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A Division of GZA

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June 18, 2018
File No. 16.0062335.02

Ms. Abigail Hendershott
Acting District Supervisor – Remediation and Redevelopment Division
Michigan Department of Environmental Quality
350 Ottawa Avenue NW #10
Grand Rapids, MI 49503

Re: Source Investigation Tasks Summary (SITS)
Former Tannery Site
123 Main Street, Rockford, Kent County, Michigan

Dear Ms. Hendershott:

On behalf of Wolverine World Wide, Inc. (Wolverine), Rose & Westra, a Division of GZA GeoEnvironmental, Inc. (R&W/GZA), prepared this Source Investigation Tasks Summary (SITS) related to per- and poly-fluoroalkyl substances (PFAS) at the Former Tannery Site (Site). The SITS and attached documents were prepared in response to certain requests included in MDEQ's May 31, 2018 letter[1] to Wolverine and Wolverine's ongoing investigation.

As requested, the proposed SITS is focused on evaluating the vertical and lateral extent of perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA). The proposed investigation is based on the US EPA Extent of Contamination Study Removal Work Plan dated June 18, 2018 (RWP), a copy of which is enclosed, our experience at the Site, and experience at other PFAS-related sites.

The following generally summarizes the sections of the RWP that address the sampling strategy at the Site.

**RWP SECTION 3.2.4.1: AOC SOIL SAMPLING**

This subtask includes collecting soil samples from AOCs B through H as depicted on Figure 4B of the RWP; the former maintenance area (excavated during 2010); S-1 soil sampling area; near the former Primary Clarifier; and along the White Pine Trail. Fifty-one soil sampling locations associated with AOC sampling are proposed which are depicted on Figure 4B of the RWP. Final soil sample locations will be selected in the field based on access. AOC A will be addressed by installation of a groundwater monitoring well (Section 3.2.5 of RWP) due to access limitations.

[1] Letter by MDEQ titled "Tannery-*Wolverine World Wide, Inc. (Wolverine) Per- and Polyfluoroalkyl Substances (PFAS) Response to "Draft Removal Work Plan for the Tannery, Rockford, Kent County, Michigan: Approval with Modifications dated April 24, 2018," hereafter renamed "Extent of Contamination Study Removal Work Plan, Former Wolverine Tannery, Rockford, Michigan."*

At least two samples will be collected from each of the boring locations for laboratory analysis. Additional soil samples from these borings may be collected at the discretion of R&W/GZA or under the direction of agency supervising personnel in the field.

An aliquot of the above-described samples will also be collected at each discrete location for PFAS analysis in accordance with the methods described in the DEQ PFAS QAPP.

It is projected 51 soil samples will be collected based on this sampling scheme.

**RWP SECTION 3.2.4.2: GRID-BASED SOIL SAMPLING**

Soil samples will be collected at locations selected within an equilateral triangular grid superimposed on the site. The maximum length of the side of a triangle within the grid will be 194 feet. Within the central portion of the Site, the length of the sides of the triangle will be decreased to 97 feet reflective of the historical Site use depicted in Appendix B of the RWP. The proposed grid was developed using VSP7[2]. Assuming a circular hot spot with a radius of 50 feet and the proposed triangular grid spacing within the central portion of the Site (i.e., 97 feet), VSP7 calculates a 95 percent probability of finding the hot spot.

Soil samples will be collected at the grid nodes, except for locations where previous soil samples have been collected within approximately 25 feet of the grid node. R&W/GZA proposes to collect 51 supplemental soil samples based on the grid-based sampling approaches as shown on Figure 4B of the RWP. Each borehole will be advanced until the XRF readings, PID readings and visual inspection indicate no contamination, to a maximum depth of 20 feet below grade, or to the water table. Additional soil samples may be collected at the discretion of R&W/GZA or under the direction of agency supervising personnel in the field.

An aliquot of the above-described samples will also be collected at each discrete location for PFAS analysis in accordance with the methods described in the QAPP.

It is projected 51 soil samples will be collected based on this sampling scheme.

**RWP SECTION 3.2.5: MONITORING WELL INSTALLATION**

Groundwater monitoring wells will be constructed within the upper sandy deposits at locations identified in Section 3.2.4 of the RWP. R&W/GZA anticipates installation of up to approximately 10 additional monitoring wells. The primary objective of the monitoring well installation program will be to provide sampling locations to further evaluate groundwater surface water interactions including COC transport. Monitoring well installation will include:

- A minimum of five monitoring wells installed along the downgradient Site boundary (i.e., the Rogue River);
- One groundwater monitoring well installed downgradient of the location of a former heating oil tank shown within the outlet store (AOC A, Figure 4A of RWP). Based on the proximity of this AOC relative to the existing retail outlet building (i.e., location within the courtyard and potentially beneath the building), soil sampling is not proposed;

[2] Visual Sampling Plan 7 (version 7.10), © Battelle Memorial Institute, released December 22, 2017.

- One groundwater monitoring well installed downgradient of the S-1 soil sampling area to evaluate potential presence of TCE in groundwater and potential for migration to indoor air (Figure 4A of RWP). Evaluation of TCE concentration in groundwater is proposed based on the detection of TCE in soil samples collected in the S-1 soil sampling area;

- One groundwater monitoring well installed in the location of the former piping runs where process piping was located, to evaluate the potential for historical releases from the piping runs; and,

- Additional wells may be installed, if necessary to meet the objectives of the Extent of Contamination Study, at locations to be selected in the field and coordinated with MDEQ and EPA.

**RWP SECTION 3.2.6: GROUNDWATER QUALITY SAMPLING**

Two rounds of groundwater sampling events will be performed to evaluate the potential presence of COCs in groundwater. Both rounds of groundwater samples will include both the existing monitoring wells and the newly installed monitoring wells to provide data needed to evaluate water quality trends, and for comparison to the data for samples collected from the newly installed wells.

An aliquot of the above-described groundwater samples will also be collected at each monitoring well for PFAS analysis in accordance with the methods described in the QAPP.

It is projected that 57 groundwater samples will be collected during each round of sampling based on this sampling scheme.

**RWP SECTION 3.2.7: SURFACE WATER SAMPLING**

Two rounds of surface water samples will be collected from the seven locations illustrated on Figure 4A of the RWP. Collection of the second round of surface water samples will be performed a minimum of one month after the first round. Surface water samples will be collected during periods of normal to low flow as observed during normal summer conditions. The locations were selected to provide data to evaluate site and background contributions to the concentrations of Site-related COCs. Surface water sampling will include locations up- and downstream of the Site on the Rogue River; up- and downstream ends of Rum Creek; up- and downstream of the confluence of the Rogue River and Rum Creek, and at a point within the area downstream of the former waste water treatment facility.

The surface water sampling task will also include observation of the eastern shoreline of the Rogue River from the Rogue River to identify outfalls to the Rogue River. Observations will be made along the Site boundary with the Rogue River. Water quality samples will be collected from outfalls if the source of the water may be related to the Site (i.e., municipal storm drains will not be sampled).

An aliquot of the above-described surface water samples will also be collected at each location for PFAS analysis in accordance with the methods described in the QAPP.

It is projected that 7 surface water samples will be collected based on this sampling scheme.

**RWP SECTION 3.2.9: SEDIMENT SAMPLING**

Samples of sediment will be collected within the Rogue River and Rum Creek to supplement historical sampling along riverbanks and provide background sediment quality data. Samples will be collected by R&W/GZA personnel or our

subcontractor within depositional environments in the stream channels. Preliminarily proposed sampling locations are illustrated on Figure 4C of the RWP, including 10 transects of the Rogue River, apparent eddy area on east side of the Rockford Dam, and well-used access points along the edge of the Rogue River. Each of the transects will include a minimum of three sampling locations (*i.e.*, a minimum of 30 sediment sampling locations).

Sediment samples will also be collected from Rum Creek at locations upstream of the eastern Site boundary and on Site, upstream of the confluence with the Rogue River. The preliminary locations depicted on Figure 4C of the RWP may be modified following the mapping of depositional environments; however, a minimum of 10 transects will be completed in the Rogue River including one transect located downstream of the Rockford Dam.

R&W/GZA field personnel will continuously screen soil samples in the field for COCs including visual methods.

An aliquot of the above-described sediment samples will also be collected at each location for PFAS analysis in accordance with the methods described in the QAPP.

It is projected that 65 sediment samples will be collected based on this sampling scheme.

**RWP SECTION 3.2.10: VAPOR INTRUSION STUDY**

Based on the low volatility of PFAS, no soil gas sampling is proposed to investigate the potential vapor intrusion pathway at the Site and adjoining residential properties.

**ADDITIONAL SUPPORTING DOCUMENTATION**

At your request, R&W/GZA has included the following additional supporting documentation as it pertains to the PFAS data available for the Site.

- Table 1: Summary of Surface Water Analytical Data - PFAS
- Table 2: Summary of Pore Water Analytical Data – PFAS
- Table 3: Summary of Groundwater Analytical Data – PFAS
- Table 4: Summary of Soil and Scrap Sample Analytical Data – PFAS
- Table 5: Summary of Leather Scraps Leachage - PFAS
- Figure 1: Total PFAS Groundwater Sampling Data
- Figure 2: Average PFAS Concentration – Shallow Groundwater
- Figure 2B: Average PFOS Concentration -Shallow Groundwater
- Figure 3: Site Plan with Cross Section Cuts
- Figure 4: Cross Sections

**SCHEDULE**

This SITS will be implemented in conjunction with the EPA RWP. The projected schedule is included in RWP Appendix B. Generally, the work will commence on June 18, 2018 with the first phase taking approximately 10 weeks to complete.

R&W/GZA trust that this letter and attachments are responsive to MDEQ requests referenced herein. Should you have any questions, please do not hesitate to contact the undersigned.

Very truly yours,

Rose & Westra, a Division of GZA GeoEnvironmental, Inc.

Mark A. Westra
Associate Principal

Leslie M. Nelson
Senior Project Manager

Enclosures: EPA RWP, Dated June 18, 2018
Previously Listed Tables and Figures

**TABLE 1**
SUMMARY OF SURFACE WATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
ROCKFORD, MICHIGAN

| LOCATION | MDEQ Rule 57 Human Health Non-Drink Value | SW01RC | SW01RR | SW-18-100 | SW-18-101 | SW-18-102 | SW-18-103A | SW-18-103B | SW-18-104 | SW-18-105 | SW-RC-106 | SW-RC-107 | SW-RC-108 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | SW01RC | SW01RR | SW-18-100 | SW-18-101 | SW-18-102 | SW-18-103A | SW-18-103B | SW-18-104 | SW-18-105 | SW-RC-106 | SW-RC-107 | SW-RC-108 |
| LAB ID | | K1713966-004 | K1713966-005 | K1802384-002 | K1802384-003 | K1802384-007 | K1802384-008 | K1802384-009 | K1802384-010 | K1802384-001 | K1802384-006 | K1802384-005 | K1802384-004 |
| SAMPLE DATE | | 12/28/2017 | 12/28/2017 | 03/13/2018 | 03/13/2018 | 03/13/2018 | 03/13/2018 | 03/13/2018 | 03/13/2018 | 03/13/2018 | 03/13/2018 | 03/13/2018 | 03/13/2018 |
| Parameter (ng/L) | | | | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorobutane sulfonic acid (PFBS) | NA | 4.5 | 4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorobutanoic acid (PFBA) | NA | <8.6 | <8.6 | <8.9 | <8.9 | <8.9 | <8.9 | <8.9 | <8.9 | <8.9 | <8.9 | <8.9 | <8.9 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorodecanoic acid (PFDA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorododecanoic acid (PFDoDA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluoroheptanoic acid (PFHpA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorohexanoic acid (PFHxA) | NA | <4.3 | <4.3 | <4.5 | 540 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | 580 | <4.5 |
| Perfluorononanoic acid (PFNA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorooctane sulfonamide (FOSA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 12 | ***15*** | 7.1 | <4.5 | <4.5 | 6.3 | 12 | 9.8 | ***13*** | <4.5 | ***15*** | 12 | <4.5 |
| Perfluorooctanoic acid (PFOA) | 12,000 | 4.8 | 3 | <1.8 | 1.9 | 2.7 | 5 | 4 | 5.8 | <1.8 | 5.3 | 4.9 | 2.2 |
| Perfluoropentanoic acid (PFPeA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluorotridecanoic acid (PFTrDA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |
| Perfluoroundecanoic acid (PFUnDA) | NA | <4.3 | <4.3 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 | <4.5 |

NOTES:
1. Concentration and criteria units are nano-grams per liter (ng/L) or parts per trillion (ppt); "< RL" indicates the compound was analyzed for but not detected above the method detection limit; RL = Reporting Limit

2. Bold indicates that compound was detected above the RL. Italic number with thick line border or italic chemical indicates that compound was detected above the USEPA Health Advisory for Drinking Water Uses.

