Outlook

RACER Saginaw Malleable and Green Point Landfill - 2024 Annual Progress Report

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Date Fri 1/10/2025 4:01 PM
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1 attachment (20 MB)
2025-01-10 Saginaw Malleable 2024 Annual Progress Report.pdf;

Good afternoon Andrew,
Attached please find the Saginaw Malleable and Green Point Landfill 2024 Annual Progress Report submitted on behalf of the RACER Trust. The report summarizes site activities completed during 2024. As noted in the attached report this sampling occurred utilizing the no purge sampling method with hydrasleeves and the results show a continued strong correlation to the historic low flow sampling trends and no purge is recommended to be the continued sample method for the long term monitoring. A CD with the report is being prepared for submittal to the Bay City District office for the file as well. Feel free to contact Brendan Mullen or I with any questions.
Thanks,
Scott

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Date: January 10, 2025
Our ref: 30213352

Subject:
Annual Progress Report - December 2023 through December 2024
RACER Trust Saginaw Malleable Industrial Land, Green Point Landfill, and Peninsula Property
Saginaw, Michigan

Dear Mr. Karg,

This annual progress report presents a summary of the work activities conducted during the period of December 2023 through December 2024 for the Revitalizing Auto Communities Environmental Response (RACER) Trust Saginaw Malleable Industrial Land (SMI), Green Point Landfill (GPL), and Peninsula former properties located in Saginaw, Michigan (the Site, **Figure 1**). This progress report also provides a summary of the work activities anticipated at the Site for the next 12-month period.

KEY CORRESPONDENCE

The key correspondence between the Michigan Department of Environment, Great Lakes and Energy (EGLE), U.S. Environmental Protection Agency (EPA), or City of Saginaw from Arcadis and/or GHD on behalf of RACER Trust during the reporting period are as follows:

- The 2023 Annual Report was submitted by Arcadis on January 2, 2024.
- A work notification email was submitted to EGLE and Saginaw County Parks by Arcadis on April 30, 2024, in preparation for the annual cover inspection event that took place in May 2024.
- An email was received from EGLE on May 8, 2024, acknowledging the review of the 2023 Annual Report with an approval to:
  - continue the use of no purge sampling method with HydraSleeve™ samplers (hydrasleeves) in 2024
  - redevelop monitoring wells with previously elevated results that may be related to sediment or turbidity prior to sampling in 2024, and
  - discontinue PFAS analysis at monitoring wells MW-117S1, MW-118WT, MW-183WT, X-9AR, and MW-122WT.
- A work notification email was submitted to EGLE and Saginaw County Parks by Arcadis on August 27, 2024, in preparation for a well redevelopment event and the annual groundwater monitoring event.

- An email was sent to EGLE on September 9, 2024, regarding results of the well redevelopment activities conducted on certain wells that had high turbidity during the 2023 groundwater sampling event. The communication requested approval to sample monitoring well MW-108S1 as an alternate to MW-108WT which was found to have less than a foot of water and did not recharge during redevelopment attempts. EGLE responded on September 10, 2024, with approval to sample MW-108S1 as an alternate to MW-108WT.

CONFERENCE CALL/MEETINGS

- A Teams meeting was held on July 25, 2024, among EGLE, RACER, and Arcadis to review the Site relative to the in-progress EGLE/USEPA/RACER collaborative funding prioritization process and in preparation for drafting the 2025 budget request.

SITE ACTIVITIES

Site Inspection and Maintenance

- A site inspection was conducted on May 3, 2024, to inspect the SMI cover areas and ponds, Green Point Landfill and the exposure barriers at the Peninsula Property, in accordance with the Operation and Maintenance (O&M) Plan (Arcadis, August 2020) to ensure the ongoing effectiveness of various site corrective measures as summarized in the table below, at the locations depicted on **Figure 2.**
- Inspection results are discussed further below and documented in the Site Inspection Form (**Attachment 1**).

Summary of Site Operation and Maintenance Activities

No.	Site Area	Operation and Maintenance Activities
1	Green Point Landfill	Annual inspection of cover system, leachate breakouts, surface water drainage system, passive gas venting system, groundwater monitoring wells, site access and security, wetlands, and site appearance.
2	Terminated Type III Landfills	Annual soil cover inspection.
3	SMI Former Plant Slab Soil Cover Area	Annual soil cover inspection.
4	I27.7 Area	Annual soil cover inspection.
5	Quench Pit Area	Annual soil cover inspection.
6	Melting Department	Annual soil cover inspection.
7	SMI Former Southwest LNAPL Area	Annual soil cover inspection.
8	Former Railyard Area	Annual soil cover inspection.
9	Peninsula Property	Annual soil cover inspection.
10	Permanent Markers	Annual inspection of permanent markers.
11	Stormwater Pond & Secondary Settling Pond	Annual inspection for absence/presence of sheens.

- Maintenance was performed at the Site on June 12, 2024. Arcadis oversaw maintenance activities performed by the Murin Company which included mowing and brush hog services on the northeast SMI Terminated Type III Landfill.

Site Restrictions Annual Inspection Summary

- For each area of the Site, the following table summarizes Restrictive Covenant (RC) Items, areas that contain these restrictions, and if there has been a change in the condition.

Summary of Restrictive Covenant Items

Restrictive Covenant Item	Area(s)	Change in Condition (Yes/No)
Restrict land use to non-residential and passive recreational	SMI Property GPL Property Peninsula Property	No
Restricts installation of drinking water wells	SMI Property GPL Property Peninsula Property	No
Prohibit activities that interfere with, damage, or disturb remedy components	SMI Property GPL Property Peninsula Property	No
Prohibit intrusive activities	Southwest Plant LNAPL Area Former Quench Pit Area Former SMI Plant Slab I27.7 Manhole Area Former Melting Department Area Former Railyard Area Terminated Type III Landfills Stormwater Pond GPL Landfill Cap Former Hillock Area Peninsula Property	No
Prohibits construction of buildings	Former SMI Plant Slab GPL Landfill Cap Peninsula Property	No
Requires a soil vapor intrusion assessment and/or engineering controls prior to constructing or occupying any building or structures on-Site	SMI Property GPL Property Peninsula Property	No

Restrictive Covenant Item	Area(s)	Change in Condition (Yes/No)
Restricts construction of subsurface features	GPL Property Peninsula Property	No
Require soil cover/other cover material	Southwest Plant LNAPL Area Former Quench Pit Area Former SMI Plant Slab I27.7 Manhole Area (flowable concrete) Former Melting Department Area Former Railyard Area Terminated Type III Landfills (+ vegetative cover) Peninsula Property Exposure Barrier (Lead Impacted Areas)	No
Require multi-layer cap	GPL Landfill Cap (+ infiltration barrier)	No
Prohibit swimming, wading, boating, and fishing	On-Site Surface Water Bodies	No
Prevent non-approved alterations or disturbances	Mitigation Wetlands	No
Prohibit removing/damaging bulkheads and connections to inactive storm sewers	Storm Sewers	No
Prohibits unacceptable human exposure to surface water and sediment	SMI Property GPL Property	No

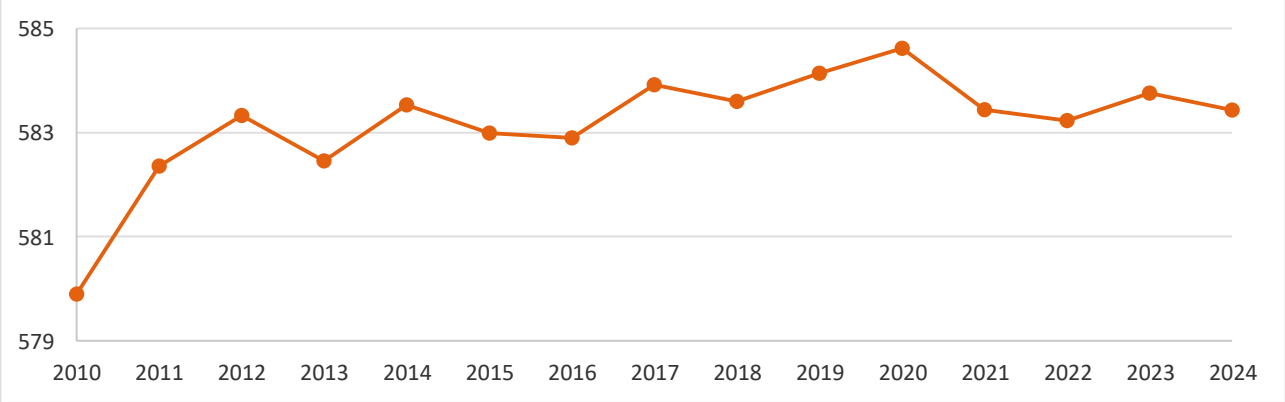
Well Redevelopment

- Monitoring well redevelopment occurred on September 5 and 6, 2024, prior to sampling, as proposed in the 2023 Annual Report. Wells were chosen for redevelopment based on observed elevated results collected in 2023 that may have been related to sediment or turbidity (MW-110TR, MW-111WT, MW-114WT, MW-149WT, MW-185WT, and MW-186WT) and wells that had shallow water columns (MW-107WT, MW-108WT, and X-4AR). During redevelopment, MW-108WT was observed to have insufficient water for sampling. It was proposed to and approved by EGLE to redevelop and sample MW-108S1 in place of MW-108WT.
- Additionally, during redevelopment, it was discovered that there was an old pump stuck at the base of X-4AR that was previously blocking the screen and sediment had accumulated above. The pump was not able to be removed but was pushed further down, allowing the screen to be unblocked. The remaining wells were successfully redeveloped as planned.

SMI Annual Operation, Maintenance, and Monitoring

- Arcadis mobilized with the Murin Company on September 4, 2024, to complete mowing paths to and around wells where vegetation was overgrown at the Site in preparation for the annual O&M event to allow easier access to sample.
- The annual O&M and groundwater monitoring event occurred from September 9 through September 12, 2024, in accordance with the 2020 O&M Plan (submitted on August 14, 2020, and approved by EGLE on July 31, 2020), and email communications with EGLE in May 2024 for the continued use of no purge sampling method with hydrasleeves.
- All 45 of the SMI monitoring wells planned to be gauged were gauged on September 9, 2024, with an electronic water level indicator graduated at 0.01-foot increments, to measure static groundwater elevations, which are provided in **Table 1**. Additionally, measurements were collected at staff gauge SG-1 within the Secondary Settling Pond and river gauge RG-1 from the Center Street bridge over the Saginaw River. The following 10 LNAPL monitoring locations were gauged by Arcadis during the gauging event: QP-1R, QP-2R, QP-3R, QPTW-03R2, QPTW-04R, QPTW-05R, FV3.0, S5.6, V3.6, and X5.9, see **Attachment 2** for more detail.
- The average annual groundwater elevations are shown in the graph below. Groundwater elevations rose approximately 3 feet between 2010 and 2012 following plant demolition (2010) and storm sewer bulkheading, and elevations were stable between 2012 to 2018. The average groundwater elevation gradually increased another foot from 2018 to 2020. The average groundwater elevation dropped in 2021 and again in 2022. In 2023 the groundwater elevation increased slightly and then dropped again in 2024 to 583.43 feet above mean sea level (amsl), indicating the average groundwater elevation is stable, as previously observed from 2012 through 2018 but varies somewhat depending on the amount of annual precipitation.

Average Groundwater Elevation Sitewide Per Year



- As shown on **Figure 3**, groundwater generally flows east-southeast towards the Saginaw River in the SMI portion of the Site and transitions to more southerly flow in the GPL portion.
- No-purge groundwater sampling was completed utilizing 1.75-inch by 38-inch, 1-liter per- and polyfluoroalkyl substances (PFAS)-free high-density polyethylene (HDPE) hydrasleeves. The hydrasleeves (connected to a 5-ounce bottom weight and 24-ounce top weight to compress the hydrasleeve to the bottom of the well) were deployed following the well gauging and were left in place for

at least 24-hours to allow equilibration prior to retrieval and sample collection. After the equilibration period, the hydrasleeve was pulled upward, which opened a 1-way reed valve at the top of the hydrasleeve, allowing groundwater to be captured from a discreet interval within the screen, once full, the pressure of the hydrasleeve pushes the valve closed, preventing mixing of groundwater in the well above the screened interval. The sample bottle set was then filled and the remaining water in the hydrasleeve was used to measure field parameters.

- A total of 14 of the 15 monitoring wells in the annual SMI groundwater monitoring program were able to be sampled: (MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114WT, MW-114S2, MW-149WT, MW-185WT, MW-186WT, MW-131WT, MW-134WT, B-3R, and QPTW-13R). There was insufficient water in MW-108WT to collect a sample; therefore MW-108S1 was sampled in place of MW-108WT. The water column in monitoring wells MW-107WT was too shallow to obtain a sample with use of a hydrasleeve, therefore a bailer was used to collect a grab sample at this location.
- A well construction and screen interval summary table, sampling parameters, and field parameters at the time of sampling for the SMI monitoring wells are included in **Attachment 3**.
- Groundwater concentrations were compared to the Site-specific Groundwater-Surface Water Interface (GSI) criteria, which have been identified as the minimum EGLE Rule 57 criterion for each constituent[1]. The results from the sampling are summarized in **Table 2 and Figure 4** (inorganics) and **Table 3 and Figure 5** (organics) and as follows.
    - Total and dissolved arsenic were detected in both locations analyzed (MW-107WT and MW-149WT) at concentrations below the Site-specific GSI criterion of 680 µg/L[2].
    - Manganese was detected in all seven wells sampled (MW-107WT, MW-108S1, MW-110WTR, MW-111WT, MW-114WT, MW-185WT, and MW-186WT). Concentrations were below the Site-specific GSI criterion of 4,700 µg/L and generally decreased compared to the 2023 results.
- EGLE previously evaluated a mixing zone application submitted by General Motors Corporation and established that there is no reasonable potential for ammonia to cause an exceedance of water quality standards. Concentrations of un-ionized ammonia were calculated using the measured groundwater temperatures and pH immediately prior to collecting each groundwater sample. The calculated un-ionized ammonia concentrations were greater than the Site-specific GSI criterion of 53 µg/L for warm water bodies for monitoring well MW-108S2 at a concentration of 81 µg/L for parent sample (80 µg/L for duplicate sample). All other monitoring wells did not exceed Site-specific criterion.
    - Total phosphorus was detected in the groundwater samples collected from monitoring wells MW-107WT, MW-108S1, MW-110WTR, MW-111WT, MW-114WT, MW-149WT, MW-185WT, and MW-186WT. Concentrations were above the Site-specific GSI criterion of 1,000 µg/L at MW-149WT (1,500 µg/L) and generally decreased compared to 2023 results.

[1] Criteria are the current EGLE Rule 57 criteria. Hardness-dependent EGLE Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 monitoring event. pH-dependent EGLE Rule 57 criteria are based on a default pH of 7. Un-ionized ammonia concentrations were calculated using field-measured pH and groundwater temperature, where available.

[2] The GSI mixing zone concentration for total arsenic was established for venting groundwater under the RAP and based on the 5 Year Mixing Zone Review renewals approved on August 5, 2016, and October 21, 2021.

  - Five locations (MW-110WTR, MW-111WT, MW-114WT, MW-185WT, and MW-186WT) were analyzed for polychlorinated biphenyls (PCBs). The Site-specific GSI criterion for PCBs is 0.2 micrograms per liter (µg/L).[3] Total fraction Aroclor 1248 was detected in three locations (MW-110WTR, MW-111WT, and MW-185WT), dissolved fraction Aroclor 1248 was detected in one location (MW-111WT), and total fraction Aroclor 1254 was detected in three locations (MW-110WTR, MW-114WT, and MW-186WT). The remaining analyzed total and dissolved fraction Aroclors were not detected. Total fraction Aroclor 1248 exceeded the Site-specific GSI criterion at two locations (MW-110WTR [0.29 µg/L] and MW-111WT [6.7 µg/L in the parent sample and 2.4 µg/L in the duplicate sample]), while the dissolved fraction Aroclor 1248 did not exceed the Site-specific GSI criterion. The total fraction Aroclor 1254 concentrations did not exceed the Site-specific GSI criterion. The non-detect or lower dissolved fraction concentrations indicate that the PCBs are likely associated with suspended solids in the groundwater samples. Arcadis proposes to increase equilibration time after deployment before sampling, continue to look for ways to improve deployment, and evaluate techniques of filling parent and duplicate bottles while minimizing disturbance in the hydrasleeve for future samples to be analyzed for PCBs.
  - The sample collected from MW-108S1 was analyzed for semi-volatile organic compounds (SVOCs). The results were non-detect.
- During the annual O&M monitoring event in September 2024, samples from five monitoring wells located within SMI (**Figure 6**) were analyzed for per- and polyfluoroalkyl substances (PFAS). The results from the sampling are summarized in **Table 4**.
  - Perfluorooctanesulfonic acid (PFOS) was detected above EGLE GSI Criterion at monitoring wells B-3R and MW-131WT but at concentrations consistent with previous sampling.
- Analytical data are provided in **Attachment 4** and Groundwater sampling logs are provided in **Attachment 5**.
- The SMI Former Plant Slab Soil Cover Area, I27.7 Manhole Area, Quench Pit Area, SMI Former Southwest LNAPL Area, Former Railyard Area, Stormwater Pond, Secondary Settling Pond, River Berm Area, and Two Terminated Type III Landfills were inspected during the May 2024 Site Inspection. The inspection forms are provided in **Attachment 1.**
- Maintenance of items that were identified were completed on June 12, 2024. Maintenance included mowing and brush hog services provided by Murin Company on the northeast SMI Terminated Type III Landfill. The maintenance form is provided in **Attachment 1**.

Green Point Landfill (GPL) Annual Operation, Maintenance, and Monitoring

- Arcadis mobilized with Murin Company on September 4, 2024, to complete mowing paths to and around wells where vegetation was overgrown at the Site in preparation for the annual O&M event to allow easier access to perform sampling.
- The annual O&M and groundwater monitoring event occurred from September 9 through September 12, 2024, in accordance with the 2020 O&M Plan approved by EGLE on July 31, 2020, and email communications with EGLE in May 2024 for the continued use of no purge sampling method with hydrasleeves and request for PFAS analysis to continue at X-2A, MW-117WT, X-10AR2, TWW-1, and

[3] The risk-based criterion is 0.000026 µg/L; however, this value defaults to the EGLE target detection limit of 0.2 µg/L.

MW-125WT and approval for discontinuation for analyzing sample for PFAS from the remaining five monitoring wells (MW-117S1, MW-118WT, MW-183WT, X-9AR, and MW-122WT).

- All 30 GPL monitoring wells planned to be gauged were gauged with an electronic water level indicator to measure static groundwater elevations to the nearest 0.01 foot (see **Table 1 and Figure 3**).
- All 16 monitoring wells in the annual GPL monitoring program were able to be sampled: MW-117WT, MW-117S1, MW-118WT, MW-118S1, MW-183WT, X-4AR, X-4CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, X-9D, TW-242, TWW-1, X-10AR2, and X-2A. No purge method was used to collect samples with hydrasleeves in the same manner as discussed above. The water column in monitoring wells X-4AR was too shallow to obtain a sample with use of a hydrasleeve, a peristaltic pump was used to collect a sample at this location as a bailer was not able to be deployed at this monitoring well.
- A well construction and screen interval summary table, sampling parameters, and field parameters at the time of sampling for the GPL monitoring wells are included in **Attachment 6**.
- The results from the sampling are summarized in **Table 5, Figure 7** (inorganics)**, and Figure 8** (Gen Chem) and as follows.
    - Total arsenic was detected at concentrations below the Site-specific GSI criterion in samples collected from monitoring wells MW-117WT, MW-118WT, MW-183WT, X-4AR, X-4D, X-9AR, X-9BR, and X-9D, adjacent to the Saginaw River. Dissolved arsenic was detected at concentrations below Site-specific GSI criterion in samples collected from monitoring well X-4AR. Total and dissolved arsenic were not detected at the remaining locations analyzed.
    - Total and dissolved barium were detected at concentrations above Site-specific GSI criterion in samples collected from MW-117WT and MW-117S1. Total and dissolved barium were detected at concentrations below Site-specific GSI criterion in samples collected from MW-118S1, MW-118WT, MW-183WT, X-4AR, X-4CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, and X-9D.
    - Total and dissolved iron were detected at concentrations below Site-specific GSI criterion in samples collected from monitoring wells MW-117S1, MW-117WT, MW-118S1, MW-118WT, MW-183WT (total only, dissolved iron was not detected), X-4AR, X-CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, and X-9D, adjacent to the Saginaw River.
    - Total and dissolved manganese were detected at concentrations below Site-specific GSI criterion in samples collected from monitoring wells MW-117S1, MW-117WT, MW-118S1, MW-118WT, MW-183WT, X-4AR, X-4CAUGR, X-4D, X-9AR, X-9BR, X-9CAUG, and X-9D, adjacent to the Saginaw River.
    - Total and dissolved selenium were not detected in the monitoring wells sampled adjacent to the Saginaw River.
    - Total cyanide was detected above Site-specific GSI criterion (5.2 µg/L) at X-9AR (85 µg/L). Total cyanide was not detected at any other monitoring wells sampled and dissolved cyanide was not detected in the monitoring wells sampled that are located adjacent to the Saginaw River.
- EGLE previously evaluated a mixing zone application submitted by GM and Waste Management and established that there was no reasonable potential for ammonia to cause an exceedance of water quality standards. The concentrations of un-ionized ammonia were calculated using the measured groundwater temperatures and pH immediately prior to collecting each groundwater sample. The calculated un-ionized ammonia concentration was greater than the Site-specific GSI criterion of 53 µg/L for warm water bodies in monitoring well MW-118S1 at a concentration of 63 µg/L. The calculated un-ionized ammonia

concentrations in co-located monitoring wells X-4AR[4], X-4CAUGR, and X-4D and in nearby monitoring wells X-9AR, X-9BR, X-9CAUG, and X-9D did not exceed the Site-specific criterion.

  - Concentrations of chloride were similar to those seen in prior years. Monitoring wells X-4D and X-9D are perimeter wells used for comparison to GSI criterion. Concentrations of chloride in monitoring wells X-4D and X-9D were above the Site-specific GSI criterion of 150,000 µg/L, at concentrations of 1,160,000 µg/L and 1,180,000 µg/L parent sample (1,210,000 duplicate sample), respectively. The results are within the range of previously detected concentrations for X-4D and decreased in concentration for X-9D. Bedrock in the general vicinity of the Site is known to be high in chlorides, sodium, and other minerals, and may be contributing to elevated chloride concentrations with depth. The chloride concentrations in co-located monitoring wells screened at shallower intervals (X-4AR, X-4CAUGR, X-9AR, X-9CAUG) at these locations did not exceed the Site-specific GSI criterion. The chloride concentration in X-9BR did exceed the Site-specific GSI criterion.
  - Detected concentrations of nitrate, nitrite, and sulfate were below Site-specific GSI criteria.
  - Total dissolved solids (TDS) concentrations were similar to those seen in prior years. Monitoring wells X-4D and X-9D are perimeter wells used for evaluating potential GSI impacts. The established background screening level concentration for TDS in the RAP is 2,200,000 µg/L. Results from the samples collected from X-4D and X-9D were above the background screening level, at a concentration of 2,420,000 µg/L in the parent sample (2,590,000 µg/L in the duplicate sample) and 2,390,000 µg/L, respectively.

- During the annual O&M monitoring event in September 2024, samples from five monitoring wells within GPL (**Figure 6**) were analyzed for PFAS. The results from the sampling are summarized in **Table 4**.
  - PFOS was detected above EGLE GSI Criterion at monitoring well X-2A.
- Analytical data are provided in **Attachment 4** and Groundwater sampling logs are provided in **Attachment 5**.
- Green Point Landfill was inspected during the May 2024 Site Inspection. The inspection forms are included in **Attachment 1**.
- Maintenance was completed on May 3, 2024, on the Green Point Landfill. The maintenance included trimming woody bushes/shrubs. The maintenance form is provided in **Attachment 1**.

Peninsula Property Annual Operation, Maintenance Inspection

- Exposure barriers at the Peninsula Property were inspected during the May 2024 Site Inspection. The barriers were in good condition and no notable observations were identified during the inspection. The inspection forms are included in **Attachment 1**.

PCB and LNAPL Activities

- Completed inspections of 25.4 acre 1-ft clay cover over the concrete floor slab, including the I27.7 Manhole Area. See **Attachment 1 and 2** for a summary of the inspections.
- Completed annual gauging/inspection of the Quench Pit wells and manholes in the Southwest Plant LNAPL Area during the annual O&M event that occurred from September 2024. There was no

measurable product identified in the Southwest Plant LNAPL Area manholes. See **Attachment 2** for a summary of the annual gauging/inspections of the LNAPL areas.

CONCLUSION

The 2024 annual inspections confirmed all components of the Site controls and restrictions are in compliance with the restrictive covenants as summarized above on pages 3 and 4. Maintenance actions to mitigate woody growth on the Type III landfills were successfully addressed by mowing and brush-hogging. The results of the no purge groundwater sampling showed continued close correlation to historical trends continuing to show it is a viable cost saving method for groundwater monitoring at the Site. The well redevelopment conducted prior to sampling on several wells showed concentration trends returned to expected concentrations and lowered turbidity. Arcadis recommends that the use of no purge sampling with hydrasleeves be continued for long-term routine monitoring for the Site.

The following activities are currently planned to be completed during 2025 in accordance with the EGLE approved O&M Plan:

- Complete annual groundwater monitoring. Sampling is expected to take place towards the end of the third quarter of 2025.
- Conduct inspection of the clay cover over the slab, including the I27.7 Manhole Area at least annually, and complete repairs and maintenance, as necessary including evaluating the need for a mowing event of the vegetated clay cover over the slab.
- Complete annual inspections/monitoring associated with the LNAPL areas.
- Respond to other information requests from EGLE, as necessary.
- Coordinate with MDNR and the Saginaw County Parks regarding park development, as necessary.

The following modifications to the EGLE approved O&M Plan are proposed:

- Arcadis proposes to continue use of the no purge sampling method with hydrasleeves for the year 2025 based on the comparable results, ease of the method, and cost saving value for this long-term monitoring program.
  - Deploy and allow longer equilibration of the hydrasleeves within monitoring wells.
  - Continue to look for ways to improve deployment of the hydrasleeves to reduce potential effect of turbidity.
- Redevelopment was shown to effectively improve sample quality and will be utilized again if wells develop increasing sediment and or turbidity.
- Arcadis proposes to sample monitoring well MW-108S1 in place of MW-108WT if insufficient water is observed again.

Please contact me at 810-225-1921, or Brendan Mullen with RACER if you have any questions regarding the enclosed report or its attachments.

Sincerely,
Arcadis of Michigan, LLC



Scott Clearwater
Certified Project Manager

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Amanda Armbruster, EGLE
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Peter Ramanauskus, U.S. EPA
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David Favero, RACER Trust
Brendan Mullen, RACER Trust
John-Eric Pardys, GHD

Enclosures:

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3 Groundwater Elevation Contour Map Shallow Aquifer – September 2023
4 SMI Inorganics Sampling Results
5 SMI Organics Sampling Results
6 PFAS Sampling Results
7 GPL Inorganics-Metals Sampling Results
8 GPL Inorganics-GenChem Sampling Results

Attachments

1 SMI and Green Point Landfill Site Inspection Forms
2 2024 PCB Cover Inspections and Quarterly LNAPL Gauging/Inspections
3 SMI Well Construction Logs, Sampling Parameters, and Field Parameters
4 Laboratory Analytical Reports
5 Field Sampling Logs
6 GPL Well Construction Logs, Sampling Parameters, and Field Parameters

Tables

Table 1
Summary of Water Elevation Table
September 9, 2024
RACER Trust, Saginaw, Michigan

Location	Well Type	Ground Elevation (feet AMSL)	TOC Elevation (feet AMSL)	9/9/24 Depth to Water (feet)	Groundwater Elevation (feet AMSL)	Site Area (GPL or SMI)
Sampled Monitoring Wells (Green Point Landfill)						
MW-117WT	Stick Up	Ground Submerged	586.10	3.28	582.82	GPL
MW-117S1	Stick Up	Ground Submerged	586.76	4.13	582.63	GPL
MW-118WT	Stick Up	Ground Submerged	586.13	3.29	582.84	GPL
MW-118S1	Stick Up	Ground Submerged	586.39	3.93	582.46	GPL
MW-125WT	Stick Up	585.25	587.35	4.99	582.36	GPL
MW-183WT	Stick Up	586.83	589.08	8.46	580.62	GPL
X-2A	Stick Up	591.77	593.57	5.45	588.12	GPL
X-4AR	Stick Up	584.04	586.41	5.57	580.84	GPL
X-4CAUGR	Stick Up	583.55	585.98	5.60	580.38	GPL
X-4D	Stick Up	583.15	585.85	2.31	583.54	GPL
X-9AR	Stick Up	584.76	587.30	7.93	579.37	GPL
X-9BR	Stick Up	585.24	587.23	7.31	579.92	GPL
X-9CAUG	Stick Up	584.60	587.02	7.10	579.92	GPL
X-9D	Stick Up	584.58	587.07	3.58	583.49	GPL
X-10AR2	Stick UP	592.74	595.39	8.25	587.14	GPL
TWW-1	Stick Up	584.04	588.07	6.53	581.54	GPL
Sampled Monitoring Wells (Saginaw Malleable Industrial Land)						
B-3R	Stick Up	594.27	596.72	8.86	587.86	SMI
MW-107WT	Flushmount	588.50	588.00	7.86	580.14	SMI
MW-107S1	Flushmount	588.65	588.17	8.63	579.54	SMI
MW-108WT	Stick Up	588.52	590.82	10.21	580.61	SMI
MW-108S2	Stick Up	588.57	590.58	11.14	579.44	SMI
MW-110WTR	Stick Up	589.40	591.67	12.58	579.09	SMI
MW-111WT	Stick Up	589.57	591.17	9.40	581.77	SMI
MW-114WT	Stick Up	589.75	591.29	8.10	583.19	SMI
MW-114S2	Stick Up	589.55	591.36	10.92	580.44	SMI
MW-131WT	Stick Up	591.54	592.83	5.51	587.32	SMI
MW-134WT	Flushmount	591.79	591.57	4.25	587.32	SMI
MW-149WT	Stick Up	589.86	592.52	13.00	579.52	SMI
MW-185WT	Stick Up	586.59	589.01	7.01	582.00	SMI
MW-186WT	Stick Up	586.91	589.57	9.48	580.09	SMI
QPTW-13R	Flushmount	594.29	593.56	4.99	588.57	SMI
Gauging Only Monitoring Wells						
B-3BAUG	Stick Up	594.76	596.91	13.23	583.68	SMI
B-5BAUG	Flushmount	592.89	592.66	9.98	582.68	SMI
B-5CAUG	Flushmount	592.74	592.52	9.81	582.71	SMI
B-5R	Flushmount	592.69	592.36	4.63	587.73	SMI
MW-103S1	Flushmount	593.86	593.42	11.07	582.35	SMI
MW-103S2	Flushmount	593.76	593.43	11.14	582.29	SMI
MW-103WT	Flushmount	593.77	593.47	9.64	583.83	SMI
MW-105S1	Flushmount	591.92	591.68	9.02	582.66	SMI
MW-105S2	Flushmount	591.75	591.53	8.82	582.71	SMI
MW-105WT	Flushmount	591.42	591.21	5.04	586.17	SMI
MW-108S1	Stick Up	588.09	590.50	10.02	580.48	SMI
MW-108S3	Stick Up	588.26	590.40	7.20	583.20	SMI
MW-108S4	Stick Up	588.45	590.49	7.43	583.06	SMI
MW-111S1	Stick Up	589.76	591.36	11.15	580.21	SMI
MW-111S2	Stick Up	589.57	591.32	11.51	579.81	SMI
MW-111S3	Stick Up	590.39	591.62	8.75	582.87	SMI
MW-111S4	Stick Up	590.13	591.96	8.76	583.20	SMI
MW-114S1	Stick Up	589.79	591.27	9.04	582.23	SMI
MW-114S3	Stick Up	589.82	591.23	8.02	583.21	SMI
MW-122WT	Stick Up	583.38	586.17	3.71	582.46	GPL
MW-122S1	Stick Up	583.69	NA	3.55	NA	GPL
MW-122S2	Stick Up	583.28	585.53	3.32	582.21	GPL
MW-124WT	Stick Up	584.10	586.79	4.60	582.19	GPL
MW-124S1	Stick Up	584.10	586.42	3.87	582.55	GPL
MW-128S1	Flushmount	589.48	588.97	6.15	582.82	GPL

Table 1
Summary of Water Elevation Table
September 9, 2024
RACER Trust, Saginaw, Michigan

Location	Well Type	Ground Elevation (feet AMSL)	TOC Elevation (feet AMSL)	9/9/24 Depth to Water (feet)	Groundwater Elevation (feet AMSL)	Site Area (GPL or SMI)
MW-128WT	Flushmount	589.23	588.92	5.28	583.64	GPL
MW-131S1	Stick Up	591.60	593.04	10.24	582.80	SMI
MW-131S2	Stick Up	591.90	592.67	9.91	582.76	SMI
MW-134S1	Flushmount	591.52	591.23	8.51	582.72	SMI
MW-134S2	Flushmount	590.93	590.76	8.03	582.73	SMI
MW-138WT	Stick Up	600.82	602.94	6.15	596.79	SMI
MW-140WT	Flushmount	593.25	592.28	6.59	585.69	SMI
MW-140S1	Flushmount	593.20	592.97	10.31	582.66	SMI
MW-140S2	Flushmount	593.39	592.92	10.32	582.60	SMI
MW-143WT	Stick Up	607.30	609.76	21.60	588.16	SMI
QP-1R	Flushmount	594.37	594.10	5.28	588.82	SMI
QPTW-10R	Flushmount	594.42	593.72	5.32	588.40	SMI
RG1	Mark on bridge	603.23	NA	22.88	580.35	SMI
SG1	Staff Gauge	Ground Submerged	588.27	2.66	587.58	SMI
TW-241	Stick Up	585.81	588.55	6.96	581.59	GPL
TW-242	Stick Up	585.77	589.27	8.98	580.29	GPL
X-16A	Stick Up	584.75	588.15	dry	NA	GPL
X-16B	Stick Up	584.79	587.84	5.22	582.62	GPL
X-1A	Stick Up	594.23	598.01	12.28	585.73	GPL
X-1B	Stick Up	594.71	597.83	12.97	584.86	GPL
X-1CR2	Stick Up	595.14	598.71	12.71	586.00	GPL

Notes:
- Elevations are shown in feet above mean sea level (AMSL) relative to the NGVD datum of 1929.
- Depth to water measurements were taken from the top of well casing.
- Elevations were resurveyed on September 13, 2023.
- Field measurements at SG-1 utilize two staff gauges set nearby that are surveyed-in, (off-shore) when pond levels are low, (nearshore)when levels are high.

GPL	Green Point Landfill
NA	Not available
NM	Not measured
SMI	Saginaw Malleable Industrial Land
TOC	Top of Casing

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	(CC)	53	1,000
MW-107S1	12.5 - 17.5	06/06/08	--	--	--	**1,200 J**	--	--
MW-107S1	12.5 - 17.5	09/30/10	--	--	--	**1,200**	**20**	--
MW-107S1	12.5 - 17.5	09/21/11	--	--	--	**1,400**	**4.9**	--
MW-107S1	12.5 - 17.5	09/17/12	--	--	--	**1,400**	**6.1**	--
MW-107S1	12.5 - 17.5	09/26/13	--	--	--	**1,400 B**	**8.2 B**	--
MW-107S1	12.5 - 17.5	09/24/14	--	--	--	**1,700 B**	**9.7 B**	--
MW-107S1	12.5 - 17.5	10/01/15	--	--	--	**1,400**	**4.8**	--
MW-107S1	12.5 - 17.5	09/29/16	--	--	--	**1,500**	**4.1**	--
MW-107S1	12.5 - 17.5	08/30/17	--	--	--	**1,800**	**12**	--
MW-107S1	12.5 - 17.5	09/26/18	--	--	--	**1,300**	**4.1**	--
MW-107S1	12.5 - 17.5	08/21/19	--	--	--	**1,400**	**8.6**	--
MW-107S1	12.5 - 17.5	08/11/20	--	--	--	**1,400**	**13**	--
MW-107S1	12.5 - 17.5	08/20/21	--	--	--	**1,200**	**11**	--
MW-107S1	12.5 - 17.6	09/26/22	--	--	--	**1,200**	**5.6**	--
MW-107S1	12.5 - 17.6	09/14/23	--	--	--	**1,500**	**9.18**	--
MW-107S1	12.5 - 17.6	09/11/24	--	--	--	**1,500**	**9.45**	--
MW-107WT	4 - 9	04/03/08	**0.950 J**	**379**	--	**300**	--	**30 J**
MW-107WT	4 - 9	09/18/12	**1.1 J**	**170**	--	**62 J**	--	100 U
MW-107WT	4 - 9	09/26/13	--	--	--	**880 B**	**2.3 B**	**100**
MW-107WT	4 - 9	09/24/14	**4.2**	**1,500**	--	**1,300 B**	**2.9 B**	100 U
MW-107WT	4 - 9	10/01/15	**11**	--	--	**1,200**	**6.2**	100 U
MW-107WT	4 - 9	09/29/16	**6.5**	**2,000 ^**	--	**1,400**	**3.2**	100 U
MW-107WT	4 - 9	08/30/17	**2**	**1500**	--	**590 B**	**4.4 B**	100 U
MW-107WT	4 - 9	09/26/18	**7.3 J**	**870**	--	**290**	**0.91**	100 U
MW-107WT	4 - 9	08/21/19	15 U	**340**	--	**150 J**	**0.68 J**	100 U
MW-107WT	4 - 9	08/11/20	2.0 U [2.0 U]	**200 [240]**	5.0 U [5.0 U]	200 U [200 U]	1.0 U [1.0 U]	100 U [100 U]
MW-107WT	4 - 9	08/20/21	**22**	**820**	**8.2**	**850**	**9**	**250**
MW-107WT	4 - 9	09/27/22	**8.0 J**	**480**	**9.2**	**620 F1**	**2.7 F1**	**120 B**
MW-107WT	4 - 9	09/14/23	**52**	**5,900**	5.0 U	**190**	**0.81**	**1,700**
MW-107WT	4 - 9	09/11/24	**10.4**	**516**	**9.1 J**	**900**	**2.6**	**140**
MW-108S1	8.8 - 13.8	09/11/24	--	**945**	--	**170**	**0.4**	**54**
MW-108S2	22 - 27	06/06/08	--	--	--	**3,500 J**	--	--
MW-108S2	22 - 27	09/29/10	--	--	--	**4,600**	**38**	--
MW-108S2	22 - 27	09/21/11	--	--	--	**4,900**	**39**	--
MW-108S2	22 - 27	09/17/12	--	--	--	**6,200**	**35**	--
MW-108S2	22 - 27	09/26/13	--	--	--	**5,300 B**	**36 B**	--
MW-108S2	22 - 27	09/24/14	--	--	--	**4,600 B**	--	--
MW-108S2	22 - 27	10/01/15	--	--	--	**7,700**	**72**	--
MW-108S2	22 - 27	09/29/16	--	--	--	**5,400**	**18**	--

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	(CC)	53	1,000
MW-108S2	22 - 27	08/30/17	--	--	--	**8,800**	**110**	--
MW-108S2	22 - 27	09/27/18	--	--	--	**4,900**	**19**	--
MW-108S2	22 - 27	08/21/19	--	--	--	**5,100**	**51**	--
MW-108S2	22 - 27	08/11/20	--	--	--	**6,200**	**59**	--
MW-108S2	22 - 27	08/19/21	--	--	--	**5,000 [4,900]**	**33 [32]**	--
MW-108S2	22 - 27	09/27/22	--	--	--	**5,700 [5,800]**	**80 [81]**	--
MW-108S2	22 - 27	09/14/23	--	--	--	**5,200 [5,800]**	**26 [29]**	--
MW-108S2	22 - 27	09/11/24	--	--	--	**9,000 [8,900]**	**81 [80]**	--
MW-108WT	2.5 - 7.5	07/13/95	**8.30 J**	**4,800**	--	--	--	--
MW-108WT	2.5 - 7.5	06/08/96	5.0 U	**933**	--	--	--	--
MW-108WT	2.5 - 7.5	05/21/00	10 U	**1,230**	--	--	--	--
MW-108WT	2.5 - 7.5	09/29/16	--	**2,000 ^**	--	**60 J**	**0.065 J**	100 U
MW-108WT	2.5 - 7.5	08/31/17	--	**1,300**	--	200 U	--	100 U
MW-108WT	2.5 - 7.5	09/27/18	--	**430**	--	**97 J**	**0.049 J**	100 U
MW-108WT	2.5 - 7.5	08/21/19	--	**1,900**	--	**130 J**	**0.44 J**	100 U
MW-108WT	2.5 - 7.5	08/13/20	--	**2,000**	--	**131 J**	**4.6 J**	100 U
MW-108WT	2.5 - 7.5	08/19/21	--	**2,600**	--	**132 J**	**37 J**	100 U
MW-108WT	2.5 - 7.5	09/14/23	--	**18,000**	--	**350**	**0.62**	**1,200**
MW-108WT	2.5 - 7.5	09/11/24	Dry - sampled MW-108S1 as alternate					
MW-110WT	UNKNOWN	06/12/96	**7.30**	**460**	--	--	--	--
MW-110WTR	3 - 8	04/02/08	--	**2,680**	--	**90 J**	--	**200**
MW-110WTR	3 - 8	09/24/14	--	**4,000**	--	**100 J,B**	--	**120**
MW-110WTR	3 - 8	10/01/15	--	**4,000**	--	200 U	0.41 U	**200**
MW-110WTR	3 - 8	09/29/16	--	**3,500 ^**	--	**130 JB**	**0.1 JB**	**270**
MW-110WTR	3 - 8	08/31/17	--	**2,900**	--	200 U	0.27 U	**370**
MW-110WTR	3 - 8	09/27/18	--	**3,200**	--	**100 J**	**0.061 J**	**180**
MW-110WTR	3 - 8	08/21/19	--	**2,000**	--	200 U	0.85 U	**470**
MW-110WTR	3 - 8	08/12/20	--	**2,000**	--	200 U	0.45 U	**250**
MW-110WTR	3 - 8	08/19/21	--	**2,400 [2,400]**	--	200 U	0.48 U	**250**
MW-110WTR	3 - 8	09/27/22	--	**2,300 [2,200]**	--	200 U	0.32 U	**320 B**
MW-110WTR	3 - 8	09/14/23	--	**2,580 J [2,610 J]**	--	**180**	**0.44**	**630**
MW-110WTR	3 - 8	09/12/24	--	**2,950 [3,220]**	--	**870**	**2.5**	**180**
MW-111WT	5.5 - 10.5	07/14/95	**24.0 J**	**3,740**	--	--	--	--
MW-111WT	5.5 - 10.5	06/12/96	**30.7**	**4,440**	--	--	--	--
MW-111WT	5.5 - 10.5	06/30/99	--	**2,100**	--	**2,700**	--	**1,000**
MW-111WT	5.5 - 10.5	09/02/99	--	--	--	**3,100**	--	--
MW-111WT	5.5 - 10.5	05/19/00	**11.4**	**2,560**	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	--	**1,090**	--	--	--	--
MW-111WT	5.5 - 10.5	08/26/05	--	**1,680 [1,520]**	--	--	--	--

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	(CC)	53	1,000
MW-111WT	5.5 - 10.5	04/02/08	--	**1,080 [1,140]**	--	**500 [500]**	--	**400 [400]**
MW-111WT	5.5 - 10.5	09/18/12	--	**3,600**	--	**1,600**	**2.7**	**87 J**
MW-111WT	5.5 - 10.5	09/26/13	--	**1,600**	--	**1,400 B**	**2.2 B**	**370**
MW-111WT	5.5 - 10.5	09/23/14	--	**780**	--	**1,700**	--	**610**
MW-111WT	5.5 - 10.5	10/01/15	--	**1,600**	--	**1,400**	**3.7**	**970**
MW-111WT	5.5 - 10.5	09/29/16	--	**1,700**	--	**2,900**	**3.7**	**480**
MW-111WT	5.5 - 10.5	08/31/17	--	**1,000**	--	**1,100 B**	**7 B**	**390**
MW-111WT	5.5 - 10.5	09/27/18	--	**2,300**	--	**5,000**	**14**	**970**
MW-111WT	5.5 - 10.5	08/22/19	--	**1,500**	--	**1,900**	**7.9**	**1,000**
MW-111WT	5.5 - 10.5	08/12/20	--	**1,400**	--	**1,800**	**12**	**970**
MW-111WT	5.5 - 10.5	08/23/21	--	**1,700**	--	**1,900**	**6.5**	**960**
MW-111WT	5.5 - 10.5	09/27/22	--	**1,200**	--	**1,300**	**6.7**	**870 B**
MW-111WT	5.5 - 10.5	09/14/23	--	**1,580 J**	--	**3,200**	**12**	**400**
MW-111WT	5.5 - 10.5	09/12/24	--	**1530**	--	**1,800**	**5.2**	**960**
MW-114S2	22.5 - 27.5	06/06/08	--	--	--	**2,500 J**	--	--
MW-114S2	22.5 - 27.5	09/29/10	--	--	--	**2,300 [2,200]**	**160 [160]**	--
MW-114S2	22.5 - 27.5	09/22/11	--	--	--	**3,000 [3,000]**	**14 [14]**	--
MW-114S2	22.5 - 27.5	09/18/12	--	--	--	**2,900 [2,800]**	**13 [13]**	--
MW-114S2	22.5 - 27.5	09/25/13	--	--	--	**3,800 B [3,800 B]**	**23 B [23 B]**	--
MW-114S2	22.5 - 27.5	09/23/14	--	--	--	**5,000^ [5,500^]**	**7.9 ^ [8.6 ^]**	--
MW-114S2	22.5 - 27.5	10/02/15	--	--	--	**2,200 [2,800]**	**11 [14]**	--
MW-114S2	22.5 - 27.5	09/29/16	--	--	--	**2,700**	**7.2**	--
MW-114S2	22.5 - 27.5	09/01/17	--	--	--	**2,300 [2,100 B]**	**14 [13 B]**	--
MW-114S2	22.5 - 27.5	09/28/18	--	--	--	**2,500 [2,000]**	**2.8 [2.2]**	--
MW-114S2	22.5 - 27.5	08/22/19	--	--	--	**2,600 F1 [2,400]**	**16 F1 [15]**	**330 [330]**
MW-114S2	22.5 - 27.5	08/13/20	--	--	--	**2,200**	**2**	**--**
MW-114S2	22.5 - 27.5	08/20/21	--	--	--	**1,500**	**8.4**	**--**
MW-114S2	22.5 - 27.5	09/27/22	--	--	--	**1,800**	**6.7**	**--**
MW-114S2	22.5 - 27.5	09/14/23	--	--	--	**1,900**	**20**	**--**
MW-114S2	22.5 - 27.5	09/11/24	--	--	--	**1,600**	**15**	**--**
MW-114WT	3.5 - 8.5	06/08/96	5.0 U	**2,260**	--	--	--	--
MW-114WT	3.5 - 8.5	05/22/00	10 U	**503**	--	--	--	--
MW-114WT	3.5 - 8.5	09/26/13	--	**1,100**	--	**66 J,B**	**0.23 J,B**	100 U
MW-114WT	3.5 - 8.5	09/23/14	**5.3**	**1,400**	--	200 U	0.22 U	100 U
MW-114WT	3.5 - 8.5	10/02/15	--	**1,000**	--	**200 U [820]**	**0.34 U [1.4]**	100 U, F1 [100 U]
MW-114WT	3.5 - 8.5	09/29/16	--	**1,100**	--	200 U	0.42 U	100 U
MW-114WT	3.5 - 8.5	08/31/17	--	**850**	--	200 U	0.99 U	**160**
MW-114WT	3.5 - 8.5	09/28/18	--	**1,100**	--	200 U	0.31 U	**150**
MW-114WT	3.5 - 8.5	08/22/19	--	**950**	--	**150 J**	**0.69 J**	**240**

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	(CC)	53	1,000
MW-114WT	3.5 - 8.5	08/13/20	--	**740**	--	**360**	**3.4**	**280**
MW-114WT	3.5 - 8.5	08/19/21	--	**860**	--	**570**	**2.6**	**190**
MW-114WT	3.5 - 8.5	09/27/22	--	**390**	--	**500**	**1.8**	**200 B**
MW-114WT	3.5 - 8.5	09/14/23	--	**1,280**	--	**1,000**	**4.5**	**920 J**
MW-114WT	3.5 - 8.5	09/11/24	--	**462**	--	**270**	**1.3**	**170**
MW-149WT	7 - 17	05/21/00	**10.7**	**868**	--	--	--	--
MW-149WT	7 - 17	06/02/04	**223 [227]**	**4,440 [4,560]**	--	--	--	--
MW-149WT	7 - 17	04/03/08	**93.6 [92.3]**	**1,570**	--	**800**	--	**300**
MW-149WT	7 - 17	09/30/10	**126 [122]**	--	--	**3,600**	**6.7**	**2,200 [1,800]**
MW-149WT	7 - 17	09/28/11	**190 [180]**	--	--	**4,700**	**6.9**	**1,600 [1,600]**
MW-149WT	7 - 17	09/18/12	**160 [160]**	--	--	**5,000**	**6.8**	**2,000 [1,900]**
MW-149WT	7 - 17	09/25/13	**140 B [140 B]**	--	--	**4,600 B**	**6.2 B**	**2,000 [2,100]**
MW-149WT	7 - 17	09/24/14	**75 B [69 B]**	--	--	**3,200 B**	--	**2,000 [1,300]**
MW-149WT	7 - 17	10/01/15	**60**	--	--	**3,000**	**4.7**	**1,100**
MW-149WT	7 - 17	09/29/16	**50 [52]**	--	--	**1,200**	**1**	**620 [700]**
MW-149WT	7 - 17	08/30/17	**48[48]**	--	--	**1,100 B**	**4.4 B**	**970 [850]**
MW-149WT	7 - 17	09/26/18	**66 [60]**	--	--	**920 [880]**	**0.66 [0.63]**	**910 [880]**
MW-149WT	7 - 17	08/21/19	**51 [50]**	--	--	**960 [1,600]**	**2.3 [3.8]**	**650 [1,100]**
MW-149WT	7 - 17	08/11/20	**40**	**900**	**9.1**	**1,800**	**5.1**	**1,100**
MW-149WT	7 - 17	08/19/21	**45 [50]**	**--**	**9.1 [11]**	**2,600 [2,700]**	**6.2 [6.5]**	**1,000 [1,000]**
MW-149WT	7 - 17	09/26/22	**30 [32]**	**--**	**8.7 [8.3]**	**2,600 [2,600]**	**3.5 [3.5]**	**1,200 B [1,400 B]**
MW-149WT	7 - 17	09/14/23	**178 [164]**	**--**	**37 [36.7]**	**2,100 [2,200]**	**3.7 [3.8]**	**3,600 [4,600]**
MW-149WT	7 - 17	09/12/24	**85.6 [86.5]**	**--**	**9.5 J [6.4 J]**	**3,500 [3,600]**	**14 [14]**	**1,500 [270]**
MW-185WT	3 - 8	11/28/07	--	**291**	--	300 U [300 U]	--	100 U [100 U]
MW-185WT	3 - 8	09/18/12	--	**700**	--	**380**	**4.3**	100 U
MW-185WT	3 - 8	09/25/13	--	**400**	--	**400 B**	--	100 U
MW-185WT	3 - 8	09/24/14	--	**320**	--	**160 J,B**	**4 J,B**	100 U
MW-185WT	3 - 8	10/01/15	--	**330**	--	**190 J**	**4.1 J**	100 U
MW-185WT	3 - 8	09/30/16	--	**150**	--	**97 J**	**0.54 J**	100 U
MW-185WT	3 - 8	08/31/17	--	**140**	--	**96 J,B**	**3.4 J,B**	100 U
MW-185WT	3 - 8	09/27/18	--	**1100**	--	**150 J**	**0.93 J**	100 U
MW-185WT	3 - 8	08/22/19	--	**650**	--	**120 J**	**1.7 J**	100 U
MW-185WT	3 - 8	08/14/20	--	**320**	--	**100 J**	**1.7 J**	100 U
MW-185WT	3 - 8	08/23/21	--	**470**	--	**140 J**	**2.9 J**	**70 J**
MW-185WT	3 - 8	09/27/22	--	**330**	--	**200**	**1.4**	**87 JB**
MW-185WT	3 - 8	09/14/23	--	**34,300 J**	--	**640**	**9.3**	**3,900**
MW-185WT	3 - 8	09/12/24	--	**1,320**		**320**	**5.9**	**120**

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Manganese	Arsenic (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Phosphorus
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	4,700	680*	(CC)	53	1,000
MW-186WT	8 - 18	09/30/10	--	**252**	--	**1,500**	**29**	**300**
MW-186WT	8 - 18	09/23/11	--	**450**	--	**2,100**	**57**	**360**
MW-186WT	8 - 18	09/18/12	--	**400**	--	**2,100**	**15**	**250**
MW-186WT	8 - 18	09/25/13	--	**1,100**	--	**2,000 B**	**4.3 B**	**290**
MW-186WT	8 - 18	09/24/14	--	**2,100**	--	**2,000 B**	**2.3 B**	**170**
MW-186WT	8 - 18	10/02/15	--	**1,400**	--	**1,600**	**9.7**	**290**
MW-186WT	8 - 18	09/30/16	--	**1,800**	--	**1,500**	**3.4**	**260**
MW-186WT	8 - 18	08/31/17	--	**700**	--	**1,300 B**	**12 B**	**290**
MW-186WT	8 - 18	09/27/18	--	**690**	--	**1,600**	**9.7**	**400**
MW-186WT	8 - 18	08/22/19	--	**920**	--	**1,500 [1,400]**	**12 [11]**	**440 [120]**
MW-186WT	8 - 18	08/12/20	--	**410**	--	**1,300**	**22**	**440**
MW-186WT	8 - 18	08/24/21	--	**1,000**	--	**1,200**	**4**	**460**
MW-186WT	8 - 18	09/28/22	--	**700**	--	**1,300**	**9**	**490 B**
MW-186WT	8 - 18	09/14/23	--	**6,190**	--	**1,100**	**2.5**	**17,700**
MW-186WT	8 - 18	09/12/24	--	**977**	--	**1,100**	**5.2**	**160**

Table 2
Analytical Data Summary Table - SMI Inorganics
RACER Trust
Saginaw, MI

Notes:
All results are in micrograms per liter (µg/L).
Criteria presented are the applicable site-specific criteria. Drinking water is not a complete pathway; therefore drinking water criteria are not presented.
Applicable site-specific criteria are the minimum Michigan Department of Environment, Great lakes and Energy (EGLE) Rule 57 criteria, excluding drinking water.
Hardness-dependent EGLE Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 sampling event.
pH-dependent EGLE Rule 57 criteria are based on a default pH of 7.
Un-ionized ammonia is calculated based on the pH and temperature of the groundwater sample, using the following equations. When available, the field-measured pH was used.
Un-ionized ammonia (µg/L = Total Ammonia (µg/L) × Fraction un-ionized ammonia
Fraction un-ionized ammonia = $1/[10^{(pKa-pH)} + 1]$
pKa = 0.0901821+2729.92/T
T (in Kelvin) = T(°C) + 273.15
Metal analytes analyzed by United States Environmental Protection Agency Method 6010.
Ammonia Nitrogen analyzed by Method SM 4500-NG3 G.
Phosphorus analyzed by Method SM 4500PE-2011.
Bolded cells represent constituent concentrations with detections.
Duplicate results are presented in brackets.
Gray shaded cells represent constituent concentrations that exceed site-specific Groundwater/Surface Water Interface (GSI) Criteria.
MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114S2, MW-114WT, MW-149WT, MW-185WT, and MW-186WT represent a GSI perimeter monitoring well from SMI.
* Venting groundwater discharge concentrations was recommended by MDEQ in a letter dated November 26, 2008 followed by a Mixing Zone Determination Request and based on a five year renewal approved by the MDEQ on October 21, 2021.

Data Qualifiers:

-- =	Not analyzed for this constituent.
B =	Inorganics: the detected analyte is an estimated value between the instrument detection limit (IDL) and the reporting limit (RL).
B =	Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ =	The detected analyte is an estimated concentration between the IDL and the RL.
D =	Concentration is based on a diluted sample analysis.
F1=	MS and/or MSD Recovery is outside acceptance limits/recovery exceeds control limits.
H =	Sample was prepped or analyzed beyond the specified hold time.
J =	The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
L =	A negative instrument reading had an absolute value greater than the reporting limit.
R =	Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.
U =	The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ =	The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
^ =	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: instrument related QC exceeds the control limits.

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs	Aroclor 1016 (Dissolved)	Aroclor 1221 (Dissolved)	Aroclor 1232 (Dissolved)	Aroclor 1242 (Dissolved)	Aroclor 1248 (Dissolved)	Aroclor 1254 (Dissolved)	Aroclor 1260 (Dissolved)	Aroclor 1262 (Dissolved)	Aroclor 1268 (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater Surface Water Interface (M)			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MW-107S1	12.5 - 17.5	07/12/95	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107S1	12.5 - 17.5	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107WT	4 - 9	07/12/95	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	
MW-107WT	4 - 9	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-107WT	4 - 9	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-108S2	22 - 27	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-108WT	2.5 - 7.5	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-108WT	2.5 - 7.5	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WT	UNKNOWN	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WT	UNKNOWN	03/06/97	0.2 U	0.2 U	0.4 U	0.2 U	**0.23**	0.2 U	0.2 U	--	--	**0.23**	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WT	UNKNOWN	12/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WT	UNKNOWN	05/22/00	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WTR	10 - 15	06/02/04	--	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WTR	10 - 15	08/24/05	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	--	--	0.20 U [0.20 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	--	--
MW-110WTR	10 - 15	04/02/08	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-110WTR	10 - 15	09/24/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	--	--
MW-110WTR	10 - 15	10/01/15	--	--	--	--	--	--	--	--	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-110WTR	10 - 15	09/29/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-110WTR	10 - 15	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-110WTR	10 - 15	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/21/19	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/12/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	08/19/21	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	--	--	0.097 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-110WTR	10 - 15	09/27/22	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-110WTR	10 - 15	09/14/23	0.087 U	0.087 U	0.087 U	0.087 U	**0.14**	0.087 U	0.087 U	--	--	**0.14**	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--
MW-111WT	5.5 - 10.5	07/14/95	0.21 U	0.21 U	0.42 U	0.21 U	**0.41**	0.21 U	0.21 U	--	--	**0.41**	0.21 U	0.21 U	0.42 U	0.21 U	0.21 U	0.21 U	0.21 U	--	--
MW-111WT	5.5 - 10.5	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	03/07/97	0.2 U	0.2 U	0.4 U	0.2 U	**0.28**	0.2 U	0.2 U	--	--	**0.28**	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	06/30/99	0.10 U	0.10 U	0.10 U	0.10 U	**0.11**	0.10 U	0.10 U	0.10 U	0.10 U	**0.11**	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U
MW-111WT	5.5 - 10.5	05/19/00	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	04/05/01	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U	--	--	--	--	--	--	--	--	--
MW-111WT	5.5 - 10.5	06/02/04	--	--	--	--	--	--	--	--	--	--	0.2 U [0.2 U]	0.2 U [0.2 U]	0.4 U [0.4 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	0.2 U [0.2 U]	--	--
MW-111WT	5.5 - 10.5	08/26/05	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5 - 10.5	04/02/08	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	--	--	0.20 U [0.20 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-111WT	5.5-10.5	09/18/12	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	--	--	0.098 U	0.096 U	0.096 U	0.096 U	0.096 U	**0.082 J**	0.096 U	0.096 U	--	--
MW-111WT	5.5-10.5	09/26/13	0.095 U	0.095 U	0.095 U	0.095 U	**0.45**	0.095 U	0.095 U	--	--	**0.45**	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5-10.5	09/23/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5-10.5	10/01/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5 - 10.5	09/29/16	0.19 U	0.19 U	0.19 U	0.19 U	**0.21**	0.19 U	0.19 U	--	--	**0.21**	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-111WT	5.5 - 10.5	08/31/17	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	0.95 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	**0.067 J p**	0.095 U	0.095 U	--	--
MW-111WT	5.5 - 10.5	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	**0.82**	0.095 U	0.095 U	0.095 U	0.095 U	**0.82**	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-111WT	5.5 - 10.5	08/22/19	0.098 U	0.098 U	0.098 U	0.098 U	**0.22**	0.098 U	0.098 U	--	--	**0.22**	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	0.097 U	--	--
MW-111WT	5.5 - 10.5	08/12/20	0.095 U	0.095 U	0.095 U	0.095 U	**0.068 J**	0.095 U	0.095 U	0.095 U	0.095 U	**0.068 J**	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-111WT	5.5 - 10.5	08/23/21	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	---	--	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--
MW-111WT	5.5 - 10.5	09/27/22	0.095 U F2 [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	**0.22** [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	**0.22**	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	**0.52 [0.46]**	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]
MW-111WT	5.5 - 10.5	09/14/23	0.087 U [0.10 U]	0.087 U [0.10 U]	0.087 U [0.10 U]	0.087 U [0.10 U]	0.087 UJ [**28.4 J**]	0.087 U [0.10 U]	0.087 U [0.10 U]	--	--	0.087 UJ [**28.4 J**]	0.091 U [0.10 U]	0.091 U [0.10 U]	0.091 U [0.10 U]	0.091 U [0.10 U]	**12.9 J** [0.10 UJ]	0.091 U [0.10 U]	0.091 U [0.10 U]	--	--
MW-111WT	5.5 - 10.5	09/12/24	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	**6.7 [2.4]**	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	**6.7 [2.4]**	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	**0.079 J [0.051 J]**	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--
MW-114S2	22.5 - 27.5	07/17/95	0.21 U	0.21 U	0.41 U	0.21 U	0.21 U	0.21 U	0.21 U	--	--	0.41 U	0.2 U	0.2 U	0.41 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114S2	22.5 - 27.5	06/07/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	06/08/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	03/06/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	**0.41**	**--**	--	**0.41**	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	12/11/97	0.2 U	0.2 UJ	0.4 U	0.2 U	0.2 UJ	0.2 UJ	0.2 U	--	--	0.4 U	0.2 U	0.2 UJ	0.4 U	0.2 U	0.2 UJ	0.2 UJ	0.2 U	--	--
MW-114WT	3.5 - 8.5	05/22/00	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	04/05/01	0.20 U	0.20 U	0.40 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.40 U	--	--	--	--	--	--	--	--	--
MW-114WT	3.5 - 8.5	06/03/04	--	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-114WT	3.5 - 8.5	08/24/05	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--

Table 3
Analytical Data Summary Table - SMI Organics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Total PCBs	Aroclor 1016 (Dissolved)	Aroclor 1221 (Dissolved)	Aroclor 1232 (Dissolved)	Aroclor 1242 (Dissolved)	Aroclor 1248 (Dissolved)	Aroclor 1254 (Dissolved)	Aroclor 1260 (Dissolved)	Aroclor 1262 (Dissolved)	Aroclor 1268 (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Groundwater Surface Water Interface (M)			0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
MW-114WT	3.5 - 8.5	09/26/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	09/23/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	10/02/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	09/29/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	09/28/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-114WT	3.5 - 8.5	08/22/19	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	0.098 U	--	--	0.098 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	08/13/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-114WT	3.5 - 8.5	08/19/21	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-114WT	3.5 - 8.5	09/28/22	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-114WT	3.5 - 8.5	09/14/23	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	0.094 U	--	--	0.094 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--
MW-114WT	3.5 - 8.5	09/11/24	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	**0.058 J**	0.091 U	--	--	**0.058 J**	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--
MW-149WT	7 - 17	06/12/96	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-149WT	7 - 17	03/10/97	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--	0.4 U	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-185WT	3 - 8	06/03/04	--	--	--	--	--	--	--	--	--	--	0.2 U	0.2 U	0.4 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-185WT	3 - 8	08/25/05	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	0.20 U	--	--	0.20 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	--	--
MW-185WT	3 - 8	11/28/07	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.20 U [0.20	0.17 J [0.20	0.20 U [0.20	0.20 U [0.20	--	--	0.17 J [0.20 U]	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	**0.06 J**	--	--
MW-185WT	3 - 8	09/18/12	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	0.096 U	--	--	0.096 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	**0.041 J***	--	--
MW-185WT	3 - 8	09/25/13	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	09/24/14	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	10/01/15	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	09/30/16	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	08/31/17	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	09/27/18	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-185WT	3 - 8	08/14/20	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-185WT	3 - 8	08/23/21	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-185WT	3 - 8	09/27/22	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-185WT	3 - 8	09/14/23	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--
MW-185WT	3 - 8	09/12/24	0.087 U	0.087 U	0.087 U	0.087 U	**0.16**	0.087 U	0.087 U	--	--	**0.16**	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--
MW-186WT	8-18	09/30/10	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	--	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	--
MW-186WT	8-18	09/23/11	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/18/12	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/25/13	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/24/14	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	0.10 U [0.097 U]	--	--	0.10 U [0.097 U]	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	10/02/15	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--
MW-186WT	8-18	09/30/16	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	08/31/17	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	09/27/18	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-186WT	8-18	08/22/19	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	--	--
MW-186WT	8-18	08/12/20	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.097 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]
MW-186WT	8-18	08/24/21	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	0.095 U [0.095 U]	--	--
MW-186WT	8-18	09/28/22	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U	0.095 U
MW-186WT	8-18	09/14/23	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	--	--	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 U	0.10 UJ	--	--
MW-186WT	8-18	09/12/24	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	**0.16**	0.091 U	--	--	**0.16**	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	0.091 U	--	--

Table 3
Analytical Data Summary Table - Notes
RACER Trust
Saginaw, MI

Notes:
All results are in micrograms per liter (µg/L).
Criteria presented are the applicable site-specific criteria. Drinking water is not a complete pathway; therefore drinking water criteria are not presented.
Applicable site-specific criteria are the minimum Michigan Department of Environment, Great lakes and Energy (EGLE) Rule 57 criteria, excluding drinking water.
M = Criterion (0.000026 µg/L) is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit (0.2 µg/L).
Polychlorinated biphenyls analyzed by Environmental Protection Agency Method 8082.
Semi-volatile organic compounds (SVOC) analyzed by Environmental Protection Agency Method 8270. SVOC results are not included in the table, but are referenced in the Annual Report.
Bolded cells represent constituent concentrations with detections.
Duplicate results are presented in brackets.
Gray shaded cells represent constituent concentrations that exceed site-specific Groundwater/Surface Water Interface (GSI) Criteria.
MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114S2, MW-114WT, MW-149WT, MW-185WT, and MW-186WT represent a GSI perimeter monitoring well from SMI.

For MW-111WT a case narrative was provided from the lab for the parent and duplicate samples collected on September 27, 2022. The samples collected do not directly match any of the laboratory's Aroclor standards used for instrument calibration. The samples were quantified and reported using the best overall Aroclor/standard pattern match relative to the reference standards.

Data Qualifiers:
-- = Not analyzed for this constituent.
B = Inorganics: the detected analyte is an estimated value between the instrument detection limit (IDL) and the reporting limit (RL).
B = Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ = The detected analyte is an estimated concentration between the IDL and the RL.
D = Concentration is based on a diluted sample analysis.
F1 = MS and/or MSD Recovery is outside acceptance limits.
F2 = MS/MSD RPD exceeds control limits.
H = Sample was prepped or analyzed beyond the specified hold time.
J = The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
L = A negative instrument reading had an absolute value greater than the reporting limit.
M = Criterion (0.000026 ug/L) is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit (0.2 ug/L).
R = Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.
RPD = Relative Percent Difference, a measure of the relative distance between two points.
U = The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ = The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
^ = ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: instrument related QC exceeds the control limits.
* = LCS (lab control sample) or LCSD (lab control sample duplicate) is outside acceptance limits.

