578.13	4.74	579.37	5.61	578.50	8.18	575.92	8.13	575.97	8.37	575.73	8.48	575.62	8.68	575.42	9.19	574.91	9.39	574.71	6.99	577.11	6.40	577.70
EW-9	8.51	574.85	9.87	573.49	NM	-	9.40	573.96	9.73	573.63	9.76	573.60	9.81	573.55	9.81	573.55	9.90	573.46	10.21	573.15	10.45	572.91	10.20	573.16	9.62	573.74
Wells Outside Pump Down Program Area																										
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-		-
MW004S	3.72	585.02	3.71	585.03	3.91	584.83	3.85	584.89	3.92	584.82	3.96	584.78	4.30	584.44	4.62	584.12	4.84	583.90	4.91	583.83	5.09	583.65	5.15	583.59	5.20	583.54
MW032M	5.48	582.83	5.41	582.90	5.58	582.73	5.56	582.75	5.41	582.90	5.48	582.83	5.66	582.65	5.89	582.42	6.02	582.29	4.90	583.42	6.13	582.18	6.13	582.18	6.14	582.17
MW032S	3.90	584.59	3.98	584.51	4.15	584.34	4.17	584.32	4.10	584.39	4.14	584.35	4.46	584.03	4.80	583.69	4.99	583.50	6.02	582.47	5.11	583.38	5.14	583.35	5.09	583.40
MW033M	2.38	585.02	2.38	585.02	2.52	584.88	2.55	584.85	2.51	584.89	2.58	584.82	2.95	584.44	3.30	584.09	3.50	583.89	3.52	583.87	3.72	583.67	4.27	583.12	3.84	583.55
MW033S	2.59	584.73	2.61	584.71	2.78	584.54	2.74	584.58	2.77	584.55	2.83	584.49	3.17	584.15	3.52	583.80	3.72	583.60	3.73	583.59	3.94	583.38	4.03	583.29	4.03	583.29
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	1.10	585.10	1.17	585.03	1.37	584.83	1.30	584.90	1.36	584.84	1.42	584.78	1.76	584.44	2.06	584.14	2.29	583.91	2.33	583.87	2.51	583.69	2.57	583.63	2.66	583.54
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	5.55	582.10	5.63	582.02	5.71	581.94	5.70	581.95	5.73	581.92	5.81	581.84	5.99	581.66	6.42	581.23	6.93	580.72	6.77	580.88	7.20	580.45	7.14	580.51	7.27	580.38
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	4.60	582.47	4.76	582.31	4.85	582.22	4.81	582.26	4.89	582.18	5.00	582.07	5.21	581.86	5.72	581.35	6.35	580.72	6.12	580.95	6.63	580.43	6.57	580.49	6.72	580.34
SG4	7.65	579.80	7.15	580.30	7.29	580.16	7.15	580.30	6.90	580.55	NM	-	6.90	580.55	6.89	580.56	6.90	580.55	7.11	580.34	7.10	580.35	7.05	580.40	6.08	581.37
Target Elevation Calc SV		577.72		577.72		577.89		577.93		577.82		577.68		577.52		577.53		577.97		577.49		577.17		577.75		578.14
Target Elevation Calc 8SS		577.67		577.80		577.93		578.05		577.65		577.79		577.62		577.55		577.41		577.13		576.97		577.25		577.49
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		-0.18		-0.18		-0.01		0.03		-0.08		-0.22		-0.38		-0.37		0.07		-0.41		-0.73		-0.15		0.24
8SS Variance		-0.23		-0.10		0.03		0.15		-0.25		-0.11		-0.28		-0.35		-0.49		-0.77		-0.93		-0.65		-0.41