3. Rule 57 Human Health Non-Drinking Values, dated March 15, 2018, were downloaded from the Michigan Department of Environmental Quality web site (https://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-11383--,00.html)

4. The cleanup criteria of 70 ppt was established for the combined concentrations of PFOA and PFOS.

**TABLE 1**
SUMMARY OF SURFACE WATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
ROCKFORD, MICHIGAN

| LOCATION | MDEQ Rule 57 Human Health Non-Drink Value | TN-GR-17-A1 | TN-GR-17-A2 | TN-GR-17-A3 | TN-GR-17-B1 | TN-GR-17-B2 | TN-GR-17-B3 | TN-GR-17-C1 | TN-GR-17-C2 | TN-GR-17-C3 | TN-GR-17-C4 | TN-SW-17-10 | TN-SW-17-10 | TN-SW-17-100 | TN-SW-17-101 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | GR-17-A1 | GR-17-A2 | GR-17-A3 | GR-17-B1 | GR-17-B2 | GR-17-B3 | GR-17-C1 | GR-17-C2 | GR-17-C3 | GR-17-C4 | SW-17-10 | SW-17-10 (DUP) | SW-17-100 | SW-17-101 |
| LAB ID | | K1712506-001 | K1712506-002 | K1712506-003 | K1712506-004 | K1712506-005 | K1712506-006 | K1712506-007 | K1712506-008 | K1712506-009 | K1712506-010 | K1709951-011 | K1709951-006 | K1711313-001 | K1711313-002 |
| SAMPLE DATE | | 11/16/2017 | 11/16/2017 | 11/16/2017 | 11/16/2017 | 11/16/2017 | 11/16/2017 | 11/16/2017 | 11/16/2017 | 11/16/2017 | 11/16/2017 | 09/15/2017 | 09/15/2017 | 10/17/2017 | 10/17/2017 |
| Parameter (ng/L) | | | | | | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | 38 | 37 | 34 | 37 | 38 | 37 | 41 | 37 | 38 | 25 | <4.3 | <4.2 | <4.1 | <4.1 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorobutane sulfonic acid (PFBS) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | 4.8 | <4.1 | <4.1 |
| Perfluorobutanoic acid (PFBA) | NA | <8.7 | <8.6 | <8.8 | <8.2 | <8.5 | <8.2 | <8.5 | <8.2 | <8.2 | <8.2 | <8.6 | <8.3 | <8.1 | <8.1 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorodecanoic acid (PFDA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorododecanoic acid (PFDoDA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluoroheptanoic acid (PFHpA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorohexanoic acid (PFHxA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorononanoic acid (PFNA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorooctane sulfonamide (FOSA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 12 | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | 7.7 | ***13*** | 12 | 4.3 | 4.8 |
| Perfluorooctanoic acid (PFOA) | 12,000 | <1.7 | <1.7 | <1.8 | <1.6 | <1.7 | <1.6 | <1.7 | <1.6 | <1.6 | 3.7 | 6.3 | 6.6 | 1.9 | 1.9 |
| Perfluoropentanoic acid (PFPeA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluorotridecanoic acid (PFTrDA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |
| Perfluoroundecanoic acid (PFUnDA) | NA | <4.3 | <4.3 | <4.4 | <4.1 | <4.2 | <4.1 | <4.2 | <4.1 | <4.1 | <4.1 | <4.3 | <4.2 | <4.1 | <4.1 |

**TABLE 1**
SUMMARY OF SURFACE WATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
ROCKFORD, MICHIGAN

| LOCATION | MDEQ Rule 57 Human Health Non-Drink Value | TN-SW-17-102A | TN-SW-17-102B | TN-SW-17-103A | TN-SW-17-103B | TN-SW-17-104A | TN-SW-17-104B | TN-SW-17-4 | TN-SW-17-4 |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | SW-17-102A | SW-17-102B | SW-17-103A | SW-17-103B | SW-17-104A | SW-17-104B | SW-17-4 | SW-17-4 (DUP) |
| LAB ID | | K1711313-003 | K1711313-004 | K1711313-005 | K1711313-006 | K1711313-007 | K1711313-008 | K1709828-005 | K1709828-003 |
| SAMPLE DATE | | 10/17/2017 | 10/17/2017 | 10/17/2017 | 10/17/2017 | 10/17/2017 | 10/17/2017 | 09/13/2017 | 09/13/2017 |
| Parameter (ng/L) | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorobutane sulfonic acid (PFBS) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorobutanoic acid (PFBA) | NA | <8.1 | <8.1 | <8.1 | <8.1 | <8.1 | <8.1 | <8.3 | <8.3 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorodecanoic acid (PFDA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorododecanoic acid (PFDoDA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluoroheptanoic acid (PFHpA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorohexanoic acid (PFHxA) | NA | <4.1 | <4.1 | 13 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorononanoic acid (PFNA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorooctane sulfonamide (FOSA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 12 | 6.3 | 6.7 | 10 | 9.6 | 12 | 11 | 7.6 | 7.4 |
| Perfluorooctanoic acid (PFOA) | 12,000 | 3.1 | 3 | 5.1 | 4.8 | 4.8 | 5.2 | 4.4 | 4.5 |
| Perfluoropentanoic acid (PFPeA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluorotridecanoic acid (PFTrDA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |
| Perfluoroundecanoic acid (PFUnDA) | NA | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.1 | <4.2 | <4.2 |

**TABLE 2**
SUMMARY OF PORE WATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
ROCKFORD, MICHIGAN

| LOCATION | MDEQ Rule 57 Final Acute Values | MDEQ Rule 57 Final Chronic Values | TN-PW-17-11 | TN-PW-17-12 | TN-PW-17-1A | TN-PW-17-1B | TN-PW-17-5A | TN-PW-17-5A | TN-PW-17-5B | TN-PW-17-6A | TN-PW-17-6A | TN-PW-17-6B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | | PW-17-11 | PW-17-12 | PW-17-1A | PW-17-1B | PW-17-5A | PW-17-5A (DUP) | PW-17-5B | PW-17-6A | TN-PW-17-6A (DUP) | PW-17-6B |
| LAB ID | | | K1709951-012 | K1709951-013 | K1709828-001 | K1709828-002 | K1709828-007 | K1709828-004 | K1709828-006 | K1709828-011 | K1709828-013 | K1709828-012 |
| SAMPLE DATE | | | 09/15/2017 | 09/15/2017 | 09/12/2017 | 09/12/2017 | 09/13/2017 | 09/13/2017 | 09/13/2017 | 09/14/2017 | 09/14/2017 | 09/14/2017 |
| Parameter (ng/L) | | | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | NA | 6.6 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | 9.3 | <4.2 | <4.4 | <4.3 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| Perfluorobutane sulfonic acid (PFBS) | NA | NA | 1100 | <4.3 | <4.4 | <4.3 | 12 | 11 | 15 | 15 | 13 | 110 |
| Perfluorobutanoic acid (PFBA) | NA | NA | 460 | <8.6 | <8.8 | <8.6 | 13 | 13 | 17 | <8.3 | <8.8 | 11 |
| Perfluorodecane sulfonic acid (PFDS) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| Perfluorodecanoic acid (PFDA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| Perfluorododecanoic acid (PFDoDA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | NA | 410 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | 18 |
| Perfluoroheptanoic acid (PFHpA) | NA | NA | 1000 | <4.3 | <4.4 | <4.3 | 24 | 22 | 26 | <4.2 | 5 | 27 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | NA | 3800 | <4.3 | <4.4 | <4.3 | 7.4 | 8.9 | <4.3 | 10 | 7.9 | 57 |
| Perfluorohexanoic acid (PFHxA) | NA | NA | 2400 | <4.3 | <4.4 | <4.3 | 94 | 81 | 92 | 4.9 | <4.4 | 33 |
| Perfluorononanoic acid (PFNA) | NA | NA | 120 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | 5.5 |
| Perfluorooctane sulfonamide (FOSA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | 4.7 |
| Perfluorooctane sulfonic acid (PFOS) | 1,600,000 | 140,000 | 730 | 20 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | 57 | 60 | 170 |
| Perfluorooctanoic acid (PFOA) | 15,000,000 | 880,000 | 3000 | 9.5 | <1.8 | <1.7 | 37 | 32 | 24 | 26 | 26 | 170 |
| Perfluoropentanoic acid (PFPeA) | NA | NA | 570 | <4.3 | <4.4 | <4.3 | 24 | 22 | 32 | <4.2 | <4.4 | 7.1 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| Perfluorotridecanoic acid (PFTrDA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |
| Perfluoroundecanoic acid (PFUnDA) | NA | NA | <4.3 | <4.3 | <4.4 | <4.3 | <4.3 | <4.3 | <4.3 | <4.2 | <4.4 | <4.3 |

NOTES:
1. Concentration and criteria units are nano-grams per liter (ng/L) or parts per trillion (ppt); "< RL" indicates the compound was analyzed for but not detected above the method detection limit; RL = Reporting Limit

2. Bold indicates that compound was detected above the RL. Italic number with thick line border or italic chemical indicates that compound was detected above the USEPA Health Advisory for Drinking Water Uses.