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Sample	Date Collected	Site Area	10:2 FTS	11Cl-PF3OUdS	4:2 FTS	6:2 FTS	8:2 FTS	9Cl-PF3ONS	ADONA	HFPO-DA/GenX	NEtFOSAA	NEtFOSA	NEtFOSE	NMeFOSAA	NMeFOSA	NMeFOSE	PFBS	PFDA	PFHxA	PFBA
		Units	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
		Drinking Water Criteria	--	--	--	--	--	--	--	370	--	--	--	--	--	--	420	--	400,000	--
		GSI Criteria	--	--	--	--	--	--	--	--	--	--	--	--	--	--	670,000	--	--	--
B-3R	12/18/18	SMI	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	2.0 U	2.0 U	**1.26 J**	**2.3 J**
B-3R	08/11/20	SMI	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	1.9 U	1.9 U	1.9 U	**11.3**
B-3R	08/19/21	SMI	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	1.8 U	1.8 U	1.8 U	3.6 U
B-3R	09/26/22	SMI	--	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U [a]	3.7 U [a]	3.7 U [a]	3.7 U	--	--	3.7 U	--	--	1.9 U [a]	1.9 U [a]	**2.1 J** [a]	3.7 U [a]
B-3R	09/14/23	SMI	--	7.0 U	7.0 U	7.0 U	**7.0**	7.0 U	7.0 U	7.0 U	7.0 U	--	--	7.0 U	--	--	3.5 U	3.5 U	3.5 U	3.5 U
B-3R	09/11/24	SMI	4.1 U	4.0 U	4.0 U	4.1 U	4.1 U	4.0 U	4.0 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	3.8 U	4.3 U	4.3 U	4.3 U
MW-108WT	12/18/18	SMI	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	2.0 U	2.0 U	2.0 U	**3.02 J**
MW-108WT	08/13/20	SMI	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	**1.9 J**	1.9 U	**2.4 J**	**8.8**
MW-108WT	08/19/21	SMI	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	1.8 U	1.8 U	**1.9 J**	**3.7 J**
MW-108WT	09/14/23	SMI	--	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	--	--	7.2 U	--	--	3.6 U	3.6 U	3.6 U	**2.1 J**
MW-108S1	9/11/2024	SMI	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	2.1 U	1.9 U	2.1 U	2.1 U	2.1 U
MW-117WT	08/13/20	GPL	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	1.9 U	1.9 U	**77.8**	**296**
MW-117WT	08/17/21	GPL	--	18 U [a]	18 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	8.9 U	1.8 U	**114** [a]	**449** [a]
MW-117WT	09/22/22	GPL	--	3.7 U	19 U [b]	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	--	--	3.7 U	--	--	9.3 U [b]	1.9 U	**84.1** [b]	**269** [b]
MW-117WT	09/13/23	GPL	--	80 U	80 U	80 U	80 U	80 U	80 U	80 U	80 U	--	--	80 U	--	--	40 U	40 U	**91.0**	**280**
MW-117 WT	09/10/24	GPL	4.2 U	4.0 U	4.0 U	4.1 U	4.2 U	4.0 U	4.1 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	4.3 U	**9.1**	4.3 U	**65.5**	**216**
MW-117S1	08/13/20	GPL	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	1.9 U	1.9 U	1.9 U	3.7 U
MW-117S1	08/17/21	GPL	--	18 U [a]	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	1.8 U	1.8 U	1.8 U	3.6 U
MW-117S1	09/21/22	GPL	--	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U [a]	--	--	3.7 U	--	--	1.9 U [a]	1.9 U [a]	1.9 U [a]	3.7 U [a]
MW-117S1	09/13/23	GPL	--	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	--	--	7.2 U	--	--	3.6 U	3.6 U	**1.2 J**	**1.7 J**
MW-118WT	08/14/20	GPL	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	**2.5 J**	1.9 U	**7.6**	**18.2**
MW-118WT	08/17/21	GPL	--	18 U [b]	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	1.8 U	1.8 U	**21.1**	**49.4**
MW-118WT	09/22/22	GPL	--	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U	--	--	3.7 U	--	--	1.9 U [a]	1.9 U [a]	**19.4** [a]	**48.8** [a]
MW-118WT	09/13/23	GPL	--	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	--	--	7.1 U	--	--	**2.9 J**	3.5 U	**35.0**	**110**
MW-118S1	12/18/18	GPL	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	2.0 U	2.0 U	**1.77 J**	**9.71**
MW-122WT	08/18/21	GPL	--	18 U [a]	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	**2.0 J**	1.8 U	**2.6 J**	**51.3**
MW-122WT	09/23/22	GPL	--	3.7 U	19 U [b]	3.7 U	3.7 U	3.7 U	3.7 U	19 U [b]	3.7 U	--	--	3.7 U	--	--	**2.6 J** [a]	1.9 U	**5.6 J** [b]	**79.1** [b]
MW-122WT	09/13/23	GPL	--	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	7.4 U	--	--	7.4 U	--	--	**2.2 J**	3.7 U	**4.5**	**41.0**
MW-125WT	09/08/20	GPL	--	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	8.6 U	6.9 U	--	--	6.9 U	--	--	**3.0 J**	1.7 U	**2.9 J**	**20.5**
MW-125WT	01/17/23	GPL	--	3.7 U	19 U [b]	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	--	--	3.7 U	--	--	**2.7 J**	1.9 U	**2.0 J** [a]	**16.5**
MW-125WT	09/13/23	GPL	--	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	7.1 U	--	--	7.1 U	--	--	**3.1 J**	3.6 U	3.6 U	**12.0**
MW-125WT	09/11/24	GPL	4.1 U	4.0 U	3.9 U	4.0 U	4.1 U	3.9 U	4.0 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	3.7 U	4.2 U	4.2 U	**18.3**
MW-131WT	12/18/18	SMI	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	**1.72 J**	2.0 U	**1.14 J**	**4.14 J**
MW-131WT	08/11/20	SMI	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	**3.0 J**	1.9 U	**0.99 J**	**11.1**
MW-131WT	08/19/21	SMI	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	**2.0 J**	1.8 U	**1.8 J**	**6.2 J**
MW-131WT	09/26/22	SMI	--	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U	--	--	3.7 U	--	--	**3.0 J** [a]	1.9 U [a]	**1.6 J** [a]	**7.4** [a]
MW-131WT	09/14/23	SMI	--	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	--	--	6.9 U	--	--	**1.4 J**	3.4 U	3.4 U	**2.5 J**
MW-131WT	09/11/24	SMI	4.2 U	4.1 U	4.1 U	4.2 U	4.2 U	4.1 U	4.1 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	4.4 U	3.9 U	4.4 U	4.4 U	4.4 U
MW-134WT	12/18/18	SMI	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	**1.99 J**	2.0 U	**1.66 J**	**5.64 J**
MW-134WT	08/11/20	SMI	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	1.9 U	1.9 U	**1.9 J**	**5.9 J**
MW-134WT	08/19/21	SMI	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	**1.1 J**	1.8 U	1.8 U	**3.0 J**
MW-134WT	09/27/22	SMI	--	3.7 U [a]	3.7 U [a]	3.7 U	3.7 U [a]	3.7 U [a]	3.7 U [a]	3.7 U [a]	3.7 U	--	--	3.7 U	--	--	1.9 U [a]	1.9 U [a]	**2.4 J** [a]	**6.4 J** [a]
MW-134WT	09/14/23	SMI	--	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	7.0 U	--	--	7.0 U	--	--	3.5 U	3.5 U	3.5 U	**6.4 J**
MW-134WT	09/11/24	SMI	3.9 U	3.8 U	3.8 U	3.8 U	3.9 U	3.8 U	3.8 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	4.0 U	3.6 U	4.0 U	4.0 U	**5.3**

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Sample	Date Collected	Site Area	10:2 FTS	11Cl-PF3OUdS	4:2 FTS	6:2 FTS	8:2 FTS	9Cl-PF3ONS	ADONA	HFPO-DA/GenX	NEtFOSAA	NEtFOSA	NEtFOSE	NMeFOSAA	NMeFOSA	NMeFOSE	PFBS	PFDA	PFHxA	PFBA
		Units	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
		Drinking Water Criteria	--	--	--	--	--	--	--	370	--	--	--	--	--	--	420	--	400,000	--
		GSI Criteria	--	--	--	--	--	--	--	--	--	--	--	--	--	--	670,000	--	--	--
MW-183WT	12/19/18	GPL	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	**1.66 J**	2.0 U	2.0 U	**11.4**
MW-183WT	08/18/20	GPL	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	**2.2 J**	1.9 U	**2.5 J**	**15.2**
MW-183WT	08/24/21	GPL	--	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	3.2 U	--	--	3.2 U	--	--	**1.1 J**	1.6 U	**1.0 J**	**8.3**
MW-183WT	09/26/22	GPL	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U [a]	3.7 U	--	--	3.7 U	--	--	**2.5 J**	1.9 U	**1.3 J**	**11.4**
MW-183WT	09/13/23	GPL	--	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	--	--	7.2 U	--	--	**2.2 J**	3.6 U	**1.5 J**	**6.7**
MW97-105WT	12/18/18	Peninsula	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	**9.29**	2.0 U	**33.5**	**65.7**
TW98-111WT	12/18/18	Peninsula	--	--	4.0 U	4.0 U [a]	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	2.0 U	2.0 U	**2.1 J**	**39.9** [a]
QPTW-13R	12/18/18	SMI	--	--	4.0 U	4.0 U	4.0 U [c]	--	--	--	8.0 U	--	--	8.0 U	--	--	**3.54 J**	2.0 U	**2.91 J**	**17.0**
QPTW-13R	08/11/20	SMI	--	3.7 U [3.7 U]	3.7 U [3.7 U]	3.7 U [3.7 U]	3.7 U [3.7 U]	3.7 U [3.7 U]	3.7 U [3.7 U]	9.3 U [9.3 U]	37 U [37 U]	--	--	37 U [37 U]	--	--	1.9 U [1.9 U]	9.3 U [1.9 U]	**2.7 J [2.8 J]**	**16.6 [17.7]**
QPTW-13R	08/19/21	SMI	--	3.6 U [a] [3.6 U [a]]	3.6 U [a] [3.6 U [a]]	18 U [3.6 U]	18 U [3.6 U]	3.6 U [a] [3.6 U [a]]	3.6 U [a] [3.6 U [a]]	3.6 U [a] [3.6 U [a]]	18 U [3.6 U [a]]	--	--	18 U [3.6 U [a]]	--	--	1.8 U [1.8 U [a]]	1.8 U [a] [1.8 U [a]]	**1.9 J** [a] [1.8 U [a]]	**11.3** [a] **[12.9 [a]]**
QPTW-13R	09/26/22	SMI	--	3.7 U [a] [3.7 U]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	--	--	3.7 U [a] [3.7 U [a]]	--	--	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	**16.2** [a] **[16.8 [a]]**
QPTW-13R	09/14/23	SMI	--	7.0 U [6.9 U]	7.0 U [6.9 U]	7.0 U [6.9 U]	7.0 U [6.9 U]	7.0 U [6.9 U]	7.0 U [6.9 U]	7.0 UJ [6.9 UJ]	7.0 U [6.9 U]	--	--	7.0 U [6.9 U]	--	--	3.5 U [3.5 U]	3.5 U [3.5 U]	3.5 UJ [3.5 UJ]	R [R]
QPTW-13R	09/11/24	SMI	4.1 U	4.0 U	4.0 U	4.0 U	4.1 U	3.9 U	4.0 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	**6.6**	4.2 U	4.2 U	4.2 U
TWW-1	09/08/20	GPL	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	8.9 U	7.1 U	--	--	7.1 U	--	--	**1.9 J**	1.8 U	**8.9**	**29.7 J**
TWW-1	08/18/21	GPL	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	**4.0**	1.8 U	**11.4**	**34.9 J**
TWW-1	09/23/22	GPL	--	3.7 U	7.2 U [b]	3.7 U	19 U [b]	3.7 U	3.7 U	19 U [b]	3.7 U	--	--	3.7 U	--	--	**2.9 J** [a]	1.9 U	**11.3 J** [b]	**34.0 J** [b]
TWW-1	09/13/23	GPL	--	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	7.2 U	--	--	7.2 U	--	--	**1.6 J**	3.6 U	**4.5**	**14.0**
TWW-1	09/11/24	GPL	4.0 U	3.9 U	3.9 U	3.9 U	4.0 U	3.9 U	3.9 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	4.1 U	3.7 U	4.1 U	4.1 U	**13.4**
TW-242	01/17/23	GPL	--	3.8 U [3.7 U]	19 U [a,b] [19 U [a,b]]	3.8 U [3.7 U]	3.8 U [19 U [b]]	3.8 U [3.7 U]	3.8 U [19 U [b]]	19 U [b] [19 U [b]]	3.8 U [3.7 U]	--	--	3.8 U [3.7 U]	--	--	9.4 U [a,b] [9.3 U [a,b]]	1.9 U [1.9 U}	9.4 U [a,b] [9.3 U [a,b]]	3.8 U [19 U [a,b]]
X-2A	12/18/18	GPL	--	--	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [4.0 U]	--	--	--	8.0 U [8.0 U]	--	--	8.0 U [8.0 U]	--	--	2.0 U **[4.91]**	2.0 U [2.0 U]	**6.46 [5.32]**	**34.1** [a] **[26.3 [a]]**
X-2A	09/08/20	GPL	--	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	3.4 U	8.6 U	6.9 U	--	--	6.9 U	--	--	**3.4**	1.7 U	**4.4**	**20.4** [a]
X-2A	08/18/21	GPL	--	3.6 U [3.6 U]	3.6 U [3.6 U]	3.6 U [3.6 U]	3.6 U [3.6 U]	3.6 U [3.6 U]	3.6 U [3.6 U]	3.6 U [3.6 U]	3.6 U [3.6 U]	--	--	3.6 U [3.6 U]	--	--	1.8 U [1.8 U]	1.8 U [1.8 U]	**2.9 J** [a] **[2.7 J]**	**14.3** [a] **[13.8 [a]]**
X-2A	09/21/22	GPL	--	3.7 U [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [3.7 U [a]]	3.7 U [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [a] [3.7 U [a]]	3.7 U [3.7 U]	--	--	3.7 U [3.7 U]	--	--	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	**11.5** [a] **[11.0 [a]]**
X-2A	09/13/23	GPL	--	6.9 U [8.2 U]	6.9 U [8.2 U]	6.9 U [8.2 U]	6.9 U [8.2 U]	6.9 U [8.2 U]	6.9 U [8.2 U]	6.9 U [8.2 U]	6.9 U [8.2 U]	--	--	6.9 U [8.2 U]	--	--	3.4 U [4.1 U]	3.4 U [4.1 U]	**5.5** [4.1 U]	**6.7 [6.6]**
X-2A	09/11/24	GPL	4.0 U [4.0 U]	3.9 U [3.9 U]	3.9 U [3.8 U]	4.0 U [3.9 U]	4.0 U [4.0 U]	3.9 U [3.8 U]	3.9 U [3.9 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	3.7 U [3.6 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]
X-9AR	12/19/18	GPL	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	2.0 U	2.0 U	2.0 U	**5.98 J**
X-9AR	08/17/20	GPL	--	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	9.3 U	7.4 U	--	--	7.4 U	--	--	**1.6 J**	1.9 U	**2.7 J**	**14.4**
X-9AR	08/18/21	GPL	--	18 U [a]	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	**1.5 J**	1.8 U	**1.4 J**	**18.6**
X-9AR	09/22/22	GPL	--	19 U [b]	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	--	--	3.7 U	--	--	**1.4 J**	1.9 U	**1.6 J**	**19.0**
X-9AR	09/13/23	GPL	--	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	6.9 U	--	--	6.9 U	--	--	**0.69 J**	3.4 U	**0.79 J**	**4.0**
X-10AR2	12/18/18	GPL	--	--	4.0 U	4.0 U	4.0 U	--	--	--	8.0 U	--	--	8.0 U	--	--	2.0 U	2.0 U	2.0 U	4.0 U
X-10AR2	09/08/20	GPL	--	3.4 U [3.4 U]	3.4 U [3.4 U]	3.4 U [3.4 U]	3.4 U [3.4 U]	3.4 U [3.4 U]	3.4 U [3.4 U]	8.6 U [8.6 U]	6.9 U [6.9 U]	--	--	6.9 U [6.9 U]	--	--	**1.1 J [1.0 J]**	1.7 U [1.7 U]	1.7 U **[0.97 J]**	**2.9 J [2.9 J]**
X-10AR2	08/18/21	GPL	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	--	--	3.6 U	--	--	**1.3 J**	1.8 U	**1.1 J**	**4.4 J**
X-10AR2	09/22/22	GPL	--	19 U [b]	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	3.7 U	--	--	3.7 U	--	--	**1.1 J**	1.9 U	1.9 U	**4.3 J**
X-10AR2	9/13/2023	GPL	--	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	7.7 U	--	--	7.7 U	--	--	**1.2 J**	3.8 U	**1.0 J**	**6.5**
X-10AR2	9/11/2024	GPL	4.1 U	4.0 U	3.9 U	4.0 U	4.1 U	3.9 U	4.0 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	4.2 U	3.7 U	4.2 U	4.2 U	**8.4**

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Sample	Date Collected	Site Area	PFDS	PFDoS	PFHpS	PFHxDA	PFNS	PFODA	PFOSA	PFPeA	PFPeS	PFDoA	PFHpA	PFHxS	PFNA	PFOS	PFOA	PFTeDA	PFTrDA	PFUnA	Total PFAS
Units			ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
Drinking Water Criteria			--	--	--	--	--	--	--	--	--	--	--	51	6	16	8	--	--	--	--
GSI Criteria			--	--	--	--	--	--	--	--	--	--	--	210	30	12	170	--	--	--	--
B-3R	12/18/18	SMI	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	**1.68 J**	2.0 U	2.0 U	2.0 U	**1.13 J**	2.0 U	**15.6**	**5.58**	2.0 U	2.0 U	2.0 U	27.6
B-3R	08/11/20	SMI	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U [a]	**13.4**	1.9 U	1.9 U	**2.1 J**	1.9 U	1.9 U	**14.4**	**2.7 J**	1.9 U [a]	1.9 U [a]	1.9 U	43.9
B-3R	08/19/21	SMI	1.8 U	--	1.8 U	--	1.8 U	--	1.8 U [a]	1.8 U	1.8 U	1.8 U	**1.8 J**	**0.98 J**	1.8 U	**13.7**	**2.7 J**	1.8 U [a]	1.8 U	1.8 U	19.2
B-3R	09/26/22	SMI	1.9 U	--	1.9 U [a]	--	1.9 U [a]	--	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U [a]	**14.3**	**2.7 J [a]**	1.9 U [a]	1.9 U [a]	1.9 U	19.1
B-3R	09/14/23	SMI	3.5 U	--	3.5 U	--	3.5 U	--	3.5 U	3.5 UJ	3.5 U	3.5 U	3.5 U	**1.9 J**	3.5 U	**13.0**	**3.3 J**	3.5 UJ	3.5 U	3.5 U	25.2
B-3R	09/11/24	SMI	4.1 U	4.2 U	4.1 U	4.3 U	4.1 U	4.3 U	4.3 U	4.3 U	4.0 U	4.3 U	4.3 U	3.9 U	4.3 U	**11.4**	4.3 U	4.3 U	4.3 U	4.3 U	11.4
MW-108WT	12/18/18	SMI	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	**1.77 J**	2.0 U	2.0 U	2.0 U	**1.92 J**	2.0 U	**2.63 J**	**3.66 J**	2.0 U	2.0 U	2.0 U	13.0
MW-108WT	08/13/20	SMI	1.9 U	--	1.9 U	--	1.9 U	--	9.3 U	**2.1 J**	1.9 U	1.9 U	**1.2 J**	**5.8**	1.9 U	**17.1**	**4.4**	1.9 U	1.9 U	1.9 U	43.7
MW-108WT	08/19/21	SMI	1.8 U	--	1.8 U	--	1.8 U	--	1.8 U [a]	**1.8 J**	1.8 U	1.8 U	**1.9 J**	**3.5 J**	**1.4 J**	**15.1**	**4.6**	1.8 U	1.8 U	1.8 U	33.9
MW-108WT	09/14/23	SMI	3.6 U	--	3.6 U	--	3.6 U	--	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	**1.7 J**	**0.45 J**	**7.0**	**1.6 J**	3.6 UJ	3.6 U	3.6 U	12.9
MW-108S1	9/11/2024	SMI	2.0 U	2.0 U	2.0 U	2.1 U	2.0 U	2.1 U	2.1 U	2.1 U	2.0 U	2.1 U	2.1 U	1.9 U	2.1 U	**4.1**	2.1 U	2.1 U	2.1 U	2.1 U	4.1
MW-117WT	08/13/20	GPL	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U	**43.9**	1.9 U	1.9 U	**9.7**	1.9 U	1.9 U	1.9 U	**3.6 J**	1.9 U	1.9 U	1.9 U	431
MW-117WT	08/17/21	GPL	1.8 U	--	1.8 U	--	1.8 U	--	8.9 U [a]	**134 [a]**	8.9 U	8.9 U [a]	**18.7**	1.8 U	8.9 U	1.8 U	**5.5**	8.9 U [a]	8.9 U [a]	1.8 U	721
MW-117WT	09/22/22	GPL	1.9 U	--	1.9 U [a]	--	9.3 U [b]	--	9.3 U [b]	**47.3 [b]**	9.3 U [b]	1.9 U	**10.0**	1.9 U	1.9 U	1.9 U [a]	1.9 U	9.3 U [b]	1.9 U	1.9 U	410
MW-117WT	09/13/23	GPL	40 U	--	40 U	--	40 U	--	40 U	**45.0**	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	40 U	416
MW-117 WT	09/10/24	GPL	4.2 U	4.2 U	4.1 U	4.3 U	4.1 U	4.3 U	4.3 U	**29.7**	4.0 U	4.3 U	4.3 U	3.9 U	4.3 U	4.0 U	4.3 U	4.3 U	4.3 U	4.3 U	320.3
MW-117S1	08/13/20	GPL	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	1.9 U	0.00
MW-117S1	08/17/21	GPL	1.8 U	--	1.8 U	--	1.8 U	--	8.9 U [a]	8.9 U	1.8 U	8.9 U [a]	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	8.9 U [a]	8.9 U [a]	1.8 U	0.00
MW-117S1	09/21/22	GPL	1.9 U	--	1.9 U	--	1.9 U [a]	--	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U	1.9 U [a]	1.9 U [a]	1.9 U	1.9 U [a]	1.9 U [a]	1.9 U	0.00
MW-117S1	09/13/23	GPL	3.6 U	--	3.6 U	--	3.6 U	--	3.6 U	**1.7 J**	3.6 U	3.6 U	3.6 U	3.6 U	3.6 U	**2.9 J**	3.6 U	3.6 UJ	3.6 U	3.6 U	7.50
MW-118WT	08/14/20	GPL	1.9 U	--	1.9 U	--	1.9 U	--	9.3 U	**4.8**	1.9 U	1.9 U	**3.1 J**	1.9 U	1.9 U	1.9 U	**2.4 J**	1.9 U	1.9 U	1.9 U	38.6
MW-118WT	08/17/21	GPL	1.8 U	--	1.8 U	--	1.8 U	--	8.9 U [b]	**23.0**	1.8 U	8.9 U [b]	**6.1 J**	1.8 U	8.9 U	1.8 U	**5.3**	8.9 U [b]	8.9 U [b]	1.8 U	105
MW-118WT	09/22/22	GPL	1.9 U	--	1.9 U	--	1.9 U [a]	--	1.9 U [a]	**11.8 [a]**	1.9 U [a]	1.9 U [a]	**9.7 [a]**	1.9 U	1.9 U [a]	1.9 U [a]	**4.8**	1.9 U [a]	1.9 U [a]	1.9 U	94.5
MW-118WT	09/13/23	GPL	3.5 U	--	3.5 U	--	3.5 U	--	3.5 U	**13.0**	3.5 U	3.5 U	**5.6**	3.5 U	3.5 U	3.5 U	**7.0**	3.5 UJ	3.5 U	3.5 U	174
MW-118S1	12/18/18	GPL	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	**4.37**	2.0 U	2.0 U	**1.93 J**	2.0 U	2.0 U	4.0 U	**1.95 J**	2.0 U	2.0 U	2.0 U	19.7
MW-122WT	08/18/21	GPL	1.8 U	--	1.8 U	--	1.8 U	--	8.9 U	**6.4 J**	1.8 U	8.9 U [a]	**2.2 J**	1.8 U	1.8 U	**1.7 J**	**3.1 J**	8.9 U [a]	8.9 U [a]	1.8 U	69.3
MW-122WT	09/23/22	GPL	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U [a]	**7.3 J [b]**	9.3 U [b]	1.9 U	**1.7 J**	1.9 U	1.9 U	1.9 U	**2.4 J**	9.3 U [b]	1.9 U	1.9 U	98.7
MW-122WT	09/13/23	GPL	3.7 U	--	3.7 U	--	3.7 U	--	3.7 U	**4.6**	3.7 U	3.7 U	**1.2 J**	3.7 U	3.7 U	3.7 U	**2.8 J**	3.7 U	3.7 U	3.7 U	56.3
MW-125WT	09/08/20	GPL	1.7 U	--	1.7 U	--	1.7 U	--	1.7 U	**2.4 J**	**1.2 J**	1.7 U	**1.5 J**	**3.0 J**	1.7 U	1.7 U	**4.3**	1.7 U	1.7 U	1.7 U	38.8
MW-125WT	01/17/23	GPL	1.9 U	--	1.9 U	--	1.9 U	--	9.3 U [b]	**1.4 J**	**1.2 J**	1.9 U	**1.1 J**	**5.1**	1.9 U	1.9 U	**2.9 J**	1.9 U	1.9 U	1.9 U	32.9
MW-125WT	09/13/23	GPL	3.6 U	--	3.6 U	--	3.6 U	--	3.6 U	**1.4 J**	**1.4 J**	3.6 U	**0.93 J**	**9.1**	3.6 U	3.6 U	**2.9 J**	3.6 U	3.6 U	3.6 U	30.8
MW-125WT	09/11/24	GPL	4.1 U	4.1 U	4.0 U	4.2 U	4.0 U	4.2 U	4.2 U	4.2 U	4.0 U	4.2 U	4.2 U	**10.3**	4.2 U	3.9 U	4.2 U	4.2 U	4.2 U	4.2 U	28.6
MW-131WT	12/18/18	SMI	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	**2.24 J**	2.0 U	2.0 U	**1.2 J**	**4.21**	2.0 U	**4.88 J**	**2.38 J**	2.0 U	2.0 U	2.0 U	21.9
MW-131WT	08/11/20	SMI	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U	1.9 U	**1.1 J**	1.9 U	1.9 U	**4.9**	1.9 U	**7.9**	**3.6 J**	1.9 U	1.9 U	1.9 U	32.6
MW-131WT	08/19/21	SMI	1.8 U	--	1.8 U	--	1.8 U	--	1.8 U [a]	**1.3 J**	**1.3 J**	1.8 U	**1.6 J**	**9.1 J**	**1.3 J**	**11.0**	**3.7**	1.8 J [q]	1.8 U	1.8 U	39.3
MW-131WT	09/26/22	SMI	1.9 U	--	1.9 U [a]	--	1.9 U [a]	--	1.9 U [a]	**5.9 [a]**	**2.8 J [a]**	1.9 U [a]	1.9 U [a]	**8.3**	1.9 U [a]	**14.6 [a]**	**3.3 J**	1.9 U [a]	1.9 U [a]	1.9 U [a]	46.9
MW-131WT	09/14/23	SMI	3.4 U	--	3.4 U	--	3.4 U	--	3.4 U	3.4 U	**1.0 J**	3.4 U	3.4 U	**5.9**	3.4 U	**7.4**	**2.1 J**	3.4 UJ	3.4 U	3.4 U	20.3
MW-131WT	09/11/24	SMI	4.2 U	4.2 U	4.2 U	4.4 U	4.2 U	4.4 U	4.4 U	4.4 U	4.1 U	4.4 U	4.4 U	**8.0**	4.4 U	**12.2**	4.4 U	4.4 U	4.4 U	4.4 U	20.2
MW-134WT	12/18/18	SMI	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	**3.54 J**	2.0 U	2.0 U	**1.28 J**	2.0 U	2.0 U	4.0 U	**3.0 J**	2.0 U	2.0 U	2.0 U	17.1
MW-134WT	08/11/20	SMI	1.9 U	--	1.9 U	--	1.9 U	--	9.3 U	**2.7 J**	1.9 U	1.9 U	**2.2 J**	1.9 U	1.9 U	1.9 U	**2.0 J**	1.9 U	1.9 U	1.9 U	14.7
MW-134WT	08/19/21	SMI	1.8 U	--	1.8 U	--	1.8 U	--	1.8 U [a]	**1.0 J**	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	**1.7 J**	1.8 U	1.8 U	1.8 U	6.80
MW-134WT	09/27/22	SMI	1.9 U	--	1.9 U	--	1.9 U [a]	--	1.9 U [a]	**5.0 [a]**	1.9 U [a]	1.9 U [a]	1.9 U [a]	1.9 U	1.9 U [a]	1.9 U [a]	**3.6 J [a]**	1.9 U [a]	1.9 U [a]	1.9 U	17.4
MW-134WT	09/14/23	SMI	3.5 U	--	3.5 U	--	3.5 U	--	3.5 U	3.5 U	3.5 U	3.5 U	**1.5 J**	**1.7 J**	3.5 U	3.5 U	**3.7**	3.5 U	3.5 U	3.5 U	13.3
MW-134WT	09/11/24	SMI	3.9 U	3.9 U	3.8 U	4.0 U	3.9 U	4.0 U	4.0 U	4.0 U	3.8 U	4.0 U	4.0 U	3.7 U	4.0 U	3.7 U	4.0 U	4.0 U	4.0 U	4.0 U	5.3

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PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

Sample	Date Collected	Site Area	PFDS	PFDoS	PFHpS	PFHxDA	PFNS	PFODA	PFOSA	PFPeA	PFPeS	PFDoA	PFHpA	PFHxS	PFNA	PFOS	PFOA	PFTeDA	PFTrDA	PFUnA	Total PFAS
		Units	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L	ng/L
		Drinking Water Criteria	--	--	--	--	--	--	--	--	--	--	--	51	6	16	8	--	--	--	--
		GSI Criteria	--	--	--	--	--	--	--	--	--	--	--	210	30	12	170	--	--	--	--
MW-183WT	12/19/18	GPL	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	**1.5 J**	2.0 U	4.0 U	**2.07 J**	2.0 U	2.0 U	2.0 U	16.6
MW-183WT	08/18/20	GPL	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U	**2.4 J**	1.9 U	1.9 U	**2.5 J**	**2.0 J**	**1.1 J**	**3.5 J**	**4.6**	1.9 U	1.9 U	1.9 U	36.0
MW-183WT	08/24/21	GPL	1.6 U	--	1.6 U	--	1.6 U	--	16 U	**0.83 J**	1.6 U	1.6 U	**1.10 J**	**1.7 J**	1.6 U	**1.5 J**	**2.9 J**	16 U [a]	1.6 U	1.6 U	18.4
MW-183WT	09/26/22	GPL	1.9 U	--	1.9 U	--	1.9 U	--	9.3 U [b]	**3.4 J**	1.9 U	1.9 U	**1.4 J**	**2.1 J**	1.9 U	1.9 U	**4.0**	1.9 U	1.9 U	1.9 U	26.1
MW-183WT	09/13/23	GPL	3.6 U	--	3.6 U	--	3.6 U	--	3.6 U	**1.0 J**	**0.95 J**	3.6 U	**1.3 J**	**3.7**	**0.55 J**	**2.1 J**	**3.5 J**	3.6 U	3.6 U	3.6 U	23.5
MW97-105WT	12/18/18	Peninsula	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U [a]	**20.8**	2.0 U	2.0 U	**17.5**	**4.12**	2.0 U	**9.7**	**22.1**	2.0 U	2.0 U	2.0 U	183
TW98-111WT	12/18/18	Peninsula	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U [a]	2.0 U	2.0 U	2.0 U	2.0 U	**4.76**	2.0 U	18	**6.36**	4.0 U	4.0 U	2.0 U	71.1
QPTW-13R	12/18/18	SMI	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U [a]	**16.4**	2.0 U	2.0 U	2.0 U	**1.92 J**	2.0 U	**8.47**	**8.38**	2.0 U	2.0 U	2.0 U	58.6
QPTW-13R	08/11/20	SMI	1.9 U [1.9 U]	--	1.9 U [1.9 U]	--	1.9 U [1.9 U]	--	9.3 U [a] [9.3 U [a]]	**38.4 [37.3]**	1.9 U [1.9 U]	1.9 U [1.9 U]	9.3 U **[1.9 J]**	**3.7 [3.4 J]**	9.3 U **[1.5 J]**	**11.0 [10.6]**	**4.7 J [5.1]**	1.9 U [1.9 U]	1.9 U [1.9 U]	9.3 U [1.9 U]	77.1 [80.3]
QPTW-13R	08/19/21	SMI	1.8 U [a] [1.8 U [a]]	--	1.8 U [1.8 U]	--	1.8 U [1.8 U]	--	1.8 U [a] [1.8 U [a]]	8.9 U [a] [8.9 U]	1.8 U [1.8 U [a]]	1.8 U [a] [1.8 U [a]]	**1.6 J [a] [2.1 J [a]]**	**1.9 J [1.5 J]**	1.8 U [a] [1.8 U [a]]	**6.6 [8.4]**	**3.8 [a] [4.0 [a]]**	1.8 U [a] [1.8 U [a]]	1.8 U [a] [1.8 U [a]]	1.8 U [a] [1.8 U [a]]	27.1 [28.9]
QPTW-13R	09/26/22	SMI	1.9 U [a] [1.9 U]	--	1.9 U [a] [1.9 U [a]]	--	1.9 U [a] [1.9 U [a]]	--	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U]	**5.1 [a] [1.8 J [a]]**	1.9 U [a] [2.6 J [a]]	1.9 U [a] [1.9 U [a]]	**11.0 [12.8 [a]]**	**3.9 [a] [4.8 [a]]**	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U]	1.9 U [a] [1.9 U]	36.2 [38.8]
QPTW-13R	09/14/23	SMI	3.5 U [3.5 U]	--	3.5 U [3.5 U]	--	3.5 U [3.5 U]	--	3.5 UJ [3.5 UJ]	3.5 UJ [3.5 UJ]	3.5 U [3.5 U]	3.5 U [3.5 U]	3.5 UJ [3.5 UJ]	**3.0 J [2.8 J]**	3.5 U [3.5 U]	**11 [8.5]**	**5.1 [6.2]**	R [3.5 UJ]	3.5 U [3.5 U]	3.5 U [3.5 U]	19.1 [17.5]
QPTW-13R	09/11/24	SMI	4.1 U	4.1 U	4.0 U	4.2 U	4.1 U	4.2 U	4.2 U	4.2 U	4.0 U	4.2 U	4.2 U	3.9 U	4.2 U	**7.6**	4.2 U	4.2 U	4.2 U	4.2 U	14.2
TWW-1	09/08/20	GPL	1.8 U	--	1.8 U	--	1.8 U	--	1.8 U	**8.0**	1.8 U	1.8 U	**5.9**	1.8 U	1.8 U	1.8 U	**11.0**	1.8 U	1.8 U	1.8 U	65.4
TWW-1	08/18/21	GPL	1.8 U	--	1.8 U	--	1.8 U	--	8.9 U [a]	**9.3 J**	1.8 U	1.8 U	**14.1**	1.8 U	**1.6 J**	**1.7 J**	**27.1**	8.9 [a]	1.8 U	1.8 U	104
TWW-1	09/23/22	GPL	1.9 U	--	1.9 U	--	9.3 U [b]	--	1.9 U [a]	**7.8 J [b]**	9.3 U [b]	1.9 U	**10.9 J [b]**	1.9 U	**1.1 J**	**3.6 J [a]**	**19.7**	1.9 U [a]	1.9 U	1.9 U	91.3
TWW-1	09/13/23	GPL	3.6 U	--	3.6 U	--	3.6 U	--	3.6 J	**3.7**	3.6 U	3.6 U	**4.2**	**1.2 J**	**0.90 J**	**2.5 J**	**13.0**	3.6 U	3.6 U	3.6 U	45.6
TWW-1	09/11/24	GPL	4.0 U	4.0 U	3.9 U	4.1 U	4.0 U	4.1 U	4.1 U	4.1 U	3.9 U	4.1 U	4.1 U	3.8 U	4.1 U	3.8 U	**7.7**	4.1 U	4.1 U	4.1 U	21.1
TW-242	01/17/23	GPL	1.9 U [1.9 U}	--	1.9 U [1.9 U}	--	1.9 U [1.9 U}	--	9.4 U [a,b] [9.3 U [b]]	9.4 U [a,b] [9.3 U [a,b]]	9.4 U [a,b] [9.3 U [a,b]]	1.9 U [1.9 U}	1.9 U [9.3 U [a,b]]	1.9 U [9.3 U [a,b]]	1.9 U [1.9 U}	1.9 U [1.9 U}	1.9 U [9.3 U [b]]	1.9 U [1.9 U}	1.9 U [1.9 U}	1.9 U [1.9 U}	0.00
X-2A	12/18/18	GPL	2.0 U [2.0 U]	--	2.0 U [2.0 U]	--	2.0 U [2.0 U]	--	2.0 U [a] [2.0 U [a]]	**18.1 [14.4]**	2.0 U [2.0 U]	2.0 U [2.0 U]	**4.93 [5.15]**	**7.73 [5.89]**	2.0 U [2.0 U]	**16.5 [14.6]**	**50.6 [46.5]**	2.0 U [2.0 U]	2.0 U [2.0 U]	2.0 U [2.0 U]	138 [123]
X-2A	09/08/20	GPL	1.7 U	--	1.7 U	--	1.7 U	--	1.7 U [a]	1.7 U	1.7 U	1.7 U	**3.1 J**	**4.7**	**1.9 J**	**14.5**	**29.9**	1.7 U	1.7 U	1.7 U	82.3
X-2A	08/18/21	GPL	1.8 U [1.8 U]	--	1.8 U [1.8 U]	--	1.8 U [1.8 U]	--	1.8 U [a] [1.8 U [a]]	1.8 U [1.8 U]	1.8 U [1.8 U]	1.8 U [1.8 U]	**3.8 [3.7]**	**5.6 [3.1 J]**	1.8 U [1.8 U]	**15.8 [14.9]**	**29.6 [27.7]**	1.8 U [1.8 U]	1.8 U [1.8 U]	1.8 U [1.8 U]	72.0 [65.9]
X-2A	09/21/22	GPL	1.9 U [1.9 U [a]]	--	1.9 U [a] [1.9 U [a]]	--	1.9 U [a] [1.9 U [a]]	--	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	1.9 U [a] [1.9 U [a]]	1.9 U [1.9 U [a]]	**1.8 J [a] [4.2 [a]]**	**4.3 [a] [5.0 [a]]**	1.9 U [a] [1.9 U [a]]	**20.9 [a] [21.2 [a]]**	**23.6 [a] [23.2 [a]]**	1.9 U [a] [1.9 U [a]]	1.9 U [1.9 U [a]]	1.9 U [1.9 U [a]]	62.1 [64.6]
X-2A	09/13/23	GPL	3.4 U [4.1 U]	--	3.4 U [4.1 U]	--	3.4 U [4.1 U]	--	3.4 U [4.1 U]	3.4 UJ [4.1 UJ]	3.4 U [4.1 U]	3.4 U [4.1 U]	**2.0 J [2.0 J]**	**3.3 J [3.4 J]**	3.4 U **[0.54 J]**	**16.0 [20.0]**	**22.0 [23.0]**	3.4 UJ [4.1 UJ]	3.4 U [4.1 U]	3.4 U [4.1 U]	55.5 [55.5]
X-2A	09/11/24	GPL	4.0 U [4.0 U]	4.0 U [4.0 U]	4.0 U [3.9 U]	4.2 U [4.1 U]	4.0 U [3.9 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	3.9 U [3.9 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	3.8 U **[3.7]**	4.2 U [4.1 U]	**15 [15.6]**	**19.7 [18.9]**	4.2 U [4.1 U]	4.2 U [4.1 U]	4.2 U [4.1 U]	34.7 [38.2]
X-9AR	12/19/18	GPL	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	5.98
X-9AR	08/17/20	GPL	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U	**4.4**	1.9 U	1.9 U	**2.5 J**	1.9 U	1.9 U	1.9 U	**2.5 J**	1.9 U	1.9 U	1.9 U	28.1
X-9AR	08/18/21	GPL	1.8 U	--	1.8 U	--	1.8 U	--	8.9 U [a]	**1.3 J**	1.8 U	8.9 U [a]	**1.8 J**	1.8 U	1.8 U	1.8 U	**1.5 J**	8.9 U [a]	8.9 U [a]	1.8 U	26.1
X-9AR	09/22/22	GPL	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U [a]	**2.0 J**	1.9 U	9.3 U [b]	**1.6 J**	1.9 U	1.9 U	1.9 U	**1.3 J**	1.9 U [a]	9.3 U [b]	1.9 U	26.9
X-9AR	09/13/23	GPL	3.4 U	--	3.4 U	--	3.4 U	--	3.4 U	**0.56 J**	3.4 U	3.4 U	**0.45 J**	3.4 U	3.4 U	3.4 U	**0.89 J**	3.4 U	3.4 U	3.4 U	7.38
X-10AR2	12/18/18	GPL	2.0 U	--	2.0 U	--	2.0 U	--	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	4.0 U	**2.13 J**	2.0 U	2.0 U	2.0 U	2.13
X-10AR2	09/08/20	GPL	1.7 U [1.7 U]	--	1.7 U [1.7 U]	--	1.7 U [1.7 U]	--	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	**5.8 [5.6]**	1.7 U [1.7 U]	1.7 U [1.7 U]	1.7 U [1.7 U]	9.8 [10.5]
X-10AR2	08/18/21	GPL	1.8 U	--	1.8 U	--	1.8 U	--	1.8 U	**1.4 J**	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	1.8 U	**6.1**	1.8 U	1.8 U	1.8 U	14.3
X-10AR2	09/22/22	GPL	1.9 U	--	1.9 U	--	1.9 U	--	1.9 U [a]	1.9 U	1.9 U	9.3 U [b]	1.9 U	1.9 U	1.9 U	1.9 U	**6.3**	1.9 U [a]	9.3 U [b]	1.9 U	11.7
X-10AR2	9/13/2023	GPL	3.8 U	--	3.8 U	--	3.8 U	--	3.8 U	**0.72 J**	3.8 U	3.8 U	**0.56 J**	3.8 U	3.8 U	3.8 U	**7.3**	3.8 U	3.8 U	3.8 U	17.3
X-10AR2	9/11/2024	GPL	4.1 U	4.1 U	4.0 U	4.2 U	4.0 U	4.2 U	4.2 U	4.2 U	4.0 U	4.2 U	4.2 U	3.8 U	4.2 U	3.9 U	**5.8**	4.2 U	4.2 U	4.2 U	14.2

Table 4
PFAS Groundwater Analytical Summary Table
RACER Saginaw Malleable
Saginaw, Michigan

All values are in nanograms per liter (ng/L).

Bold result denotes detection.

Shaded result denotes detection is above the EGLE Part 201 Generic Groundwater Surface-Water Interface Criteria.

Red result denotes detection is above EGLE Part 201 Generic Drinking Water Criteria.

PFAS analytes analyzed by Method ENV-SOP-MIN4-0178.

For Total PFAS all detections were summed.

-- = not applicable
a = Associated ID Standard outside control limits. Confirmed by batch QC, re-extraction and/or reanalysis.
b = Result is from Run #2
U = not detected
Q = surrogate failure
J = estimated value between the limit of quantitation and the method detection limit.
[ ] = duplicate sample detections
EGLE = Environment Great Lakes and Energy
GSI = Groundwater Surface water Interface

PFBA = Perfluorobutanoic acid
PFPeA = Perfluoropentanoic acid
PFHxA = Perfluorohexanoic acid
PFHpA = Perfluoroheptanoic acid
PFOA = Perfluorooctanoic acid
PFNA = Perfluorononanoic acid
PFDA = Perfluorodecanoic acid
PFUnA = Perfluoroundecanoic acid
PFDoA = Perfluorododecanoic acid
PFTrDA = Perfluorotridecanoic Acid
PFTeDA = Perfluorotetradecanoic acid
PFBS = Perfluorobutanesulfonic acid
PFPeS = Perfluoropentanesulfonic acid
PFHxS = Perfluorohexanesulfonic acid
PFDoS = Perfluorodecane Sulfonic Acid
PFHxDA = Perfluorohexadecanoic Acid
PFODA = Perfluorooctadecanoic Acid
PFHpS = Perfluoroheptanesulfonic Acid
PFOS = Perfluorooctanesulfonic acid
PFNS = Perfluorononanesulfonic acid
PFDS = Perfluorodecanesulfonic acid
4:2 FTS = Fluorotelomer sulfonic acid 4:2
6:2 FTS = Fluorotelomer sulfonic acid 6:2
8:2 FTS = Fluorotelomer sulfonic acid 8:2
10:2 FTS = Fluorotelomer sulfonic acid 10:2
NMeFOSAA = 2-(N-Methylperfluorooctanesulfonamido)acetic acid
NMeFOSA = N-Methylperfluorooctanesulfonamide
NMeFOSE = N-Methylperfluorooctanesulfonamidoethanol
NEtFOSAA = 2-(N-Ethylperfluorooctanesulfonamido)acetic acid
NEtFOSA = N-ethyl perfluorooctanesulfonamide
NEtFOSE = N-ethyl perfluoroocanesulfonamidoethanol
PFOSA = Perfluorooctanesulfonamide
HFPO-DA/GenX = Hexafluoropropylene oxide dimer acid
ADONA = 4,8-dioxa-3H-perfluorononanoic acid
9Cl-PF3ONS = 9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid
11Cl-PF3OUdS = 11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)	Manganese (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL	4,700
MW-117S1	24.2 - 29.2	06/20/95	--	--	5.0 U	--	--	--	--	**1.2**	**1,410**	--	**5,780**	**347**
MW-117S1	24.2 - 29.2	07/14/95	--	--	--	--	--	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	06/11/96	--	--	--	--	--	--	--	--	**1,670**	--	**8,260**	**330**
MW-117S1	24.2 - 29.2	05/19/00	--	--	--	--	--	--	--	10 U	**1,720**	5.0 U	**8,730**	**341**
MW-117S1	24.2 - 29.2	06/19/01	--	--	--	--	--	--	--	10 U	**1,740**	5.0 U	**9,120**	**340**
MW-117S1	24.2 - 29.2	06/26/02	--	--	--	--	--	--	--	10 U	**1,740**	5.0 U	**8,650**	**326**
MW-117S1	24.2 - 29.2	06/19/03	--	--	--	--	--	--	--	10 U	**1,800**	5.0 U	**9,160**	**354**
MW-117S1	24.2 - 29.2	05/27/04	--	--	--	--	--	--	--	10 U	**1,780**	5.0 U	**10,100**	**326 J**
MW-117S1	24.2 - 29.2	06/23/05	--	--	--	--	--	--	--	**2.7**	**1,530 J**	10 U	**8,150**	**289 J**
MW-117S1	24.2 - 29.2	12/13/06	--	--	--	--	--	--	--	5.0 U	**2,010**	10 U	**8,980**	**329**
MW-117S1	24.2 - 29.2	12/07/07	--	--	--	--	--	--	--	5.0 U	**1,890**	10 U	**9,480**	**332**
MW-117S1	24.2 - 29.2	03/14/08	--	--	--	--	--	--	--	**3.9 J**	**1,810**	10 U	**7,350**	**312**
MW-117S1	24.2 - 29.2	10/01/10	--	--	--	--	--	--	--	5.0 U	**1,800 J**	100 U	**8,980**	**307 J**
MW-117S1	24.2 - 29.2	09/27/11	--	--	--	--	--	--	--	**1.6**	**2,000**	--	**9,500**	**330**
MW-117S1	24.2 - 29.2	09/13/12	--	--	--	--	--	--	--	**1.6 J**	**1,800 B**	10 U	**8,600**	**300**
MW-117S1	24.2 - 29.2	09/24/13	--	--	--	--	--	--	--	**4.3 B**	**2,000**	10 U	**3,900**	**510**
MW-117S1	24.2 - 29.2	09/22/14	--	--	--	--	--	--	--	**4.6 B**	**2,100 B**	10 U	**12,000 B**	**290**
MW-117S1	24.2 - 29.2	09/30/15	--	--	10 U	--	--	--	--	**2.3**	**1,700**	10 U	**8,700**	**270**
MW-117S1	24.2 - 29.2	09/27/16	--	--	10 U	--	--	--	--	**1.9 J**	**1,500 B**	10 U	**9,000 B**	**270 B**
MW-117S1	24.2 - 29.2	11/13/17	--	--	10 U	--	--	--	--	**2.0**	**1,700**	10 U	**8,700**	**260**
MW-117S1	24.2 - 29.2	08/21/19	--	--	10 U	--	--	--	--	10 U	**1,700**	10 U	**8,700**	**270**
MW-117S1	24.2 - 29.2	08/13/20	10 U	**1,500**	10 U	**8,600 B**	**290**	15 U	**110,000**	10 U	**1,500**	10 U	**7,900 B**	**290**
MW-117S1	24.2 - 29.2	08/17/21	10 U	**1,800**	10 U	**7,800**	**290**	15 U	**120,000**	10 U	**1,800**	10 U	**7,600**	**270**
MW-117S1	24.2 - 29.2	09/21/22	10 U	**1,700**	10 U	**8,400**	**340**	15 U	**120,000**	10 U	**1,800**	10 U	**8,200**	**330**
MW-117S1	24.2 - 29.2	09/13/23	5.0 U	**910**	5.0 U	**3,560**	**265**	25 U	**126,000**	5.0 U	**862**	5.0 U	**2,260**	**211**
MW-117S1	24.2 - 29.2	09/10/24	5.0 U	**2,110**	5.0 U	**8,810**	**548**	25 U	**120,000**	5.0 U	**1,560**	5.0 U	**109**	**319**
MW-117WT	3 - 13	06/20/95	--	--	5.0 U	--	--	--	--	1.3	**2,210**	--	**100,000**	**5,130**
MW-117WT	3 - 13	07/14/95	--	--	--	--	--	--	--	--	--	--	--	--
MW-117WT	3 - 13	06/11/96	--	--	--	--	--	--	--	--	**2,520**	--	**124,000**	**5,190**
MW-117WT	3 - 13	05/19/00	--	--	--	--	--	--	--	10 U	**3,580**	5.0 U	**149,000**	**5,510**
MW-117WT	3 - 13	06/18/01	--	--	--	--	--	--	--	10 U	**3,170**	5.0 U	**137,000**	**4,900**
MW-117WT	3 - 13	06/26/02	--	--	--	--	--	--	--	**2.2 B**	**2,970**	5.0 U	**128,000**	**4,850**
MW-117WT	3 - 13	06/19/03	--	--	--	--	--	--	--	10 U	**3,250**	5.0 U	**139,000**	**5,480**
MW-117WT	3 - 13	12/09/04	--	--	--	--	--	--	--	**4.1 [4.6 J]**	**3,110 J [2,880 J]**	10 U [10 U]	**143,000 J [125,000 J]**	**5,150 J [3,970 J]**
MW-117WT	3 - 13	06/23/05	--	--	--	--	--	--	--	**4.5**	**2,360 J**	10 U	**122,000**	**3,810 J**
MW-117WT	3 - 13	12/13/06	--	--	--	--	--	--	--	5.0 U	**2,710**	10 U	**105,000**	**4,000**
MW-117WT	3 - 13	12/07/07	--	--	--	--	--	--	--	5.0 U	**2,880**	10 U	**124,000**	**4,460**
MW-117WT	3 - 13	03/14/08	--	--	--	--	--	--	--	5.0 U	**2,670**	10 U	**112,000**	**4,160**
MW-117WT	3 - 13	10/01/10	--	--	--	--	--	--	--	5.0 U	**2,910 J**	10 U	**119,000**	**4,360 J**
MW-117WT	3 - 13	09/27/11	--	--	--	--	--	--	--	**2.5**	**3,300**	--	**130,000**	**4,700**
MW-117WT	3 - 13	09/13/12	--	--	--	--	--	--	--	**3.7**	**3,000 B**	10 U	**110,000**	**4,100**
MW-117WT	3 - 13	09/24/13	--	--	--	--	--	--	--	**4.8 B**	**3,100**	10 U	**130,000**	**7,000**
MW-117WT	3 - 13	09/23/14	--	--	--	--	--	--	--	**1.4 J,B**	**2,800 B**	10 U	**110,000 B**	**3,700**
MW-117WT	3 - 13	09/30/15	--	--	10 U	--	--	--	--	**3.0**	**2,100**	10 U	**83,000**	**2,900**
MW-117WT	3 - 13	09/27/16	--	--	10 U	--	--	--	--	**1.6 J**	**1,600 B**	10 U	**96,000 B**	**3,400 B**
MW-117WT	3 - 13	08/13/20	**6.5 J**	**2,000**	10 U	**96,000 B**	**3,700**	15 U	**460,000**	**4.1 J**	**2,100**	10 U	**97,000 B**	**3,800**
MW-117WT	3 - 13	08/17/21	**5.6 J**	**3,800**	10 U	**130,000**	**4,600**	15 U	**680,000**	**4.5 J**	**3,500**	10 U	**120,000**	**4,400**
MW-117WT	3 - 13	09/22/22	10 U	**2,300**	10 U	**100,000**	**4,200**	15 U	**470,000**	10 U	**2,200**	10 U *+	**99,000**	**3,900**
MW-117WT	3 - 13	09/13/23	**15.4**	**1,540**	5.0 U	**83,400**	**3,470**	25 U	**390,000**	5.0 U	**1,480**	5.0 U	**77,900**	**3,420**
MW-117WT	3 - 13	09/10/24	**23**	**1,390**	5.0 U	**81,500**	**3,490**	25 U	**353,000**	5.0 U	**1,090**	5.0 U	**25,300**	**3,540**
MW-118S1	23.5 - 28.5	06/20/95	--	--	5.0 U	--	--	--	--	**1.8**	**482**	--	**2,500**	**347**
MW-118S1	23.5 - 28.5	07/14/95	--	--	--	--	--	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	06/11/96	--	--	--	**4,970**	**372**	--	--	--	**532**	--	**5,390**	**383**
MW-118S1	23.5 - 28.5	05/17/00	--	--	--	--	--	--	--	10 U [10 U]	**593 [612]**	5.0 U [5.0 U]	**6,090 [6,150]**	**420 [415]**
MW-118S1	23.5 - 28.5	06/19/01	--	--	--	--	--	--	--	10 U	**645**	5.0 U	**7,070**	**428**
MW-118S1	23.5 - 28.5	06/27/02	--	--	--	--	--	--	--	10 U	**622**	5.0 U	**6,070**	**408**
MW-118S1	23.5 - 28.5	06/19/03	--	--	--	--	--	--	--	10 U	**713**	5.0 U	**7,570**	**476**
MW-118S1	23.5 - 28.5	12/09/04	--	--	--	--	--	--	--	**2.3 J**	**718 J**	10 U	**7,420 J**	**405 J**
MW-118S1	23.5 - 28.5	06/23/05	--	--	--	--	--	--	--	**1.9 B**	**676 JE**	10 U	**6,630**	**370 J**
MW-118S1	23.5 - 28.5	12/14/06	--	--	--	--	--	--	--	5.0 U	**727**	10 U	**5,930**	**401**
MW-118S1	23.5 - 28.5	12/07/07	--	--	--	--	--	--	--	5.0 U	**753**	10 U	**6,940**	**425**
MW-118S1	23.5 - 28.5	04/01/08	--	--	--	--	--	--	--	5.0 U	**763**	10 U	**6,340**	**413**
MW-118S1	23.5 - 28.5	10/01/10	--	--	--	--	--	--	--	5.0 U	**759 J**	10 U	**6,570**	**395 J**
MW-118S1	23.5 - 28.5	09/27/11	--	--	--	--	--	--	--	**0.58**	**810**	10 U	**6,700**	**410**
MW-118S1	23.5 - 28.5	09/13/12	--	--	--	--	--	--	--	**0.74**	**710 B**	**11**	**5,900**	**400**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)	Manganese (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL	4,700
MW-118S1	23.5 - 28.5	09/24/13	--	--	--	--	--	--	--	**18 B**	**970 B**	10 U	**3,900 B**	**470 B**
MW-118S1	23.5 - 28.5	09/22/14	--	--	--	--	--	--	--	**0.86 J**	**730 B**	10 U	50 U	**350**
MW-118S1	23.5 - 28.5	09/30/15	--	--	10 U	--	--	--	--	**1.6 J**	**890**	10 U	7,700	**340**
MW-118S1	23.5 - 28.5	09/27/16	--	--	10 U	--	--	--	--	**1.9 J**	**850 B**	10 U	**8,700 B**	**360 B**
MW-118S1	23.5 - 28.5	11/13/17	--	--	10 U F1	--	--	--	--	**1.4 J**	**750**	10 U	**8,500**	**460**
MW-118S1	23.5 - 28.5	08/14/20	**7.8 J**	**29 J**	10 U	**3,900**	**770**	15 U	**13,000 B**	**8.2 J**	**28 J**	10 U	**2,700**	**800**
MW-118S1	23.5 - 28.5	08/17/21	10 U	**300**	10 U	**13,000**	**2,100**	15 U	**97,000**	10 U	**300**	10 U	**12,000**	**2,100**
MW-118S1	23.5 - 28.5	09/26/22	**4.7 J**	**72 J B**	10 U	**9,700**	**940**	15 U	**45,000**	**4.4 J**	**69 J B**	10 U *+	**8,700**	**850**
MW-118S1	23.5 - 28.5	09/13/23	5.0 U	**99.9**	5.0 U	**5,400**	**187**	25 U	**30,100**	5.0 U	**90.7**	5.0 U	**4,590**	**190**
MW-118S1	23.5 - 28.5	09/10/24	5.0 U	**182**	5.0 U	**11,500**	**352**	25 U	**53,000**	5.0 U	**146**	5.0 U	**971**	**452**
MW-118WT	1.6 - 11.6	06/20/95	--	--	5.0 U	--	--	--	--	**1**	**1,970**	--	**71,500**	**5,460**
MW-118WT	1.6 - 11.6	07/14/95	--	--	--	--	--	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	06/11/96	--	--	--	**81,900**	**4,990**	--	--	--	**2,420**	--	**93,100**	**5,390**
MW-118WT	1.6 - 11.6	05/17/00	--	--	--	--	--	--	--	10 U	**7,970**	5.0 U	**261,000**	**8,930**
MW-118WT	1.6 - 11.6	06/19/01	--	--	--	--	--	--	--	**5.1 B [7.4 B]**	**10,700 [11,200]**	5.0 U [5.0 U]	**330,000 [344,000]**	**7,740 [8,070]**
MW-118WT	1.6 - 11.6	06/27/02	--	--	--	--	--	--	--	**3.9 B [7.9 B]**	**8,650 [9,200]**	5.0 U [5.0 U]	**259,000 [277,000]**	**6,250 [6,360]**
MW-118WT	1.6 - 11.6	06/19/03	--	--	--	--	--	--	--	10 U [10 U]	**5,620 [5,420]**	5.0 U [5.0 U]	**173,000 [166,000]**	**4,110 [4,000]**
MW-118WT	1.6 - 11.6	05/27/04	--	--	--	--	--	--	--	**3.2**	**4,350**	5.0 U	**135,000**	**3,080 J**
MW-118WT	1.6 - 11.6	06/23/05	--	--	--	--	--	--	--	**3.4**	**2,210 J**	10 U	**92,400**	**1,560 J**
MW-118WT	1.6 - 11.6	12/14/06	--	--	--	--	--	--	--	5.0 U	**1,400**	10 U	**39,200**	**1,050**
MW-118WT	1.6 - 11.6	12/07/07	--	--	--	--	--	--	--	5.0 U	**1,120**	10 U	**35,400**	**881**
MW-118WT	1.6 - 11.6	04/01/08	--	--	--	--	--	--	--	5.0 U	**1,040**	10 U	**30,500**	**800**
MW-118WT	1.6 - 11.6	09/30/10	--	--	--	--	--	--	--	5.0 U	**571 J**	10 U	**16,900**	**448 J**
MW-118WT	1.6 - 11.6	09/27/11	--	--	--	--	--	--	--	**1.1**	**600**	--	**16,000**	**470**
MW-118WT	1.6 - 11.6	09/13/12	--	--	--	--	--	--	--	**0.80 J**	**390**	--	**11,000**	**340**
MW-118WT	1.6 - 11.6	09/24/13	--	--	--	--	--	--	--	**0.72 J,B**	**390 B**	10 U	**8,700 B**	**330 B**
MW-118WT	1.6 - 11.6	09/22/14	--	--	--	--	--	--	--	**0.37 J,B**	**360 B**	10 U	**8,600 B**	**300**
MW-118WT	1.6 - 11.6	09/30/15	--	--	10 U	--	--	--	--	**0.85 J**	**300**	10 U	**7,100**	**270**
MW-118WT	1.6 - 11.6	09/27/16	--	--	10 U	--	--	--	--	**1.0 J**	**300 B**	10 U	**8,500 B**	**300 B**
MW-118WT	1.6 - 11.6	11/13/17	--	--	10 U	--	--	--	--	2.0 U	**370**	**5.8 J**	**15,000**	**570**
MW-118WT	1.6 - 11.6	08/14/20	**15**	**250**	10 U	**26,000**	**970**	15 U	**48,000 B**	**15**	**250**	10 U	**26,000**	**1,000**
MW-118WT	1.6 - 11.6	08/17/21	10 U	**390**	**6.4 J**	**12,000**	**390**	15 U	**100,000**	10 U	**360**	10 U	**11,000**	**390**
MW-118WT	1.6 - 11.6	09/22/22	**11**	**330**	10 U	**19,000**	**860**	15 U	**92,000**	**10**	**340**	10 U	**18,000**	**850**
MW-118WT	1.6 - 11.6	09/13/23	**13.7**	**354**	5.0 U	**22,400**	**779**	25 U	**98,800**	**12.8**	**266**	5.0 U	**16,000**	**791**
MW-118WT	1.6 - 11.6	09/10/24	**33.1**	**372**	5.0 U	**34,000**	**1,140**	25 U	**87,200**	5.0 U	**90.1**	**5.2**	**432**	**1,030**
MW-183WT	6 - 16	01/09/08	5.0 U [5.0 U]	**44.1 J [44.3 J]**	--	**1,200 J [669 J]**	**514 [429 J]**	5.0 U [5.0 U]	**97,200 [99,800]**	5.0 U [5.0 U]	**45.6 J [44.2 J]**	10 U [10 U]	**714 J [1,280 J]**	**440 [565 J]**
MW-183WT	6 - 16	03/12/08	5.0 U	**52.6 J**	--	**659**	**611**	5.0 U	**99,000**	**3.3 J**	**51.4 J**	10 U	**298**	**608**
MW-183WT	6 - 16	09/28/10	**5.0 U [6.90]**	**38.2 BJ [37.7 BJ]**	--	**3,850 [3,630]**	**252 [248]**	5.0 U [5.0 U]	--	**5.0 U [5.0 U)]**	**36.8 BJ [37 BJ]**	10 U	**3.06 [3.02]**	**243 [238]**
MW-183WT	6 - 16	09/28/11	**1.90 [2.0]**	**36.0 [38.0]**	--	**2,600 [2,600]**	**240 [260]**	5.0 U [5.0 U]	--	**2.0**	**39**	--	**2,600**	**250**
MW-183WT	6 - 16	09/14/12	**1.0 [0.73 J]**	**79 B [85 B]**	--	**2,200 [2,100]**	**400 B [440 B]**	5.0 U [5.0 U]	--	**1.4 J**	**78 B**	10 U	**2,100**	**400 B**
MW-183WT	6 - 16	09/24/13	**3.9 B [3.3 B]**	**85 B [83 B]**	--	**4,500 B [3,800 B]**	**500 B [490 B]**	5.0 U [5.0 U]	--	**3.2 B**	**82 B**	10 U	**3,400 B**	**490 B**
MW-183WT	6 - 16	09/23/14	**1.8 J,B [1.9 J,B]**	**43 B [45 B]**	--	**2,300 B [2,600 B]**	**460 [540]**	**0.32 J,B [0.27 J,B]**	--	**1.9 J,B [1.9 J,B]**	**460 B [470 B]**	10 U	**2,700 B [2,600 B]**	**550 [560]**
MW-183WT	6 - 16	10/01/15	**1.5 J [1.3 J]**	**46 [45]**	--	**2,500 [2,400]**	**350 [330]**	**0.69 J,B [0.55 J,B]**	--	**1.7 J**	**44**	10 U	**2,600**	**350**
MW-183WT	6 - 16	09/28/16	**6.0**	**41 B**	10 U	**5,000 B**	**1,100 B**	**0.82 J**	**49,000**	**4.1**	**40 B**	10 U	**5,300 B**	**1,100 B**
MW-183WT	6 - 16	08/29/17	**5.8 [4.6]**	**50 F1 [41]**	10 U F1 F2	**4,200 [3,600]**	**1,700 [1,300]**	5.0 U [5.0 U]	**38,000 [35,000]**	**4.8**	**45**	10 U F1 F2	**3,800**	**1,500**
MW-183WT	6 - 16	09/26/18	**6.4 J [8.2 J]**	**35 J [44 J]**	10 U	**3,900 F1 [4,900]**	**1,200 F1 [1,500]**	15 U [15 U]	**21,000 [27,000]**	**6.5 J**	**41 J**	10 U [10 U]	**4,000**	**1,300**
MW-183WT	6 - 16	08/21/19	**10 [9.4 J]**	**52 J [52 J]**	10 U	**6,600 [6,800]**	**1,500 [1,500]**	15 U ^ [15 U ^]	**30,000 [29,000]**	**8.1 J**	**51 J**	10 U [10 U]	**5,900**	**1,400**
MW-183WT	6 - 16	08/18/20	**4.6 J [4.5 J]**	**48 J [53 J]**	10 U [10 U]	**5,400 [5,700]**	**1,600 [1,800]**	15 U [15 U]	**14,000 [15,000]**	**7.0 J,F2 [5.3 J]**	**53 J,F1,F2 [52 J]**	10 U [10 U]	**5,800 F1,F2 [5,600]**	**1,800 F1,F2 [1,800]**
MW-183WT	6 - 16	08/19/21	**10**	**45 J**	10 U	**5,800**	**1,700**	15 U	**23,000**	**8.3 J**	**43 J**	10 U	**4,400**	**1,600**
MW-183WT	6 - 16	09/26/22	**13**	**36 J B**	10 U	**5,100 F1**	**1,200 F1**	15 U	**22,000**	**11**	**34 J B**	10 U *+	**4,700**	**1,200**
MW-183WT	6 - 16	09/13/23	**26.4**	**94.1**	5.0 U	**19,700**	**1,700**	25 U	**31,700**	**6.1**	**38.4**	5.0 U	**3,580**	**1,290**
MW-183WT	6 - 16	09/10/24	**28.8**	**93.1**	5.0 U	**17,400**	**3,620**	25 U	**29,900**	5.0 U	**41.1**	5.0 U	100 U	**2,330**
X-10BR	26.3 - 31.3	07/24/95	--	--	5.0 U	--	--	--	--	**32**	**387**	--	**22,600**	**457**
X-10BR	26.3 - 31.3	12/15/06	--	--	--	--	--	--	--	**27.6**	**598**	10 U	**30,500**	**691**
X-10BR	26.3 - 31.3	12/04/07	--	--	--	--	--	--	--	**29.5**	**570**	10 U	**32,700**	**696**
X-10BR	26.3 - 31.3	03/12/08	--	--	--	--	--	--	--	**33**	**597**	10 U	**31,800**	**716**
X-10BR	26.3 - 31.3	09/29/10	--	--	--	--	--	--	--	**28.5**	**581 J**	10 U	**31,700**	**751**
X-10BR	26.3 - 31.3	09/22/11	--	--	--	--	--	--	--	**30**	**630**	10 U	**35,000**	**750**
X-10BR	26.3 - 31.3	09/14/12	--	--	--	--	--	--	--	**27**	**570**	10 U	**30,000**	**730 B^**
X-10BR	26.3 - 31.3	09/24/13	--	--	--	--	--	--	--	**28 B**	**630**	10 U	**33,000**	**750**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)	Manganese (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL	4,700
X-4AR	3.3 - 8.3	07/24/95	**12.7**	**431**	5.0 U	**72,400**	**1,500**	5.0 U	**20,700**	**1.2**	200 U	--	**1,080**	**248**
X-4AR	3.3 - 8.3	06/09/96	5.0 U	200 U	5.0 U	**399**	**41.9**	5.0 U	**21,900**	5.0 U	200 U	5.0 U	**289**	**44.4**
X-4AR	3.3 - 8.3	05/21/00	10 U	**73.3 B**	--	193 U	15 U	5.0 U	**20,700**	10 U	**73.9 B**	--	100 U	15 U
X-4AR	3.3 - 8.3	08/18/20	10 U	**25 J**	10 U	100 U	**3.0 J**	15 U	**28,000**	10 U	**36 J**	--	100 U	**180**
X-4AR	3.3 - 8.3	09/21/22	10 U	**14 J**	10 U	**130**	**52**	15 U	**26,000**	--	**--**	--	--	**--**
X-4AR	3.3 - 8.3	09/13/23	**23**	**223**	5.0 U	**45,300**	**3,400**	25 U	**21,800 J**	5.0 U	**23.6**	5.0 U	100 U	**156**
X-4AR	3.3 - 8.3	09/12/24	**57.2 [50.6]**	**89.7 [83.2]**	5.0 U	**9,450 [8,730]**	**1,850 [1,720]**	25 U [25 U]	**12,500 [11,900]**	**16.3 [12.6]**	**70.7 [67.9]**	5.0 U	**161 [232]**	**1,810 [1,830]**
X-4CAUG	18 - 23	07/24/95	--	--	5.0 U	--	--	--	--	1 UJ	200 U	--	**1,970**	**447**
X-4CAUG	18 - 23	06/08/96	--	--	--	--	--	--	--	5.0 U	200 U	5.0 UJ	**1,980**	**464**
X-4CAUGR	14 - 19	01/09/08	5.0 U	**114**	--	**4,600**	**397**	5.0 U	**73,900**	5.0 U	**123**	10 U	**4,940**	**427**
X-4CAUGR	14 - 19	03/12/08	5.0 U	**129**	--	**5,060**	**495**	5.0 U	**55,400**	5.0 U	**137**	10 U	**5,020**	**535**
X-4CAUGR	14 - 19	09/28/10	5.0 U	**132 J**	--	**4,930**	**559**	5.0 U	**54,000**	5.0 U	**129 J**	10 U	**5,180**	**571**
X-4CAUGR	14 - 19	09/26/11	**0.740**	**140**	--	**5,400**	**620**	5.0 U	**44,000**	**0.45**	**130**	10 U	**5,000**	**590**
X-4CAUGR	14 - 19	09/14/12	**0.42 J**	**120 B**	--	**4,500**	**560 B^**	5.0 U	**53,000**	**0.40 J**	**120 B**	10 U	**4,400**	**570 B^**
X-4CAUGR	14 - 19	09/24/13	**1.9 B**	**89**	--	**6,700**	**730**	5.0 U	**22,000 B**	**6.9 B**	**89 B**	10 U	**6,300 B**	**760 B**
X-4CAUGR	14 - 19	09/23/14	**2.3 B**	**130 B**	--	**9,100 B**	**610**	**0.36 J,B**	**59,000 B**	**2.2 B**	**140 B**	10 U	**9,000 B**	**610**
X-4CAUGR	14 - 19	09/30/15	**2.0**	**120**	10 U	**6,500**	**430**	**0.56 J**	**64,000 B**	**2.1**	**140**	10 U	**7,800**	**500**
X-4CAUGR	14 - 19	09/28/16	**1.3 J**	**100 B**	10 U	**4,900 B**	**380 B**	**0.92 J**	**78,000**	**1.1 J**	**96 B**	10 U	**4,700 B**	**370 B**
X-4CAUGR	14 - 19	08/29/17	**0.84 J**	**110**	10 U	**4,800**	**420**	--	**9,200**	**0.84 J**	**110**	10 U	**4,700**	**450**
X-4CAUGR	14 - 19	09/26/18	10 U	**67 J**	10 U	**3,500**	**300**	15 U	**10,000**	10 U	**64 J**	10 U	**2,800**	**300**
X-4CAUGR	14 - 19	08/22/19	2.0 U	**57**	10 U	**2,400**	**270**	5.0 U	**12,000**	2.0 U	**59**	10 U	**2,700**	**280**
X-4CAUGR	14 - 19	08/17/20	**7.2 J**	**54 J**	10 U	**2,700**	**300**	15 U	**13,000**	**4.3 J**	**54 J**	10 U	**2,700**	**300**
X-4CAUGR	14 - 19	08/17/21	10 U	**52 J**	**6.6 J**	**2,600**	**290**	15 U	**13,000**	10 U	**53 J**	10 U	**2,300**	**290**
X-4CAUGR	14 - 19	09/21/22	10 U	**58 J**	10 U	**3,200**	**300**	15 U	**12,000**	10 U	**55 J**	10 U	**2,800**	**290**
X-4CAUGR	14 - 19	09/13/23	5.0 U	**64.7**	5.0 U [5.0 U]	**5,700**	**420**	25 U	**36,500**	5.0 U	**41.5**	5.0 U [5.0 U]	100 U	**342**
X-4CAUGR	14 - 19	09/10/24	5.0 U	**97.9**	5.0 U [5.0 U]	**9,910**	**555**	25 U	**11,200**	5.0 U	**52.5**	5.0 U [5.0 U]	**113**	**455**
X-4D	40 - 45	01/09/08	5.0 U	**125**	--	**2,250**	**327**	5.0 U	**733,000**	5.0 U	**124**	10 U	**2,080**	**318**
X-4D	40 - 45	04/01/08	--	--	--	--	--	--	--	5.0 U [5.0 U]	**112 [111]**	10 U [10 U]	**1,930 [1,780]**	**263 [258]**
X-4D	40 - 45	04/03/08	5.0 U	**110**	--	**1,640**	**263**	5.0 U	**701,000**	--	--	--	--	--
X-4D	40 - 45	06/05/08	--	--	--	--	--	--	--	--	--	--	--	--
X-4D	40 - 45	09/28/10	5.0 U	**99.7 BJ**	--	**1,030**	**265**	5.0 U	**699,000**	5.0 U	**98.9 BJ**	10 U	**979**	**275**
X-4D	40 - 45	09/26/11	**1.10**	**100**	--	**1,400**	**190**	5.0 U	**720,000**	**0.94**	**99**	10 U	**1,300**	**180**
X-4D	40 - 45	09/14/12	**1.1**	**86 B**	--	**980**	**180 B**	5.0 U	**690,000**	**0.89 J**	**87 B**	10 U	**1,000**	**190 B^**
X-4D	40 - 45	09/24/13	**0.91 J,B**	**92**	--	**1,300**	**160**	5.0 U	**690,000**	**0.79 J,B**	**89 B**	10 U	**1,200**	**160 B**
X-4D	40 - 45	09/23/14	**0.49 J,B**	**58 B**	--	**290 J,B**	**340**	**0.42 J,B**	**260,000 B**	**0.53 J,B**	**82 B**	10 U	**35 J,B**	**180**
X-4D	40 - 45	09/30/15	**1.2 J**	**87**	10 U	**1,000**	**160**	**2.0 J,B**	**660,000**	**1.1 J**	**82**	10 U	**740**	**180**
X-4D	40 - 45	09/28/16	**0.85 J**	**93 B**	10 U	**1,200 B**	**200 B**	5.0 U	**660,000**	**0.97 J**	**91 B**	10 U	**1,100 B**	**200 B**
X-4D	40 - 45	08/29/17	2.0 U	**83**	10 U	50 U	**190**	5.0 U	**1,600,000**	2.0 U	**84**	10 U	50 U	**180**
X-4D	40 - 45	09/26/18	10 U	**83 J**	10 U	**330**	**310**	15 U	**560,000**	10 U	**83 J**	10 U	**1,300**	**210**
X-4D	40 - 45	08/22/19	2.0 U	**28**	10 U	**1,000**	**240**	5.0 U	**85,000**	2.0 U	**61**	10 U	**1,000**	**220**
X-4D	40 - 45	08/17/20	**6.3 J**	**81 J**	10 U	**1,200**	**210**	15 U	**630,000**	**5.8 J**	**84 J**	10 U	**1,100**	**220**
X-4D	40 - 45	08/17/21	10 U	**61 J**	**7.2 J**	**340**	**260**	15 U	**350,000**	10 U	**95 J**	10 U	**940**	**280**
X-4D	40 - 45	09/21/22	10 U	**75 J**	10 U	**900**	**180**	15 U	**620,000**	10 U	**83 J**	10 U	**1,200**	**160**
X-4D	40 - 45	09/13/23	5.0 U	**115**	5.0 U	**8,920**	**324**	25 U	**627,000**	5.0 U	**73.3**	6.0 U	**892**	**189**
X-4D	40 - 45	09/10/24	**5.2 J**	**92.6**	5.0 U	**3,420**	**240**	25 U	**582,000**	5.0 U	**68.9**	5.0 U	**64.8 J**	**199**
X-9AR	3 - 13	07/24/95	**1.60**	200 U	5.0 U	**11,100**	**770**	5.0 U	**340,000**	**2.1**	200 U	--	**9,170**	**674**
X-9AR	3 - 13	06/09/96	5.0 U	200 U	5.0 U	**2,900**	**348**	5.0 U	**57,200**	5.0 U	200 U	5.0 UJ	**3,190**	**382**
X-9AR	3 - 13	12/15/06	5.0 U	**94.0 J**	--	**1,090**	**157**	5.0 U	**55,000**	5.0 U	**91.2 J**	10 U	**965**	**153**
X-9AR	3 - 13	01/10/08	5.0 U	**108**	--	**5,510**	**318**	5.0 U	**58,600**	5.0 U	**110**	10 U	**5,620**	**325**
X-9AR	3 - 13	03/11/08	5.0 U	**51.8 J**	--	100 U	**6.80 J**	**8.20**	**34,300**	5.0 U	**51.2 J**	10 U	**134**	**3.1 J**
X-9AR	3 - 13	06/05/08	--	--	--	--	--	**4.60 B [5.0 U]**	--	--	--	--	--	--
X-9AR	3 - 13	09/29/10	5.0 U	**113 J**	--	**6,320**	**380**	5.0 U	**55,600**	5.0 U	**116 J**	10 U	**6,580**	**388**
X-9AR	3 - 13	09/23/11	**0.40**	**200**	--	**6,600**	**770**	5.0 U	**95,000**	2 U	**200**	10 U	**6,600**	**750**
X-9AR	3 - 13	09/12/12	**0.43 J**	**190**	--	**5,400**	**790 B^**	5.0 U	**120,000**	2 U	**190**	10 U	**5,500**	**780 B^**
X-9AR	3 - 13	09/25/13	**6**	**220 B**	--	**10,000 B**	**840 B**	5.0 U	**120,000 B**	**5.5**	**220 B**	10 U	**8,900 B**	**670 B**
X-9AR	3 - 13	09/22/14	**1.2 J**	**160 B**	--	**8,800**	**570**	5.0 U	**60,000 B**	**1.3 J**	**170 B**	10 U	**9,100**	**590**
X-9AR	3 - 13	10/01/15	**0.63 J**	**91**	10 U	**5,000**	**310**	**0.55 J,B**	**39,000 B**	2.0 U	**87**	10 U	**4,700**	**300**
X-9AR	3 - 13	09/28/16	**0.50 *J**	**100**	10 U	**5,600**	**360**	**0.62 J**	**39,000**	**0.61 *J**	**97**	10 U	**5,500**	**360**
X-9AR	3 - 13	08/29/17	**2.4**	**56**	10 U	**2,900**	**1,300**	5.0 U	**11,000**	**2.4**	**--**	10 U	**2,300**	**1,400**
X-9AR	3 - 13	09/26/18	10 U	**58 J**	10 U	**2,100**	**3,600**	15 U	**10,000**	10 U	**55 J**	10 U	**1,900**	**4,000**
X-9AR	3 - 13	08/21/19	**4.4 J**	**64 J**	10 U	**3,300**	**3,600**	15 U ^	**11,000**	**4.3 J**	**65 J**	10 U	**3,100**	**3,600**
X-9AR	3 - 13	08/17/20	**23**	**57 J**	10 U	**6,400**	**3,100**	15 U	**9,600**	**24**	**57 J**	10 U	**5,600**	**3,000**
X-9AR	3 - 13	08/18/21	**11**	**71 J**	10 U	**7,500**	**2,500**	15 U	**13,000**	**10**	**72 J**	10 U	**7,800**	**2,600**
X-9AR	3 - 13	09/22/22	**13 [14]**	**67 J [69 J]**	10 U **[11]**	**12,000 [12,000]**	**1,900 [2,000]**	15 U [15 U]	**9,600 [9,800]**	**14 [16]**	**75 J [76 J]**	10 U *+ [10 U *+]	**13,000 [13,000]**	**2,100 [2,200]**
X-9AR	3 - 13	09/13/23	**117**	**757**	5.0 U	**82,300**	**2,670**	25 U	**16,300**	**19.8**	**105**	5.0 U	**23,600**	**2,230**
X-9AR	3 - 13	09/10/24	**279**	**273**	**85**	**131,000**	**1,440**	25 U	**10,900**	5.0 U	**67.3**	5.0 U	**343**	**1,160**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Arsenic	Barium	Cyanide (total)	Iron	Manganese	Selenium	Sodium	Arsenic (Dissolved)	Barium (Dissolved)	Cyanide (Dissolved)	Iron (Dissolved)	Manganese (Dissolved)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			680*	1,300	5.2	NSL	4,700	5	NSL	680*	1,300	5.2	NSL	4,700
X-9BR	26 - 31	07/24/95	--	--	5.0 U	--	--	--	--	1 UJ	200 U	--	**3,360**	**763**
X-9BR	26 - 31	06/08/96	--	--	--	--	--	--	--	5.0 U	200 U	5.0 UJ	**2,490**	**813**
X-9BR	26 - 31	12/15/06	5.0 U [5.0 U]	**143 [148]**	--	**3,070 [3,120]**	**777 [801]**	5.0 U [5.0 U]	**102,000 [102,000]**	5.0 U	**153**	10 U	**4,450**	**717**
X-9BR	26 - 31	01/08/08	5.0 U	**155**	--	**4,160**	**833**	5.0 U	**122,000**	5.0 U	**103**	10 U	**2,790**	**541**
X-9BR	26 - 31	03/11/08	5.0 U	**147**	--	**2,590**	**903**	5.0 U	**81,200**	5.0 U	**136**	10 U	**2,560**	**828**
X-9BR	26 - 31	09/28/10	5.0 U	**175 J**	--	**3,970**	**893**	5.0 U	**151,000**	5.0 U	**164 J**	10 U	**4,060**	**848**
X-9BR	26 - 31	09/23/11	**0.650**	**180**	--	**3,700**	**960**	5.0 U	**140,000**	**0.63**	**180**	10 U	**3,700**	**960**
X-9BR	26 - 31	09/12/12	**0.940 J**	**170**	--	**5,100**	**900 B^**	5.0 U	**190,000**	**0.91 J**	**160**	10 U	**5,300**	**850 B^**
X-9BR	26 - 31	09/25/13	**6.2**	**130 B**	--	**9,200 B**	**620 B**	5.0 U	**210,000 B**	**6.6**	**140 B**	10 U	**9,000 B**	**740 B**
X-9BR	26 - 31	09/22/14	**2.0**	**170 B**	--	**10,000**	**610**	**0.25 J**	**230,000 B**	**1.9 J**	**160 B**	10 U	**10,000**	**630**
X-9BR	26 - 31	10/01/15	**1.6 J**	**160**	10 U	**8,700**	**560**	**0.74 J,B**	**210,000 B**	**1.7 J**	**170**	10 U	**8,700**	**560**
X-9BR	26 - 31	09/28/16	**1.7 *J**	**150**	10 U	**7,500**	**550**	**0.72 J**	**230,000**	**1.8 *J**	**150**	10 U	**7,900**	**530**
X-9BR	26 - 31	08/29/17	**2.1**	**170**	10 U	**8,700**	**520**	5.0 U	**250,000**	**2.1**	**170**	10 U	**8,600**	**520**
X-9BR	26 - 31	09/26/18	10 U	**63 J**	10 U	**5,000**	**220**	15 U	**49,000**	10 U	**59 J**	10 U	**4,100**	**180**
X-9BR	26 - 31	08/21/19	10 U	**150 J**	--	**9,400**	**540**	15 U ^	**200,000**	10 U	**150 J**	10 U	**9,900**	**520**
X-9BR	26 - 31	08/18/20	10 U	**50 J**	10 U	**5,000**	**590**	15 U	**100,000**	**4.7 J**	**56 J**	10 U	**7,200**	**680**
X-9BR	26 - 31	08/18/21	10 U	**53 J**	10 U	**3,700**	**330**	15 U	**59,000**	10 U	**53 J**	10 U	**3,500**	**340**
X-9BR	26 - 31	09/22/22	10 U	**100 J**	10 U	**6,700**	**340**	15 U	**120,000**	10 U	**97 J**	10 U *+	**6,300**	**330**
X-9BR	26 - 31	09/13/23	**5.1 [6.1]**	**265 [209]**	5.0 U	**22,900 [17,400]**	**587 [538]**	25 U [25 U]	**279,000 [274,000]**	5.0 U [5.0 U]	**96.4 [108]**	5.0 U	**6,670 [7,330]**	**421 [441]**
X-9BR	26 - 31	09/10/24	**9.4 J**	**311**	5.0 U	**31,800**	**783**	25 U	**291,000**	5.0 U	**36.8**	5.0 U	**146**	**427**
X-9CAUG	20 - 25	07/24/95	--	--	5.0 U	--	--	--	--	1 UJ	200 U	--	**7,500**	**628**
X-9CAUG	20 - 25	06/08/96	--	--	--	--	--	--	--	5.0 U	200 U	5.0 UJ	**8,900**	**615**
X-9CAUG	20 - 25	12/15/06	5.0 U	**176**	--	**6,920**	**632**	5.0 U	**59,400**	5.0 U	**173**	10 U	**6,730**	**630**
X-9CAUG	20 - 25	01/08/08	5.0 U	**381**	--	**2,980**	**616**	5.0 U	**72,800**	5.0 U	**360**	10 U	**2,810**	**586**
X-9CAUG	20 - 25	03/11/08	5.0 U	**167**	--	**6,410**	**679**	5.0 U	**59,900**	5.0 U	**174**	10 U	**6,730**	**699**
X-9CAUG	20 - 25	09/28/10	5.0 U	**193 J**	--	**5,420**	**760**	5.0 U	**100,000**	5.0 U	**194 J**	10 U	**5,790**	**801**
X-9CAUG	20 - 25	09/23/11	**1.50**	**110**	--	**6,000**	**350**	5.0 U	**54,000**	**1.7**	**120**	10 U	**6,000**	**350**
X-9CAUG	20 - 25	09/12/12	**1.9 J**	**110 B**	--	**4,700**	**340**	**0.68 J**	**47,000**	**0.12 J**	**100 B**	10 U	**5,200**	**340**
X-9CAUG	20 - 25	09/25/13	**1.8 J**	**89 B**	--	**4,500 B**	**290 B**	5.0 U	**47,000 B**	**1.8 J**	**87 B**	10 U	**4,400 B**	**300 B**
X-9CAUG	20 - 25	09/22/14	**1.1 J,B**	**84 B**	--	**5,700 B**	**330**	**0.40 J,B**	**38,000 B**	**1.1 J,B**	**860 B**	10 U	**5,700 B**	**350**
X-9CAUG	20 - 25	09/30/15	**1.3 J**	**210**	--	**9,800**	**640**	**0.32 J**	**88,000 B**	**1.1 J,B**	**190**	10 U	**10,000**	**550**
X-9CAUG	20 - 25	09/28/16	**0.97 *J**	**260**	10 U	**8,400**	**740**	**0.89 J**	**120,000**	**1.0 *J**	**250**	10 U	**9,900**	**690**
X-9CAUG	20 - 25	08/29/17	2.0 U	**220**	10 U	**12,000**	**530**	5.0 U	**42,000**	2.0 U	**230**	10 U	**12,000**	**570**
X-9CAUG	20 - 25	09/25/18	10 U	**120 J**	10 U	**7,500**	**500**	15 U	**24,000**	10 U	**120 J**	10 U	**7,500**	**500**
X-9CAUG	20 - 25	08/21/19	10 U	**130 J**	10 U	**7,700**	**470**	15 U ^	**16,000**	10 U	**130 J**	10 U	**7,600**	**440**
X-9CAUG	20 - 25	08/18/20	10 U	**73 J**	10 U	**8,900**	**480**	15 U	**16,000**	10 U	**69 J**	10 U	**8,000**	**440**
X-9CAUG	20 - 25	08/18/21	10 U	**130 J**	10 U	**8,500**	**510**	15 U	**21,000**	10 U	**130 J**	10 U	**7,900**	**520**
X-9CAUG	20 - 25	09/22/22	10 U	**130 J**	10 U	**7,700**	**570**	15 U	**22,000**	10 U	**130 J**	10 U *+	**7,700**	**560**
X-9CAUG	20 - 25	09/13/23	5.0 U	**263**	5.0 U	**21,200**	**745**	25 U	**31,300**	5.0 U	**138**	5.0 U	**6,890**	**595**
X-9CAUG	20 - 25	09/10/24	5.0 U	**307**	5.0 U	**24,900**	**858**	25 U	**24,000**	5.0 U	**213**	5.0 U	**110**	**695**
X-9D	42.5 - 47.5	01/08/08	5.0 U	**94.2 J**	--	**3,640**	**186**	5.0 U	**717,000**	5.0 U	**87.8 J**	10 U	**3,370**	**173**
X-9D	42.5 - 47.5	03/11/08	5.0 U	**80.7 J**	--	**3,150**	**149**	5.0 U	**635,000**	5.0 U	**86.6 J**	10 U	**3,570**	**155**
X-9D	42.5 - 47.5	06/05/08	--	--	--	--	--	--	--	--	--	--	--	--
X-9D	42.5 - 47.5	09/28/10	5.0 U	**93.0 BJ**	--	**2,930**	**132**	5.0 U	**685,000**	5.0 U	**90.3 BJ**	10 U	**2,670**	**125**
X-9D	42.5 - 47.5	09/23/11	**0.640**	**100**	--	**3,100**	**130**	5.0 U	**690,000**	**0.63**	**95**	10 U	**2,900**	**120**
X-9D	42.5 - 47.5	09/12/12	**0.67 J**	**84 B**	--	**2,500**	**110**	5.0 U	**650,000**	**0.83 J**	**88 B**	10 U	**2,700**	**120**
X-9D	42.5 - 47.5	09/25/13	**21**	**140 B**	--	**3,100 B**	**360 B**	5.0 U	**690,000 B**	**22**	**140 B**	10 U	**2,900 B**	**390 B**
X-9D	42.5 - 47.5	09/22/14	**15**	**110 B**	--	**3,000**	**170**	**0.58 J**	**680,000 B**	**16**	**110 B**	10 U	**2,800**	**170**
X-9D	42.5 - 47.5	09/30/15	**9.5**	**100**	10 U	**2,800**	**140**	**0.49 J**	**630,000 B**	**7.3**	**85**	10 U	**1,900**	**180**
X-9D	42.5 - 47.5	09/28/16	**3.8**	**94**	10 U	**1,500**	**130**	**0.52 J**	**630,000 B**	**5.0**	**91**	10 U	**2,200**	**120**
X-9D	42.5 - 47.5	08/29/17	**1.2 J**	**54**	10 U	50 U	**75**	5.0 U	**330,000**	**0.76 J**	**74**	10 U	50 U	**130**
X-9D	42.5 - 47.5	09/25/18	**5.4 J**	**120 J**	10 U	**2,900**	**360**	15 U	**630,000**	10 U	**120 J**	10 U	**2,900**	**370**
X-9D	42.5 - 47.5	08/20/19	**5.7 J**	**110 J**	10 U H	**3,300**	**200**	15 U	**620,000**	10 U	**110 J**	10 U	**2,800**	**200**
X-9D	42.5 - 47.5	08/17/20	**38**	**200**	10 U	**22,000**	**3,400**	15 U	**490,000**	**22**	**160 J**	**6.6 J**	**13,000**	**2,200**
X-9D	42.5 - 47.5	08/18/21	**19 [13]**	**170 J [120 J]**	10 U [10 U]	**13,000 [9,500]**	**2,400 [2,200]**	15 U [15 U]	**420,000 [290,000]**	10 U [10 U]	**130 J [130 J]**	10 U [10 U]	**5,100 [5,100]**	**550 [550]**
X-9D	42.5 - 47.5	09/22/22	10 U	**33 J**	10 U	**820**	**220**	15 U	**110,000**	10 U	**30 J**	10 U *+	100 U	**190**
X-9D	42.5 - 47.5	09/13/23	5.0 U	**64.1**	5.0 U	**3,740**	**279**	25 U	**450,000 J**	5.0 U	**62**	5.0 U	**2,330**	**267**
X-9D	42.5 - 47.5	09/10/24	**17.5**	**108**	5.0 U	**9,940**	**383**	25 U	**603,000**	5.0 U	**75.8**	5.0 U	**68.5 J**	**278**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			5	NSL	(CC)	53	150,000	NSL	NSL	370,000	NSL
MW-117S1	24.2 - 29.2	06/20/95	5.0 UJ	**101,000**	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	07/14/95	--	--	1,000 UJ	--	**230,000**	--	--	--	**990,000**
MW-117S1	24.2 - 29.2	06/11/96	--	**108,000**	--	--	--	--	--	--	--
MW-117S1	24.2 - 29.2	05/19/00	5.0 U	**120,000**	**5,100**	--	**284,000 J**	1,000 UG	1,000 UG	2,000 UG	**840,000**
MW-117S1	24.2 - 29.2	06/19/01	5.0 U	**121,000**	**11,000**	--	**269,000**	500 U	R	**260 B**	**920,000**
MW-117S1	24.2 - 29.2	06/26/02	5.0 U	**114,000**	**7,100**	--	**270,000**	500 U	500 U	**140 B**	**970,000**
MW-117S1	24.2 - 29.2	06/19/03	5.0 U	**118,000**	**7,400**	--	**264,000**	500 U	140 BJ	1,000 UJ	**1,000,000**
MW-117S1	24.2 - 29.2	05/27/04	5.0 U	**115,000**	**7,300**	--	**275,000**	500 U	160 B	**440 B**	**1,000,000**
MW-117S1	24.2 - 29.2	06/23/05	**5.4**	**118,000**	**8,400 J**	--	**270,000**	100 U	100 U	1,000 U	**970,000 J**
MW-117S1	24.2 - 29.2	12/13/06	5.0 U	**118,000**	**8,200**	--	**267,000**	100 U	100 U	1,000 U	**960,000**
MW-117S1	24.2 - 29.2	12/07/07	5.0 U	**129,000**	**22,000**	--	**268,000**	100 U	100 U	1,000 U	**950,000**
MW-117S1	24.2 - 29.2	03/14/08	5.0 U	**113,000**	**1,200**	--	**274,000**	100 UJ	100 UJ	1,000 U	**940,000**
MW-117S1	24.2 - 29.2	10/01/10	5.0 U	**119,000**	**6,500**	**210**	**319,000**	100 U	100 U	1,000 U	**940,000**
MW-117S1	24.2 - 29.2	09/27/11	5.0 U	**120,000**	**8,400**	**19**	**270,000**	100 U	100 U	1,000 U	**970,000**
MW-117S1	24.2 - 29.2	09/13/12	5.0 U	**110,000**	**7,800**	**13**	**270,000**	100 U	100 U	1,000 U	**930,000**
MW-117S1	24.2 - 29.2	09/24/13	5.0 U	**120,000**	**7,000 B**	**11 B**	**250,000**	100 U	100 U	**450 J**	**880,000**
MW-117S1	24.2 - 29.2	09/22/14	**0.29 J,B**	**120,000 B**	**7,800**	**4.8**	**260,000**	100 U , H	100 U, H	1,000 U	**880,000**
MW-117S1	24.2 - 29.2	09/30/15	**0.52 J, B**	**110,000 B**	**6,500**	**7.6**	**240,000**	500 U	500 U	5,000 U	**930,000**
MW-117S1	24.2 - 29.2	09/27/16	**0.57 J**	**120,000**	**10,000 B**	**10 B**	**250,000**	50 U	50 U	1,000 U	**870,000**
MW-117S1	24.2 - 29.2	11/13/17	5.0 U	**110,000**	**8,500**	**1.2**	**240,000**	50 U	50 U	1,000 U	**950,000**
MW-117S1	24.2 - 29.2	08/21/19	15 U ^	**110,000**	**4,500**	**12**	**110,000**	50 U	50 U	**23,000**	**530,000**
MW-117S1	24.2 - 29.2	08/13/20	15 U	**110,000**	**8,200**	**43**	**220,000**	**1,300**	100 U	1,000 U	**860,000**
MW-117S1	24.2 - 29.2	08/17/21	15 U	**120,000**	**7,200**	**27**	**230,000**	**7,200**	**71 J**	**7,300**	**1,100,000**
MW-117S1	24.2 - 29.2	09/21/22	15 U	**120,000**	**7,000**	**23**	**220,000**	100 U H	100 U H	**710 J**	**710,000**
MW-117S1	24.2 - 29.2	09/13/23	10 U	**123,000**	**5,200**	**21**	**169,000**	**65**	50 U	**2,600**	**814,000**
MW-117S1	24.2 - 29.2	09/10/24	10 U	**119,000**	**7,600**	**16**	**234,000**	**1,100**	**32 J**	**1,100**	**862,000**
MW-117WT	3 - 13	06/20/95	5.0 UJ	**463,000**	--	--	--	--	--	--	--
MW-117WT	3 - 13	07/14/95	--	--	**30,000 J**	--	**4,600,000**	--	--	--	**11,000,000**
MW-117WT	3 - 13	06/11/96	--	**499,000**	--	--	--	--	--	--	--
MW-117WT	3 - 13	05/19/00	5.0 U	**590,000**	**46,000**	--	**4,930,000 J**	12,500 UG	12,500 UG	25,000 UG	**11,000,000**
MW-117WT	3 - 13	06/18/01	5.0 U	**559,000**	**63,000**	--	**5,380,000**	500 U	R	**230 B**	**13,000,000**
MW-117WT	3 - 13	06/26/02	5.0 U	**539,000**	**63,000**	--	**5,540,000**	1,000 U	25,000 U	**320 B**	**11,000,000 J [12,000,000]**
MW-117WT	3 - 13	06/19/03	5.0 U	**628,000**	**63,000**	--	**4,680,000**	1,000 U	25,000 U	**340 BJG**	**13,000,000**
MW-117WT	3 - 13	12/09/04	**14 J [14.3 J]**	--	**65,000 [69,000]**	--	**4,650,000 J [4,420,000 J]**	100 U [100 U]	1,000 UG [1,000 UG]	**240 B [1,000 U]**	**7,800,000 J [7,900,000 J]**
MW-117WT	3 - 13	06/23/05	**16.1**	**564,000**	**59,000 J**	--	**3,970,000**	100 U	2,000 U	**230 B**	**9,600,000 J**
MW-117WT	3 - 13	12/13/06	5.0 U	**531,000**	**75,000**	--	**3,680,000**	**750**	**3,600**	**270 J**	**7,800,000**
MW-117WT	3 - 13	12/07/07	5.0 U	**620,000**	**68,000**	--	**3,690,000**	100 U	100 U	**800 J**	**7,600,000**
MW-117WT	3 - 13	03/14/08	5.0 U	**545,000**	**68,000**	--	**3,220,000**	200 UJ	200 UJ	2,000 U	**5,900,000**
MW-117WT	3 - 13	10/01/10	5.0 U	**604,000**	**64,000**	**5,100**	**5,210,000**	100 U	5,000 U, G	1,000 U	**7,900,000**
MW-117WT	3 - 13	09/27/11	5.0 U	**560,000**	**71,000**	**68**	**4,300,000**	100 U	2,500 U	**380**	**9,800,000**
MW-117WT	3 - 13	09/13/12	**0.78 J**	**560,000 B**	**78,000**	**40**	**4,600,000**	100 U	5,000 U	**350 J**	**9,900,000**
MW-117WT	3 - 13	09/24/13	5.0 U	**570,000**	**86,000 B**	**46 B**	**4,500,000 B**	100 U	1,000 U	**710 J**	**7,300,000**
MW-117WT	3 - 13	09/23/14	**0.59 J,B**	**520,000 B**	**3,000^**	**1.2 ^**	**3,700,000**	1,000 U, H	1,000 U, H	10,000 U	**6,300,000**
MW-117WT	3 - 13	09/30/15	**1.0 J B**	**450,000 B**	**60,000**	**49**	**3,500,000**	2,500 U	2,500 U	2,500 U	**5,700,000**
MW-117WT	3 - 13	09/27/16	**1.5 J**	**470,000**	**81,000 B**	**120 B**	**3,500 ,000**	50 U	50 U	**250 J**	**4,800,000**
MW-117WT	3 - 13	08/13/20	15 U	**490,000**	**66,000**	**97**	**3,200,000**	**630**	500 U	**5,100**	**4,600,000**
MW-117WT	3 - 13	08/17/21	15 U	**650,000**	**83,000**	**100**	**4,700,000**	1,000 U	1,000 U	100,000 U	**9,400,000**
MW-117WT	3 - 13	09/22/22	15 U	**440,000**	**58,000**	**39**	**3,800,000**	500 U	500 U	**2,000 J**	**4,900,000**
MW-117WT	3 - 13	09/13/23	10 U	**382,000**	**35,200**	**14**	**3,640,000**	50 U	500 U	**330**	**6,340,000**
MW-117WT	3 - 13	09/10/24	10 U	**378,000**	**23,100**	**16**	**2,370,000**	500 U	50 U	**980**	**4,880,000**
MW-118S1	23.5 - 28.5	06/20/95	5.0 UJ	**97,300**	--	--	--	--	--	--	--
MW-118S1	23.5 - 28.5	07/14/95	--	--	**4,800 J**	--	**260,000**	--	--	--	**8,000,000**
MW-118S1	23.5 - 28.5	06/11/96	--	**112,000**	--	--	--	80 U	70 U	5,000 U	--
MW-118S1	23.5 - 28.5	05/17/00	5.0 U [5.0 U]	**121,000 [122,000]**	**5,900 [6,200]**	--	**284,000 [281,000]**	2,000 UG [2,000 UG]	2,000 UG [2,000 UG]	4,000 UG [4,000 UG]	**930,000 [940,000]**
MW-118S1	23.5 - 28.5	06/19/01	5.0 U	**117,000**	**8,400**	--	**272,000**	500 U	R	**150 B**	**910,000**
MW-118S1	23.5 - 28.5	06/27/02	5.0 U	**112,000**	**7,300**	--	**286,000**	500 U	500 U	**1,600**	**1,200,000 [1,200,000]**
MW-118S1	23.5 - 28.5	06/19/03	5.0 U	**118,000**	**6,200**	--	**264,000**	500 U	500 U	1,000 UJ	**1,000,000**
MW-118S1	23.5 - 28.5	12/09/04	**5.9 J**	--	**5,900**	--	**270,000 J**	100 U	100 U	1,000 U	**980,000 J**
MW-118S1	23.5 - 28.5	06/23/05	3.5	**112,000**	**7,300 J**	--	**296,000**	100 U	100 U	1,000 U	**520,000 J**
MW-118S1	23.5 - 28.5	12/14/06	5.0 U	**115,000**	**8,000**	--	**290,000**	100 U	**160**	1,000 U	**1,000,000**
MW-118S1	23.5 - 28.5	12/07/07	5.0 U	**131,000**	**8,500**	--	**275,000**	100 U	100 U	1,000 U	**900,000**
MW-118S1	23.5 - 28.5	04/01/08	5.0 U	**115,000**	**8,100**	--	**310,000**	100 U	100 U	**4,700**	**960,000**
MW-118S1	23.5 - 28.5	10/01/10	5.0 U	**129,000**	**6,700**	--	**362,000**	100 U	100 U	1,000 U	**970,000**
MW-118S1	23.5 - 28.5	09/27/11	5.0 U	**130,000**	**7,900**	**27**	**290,000**	100 U	100 U	1,000 U	**1,000,000**
MW-118S1	23.5 - 28.5	09/13/12	5.0 U	**130,000**	**7,200**	**14**	**290,000**	100 U	100 U	1,000 U	**960,000**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			5	NSL	(CC)	53	150,000	NSL	NSL	370,000	NSL
MW-118S1	23.5 - 28.5	09/24/13	**0.47 J**	**150,000 B**	**6,900 B**	**3.7 B**	**300,000 B**	100 U	100 U	**320 J**	**920,000**
MW-118S1	23.5 - 28.5	09/22/14	5.0 U	**130,000 B**	**7,500**	**3.8**	**320,000**	100 U	100 U	1,000 U	**980,000**
MW-118S1	23.5 - 28.5	09/30/15	0.58 J B	**120,000 B**	**5,900**	**8**	**310,000**	500 U	500 U	5,000 U	**1,000,000**
MW-118S1	23.5 - 28.5	09/27/16	**1.0 J**	**130,000**	**9,900 B**	**13 B**	**290,000**	50 U	50 U	1,000 U	**930,000**
MW-118S1	23.5 - 28.5	11/13/17	5.0 U	**100,000**	**7,600**	**1.2**	**260,000**	**31 J**	**31 J**	1,000 U	**920,000**
MW-118S1	23.5 - 28.5	08/14/20	15 U	**15,000 B**	200 U	1.1 U	**17,000**	100 U	100 U	**420 J**	**200,000**
MW-118S1	23.5 - 28.5	08/17/21	15 U	**97,000**	**3,800**	**16**	**220,000**	500 U H	**240**	**3,200**	**830,000**
MW-118S1	23.5 - 28.5	09/26/22	15 U	**46,000**	**2,100**	**8.4**	**120,000**	100 U	100 U	1,000 U	**440,000**
MW-118S1	23.5 - 28.5	09/13/23	10 U	**31,000**	**2,900**	**7.5**	**153,000**	50 U	50 U	**280**	**441,000**
MW-118S1	23.5 - 28.5	09/10/24	10 U	**79,700**	**4,800**	**63**	**250,000**	50 U	50 U	**1,700**	**369,000**
MW-118WT	1.6 - 11.6	06/20/95	5.0 UJ	**175,000**	--	--	--	--	--	--	--
MW-118WT	1.6 - 11.6	07/14/95	--	--	**10,000 J**	--	**3,700,000**	--	--	--	**1,400,000**
MW-118WT	1.6 - 11.6	06/11/96	--	**229,000**	--	--	--	80 U	70 U	5,000 U	--
MW-118WT	1.6 - 11.6	05/17/00	5.0 U	**647,000**	**26,000**	--	**16,100,000**	50,000 UG	50,000 UG	100,000 UG	**37,000,000**
MW-118WT	1.6 - 11.6	06/19/01	5.0 U [5.0 U]	**955,000 [976,000]**	**92,000 [76,000]**	--	**21,800,000 [18,800,000]**	50,000 U [500 U]	R [R]	**100,000 U [630 B]**	**34,000,000 [36,000,000]**
MW-118WT	1.6 - 11.6	06/27/02	5.0 U [5.0 U]	**925,000 [970,000]**	**82,000 [88,000]**	--	**16,900,000 [16,500,000]**	2,500 U [2,500 U]	2,500 U [2,500 U]	**590 B [560 B]**	**42,000,000 [41,000,000]**
MW-118WT	1.6 - 11.6	06/19/03	5.0 U [5.0 U]	**764,000 [735,000]**	**66,000 [65,000]**	--	**9,740,000 [9,470,000]**	2,000 U [2,000 U]	50,000 U [50,000 U]	**700 BJG [1,200 BJG]**	**23,000,000 [24,000,000]**
MW-118WT	1.6 - 11.6	05/27/04	5.0 U	**662,000**	**66,000**	--	**7,580,000**	1,000 U	25,000 U	**2,000 U**	**15,000,000**
MW-118WT	1.6 - 11.6	06/23/05	**16.3**	**541,000**	**47,000 J**	--	**4,670,000**	100 U	2,000 U	**5,000**	**12,000,000 J**
MW-118WT	1.6 - 11.6	12/14/06	5.0 U	**408,000**	**42,000**	--	**2,370,000**	100 U	**1,900**	**25,300**	**6,800,000**
MW-118WT	1.6 - 11.6	12/07/07	5.0 U	**406,000**	**42,000**	--	**1,760,000**	100 U	100 U	**17,600**	**4,600,000**
MW-118WT	1.6 - 11.6	04/01/08	5.0 U	**334,000**	**38,000**	--	**1,800,000**	100 U	100 U	**23,500**	**4,600,000**
MW-118WT	1.6 - 11.6	09/30/10	5.0 U	**216,000**	**34,000**	**170**	**932,000**	100 U	1,000 U, G	**10,000**	**2,000,000**
MW-118WT	1.6 - 11.6	09/27/11	5.0 U	**200,000**	**38,000**	**33**	**730,000**	100 U	100 U	**5,200**	**2,300,000**
MW-118WT	1.6 - 11.6	09/13/12	5.0 U	**140,000**	**35,000**	**61**	**410,000**	100 U	100 U	**2,300**	**1,300,000**
MW-118WT	1.6 - 11.6	09/24/13	5.0 U	**120,000 B**	**35,000 B**	**23 B**	**280,000 B**	100 U	100 U	**18,000**	**1,000,000**
MW-118WT	1.6 - 11.6	09/22/14	**0.27 J,B**	**86,000 B**	**29,000**	**35**	**260,000**	100 U, H	100 U, H	**19,000**	**990,000**
MW-118WT	1.6 - 11.6	09/30/15	**1.6 J,B**	**70,000 B**	**24,000**	**74**	**230,000**	500 U	500 U	**9,300**	**980,000**
MW-118WT	1.6 - 11.6	09/27/16	**1.0 J**	**82,000**	**37,000 B**	**100 B**	**240,000**	50 U	50 U	**6,100**	**900,000**
MW-118WT	1.6 - 11.6	11/13/17	5.0 U	**82,000**	**24,000**	**5.6**	**270,000**	50 U	50 U	1,000 U	**1,000,000**
MW-118WT	1.6 - 11.6	08/14/20	15 U	**100,000 B**	**14,000**	**40**	**120,000 F1**	**1,200 F1**	100 U,F1,F2	**520 J,F1**	**720,000**
MW-118WT	1.6 - 11.6	08/17/21	15 U	**96,000**	**27,000**	**110**	**300,000**	1,000 U H	**170**	**14,000**	**1,200,000**
MW-118WT	1.6 - 11.6	09/22/22	15 U	**96,000**	**15,000**	**22**	**310,000**	**85 J**	**76 J**	**510 J**	**1,100,000**
MW-118WT	1.6 - 11.6	09/13/23	10 U	**85,100**	**15,600**	**14**	**388,000**	50 U	50 U	**300**	**1,370,000**
MW-118WT	1.6 - 11.6	09/10/24	10 U	**55,400**	**8,600**	**14**	**287,000**	500 U	50 U	**1,100**	**940,000**
MW-183WT	6 - 16	01/09/08	5.0 U [5.0 U]	**102,000 [98,000]**	**400 [300]**	--	**147,000 [148,000]**	100 U [100 U]	100 U [100 U]	1,000 [700 J]	440,000 [470,000]
MW-183WT	6 - 16	03/12/08	5.0 U	**100,000**	**300**	--	**147,000**	100 U	100 U	2,600 U	520,000
MW-183WT	6 - 16	09/28/10	5.0 U [5.0 U]	**87.4 [85.6]**	**800 J [800 J]**	**5.3 J [5.3 J]**	**76,600 [77,400]**	100 U [100 U]	100 U [100 U]	**1,000 U [1,000 U]**	**360,000 [370,000]**
MW-183WT	6 - 16	09/28/11	5.0 U	**94,000**	**530 [550]**	**7 [7.3]**	**63,000 [63,000]**	100 U [100 U]	100 U [100 U]	**11,000 [11,000]**	**410,000 [430,000]**
MW-183WT	6 - 16	09/14/12	**0.78 J**	**93,000**	**920 [1,100]**	**3.3 [3.9]**	**36,000 [46,000]**	100 U [100 U]	100 U [100 U]	**200,000 [200,000]**	**600,000 [600,000]**
MW-183WT	6 - 16	09/24/13	5.0 U	**100,000 B**	**1,100 B [800 B]**	**1.3 B [0.93 B]**	**36,000 B [36,000 B]**	100 U, H [100 U, H]	100 U, H [100 U, H]	**89,000 [88,000]**	**570,000 [570,000]**
MW-183WT	6 - 16	09/23/14	**0.27 J,B [5.0 U]**	**47,000 B [47,000 B]**	**200 U [140 J]**	--	**29,000 [23,000]**	100 U, H [100 U, H]	100 U, H [100 U, H]	**3,200 [2,900 J]**	**410,000 [400,000]**
MW-183WT	6 - 16	10/01/15	**0.72 J,B**	**52,000**	**750 [840]**	**3.4 [3.9]**	**32,000 F1 [33,000]**	100 U [100 U]	100 U [100 U]	1,000 U [1,000 U]	**410,000 [410,000]**
MW-183WT	6 - 16	09/28/16	**1.5 J**	**50,000**	**940 J,B**	**4.9 J,B**	**28,000**	50 U, F1	50 U, F1	**970 J**	**400,000**
MW-183WT	6 - 16	08/29/17	5.0 U	**37,000**	**350 [490]**	**1.2 [1.7]**	**21,000 [21,000]**	50 U [50 U]	50 U [50 U]	**3,100 [3,200]**	**390,000 [390,000]**
MW-183WT	6 - 16	09/26/18	15 U	**27,000**	**120 J [98 J]**	**0.16 J [0.13 J]**	**21,000 [21,000]**	100 UH [100 U H]	100 UH [100 U H]	**3,100 [3,100]**	**380,000 [380,000]**
MW-183WT	6 - 16	08/21/19	15 U ^	**30,000**	**190 J [200]**	**0.67 J [0.71]**	**20,000 [20,000]**	50 U [50 U]	50 U [50 U]	**980 J [1,100]**	**430,000 [420,000]**
MW-183WT	6 - 16	08/18/20	15 U,F2 [15 U]	**15,000 F1,F2 [15,000]**	200 U [200 U]	0.48 U [0.48 U]	**17,000 [17,000]**	100 U [100 U]	100 U [100 U]	1,000 U [1,000 U]	**380,000 [400,000]**
MW-183WT	6 - 16	08/19/21	15 U	**23,000**	**85 J F1 B**	**0.36 J F1 B**	**19,000**	500 U H	100 U H	**3,000**	**350,000**
MW-183WT	6 - 16	09/26/22	15 U	**24,000**	**110 J**	**0.55 J**	**15,000**	100 U	100 U	**480 J**	**330,000**
MW-183WT	6 - 16	09/13/23	10 U	**31,300**	100 U	0.63 U	**16,200**	50 U	50 U	**1,100**	**344,000**
MW-183WT	6 - 16	09/10/24	10 U	**30,300**	**100**	**0.82**	**15,400**	**27 J**	50 U	**760 J**	**326,000**
X-10BR	26.3 - 31.3	07/24/95	5.0 U	**149,000**	--	--	--	--	--	--	--
X-10BR	26.3 - 31.3	12/15/06	5.0 U	**192,000**	**6,000**	--	**505,000**	100 U	**300**	1,000 U	**1,600,000**
X-10BR	26.3 - 31.3	12/04/07	5.0 U	**198,000**	**4,500**	--	**497,000**	100 U	100 U	1,000 U	**1,400,000**
X-10BR	26.3 - 31.3	03/12/08	5.0 U	**186,000**	**4,000**	--	**502,000**	100 U	100 U	1,000 U	**1,400,000**
X-10BR	26.3 - 31.3	09/29/10	5.0 U	**187,000**	**4,800**	**6**	**595,000**	100 U	100 U	1,000 U	**1,400,000**
X-10BR	26.3 - 31.3	09/22/11	5.0 U	**190,000**	**6,000**	**11**	**540,000**	500 U	100 U	**360**	**1,500,000**
X-10BR	26.3 - 31.3	09/14/12	5.0 U	**200,000**	**7,900**	**8.1**	**620,000**	100 U	100 U	**590 J**	**1,500,000**
X-10BR	26.3 - 31.3	09/24/13	5.0 U	**200,000**	**9,100 B**	**5.9 B**	**540,000 B**	100 U	500 U	**120 J**	**1,500,000**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			5	NSL	(CC)	53	150,000	NSL	NSL	370,000	NSL
X-4AR	3.3 - 8.3	07/24/95	5.0 U	**18,100**	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	06/09/96	5.0 U	**22,900**	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	05/21/00	5.0 U	**20,900**	--	--	--	--	--	--	--
X-4AR	3.3 - 8.3	08/18/20	15 U	**27,000**	200 U	21 U	**17,000**	**1,500**	100 U	**1,100**	**310,000**
X-4AR	3.3 - 8.3	09/21/22	--	**--**	200 U	**0.55 U**	**17,000**	**3,200 H**	100 U H	**1,000**	**200,000**
X-4AR	3.3 - 8.3	09/13/23	10 U	**25,200 J**	**120**	**4.9**	**12,800**	**2,600**	50 U	**1,200**	**339,000**
X-4AR	3.3 - 8.3	09/12/24	10 U [10 U]	**12,300 [12,400]**	**410**	**1.8**	**14,700**	50 U	50 U	250 U	**323,000**
X-4CAUG	18 - 23	07/24/95	5.0 U	**65,400**	--	--	--	--	--	--	--
X-4CAUG	18 - 23	06/08/96	5.0 U	**79,100**	--	--	--	--	--	--	--
X-4CAUGR	14 - 19	01/09/08	5.0 U	**79,600**	**1,500**	--	**160,000**	100 U	100 U	1,000 U	**550,000**
X-4CAUGR	14 - 19	03/12/08	5.0 U	**58,000**	**2,000**	--	**108,000**	100 U	100 U	1,000 U	**580,000**
X-4CAUGR	14 - 19	09/28/10	5.0 U	**52,300**	**1,900 J**	**5.4 J**	**123,000**	100 U	100 U	**210 B**	**570,000**
X-4CAUGR	14 - 19	09/26/11	5.0 U	**41,000**	**1,800**	**5.3**	**99,000**	100 U	100 U	1,000 U	**570,000**
X-4CAUGR	14 - 19	09/14/12	5.0 U	**54,000**	**1,900**	**3.5**	**140,000**	100 U	100 U	1,000 U	**630,000**
X-4CAUGR	14 - 19	09/24/13	5.0 U	**26,000 B**	**2,900 B**	**1.1 B**	**37,000 B**	100 U	100 U	**190**	**540,000**
X-4CAUGR	14 - 19	09/23/14	5.0 U	**60,000 B**	**1,600**	--	**129,000**	100 U	100 U	1,000 U	**630,000**
X-4CAUGR	14 - 19	09/30/15	**0.35 J**	**75,000 B**	--	--	**170,000**	100 U H	100 U H	1,000 U	**700,000**
X-4CAUGR	14 - 19	09/28/16	5.0 U	**74,000**	**1,100 B**	**1.8 B**	**81,000**	50 U	50 U	**18,000**	**570,000**
X-4CAUGR	14 - 19	08/29/17	5.0 U	**10,000**	**990**	**11**	**6,500**	50 U	50 U	1,000 U	**490,000**
X-4CAUGR	14 - 19	09/26/18	15 U	**12,000**	**420**	**0.65**	**23,000**	100 U H	100 U H	1,000 U	**370,000**
X-4CAUGR	14 - 19	08/22/19	5.0 U	**13,000**	**390**	**1.4**	**23,000**	50 U	50 U	**1,400**	**350,000**
X-4CAUGR	14 - 19	08/17/20	15 U	**13,000**	**340**	**0.92**	**18,000**	**31 J**	100 U	1,000 U	**280,000**
X-4CAUGR	14 - 19	08/17/21	15 U	**13,000**	**250**	**1.4**	**21,000**	500 U H	100 U H	5,000 U	**320,000**
X-4CAUGR	14 - 19	09/21/22	15 U	**12,000**	**330**	**3.2**	**20,000**	100 U H	100 U H	**370 J**	**300,000**
X-4CAUGR	14 - 19	09/13/23	10 U	**38,300**	**310**	**13**	**13,900**	50 U	50 U	**650**	**381,000**
X-4CAUGR	14 - 19	09/10/24	10 U	**11,200**	**300**	**2.3**	**18,900**	**37 J**	50 U	**250 J**	**326,000**
X-4D	40 - 45	01/09/08	5.0 U	**718,000**	**6,900**	--	**1,400,000**	100 U	2,000 U	**94,400**	**2,300,000**
X-4D	40 - 45	04/01/08	5.0 U [5.0 U]	**726,000 [708,000]**	**8,800 [8,100]**	--	**1,460,000 [1,460,000]**	100 U [100 U]	100 U [100 U]	**118,000 [118,000]**	**2,500,000 [2,600,000 J]**
X-4D	40 - 45	04/03/08	--	--	--	--	**--**	--	--	--	--
X-4D	40 - 45	06/05/08	--	--	**6,200 [7,320]**	--	**--**	--	--	--	**3,300,000 [2,820,000]**
X-4D	40 - 45	09/28/10	5.0 U	**708,000**	**6,800 J**	**42 J**	**1,470,000**	**130**	1,000 U, G	**122,000**	**2,500,000**
X-4D	40 - 45	09/26/11	5.0 U	**700,000**	**9,700**	**120**	**1,400,000**	100 U	2,000 U	**150,000**	**2,800,000**
X-4D	40 - 45	09/14/12	5.0 U	**690,000**	**8,300**	**28**	**1,500,000**	500 U	100 U	**190,000**	**2,400,000**
X-4D	40 - 45	09/24/13	5.0 U	**680,000 B**	**8,800 B**	**5.3 B**	**1,500,000 B**	100 U	1,000 U	**160,000**	**2,400,000**
X-4D	40 - 45	09/23/14	**0.31 J,B**	**550,000 B**	**200 U**	--	**760,000**	**1800**	100 U	**88,000**	**830,000**
X-4D	40 - 45	09/30/15	**1.8 J,B**	**620,000**	**3,600**	**13**	**1,500,000**	2,500 U	2,500 U	**160,000**	**2,700,000**
X-4D	40 - 45	09/28/16	5.0 U	**630,000**	**6,200 B**	**38 B**	**1,300,000**	50 U	50 U	**160,000**	**2,600,000**
X-4D	40 - 45	08/29/17	5.0 U	**1,600,000**	**6,800**	**55**	**1,300,000**	**360**	**360**	**180,000**	**2,300,000**
X-4D	40 - 45	09/26/18	15 U	**590,000**	**8,800**	**17**	**1,300,000**	500 UH	500 UH	**190,000**	**2,400,000**
X-4D	40 - 45	08/22/19	5.0 U	**420,000**	**7,000**	**30**	**890,000**	50 U	50 U	**160,000**	**1,800,000**
X-4D	40 - 45	08/17/20	15 U	**650,000**	**7,600**	**82**	**1,300,000**	500 U	500 U	**190,000**	**2,100,000**
X-4D	40 - 45	08/17/21	15 U	**640,000**	**5,700**	**24**	**1,300,000**	500 U H	500 U H	**170,000**	**2,500,000**
X-4D	40 - 45	09/21/22	15 U	**640,000**	**7,200**	**91**	**1,300,000**	200 U H	200 U H	**210,000**	**1,800,000**
X-4D	40 - 45	09/13/23	10 U	**630,000**	**6,800 [6,600]**	**48 [46]**	**1,190,000**	**91**	50 U	**172,000**	**2,630,000 [2,120,000]**
X-4D	40 - 45	09/10/24	10 U	**601,000**	**7,500 [7,600]**	**52 [52]**	**1,160,000**	50 U	50 U	**182,000**	**2,420,000 [2,590,000]**
X-9AR	3 - 13	07/24/95	5.0 U	**37,600**	--	--	--	--	--	--	--
X-9AR	3 - 13	06/09/96	5.0 U	**57,000**	--	--	--	--	--	--	--
X-9AR	3 - 13	12/15/06	5.0 U	**54,500**	200 U	--	**29,700**	100 U	100 U	**29,200**	**790,000**
X-9AR	3 - 13	01/10/08	5.0 U	**60,500**	**300**	--	**58,000**	100 U	100 U	**400 J**	**770,000**
X-9AR	3 - 13	03/11/08	**9.8**	**33,600**	200 U	--	**10,700**	100 U	100 U	**35,500**	**600,000**
X-9AR	3 - 13	06/05/08	5.0 U [5.0 U]	--	--	--	--	--	--	--	--
X-9AR	3 - 13	09/29/10	5.0 U	**56,400**	**600**	**3.5**	**52,100**	100 U	100 U	**310 B**	**700,000**
X-9AR	3 - 13	09/23/11	5.0 U	**91,000**	**4,300**	**11**	**180,000**	100 U	100 U	1,000 U	**750,000**
X-9AR	3 - 13	09/12/12	5.0 U	**120,000**	**5,000**	**9.6**	**180,000**	100 U	100 U	1,000 U	**820,000**
X-9AR	3 - 13	09/25/13	5.0 U	**110,000 B**	**6,200 B**	**11 B**	**160,000**	100 U	100 U	**790 J**	**800,000**
X-9AR	3 - 13	09/22/14	**0.25 J**	**63,000 B**	**3,700^**	--	**100,000**	100 U	100 U	1,000 U	**630,000**
X-9AR	3 - 13	10/01/15	**0.50 J,B**	**37,000 B**	**720**	**1.2**	**17,000**	100 U	100 U	130 U	**640,000**
X-9AR	3 - 13	09/28/16	**0.67 J**	**38,000**	**560 B**	**0.65 B**	**15,000**	50 U	50 U	1,000 U	**630,000**
X-9AR	3 - 13	08/29/17	5.0 U	**11,000**	**540**	**4.4**	**17,000**	50 U	50 U	1,000 U	**460,000**
X-9AR	3 - 13	09/26/18	15 U	**11,000**	**160 J**	**0.11 J**	**14,000**	100 U H	100 U H	**4,100**	**430,000**
X-9AR	3 - 13	08/21/19	15 U ^	**11,000**	**94 J**	**0.43 J**	**15,000**	50 U	50 U	**13,000**	**550,000**
X-9AR	3 - 13	08/17/20	15 U	**9,700**	**110 J**	**0.51 J**	**13,000**	100 U	100 U	1,000 U	**360,000**
X-9AR	3 - 13	08/18/21	15 U	**13,000**	**210**	**0.7**	**19,000**	100 U	**18 J**	**8,900**	**410,000**
X-9AR	3 - 13	09/22/22	15 U [15 U]	**11,000 [11,000]**	**260 F1 [230]**	**0.96 F1 [0.85]**	**13,000 [13,000]**	100 U [**48 J H**]	100 U [100 U H]	**830 J** [1,000 U]	**370,000 [380,000]**
X-9AR	3 - 13	09/13/23	10 U	**11,500**	**190**	**0.52**	**8,900**	50 U	50 U	**4,100**	**515,000**
X-9AR	3 - 13	09/10/24	10 U	**11,100**	**250**	**0.82**	**8,300**	50 U	50 U	**250**	**433,000**