Attachment 4. 2023 Pump Down Program Groundwater Elevation Monitoring

Tyco Fire Products LP, Marinette, Wisconsin

Target Elevation	577.9

Well ID	July 13, 2023		July 18, 2023		July 25, 2023		July 31, 2023		August 4, 2023		August 9, 2023		August 15, 2023		August 22, 2023		August 29, 2023		September 5, 2023		September 13, 2023		September 19, 2023		September 26, 2023	
	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	9.87	577.27	10.11	577.03	9.40	577.74	9.26	577.88	9.94	577.20	9.92	577.22	10.24	576.90	10.37	576.77	10.61	576.53	10.71	576.43	10.96	576.18	11.05	576.09	10.66	576.48
MW001S	10.10	577.11	10.32	576.89	9.62	577.59	9.49	577.72	10.18	577.03	10.14	577.07	10.50	576.71	10.64	576.57	10.88	576.33	10.94	576.27	11.22	575.99	11.28	575.93	10.95	576.26
MW002M-R	13.33	577.07	13.43	576.97	12.70	577.71	12.63	577.78	13.32	577.08	13.28	577.12	13.56	576.84	13.70	576.70	13.94	576.46	14.03	576.37	14.24	576.16	14.32	576.08	14.01	576.39
MW002S-R	13.15	577.13	13.36	576.92	12.72	577.56	12.50	577.78	13.21	577.07	13.18	577.10	13.52	576.76	13.61	576.67	13.89	576.39	13.99	576.29	14.19	576.09	14.26	576.02	13.93	576.35
MW031M	10.71	577.25	10.86	577.10	10.16	577.80	10.01	577.95	10.64	577.32	10.64	577.32	10.98	576.98	11.12	576.84	11.40	576.55	11.49	576.46	11.70	576.25	11.76	576.19	11.39	576.56
MW031S	11.85	577.02	12.01	576.86	11.29	577.58	11.10	577.77	11.87	577.00	11.86	577.01	12.17	576.70	12.32	576.55	12.66	576.21	12.69	576.18	12.87	576.00	12.97	575.90	12.56	576.31
MW113S	13.05	577.21	13.28	576.98	12.63	577.63	12.44	577.82	13.12	577.14	13.07	577.19	13.43	576.83	13.52	576.74	13.78	576.48	13.88	576.38	14.06	576.20	14.16	576.10	13.83	576.43
MW113M	11.14	579.09	11.33	578.90	10.96	579.27	10.85	579.38	11.21	579.02	11.18	579.05	11.33	578.90	11.44	578.79	11.59	578.64	11.72	578.51	11.87	578.36	11.97	578.26	11.79	578.44
MW115P	11.31	577.76	11.69	577.38	11.25	577.82	11.08	577.99	11.48	577.59	11.51	577.56	11.81	577.26	11.97	577.10	12.14	576.93	12.36	576.71	12.55	576.52	12.65	576.42	12.40	576.67
MW115S	11.95	577.01	12.14	576.82	11.40	577.56	11.26	577.70	11.98	576.98	11.95	577.01	12.29	576.67	12.39	576.57	12.76	576.20	12.79	576.17	13.02	575.94	13.08	575.88	12.70	576.26
MW116P	11.45	578.40	11.57	578.28	11.66	578.19	11.69	578.16	11.63	578.22	11.62	578.23	11.77	578.08	11.86	577.99	11.86	577.99	12.01	577.84	12.24	577.61	12.32	577.53	12.43	577.42
MW116S	12.83	577.00	13.05	576.78	12.39	577.44	12.11	577.72	12.89	576.94	12.85	576.98	13.20	576.63	13.28	576.55	13.72	576.11	13.70	576.13	13.85	575.98	14.01	575.82	13.63	576.20
MW119D	13.41	575.31	12.79	575.93	12.22	576.50	11.60	577.12	11.33	577.39	11.89	576.83	11.93	576.79	11.32	577.40	10.83	577.89	11.33	577.39	9.83	578.89	9.51	579.21	9.36	579.36
EW-3	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-10	9.94	577.11	10.14	576.91	9.43	577.62	9.32	577.73	9.97	577.08	9.92	577.13	10.28	576.77	10.45	576.60	10.62	576.43	10.75	576.30	10.99	576.06	11.04	576.01	10.70	576.35
EW-11	8.68	578.00	8.93	577.75	8.42	578.26	8.21	578.47	8.78	577.90	8.80	577.88	9.07	577.61	9.16	577.52	9.42	577.26	9.53	577.15	9.73	576.95	9.80	576.88	9.51	577.17
EW-13	8.08	577.03	8.14	576.97	7.57	577.54	7.38	577.73	7.96	577.15	7.91	577.20	8.29	576.82	8.49	576.62	8.68	576.43	8.82	576.29	9.06	576.05	9.10	576.01	8.71	576.40
EW-14	9.02	577.05	9.20	576.87	8.48	577.60	8.27	577.81	9.02	577.05	8.97	577.11	9.32	576.75	9.49	576.58	9.80	576.27	8.94	577.14	10.12	575.95	10.15	575.92	9.76	576.31
Wells Inside Former 8th Street Slip																										
MW034M	11.03	577.19	11.03	577.19	10.57	577.65	10.76	577.46	10.85	577.37	10.68	577.54	10.74	577.48	10.77	577.45	10.68	577.54	10.70	577.52	10.72	577.50	11.02	577.20	10.14	578.08
MW034S	11.15	577.03	11.15	577.03	10.74	577.44	10.81	577.37	10.96	577.22	10.77	577.41	10.85	577.33	10.90	577.28	10.77	577.41	10.74	577.44	10.84	577.34	11.10	577.08	10.39	577.79
MW036M	11.26	577.26	11.19	577.33	11.05	577.47	11.01	577.51	11.09	577.43	10.95	577.57	10.95	577.57	10.98	577.54	10.90	577.62	10.90	577.62	10.97	577.55	11.01	577.51	10.90	577.62
MW036S	10.72	577.53	10.66	577.59	10.50	577.75	10.43	577.82	10.53	577.72	10.32	577.93	10.43	577.82	10.42	577.83	10.33	577.92	10.34	577.91	10.42	577.83	10.48	577.77	10.34	577.91
MW038M	8.39	577.75	8.28	577.86	8.21	577.93	8.12	578.02	8.12	578.02	8.01	578.13	8.09	578.05	8.08	578.06	7.93	578.21	8.00	578.14	8.08	578.06	8.08	578.06	8.10	578.04
MW038S	10.04	577.79	9.92	577.91	9.86	577.97	9.75	578.08	9.80	578.03	9.64	578.19	9.73	578.10	9.70	578.13	9.62	578.21	9.63	578.20	9.74	578.09	9.78	578.05	9.76	578.07
MW120D	8.22	580.57	8.22	580.57	8.13	580.66	8.32	580.47	8.18	580.61	8.21	580.58	8.21	580.58	8.00	580.79	8.25	580.54	8.04	580.75	8.27	580.52	8.27	580.52	8.12	580.67
MW120M	11.68	577.23	11.72	577.19	11.55	577.36	11.53	577.38	11.59	577.32	11.42	577.49	11.46	577.45	11.58	577.33	11.45	577.46	11.44	577.47	11.48	577.43	11.56	577.35	11.41	577.50
MW120S	10.79	577.73	10.90	577.62	10.88	577.64	10.70	577.82	10.74	577.78	10.60	577.92	10.65	577.87	10.71	577.81	10.63	577.89	10.68	577.84	10.69	577.83	10.77	577.75	10.78	577.74
EW-2	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
EW-8	6.62	577.48	6.44	577.66	6.35	577.75	6.28	577.82	6.28	577.82	6.81	577.29	6.19	577.91	6.21	577.89	6.17	577.93	6.05	578.05	6.22	577.88	7.55	576.55	6.23	577.87
EW-9	9.68	573.68	9.69	573.67	9.14	574.22	9.49	573.87	9.19	574.17	9.58	573.78	8.99	574.37	9.11	574.25	8.93	574.43	8.73	574.63	9.01	574.35	9.72	573.64	5.62	577.75
Wells Outside Pump Down Program Area																										
MW004M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW004S	5.03	583.71	5.20	583.54	4.29	584.45	5.38	583.36	5.24	583.50	5.30	583.44	5.14	583.60	5.27	583.47	5.38	583.36	5.58	583.16	5.60	583.14	5.78	582.96	5.92	582.82
MW032M	6.03	582.28	6.25	582.06	6.17	582.14	5.32	582.99	6.12	582.19	6.22	582.09	6.02	582.29	6.21	582.10	6.25	582.06	6.42	581.89	6.41	581.90	6.59	581.72	6.62	581.69
MW032S	4.98	583.51	5.21	583.28	5.19	583.30	6.28	582.20	5.05	583.44	5.20	583.29	5.00	583.49	5.26	583.23	5.26	583.23	5.52	582.97	5.45	583.04	5.67	582.82	5.86	582.63
MW033M	3.68	583.71	3.87	583.52	3.93	583.46	4.22	583.17	4.11	583.28	4.13	583.26	3.95	583.44	4.17	583.22	4.21	583.18	4.42	582.97	4.48	582.91	4.65	582.74	4.78	582.61
MW033S	3.87	583.45	4.05	583.27	4.15	583.17	4.05	583.27	3.84	583.48	3.95	583.37	3.76	583.56	3.96	583.36	4.02	583.30	4.25	583.07	4.29	583.03	4.68	582.64	4.61	582.71
MW039M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW039S	2.46	583.74	2.63	583.57	2.72	583.48	2.81	583.39	2.67	583.53	2.72	583.48	2.56	583.64	2.68	583.52	2.80	583.40	3.01	583.19	3.02	583.18	3.22	582.98	3.35	582.85
MW035M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW035S	6.69	580.96	7.34	580.31	7.08	580.57	7.44	580.21	6.38	581.27	7.05	580.60	6.09	581.56	6.59	581.06	6.89	580.76	7.54	580.11	7.38	580.27	7.80	579.85	7.98	579.67
MW037M	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-	NM	-
MW037S	6.05	581.02	6.78	580.28	6.55	580.52	6.99	580.07	5.69	581.38	6.48	580.59	6.37	580.70	5.94	581.13	6.25	580.82	6.99	580.07	6.82	580.24	7.24	579.82	7.45	579.61
SG4	6.17	581.28	7.20	580.25	7.07	580.38	6.90	580.55	5.20	582.25	7.07	580.38	7.90	579.55	7.96	579.49	7.30	580.15	6.90	580.55	7.20	580.25	7.90	579.55	7.10	580.35
Target Elevation Calc SV		577.32		577.13		577.79		577.95		577.28		577.31		576.99		576.87		576.59		576.52		576.31		576.23		576.57
Target Elevation Calc 8SS		577.44		577.46		577.65		578.06		577.61		577.77		577.71		577.68		577.78		577.77		577.70		577.60		577.84
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		-0.58		-0.77		-0.11		0.05		-0.62		-0.59		-0.91		-1.03		-1.31		-1.38		-1.59		-1.67		-1.33
8SS Variance		-0.46		-0.44		-0.25		-0.22		-0.29		-0.13		-0.19		-0.22		-0.12		-0.13		-0.20		-0.30		-0.06