3. Rule 57 Water Quality Values, dated March 15, 2018, were downloaded from the Michigan Department of Environmental Quality web site (https://www.michigan.gov/deq/0,4561,7-135-3313_3681_3686_3728-11383--,00.html)

4. The cleanup criteria of 70 ppt was established for the combined concentrations of PFOA and PFOS.

**TABLE 2**
SUMMARY OF PORE WATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
ROCKFORD, MICHIGAN

| LOCATION | MDEQ Rule 57 Final Acute Values | MDEQ Rule 57 Final Chronic Values | TN-PW-17-7A | TN-PW-17-7B | TN-PW-17-8A | TN-PW-17-8B | TN-PW-17-8C | TN-PW-17-9A | TN-PW-17-9A | TN-PW-17-9B |
|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | | PW-17-7A | PW-17-7B | PW-17-8A | PW-17-8B | PW-17-8C | PW-17-9A | TN-PW-17-9A (DUP) | PW-17-9B |
| LAB ID | | | K1709828-014 | K1709828-015 | K1709951-001 | K1709951-002 | K1709951-003 | K1709951-007 | K1709951-005 | K1709951-009 |
| SAMPLE DATE | | | 09/14/2017 | 09/14/2017 | 09/14/2017 | 09/14/2017 | 09/14/2017 | 09/15/2017 | 09/15/2017 | 09/15/2017 |
| Parameter (ng/L) | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | 37 | 30 | <12 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| Perfluorobutane sulfonic acid (PFBS) | NA | NA | <4.3 | <4.3 | 12 | 210 | 13 | 2400 | 2500 | 1200 |
| Perfluorobutanoic acid (PFBA) | NA | NA | <8.6 | <8.6 | <8.8 | 94 | <8.6 | 950 | 970 | 470 |
| Perfluorodecane sulfonic acid (PFDS) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| Perfluorodecanoic acid (PFDA) | NA | NA | <4.3 | <4.3 | <4.4 | 18 | <4.3 | 60 | 55 | 55 |
| Perfluorododecanoic acid (PFDoDA) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | NA | <4.3 | <4.3 | <4.4 | 160 | <4.3 | 220 | 160 | 150 |
| Perfluoroheptanoic acid (PFHpA) | NA | NA | <4.3 | <4.3 | 8.5 | 150 | 9.4 | 1500 | 1400 | 760 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | NA | <4.3 | <4.3 | 16 | 310 | 10 | 920 | 910 | 620 |
| Perfluorohexanoic acid (PFHxA) | NA | NA | <4.3 | <4.3 | 26 | 300 | 32 | 4100 | 4100 | 1700 |
| Perfluorononanoic acid (PFNA) | NA | NA | <4.3 | <4.3 | <4.4 | 51 | <4.3 | 170 | 150 | 120 |
| Perfluorooctane sulfonamide (FOSA) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | 110 | 110 | 100 |
| Perfluorooctane sulfonic acid (PFOS) | 1,600,000 | 140,000 | 31 | 42 | 5.2 | 7100 | 9.1 | 7100 | 9500 | 7300 |
| Perfluorooctanoic acid (PFOA) | 15,000,000 | 880,000 | 4 | 5.1 | 23 | 590 | 13 | 5300 | 6000 | 3000 |
| Perfluoropentanoic acid (PFPeA) | NA | NA | <4.3 | <4.3 | 6.4 | 98 | 7 | 900 | 920 | 360 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| Perfluorotridecanoic acid (PFTrDA) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | <12 | <12 | <12 |
| Perfluoroundecanoic acid (PFUnDA) | NA | NA | <4.3 | <4.3 | <4.4 | <12 | <4.3 | 68 | 73 | 88 |

**TABLE 3**
SUMMARY OF GROUNDWATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
PLAINFIELD TOWNSHIP, MICHIGAN

| LOCATION | PART 201 RESIDENTAIL GROUNDWATER CLEANUP CRITERIA - DRINKING WATER USES | TMW-101 | TMW-101 | TMW-101 | TMW-102 | TMW-102 | TMW-103 | TMW-104 | TMW-105 | TMW-105 | TMW-108 | TMW-109 | TMW-110 | TMW-110 | TMW-111 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | TMW-101 | TMW-101 | TMW-101 | TMW-102 | TMW-102 | TMW-103 | TMW-104 | TMW-105 | TMW-105 | TMW-108 | TMW-109 | TMW-110 | TMW-110 | TMW-111 |
| LAB ID | | K1713784-023 | K1713966-003 | TD18026-004 | K1709280-016 | K1713517-003 | K1713784-017 | K1713784-020 | K1709280-013 | K1713784-011 | K1713517-002 | K1713517-001 | K1709280-001 | K1713517-008 | K1713517-009 |
| SAMPLE DATE | | 12/19/2017 | 12/28/2017 | 04/16/2018 | 09/01/2017 | 12/12/2017 | 12/19/2017 | 12/19/2017 | 09/01/2017 | 12/18/2017 | 12/12/2017 | 12/12/2017 | 08/31/2017 | 12/13/2017 | 12/13/2017 |
| Parameter (ng/L) | | | | | | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | <1500 | <1500 | <180 | <4.3 | <4.3 | 4.7 | <12 | 11 | <30 | <4.3 | <4.4 | 13 | <30 | <4.3 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <1500 | <1500 | <180 | <4.3 | <4.3 | <4.3 | <12 | <4.2 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <1500 | <1500 | <180 | <4.3 | <4.3 | <4.3 | <12 | 11 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <1500 | <1500 | NS | <4.3 | <4.3 | <4.3 | <12 | <4.2 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <1500 | <1500 | <360 | <4.3 | <4.3 | <4.3 | <12 | 7.5 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <1500 | <1500 | NS | <4.3 | <4.3 | 10 | <12 | <4.2 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| Perfluorobutane sulfonic acid (PFBS) | NA | <1500 | <1500 | 650 | 1100 | 610 | 480 | 490 | 2000 | 2000 | 680 | 300 | 510 | 480 | 660 |
| Perfluorobutanoic acid (PFBA) | NA | <3000 | <3000 | 510 | 560 | 79 | 59 | 52 | 330 | 440 | 93 | 37 | <8.3 | 80 | 73 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <1500 | <1500 | <180 | 6400 | <4.3 | <4.3 | <12 | 220 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| Perfluorodecanoic acid (PFDA) | NA | <1500 | <1500 | <180 | 99 | 30 | 43 | 46 | 360 | 260 | 26 | 31 | 52 | 73 | 54 |
| Perfluorododecanoic acid (PFDoDA) | NA | <1500 | <1500 | <180 | <4.3 | <4.3 | <4.3 | <12 | 4.3 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | <1500 | <1500 | 990 | 1300 | 460 | 200 | 240 | 570 | 620 | 370 | 130 | 730 | 840 | 320 |
| Perfluoroheptanoic acid (PFHpA) | NA | 6700 | 11000 | 5600 | 11000 | 700 | 310 | 200 | 950 | 1100 | 690 | 170 | 1200 | 1100 | 560 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | 4900 | 7900 | 3200 | 8500 | 1400 | 550 | 500 | 1200 | 1200 | 1200 | 240 | 1700 | 1900 | 950 |
| Perfluorohexanoic acid (PFHxA) | NA | 7300 | 11000 | 5700 | 11000 | 400 | 240 | 140 | 980 | 1400 | 380 | 140 | 1100 | 970 | 240 |
| Perfluorononanoic acid (PFNA) | NA | <1500 | <1500 | <180 | 380 | 150 | 76 | 67 | 370 | 290 | 140 | 37 | 240 | 240 | 230 |
| Perfluorooctane sulfonamide (FOSA) | NA | <1500 | <1500 | <180 | 210 | <4.3 | 470 | 26 | 1400 | 1000 | <4.3 | 190 | 4.7 | <30 | 9 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 70 | ***160000*** | ***250000*** | ***250000*** | ***330000*** | ***5300*** | ***3800*** | ***6200*** | ***23000*** | ***27000*** | ***5900*** | ***3200*** | ***9100*** | ***14000*** | ***4400*** |
| ***Perfluorooctanoic acid (PFOA)*** | 70 | ***81000*** | ***140000*** | ***88000*** | ***160000*** | ***3900*** | ***2000*** | ***1700*** | ***5300*** | ***6100*** | ***3500*** | ***1000*** | ***6400*** | ***5600*** | ***3300*** |
| Perfluoropentanoic acid (PFPeA) | NA | <1500 | 1800 | 1200 | 1700 | 180 | 95 | 59 | 370 | 540 | 190 | 66 | 280 | 240 | 88 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <1500 | <1500 | <180 | <4.3 | <4.3 | <4.3 | <12 | <4.2 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| Perfluorotridecanoic acid (PFTrDA) | NA | <1500 | <1500 | <180 | <4.3 | <4.3 | <4.3 | <12 | <4.2 | <30 | <4.3 | <4.4 | <4.2 | <30 | <4.3 |
| Perfluoroundecanoic acid (PFUnDA) | NA | <1500 | <1500 | <180 | 150 | 9.9 | 170 | 57 | 500 | 420 | 12 | 71 | 13 | <30 | 150 |
| Perfluorononane sulfonic acid (PFNS) | NA | NS | NS | 1700 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| Perfluoropentane sulfonic acid (PFPeS) | NA | NS | NS | 460 | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS | NS |

NOTES:
1. Concentration and criteria units are nano-grams per liter (ng/L) or parts per trillion (ppt); "< RL" indicates the compound was analyzed for but not detected above the method detection limit; RL = Reporting Limit

2. Bold indicates that compound was detected above the RL. Italic number with thick line border or italic chemical indicates that compound was detected above the USEPA Health Advisory for Drinking Water Uses.

3. Michigan Part 201 groundwater cleanup criteria protective of drinking water uses were based on USEPA Health Advisory Level obtained from USEPA Fact sheet: PFOA & PFOS Drinking Water Health Advisories, EPA 800-F-16-003, dated November 2016.