Table 5
Analytical Data Summary Table - GPL Inorganics
RACER Trust
Saginaw, MI

Sample ID:	Sample Depth (feet):	Date Collected:	Selenium (Dissolved)	Sodium (Dissolved)	Ammonia Nitrogen	Estimated Un-ionized Ammonia	Chloride	Nitrate (as N)	Nitrite (as N)	Sulfate	Total Dissolved Solids (TDS)
		Units:	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Site-Specific Groundwater Surface Water Interface Criteria			5	NSL	(CC)	53	150,000	NSL	NSL	370,000	NSL
X-9BR	26 - 31	07/24/95	5.0 U	**64,000**	--	--	--	--	--	--	--
X-9BR	26 - 31	06/08/96	5.0 U	**48,800**	--	--	--	--	--	--	--
X-9BR	26 - 31	12/15/06	5.7 U	**125,000**	**5,900**	--	**191,000**	**100**	**180**	1,000 U	**830,000**
X-9BR	26 - 31	01/08/08	5.0 U	**81,500**	**5,200**	--	**200,000**	100 U	100 U	1,000 U	**810,000**
X-9BR	26 - 31	03/11/08	5.0 U	**84,500**	**5,000**	--	**181,000**	100 U	100 U	1,000 U	**760,000**
X-9BR	26 - 31	09/28/10	5.0 U	**145,000**	**2,900 J**	**9.4 J**	**269,000**	100 U	100 U	1,000 U	**880,000**
X-9BR	26 - 31	09/23/11	5.0 U	**140,000**	**6,700**	**18**	**250,000**	100 U	100 U	1,000 U	**900,000**
X-9BR	26 - 31	09/12/12	5.0 U	**190,000**	**7,300**	**9**	**280,000**	100 U	100 U	1,000 U	**980,000**
X-9BR	26 - 31	09/25/13	5.0 U	**210,000 B**	**9,400 B**	**18 B**	**240,000**	100 U	100 U	**2,100**	**870,000**
X-9BR	26 - 31	09/22/14	**0.39 J**	**220,000 B**	**9,900**	--	**260,000**	100 U	100 U	1,000 U	**1,000,000**
X-9BR	26 - 31	10/01/15	**0.76 J,B**	**210,000 B**	**12,000**	**21**	**270,000**	100 U	100 U	1,000 U	**990,000**
X-9BR	26 - 31	09/28/16	**0.70 J**	**240,000**	**6,800 B**	**29 B**	**280,000**	50 U	50 U	1,000 U	**990,000**
X-9BR	26 - 31	08/29/17	5.0 U	**250,000**	**12,000**	**45**	**290,000**	50 U	50 U	1,000 U	**990,000**
X-9BR	26 - 31	09/26/18	15 U	**40,000**	**2,400**	**3.1**	**62,000**	100 U H	100 U H	**8,800**	**290,000**
X-9BR	26 - 31	08/21/19	15 U ^	**210,000**	**9,000**	**42**	**110,000**	**590**	**590**	**23,000**	**930,000**
X-9BR	26 - 31	08/18/20	15 U	**200,000**	**5,900**	**31**	**190,000**	100 U	100 U	**870 J**	**680,000**
X-9BR	26 - 31	08/18/21	15 U	**59,000**	**1,100**	**3**	**69,000**	100 U	100 U	**5,400**	**350,000**
X-9BR	26 - 31	09/22/22	15 U	**150,000**	**3,800**	**21**	**150,000**	100 U	**19 J**	**3,100**	**600,000**
X-9BR	26 - 31	09/13/23	10 U [10 U]	**209,000 [216,000]**	**11,100**	**43**	**253,000**	50 U	50 U	**460**	**920,000**
X-9BR	26 - 31	09/10/24	10 U	**263,000**	**9,100**	**37**	**263,000**	50 U	50 U	250 U	**954,000**
X-9CAUG	20 - 25	07/24/95	5.0 U	**47,200**	--	--	--	--	--	--	--
X-9CAUG	20 - 25	06/08/96	5.0 U	**47,000**	--	--	--	--	--	--	--
X-9CAUG	20 - 25	12/15/06	5.0 U	**58,200**	**2,900**	--	**130,000**	100 U	**110**	1,000 U	**690,000**
X-9CAUG	20 - 25	01/08/08	5.0 U	**68,600**	**3,200**	--	**145,000**	**200**	100 U	**300 J**	**700,000**
X-9CAUG	20 - 25	03/11/08	5.0 U	**62,000**	**3,300**	--	**130,000**	100 U	100 U	1,000 U	**680,000**
X-9CAUG	20 - 25	09/28/10	5.0 U	**101,000**	**4,400 J**	**9.2 J**	**200,000**	**34 B**	100 U	**260 B**	**750,000**
X-9CAUG	20 - 25	09/23/11	5.0 U	**55,000**	**550**	**1.4**	**41,000**	100 U	100 U	**310**	**690,000**
X-9CAUG	20 - 25	09/12/12	5.0 U	**48,000**	**690**	**1.3**	**34,000**	100 U	100 U	1,000 U	**680,000**
X-9CAUG	20 - 25	09/25/13	5.0 U	**47,000 B**	**430 B**	**0.43 B**	**24,000**	100 U	100 U	**340 J**	**640,000**
X-9CAUG	20 - 25	09/22/14	**0.42 J,B**	**38,000 B**	**120 J**	--	**16,000**	100 U , H	100 U , H	**1,100**	**640,000**
X-9CAUG	20 - 25	09/30/15	**0.43 J**	**73,000 B**	**7,800**	**23**	**180,000**	100 U , H	100 U , H	1,000 U	**790,000**
X-9CAUG	20 - 25	09/28/16	**0.57 J**	**110,000**	**4,400 B**	**5.3 B**	**190,000**	50 U	50 U	1,000 U	**830,000**
X-9CAUG	20 - 25	08/29/17	5.0 U	**42,000**	**3,400**	**23**	**39,000**	50 U	50 U	1,000 U	**570,000**
X-9CAUG	20 - 25	09/25/18	15 U	**24,000**	**2,500**	**13**	**26,000**	100 U H	100 U H	1,000 U	**490,000**
X-9CAUG	20 - 25	08/21/19	15 U ^	**15,000**	**1,900**	**5.7**	**240,000**	50 U	50 U	**1,100**	**550,000**
X-9CAUG	20 - 25	08/18/20	15 U	**14,000**	**1,400**	**3.8**	**12,000**	500 U	100 U	**380 J**	**470,000**
X-9CAUG	20 - 25	08/18/21	15 U	**20,000**	**1,700**	**6**	**23,000**	100 U	100 U	1,000 U	**550,000**
X-9CAUG	20 - 25	09/22/22	15 U	**18,000**	**1,900**	**6.4**	**35,000**	**54 J**	**22 J**	**820 J**	**550,000**
X-9CAUG	20 - 25	09/13/23	10 U	**26,800**	**2,100**	**14**	**63,900**	50 U	50 U	**270**	**633,000 J**
X-9CAUG	20 - 25	09/10/24	10 U	**49,600**	**2,600**	**9.2**	**59,200**	50 U	50 U	250 U	**596,000**
X-9D	42.5 - 47.5	01/08/08	5.0 U	**634,000**	**8,500**	--	**1,370,000**	100 U	100 U	**194,000**	**2,400,000**
X-9D	42.5 - 47.5	03/11/08	5.0 U	**678,000**	**9,700**	--	**1,340,000**	100 U	100 UJ	**185,000**	**2,500,000**
X-9D	42.5 - 47.5	06/05/08	--	--	**5,900**	--	--	--	--	--	**2,900,000**
X-9D	42.5 - 47.5	09/28/10	5.0 U	**679,000**	**7,400 J**	**34 J**	**1,520,000**	100 U	1,000 U, G	**220,000**	**2,400,000**
X-9D	42.5 - 47.5	09/23/11	5.0 U	**650,000**	**8,600**	**50**	**1,400,000**	100 U	1,000 U	**220,000**	**2,700,000**
X-9D	42.5 - 47.5	09/12/12	5.0 U	**680,000**	**7,700**	**27**	**1,400,000**	100 U	1,000 U	**200,000**	**2,600,000**
X-9D	42.5 - 47.5	09/25/13	5.0 U	**690,000 B**	**7,400 B**	**21 B**	**1,300,000**	100 U	100 U	**240,000**	**2,400,000**
X-9D	42.5 - 47.5	09/22/14	**0.50 J**	**640,000 B**	**7,500**	--	**1,400,000**	100 U	500 U, H	**220,000**	**2,600,000**
X-9D	42.5 - 47.5	09/30/15	**0.66 J**	**640,000 B**	**7,500 F1**	**30 F1**	**1,500,000**	500 U, H	500 U, H	**230,000 F1**	**2,800,000**
X-9D	42.5 - 47.5	09/28/16	**0.70 J**	**630,000 B**	**6,700 B**	**23 B**	**1,300,000**	50 U*	50 U*	**240,000**	**2,300,000**
X-9D	42.5 - 47.5	08/29/17	5.0 U	**1,500,000**	**3,200**	**10**	**1,100,000**	**1,700**	--	**230,000**	**2,300,000**
X-9D	42.5 - 47.5	09/25/18	15 U	**630,000**	**4,800**	**22**	**1,300,000**	500 U H	500 U H	**250,000**	**2,100,000**
X-9D	42.5 - 47.5	08/20/19	15 U ^	**650,000**	**7,000**	**52**	**1,200,000**	50 U	50 U	**250,000**	**2,600,000**
X-9D	42.5 - 47.5	08/17/20	15 U	**560,000**	**4,900**	**68**	**1,100,000**	500 U	500 U	**170,000**	**2,100,000**
X-9D	42.5 - 47.5	08/18/21	15 U [15 U]	**570,000 [590,000]**	**6,300 B [5,500 B]**	**56 B [49 B]**	**1,300,000 [1,200,000]**	500 U H [500 U H]	500 U H [500 U H]	**240,000 [240,000]**	**2,600,000 [2,300,000]**
X-9D	42.5 - 47.5	09/22/22	15 U	**110,000**	**160 J**	**1.5 J**	**260,000**	**230**	100 U	**50,000**	**620,000**
X-9D	42.5 - 47.5	09/13/23	10 U	**564,000 J**	**5,700**	**59**	**1,130,000 [1,280,000]**	50 U [50 U]	500 U [50 U]	**263,000 [242,000]**	**2,560,000**
X-9D	42.5 - 47.5	09/10/24	10 U	**623,000**	**6,300**	**45**	**1,180,000 [1,210,000]**	50 U [50 U]	50 U [50 U]	**239,000 [250,000]**	**2,390,000**

Notes:

All results are in micrograms per liter (µg/L).

Criteria presented are the applicable site-specific criteria. Drinking water is not a complete pathway; therefore drinking water criteria are not presented.

Applicable site-specific criteria are the minimum Michigan Department of Environment, Great lakes and Energy (EGLE) Rule 57 criteria, excluding drinking water.

M = Calculated criterion is below the analytical target detection limit, therefore, the criterion defaults to the target detection limit.

Hardness-dependent EGLE Rule 57 criteria are based on a hardness of 270 milligrams per liter for the Saginaw River, as analyzed in the October 2016 sampling event.

pH-dependent EGLE Rule 57 criteria are based on a default pH of 7.

Un-ionized ammonia is calculated based on the pH and temperature of the groundwater sample, using the following equations. When available, the field-measured pH was used.

Un-ionized ammonia (µg/L = Total Ammonia (µg/L) × Fraction un-ionized ammonia

Fraction un-ionized ammonia = $1/[10^{(pKa-pH)} + 1]$

pKa = 0.0901821+2729.92/T

T (in Kelvin) = T(°C) + 273.15

Cyanide analyzed by Method SM 4500-CN-E.

Ammonia Nitrogen analyzed by Method SM 4500-NG3 G.

Total Dissolved Solids analyzed by Method SM 2540C.

Anion analytes analyzed by Environmental Protection Agency Method 300.0.

Metal analytes analyzed by United States Environmental Protection Agency Method 6010.

Bolded cells represent constituent concentrations with detections.

Duplicate results are presented in brackets.

Gray shaded cells represent constituent concentrations that exceed site-specific Groundwater/Surface Water Interface (GSI) Criteria.

MW-183WT, X-4CAUGR, X-9AR, X-9BR, X-9CAUG represent a groundwater surface water interface (GSI) perimeter monitoring well from Green Point Landfill.

MW-107WT, MW-107S1, MW-108S2, MW-110WTR, MW-111WT, MW-114S2, MW-114WT, MW-149WT, MW-185WT, and MW-186WT represent a GSI perimeter monitoring well from SMI.

The pH and temperature from co-located monitoring well X-4CAUGR were used to calculate an estimated un-ionized ammonia concentration for X-4AR on September 21, 2022.

* Venting groundwater discharge concentrations was recommended by MDEQ in a letter dated November 26, 2008 followed by a Mixing Zone Determination Request and based on a five year renewal approved by the MDEQ on October 21, 2021.

Data Qualifiers:

-- =	Not analyzed for this constituent.
B =	Inorganics: the detected analyte is an estimated value between the instrument detection limit (IDL) and the reporting limit (RL).
B =	Organics: the compound has been found in the sample as well as its associated blank, its presence in the sample may be suspect.
BJ =	The detected analyte is an estimated concentration between the IDL and the RL.
D =	Concentration is based on a diluted sample analysis.
F1=	MS and/or MSD Recovery is outside acceptance limits
H =	Sample was prepped or analyzed beyond the specified hold time.
J =	The compound/constituent was positively identified; however, the associated numerical value is an estimated concentration only.
L =	A negative instrument reading had an absolute value greater than the reporting limit.
NSL =	No screening level.
R =	Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data shall not be used for any qualitative or quantitative purposes.
U =	The constituent was analyzed for but not detected. The associated value is the constituent quantitation limit.
UJ =	The constituent was not detected above the reported sample quantitation limit. However, the reported limit is approximate and may or may not represent the actual result.
^ =	ICV, CCV, ICB, CCB, ISA, ISB, CRI, CRA, DLCK, or MRL standard: instrument related QC exceeds the control limits.
*+ =	LCS and/or LCSD is outside acceptance limits, high biased.
*- =	LCS and/or LCSD is outside acceptance limits, low biased.
^- =	Continuing Calibration Verification (CCV) is outside acceptance limits, low biased.

Figures

Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

MW-138WT
MW-103WT,S1,S2
NEW PARKING LOT
MW-140WT,S1,S2
MW-105WT,S1,S2
B-5R,BAUG,CAUG
RG1
MW-149WT
RECREATION PLAZA
QPTW-04R
QP-1R
QPTW-03R2
QP-2R
QP-3R
QPTW-01R
QPTW-05R
QPTW-10R
QPTW-13R
MW-107WT,S1
MW-134WT,S1,S2
MW-108WT,S1,S2,S3,S4
S5.6
V3.6
X5.9
V3.0
VIEWING PLATFORM
MW-110WTR
MW-131WT,S1,S2
MW-111WT,S1,S2,S3,S4
MW-185WT
MW-186WT
B-3R,BAUG
MW-143WT
SG1
MW-114WT,S1,S2,S3
X-2A
X-1CR2
X-1A,B
MW-115WT,S1,S2,S3
MW-183WT
MW-117WT,S1
X-4AR,CAUGR,D
MW-118WT,S1
X-16A,B
MW-128WT,S1
X-10AR2
MW-2A,B,CAUG
X-9AR,BR,CAUG,D
VIEWING PLATFORM
MW-119WT,S1,S2
MW-3A,B
X-13AR,B,CAUG
TW-241
TWW-2
MW-127WT,S1
TW-242
TWW-1
X-12B
X-12AR,B,CAUG
MW-120WT,S1,S2
MW-121WT,S1,S2
MW-124WT,S1
MW-123WT,S1
MW-122WT
X-14A,B,CAUG
VIEWING PLATFORM
MW-125WT
MW-122S1,S2

LEGEND

- EXISTING MONITORING WELL
- ABANDONED MONITORING WELL
- MANHOLE
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- PERMANENT MARKER LOCATION
- SAGINAW MALLEABLE INDUSTRIAL (SMI) PROPERTY BOUNDARY
- GREEN POINT LANDFILL (GPL) PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY

NOTE: WELLS LISTED FOR SAMPLING AND/OR GAUGING IN ACCORDANCE WITH THE 2020 O&M PLAN

0 500 1,000
SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

SITE LAYOUT MAP

ARCADIS

FIGURE
1

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

FORMER RAILYARD AREA

SALT STREET

FORMER QUEEN STREET DUMP AREA

FORMER MELTING DEPARTMENT AREA

FORMER INTAKE CHANNEL

I27.7 MANHOLE AREA

FORMER SMI PLANT SLAB

TERMINATED TYPE III LANDFILL

SAGINAW RIVER

FORMER QUENCH PIT AREA

FORMER PARKING LOT NORTH OF THE BUFFER BASIN

STORMWATER POND

SOUTHWEST PLANT LNAPL AREA

PENINSULA PROPERTY EXPOSURE BARRIER

FORMER SECONDARY SETTLING POND

TERMINATED TYPE III LANDFILL

SEDIMENTATION BASIN

GREEN POINT LANDFILL

STORM WATER DETENTION BASIN

FORMER HILLOCK AREA

MITIGATION WETLAND

MITIGATION WETLAND

LEGEND

- INTRUSIVE ACTIVITY PROHIBITION AND SOIL COVER
- INTRUSIVE ACTIVITY PROHIBITION
- LNAPL AREA
- FORMER QUEEN STREET DUMP NOTIFICATION AREA
- PCB REMEDIATION WASTE/LOW OCCUPANCY AREA WITH A 1-FT SOIL COVER OVER IMPACTS ≤10 PPM PCBS
- PCB REMEDIATION WASTE/LOW OCCUPANCY AREA PCB CONCENTRATIONS >100 PPM AT >10 FT BGS
- MITIGATION WETLAND
- SURFACE WATER BODIES
- SAGINAW MALLEABLE INDUSTRIAL (SMI) PROPERTY BOUNDARY
- GREEN POINT LANDFILL (GPL) PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY
- STORM SEWER BULKHEAD LOCATIONS

SITEWIDE RESTRICTIONS IN PLACE ON LAND USE, GROUNDWATER USE, AND VAPOR INTRUSION.
GPL CAP IS A MULTI-LAYER COVER.

SMI: SAGINAW MALLEABLE INDUSTRIAL LAND
GPL: GREEN POINT LANDFILL
LNAPL: LIGHT NON-AQUEOUS PHASE LIQUID
PCB: POLYCHLORINATED BIPHENYLS

0 500 1,000
SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

SITE RESTRICTION AREAS

ARCADIS

FIGURE
2

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

MW-138WT 596.79
MW-103WT 583.83
MW-103S1,S2
MW-140WT 585.69
MW-140S1,S2
MW-105S1,S2
MW-105WT 586.17
(SURFACE WATER)
RG1 580.35
B-5R,BAUG,CAUG
B-5R 587.73
MW-149WT 579.52
MW-107S1 579.54
MW-107WT
QP-1R 588.82
QPTW-04R
QPTW-03R2
QP-2R
QPTW-05R
QP-3R
QPTW-13R 588.57
QPTW-01R
QPTW-10R 588.40*
MW-134S1,S2
MW-134WT 587.32
MW-108WT,S2,S3,S4
MW-108S1 580.48
MW-131WT 587.32
MW-131S1,S2
MW-110WTR 579.09
MW-111S1 580.21
MW-111WT,S2,S3,S4
MW-185WT 582.00
MW-186WT 580.09
MW-143WT 588.16
B-3R,BAUG
X-2A 588.12
SG1 587.58
MW-114WT,S2,S3,S4
MW-114S1 582.23
X-1B
X-1CR2
X-1A 585.73
MW-115WT,S1,S2,S3
MW-183WT 580.62
MW-117WT 582.82
MW-117S1
X-4CAUGR
X-4D
X-4AR 580.84
584
X-16A,B
MW-128WT 583.64
MW-128S1
X-10AR2 587.14*
MW-118S1
MW-118WT 582.84
X-9AR 579.37
MW-2A,B,CAUG
X-9BR,CAUG,D
MW-119WT,S1,S2
MW-3A,B
X-13AR,B,CAUG
TW-241 581.59
TWW-2
MW-127WT,S1
TW-242 580.29
TWW-1 581.54
X-12B
X-12AR,CAUG
MW-120WT,S1,S2
MW-124WT 582.19
MW-123WT,S1
MW-121WT,S1,S2
MW-124S1
MW-125WT 582.36
MW-122S1,S2
MW-122WT 582.46
X-14A,B,CAUG

596 594 592 590 588 586 584 582 580

LEGEND

- EXISTING MONITORING WELL
- ABANDONED MONITORING WELL
- 584 — GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- APPARENT GROUNDWATER FLOW DIRECTION
- SAGINAW MALLEABLE INDUSTRIAL (SMI) PROPERTY BOUNDARY
- GREEN POINT LANDFILL (GPL) PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY

NOTES:

1. DEPTH TO WATER ELEVATIONS WERE COLLECTED ON SEPTEMBER 9, 2024, AND MEASURED FROM TOP OF WELL CASING.
2. ALL GROUNDWATER ELEVATIONS AND MEASUREMENTS ARE IN FEET ABOVE MEAN SEA LEVEL (AMSL).
3. VERTICAL DATUM REFERENCED TO NGVD OF 1929, HORIZONTAL DATUM REFERENCED TO MICHIGAN SPC-NAD 1983.
4. GPL CAP IS A MULTI-LAYER COVER.

* ANOMALOUS GROUNDWATER ELEVATIONS NOT USED FOR CONTOURING.

0 500 1,000
SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

GROUNDWATER ELEVATION CONTOUR MAP SHALLOW AQUIFER - SEPTEMBER 9, 2024

ARCADIS

FIGURE 3

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

MW-138WT

MW-103WT,S1,S2

MW-107WT	
Arsenic	10.4
Diss. Arsenic	9.1 J
Manganese	516
Est. Un-ionized Ammonia	2.6
Phosphorus	140

MW-149WT	
Arsenic	85.6 [86.5]
Diss. Arsenic	9.5 J [6.4 J]
Est. Un-ionized Ammonia	14 [14]
Phosphorus	1,500 [270]

MW-140WT,S1,S2

MW-105WT,S1,S2

B-5R,BAUG,CAUG

RG1

MW-149WT

MW-107S1	
Est. Un-ionized Ammonia	9.45

MW-107WT,S1

QPTW-04R
QP-1R
QPTW-03R2
QP-2R
QP-3R
QPTW-01R
QPTW-05R
QPTW-10R
QPTW-13R

MW-134WT,S1,S2

MW-108S2	
Est. Un-ionized Ammonia	81 [80]

MW-108WT,S1,S2,S3,S4

MW-108S1	
Manganese	945
Est. Un-ionized Ammonia	0.4
Phosphorus	54

S5.6
X5.9
V3.6
V3.0

MW-110WTR	
Manganese	2,950 [3,220]
Est. Un-ionized Ammonia	2.5
Phosphorus	180

MW-110WTR

MW-131WT,S1,S2

MW-111WT,S1,S2,S3,S4

MW-111WT	
Manganese	1,530
Est. Un-ionized Ammonia	5.2
Phosphorus	960

MW-185WT

MW-185WT	
Manganese	1,320
Est. Un-ionized Ammonia	5.9
Phosphorus	120

MW-186WT

B-3R,BAUG

MW-143WT

MW-186WT	
Manganese	977
Est. Un-ionized Ammonia	5.2
Phosphorus	160

MW-114WT,S1,S2,S3

SG1

MW-115WT,S1,S2,S3

MW-114S2	
Est. Un-ionized Ammonia	15

MW-114WT	
Manganese	462
Est. Un-ionized Ammonia	1.3
Phosphorus	170

LEGEND

- EXISTING MONITORING WELL
- MANHOLE
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- SAGINAW MALLEABLE INDUSTRIAL (SMI) PROPERTY BOUNDARY

NOTES:

ALL SAMPLES COLLECTED ON 9/11/2024 AND 9/12/2024

ALL RESULTS ARE IN MICROGRAMS PER LITER (ug/L).

BOLDED CELLS REPRESENT CONSTITIUENT CONCENTRATIONS WITH DETECTIONS.

DUPLICATE RESULTS ARE PRESENTED IN BRACKETS.

GRAY SHADED CELLS REPRESENT CONSTITUENT CONCENTRATIONS THAT EXCEED SITE-SPECIFIC GROUNDWATER/SURFACE WATER INTERFACE (GSI) CRITERIA.

J = THE COMPOUND/CONSTITUENT WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.

EST = ESTIMATED

DISS = DISSOLVED

0 300 600

SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

SMI INORGANICS SAMPLING RESULTS

ARCADIS

FIGURE
4

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

MW-138WT
MW-103WT,S1,S2
MW-140WT,S1,S2
MW-105WT,S1,S2
B-5R,BAUG,CAUG
RG1
MW-149WT
MW-107WT,S1
MW-134WT,S1,S2
QP-1R
QPTW-04R
QPTW-03R2
QPTW-05R
QP-2R
QPTW-10R
QP-3R
QPTW-01R
QPTW-13R
S5.6
V3.6
X5.9
V3.0
B-3R,BAUG
MW-143WT
SG1
MW-108WT,S1,S2,S3,S4
MW-110WTR
MW-131WT,S1,S2
MW-111WT,S1,S2,S3,S4
MW-185WT
MW-186WT
MW-114WT,S1,S2,S3
MW-115WT,S1,S2,S3

MW-110WTR	
Aroclor 1248	0.29
Diss. Aroclor 1248	0.11 U
Aroclor 1254	0.19
Diss. Aroclor 1254	0.11 U

MW-111WT	
Aroclor 1248	6.7 [2.4]
Diss. Aroclor 1248	0.079 J [0.051 J]
Aroclor 1254	0.095 U [0.095 U]
Diss. Aroclor 1254	0.095 U [0.095 U]

MW-185WT	
Aroclor 1248	0.16
Diss. Aroclor 1248	0.087 U
Aroclor 1254	0.091 U
Diss. Aroclor 1254	0.091 U

MW-186WT	
Aroclor 1248	0.091 U
Diss. Aroclor 1248	0.091 U
Aroclor 1254	0.16
Diss. Aroclor 1254	0.091 U

MW-114WT	
Aroclor 1248	0.091 U
Diss. Aroclor 1248	0.091 U
Aroclor 1254	0.058 J
Diss. Aroclor 1254	0.091 U

LEGEND

- EXISTING MONITORING WELL
- MANHOLE
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- SAGINAW MALLEABLE INDUSTRIAL (SMI) PROPERTY BOUNDARY

NOTES:

ALL SAMPLES COLLECTED ON 9/11/2024 AND 9/12/2024

ALL RESULTS ARE IN MICROGRAMS PER LITER (ug/L).

AROCLOR 1248, AROCLOR 1248 (DISSOLVED), AROCLOR 1254, AND AROCLOR 1254 (DISSOLVED) HAD DETECTIONS AND ARE SHOWN ON THIS FIGURE.

BOLDED CELLS REPRESENT CONSTITIUENT CONCENTRATIONS WITH DETECTIONS.

DUPLICATE RESULTS ARE PRESENTED IN BRACKETS.

GRAY SHADED CELLS REPRESENT CONSTITUENT CONCENTRATIONS THAT EXCEED SITE-SPECIFIC GROUNDWATER/SURFACE WATER INTERFACE (GSI) CRITERIA.

U = THE CONSTITUENT WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE CONSTITUENT QUANTITATION LIMIT.

J = THE COMPOUND/CONSTITUENT WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.

DISS = DISSOLVED

0 300 600
SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

SMI ORGANICS SAMPLING RESULTS

ARCADIS

FIGURE
5

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

MW-138WT
MW-103WT,S1,S2
NEW PARKING LOT
MW-140WT,S1,S2
MW-105WT,S1,S2
B-5R,BAUG,CAUG
RG1
MW-149WT
RECREATION PLAZA
MW-107WT,S1
QPTW-04R
QP-1R
QPTW-03R2
QP-2R
QP-3R
QPTW-01R
QPTW-13R
QPTW-05R
QPTW-10R
MW-134WT,S1,S2

MW-134WT						
Sample Date	12/18/18	8/11/20	8/19/21	9/27/22	9/14/23	9/11/24
PFOA	3.0 J	2.0 J	1.7 J	3.6 J a	3.7	4.0 U
PFOS	4.0 U	1.9 U	1.8 U	1.9 U a	3.5 U	3.7 U

QPTW-13R						
Sample Date	12/18/18	8/11/20	8/19/21	9/26/22	9/14/23	9/11/24
PFOA	8.38	4.7 J [5.1]	3.8 a [4.0 a]	3.9 a [4.8 a]	5.1 [6.2]	4.2 U
PFOS	8.47	11.0 [10.6]	6.6 [8.4]	11.0 [12.8 a]	11.0 [8.5]	7.6

MW-108WT,S1,S2,S3,S4
S5.6
V3.6
X5.9
V3.0

MW-108WT					MW-108S1	
Sample Date	12/18/18	8/13/20	8/19/21	9/14/23	Sample Date	9/11/24
PFOA	3.66 J	4.4	4.6	1.6 J	PFOA	2.1 U
PFOS	2.63 J	17.1	15.1	7.0	PFOS	4.1

MW-110WTR
VIEWING PLATFORM
MW-131WT,S1,S2
MW-111WT,S1,S2,S3,S4

MW-131WT						
Sample Date	12/18/18	8/11/20	8/19/21	9/26/22	9/14/23	9/11/24
PFOA	2.38 J	3.6 J	3.7	3.3 J	2.1 J	4.4 U
PFOS	4.88 J	7.9	11.0	14.6 a	7.4	12.2

B-3R						
Sample Date	12/18/18	08/11/20	08/19/21	09/26/22	09/14/23	09/11/24
PFOA	5.58	2.7 J	2.7 J	2.7 J a	3.3 J	4.3 U
PFOS	15.6	14.4	13.7	14.3	13.0	11.4

MW-185WT
MW-186WT

TW98-111WT	
Sample Date	12/18/18
PFOA	6.36
PFOS	18.0

B-3R,BAUG
MW-143WT

MW-183WT					
Sample Date	12/19/18	8/18/20	8/24/21	9/26/22	9/13/23
PFOA	2.07 J	4.6	2.9 J	4.0	3.5 J
PFOS	4.0 U	3.5 J	1.5 J	1.9 U	2.1 J

MW-114WT,S1,S2,S3
SG1

MW97-105WT	
Sample Date	12/18/18
PFOA	22.1
PFOS	9.7

X-1CR2
X-2A
X-1A,B
MW-115WT,S1,S2,S3
MW-183WT

X-2A						
Sample Date	12/18/18	9/8/20	8/18/21	9/21/22	9/13/23	9/11/24
PFOA	50.6 [46.5]	29.9	29.6 [27.7]	23.6 a [23.2 a]	22.0 [23.0]	19.7 [18.9]
PFOS	16.5 [14.6]	14.5	15.8 [14.9]	20.9 a [21.2 a]	16.0 [20.0]	15 [15.6]

X-4AR,CAUGR,D

MW-117WT						MW-117S1			
Sample Date	8/13/20	8/17/21	9/22/22	9/13/23	9/11/24	8/13/20	8/17/21	9/21/22	9/13/23
PFOA	3.6 J	5.5	1.9 U	40 U	4.3 U	1.9 U	1.8 U	1.9 U	3.6 U
PFOS	1.9 U	1.8 U	1.9 U a	40 U	4.0 U	1.9 U	1.8 U	1.9 U a	2.9 J

MW-117WT,S1

MW-118WT					MW-118S1
Sample Date	8/14/20	8/17/21	9/22/22	9/13/23	12/18/18
PFOA	2.4 J	5.3	4.8	7.0	1.95 J
PFOS	1.9 U	1.8 U	1.9 U a	3.5 U	4.0 U

MW-118WT,S1
X-16A,B
MW-128WT,S1
X-10AR2
MW-2A,B,CAUG
X-9AR,BR,CAUG,D

X-10AR2						
Sample Date	12/18/18	9/8/20	8/18/21	9/22/22	9/13/23	9/11/24
PFOA	2.13 J	5.8 [5.6]	6.1	6.3	7.3	5.8
PFOS	4.0 U	1.7 U [1.7 U]	1.8 U	1.9 U	3.8 U	3.9 U

MW-119WT,S1,S2

TW-242	
Sample Date	1/17/23
PFOA	1.9 U [9.3 U b]
PFOS	1.9 U [1.9 U]

X-9AR					
Sample Date	12/19/18	8/17/20	8/18/21	9/22/22	9/13/23
PFOA	2.0 U	2.5 J	1.5 J	1.3 J	0.89 J
PFOS	4.0 U	1.9 U	1.8 U	1.9 U	3.4 U

MW-3A,B
X-13AR,B,CAUG
TW-241
TWW-2
MW-127WT,S1
TW-242
TWW-1
X-12AR,CAUG
X-12B
MW-120WT,S1,S2

TWW-1					
Sample Date	9/8/20	8/18/21	9/23/22	9/13/23	9/11/24
PFOA	11.0	27.1	19.7	13.0	7.7
PFOS	1.8 U	1.7 J	3.6 J a	2.5 J	3.8 U

MW-123WT,S1
MW-122WT,S1,S2
MW-121WT,S1,S2
MW-124WT,S1
X-14A,B,CAUG
VIEWING PLATFORM
MW-125WT

MW-125WT				
Sample Date	9/8/20	1/17/23	9/13/23	9/11/24
PFOA	4.3	2.9 J	2.9 J	4.2 U
PFOS	1.7 U	1.9 U	3.6 U	3.9 U

MW-122WT			
Sample Date	8/18/21	9/23/22	9/13/23
PFOA	3.1 J	2.4 J	2.8 J
PFOS	1.7 J	1.9 U	3.7 U

0 500 1,000
SCALE IN FEET

LEGEND

- EXISTING MONITORING WELL
- ABANDONED MONITORING WELL
- MONITORING WELL INACCESSIBLE
- MANHOLE
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- PERMANENT MARKER LOCATION
- SAGINAW MALLEABLE INDUSTRIAL (SMI) PROPERTY BOUNDARY
- GREEN POINT LANDFILL (GPL) PROPERTY BOUNDARY
- PENINSULA PROPERTY BOUNDARY

TW98-111WT	
Sample Date	12/18/18
PFOA	6.36
PFOS	18

SAMPLE LOCATION
SAMPLING DATE
PFOA ANALYTICAL RESULT
PFOS ANALYTICAL RESULT

NOTES:

ALL VALUES ARE IN NANOGRAMS PER LITER (ng/L).

BOLD RESULT DENOTES DETECTION.

SHADED RESULT DENOTES DETECTION IS ABOVE THE EGLE PART 201 GENERIC GROUNDWATER SURFACE-WATER INTERFACE CRITERIA.

RED RESULT DENOTES DETECTION IS ABOVE EGLE PART 201 GENERIC DRINKING WATER CRITERIA.

a = ASSOCIATED ID STANDARD OUTSIDE CONTROL LIMITS. CONFIRMED BY BATCH QC, RE-EXTRACTION AND/OR REANALYSIS.
J = ESTIMATED VALUE BETWEEN THE LIMIT OF QUANTITATION AND THE METHOD DETECTION LIMIT.
U = NOT DETECTED.
[ ] = DUPLICATE SAMPLE DETECTIONS
EGLE = ENVIRONMENT GREAT LAKES AND ENERGY
PFOA = PERFLUOROOCTANOIC ACID
PFOS = PERFLUOROOCTANESULFONIC ACID

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

PFAS SAMPLING RESULTS

ARCADIS

FIGURE 6

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson TR: PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

X-4AR	
Arsenic	57.2 [50.6]
Barium	89.7 [83.2]
Iron	9,450 [8,730]
Manganese	1,850 [1,720]
Sodium	12,500 [11,900]
Diss. Arsenic	16.3 [12.6]
Diss. Barium	70.7 [67.9]
Diss. Iron	161 [232]
Diss. Manganese	1,810 [1,830]
Diss. Sodium	12,300 [12,400]

MW-183WT	
Arsenic	28.8
Barium	93.1
Iron	17,400
Manganese	3,620
Sodium	29,900
Diss. Arsenic	5.0 U
Diss. Barium	41.1
Diss. Iron	100 U
Diss. Manganese	2,330
Diss. Sodium	30,300

X-4CAUGR	
Arsenic	5.0 U
Barium	97.9
Iron	9,910
Manganese	555
Sodium	11,200
Diss. Arsenic	5.0 U
Diss. Barium	52.5
Diss. Iron	113
Diss. Manganese	455
Diss. Sodium	11,200

MW-117WT	
Arsenic	23
Barium	1,390
Iron	81,500
Manganese	3,490
Sodium	353,000
Diss. Arsenic	5.0 U
Diss. Barium	1,090
Diss. Iron	25,300
Diss. Manganese	3,540
Diss. Sodium	378,000

X-4D	
Arsenic	5.2 J
Barium	92.6
Iron	3,420
Manganese	240
Sodium	582,000
Diss. Arsenic	5.0 U
Diss. Barium	68.9
Diss. Iron	64.8 J
Diss. Manganese	199
Diss. Sodium	601,000

MW-117S1	
Arsenic	5.0 U
Barium	2,110
Iron	8,810
Manganese	548
Sodium	120,000
Diss. Arsenic	5.0 U
Diss. Barium	1,560
Diss. Iron	109
Diss. Manganese	319
Diss. Sodium	119,000

MW-118S1	
Arsenic	5.0 U
Barium	182
Iron	11,500
Manganese	352
Sodium	53,000
Diss. Arsenic	5.0 U
Diss. Barium	146
Diss. Iron	971
Diss. Manganese	452
Diss. Sodium	79,700

MW-118WT	
Arsenic	33.1
Barium	372
Iron	34,000
Manganese	1,140
Sodium	87,200
Diss. Arsenic	5.0 U
Diss. Barium	90.1
Diss. Iron	432
Diss. Manganese	1,030
Diss. Sodium	55,400

X-9AR	
Arsenic	279
Barium	273
Iron	131,000
Manganese	1,440
Sodium	10,900
Diss. Arsenic	5.0 U
Diss. Barium	67.3
Diss. Iron	343
Diss. Manganese	1,160
Diss. Sodium	11,100

X-9CAUG	
Arsenic	5.0 U
Barium	307
Iron	24,900
Manganese	858
Sodium	24,000
Diss. Arsenic	5.0 U
Diss. Barium	213
Diss. Iron	110
Diss. Manganese	695
Diss. Sodium	49,600

X-9D	
Arsenic	17.5
Barium	108
Iron	9,940
Manganese	383
Sodium	603,000
Diss. Arsenic	5.0 U
Diss. Barium	75.8
Diss. Iron	68.5 J
Diss. Manganese	278
Diss. Sodium	623,000

X-9BR	
Arsenic	9.4 J
Barium	311
Iron	31,800
Manganese	783
Sodium	291,000
Diss. Arsenic	5.0 U
Diss. Barium	36.8
Diss. Iron	146
Diss. Manganese	427
Diss. Sodium	263,000

X-1CR2
X-1A,B
X-2A
MW-183WT
X-4AR,CAUGR,D
MW-117WT,S1
MW-118WT,S1
X-16A,B
MW-128WT,S1
X-10AR2
X-9AR,BR,CAUG,D
TW-241
TW-242
TWW-1
TWW-2
X-12B
MW-125WT
MW-124WT,S1
MW-122S1,S2
MW-122WT

0 400 800
SCALE IN FEET

LEGEND

- EXISTING MONITORING WELL
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- GREEN POINT LANDFILL (GPL) PROPERTY BOUNDARY

NOTES:

ALL SAMPLES COLLECTED ON 9/10/2024

ALL RESULTS ARE IN MICROGRAMS PER LITER (ug/L).

BOLDED CELLS REPRESENT CONSTITIUENT CONCENTRATIONS WITH DETECTIONS.

DUPLICATE RESULTS ARE PRESENTED IN BRACKETS.

GRAY SHADED CELLS REPRESENT CONSTITUENT CONCENTRATIONS THAT EXCEED SITE-SPECIFIC GROUNDWATER/SURFACE WATER INTERFACE (GSI) CRITERIA.

U = THE CONSTITUENT WAS ANALYZED FOR BUT NOT DETECTED. THE ASSOCIATED VALUE IS THE CONSTITUENT QUANTITATION LIMIT.

J = THE COMPOUND/CONSTITUENT WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.