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

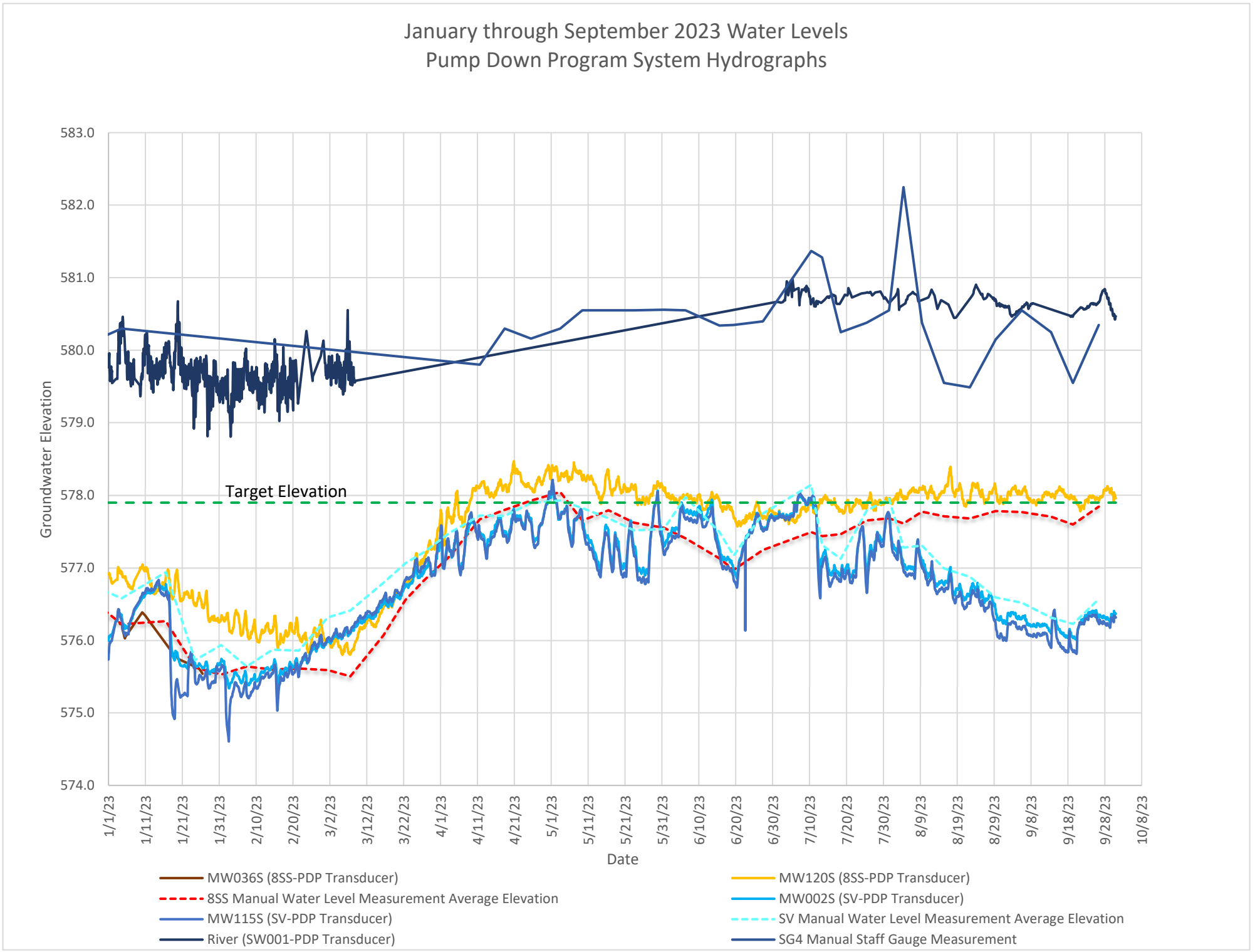
Area Definitions - SV - former Salt Vault, 8SS - former 8th Street Slip

Corrected groundwater elevation is calculated using the 2022 calculated mean conductivity value (from the last 5 years of data)

ID = identification; DTW = depth to water

NM = Not Measured; MW = Monitoring Well

Attachment 5
2023 PDP System Hydrographs


January through September 2023 Water Levels
Pump Down Program System Hydrographs
Groundwater Elevation
583.0
582.0
581.0
580.0
579.0
578.0
577.0
576.0
575.0
574.0
Target Elevation
1/1/23
1/11/23
1/21/23
1/31/23
2/10/23
2/20/23
3/2/23
3/12/23
3/22/23
4/1/23
4/11/23
4/21/23
5/1/23
5/11/23
5/21/23
5/31/23
6/10/23
6/20/23
6/30/23
7/10/23
7/20/23
7/30/23
8/9/23
8/19/23
8/29/23
9/8/23
9/18/23
9/28/23
10/8/23
Date
MW036S (8SS-PDP Transducer)
8SS Manual Water Level Measurement Average Elevation
MW115S (SV-PDP Transducer)
River (SW001-PDP Transducer)
MW120S (8SS-PDP Transducer)
MW002S (SV-PDP Transducer)
SV Manual Water Level Measurement Average Elevation
SG4 Manual Staff Gauge Measurement

Attachment 6
MW105 Monitoring Well Nest Abandonment, Installation, and Development Logs

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☒ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #	Boring
Marinette	VV568		MW-105D

Latitude / Longitude (see instructions): 45.09803 N / 87.61693 W
Format Code: ☒ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #		10	31 N	27 ☐ E ☒ W

Well Street Address: One Stanton Street
Well City, Village or Town: City of Marinette
Well ZIP Code: 54143
Subdivision Name:
Lot #:
Reason for Removal from Service: Construction
WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Tyco Fire Products LP
Facility ID (FID or PWS):
License/Permit/Monitoring #:
Original Well Owner: Tyco Fire Products LP
Present Well Owner: Tyco Fire Products LP
Mailing Address of Present Owner: One Stanton Street

City of Present Owner	State	ZIP Code
Marinette	WI	54143

3. Filled & Sealed Well / Drillhole / Borehole Information

☒ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 05/24/2011
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug ☒ Other (specify): Rotosonic

Formation Type:
☒ Unconsolidated Formation ☒ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
42	2.0
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2.0	42

Was well annular space grouted? ☒ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
34	0.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☒ No	☐ N/A
Casing left in place?	☒ Yes	☐ No	☐ N/A
Was casing cut off below surface?	☒ Yes	☐ No	☐ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☐ No	☒ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☒ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☒ ~~Bentonite~~ - Cement Grout
☐ Granular Bentonite ☒ ~~Bentonite~~ - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt Patch	Surface	0.5	<1 bag	
Cement / Sand Slurry	0.5	42	15 gallons	47 /1

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Horizon Construction and Exploration, LLC		07/25/2022

Street or Route	Telephone Number
764 Tower Drive	(262) 692-3348

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Fredonia	WI	53021	for Horizon	7/29/22