**TABLE 3**
SUMMARY OF GROUNDWATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
PLAINFIELD TOWNSHIP, MICHIGAN

| LOCATION | PART 201 RESIDENTAIL GROUNDWATER CLEANUP CRITERIA - DRINKING WATER USES | TN-MW-1 | TN-MW-2 | TN-MW-3 | TN-MW-301B | TN-MW-301C | TN-MW-301C | TN-MW-301D | TN-MW-302A | TN-MW-302A | TN-MW-302B | TN-MW-303A | TN-MW-303B | TN-MW-303C | TN-MW-303D | TN-MW-303E |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | MW-1 | MW-2 | MW-3 | MW-301B | MW-301C | MW-301C | MW-301D | MW-302A | TMW-302A | MW-302B | MW-303A | MW-303B | MW-303C | MW-303D | MW-303E |
| LAB ID | | K1713784-019 | K1713784-018 | K1713517-004 | K1713784-022 | K1802382-007 | TD18026-005 | K1802382-009 | K1713517-022 | K1709280-014 | K1713517-023 | K1713784-003 | K1713784-001 | K1713784-002 | K1802382-006 | K1802382-008 |
| SAMPLE DATE | | 12/19/2017 | 12/19/2017 | 12/12/2017 | 12/19/2017 | 03/13/2018 | 04/16/2018 | 03/13/2018 | 12/14/2017 | 09/01/2017 | 12/14/2017 | 12/15/2017 | 12/15/2017 | 12/15/2017 | 03/13/2018 | 03/13/2018 |
| Parameter (ng/L) | | | | | | | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | <4.3 | <1500 | 13 | <30 | <16000 | <370 | <5 | <30 | 19 | <4.3 | <30 | <30 | 160 | <4.6 | <4.6 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <4.3 | <1500 | <4.3 | <30 | <16000 | <370 | <5 | <30 | <4.3 | <4.3 | <30 | <30 | <30 | <4.6 | <4.6 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | 57 | <1500 | 8.7 | <30 | <16000 | <370 | <5 | <30 | <4.3 | <4.3 | <30 | <30 | <30 | <4.6 | <4.6 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <4.3 | <1500 | <4.3 | <30 | <16000 | NS | <5 | <30 | <4.3 | <4.3 | <30 | <30 | <30 | <4.6 | <4.6 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | 9.9 | <1500 | <4.3 | <30 | <16000 | <750 | <5 | <30 | <4.3 | <4.3 | <30 | <30 | <30 | <4.6 | <4.6 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <4.3 | <1500 | <4.3 | <30 | <16000 | NS | <5 | <30 | <4.3 | <4.3 | <30 | <30 | <30 | <4.6 | <4.6 |
| Perfluorobutane sulfonic acid (PFBS) | NA | 2700 | <1500 | 730 | 1100 | <16000 | 1300 | <5 | 2700 | 4500 | 3300 | 31000 | 17000 | 9600 | 6.5 | <4.6 |
| Perfluorobutanoic acid (PFBA) | NA | 100 | <3000 | 110 | 290 | <31000 | 970 | <10 | 530 | 460 | 170 | 620 | 700 | 1700 | <9.3 | <9.3 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <4.3 | <1500 | <4.3 | <30 | <16000 | <370 | <5 | <30 | 40 | 52 | 81 | <30 | <30 | <4.6 | <4.6 |
| Perfluorodecanoic acid (PFDA) | NA | 55 | <1500 | 54 | 53 | <16000 | <370 | <5 | 48 | 82 | 63 | 110 | 66 | 83 | <4.6 | <4.6 |
| Perfluorododecanoic acid (PFDoDA) | NA | <4.3 | <1500 | 4.8 | <30 | <16000 | <370 | <5 | <30 | <4.3 | 12 | <30 | <30 | <30 | <4.6 | <4.6 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | 110 | <1500 | 220 | 370 | <16000 | 2700 | <5 | 310 | 170 | 180 | 760 | 930 | 470 | <4.6 | <4.6 |
| Perfluoroheptanoic acid (PFHpA) | NA | 130 | <1500 | 940 | 1400 | 17000 | 16000 | <5 | 1100 | 550 | 300 | 940 | 1200 | 2000 | <4.6 | <4.6 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | 270 | <1500 | 610 | 1700 | <16000 | 12000 | <5 | 1900 | 610 | 550 | 1700 | 2500 | 2100 | <4.6 | <4.6 |
| Perfluorohexanoic acid (PFHxA) | NA | 100 | <1500 | 520 | 2200 | 17000 | 21000 | <5 | 900 | 530 | 280 | 880 | 1100 | 3100 | 4.7 | <4.6 |
| Perfluorononanoic acid (PFNA) | NA | 38 | <1500 | 100 | 130 | <16000 | <370 | <5 | 150 | 160 | 62 | 250 | 180 | 260 | <4.6 | <4.6 |
| Perfluorooctane sulfonamide (FOSA) | NA | 710 | <1500 | 600 | 82 | <16000 | <370 | <5 | 1500 | 1200 | 850 | 910 | 310 | 820 | <4.6 | <4.6 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 70 | ***2600*** | ***38000*** | ***5000*** | ***27000*** | ***1500000*** | ***490000*** | 48 | ***15000*** | ***9600*** | ***6800*** | ***39000*** | ***23000*** | ***23000*** | 7.4 | <4.6 |
| ***Perfluorooctanoic acid (PFOA)*** | 70 | ***540*** | ***2200*** | ***3600*** | ***11000*** | ***230000*** | ***180000*** | 28 | ***7100*** | ***3100*** | ***1700*** | ***4600*** | ***5000*** | ***8400*** | 7 | <1.9 |
| Perfluoropentanoic acid (PFPeA) | NA | 83 | <1500 | 170 | 490 | <16000 | 2600 | <5 | 320 | 250 | 130 | 480 | 510 | 1200 | <4.6 | <4.6 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <4.3 | <1500 | <4.3 | <30 | <16000 | <370 | <5 | <30 | <4.3 | <4.3 | <30 | <30 | <30 | <4.6 | <4.6 |
| Perfluorotridecanoic acid (PFTrDA) | NA | 18 | <1500 | 7.6 | <30 | <16000 | <370 | <5 | <30 | 45 | 43 | <30 | <30 | <30 | <4.6 | <4.6 |
| Perfluoroundecanoic acid (PFUnDA) | NA | 98 | <1500 | 240 | 64 | <16000 | <370 | <5 | 280 | 200 | 270 | 430 | 130 | 130 | <4.6 | <4.6 |
| Perfluorononane sulfonic acid (PFNS) | NA | NS | NS | NS | NS | NS | 3300 | NS | NS | NS | NS | NS | NS | NS | NS | NS |
| Perfluoropentane sulfonic acid (PFPeS) | NA | NS | NS | NS | NS | NS | 1100 | NS | NS | NS | NS | NS | NS | NS | NS | NS |

**TABLE 3**
SUMMARY OF GROUNDWATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
PLAINFIELD TOWNSHIP, MICHIGAN

| LOCATION | PART 201 RESIDENTAIL GROUNDWATER CLEANUP CRITERIA - DRINKING WATER USES | TN-MW-304A | TN-MW-304A | TN-MW-304A | TN-MW-304A | TN-MW-304A | TN-MW-304B | TN-MW-305B | TN-MW-305C | TN-MW-305C | TN-MW-306A | TN-MW-306A | TN-MW-306B | TN-MW-307A | TN-MW-307A | TN-MW-307A | TN-MW-307B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | MW-304A | MW-304A | MW-304A | MW-304A | MW-304A (DUP) | MW-304B | MW-305B | MW-305C | MW-305C | MW-306A | MW-306A | MW-306B | MW-307A | MW-307A | MW-307A (DUP) | MW-307B |
| LAB ID | | K1709280-010 | K1713784-008 | K1713966-002 | TD18026-002 | TD18026-008 | K1713784-009 | K1713517-019 | K1713517-020 | TD18026-001 | K1709280-004 | K1713517-017 | K1713517-018 | K1709280-003 | K1713517-011 | K1709280-002 | K1713517-010 |
| SAMPLE DATE | | 09/01/2017 | 12/18/2017 | 12/28/2017 | 04/16/2018 | 04/16/2018 | 12/18/2017 | 12/14/2017 | 12/14/2017 | 04/16/2018 | 08/31/2017 | 12/14/2017 | 12/14/2017 | 08/31/2017 | 12/13/2017 | 08/31/2017 | 12/13/2017 |
| Parameter (ng/L) | | | | | | | | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | 56 | <1500 | <30 | <75 | <76 | 4.7 | 300 | 500 | 450 | 25 | 59 | 20 | <4.4 | <4.3 | <4.3 | <4.3 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <4.7 | <1500 | <30 | <75 | <76 | <4.7 | <30 | <30 | <35 | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <4.7 | <1500 | <30 | <75 | <76 | <4.7 | <30 | <30 | <35 | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <4.7 | <1500 | <30 | NS | NS | <4.7 | <30 | <30 | NS | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <4.7 | <1500 | <30 | <150 | <150 | <4.7 | <30 | <30 | <71 | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <4.7 | <1500 | <30 | NS | NS | <4.7 | <30 | <30 | NS | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| Perfluorobutane sulfonic acid (PFBS) | NA | 2800 | 1800 | 1900 | 1900 | 2000 | 260 | 11000 | 18000 | 16000 | 1400 | 3900 | 1300 | 670 | 68 | 700 | 620 |
| Perfluorobutanoic acid (PFBA) | NA | 540 | <3000 | 290 | 240 | 250 | 150 | 5100 | 6600 | 6800 | 310 | 810 | 280 | 100 | 28 | 99 | 82 |
| Perfluorodecane sulfonic acid (PFDS) | NA | 160 | <1500 | 34 | <75 | <76 | <4.7 | <30 | <30 | <35 | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| Perfluorodecanoic acid (PFDA) | NA | 360 | <1500 | 420 | 280 | 350 | 11 | 150 | 270 | 210 | 93 | 74 | 70 | 16 | <4.3 | 16 | 13 |
| Perfluorododecanoic acid (PFDoDA) | NA | <4.7 | <1500 | <30 | <75 | <76 | <4.7 | <30 | <30 | <35 | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | 750 | <1500 | 820 | 560 | 620 | 30 | 1100 | 1100 | 800 | 270 | 250 | 200 | 490 | <4.3 | 420 | 740 |
| Perfluoroheptanoic acid (PFHpA) | NA | 1100 | <1500 | 810 | 660 | 640 | 110 | 10000 | 11000 | 10000 | 710 | 1700 | 570 | 760 | 50 | 730 | 670 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | 1300 | 1600 | 1300 | 1600 | 1900 | 210 | 4300 | 4200 | 6400 | 1200 | 1400 | 870 | 1500 | 26 | 1200 | 1700 |
| Perfluorohexanoic acid (PFHxA) | NA | 1200 | <1500 | 790 | 660 | 660 | 310 | 29000 | 25000 | 26000 | 670 | 2300 | 680 | 500 | 60 | 440 | 470 |
| Perfluorononanoic acid (PFNA) | NA | 560 | <1500 | 430 | 250 | 280 | 16 | 750 | 770 | 610 | 310 | 200 | 140 | 200 | <4.3 | 190 | 130 |
| Perfluorooctane sulfonamide (FOSA) | NA | 800 | <1500 | 740 | 340 | 320 | 46 | <30 | 84 | <35 | 410 | 100 | 450 | <4.4 | <4.3 | <4.3 | <4.3 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 70 | ***180000*** | ***47000*** | ***61000*** | ***70000*** | ***58000*** | ***1000*** | ***19000*** | ***33000*** | ***37000*** | ***9700*** | ***7000*** | ***9600*** | ***4000*** | 11 | ***5600*** | ***4400*** |
| ***Perfluorooctanoic acid (PFOA)*** | 70 | ***5400*** | ***3100*** | ***3800*** | ***3700*** | ***3700*** | ***360*** | ***29000*** | ***40000*** | ***40000*** | ***4400*** | ***8700*** | ***3100*** | ***5900*** | ***130*** | ***5900*** | ***4600*** |
| Perfluoropentanoic acid (PFPeA) | NA | 450 | <1500 | 270 | 230 | 230 | 77 | 5300 | 6100 | 6100 | 280 | 670 | 250 | 160 | 36 | 150 | 160 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <4.7 | <1500 | <30 | <75 | <76 | <4.7 | <30 | <30 | <35 | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| Perfluorotridecanoic acid (PFTrDA) | NA | 13 | <1500 | <30 | <75 | <76 | <4.7 | <30 | <30 | <35 | <4.4 | <30 | <12 | <4.4 | <4.3 | <4.3 | <4.3 |
| Perfluoroundecanoic acid (PFUnDA) | NA | 780 | <1500 | 780 | 890 | 870 | <4.7 | 32 | 240 | 280 | 170 | 210 | 140 | 14 | <4.3 | 14 | 8.5 |
| Perfluorononane sulfonic acid (PFNS) | NA | NS | NS | NS | 170 | 190 | NS | NS | NS | <71 | NS | NS | NS | NS | NS | NS | NS |
| Perfluoropentane sulfonic acid (PFPeS) | NA | NS | NS | NS | 340 | 380 | NS | NS | NS | 2600 | NS | NS | NS | NS | NS | NS | NS |