DISS = DISSOLVED

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

GPL INORGANICS-METALS SAMPLING RESULTS

ARCADIS

FIGURE
7

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Service Layer Credits: USA NAIP Imagery: Natural Color: Esri, USDA Farm Service Agency 2020

X-4CAUGR	
Est. Un-ionized Ammonia	2.3
Chloride	18,900
Nitrate	37 J
Nitrite	50 U
Sulfate	250 J
TDS	326,000

X-4AR	
Est. Un-ionized Ammonia	1.8
Chloride	14,700
Nitrate	50 U
Nitrite	50 U
Sulfate	250 U
TDS	323,000

X-4D	
Est. Un-ionized Ammonia	52 [52]
Chloride	1,160,000
Nitrate	50 U
Nitrite	50 U
Sulfate	182,000
TDS	2,420,000 [2,590,000]

MW-183WT	
Est. Un-ionized Ammonia	0.82
Chloride	15,400
Nitrate	27 J
Nitrite	50 U
Sulfate	760 J
TDS	326,000

MW-117S1	
Est. Un-ionized Ammonia	16
Chloride	234,000
Nitrate	1,100
Nitrite	32 J
Sulfate	1,100
TDS	862,000

MW-117WT	
Est. Un-ionized Ammonia	16
Chloride	2,370,000
Nitrate	500 U
Nitrite	50 U
Sulfate	980
TDS	4,880,000

X-9BR	
Est. Un-ionized Ammonia	37
Chloride	263,000
Nitrate	50 U
Nitrite	50 U
Sulfate	250 U
TDS	954,000

MW-118S1	
Est. Un-ionized Ammonia	63
Chloride	250,000
Nitrate	50 U
Nitrite	50 U
Sulfate	1,700
TDS	369,000

X-9AR	
Est. Un-ionized Ammonia	0.82
Chloride	8,300
Nitrate	50 U
Nitrite	50 U
Sulfate	250
TDS	433,000

MW-118WT	
Est. Un-ionized Ammonia	14
Chloride	287,000
Nitrate	500 U
Nitrite	50 U
Sulfate	1,100
TDS	940,000

X-9CAUG	
Est. Un-ionized Ammonia	9.2
Chloride	59,200
Nitrate	50 U
Nitrite	50 U
Sulfate	250 U
TDS	596,000

X-9D	
Est. Un-ionized Ammonia	45
Chloride	1,180,000 [1,210,000]
Nitrate	50 U [50 U]
Nitrite	500 U [50 U]
Sulfate	239,000 [250,000]
TDS	2,390,000

X-1A,B
X-1CR2
X-2A
MW-183WT
X-4AR,CAUGR,D
MW-117WT,S1
X-16A,B
MW-128WT,S1
X-10AR2
MW-118WT,S1
X-9AR,BR,CAUG,D
TW-241
TWW-2
TW-242
TWW-1
X-12B
MW-124WT,S1
MW-122S1,S2
MW-122WT
MW-125WT

LEGEND

- EXISTING MONITORING WELL
- WELL TO BE GAUGED AND SAMPLED
- WELL TO BE GAUGED ONLY
- GREEN POINT LANDFILL (GPL) PROPERTY BOUNDARY

NOTES:

ALL SAMPLES COLLECTED ON 9/10/2024

ALL RESULTS ARE IN MICROGRAMS PER LITER (ug/L).

BOLDED CELLS REPRESENT CONSTITIUENT CONCENTRATIONS WITH DETECTIONS.

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GRAY SHADED CELLS REPRESENT CONSTITUENT CONCENTRATIONS THAT EXCEED SITE-SPECIFIC GROUNDWATER/SURFACE WATER INTERFACE (GSI) CRITERIA.

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J = THE COMPOUND/CONSTITUENT WAS POSITIVELY IDENTIFIED; HOWEVER, THE ASSOCIATED NUMERICAL VALUE IS AN ESTIMATED CONCENTRATION ONLY.

TDS = TOTAL DISSOLVED SOLIDS

EST = ESTIMATED

0 400 800

SCALE IN FEET

SAGINAW MALLEABLE INDUSTRIAL LAND,
GREEN POINT LANDFILL, AND PENINSULA PROPERTY
SAGINAW, MICHIGAN

GPL INORGANICS-GENCHEM SAMPLING RESULTS

ARCADIS

FIGURE 8

CITY: NOVI, MI DIV: ENV DB: TRY PIC: J. Barrett PM: S. Clearwater TM: A. Robinson PROJECT NUMBER: 30213352 COORDINATE SYSTEM: NAD 1983 StatePlane Michigan South FIPS 2113 Feet Intl
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Attachment 1

SMI and Green Point Landfill Site Inspection Forms

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Inspector Name:	Billy Cobern
Inspector Date and Time:	5/3/2024 12:00:00 AM / 09:25
Weather Conditions:	59.00 degrees F and Cloudy
Inspector Signature:	[redacted]

Green Point Landfill

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Site Access Road			
Erosion/Washout/Settlement	x	No erosion, washout, settlement observed	
Sufficient Gravel	x	Gravel areas have sufficient gravel	

Photo with description



West access road looking south

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



East access road looking south

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Landfill Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No signs of stressed vegetation	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No wash out areas observed	
Settlement	x	No signs of settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth		Various woody bushes observed and cut down	05/03/2024
Slope Movement	x	No slope movement observed	

Photo with description

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



Woody bush before



Woody bush after

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



Two woody bushes before



Two woody bushes after

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Woody bush before



Woody bush after



Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Leachate Breakouts			
Area Locations	x	No leachate breakouts observed	
Seepage or groundwater discharge	x	No seepage or groundwater discharge observed	
Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Surface Water Drainage System			
Drainage Swales	x	Drainage swales good	
Culverts	x	Culverts good	
Downchutes	x	Downchutes good	

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Saginaw, MI 48605

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Novi, MI 48377
(248) 994-2240

Primary Sedimentation Basin	x		
Bank Erosion	x	No bank erosion observed	
Silt Levels	x		

Photo with description



Southwest drainage ditch



Southwest drainage ditch

Client Name: RACER Trust
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Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



Southwest drainage ditch

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Gas Management System			
Vent Riser Condition	x	Vents good	
Vent Screen Condition	x	Vent screens intact	
Detectable Odor	x	No odor detected	
Surface Seal	x	Surface seals good	

Photo with description



Typical vent pipe. All in good condition.

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Overall Site Appearance	x	Good	

Client Name: RACER Trust
Client Contact: Dave Favero
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Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Mitigation Wetlands	x	Wetland area lower than last year	

Photo with description



Mitigation wetland southeast



Mitigation wetland southwest

SMI terminated Type III Landfills

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No stressed vegetation observed	
Cracks or intrusions	x	No cracks or intrusions observed	

Client Name: RACER Trust
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Site Name: RACER Saginaw
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Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No washout observed	
Settlement	x	No settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth		Multiple woody bushes on the north side of the NE Type III Landfill	06/12/2024
Slope Movement	x	No slope movement observed	

Photo with description



SW Type 3 landfill looking north from GPL

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Leachate Breakouts			
Area Locations	x	No leachate observed	
Seepage or groundwater discharge	x	No seepage or groundwater discharge observed	

SMI Former Plant Slab Soil Cover Area

Includes the following subareas - I27.7 manhole area, former Melting Department Area, former Quench Pit Area

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No stressed vegetation observed	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Erosion	x	No erosion observed	
Washout	x	No washout observed	
Settlement	x	No settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth	x	No woody growth observed	
Slope Movement	x	No slope movement observed	

Photo with description



Former plant slab cover area

SMI Former Southwest LNAPL Area

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Area Access Road			
Erosion/Washout/Settlement	x	No erosion observed	
Sufficient Gravel	x	Access road is mostly concrete/asphalt (new asphalt bike trail over existing concrete)	
Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots	x	No bare spots	
Stressed Vegetation	x	No stressed vegetation	
Cracks or intrusions	x	No cracks or intrusions	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No washout observed	

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
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Settlement	x	No settlement observed	
Water Ponding	x	No ponded water	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth	x	No woody growth observed	
Slope Movement	x	No slope movement observed	

Photo with description



Former southwest LNAPL area

Former Railyard Area

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No stressed vegetation observed	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No washout observed	
Settlement	x	No settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth	x	No woody growth observed	
Slope Movement	x	No slope movement observed	

Photo with description

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



Former rail yard area

Peninsula Property

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Soil Cover			
Bare spots	x	No bare spots observed	
Stressed Vegetation	x	No stressed vegetation observed	
Cracks or intrusions	x	No cracks or intrusions observed	
Burrowing Animals	x	No animal burrows observed	
Erosion	x	No erosion observed	
Washout	x	No washout observed	
Settlement	x	No settlement observed	
Water Ponding	x	No ponding water observed	
Protruding Objects	x	No protruding objects observed	
Undesirable (woody) Growth	x	No woody growth observed in the cover areas.	
Slope Movement	x	No slope movement observed	

Photo with description

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240



Peninsula property looking southwest

SMI Stormwater Pond

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Intrusive Restriction			
Disturbance to pond lining	x	Lining looks good	
Erosion	x	No erosion observed	
Evidence of Sheen	x	No sheen observed	
Signs of intrusive activity	x	No signs of intrusive activity.	

Photo with description



Storm water pond

Overall Site Condition

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Monitoring Wells / LNAPL Systems:			
Have any monitoring wells or LNAPL systems been damaged or destroyed?	x		
Well Cap Integrity	x	All wells capped	
Well lock integrity	x		

Photo with description



SMI looking NW from GPL



SMI looking NE from GPL

Water Wells:

Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed

Client Name: RACER Trust
Client Contact: Dave Favero
Site Name: RACER Saginaw
Site Address: 77 West Center Street
Saginaw, MI 48605

Site Inspection Form

28550 Cabot Dr Suite 500
Novi, MI 48377
(248) 994-2240

Have any water wells been installed at the Property?	x	No known water wells on site	
Building Construction/Additions:			
Have any new buildings been constructed, added onto or any other redevelopment occurred at the Site?	x	No buildings on site	
Permanent Markers:			
Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Are the markers visible and is the map and wording in legible condition with no vegetation blocking it?	x		
Evidence of Disturbance	x		
Land Use - Non-Residential/Passive Recreational:			
Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
In accordance with the RC the land use needs to remain non-residential/passive recreational, is the property still non-residential/passive recreational use?	x		
Other items, if any:			
Location	No Issue	Potential Issue Description, if identified[1] Note if issue is from property use or naturally occurring	Date Record of Maintenance Was Completed
Please describe any other notable items identified during Inspection.		N/A	

Notes:

1. If issue is identified, a Record of Maintenance Form must be completed

'- Use related refers to any wear or development that occurs as part of the daily use of the Property. An example would be trail use, etc.

'- Naturally occurring refers to any wear or damage caused by natural phenomenon. Examples include flooding, rain, spontaneous tree growth, etc.

'- Inspections to be completed annually

Submit completed form to EGLE Saginaw Bay District Office RRD, 401 Ketchum Street, Suite B, Bay City, MI 48708 attention Amanda Armbruster annually by December 20.

RECORD OF MAINTENANCE FORM
RACER Saginaw Malleable Industrial Land (SMI), Green Point Landfill, and Peninsula Property
77 and 79 West Center Street, and 3300 Salt Road, Saginaw, Michigan
RC Reference Number - RC-OWMRP-111-17-____

Work Loction On-Site: GPL

Description of Work: Cut Woody Vegetation

Photo Log:



Woody bush before



Woody bush after

RECORD OF MAINTENANCE FORM
RACER Saginaw Malleable Industrial Land (SMI), Green Point Landfill, and Peninsula Property
77 and 79 West Center Street, and 3300 Salt Road, Saginaw, Michigan
RC Reference Number - RC-OWMRP-111-17-____



Two woody bushes before



Two woody bushes after



Woody bush before

RECORD OF MAINTENANCE FORM
RACER Saginaw Malleable Industrial Land (SMI), Green Point Landfill, and Peninsula Property
77 and 79 West Center Street, and 3300 Salt Road, Saginaw, Michigan
RC Reference Number - RC-OWMRP-111-17-____



Woody bush after

Materials Used:	Hand cutter (lopper) and hand saw
Personal Protective Equipment Used (if applicable):	Level D with leather gloves
Work Performed By (Contractor Name):	Arcadis
Address of Contractor:	Saginaw MI 48602 US
Telephone of Contractor:	8105883642
Start Date:	5/3/2024
Completion Date:	5/3/2024
Desginated Inspector:	Billy Cobern
Inspector Signature and Date:	Billy Cobern 5/3/2024

Comments: All located woody brush on GPL has been cut.

Note - Submit completed form, if response actions are required, to MDEQ annually according to the Postclosure Agreement and per Part 20114d(4)(a)-(c).

SMI Terminated Type III Landfills

Created	2024-05-12 09:30:00 UTC by Donald Richmond
Updated	2024-06-12 17:56:53 UTC by Donald Richmond
Location	43.59384643383659, -84.21120679945146

Site Information

General Project Information

Start Date:	2024-06-12
Inspector Name	Donald Richmond
Work Performed By (Contractor Name):	Murin Company-Inspection by Donald Richmond with Arcadis.
Address of Contractor	2243 Graham Rd Freeland, MI 48623
Telephone of Contractor:	(989) 781-1855
Select Work Location on Site	SMI Terminated Type III Landfills
Description of Work	Brush hogging the Terminated Type 3 Landfill

Before Maintenance Photolog

Before Maintenance Photos



































After Maintenance Photolog

After Maintenance Photos







































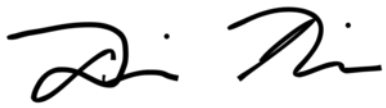






Materials Used:	Brush hog pulled behind a tractor
Completion Date:	2022-06-12

Inspection Signature:



Signed 2024-06-12 14:36:14 UTC

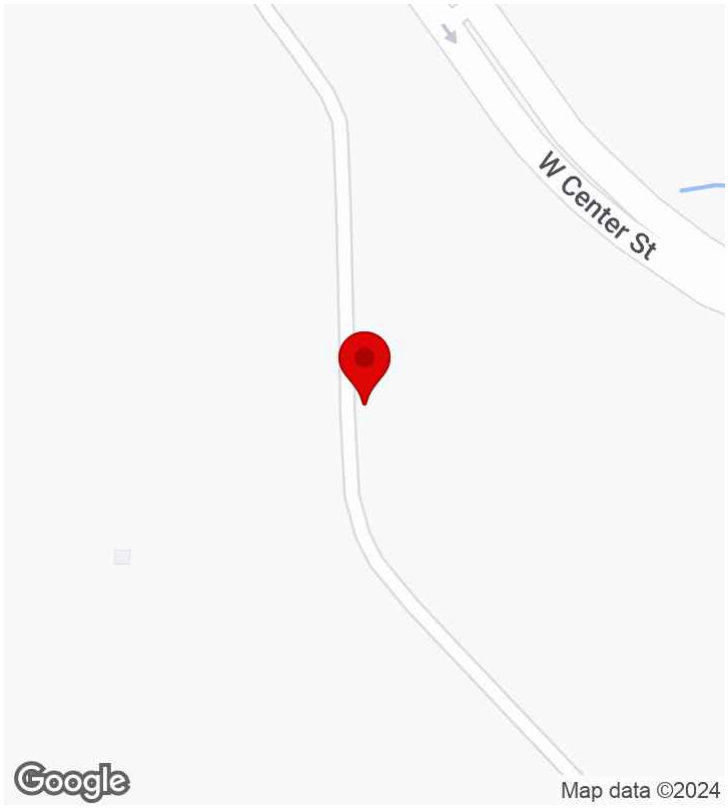
Inspection Date	2024-06-12
Comments	Inspection conducted by Donald Richmond

RACER Trust IC/EC Inspection v2

A site inspection app made for Institutional Control (IC) and Engineering Control (EC) conformance across RACER Trust sites.

IC/EC Inspection Report for Saginaw Malleable Site at Saginaw Malleable Industrial Land (10030) on May 3, 2024





INSPECTION DATE

5/3/2024, 1:52:38 PM UTC
by Billy J Cobern

UPDATED

5/3/2024, 4:53:27 PM UTC
by RACER User

LOCATION

43.401594, -83.969821

SITE NAME

Saginaw Malleable Site

ZONE NAME

Saginaw Malleable Industrial Land (10030)

Site Description

Site Name	Saginaw Malleable Site
Site Zone	Saginaw Malleable Industrial Land (10030)
Site Address	77 West Center Street
Site City	Saginaw
Site State	MI

General Site Conditions

Describe on-site land use	Recreational
Describe off-site surrounding land use	Residential, Recreational, Commercial, Open Space
Describe any on-site ownership or tenancy changes.	None
Describe any needed on-site repairs	None
Describe any on-site improvements	In 2023 Saginaw County Parks installed a parking lot on the north end, some paved trails, improved the gravel base on some of the access roads, installed description signs in a couple areas, and several new park benches.
Weather Conditions at time of inspection	Cloudy, rainy, 60's-70's

Photos of current conditions/uses



Property entrance

Inspect Institutional Controls and Engineering Controls

Institutional Controls (IC) (11 Items)

Institutional Controls (IC) - 1. Property-Wide

Name of the IC	Property-Wide
Characterize restricted activities and uses	Commercial Use Restriction, Drinking Water Well or GW Use Restriction, Excavation Restriction, Obligation to Maintain Vegetation, Obligation to Maintain Wells and Markers, Obligation to Manage Contaminated Soils
Is commerical use occurring?	No
Have drinking water wells been drilled, constructed, or used on the property for unauthorized purposes?	No
Has excavation occurred?	No
Is vegetation present and kept in acceptable condition?	Yes
Are all permanent survey markers, benchmarks, and monitoring stations in place as designed?	Yes
Other comments or notes about the IC?	

Institutional Control photos





Institutional Controls (IC) - 2. Southwest Plant LNAPL Area (Residual LNAPL Area 1) Lead Impacted Soil Area

Name of the IC	Southwest Plant LNAPL Area (Residual LNAPL Area 1) Lead Impacted Soil Area
Characterize restricted activities and uses	Excavation Restriction
Has excavation occurred?	No
Other comments or notes about the IC?	

Institutional Control photos



SW Plant LNAPL area

Institutional Controls (IC) - 3. Quench Pit LNAPL Area (Residual LNAPL Area 2)

Name of the IC	Quench Pit LNAPL Area (Residual LNAPL Area 2)
Characterize restricted activities and uses	Excavation Restriction, Obligation to Maintain Wells and Markers
Has excavation occurred?	No
Are all permanent survey markers, benchmarks, and monitoring stations in place as designed?	Yes
Other comments or notes about the IC?	

Institutional Control photos



Quench pit area

Institutional Controls (IC) - 4. Former SMI Plant Slab

Name of the IC	Former SMI Plant Slab

Characterize restricted activities and uses	Excavation Restriction, New Building or Structure Restriction, Other Restrictions
Has excavation occurred?	No
Is new building or structure present?	No
Characterize other restriction(s)	Limit worker duration in area to 335 hours or less per calendar year
Do site use and activities comply with other restrictions	Yes
Other comments or notes about the IC?	

Institutional Control photos



Former plant slab area

Institutional Controls (IC) - 5. I27.7 Manhole Area

Name of the IC	I27.7 Manhole Area
Characterize restricted activities and uses	Excavation Restriction, Other Restrictions
Has excavation occurred?	No
Characterize other restriction(s)	Limit worker duration in area to 335 hours or less per calendar year
Do site use and activities comply with other restrictions	Yes
Other comments or notes about the IC?	

Institutional Control photos



Manhole area

Institutional Controls (IC) - 6. Melting Department Area

Name of the IC	Melting Department Area
Characterize restricted activities and uses	Excavation Restriction, Other Restrictions
Has excavation occurred?	No
Characterize other restriction(s)	Limit worker duration in area to 335 hours or less per calendar year
Do site use and activities comply with other restrictions	Yes
Other comments or notes about the IC?	

Institutional Control photos



Former Melting Department area

Institutional Controls (IC) - 7. Former Railyard Area

Name of the IC	Former Railyard Area

Characterize restricted activities and uses	Excavation Restriction
Has excavation occurred?	No
Other comments or notes about the IC?	

Institutional Control photos



Former Railyard area looking north

Institutional Controls (IC) - 8. Type III Landfills

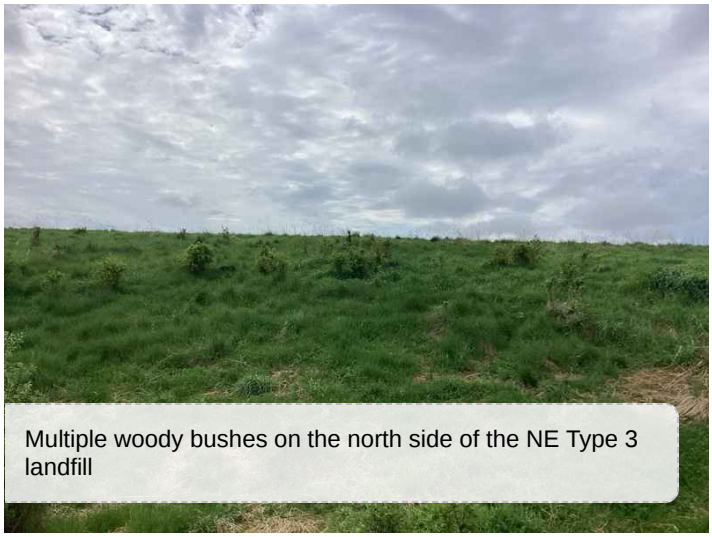
Name of the IC	Type III Landfills
Characterize restricted activities and uses	Excavation Restriction
Has excavation occurred?	No
Other comments or notes about the IC?	Multiple woody bushes on the north side of the NE Type 3 landfill

Institutional Control photos



SW Type 3 landfill





Multiple woody bushes on the north side of the NE Type 3 landfill

NE Type 3 landfill looking SSE

Institutional Controls (IC) - 9. Stormwater Pond

Name of the IC	Stormwater Pond
Characterize restricted activities and uses	Excavation Restriction
Has excavation occurred?	No
Other comments or notes about the IC?	No NAPL or sheen present.

Institutional Control photos



Storm water pond

Institutional Controls (IC) - 10. Storm Sewers

Name of the IC	Storm Sewers
Characterize restricted activities and uses	Underground Utility Construction or Repair Restriction
Is new underground utility or repair observed?	No
Other comments or notes about the IC?	

Institutional Control photos



S 5.6





X 5.9




V 3.0




V 3.6

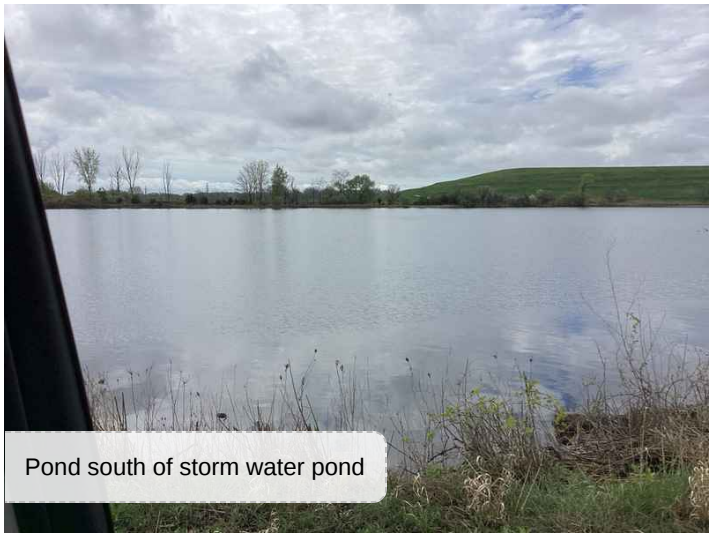


V 3.6

Institutional Controls (IC) - 11. On-Site Surface Water Bodies

Name of the IC	On-Site Surface Water Bodies
Characterize restricted activities and uses	Water Recreation Restrictions, Fishing Restrictions
Are water-based recreation restrictions met?	Yes
Are fishing restrictions met?	Yes
Other comments or notes about the IC?	

Institutional Control photos



Pond south of storm water pond



Pond north of the NE Type 3 landfill

Engineering Controls (EC) (7 Items)

Engineering Controls (EC) - 1. Southwest Plant LNAPL Area (Residual LNAPL Area 1) Lead Impacted Soil Area

What is the Name of the EC?	Southwest Plant LNAPL Area (Residual LNAPL Area 1) Lead Impacted Soil Area
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	

Engineering Control Photos



SW Plant LNAPL area

Engineering Controls (EC) - 2. Quench Pit LNAPL Area (Residual LNAPL Area 1) Lead Impacted Soil Area

What is the Name of the EC?	Quench Pit LNAPL Area (Residual LNAPL Area 1) Lead Impacted Soil Area
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	

Engineering Control Photos



Quench pit area

Engineering Controls (EC) - 3. Former SMI Plant Slab

What is the Name of the EC?	Former SMI Plant Slab
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	

Engineering Control Photos



Former plant slab area

Engineering Controls (EC) - 4. I27.7 Manhole Area

What is the Name of the EC?	I27.7 Manhole Area
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	

Engineering Control Photos



Engineering Controls (EC) - 5. Melting Department Area

What is the Name of the EC?	Melting Department Area
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	Cover consists of flowable concrete beneath the vegetative cover

Engineering Control Photos



Engineering Controls (EC) - 6. Former Railyard Area

What is the Name of the EC?	Former Railyard Area
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	

Engineering Control Photos



Former Railyard area looking north

Engineering Controls (EC) - 7. Type III Landfills

What is the Name of the EC?	Type III Landfills
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	

Engineering Control Photos



SW Type 3 landfill



NE Type 3 landfill looking SSE

Inspector Information

Inspector Name	Billy J Cobern
Inspector Company	Arcadis
Inspector Email	Billy.Cobern@arcadis.com
Inspection Date	May 3, 2024
Inspector Signature	Signed 5/3/2024, 1:55:20 PM UTC

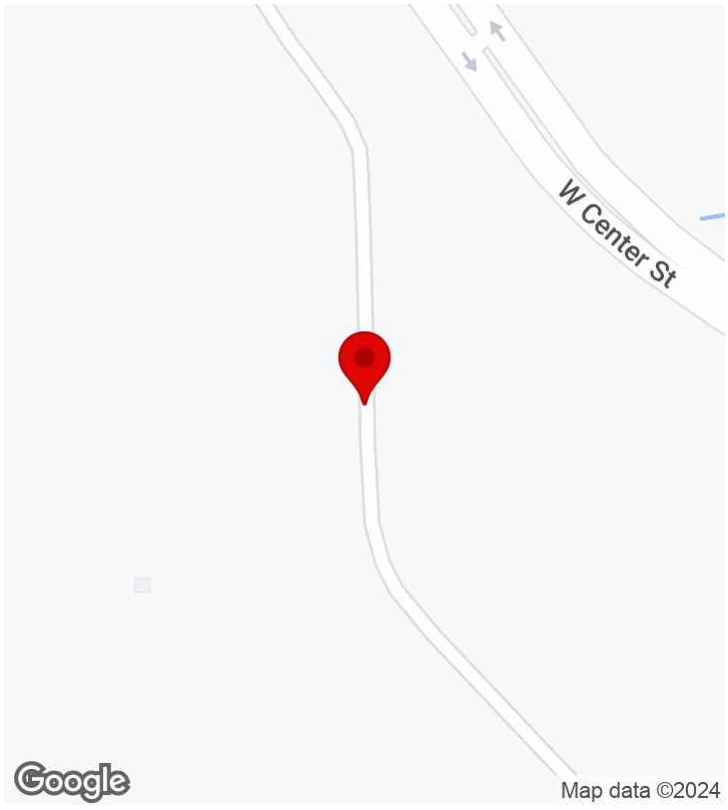
RACER Trust IC/EC Inspection v2

A site inspection app made for Institutional Control (IC) and Engineering Control (EC) conformance across RACER Trust sites.

IC/EC Inspection Report for Saginaw Malleable Site at Green Point Landfill (11060) on May 3, 2024



West access road looking south



INSPECTION DATE

5/3/2024, 1:55:50 PM UTC
by Billy J Cobern

UPDATED

5/3/2024, 3:35:31 PM UTC
by RACER User

LOCATION

43.401699, -83.969932

SITE NAME

Saginaw Malleable Site

ZONE NAME

Green Point Landfill (11060)

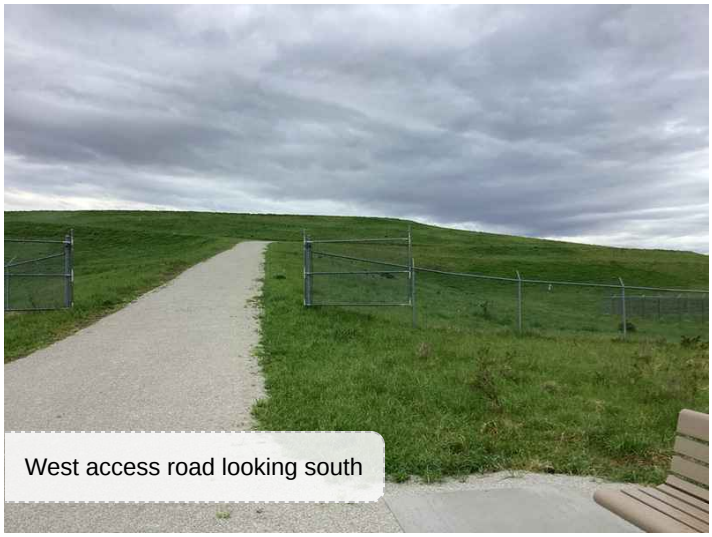
Site Description

Site Name	Saginaw Malleable Site
Site Zone	Green Point Landfill (11060)
Site Address	77 West Center Street
Site City	Saginaw
Site State	MI

General Site Conditions

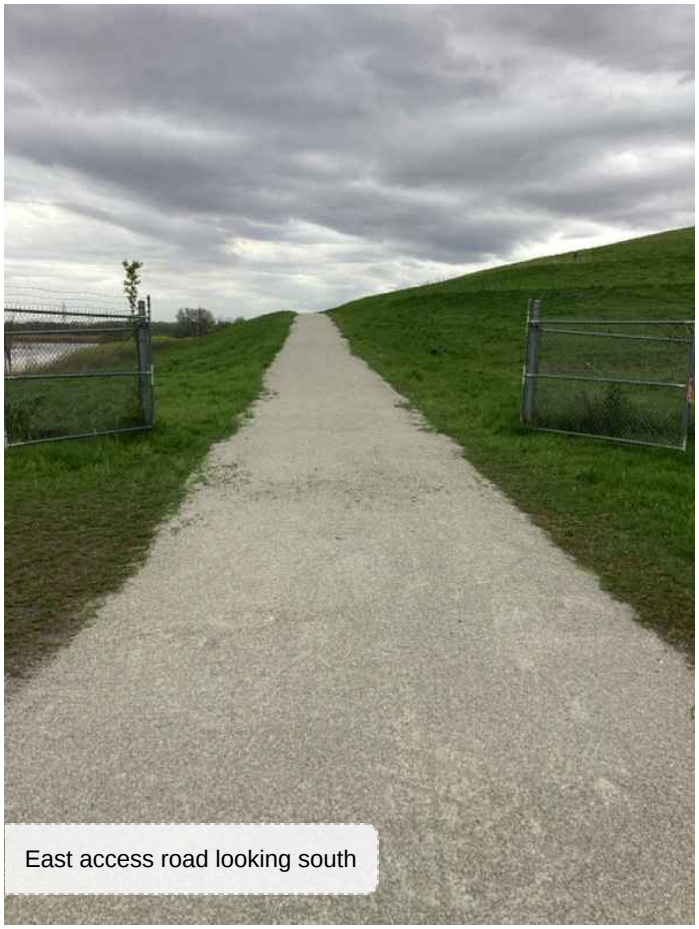
Describe on-site land use	Recreational
Describe off-site surrounding land use	Recreational, Open Space, Vacant
Describe any on-site ownership or tenancy changes.	None
Describe any needed on-site repairs	Several woody bushes were cut on GPL
Describe any on-site improvements	None
Weather Conditions at time of inspection	Cloudy, rainy, 60’s-70’s

Photos of current conditions/uses



West access road looking south





East access road looking south

Landfill

Inspect Institutional Controls and Engineering Controls

Institutional Controls (IC) (5 Items)

Institutional Controls (IC) - 1. Property-wide

Name of the IC	Property-wide

Characterize restricted activities and uses	Commercial Use Restriction, Drinking Water Well or GW Use Restriction, Excavation Restriction, Obligation to Maintain Vegetation, Underground Utility Construction or Repair Restriction, Obligation to Maintain Wells and Markers, Obligation to Manage Contaminated Soils
Is commerical use occurring?	No
Have drinking water wells been drilled, constructed, or used on the property for unauthorized purposes?	No
Has excavation occurred?	No
Is vegetation present and kept in acceptable condition?	Yes
Is new underground utility or repair observed?	No
Are all permanent survey markers, benchmarks, and monitoring stations in place as designed?	Yes
Other comments or notes about the IC?	

Institutional Control photos



Woody bush before





2 woody bushes before







Woody bush before





Pricker bush before



Woody bush before





Woody bush before





Woody bush





Woody bush before







Woody bush before





SW drainage ditch from bottom to top



SW drainage ditch on the south side of the access road

SW drainage ditch culverts on the north side of access road

Institutional Controls (IC) - 2. Landfill Cap

Name of the IC	Landfill Cap
Characterize restricted activities and uses	Excavation Restriction, New Building or Structure Restriction
Has excavation occurred?	No
Is new building or structure present?	No
Other comments or notes about the IC?	

Institutional Control photos



West side of landfill





GPL Top looking east

GPL Top looking west

Institutional Controls (IC) - 3. Hillock Area

Name of the IC	Hillock Area
Characterize restricted activities and uses	Excavation Restriction
Has excavation occurred?	No
Other comments or notes about the IC?	

Institutional Control photos



Former Hillock area looking north



Former hillock area looking north

Institutional Controls (IC) - 4. On-Site Surface Water Bodies

Name of the IC	On-Site Surface Water Bodies
Characterize restricted activities and uses	Water Recreation Restrictions, Fishing Restrictions
Are water-based recreation restrictions met?	Yes
Are fishing restrictions met?	Yes
Other comments or notes about the IC?	

Institutional Control photos



SW Mitigation Wetland





Wetland area east of GPL

SE Mitigation Wetland

Institutional Controls (IC) - 5. Mitigation Wetlands

Name of the IC	Mitigation Wetlands
Characterize restricted activities and uses	Dredging of Stream or Waterway Restriction, Wetland Alteration/Development Restriction
Has dredging of stream or waterway occurred?	No
Has the wetland been altered or developed?	No

Other comments or notes about the IC?	Southwest mitigation wetlands

Institutional Control photos



SE Mitigation Wetland





Wetland area east of GPL

SW Mitigation Wetland

Engineering Controls (EC) (1 Item)

Engineering Controls (EC) - 1. Landfill Cap

What is the Name of the EC?	Landfill Cap
Describe the EC	Multi-layer cap and infiltration barrier

Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes
Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
Other comments or notes about the EC?	

Engineering Control Photos



GPL cap looking west

Inspector Information

Inspector Name	Billy J Cobern
Inspector Company	Arcadis
Inspector Email	Billy.Cobern@arcadis.com
Inspection Date	May 3, 2024

Inspector Signature



Signed 5/3/2024, 2:11:07 PM UTC

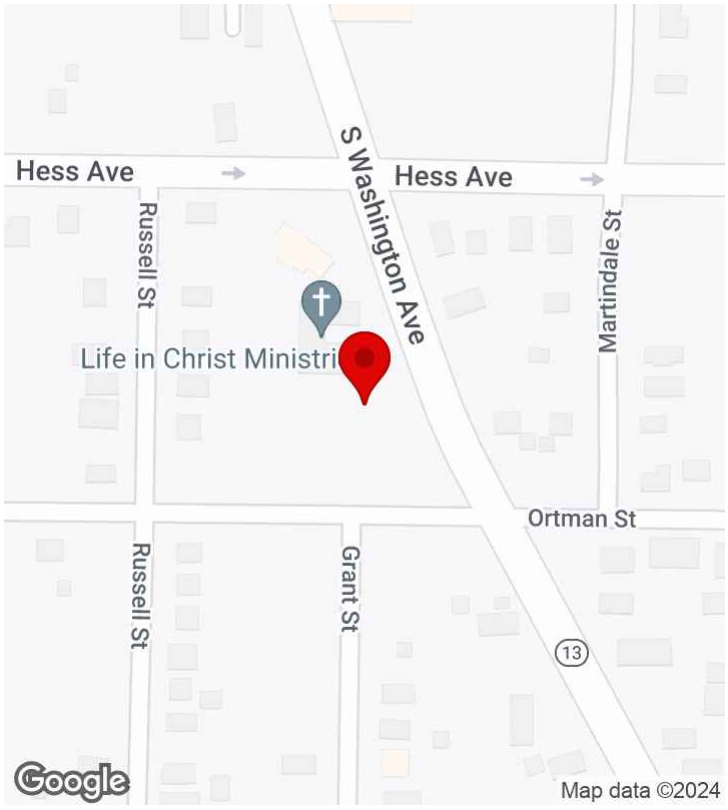
RACER Trust IC/EC Inspection v2

A site inspection app made for Institutional Control (IC) and Engineering Control (EC) conformance across RACER Trust sites.

IC/EC Inspection Report for Saginaw Malleable Site at Saginaw Malleable Peninsula (13280) on May 3, 2024



Peninsula property looking southwest



INSPECTION DATE

5/14/2024, 12:27:10 AM UTC
by Billy J Cobern

UPDATED

5/14/2024, 12:35:46 AM UTC
by RACER User

LOCATION

43.399536, -83.958706

SITE NAME

Saginaw Malleable Site

ZONE NAME

Saginaw Malleable Peninsula (13280)

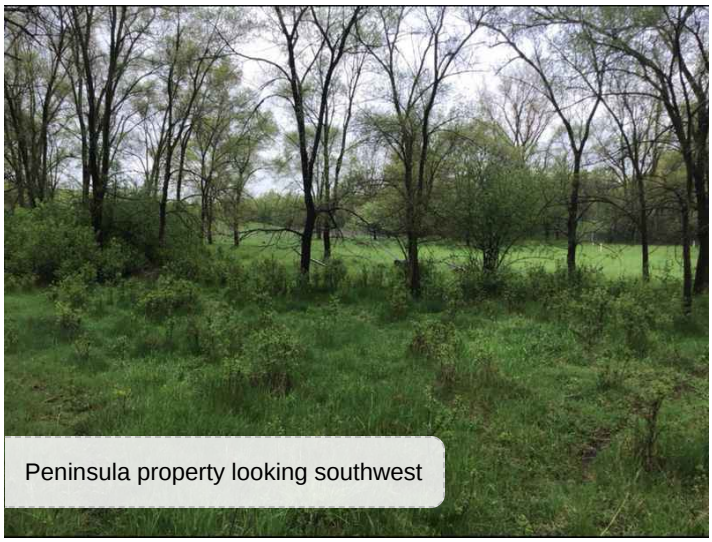
Site Description

Site Name	Saginaw Malleable Site
Site Zone	Saginaw Malleable Peninsula (13280)
Site Address	77 West Center Street
Site City	Saginaw
Site State	MI

General Site Conditions

Describe on-site land use	Recreational, Commercial, Open Space, Vacant
Describe off-site surrounding land use	Recreational, Commercial, Open Space, Vacant
Describe any on-site ownership or tenancy changes.	None
Describe any needed on-site repairs	None
Describe any on-site improvements	None
Weather Conditions at time of inspection	Cloudy, rainy, 50's

Photos of current conditions/uses



Peninsula property looking southwest

Inspect Institutional Controls and Engineering Controls

Institutional Controls (IC) (1 Item)

Institutional Controls (IC) - 1. Property wide

Name of the IC	Property wide

Characterize restricted activities and uses	Residential Use Restriction, Commercial Use Restriction, Recreational Use Restriction, Agricultural Use Restriction, Drinking Water Well or GW Use Restriction, New Building or Structure Restriction, Obligation to Maintain Wells and Markers
Is residential use occurring?	No
Is commerical use occurring?	No
Are restricted recreational uses occurring?	No
Have drinking water wells been drilled, constructed, or used on the property for unauthorized purposes?	No
Is new building or structure present?	No
Are all permanent survey markers, benchmarks, and monitoring stations in place as designed?	Yes
Are unauthorized agricultural activities occurring?	No
Other comments or notes about the IC?	

Institutional Control photos



Peninsula property looking southwest

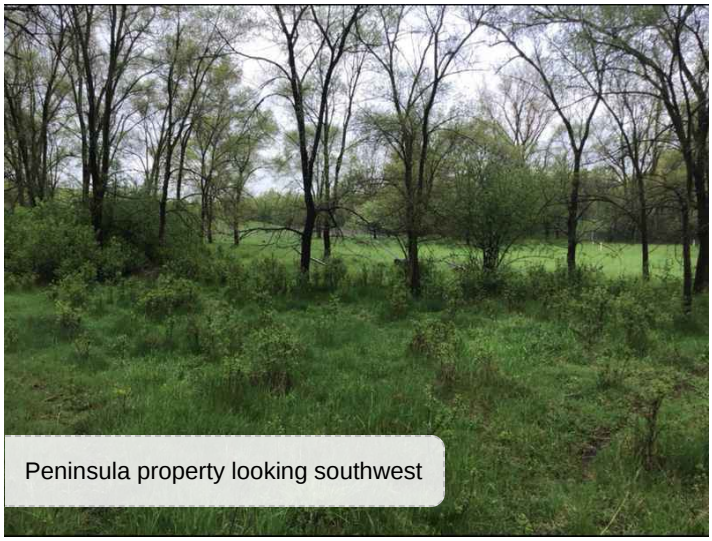
Engineering Controls (EC) (1 Item)

Engineering Controls (EC) - 1. Lead impacted soil area

What is the Name of the EC?	Lead impacted soil area
Describe the EC	Vegetated Cover
Is the general condition of the EC acceptable?	Yes
Elevation has remained consistent without settlement?	Yes

Has the engineering control not been disturbed and has been adequately repaired/restored?	Yes
The vegetation is an area void of vegetation?	No
Other comments or notes about the EC?	

Engineering Control Photos



Peninsula property looking southwest

Inspector Information

Inspector Name	Billy J Cobern
Inspector Company	Arcadis
Inspector Email	Billy.cobern@arcadis.com
Inspection Date	May 3, 2024
Inspector Signature	 Signed 5/14/2024, 12:28:31 AM UTC

Attachment 2

2024 PCB Cover Inspections and Quarterly LNAPL Gauging/Inspections

Technical Memorandum

December 06, 2024

To	Dave Favero (RACER) Brendan Mullen (RACER)	**Tel**	519-340-4316
Copy to	Jessica Gallaway	**Email**	John-eric.pardys@ghd.com
From	John-Eric Pardys	**Ref. No.**	11208013-MEM-5
Subject	2024 Annual Inspections and Gauging RACER Trust Saginaw Malleable Industrial Land, Saginaw Michigan		

1. Introduction

This memorandum presents a summary of the inspection conducted on the cover placed over the former building slab, including the I27.7 Manhole Area, and annual gauging/inspection of the LNAPL areas in accordance with RACER Trust's Operation, Maintenance, and Monitoring Plan (ARCADIS, 2020) completed on September 10, 2024 at RACER Trust's Saginaw Malleable Industrial Land (Site) in Saginaw, Michigan (Figure 1). The purpose of these inspections is to confirm the cover is being maintained in accordance with 40 CFR 761.61 (a)(8) and to identify any changes in LNAPL conditions that would necessitate further evaluation.

2. Visual Cover Observations

Arcadis staff completed a visual assessment on May 3, 2024, of the cover placed over the former building slab, including the I27.7 Manhole Area, to document its condition and to recommend any maintenance that may be required. The week prior to the inspection, the Saginaw area received approximately 0.38-inches of rain (https://www.weather.gov/wrh/Climate?wfo=dtx). See Attachment 1 for the Institutional Control and Engineering Control Inspection Report for the Site which includes photos documenting the cover observations.

The following observations were made during the inspection:

– No maintenance needed.
– There were no signs of any major depressions on the cover.
– Vegetation is primarily composed of grasses, clovers, wildflowers, thistles, and other small plants. The vegetation is 6-8 inches tall and there does not appear to be much (if any) woody vegetation. No mowing needed at this time.
– The cover over the former building slab, including the I27.7 Manhole Area, was not mowed this year.

Based on the results of the May 2024 inspection, no maintenance of the cover was required.

3. Annual LNAPL Gauging / Inspection

The annual gauging event was conducted by Arcadis between September 9 and 10, 2024. The groundwater gaging log is provided in Attachment 2.

Quench Pit Area

Figure 2 presents the Quench Pit Area monitoring well locations. A summary of the annual gauging information is provided in Table 1, along with historical gauging information for reference. All water levels/LNAPL thicknesses were below the top of screen during the September 2024 gauging event. The LNAPL thickness in the wells is consistent with historical readings and changes in LNAPL thickness in wells exhibit the expected correlation with fluctuations in hydraulic conditions (i.e., water table elevation).

Southwest Plant LNAPL Area

Arcadis also inspected manholes in the Southwest Plant LNAPL area, the storm water pond and the secondary pond for the presence of LNAPL. Figure 3 presents the location of the inspection points. No evidence of LNAPL was identified in the Stormwater Pond or the Secondary Pond. A summary of the manhole inspections is provided in Table 2.

Transmissivity Testing

Table 3 summarizes the LNAPL Transmissivity that has been completed to date. No transmissivity testing was completed in 2024 as conditions were similar to when the previous tests were completed. A memorandum was submitted to EGLE on January 28, 2019 summarizing transmissivity testing that has been completed. The memorandum concluded that the remaining concern with LNAPL appears to be limited to the potential for residual LNAPL sheen to enter active sewers that discharge to the on-Site stormwater pond. However, it is noted that no sheen has been observed in the on-Site stormwater pond since before the Plant was closed in 2007. Further, transmissivity testing since 2016 has demonstrated LNAPL is not readily or practically recoverable.

4. Conclusions/Recommendations

With respect to the cover, in order to keep phragmite growth and woody growth under control, GHD recommends evaluating the need for a mowing event at a minimum annually. LNAPL conditions continue to remain stable and, therefore, no further evaluation is necessary beyond continued monitoring. Consistent with the January 28, 2019 memorandum, GHD recommends that no additional transmissivity testing be performed, and that observations/inspections of the cap continue on an annual basis.

List of Enclosures:
Figure 1 Site Plan
Figure 2 Quench Pit Area – LNAPL Monitoring Program
Figure 3 Southwest Plan LNAPL Area – LNAPL Monitoring Program

Table 1 Summary of Groundwater Gauging Data – Quench Pit Area
Table 2 Summary of Manhole Inspections – Southwest LNAPL Area
Table 3 Summary of Transmissivity Testing – Quench Pit Area

Attachment 1 Inspection Report (See Attachment 1 of Annual Progress Report)
Attachment 2 Gauging Form

Regards

John-Eric Pardys
Engineer

Figures

SALT STREET

CENTER STREET

MELTING DEPARTMENT AREA

I27.7 AREA

CONCRETE PAD
(FORMER SAGINAW
MALLEABLE IRON PLANT)

SEE FIGURE 2

QUENCH PIT AREA

SEE FIGURE 3

SOUTHWEST LNAPL AREA

TERMINATED
TYPE III LANDFILL

SAGINAW RIVER

SAGINAW RIVER BERM AREA

STORWATER
POND

POND
OBSERVATION
LOCATION

SECONDARY
POND

TERMINATED TYPE III LANDFILL

LEGEND

RACER MALLEABLE IRON INDUSTRIAL LAND PROPERTY LINE (APPROX.)

UNPAVED ROAD

620 GROUND SURFACE ELEVATION CONTOUR (10 FT INTERVAL)

FENCE LINE

NOTE:
THIS DRAWING HAS BEEN PREPARED
UTILIZING THE BEST AVAILABLE INFORMATION.

0 150 300 ft

1" = 300 ft

N

GHD

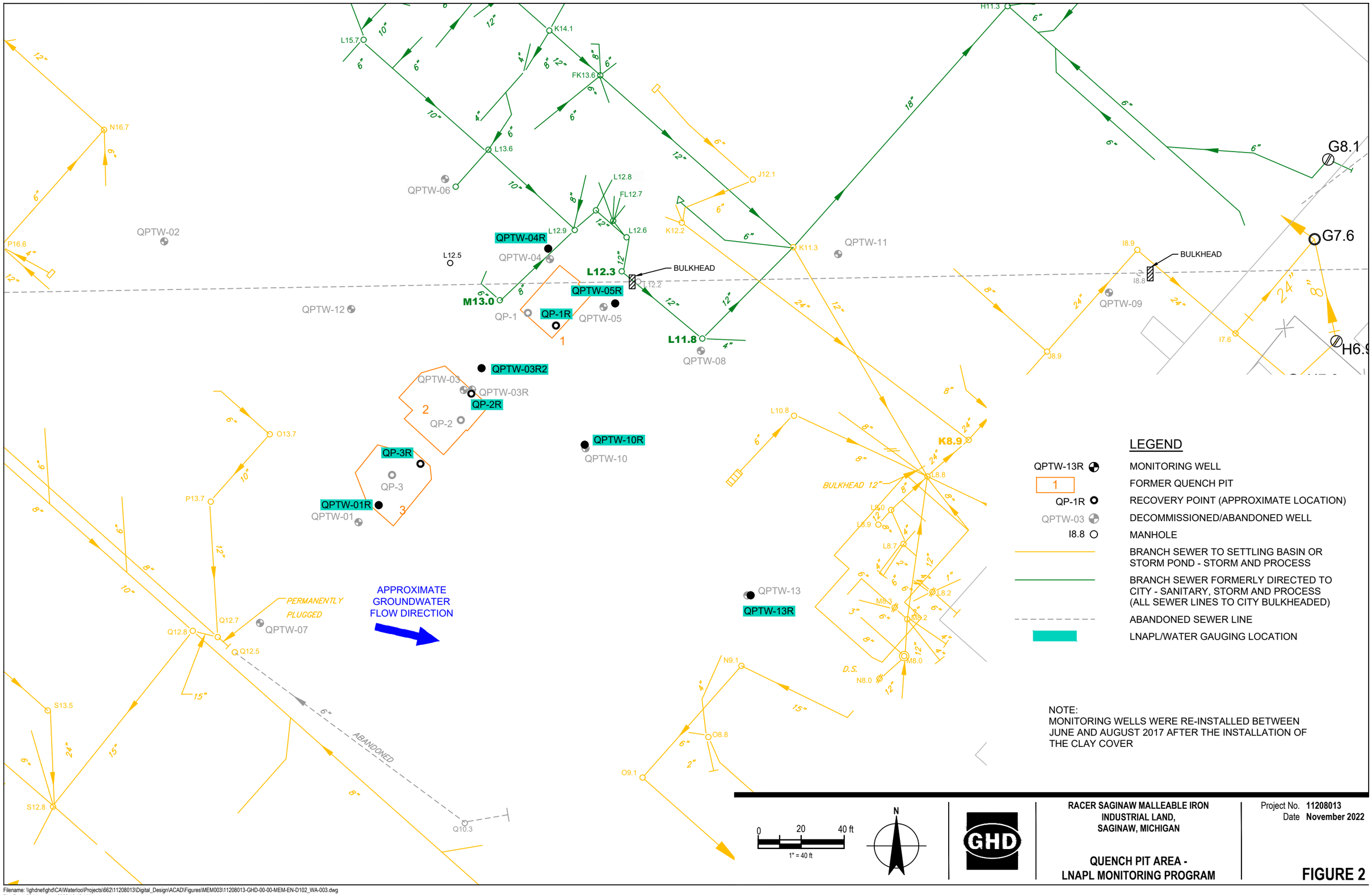
RACER SAGINAW MALLEABLE IRON INDUSTRIAL LAND, SAGINAW, MICHIGAN

SITE PLAN

Project No. **11208013**
Date **November 2022**

FIGURE 1

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Plot Date: 28 November 2022 1:08 PM



LEGEND

- QPTW-13R — MONITORING WELL
- 1 — FORMER QUENCH PIT
- QP-1R — RECOVERY POINT (APPROXIMATE LOCATION)
- QPTW-03 — DECOMMISSIONED/ABANDONED WELL
- I8.8 — MANHOLE
- BRANCH SEWER TO SETTLING BASIN OR STORM POND - STORM AND PROCESS
- BRANCH SEWER FORMERLY DIRECTED TO CITY - SANITARY, STORM AND PROCESS (ALL SEWER LINES TO CITY BULKHEADED)
- ABANDONED SEWER LINE
- LNAPL/WATER GAUGING LOCATION

NOTE:
MONITORING WELLS WERE RE-INSTALLED BETWEEN JUNE AND AUGUST 2017 AFTER THE INSTALLATION OF THE CLAY COVER

0 20 40 ft
1" = 40 ft

N

GHD

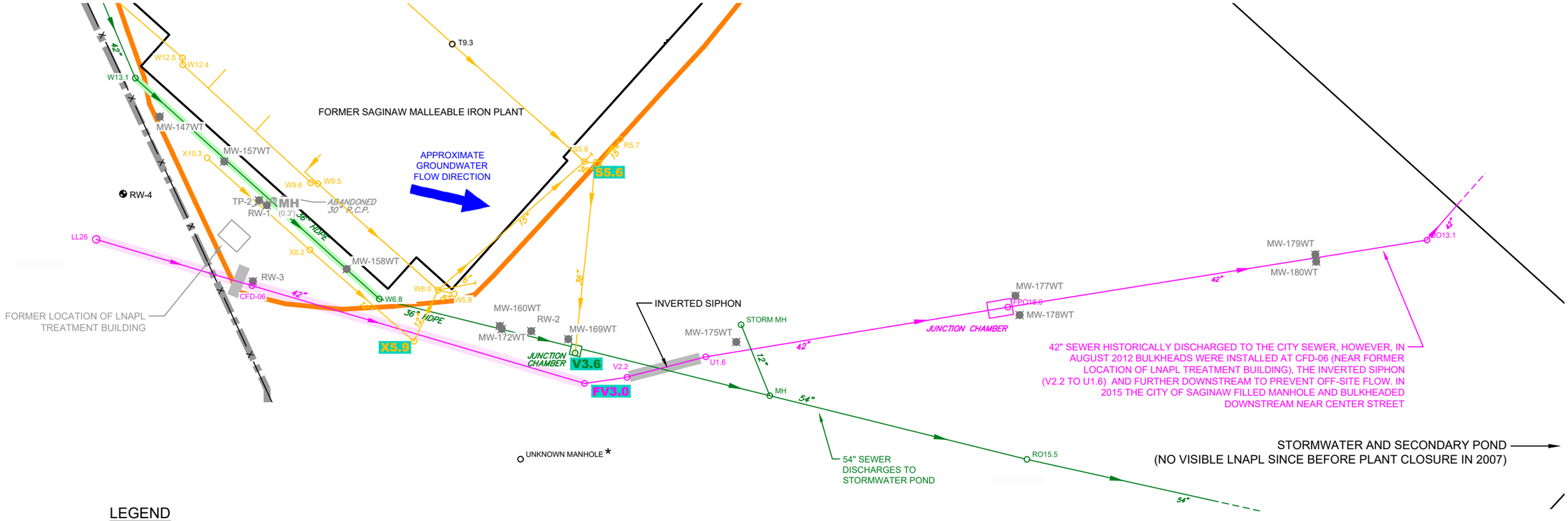
RACER SAGINAW MALLEABLE IRON INDUSTRIAL LAND, SAGINAW, MICHIGAN

QUENCH PIT AREA - LNAPL MONITORING PROGRAM

Project No. **11208013**
Date **November 2022**

FIGURE 2

Filename: \\ghdnet\ghd\CA\Waterloo\Projects\662\11208013\Digital_Design\ACAD\Figures\MEM003\11208013-GHD-00-00-MEM-EN-D102_WA-003.dwg
Plot Date: 28 November 2022 10:43 AM



LEGEND

- RW-1 — RECOVERY WELL (LNAPL) LOCATION
- MW147 — DECOMMISSIONED WELL LOCATION
- CURE-IN-PLACE LINING
- SEWER SLEVE
- RACER PROPERTY BOUNDARY
- BULKHEAD
- LNAPL/WATER GAUGING LOCATION
- EXTENT OF 1-FT COVER AREA

NOTE:

* LOCATION OF MANHOLE IS APPROXIMATED BASED ON ARCADIS FIELD COORDINATES.

0 50 100 ft

1" = 100 ft

N

GHD

RACER SAGINAW MALLEABLE IRON INDUSTRIAL LAND, SAGINAW, MICHIGAN

SOUTHWEST PLANT NAPL AREA - LNAPL MONITORING PROGRAM

Project No. **11208013**
Date **November 2022**

FIGURE 3

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Plot Date: 28 November 2022 1:14 PM

Tables

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-01	03/17/05	592.3	591.95	2.85	12.85	10.48	7.28	3.20	584.29	7.66
	04/12/05	592.3	591.95	2.85	12.85	10.63	7.30	3.33	584.25	7.70
	05/31/05	592.3	591.95	2.85	12.85	10.69	7.36	3.33	584.19	7.76
	06/24/05	592.3	591.95	2.85	12.85	10.45	7.04	3.41	584.50	7.45
	08/12/05	592.3	591.95	2.85	12.85	10.20	6.95	3.25	584.61	7.34
	10/14/05	592.3	591.95	2.85	12.85	10.58	7.29	3.29	584.27	7.68
	11/08/05	592.3	591.95	2.85	12.85	10.82	7.44	3.38	584.10	7.85
	12/19/05	592.3	591.95	2.85	12.85	10.91	7.52	3.39	584.02	7.93
	01/31/06	592.3	591.95	2.85	12.85	10.53	7.29	3.24	584.27	7.68
	02/15/06	592.3	591.95	2.85	12.85	10.46	7.21	3.25	584.35	7.60
	03/13/06	592.3	591.95	2.85	12.85	9.71	6.93	2.78	584.69	7.26
	04/10/06	592.3	591.95	2.85	12.85	10.02	7.04	2.98	584.55	7.40
	05/22/06	592.3	591.95	2.85	12.85	10.23	7.11	3.12	584.47	7.48
	06/21/06	592.3	591.95	2.85	12.85	10.22	7.05	3.17	584.52	7.43
	07/11/06	592.3	591.95	2.85	12.85	9.67	6.82	2.85	584.79	7.16
	08/23/06	592.3	591.95	2.85	12.85	9.99	6.78	3.21	584.78	7.17
	09/26/06	592.3	591.95	2.85	12.85	9.90	6.82	3.08	584.76	7.19
	10/30/06	592.3	591.95	2.85	12.85	9.62	6.83	2.79	584.79	7.16
	11/27/06	592.3	591.95	2.85	12.85	9.79	6.91	2.88	584.69	7.26
	12/27/06	592.3	591.95	2.85	12.85	9.97	6.96	3.01	584.63	7.32
	01/15/07	592.3	591.95	2.85	12.85	9.79	6.94	2.85	584.67	7.28
	02/21/07	592.3	591.95	2.85	12.85	10.35	7.29	3.06	584.29	7.66
	03/23/07	592.3	591.95	2.85	12.85	10.18	7.27	2.91	584.33	7.62
	04/09/07	592.3	591.95	2.85	12.85	10.39	7.25	3.14	584.32	7.63
	05/15/07	592.3	591.95	2.85	12.85	10.09	7.32	2.77	584.30	7.65
	06/11/07	592.3	591.95	2.85	12.85	10.36	7.47	2.89	584.13	7.82
	07/11/07	592.3	591.95	2.85	12.85	10.36	7.43	2.93	584.17	7.78
	08/16/07	592.3	591.95	2.85	12.85	10.41	7.48	2.93	584.12	7.83
	09/17/07	592.3	591.95	2.85	12.85	10.11	7.38	2.73	584.24	7.71
	11/26/07	592.3	591.95	2.85	12.85	10.62	7.64	2.98	583.95	8.00
	12/12/07	592.3	591.95	2.85	12.85	10.79	7.77	3.02	583.82	8.13
	01/11/08	592.3	591.95	2.85	12.85	10.32	7.56	2.76	584.06	7.89
	02/05/08	592.3	591.95	2.85	12.85	9.91	7.42	2.49	584.23	7.72
	04/11/08	592.3	591.95	2.85	12.85	8.41	6.60	1.81	585.13	6.82
	05/16/08	592.3	591.95	2.85	12.85	8.65	6.56	2.09	585.14	6.81
	10/29/08	592.3	591.95	2.85	12.85	8.71	6.39	2.32	585.28	6.67
	01/21/09	592.3	591.95	2.85	12.85	8.22	6.26	1.96	585.45	6.50
	03/18/09	592.3	591.95	2.85	12.85	***8.07***	***6.16***	1.91	585.56	6.39
	10/17/09	592.3	591.95	2.85	12.85	8.46	6.39	2.07	585.31	6.64
	10/23/09	592.3	591.95	2.85	12.85	8.07	6.34	1.73	585.40	6.55
	06/24/10	592.3	591.95	2.85	12.85	8.31	5.06	3.25	586.50	5.45
	07/08/10	592.3	591.95	2.85	12.85	8.88	4.62	4.26	586.82	5.13
	07/22/10	592.3	591.95	2.85	12.85	9.86	4.81	5.05	586.53	5.42
	07/29/10	592.3	591.95	2.85	12.85	8.27	5.11	3.16	586.46	5.49
	08/06/10	592.3	591.95	2.85	12.85	8.13	5.41	2.72	586.21	5.74
	08/13/10	592.3	591.95	2.85	12.85	6.83	4.04	2.79	587.58	4.37
	08/27/10	592.3	591.95	2.85	12.85	7.40	4.42	2.98	587.17	4.78
	09/23/10	592.3	591.95	2.85	12.85	5.54	3.05	2.49	588.60	3.35
	10/15/10	592.3	591.95	2.85	12.85	7.14	4.01	3.13	587.56	4.39
	10/29/10	592.3	591.95	2.85	12.85	6.90	3.99	2.91	587.61	4.34
	12/07/10	592.3	591.95	2.85	12.85	7.61	3.87	3.74	587.63	4.32
	03/18/11	592.3	591.95	2.85	12.85	6.57	3.54	3.03	588.05	3.90
	04/08/11	592.3	591.95	2.85	12.85	6.15	2.77	3.38	588.77	3.18
	05/09/11	592.3	591.95	2.85	12.85	5.98	3.11	2.87	588.50	3.45
	06/09/11	592.3	591.95	2.85	12.85	6.31	3.16	3.15	588.41	3.54
	07/05/11	592.3	591.95	2.85	12.85	5.62	3.31	2.31	588.36	3.59

Table 1

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Saginaw, Michigan

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QPTW-01	08/23/11	592.3	591.95	2.85	12.85	4.21	2.88	1.33	588.91	3.04
(cont'd)	10/14/11	592.3	591.95	2.85	12.85	5.72	3.81	1.91	587.91	4.04
	01/24/12	592.3	591.95	2.85	12.85	6.28	1.66	4.62	589.74	2.21
	03/20/12	592.3	591.95	2.85	12.85	5.41	2.67	2.74	588.95	3.00
	04/23/12	592.3	591.95	2.85	12.85	5.53	2.16	3.37	589.39	2.56
	06/11/12	592.3	591.95	2.85	12.85	6.72	2.87	3.85	588.62	3.33
	07/10/12	592.3	591.95	2.85	12.85	5.41	3.69	1.72	588.05	3.90
	08/29/12	592.3	591.95	2.85	12.85	5.75	3.04	2.71	588.58	3.37
	09/12/12	592.3	591.95	2.85	12.85	4.25	2.90	1.35	588.89	3.06
	11/06/12	592.3	591.95	2.85	12.85	4.06	3.04	1.02	588.79	3.16
	12/05/12	592.3	591.95	2.85	12.85	4.41	3.26	1.15	588.55	3.40
	04/03/13	592.3	591.95	2.85	12.85	4.91	3.37	1.54	588.40	3.55
	07/18/13	592.3	591.95	2.85	12.85	3.48	2.80	0.68	589.07	2.88
	09/23/13	592.3	591.95	2.85	12.85	4.34	3.74	0.60	588.14	3.81
	06/02/14	592.3	591.95	2.85	12.85	3.06	2.36	0.70	589.51	2.44
	07/09/14	592.3	591.95	2.85	12.85	2.92	1.07	1.85	590.66	1.29
	07/31/14	592.3	591.95	2.85	12.85	3.17	1.99	1.18	589.82	2.13
	09/16/14	592.3	591.95	2.85	12.85	3.31	2.27	1.04	589.56	2.39
	03/24/15	592.3	591.95	2.85	12.85	4.51	3.14	1.37	588.65	3.30
	06/17/15	592.3	591.95	2.85	12.85	3.31	1.25	2.06	590.45	1.50
	09/09/15	592.3	591.95	2.85	12.85	3.81	1.11	2.70	590.52	1.43
	12/04/15	592.3	591.95	2.85	12.85	4.70	3.48	1.22	588.32	3.63
	03/15/16	592.3	591.95	2.85	12.85	5.13	1.94	3.19	589.63	2.32
	06/17/16	592.3	591.95	2.85	12.85	2.23	1.17	1.06	590.65	1.30
	09/22/16	592.3	591.95	2.85	12.85	3.82	2.86	0.96	588.97	2.98
	09/27/16	ABANDONED								
QPTW-01R	09/06/17	594.69	594.49	2.00	12.00	4.14	---	---	590.35	4.14
	11/27/17	594.69	594.49	2.00	12.00	4.17	---	---	590.32	4.17
	02/27/18	594.69	594.49	2.00	12.00	3.66	---	---	590.83	3.66
	06/04/18	594.69	594.49	2.00	12.00	3.81	---	---	590.68	3.81
	10/05/18	594.69	594.49	2.00	12.00	4.13	---	---	590.36	4.13
	12/11/18	594.69	594.49	2.00	12.00	frozen	---	---	---	---
	03/12/19	594.69	594.49	2.00	12.00	3.94	---	---	590.55	3.94
	06/18/19	594.69	594.49	2.00	12.00	2.53	2.51	0.02	591.98	2.51
	09/16/19	594.69	594.49	2.00	12.00	4.34	---	---	590.15	4.34
	12/03/19	594.69	594.49	2.00	12.00	2.22	2.19	0.03	592.30	2.19
	03/12/20	594.69	594.49	2.00	12.00	2.87	---	---	591.62	2.87
	06/03/20	594.69	594.49	2.00	12.00	2.54	---	---	591.95	2.54
	09/09/20	594.69	594.49	2.00	12.00	4.62	4.60	0.02	589.89	4.60
	12/03/20	594.69	594.49	2.00	12.00	4.86	---	---	589.63	4.86
	08/16/21	594.69	594.49	2.00	12.00	4.65	4.63	0.02	589.86	4.63
	09/20/22	594.69	594.49	2.00	12.00	4.55	4.51	0.04	589.98	4.51
	09/12/23	594.69	594.49	2.00	12.00	3.51	---	---	590.98	3.51
	09/10/24	594.69	594.49	2.00	12.00	4.76	4.42	0.34	590.03	4.46
QPTW-02	03/17/05	592.6	592.35	2.80	12.80	7.54	7.51	0.03	584.84	7.51
	04/12/05	592.6	592.35	2.80	12.80	7.64	7.58	0.06	584.76	7.59
	05/31/05	592.6	592.35	2.80	12.80	7.54	7.50	0.04	584.85	7.50
	06/24/05	592.6	592.35	2.80	12.80	7.41	7.38	0.03	584.97	7.38
	08/12/05	592.6	592.35	2.80	12.80	7.30	7.26	0.04	585.09	7.26
	10/14/05	592.6	592.35	2.80	12.80	7.50	7.44	0.06	584.90	7.45
	11/08/05	592.6	592.35	2.80	12.80	7.52	7.49	0.03	584.86	7.49
	12/19/05	592.6	592.35	2.80	12.80	7.67	7.63	0.04	584.72	7.63
	01/31/06	592.6	592.35	2.80	12.80	7.53	7.48	0.05	584.86	7.49
	02/15/06	592.6	592.35	2.80	12.80	7.50	7.47	0.03	584.88	7.47
	03/13/06	592.6	592.35	2.80	12.80	7.30	7.26	0.04	585.09	7.26
	04/10/06	592.6	592.35	2.80	12.80	7.39	7.36	0.03	584.99	7.36
	05/22/06	592.6	592.35	2.80	12.80	7.38	7.35	0.03	585.00	7.35
	06/21/06	592.6	592.35	2.80	12.80	7.33	7.29	0.04	585.06	7.29
	07/11/06	592.6	592.35	2.80	12.80	7.29	7.26	0.03	585.09	7.26
	08/23/06	592.6	592.35	2.80	12.80	7.28	7.26	0.02	585.09	7.26
	09/26/06	592.6	592.35	2.80	12.80	7.39	7.37	0.02	584.98	7.37
	10/30/06	592.6	592.35	2.80	12.80	7.38	7.35	0.03	585.00	7.35

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-02	11/27/06	592.6	592.35	2.80	12.80	7.41	7.38	0.03	584.97	7.38
(cont'd)	12/27/06	592.6	592.35	2.80	12.80	7.44	7.42	0.02	584.93	7.42
	01/15/07	592.6	592.35	2.80	12.80	7.46	7.42	0.04	584.93	7.42
	02/21/07	592.6	592.35	2.80	12.80	7.47	7.46	0.01	584.89	7.46
	03/23/07	592.6	592.35	2.80	12.80	7.42	7.40	0.02	584.95	7.40
	04/09/07	592.6	592.35	2.80	12.80	7.45	7.43	0.02	584.92	7.43
	05/15/07	592.6	592.35	2.80	12.80	7.50	7.48	0.02	584.87	7.48
	08/16/07	592.6	592.35	2.80	12.80	7.65	7.62	0.03	584.73	7.62
	09/17/07	592.6	592.35	2.80	12.80	7.51	7.48	0.03	584.87	7.48
	11/26/07	592.6	592.35	2.80	12.80	7.73	7.71	0.02	584.64	7.71
	12/12/07	592.6	592.35	2.80	12.80	7.76	7.74	0.02	584.61	7.74
	01/11/08	592.6	592.35	2.80	12.80	7.15	7.14	0.01	585.21	7.14
	02/05/08	592.6	592.35	2.80	12.80	7.27	7.26	0.01	585.09	7.26
	04/11/08	592.6	592.35	2.80	12.80	6.79	---	---	585.56	6.79
	05/16/08	592.6	592.35	2.80	12.80	7.30	---	---	585.05	7.30
	10/29/08	592.6	592.35	2.80	12.80	6.99	---	---	585.36	6.99
	01/21/09	592.6	592.35	2.80	12.80	6.53	---	---	585.82	6.53
	03/18/09	592.6	592.35	2.80	12.80	6.28	---	---	586.07	6.28
	10/17/09	592.6	592.35	2.80	12.80	6.93	---	---	585.42	6.93
	10/23/09	592.6	592.35	2.80	12.80	7.08	---	---	585.27	7.08
	10/15/10	592.6	592.35	2.80	12.80	5.23	---	---	587.12	5.23
	10/29/10	592.6	592.35	2.80	12.80	5.30	---	---	587.05	5.30
	03/18/11	592.6	592.35	2.80	12.80	3.96	---	---	588.39	3.96
	04/08/11	592.6	592.35	2.80	12.80	3.19	---	---	589.16	3.19
	05/09/11	592.6	592.35	2.80	12.80	3.47	---	---	588.88	3.47
	06/09/11	592.6	592.35	2.80	12.80	3.58	---	---	588.77	3.58
	07/05/11	592.6	592.35	2.80	12.80	3.79	---	---	588.56	3.79
	08/23/11	592.6	592.35	2.80	12.80	3.11	---	---	589.24	3.11
	10/14/11	592.6	592.35	2.80	12.80	4.04	---	---	588.31	4.04
	11/23/11	592.6	592.35	2.80	12.80	3.81	---	---	588.54	3.81
	03/20/12	592.6	592.35	2.80	12.80	2.77	---	---	589.58	2.77
	04/23/12	592.6	592.35	2.80	12.80	3.02	---	---	589.33	3.02
	06/11/12	592.6	592.35	2.80	12.80	3.22	---	---	589.13	3.22
	07/10/12	592.6	592.35	2.80	12.80	3.88	---	---	588.47	3.88
	08/29/12	592.6	592.35	2.80	12.80	3.22	---	---	589.13	3.22
	09/12/12	592.6	592.35	2.80	12.80	3.01	---	---	589.34	3.01
	10/01/12	592.6	592.35	2.80	12.80	3.79	---	---	588.56	3.79
	11/06/12	592.6	592.35	2.80	12.80	2.98	---	---	589.37	2.98
	12/05/12	592.6	592.35	2.80	12.80	3.61	---	---	588.74	3.61
	04/03/13	592.6	592.35	2.80	12.80	3.25	---	---	589.10	3.25
	07/18/13	592.6	592.35	2.80	12.80	2.59	---	---	589.76	2.59
	09/23/13	592.6	592.35	2.80	12.80	3.94	---	---	588.41	3.94
	04/25/14	592.6	592.35	2.80	12.80	1.81	---	---	590.54	1.81
	06/02/14	592.6	592.35	2.80	12.80	2.62	---	---	589.73	2.62
	07/31/14	592.6	592.35	2.80	12.80	2.31	---	---	590.04	2.31
	09/16/14	592.6	592.35	2.80	12.80	2.36	---	---	589.99	2.36
	03/24/15	592.6	592.35	2.80	12.80	3.20	---	---	589.15	3.20
	06/17/15	592.6	592.35	2.80	12.80	under water	---	---	---	under water
	09/09/15	592.6	592.35	2.80	12.80	1.84	---	---	590.51	1.84
	12/04/15	592.6	592.35	2.80	12.80	3.85	---	---	588.50	3.85
	03/15/16	592.6	592.35	2.80	12.80	1.98	---	---	590.37	1.98
	06/17/16	592.6	592.35	2.80	12.80	1.66	---	---	590.69	1.66
	09/22/16	592.6	592.35	2.80	12.80	2.98	---	---	589.37	2.98
	09/27/16	ABANDONED								
QPTW-03R	04/25/14	592.5	592.13	2.75	12.75	2.19	1.82	0.37	590.27	1.86
	06/02/14	592.5	592.13	2.75	12.75	3.13	2.86	0.27	589.24	2.89
	07/09/14	592.5	592.13	2.75	12.75	2.10	1.98	0.12	590.14	1.99
	07/31/14	592.5	592.13	2.75	12.75	2.74	2.66	0.08	589.46	2.67
	09/16/14	592.5	592.13	2.75	12.75	3.27	---	---	588.86	3.27
	03/24/15	592.5	592.13	2.75	12.75	3.56	3.55	0.01	588.58	3.55
	06/17/15	592.5	592.13	2.75	12.75	3.36	2.72	0.64	589.33	2.80
	09/09/15	592.5	592.13	2.75	12.75	2.74	2.46	0.28	589.64	2.49
	12/04/15	592.5	592.13	2.75	12.75	4.14	---	---	587.99	4.14
	03/15/16	592.5	592.13	2.75	12.75	2.46	2.39	0.07	589.73	2.40
	06/17/16	592.5	592.13	2.75	12.75	2.30	1.77	0.53	590.30	1.83
	09/22/16	592.5	592.13	2.75	12.75	3.78	3.05	0.73	588.99	3.14
	09/27/16	ABANDONED								

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-03R2	09/06/17	594.91	594.61	2.00	12.00	5.24	---	---	589.37	5.24
	11/27/17	594.91	594.61	2.00	12.00	5.07	4.85	0.22	589.73	4.88
	02/27/18	594.91	594.61	2.00	12.00	4.31	3.92	0.39	590.64	3.97
	06/04/18	594.91	594.61	2.00	12.00	4.83	4.65	0.18	589.94	4.67
	10/05/18	594.91	594.61	2.00	12.00	5.75	5.21	0.54	589.34	5.27
	12/11/18	594.91	594.61	2.00	12.00	5.13	4.52	0.61	590.02	4.59
	03/12/19	594.91	594.61	2.00	12.00	5.14	4.17	0.97	590.32	4.29
	06/18/19	594.91	594.61	2.00	12.00	3.26	3.03	0.23	591.55	3.06
	09/16/19	594.91	594.61	2.00	12.00	5.92	5.38	0.54	589.17	5.44
	12/03/19	594.91	594.61	2.00	12.00	2.35	---	---	592.26	2.35
	03/12/20	594.91	594.61	2.00	12.00	3.71	---	---	590.90	3.71
	06/03/20	594.91	594.61	2.00	12.00	3.49	---	---	591.12	3.49
	09/09/20	594.91	594.61	2.00	12.00	5.78	5.59	0.19	589.00	5.61
	12/03/20	594.91	594.61	2.00	12.00	6.16	5.86	0.30	588.71	5.90
	08/16/21	594.91	594.61	2.00	12.00	6.06	5.78	0.28	588.80	5.81
(2)	09/20/22	594.91	594.61	2.00	12.00	6.04	5.77	0.27	588.81	5.80
	09/12/23	594.91	594.61	2.00	12.00	4.85	4.73	0.12	589.87	4.74
	09/10/24	594.91	594.61	2.00	12.00	5.78	5.54	0.24	589.04	5.57
QPTW-04	03/17/05	592.3	591.73	2.50	12.50	8.54	7.51	1.03	584.10	7.63
	04/12/05	592.3	591.73	2.50	12.50	8.53	7.54	0.99	584.07	7.66
	05/31/05	592.3	591.73	2.50	12.50	8.58	7.50	1.08	584.10	7.63
	06/24/05	592.3	591.73	2.50	12.50	8.34	7.29	1.05	584.31	7.42
	08/12/05	592.3	591.73	2.50	12.50	8.28	7.26	1.02	584.35	7.38
	10/14/05	592.3	591.73	2.50	12.50	8.61	7.68	0.93	583.94	7.79
	11/08/05	592.3	591.73	2.50	12.50	8.70	7.72	0.98	583.89	7.84
	12/19/05	592.3	591.73	2.50	12.50	8.87	7.83	1.04	583.78	7.95
	01/31/06	592.3	591.73	2.50	12.50	8.58	7.46	1.12	584.14	7.59
	02/15/06	592.3	591.73	2.50	12.50	8.45	7.33	1.12	584.27	7.46
	03/13/06	592.3	591.73	2.50	12.50	8.14	7.16	0.98	584.45	7.28
	04/10/06	592.3	591.73	2.50	12.50	8.29	7.32	0.97	584.29	7.44
	05/22/06	592.3	591.73	2.50	12.50	8.41	7.39	1.02	584.22	7.51
	06/21/06	592.3	591.73	2.50	12.50	8.34	7.41	0.93	584.21	7.52
	07/11/06	592.3	591.73	2.50	12.50	8.16	7.12	1.04	584.49	7.24
	08/23/06	592.3	591.73	2.50	12.50	8.39	7.10	1.29	584.48	7.25
	09/26/06	592.3	591.73	2.50	12.50	8.09	7.11	0.98	584.50	7.23
	10/30/06	592.3	591.73	2.50	12.50	8.05	7.08	0.97	584.53	7.20
	11/27/06	592.3	591.73	2.50	12.50	8.08	7.19	0.89	584.43	7.30
	12/27/06	592.3	591.73	2.50	12.50	8.58	7.48	1.10	584.12	7.61
	01/15/07	592.3	591.73	2.50	12.50	8.07	7.29	0.78	584.35	7.38
	02/21/07	592.3	591.73	2.50	12.50	8.45	7.57	0.88	584.05	7.68
	03/23/07	592.3	591.73	2.50	12.50	8.32	7.56	0.76	584.08	7.65
	04/09/07	592.3	591.73	2.50	12.50	8.47	7.52	0.95	584.10	7.63
	05/15/07	592.3	591.73	2.50	12.50	8.42	7.51	0.91	584.11	7.62
	06/11/07	592.3	591.73	2.50	12.50	8.61	7.64	0.97	583.97	7.76
	07/11/07	592.3	591.73	2.50	12.50	8.67	7.61	1.06	583.99	7.74
	08/16/07	592.3	591.73	2.50	12.50	8.80	7.69	1.11	583.91	7.82
	09/17/07	592.3	591.73	2.50	12.50	8.62	7.54	1.08	584.06	7.67
	11/26/07	592.3	591.73	2.50	12.50	9.05	7.99	1.06	583.61	8.12
	12/12/07	592.3	591.73	2.50	12.50	9.15	8.09	1.06	583.51	8.22
	01/11/08	592.3	591.73	2.50	12.50	8.81	7.82	0.99	583.79	7.94
	02/05/08	592.3	591.73	2.50	12.50	8.69	7.64	1.05	583.96	7.77
	04/11/08	592.3	591.73	2.50	12.50	7.75	6.68	1.07	584.92	6.81
	05/16/08	592.3	591.73	2.50	12.50	7.82	6.81	1.01	584.80	6.93
	10/29/08	592.3	591.73	2.50	12.50	7.70	6.69	1.01	584.92	6.81
	01/21/09	592.3	591.73	2.50	12.50	7.35	6.61	0.74	585.03	6.70
	03/18/09	592.3	591.73	2.50	12.50	6.86	6.12	0.74	585.52	6.21
	10/17/09	592.3	591.73	2.50	12.50	7.76	6.85	0.91	584.77	6.96
	10/23/09	592.3	591.73	2.50	12.50	7.76	6.83	0.93	584.79	6.94
	06/09/10	592.3	591.73	2.50	12.50	6.23	5.65	0.58	586.01	5.72
	08/27/10	592.3	591.73	2.50	12.50	7.06	6.17	0.89	585.45	6.28
	09/17/10	592.3	591.73	2.50	12.50	5.61	5.02	0.59	586.64	5.09
	09/23/10	592.3	591.73	2.50	12.50	5.47	4.87	0.60	586.79	4.94
	10/15/10	592.3	591.73	2.50	12.50	6.03	5.20	0.83	586.43	5.30
	10/29/10	592.3	591.73	2.50	12.50	6.39	5.86	0.53	585.81	5.92
	03/18/11	592.3	591.73	2.50	12.50	5.16	4.20	0.96	587.41	4.32
	04/08/11	592.3	591.73	2.50	12.50	4.27	3.54	0.73	588.10	3.63
	05/09/11	592.3	591.73	2.50	12.50	4.60	3.64	0.96	587.97	3.76