DNR Use Only

Date Received	Noted By
Comments	

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☒ Verification Only of Fill and Seal

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other:

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #	Boring
Marinette	VV567		MW-105M

Latitude / Longitude (see instructions): 45.09803 N, 87.61693 W
Format Code: ☒ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #		10	31 N	27 ☐ E ☒ W

Well Street Address: One Stanton Street
Well City, Village or Town: City of Marinette
Well ZIP Code: 54143
Subdivision Name:
Lot #:
Reason for Removal from Service: Construction
WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Tyco Fire Products LP
Facility ID (FID or PWS):
License/Permit/Monitoring #:
Original Well Owner: Tyco Fire Products LP
Present Well Owner: Tyco Fire Products LP
Mailing Address of Present Owner: One Stanton Street

City of Present Owner	State	ZIP Code
Marinette	WI	54143

3. Filled & Sealed Well / Drillhole / Borehole Information

☒ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 05/24/2011
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Rotosonic

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
30	2.0
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2.0	30

Was well annular space grouted? ☒ Yes ☐ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
22	0.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☒ No	☐ N/A
Casing left in place?	☒ Yes	☐ No	☐ N/A
Was casing cut off below surface?	☒ Yes	☐ No	☐ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☐ No	☒ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☒ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☒ ~~Bentonite~~ - Cement Grout
☐ Granular Bentonite ☒ ~~Bentonite~~ Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt Patch	Surface	0.5	<1 bag	
Cement / Sand Slurry	0.5	30	10 gallons	47 /1

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Horizon Construction and Exploration, LLC		07/25/2022

Street or Route	Telephone Number
764 Tower Drive	(262) 692-3348

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Fredonia	WI	53021	for Horizon	7/29/22

DNR Use Only

Date Received	Noted By
Comments	

State of Wis., Dept. of Natural Resources
dnr.wi.gov

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between $10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

☒ **Verification Only of Fill and Seal**

Route to DNR Bureau:
☐ Drinking Water ☐ Watershed/Wastewater ☒ Remediation/Redevelopment
☐ Waste Management ☐ Other: _____

1. Well Location Information

County	WI Unique Well # of Removed Well	Hicap #	Boring
Marinette	VV556	MW-105S	

Latitude / Longitude (see instructions): 45.09803 N, 87.61693 W
Format Code: ☒ DD ☐ DDM
Method Code: ☐ GPS008 ☐ SCR002 ☐ OTH001

¼ / ¼	¼	Section	Township	Range
or Gov't Lot #		10	31 N	27 ☐ E ☒ W

Well Street Address: One Stanton Street
Well City, Village or Town: City of Marinette
Well ZIP Code: 54143
Subdivision Name:
Lot #:
Reason for Removal from Service: Construction
WI Unique Well # of Replacement Well:

2. Facility / Owner Information

Facility Name: Tyco Fire Products LP
Facility ID (FID or PWS):
License/Permit/Monitoring #:
Original Well Owner: Tyco Fire Products LP
Present Well Owner: Tyco Fire Products LP
Mailing Address of Present Owner: One Stanton Street
City of Present Owner: Marinette
State: WI
ZIP Code: 54143

3. Filled & Sealed Well / Drillhole / Borehole Information

☒ Monitoring Well ☐ Water Well ☐ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 05/24/2011
If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): Rotosonic

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
15	2.0
Lower Drillhole Diameter (in.)	**Casing Depth (ft.)**
2.0	15

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

If yes, to what depth (feet)?	Depth to Water (feet)
N/A	0.5

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	☐ Yes	☐ No	☒ N/A
Liner(s) removed?	☐ Yes	☐ No	☒ N/A
Liner(s) perforated?	☐ Yes	☐ No	☒ N/A
Screen removed?	☐ Yes	☒ No	☐ N/A
Casing left in place?	☒ Yes	☐ No	☐ N/A
Was casing cut off below surface?	☒ Yes	☐ No	☐ N/A
Did sealing material rise to surface?	☒ Yes	☐ No	☐ N/A
Did material settle after 24 hours?	☐ Yes	☒ No	☐ N/A
If yes, was hole retopped?	☐ Yes	☐ No	☒ N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	☐ Yes	☐ No	☒ N/A

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☒ Conductor Pipe-Pumped
☐ Screened & Poured (Bentonite Chips) ☐ Other (Explain): _____

Sealing Materials
☐ Neat Cement Grout ☐ Concrete
☒ Sand-Cement (Concrete) Grout ☐ Bentonite Chips

For Monitoring Wells and Monitoring Well Boreholes Only:
☐ Bentonite Chips ☒ ~~Bentonite~~ - Cement Grout
☐ Granular Bentonite ☒ ~~Bentonite~~ - Sand Slurry

5. Material Used to Fill Well / Drillhole

	From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Asphalt Patch	Surface	0.5	<1 bag	
Cement / Sand Slurry	0.5	15	5 gallons	47 /1

6. Comments

7. Supervision of Work

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)
Horizon Construction and Exploration, LLC		07/25/2022

Street or Route	Telephone Number
764 Tower Drive	(262) 692-3348

City	State	ZIP Code	Signature of Person Doing Work	Date Signed
Fredonia	WI	53021	for Horizon	7/29/22

DNR Use Only

Date Received	Noted By

Comments:

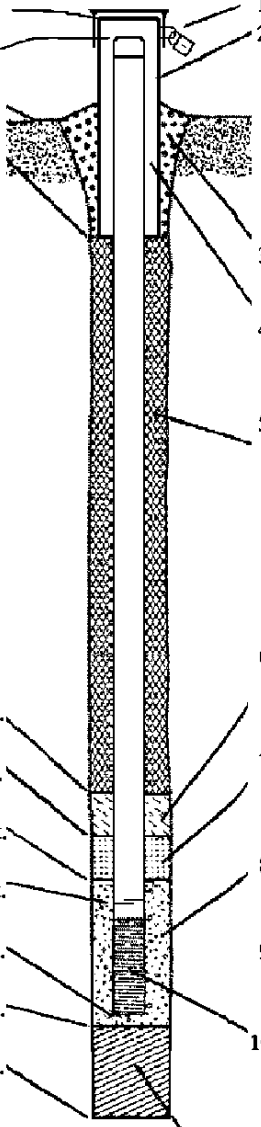
State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Tyco Fire Protection Products LP	**Local Grid Location of Well** ☐ N. _____ ft. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name** MW-105D-R
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or	**Wis. Unique Well No.** WD402 **DNR Well ID No.**
Facility ID	St. Plane _____ ft. N, _____ ft. E. S/C/N	**Date Well Installed** 07 / 26 / 2023 (m m / d d / y y y y)
Type of Well Well Code 12 / PZ	**Section Location of Waste/Source** _____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ ☐ E ☐ W	**Well Installed By: Name (first, last) and Firm** Adam Sweet Horizon Construction & Exploration
Distance from Waste/ Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number**



A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or 1.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☒