**TABLE 3**
SUMMARY OF GROUNDWATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
PLAINFIELD TOWNSHIP, MICHIGAN

| LOCATION | PART 201 RESIDENTAIL GROUNDWATER CLEANUP CRITERIA - DRINKING WATER USES | TN-MW-308A | TN-MW-308B | TN-MW-308C | TN-MW-309A | TN-MW-309B | TN-MW-309C | TN-MW-309D | TN-MW-309D | TN-MW-310A | TN-MW-310B | TN-MW-310C | TN-MW-4 | TN-MW-5 | TN-MW-5 | TN-MW-5 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | MW-308A | MW-308B | MW-308C | MW-309A | MW-309B | MW-309C | MW-309D | MW-309D | MW-310A | MW-310B | MW-310C | MW-4 | MW-5 | MW-5 | MW-5 |
| LAB ID | | K1713517-016 | K1713517-015 | K1713517-014 | K1713784-013 | K1713784-012 | K1802382-010 | K1802382-003 | TD18026-003 | K1713784-028 | K1713784-026 | K1713784-027 | K1713517-005 | K1709280-005 | K1713517-021 | K1713966-001 |
| SAMPLE DATE | | 12/14/2017 | 12/14/2017 | 12/14/2017 | 12/18/2017 | 12/18/2017 | 03/13/2018 | 03/13/2018 | 04/16/2018 | 12/20/2017 | 12/20/2017 | 12/20/2017 | 12/12/2017 | 08/31/2017 | 12/14/2017 | 12/28/2017 |
| Parameter (ng/L) | | | | | | | | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | <30 | <4.3 | <4.3 | 18 | <30 | <50 | <50 | <72 | <4.3 | <4.3 | <4.3 | 210 | 7.4 | <30 | <30 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | <72 | <4.3 | <4.3 | <4.3 | <30 | <4.3 | <30 | <30 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | <72 | 29 | <4.3 | <4.3 | 1200 | <4.3 | <30 | <30 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | NS | <4.3 | <4.3 | <4.3 | <30 | <4.3 | <30 | <30 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | <140 | 18 | <4.3 | <4.3 | <30 | <4.3 | <30 | <30 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | NS | <4.3 | <4.3 | <4.3 | <30 | <4.3 | <30 | <30 |
| Perfluorobutane sulfonic acid (PFBS) | NA | 360 | <4.3 | <4.3 | 830 | 740 | 710 | 680 | 730 | 370 | 140 | 170 | 7500 | 150 | 290 | 330 |
| Perfluorobutanoic acid (PFBA) | NA | 170 | <8.7 | <8.7 | 150 | 140 | 190 | 170 | 150 | 32 | 22 | 120 | 2000 | 42 | <60 | 94 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | <72 | <4.3 | <4.3 | <4.3 | <30 | 69 | <30 | <30 |
| Perfluorodecanoic acid (PFDA) | NA | 34 | <4.3 | <4.3 | 23 | 39 | <50 | 53 | <72 | 31 | 52 | <4.3 | 600 | 120 | 71 | 100 |
| Perfluorododecanoic acid (PFDoDA) | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | <72 | <4.3 | <4.3 | <4.3 | <30 | 7.3 | <30 | <30 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | 350 | <4.3 | <4.3 | 440 | 550 | 460 | 510 | 470 | 59 | 95 | <4.3 | 960 | 180 | 210 | 320 |
| Perfluoroheptanoic acid (PFHpA) | NA | 1300 | <4.3 | <4.3 | 620 | 520 | 740 | 750 | 580 | 88 | 75 | 130 | 4600 | 310 | 380 | 530 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | 1300 | <4.3 | <4.3 | 980 | 830 | 1300 | 1200 | 1200 | 230 | 240 | 13 | 2800 | 980 | 920 | 980 |
| Perfluorohexanoic acid (PFHxA) | NA | 820 | 6.1 | <4.3 | 570 | 430 | 900 | 830 | 640 | 96 | 57 | 290 | 5900 | 290 | 250 | 510 |
| Perfluorononanoic acid (PFNA) | NA | 170 | <4.3 | <4.3 | 81 | 180 | 110 | 160 | 110 | 17 | 20 | <4.3 | 910 | 180 | 88 | 140 |
| Perfluorooctane sulfonamide (FOSA) | NA | <30 | <4.3 | <4.3 | 540 | 59 | <50 | <50 | <72 | 1600 | 1800 | <4.3 | 6600 | 2000 | 950 | 1500 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 70 | ***12000*** | <4.3 | 6.4 | ***6200*** | ***18000*** | ***13000*** | ***34000*** | ***50000*** | ***1500*** | ***2000*** | 16 | ***38000*** | ***18000*** | ***12000*** | ***14000*** |
| ***Perfluorooctanoic acid (PFOA)*** | 70 | ***9000*** | <1.7 | 2.5 | ***6400*** | ***5000*** | ***8800*** | ***11000*** | ***7600*** | ***590*** | ***590*** | ***73*** | ***19000*** | ***2600*** | ***2700*** | ***3300*** |
| Perfluoropentanoic acid (PFPeA) | NA | 580 | <4.3 | <4.3 | 200 | 180 | 290 | 230 | 210 | 61 | 39 | 170 | 1700 | 59 | 85 | 130 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | <72 | <4.3 | <4.3 | <4.3 | <30 | <4.3 | <30 | <30 |
| Perfluorotridecanoic acid (PFTrDA) | NA | <30 | <4.3 | <4.3 | <12 | <30 | <50 | <50 | <72 | <4.3 | <4.3 | <4.3 | <30 | 11 | <30 | <30 |
| Perfluoroundecanoic acid (PFUnDA) | NA | <30 | <4.3 | <4.3 | 280 | 75 | <50 | 60 | 81 | 35 | 38 | <4.3 | 3300 | 830 | 300 | 630 |
| Perfluorononane sulfonic acid (PFNS) | NA | NS | NS | NS | NS | NS | NS | NS | 210 | NS | NS | NS | NS | NS | NS | NS |
| Perfluoropentane sulfonic acid (PFPeS) | NA | NS | NS | NS | NS | NS | NS | NS | 230 | NS | NS | NS | NS | NS | NS | NS |

**TABLE 3**
SUMMARY OF GROUNDWATER ANALYTICAL DATA - PFAS
FORMER TANNERY SITE
PLAINFIELD TOWNSHIP, MICHIGAN

| LOCATION | PART 201 RESIDENTAIL GROUNDWATER CLEANUP CRITERIA - DRINKING WATER USES | TN-P-1 | TN-P-2 | TN-P-2 | TN-P-3 | TN-P-3 | TN-P-3 | TN-P-4 | TN-P-5 |
|---|---|---|---|---|---|---|---|---|---|
| SAMPLE NAME | | P-1 | P-2 | P-2 | P-3 | P-3 | P-3 (DUP) | P-4 | P-5 |
| LAB ID | | K1713784-021 | K1709280-006 | K1713784-004 | K1709280-009 | K1713784-005 | K1709280-011 | K1713784-010 | K1713784-016 |
| SAMPLE DATE | | 12/19/2017 | 08/31/2017 | 12/15/2017 | 09/01/2017 | 12/15/2017 | 09/01/2017 | 12/18/2017 | 12/19/2017 |
| Parameter (ng/L) | | | | | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | 13 | 41 | 40 | 77 | 61 | 74 | 34 | <1500 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| Perfluorobutane sulfonic acid (PFBS) | NA | 3300 | 5200 | 6400 | 7000 | 11000 | 7300 | 1200 | 2100 |
| Perfluorobutanoic acid (PFBA) | NA | 340 | 970 | 810 | 1500 | 1200 | 1400 | 190 | <3000 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | 90 | <1500 |
| Perfluorodecanoic acid (PFDA) | NA | 36 | 27 | <30 | 100 | 75 | 110 | 220 | <1500 |
| Perfluorododecanoic acid (PFDoDA) | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | 360 | 1300 | 1500 | 680 | 650 | 560 | 380 | <1500 |
| Perfluoroheptanoic acid (PFHpA) | NA | 1100 | 1700 | 1400 | 2200 | 1900 | 2600 | 340 | <1500 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | 1700 | 4200 | 3800 | 3500 | 5000 | 4200 | 610 | 2000 |
| Perfluorohexanoic acid (PFHxA) | NA | 910 | 1900 | 1400 | 2800 | 3400 | 2800 | 410 | <1500 |
| Perfluorononanoic acid (PFNA) | NA | 130 | 410 | 320 | 430 | 250 | 430 | 190 | <1500 |
| Perfluorooctane sulfonamide (FOSA) | NA | 610 | 160 | 170 | 130 | 120 | 130 | 1300 | <1500 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 70 | ***7700*** | ***30000*** | ***23000*** | ***22000*** | ***14000*** | ***24000*** | ***21000*** | ***46000*** |
| ***Perfluorooctanoic acid (PFOA)*** | 70 | ***4900*** | ***14000*** | ***11000*** | ***10000*** | ***9500*** | ***11000*** | ***2000*** | ***6200*** |
| Perfluoropentanoic acid (PFPeA) | NA | 340 | 640 | 540 | 1400 | 1100 | 1500 | 170 | <1500 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| Perfluorotridecanoic acid (PFTrDA) | NA | <12 | <4.3 | <30 | <4.3 | <30 | <4.3 | <30 | <1500 |
| Perfluoroundecanoic acid (PFUnDA) | NA | 170 | 5.5 | <30 | 140 | 140 | 150 | 600 | 1500 |
| Perfluorononane sulfonic acid (PFNS) | NA | NS | NS | NS | NS | NS | NS | NS | NS |
| Perfluoropentane sulfonic acid (PFPeS) | NA | NS | NS | NS | NS | NS | NS | NS | NS |

**TABLE 4**

SUMMARY OF SOIL AND SCRAP SAMPLE ANALYTICAL DATA - PFAS

FORMER TANNERY SITE

ROCKFORD, MICHIGAN

| SAMPLE NAME | MDEQ Proposed Part 201 Residential Soil Cleanup Criteria Protective of Groundwater for Drinking Water Uses | MDEQ Proposed Part 201 Residential Soil Cleanup Criteria - Direct Contact | C1 | C2 | Leather Scraps |
|---|---|---|---|---|---|
| LABORATORY ID | | | K1712691-001 | K1712691-002 | K1712691-004 |
| SAMPLE DATE | | | 11/21/2017 | 11/21/2017 | 11/21/2017 |
| Parameter (ng/Kg) | | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | NA | <980 | <960 | <1000 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | NA | <980 | <960 | <1000 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | NA | <980 | 2800 | <1000 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | NA | <980 | 2000 | <1000 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | NA | <980 | 1300 | <1000 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | NA | <980 | <960 | <1000 |
| Perfluorobutane sulfonic acid (PFBS) | NA | NA | 8400 | <960 | <1000 |
| Perfluorobutanoic acid (PFBA) | NA | NA | <980 | <960 | <1000 |
| Perfluorodecane sulfonic acid (PFDS) | NA | NA | <980 | <960 | 1200 |
| Perfluorodecanoic acid (PFDA) | NA | NA | 3200 | 2800 | 1300 |
| Perfluorododecanoic acid (PFDoDA) | NA | NA | <980 | 1000 | 2000 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | NA | 11000 | 4800 | 1100 |
| Perfluoroheptanoic acid (PFHpA) | NA | NA | 13000 | 3200 | <1000 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | NA | 20000 | 13000 | 1100 |
| Perfluorohexanoic acid (PFHxA) | NA | NA | 4900 | 1900 | <1000 |
| Perfluorononanoic acid (PFNA) | NA | NA | 5400 | 3200 | <1000 |
| Perfluorooctane sulfonamide (FOSA) | NA | NA | 18000 | 32000 | 9600 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 1,400 | 2,100,000 | ***360000*** | ***200000*** | ***83000*** |
| ***Perfluorooctanoic acid (PFOA)*** | 59,000 | 2,100,000 | ***80000*** | 33000 | 2200 |
| Perfluoropentanoic acid (PFPeA) | NA | NA | 1600 | <960 | <1000 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | NA | <980 | 1000 | 1700 |
| Perfluorotridecanoic acid (PFTrDA) | NA | NA | 13000 | 28000 | 30000 |
| Perfluoroundecanoic acid (PFUnDA) | NA | NA | 18000 | 51000 | 12000 |

NOTES:

1. Concentration and criteria units are nano-grams per kilogram or parts per trillion; "< RL" indicates the compound was analyzed for but not detected above the method detection limit; RL = Reporting Limit

2. Bold indicates that compound was detected above the RL. Italic number with thick line border or italic chemical indicates that compound was detected above one of the listed cleanup cirteria.