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-04	06/09/11	592.3	591.73	2.50	12.50	4.35	3.63	0.72	588.01	3.72
(con'td)	07/05/11	592.3	591.73	2.50	12.50	4.84	3.87	0.97	587.74	3.99
	08/23/11	592.3	591.73	2.50	12.50	4.16	3.34	0.82	588.29	3.44
	03/20/12	592.3	591.73	2.50	12.50	5.21	2.78	2.43	588.66	3.07
	04/23/12	592.3	591.73	2.50	12.50	5.59	3.06	2.53	588.37	3.36
	06/11/12	592.3	591.73	2.50	12.50	5.85	3.16	2.69	588.25	3.48
	07/10/12	592.3	591.73	2.50	12.50	5.97	3.40	2.57	588.02	3.71
	08/29/12	592.3	591.73	2.50	12.50	5.32	2.99	2.33	588.46	3.27
	09/12/12	592.3	591.73	2.50	12.50	5.03	2.68	2.35	588.77	2.96
	10/01/12	592.3	591.73	2.50	12.50	5.80	3.31	2.49	588.12	3.61
	11/06/12	592.3	591.73	2.50	12.50	4.85	2.88	1.97	588.61	3.12
	12/05/12	592.3	591.73	2.50	12.50	5.49	3.50	1.99	587.99	3.74
	04/03/13	592.3	591.73	2.50	12.50	5.36	3.16	2.20	588.31	3.42
	07/18/13	592.3	591.73	2.50	12.50	4.74	2.48	2.26	588.98	2.75
	09/23/13	592.3	591.73	2.50	12.50	4.73	3.61	1.12	587.99	3.74
	04/25/14	592.3	591.73	2.50	12.50	3.16	1.73	1.43	589.83	1.90
	06/02/14	592.3	591.73	2.50	12.50	3.98	2.39	1.59	589.15	2.58
	07/09/14	593.3	592.73	2.50	12.50	2.74	1.61	1.13	590.98	1.75
	07/31/14	592.3	591.73	2.50	12.50	3.53	2.33	1.20	589.26	2.47
	09/16/14	591.3	590.73	2.50	12.50	4.00	2.10	1.90	588.40	2.33
	03/24/15	590.3	589.73	2.50	12.50	4.66	3.02	1.64	586.51	3.22
	06/17/15	589.3	588.73	2.50	12.50	3.51	2.05	1.46	586.50	2.23
	09/09/15	588.3	587.73	2.50	12.50	4.09	2.64	1.45	584.92	2.81
	12/04/15	587.3	586.73	2.50	12.50	5.56	3.51	2.05	582.97	3.76
	03/15/16	586.3	585.73	2.50	12.50	3.68	1.76	1.92	583.74	1.99
	06/17/16	585.3	584.73	2.50	12.50	2.27	2.16	0.11	582.56	2.17
	09/22/16	584.3	583.73	2.50	12.50	4.61	2.80	1.81	580.71	3.02
	09/27/16	ABANDONED								
QPTW-04R	09/06/17	594.96	594.46	2.00	12.00	5.61	4.75	0.86	589.61	4.85
	11/27/17	594.96	594.46	2.00	12.00	5.10	4.51	0.59	589.88	4.58
	02/27/18	594.96	594.46	2.00	12.00	3.62	3.58	0.04	590.88	3.58
	06/04/18	594.96	594.46	2.00	12.00	4.51	4.32	0.19	590.12	4.34
	10/05/18	594.96	594.46	2.00	12.00	5.01	4.85	0.16	589.59	4.87
	12/11/18	594.96	594.46	2.00	12.00	4.58	4.27	0.31	590.15	4.31
	03/12/19	594.96	594.46	2.00	12.00	4.20	3.86	0.34	590.56	3.90
	06/18/19	594.96	594.46	2.00	12.00	2.86	2.68	0.18	591.76	2.70
	09/16/19	594.96	594.46	2.00	12.00	6.40	5.00	1.40	589.29	5.17
	12/03/19	594.96	594.46	2.00	12.00	2.03	1.35	0.68	593.03	1.43
	03/12/20	594.96	594.46	2.00	12.00	3.37	3.30	0.07	591.15	3.31
	06/03/20	594.96	594.46	2.00	12.00	3.24	3.18	0.06	591.27	3.19
	09/09/20	594.96	594.46	2.00	12.00	6.31	5.16	1.15	589.16	5.30
	12/03/20	594.96	594.46	2.00	12.00	6.15	5.28	0.87	589.08	5.38
	08/16/21	594.96	594.46	2.00	12.00	5.56	5.51	0.05	588.94	5.52
	09/20/22	594.96	594.46	2.00	12.00	5.51	5.48	0.03	588.98	5.48
	09/12/22	594.96	594.46	2.00	12.00	4.65	4.51	0.14	589.93	4.53
	09/10/24	594.96	594.46	2.00	12.00	5.42	5.25	0.17	589.19	5.27
QPTW-05	03/17/05	592.4	592.13	2.70	12.70	8.94	7.67	1.27	584.31	7.82
	04/12/05	592.4	592.13	2.70	12.70	8.98	7.69	1.29	584.29	7.84
	05/31/05	592.4	592.13	2.70	12.70	9.10	7.73	1.37	584.24	7.89
	06/24/05	592.4	592.13	2.70	12.70	8.65	7.50	1.15	584.49	7.64
	08/12/05	592.4	592.13	2.70	12.70	8.76	7.68	1.08	584.32	7.81
	10/14/05	592.4	592.13	2.70	12.70	9.38	7.91	1.47	584.04	8.09
	11/08/05	592.4	592.13	2.70	12.70	9.55	7.99	1.56	583.95	8.18
	12/19/05	592.4	592.13	2.70	12.70	9.74	8.05	1.69	583.88	8.25
	01/31/06	592.4	592.13	2.70	12.70	8.84	7.68	1.16	584.31	7.82
	02/15/06	592.4	592.13	2.70	12.70	8.63	7.54	1.09	584.46	7.67
	03/13/06	592.4	592.13	2.70	12.70	8.20	7.33	0.87	584.70	7.43
	04/10/06	592.4	592.13	2.70	12.70	8.44	7.47	0.97	584.54	7.59
	05/22/06	592.4	592.13	2.70	12.70	8.65	7.58	1.07	584.42	7.71
	06/21/06	592.4	592.13	2.70	12.70	8.70	6.71	1.99	585.18	6.95
	07/11/06	592.4	592.13	2.70	12.70	8.35	7.38	0.97	584.63	7.50
	08/23/06	592.4	592.13	2.70	12.70	8.52	7.46	1.06	584.54	7.59
	09/26/06	592.4	592.13	2.70	12.70	8.46	7.45	1.01	584.56	7.57

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-05	10/30/06	592.4	592.13	2.70	12.70	8.32	7.33	0.99	584.68	7.45
(cont'd)	11/27/06	592.4	592.13	2.70	12.70	8.50	7.44	1.06	584.56	7.57
	12/27/06	592.4	592.13	2.70	12.70	8.18	7.23	0.95	584.79	7.34
	01/15/07	592.4	592.13	2.70	12.70	8.55	7.49	1.06	584.51	7.62
	02/21/07	592.4	592.13	2.70	12.70	9.27	7.84	1.43	584.12	8.01
	03/23/07	592.4	592.13	2.70	12.70	9.19	7.81	1.38	584.15	7.98
	04/09/07	592.4	592.13	2.70	12.70	9.27	7.77	1.50	584.18	7.95
	05/15/07	592.4	592.13	2.70	12.70	9.11	7.74	1.37	584.23	7.90
	06/11/07	592.4	592.13	2.70	12.70	9.41	7.92	1.49	584.03	8.10
	07/11/07	592.4	592.13	2.70	12.70	9.52	7.96	1.56	583.98	8.15
	08/16/07	592.4	592.13	2.70	12.70	9.71	8.04	1.67	583.89	8.24
	09/17/07	592.4	592.13	2.70	12.70	9.25	7.82	1.43	584.14	7.99
	11/26/07	592.4	592.13	2.70	12.70	10.10	8.21	1.89	583.69	8.44
	12/12/07	592.4	592.13	2.70	12.70	10.31	8.30	2.01	583.59	8.54
	01/11/08	592.4	592.13	2.70	12.70	9.62	8.07	1.55	583.87	8.26
	02/05/08	592.4	592.13	2.70	12.70	9.05	7.90	1.15	584.09	8.04
	04/11/08	592.4	592.13	2.70	12.70	7.50	7.00	0.50	585.07	7.06
	05/16/08	592.4	592.13	2.70	12.70	7.67	7.12	0.55	584.94	7.19
	10/29/08	592.4	592.13	2.70	12.70	7.71	7.23	0.48	584.84	7.29
	01/21/09	592.4	592.13	2.70	12.70	7.43	6.87	0.56	585.19	6.94
	03/18/09	592.4	592.13	2.70	12.70	7.11	6.57	0.54	585.50	6.63
	10/17/09	592.4	592.13	2.70	12.70	7.98	7.18	0.80	584.85	7.28
	10/23/09	592.4	592.13	2.70	12.70	7.68	7.09	0.59	584.97	7.16
	06/09/10	592.4	592.13	2.70	12.70	7.07	6.23	0.84	585.80	6.33
	06/24/10	592.4	592.13	2.70	12.70	7.40	6.59	0.81	585.44	6.69
	07/29/10	592.4	592.13	2.70	12.70	7.34	6.14	1.20	585.85	6.28
	08/06/10	592.4	592.13	2.70	12.70	7.31	6.28	1.03	585.73	6.40
	08/13/10	592.4	592.13	2.70	12.70	6.08	5.57	0.51	586.50	5.63
	08/27/10	592.4	592.13	2.70	12.70	6.51	5.70	0.81	586.33	5.80
	09/17/10	592.4	592.13	2.70	12.70	6.36	5.83	0.53	586.24	5.89
	09/23/10	592.4	592.13	2.70	12.70	6.12	5.59	0.53	586.48	5.65
	10/15/10	592.4	592.13	2.70	12.70	6.31	6.01	0.30	586.08	6.05
	10/29/10	592.4	592.13	2.70	12.70	5.48	5.14	0.34	586.95	5.18
	12/07/10	592.4	592.13	2.70	12.70	6.46	5.72	0.74	586.32	5.81
	01/03/11	592.4	592.13	2.70	12.70	5.99	5.71	0.28	586.39	5.74
	03/18/11	592.4	592.13	2.70	12.70	5.43	5.11	0.32	586.98	5.15
	04/08/11	592.4	592.13	2.70	12.70	4.63	4.32	0.31	587.77	4.36
	05/09/11	592.4	592.13	2.70	12.70	4.55	4.31	0.24	587.79	4.34
	06/09/11	592.4	592.13	2.70	12.70	4.83	4.56	0.27	587.54	4.59
	07/05/11	592.4	592.13	2.70	12.70	5.11	4.64	0.47	587.43	4.70
	08/23/11	592.4	592.13	2.70	12.70	4.26	4.03	0.23	588.07	4.06
	10/14/11	592.4	592.13	2.70	12.70	5.28	4.94	0.34	587.15	4.98
	11/23/11	592.4	592.13	2.70	12.70	4.75	4.42	0.33	587.67	4.46
	01/24/12	592.4	592.13	2.70	12.70	3.73	3.58	0.15	588.53	3.60
	03/20/12	592.4	592.13	2.70	12.70	4.05	3.72	0.33	588.37	3.76
	04/23/12	592.4	592.13	2.70	12.70	4.10	3.74	0.36	588.35	3.78
	06/11/12	592.4	592.13	2.70	12.70	4.44	4.00	0.44	588.08	4.05
	07/10/12	592.4	592.13	2.70	12.70	5.17	4.52	0.65	587.53	4.60
	08/29/12	592.4	592.13	2.70	12.70	4.44	3.80	0.64	588.25	3.88
	09/12/12	592.4	592.13	2.70	12.70	4.39	3.63	0.76	588.41	3.72
	11/06/12	592.4	592.13	2.70	12.70	4.49	3.69	0.80	588.34	3.79
	12/05/12	592.4	592.13	2.70	12.70	5.28	4.31	0.97	587.70	4.43
	04/03/13	592.4	592.13	2.70	12.70	5.07	4.01	1.06	587.99	4.14
	07/18/13	592.4	592.13	2.70	12.70	4.80	3.10	1.70	588.83	3.30
	09/23/13	592.4	592.13	2.70	12.70	6.20	4.26	1.94	587.64	4.49
	04/25/14	592.4	592.13	2.70	12.70	4.87	2.36	2.51	589.47	2.66
	06/02/14	592.4	592.13	2.70	12.70	4.45	3.16	1.29	588.82	3.31
	07/09/14	592.4	592.13	2.70	12.70	3.66	2.19	1.47	589.76	2.37

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-05	07/31/14	592.4	592.13	2.70	12.70	4.25	2.93	1.32	589.04	3.09
(cont'd)	09/16/14	592.4	592.13	2.70	12.70	4.77	2.99	1.78	588.93	3.20
	03/24/15	592.4	592.13	2.70	12.70	5.11	3.70	1.41	588.26	3.87
	06/17/15	592.4	592.13	2.70	12.70	4.77	2.59	2.18	589.28	2.85
	09/09/15	592.4	592.13	2.70	12.70	5.30	2.49	2.81	589.30	2.83
	12/04/15	592.4	592.13	2.70	12.70	6.38	4.10	2.28	587.76	4.37
	03/15/16	592.4	592.13	2.70	12.70	4.86	2.49	2.37	589.36	2.77
	06/17/16	592.4	592.13	2.70	12.70	4.14	1.99	2.15	589.88	2.25
	09/22/16	592.4	592.13	2.70	12.70	5.67	3.15	2.52	588.68	3.45
	09/27/16	ABANDONED								
QPTW-05R	09/06/17	595	594.28	2.00	12.00	5.64	4.98	0.66	589.22	5.06
	11/27/17	595	594.28	2.00	12.00	5.41	4.75	0.66	589.45	4.83
	02/27/18	595	594.28	2.00	12.00	4.21	4.07	0.14	590.19	4.09
	06/04/18	595	594.28	2.00	12.00	5.36	4.52	0.84	589.66	4.62
	10/05/18	595	594.28	2.00	12.00	5.38	5.05	0.33	589.19	5.09
	12/11/18	595	594.28	2.00	12.00	4.97	4.66	0.31	589.58	4.70
	03/12/19	595	594.28	2.00	12.00	4.67	4.08	0.59	590.13	4.15
	06/18/19	595	594.28	2.00	12.00	3.90	2.97	0.93	591.20	3.08
	09/16/19	595	594.28	2.00	12.00	5.58	5.12	0.46	589.10	5.18
	12/03/19	595	594.28	2.00	12.00	4.35	2.73	1.62	591.36	2.92
	03/12/20	595	594.28	2.00	12.00	5.28	3.57	1.71	590.50	3.78
	06/03/20	595	594.28	2.00	12.00	4.47	3.38	1.09	590.77	3.51
	09/09/20	595	594.28	2.00	12.00	6.91	5.25	1.66	588.83	5.45
	12/03/20	595	594.28	2.00	12.00	5.84	5.32	0.52	588.90	5.38
	08/16/21	595	594.28	2.00	12.00	6.29	5.43	0.86	588.75	5.53
	09/20/22	595	594.28	2.00	12.00	6.50	5.30	1.20	588.84	5.44
	09/12/23	595	594.28	2.00	12.00	5.39	4.69	0.70	589.51	4.77
	09/10/24	595	594.28	2.00	12.00	6.03	5.28	0.75	588.91	5.37
QPTW-10	03/17/05	592.4	592.15	2.60	12.60	9.83	7.58	2.25	584.30	7.85
	04/12/05	592.4	592.15	2.60	12.60	9.96	7.63	2.33	584.24	7.91
	05/31/05	592.4	592.15	2.60	12.60	10.29	7.83	2.46	584.02	8.13
	06/24/05	592.4	592.15	2.60	12.60	9.72	7.43	2.29	584.45	7.70
	08/12/05	592.4	592.15	2.60	12.60	9.79	7.58	2.21	584.30	7.85
	10/14/05	592.4	592.15	2.60	12.60	10.56	7.80	2.76	584.02	8.13
	11/08/05	592.4	592.15	2.60	12.60	10.82	7.88	2.94	583.92	8.23
	12/19/05	592.4	592.15	2.60	12.60	11.01	7.95	3.06	583.83	8.32
	01/31/06	592.4	592.15	2.60	12.60	9.79	7.54	2.25	584.34	7.81
	02/15/06	592.4	592.15	2.60	12.60	9.73	7.44	2.29	584.44	7.71
	03/13/06	592.4	592.15	2.60	12.60	9.22	7.23	1.99	584.68	7.47
	04/10/06	592.4	592.15	2.60	12.60	9.59	7.34	2.25	584.54	7.61
	05/22/06	592.4	592.15	2.60	12.60	9.95	7.43	2.52	584.42	7.73
	06/21/06	592.4	592.15	2.60	12.60	10.00	7.49	2.51	584.36	7.79
	07/11/06	592.4	592.15	2.60	12.60	9.69	7.30	2.39	584.56	7.59
	08/23/06	592.4	592.15	2.60	12.60	9.58	7.30	2.28	584.58	7.57
	09/26/06	592.4	592.15	2.60	12.60	9.85	7.33	2.52	584.52	7.63
	10/30/06	592.4	592.15	2.60	12.60	9.68	7.19	2.49	584.66	7.49
	11/27/06	592.4	592.15	2.60	12.60	9.91	7.33	2.58	584.51	7.64
	12/27/06	592.4	592.15	2.60	12.60	9.99	7.34	2.65	584.49	7.66
	01/15/07	592.4	592.15	2.60	12.60	9.90	7.37	2.53	584.48	7.67
	02/21/07	592.4	592.15	2.60	12.60	10.81	7.78	3.03	584.01	8.14
	03/23/07	592.4	592.15	2.60	12.60	10.71	7.72	2.99	584.07	8.08
	04/09/07	592.4	592.15	2.60	12.60	10.63	7.64	2.99	584.15	8.00
	05/15/07	592.4	592.15	2.60	12.60	10.38	7.46	2.92	584.34	7.81
	06/11/07	592.4	592.15	2.60	12.60	10.81	7.81	3.00	583.98	8.17
	07/11/07	592.4	592.15	2.60	12.60	11.05	7.86	3.19	583.91	8.24
	08/16/07	592.4	592.15	2.60	12.60	11.27	7.95	3.32	583.80	8.35
	09/17/07	592.4	592.15	2.60	12.60	10.54	7.73	2.81	584.08	8.07
	11/26/07	592.4	592.15	2.60	12.60	11.57	8.11	3.46	583.62	8.53

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-10	12/12/07	592.4	592.15	2.60	12.60	11.80	8.18	3.62	583.54	8.61
(cont'd)	01/11/08	592.4	592.15	2.60	12.60	10.96	7.95	3.01	583.84	8.31
	02/05/08	592.4	592.15	2.60	12.60	10.21	7.78	2.43	584.08	8.07
	04/11/08	592.4	592.15	2.60	12.60	8.71	6.83	1.88	585.09	7.06
	05/16/08	592.4	592.15	2.60	12.60	8.91	6.95	1.96	584.96	7.19
	10/29/08	592.4	592.15	2.60	12.60	9.12	6.94	2.18	584.95	7.20
	01/21/09	592.4	592.15	2.60	12.60	7.96	6.68	1.28	585.32	6.83
	03/18/09	592.4	592.15	2.60	12.60	8.69	6.36	2.33	585.51	6.64
	10/17/09	592.4	592.15	2.60	12.60	9.10	7.04	2.06	584.86	7.29
	10/23/09	592.4	592.15	2.60	12.60	8.67	6.97	1.70	584.98	7.17
	06/09/10	592.4	592.15	2.60	12.60	8.42	6.23	2.19	585.66	6.49
	06/24/10	592.4	592.15	2.60	12.60	8.91	6.48	2.43	585.38	6.77
	07/29/10	592.4	592.15	2.60	12.60	9.37	6.51	2.86	585.30	6.85
	08/06/10	592.4	592.15	2.60	12.60	9.22	6.71	2.51	585.14	7.01
	08/13/10	592.4	592.15	2.60	12.60	8.06	5.73	2.33	586.14	6.01
	08/27/10	592.4	592.15	2.60	12.60	8.83	6.03	2.80	585.78	6.37
	09/17/10	592.4	592.15	2.60	12.60	8.68	5.72	2.96	586.07	6.08
	09/23/10	592.4	592.15	2.60	12.60	8.54	5.64	2.90	586.16	5.99
	10/15/10	592.4	592.15	2.60	12.60	8.92	5.82	3.10	585.96	6.19
	10/29/10	592.4	592.15	2.60	12.60	8.87	5.68	3.19	586.09	6.06
	03/18/11	592.4	592.15	2.60	12.60	8.03	4.92	3.11	586.86	5.29
	04/08/11	592.4	592.15	2.60	12.60	7.75	4.06	3.69	587.65	4.50
	05/09/11	592.4	592.15	2.60	12.60	8.24	3.95	4.29	587.69	4.46
	06/09/11	592.4	592.15	2.60	12.60	8.28	4.24	4.04	587.43	4.72
	07/05/11	592.4	592.15	2.60	12.60	8.75	4.38	4.37	587.25	4.90
	08/23/11	592.4	592.15	2.60	12.60	8.50	3.67	4.83	587.90	4.25
	10/14/11	592.4	592.15	2.60	12.60	8.64	4.58	4.06	587.08	5.07
	11/23/11	592.4	592.15	2.60	12.60	8.38	3.98	4.40	587.64	4.51
	04/23/12	592.4	592.15	2.60	12.60	4.13	3.78	0.35	588.33	3.82
	07/10/12	592.4	592.15	2.60	12.60	5.65	4.51	1.14	587.50	4.65
	11/12/14	592.4	592.15	2.60	12.60	4.83	3.91	0.92	588.13	4.02
	09/09/15	592.4	592.15	2.60	12.60	2.99	2.85	0.14	589.28	2.87
	03/15/16	592.4	592.15	2.60	12.60	3.37	2.77	0.60	589.31	2.84
	06/17/16	592.4	592.15	2.60	12.60	2.84	2.41	0.43	589.69	2.46
	09/22/16	592.4	592.15	2.60	12.60	5.60	3.27	2.33	588.60	3.55
	09/27/16	ABANDONED								
QPTW-10R	09/06/17	594.82	594.20	2.00	12.00	4.99	---	---	589.21	4.99
	11/27/17	594.82	594.20	2.00	12.00	4.77	---	---	589.43	4.77
	02/27/18	594.82	594.20	2.00	12.00	4.00	---	---	590.20	4.00
	06/04/18	594.82	594.20	2.00	12.00	4.56	---	---	589.64	4.56
	10/05/18	594.82	594.20	2.00	12.00	5.05	---	---	589.15	5.05
	12/11/18	594.82	594.20	2.00	12.00	4.61	---	---	589.59	4.61
	03/12/19	594.82	594.20	2.00	12.00	4.14	---	---	590.06	4.14
	06/18/19	594.82	594.20	2.00	12.00	3.05	---	---	591.15	3.05
	09/16/19	594.82	594.20	2.00	12.00	5.14	---	---	589.06	5.14
	12/03/19	594.82	594.20	2.00	12.00	2.66	---	---	591.54	2.66
	03/12/20	594.82	594.20	2.00	12.00	3.62	---	---	590.58	3.62
	06/03/20	594.82	594.20	2.00	12.00	3.45	---	---	590.75	3.45
	09/09/20	594.82	594.20	2.00	12.00	5.29	---	---	588.91	5.29
	12/03/20	594.82	594.20	2.00	12.00	5.35	---	---	588.85	5.35
	08/16/21	594.82	594.20	2.00	12.00	5.49	---	---	588.71	5.49
	09/20/22	594.82	594.20	2.00	12.00	5.42	---	---	588.78	5.42
	09/12/23	594.82	594.20	2.00	12.00	4.67	---	---	589.53	4.67
	09/10/24	594.82	594.20	2.00	12.00	5.32	5.30	0.02	588.90	5.30
QPTW-13	10/15/10	592.7	592.36	2.76	12.76	7.17	6.65	0.52	585.65	6.71
	10/29/10	592.7	592.36	2.76	12.76	6.77	6.49	0.28	585.84	6.52
	03/18/11	592.7	592.36	2.76	12.76	4.56	4.47	0.09	587.88	4.48
	05/09/11	592.7	592.36	2.76	12.76	4.59	4.56	0.03	587.80	4.56
	06/09/11	592.7	592.36	2.76	12.76	4.88	4.85	0.03	587.51	4.85
	07/05/11	592.7	592.36	2.76	12.76	5.08	5.02	0.06	587.33	5.03
	08/23/11	592.7	592.36	2.76	12.76	4.43	4.38	0.05	587.97	4.39
	10/14/11	592.7	592.36	2.76	12.76	5.12	5.03	0.09	587.32	5.04
	03/20/12	592.7	592.36	2.76	12.76	4.12	---	---	588.24	4.12
	04/23/12	592.7	592.36	2.76	12.76	4.16	4.15	0.01	588.21	4.15
	06/11/12	592.7	592.36	2.76	12.76	4.38	---	---	587.98	4.38
	07/10/12	592.7	592.36	2.76	12.76	5.06	4.84	0.22	587.49	4.87
	08/29/12	592.7	592.36	2.76	12.76	4.30	4.24	0.06	588.11	4.25
	09/12/12	592.7	592.36	2.76	12.76	4.13	4.09	0.04	588.27	4.09

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QPTW-13	04/15/13	592.7	592.36	2.76	12.76	2.85	---	---	589.51	2.85
(cont'd)	07/18/13	592.7	592.36	2.76	12.76	3.54	---	---	588.82	3.54
	09/23/13	592.7	592.36	2.76	12.76	4.74	4.71	0.03	587.65	4.71
	04/25/14	592.7	592.36	2.76	12.76	2.98	---	---	589.38	2.98
	06/02/14	592.7	592.36	2.76	12.76	3.65	---	---	588.71	3.65
	07/09/14	592.7	592.36	2.76	12.76	2.73	---	---	589.63	2.73
	07/31/14	592.7	592.36	2.76	12.76	3.41	---	---	588.95	3.41
	09/16/14	592.7	592.36	2.76	12.76	3.48	---	---	588.88	3.48
	03/24/15	592.7	592.36	2.76	12.76	4.12	---	---	588.24	4.12
	06/17/15	592.7	592.36	2.76	12.76	3.17	---	---	589.19	3.17
	09/09/15	592.7	592.36	2.76	12.76	3.17	---	---	589.19	3.17
	03/15/16	592.7	592.36	2.76	12.76	3.11	---	---	589.25	3.11
	06/17/16	592.7	592.36	2.76	12.76	2.53	---	---	589.83	2.53
	09/22/16	592.7	592.36	2.76	12.76	3.72	---	---	588.64	3.72
	09/27/16	ABANDONED								
QPTW-13R	09/06/17	594.8	594.04	4	14.00	4.83	---	---	589.21	4.83
	11/27/17	594.8	594.04	4	14.00	4.61	---	---	589.43	4.61
	02/27/18	594.8	594.04	4	14.00	3.93	---	---	590.11	3.93
	06/04/18	594.8	594.04	4	14.00	4.40	---	---	589.64	4.40
	10/05/18	594.8	594.04	4	14.00	4.88	---	---	589.16	4.88
	12/11/18	594.8	594.04	4	14.00	4.54	---	---	589.50	4.54
	03/12/19	594.8	594.04	4	14.00	4.02	---	---	590.02	4.02
	06/18/19	594.8	594.04	4	14.00	3.00	---	---	591.04	3.00
	09/16/19	594.8	594.04	4	14.00	4.98	---	---	589.06	4.98
	12/03/19	594.8	594.04	4	14.00	1.68	---	---	592.36	1.68
	03/12/20	594.8	594.04	4	14.00	3.47	---	---	590.57	3.47
	06/03/20	594.8	594.04	4	14.00	3.36	---	---	590.68	3.36
	09/09/20	594.8	594.04	4	14.00	3.11	---	---	590.93	3.11
	12/03/20	594.8	594.04	4	14.00	5.20	---	---	588.84	5.20
	08/16/21	594.8	594.04	4	14.00	5.32	---	---	588.72	5.32
	09/20/22	594.8	594.04	4	14.00	5.26	---	---	588.78	5.26
	09/11/23	594.8	594.04	4	14.00	4.58	---	---	589.46	4.58
	09/09/24	594.8	594.04	4	14.00	4.99	---	---	589.05	4.99
QP-1	06/24/10	---	---	5	15	9.65	9.51	0.14	---	9.53
	07/22/10	---	---	5	15	12.22	12.14	0.08	---	12.15
	08/06/10	---	---	5	15	4.40	4.21	0.19	---	4.23
	08/13/10	---	---	5	15	1.63	1.56	0.07	---	1.57
	08/27/10	---	---	5	15	9.79	---	---	---	9.79
	09/17/10	---	---	5	15	8.64	---	---	---	8.64
	09/23/10	---	---	5	15	8.45	---	---	---	8.45
	10/15/10	---	---	5	15	8.91	---	---	---	8.91
	10/29/10	---	---	5	15	8.85	---	---	---	8.85
	12/07/10	---	---	5	15	9.22	---	---	---	9.22
	01/03/11	---	---	5	15	8.73	---	---	---	8.73
	03/18/11	---	---	5	15	8.83	---	---	---	8.83
	04/08/11	---	---	5	15	8.26	---	---	---	8.26
	05/09/11	---	---	5	15	8.19	---	---	---	8.19
	06/09/11	---	---	5	15	7.72	---	---	---	7.72
	07/05/11	---	---	5	15	8.54	---	---	---	8.54
	08/23/11	---	---	5	15	7.47	---	---	---	7.47
	10/14/11	---	---	5	15	8.82	---	---	---	8.82
	11/23/11	---	---	5	15	8.21	---	---	---	8.21
	01/24/12	---	---	5	15	6.58	---	---	---	6.58
	03/20/12	---	---	5	15	7.63	---	---	---	7.63
	04/23/12	---	---	5	15	7.15	---	---	---	7.15
	06/11/12	---	---	5	15	7.91	---	---	---	7.91
	07/10/12	---	---	5	15	8.54	---	---	---	8.54
	08/29/12	---	---	5	15	7.91	---	---	---	7.91
	09/12/12	---	---	5	15	7.66	---	---	---	7.66
	10/01/12	---	---	5	15	8.47	---	---	---	8.47
	11/06/12	---	---	5	15	7.66	---	---	---	7.66
	12/05/12	---	---	5	15	7.68	---	---	---	7.68
	04/03/13	---	---	5	15	7.93	---	---	---	7.93
	07/18/13	---	---	5	15	7.37	---	---	---	7.37
	09/23/13	---	---	5	15	8.55	---	---	---	8.55
	04/25/14	---	---	5	15	6.49	---	---	---	6.49
	06/02/14	---	---	5	15	7.17	---	---	---	7.17

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QP-1	07/09/14	---	---	5	15	6.16	---	---	---	6.16
(cont'd)	07/31/14	---	---	5	15	6.48	---	---	---	6.48
	09/16/14	---	---	5	15	6.94	---	---	---	6.94
	03/24/15	---	---	5	15	7.55	---	---	---	7.55
	06/17/15	---	---	5	15	6.51	---	---	---	6.51
	09/09/15	---	---	5	15	6.12	---	---	---	6.12
	12/04/15	---	---	5	15	8.25	---	---	---	8.25
	03/15/16	---	---	5	15	6.88	---	---	---	6.88
	06/17/16	---	---	5	15	6.12	---	---	---	6.12
	09/22/16	---	---	5	15	7.45	---	---	---	7.45
	09/27/16	ABANDONED								
QP-1R	09/06/17	594.87	594.59	1.5	12	5.20	---	---	589.39	5.20
	11/27/17	594.87	594.59	1.5	12	5.11	---	---	589.48	5.11
	02/27/18	594.87	594.59	1.5	12	4.65	---	---	589.94	4.65
	06/04/18	594.87	594.59	1.5	12	4.68	---	---	589.91	4.68
	10/05/18	594.87	594.59	1.5	12	5.29	---	---	589.30	5.29
	12/11/18	594.87	594.59	1.5	12	4.63	---	---	589.96	4.63
	03/12/19	594.87	594.59	1.5	12	4.57	---	---	590.02	4.57
	06/18/19	594.87	594.59	1.5	12	2.96	---	---	591.63	2.96
	09/16/19	594.87	594.59	1.5	12	5.19	---	---	589.40	5.19
	12/03/19	594.87	594.59	1.5	12	2.61	---	---	591.98	2.61
	03/12/20	594.87	594.59	1.5	12	3.66	---	---	590.93	3.66
	06/03/20	594.87	594.59	1.5	12	3.48	---	---	591.11	3.48
	09/09/20	594.87	594.59	1.5	12	5.39	---	---	589.20	5.39
	12/03/20	594.87	594.59	1.5	12	5.64	---	---	588.95	5.64
	08/16/21	594.87	594.59	1.5	12	5.61	---	---	588.98	5.61
	09/20/22	594.87	594.59	1.5	12	5.47	---	---	589.12	5.47
	09/12/23	594.87	594.59	1.5	12	3.50	---	---	591.09	3.50
	09/10/24	594.87	594.59	1.5	12	5.28	---	---	589.31	5.28
QP-2	06/24/10	---	---	5	15	10.27	10.25	0.02	---	10.25
	06/28/10	---	---	5	15	9.49	9.45	0.04	---	9.45
	07/08/10	---	---	5	15	8.57	8.48	0.09	---	8.49
	07/22/10	---	---	5	15	8.31	8.22	0.09	---	8.23
	07/29/10	---	---	5	15	8.55	8.46	0.09	---	8.47
	08/06/10	---	---	5	15	8.88	8.74	0.14	---	8.76
	08/13/10	---	---	5	15	6.70	6.61	0.09	---	6.62
	08/27/10	---	---	5	15	7.76	7.66	0.10	---	7.67
	09/17/10	---	---	5	15	7.44	7.28	0.16	---	7.30
	09/23/10	---	---	5	15	7.14	6.98	0.16	---	7.00
	10/15/10	---	---	5	15	7.96	7.73	0.23	---	7.76
	10/29/10	---	---	5	15	7.74	7.48	0.26	---	7.51
	12/07/10	---	---	5	15	7.71	7.40	0.31	---	7.44
	01/03/11	---	---	5	15	7.62	7.31	0.31	---	7.35
	03/18/11	---	---	5	15	7.51	7.25	0.26	---	7.28
	04/08/11	---	---	5	15	7.03	6.73	0.30	---	6.77
	05/09/11	---	---	5	15	6.97	6.61	0.36	---	6.65
	06/09/11	---	---	5	15	7.36	6.93	0.43	---	6.98
	07/05/11	---	---	5	15	7.45	6.92	0.53	---	6.98
	08/23/11	---	---	5	15	7.13	6.42	0.71	---	6.51
	10/14/11	---	---	5	15	8.31	7.34	0.97	---	7.46
	11/23/11	---	---	5	15	7.99	7.07	0.92	---	7.18
	01/24/12	---	---	5	15	6.79	5.81	0.98	---	5.93
	03/20/12	---	---	5	15	7.25	6.29	0.96	---	6.41
	04/23/12	---	---	5	15	7.21	6.18	1.03	---	6.30
	06/11/12	---	---	5	15	7.20	6.48	0.72	---	6.57
	07/10/12	---	---	5	15	8.43	7.04	1.39	---	7.21
	08/29/12	---	---	5	15	8.00	6.44	1.56	---	6.63
	09/12/12	---	---	5	15	7.75	6.17	1.58	---	6.36
	10/01/12	---	---	5	15	8.66	6.81	1.85	---	7.03
	11/06/12	---	---	5	15	7.02	6.29	0.73	---	6.38
	12/05/12	---	---	5	15	7.59	6.86	0.73	---	6.95
	04/03/13	---	---	5	15	7.12	6.40	0.72	---	6.49
	07/18/13	---	---	5	15	6.91	5.86	1.05	---	5.99
	09/23/13	---	---	5	15	7.73	6.95	0.78	---	7.04
	04/25/14	---	---	5	15	5.86	5.40	0.46	---	5.46
	06/02/14	---	---	5	15	6.24	5.74	0.50	---	5.80
	07/09/14	---	---	5	15	5.86	5.29	0.57	---	5.36

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QP-2	07/31/14	---	---	5	15	6.16	5.55	0.61	---	5.62
(cont'd)	09/16/14	---	---	5	15	5.93	5.76	0.17	---	5.78
	03/24/15	---	---	5	15	6.51	6.30	0.21	---	6.33
	06/17/15	---	---	5	15	5.79	5.53	0.26	---	5.56
	09/09/15	---	---	5	15	5.71	5.36	0.35	---	5.40
	12/04/15	---	---	5	15	7.35	6.88	0.47	---	6.94
	03/15/16	---	---	5	15	5.77	5.51	0.26	---	5.54
	06/17/16	---	---	5	15	5.53	5.22	0.31	---	5.26
	09/22/16	---	---	5	15	6.38	5.99	0.39	---	6.04
	09/27/16	ABANDONED								
QP-2R	09/06/17	594.81	594.22	2	12	4.29	4.27	0.02	589.95	4.27
	11/27/17	594.81	594.22	2	12	4.36	4.35	0.01	589.87	4.35
	02/27/18	594.81	594.22	2	12	3.80	3.79	0.01	590.43	3.79
	06/04/18	594.81	594.22	2	12	3.86	3.85	0.01	590.37	3.85
	10/05/18	594.81	594.22	2	12	4.33	---	---	589.89	4.33
	12/11/18	594.81	594.22	2	12	3.69	---	---	590.53	3.69
	03/12/19	594.81	594.22	2	12	3.87	3.83	0.04	590.39	3.83
	06/18/19	594.81	594.22	2	12	2.54	2.47	0.07	591.74	2.48
	09/16/19	594.81	594.22	2	12	4.42	---	---	589.80	4.42
	12/03/19	594.81	594.22	2	12	2.06	---	---	592.16	2.06
	03/12/20	594.81	594.22	2	12	2.92	---	---	591.30	2.92
	06/03/20	594.81	594.22	2	12	2.56	---	---	591.66	2.56
	09/09/20	594.81	594.22	2	12	4.67	---	---	589.55	4.67
	12/03/20	594.81	594.22	2	12	4.92	---	---	589.30	4.92
	08/16/21	594.81	594.22	2	12	4.86	4.84	0.02	589.38	4.84
	09/20/22	594.81	594.22	2	12	4.75	---	---	589.47	4.75
	09/12/23	594.81	594.22	2	12	3.74	3.72	0.02	590.50	3.72
	09/10/24	594.81	594.22	2	12	4.60	4.50	0.10	589.71	4.51
QP-3	06/24/10	---	---	5	15	17.53	16.80	0.73	---	16.89
	06/28/10	---	---	5	15	12.56	12.53	0.03	---	12.53
	07/08/10	---	---	5	15	12.37	12.32	0.05	---	12.33
	07/29/10	---	---	5	15	12.47	12.35	0.12	---	12.36
	08/06/10	---	---	5	15	12.89	12.81	0.08	---	12.82
	08/13/10	---	---	5	15	11.69	11.62	0.07	---	11.63
	08/27/10	---	---	5	15	11.78	11.71	0.07	---	11.72
	09/17/10	---	---	5	15	11.78	11.69	0.09	---	11.70
	09/23/10	---	---	5	15	11.55	11.41	0.14	---	11.43
	10/15/10	---	---	5	15	8.19	8.03	0.16	---	8.05
	10/29/10	---	---	5	15	8.27	8.09	0.18	---	8.11
	12/07/10	---	---	5	15	7.92	7.82	0.10	---	7.83
	01/03/11	---	---	5	15	7.70	7.57	0.13	---	7.59
	03/18/11	---	---	5	15	7.69	7.59	0.10	---	7.60
	04/08/11	---	---	5	15	6.78	6.72	0.06	---	6.73
	05/09/11	---	---	5	15	7.08	7.02	0.06	---	7.03
	06/09/11	---	---	5	15	7.33	7.25	0.08	---	7.26
	07/05/11	---	---	5	15	7.26	7.18	0.08	---	7.19
	08/23/11	---	---	5	15	6.41	6.37	0.04	---	6.37
	10/14/11	---	---	5	15	7.44	7.35	0.09	---	7.36
	11/23/11	---	---	5	15	7.06	7.00	0.06	---	7.01
	01/24/12	---	---	5	15	5.63	5.60	0.03	---	5.60
	03/20/12	---	---	5	15	6.25	6.22	0.03	---	6.22
	04/23/12	---	---	5	15	6.02	6.00	0.02	---	6.00
	06/11/12	---	---	5	15	6.55	6.51	0.04	---	6.51
	07/10/12	---	---	5	15	7.21	7.11	0.10	---	7.12
	08/29/12	---	---	5	15	6.58	6.49	0.09	---	6.50
	09/12/12	---	---	5	15	6.16	6.10	0.06	---	6.11
	10/01/12	---	---	5	15	7.11	7.01	0.10	---	7.02
	11/06/12	---	---	5	15	7.07	7.01	0.06	---	7.02
	12/05/12	---	---	5	15	6.58	6.55	0.03	---	6.55
	04/03/13	---	---	5	15	6.57	6.54	0.03	---	6.54
	07/18/13	---	---	5	15	5.98	5.92	0.06	---	5.93
	09/23/13	---	---	5	15	7.01	6.91	0.10	---	6.92
	04/25/14	---	---	5	15	5.41	5.39	0.02	---	5.39
	06/02/14	---	---	5	15	5.74	5.71	0.03	---	5.71
	07/09/14	---	---	5	15	5.17	5.13	0.04	---	5.13
	07/31/14	---	---	5	15	5.25	5.24	0.01	---	5.24

Table 1

Summary of Groundwater Gauging Data - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Well ID	Date	Ground Surface Elevation (ft amsl)	Top of Casing Elevation (ft amsl)	Top of Screen (ft btoc)	Total Depth (ft btoc)	Depth to Water (ft btoc)	Depth to Product (ft btoc)	LNAPL Thickness (ft)	Corrected Groundwater Elevation [1] (ft amsl)	Corrected Water Table Depth [1] (ft btoc)
QP-3	09/16/14	---	---	5	15	5.47	5.41	0.06	---	5.42
(cont'd)	03/24/15	---	---	5	15	6.36	6.34	0.02	---	6.34
	06/17/15	---	---	5	15	5.20	5.18	0.02	---	5.18
	09/09/15	---	---	5	15	5.12	5.09	0.03	---	5.09
	12/04/15	---	---	5	15	6.40	6.39	0.01	---	6.39
	03/15/16	---	---	5	15	5.40	5.39	0.01	---	5.39
	06/17/16	---	---	5	15	5.13	5.11	0.02	---	5.11
	09/22/16	---	---	5	15	5.72	5.68	0.04	---	5.68
	09/27/16	ABANDONED								
QP-3R	09/06/17	594.8	594.41	2	12	4.17	4.08	0.09	590.32	4.09
	11/27/17	594.8	594.41	2	12	4.15	4.04	0.11	590.36	4.05
	02/27/18	594.8	594.41	2	12	3.79	3.71	0.08	590.69	3.72
	06/04/18	594.8	594.41	2	12	3.87	3.76	0.11	590.64	3.77
	10/05/18	594.8	594.41	2	12	4.24	4.08	0.16	590.31	4.10
	12/11/18	594.8	594.41	2	12	3.71	3.59	0.12	590.81	3.60
	03/12/19	594.8	594.41	2	12	4.02	3.88	0.14	590.51	3.90
	06/18/19	594.8	594.41	2	12	2.62	2.39	0.23	591.99	2.42
	09/16/19	594.8	594.41	2	12	4.40	4.26	0.14	590.13	4.28
	12/03/19	594.8	594.41	2	12	2.57	2.26	0.31	592.11	2.30
	03/12/20	594.8	594.41	2	12	2.90	2.85	0.05	591.55	2.86
	06/03/20	594.8	594.41	2	12	2.65	2.52	0.13	591.87	2.54
	09/09/20	594.8	594.41	2	12	4.56	4.46	0.10	589.94	4.47
	12/03/20	594.8	594.41	2	12	4.91	4.81	0.10	589.59	4.82
	08/16/21	594.8	594.41	2	12	4.73	4.61	0.12	589.79	4.62
	09/20/22	594.8	594.41	2	12	4.67	4.54	0.13	589.85	4.56
	09/12/23	594.8	594.41	2	12	3.56	3.47	0.09	590.93	3.48
	09/10/24	594.8	594.41	2	12	4.35	4.32	0.03	590.09	4.32

Notes

LNAPL	Light Non-Aqueous Phase Liquid
ft	Feet
ft amsl	Feet Above Mean Sea Level
ft btoc	Feet Below Top of Casing
---	No LNAPL measured
(1)	A specific gravity of 0.88 (quench/hydraulic oil) was used to calculate corrected groundwater levels
(2)	Values for water and LNAPL depth appeared reversed on data collection log, it has been corrected on this table.

Table 2

Summary of Manhole Inspections - Southwest LNAPL Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Manhole Inspection Location	Inspection Date [1]	Depth to Water (ft btor)	Depth to Product (ft btor)	LNAPL Thickness (ft)	Observations
V3.6	03/24/15	4.99	---		none
	06/17/15	4.69	---		slight sheen
	09/09/15	5.13	---		none
	12/04/15	5.34	---		slight sheen
	03/15/16	4.27	---		very slight sheen
	06/17/16	3.77	---		slight sheen
	09/22/16	4.56	---		none
	02/27/18	4.07	---		slight sheen/scum
	06/04/18	4.19	---		very little debris
	07/26/18	5.03	---		very minor amount of sheen
	12/11/18	4.79	---		slight sheen
	03/12/19	4.05	---		very slight sheen
	06/18/19	2.93	---		very slight sheen
	09/16/19	4.71	---		none
	12/03/19	3.04	---		none
	03/12/20	3.09	---		little scum
	06/03/20	3.14	---		none
	09/09/20	4.84	---		none
	12/03/20	5.14	---		none
	08/16/21	5.43	---		none
	09/20/22	5.20	---		none
	09/12/23	4.58	---		none
	09/10/24	4.99	---		none
X5.9	03/24/15	4.47	---		none
	06/17/15	4.19	---		none
	09/09/15	4.62	---		none
	12/04/15	4.88	---		very slight sheen
	03/15/16	3.73	---		none
	06/17/16	3.24	---		none
	09/22/16	4.08	---		none
	02/27/18	N/a	---		none
	06/04/18	N/a	---		none
	07/26/18	4.52	---		none
	12/11/18	4.32	---		none
	03/12/19	N/a	---		covered in ice
	06/18/19	N/a	---		flooded-water on concrete
	09/16/19	4.22	---		a little scum
	12/03/19	N/a	---		flooded-water on concrete
	03/12/20	2.61			little scum
	06/03/20	2.65	---		none
	09/09/20	N/a	---		underwater
	12/03/20	4.51	---		little scum, little water
	08/16/21	4.73	---		none
	09/20/22	4.65	---		possible sheen
	09/12/23	3.90	---		possible sheen
	09/10/24	4.45	---		none
S5.6	03/24/15	4.63	---		none
	06/17/15	N/a	---		none
	09/09/15	6.30	---		none
	12/04/15	6.57	---		none
	03/15/16	5.44	---		none
	06/17/16	4.92	---		none
	09/22/16	5.78	---		none
	02/27/18	5.27	---		none

Table 2

Summary of Manhole Inspections - Southwest LNAPL Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Manhole Inspection Location	Inspection Date [1]	Depth to Water (ft btor)	Depth to Product (ft btor)	LNAPL Thickness (ft)	Observations
S5.6	06/04/18	5.36	---		none
(cont'd)	07/26/18	6.22	---		none
	12/11/18	5.99	---		none
	03/12/19	5.19	---		ice
	06/18/19	4.11	---		none
	09/16/19	5.91	---		none
	12/03/19	4.21	---		none
	03/12/20	4.31	---		none
	06/03/20	4.35	---		none
	09/09/20	6.05	---		none
	12/03/20	6.32	---		none
	08/16/21	6.62	---		none
	09/20/22	5.19	---		none
	09/12/23	4.60	---		none
	09/10/24	4.95	---		none
FV3.0	03/24/15	4.09	---		none
	06/17/15	3.15	---		slight sheen and a little scum
	09/09/15	3.55	---		floating scum (less than 1/16 ")
	12/04/15	4.49	---		oily scum - boom installed
	03/15/16	2.89	---		boom installed - very little scum
	06/17/16	2.66	---		very little scum - leave boom in
	09/22/16	3.58	---		a little scum; boom in
	02/27/18	2.83	---		very sllight sheen
	06/04/18	3.36	---		very little debris
	07/26/18	4.14	---		a little oily scum
	12/11/18	3.70	---		slight sheen
	03/12/19	3.55	---		little sheen
	06/18/19	1.91	---		little sheen
	09/16/19	4.01	---		slight scum
	12/03/19	1.95	---		none
	03/12/20	2.37	---		slight sheen
	06/03/20	2.31	---		very slight sheen
	09/09/20	3.89	---		slight sheen, trace scum
	12/03/20	4.09	---		very slight sheen
	08/16/21	4.25	---		sheen
	09/20/22	4.30	---		possible sheen
	09/12/23	3.25	---		no visible pipes; none
	09/10/24	4.20	---		none

Notes

(1) Inspections did not occur between September 22, 2019 and February 27, 2018 as a result of work being conducted on the concrete floor slab of the former plant including the removal PCB impacted flooring and installation of cover over the entire floor slab.

LNAPL	Light Non-Aqueous Phase Liquid
ft	Feet
ft btor	Feet Below Top of Reference
---	No LNAPL measured

Table 3

Summary of Transmissivity Testing - Quench Pit Area
RACER Trust - Saginaw Malleable Iron Industrial Land
Saginaw, Michigan

Quench Pit Well Location	Date of Last Transmissivity Test	LNAPL Transmissivity - T_n (ft^3/day)	LNAPL Thickness at Time of Transmissivity Testing (ft)	Range of LNAPL Thickness Since Well Re-Installation (ft)
QPTW-01R*				0.02 - 0.03
QPTW-01	5/10/2016	0.05	1.3	
QPTW-03R2*	4/27/2018	0.30	0.54	0.18 - 0.97
QPTW-03R	4/28/2016	0.11	1.3	
QPTW-04R*	9/9/2017	0.21	0.82	0.04 - 1.40
QPTW-04	5/10/2016	0.08	0.97	
QPTW-05R*	9/9/2017	de minimis	0.6	0.14 - 1.71
QPTW-05	4/29/2016	0.31	2.18	
QPTW-05	10/30/2014	0.31	1.7	
QPTW-10R*				No Measurable Product
QPTW-10	4/28/2016	0.00	0.23	
QPTW-10	9/30/2015	1.17	0.58	
QPTW-10	10/30/2014	1.58	2.56	

Notes

* Monitoring well re-installed between June and August 2017

Attachments

Attachment 1

Inspection Report

(See Attachment 1 of Annual Progress Report)

Attachment 2

Gauging Form

Groundwater Gauging Log

Client:	RACER Trust
Project Name/Location:	RACER Saginaw 2024
Date(s):	9/10/2024
Sampler(s):	Billy Cobern
Equipment:	oil/water interface probe

Well	Date	Time	Depth to Water (ft)	Well Depth (ft)	Depth to LNAPL (ft)	PID (ppmv)	Remarks
QP-1R	9/10/2024	07:55:00	5.28	11.45	--	--	Gauging only, hard bottom, 4" well, smells like sewage
QPTW-10R	9/10/2024	08:00:00	5.32	--	5.3	--	Light brown LNAPL observed on probe
QP-2R	9/10/2024	08:07:00	4.6	--	4.5	--	Light brown, fairly viscous, LNAPL observed on probe
QP-3R	9/10/2024	08:14:00	4.35	--	4.32	--	Light brown LNAPL observed on probe. 4" well
QPTW-01R	9/10/2024	08:20:00	4.76	--	4.42	--	Very viscous, dark brown LNAPL observed on probe
QPTW-03R	9/10/2024	08:28:00	5.78	--	5.54	--	Light brown LNAPL observed on probe
QPTW-04R	9/10/2024	08:35:00	5.42	--	5.25	--	Light brown LNAPL observed on probe
QPTW-05R	9/10/2024	08:40:00	6.03	--	5.28	--	Light brown LNAPL observed on probe
X-5.9	9/10/2024	08:45:00	4.45	4.7	--	--	
V-3.6	9/10/2024	08:55:00	4.99	10.5	--	--	Soft bottom, no visible pipes
V-3.0	9/10/2024	09:04:00	4.2	9.8	--	--	Hard bottom. No visible pipes.
S-5.6	9/10/2024	09:11:00	4.95	9.1	--	--	Hard bottom
QPTW-13R	9/9/2024	18:38:00	4.99	14.29	--	--	Deployed HydraSleeve. Hard bottom

Attachment 3

SMI Well Construction Logs, Sampling Parameters, and Field Parameters

Attachment 3
Monitoring Well Sampling Plan and Construction Summary
2024 Annual Report
RACER Trust
Saginaw Malleable Industrial Land
Saginaw, Michigan

Well ID	Screen Interval (ft bgs)[1]	Screened Unit/Zone	Well Construction	Date Installed	TIC[2] Elevation (ft AMSL)[3]
B-3R	16-26	Upper Sand	2” PVC	5/22/1995	609.51
MW-107WT	4-9	Water Table	2" PVC	12/23/1994	590.65
MW-107S1	12.5-17.5	Upper Sand	2" PVC	12/23/1994	590.74
MW-108S1	8.8-13.8	Water Table	2" PVC	12/20/1994	590.24
MW-108S2	22-27	Upper Sand	2" PVC	12/21/1994	590.26
MW-110WTR	3-8	Water Table	2" PVC	11/9/2001	591.52
MW-111WT	5.5-10.5	Water Table	2" PVC	1/6/1995	590.95
MW-114WT	3.5-8.5	Water Table	2" PVC	1/10/1995	591.12
MW-114S2	22.5-27.5	Upper Sand	2" PVC	1/10/1995	591.20
MW-131WT	2-12	Water Table	2" PVC	1/13/1995	592.56
MW-134WT	4-9	Water Table	2" PVC	1/9/1995	594.02
MW-149WT	7-17	Water Table	2" PVC	9/21/1995	592.27
MW-185WT	3-8	Water Table	2" PVC	11/8/2001	588.67
MW-186WT	8-18	Water Table	2" PVC	NA	590.34
QPTW-13R	4-14	Water Table	2” PVC	8/16/2017	594.04

Notes:

[1] Depths are in feet below ground surface (ft bgs)

[2] TIC = top of inner casing

[3] Elevations are in feet above mean sea level (ft AMSL)

“ PVC = inch polyvinyl chloride

NA = not available

Attachment 3
Groundwater Sampling Analytical Parameters
RACER Saginaw Malleable Industrial Land
Saginaw, Michigan

		Constituent & Preservative - Container Description										
Well ID	**Proposed Monitoring Plan (2020)**	Ammonia Nitrogen (NH_3-N) and Phosphorus (P) H_2SO_4 - 250mL Poly	Total Arsenic (As) and Total Manganese (Mn) HNO_3 - 250mL Poly	Dissolved Arsenic unpreserved - 250mL Poly	8270 SVOCs unpreserved - 2x100mL Amber	8082 Total PCBs unpreserved - 2x100mL Amber	8082 Dissolved PCBs unpreserved - 2x100mL Amber	PFAS unpreserved - 2x250mL HDPE	screen interval	**QAQC/Comments**	**Sampling Comments**
MW-107WT	Ammonia nitrogen, phosphorus,arsenic (total and dissolved), and total manganese	60 - 200 mL (NH_3-N,P)	3 x (100 - 150) mL (As,Mn)	3 x (50 - 100) mL					4-9	MS/MSD for total and dissolved arsenic, and total manganese.	Well redeveloped prior to sampling. Sample collected with bailer.
MW-108S1	SVOCs, ammonia nitrogen, phosphorus, total manganese, and PFAS	60 - 250 mL (NH_3-N,P)	50-100 mL (Mn)		4 x 100 mL			1 x 250 mL	2.5-7.5	Duplicate for SVOCs. MS/MSD for SVOCs.	Well redeveloped prior to sampling. Sample collected with hydrasleeve. Note: MW-108S1 was sampled in place of MW-108WT (as approved by EGLE) as the water column in MW-108WT was too shallow to obtain a water sample.
MW-110WTR	PCBs (total and dissolved,) ammonia nitrogen, phosphorus, and total manganese	60 - 250 mL (NH_3-N,P)	2 x (50 - 175) mL (Mn)			2 x 100 mL	2 x 100 mL		3-8	Duplicate for total manganese.	Well redeveloped prior to sampling. Sample collected with hydrasleeve.
MW-111WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	60 - 100 mL (NH_3-N,P)	50 - 100 mL (Mn)			2-4 x 100 mL	2-4 x 100 mL		5.5-10.5	Duplicate for total and dissolved PCBs	Well redeveloped prior to sampling. Sample collected with hydrasleeve.
MW-114WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	3 x (60 -150 mL) (NH_3-N,P)	50 - 150 mL (Mn)			2 x 100 mL	2 x 100 mL		3.5-8.56	MS/MSD for ammonia nitrogen and phosphorus.	Well redeveloped prior to sampling. Sample collected with hydrasleeve.
MW-149WT	Ammonia nitrogen, phosphorus, and arsenic (total and dissolved)	2 x (60 - 200) mL (NH_3-N,P)	2 x (50 -200) mL (As)	2 x (50 - 100) mL					7-17	Duplicate for ammonia nitrogen, phosphorus, and total and dissolved arsenic.	Well redeveloped prior to sampling. Sample collected with hydrasleeve.
MW-185WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	60 - 250 mL (NH_3-N,P)	50 - 250 mL (Mn)			2 x 100 mL	2 x 100 mL		3-8		Well redeveloped prior to sampling. Sample collected with hydrasleeve.
MW-186WT	PCBs (total and dissolved), ammonia nitrogen, phosphorus, and total manganese	60 - 100 mL (NH_3-N,P)	50 - 100 mL (Mn)			3-4 x 100 mL	3-4 x 100 mL		8-18	MS/MSD for total and dissolved PCBs.	Well redeveloped prior to sampling. Sample collected with hydrasleeve.
MW-107S1	Ammonia nitrogen	250 mL (NH_3-N)							12.5-17.5		Sample collected with hydrasleeve.
MW-108S2	Ammonia nitrogen	2 x 250 mL (NH_3-N)							22-27	Duplicate for ammonia nitrogen.	Sample collected with hydrasleeve.
MW-114S2	Ammonia nitrogen	250 mL (NH_3-N)							22.5-27.5		Sample collected with hydrasleeve.
MW-131WT	PFAS							2 x 250 mL	2-12		Sample collected with hydrasleeve.
MW-134WT	PFAS							2 x 250 mL	4-9		Sample collected with hydrasleeve.

Attachment 3
Groundwater Sampling Analytical Parameters
RACER Saginaw Malleable Industrial Land
Saginaw, Michigan

		Constituent & Preservative - Container Description									
Well ID	Proposed Monitoring Plan (2020)	Ammonia Nitrogen (NH_3-N) and Phosphorus (P) H_2SO_4 - 250mL Poly	Total Arsenic (As) and Total Manganese (Mn) HNO_3 - 250mL Poly	Dissolved Arsenic unpreserved - 250mL Poly	8270 SVOCs unpreserved - 2x100mL Amber	8082 Total PCBs unpreserved - 2x100mL Amber	8082 Dissolved PCBs unpreserved - 2x100mL Amber	PFAS unpreserved - 2x250mL HDPE	screen interval	QAQC/Comments	Sampling Comments
B-3R	PFAS							2 x 250 mL	16-26		Sample collected with hydrasleeve.
QPTW-13R	PFAS							4 x 250 mL	4-14		Sample collected with hydrasleeve.

Notes:

HDPE = high-density ploye thylene
HNO_3 = nitric acid
H_2SO_4 = sulfuric acid
NH_3-N = Ammonia Nitrogen
P = Phosphours
Mn = Manganese
As = Arsenic
L = liter
mL = milliliter
MS/MSD = matrix spike/matrix spike duplicate
PCB = polychlorinated biphenols
PFAS = per- and ploy fluoroalkyl substances
SVOC = semi volatile organic compound

Note: Each sample location are provided ranges of sample volumes to collect. The minimum limit is the absolute minimum volume that can be collected in order to run the analysis and the upper limit is what can be collected in order to conserve sample volume and be able to obtain samples for the remaining parameters.

Attachment 3
Field Parameters, 2024 Annual Report
RACER Trust Saginaw Malleable Industrial Land
Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
B-3R	**8/11/20**	0.940	0.27	-236	7.99	16.3	4.55
B-3R	**8/19/21**	0.799	0.06	-232	8.09	15.8	20.8
B-3R	**9/26/22**	0.980	0.14	-210	8.10	13.2	9.34
B-3R[3]	**9/14/23**	0.750	1.84	-149	7.82	14.1	92.6
B-3R	**9/11/24**	1.001	2.78	-134	7.84	17.1	174
MW-107S1	**9/30/10**	1.258	0.40	-104	7.54	22.9	0.35
MW-107S1	**9/21/11**	1.260	0.90	-112	7.11	14.9	0.6
MW-107S1	**9/17/12**	1.109	-[2]	-83.0	7.19	15.3	1.02
MW-107S1	**9/25/13**	3.474	0.79	180	7.41	12.7	0.1
MW-107S1	**9/24/14**	1.149	3.03	-76.8	7.40	12.7	2.3
MW-107S1	**10/1/15**	1.520	0.19	74.3	7.13	14.2	8.2
MW-107S1	**9/29/16**	0.547	0.49	9.54	7.03	14.3	1.8
MW-107S1	**8/30/17**	1.237	0.52	-91.8	7.34	17.0	1.55
MW-107S1	**9/26/18**	1.110	0.26	-90.1	7.09	14.2	0.02
MW-107S1	**8/21/19**	1.370	0.10	-82.4	7.34	15.5	0.02
MW-107S1	**8/11/20**	1.360	0.12	-131	7.46	17.5	0.02
MW-107S1	**8/20/21**	1.186	0.08	-136	7.45	17.9	1.46
MW-107S1	**9/26/22**	1.360	2.30	-105	7.31	12.8	0.04
MW-107S1[3]	**9/14/23**	1.304	1.96	-107	7.44	12.4	7.64
MW-107S1	**9/11/24**	1.312	3.59	-77.0	7.35	15.5	11.2
MW-107WT	**DRY 2010 and 2011**	NA	NA	NA	NA	NA	NA
MW-107WT[1]	**9/18/12**	NA	NA	NA	NA	NA	11.0
MW-107WT[1]	**9/26/13**	NA	NA	NA	NA	NA	93.2
MW-107WT[1]	**9/24/14**	0.861	0.64	-88.8	6.94	14.3	1.27
MW-107WT	**10/1/15**	1.239	5.06	-110	7.18	18.1	1.90
MW-107WT	**9/29/16**	0.401	0.62	35.2	6.90	15.6	1.05
MW-107WT	**8/30/17**	0.928	8.90	78	7.23	21.6	1.26
MW-107WT	**9/26/18**	0.870	0.91	-29.3	6.96	18.1	0.71
MW-107WT	**8/21/19**	0.910	0.57	70.4	7.05	20.4	0.02

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Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-107WT	**8/11/20**	0.880	1.01	48.4	7.11	20.3	0.02
MW-107WT	**8/20/21**	0.813	0.19	-162	7.53	16.9	1.42
MW-107WT	**9/26/22**	1.060	0.33	-128	7.22	14.4	0.49
MW-107WT[4]	**9/14/23**	1.099	3.52	-32.4	7.24	13.7	278
MW-107WT	**9/11/24**	0.973	1.14	-23.7	6.89	19.2	NA
MW-108S1	**9/11/24**	0.799	4.86	26.4	6.85	17.6	466
MW-108S2	**9/28/10**	1.142	0.12	-117	7.52	13.9	0.41
MW-108S2	**9/21/11**	0.808	0.63	-96.9	7.51	13.9	3.80
MW-108S2	**9/17/12**	0.901	0.28	-239	7.38	13.2	0.83
MW-108S2	**9/26/13**	2.641	0.37	160	7.49	12.4	0.80
MW-108S2	**9/24/14**	Missing field notes					
MW-108S2	**10/1/15**	1.062	0.14	104	7.59	13.5	8.92
MW-108S2	**9/29/16**	0.395	0.52	7.28	7.10	15.0	1.43
MW-108S2	**8/30/17**	0.644	0.36	-124	7.61	16.5	1.92
MW-108S2	**9/26/18**	0.630	1.45	-83.7	7.25	12.1	0.02
MW-108S2	**8/21/19**	0.950	0.27	-139	7.44	18.9	0.02
MW-108S2	**8/11/20**	0.890	0.24	-87.1	7.48	17.0	7.34
MW-108S2	**8/19/21**	1.030	0.15	-111	7.27	18.4	5.95
MW-108S2	**9/27/22**	0.810	0.32	-140	7.82	11.9	8.58
MW-108S2[3]	**9/14/23**	0.891	2.13	-77.8	7.35	12.3	91.3
MW-108S2	**9/11/24**	0.682	4.03	-58.5	7.60	12.6	13.4
MW-108WT	**DRY 2010 through 2014**	NA	NA	NA	NA	NA	NA
MW-108WT	**9/29/16**	0.310	0.51	4.45	6.55	16.6	0.87
MW-108WT	**8/30/17**	Purged dry, sampled on 8/31/17					
MW-108WT	**9/27/18**	0.620	0.52	158	6.30	14.1	0.80
MW-108WT	**8/21/19**	0.740	0.32	58.1	6.86	22.3	0.02
MW-108WT	**8/13/20**	0.700	0.21	-44.1	6.86	21.9	1.75
MW-108WT	**8/19/21**	0.780	0.87	-36.1	6.90	23.2	1.01
MW-108WT	**9/27/22**	Well was pumped dry, unable to sample					

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Field Parameters, 2024 Annual Report
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Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-108WT[3]	**9/14/23**	0.649	5.61	225	6.82	14.8	145
MW-110WTR	**DRY 2010 through 2013**	NA	NA	NA	NA	NA	NA
MW-110WTR	**9/24/14**	Missing field notes					
MW-110WTR	**10/1/15**	2.198	0.62	-117	6.91	14.1	7.71
MW-110WTR	**9/29/16**	0.683	0.52	-29.4	6.47	14.6	0.86
MW-110WTR	**8/31/17**	1.133	0.51	-100	6.67	16.0	1.90
MW-110WTR	**9/27/18**	1.280	0.93	-51.7	6.32	16.0	0.94
MW-110WTR	**8/21/19**	0.980	0.31	-87.9	7.07	18.8	0.02
MW-110WTR	**8/12/20**	0.940	0.59	-55.0	6.85	16.9	0.02
MW-110WTR	**8/19/21**	1.060	0.18	-84.4	6.77	20.5	1.96
MW-110WTR	**9/27/22**	1.100	0.29	-123	6.84	12.8	1.85
MW-110WTR[3]	**9/14/23**	1.080	2.90	-83.2	6.94	15.3	111
MW-110WTR	**9/12/24**	1.132	1.97	-87.7	6.98	16.4	190
MW-111WT	**DRY 2010 and 2011**	NA	NA	NA	NA	NA	NA
MW-111WT[1]	**9/18/12**	NA	NA	NA	NA	NA	5.36
MW-111WT[1]	**9/26/13**	NA	NA	NA	NA	NA	6.62
MW-111WT	**9/23/14**	Missing field notes					
MW-111WT	**10/1/15**	1.206	0.21	110	7.05	13.1	6.34
MW-111WT	**9/29/16**	0.403	0.50	-32.8	6.66	15.4	1.02
MW-111WT	**8/31/17**	0.762	0.47	-66.9	7.25	18.8	1.85
MW-111WT	**9/27/18**	0.840	0.21	-43.7	6.91	17.7	0.02
MW-111WT	**8/22/19**	0.830	0.07	-165	7.11	17.3	8.46
MW-111WT	**8/12/20**	0.780	0.21	-156	7.17	21.7	0.02
MW-111WT	**8/23/21**	0.820	0.38	-118	6.91	20.8	0.74
MW-111WT	**9/27/22**	0.820	0.15	-169	7.32	13.7	1.73
MW-111WT[3]	**9/14/23**	0.885	1.62	-120	7.11	15.8	80.7
MW-111WT	**9/12/24**	0.853	2.63	-97.1	6.94	17.6	52.4

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Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-114S2	**9/29/10**	0.690	0.10	-119	8.40	16.4	0.95
MW-114S2	**9/22/11**	0.929	1.83	-110	7.20	16.3	1.10
MW-114S2	**9/18/12**	0.809	7.67	-21.1	7.25	14.3	3.47
MW-114S2	**9/25/13**	2.810	0.63	-206	7.37	14.2	0.20
MW-114S2	**9/23/14**	0.637	0.07	-113	6.73	16.0	1.32
MW-114S2	**10/1/15**	0.650	0.36	128	7.29	14.0	5.54
MW-114S2	**9/29/16**	0.257	0.45	-42.6	6.96	16.0	1.02
MW-114S2	**9/1/17**	0.783	0.56	-119	7.33	16.1	1.95
MW-114S2	**9/28/18**	0.487	0.55	-19.6	6.62	14.6	4.33
MW-114S2	**8/22/19**	0.555	0.53	35.4	7.28	17.6	3.28
MW-114S2	**8/13/20**	0.710	0.36	-28.2	6.45	17.1	3.83
MW-114S2	**8/20/21**	0.520	0.13	-64.9	7.21	18.3	1.94
MW-114S2	**9/27/22**	0.546	0.10	-111	7.17	14.3	0.02
MW-114S2[3]	**9/14/23**	0.526	1.48	-115	7.55	16.2	259
MW-114S2	**9/11/24**	0.483	3.15	16.9	7.53	15.3	5.29
MW-114WT	**DRY 2010, 2011 and 2012**	NA	NA	NA	NA	NA	NA
MW-114WT[1]	**9/25/13**	NA	NA	NA	NA	NA	12.3
MW-114WT	**9/23/14**	0.705	0.19	-88.1	6.43	20.3	0.98
MW-114WT	**10/1/15**	1.026	1.16	113	6.67	16.2	8.68
MW-114WT	**9/29/16**	0.277	0.66	-21.7	6.77	18.5	1.39
MW-114WT	**8/31/17**	0.527	0.41	-146	7.11	19.7	1.96
MW-114WT	**9/28/18**	0.590	0.71	26.3	6.72	16.1	0.02
MW-114WT	**8/22/19**	0.580	0.18	-127	6.99	22.5	9.63
MW-114WT	**8/13/20**	0.510	0.04	-154	7.21	25.4	0.72
MW-114WT	**8/20/21**	0.730	0.26	-96.3	7.05	20.4	1.71
MW-114WT	**9/27/22**	0.393	0.17	-149	7.14	14.7	0.02
MW-114WT[3]	**9/14/23**	0.648	1.84	-113	7.10	18.6	34.9
MW-114WT	**9/11/24**	1.142	1.89	-43.7	7.19	16.4	68.7

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RACER Trust Saginaw Malleable Industrial Land
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Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-131WT	**8/11/20**	0.750	0.12	-122	7.21	19.5	0.53
MW-131WT	**8/19/21**	0.581	0.09	-149	7.57	19.0	1.88
MW-131WT[3]	**9/26/22**	0.660	0.28	-106	7.60	14.9	4.71
MW-131WT[3]	**9/14/23**	0.599	2.51	189	7.06	17.0	16.9
MW-131WT	**9/11/24**	0.643	2.42	-110	7.48	18.4	121
MW-134WT	**8/11/20**	1.190	10.0	-130	7.00	17.3	0.93
MW-134WT	**8/19/21**	0.835	0.11	-136	7.06	18.5	1.44
MW-134WT	**9/27/22**	0.970	0.24	-132	7.11	12.8	7.42
MW-134WT[3]	**9/14/23**	0.690	2.71	-97.4	6.96	15.0	42.6
MW-134WT	**9/11/24**	0.812	1.43	-113	6.90	19.4	49.1
MW-149WT	**9/30/10**	1.395	0.53	-133	6.91	12.8	1.60
MW-149WT	**9/28/11**	1.441	0.43	-137	6.77	13.8	1.70
MW-149WT	**9/18/12**	1.161	-[2]	-75.0	6.73	14.0	0.72
MW-149WT	**9/25/13**	4.722	0.28	-151	6.70	14.9	1.25
MW-149WT	**9/24/14**	Missing field notes					
MW-149WT	**10/1/15**	1.234	0.21	87.3	6.82	13.2	5.58
MW-149WT	**9/29/16**	0.455	0.56	48.3	6.50	14.9	1.89
MW-149WT	**8/30/17**	1.014	0.34	-82.8	7.13	16.1	1.92
MW-149WT	**9/26/18**	1.050	0.56	-71.2	6.42	15.0	0.02
MW-149WT	**8/21/19**	1.070	0.27	-113	6.86	17.4	0.21
MW-149WT	**8/11/20**	0.860	0.16	-128	7.03	14.6	0.02
MW-149WT	**8/11/21**	0.856	0.11	-118	6.91	16.1	4.60
MW-149WT	**9/27/22**	1.020	0.03	-127	6.79	12.0	9.01
MW-149WT[3]	**9/14/23**	1.110	3.01	-81.1	6.89	12.5	139
MW-149WT	**9/12/24**	0.874	3.08	-31.7	7.12	16.4	7.12
MW-185WT	**DRY 2010 and 2011**	NA	NA	NA	NA	NA	NA
MW-185WT[1]	**9/18/12**	NA	NA	NA	NA	NA	27.7
MW-185WT[1]	**9/25/13**	NA	NA	NA	NA	NA	19.7
MW-185WT	**9/24/14**	0.480	0.29	-126	7.75	22.0	1.65

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Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-185WT	**10/1/15**	0.597	0.67	-150	7.91	14.9	5.67
MW-185WT	**9/29/16**	0.213	0.37	74.9	7.18	19.1	1.05
MW-185WT	**8/31/17**	0.417	0.70	-6.60	7.94	20.9	1.89
MW-185WT	**9/27/18**	0.420	0.46	69.2	7.24	18.6	0.02
MW-185WT	**8/22/19**	0.417	0.95	80.5	7.55	20.6	0.02
MW-185WT	**8/14/20**	0.429	0.31	203	7.62	20.4	1.48
MW-185WT	**8/23/21**	0.560	0.26	63.8	7.62	23.2	1.98
MW-185WT	**9/27/22**	0.381	0.46	0.60	7.52	11.9	0.02
MW-185WT[3]	**9/14/23**	0.559	3.29	-88.8	7.64	17.8	144
MW-185WT	**9/12/24**	0.494	4.37	142	7.69	19.5	31.4
MW-186WT	**9/29/10**	0.530	0.39	-130	7.88	14.5	0.61
MW-186WT	**9/28/11**	0.940	1.68	-136	8.04	14.2	0.49
MW-186WT	**9/18/12**	0.748	4.43	-223	7.43	15.1	0.60
MW-186WT	**9/25/13**	2.239	0.48	-104	6.86	16.2	0.50
MW-186WT	**9/24/14**	0.853	0.24	-125	6.50	19.0	1.53
MW-186WT	**10/1/15**	0.597	0.67	-150	7.91	14.9	5.67
MW-186WT	**9/29/16**	0.295	0.46	99.4	6.90	15.5	2.43
MW-186WT	**8/31/17**	0.529	0.35	-120	7.36	20.6	1.97
MW-186WT	**9/27/18**	0.477	0.28	-144	7.29	16.8	9.05
MW-186WT	**8/22/19**	0.583	0.87	89.5	7.26	21.3	4.90
MW-186WT	**8/12/20**	0.435	0.16	174	7.62	20.5	3.53
MW-186WT	**8/24/21**	0.547	0.38	-120	6.96	18.9	0.65
MW-186WT	**9/28/22**	0.519	0.25	-189	7.52	11.5	1.97
MW-186WT[3]	**9/14/23**	0.508	1.64	-128	7.43	18.1	261
MW-186WT	**9/12/24**	0.444	2.93	138	7.10	19.4	6.36

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Field Parameters, 2024 Annual Report
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Saginaw, Michigan

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (ºC)	Turbidity (NTUs)
QPTW-13R	**8/11/20**	1.040	0.13	-88.3	6.89	18.7	4.23
QPTW-13R	**8/19/21**	1.064	0.09	-67.2	6.84	20.0	4.22
QPTW-13R	**9/26/22**	1.060	0.13	-81.2	6.96	16.3	0.02
QPTW-13R[3]	**9/14/23**	0.834	1.50	-63.1	6.82	16.7	1131
QPTW-13R	**9/11/24**	0.983	2.29	-79.2	6.79	19.1	479

Notes:
ºC = Celsius
mg/L = milligrams per liter
mV = millivolts
NTUs = Nephelometric Turbidity Units
SU = Standard Units.
mS/cm = milliSiemens per centimeter.
NA = not applicable/not available.
1. Monitoring well purged dry upon sampling. Well was allowed to recharge and then a sample was collected. Only turbidity was measured prior to sampling.
2. No reading due to faulty dissolved oxygen sensor.
3. Sample collected with hydrasleeve.
4. Sample collected with bailer.