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Roto Sonic Other ☐

15. Drilling fluid used: Water ☒ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☐ 99

16. Drilling additives used? ☐ Yes ☒ No
Describe _____

17. Source of water (attach analysis, if required):
City of Marrinette Municipal Water

E. Bentonite seal, top _____ ft. MSL or 1.5 ft.

F. Fine sand, top _____ ft. MSL or 34.0 ft.

G. Filter pack, top _____ ft. MSL or 35.0 ft.

H. Screen joint, top _____ ft. MSL or 37.0 ft.

I. Well bottom _____ ft. MSL or 42.0 ft.

J. Filter pack, bottom _____ ft. MSL or 42.0 ft.

K. Borehole, bottom _____ ft. MSL or 42.0 ft.

L. Borehole, diameter 6.00 in.

M. O.D. well casing 2.375 in.

N. I.D. well casing 2.067 in.

1. Cap and lock? ☒ Yes ☐ No
2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 2 ft.
c. Material: Steel ☒ 04
Other ☐
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____
3. Surface seal: Bentonite ☐ 30
Concrete ☒ 01
Other ☐
4. Material between well casing and protective pipe:
Bentonite ☐ 30
Cement Grout Other ☐
5. Annular space seal: a. Granular/Chipped Bentonite ☐ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☒ 50
e. 32 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08
6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐
7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15
b. Volume added 1.0 ft^3
8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40
b. Volume added 7.0 ft^3
9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐
10. Screen material: PVC schedule 40
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐
b. Manufacturer Johnson Screens
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.
11. Backfill material (below filter pack): None ☒ 14
Other ☐

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
	Endpoint Solutions Corporation

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Tyco Fire Protection Products LP	**Local Grid Location of Well** ☐ N. _____ ft. ☐ S. _____ ft. ☐ E. ☐ W.		**Well Name** MW-105M-R
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or		**Wis. Unique Well No.** WD401
DNR Well ID No.			___ ___ ___
Facility ID	**St. Plane** _____ ft. N, _____ ft. E. S/C/N		**Date Well Installed** 07 / 26 / 2023 m m d d y y y y
Type of Well Well Code 12 / PZ	**Section Location of Waste/Source** ___ 1/4 of ___ 1/4 of Sec, ___ T. ___ N, R. ___ ☐ E ☐ W		**Well Installed By: Name (first, last) and Firm** Adam Sweet Horizon Construction & Exploration
Distance from Waste/ Source _____ ft. **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number**	

A. Protective pipe, top elevation _____ ft. MSL

B. Well casing, top elevation _____ ft. MSL

C. Land surface elevation _____ ft. MSL

D. Surface seal, bottom _____ ft. MSL or 1.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☐ SP ☐
SM ☐ SC ☐ ML ☒ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐ ___

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top _____ ft. MSL or 1.5 ft.

F. Fine sand, top _____ ft. MSL or 22.0 ft.

G. Filter pack, top _____ ft. MSL or 23.0 ft.

H. Screen joint, top _____ ft. MSL or 25.0 ft.

I. Well bottom _____ ft. MSL or 30.0 ft.

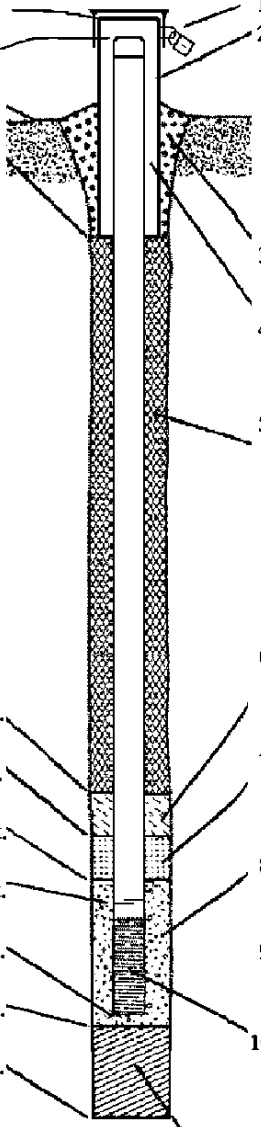
J. Filter pack, bottom _____ ft. MSL or 30.5 ft.

K. Borehole, bottom _____ ft. MSL or 30.5 ft.

L. Borehole, diameter 8.25 in.

M. O.D. well casing 2.375 in.

N. I.D. well casing 2.067 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: 8 in.
b. Length: 2 ft.
c. Material: Steel ☒ 04
Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☒ 30
Concrete ☐ 01
Other ☐ ___

4. Material between well casing and protective pipe:
Bentonite ☒ 30
Other ☐ ___

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 20 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15
b. Volume added 1.0 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40
b. Volume added 12.0 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐ ___

10. Screen material: PVC schedule 40
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ ___
b. Manufacturer Johnson Screens
c. Slot size: 0.010 in.
d. Slotted length: 5 ft.

11. Backfill material (below filter pack): None ☒ 14
Other ☐ ___

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
	Endpoint Solutions Corporation

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State of Wisconsin
Department of Natural Resources

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

MONITORING WELL CONSTRUCTION

Form 4400-113A Rev. 7-98

Facility/Project Name Tyco Fire Protection Products LP	**Local Grid Location of Well** ☐ N. _____ ft. ☐ S. _____ ft. ☐ E. ☐ W.	**Well Name** MW-105S-R
Facility License, Permit or Monitoring No.	**Local Grid Origin** ☐ (estimated: ☐) or **Well Location** ☐ Lat. ___ ° ___ ' ___ " Long. ___ ° ___ ' ___ " or	**Wis. Unique Well No.** WD400
Facility ID _ _ _ _ _ _ _ _ _	**St. Plane** _____ ft. N, _____ ft. E. S/C/N	**DNR Well ID No.** _ _ _
Type of Well Well Code 11 / MW	**Section Location of Waste/Source** _____ 1/4 of _____ 1/4 of Sec. _____, T. _____ N, R. _____ ☐ E. ☐ W.	**Date Well Installed** 07 / 26 / 2023 m m d d y y y y
Distance from Waste/ Source _____ ft. / **Enf. Stds. Apply** ☐	**Location of Well Relative to Waste/Source** u ☐ Upgradient s ☐ Sidegradient d ☐ Downgradient n ☐ Not Known	**Gov. Lot Number** _____
		Well Installed By: Name (first, last) and Firm Adam Sweet Horizon Construction & Exploration