3. MDEQ Proposed Part 201 Residential Cleanup Criteria were based on the :Proposed Part 201 Cleanup Cirteria Rules," dated August 29, 2017.

**TABLE 5**

SUMMARY OF LEATHER SCRAPS LEACHAGE - PFAS
FORMER TANNERY SITE
ROCKFORD, MICHIGAN

| SAMPLE NAME | PART 201 RESIDENTAIL GROUNDWATER CLEANUP CRITERIA - DRINKING WATER USES | C1-Leachate | C2-Leachate | Leather Scraps-Leachate |
|---|---|---|---|---|
| LABORATORY ID | | K1712691-005 | K1712691-006 | K1712691-007 |
| SAMPLE DATE | | 11/21/2017 | 11/21/2017 | 11/21/2017 |
| Parameter (ng/L) | | | | |
| 6:2 Fluorotelomer sulfonic acid (6:2 FTS) | NA | <4.4 | <4.4 | <4.4 |
| 8:2 Fluorotelomer sulfonic acid (8:2 FTS) | NA | <4.4 | <4.4 | <4.4 |
| N-Ethyl perfluorooctane sulfonamide (EtFOSA) | NA | <4.4 | <4.4 | <4.4 |
| N-Ethyl perfluorooctane sulfonamidoethanol | NA | <4.4 | <4.4 | <4.4 |
| N-Methyl perfluorooctane sulfonamide (MeFOSA) | NA | <4.4 | <4.4 | <4.4 |
| N-Methyl perfluorooctane sulfonamidoethanol | NA | <4.4 | <4.4 | <4.4 |
| Perfluorobutane sulfonic acid (PFBS) | NA | 33 | 19 | 12 |
| Perfluorobutanoic acid (PFBA) | NA | <9.1 | <9.1 | <9.1 |
| Perfluorodecane sulfonic acid (PFDS) | NA | <4.4 | 12 | <4.4 |
| Perfluorodecanoic acid (PFDA) | NA | 19 | 46 | 6.5 |
| Perfluorododecanoic acid (PFDoDA) | NA | <4.4 | <4.4 | <4.4 |
| Perfluoroheptane sulfonic acid (PFHpS) | NA | 69 | 92 | 18 |
| Perfluoroheptanoic acid (PFHpA) | NA | 45 | 62 | 5.6 |
| Perfluorohexane sulfonic acid (PFHxS) | NA | 140 | 130 | 28 |
| Perfluorohexanoic acid (PFHxA) | NA | 25 | 29 | <4.5 |
| Perfluorononanoic acid (PFNA) | NA | 32 | 50 | 10 |
| Perfluorooctane sulfonamide (FOSA) | NA | 250 | 370 | 6 |
| ***Perfluorooctane sulfonic acid (PFOS)*** | 70 | ***2000*** | ***2900*** | ***640*** |
| ***Perfluorooctanoic acid (PFOA)*** | 70 | ***520*** | ***850*** | ***95*** |
| Perfluoropentanoic acid (PFPeA) | NA | 15 | 44 | <4.5 |
| Perfluorotetradecanoic acid (PFTeDA) | NA | <4.4 | <4.4 | <4.4 |
| Perfluorotridecanoic acid (PFTrDA) | NA | 13 | 21 | <4.4 |
| Perfluoroundecanoic acid (PFUnDA) | NA | 170 | 450 | 30 |

NOTES:

1. Concentration and criteria units are nano-grams per liter (ng/L) or parts per trillion (ppt); "< RL" indicates the compound was analyzed for but not detected above the method detection limit; RL = Reporting Limit

2. Bold indicates that compound was detected above the RL. Italic number with thick line border or italic chemical indicates that compound was detected above the USEPA Health Advisory for Drinking Water Uses.

3. Michigan Part 201 groundwater cleanup criteria protective of drinking water uses were based on USEPA Health Advisory Level obtained from USEPA Fact sheet: PFOA & PFOS Drinking Water Health Advisories, EPA 800-F-16-003, dated November 2016.

4. The cleanup criteria of 70 ppt was established for the combined concentrations of PFOA and PFOS.

MW-307A
ELE: 689
Depth: 5.6-10.2
8/2017
4,000 ppt

MW-307A (DUP)
ELE: 689
Depth: 5.6-10.2
8/2017
5,600 ppt

MW-307A
ELE: 689
Depth: 5.6-10.2
12/2017
11 ppt

MW-307B
ELE: 683
Depth: 11-15.7
12/2017
4,400 ppt

MW-304A
ELE: 690
Depth: 2.7-5.5
9/2017
180,000 ppt

MW-304A
ELE: 690
Depth: 2.7-5.5
12/2017
47,000 ppt

MW-304A
ELE: 690
Depth: 2.7-5.5
12/2017
61,000 ppt

MW-304A
ELE: 690
Depth: 2.7-5.5
4/2018
70,000 ppt

MW-304A (DUP)
ELE: 690
Depth: 2.7-5.5
4/2018
58,000 ppt

MW-304B
ELE: 681
Depth: 10.3-15
12/2017
1,000 ppt

MW-303A
ELE: 689
Depth: 2.8-7.5
12/2017
39,000 ppt

MW-303B
ELE: 682
Depth: 10.1-14.9
12/2017
23,000 ppt

MW-303C
ELE: 674
Depth: 17.2-22
12/2017
23,000 ppt

MW-303D
ELE: 650
Depth: 42.5-45.5
3/2018
25.6 ppt

MW-303E
ELE: 645
Depth: 47.5-50.5
3/2018
ND ppt

P-3
ELE: 687
Depth: 4.7-9.3
9/2017
22,000 ppt

P-3 (DUP)
ELE: 687
Depth: 4.7-9.3
9/2017
24,000 ppt

P-2
ELE: 687
Depth: 4.7-9.4
8/2017
30,000 ppt

TMW-110
ELE: 689
Depth: 5.4-10.1
8/2017
9,100 ppt

TMW-108
ELE: 689
Depth: 5.4-10.1
12/2017
5,900 ppt

TMW-110
ELE: 689
Depth: 5.4-10.1
12/2017
14,000 ppt

TMW-102
ELE: 689
Depth: 5.5-10.3
9/2017
330,000 ppt

TMW-102
ELE: 689
Depth: 5.5-10.3
12/2017
5,300 ppt

TMW-105
ELE: 689
Depth: 5.5-10.3
9/2017
23,000 ppt

MW-2
ELE: 689
Depth: 2.9-7.8
12/2017
38,000 ppt

MW-1
ELE: 689
Depth: 3.6-8.3
12/2017
2,600 ppt

MW-308A
ELE: 691
Depth: 3.2-7.9
12/2017
12,000 ppt

MW-308B
ELE: 678
Depth: 15.9-20.6
12/2017
6.1 ppt

MW-308C
ELE: 673
Depth: 21.3-26
12/2017
8.9 ppt

TMW-111
ELE: 691
Depth: 2.8-7.6
12/2017
4,400 ppt

TMW-109
ELE: 690
Depth: 5.4-10.1
12/2017
3,200 ppt

MW-306A
ELE: 689
Depth: 5.6-10.2
8/2017
9,700 ppt

MW-306A
ELE: 689
Depth: 5.6-10.2
12/2017
7,000 ppt

MW-306B
ELE: 684
Depth: 10.4-15.1
12/2017
9,600 ppt

MW-5
ELE: 689
Depth: 5-10
8/2017
18,000 ppt

MW-5
ELE: 689
Depth: 5-10
12/2017
12,000 ppt

MW-5
ELE: 689
Depth: 5-10
12/2017
14,000 ppt

MW-305B
ELE: 683
Depth: 12.1-16.8
12/2017
19,000 ppt

MW-305C
ELE: 674
Depth: 20.1-24.8
12/2017
33,000 ppt

MW-305C
ELE: 674
Depth: 20.1-24.8
4/2018
37,000 ppt

MW-3
ELE: 693
Depth: 2.3-7
12/2017
5,000 ppt

TMW-103
ELE: 688
Depth: 9.3-14.1
12/2017
3,800 ppt

MW-4
ELE: 691
Depth: 4-9
12/2017
38,000 ppt

TMW-105
ELE: 689
Depth: 5.5-10.3
12/2017
27,000 ppt

TMW-104
ELE: 692
Depth: 5.5-10.4
12/2017
6,200 ppt

MW-310A
ELE: 694
Depth: 4.5-9.5
12/2017
1,500 ppt

MW-310B
ELE: 686
Depth: 11.8-16.8
12/2017
2,000 ppt

MW-310C
ELE: 652
Depth: 47.2-50.2
12/2017
16 ppt

MW-302A
ELE: 689
Depth: 3.6-6
9/2017
9,600 ppt

MW-302A
ELE: 689
Depth: 3.6-6
12/2017
15,000 ppt

MW-302B
ELE: 682
Depth: 9.6-14.4
12/2017
6,800 ppt

TMW-101
ELE: 687
Depth: 5.7-10.5
12/2017
160,000 ppt

TMW-101
ELE: 687
Depth: 5.7-10.5
12/2017
250,000 ppt

TMW-101
ELE: 687
Depth: 5.7-10.5
4/2018
250,000 ppt

MW-301B
ELE: 685
Depth: 9.3-11.3
12/2017
27,000 ppt

MW-301C
ELE: 673
Depth: 19.6-24.6
3/2018
1,500,000 ppt

MW-301C
ELE: 673
Depth: 19.6-24.6
4/2018
490,000 ppt

MW-301D
ELE: 626
Depth: 66.7-71.5
3/2018
48 ppt

MW-309A
ELE: 690
Depth: 4.3-9.3
12/2017
6,200 ppt

MW-309B
ELE: 682
Depth: 12.1-17.1
12/2017
18,000 ppt

MW-309C
ELE: 665
Depth: 28.6-33.6
3/2018
13,000 ppt

MW-309D
ELE: 652
Depth: 42.4-47.2
3/2018
34,000 ppt

MW-309D
ELE: 652
Depth: 42.4-47.2
4/2018
50,000 ppt

N

0 150 300 600
Scale in Feet

## Legend

**TOTAL PFAS, ppt**

- 0 - 10
- 11 - 70
- 71 - 700
- 701 - 7,000
- 7,001 - 70,000
- 70,001 - 2,000,000

| NO. | ISSUE/DESCRIPTION | BY | DATE |
|---|---|---|---|
| | | | |
| | | | |
| | | | |



Rose & Westra, a Division of GZA
601 Fifth Street NW, Suite 102
Grand Rapids, Michigan 49504