Attachment 4

Laboratory Analytical Reports

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

September 25, 2024

Scott Clearwater
Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

RE: Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Dear Scott Clearwater:

Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Olivia Deck
olivia.deck@pacelabs.com
(317)228-3102
Project Manager

Enclosures

cc: Amanda Robinson, Arcadis U.S., Inc.

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50382101001	**MW-118S1_09102024**	Water	09/10/24 11:00	09/11/24 09:00
50382101002	**MW-118S1_09102024 DISS CN**	Water	09/10/24 11:00	09/11/24 09:00
50382101003	**MW-118WT_09102024**	Water	09/10/24 11:20	09/11/24 09:00
50382101004	**MW-118WT_09102024 DISS CN**	Water	09/10/24 11:20	09/11/24 09:00
50382101005	**MW-117S1_09102024**	Water	09/10/24 11:40	09/11/24 09:00
50382101006	**MW-117S1_09102024 DISS CN**	Water	09/10/24 11:40	09/11/24 09:00
50382101007	**MW-117WT_09102024**	Water	09/10/24 12:00	09/11/24 09:00
50382101008	**MW-117WT_09102024 DISS CN**	Water	09/10/24 12:00	09/11/24 09:00
50382101009	**X-9AR_09102024**	Water	09/10/24 13:05	09/11/24 09:00
50382101010	**X-9AR_09102024 DISS CN**	Water	09/10/24 13:05	09/11/24 09:00
50382101011	**X-9BR_09102024**	Water	09/10/24 13:35	09/11/24 09:00
50382101012	**X-9BR_09102024 DISS CN**	Water	09/10/24 13:35	09/11/24 09:00
50382101013	**X-9CAUG_09102024**	Water	09/10/24 14:05	09/11/24 09:00
50382101014	**X-9CAUG_09102024 DISS CN**	Water	09/10/24 14:05	09/11/24 09:00
50382101015	**MW-9D_09102024**	Water	09/10/24 14:55	09/11/24 09:00
50382101016	**MW-9D_09102024 DISS CN**	Water	09/10/24 14:55	09/11/24 09:00
50382101017	**X-4CAUGR_09102024**	Water	09/10/24 15:25	09/11/24 09:00
50382101018	**X-4CAUGR_09102024 DISS CN**	Water	09/10/24 15:25	09/11/24 09:00
50382101019	**X-4D_09102024**	Water	09/10/24 15:50	09/11/24 09:00
50382101020	**X-4D_09102024 DISS CN**	Water	09/10/24 15:50	09/11/24 09:00
50382101021	**MW-183WT_09102024**	Water	09/10/24 16:20	09/11/24 09:00
50382101022	**MW-183WT_09102024 DISS CN**	Water	09/10/24 16:20	09/11/24 09:00
50382101023	**DUP-01_09102024**	Water	09/10/24 08:00	09/11/24 09:00
50382101024	**DUP-01_09102024 DISS CN**	Water	09/10/24 08:00	09/11/24 09:00
50382101025	**DUP-02_09102024**	Water	09/10/24 08:00	09/11/24 09:00
50382101027	**DUP-04_09102024**	Water	09/10/24 08:00	09/11/24 09:00

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7726 Moller Road
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(317)228-3100

SAMPLE ANALYTE COUNT

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50382101001	**MW-118S1_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101002	**MW-118S1_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101003	**MW-118WT_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101004	**MW-118WT_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101005	**MW-117S1_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101006	**MW-117S1_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101007	**MW-117WT_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101008	**MW-117WT_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101009	**X-9AR_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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(317)228-3100

SAMPLE ANALYTE COUNT

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101010	**X-9AR_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101011	**X-9BR_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101012	**X-9BR_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101013	**X-9CAUG_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101014	**X-9CAUG_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101015	**MW-9D_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101016	**MW-9D_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101017	**X-4CAUGR_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101018	**X-4CAUGR_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101019	**X-4D_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I

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SAMPLE ANALYTE COUNT

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101020	**X-4D_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101021	**MW-183WT_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382101022	**MW-183WT_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101023	**DUP-01_09102024**	SM 4500-CN-E	OAS	1	PASI-I
50382101024	**DUP-01_09102024 DISS CN**	SM 4500-CN-E	OAS	1	PASI-I
50382101025	**DUP-02_09102024**	SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
50382101027	**DUP-04_09102024**	EPA 300.0	DMP1	2	PASI-I
		EPA 300.0	DMP1	2	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

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(317)228-3100

SUMMARY OF DETECTION

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382101001	**MW-118S1_09102024**					
EPA 300.0	Chloride	250	mg/L	2.5	09/11/24 17:29	
EPA 300.0	Sulfate	1.7	mg/L	0.25	09/11/24 17:11	
EPA 6010	Barium	182	ug/L	10.0	09/23/24 18:28	
EPA 6010	Iron	11500	ug/L	100	09/23/24 18:28	
EPA 6010	Manganese	352	ug/L	10.0	09/23/24 18:28	
EPA 6010	Sodium	53000	ug/L	1000	09/23/24 18:28	
EPA 6010	Barium, Dissolved	146	ug/L	10.0	09/20/24 22:24	
EPA 6010	Iron, Dissolved	971	ug/L	100	09/20/24 22:24	
EPA 6010	Manganese, Dissolved	452	ug/L	10.0	09/20/24 22:24	
EPA 6010	Sodium, Dissolved	79700	ug/L	1000	09/20/24 22:24	
SM 2540C	Total Dissolved Solids	369	mg/L	10.0	09/12/24 09:26	
SM 4500-NH3 G	Nitrogen, Ammonia	4.8	mg/L	0.10	09/19/24 13:26	
50382101003	**MW-118WT_09102024**					
EPA 300.0	Chloride	287	mg/L	25.0	09/12/24 05:21	
EPA 300.0	Sulfate	1.1	mg/L	0.25	09/11/24 17:47	
EPA 6010	Arsenic	33.1	ug/L	5.0	09/23/24 18:30	
EPA 6010	Barium	372	ug/L	10.0	09/23/24 18:30	
EPA 6010	Iron	34000	ug/L	100	09/23/24 18:30	
EPA 6010	Manganese	1140	ug/L	10.0	09/23/24 18:30	
EPA 6010	Sodium	87200	ug/L	1000	09/23/24 18:30	
EPA 6010	Barium, Dissolved	90.1	ug/L	10.0	09/20/24 22:26	
EPA 6010	Iron, Dissolved	432	ug/L	100	09/20/24 22:26	
EPA 6010	Manganese, Dissolved	1030	ug/L	10.0	09/20/24 22:26	
EPA 6010	Sodium, Dissolved	55400	ug/L	1000	09/20/24 22:26	
SM 2540C	Total Dissolved Solids	940	mg/L	20.0	09/12/24 09:26	
SM 4500-NH3 G	Nitrogen, Ammonia	8.6	mg/L	0.10	09/19/24 13:31	
50382101004	**MW-118WT_09102024 DISS CN**					
SM 4500-CN-E	Cyanide	0.0052	mg/L	0.0050	09/24/24 12:07	
50382101005	**MW-117S1_09102024**					
EPA 300.0	Nitrite as N	0.032J	mg/L	0.050	09/11/24 18:22	
EPA 300.0	Nitrate as N	1.1	mg/L	0.50	09/11/24 18:40	
EPA 300.0	Chloride	234	mg/L	2.5	09/11/24 18:40	
EPA 300.0	Sulfate	1.1	mg/L	0.25	09/11/24 18:22	
EPA 6010	Barium	2110	ug/L	10.0	09/23/24 18:33	
EPA 6010	Iron	8810	ug/L	100	09/23/24 18:33	
EPA 6010	Manganese	548	ug/L	10.0	09/23/24 18:33	
EPA 6010	Sodium	120000	ug/L	1000	09/23/24 18:33	
EPA 6010	Barium, Dissolved	1560	ug/L	10.0	09/20/24 22:28	
EPA 6010	Iron, Dissolved	109	ug/L	100	09/20/24 22:28	
EPA 6010	Manganese, Dissolved	319	ug/L	10.0	09/20/24 22:28	
EPA 6010	Sodium, Dissolved	119000	ug/L	1000	09/20/24 22:28	
SM 2540C	Total Dissolved Solids	862	mg/L	20.0	09/12/24 09:27	
SM 4500-NH3 G	Nitrogen, Ammonia	7.6	mg/L	0.10	09/19/24 13:33	
50382101007	**MW-117WT_09102024**					
EPA 300.0	Chloride	2370	mg/L	250	09/17/24 17:01	

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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(317)228-3100

SUMMARY OF DETECTION

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382101007	**MW-117WT_09102024**					
EPA 300.0	Sulfate	0.98	mg/L	0.25	09/11/24 19:33	
EPA 6010	Arsenic	23.0	ug/L	5.0	09/23/24 18:35	
EPA 6010	Barium	1390	ug/L	10.0	09/23/24 18:35	
EPA 6010	Iron	81500	ug/L	100	09/23/24 18:35	
EPA 6010	Manganese	3490	ug/L	10.0	09/23/24 18:35	
EPA 6010	Sodium	353000	ug/L	2000	09/23/24 19:31	
EPA 6010	Barium, Dissolved	1090	ug/L	10.0	09/20/24 22:30	
EPA 6010	Iron, Dissolved	25300	ug/L	100	09/20/24 22:30	
EPA 6010	Manganese, Dissolved	3540	ug/L	10.0	09/20/24 22:30	
EPA 6010	Sodium, Dissolved	378000	ug/L	5000	09/20/24 22:59	
SM 2540C	Total Dissolved Solids	4880	mg/L	100	09/12/24 09:27	
SM 4500-NH3 G	Nitrogen, Ammonia	23.1	mg/L	0.20	09/19/24 15:01	
50382101009	**X-9AR_09102024**					
EPA 300.0	Chloride	8.3	mg/L	0.25	09/11/24 20:09	
EPA 300.0	Sulfate	0.25	mg/L	0.25	09/11/24 20:09	
EPA 6010	Arsenic	279	ug/L	5.0	09/23/24 18:37	
EPA 6010	Barium	273	ug/L	10.0	09/23/24 18:37	
EPA 6010	Iron	131000	ug/L	100	09/23/24 18:37	
EPA 6010	Manganese	1440	ug/L	10.0	09/23/24 18:37	
EPA 6010	Sodium	10900	ug/L	1000	09/23/24 18:37	
EPA 6010	Barium, Dissolved	67.3	ug/L	10.0	09/20/24 22:32	
EPA 6010	Iron, Dissolved	343	ug/L	100	09/20/24 22:32	
EPA 6010	Manganese, Dissolved	1160	ug/L	10.0	09/20/24 22:32	
EPA 6010	Sodium, Dissolved	11100	ug/L	1000	09/20/24 22:32	
SM 2540C	Total Dissolved Solids	433	mg/L	10.0	09/12/24 10:25	
SM 4500-NH3 G	Nitrogen, Ammonia	0.25	mg/L	0.10	09/19/24 13:43	
SM 4500-CN-E	Cyanide	0.085	mg/L	0.0050	09/24/24 12:12	
50382101011	**X-9BR_09102024**					
EPA 300.0	Chloride	263	mg/L	25.0	09/12/24 06:26	
EPA 6010	Arsenic	9.4J	ug/L	5.0	09/23/24 18:39	
EPA 6010	Barium	311	ug/L	10.0	09/23/24 18:39	
EPA 6010	Iron	31800	ug/L	100	09/23/24 18:39	
EPA 6010	Manganese	783	ug/L	10.0	09/23/24 18:39	
EPA 6010	Sodium	291000	ug/L	2000	09/23/24 19:33	
EPA 6010	Barium, Dissolved	36.8	ug/L	10.0	09/20/24 22:34	
EPA 6010	Iron, Dissolved	146	ug/L	100	09/20/24 22:34	
EPA 6010	Manganese, Dissolved	427	ug/L	10.0	09/20/24 22:34	
EPA 6010	Sodium, Dissolved	263000	ug/L	2000	09/20/24 23:06	
SM 2540C	Total Dissolved Solids	954	mg/L	20.0	09/12/24 10:26	
SM 4500-NH3 G	Nitrogen, Ammonia	9.1	mg/L	0.10	09/19/24 15:06	
50382101013	**X-9CAUG_09102024**					
EPA 300.0	Chloride	59.2	mg/L	2.5	09/11/24 21:31	
EPA 6010	Barium	307	ug/L	10.0	09/23/24 18:41	
EPA 6010	Iron	24900	ug/L	100	09/23/24 18:41	
EPA 6010	Manganese	858	ug/L	10.0	09/23/24 18:41	
EPA 6010	Sodium	24000	ug/L	1000	09/23/24 18:41	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382101013	**X-9CAUG_09102024**					
EPA 6010	Barium, Dissolved	213	ug/L	10.0	09/20/24 22:41	
EPA 6010	Iron, Dissolved	110	ug/L	100	09/20/24 22:41	
EPA 6010	Manganese, Dissolved	695	ug/L	10.0	09/20/24 22:41	
EPA 6010	Sodium, Dissolved	49600	ug/L	1000	09/20/24 22:41	
SM 2540C	Total Dissolved Solids	596	mg/L	20.0	09/12/24 10:26	
SM 4500-NH3 G	Nitrogen, Ammonia	2.6	mg/L	0.10	09/19/24 13:48	
50382101015	**MW-9D_09102024**					
EPA 300.0	Chloride	1180	mg/L	25.0	09/12/24 06:59	
EPA 300.0	Sulfate	239	mg/L	2.5	09/11/24 22:03	
EPA 6010	Arsenic	17.5	ug/L	5.0	09/23/24 18:57	
EPA 6010	Barium	108	ug/L	10.0	09/23/24 18:57	
EPA 6010	Iron	9940	ug/L	100	09/23/24 18:57	
EPA 6010	Manganese	383	ug/L	10.0	09/23/24 18:57	
EPA 6010	Sodium	603000	ug/L	5000	09/23/24 19:35	
EPA 6010	Barium, Dissolved	75.8	ug/L	10.0	09/20/24 22:51	
EPA 6010	Iron, Dissolved	68.5J	ug/L	100	09/20/24 22:51	
EPA 6010	Manganese, Dissolved	278	ug/L	10.0	09/20/24 22:51	
EPA 6010	Sodium, Dissolved	623000	ug/L	5000	09/20/24 23:08	
SM 2540C	Total Dissolved Solids	2390	mg/L	40.0	09/12/24 10:26	
SM 4500-NH3 G	Nitrogen, Ammonia	6.3	mg/L	0.10	09/19/24 14:00	
50382101017	**X-4CAUGR_09102024**					
EPA 300.0	Nitrate as N	0.037J	mg/L	0.050	09/12/24 00:29	
EPA 300.0	Chloride	18.9	mg/L	0.25	09/12/24 00:29	
EPA 300.0	Sulfate	0.25J	mg/L	0.25	09/12/24 00:29	
EPA 6010	Barium	97.9	ug/L	10.0	09/23/24 18:59	
EPA 6010	Iron	9910	ug/L	100	09/23/24 18:59	
EPA 6010	Manganese	555	ug/L	10.0	09/23/24 18:59	
EPA 6010	Sodium	11200	ug/L	1000	09/23/24 18:59	
EPA 6010	Barium, Dissolved	52.5	ug/L	10.0	09/20/24 22:53	
EPA 6010	Iron, Dissolved	113	ug/L	100	09/20/24 22:53	
EPA 6010	Manganese, Dissolved	455	ug/L	10.0	09/20/24 22:53	
EPA 6010	Sodium, Dissolved	11200	ug/L	1000	09/20/24 22:53	
SM 2540C	Total Dissolved Solids	326	mg/L	10.0	09/12/24 10:27	
SM 4500-NH3 G	Nitrogen, Ammonia	0.30	mg/L	0.10	09/19/24 14:02	
50382101019	**X-4D_09102024**					
EPA 300.0	Chloride	1160	mg/L	25.0	09/12/24 08:04	
EPA 300.0	Sulfate	182	mg/L	2.5	09/12/24 01:18	
EPA 6010	Arsenic	5.2J	ug/L	5.0	09/23/24 19:01	
EPA 6010	Barium	92.6	ug/L	10.0	09/23/24 19:01	
EPA 6010	Iron	3420	ug/L	100	09/23/24 19:01	
EPA 6010	Manganese	240	ug/L	10.0	09/23/24 19:01	
EPA 6010	Sodium	582000	ug/L	5000	09/23/24 19:38	
EPA 6010	Barium, Dissolved	68.9	ug/L	10.0	09/20/24 22:55	
EPA 6010	Iron, Dissolved	64.8J	ug/L	100	09/20/24 22:55	
EPA 6010	Manganese, Dissolved	199	ug/L	10.0	09/20/24 22:55	
EPA 6010	Sodium, Dissolved	601000	ug/L	5000	09/20/24 23:10	

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SUMMARY OF DETECTION

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382101019	**X-4D_09102024**					
SM 2540C	Total Dissolved Solids	2420	mg/L	40.0	09/12/24 10:27	
SM 4500-NH3 G	Nitrogen, Ammonia	7.5	mg/L	0.10	09/19/24 14:05	
50382101021	**MW-183WT_09102024**					
EPA 300.0	Nitrate as N	0.027J	mg/L	0.050	09/12/24 02:07	
EPA 300.0	Chloride	15.4	mg/L	0.25	09/12/24 02:07	
EPA 300.0	Sulfate	0.76	mg/L	0.25	09/12/24 02:07	
EPA 6010	Arsenic	28.8	ug/L	5.0	09/23/24 19:03	
EPA 6010	Barium	93.1	ug/L	10.0	09/23/24 19:03	
EPA 6010	Iron	17400	ug/L	100	09/23/24 19:03	
EPA 6010	Manganese	3620	ug/L	10.0	09/23/24 19:03	
EPA 6010	Sodium	29900	ug/L	1000	09/23/24 19:03	
EPA 6010	Barium, Dissolved	41.1	ug/L	10.0	09/20/24 22:57	
EPA 6010	Manganese, Dissolved	2330	ug/L	10.0	09/20/24 22:57	
EPA 6010	Sodium, Dissolved	30300	ug/L	1000	09/20/24 22:57	
SM 2540C	Total Dissolved Solids	326	mg/L	10.0	09/12/24 10:27	
SM 4500-NH3 G	Nitrogen, Ammonia	0.10	mg/L	0.10	09/19/24 14:07	
50382101025	**DUP-02_09102024**					
SM 2540C	Total Dissolved Solids	2590	mg/L	40.0	09/13/24 08:54	
SM 4500-NH3 G	Nitrogen, Ammonia	7.6	mg/L	0.10	09/19/24 14:10	
50382101027	**DUP-04_09102024**					
EPA 300.0	Chloride	1210	mg/L	25.0	09/12/24 04:49	
EPA 300.0	Sulfate	250	mg/L	2.5	09/11/24 16:54	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-118S1_09102024 **Lab ID: 50382101001** Collected: 09/10/24 11:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 17:11	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/11/24 17:11	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**250**	mg/L	2.5	1.3	10		09/11/24 17:29	16887-00-6	
Sulfate	**1.7**	mg/L	0.25	0.19	1		09/11/24 17:11	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:28	7440-38-2	
Barium	**182**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:28	7440-39-3	
Iron	**11500**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:28	7439-89-6	
Manganese	**352**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:28	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:28	7782-49-2	
Sodium	**53000**	ug/L	1000	95.0	1	09/18/24 07:53	09/23/24 18:28	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:24	7440-38-2	
Barium, Dissolved	**146**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:24	7440-39-3	
Iron, Dissolved	**971**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:24	7439-89-6	
Manganese, Dissolved	**452**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:24	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:24	7782-49-2	
Sodium, Dissolved	**79700**	ug/L	1000	95.0	1	09/19/24 20:36	09/20/24 22:24	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**369**	mg/L	10.0	10.0	1		09/12/24 09:26		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**4.8**	mg/L	0.10	0.030	1		09/19/24 13:26	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:00	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-118S1_09102024 DISS CN **Lab ID: 50382101002** Collected: 09/10/24 11:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:00	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-118WT_09102024 **Lab ID: 50382101003** Collected: 09/10/24 11:20 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 17:47	14797-65-0	
Nitrate as N	ND	mg/L	0.50	0.12	10		09/11/24 18:04	14797-55-8	D3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**287**	mg/L	25.0	13.0	100		09/12/24 05:21	16887-00-6	
Sulfate	**1.1**	mg/L	0.25	0.19	1		09/11/24 17:47	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**33.1**	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:30	7440-38-2	
Barium	**372**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:30	7440-39-3	
Iron	**34000**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:30	7439-89-6	
Manganese	**1140**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:30	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:30	7782-49-2	
Sodium	**87200**	ug/L	1000	95.0	1	09/18/24 07:53	09/23/24 18:30	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:26	7440-38-2	
Barium, Dissolved	**90.1**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:26	7440-39-3	
Iron, Dissolved	**432**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:26	7439-89-6	
Manganese, Dissolved	**1030**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:26	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:26	7782-49-2	
Sodium, Dissolved	**55400**	ug/L	1000	95.0	1	09/19/24 20:36	09/20/24 22:26	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**940**	mg/L	20.0	20.0	1		09/12/24 09:26		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**8.6**	mg/L	0.10	0.030	1		09/19/24 13:31	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:02	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-118WT_09102024 DISS CN **Lab ID: 50382101004** Collected: 09/10/24 11:20 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	**0.0052**	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:07	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-117S1_09102024 **Lab ID: 50382101005** Collected: 09/10/24 11:40 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	**0.032J**	mg/L	0.050	0.020	1		09/11/24 18:22	14797-65-0	
Nitrate as N	**1.1**	mg/L	0.50	0.12	10		09/11/24 18:40	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**234**	mg/L	2.5	1.3	10		09/11/24 18:40	16887-00-6	
Sulfate	**1.1**	mg/L	0.25	0.19	1		09/11/24 18:22	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:33	7440-38-2	
Barium	**2110**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:33	7440-39-3	
Iron	**8810**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:33	7439-89-6	
Manganese	**548**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:33	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:33	7782-49-2	
Sodium	**120000**	ug/L	1000	95.0	1	09/18/24 07:53	09/23/24 18:33	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:28	7440-38-2	
Barium, Dissolved	**1560**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:28	7440-39-3	
Iron, Dissolved	**109**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:28	7439-89-6	
Manganese, Dissolved	**319**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:28	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:28	7782-49-2	
Sodium, Dissolved	**119000**	ug/L	1000	95.0	1	09/19/24 20:36	09/20/24 22:28	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**862**	mg/L	20.0	20.0	1		09/12/24 09:27		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**7.6**	mg/L	0.10	0.030	1		09/19/24 13:33	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:07	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-117S1_09102024 DISS CN **Lab ID: 50382101006** Collected: 09/10/24 11:40 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:09	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-117WT_09102024 **Lab ID: 50382101007** Collected: 09/10/24 12:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 19:33	14797-65-0	
Nitrate as N	ND	mg/L	0.50	0.12	10		09/11/24 19:51	14797-55-8	D3
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**2370**	mg/L	250	130	1000		09/17/24 17:01	16887-00-6	
Sulfate	**0.98**	mg/L	0.25	0.19	1		09/11/24 19:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**23.0**	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:35	7440-38-2	
Barium	**1390**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:35	7440-39-3	
Iron	**81500**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:35	7439-89-6	
Manganese	**3490**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:35	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:35	7782-49-2	
Sodium	**353000**	ug/L	2000	190	2	09/18/24 07:53	09/23/24 19:31	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:30	7440-38-2	
Barium, Dissolved	**1090**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:30	7440-39-3	
Iron, Dissolved	**25300**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:30	7439-89-6	
Manganese, Dissolved	**3540**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:30	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:30	7782-49-2	
Sodium, Dissolved	**378000**	ug/L	5000	475	5	09/19/24 20:36	09/20/24 22:59	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**4880**	mg/L	100	100	1		09/12/24 09:27		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**23.1**	mg/L	0.20	0.060	2		09/19/24 15:01	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:10	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-117WT_09102024 DISS CN **Lab ID: 50382101008** Collected: 09/10/24 12:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:12	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-9AR_09102024 **Lab ID: 50382101009** Collected: 09/10/24 13:05 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 20:09	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/11/24 20:09	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**8.3**	mg/L	0.25	0.13	1		09/11/24 20:09	16887-00-6	
Sulfate	**0.25**	mg/L	0.25	0.19	1		09/11/24 20:09	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**279**	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:37	7440-38-2	
Barium	**273**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:37	7440-39-3	
Iron	**131000**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:37	7439-89-6	
Manganese	**1440**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:37	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:37	7782-49-2	
Sodium	**10900**	ug/L	1000	95.0	1	09/18/24 07:53	09/23/24 18:37	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:32	7440-38-2	
Barium, Dissolved	**67.3**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:32	7440-39-3	
Iron, Dissolved	**343**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:32	7439-89-6	
Manganese, Dissolved	**1160**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:32	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:32	7782-49-2	
Sodium, Dissolved	**11100**	ug/L	1000	95.0	1	09/19/24 20:36	09/20/24 22:32	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**433**	mg/L	10.0	10.0	1		09/12/24 10:25		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.25**	mg/L	0.10	0.030	1		09/19/24 13:43	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	**0.085**	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:12	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-9AR_09102024 DISS CN **Lab ID: 50382101010** Collected: 09/10/24 13:05 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:14	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-9BR_09102024 **Lab ID: 50382101011** Collected: 09/10/24 13:35 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 20:42	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/11/24 20:42	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**263**	mg/L	25.0	13.0	100		09/12/24 06:26	16887-00-6	
Sulfate	ND	mg/L	0.25	0.19	1		09/11/24 20:42	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**9.4J**	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:39	7440-38-2	
Barium	**311**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:39	7440-39-3	
Iron	**31800**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:39	7439-89-6	
Manganese	**783**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:39	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:39	7782-49-2	
Sodium	**291000**	ug/L	2000	190	2	09/18/24 07:53	09/23/24 19:33	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:34	7440-38-2	
Barium, Dissolved	**36.8**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:34	7440-39-3	
Iron, Dissolved	**146**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:34	7439-89-6	
Manganese, Dissolved	**427**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:34	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:34	7782-49-2	
Sodium, Dissolved	**263000**	ug/L	2000	190	2	09/19/24 20:36	09/20/24 23:06	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**954**	mg/L	20.0	20.0	1		09/12/24 10:26		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**9.1**	mg/L	0.10	0.030	1		09/19/24 15:06	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:14	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-9BR_09102024 DISS CN **Lab ID: 50382101012** Collected: 09/10/24 13:35 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:17	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-9CAUG_09102024 **Lab ID: 50382101013** Collected: 09/10/24 14:05 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 21:15	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/11/24 21:15	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**59.2**	mg/L	2.5	1.3	10		09/11/24 21:31	16887-00-6	
Sulfate	ND	mg/L	0.25	0.19	1		09/11/24 21:15	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:41	7440-38-2	
Barium	**307**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:41	7440-39-3	
Iron	**24900**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:41	7439-89-6	
Manganese	**858**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:41	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:41	7782-49-2	
Sodium	**24000**	ug/L	1000	95.0	1	09/18/24 07:53	09/23/24 18:41	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:41	7440-38-2	
Barium, Dissolved	**213**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:41	7440-39-3	
Iron, Dissolved	**110**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:41	7439-89-6	
Manganese, Dissolved	**695**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:41	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:41	7782-49-2	
Sodium, Dissolved	**49600**	ug/L	1000	95.0	1	09/19/24 20:36	09/20/24 22:41	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**596**	mg/L	20.0	20.0	1		09/12/24 10:26		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**2.6**	mg/L	0.10	0.030	1		09/19/24 13:48	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 11:55	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-9CAUG_09102024 DISS CN **Lab ID: 50382101014** Collected: 09/10/24 14:05 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 13:09	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-9D_09102024 **Lab ID: 50382101015** Collected: 09/10/24 14:55 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 21:47	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/11/24 21:47	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**1180**	mg/L	25.0	13.0	100		09/12/24 06:59	16887-00-6	
Sulfate	**239**	mg/L	2.5	1.9	10		09/11/24 22:03	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**17.5**	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:57	7440-38-2	
Barium	**108**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:57	7440-39-3	
Iron	**9940**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:57	7439-89-6	
Manganese	**383**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:57	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:57	7782-49-2	
Sodium	**603000**	ug/L	5000	475	5	09/18/24 07:53	09/23/24 19:35	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:51	7440-38-2	
Barium, Dissolved	**75.8**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:51	7440-39-3	
Iron, Dissolved	**68.5J**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:51	7439-89-6	
Manganese, Dissolved	**278**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:51	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:51	7782-49-2	
Sodium, Dissolved	**623000**	ug/L	5000	475	5	09/19/24 20:36	09/20/24 23:08	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2390**	mg/L	40.0	40.0	1		09/12/24 10:26		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**6.3**	mg/L	0.10	0.030	1		09/19/24 14:00	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:17	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-9D_09102024 DISS CN **Lab ID: 50382101016** Collected: 09/10/24 14:55 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:21	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-4CAUGR_09102024 **Lab ID: 50382101017** Collected: 09/10/24 15:25 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/12/24 00:29	14797-65-0	
Nitrate as N	**0.037J**	mg/L	0.050	0.012	1		09/12/24 00:29	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**18.9**	mg/L	0.25	0.13	1		09/12/24 00:29	16887-00-6	
Sulfate	**0.25J**	mg/L	0.25	0.19	1		09/12/24 00:29	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	ND	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 18:59	7440-38-2	
Barium	**97.9**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 18:59	7440-39-3	
Iron	**9910**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 18:59	7439-89-6	
Manganese	**555**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 18:59	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 18:59	7782-49-2	
Sodium	**11200**	ug/L	1000	95.0	1	09/18/24 07:53	09/23/24 18:59	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:53	7440-38-2	
Barium, Dissolved	**52.5**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:53	7440-39-3	
Iron, Dissolved	**113**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:53	7439-89-6	
Manganese, Dissolved	**455**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:53	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:53	7782-49-2	
Sodium, Dissolved	**11200**	ug/L	1000	95.0	1	09/19/24 20:36	09/20/24 22:53	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**326**	mg/L	10.0	10.0	1		09/12/24 10:27		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.30**	mg/L	0.10	0.030	1		09/19/24 14:02	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:22	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-4CAUGR_09102024 DISS CN **Lab ID: 50382101018** Collected: 09/10/24 15:25 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:24	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-4D_09102024 **Lab ID: 50382101019** Collected: 09/10/24 15:50 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/12/24 01:02	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/12/24 01:02	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**1160**	mg/L	25.0	13.0	100		09/12/24 08:04	16887-00-6	
Sulfate	**182**	mg/L	2.5	1.9	10		09/12/24 01:18	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**5.2J**	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 19:01	7440-38-2	
Barium	**92.6**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 19:01	7440-39-3	
Iron	**3420**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 19:01	7439-89-6	
Manganese	**240**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 19:01	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 19:01	7782-49-2	
Sodium	**582000**	ug/L	5000	475	5	09/18/24 07:53	09/23/24 19:38	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:55	7440-38-2	
Barium, Dissolved	**68.9**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:55	7440-39-3	
Iron, Dissolved	**64.8J**	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:55	7439-89-6	
Manganese, Dissolved	**199**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:55	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:55	7782-49-2	
Sodium, Dissolved	**601000**	ug/L	5000	475	5	09/19/24 20:36	09/20/24 23:10	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2420**	mg/L	40.0	40.0	1		09/12/24 10:27		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**7.5**	mg/L	0.10	0.030	1		09/19/24 14:05	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:24	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: X-4D_09102024 DISS CN **Lab ID: 50382101020** Collected: 09/10/24 15:50 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 12:26	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-183WT_09102024 **Lab ID: 50382101021** Collected: 09/10/24 16:20 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/12/24 02:07	14797-65-0	
Nitrate as N	**0.027J**	mg/L	0.050	0.012	1		09/12/24 02:07	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**15.4**	mg/L	0.25	0.13	1		09/12/24 02:07	16887-00-6	
Sulfate	**0.76**	mg/L	0.25	0.19	1		09/12/24 02:07	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**28.8**	ug/L	5.0	4.3	1	09/18/24 07:53	09/23/24 19:03	7440-38-2	
Barium	**93.1**	ug/L	10.0	0.68	1	09/18/24 07:53	09/23/24 19:03	7440-39-3	
Iron	**17400**	ug/L	100	41.0	1	09/18/24 07:53	09/23/24 19:03	7439-89-6	
Manganese	**3620**	ug/L	10.0	0.77	1	09/18/24 07:53	09/23/24 19:03	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/18/24 07:53	09/23/24 19:03	7782-49-2	
Sodium	**29900**	ug/L	1000	95.0	1	09/18/24 07:53	09/23/24 19:03	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	ND	ug/L	5.0	4.3	1	09/19/24 20:36	09/20/24 22:57	7440-38-2	
Barium, Dissolved	**41.1**	ug/L	10.0	0.68	1	09/19/24 20:36	09/20/24 22:57	7440-39-3	
Iron, Dissolved	ND	ug/L	100	41.0	1	09/19/24 20:36	09/20/24 22:57	7439-89-6	
Manganese, Dissolved	**2330**	ug/L	10.0	0.77	1	09/19/24 20:36	09/20/24 22:57	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/19/24 20:36	09/20/24 22:57	7782-49-2	
Sodium, Dissolved	**30300**	ug/L	1000	95.0	1	09/19/24 20:36	09/20/24 22:57	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**326**	mg/L	10.0	10.0	1		09/12/24 10:27		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.10**	mg/L	0.10	0.030	1		09/19/24 14:07	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 13:12	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: MW-183WT_09102024 DISS CN **Lab ID: 50382101022** Collected: 09/10/24 16:20 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 13:14	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: DUP-01_09102024 **Lab ID: 50382101023** Collected: 09/10/24 08:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 13:14	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: DUP-01_09102024 DISS CN **Lab ID: 50382101024** Collected: 09/10/24 08:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 08:32	09/24/24 13:16	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: DUP-02_09102024 **Lab ID: 50382101025** Collected: 09/10/24 08:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**2590**	mg/L	40.0	40.0	1		09/13/24 08:54		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**7.6**	mg/L	0.10	0.030	1		09/19/24 14:10	7664-41-7	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Sample: DUP-04_09102024 **Lab ID: 50382101027** Collected: 09/10/24 08:00 Received: 09/11/24 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/11/24 16:38	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/11/24 16:38	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**1210**	mg/L	25.0	13.0	100		09/12/24 04:49	16887-00-6	
Sulfate	**250**	mg/L	2.5	1.9	10		09/11/24 16:54	14808-79-8	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 808514 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021, 50382101027

METHOD BLANK: 3697515 Matrix: Water
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021, 50382101027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.050	0.012	09/11/24 12:38	
Nitrite as N	mg/L	ND	0.050	0.020	09/11/24 12:38	

LABORATORY CONTROL SAMPLE: 3697516

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	1	0.94	94	90-110	
Nitrite as N	mg/L	1	0.98	98	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3697517 3697518

Parameter	Units	50382101013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	ND	1	1	0.76	0.76	76	76	80-120	0	15	M0
Nitrite as N	mg/L	ND	1	1	0.92	0.91	92	91	80-120	2	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3697519 3697520

Parameter	Units	50382101021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	0.027J	1	1	0.92	0.91	89	89	80-120	0	15	
Nitrite as N	mg/L	ND	1	1	0.95	0.95	95	95	80-120	0	15	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 808520 | Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 | Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021, 50382101027

METHOD BLANK: 3697525 Matrix: Water
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021, 50382101027

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.13	09/11/24 12:38	
Sulfate	mg/L	ND	0.25	0.19	09/11/24 12:38	

LABORATORY CONTROL SAMPLE: 3697526

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	90-110	
Sulfate	mg/L	5	4.8	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3697527 3697528

Parameter	Units	50382101013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	59.2	25	25	80.9	80.9	87	87	80-120	0	15	
Sulfate	mg/L	ND	5	5	5.0	4.9	96	95	80-120	1	15	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3697529 3697530

Parameter	Units	50382101021 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	15.4	2.5	2.5	17.9	17.8	97	96	80-120	0	15	
Sulfate	mg/L	0.76	5	5	5.2	5.2	89	89	80-120	1	15	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 808572
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021

METHOD BLANK: 3697924 Matrix: Water
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	4.3	09/23/24 18:15	
Barium	ug/L	ND	10.0	0.68	09/23/24 18:15	
Iron	ug/L	ND	100	41.0	09/23/24 18:15	
Manganese	ug/L	ND	10.0	0.77	09/23/24 18:15	
Selenium	ug/L	ND	25.0	6.6	09/23/24 18:15	
Sodium	ug/L	105J	1000	95.0	09/23/24 18:15	

LABORATORY CONTROL SAMPLE: 3697925

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	968	97	80-120	
Barium	ug/L	1000	959	96	80-120	
Iron	ug/L	10000	9440	94	80-120	
Manganese	ug/L	1000	963	96	80-120	
Selenium	ug/L	1000	959	96	80-120	
Sodium	ug/L	10000	9390	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3697926 3697927

Parameter	Units	50382101013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	1000	1000	1010	1010	101	101	75-125	1	20	
Barium	ug/L	307	1000	1000	1290	1280	98	97	75-125	1	20	
Iron	ug/L	24900	10000	10000	33800	33400	89	85	75-125	1	20	
Manganese	ug/L	858	1000	1000	1810	1790	95	93	75-125	1	20	
Selenium	ug/L	ND	1000	1000	992	988	99	99	75-125	0	20	
Sodium	ug/L	24000	10000	10000	33200	32800	92	88	75-125	1	20	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 809675
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021

METHOD BLANK: 3703884 Matrix: Water
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007, 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	4.3	09/20/24 21:50	
Barium, Dissolved	ug/L	ND	10.0	0.68	09/20/24 21:50	
Iron, Dissolved	ug/L	ND	100	41.0	09/20/24 21:50	
Manganese, Dissolved	ug/L	5.4J	10.0	0.77	09/20/24 21:50	
Selenium, Dissolved	ug/L	ND	10.0	6.6	09/20/24 21:50	
Sodium, Dissolved	ug/L	ND	1000	95.0	09/20/24 21:50	

LABORATORY CONTROL SAMPLE: 3703885

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	1000	944	94	80-120	
Barium, Dissolved	ug/L	1000	943	94	80-120	
Iron, Dissolved	ug/L	10000	9440	94	80-120	
Manganese, Dissolved	ug/L	1000	946	95	80-120	
Selenium, Dissolved	ug/L	1000	933	93	80-120	
Sodium, Dissolved	ug/L	10000	9310	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3703886 3703887

Parameter	Units	50382101013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	971	992	97	99	75-125	2	20	
Barium, Dissolved	ug/L	213	1000	1000	1160	1180	95	97	75-125	2	20	
Iron, Dissolved	ug/L	110	10000	10000	9500	9670	94	96	75-125	2	20	
Manganese, Dissolved	ug/L	695	1000	1000	1620	1650	93	95	75-125	1	20	
Selenium, Dissolved	ug/L	ND	1000	1000	957	974	96	97	75-125	2	20	
Sodium, Dissolved	ug/L	49600	10000	10000	58100	58600	86	91	75-125	1	20	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 808616 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007

METHOD BLANK: 3698145 Matrix: Water
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/12/24 09:22	

LABORATORY CONTROL SAMPLE: 3698146

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	281	94	80-120	

SAMPLE DUPLICATE: 3698147

Parameter	Units	50382072004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	913	905	1	10	

SAMPLE DUPLICATE: 3698148

Parameter	Units	50382073003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	382	394	3	10	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 808620 | Analysis Method: SM 2540C
QC Batch Method: SM 2540C | Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021

METHOD BLANK: 3698175 Matrix: Water
Associated Lab Samples: 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/12/24 10:25	

LABORATORY CONTROL SAMPLE: 3698176

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	279	93	80-120	

SAMPLE DUPLICATE: 3698177

Parameter	Units	50382101013 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	596	610	2	10	

SAMPLE DUPLICATE: 3698178

Parameter	Units	50382101015 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2390	2340	2	10	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 808827
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101025

METHOD BLANK: 3699620 Matrix: Water
Associated Lab Samples: 50382101025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/13/24 08:54	

LABORATORY CONTROL SAMPLE: 3699621

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	280	93	80-120	

SAMPLE DUPLICATE: 3699622

Parameter	Units	50382188001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	884	889	1	10	

SAMPLE DUPLICATE: 3699623

Parameter	Units	50382188002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	1500	1510	1	10	

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REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 809734
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007

METHOD BLANK: 3703979 Matrix: Water
Associated Lab Samples: 50382101001, 50382101003, 50382101005, 50382101007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.030	09/19/24 12:27	

LABORATORY CONTROL SAMPLE: 3703980

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.2	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3703981 3703982

Parameter	Units	50381791002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	98.3	50	50	142	142	87	88	90-110	0	20	M3,P4

MATRIX SPIKE SAMPLE: 3703983

Parameter	Units	50382101001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	4.8	5	9.7	98	90-110	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 809737
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021, 50382101025

METHOD BLANK: 3703988 Matrix: Water
Associated Lab Samples: 50382101009, 50382101011, 50382101013, 50382101015, 50382101017, 50382101019, 50382101021, 50382101025

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.030	09/19/24 15:03	

LABORATORY CONTROL SAMPLE: 3703989

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.1	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3703990 3703991

Parameter	Units	50382101013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	2.6	5	5	7.6	7.5	99	99	90-110	0	20	

MATRIX SPIKE SAMPLE: 3703992

Parameter	Units	50382114001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.23	5	5.2	100	90-110	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 810389
QC Batch Method: SM 4500-CN-C
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101001, 50382101002, 50382101003, 50382101004, 50382101005, 50382101006, 50382101007, 50382101008, 50382101009, 50382101010, 50382101011, 50382101012, 50382101013, 50382101015, 50382101016, 50382101017, 50382101018, 50382101019, 50382101020

METHOD BLANK: 3706921 Matrix: Water
Associated Lab Samples: 50382101001, 50382101002, 50382101003, 50382101004, 50382101005, 50382101006, 50382101007, 50382101008, 50382101009, 50382101010, 50382101011, 50382101012, 50382101013, 50382101015, 50382101016, 50382101017, 50382101018, 50382101019, 50382101020

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	0.0030	09/24/24 11:53	

LABORATORY CONTROL SAMPLE: 3706922

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.097	97	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706923 3706924

Parameter	Units	50382101013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	0.1	0.1	0.095	0.095	93	93	90-110	0	20	

MATRIX SPIKE SAMPLE: 3706925

Parameter	Units	50382101002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	0.1	0.097	96	90-110	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

QC Batch: 810390
QC Batch Method: SM 4500-CN-C
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382101014, 50382101021, 50382101022, 50382101023, 50382101024

METHOD BLANK: 3706926 Matrix: Water
Associated Lab Samples: 50382101014, 50382101021, 50382101022, 50382101023, 50382101024

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	0.23	0.0050	0.0030	09/24/24 14:45	

LABORATORY CONTROL SAMPLE: 3706927

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.099	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706928 3706929

Parameter	Units	50382101014 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	0.1	0.1	0.095	0.094	93	92	90-110	2	20	

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QUALIFIERS

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P4	Sample field preservation does not meet EPA or method recommendations for this analysis.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382101001	**MW-118S1_09102024**	EPA 300.0	808514		
50382101003	**MW-118WT_09102024**	EPA 300.0	808514		
50382101005	**MW-117S1_09102024**	EPA 300.0	808514		
50382101007	**MW-117WT_09102024**	EPA 300.0	808514		
50382101009	**X-9AR_09102024**	EPA 300.0	808514		
50382101011	**X-9BR_09102024**	EPA 300.0	808514		
50382101013	**X-9CAUG_09102024**	EPA 300.0	808514		
50382101015	**MW-9D_09102024**	EPA 300.0	808514		
50382101017	**X-4CAUGR_09102024**	EPA 300.0	808514		
50382101019	**X-4D_09102024**	EPA 300.0	808514		
50382101021	**MW-183WT_09102024**	EPA 300.0	808514		
50382101027	**DUP-04_09102024**	EPA 300.0	808514		
50382101001	**MW-118S1_09102024**	EPA 300.0	808520		
50382101003	**MW-118WT_09102024**	EPA 300.0	808520		
50382101005	**MW-117S1_09102024**	EPA 300.0	808520		
50382101007	**MW-117WT_09102024**	EPA 300.0	808520		
50382101009	**X-9AR_09102024**	EPA 300.0	808520		
50382101011	**X-9BR_09102024**	EPA 300.0	808520		
50382101013	**X-9CAUG_09102024**	EPA 300.0	808520		
50382101015	**MW-9D_09102024**	EPA 300.0	808520		
50382101017	**X-4CAUGR_09102024**	EPA 300.0	808520		
50382101019	**X-4D_09102024**	EPA 300.0	808520		
50382101021	**MW-183WT_09102024**	EPA 300.0	808520		
50382101027	**DUP-04_09102024**	EPA 300.0	808520		
50382101001	**MW-118S1_09102024**	EPA 3010	808572	EPA 6010	810339
50382101003	**MW-118WT_09102024**	EPA 3010	808572	EPA 6010	810339
50382101005	**MW-117S1_09102024**	EPA 3010	808572	EPA 6010	810339
50382101007	**MW-117WT_09102024**	EPA 3010	808572	EPA 6010	810339
50382101009	**X-9AR_09102024**	EPA 3010	808572	EPA 6010	810339
50382101011	**X-9BR_09102024**	EPA 3010	808572	EPA 6010	810339
50382101013	**X-9CAUG_09102024**	EPA 3010	808572	EPA 6010	810339
50382101015	**MW-9D_09102024**	EPA 3010	808572	EPA 6010	810339
50382101017	**X-4CAUGR_09102024**	EPA 3010	808572	EPA 6010	810339
50382101019	**X-4D_09102024**	EPA 3010	808572	EPA 6010	810339
50382101021	**MW-183WT_09102024**	EPA 3010	808572	EPA 6010	810339
50382101001	**MW-118S1_09102024**	EPA 3010	809675	EPA 6010	810094
50382101003	**MW-118WT_09102024**	EPA 3010	809675	EPA 6010	810094
50382101005	**MW-117S1_09102024**	EPA 3010	809675	EPA 6010	810094
50382101007	**MW-117WT_09102024**	EPA 3010	809675	EPA 6010	810094
50382101009	**X-9AR_09102024**	EPA 3010	809675	EPA 6010	810094
50382101011	**X-9BR_09102024**	EPA 3010	809675	EPA 6010	810094
50382101013	**X-9CAUG_09102024**	EPA 3010	809675	EPA 6010	810094
50382101015	**MW-9D_09102024**	EPA 3010	809675	EPA 6010	810094
50382101017	**X-4CAUGR_09102024**	EPA 3010	809675	EPA 6010	810094
50382101019	**X-4D_09102024**	EPA 3010	809675	EPA 6010	810094
50382101021	**MW-183WT_09102024**	EPA 3010	809675	EPA 6010	810094
50382101001	**MW-118S1_09102024**	SM 2540C	808616		

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382101003	**MW-118WT_09102024**	SM 2540C	808616		
50382101005	**MW-117S1_09102024**	SM 2540C	808616		
50382101007	**MW-117WT_09102024**	SM 2540C	808616		
50382101009	**X-9AR_09102024**	SM 2540C	808620		
50382101011	**X-9BR_09102024**	SM 2540C	808620		
50382101013	**X-9CAUG_09102024**	SM 2540C	808620		
50382101015	**MW-9D_09102024**	SM 2540C	808620		
50382101017	**X-4CAUGR_09102024**	SM 2540C	808620		
50382101019	**X-4D_09102024**	SM 2540C	808620		
50382101021	**MW-183WT_09102024**	SM 2540C	808620		
50382101025	**DUP-02_09102024**	SM 2540C	808827		
50382101001	**MW-118S1_09102024**	SM 4500-NH3 G	809734		
50382101003	**MW-118WT_09102024**	SM 4500-NH3 G	809734		
50382101005	**MW-117S1_09102024**	SM 4500-NH3 G	809734		
50382101007	**MW-117WT_09102024**	SM 4500-NH3 G	809734		
50382101009	**X-9AR_09102024**	SM 4500-NH3 G	809737		
50382101011	**X-9BR_09102024**	SM 4500-NH3 G	809737		
50382101013	**X-9CAUG_09102024**	SM 4500-NH3 G	809737		
50382101015	**MW-9D_09102024**	SM 4500-NH3 G	809737		
50382101017	**X-4CAUGR_09102024**	SM 4500-NH3 G	809737		
50382101019	**X-4D_09102024**	SM 4500-NH3 G	809737		
50382101021	**MW-183WT_09102024**	SM 4500-NH3 G	809737		
50382101025	**DUP-02_09102024**	SM 4500-NH3 G	809737		
50382101001	**MW-118S1_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101002	**MW-118S1_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101003	**MW-118WT_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101004	**MW-118WT_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101005	**MW-117S1_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101006	**MW-117S1_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101007	**MW-117WT_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101008	**MW-117WT_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101009	**X-9AR_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101010	**X-9AR_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101011	**X-9BR_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101012	**X-9BR_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101013	**X-9CAUG_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101014	**X-9CAUG_09102024 DISS CN**	SM 4500-CN-C	810390	SM 4500-CN-E	810475
50382101015	**MW-9D_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101016	**MW-9D_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101017	**X-4CAUGR_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101018	**X-4CAUGR_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101019	**X-4D_09102024**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101020	**X-4D_09102024 DISS CN**	SM 4500-CN-C	810389	SM 4500-CN-E	810467
50382101021	**MW-183WT_09102024**	SM 4500-CN-C	810390	SM 4500-CN-E	810475
50382101022	**MW-183WT_09102024 DISS CN**	SM 4500-CN-C	810390	SM 4500-CN-E	810475

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RACER Saginaw - GPL
Pace Project No.: 50382101

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382101023	**DUP-01_09102024**	SM 4500-CN-C	810390	SM 4500-CN-E	810475
50382101024	**DUP-01_09102024 DISS CN**	SM 4500-CN-C	810390	SM 4500-CN-E	810475

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Pace® Location Requested (City/State):
Pace Analytical Indianapolis
7726 Moller Road, Indianapolis, IN 46268

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 50382101

50382101

Company Name:	Arcadis_Racer	Contact/Report To:	Scott Clearwater
Street Address:	28550 Cabot Drive Suite 500 Novi, MI 48377	Phone #:	(810)225-1921
		E-Mail:	scott.clearwater@arcadis.com
		Cc E-Mail:	
Customer Project #:	30213352.11000		
Project Name:	RACER Saginaw - GPL	Invoice To:	Accounts Payable
		Invoice E-Mail:	invoices_us@arcadis.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	Need PO
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Michigan
Data Deliverables: [X] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other		Regulatory Program (DW, RCRA, etc.) as applicable:	Reportable [ ] Yes [ ] No
		Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other	DW PWSID # or WW Permit # as applicable:
		Date Results Requested: 10 Day TAT	Field Filtered (if applicable): [X] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 3 2 2 3 3 3 3 3

Identify Container Preservative Type***: 1 1 1 3 5 5 2 2

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40ml vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	Nitrate/Nitrite by 300.0	Cl & SO4 by 300.0	Ammonia by 350.1	Total Cyanide by 335.4	Dissolved Cyanide by 335.4 (Lab Filtered)	Total Metals by 6010*	Dissolved Metals by 6010* (Lab Filtered)	MS/MSD	Sample Comment
MW-118S1_09102024	GW	G	9/10/24		9/10/24	1100	7			X	X	X	X	X	X	X	X		001 002
MW-118WT_09102024	GW	G	9/10/24		9/10/24	1120	7			X	X	X	X	X	X	X	X		003 004
MW-117S1_09102024	GW	G	9/10/24		9/10/24	1140	7			X	X	X	X	X	X	X	X		005 006
MW-117WT_09102024	GW	G	9/10/24		9/10/24	1200	7			X	X	X	X	X	X	X	X		007 008
X-9AR_09102024	GW	G			9/10/24	1305	7			X	X	X	X	X	X	X	X		009 010
X-9BR_09102024	GW	G			9/10/24	1335	7			X	X	X	X	X	X	X	X		011 012
X-9CAVG_09102024	GW	G			9/10/24	1405	21			X	X	X	X	X	X	X	X	X	MS MSD 013 014
X-90_09102024	GW	G			9/10/24	1455	7			X	X	X	X	X	X	X	X		015 016
X-4CAVGR_09102024	GW	G			9/10/24	1525	7			X	X	X	X	X	X	X	X		017 018
X-40_09102024	GW	G			9/10/24	1550	7			X	X	X	X	X	X	X	X		019 020

Lab Use Only
Proj. Mgr: Olivia Deck
AcctNum / Client ID:
Table #:
Profile / Template: 11397-4
Prelog / Bottle Ord. ID: EZ 3151942

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
Nitrate/Nitrite by 300.0 has a short 48 hour hold time; please ship/return samples same day of collection.
*Total Metals: As, Ba, Fe, Mn, Se, Na

Collected By: (Printed Name) Billy J. Cogen
Signature:

Customer Remarks / Special Conditions / Possible Hazards:
*LOGIN: LOG DISSOLVED CYANIDE ON SEPARATE SAMPLE LINE

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	C	0.0	0.4	0.4	Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Arcadis	9-10-24 18:30	FedEx	9110124	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
FedEx	9111124 900		9111124 900	[✓] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORO-0019_v02_110123 ©

Pace® Location Requested (City/State):
Pace Analytical Indianapolis
7726 Moller Road, Indianapolis, IN 46268

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

Scan QR Code for instructions

Company Name:	Arcadis_Racer	Contact/Report To:	Scott Clearwater
Street Address:	28550 Cabot Drive Suite 500 Novi, MI 48377	Phone #:	(810)225-1921
		E-Mail:	scott.clearwater@arcadis.com
		Cc E-Mail:	
Customer Project #:	30213352.11000	Invoice To:	Accounts Payable
Project Name:	RACER Saginaw - GPL	Invoice E-Mail:	invoices_us@arcadis.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	Need PO
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Michigan

Data Deliverables: [X] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [X] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	Nitrate/Nitrite by 300.0	Cl & SO4 by 300.0	Ammonia by 350.1	Total Cyanide by 335.4	Dissolved Cyanide by 335.4 (Lab Filtered)	Total Metals by 6010*	Dissolved Metals by 6010* (Lab Filtered)	MS/MSD	Sample Comment
MW-183WT_09102024	GW	G			9/10/24	1620	7			X	X	X	X	X	X	X	X		021 022
Dup-01_09102024	GW	G			9/10/24	—	2							X	X				023 024
Dup-02_09102024	GW	G			9/10/24	—	1						X						025
Dup-03_09102024	GW	G			9/10/24	—	2									X	X		026
Dup-04_09102024	GW	G			9/10/24	—	1				X	X							027

Specify Container Size **: 3 2 1 3 3 3 3 3

Identify Container Preservative Type***: 1 1 1 3 5 5 2 2

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only

Proj. Mgr: Olivia Deck

AcctNum / Client ID:

Table #:

Profile / Template: 11397-4

Prelog / Bottle Ord. ID: EZ 3151942

Preservation non-conformance identified for sample:

Additional Instructions from Pace®:
Nitrate/Nitrite by 300.0 has a short 48 hour hold time; please ship/return samples same day of collection.
*Total Metals: As, Ba, Fe, Mn, Se, Na

Collected By: (Printed Name) Billy J. Cobern

Signature:

Customer Remarks / Special Conditions / Possible Hazards:
*LOGIN: LOG DISSOLVED CYANIDE ON SEPARATE SAMPLE LINE

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
3	C	0.0	0.4	0.4	Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Arcadis	9.10.24 1830	FedEx	9/10/24	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
FedEx	9/11/24 900	Mario	9/11/24 900	[✓] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

SAMPLE CONDITION UPON RECEIPT FORM

Pace

Date/Time and Initials of person examining contents: 9/11/24 1045 MW

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☑ Yes ☐ No
   (If yes)Seals Intact: ☑ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A B (C) D E F G H I
4. **Cooler Temperature(s):** 0.4/0.4 | 2.8/2.8 | 1.6/1.6 | _____
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis: nitrate	✓		**Circle: (HNO3 (<2)) (H2SO4 (<2)) (NaOH (>10)) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time: 14:00			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)		✓	
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓	~~MW~~	Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID		✓	Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS: A BP2U from sample point 3 on page 1 of COC is missing the time on container MW 9/11/24

COC PAGE 1 of 2

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																	1	2	1		1	2							W	✓	✓	✓	
2																																	
3																																	
4																																	
5																																	
6																	3	6	3		3	6											
7																	1	1	1		1	2											
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

COC PAGE 2 of 2

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit			Matrix	Nitric Red	Sulfuric Yellow	Sodium Hydroxide Green	Sodium Hydroxide ZnAc Black
																														HNO3 <2	H2SO4 <2	NaOH >10	NaOH/ZnAc >9
1																	1	2	1		1	2								✓	✓	✓	
2																						2										✓	
3																		1			1										✓		
4																			1											✓			
5																	1																
6																																	
7																																	
8																																	
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

September 26, 2024

Scott Clearwater
Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

RE: Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Dear Scott Clearwater:

Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Olivia Deck
olivia.deck@pacelabs.com
(317)228-3102
Project Manager

Enclosures

cc: Amanda Robinson, Arcadis U.S., Inc.

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Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50382378001	**MW-108S1_09112024**	Water	09/11/24 14:20	09/12/24 09:15
50382378002	**MW-107WT_09112024**	Water	09/11/24 15:15	09/12/24 09:15
50382378003	**MW-107S1_09112024**	Water	09/11/24 15:50	09/12/24 09:15
50382378004	**MW-108S2_09112024**	Water	09/11/24 16:10	09/12/24 09:15
50382378005	**MW-114S2_09112024**	Water	09/11/24 16:30	09/12/24 09:15
50382378006	**MW-114WT_09112024**	Water	09/11/24 16:50	09/12/24 09:15
50382378007	**Dup-06_09112024**	Water	09/11/24 08:00	09/12/24 09:15
50382378008	**Dup-07_09112024**	Water	09/11/24 08:00	09/12/24 09:15
50382378009	**MW-114WT_09112024 FF**	Water	09/11/24 16:50	09/12/24 09:15

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SAMPLE ANALYTE COUNT

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50382378001	**MW-108S1_09112024**	EPA 6010	NWB	1	PASI-I
		EPA 8270	GRM	68	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382378002	**MW-107WT_09112024**	EPA 6010	NWB	2	PASI-I
		EPA 6010	JPK	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382378003	**MW-107S1_09112024**	SM 4500-NH3 G	MTW	1	PASI-I
50382378004	**MW-108S2_09112024**	SM 4500-NH3 G	MTW	1	PASI-I
50382378005	**MW-114S2_09112024**	SM 4500-NH3 G	MTW	1	PASI-I
50382378006	**MW-114WT_09112024**	EPA 8082	KAV	8	PASI-I
		EPA 6010	NWB	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382378007	**Dup-06_09112024**	EPA 8270	GRM	68	PASI-I
50382378008	**Dup-07_09112024**	SM 4500-NH3 G	MTW	1	PASI-I
50382378009	**MW-114WT_09112024 FF**	EPA 8082	KAV	8	PASI-I

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382378001	**MW-108S1_09112024**					
EPA 6010	Manganese	945	ug/L	10.0	09/17/24 09:49	
SM 4500-NH3 G	Nitrogen, Ammonia	0.17	mg/L	0.10	09/26/24 10:24	
SM 4500PE-2011	Phosphorus	0.054	mg/L	0.030	09/24/24 14:11	
50382378002	**MW-107WT_09112024**					
EPA 6010	Arsenic	10.4	ug/L	5.0	09/17/24 09:51	
EPA 6010	Manganese	516	ug/L	10.0	09/17/24 09:51	
EPA 6010	Arsenic, Dissolved	9.1J	ug/L	5.0	09/21/24 01:08	
SM 4500-NH3 G	Nitrogen, Ammonia	0.90	mg/L	0.10	09/26/24 10:32	
SM 4500PE-2011	Phosphorus	0.14	mg/L	0.030	09/24/24 13:13	
50382378003	**MW-107S1_09112024**					
SM 4500-NH3 G	Nitrogen, Ammonia	1.5	mg/L	0.10	09/20/24 17:35	
50382378004	**MW-108S2_09112024**					
SM 4500-NH3 G	Nitrogen, Ammonia	9.0	mg/L	0.10	09/20/24 16:33	
50382378005	**MW-114S2_09112024**					
SM 4500-NH3 G	Nitrogen, Ammonia	1.6	mg/L	0.10	09/20/24 16:35	
50382378006	**MW-114WT_09112024**					
EPA 8082	PCB-1254 (Aroclor 1254)	0.058J	ug/L	0.091	09/25/24 16:49	
EPA 6010	Manganese	462	ug/L	10.0	09/17/24 10:06	
SM 4500-NH3 G	Nitrogen, Ammonia	0.27	mg/L	0.10	09/20/24 16:43	
SM 4500PE-2011	Phosphorus	0.17	mg/L	0.030	09/24/24 13:23	ML
50382378008	**Dup-07_09112024**					
SM 4500-NH3 G	Nitrogen, Ammonia	8.9	mg/L	0.10	09/20/24 16:51	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-108S1_09112024 **Lab ID: 50382378001** Collected: 09/11/24 14:20 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese	**945**	ug/L	10.0	0.77	1	09/15/24 20:35	09/17/24 09:49	7439-96-5	
8270 SVOC SS Water	Analytical Method: EPA 8270 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
Acenaphthene	ND	ug/L	8.7	2.4	1	09/17/24 09:31	09/17/24 21:14	83-32-9	
Acenaphthylene	ND	ug/L	8.7	2.2	1	09/17/24 09:31	09/17/24 21:14	208-96-8	
Anthracene	ND	ug/L	8.7	0.99	1	09/17/24 09:31	09/17/24 21:14	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.7	1.8	1	09/17/24 09:31	09/17/24 21:14	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.7	2.0	1	09/17/24 09:31	09/17/24 21:14	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.7	1.9	1	09/17/24 09:31	09/17/24 21:14	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.7	1.6	1	09/17/24 09:31	09/17/24 21:14	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.7	2.1	1	09/17/24 09:31	09/17/24 21:14	207-08-9	
Benzyl alcohol	ND	ug/L	8.7	2.4	1	09/17/24 09:31	09/17/24 21:14	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	8.7	2.2	1	09/17/24 09:31	09/17/24 21:14	101-55-3	
Butylbenzylphthalate	ND	ug/L	8.7	2.9	1	09/17/24 09:31	09/17/24 21:14	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	8.7	1.3	1	09/17/24 09:31	09/17/24 21:14	59-50-7	
4-Chloroaniline	ND	ug/L	8.7	1.2	1	09/17/24 09:31	09/17/24 21:14	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	8.7	1.1	1	09/17/24 09:31	09/17/24 21:14	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	8.7	1.9	1	09/17/24 09:31	09/17/24 21:14	111-44-4	
bis(2chloro1methylethyl) ether	ND	ug/L	8.7	2.3	1	09/17/24 09:31	09/17/24 21:14	108-60-1	
2-Chloronaphthalene	ND	ug/L	8.7	2.8	1	09/17/24 09:31	09/17/24 21:14	91-58-7	
2-Chlorophenol	ND	ug/L	8.7	1.9	1	09/17/24 09:31	09/17/24 21:14	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	8.7	2.4	1	09/17/24 09:31	09/17/24 21:14	7005-72-3	
Chrysene	ND	ug/L	8.7	1.8	1	09/17/24 09:31	09/17/24 21:14	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.7	2.0	1	09/17/24 09:31	09/17/24 21:14	53-70-3	
Dibenzofuran	ND	ug/L	8.7	1.7	1	09/17/24 09:31	09/17/24 21:14	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/L	17.4	2.1	1	09/17/24 09:31	09/17/24 21:14	91-94-1	
2,4-Dichlorophenol	ND	ug/L	8.7	2.3	1	09/17/24 09:31	09/17/24 21:14	120-83-2	
Diethylphthalate	ND	ug/L	8.7	1.8	1	09/17/24 09:31	09/17/24 21:14	84-66-2	
2,4-Dimethylphenol	ND	ug/L	8.7	1.1	1	09/17/24 09:31	09/17/24 21:14	105-67-9	
Dimethylphthalate	ND	ug/L	8.7	1.4	1	09/17/24 09:31	09/17/24 21:14	131-11-3	
Di-n-butylphthalate	ND	ug/L	8.7	2.1	1	09/17/24 09:31	09/17/24 21:14	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	17.4	2.1	1	09/17/24 09:31	09/17/24 21:14	534-52-1	
2,4-Dinitrophenol	ND	ug/L	43.5	1.9	1	09/17/24 09:31	09/17/24 21:14	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	8.7	1.6	1	09/17/24 09:31	09/17/24 21:14	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	8.7	1.8	1	09/17/24 09:31	09/17/24 21:14	606-20-2	
Di-n-octylphthalate	ND	ug/L	8.7	3.0	1	09/17/24 09:31	09/17/24 21:14	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	8.7	2.4	1	09/17/24 09:31	09/17/24 21:14	117-81-7	
Fluoranthene	ND	ug/L	8.7	1.5	1	09/17/24 09:31	09/17/24 21:14	206-44-0	
Fluorene	ND	ug/L	8.7	1.8	1	09/17/24 09:31	09/17/24 21:14	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	8.7	3.3	1	09/17/24 09:31	09/17/24 21:14	87-68-3	
Hexachlorobenzene	ND	ug/L	8.7	1.4	1	09/17/24 09:31	09/17/24 21:14	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	8.7	2.4	1	09/17/24 09:31	09/17/24 21:14	77-47-4	
Hexachloroethane	ND	ug/L	8.7	4.0	1	09/17/24 09:31	09/17/24 21:14	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.7	1.7	1	09/17/24 09:31	09/17/24 21:14	193-39-5	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-108S1_09112024 **Lab ID: 50382378001** Collected: 09/11/24 14:20 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 SVOC SS Water	Analytical Method: EPA 8270 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
Isophorone	ND	ug/L	8.7	1.0	1	09/17/24 09:31	09/17/24 21:14	78-59-1	
1-Methylnaphthalene	ND	ug/L	8.7	2.7	1	09/17/24 09:31	09/17/24 21:14	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.7	2.9	1	09/17/24 09:31	09/17/24 21:14	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	8.7	1.6	1	09/17/24 09:31	09/17/24 21:14	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND	ug/L	8.7	1.5	1	09/17/24 09:31	09/17/24 21:14		
Naphthalene	ND	ug/L	8.7	2.7	1	09/17/24 09:31	09/17/24 21:14	91-20-3	
2-Nitroaniline	ND	ug/L	8.7	2.2	1	09/17/24 09:31	09/17/24 21:14	88-74-4	
3-Nitroaniline	ND	ug/L	8.7	1.7	1	09/17/24 09:31	09/17/24 21:14	99-09-2	
4-Nitroaniline	ND	ug/L	8.7	2.0	1	09/17/24 09:31	09/17/24 21:14	100-01-6	
Nitrobenzene	ND	ug/L	8.7	1.8	1	09/17/24 09:31	09/17/24 21:14	98-95-3	
2-Nitrophenol	ND	ug/L	8.7	2.5	1	09/17/24 09:31	09/17/24 21:14	88-75-5	
4-Nitrophenol	ND	ug/L	43.5	1.6	1	09/17/24 09:31	09/17/24 21:14	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/L	43.5	1.5	1	09/17/24 09:31	09/17/24 21:14	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	8.7	1.3	1	09/17/24 09:31	09/17/24 21:14	86-30-6	
Pentachlorophenol	ND	ug/L	43.5	3.1	1	09/17/24 09:31	09/17/24 21:14	87-86-5	
Phenanthrene	ND	ug/L	8.7	1.2	1	09/17/24 09:31	09/17/24 21:14	85-01-8	
Phenol	ND	ug/L	8.7	1.0	1	09/17/24 09:31	09/17/24 21:14	108-95-2	
Pyrene	ND	ug/L	8.7	1.6	1	09/17/24 09:31	09/17/24 21:14	129-00-0	
Pyridine	ND	ug/L	8.7	1.9	1	09/17/24 09:31	09/17/24 21:14	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	8.7	1.2	1	09/17/24 09:31	09/17/24 21:14	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	8.7	1.4	1	09/17/24 09:31	09/17/24 21:14	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	51	%.	23-100		1	09/17/24 09:31	09/17/24 21:14	4165-60-0	
2-Fluorobiphenyl (S)	49	%.	17-89		1	09/17/24 09:31	09/17/24 21:14	321-60-8	
p-Terphenyl-d14 (S)	75	%.	34-136		1	09/17/24 09:31	09/17/24 21:14	1718-51-0	
Phenol-d5 (S)	32	%.	10-60		1	09/17/24 09:31	09/17/24 21:14	4165-62-2	
2-Fluorophenol (S)	39	%.	10-73		1	09/17/24 09:31	09/17/24 21:14	367-12-4	
2,4,6-Tribromophenol (S)	87	%.	28-141		1	09/17/24 09:31	09/17/24 21:14	118-79-6	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.17**	mg/L	0.10	0.030	1		09/26/24 10:24	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.054**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 14:11	7723-14-0	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-107WT_09112024 **Lab ID: 50382378002** Collected: 09/11/24 15:15 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**10.4**	ug/L	5.0	4.3	1	09/15/24 20:35	09/17/24 09:51	7440-38-2	
Manganese	**516**	ug/L	10.0	0.77	1	09/15/24 20:35	09/17/24 09:51	7439-96-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	**9.1J**	ug/L	5.0	4.3	1	09/20/24 07:45	09/21/24 01:08	7440-38-2	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.90**	mg/L	0.10	0.030	1		09/26/24 10:32	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.14**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 13:13	7723-14-0	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-107S1_09112024 **Lab ID: 50382378003** Collected: 09/11/24 15:50 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**1.5**	mg/L	0.10	0.030	1		09/20/24 17:35	7664-41-7	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-108S2_09112024 **Lab ID: 50382378004** Collected: 09/11/24 16:10 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**9.0**	mg/L	0.10	0.030	1		09/20/24 16:33	7664-41-7	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-114S2_09112024 **Lab ID: 50382378005** Collected: 09/11/24 16:30 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**1.6**	mg/L	0.10	0.030	1		09/20/24 16:35	7664-41-7	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-114WT_09112024 **Lab ID: 50382378006** Collected: 09/11/24 16:50 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.061	1	09/24/24 15:07	09/25/24 16:49	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.085	1	09/24/24 15:07	09/25/24 16:49	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.071	1	09/24/24 15:07	09/25/24 16:49	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.091	0.072	1	09/24/24 15:07	09/25/24 16:49	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.091	0.037	1	09/24/24 15:07	09/25/24 16:49	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.058J**	ug/L	0.091	0.054	1	09/24/24 15:07	09/25/24 16:49	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.046	1	09/24/24 15:07	09/25/24 16:49	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	70	%.	10-117		1	09/24/24 15:07	09/25/24 16:49	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese	**462**	ug/L	10.0	0.77	1	09/15/24 20:35	09/17/24 10:06	7439-96-5	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.27**	mg/L	0.10	0.030	1		09/20/24 16:43	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.17**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 13:23	7723-14-0	ML

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: Dup-06_09112024 **Lab ID: 50382378007** Collected: 09/11/24 08:00 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 SVOC SS Water	Analytical Method: EPA 8270 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
Acenaphthene	ND	ug/L	8.7	2.4	1	09/17/24 16:05	09/19/24 01:01	83-32-9	
Acenaphthylene	ND	ug/L	8.7	2.2	1	09/17/24 16:05	09/19/24 01:01	208-96-8	
Anthracene	ND	ug/L	8.7	0.99	1	09/17/24 16:05	09/19/24 01:01	120-12-7	
Benzo(a)anthracene	ND	ug/L	8.7	1.8	1	09/17/24 16:05	09/19/24 01:01	56-55-3	
Benzo(a)pyrene	ND	ug/L	8.7	2.0	1	09/17/24 16:05	09/19/24 01:01	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	8.7	1.9	1	09/17/24 16:05	09/19/24 01:01	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	8.7	1.6	1	09/17/24 16:05	09/19/24 01:01	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	8.7	2.1	1	09/17/24 16:05	09/19/24 01:01	207-08-9	
Benzyl alcohol	ND	ug/L	8.7	2.4	1	09/17/24 16:05	09/19/24 01:01	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	8.7	2.2	1	09/17/24 16:05	09/19/24 01:01	101-55-3	
Butylbenzylphthalate	ND	ug/L	8.7	2.9	1	09/17/24 16:05	09/19/24 01:01	85-68-7	
4-Chloro-3-methylphenol	ND	ug/L	8.7	1.3	1	09/17/24 16:05	09/19/24 01:01	59-50-7	
4-Chloroaniline	ND	ug/L	8.7	1.2	1	09/17/24 16:05	09/19/24 01:01	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	8.7	1.1	1	09/17/24 16:05	09/19/24 01:01	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	8.7	1.9	1	09/17/24 16:05	09/19/24 01:01	111-44-4	
bis(2chloro1methylethyl) ether	ND	ug/L	8.7	2.3	1	09/17/24 16:05	09/19/24 01:01	108-60-1	
2-Chloronaphthalene	ND	ug/L	8.7	2.8	1	09/17/24 16:05	09/19/24 01:01	91-58-7	
2-Chlorophenol	ND	ug/L	8.7	1.9	1	09/17/24 16:05	09/19/24 01:01	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	8.7	2.4	1	09/17/24 16:05	09/19/24 01:01	7005-72-3	
Chrysene	ND	ug/L	8.7	1.8	1	09/17/24 16:05	09/19/24 01:01	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	8.7	2.0	1	09/17/24 16:05	09/19/24 01:01	53-70-3	
Dibenzofuran	ND	ug/L	8.7	1.7	1	09/17/24 16:05	09/19/24 01:01	132-64-9	
3,3'-Dichlorobenzidine	ND	ug/L	17.4	2.1	1	09/17/24 16:05	09/19/24 01:01	91-94-1	
2,4-Dichlorophenol	ND	ug/L	8.7	2.3	1	09/17/24 16:05	09/19/24 01:01	120-83-2	
Diethylphthalate	ND	ug/L	8.7	1.8	1	09/17/24 16:05	09/19/24 01:01	84-66-2	
2,4-Dimethylphenol	ND	ug/L	8.7	1.1	1	09/17/24 16:05	09/19/24 01:01	105-67-9	
Dimethylphthalate	ND	ug/L	8.7	1.4	1	09/17/24 16:05	09/19/24 01:01	131-11-3	
Di-n-butylphthalate	ND	ug/L	8.7	2.1	1	09/17/24 16:05	09/19/24 01:01	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	17.4	2.1	1	09/17/24 16:05	09/19/24 01:01	534-52-1	
2,4-Dinitrophenol	ND	ug/L	43.5	1.9	1	09/17/24 16:05	09/19/24 01:01	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	8.7	1.6	1	09/17/24 16:05	09/19/24 01:01	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	8.7	1.8	1	09/17/24 16:05	09/19/24 01:01	606-20-2	
Di-n-octylphthalate	ND	ug/L	8.7	3.0	1	09/17/24 16:05	09/19/24 01:01	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	8.7	2.4	1	09/17/24 16:05	09/19/24 01:01	117-81-7	
Fluoranthene	ND	ug/L	8.7	1.5	1	09/17/24 16:05	09/19/24 01:01	206-44-0	
Fluorene	ND	ug/L	8.7	1.8	1	09/17/24 16:05	09/19/24 01:01	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	8.7	3.3	1	09/17/24 16:05	09/19/24 01:01	87-68-3	
Hexachlorobenzene	ND	ug/L	8.7	1.4	1	09/17/24 16:05	09/19/24 01:01	118-74-1	
Hexachlorocyclopentadiene	ND	ug/L	8.7	2.4	1	09/17/24 16:05	09/19/24 01:01	77-47-4	
Hexachloroethane	ND	ug/L	8.7	4.0	1	09/17/24 16:05	09/19/24 01:01	67-72-1	
Indeno(1,2,3-cd)pyrene	ND	ug/L	8.7	1.7	1	09/17/24 16:05	09/19/24 01:01	193-39-5	
Isophorone	ND	ug/L	8.7	1.0	1	09/17/24 16:05	09/19/24 01:01	78-59-1	
1-Methylnaphthalene	ND	ug/L	8.7	2.7	1	09/17/24 16:05	09/19/24 01:01	90-12-0	
2-Methylnaphthalene	ND	ug/L	8.7	2.9	1	09/17/24 16:05	09/19/24 01:01	91-57-6	
2-Methylphenol(o-Cresol)	ND	ug/L	8.7	1.6	1	09/17/24 16:05	09/19/24 01:01	95-48-7	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: Dup-06_09112024 **Lab ID: 50382378007** Collected: 09/11/24 08:00 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8270 SVOC SS Water	Analytical Method: EPA 8270 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
3&4-Methylphenol(m&p Cresol)	ND	ug/L	8.7	1.5	1	09/17/24 16:05	09/19/24 01:01		
Naphthalene	ND	ug/L	8.7	2.7	1	09/17/24 16:05	09/19/24 01:01	91-20-3	
2-Nitroaniline	ND	ug/L	8.7	2.2	1	09/17/24 16:05	09/19/24 01:01	88-74-4	
3-Nitroaniline	ND	ug/L	8.7	1.7	1	09/17/24 16:05	09/19/24 01:01	99-09-2	
4-Nitroaniline	ND	ug/L	8.7	2.0	1	09/17/24 16:05	09/19/24 01:01	100-01-6	
Nitrobenzene	ND	ug/L	8.7	1.8	1	09/17/24 16:05	09/19/24 01:01	98-95-3	
2-Nitrophenol	ND	ug/L	8.7	2.5	1	09/17/24 16:05	09/19/24 01:01	88-75-5	
4-Nitrophenol	ND	ug/L	43.5	1.6	1	09/17/24 16:05	09/19/24 01:01	100-02-7	
N-Nitroso-di-n-propylamine	ND	ug/L	43.5	1.5	1	09/17/24 16:05	09/19/24 01:01	621-64-7	
N-Nitrosodiphenylamine	ND	ug/L	8.7	1.3	1	09/17/24 16:05	09/19/24 01:01	86-30-6	
Pentachlorophenol	ND	ug/L	43.5	3.1	1	09/17/24 16:05	09/19/24 01:01	87-86-5	
Phenanthrene	ND	ug/L	8.7	1.2	1	09/17/24 16:05	09/19/24 01:01	85-01-8	
Phenol	ND	ug/L	8.7	1.0	1	09/17/24 16:05	09/19/24 01:01	108-95-2	
Pyrene	ND	ug/L	8.7	1.6	1	09/17/24 16:05	09/19/24 01:01	129-00-0	
Pyridine	ND	ug/L	8.7	1.9	1	09/17/24 16:05	09/19/24 01:01	110-86-1	
2,4,5-Trichlorophenol	ND	ug/L	8.7	1.2	1	09/17/24 16:05	09/19/24 01:01	95-95-4	
2,4,6-Trichlorophenol	ND	ug/L	8.7	1.4	1	09/17/24 16:05	09/19/24 01:01	88-06-2	
Surrogates									
Nitrobenzene-d5 (S)	47	%.	23-100		1	09/17/24 16:05	09/19/24 01:01	4165-60-0	
2-Fluorobiphenyl (S)	36	%.	17-89		1	09/17/24 16:05	09/19/24 01:01	321-60-8	
p-Terphenyl-d14 (S)	79	%.	34-136		1	09/17/24 16:05	09/19/24 01:01	1718-51-0	
Phenol-d5 (S)	30	%.	10-60		1	09/17/24 16:05	09/19/24 01:01	4165-62-2	
2-Fluorophenol (S)	33	%.	10-73		1	09/17/24 16:05	09/19/24 01:01	367-12-4	
2,4,6-Tribromophenol (S)	85	%.	28-141		1	09/17/24 16:05	09/19/24 01:01	118-79-6	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: Dup-07_09112024 **Lab ID: 50382378008** Collected: 09/11/24 08:00 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**8.9**	mg/L	0.10	0.030	1		09/20/24 16:51	7664-41-7	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Sample: MW-114WT_09112024 FF **Lab ID: 50382378009** Collected: 09/11/24 16:50 Received: 09/12/24 09:15 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.061	1	09/24/24 15:07	09/25/24 17:03	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.085	1	09/24/24 15:07	09/25/24 17:03	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.071	1	09/24/24 15:07	09/25/24 17:03	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.091	0.072	1	09/24/24 15:07	09/25/24 17:03	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.091	0.037	1	09/24/24 15:07	09/25/24 17:03	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.091	0.054	1	09/24/24 15:07	09/25/24 17:03	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.046	1	09/24/24 15:07	09/25/24 17:03	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	64	%.	10-117		1	09/24/24 15:07	09/25/24 17:03	877-09-8	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 809022
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382378001, 50382378002, 50382378006