A. Protective pipe, top elevation _ _ _ _ _ _ ft. MSL

B. Well casing, top elevation _ _ _ _ _ _ ft. MSL

C. Land surface elevation _ _ _ _ _ _ ft. MSL

D. Surface seal, bottom _ _ _ _ _ _ ft. MSL or _ _ 1.5 ft.

12. USCS classification of soil near screen:
GP ☐ GM ☐ GC ☐ GW ☐ SW ☒ SP ☐
SM ☐ SC ☐ ML ☐ MH ☐ CL ☐ CH ☐
Bedrock ☐

13. Sieve analysis performed? ☐ Yes ☒ No

14. Drilling method used: Rotary ☐ 50
Hollow Stem Auger ☒ 41
Other ☐ ___

15. Drilling fluid used: Water ☐ 02 Air ☐ 01
Drilling Mud ☐ 03 None ☒ 99

16. Drilling additives used? ☐ Yes ☒ No

Describe _____

17. Source of water (attach analysis, if required):

E. Bentonite seal, top _ _ _ _ _ _ ft. MSL or _ _ 1.5 ft.

F. Fine sand, top _ _ _ _ _ _ ft. MSL or _ _ 3.0 ft.

G. Filter pack, top _ _ _ _ _ _ ft. MSL or _ _ 4.0 ft.

H. Screen joint, top _ _ _ _ _ _ ft. MSL or _ _ 5.0 ft.

I. Well bottom _ _ _ _ _ _ ft. MSL or _ _ 15.0 ft.

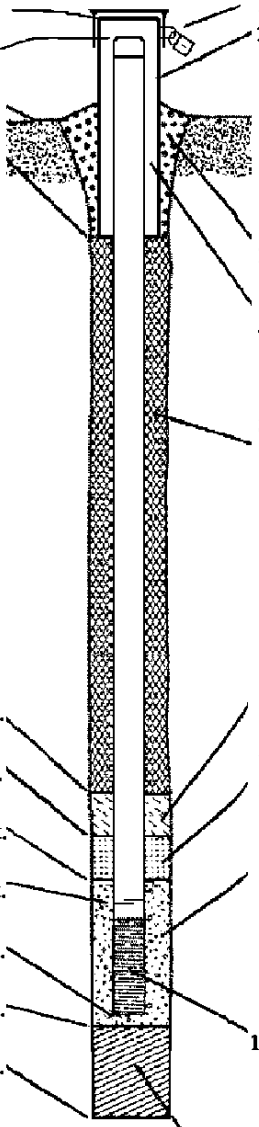
J. Filter pack, bottom _ _ _ _ _ _ ft. MSL or _ _ 15.5 ft.

K. Borehole, bottom _ _ _ _ _ _ ft. MSL or _ _ 15.5 ft.

L. Borehole, diameter 8.25 in.

M. O.D. well casing 2.375 in.

N. I.D. well casing 2.067 in.



1. Cap and lock? ☒ Yes ☐ No

2. Protective cover pipe:
a. Inside diameter: _ _ 8 in.
b. Length: _ _ 2 ft.
c. Material: Steel ☒ 04
Other ☐ ___
d. Additional protection? ☐ Yes ☐ No
If yes, describe: _____

3. Surface seal: Bentonite ☒ 30
Concrete ☐ 01
Other ☐ ___

4. Material between well casing and protective pipe:
Bentonite ☒ 30
Other ☐ ___

5. Annular space seal: a. Granular/Chipped Bentonite ☒ 33
b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry ☐ 35
c. _____ Lbs/gal mud weight . . . . . Bentonite slurry ☐ 31
d. _____ % Bentonite . . . . . Bentonite-cement grout ☐ 50
e. 1.5 Ft^3 volume added for any of the above
f. How installed: Tremie ☐ 01
Tremie pumped ☐ 02
Gravity ☒ 08

6. Bentonite seal: a. Bentonite granules ☒ 33
b. ☐ 1/4 in. ☒ 3/8 in. ☐ 1/2 in. Bentonite chips ☒ 32
c. _____ Other ☐ ___

7. Fine sand material: Manufacturer, product name & mesh size
a. Red Flint #15
b. Volume added 1.0 ft^3

8. Filter pack material: Manufacturer, product name & mesh size
a. Red Flint #40
b. Volume added 11.5 ft^3

9. Well casing: Flush threaded PVC schedule 40 ☒ 23
Flush threaded PVC schedule 80 ☐ 24
Other ☐ ___

10. Screen material: PVC schedule 40
a. Screen type: Factory cut ☒ 11
Continuous slot ☐ 01
Other ☐ ___
b. Manufacturer Johnson Screens
c. Slot size: 0.010 in.
d. Slotted length: _ _ 10 ft.

11. Backfill material (below filter pack): None ☒ 14
Other ☐ ___

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Firm
	Endpoint Solutions Corporation

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between $10 and $25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Tyco Fire Protection Products LP	Marinette	MW-105D-R

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	38	WD402	

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☒ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 60 min.

4. Depth of well (from top of well casisng) 408. ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 348. gal.

7. Volume of water removed from well 500. gal.

8. Volume of water added (if any) ___. gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☒ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 148. ft.	401.1 ft.
Date	b. 07/27/2023 (m m d d y y y y)	07/27/2023 (m m d d y y y y)
Time	c. 14:18 ☐ a.m. ☒ p.m.	16:35 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	4.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Brown / Very turbid	Clear ☐ 20 Turbid ☒ 25 (Describe) Slightly Gray and turbid

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____. mg/l	____. mg/l
15. COD	____. mg/l	____. mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ryan Last Name: Johnson
Firm: Endpoint Solutions Corporation

17. Additional comments on development:
Well was purged dry three times.

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: Ryan Johnson
Firm: Endpoint Solutions Corporation

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Tyco Fire Protection Products LP	Marinette	MW-105M-R

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	38	WD401	

1. Can this well be purged dry? ☒ Yes ☐ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☒ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 70 min.

4. Depth of well (from top of well casisng) 296. ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 250. gal.

7. Volume of water removed from well 420. gal.

8. Volume of water added (if any) ____. gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☒ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 149. ft.	2907. ft.
Date	b. 07/27/2023 (m m d d y y y y)	07/27/2023 (m m d d y y y y)
Time	c. 14:12 ☐ a.m. ☒ p.m.	16:30 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	4.0 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Black / Very turbid	Clear ☐ 20 Turbid ☒ 25 (Describe) Slightly Gray and turbid

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____. mg/l	____. mg/l
15. COD	____. mg/l	____. mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ryan Last Name: Johnson
Firm: Endpoint Solutions Corporation

17. Additional comments on development:
Well was purged dry three times.

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: Ryan Johnson
Firm: Endpoint Solutions Corporation

NOTE: See instructions for more information including a list of county codes and well type codes.

State of Wisconsin
Department of Natural Resources

MONITORING WELL DEVELOPMENT

Form 4400-113B Rev. 7-98

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ _____

Facility/Project Name	County Name	Well Name
Tyco Fire Protection Products LP	Marinette	MW-105S-R

Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number	DNR Well ID Number
	38	WD400	

1. Can this well be purged dry? ☐ Yes ☒ No

2. Well development method

surged with bailer and bailed	☐ 41
surged with bailer and pumped	☒ 61
surged with block and bailed	☐ 42
surged with block and pumped	☐ 62
surged with block, bailed and pumped	☐ 70
compressed air	☐ 20
bailed only	☐ 10
pumped only	☐ 51
pumped slowly	☐ 50
Other _____	☐

3. Time spent developing well 35 min.

4. Depth of well (from top of well casisng) 146. ft.

5. Inside diameter of well 2.00 in.

6. Volume of water in filter pack and well casing 122. gal.

7. Volume of water removed from well 350. gal.

8. Volume of water added (if any) ____. gal.

9. Source of water added _____

10. Analysis performed on water added? (If yes, attach results) ☐ Yes ☒ No

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 053. ft.	085. ft.
Date	b. 07/27/2023 (m m d d y y y y)	07/27/2023
Time	c. 14:05 ☐ a.m. ☒ p.m.	14:49 ☐ a.m. ☒ p.m.
12. Sediment in well bottom	5.5 inches	0.0 inches
13. Water clarity	Clear ☐ 10 Turbid ☒ 15 (Describe) Black / Very turbid	Clear ☐ 20 Turbid ☐ 25 (Describe) Clear

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids	____. mg/l	____. mg/l
15. COD	____. mg/l	____. mg/l

16. Well developed by: Name (first, last) and Firm
First Name: Ryan Last Name: Johnson
Firm: Endpoint Solutions Corporation

17. Additional comments on development:

Name and Address of Facility Contact /Owner/Responsible Party
First Name: _____ Last Name: _____
Facility/Firm: _____
Street: _____
City/State/Zip: _____

I hereby certify that the above information is true and correct to the best of my knowledge.
Signature: _____
Print Name: Ryan Johnson
Firm: Endpoint Solutions Corporation

NOTE: See instructions for more information including a list of county codes and well type codes.