SOURCE INVESTIGATION TASK SUMMARY
TOTAL PFAS GROUNDWATER SAMPLING DATA
TANNERY SITE

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
WOLVERINE WORLD WIDE, INC.

| | | | |
|---|---|---|---|
| PROJ MGR: LIP | REVIEWED BY: LIP | CHECKED BY: LIP | FIGURE |
| DESIGNED BY: JC | DRAWN BY: JC | SCALE: 1"=2000' | 1 |
| DATE: 06-13-18 | PROJECT NO. 16.0062355.02 | REVISION NO. | |

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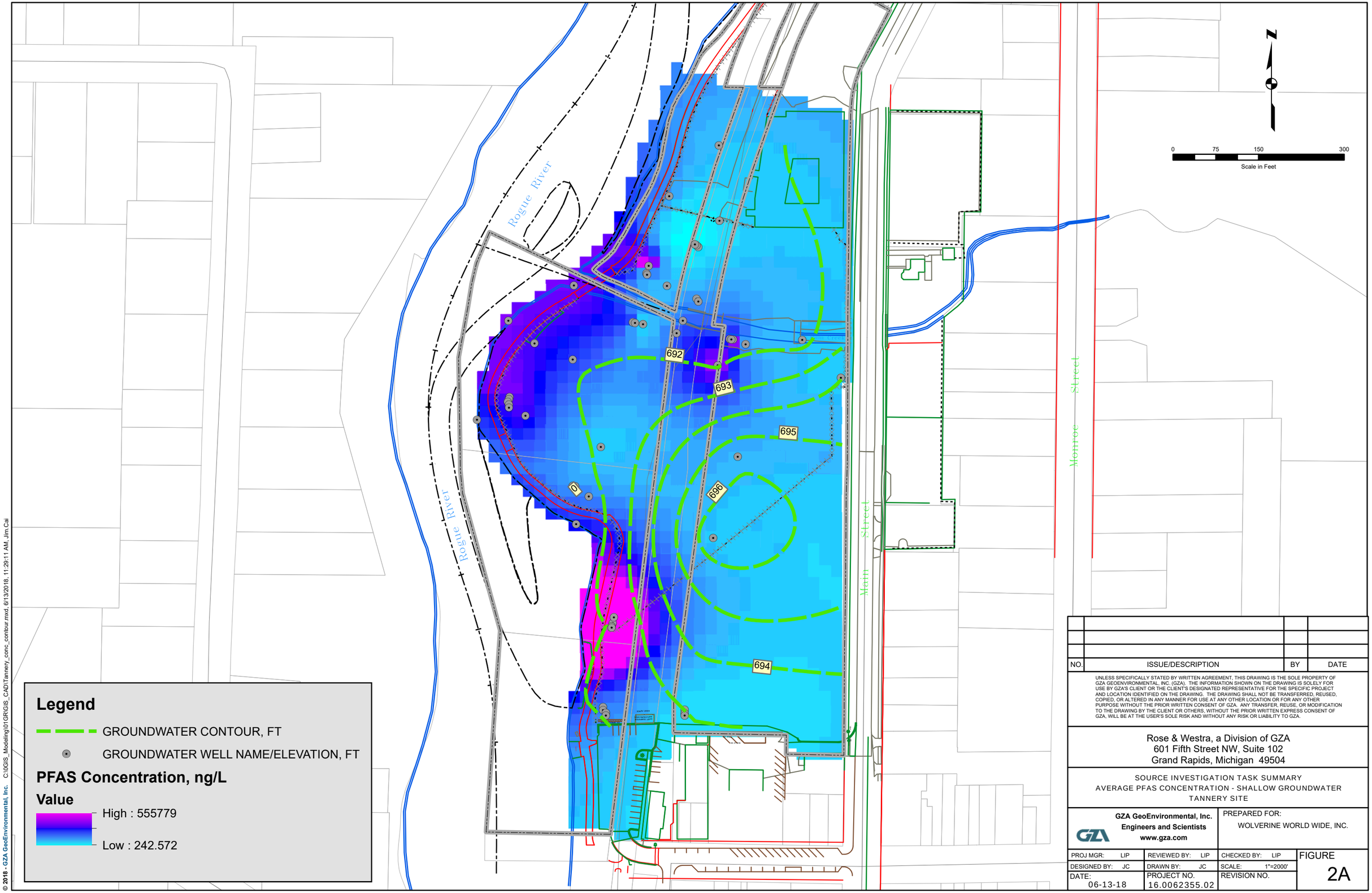


## Legend

GROUNDWATER CONTOUR, FT

GROUNDWATER WELL NAME/ELEVATION, FT

**PFAS Concentration, ng/L**

**Value**

High : 555779

Low : 242.572

| NO. | ISSUE/DESCRIPTION | BY | DATE |
|---|---|---|---|
| | | | |
| | | | |
| | | | |



Rose & Westra, a Division of GZA
601 Fifth Street NW, Suite 102
Grand Rapids, Michigan 49504

SOURCE INVESTIGATION TASK SUMMARY
AVERAGE PFAS CONCENTRATION - SHALLOW GROUNDWATER
TANNERY SITE

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
WOLVERINE WORLD WIDE, INC.

| | | | |
|---|---|---|---|
| PROJ MGR: LIP | REVIEWED BY: LIP | CHECKED BY: LIP | FIGURE 2A |
| DESIGNED BY: JC | DRAWN BY: JC | SCALE: 1"=2000' | |
| DATE: 06-13-18 | PROJECT NO. 16.0062355.02 | REVISION NO. | |

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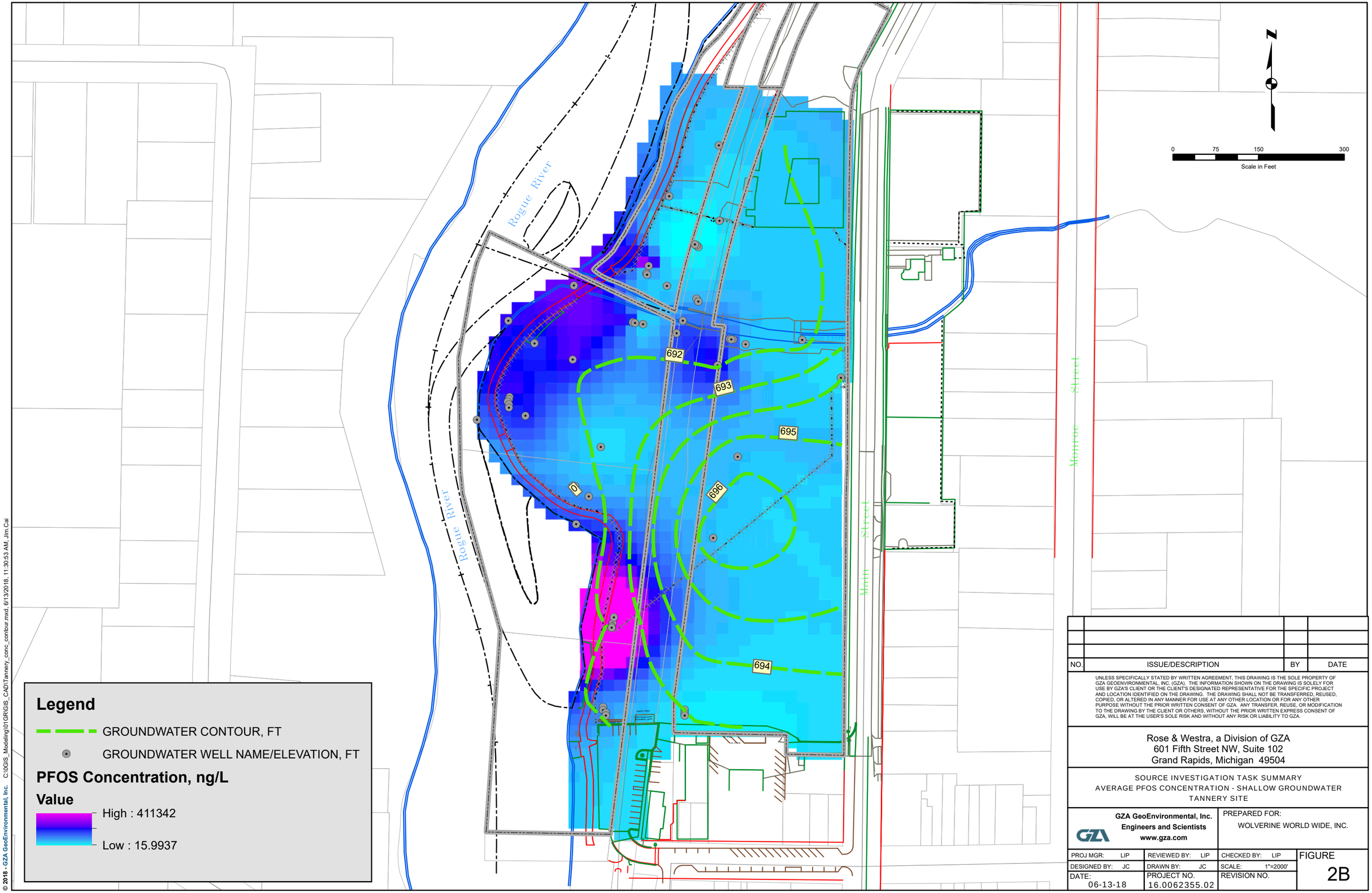


## Legend

- GROUNDWATER CONTOUR, FT
- GROUNDWATER WELL NAME/ELEVATION, FT

**PFOS Concentration, ng/L**

**Value**

- High : 411342
- Low : 15.9937

| NO. | ISSUE/DESCRIPTION | BY | DATE |
|---|---|---|---|
| | | | |
| | | | |
| | | | |



Rose & Westra, a Division of GZA
601 Fifth Street NW, Suite 102
Grand Rapids, Michigan 49504

SOURCE INVESTIGATION TASK SUMMARY
AVERAGE PFOS CONCENTRATION - SHALLOW GROUNDWATER
TANNERY SITE

GZA GeoEnvironmental, Inc.
Engineers and Scientists
www.gza.com

PREPARED FOR:
WOLVERINE WORLD WIDE, INC.

| | | | |
|---|---|---|---|
| PROJ MGR: LIP | REVIEWED BY: LIP | CHECKED BY: LIP | FIGURE 2B |
| DESIGNED BY: JC | DRAWN BY: JC | SCALE: 1"=2000' | |
| DATE: 06-13-18 | PROJECT NO. 16.0062355.02 | REVISION NO. | |

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## SYMBOL LEGEND

= MONITOR WELL LOCATION

= PEIZOMETER WELL LOCATION (LAND)

= PEIZOMETER WELL LOCATION (RIVER)

= SHALLOW TEMPORARY MONITOR WELL LOCATION

= VERTICAL PROFILE LOCATION

= SOIL BORING LOCATION

= HISTORIC SOIL BORINGS

MTC = 1976 MATERIALS TESTING CONSULTANTS
MES = 1999 WASTEWATER EXPANSION BORINGS
TE = 1976 TANNERY EXPANSION BORINGS
1974 BORINGS = SB-1A, SB-2A & SB-3A