METHOD BLANK: 3700978 Matrix: Water
Associated Lab Samples: 50382378001, 50382378002, 50382378006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	4.3	09/17/24 09:11	
Manganese	ug/L	ND	10.0	0.77	09/17/24 09:11	

LABORATORY CONTROL SAMPLE: 3700979

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	910	91	80-120	
Manganese	ug/L	1000	920	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3700980 3700981

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	10.4	1000	1000	1050	996	104	99	75-125	5	20	
Manganese	ug/L	516	1000	1000	1570	1440	106	92	75-125	9	20	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 809867
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50382378002

METHOD BLANK: 3704733 Matrix: Water
Associated Lab Samples: 50382378002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	4.3	09/21/24 00:36	

LABORATORY CONTROL SAMPLE: 3704734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	1000	952	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704735 3704736

Parameter	Units	50382501004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	973	980	97	98	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704737 3704738

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	9.1J	1000	1000	979	988	97	98	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704739 3704740

Parameter	Units	50382471001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	994	1000	99	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 810483
QC Batch Method: EPA 3510
Analysis Method: EPA 8082
Analysis Description: 8082 GCS PCB Mod
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382378006, 50382378009

METHOD BLANK: 3707165 Matrix: Water
Associated Lab Samples: 50382378006, 50382378009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	0.067	09/25/24 12:43	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.10	0.094	09/25/24 12:43	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	0.078	09/25/24 12:43	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	0.079	09/25/24 12:43	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	0.041	09/25/24 12:43	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	0.059	09/25/24 12:43	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	0.051	09/25/24 12:43	
Tetrachloro-m-xylene (S)	%.	61	10-117		09/25/24 12:43	

LABORATORY CONTROL SAMPLE: 3707166

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	6.1	121	41-163	
PCB-1260 (Aroclor 1260)	ug/L	5	5.4	108	43-154	
Tetrachloro-m-xylene (S)	%.			66	10-117	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3707167 3707168

Parameter	Units	50382303001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	<0.20	4.8	4.8	5.6	6.0	118	126	10-146	6	20	
PCB-1260 (Aroclor 1260)	ug/L	<0.20	4.8	4.8	4.3	4.7	91	99	10-136	9	20	
Tetrachloro-m-xylene (S)	%.						74	68	10-117			

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 809253
QC Batch Method: EPA 3510
Analysis Method: EPA 8270
Analysis Description: 8270 Water MSSV
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50382378001

METHOD BLANK: 3701781 Matrix: Water

Associated Lab Samples: 50382378001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	ND	10.0	3.1	09/17/24 17:43	
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.4	09/17/24 17:43	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.7	09/17/24 17:43	
2,4-Dichlorophenol	ug/L	ND	10.0	2.6	09/17/24 17:43	
2,4-Dimethylphenol	ug/L	ND	10.0	1.3	09/17/24 17:43	
2,4-Dinitrophenol	ug/L	ND	50.0	2.2	09/17/24 17:43	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.8	09/17/24 17:43	
2,6-Dinitrotoluene	ug/L	ND	10.0	2.1	09/17/24 17:43	
2-Chloronaphthalene	ug/L	ND	10.0	3.2	09/17/24 17:43	
2-Chlorophenol	ug/L	ND	10.0	2.2	09/17/24 17:43	
2-Methylnaphthalene	ug/L	ND	10.0	3.4	09/17/24 17:43	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.9	09/17/24 17:43	
2-Nitroaniline	ug/L	ND	10.0	2.5	09/17/24 17:43	
2-Nitrophenol	ug/L	ND	10.0	2.9	09/17/24 17:43	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.7	09/17/24 17:43	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	2.4	09/17/24 17:43	
3-Nitroaniline	ug/L	ND	10.0	1.9	09/17/24 17:43	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	2.4	09/17/24 17:43	
4-Bromophenylphenyl ether	ug/L	ND	10.0	2.5	09/17/24 17:43	
4-Chloro-3-methylphenol	ug/L	ND	10.0	1.4	09/17/24 17:43	
4-Chloroaniline	ug/L	ND	10.0	1.4	09/17/24 17:43	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	2.8	09/17/24 17:43	
4-Nitroaniline	ug/L	ND	10.0	2.3	09/17/24 17:43	
4-Nitrophenol	ug/L	ND	50.0	1.9	09/17/24 17:43	
Acenaphthene	ug/L	ND	10.0	2.7	09/17/24 17:43	
Acenaphthylene	ug/L	ND	10.0	2.6	09/17/24 17:43	
Anthracene	ug/L	ND	10.0	1.1	09/17/24 17:43	
Benzo(a)anthracene	ug/L	ND	10.0	2.1	09/17/24 17:43	
Benzo(a)pyrene	ug/L	ND	10.0	2.4	09/17/24 17:43	
Benzo(b)fluoranthene	ug/L	ND	10.0	2.2	09/17/24 17:43	
Benzo(g,h,i)perylene	ug/L	ND	10.0	1.8	09/17/24 17:43	
Benzo(k)fluoranthene	ug/L	ND	10.0	2.4	09/17/24 17:43	
Benzyl alcohol	ug/L	ND	10.0	2.7	09/17/24 17:43	
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.3	09/17/24 17:43	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	2.2	09/17/24 17:43	
bis(2-Ethylhexyl)phthalate	ug/L	ND	10.0	2.7	09/17/24 17:43	
bis(2chloro1methylethyl) ether	ug/L	ND	10.0	2.6	09/17/24 17:43	
Butylbenzylphthalate	ug/L	ND	10.0	3.4	09/17/24 17:43	
Chrysene	ug/L	ND	10.0	2.1	09/17/24 17:43	
Di-n-butylphthalate	ug/L	ND	10.0	2.4	09/17/24 17:43	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

METHOD BLANK: 3701781 Matrix: Water
Associated Lab Samples: 50382378001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Di-n-octylphthalate	ug/L	ND	10.0	3.5	09/17/24 17:43	
Dibenz(a,h)anthracene	ug/L	ND	10.0	2.3	09/17/24 17:43	
Dibenzofuran	ug/L	ND	10.0	2.0	09/17/24 17:43	
Diethylphthalate	ug/L	ND	10.0	2.1	09/17/24 17:43	
Dimethylphthalate	ug/L	ND	10.0	1.6	09/17/24 17:43	
Fluoranthene	ug/L	ND	10.0	1.8	09/17/24 17:43	
Fluorene	ug/L	ND	10.0	2.1	09/17/24 17:43	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	3.8	09/17/24 17:43	
Hexachlorobenzene	ug/L	ND	10.0	1.7	09/17/24 17:43	
Hexachlorocyclopentadiene	ug/L	ND	10.0	2.8	09/17/24 17:43	
Hexachloroethane	ug/L	ND	10.0	4.5	09/17/24 17:43	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	1.9	09/17/24 17:43	
Isophorone	ug/L	ND	10.0	1.2	09/17/24 17:43	
N-Nitroso-di-n-propylamine	ug/L	ND	50.0	1.7	09/17/24 17:43	
N-Nitrosodiphenylamine	ug/L	ND	10.0	1.5	09/17/24 17:43	
Naphthalene	ug/L	ND	10.0	3.1	09/17/24 17:43	
Nitrobenzene	ug/L	ND	10.0	2.1	09/17/24 17:43	
Pentachlorophenol	ug/L	ND	50.0	3.6	09/17/24 17:43	
Phenanthrene	ug/L	ND	10.0	1.3	09/17/24 17:43	
Phenol	ug/L	ND	10.0	1.2	09/17/24 17:43	
Pyrene	ug/L	ND	10.0	1.8	09/17/24 17:43	
Pyridine	ug/L	ND	10.0	2.2	09/17/24 17:43	
2,4,6-Tribromophenol (S)	%.	68	28-141		09/17/24 17:43	
2-Fluorobiphenyl (S)	%.	36	17-89		09/17/24 17:43	
2-Fluorophenol (S)	%.	31	10-73		09/17/24 17:43	
Nitrobenzene-d5 (S)	%.	39	23-100		09/17/24 17:43	
p-Terphenyl-d14 (S)	%.	84	34-136		09/17/24 17:43	
Phenol-d5 (S)	%.	27	10-60		09/17/24 17:43	

LABORATORY CONTROL SAMPLE: 3701782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/L	50.1	38.9	78	31-151	
2-Chlorophenol	ug/L	50	24.3	49	14-114	
2-Methylnaphthalene	ug/L	50	26.1	52	10-107	
4-Chloro-3-methylphenol	ug/L	50	32.4	65	26-144	
4-Nitrophenol	ug/L	50	32.3J	65	10-100	
Acenaphthene	ug/L	50	26.6	53	10-124	
Acenaphthylene	ug/L	50	26.3	53	11-122	
Anthracene	ug/L	50	35.5	71	43-139	
Benzo(a)anthracene	ug/L	50	44.2	88	58-149	
Benzo(a)pyrene	ug/L	50	43.4	87	56-148	
Benzo(b)fluoranthene	ug/L	50	45.1	90	54-151	
Benzo(g,h,i)perylene	ug/L	50	46.8	94	55-146	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

LABORATORY CONTROL SAMPLE: 3701782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(k)fluoranthene	ug/L	50	42.8	86	53-151	
Chrysene	ug/L	50	42.4	85	58-151	
Dibenz(a,h)anthracene	ug/L	50	46.6	93	55-151	
Fluoranthene	ug/L	50	46.4	93	55-147	
Fluorene	ug/L	50	28.5	57	21-132	
Indeno(1,2,3-cd)pyrene	ug/L	50	46.2	92	55-149	
N-Nitroso-di-n-propylamine	ug/L	50	24.9J	50	16-124	
Naphthalene	ug/L	50	24.5	49	10-100	
Pentachlorophenol	ug/L	50	38.2J	76	36-152	
Phenanthrene	ug/L	50	34.2	68	43-137	
Phenol	ug/L	50	29.5	59	10-78	
Pyrene	ug/L	50	38.1	76	54-151	
2,4,6-Tribromophenol (S)	%.			67	28-141	
2-Fluorobiphenyl (S)	%.			40	17-89	
2-Fluorophenol (S)	%.			42	10-73	
Nitrobenzene-d5 (S)	%.			45	23-100	
p-Terphenyl-d14 (S)	%.			76	34-136	
Phenol-d5 (S)	%.			33	10-60	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3701783 3701784

Parameter	Units	50382378001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
2,4-Dinitrotoluene	ug/L	ND	45.6	43.6	42.9	42.0	94	96	22-153	2	20	
2-Chlorophenol	ug/L	ND	45.5	43.5	27.6	23.8	61	55	12-103	15	20	
2-Methylnaphthalene	ug/L	ND	45.5	43.5	32.3	30.5	71	70	10-87	6	20	
4-Chloro-3-methylphenol	ug/L	ND	45.5	43.5	49.9	47.5	110	109	11-153	5	20	
4-Nitrophenol	ug/L	ND	45.5	43.5	30.0J	29.1J	66	67	10-100		20	
Acenaphthene	ug/L	ND	45.5	43.5	30.3	33.6	67	77	13-104	10	20	
Acenaphthylene	ug/L	ND	45.5	43.5	29.3	32.2	64	74	21-103	10	20	
Anthracene	ug/L	ND	45.5	43.5	36.5	37.4	80	86	35-134	2	20	
Benzo(a)anthracene	ug/L	ND	45.5	43.5	39.4	41.1	87	94	39-151	4	20	
Benzo(a)pyrene	ug/L	ND	45.5	43.5	38.1	38.9	84	90	40-147	2	20	
Benzo(b)fluoranthene	ug/L	ND	45.5	43.5	38.0	39.0	84	90	36-152	3	20	
Benzo(g,h,i)perylene	ug/L	ND	45.5	43.5	40.3	42.5	89	98	38-144	5	20	
Benzo(k)fluoranthene	ug/L	ND	45.5	43.5	39.5	39.7	87	91	39-146	0	20	
Chrysene	ug/L	ND	45.5	43.5	36.8	38.2	81	88	40-150	4	20	
Dibenz(a,h)anthracene	ug/L	ND	45.5	43.5	40.4	42.0	89	97	39-149	4	20	
Fluoranthene	ug/L	ND	45.5	43.5	43.6	43.3	96	100	43-147	1	20	
Fluorene	ug/L	ND	45.5	43.5	33.1	35.6	73	82	29-114	7	20	
Indeno(1,2,3-cd)pyrene	ug/L	ND	45.5	43.5	40.0	41.6	88	96	42-145	4	20	
N-Nitroso-di-n-propylamine	ug/L	ND	45.5	43.5	31.4J	27.5J	69	63	21-114		20	
Naphthalene	ug/L	ND	45.5	43.5	27.1	26.2	60	60	10-84	3	20	
Pentachlorophenol	ug/L	ND	45.5	43.5	39.2J	40.9J	86	94	25-168		20	
Phenanthrene	ug/L	ND	45.5	43.5	36.1	35.9	80	83	42-127	1	20	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3701783 3701784

Parameter	Units	50382378001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phenol	ug/L	ND	45.5	43.5	17.7	20.7	39	48	10-65	16	20	
Pyrene	ug/L	ND	45.5	43.5	36.8	36.5	81	84	41-150	1	20	
2,4,6-Tribromophenol (S)	%.						89	96	28-141			
2-Fluorobiphenyl (S)	%.						49	62	17-89			
2-Fluorophenol (S)	%.						41	39	10-73			
Nitrobenzene-d5 (S)	%.						58	60	23-100			
p-Terphenyl-d14 (S)	%.						78	81	34-136			
Phenol-d5 (S)	%.						38	35	10-60			

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 809334
QC Batch Method: EPA 3510
Analysis Method: EPA 8270
Analysis Description: 8270 Water MSSV
Laboratory: Pace Analytical Services - Indianapolis

Associated Lab Samples: 50382378007

METHOD BLANK: 3702132 Matrix: Water

Associated Lab Samples: 50382378007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	ND	10.0	3.1	09/18/24 18:48	
2,4,5-Trichlorophenol	ug/L	ND	10.0	1.4	09/18/24 18:48	
2,4,6-Trichlorophenol	ug/L	ND	10.0	1.7	09/18/24 18:48	
2,4-Dichlorophenol	ug/L	ND	10.0	2.6	09/18/24 18:48	
2,4-Dimethylphenol	ug/L	ND	10.0	1.3	09/18/24 18:48	
2,4-Dinitrophenol	ug/L	ND	50.0	2.2	09/18/24 18:48	
2,4-Dinitrotoluene	ug/L	ND	10.0	1.8	09/18/24 18:48	
2,6-Dinitrotoluene	ug/L	ND	10.0	2.1	09/18/24 18:48	
2-Chloronaphthalene	ug/L	ND	10.0	3.2	09/18/24 18:48	
2-Chlorophenol	ug/L	ND	10.0	2.2	09/18/24 18:48	
2-Methylnaphthalene	ug/L	ND	10.0	3.4	09/18/24 18:48	
2-Methylphenol(o-Cresol)	ug/L	ND	10.0	1.9	09/18/24 18:48	
2-Nitroaniline	ug/L	ND	10.0	2.5	09/18/24 18:48	
2-Nitrophenol	ug/L	ND	10.0	2.9	09/18/24 18:48	
3&4-Methylphenol(m&p Cresol)	ug/L	ND	10.0	1.7	09/18/24 18:48	
3,3'-Dichlorobenzidine	ug/L	ND	20.0	2.4	09/18/24 18:48	
3-Nitroaniline	ug/L	ND	10.0	1.9	09/18/24 18:48	
4,6-Dinitro-2-methylphenol	ug/L	ND	20.0	2.4	09/18/24 18:48	
4-Bromophenylphenyl ether	ug/L	ND	10.0	2.5	09/18/24 18:48	
4-Chloro-3-methylphenol	ug/L	ND	10.0	1.4	09/18/24 18:48	
4-Chloroaniline	ug/L	ND	10.0	1.4	09/18/24 18:48	
4-Chlorophenylphenyl ether	ug/L	ND	10.0	2.8	09/18/24 18:48	
4-Nitroaniline	ug/L	ND	10.0	2.3	09/18/24 18:48	
4-Nitrophenol	ug/L	ND	50.0	1.9	09/18/24 18:48	
Acenaphthene	ug/L	ND	10.0	2.7	09/18/24 18:48	
Acenaphthylene	ug/L	ND	10.0	2.6	09/18/24 18:48	
Anthracene	ug/L	ND	10.0	1.1	09/18/24 18:48	
Benzo(a)anthracene	ug/L	ND	10.0	2.1	09/18/24 18:48	
Benzo(a)pyrene	ug/L	ND	10.0	2.4	09/18/24 18:48	
Benzo(b)fluoranthene	ug/L	ND	10.0	2.2	09/18/24 18:48	
Benzo(g,h,i)perylene	ug/L	ND	10.0	1.8	09/18/24 18:48	
Benzo(k)fluoranthene	ug/L	ND	10.0	2.4	09/18/24 18:48	
Benzyl alcohol	ug/L	ND	10.0	2.7	09/18/24 18:48	
bis(2-Chloroethoxy)methane	ug/L	ND	10.0	1.3	09/18/24 18:48	
bis(2-Chloroethyl) ether	ug/L	ND	10.0	2.2	09/18/24 18:48	
bis(2-Ethylhexyl)phthalate	ug/L	ND	10.0	2.7	09/18/24 18:48	
bis(2chloro1methylethyl) ether	ug/L	ND	10.0	2.6	09/18/24 18:48	
Butylbenzylphthalate	ug/L	ND	10.0	3.4	09/18/24 18:48	
Chrysene	ug/L	ND	10.0	2.1	09/18/24 18:48	
Di-n-butylphthalate	ug/L	ND	10.0	2.4	09/18/24 18:48	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

METHOD BLANK: 3702132 Matrix: Water
Associated Lab Samples: 50382378007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Di-n-octylphthalate	ug/L	ND	10.0	3.5	09/18/24 18:48	
Dibenz(a,h)anthracene	ug/L	ND	10.0	2.3	09/18/24 18:48	
Dibenzofuran	ug/L	ND	10.0	2.0	09/18/24 18:48	
Diethylphthalate	ug/L	ND	10.0	2.1	09/18/24 18:48	
Dimethylphthalate	ug/L	ND	10.0	1.6	09/18/24 18:48	
Fluoranthene	ug/L	ND	10.0	1.8	09/18/24 18:48	
Fluorene	ug/L	ND	10.0	2.1	09/18/24 18:48	
Hexachloro-1,3-butadiene	ug/L	ND	10.0	3.8	09/18/24 18:48	
Hexachlorobenzene	ug/L	ND	10.0	1.7	09/18/24 18:48	
Hexachlorocyclopentadiene	ug/L	ND	10.0	2.8	09/18/24 18:48	
Hexachloroethane	ug/L	ND	10.0	4.5	09/18/24 18:48	
Indeno(1,2,3-cd)pyrene	ug/L	ND	10.0	1.9	09/18/24 18:48	
Isophorone	ug/L	ND	10.0	1.2	09/18/24 18:48	
N-Nitroso-di-n-propylamine	ug/L	ND	50.0	1.7	09/18/24 18:48	
N-Nitrosodiphenylamine	ug/L	ND	10.0	1.5	09/18/24 18:48	
Naphthalene	ug/L	ND	10.0	3.1	09/18/24 18:48	
Nitrobenzene	ug/L	ND	10.0	2.1	09/18/24 18:48	
Pentachlorophenol	ug/L	ND	50.0	3.6	09/18/24 18:48	
Phenanthrene	ug/L	ND	10.0	1.3	09/18/24 18:48	
Phenol	ug/L	ND	10.0	1.2	09/18/24 18:48	
Pyrene	ug/L	ND	10.0	1.8	09/18/24 18:48	
Pyridine	ug/L	ND	10.0	2.2	09/18/24 18:48	
2,4,6-Tribromophenol (S)	%.	74	28-141		09/18/24 18:48	
2-Fluorobiphenyl (S)	%.	55	17-89		09/18/24 18:48	
2-Fluorophenol (S)	%.	49	10-73		09/18/24 18:48	
Nitrobenzene-d5 (S)	%.	60	23-100		09/18/24 18:48	
p-Terphenyl-d14 (S)	%.	138	34-136		09/18/24 18:48	S3
Phenol-d5 (S)	%.	36	10-60		09/18/24 18:48	

LABORATORY CONTROL SAMPLE: 3702133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,4-Dinitrotoluene	ug/L	50.1	50.0	100	31-151	
2-Chlorophenol	ug/L	50	36.6	73	14-114	
2-Methylnaphthalene	ug/L	50	35.2	70	10-107	
4-Chloro-3-methylphenol	ug/L	50	41.2	82	26-144	
4-Nitrophenol	ug/L	50	29.3J	59	10-100	
Acenaphthene	ug/L	50	39.0	78	10-124	
Acenaphthylene	ug/L	50	37.9	76	11-122	
Anthracene	ug/L	50	43.8	88	43-139	
Benzo(a)anthracene	ug/L	50	47.4	95	58-149	
Benzo(a)pyrene	ug/L	50	47.7	95	56-148	
Benzo(b)fluoranthene	ug/L	50	46.2	92	54-151	
Benzo(g,h,i)perylene	ug/L	50	53.5	107	55-146	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

LABORATORY CONTROL SAMPLE: 3702133

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzo(k)fluoranthene	ug/L	50	49.5	99	53-151	
Chrysene	ug/L	50	45.6	91	58-151	
Dibenz(a,h)anthracene	ug/L	50	52.0	104	55-151	
Fluoranthene	ug/L	50	49.0	98	55-147	
Fluorene	ug/L	50	38.7	77	21-132	
Indeno(1,2,3-cd)pyrene	ug/L	50	52.3	105	55-149	
N-Nitroso-di-n-propylamine	ug/L	50	36.9J	74	16-124	
Naphthalene	ug/L	50	34.0	68	10-100	
Pentachlorophenol	ug/L	50	41.2J	82	36-152	
Phenanthrene	ug/L	50	42.0	84	43-137	
Phenol	ug/L	50	23.9	48	10-78	
Pyrene	ug/L	50	43.0	86	54-151	
2,4,6-Tribromophenol (S)	%.			91	28-141	
2-Fluorobiphenyl (S)	%.			65	17-89	
2-Fluorophenol (S)	%.			56	10-73	
Nitrobenzene-d5 (S)	%.			68	23-100	
p-Terphenyl-d14 (S)	%.			87	34-136	
Phenol-d5 (S)	%.			46	10-60	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 809988
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382378003, 50382378004, 50382378005, 50382378006, 50382378008

METHOD BLANK: 3705403 Matrix: Water
Associated Lab Samples: 50382378003, 50382378004, 50382378005, 50382378006, 50382378008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.030	09/20/24 16:12	

LABORATORY CONTROL SAMPLE: 3705404

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	4.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3705405 3705406

Parameter	Units	50382378006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.27	5	5	5.1	5.1	97	96	90-110	1	20	

MATRIX SPIKE SAMPLE: 3705407

Parameter	Units	50382379001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	ND	5	4.9	97	90-110	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 810890
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382378001, 50382378002

METHOD BLANK: 3709094 Matrix: Water
Associated Lab Samples: 50382378001, 50382378002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.030	09/26/24 10:18	

LABORATORY CONTROL SAMPLE: 3709095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.2	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709096 3709097

Parameter	Units	50382378001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.17	5	5	5.4	5.4	105	105	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709098 3709099

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.90	5	5	5.8	5.8	98	98	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709100 3709101

Parameter	Units	50382420008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.1	5	5	6.4	6.4	105	105	90-110	0	20	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 697826
QC Batch Method: SM 4500PB-2011
Analysis Method: SM 4500PE-2011
Analysis Description: 4500PB5E W 2 Phosphorus
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50382378002

METHOD BLANK: 3398246 Matrix: Water
Associated Lab Samples: 50382378002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	0.014	09/24/24 13:04	

LABORATORY CONTROL SAMPLE: 3398247

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	0.4	0.41	103	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398248 3398249

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	0.14	0.4	0.4	0.57	0.55	108	102	90-110	4	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 697830
QC Batch Method: SM 4500PB-2011
Analysis Method: SM 4500PE-2011
Analysis Description: 4500PB5E W 2 Phosphorus
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50382378006

METHOD BLANK: 3398260 Matrix: Water
Associated Lab Samples: 50382378006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	0.014	09/24/24 13:22	

LABORATORY CONTROL SAMPLE: 3398261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	0.4	0.42	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398262 3398263

Parameter	Units	50382378006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	0.17	0.4	0.4	0.20	0.18	8	2	90-110	13	20	ML

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

QC Batch: 697832
QC Batch Method: SM 4500PB-2011
Analysis Method: SM 4500PE-2011
Analysis Description: 4500PB5E W 2 Phosphorus
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50382378001

METHOD BLANK: 3398269 Matrix: Water
Associated Lab Samples: 50382378001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	0.014	09/24/24 13:57	

LABORATORY CONTROL SAMPLE: 3398270

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	0.4	0.43	107	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398271 3398272

Parameter	Units	30719071001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	4.4	0.4	0.4	4.9	4.6	129	72	90-110	5	20	MH,ML

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QUALIFIERS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

MH	Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382378

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382378006	**MW-114WT_09112024**	EPA 3510	810483	EPA 8082	810687
50382378009	**MW-114WT_09112024 FF**	EPA 3510	810483	EPA 8082	810687
50382378001	**MW-108S1_09112024**	EPA 3010	809022	EPA 6010	809250
50382378002	**MW-107WT_09112024**	EPA 3010	809022	EPA 6010	809250
50382378006	**MW-114WT_09112024**	EPA 3010	809022	EPA 6010	809250
50382378002	**MW-107WT_09112024**	EPA 3010	809867	EPA 6010	810112
50382378001	**MW-108S1_09112024**	EPA 3510	809253	EPA 8270	809396
50382378007	**Dup-06_09112024**	EPA 3510	809334	EPA 8270	809621
50382378001	**MW-108S1_09112024**	SM 4500-NH3 G	810890		
50382378002	**MW-107WT_09112024**	SM 4500-NH3 G	810890		
50382378003	**MW-107S1_09112024**	SM 4500-NH3 G	809988		
50382378004	**MW-108S2_09112024**	SM 4500-NH3 G	809988		
50382378005	**MW-114S2_09112024**	SM 4500-NH3 G	809988		
50382378006	**MW-114WT_09112024**	SM 4500-NH3 G	809988		
50382378008	**Dup-07_09112024**	SM 4500-NH3 G	809988		
50382378001	**MW-108S1_09112024**	SM 4500PB-2011	697832	SM 4500PE-2011	697978
50382378002	**MW-107WT_09112024**	SM 4500PB-2011	697826	SM 4500PE-2011	697975
50382378006	**MW-114WT_09112024**	SM 4500PB-2011	697830	SM 4500PE-2011	697976

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Pace® Location Requested (City/State):
Pace Analytical Indianapolis
7726 Moller Road, Indianapolis, IN 46268

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

WO# : 50382378

50382378

Company Name:	Arcadis_Racer	Contact/Report To:	Scott Clearwater
Street Address:	28550 Cabot Drive Suite 500 Novi, MI 48377	Phone #:	(810)225-1921
		E-Mail:	scott.clearwater@arcadis.com
		Cc E-Mail:	
Customer Project #:	30213352.12000	Invoice To:	Accounts Payable
Project Name:	Arcadis Saginaw - SMI	Invoice E-Mail:	invoices_us@arcadis.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	Need PO
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Michigan

Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **

Identify Container Preservative Type***

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	SVOC by 8270	PCBs by 8082	Dissolved PCBs by 8082	Ammonia by 350.1	Total Phosphorus by 365.1	Total As & Mn by 6010	Dissolved As by 6010 (Lab Filtered)	MS/MSD	TOTAL MN	Sample Comment
MW-108S1_09112024	GW	G			9/11/24	1420	10			X			X		X			X	001
MW-107WT_09112024	GW	G			9/11/24	1515	7						X	X	X	X			MSMSD 002
MW-107S1_09112024	GW	G			9/11/24	1550	1						X						003
MW-108S2_09112024	GW	G			9/11/24	1610	1						X						004
MW-114S2_09112024	GW	G			9/11/24	1630	1						X						005
MW-114WT_09112024	GW	G			9/11/24	1650	8				X	X	X	X				X	MSMSD 006 / 009
DUP-06_09112024	GW	G			9/11/24	—	2			X									007
DUP-07_09112024	GW	G			9/4/24	—	1						X						008

Lab Use Only

Proj. Mgr: Olivia Deck
AcctNum / Client ID:
Table #:
Profile / Template: 11397-3
Prelog / Bottle Ord. ID: EZ 3152079

Preservation non-conformance identified for sample.

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Additional Instructions from Pace®:

Collected By: (Printed Name) Billy J. Cobean

Signature:

Customer Remarks / Special Conditions / Possible Hazards:
LOGIN: LOG DISSOLVED PCBS ON SEPARATE SAMPLE LINE

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
1	H	-0.1	1.1	1.0	Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
ARCADIS	9-11-24 1800	FedEx		
Relinquished by/Company: (Signature) FedEx	Date/Time: 9/12/24 0915	Received by/Company: (Signature) TBH	Date/Time: 9/12/24 0915	Delivered by: [ ] In- Person [ ] Courier [✓] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: 1 of 1

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

Pace

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: 9/12/24 19:04 TBH

1. **Courier:** ☑ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☐ Yes ☑ No
   (If yes) Seals Intact: ☐ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A B C D E F G (H)
4. **Cooler Temperature(s):** (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

1.1/1.0			

5. **Packing Material:** ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☑ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR, CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		✓	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	✓		
Short Hold Time Analysis (48 hours or less)? Analysis:		✓	**Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			✓
Rush TAT Requested (4 days or less):		✓	Residual Chlorine Check (Total/Amenable/Free Cyanide)			✓
Custody Signatures Present?	✓		Headspace Wisconsin Sulfide?			✓
Containers Intact?:	✓		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent ✓
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	✓		Trip Blank Present?		✓	
Extra labels on Terracore Vials? (soils only)			Trip Blank Custody Seals?:			✓

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	AG0UF	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1								6																					3	✓	✓		
2																		3	3		1									✓			
3																																	
4																																	
5																					1												
6								2											1		3						2			✓	✓		
7																															✓		
8																					1												
9																																	
10																																	
11																																	
12																																	

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

September 27, 2024

Scott Clearwater
Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

RE: Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Dear Scott Clearwater:

Enclosed are the analytical results for sample(s) received by the laboratory on September 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Olivia Deck
olivia.deck@pacelabs.com
(317)228-3102
Project Manager

Enclosures

cc: Amanda Robinson, Arcadis U.S., Inc.

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CERTIFICATIONS

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Pace Analytical Services Indianapolis
7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

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SAMPLE SUMMARY

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50382419001	**X-4AR_09122024**	Water	09/12/24 11:30	09/13/24 09:20
50382419002	**X-4AR_09122024 DISS**	Water	09/12/24 11:30	09/13/24 09:20
50382419003	**DUP-11_09122024**	Water	09/12/24 08:00	09/13/24 09:20

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SAMPLE ANALYTE COUNT

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50382419001	**X-4AR_09122024**	EPA 300.0	ADM	2	PASI-I
		EPA 300.0	ADM	2	PASI-I
		EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I
		SM 2540C	CAS	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500-CN-E	OAS	1	PASI-I
50382419002	**X-4AR_09122024 DISS**	SM 4500-CN-E	OAS	1	PASI-I
50382419003	**DUP-11_09122024**	EPA 6010	ABH	6	PASI-I
		EPA 6010	JPK	6	PASI-I

PASI-I = Pace Analytical Services - Indianapolis

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SUMMARY OF DETECTION

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382419001	**X-4AR_09122024**					
EPA 300.0	Chloride	14.7	mg/L	0.25	09/13/24 20:33	
EPA 6010	Arsenic	57.2	ug/L	5.0	09/24/24 19:27	
EPA 6010	Barium	89.7	ug/L	10.0	09/24/24 19:27	
EPA 6010	Iron	9450	ug/L	100	09/24/24 19:27	
EPA 6010	Manganese	1850	ug/L	10.0	09/24/24 19:27	
EPA 6010	Sodium	12500	ug/L	1000	09/24/24 19:27	
EPA 6010	Arsenic, Dissolved	16.3	ug/L	5.0	09/21/24 01:15	
EPA 6010	Barium, Dissolved	70.7	ug/L	10.0	09/21/24 01:15	
EPA 6010	Iron, Dissolved	161	ug/L	100	09/21/24 01:15	
EPA 6010	Manganese, Dissolved	1810	ug/L	10.0	09/21/24 01:15	
EPA 6010	Sodium, Dissolved	12300	ug/L	1000	09/21/24 01:15	
SM 2540C	Total Dissolved Solids	323	mg/L	10.0	09/19/24 11:25	
SM 4500-NH3 G	Nitrogen, Ammonia	0.41	mg/L	0.10	09/23/24 15:39	
50382419003	**DUP-11_09122024**					
EPA 6010	Arsenic	50.6	ug/L	5.0	09/24/24 19:49	
EPA 6010	Barium	83.2	ug/L	10.0	09/24/24 19:49	
EPA 6010	Iron	8730	ug/L	100	09/24/24 19:49	
EPA 6010	Manganese	1720	ug/L	10.0	09/24/24 19:49	
EPA 6010	Sodium	11900	ug/L	1000	09/24/24 19:49	
EPA 6010	Arsenic, Dissolved	12.6	ug/L	5.0	09/21/24 01:17	
EPA 6010	Barium, Dissolved	67.9	ug/L	10.0	09/21/24 01:17	
EPA 6010	Iron, Dissolved	232	ug/L	100	09/21/24 01:17	
EPA 6010	Manganese, Dissolved	1830	ug/L	10.0	09/21/24 01:17	
EPA 6010	Sodium, Dissolved	12400	ug/L	1000	09/21/24 01:17	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Sample: X-4AR_09122024 **Lab ID: 50382419001** Collected: 09/12/24 11:30 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
300.0 IC Anions	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Nitrite as N	ND	mg/L	0.050	0.020	1		09/13/24 20:33	14797-65-0	
Nitrate as N	ND	mg/L	0.050	0.012	1		09/13/24 20:33	14797-55-8	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Pace Analytical Services - Indianapolis								
Chloride	**14.7**	mg/L	0.25	0.13	1		09/13/24 20:33	16887-00-6	
Sulfate	ND	mg/L	0.25	0.19	1		09/13/24 20:33	14808-79-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**57.2**	ug/L	5.0	4.3	1	09/23/24 20:22	09/24/24 19:27	7440-38-2	
Barium	**89.7**	ug/L	10.0	0.68	1	09/23/24 20:22	09/24/24 19:27	7440-39-3	
Iron	**9450**	ug/L	100	41.0	1	09/23/24 20:22	09/24/24 19:27	7439-89-6	
Manganese	**1850**	ug/L	10.0	0.77	1	09/23/24 20:22	09/24/24 19:27	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/23/24 20:22	09/24/24 19:27	7782-49-2	
Sodium	**12500**	ug/L	1000	95.0	1	09/23/24 20:22	09/24/24 19:27	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	**16.3**	ug/L	5.0	4.3	1	09/20/24 07:45	09/21/24 01:15	7440-38-2	
Barium, Dissolved	**70.7**	ug/L	10.0	0.68	1	09/20/24 07:45	09/21/24 01:15	7440-39-3	
Iron, Dissolved	**161**	ug/L	100	41.0	1	09/20/24 07:45	09/21/24 01:15	7439-89-6	
Manganese, Dissolved	**1810**	ug/L	10.0	0.77	1	09/20/24 07:45	09/21/24 01:15	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/20/24 07:45	09/21/24 01:15	7782-49-2	
Sodium, Dissolved	**12300**	ug/L	1000	95.0	1	09/20/24 07:45	09/21/24 01:15	7440-23-5	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Indianapolis								
Total Dissolved Solids	**323**	mg/L	10.0	10.0	1		09/19/24 11:25		
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.41**	mg/L	0.10	0.030	1		09/23/24 15:39	7664-41-7	
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 11:00	09/24/24 14:07	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Sample: X-4AR_09122024 DISS **Lab ID: 50382419002** Collected: 09/12/24 11:30 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
4500CNE Cyanide	Analytical Method: SM 4500-CN-E Preparation Method: SM 4500-CN-C Pace Analytical Services - Indianapolis								
Cyanide	ND	mg/L	0.0050	0.0030	1	09/24/24 11:00	09/24/24 14:09	57-12-5	

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Sample: DUP-11_09122024 **Lab ID: 50382419003** Collected: 09/12/24 08:00 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**50.6**	ug/L	5.0	4.3	1	09/23/24 20:22	09/24/24 19:49	7440-38-2	
Barium	**83.2**	ug/L	10.0	0.68	1	09/23/24 20:22	09/24/24 19:49	7440-39-3	
Iron	**8730**	ug/L	100	41.0	1	09/23/24 20:22	09/24/24 19:49	7439-89-6	
Manganese	**1720**	ug/L	10.0	0.77	1	09/23/24 20:22	09/24/24 19:49	7439-96-5	
Selenium	ND	ug/L	25.0	6.6	1	09/23/24 20:22	09/24/24 19:49	7782-49-2	
Sodium	**11900**	ug/L	1000	95.0	1	09/23/24 20:22	09/24/24 19:49	7440-23-5	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	**12.6**	ug/L	5.0	4.3	1	09/20/24 07:45	09/21/24 01:17	7440-38-2	
Barium, Dissolved	**67.9**	ug/L	10.0	0.68	1	09/20/24 07:45	09/21/24 01:17	7440-39-3	
Iron, Dissolved	**232**	ug/L	100	41.0	1	09/20/24 07:45	09/21/24 01:17	7439-89-6	
Manganese, Dissolved	**1830**	ug/L	10.0	0.77	1	09/20/24 07:45	09/21/24 01:17	7439-96-5	
Selenium, Dissolved	ND	ug/L	10.0	6.6	1	09/20/24 07:45	09/21/24 01:17	7782-49-2	
Sodium, Dissolved	**12400**	ug/L	1000	95.0	1	09/20/24 07:45	09/21/24 01:17	7440-23-5	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

QC Batch: 808897
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382419001

METHOD BLANK: 3699888 Matrix: Water
Associated Lab Samples: 50382419001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrate as N	mg/L	ND	0.050	0.012	09/14/24 07:21	
Nitrite as N	mg/L	ND	0.050	0.020	09/14/24 07:21	

LABORATORY CONTROL SAMPLE: 3699889

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrate as N	mg/L	1	0.94	94	90-110	
Nitrite as N	mg/L	1	1.0	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3699890 3699891

Parameter	Units	50382407001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrate as N	mg/L	3.7	10	10	12.7	12.7	89	89	80-120	0	15	
Nitrite as N	mg/L	ND	1	1	0.85	0.85	85	85	80-120	0	15	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

QC Batch: 808917
QC Batch Method: EPA 300.0
Analysis Method: EPA 300.0
Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382419001

METHOD BLANK: 3699987 Matrix: Water
Associated Lab Samples: 50382419001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	0.25	0.13	09/14/24 07:21	
Sulfate	mg/L	ND	0.25	0.19	09/14/24 07:21	

LABORATORY CONTROL SAMPLE: 3699988

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	2.5	2.4	95	90-110	
Sulfate	mg/L	5	5.0	100	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3699989 3699990

Parameter	Units	50382419001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	14.7	2.5	2.5	17.1	17.2	96	102	80-120	1	15	
Sulfate	mg/L	ND	5	5	4.8	4.9	95	96	80-120	1	15	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

QC Batch: 809218
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382419001, 50382419003

METHOD BLANK: 3701719 Matrix: Water
Associated Lab Samples: 50382419001, 50382419003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	4.3	09/24/24 19:22	
Barium	ug/L	ND	10.0	0.68	09/24/24 19:22	
Iron	ug/L	ND	100	41.0	09/24/24 19:22	
Manganese	ug/L	ND	10.0	0.77	09/24/24 19:22	
Selenium	ug/L	ND	25.0	6.6	09/24/24 19:22	
Sodium	ug/L	ND	1000	95.0	09/24/24 19:22	

LABORATORY CONTROL SAMPLE: 3701720

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	999	100	80-120	
Barium	ug/L	1000	956	96	80-120	
Iron	ug/L	10000	9760	98	80-120	
Manganese	ug/L	1000	986	99	80-120	
Selenium	ug/L	1000	993	99	80-120	
Sodium	ug/L	10000	9530	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3701721 3701722

Parameter	Units	50382419001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	57.2	1000	1000	1060	1060	101	100	75-125	1	20	
Barium	ug/L	89.7	1000	1000	1050	1020	96	93	75-125	3	20	
Iron	ug/L	9450	10000	10000	19100	18900	96	94	75-125	1	20	
Manganese	ug/L	1850	1000	1000	2790	2760	95	91	75-125	1	20	
Selenium	ug/L	ND	1000	1000	998	986	100	98	75-125	1	20	
Sodium	ug/L	12500	10000	10000	22000	21200	95	88	75-125	3	20	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

QC Batch: 809867
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382419001, 50382419003

METHOD BLANK: 3704733 Matrix: Water
Associated Lab Samples: 50382419001, 50382419003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	4.3	09/21/24 00:36	
Barium, Dissolved	ug/L	ND	10.0	0.68	09/21/24 00:36	
Iron, Dissolved	ug/L	ND	100	41.0	09/21/24 00:36	
Manganese, Dissolved	ug/L	ND	10.0	0.77	09/21/24 00:36	
Selenium, Dissolved	ug/L	ND	10.0	6.6	09/21/24 00:36	
Sodium, Dissolved	ug/L	ND	1000	95.0	09/21/24 00:36	

LABORATORY CONTROL SAMPLE: 3704734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	1000	952	95	80-120	
Barium, Dissolved	ug/L	1000	955	95	80-120	
Iron, Dissolved	ug/L	10000	9410	94	80-120	
Manganese, Dissolved	ug/L	1000	950	95	80-120	
Selenium, Dissolved	ug/L	1000	949	95	80-120	
Sodium, Dissolved	ug/L	10000	9410	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704735 3704736

Parameter	Units	50382501004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	973	980	97	98	75-125	1	20	
Barium, Dissolved	ug/L	18.9	1000	1000	998	992	98	97	75-125	1	20	
Iron, Dissolved	ug/L	ND	10000	10000	9500	9440	95	94	75-125	1	20	
Manganese, Dissolved	ug/L	10.7	1000	1000	969	966	96	96	75-125	0	20	
Selenium, Dissolved	ug/L	ND	1000	1000	965	971	96	97	75-125	1	20	
Sodium, Dissolved	ug/L	3390	10000	10000	12800	12900	94	95	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704737 3704738

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	9.1J	1000	1000	979	988	97	98	75-125	1	20	
Barium, Dissolved	ug/L	41.5	1000	1000	1010	1010	97	96	75-125	0	20	
Iron, Dissolved	ug/L	ND	10000	10000	9420	9430	94	94	75-125	0	20	
Manganese, Dissolved	ug/L	520	1000	1000	1450	1450	93	93	75-125	0	20	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704737 3704738

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Selenium, Dissolved	ug/L	ND	1000	1000	965	970	96	97	75-125	0	20	
Sodium, Dissolved	ug/L	75600	10000	10000	83600	82600	80	70	75-125	1	20	P6

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704739 3704740

Parameter	Units	50382471001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	994	1000	99	99	75-125	1	20	
Barium, Dissolved	ug/L	229	1000	1000	1190	1200	96	97	75-125	1	20	
Iron, Dissolved	ug/L	960	10000	10000	10400	10500	94	95	75-125	1	20	
Manganese, Dissolved	ug/L	393	1000	1000	1320	1340	93	95	75-125	1	20	
Selenium, Dissolved	ug/L	ND	1000	1000	981	983	98	98	75-125	0	20	
Sodium, Dissolved	ug/L	159000	10000	10000	165000	166000	69	74	75-125	0	20	P6

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

QC Batch: 809717
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382419001

METHOD BLANK: 3703945 Matrix: Water
Associated Lab Samples: 50382419001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Dissolved Solids	mg/L	ND	10.0	10.0	09/19/24 11:20	

LABORATORY CONTROL SAMPLE: 3703946

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	300	291	97	80-120	

SAMPLE DUPLICATE: 3703947

Parameter	Units	50382350004 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	443	443	0	10	

SAMPLE DUPLICATE: 3703948

Parameter	Units	50382350007 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	589	593	1	10	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

QC Batch: 810303
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382419001

METHOD BLANK: 3706645 Matrix: Water
Associated Lab Samples: 50382419001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.030	09/23/24 14:36	

LABORATORY CONTROL SAMPLE: 3706646

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.1	101	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706647 3706648

Parameter	Units	50382379009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	16.4	10	10	21.0	21.0	47	46	90-110	0	20	M3

MATRIX SPIKE SAMPLE: 3706649

Parameter	Units	50382379010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	0.44	5	5.5	101	90-110	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

QC Batch: 810397
QC Batch Method: SM 4500-CN-C
Analysis Method: SM 4500-CN-E
Analysis Description: 4500CNE Cyanide
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382419001, 50382419002

METHOD BLANK: 3706930 Matrix: Water
Associated Lab Samples: 50382419001, 50382419002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Cyanide	mg/L	ND	0.0050	0.0030	09/24/24 13:21	

LABORATORY CONTROL SAMPLE: 3706931

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	0.1	0.096	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3706932 3706933

Parameter	Units	50382233006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Cyanide	mg/L	ND	0.1	0.1	0.068	0.066	67	65	90-110	3	20	M3

MATRIX SPIKE SAMPLE: 3706934

Parameter	Units	50382233007 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Cyanide	mg/L	ND	0.1	0.10	96	90-110	

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QUALIFIERS

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M3	Matrix spike recovery was outside laboratory control limits due to matrix interferences.
P6	Matrix spike recovery was outside laboratory control limits due to a parent sample concentration notably higher than the spike level.

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RACER Saginaw - GPL
Pace Project No.: 50382419

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382419001	**X-4AR_09122024**	EPA 300.0	808897		
50382419001	**X-4AR_09122024**	EPA 300.0	808917		
50382419001	**X-4AR_09122024**	EPA 3010	809218	EPA 6010	810575
50382419003	**DUP-11_09122024**	EPA 3010	809218	EPA 6010	810575
50382419001	**X-4AR_09122024**	EPA 3010	809867	EPA 6010	810112
50382419003	**DUP-11_09122024**	EPA 3010	809867	EPA 6010	810112
50382419001	**X-4AR_09122024**	SM 2540C	809717		
50382419001	**X-4AR_09122024**	SM 4500-NH3 G	810303		
50382419001	**X-4AR_09122024**	SM 4500-CN-C	810397	SM 4500-CN-E	810476
50382419002	**X-4AR_09122024 DISS**	SM 4500-CN-C	810397	SM 4500-CN-E	810476

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Pace® Location Requested (City/State):
Pace Analytical Indianapolis
7726 Moller Road, Indianapolis, IN 46268

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

WO# : 50382419

50382419

Company Name:	Arcadis_Racer	Contact/Report To:	Scott Clearwater
Street Address:	28550 Cabot Drive Suite 500 Novi, MI 48377	Phone #:	(810)225-1921
		E-Mail:	scott.clearwater@arcadis.com
		Cc E-Mail:	
Customer Project #:	30213352.11000		
Project Name:	RACER Saginaw - GPL	Invoice To:	Accounts Payable
		Invoice E-Mail:	invoices_us@arcadis.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	Need PO
		Quote #:	
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET		County / State origin of sample(s):	Michigan

Data Deliverables:
[X] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 2 2 2 3 3 3 3 3

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***: 1 1 1 3 5 5 2 1

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	2540C Total Dissolved Solids	Nitrate/Nitrite by 300.0	Cl & SO4 by 300.0	Ammonia by 350.1	Total Cyanide by 335.4	Dissolved Cyanide by 335.4 (Lab Filtered)	Total Metals by 6010*	Dissolved Metals by 6010* (Lab Filtered)	MS/MSD	Sample Comment
X-4AR_09122024	GW	G			9/12/24	1130	6			X	X	X	X	X	X	X	X		001 002
DUP-11_09122024	GW	G			9/12/24	—	2								*	X	X		003

Lab Use Only:
Proj. Mgr: **Olivia Deck**
AcctNum / Client ID:
Table #:
Profile / Template: **11397-4**
Prelog / Bottle Ord. ID: **EZ 3151942**

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:
Nitrate/Nitrite by 300.0 has a short 48 hour hold time; please ship/return samples same day of collection.
*Total Metals: As, Ba, Fe, Mn, Se, Na

Collected By: (Printed Name) Billy J. Cobear
Signature:

Customer Remarks / Special Conditions / Possible Hazards:
*LOGIN: LOG DISSOLVED CYANIDE ON SEPARATE SAMPLE LINE

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
2	C	0.0	See SCUR		

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
ARCADIS	9.12.24 1400	Fedex		
Relinquished by/Company: (Signature) Fedex	Date/Time: 9/13 0928	Received by/Company: (Signature)	Date/Time: 9/13 0920	Delivered by: [ ] In-Person [ ] Courier [ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

F-IN-Q-290-rev.28, 29Jul2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: LR 9/13/24 1130

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A B C D E F G H I
4. **Cooler Temperature(s):** 2.3/2.3 | 1.6/1.6 | | | **(Initial/Corrected)** RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.** Circle: **HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9)** Any non-conformance to pH recommendations will be noted on the container count form	X		
Short Hold Time Analysis (48 hours or less)? **Analysis:** NO3/NO2	X					
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)		X	
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE ____ of ____

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

| | | |

Pace Container Order #3152079

mackenzie.speidel@pacelabs.com

Addresses

Order By :		Ship To :		Return To:	
Company	Arcadis_Racer	Company	Arcadis MI	Company	Indianapolis, IN (Pace Analytical
Contact	Scott Clearwater	Contact	Austin Westhuis	Contact	Olivia Deck
Email	scott.clearwater@arcadis.com	Email	Amanda.Robinson@arcadis.com	Email	olivia.deck@pacelabs.com
Address	28550 Cabot Drive	Address	3819 Black Creek Drive	Address	7726 Moller Road
Address 2	Suite 500	Address 2		Address 2	
City	Novi	City	Hudsonville	City	Indianapolis
State	MI Zip 48377	State	MI Zip 49426	State	IN Zip 46268
Phone	(810)225-1921	Phone	24820752090	Phone	(317)228-3102

Info

Project Name	Arcadis Saginaw - SMI	**Due Date**	09/06/2024	**Profile**	11397	**Quote**	
Project Manager	Deck, Olivia	**Return Date**		**Carrier**	FedEx Standard Overnight	**Location**	MI

Return Shipping Labels

Return Label Type: FedEx PO

- [ ] No Shipper
- [X] With Shipper

Bottle Labels

- [ ] Blank
- [X] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [ ] Grouped By Sample ID/Matrix

Trip Blanks

- [ ] Include Trip Blanks

COC Options

- [ ] Number of Blanks
- [X] Pre-Printed: 4

Misc

- [X] Sampling Instructions
- [X] Custody Seal
- [X] Temp. Blanks
- [X] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [ ] Short Hold/Rush Stickers
- [ ] DI Water
- [ ] USDA Regulated Soils
- [ ] Dry Weight

# of Samp	Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
9	WT	8082 GCS PCB RV Waters	2	100mL amber glass unpreserved	18			
5	WT	8270 SVOC SS Water	2	100mL amber glass unpreserved	10			
9	WT	Dissolved PCBs by 8082 (Field Filtered)	2	100mL amber glass unpreserved	18			+FF Labels
15	WT	Ammonia 350.1/Total Phos 365.1	1	250mL plastic H2SO4	15			
13	WT	Total As & Mn by 6010	1	250mL plastic HNO3	13			
6	WT	Dissolved As by 6010 (Lab Filtered)	1	250mL plastic unpreserved	6			

Hazard Shipping Placard In Place : N/A

*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to ensure proper billing.

Sample Notes :

LAB USE:

Ship Date :	09/04/2024
Prepared By:	TRH
Verified By:	LJR

CLIENT USE (Optional):

Date Rec'd:	
Received By:	

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

October 15, 2024

Scott Clearwater
Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

RE: Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Dear Scott Clearwater:

Enclosed are the analytical results for sample(s) received by the laboratory on September 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Indianapolis
- Pace Analytical Services - Greensburg

Revised Report: This report replaces the one dated 9/27/2024. "Diss" added to the end of the client sample ID for samples -003, -005, -007, -009, -012. (MCS 10/15/2024)

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mackenzie Speidel for
Olivia Deck
olivia.deck@pacelabs.com
(317)228-3102
Project Manager

Enclosures

cc: Amanda Robinson, Arcadis U.S., Inc.

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CERTIFICATIONS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

Pace Analytical Services Indianapolis

7726 Moller Road, Indianapolis, IN 46268
Illinois Accreditation #: 200074
Indiana Drinking Water Laboratory #: C-49-06
Kansas/TNI Certification #: E-10177
Kentucky UST Agency Interest #: 80226
Kentucky WW Laboratory ID #: 98019
Michigan Drinking Water Laboratory #9050
Oklahoma Laboratory #: 9204
Texas Certification #: T104704355
Washington Dept of Ecology #: C1081
Wisconsin Laboratory #: 999788130
USDA Foreign Soil Permit #: 525-23-13-23119
USDA Compliance Agreement #: IN-SL-22-001

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SAMPLE SUMMARY

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50382420001	**MW-149WT_09122024**	Water	09/12/24 09:00	09/13/24 09:20
50382420002	**MW-110WTR_09122024**	Water	09/12/24 09:20	09/13/24 09:20
50382420003	**MW-110WTR_09122024 Diss**	Water	09/12/24 09:20	09/13/24 09:20
50382420004	**MW-111WTR_09122024**	Water	09/12/24 09:50	09/13/24 09:20
50382420005	**MW-111WTR_09122024 Diss**	Water	09/12/24 09:50	09/13/24 09:20
50382420006	**MW-185WT_09122024**	Water	09/12/24 10:20	09/13/24 09:20
50382420007	**MW-185WT_09122024 Diss**	Water	09/12/24 10:20	09/13/24 09:20
50382420008	**MW-186WT_09122024**	Water	09/12/24 10:50	09/13/24 09:20
50382420009	**MW-186WT_09122024 Diss**	Water	09/12/24 10:50	09/13/24 09:20
50382420010	**DUP-08_09122024**	Water	09/12/24 08:00	09/13/24 09:20
50382420011	**DUP-09_09122024**	Water	09/12/24 08:00	09/13/24 09:20
50382420012	**DUP-09_09122024 Diss**	Water	09/12/24 08:00	09/13/24 09:20
50382420013	**DUP-10_09122024**	Water	09/12/24 08:00	09/13/24 09:20

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(317)228-3100

SAMPLE ANALYTE COUNT

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50382420001	**MW-149WT_09122024**	EPA 6010	JPK	1	PASI-I
		EPA 6010	JPK	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382420002	**MW-110WTR_09122024**	EPA 8082	KAV	8	PASI-I
		EPA 6010	JPK	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382420003	**MW-110WTR_09122024 Diss**	EPA 8082	KAV	8	PASI-I
50382420004	**MW-111WTR_09122024**	EPA 8082	KAV	8	PASI-I
		EPA 6010	JPK	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382420005	**MW-111WTR_09122024 Diss**	EPA 8082	KAV	8	PASI-I
50382420006	**MW-185WT_09122024**	EPA 8082	KAV	8	PASI-I
		EPA 6010	JPK	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382420007	**MW-185WT_09122024 Diss**	EPA 8082	KAV	8	PASI-I
50382420008	**MW-186WT_09122024**	EPA 8082	KAV	8	PASI-I
		EPA 6010	JPK	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA
50382420009	**MW-186WT_09122024 Diss**	EPA 8082	KAV	8	PASI-I
50382420010	**DUP-08_09122024**	EPA 6010	JPK	1	PASI-I
50382420011	**DUP-09_09122024**	EPA 8082	KAV	8	PASI-I
50382420012	**DUP-09_09122024 Diss**	EPA 8082	KAV	8	PASI-I
50382420013	**DUP-10_09122024**	EPA 6010	JPK	1	PASI-I
		EPA 6010	JPK	1	PASI-I
		SM 4500-NH3 G	MTW	1	PASI-I
		SM 4500PE-2011	JLM	1	PASI-PA

PASI-I = Pace Analytical Services - Indianapolis
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382420001	**MW-149WT_09122024**					
EPA 6010	Arsenic	85.6	ug/L	5.0	09/24/24 02:57	
EPA 6010	Arsenic, Dissolved	9.5J	ug/L	5.0	09/21/24 01:19	
SM 4500-NH3 G	Nitrogen, Ammonia	3.5	mg/L	0.10	09/26/24 10:39	
SM 4500PE-2011	Phosphorus	1.5	mg/L	0.15	09/24/24 14:24	
50382420002	**MW-110WTR_09122024**					
EPA 8082	PCB-1248 (Aroclor 1248)	0.29	ug/L	0.091	09/26/24 16:40	
EPA 8082	PCB-1254 (Aroclor 1254)	0.19	ug/L	0.091	09/26/24 16:40	
EPA 6010	Manganese	2950	ug/L	10.0	09/24/24 02:59	
SM 4500-NH3 G	Nitrogen, Ammonia	0.87	mg/L	0.10	09/26/24 10:42	
SM 4500PE-2011	Phosphorus	0.18	mg/L	0.030	09/24/24 13:28	
50382420004	**MW-111WTR_09122024**					
EPA 8082	PCB-1248 (Aroclor 1248)	6.7	ug/L	0.095	09/26/24 17:08	
EPA 6010	Manganese	1530	ug/L	10.0	09/24/24 03:01	
SM 4500-NH3 G	Nitrogen, Ammonia	1.8	mg/L	0.10	09/26/24 10:50	
SM 4500PE-2011	Phosphorus	0.96	mg/L	0.030	09/24/24 13:28	
50382420005	**MW-111WTR_09122024 Diss**					
EPA 8082	PCB-1248 (Aroclor 1248)	0.079J	ug/L	0.095	09/26/24 17:22	
50382420006	**MW-185WT_09122024**					
EPA 8082	PCB-1248 (Aroclor 1248)	0.16	ug/L	0.087	09/26/24 17:36	
EPA 6010	Manganese	1320	ug/L	10.0	09/24/24 03:03	
SM 4500-NH3 G	Nitrogen, Ammonia	0.32	mg/L	0.10	09/26/24 10:52	
SM 4500PE-2011	Phosphorus	0.12	mg/L	0.030	09/24/24 13:29	
50382420008	**MW-186WT_09122024**					
EPA 8082	PCB-1254 (Aroclor 1254)	0.16	ug/L	0.091	09/26/24 18:03	
EPA 6010	Manganese	977	ug/L	10.0	09/24/24 03:05	
SM 4500-NH3 G	Nitrogen, Ammonia	1.1	mg/L	0.10	09/26/24 10:55	
SM 4500PE-2011	Phosphorus	0.16	mg/L	0.030	09/24/24 13:41	
50382420010	**DUP-08_09122024**					
EPA 6010	Manganese	3220	ug/L	10.0	09/24/24 03:20	
50382420011	**DUP-09_09122024**					
EPA 8082	PCB-1248 (Aroclor 1248)	2.4	ug/L	0.095	09/26/24 19:27	
50382420012	**DUP-09_09122024 Diss**					
EPA 8082	PCB-1248 (Aroclor 1248)	0.051J	ug/L	0.095	09/26/24 19:41	
50382420013	**DUP-10_09122024**					
EPA 6010	Arsenic	86.5	ug/L	5.0	09/24/24 03:22	
EPA 6010	Arsenic, Dissolved	6.4J	ug/L	5.0	09/21/24 01:21	
SM 4500-NH3 G	Nitrogen, Ammonia	3.6	mg/L	0.10	09/26/24 11:03	
SM 4500PE-2011	Phosphorus	0.27	mg/L	0.030	09/24/24 13:27	

REPORT OF LABORATORY ANALYSIS

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-149WT_09122024 **Lab ID: 50382420001** Collected: 09/12/24 09:00 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**85.6**	ug/L	5.0	4.3	1	09/20/24 16:20	09/24/24 02:57	7440-38-2	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	**9.5J**	ug/L	5.0	4.3	1	09/20/24 07:45	09/21/24 01:19	7440-38-2	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**3.5**	mg/L	0.10	0.030	1		09/26/24 10:39	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**1.5**	mg/L	0.15	0.070	5	09/23/24 13:35	09/24/24 14:24	7723-14-0	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-110WTR_09122024 **Lab ID: 50382420002** Collected: 09/12/24 09:20 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.061	1	09/25/24 12:28	09/26/24 16:40	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.085	1	09/25/24 12:28	09/26/24 16:40	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.071	1	09/25/24 12:28	09/26/24 16:40	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.091	0.072	1	09/25/24 12:28	09/26/24 16:40	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.29**	ug/L	0.091	0.037	1	09/25/24 12:28	09/26/24 16:40	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.19**	ug/L	0.091	0.054	1	09/25/24 12:28	09/26/24 16:40	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.046	1	09/25/24 12:28	09/26/24 16:40	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	52	%.	10-117		1	09/25/24 12:28	09/26/24 16:40	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese	**2950**	ug/L	10.0	0.77	1	09/20/24 16:20	09/24/24 02:59	7439-96-5	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.87**	mg/L	0.10	0.030	1		09/26/24 10:42	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.18**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 13:28	7723-14-0	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-110WTR_09122024 Diss **Lab ID: 50382420003** Collected: 09/12/24 09:20 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.11	0.071	1	09/25/24 12:28	09/26/24 16:54	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.11	0.099	1	09/25/24 12:28	09/26/24 16:54	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.11	0.082	1	09/25/24 12:28	09/26/24 16:54	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.11	0.083	1	09/25/24 12:28	09/26/24 16:54	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.11	0.043	1	09/25/24 12:28	09/26/24 16:54	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.11	0.062	1	09/25/24 12:28	09/26/24 16:54	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.11	0.054	1	09/25/24 12:28	09/26/24 16:54	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	62	%.	10-117		1	09/25/24 12:28	09/26/24 16:54	877-09-8	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-111WTR_09122024 **Lab ID: 50382420004** Collected: 09/12/24 09:50 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.064	1	09/25/24 12:28	09/26/24 17:08	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.090	1	09/25/24 12:28	09/26/24 17:08	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.074	1	09/25/24 12:28	09/26/24 17:08	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.075	1	09/25/24 12:28	09/26/24 17:08	53469-21-9	
PCB-1248 (Aroclor 1248)	**6.7**	ug/L	0.095	0.039	1	09/25/24 12:28	09/26/24 17:08	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.056	1	09/25/24 12:28	09/26/24 17:08	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.049	1	09/25/24 12:28	09/26/24 17:08	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	63	%.	10-117		1	09/25/24 12:28	09/26/24 17:08	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese	**1530**	ug/L	10.0	0.77	1	09/20/24 16:20	09/24/24 03:01	7439-96-5	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**1.8**	mg/L	0.10	0.030	1		09/26/24 10:50	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.96**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 13:28	7723-14-0	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-111WTR_09122024 Diss **Lab ID: 50382420005** Collected: 09/12/24 09:50 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.064	1	09/25/24 12:28	09/26/24 17:22	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.090	1	09/25/24 12:28	09/26/24 17:22	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.074	1	09/25/24 12:28	09/26/24 17:22	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.075	1	09/25/24 12:28	09/26/24 17:22	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.079J**	ug/L	0.095	0.039	1	09/25/24 12:28	09/26/24 17:22	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.056	1	09/25/24 12:28	09/26/24 17:22	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.049	1	09/25/24 12:28	09/26/24 17:22	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	52	%.	10-117		1	09/25/24 12:28	09/26/24 17:22	877-09-8	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-185WT_09122024 **Lab ID: 50382420006** Collected: 09/12/24 10:20 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.087	0.058	1	09/25/24 12:28	09/26/24 17:36	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.087	0.082	1	09/25/24 12:28	09/26/24 17:36	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.087	0.068	1	09/25/24 12:28	09/26/24 17:36	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.087	0.069	1	09/25/24 12:28	09/26/24 17:36	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.16**	ug/L	0.087	0.036	1	09/25/24 12:28	09/26/24 17:36	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.087	0.051	1	09/25/24 12:28	09/26/24 17:36	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.087	0.044	1	09/25/24 12:28	09/26/24 17:36	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	49	%.	10-117		1	09/25/24 12:28	09/26/24 17:36	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese	**1320**	ug/L	10.0	0.77	1	09/20/24 16:20	09/24/24 03:03	7439-96-5	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**0.32**	mg/L	0.10	0.030	1		09/26/24 10:52	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.12**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 13:29	7723-14-0	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-185WT_09122024 Diss **Lab ID: 50382420007** Collected: 09/12/24 10:20 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510								
	Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.061	1	09/25/24 12:28	09/26/24 17:50	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.085	1	09/25/24 12:28	09/26/24 17:50	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.071	1	09/25/24 12:28	09/26/24 17:50	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.091	0.072	1	09/25/24 12:28	09/26/24 17:50	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.091	0.037	1	09/25/24 12:28	09/26/24 17:50	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.091	0.054	1	09/25/24 12:28	09/26/24 17:50	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.046	1	09/25/24 12:28	09/26/24 17:50	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	48	%.	10-117		1	09/25/24 12:28	09/26/24 17:50	877-09-8	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-186WT_09122024 **Lab ID: 50382420008** Collected: 09/12/24 10:50 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.061	1	09/25/24 12:28	09/26/24 18:03	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.085	1	09/25/24 12:28	09/26/24 18:03	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.071	1	09/25/24 12:28	09/26/24 18:03	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.091	0.072	1	09/25/24 12:28	09/26/24 18:03	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.091	0.037	1	09/25/24 12:28	09/26/24 18:03	12672-29-6	
PCB-1254 (Aroclor 1254)	**0.16**	ug/L	0.091	0.054	1	09/25/24 12:28	09/26/24 18:03	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.046	1	09/25/24 12:28	09/26/24 18:03	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	65	%.	10-117		1	09/25/24 12:28	09/26/24 18:03	877-09-8	
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese	**977**	ug/L	10.0	0.77	1	09/20/24 16:20	09/24/24 03:05	7439-96-5	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**1.1**	mg/L	0.10	0.030	1		09/26/24 10:55	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.16**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 13:41	7723-14-0	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: MW-186WT_09122024 Diss **Lab ID: 50382420009** Collected: 09/12/24 10:50 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.091	0.061	1	09/25/24 12:28	09/26/24 18:45	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.091	0.085	1	09/25/24 12:28	09/26/24 18:45	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.091	0.071	1	09/25/24 12:28	09/26/24 18:45	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.091	0.072	1	09/25/24 12:28	09/26/24 18:45	53469-21-9	
PCB-1248 (Aroclor 1248)	ND	ug/L	0.091	0.037	1	09/25/24 12:28	09/26/24 18:45	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.091	0.054	1	09/25/24 12:28	09/26/24 18:45	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.091	0.046	1	09/25/24 12:28	09/26/24 18:45	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	55	%.	10-117		1	09/25/24 12:28	09/26/24 18:45	877-09-8	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: DUP-08_09122024 **Lab ID: 50382420010** Collected: 09/12/24 08:00 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Manganese	**3220**	ug/L	10.0	0.77	1	09/20/24 16:20	09/24/24 03:20	7439-96-5	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: DUP-09_09122024 **Lab ID: 50382420011** Collected: 09/12/24 08:00 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.064	1	09/25/24 12:28	09/26/24 19:27	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.090	1	09/25/24 12:28	09/26/24 19:27	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.074	1	09/25/24 12:28	09/26/24 19:27	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.075	1	09/25/24 12:28	09/26/24 19:27	53469-21-9	
PCB-1248 (Aroclor 1248)	**2.4**	ug/L	0.095	0.039	1	09/25/24 12:28	09/26/24 19:27	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.056	1	09/25/24 12:28	09/26/24 19:27	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.049	1	09/25/24 12:28	09/26/24 19:27	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	63	%.	10-117		1	09/25/24 12:28	09/26/24 19:27	877-09-8	

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: DUP-09_09122024 Diss **Lab ID: 50382420012** Collected: 09/12/24 08:00 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8082 GCS PCB RV Waters	Analytical Method: EPA 8082 Preparation Method: EPA 3510 Pace Analytical Services - Indianapolis								
PCB-1016 (Aroclor 1016)	ND	ug/L	0.095	0.064	1	09/25/24 12:28	09/26/24 19:41	12674-11-2	
PCB-1221 (Aroclor 1221)	ND	ug/L	0.095	0.090	1	09/25/24 12:28	09/26/24 19:41	11104-28-2	
PCB-1232 (Aroclor 1232)	ND	ug/L	0.095	0.074	1	09/25/24 12:28	09/26/24 19:41	11141-16-5	
PCB-1242 (Aroclor 1242)	ND	ug/L	0.095	0.075	1	09/25/24 12:28	09/26/24 19:41	53469-21-9	
PCB-1248 (Aroclor 1248)	**0.051J**	ug/L	0.095	0.039	1	09/25/24 12:28	09/26/24 19:41	12672-29-6	
PCB-1254 (Aroclor 1254)	ND	ug/L	0.095	0.056	1	09/25/24 12:28	09/26/24 19:41	11097-69-1	
PCB-1260 (Aroclor 1260)	ND	ug/L	0.095	0.049	1	09/25/24 12:28	09/26/24 19:41	11096-82-5	
Surrogates									
Tetrachloro-m-xylene (S)	65	%.	10-117		1	09/25/24 12:28	09/26/24 19:41	877-09-8	

REPORT OF LABORATORY ANALYSIS

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(317)228-3100

ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Sample: DUP-10_09122024 **Lab ID: 50382420013** Collected: 09/12/24 08:00 Received: 09/13/24 09:20 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic	**86.5**	ug/L	5.0	4.3	1	09/20/24 16:20	09/24/24 03:22	7440-38-2	
6010 MET ICP, Lab Filtered	Analytical Method: EPA 6010 Preparation Method: EPA 3010 Pace Analytical Services - Indianapolis								
Arsenic, Dissolved	**6.4J**	ug/L	5.0	4.3	1	09/20/24 07:45	09/21/24 01:21	7440-38-2	
4500 Ammonia Water	Analytical Method: SM 4500-NH3 G Pace Analytical Services - Indianapolis								
Nitrogen, Ammonia	**3.6**	mg/L	0.10	0.030	1		09/26/24 11:03	7664-41-7	
4500PB5E Total Phosphorus	Analytical Method: SM 4500PE-2011 Preparation Method: SM 4500PB-2011 Pace Analytical Services - Greensburg								
Phosphorus	**0.27**	mg/L	0.030	0.014	1	09/23/24 13:35	09/24/24 13:27	7723-14-0	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

QC Batch: 809220 | Analysis Method: EPA 6010
QC Batch Method: EPA 3010 | Analysis Description: 6010 MET
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382420001, 50382420002, 50382420004, 50382420006, 50382420008, 50382420010, 50382420013

METHOD BLANK: 3701727 Matrix: Water
Associated Lab Samples: 50382420001, 50382420002, 50382420004, 50382420006, 50382420008, 50382420010, 50382420013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	5.0	4.3	09/24/24 02:50	
Manganese	ug/L	ND	10.0	0.77	09/24/24 02:50	

LABORATORY CONTROL SAMPLE: 3701728

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	1000	985	98	80-120	
Manganese	ug/L	1000	1010	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3701729 3701730

Parameter	Units	50382420008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	ND	1000	1000	992	993	99	99	75-125	0	20	
Manganese	ug/L	977	1000	1000	1960	1950	98	97	75-125	0	20	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

QC Batch: 809867
QC Batch Method: EPA 3010
Analysis Method: EPA 6010
Analysis Description: 6010 MET Dissolved
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382420001, 50382420013

METHOD BLANK: 3704733 Matrix: Water
Associated Lab Samples: 50382420001, 50382420013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	ND	5.0	4.3	09/21/24 00:36	

LABORATORY CONTROL SAMPLE: 3704734

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic, Dissolved	ug/L	1000	952	95	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704735 3704736

Parameter	Units	50382501004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	973	980	97	98	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704737 3704738

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	9.1J	1000	1000	979	988	97	98	75-125	1	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3704739 3704740

Parameter	Units	50382471001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic, Dissolved	ug/L	ND	1000	1000	994	1000	99	99	75-125	1	20	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

QC Batch: 810510
QC Batch Method: EPA 3510
Analysis Method: EPA 8082
Analysis Description: 8082 GCS PCB Mod
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382420002, 50382420003, 50382420004, 50382420005, 50382420006, 50382420007, 50382420008, 50382420009, 50382420011, 50382420012

METHOD BLANK: 3707393 Matrix: Water
Associated Lab Samples: 50382420002, 50382420003, 50382420004, 50382420005, 50382420006, 50382420007, 50382420008, 50382420009, 50382420011, 50382420012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	ND	0.10	0.067	09/26/24 16:12	
PCB-1221 (Aroclor 1221)	ug/L	ND	0.10	0.094	09/26/24 16:12	
PCB-1232 (Aroclor 1232)	ug/L	ND	0.10	0.078	09/26/24 16:12	
PCB-1242 (Aroclor 1242)	ug/L	ND	0.10	0.079	09/26/24 16:12	
PCB-1248 (Aroclor 1248)	ug/L	ND	0.10	0.041	09/26/24 16:12	
PCB-1254 (Aroclor 1254)	ug/L	ND	0.10	0.059	09/26/24 16:12	
PCB-1260 (Aroclor 1260)	ug/L	ND	0.10	0.051	09/26/24 16:12	
Tetrachloro-m-xylene (S)	%.	51	10-117		09/26/24 16:12	

LABORATORY CONTROL SAMPLE: 3707394

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PCB-1016 (Aroclor 1016)	ug/L	5	5.8	116	41-163	
PCB-1260 (Aroclor 1260)	ug/L	5	5.1	102	43-154	
Tetrachloro-m-xylene (S)	%.			57	10-117	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3707395 3707396

Parameter	Units	50382420008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	ND	4.8	4.8	5.9	5.9	124	125	10-146	0	20	
PCB-1260 (Aroclor 1260)	ug/L	ND	4.8	4.8	4.8	4.7	101	99	10-136	1	20	
Tetrachloro-m-xylene (S)	%.						67	69	10-117			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3707397 3707398

Parameter	Units	50382420009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
PCB-1016 (Aroclor 1016)	ug/L	ND	4.5	4.5	5.9	5.5	130	122	10-146	6	20	
PCB-1260 (Aroclor 1260)	ug/L	ND	4.5	4.5	5.0	4.7	110	103	10-136	7	20	
Tetrachloro-m-xylene (S)	%.						60	59	10-117			

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

QC Batch: 810890
QC Batch Method: SM 4500-NH3 G
Analysis Method: SM 4500-NH3 G
Analysis Description: 4500 Ammonia
Laboratory: Pace Analytical Services - Indianapolis
Associated Lab Samples: 50382420001, 50382420002, 50382420004, 50382420006, 50382420008, 50382420013

METHOD BLANK: 3709094 Matrix: Water
Associated Lab Samples: 50382420001, 50382420002, 50382420004, 50382420006, 50382420008, 50382420013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Nitrogen, Ammonia	mg/L	ND	0.10	0.030	09/26/24 10:18	

LABORATORY CONTROL SAMPLE: 3709095

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Nitrogen, Ammonia	mg/L	5	5.2	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709096 3709097

Parameter	Units	50382378001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.17	5	5	5.4	5.4	105	105	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709098 3709099

Parameter	Units	50382378002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	0.90	5	5	5.8	5.8	98	98	90-110	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3709100 3709101

Parameter	Units	50382420008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Nitrogen, Ammonia	mg/L	1.1	5	5	6.4	6.4	105	105	90-110	0	20	

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

QC Batch: 697830
QC Batch Method: SM 4500PB-2011
Analysis Method: SM 4500PE-2011
Analysis Description: 4500PB5E W 2 Phosphorus
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50382420001, 50382420002, 50382420004, 50382420006, 50382420013

METHOD BLANK: 3398260 Matrix: Water
Associated Lab Samples: 50382420001, 50382420002, 50382420004, 50382420006, 50382420013

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	0.014	09/24/24 13:22	

LABORATORY CONTROL SAMPLE: 3398261

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	0.4	0.42	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398262 3398263

Parameter	Units	50382378006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	0.17	0.4	0.4	0.20	0.18	8	2	90-110	13	20	ML

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

QC Batch: 697831
QC Batch Method: SM 4500PB-2011
Analysis Method: SM 4500PE-2011
Analysis Description: 4500PB5E W 2 Phosphorus
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 50382420008

METHOD BLANK: 3398264 Matrix: Water
Associated Lab Samples: 50382420008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Phosphorus	mg/L	ND	0.030	0.014	09/24/24 13:39	

LABORATORY CONTROL SAMPLE: 3398265

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phosphorus	mg/L	0.4	0.42	106	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3398266 3398267

Parameter	Units	50382420008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Phosphorus	mg/L	0.16	0.4	0.4	0.59	0.55	109	98	90-110	8	20	

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QUALIFIERS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

ML	Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382420

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382420002	**MW-110WTR_09122024**	EPA 3510	810510	EPA 8082	810962
50382420003	**MW-110WTR_09122024 Diss**	EPA 3510	810510	EPA 8082	810962
50382420004	**MW-111WTR_09122024**	EPA 3510	810510	EPA 8082	810962
50382420005	**MW-111WTR_09122024 Diss**	EPA 3510	810510	EPA 8082	810962
50382420006	**MW-185WT_09122024**	EPA 3510	810510	EPA 8082	810962
50382420007	**MW-185WT_09122024 Diss**	EPA 3510	810510	EPA 8082	810962
50382420008	**MW-186WT_09122024**	EPA 3510	810510	EPA 8082	810962
50382420009	**MW-186WT_09122024 Diss**	EPA 3510	810510	EPA 8082	810962
50382420011	**DUP-09_09122024**	EPA 3510	810510	EPA 8082	810962
50382420012	**DUP-09_09122024 Diss**	EPA 3510	810510	EPA 8082	810962
50382420001	**MW-149WT_09122024**	EPA 3010	809220	EPA 6010	810387
50382420002	**MW-110WTR_09122024**	EPA 3010	809220	EPA 6010	810387
50382420004	**MW-111WTR_09122024**	EPA 3010	809220	EPA 6010	810387
50382420006	**MW-185WT_09122024**	EPA 3010	809220	EPA 6010	810387
50382420008	**MW-186WT_09122024**	EPA 3010	809220	EPA 6010	810387
50382420010	**DUP-08_09122024**	EPA 3010	809220	EPA 6010	810387
50382420013	**DUP-10_09122024**	EPA 3010	809220	EPA 6010	810387
50382420001	**MW-149WT_09122024**	EPA 3010	809867	EPA 6010	810112
50382420013	**DUP-10_09122024**	EPA 3010	809867	EPA 6010	810112
50382420001	**MW-149WT_09122024**	SM 4500-NH3 G	810890		
50382420002	**MW-110WTR_09122024**	SM 4500-NH3 G	810890		
50382420004	**MW-111WTR_09122024**	SM 4500-NH3 G	810890		
50382420006	**MW-185WT_09122024**	SM 4500-NH3 G	810890		
50382420008	**MW-186WT_09122024**	SM 4500-NH3 G	810890		
50382420013	**DUP-10_09122024**	SM 4500-NH3 G	810890		
50382420001	**MW-149WT_09122024**	SM 4500PB-2011	697830	SM 4500PE-2011	697976
50382420002	**MW-110WTR_09122024**	SM 4500PB-2011	697830	SM 4500PE-2011	697976
50382420004	**MW-111WTR_09122024**	SM 4500PB-2011	697830	SM 4500PE-2011	697976
50382420006	**MW-185WT_09122024**	SM 4500PB-2011	697830	SM 4500PE-2011	697976
50382420008	**MW-186WT_09122024**	SM 4500PB-2011	697831	SM 4500PE-2011	697977
50382420013	**DUP-10_09122024**	SM 4500PB-2011	697830	SM 4500PE-2011	697976

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Pace® Location Requested (City/State):
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7726 Moller Road, Indianapolis, IN 46268

CHAIN-OF-CUSTODY Analytical Request Document

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WO# : 50382420

50382420

Company Name:	Arcadis_Racer	Contact/Report To:	Scott Clearwater
Street Address:	28550 Cabot Drive Suite 500 Novi, MI 48377	Phone #:	(810)225-1921
		E-Mail:	scott.clearwater@arcadis.com
		Cc E-Mail:	
Customer Project #:	30213352.12000		
Project Name:	Arcadis Saginaw - SMI	Invoice To:	Accounts Payable
		Invoice E-Mail:	invoices_us@arcadis.com
Site Collection Info/Facility ID (as applicable):		Purchase Order # (if applicable):	Need PO
		Quote #:	

Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET

County / State origin of sample(s): Michigan

Data Deliverables:
[ ] Level II [ ] Level III [ ] Level IV
[ ] EQUIS
[ ] Other

Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No

Rush (Pre-approval required):
[ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day [ ] Other _____

DW PWSID # or WW Permit # as applicable:

Date Results Requested: 10 Day TAT

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Waste Water (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW),Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size

Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

Identify Container Preservative Type***

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Analysis Requested

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Res. Chlorine Results	Res. Chlorine Units	SVOC by 8270	PCBs by 8082	Dissolved PCBs by 8082	Ammonia by 350.1	Total Phosphorus by 365.1	Total As & Mn by 6010	Dissolved As by 6010 (Lab Filtered)	MS/MSD	TOTAL As 6010	TOTAL MN 6010	Sample Comment
MW-149WT_09122024	GW	G			9/12/24	900	4						X	X		X		X		001
MW-110WTR_09122024	GW	G			9/12/24	920	7				X	X	X	X					X	002 003
MW-111WTR_09122024	GW	G			9/12/24	950	7				X	X	X	X					X	004 005
MW-185WT_09122024	GW	G			9/12/24	1020	7				X	X	X	X					X	006 007
MW-186WT_09122024	GW	G			9/12/24	1050	7				X	X	X	X					X	008 009
Dup-08_09122024	GW	G			9/12/24	—	1												X	010
Dup-09_09122024	GW	G			9/12/24	—	4				X	X								011 012
Dup-10_09122024	GW	G			9/12/24	—	4						X	X		X		X		013

Lab Use Only
Proj. Mgr: **Olivia Deck**
AcctNum / Client ID:
Table #:
Profile / Template: **11397-3**
Prelog / Bottle Ord. ID: **EZ 3152079**

Preservation non-conformance identified for sample.