Attachment 7
Coal Dock Area Paving Waste Characterization Laboratory Report and Soil Management Photo Log

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ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kirk Kapfhammer
Endpoint Solutions Corp
6871 S. Lover's Lane
Franklin, Wisconsin 53132

Generated 9/5/2023 7:19:38 AM

JOB DESCRIPTION

Tyco Fire Products LP RUSH

JOB NUMBER

500-238644-2

Eurofins Chicago
2417 Bond Street
University Park IL 60484

See page two for job notes and contact information.

Job Notes

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to the NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. This report is confidential and is intended for the sole use of Eurofins Environment Testing North Central, LLC and its client. All questions regarding this report should be directed to the Eurofins Environment Testing North Central, LLC Project Manager who has signed this report.

Results relate only to the items tested and the sample(s) as received by the laboratory. The results, detection limits (LOD) and Quantitation Limits (LOQ) have been adjusted for sample dilutions and/or solids content.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

Authorization

Generated
9/5/2023 7:19:38 AM

Authorized for release by
Sandie Fredrick, Project Manager II
Sandra.Fredrick@et.eurofinsus.com
(920)261-1660

Table of Contents

Case Narrative

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Job ID: 500-238644-2

Laboratory: Eurofins Chicago

Narrative

Job Narrative
500-238644-2

Receipt
The samples were received on 8/25/2023 9:50 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Endpoint Solutions Corp
Job ID: 500-238644-2
Project/Site: Tyco Fire Products LP RUSH

Client Sample ID: Coal Dock WC
Lab Sample ID: 500-238644-1

No Detections.

Client Sample ID: Coal Dock WC Dup1
Lab Sample ID: 500-238644-2

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Method	Method Description	Protocol	Laboratory
6010D	Metals (ICP)	SW846	EET DEN
1311	TCLP Extraction	SW846	EET DEN
3010A	Preparation, Total Metals	SW846	EET DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-238644-1	Coal Dock WC	Solid	08/22/23 13:00	08/25/23 09:50
500-238644-2	Coal Dock WC Dup1	Solid	08/22/23 13:00	08/25/23 09:50

Client Sample Results

Client: Endpoint Solutions Corp
Job ID: 500-238644-2
Project/Site: Tyco Fire Products LP RUSH

Client Sample ID: Coal Dock WC
Lab Sample ID: 500-238644-1

Date Collected: 08/22/23 13:00
Matrix: Solid
Date Received: 08/25/23 09:50

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.022		0.075	0.022	mg/L		08/30/23 14:35	09/01/23 07:52	1

Client Sample Results

Client: Endpoint Solutions Corp
Job ID: 500-238644-2
Project/Site: Tyco Fire Products LP RUSH

Client Sample ID: Coal Dock WC Dup1
Lab Sample ID: 500-238644-2
Date Collected: 08/22/23 13:00
Matrix: Solid
Date Received: 08/25/23 09:50

Method: SW846 6010D - Metals (ICP) - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.022		0.075	0.022	mg/L		08/30/23 14:35	09/01/23 07:56	1

Definitions/Glossary

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Metals

Leach Batch: 624507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238644-1	Coal Dock WC	TCLP	Solid	1311	
500-238644-2	Coal Dock WC Dup1	TCLP	Solid	1311	
LB 280-624507/1-B	Method Blank	TCLP	Solid	1311	
LCS 280-624507/2-B	Lab Control Sample	TCLP	Solid	1311	

Prep Batch: 624684

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238644-1	Coal Dock WC	TCLP	Solid	3010A	624507
500-238644-2	Coal Dock WC Dup1	TCLP	Solid	3010A	624507
LB 280-624507/1-B	Method Blank	TCLP	Solid	3010A	624507
LCS 280-624507/2-B	Lab Control Sample	TCLP	Solid	3010A	624507

Analysis Batch: 624993

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-238644-1	Coal Dock WC	TCLP	Solid	6010D	624684
500-238644-2	Coal Dock WC Dup1	TCLP	Solid	6010D	624684
LB 280-624507/1-B	Method Blank	TCLP	Solid	6010D	624684
LCS 280-624507/2-B	Lab Control Sample	TCLP	Solid	6010D	624684

QC Sample Results

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Method: 6010D - Metals (ICP)

Lab Sample ID: LB 280-624507/1-B
Matrix: Solid
Analysis Batch: 624993

Client Sample ID: Method Blank
Prep Type: TCLP
Prep Batch: 624684

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.022		0.075	0.022	mg/L		08/30/23 14:35	09/01/23 07:23	1

Lab Sample ID: LCS 280-624507/2-B
Matrix: Solid
Analysis Batch: 624993

Client Sample ID: Lab Control Sample
Prep Type: TCLP
Prep Batch: 624684

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Arsenic			8.00	7.69		mg/L		96	80 - 118		

Lab Chronicle

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Client Sample ID: Coal Dock WC

Lab Sample ID: 500-238644-1

Date Collected: 08/22/23 13:00
Matrix: Solid
Date Received: 08/25/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			624507	DFB1	EET DEN	08/28/23 16:24
TCLP	Prep	3010A			624684	MSM	EET DEN	08/30/23 14:35
TCLP	Analysis	6010D		1	624993	BN	EET DEN	09/01/23 07:52

Client Sample ID: Coal Dock WC Dup1

Lab Sample ID: 500-238644-2

Date Collected: 08/22/23 13:00
Matrix: Solid
Date Received: 08/25/23 09:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
TCLP	Leach	1311			624507	DFB1	EET DEN	08/28/23 16:24
TCLP	Prep	3010A			624684	MSM	EET DEN	08/30/23 14:35
TCLP	Analysis	6010D		1	624993	BN	EET DEN	09/01/23 07:56

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Accreditation/Certification Summary

Client: Endpoint Solutions Corp
Project/Site: Tyco Fire Products LP RUSH

Job ID: 500-238644-2

Laboratory: Eurofins Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-23
A2LA	ISO/IEC 17025	2907.01	10-31-23
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-10-24
Arizona	State	AZ0713	12-20-23
Arkansas DEQ	State	19-047-0	05-31-23 *
California	State	2513	01-09-24
Connecticut	State	PH-0686	09-30-24
Florida	NELAP	E87667-57	06-30-23 *
Georgia	State	4025-011	01-08-24
Illinois	NELAP	2000172019-1	04-30-24
Iowa	State	370	12-01-24
Kansas	NELAP	E-10166	04-30-24
Kentucky (WW)	State	KY98047	12-31-23
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-23 *
Louisiana (All)	NELAP	30785	06-30-24
Minnesota	NELAP	1788752	12-31-23
Nevada	State	CO000262020-1	07-31-24
New Hampshire	NELAP	2053	04-28-24
New Jersey	NELAP	230001	06-30-24
New York	NELAP	59923	03-31-24
North Carolina (WW/SW)	State	358	12-31-23
North Dakota	State	R-034	01-08-24
Oregon	NELAP	4025-019	01-08-24
Pennsylvania	NELAP	013	07-31-24
South Carolina	State	72002001	01-08-24
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-21-19	09-30-23
USDA	US Federal Programs	P330-20-00065	12-19-25
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-23 *
Virginia	NELAP	12037	06-14-23 *
Washington	State	C583-19	08-03-23 *
West Virginia DEP	State	354	11-30-23
Wyoming (UST)	A2LA	2907.01	10-31-22 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record