= VEGETATED WETLAND AREA

= APPROXIMATE LIMITS OF SEDIMENT > 0.25ft

= APPROXIMATE LIMITS OF EXCAVATION AREA (FALL OF 2010)

NORTH

SCALE : 1" = 50'

# SITE PLAN W/ GEOLOGICAL SECTION CUTS

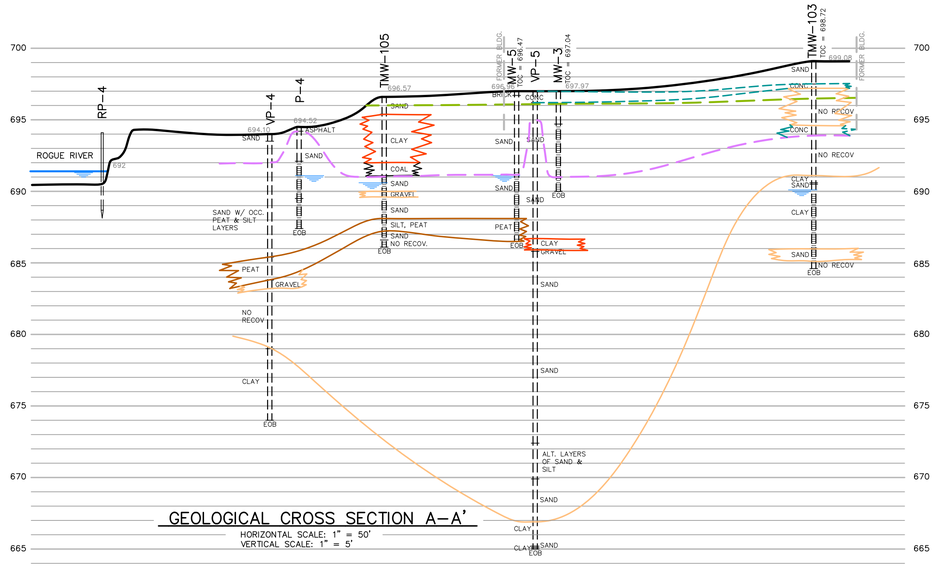
| | |
|---|---|
| PROJECT NO. | 16.0062335.02 |
| SHEET NO. | 3 |

ROSE & WESTRA
A DIVISION OF GZA
Grand Rapids, Michigan
GEOTECHNICAL-ENVIRONMENTAL-ECOLOGICAL-WATER-CONSTRUCTION MANAGEMENT

# WOLVERINE WORLD WIDE
## FORMER TANNERY - ROCKFORD, MICHIGAN
## SOURCE INVESTIGATION
## TASK SUMMARY

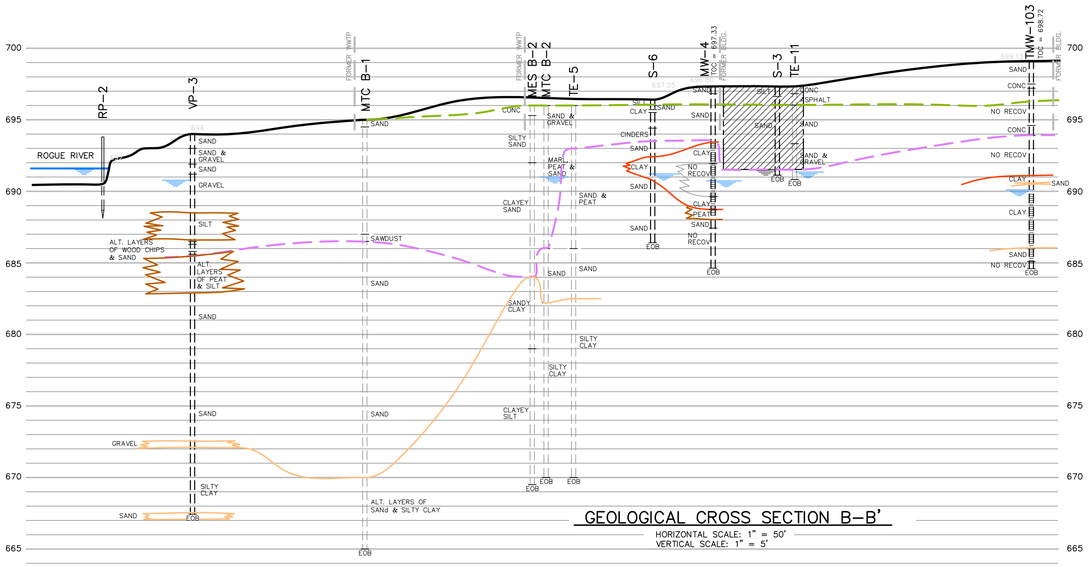
| NO. | REVISIONS | BY | DATE |
|---|---|---|---|
| | REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS | | |

| | |
|---|---|
| FILE NO.: | 62335_02_DEG |
| DRAWN BY | KJB |
| DESIGN BY | JMW |
| DATE | 6/12/18 |



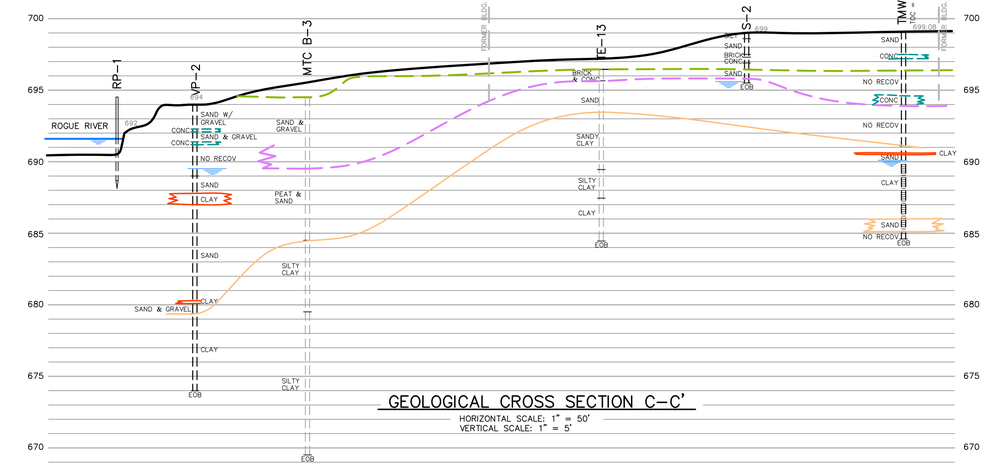

## GEOLOGICAL CROSS SECTION A–A'

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'



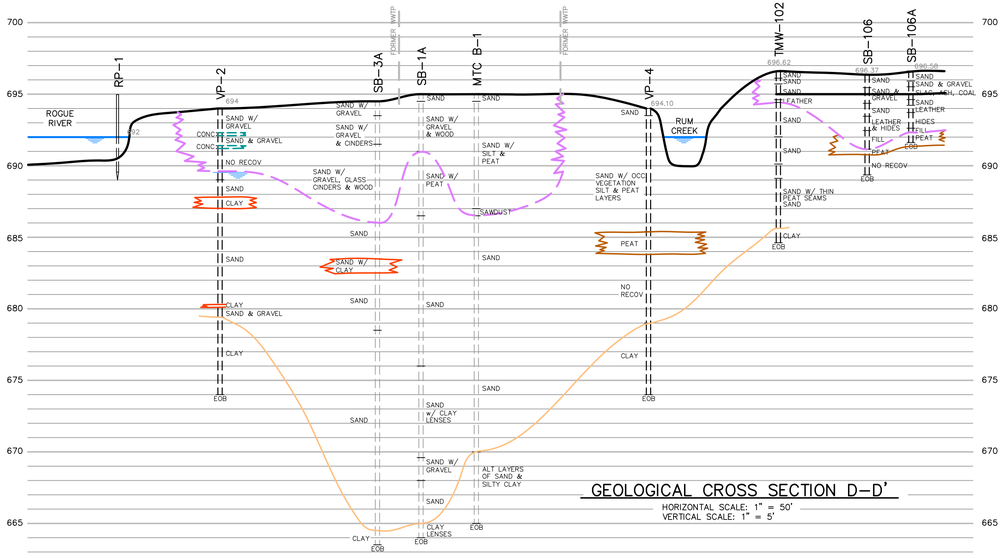

## GEOLOGICAL CROSS SECTION B–B'

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'




## GEOLOGICAL CROSS SECTION C–C'

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'




## GEOLOGICAL CROSS SECTION D–D'

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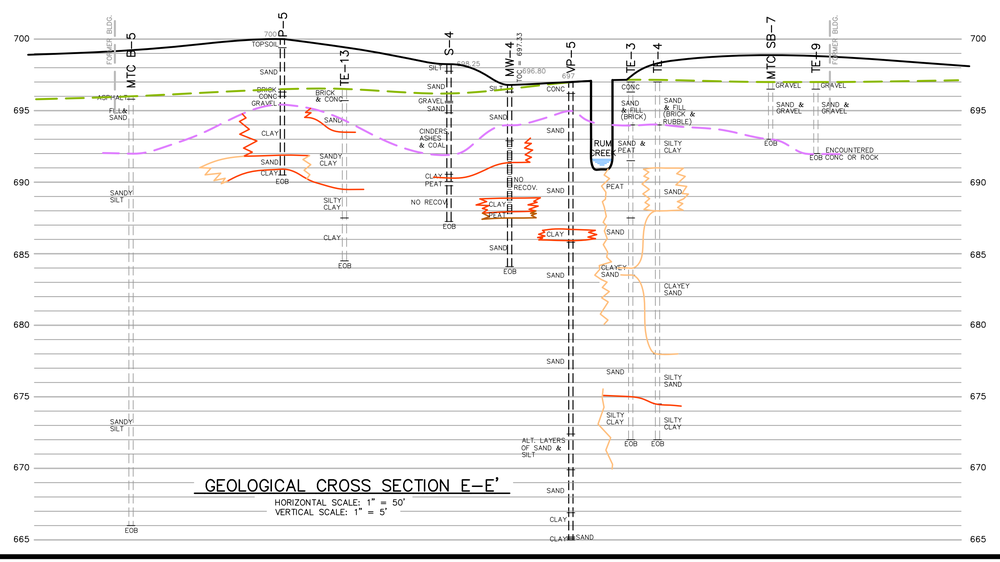
VERTICAL SCALE: 1" = 5'




## GEOLOGICAL CROSS SECTION E–E'

HORIZONTAL SCALE: 1" = 50'
VERTICAL SCALE: 1" = 5'

LEGEND

= BOTTOM OF FILL (POST–TANNERY DEMOLITION)

= BOTTOM OF FILL (HISTORICAL)

| NO. | DATE | BY | REVISIONS |
|---|---|---|---|
| | | | REVISED IN ACCORDANCE WITH CONSTRUCTION RECORDS |

DRAWN BY: KJB | DESIGN BY: JMW | DATE: 6/12/16

FILE NO.: 62395_02_DEG

# WOLVERINE WORLD WIDE
## FORMER TANNERY - ROCKFORD, MICHIGAN
## SOURCE INVESTIGATION
## TASK SUMMARY

ROSE & WESTRA
A DIVISION OF GZA
Grand Rapids, Michigan
GEOTECHNICAL–ENVIRONMENTAL–ECOLOGICAL–WATER–CONSTRUCTION MANAGEMENT

PROJECT NO.
16.0062335.02

SHEET NO.
4