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Client Information (Sub Contract Lab)	Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-178296.1
Client Contact: Shipping/Receiving	Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 1
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): State - Wisconsin		Job #: 500-238644-1
Address: 4955 Yarrow Street, ,	Due Date Requested: 9/11/2023 9/1/23 TCLP AS	Analysis Requested		Preservation Codes:
City: Arvada	TAT Requested (days):			
State, Zip: CO, 80002				
Phone: 303-736-0100(Tel) 303-431-7171(Fax)	PO #:			
Email:	WO #:			
Project Name: Tyco Fire Products LP RUSH	Project #: 50016218			
Site:	SSOW#:			

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Y - Trizma, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010D/3050B RCRA Metals	7471B/7471B_Prep Mercury (CVAA)	Moisture	6010D/13IIT-Marsenic									Total Number of containers	Special Instructions/Note:
			Preservation Code:																	
Coal Dock WC (500-238644-1)	8/22/23	13:00 Central		Solid			X	X	X	X									1	
COAL DOCK WC DUP 1 (500-238644-2)	8/22/23	1300		S						X									1	

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification	*Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*
Unconfirmed	☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-238644-2

Login Number: 238644
List Number: 1
Creator: Hernandez, Stephanie

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Endpoint Solutions Corp

Job Number: 500-238644-2

Login Number: 238644
List Number: 2
Creator: Martinez, Anthony

List Source: Eurofins Denver
List Creation: 08/26/23 10:57 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

eurofins | Environment Testing America

Sacramento
Sample Receiving Notes

500-238644 Field Sheet

Tracking # : 6180719718415

Job: _____

SO / PO / FO / SAT / 2-Day / Ground / UPS / CDO / Courier

GSL / OnTrac / Goldstreak / USPS / Other _____

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: ED6 Corr. Factor: (+ / -) - °C

Ice ✓ Wet ✓ Gel _____ Other _____

Cooler Custody Seal: 2340375

Cooler ID: _____

Temp Observed: 8.9 °C Corrected: 8.9 °C

From: Temp Blank ☐ Sample ☐

Opening/Processing The Shipment	Yes	No	NA
Cooler compromised/tampered with?	☐	☐	☐
Cooler Temperature is acceptable?	☐	☐	☐
Frozen samples show signs of thaw?	☐	☐	☐

Initials: _____ Date: 8.26.23

Unpacking/Labeling The Samples	Yes	No	NA
Containers are not broken or leaking?	☐	☐	☐
Samples compromised/tampered with?	☐	☐	☐
COC is complete w/o discrepancies	☐	☐	☐
Sample custody seal?	☐	☐	☐
Sample containers have legible labels?	☐	☐	☐
Sample date/times are provided?	☐	☐	☐
Appropriate containers are used?	☐	☐	☐
Sample bottles are completely filled?	☐	☐	☐
Sample preservatives verified?	☐	☐	☐
Is the Field Sampler's name on COC?	☐	☐	☐
Samples w/o discrepancies?	☐	☐	☐
Zero headspace?*	☐	☐	☐
Alkalinity has no headspace?	☐	☐	☐
Perchlorate has headspace? (Methods 314, 331, 6850)	☐	☐	☐
Multiphasic samples are not present?	☐	☐	☐

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: _____ Date: 8.26.23

Notes: Cooler out of temp. Cooling agent provided however not enough to cool the sample to an acceptable temp of 6.0c or below. no temp blank.

8.26.23

Trizma Lot #(s): _____

Ammonium Acetate Lot #(s): _____

Login Completion	Yes	No	NA
Receipt Temperature on COC?	☐	☐	☐
NCM Filed?	☐	☐	☐
Log Release checked in TALS?	☐	☐	☐

Initials: _____ Date: 8.26.23

PROJECT PHOTOGRAPHS

JCI: 2023 Outfall 001 Stormwater Separation

Photo: 1

Date: 09-14-2023

Description:
Waste soil containment from Coal Dock stockpiled near the Salt Vault. Stockpile area, approximately 50% area filled with soil. All soil piles are covered & tarped at the end of each day.

Street sweeping around stockpile completed end of day 9/14/2023.

Location:
Salt Vault

Photograph Taken By:
Tyrone Lee

Direction:
Southwest

Photo: 2

Date: 09-14-2023

Description:
End of day soil stockpile covered with tarps, tarps weighed down, and area secured.
700-1,000 CY soil stockpiled.

Location:
Salt Vault

Photograph Taken By:
Tyrone Lee

Direction:
Southwest

PROJECT PHOTOGRAPHS

JCI: 2023 Outfall 001 Stormwater Separation

Photo: 3

Date: 09-14-2023

Description:
End of day soil stockpile covered with tarps, tarps weighed down, and area secured. Estimated 700-1,000 CY in stockpile containment.

Location:
Salt Vault

Photograph Taken By:
Tyrone Lee

Direction:
Southeast

Photo: 4

Date: 09-18-2023

Description:
Soil containment pile. Properly covered at end of day. 50x35x10ft. Approx. 1,000-1,200 CY of soil.

Location:
Salt Vault

Photograph Taken By:
Owen Martzke

Direction:
West

Photo: 5

Date: 09-19-2023

Description:
Soil containment pile. Properly covered end of day. No soil added or removed. 50x35x10ft Approx. 1,000-1,200 CY of soil.

Location:
Salt Vault

Photograph Taken By:
Owen Martzke

Direction:
West

Photo: 6

Date: 09-20-2023

Description:
Soil containment pile. No soil added or removed. Properly covered. 50x35x10ft

Location:
Salt Vault

Photograph Taken By:
Owen Martzke

Direction:
West

Photo: 7

Date: 09-21-2023

Description:
Begin removal of Soil Containment Pile, loading into roll off boxes.

Location:
Salt Vault

Photograph Taken By:
Owen Martzke

Direction:
Southwest

Photo: 8

Date: 09-21-2023

Description:
Soil Containment Pile Cleanup. Properly covered. 25x35x10ft
Approx. 300 CY remaining to be loaded into roll off boxes.

Location:
Salt Vault

Photograph Taken By:
Owen Martzke

Direction:
East

Photo: 9

Date: 09-22-2023

Description:
Soil containment pile - empty. 58 roll off containers filled and transported for disposal.

Location:
Salt Vault

Photograph Taken By:
Owen Martzke

Direction:
West

Photo: 10

Date: 09-22-2023

Description:
Soil containment pile - empty. Entrance bermed with silt sock and street sweeper cleaned remaining dirt around the stockpile area as necessary.

Location:
Salt Vault

Photograph Taken By:
Owen Martzke

Direction:
West