Additional Instructions from Pace®:

Collected By:
(Printed Name) Billy J. Colbeau
Signature:

Customer Remarks / Special Conditions / Possible Hazards:
LOGIN: LOG DISSOLVED PCBS ON SEPARATE SAMPLE LINE

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C)	Corrected Temp. (°C)	On Ice:
2	C	0.0	See SCR		

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
Arcadis	9-12-24 1400	Fedex		
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Fedex	9/13 0920		9/13 0920	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

F-IN-Q-290-rev.28, 29Jul2024

SAMPLE CONDITION UPON RECEIPT FORM

Date/Time and Initials of person examining contents: LR 9/13/24 1130

1. **Courier:** ☒ FED EX ☐ UPS ☐ CLIENT ☐ PACE ☐ NOW/JETT ☐ OTHER _____
2. **Custody Seal on Cooler/Box Present:** ☒ Yes ☐ No
   (If yes)Seals Intact: ☒ Yes ☐ No **(leave blank if no seals were present)**
3. **Thermometer:** 1 2 3 4 5 6 7 8 9 A B C D E F G H I
4. **Cooler Temperature(s):** 2.3/2.3 | 1.6/1.6 | | |
   (Initial/Corrected) RECORD TEMPS OF ALL COOLERS RECEIVED (use Comments below to add more)

5. **Packing Material:** ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____
6. **Ice Type:** ☒ Wet ☐ Blue ☐ None
7. **Was the PM notified of out of temp cooler?:** ☐ Yes ☐ No
   Cooler temp should be above freezing to 6°C

All discrepancies will be written out in the comments section below.

	Yes	No		Yes	No	N/A
USDA Regulated Soils? (HI, ID, NY, WA, OR,CA, NM, TX, OK, AR, LA, TN, AL, MS, NC, SC, GA, FL, or Puerto Rico)		X	All containers needing acid/base preservation have been pH CHECKED?: **Exceptions: VOA, coliform, LLHg, O&G, RAD CHEM, and any container with a septum cap or preserved with HCl.**	X		
Short Hold Time Analysis (48 hours or less)? Analysis:		X	**Circle:** HNO3 (<2) H2SO4 (<2) NaOH (>10) NaOH/ZnAc (>9) Any non-conformance to pH recommendations will be noted on the container count form			
Time 5035A TC placed in Freezer or Short Holds To Lab	Time:			Present	Absent	N/A
			Residual Chlorine Check (SVOC 625 Pest/PCB 608)			X
Rush TAT Requested (4 days or less):		X	Residual Chlorine Check (Total/Amenable/Free Cyanide)			X
Custody Signatures Present?	X		Headspace Wisconsin Sulfide?			X
Containers Intact?:	X		Headspace in VOA Vials (>6mm): See Containter Count form for details	Present	Absent	No VOA Vials Sent X
Sample Label (IDs/Dates/Times) Match COC?: Except TCs, which only require sample ID	X		Trip Blank Present?		X	
Extra labels on Terracore Vials? (soils only)		X	Trip Blank Custody Seals?:			X

COMMENTS:

COC PAGE 1 of 1

Sample Container Count

** Place a PINK dot on containers that are out of conformance **

COC Line Item	WGFU	WGKU BG1U	MeOH (only) SBS DI R	DG9H VG9H	VOA VIAL HS (>6mm)	VG9U DG9U	VG9T	AMBER GLASS: AG0U	AG1H	AG1U	AG3U	AG3S	AG3SF	AG3B	PLASTIC: BP1U	BP1N	BP2U	BP3U	BP3N	BP3F	BP3S	BP3B	BP3Z	OTHER: CG3H	CG3F	Syringe Kit	AG0U F	Matrix	Nitric Red HNO3 <2	Sulfuric Yellow H2SO4 <2	Sodium Hydroxide Green NaOH >10	Sodium Hydroxide/ ZnAc Black NaOH/Zn Ac >9
1																		1	1		1							WT	✓	✓		
2								2																			2					
3																																
4								4																			4					
5								6												4							6			4		
6																			4										4			
7								2																			2					
8																		1	1		1											
9																																
10																																
11																																
12																																

Container Codes

Glass

DG9H	40mL HCl amber voa vial	BG1T	1L Na Thiosulfate clear glass	BP1B	1L NaOH plastic
DG9P	40mL TSP amber vial	BG1U	1L unpreserved glass	BP1N	1L HNO3 plastic
DG9S	40mL H2SO4 amber vial	CG3H	250mL HCl Clear Glass	BP1S	1L H2SO4 plastic
DG9T	40mL Na Thio amber vial	CG3U	250mL Unpres Clear Glass	BP1U	1L unpreserved plastic
DG9U	40mL unpreserved amber vial	AG0U	100mL unpres amber glass	BP1Z	1L NaOH, Zn, Ac
VG9H	40mL HCl clear vial	AG1H	1L HCl amber glass	BP2N	500mL HNO3 plastic
VG9T	40mL Na Thio. clear vial	AG1S	1L H2SO4 amber glass	BP2C	500mL NaOH plastic
VG9U	40mL unpreserved clear vial	AG1T	1L Na Thiosulfate amber glass	BP2S	500mL H2SO4 plastic
I	40mL w/hexane wipe vial	AG1U	1liter unpres amber glass	BP2U	500mL unpreserved plastic
WGKU	8oz unpreserved clear jar	AG2N	500mL HNO3 amber glass	BP2Z	500mL NaOH, Zn Ac
WGFU	4oz clear soil jar	AG2S	500mL H2SO4 amber glass	BP3B	250mL NaOH plastic
JGFU	4oz unpreserved amber wide	AG2U	500mL unpres amber glass	BP3N	250mL HNO3 plastic
CG3H	250mL clear glass HCl	AG3S	250mL H2SO4 amber glass	BP3F	250mL HNO3 plastic-field filtered
CG3F	250mL clear glass HCl, Field Filter	AG3SF	250mL H2SO4 amb glass -field filtered	BP3U	250mL unpreserved plastic
BG1H	1L HCl clear glass	AG3U	250mL unpres amber glass	BP3S	250mL H2SO4 plastic
BG1S	1L H2SO4 clear glass	AG3B	250mL NaOH amber glass	BP3Z	250mL NaOH, ZnAc plastic

Plastic

NT3U	Non Teflon 250mL unpreserved plastic
BP4U	125mL unpreserved plastic
BP4N	125mL HNO3 plastic
BP4S	125mL H2SO4 plastic

Miscellaneous

Syringe Kit	LL Cr+6 sampling kit
ZPLC	Ziploc Bag
R	Terracore Kit
SP5T	120mL Coliform Sodium Thiosulfate
GN	General Container
U	Summa Can (air sample)
WT	Water
SL	Solid
OL:	Oil
NAL	Non-aqueous liquid
WP	Wipe

Pace Container Order #3151942

mackenzie.speidel@pacelabs.com

Addresses

Order By :		Ship To :		Return To:	
Company	Arcadis_Racer	Company	Arcadis MI	Company	Indianapolis, IN (Pace Analytical
Contact	Scott Clearwater	Contact	Austin Westhuis	Contact	Olivia Deck
Email	scott.clearwater@arcadis.com	Email	Amanda.Robinson@arcadis.com	Email	olivia.deck@pacelabs.com
Address	28550 Cabot Drive	Address	3819 Black Creek Drive	Address	7726 Moller Road
Address 2	Suite 500	Address 2		Address 2	
City	Novi	City	Hudsonville	City	Indianapolis
State	MI Zip 48377	State	MI Zip 49426	State	IN Zip 46268
Phone	(810)225-1921	Phone	24820752090	Phone	(317)228-3102

Info

Project Name	RACER Saginaw - GPL	**Due Date**	09/06/2024	**Profile**	11397	**Quote**	
Project Manager	Deck, Olivia	**Return Date**		**Carrier**	FedEx Standard Overnight	**Location**	MI

Return Shipping Labels

Return Label Type: FedEx PO

- [ ] No Shipper
- [X] With Shipper

Bottle Labels

- [ ] Blank
- [X] Pre-Printed No Sample IDs
- [ ] Pre-Printed With Sample IDs

Bottles

- [ ] Boxed Cases
- [ ] Individually Wrapped
- [X] Grouped By Sample ID/Matrix

Trip Blanks

- [ ] Include Trip Blanks

COC Options

- [ ] Number of Blanks
- [X] Pre-Printed 4

Misc

- [X] Sampling Instructions
- [X] Custody Seal
- [X] Temp. Blanks
- [ ] Coolers
- [ ] Syringes
- [ ] Extra Bubble Wrap
- [X] Short Hold/Rush Stickers
- [ ] DI Water
- [ ] USDA Regulated Soils
- [ ] Dry Weight

# of Samp	Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
16	WT	350.1 Ammonia	1	250mL plastic H2SO4	16			
16	WT	Total Metals by 6010*	1	250mL plastic HNO3	16			
16	WT	2540C Total Dissolved Solids	1	250mL plastic unpreserved	16			
16	WT	Dissolved Metals by 6010* (Lab Filtered)	1	250mL plastic unpreserved	16			
16	WT	335.4 Cyanide, Total	1	250ml plastic NAOH	16			
16	WT	Dissolved Cyanide by 335.4 (Field Filtered)	1	250ml plastic NAOH	16			+FF Labels
16	WT	Nitrate/Nitrite by 300.0/Cl & SO4 by 300.0	1	500mL plastic unpreserved	16			48HR HOLD

Hazard Shipping Placard In Place : N/A

*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to ensure proper billing.

LAB USE:

Ship Date : 09/04/2024

Prepared By: TRH

Verified By: LJR

CLIENT USE (Optional):

Date Rec'd:

Received By:

Sample Notes :

Nitrate/Nitrite by 300.0 has a short 48 hour hold time; please ship/return samples same day of collection.
*Total Metals: As, Ba, Fe, Mn, Se, Na

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

October 03, 2024

Scott Clearwater
Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

RE: Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Dear Scott Clearwater:

Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Olivia Deck
olivia.deck@pacelabs.com
(317)228-3102
Project Manager

Enclosures

cc: Amanda Robinson, Arcadis U.S., Inc.

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

CERTIFICATIONS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

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SAMPLE SUMMARY

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50382544001	**MW-117WT_09102024**	Water	09/10/24 12:00	09/12/24 18:28
50382544002	**MW-125WT_09112024**	Water	09/11/24 11:15	09/12/24 18:28
50382544003	**TWW-1_09112024**	Water	09/11/24 11:40	09/12/24 18:28
50382544004	**X-10AR2_09112024**	Water	09/11/24 12:00	09/12/24 18:28
50382544005	**X-2A_09112024**	Water	09/11/24 12:30	09/12/24 18:28
50382544006	**DUP-05_09112024**	Water	09/11/24 08:00	09/12/24 18:28
50382544007	**EB-01_09112024**	Water	09/11/24 14:40	09/12/24 18:28

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(317)228-3100

SAMPLE ANALYTE COUNT

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50382544001	**MW-117WT_09102024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382544002	**MW-125WT_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382544003	**TWW-1_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382544004	**X-10AR2_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382544005	**X-2A_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382544006	**DUP-05_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382544007	**EB-01_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

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Indianapolis, IN 46268
(317)228-3100

SUMMARY OF DETECTION

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382544001	**MW-117WT_09102024**					
ENV-SOP-MIN4-0178	PFBS	9.1	ng/L	3.8	10/01/24 09:34	
ENV-SOP-MIN4-0178	PFHxA	65.5	ng/L	4.3	10/01/24 09:34	
ENV-SOP-MIN4-0178	PFBA	216	ng/L	4.3	10/01/24 09:34	
ENV-SOP-MIN4-0178	PFPeA	29.7	ng/L	4.3	10/01/24 09:34	
50382544002	**MW-125WT_09112024**					
ENV-SOP-MIN4-0178	PFBA	18.3	ng/L	4.2	10/01/24 09:41	
ENV-SOP-MIN4-0178	PFHxS	10.3	ng/L	3.8	10/01/24 09:41	
50382544003	**TWW-1_09112024**					
ENV-SOP-MIN4-0178	PFBA	13.4	ng/L	4.1	10/01/24 09:48	
ENV-SOP-MIN4-0178	PFOA	7.7	ng/L	4.1	10/01/24 09:48	
50382544004	**X-10AR2_09112024**					
ENV-SOP-MIN4-0178	PFBA	8.4	ng/L	4.2	10/01/24 09:55	M1
ENV-SOP-MIN4-0178	PFOA	5.8	ng/L	4.2	10/01/24 09:55	
50382544005	**X-2A_09112024**					
ENV-SOP-MIN4-0178	PFOS	15.0	ng/L	3.9	10/01/24 10:17	
ENV-SOP-MIN4-0178	PFOA	19.7	ng/L	4.2	10/01/24 10:17	
50382544006	**DUP-05_09112024**					
ENV-SOP-MIN4-0178	PFHxS	3.7	ng/L	3.7	10/01/24 10:24	
ENV-SOP-MIN4-0178	PFOS	15.6	ng/L	3.8	10/01/24 10:24	
ENV-SOP-MIN4-0178	PFOA	18.9	ng/L	4.1	10/01/24 10:24	

REPORT OF LABORATORY ANALYSIS

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Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: MW-117WT_09102024 **Lab ID: 50382544001** Collected: 09/10/24 12:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.2	1.9	1	09/30/24 07:33	10/01/24 09:34	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	4.0	0.87	1	09/30/24 07:33	10/01/24 09:34	763051-92-9	
4:2 FTS	ND	ng/L	4.0	0.78	1	09/30/24 07:33	10/01/24 09:34	757124-72-4	
6:2 FTS	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 09:34	27619-97-2	
8:2 FTS	ND	ng/L	4.2	1.7	1	09/30/24 07:33	10/01/24 09:34	39108-34-4	
9Cl-PF3ONS	ND	ng/L	4.0	0.76	1	09/30/24 07:33	10/01/24 09:34	756426-58-1	
ADONA	ND	ng/L	4.1	0.69	1	09/30/24 07:33	10/01/24 09:34	919005-14-4	
HFPO-DA	ND	ng/L	4.3	0.54	1	09/30/24 07:33	10/01/24 09:34	13252-13-6	
NEtFOSAA	ND	ng/L	4.3	1.2	1	09/30/24 07:33	10/01/24 09:34	2991-50-6	
NEtFOSA	ND	ng/L	4.3	0.98	1	09/30/24 07:33	10/01/24 09:34	4151-50-2	
NEtFOSE	ND	ng/L	4.3	1.3	1	09/30/24 07:33	10/01/24 09:34	1691-99-2	
NMeFOSAA	ND	ng/L	4.3	1.7	1	09/30/24 07:33	10/01/24 09:34	2355-31-9	
NMeFOSA	ND	ng/L	4.3	1.3	1	09/30/24 07:33	10/01/24 09:34	31506-32-8	
NMeFOSE	ND	ng/L	4.3	1.0	1	09/30/24 07:33	10/01/24 09:34	24448-09-7	
PFBS	**9.1**	ng/L	3.8	0.44	1	09/30/24 07:33	10/01/24 09:34	375-73-5	
PFDA	ND	ng/L	4.3	0.54	1	09/30/24 07:33	10/01/24 09:34	335-76-2	
PFHxA	**65.5**	ng/L	4.3	0.81	1	09/30/24 07:33	10/01/24 09:34	307-24-4	
PFBA	**216**	ng/L	4.3	0.60	1	09/30/24 07:33	10/01/24 09:34	375-22-4	
PFDS	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 09:34	335-77-3	
PFDoS	ND	ng/L	4.2	1.1	1	09/30/24 07:33	10/01/24 09:34	79780-39-5	
PFHpS	ND	ng/L	4.1	1.4	1	09/30/24 07:33	10/01/24 09:34	375-92-8	
PFHxDA	ND	ng/L	4.3	0.68	1	09/30/24 07:33	10/01/24 09:34	67905-19-5	
PFNS	ND	ng/L	4.1	1.0	1	09/30/24 07:33	10/01/24 09:34	68259-12-1	
PFODA	ND	ng/L	4.3	1.4	1	09/30/24 07:33	10/01/24 09:34	16517-11-6	
PFOSA	ND	ng/L	4.3	0.86	1	09/30/24 07:33	10/01/24 09:34	754-91-6	
PFPeA	**29.7**	ng/L	4.3	0.39	1	09/30/24 07:33	10/01/24 09:34	2706-90-3	
PFPeS	ND	ng/L	4.0	0.55	1	09/30/24 07:33	10/01/24 09:34	2706-91-4	
PFDoA	ND	ng/L	4.3	0.93	1	09/30/24 07:33	10/01/24 09:34	307-55-1	
PFHpA	ND	ng/L	4.3	0.51	1	09/30/24 07:33	10/01/24 09:34	375-85-9	
PFHxS	ND	ng/L	3.9	0.50	1	09/30/24 07:33	10/01/24 09:34	355-46-4	
PFNA	ND	ng/L	4.3	0.45	1	09/30/24 07:33	10/01/24 09:34	375-95-1	
PFOS	ND	ng/L	4.0	1.1	1	09/30/24 07:33	10/01/24 09:34	1763-23-1	
PFOA	ND	ng/L	4.3	0.57	1	09/30/24 07:33	10/01/24 09:34	335-67-1	
PFTeDA	ND	ng/L	4.3	0.78	1	09/30/24 07:33	10/01/24 09:34	376-06-7	
PFTrDA	ND	ng/L	4.3	0.61	1	09/30/24 07:33	10/01/24 09:34	72629-94-8	
PFUnA	ND	ng/L	4.3	1.4	1	09/30/24 07:33	10/01/24 09:34	2058-94-8	
Surrogates									
13C26:2FTS (S)	142	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C28:2FTS (S)	128	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C24:2FTS (S)	141	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C2-PFDoA (S)	66	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C2PFHxDA (S)	23	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		S0
13C2-PFTA (S)	47	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		S0
13C3HFPO-DA (S)	53	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C3-PFBS (S)	61	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		

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(317)228-3100

ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: MW-117WT_09102024 **Lab ID: 50382544001** Collected: 09/10/24 12:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	81	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C4-PFBA (S)	42	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		S0
13C4-PFHpA (S)	79	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C5-PFHxA (S)	74	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C5-PFPeA (S)	49	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		S0
13C6-PFDA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C7-PFUdA (S)	73	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C8-PFOA (S)	83	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C8-PFOS (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
13C8-PFOSA (S)	32	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		S0
13C9-PFNA (S)	92	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
d3-MeFOSAA (S)	64	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
d3-NMeFOSA (S)	0	%.	10-150		1	09/30/24 07:33	10/01/24 09:34		S0
d5-EtFOSAA (S)	65	%.	50-150		1	09/30/24 07:33	10/01/24 09:34		
d5-NEtFOSA (S)	0	%.	10-150		1	09/30/24 07:33	10/01/24 09:34		S0
d7-NMeFOSE (S)	7	%.	10-150		1	09/30/24 07:33	10/01/24 09:34		S0
d9-NEtFOSE (S)	4	%.	10-150		1	09/30/24 07:33	10/01/24 09:34		S0

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: MW-125WT_09112024 **Lab ID: 50382544002** Collected: 09/11/24 11:15 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.1	1.8	1	09/30/24 07:33	10/01/24 09:41	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	4.0	0.86	1	09/30/24 07:33	10/01/24 09:41	763051-92-9	
4:2 FTS	ND	ng/L	3.9	0.77	1	09/30/24 07:33	10/01/24 09:41	757124-72-4	
6:2 FTS	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 09:41	27619-97-2	
8:2 FTS	ND	ng/L	4.1	1.7	1	09/30/24 07:33	10/01/24 09:41	39108-34-4	
9Cl-PF3ONS	ND	ng/L	3.9	0.74	1	09/30/24 07:33	10/01/24 09:41	756426-58-1	
ADONA	ND	ng/L	4.0	0.67	1	09/30/24 07:33	10/01/24 09:41	919005-14-4	
HFPO-DA	ND	ng/L	4.2	0.53	1	09/30/24 07:33	10/01/24 09:41	13252-13-6	
NEtFOSAA	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 09:41	2991-50-6	
NEtFOSA	ND	ng/L	4.2	0.96	1	09/30/24 07:33	10/01/24 09:41	4151-50-2	
NEtFOSE	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:41	1691-99-2	
NMeFOSAA	ND	ng/L	4.2	1.6	1	09/30/24 07:33	10/01/24 09:41	2355-31-9	
NMeFOSA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:41	31506-32-8	
NMeFOSE	ND	ng/L	4.2	1.0	1	09/30/24 07:33	10/01/24 09:41	24448-09-7	
PFBS	ND	ng/L	3.7	0.43	1	09/30/24 07:33	10/01/24 09:41	375-73-5	
PFDA	ND	ng/L	4.2	0.53	1	09/30/24 07:33	10/01/24 09:41	335-76-2	
PFHxA	ND	ng/L	4.2	0.80	1	09/30/24 07:33	10/01/24 09:41	307-24-4	
PFBA	**18.3**	ng/L	4.2	0.59	1	09/30/24 07:33	10/01/24 09:41	375-22-4	
PFDS	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 09:41	335-77-3	
PFDoS	ND	ng/L	4.1	1.1	1	09/30/24 07:33	10/01/24 09:41	79780-39-5	
PFHpS	ND	ng/L	4.0	1.3	1	09/30/24 07:33	10/01/24 09:41	375-92-8	
PFHxDA	ND	ng/L	4.2	0.67	1	09/30/24 07:33	10/01/24 09:41	67905-19-5	
PFNS	ND	ng/L	4.0	1.0	1	09/30/24 07:33	10/01/24 09:41	68259-12-1	
PFODA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:41	16517-11-6	
PFOSA	ND	ng/L	4.2	0.84	1	09/30/24 07:33	10/01/24 09:41	754-91-6	
PFPeA	ND	ng/L	4.2	0.39	1	09/30/24 07:33	10/01/24 09:41	2706-90-3	
PFPeS	ND	ng/L	4.0	0.54	1	09/30/24 07:33	10/01/24 09:41	2706-91-4	
PFDoA	ND	ng/L	4.2	0.91	1	09/30/24 07:33	10/01/24 09:41	307-55-1	
PFHpA	ND	ng/L	4.2	0.50	1	09/30/24 07:33	10/01/24 09:41	375-85-9	
PFHxS	**10.3**	ng/L	3.8	0.49	1	09/30/24 07:33	10/01/24 09:41	355-46-4	
PFNA	ND	ng/L	4.2	0.44	1	09/30/24 07:33	10/01/24 09:41	375-95-1	
PFOS	ND	ng/L	3.9	1.1	1	09/30/24 07:33	10/01/24 09:41	1763-23-1	
PFOA	ND	ng/L	4.2	0.56	1	09/30/24 07:33	10/01/24 09:41	335-67-1	
PFTeDA	ND	ng/L	4.2	0.76	1	09/30/24 07:33	10/01/24 09:41	376-06-7	
PFTrDA	ND	ng/L	4.2	0.59	1	09/30/24 07:33	10/01/24 09:41	72629-94-8	
PFUnA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:41	2058-94-8	
Surrogates									
13C26:2FTS (S)	353	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		S0
13C28:2FTS (S)	183	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		S0
13C24:2FTS (S)	132	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C2-PFDoA (S)	91	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C2PFHxDA (S)	56	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C2-PFTA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C3HFPO-DA (S)	58	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C3-PFBS (S)	66	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: MW-125WT_09112024 **Lab ID: 50382544002** Collected: 09/11/24 11:15 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C4-PFBA (S)	59	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C4-PFHpA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C5-PFHxA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C5-PFPeA (S)	55	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C6-PFDA (S)	93	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C7-PFUdA (S)	91	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C8-PFOA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C8-PFOS (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C8-PFOSA (S)	61	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
13C9-PFNA (S)	91	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
d3-MeFOSAA (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
d3-NMeFOSA (S)	11	%.	10-150		1	09/30/24 07:33	10/01/24 09:41		
d5-EtFOSAA (S)	97	%.	50-150		1	09/30/24 07:33	10/01/24 09:41		
d5-NEtFOSA (S)	8	%.	10-150		1	09/30/24 07:33	10/01/24 09:41		S0
d7-NMeFOSE (S)	37	%.	10-150		1	09/30/24 07:33	10/01/24 09:41		
d9-NEtFOSE (S)	34	%.	10-150		1	09/30/24 07:33	10/01/24 09:41		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: TWW-1_09112024 **Lab ID: 50382544003** Collected: 09/11/24 11:40 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.0	1.8	1	09/30/24 07:33	10/01/24 09:48	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	3.9	0.84	1	09/30/24 07:33	10/01/24 09:48	763051-92-9	
4:2 FTS	ND	ng/L	3.9	0.75	1	09/30/24 07:33	10/01/24 09:48	757124-72-4	
6:2 FTS	ND	ng/L	3.9	1.2	1	09/30/24 07:33	10/01/24 09:48	27619-97-2	
8:2 FTS	ND	ng/L	4.0	1.6	1	09/30/24 07:33	10/01/24 09:48	39108-34-4	
9Cl-PF3ONS	ND	ng/L	3.9	0.73	1	09/30/24 07:33	10/01/24 09:48	756426-58-1	
ADONA	ND	ng/L	3.9	0.66	1	09/30/24 07:33	10/01/24 09:48	919005-14-4	
HFPO-DA	ND	ng/L	4.1	0.52	1	09/30/24 07:33	10/01/24 09:48	13252-13-6	
NEtFOSAA	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 09:48	2991-50-6	
NEtFOSA	ND	ng/L	4.1	0.94	1	09/30/24 07:33	10/01/24 09:48	4151-50-2	
NEtFOSE	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 09:48	1691-99-2	
NMeFOSAA	ND	ng/L	4.1	1.6	1	09/30/24 07:33	10/01/24 09:48	2355-31-9	
NMeFOSA	ND	ng/L	4.1	1.3	1	09/30/24 07:33	10/01/24 09:48	31506-32-8	
NMeFOSE	ND	ng/L	4.1	1.0	1	09/30/24 07:33	10/01/24 09:48	24448-09-7	
PFBS	ND	ng/L	3.7	0.42	1	09/30/24 07:33	10/01/24 09:48	375-73-5	
PFDA	ND	ng/L	4.1	0.52	1	09/30/24 07:33	10/01/24 09:48	335-76-2	
PFHxA	ND	ng/L	4.1	0.78	1	09/30/24 07:33	10/01/24 09:48	307-24-4	
PFBA	**13.4**	ng/L	4.1	0.58	1	09/30/24 07:33	10/01/24 09:48	375-22-4	
PFDS	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 09:48	335-77-3	
PFDoS	ND	ng/L	4.0	1.1	1	09/30/24 07:33	10/01/24 09:48	79780-39-5	
PFHpS	ND	ng/L	3.9	1.3	1	09/30/24 07:33	10/01/24 09:48	375-92-8	
PFHxDA	ND	ng/L	4.1	0.66	1	09/30/24 07:33	10/01/24 09:48	67905-19-5	
PFNS	ND	ng/L	4.0	0.98	1	09/30/24 07:33	10/01/24 09:48	68259-12-1	
PFODA	ND	ng/L	4.1	1.3	1	09/30/24 07:33	10/01/24 09:48	16517-11-6	
PFOSA	ND	ng/L	4.1	0.82	1	09/30/24 07:33	10/01/24 09:48	754-91-6	
PFPeA	ND	ng/L	4.1	0.38	1	09/30/24 07:33	10/01/24 09:48	2706-90-3	
PFPeS	ND	ng/L	3.9	0.53	1	09/30/24 07:33	10/01/24 09:48	2706-91-4	
PFDoA	ND	ng/L	4.1	0.89	1	09/30/24 07:33	10/01/24 09:48	307-55-1	
PFHpA	ND	ng/L	4.1	0.49	1	09/30/24 07:33	10/01/24 09:48	375-85-9	
PFHxS	ND	ng/L	3.8	0.48	1	09/30/24 07:33	10/01/24 09:48	355-46-4	
PFNA	ND	ng/L	4.1	0.43	1	09/30/24 07:33	10/01/24 09:48	375-95-1	
PFOS	ND	ng/L	3.8	1.1	1	09/30/24 07:33	10/01/24 09:48	1763-23-1	
PFOA	**7.7**	ng/L	4.1	0.55	1	09/30/24 07:33	10/01/24 09:48	335-67-1	
PFTeDA	ND	ng/L	4.1	0.75	1	09/30/24 07:33	10/01/24 09:48	376-06-7	
PFTrDA	ND	ng/L	4.1	0.58	1	09/30/24 07:33	10/01/24 09:48	72629-94-8	
PFUnA	ND	ng/L	4.1	1.3	1	09/30/24 07:33	10/01/24 09:48	2058-94-8	
Surrogates									
13C26:2FTS (S)	336	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		S0
13C28:2FTS (S)	223	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		S0
13C24:2FTS (S)	148	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C2-PFDoA (S)	96	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C2PFHxDA (S)	71	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C2-PFTA (S)	91	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C3HFPO-DA (S)	58	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C3-PFBS (S)	67	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: TWW-1_09112024 **Lab ID: 50382544003** Collected: 09/11/24 11:40 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C4-PFBA (S)	60	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C4-PFHpA (S)	83	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C5-PFHxA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C5-PFPeA (S)	55	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C6-PFDA (S)	94	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C7-PFUdA (S)	90	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C8-PFOA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C8-PFOS (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C8-PFOSA (S)	64	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
13C9-PFNA (S)	92	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
d3-MeFOSAA (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
d3-NMeFOSA (S)	16	%.	10-150		1	09/30/24 07:33	10/01/24 09:48		
d5-EtFOSAA (S)	93	%.	50-150		1	09/30/24 07:33	10/01/24 09:48		
d5-NEtFOSA (S)	16	%.	10-150		1	09/30/24 07:33	10/01/24 09:48		
d7-NMeFOSE (S)	56	%.	10-150		1	09/30/24 07:33	10/01/24 09:48		
d9-NEtFOSE (S)	51	%.	10-150		1	09/30/24 07:33	10/01/24 09:48		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: X-10AR2_09112024 **Lab ID: 50382544004** Collected: 09/11/24 12:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.1	1.8	1	09/30/24 07:33	10/01/24 09:55	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	4.0	0.86	1	09/30/24 07:33	10/01/24 09:55	763051-92-9	
4:2 FTS	ND	ng/L	3.9	0.77	1	09/30/24 07:33	10/01/24 09:55	757124-72-4	
6:2 FTS	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 09:55	27619-97-2	
8:2 FTS	ND	ng/L	4.1	1.7	1	09/30/24 07:33	10/01/24 09:55	39108-34-4	
9Cl-PF3ONS	ND	ng/L	3.9	0.74	1	09/30/24 07:33	10/01/24 09:55	756426-58-1	
ADONA	ND	ng/L	4.0	0.67	1	09/30/24 07:33	10/01/24 09:55	919005-14-4	
HFPO-DA	ND	ng/L	4.2	0.53	1	09/30/24 07:33	10/01/24 09:55	13252-13-6	
NEtFOSAA	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 09:55	2991-50-6	M1
NEtFOSA	ND	ng/L	4.2	0.96	1	09/30/24 07:33	10/01/24 09:55	4151-50-2	
NEtFOSE	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:55	1691-99-2	
NMeFOSAA	ND	ng/L	4.2	1.6	1	09/30/24 07:33	10/01/24 09:55	2355-31-9	M1
NMeFOSA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:55	31506-32-8	
NMeFOSE	ND	ng/L	4.2	1.0	1	09/30/24 07:33	10/01/24 09:55	24448-09-7	
PFBS	ND	ng/L	3.7	0.43	1	09/30/24 07:33	10/01/24 09:55	375-73-5	
PFDA	ND	ng/L	4.2	0.53	1	09/30/24 07:33	10/01/24 09:55	335-76-2	
PFHxA	ND	ng/L	4.2	0.80	1	09/30/24 07:33	10/01/24 09:55	307-24-4	
PFBA	**8.4**	ng/L	4.2	0.59	1	09/30/24 07:33	10/01/24 09:55	375-22-4	M1
PFDS	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 09:55	335-77-3	
PFDoS	ND	ng/L	4.1	1.1	1	09/30/24 07:33	10/01/24 09:55	79780-39-5	
PFHpS	ND	ng/L	4.0	1.3	1	09/30/24 07:33	10/01/24 09:55	375-92-8	M1
PFHxDA	ND	ng/L	4.2	0.67	1	09/30/24 07:33	10/01/24 09:55	67905-19-5	
PFNS	ND	ng/L	4.0	1.0	1	09/30/24 07:33	10/01/24 09:55	68259-12-1	
PFODA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:55	16517-11-6	M1,R1
PFOSA	ND	ng/L	4.2	0.84	1	09/30/24 07:33	10/01/24 09:55	754-91-6	
PFPeA	ND	ng/L	4.2	0.39	1	09/30/24 07:33	10/01/24 09:55	2706-90-3	M1
PFPeS	ND	ng/L	4.0	0.54	1	09/30/24 07:33	10/01/24 09:55	2706-91-4	
PFDoA	ND	ng/L	4.2	0.91	1	09/30/24 07:33	10/01/24 09:55	307-55-1	
PFHpA	ND	ng/L	4.2	0.50	1	09/30/24 07:33	10/01/24 09:55	375-85-9	
PFHxS	ND	ng/L	3.8	0.49	1	09/30/24 07:33	10/01/24 09:55	355-46-4	
PFNA	ND	ng/L	4.2	0.44	1	09/30/24 07:33	10/01/24 09:55	375-95-1	
PFOS	ND	ng/L	3.9	1.1	1	09/30/24 07:33	10/01/24 09:55	1763-23-1	
PFOA	**5.8**	ng/L	4.2	0.56	1	09/30/24 07:33	10/01/24 09:55	335-67-1	
PFTeDA	ND	ng/L	4.2	0.76	1	09/30/24 07:33	10/01/24 09:55	376-06-7	
PFTrDA	ND	ng/L	4.2	0.59	1	09/30/24 07:33	10/01/24 09:55	72629-94-8	
PFUnA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 09:55	2058-94-8	
Surrogates									
13C26:2FTS (S)	360	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		S0
13C28:2FTS (S)	187	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		S0
13C24:2FTS (S)	101	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C2-PFDoA (S)	88	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C2PFHxDA (S)	55	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C2-PFTA (S)	76	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C3HFPO-DA (S)	76	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C3-PFBS (S)	76	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: X-10AR2_09112024 **Lab ID: 50382544004** Collected: 09/11/24 12:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	88	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C4-PFBA (S)	72	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C4-PFHpA (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C5-PFHxA (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C5-PFPeA (S)	70	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C6-PFDA (S)	94	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C7-PFUdA (S)	87	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C8-PFOA (S)	90	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C8-PFOS (S)	81	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C8-PFOSA (S)	70	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
13C9-PFNA (S)	101	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
d3-MeFOSAA (S)	87	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
d3-NMeFOSA (S)	13	%.	10-150		1	09/30/24 07:33	10/01/24 09:55		
d5-EtFOSAA (S)	90	%.	50-150		1	09/30/24 07:33	10/01/24 09:55		
d5-NEtFOSA (S)	11	%.	10-150		1	09/30/24 07:33	10/01/24 09:55		
d7-NMeFOSE (S)	47	%.	10-150		1	09/30/24 07:33	10/01/24 09:55		
d9-NEtFOSE (S)	37	%.	10-150		1	09/30/24 07:33	10/01/24 09:55		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: X-2A_09112024 **Lab ID: 50382544005** Collected: 09/11/24 12:30 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.0	1.8	1	09/30/24 07:33	10/01/24 10:17	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	3.9	0.85	1	09/30/24 07:33	10/01/24 10:17	763051-92-9	
4:2 FTS	ND	ng/L	3.9	0.76	1	09/30/24 07:33	10/01/24 10:17	757124-72-4	
6:2 FTS	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 10:17	27619-97-2	
8:2 FTS	ND	ng/L	4.0	1.6	1	09/30/24 07:33	10/01/24 10:17	39108-34-4	
9Cl-PF3ONS	ND	ng/L	3.9	0.74	1	09/30/24 07:33	10/01/24 10:17	756426-58-1	
ADONA	ND	ng/L	3.9	0.67	1	09/30/24 07:33	10/01/24 10:17	919005-14-4	
HFPO-DA	ND	ng/L	4.2	0.53	1	09/30/24 07:33	10/01/24 10:17	13252-13-6	
NEtFOSAA	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 10:17	2991-50-6	
NEtFOSA	ND	ng/L	4.2	0.95	1	09/30/24 07:33	10/01/24 10:17	4151-50-2	
NEtFOSE	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 10:17	1691-99-2	
NMeFOSAA	ND	ng/L	4.2	1.6	1	09/30/24 07:33	10/01/24 10:17	2355-31-9	
NMeFOSA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 10:17	31506-32-8	
NMeFOSE	ND	ng/L	4.2	1.0	1	09/30/24 07:33	10/01/24 10:17	24448-09-7	
PFBS	ND	ng/L	3.7	0.42	1	09/30/24 07:33	10/01/24 10:17	375-73-5	
PFDA	ND	ng/L	4.2	0.52	1	09/30/24 07:33	10/01/24 10:17	335-76-2	
PFHxA	ND	ng/L	4.2	0.79	1	09/30/24 07:33	10/01/24 10:17	307-24-4	
PFBA	ND	ng/L	4.2	0.58	1	09/30/24 07:33	10/01/24 10:17	375-22-4	
PFDS	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 10:17	335-77-3	
PFDoS	ND	ng/L	4.0	1.1	1	09/30/24 07:33	10/01/24 10:17	79780-39-5	
PFHpS	ND	ng/L	4.0	1.3	1	09/30/24 07:33	10/01/24 10:17	375-92-8	
PFHxDA	ND	ng/L	4.2	0.66	1	09/30/24 07:33	10/01/24 10:17	67905-19-5	
PFNS	ND	ng/L	4.0	0.99	1	09/30/24 07:33	10/01/24 10:17	68259-12-1	
PFODA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 10:17	16517-11-6	
PFOSA	ND	ng/L	4.2	0.83	1	09/30/24 07:33	10/01/24 10:17	754-91-6	
PFPeA	ND	ng/L	4.2	0.38	1	09/30/24 07:33	10/01/24 10:17	2706-90-3	
PFPeS	ND	ng/L	3.9	0.53	1	09/30/24 07:33	10/01/24 10:17	2706-91-4	
PFDoA	ND	ng/L	4.2	0.90	1	09/30/24 07:33	10/01/24 10:17	307-55-1	
PFHpA	ND	ng/L	4.2	0.49	1	09/30/24 07:33	10/01/24 10:17	375-85-9	
PFHxS	ND	ng/L	3.8	0.49	1	09/30/24 07:33	10/01/24 10:17	355-46-4	
PFNA	ND	ng/L	4.2	0.44	1	09/30/24 07:33	10/01/24 10:17	375-95-1	
PFOS	**15.0**	ng/L	3.9	1.1	1	09/30/24 07:33	10/01/24 10:17	1763-23-1	
PFOA	**19.7**	ng/L	4.2	0.56	1	09/30/24 07:33	10/01/24 10:17	335-67-1	
PFTeDA	ND	ng/L	4.2	0.75	1	09/30/24 07:33	10/01/24 10:17	376-06-7	
PFTrDA	ND	ng/L	4.2	0.59	1	09/30/24 07:33	10/01/24 10:17	72629-94-8	
PFUnA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 10:17	2058-94-8	
Surrogates									
13C26:2FTS (S)	268	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		S0
13C28:2FTS (S)	273	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		S0
13C24:2FTS (S)	196	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		S0
13C2-PFDoA (S)	69	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C2PFHxDA (S)	32	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		S0
13C2-PFTA (S)	54	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C3HFPO-DA (S)	45	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		S0
13C3-PFBS (S)	55	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: X-2A_09112024 **Lab ID: 50382544005** Collected: 09/11/24 12:30 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	71	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C4-PFBA (S)	51	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C4-PFHpA (S)	66	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C5-PFHxA (S)	70	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C5-PFPeA (S)	46	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		S0
13C6-PFDA (S)	76	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C7-PFUdA (S)	73	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C8-PFOA (S)	68	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C8-PFOS (S)	67	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C8-PFOSA (S)	52	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
13C9-PFNA (S)	70	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
d3-MeFOSAA (S)	66	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
d3-NMeFOSA (S)	9	%.	10-150		1	09/30/24 07:33	10/01/24 10:17		S0
d5-EtFOSAA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 10:17		
d5-NEtFOSA (S)	6	%.	10-150		1	09/30/24 07:33	10/01/24 10:17		S0
d7-NMeFOSE (S)	27	%.	10-150		1	09/30/24 07:33	10/01/24 10:17		
d9-NEtFOSE (S)	19	%.	10-150		1	09/30/24 07:33	10/01/24 10:17		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: DUP-05_09112024 **Lab ID: 50382544006** Collected: 09/11/24 08:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.0	1.8	1	09/30/24 07:33	10/01/24 10:24	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	3.9	0.83	1	09/30/24 07:33	10/01/24 10:24	763051-92-9	
4:2 FTS	ND	ng/L	3.8	0.75	1	09/30/24 07:33	10/01/24 10:24	757124-72-4	
6:2 FTS	ND	ng/L	3.9	1.2	1	09/30/24 07:33	10/01/24 10:24	27619-97-2	
8:2 FTS	ND	ng/L	4.0	1.6	1	09/30/24 07:33	10/01/24 10:24	39108-34-4	
9Cl-PF3ONS	ND	ng/L	3.8	0.73	1	09/30/24 07:33	10/01/24 10:24	756426-58-1	
ADONA	ND	ng/L	3.9	0.66	1	09/30/24 07:33	10/01/24 10:24	919005-14-4	
HFPO-DA	ND	ng/L	4.1	0.52	1	09/30/24 07:33	10/01/24 10:24	13252-13-6	
NEtFOSAA	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 10:24	2991-50-6	
NEtFOSA	ND	ng/L	4.1	0.93	1	09/30/24 07:33	10/01/24 10:24	4151-50-2	
NEtFOSE	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 10:24	1691-99-2	
NMeFOSAA	ND	ng/L	4.1	1.6	1	09/30/24 07:33	10/01/24 10:24	2355-31-9	
NMeFOSA	ND	ng/L	4.1	1.3	1	09/30/24 07:33	10/01/24 10:24	31506-32-8	
NMeFOSE	ND	ng/L	4.1	0.99	1	09/30/24 07:33	10/01/24 10:24	24448-09-7	
PFBS	ND	ng/L	3.6	0.42	1	09/30/24 07:33	10/01/24 10:24	375-73-5	
PFDA	ND	ng/L	4.1	0.51	1	09/30/24 07:33	10/01/24 10:24	335-76-2	
PFHxA	ND	ng/L	4.1	0.78	1	09/30/24 07:33	10/01/24 10:24	307-24-4	
PFBA	ND	ng/L	4.1	0.58	1	09/30/24 07:33	10/01/24 10:24	375-22-4	
PFDS	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 10:24	335-77-3	
PFDoS	ND	ng/L	4.0	1.1	1	09/30/24 07:33	10/01/24 10:24	79780-39-5	
PFHpS	ND	ng/L	3.9	1.3	1	09/30/24 07:33	10/01/24 10:24	375-92-8	
PFHxDA	ND	ng/L	4.1	0.65	1	09/30/24 07:33	10/01/24 10:24	67905-19-5	
PFNS	ND	ng/L	3.9	0.97	1	09/30/24 07:33	10/01/24 10:24	68259-12-1	
PFODA	ND	ng/L	4.1	1.3	1	09/30/24 07:33	10/01/24 10:24	16517-11-6	
PFOSA	ND	ng/L	4.1	0.82	1	09/30/24 07:33	10/01/24 10:24	754-91-6	
PFPeA	ND	ng/L	4.1	0.38	1	09/30/24 07:33	10/01/24 10:24	2706-90-3	
PFPeS	ND	ng/L	3.9	0.53	1	09/30/24 07:33	10/01/24 10:24	2706-91-4	
PFDoA	ND	ng/L	4.1	0.89	1	09/30/24 07:33	10/01/24 10:24	307-55-1	
PFHpA	ND	ng/L	4.1	0.48	1	09/30/24 07:33	10/01/24 10:24	375-85-9	
PFHxS	**3.7**	ng/L	3.7	0.48	1	09/30/24 07:33	10/01/24 10:24	355-46-4	
PFNA	ND	ng/L	4.1	0.43	1	09/30/24 07:33	10/01/24 10:24	375-95-1	
PFOS	**15.6**	ng/L	3.8	1.0	1	09/30/24 07:33	10/01/24 10:24	1763-23-1	
PFOA	**18.9**	ng/L	4.1	0.55	1	09/30/24 07:33	10/01/24 10:24	335-67-1	
PFTeDA	ND	ng/L	4.1	0.74	1	09/30/24 07:33	10/01/24 10:24	376-06-7	
PFTrDA	ND	ng/L	4.1	0.58	1	09/30/24 07:33	10/01/24 10:24	72629-94-8	
PFUnA	ND	ng/L	4.1	1.3	1	09/30/24 07:33	10/01/24 10:24	2058-94-8	
Surrogates									
13C26:2FTS (S)	265	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		S0
13C28:2FTS (S)	260	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		S0
13C24:2FTS (S)	184	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		S0
13C2-PFDoA (S)	79	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C2PFHxDA (S)	72	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C2-PFTA (S)	79	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C3HFPO-DA (S)	41	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		S0
13C3-PFBS (S)	51	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: DUP-05_09112024 **Lab ID: 50382544006** Collected: 09/11/24 08:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	67	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C4-PFBA (S)	40	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		S0
13C4-PFHpA (S)	61	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C5-PFHxA (S)	61	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C5-PFPeA (S)	40	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		S0
13C6-PFDA (S)	74	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C7-PFUdA (S)	75	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C8-PFOA (S)	65	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C8-PFOS (S)	64	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C8-PFOSA (S)	66	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
13C9-PFNA (S)	66	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
d3-MeFOSAA (S)	70	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
d3-NMeFOSA (S)	49	%.	10-150		1	09/30/24 07:33	10/01/24 10:24		
d5-EtFOSAA (S)	81	%.	50-150		1	09/30/24 07:33	10/01/24 10:24		
d5-NEtFOSA (S)	47	%.	10-150		1	09/30/24 07:33	10/01/24 10:24		
d7-NMeFOSE (S)	60	%.	10-150		1	09/30/24 07:33	10/01/24 10:24		
d9-NEtFOSE (S)	49	%.	10-150		1	09/30/24 07:33	10/01/24 10:24		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: EB-01_09112024 **Lab ID: 50382544007** Collected: 09/11/24 14:40 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	2.0	0.90	1	09/30/24 07:33	10/01/24 10:31	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	1.9	0.42	1	09/30/24 07:33	10/01/24 10:31	763051-92-9	
4:2 FTS	ND	ng/L	1.9	0.37	1	09/30/24 07:33	10/01/24 10:31	757124-72-4	
6:2 FTS	ND	ng/L	2.0	0.59	1	09/30/24 07:33	10/01/24 10:31	27619-97-2	
8:2 FTS	ND	ng/L	2.0	0.81	1	09/30/24 07:33	10/01/24 10:31	39108-34-4	
9Cl-PF3ONS	ND	ng/L	1.9	0.36	1	09/30/24 07:33	10/01/24 10:31	756426-58-1	
ADONA	ND	ng/L	1.9	0.33	1	09/30/24 07:33	10/01/24 10:31	919005-14-4	
HFPO-DA	ND	ng/L	2.1	0.26	1	09/30/24 07:33	10/01/24 10:31	13252-13-6	
NEtFOSAA	ND	ng/L	2.1	0.58	1	09/30/24 07:33	10/01/24 10:31	2991-50-6	
NEtFOSA	ND	ng/L	2.1	0.47	1	09/30/24 07:33	10/01/24 10:31	4151-50-2	
NEtFOSE	ND	ng/L	2.1	0.62	1	09/30/24 07:33	10/01/24 10:31	1691-99-2	
NMeFOSAA	ND	ng/L	2.1	0.80	1	09/30/24 07:33	10/01/24 10:31	2355-31-9	
NMeFOSA	ND	ng/L	2.1	0.64	1	09/30/24 07:33	10/01/24 10:31	31506-32-8	
NMeFOSE	ND	ng/L	2.1	0.49	1	09/30/24 07:33	10/01/24 10:31	24448-09-7	
PFBS	ND	ng/L	1.8	0.21	1	09/30/24 07:33	10/01/24 10:31	375-73-5	
PFDA	ND	ng/L	2.1	0.26	1	09/30/24 07:33	10/01/24 10:31	335-76-2	
PFHxA	ND	ng/L	2.1	0.39	1	09/30/24 07:33	10/01/24 10:31	307-24-4	
PFBA	ND	ng/L	2.1	0.29	1	09/30/24 07:33	10/01/24 10:31	375-22-4	
PFDS	ND	ng/L	2.0	0.58	1	09/30/24 07:33	10/01/24 10:31	335-77-3	
PFDoS	ND	ng/L	2.0	0.55	1	09/30/24 07:33	10/01/24 10:31	79780-39-5	
PFHpS	ND	ng/L	2.0	0.65	1	09/30/24 07:33	10/01/24 10:31	375-92-8	
PFHxDA	ND	ng/L	2.1	0.33	1	09/30/24 07:33	10/01/24 10:31	67905-19-5	
PFNS	ND	ng/L	2.0	0.49	1	09/30/24 07:33	10/01/24 10:31	68259-12-1	
PFODA	ND	ng/L	2.1	0.65	1	09/30/24 07:33	10/01/24 10:31	16517-11-6	
PFOSA	ND	ng/L	2.1	0.41	1	09/30/24 07:33	10/01/24 10:31	754-91-6	
PFPeA	ND	ng/L	2.1	0.19	1	09/30/24 07:33	10/01/24 10:31	2706-90-3	
PFPeS	ND	ng/L	1.9	0.26	1	09/30/24 07:33	10/01/24 10:31	2706-91-4	
PFDoA	ND	ng/L	2.1	0.44	1	09/30/24 07:33	10/01/24 10:31	307-55-1	
PFHpA	ND	ng/L	2.1	0.24	1	09/30/24 07:33	10/01/24 10:31	375-85-9	
PFHxS	ND	ng/L	1.9	0.24	1	09/30/24 07:33	10/01/24 10:31	355-46-4	
PFNA	ND	ng/L	2.1	0.21	1	09/30/24 07:33	10/01/24 10:31	375-95-1	
PFOS	ND	ng/L	1.9	0.52	1	09/30/24 07:33	10/01/24 10:31	1763-23-1	
PFOA	ND	ng/L	2.1	0.27	1	09/30/24 07:33	10/01/24 10:31	335-67-1	
PFTeDA	ND	ng/L	2.1	0.37	1	09/30/24 07:33	10/01/24 10:31	376-06-7	
PFTrDA	ND	ng/L	2.1	0.29	1	09/30/24 07:33	10/01/24 10:31	72629-94-8	
PFUnA	ND	ng/L	2.1	0.66	1	09/30/24 07:33	10/01/24 10:31	2058-94-8	
Surrogates									
13C26:2FTS (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C28:2FTS (S)	131	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C24:2FTS (S)	77	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C2-PFDoA (S)	84	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C2PFHxDA (S)	55	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C2-PFTA (S)	78	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C3HFPO-DA (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C3-PFBS (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		

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ANALYTICAL RESULTS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Sample: EB-01_09112024 **Lab ID: 50382544007** Collected: 09/11/24 14:40 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	87	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C4-PFBA (S)	84	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C4-PFHpA (S)	81	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C5-PFHxA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C5-PFPeA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C6-PFDA (S)	89	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C7-PFUdA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C8-PFOA (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C8-PFOS (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C8-PFOSA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
13C9-PFNA (S)	95	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
d3-MeFOSAA (S)	74	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
d3-NMeFOSA (S)	69	%.	10-150		1	09/30/24 07:33	10/01/24 10:31		
d5-EtFOSAA (S)	77	%.	50-150		1	09/30/24 07:33	10/01/24 10:31		
d5-NEtFOSA (S)	66	%.	10-150		1	09/30/24 07:33	10/01/24 10:31		
d7-NMeFOSE (S)	86	%.	10-150		1	09/30/24 07:33	10/01/24 10:31		
d9-NEtFOSE (S)	82	%.	10-150		1	09/30/24 07:33	10/01/24 10:31		

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

QC Batch: 970442
QC Batch Method: ENV-SOP-MIN4-0178
Analysis Method: ENV-SOP-MIN4-0178
Analysis Description: PFAS Compounds, Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 50382544001, 50382544002, 50382544003, 50382544004, 50382544005, 50382544006, 50382544007

METHOD BLANK: 5071225 Matrix: Water
Associated Lab Samples: 50382544001, 50382544002, 50382544003, 50382544004, 50382544005, 50382544006, 50382544007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
10:2 FTS	ng/L	ND	1.9	0.88	10/01/24 07:38	
11Cl-PF3OUdS	ng/L	ND	1.9	0.41	10/01/24 07:38	
4:2 FTS	ng/L	ND	1.9	0.37	10/01/24 07:38	
6:2 FTS	ng/L	ND	1.9	0.57	10/01/24 07:38	
8:2 FTS	ng/L	ND	1.9	0.79	10/01/24 07:38	
9Cl-PF3ONS	ng/L	ND	1.9	0.36	10/01/24 07:38	
ADONA	ng/L	ND	1.9	0.32	10/01/24 07:38	
HFPO-DA	ng/L	ND	2.0	0.25	10/01/24 07:38	
NEtFOSA	ng/L	ND	2.0	0.46	10/01/24 07:38	
NEtFOSAA	ng/L	ND	2.0	0.57	10/01/24 07:38	
NEtFOSE	ng/L	ND	2.0	0.60	10/01/24 07:38	
NMeFOSA	ng/L	ND	2.0	0.63	10/01/24 07:38	
NMeFOSAA	ng/L	ND	2.0	0.78	10/01/24 07:38	
NMeFOSE	ng/L	ND	2.0	0.48	10/01/24 07:38	
PFBA	ng/L	ND	2.0	0.28	10/01/24 07:38	
PFBS	ng/L	ND	1.8	0.20	10/01/24 07:38	
PFDA	ng/L	ND	2.0	0.25	10/01/24 07:38	
PFDoA	ng/L	ND	2.0	0.43	10/01/24 07:38	
PFDoS	ng/L	ND	2.0	0.54	10/01/24 07:38	
PFDS	ng/L	ND	1.9	0.57	10/01/24 07:38	
PFHpA	ng/L	ND	2.0	0.24	10/01/24 07:38	
PFHpS	ng/L	ND	1.9	0.63	10/01/24 07:38	
PFHxA	ng/L	ND	2.0	0.38	10/01/24 07:38	
PFHxDA	ng/L	ND	2.0	0.32	10/01/24 07:38	
PFHxS	ng/L	ND	1.8	0.24	10/01/24 07:38	
PFNA	ng/L	ND	2.0	0.21	10/01/24 07:38	
PFNS	ng/L	ND	1.9	0.48	10/01/24 07:38	
PFOA	ng/L	ND	2.0	0.27	10/01/24 07:38	
PFODA	ng/L	ND	2.0	0.64	10/01/24 07:38	
PFOS	ng/L	ND	1.9	0.51	10/01/24 07:38	
PFOSA	ng/L	ND	2.0	0.40	10/01/24 07:38	
PFPeA	ng/L	ND	2.0	0.18	10/01/24 07:38	
PFPeS	ng/L	ND	1.9	0.26	10/01/24 07:38	
PFTeDA	ng/L	ND	2.0	0.36	10/01/24 07:38	
PFTrDA	ng/L	ND	2.0	0.28	10/01/24 07:38	
PFUnA	ng/L	ND	2.0	0.64	10/01/24 07:38	
13C2-PFDoA (S)	%.	89	50-150		10/01/24 07:38	
13C2-PFTA (S)	%.	83	50-150		10/01/24 07:38	
13C24:2FTS (S)	%.	121	50-150		10/01/24 07:38	
13C26:2FTS (S)	%.	130	50-150		10/01/24 07:38	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

METHOD BLANK: 5071225 Matrix: Water
Associated Lab Samples: 50382544001, 50382544002, 50382544003, 50382544004, 50382544005, 50382544006, 50382544007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
13C28:2FTS (S)	%.	210	50-150		10/01/24 07:38	S3
13C2PFHxDA (S)	%.	70	50-150		10/01/24 07:38	
13C3-PFBS (S)	%.	96	50-150		10/01/24 07:38	
13C3-PFHxS (S)	%.	94	50-150		10/01/24 07:38	
13C3HFPO-DA (S)	%.	95	50-150		10/01/24 07:38	
13C4-PFBA (S)	%.	97	50-150		10/01/24 07:38	
13C4-PFHpA (S)	%.	93	50-150		10/01/24 07:38	
13C5-PFHxA (S)	%.	89	50-150		10/01/24 07:38	
13C5-PFPeA (S)	%.	97	50-150		10/01/24 07:38	
13C6-PFDA (S)	%.	97	50-150		10/01/24 07:38	
13C7-PFUdA (S)	%.	83	50-150		10/01/24 07:38	
13C8-PFOA (S)	%.	97	50-150		10/01/24 07:38	
13C8-PFOS (S)	%.	87	50-150		10/01/24 07:38	
13C8-PFOSA (S)	%.	90	50-150		10/01/24 07:38	
13C9-PFNA (S)	%.	101	50-150		10/01/24 07:38	
d3-MeFOSAA (S)	%.	82	50-150		10/01/24 07:38	
d3-NMeFOSA (S)	%.	75	10-150		10/01/24 07:38	
d5-EtFOSAA (S)	%.	78	50-150		10/01/24 07:38	
d5-NEtFOSA (S)	%.	66	10-150		10/01/24 07:38	
d7-NMeFOSE (S)	%.	102	10-150		10/01/24 07:38	
d9-NEtFOSE (S)	%.	93	10-150		10/01/24 07:38	

LABORATORY CONTROL SAMPLE & LCSD: 5071226 5071227

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
10:2 FTS	ng/L	3.9	3.8	4.0	98	106	70-140	3	30	
11Cl-PF3OUdS	ng/L	3.8	4.5	4.1	118	111	70-140	11	30	
4:2 FTS	ng/L	3.8	4.2	4.1	109	114	63-143	1	30	
6:2 FTS	ng/L	3.9	4.5	4.4	117	119	64-140	4	30	
8:2 FTS	ng/L	3.9	4.6	4.3	117	117	67-138	5	30	
9Cl-PF3ONS	ng/L	3.8	4.5	4.2	119	117	70-140	7	30	
ADONA	ng/L	3.8	4.1	3.9	108	107	70-140	6	30	
HFPO-DA	ng/L	4.1	4.5	4.1	111	106	70-140	10	30	
NEtFOSA	ng/L	4.1	4.0	4.4	97	115	70-140	11	30	
NEtFOSAA	ng/L	4.1	4.9	4.4	119	113	61-135	10	30	
NEtFOSE	ng/L	4.1	4.9	4.0	120	103	70-140	21	30	
NMeFOSA	ng/L	4.1	3.8	4.2	93	109	68-141	12	30	
NMeFOSAA	ng/L	4.1	4.5	4.3	110	112	65-136	4	30	
NMeFOSE	ng/L	4.1	4.7	3.6	116	94	70-140	26	30	
PFBA	ng/L	4.1	4.6	4.4	113	113	73-129	6	30	
PFBS	ng/L	3.6	4.0	3.9	112	113	72-130	5	30	
PFDA	ng/L	4.1	4.5	4.5	110	116	71-129	0	30	
PFDoA	ng/L	4.1	4.6	4.2	114	109	72-134	10	30	
PFDoS	ng/L	3.9	3.8	3.9	96	104	60-140	4	30	

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QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

LABORATORY CONTROL SAMPLE & LCSD: 5071226 5071227

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFDS	ng/L	3.9	4.0	3.9	103	103	53-142	5	30	
PFHpA	ng/L	4.1	4.6	4.3	112	111	72-130	6	30	
PFHpS	ng/L	3.9	4.6	4.8	119	129	69-134	4	30	
PFHxA	ng/L	4.1	4.8	4.6	118	120	72-129	3	30	
PFHxDA	ng/L	4.1	4.7	4.3	116	111	70-140	9	30	
PFHxS	ng/L	3.7	4.2	4.0	113	113	68-131	6	30	
PFNA	ng/L	4.1	4.3	4.7	105	121	69-130	9	30	
PFNS	ng/L	3.9	4.6	4.1	118	111	69-127	11	30	
PFOA	ng/L	4.1	4.9	4.5	119	115	71-133	9	30	
PFODA	ng/L	4.1	3.3	3.2	82	83	30-140	4	30	
PFOS	ng/L	3.8	4.4	4.4	116	122	65-140	0	30	
PFOSA	ng/L	4.1	4.5	4.4	111	113	67-137	4	30	
PFPeA	ng/L	4.1	4.9	4.6	120	119	72-129	5	30	
PFPeS	ng/L	3.8	4.0	4.1	105	112	71-127	1	30	
PFTeDA	ng/L	4.1	4.5	4.2	110	108	71-132	7	30	
PFTrDA	ng/L	4.1	4.7	4.6	117	119	65-144	3	30	
PFUnA	ng/L	4.1	4.4	4.5	107	115	69-133	2	30	
13C2-PFDoA (S)	%.				91	94	50-150			
13C2-PFTA (S)	%.				90	91	50-150			
13C24:2FTS (S)	%.				118	120	50-150			
13C26:2FTS (S)	%.				122	130	50-150			
13C28:2FTS (S)	%.				153	140	50-150			S0
13C2PFHxDA (S)	%.				85	82	50-150			
13C3-PFBS (S)	%.				93	96	50-150			
13C3-PFHxS (S)	%.				91	93	50-150			
13C3HFPO-DA (S)	%.				93	94	50-150			
13C4-PFBA (S)	%.				93	96	50-150			
13C4-PFHpA (S)	%.				91	92	50-150			
13C5-PFHxA (S)	%.				87	89	50-150			
13C5-PFPeA (S)	%.				95	97	50-150			
13C6-PFDA (S)	%.				95	98	50-150			
13C7-PFUdA (S)	%.				87	85	50-150			
13C8-PFOA (S)	%.				93	96	50-150			
13C8-PFOS (S)	%.				89	88	50-150			
13C8-PFOSA (S)	%.				91	91	50-150			
13C9-PFNA (S)	%.				102	100	50-150			
d3-MeFOSAA (S)	%.				89	87	50-150			
d3-NMeFOSA (S)	%.				65	68	10-150			
d5-EtFOSAA (S)	%.				85	83	50-150			
d5-NEtFOSA (S)	%.				65	66	10-150			
d7-NMeFOSE (S)	%.				95	101	10-150			
d9-NEtFOSE (S)	%.				94	96	10-150			

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5071228 5071229

Parameter	Units	50382544004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
10:2 FTS	ng/L	ND	7.7	7.8	5.9	6.2	77	79	70-130	4	30	
11Cl-PF3OUdS	ng/L	ND	7.5	7.7	9.1	9.1	121	118	70-130	1	30	
4:2 FTS	ng/L	ND	7.5	7.6	8.8	8.9	117	117	70-130	1	30	
6:2 FTS	ng/L	ND	7.6	7.7	9.7	9.7	114	112	70-130	0	30	
8:2 FTS	ng/L	ND	7.7	7.8	8.9	8.8	116	113	70-130	0	30	
9Cl-PF3ONS	ng/L	ND	7.5	7.6	9.1	8.9	122	117	70-130	3	30	
ADONA	ng/L	ND	7.5	7.7	8.6	8.7	114	113	70-130	1	30	
HFPO-DA	ng/L	ND	8	8.1	8.5	7.7	107	95	70-130	10	30	
NEtFOSA	ng/L	ND	8	8.1	10.3	9.1	129	112	70-130	12	30	
NEtFOSAA	ng/L	ND	8	8.1	10.5	10.1	131	125	70-130	3	30	M1
NEtFOSE	ng/L	ND	8	8.1	10.4	10.1	130	124	70-130	3	30	
NMeFOSA	ng/L	ND	8	8.1	7.2	9.6	90	119	70-130	29	30	
NMeFOSAA	ng/L	ND	8	8.1	11.4	10.9	143	134	70-130	5	30	M1
NMeFOSE	ng/L	ND	8	8.1	10	10	117	115	70-130	0	30	
PFBA	ng/L	8.4	8	8.1	17.3	19.3	112	135	70-130	11	30	M1
PFBS	ng/L	ND	7.1	7.2	9.6	9.6	119	118	70-130	0	30	
PFDA	ng/L	ND	8	8.1	9.0	9.3	113	115	70-130	3	30	
PFDoA	ng/L	ND	8	8.1	9.5	9.9	119	122	70-130	4	30	
PFDoS	ng/L	ND	7.7	7.9	8.4	9.6	109	123	70-130	13	30	
PFDS	ng/L	ND	7.7	7.8	9.3	9.6	120	123	70-130	4	30	
PFHpA	ng/L	ND	8	8.1	10.2	9.8	121	115	70-130	3	30	
PFHpS	ng/L	ND	7.6	7.8	10.9	10.9	142	140	70-130	0	30	M1
PFHxA	ng/L	ND	8	8.1	10.8	11.0	125	126	70-130	2	30	
PFHxDA	ng/L	ND	8	8.1	10.1	9.8	126	120	70-130	3	30	
PFHxS	ng/L	ND	7.3	7.4	8.8	9.6	114	123	70-130	9	30	
PFNA	ng/L	ND	8	8.1	9.2	9.5	115	117	70-130	4	30	
PFNS	ng/L	ND	7.7	7.8	9.8	8.9	127	114	70-130	10	30	
PFOA	ng/L	5.8	8	8.1	15.9	15.7	126	121	70-130	2	30	
PFODA	ng/L	ND	8	8.1	4.9	8.4	61	103	70-130	53	30	M1,R1
PFOS	ng/L	ND	7.4	7.5	9.4	9.7	118	121	70-130	4	30	
PFOSA	ng/L	ND	8	8.1	8.8	10.3	110	127	70-130	16	30	
PFPeA	ng/L	ND	8	8.1	11.3	10.3	133	119	70-130	9	30	M1
PFPeS	ng/L	ND	7.5	7.6	8.8	9.0	115	116	70-130	2	30	
PFTeDA	ng/L	ND	8	8.1	9.2	9.3	116	114	70-130	0	30	
PFTrDA	ng/L	ND	8	8.1	9.7	10.2	122	125	70-130	4	30	
PFUnA	ng/L	ND	8	8.1	9.9	8.8	124	109	70-130	11	30	
13C2-PFDoA (S)	%.						87	92	50-150			
13C2-PFTA (S)	%.						79	89	50-150			
13C24:2FTS (S)	%.						85	117	50-150			
13C26:2FTS (S)	%.						361	404	50-150			S0
13C28:2FTS (S)	%.						178	237	50-150			S0
13C2PFHxDA (S)	%.						57	81	50-150			
13C3-PFBS (S)	%.						74	73	50-150			
13C3-PFHxS (S)	%.						85	83	50-150			
13C3HFPO-DA (S)	%.						80	72	50-150			
13C4-PFBA (S)	%.						70	67	50-150			

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7726 Moller Road
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(317)228-3100

QUALITY CONTROL DATA

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5071228 5071229

Parameter	Units	50382544004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
13C4-PFHpA (S)	%.						82	82	50-150			
13C5-PFHxA (S)	%.						81	83	50-150			
13C5-PFPeA (S)	%.						68	66	50-150			
13C6-PFDA (S)	%.						95	93	50-150			
13C7-PFUdA (S)	%.						83	88	50-150			
13C8-PFOA (S)	%.						86	85	50-150			
13C8-PFOS (S)	%.						81	83	50-150			
13C8-PFOSA (S)	%.						63	78	50-150			
13C9-PFNA (S)	%.						98	94	50-150			
d3-MeFOSAA (S)	%.						79	83	50-150			
d3-NMeFOSA (S)	%.						11	52	10-150			
d5-EtFOSAA (S)	%.						85	90	50-150			
d5-NEtFOSA (S)	%.						10	53	10-150			
d7-NMeFOSE (S)	%.						39	80	10-150			
d9-NEtFOSE (S)	%.						29	79	10-150			

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QUALIFIERS

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: RACER Saginaw - GPL
Pace Project No.: 50382544

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382544001	**MW-117WT_09102024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382544002	**MW-125WT_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382544003	**TWW-1_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382544004	**X-10AR2_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382544005	**X-2A_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382544006	**DUP-05_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382544007	**EB-01_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057

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Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

50382544

Scan QR Code for instructions

Company Name: ARCADIS	Contact/Report To: AMANDA ROBINSON
Street Address: 28550 CABOT DRIVE STE 500 NOVI, MI 48377	Phone #: 989.854.8672
	E-Mail: AMANDA.ROBINSON@ARCADIS.COM
	Cc E-Mail: SCOTT.CLEARWATER@ARCADIS.COM
Customer Project #: 30213352.11000	Invoice to: AMANDA ROBINSON
Project Name: RACER SAGINAW GPL	Invoice E-mail:
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): MICHIGAN
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other ____ Date Results Requested:
	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Specify Container Size **: 3

Identify Container Preservative Type***: 1

Analysis Requested: 6PFAS

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: | AcctNum / Client ID: | Table #: | Profile / Template: | Prelog / Bottle Ord. ID: 472274

Preservation non-conformance identified for sample.

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	Sample Comment
MW-117WT_09102024	GW	G			9/10/24	1200	1			001
MW-125WT_09112024	GW	G			9/11/24	1115	2			002
TWW-1_09112024	GW	G			9/11/24	1140	2			003
X-10AR2_09112024	GW	G			9/11/24	1200	4			MS/MSD 004
X-2A_09112024	GW	G			9/11/24	1230	2			005
DUP-05_09112024	GW	G			9/11/24	—	2			006
FEB-01_09112024	GW	G			9/11/24	1440	2			007

Additional Instructions from Pace® :

Collected By: Printed Name / Signature

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C):	Corrected Temp. (°C):	[ ] On Ice
1	TG	-0.1	1.3	1.2	Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
ARCADIS	9/11/24 1800	Sabrina Blodgett/Pace	9.12.24 1828	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In- Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEX [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: ArCadis **PROJECT #:**

Place LIMS WO Label Here

COURIER: ☐ Client ☐ Commercial ☒ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 279393416 4500 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☒ YES ☐ NO **Seals Intact:** ☒ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☒ NO ☐ N/A

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☒ None ☐ Other **Temp Blank:** ☐ YES ☒ NO **Type of Ice:** ☐ Blue ☐ Dry ☒ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☒ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☒ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☒ N/A
Correction Factor: _____ **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C	**Average Corrected Temp (no Temp Blank Only):** 1.2 °C
NOTE: *Temp should be above freezing to 6°C.*	☒ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☒ N/A – Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** CM2 9-13-24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☒ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☒	☐		1.
Chain-of-Custody Relinquished?	☒	☐		2.
Sampler Name and/or Signature on COC?	☐	☒	☐	3.
Samples Arrived within Hold Time?	☒	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☒		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☒		6.
Sufficient Sample Volume?	☒	☐		7.
Correct Containers Used? – Pace Containers Used?	☒ ☒	☐ ☐	☐	8.
Containers Intact?	☒	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☒	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☒ Water ☐ Other	☒	☐		11. **If NO, write ID/Date/Time of container below:** ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☒	12. Sample #:
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☒	☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☒	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☒	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☒	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☒	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☒	15.
Trip Blank Custody Seals Present?	☐	☐	☒	Pace Trip Blank Lot # (if purchased): _____

Residual Chlorine	0-6 Roll	0-6 Strip	0-14 Strip

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** _____

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: _____ **Line:** _____

Pace Container Order #1183157

Addresses

Order By :

Company PASI Indianapolis
Contact Deck, Olivia
Email olivia.deck@pacelabs.com
Address 7726 Moller Road
Address 2
City Indianapolis
State IN Zip 46268
Phone (317)228-3100

Ship To :

Company Arcadis
Contact Austin Westhuis
Email olivia.deck@pacelabs.com
Address 3819 Black Creek Drive
Address 2
City Hudsonville
State MI Zip 49426
Phone 517-719-0214

Return To:

Company Pace Analytical Minnesota
Contact Trout, Carolynne
Email carolynne.trout@pacelabs.com
Address 1700 Elm Street
Address 2 Suite 200
City Minneapolis
State MN Zip 55414
Phone 1(612)607-6351

Info

Project Name Arcadis RACER
Due Date 09/05/2024
Profile 47274
Quote
Project Manager Trout, Carolynne
Return Date
Carrier FedEx Standard Overnight
Location MI

Trip Blanks

[ ] Include Trip Blanks

Bottle Labels

[ ] Blank
[X] Pre-Printed No Sample IDs
[ ] Pre-Printed With Sample IDs

Bottles

[ ] Boxed Cases
[ ] Individually Wrapped
[X] Grouped By Sample ID/Matrix

Return Shipping Labels

[ ] No Shipper
[ ] With Shipper

COC Options

[X] Number of Blanks 2
[ ] Pre-Printed

Misc

[ ] Sampling Instructions
[X] Custody Seal
[X] Temp. Blanks
[X] Coolers
[ ] Syringes
[ ] Extra Bubble Wrap
[ ] Short Hold/Rush Stickers
[X] DI Water 8 PFAS Liter(s)
[ ] USDA Regulated Soils

# of Samples	Matrix	Test	Container	Total	# of QC	Lot #	Notes
16	WT	PFAS ID NPW	2-250mL HDPE unpreserved	32	0	M414301BB	
2	WT	Equipment Blank - PFAS ID NPW	2-250mL HDPE unpreserved	4	0	M414301BB DI WATER LOT #234295	1 empty, 1 filled w/ DI water
1	WT	Field Blank - PFAS ID NPW	2-250mL HDPE unpreserved	2	0	M414301BB DI WATER LOT #234295	1 empty, 1 filled w/ DI water
2	WT	PFAS DI Water	1-4L jug	2	0	DI WATER LOT #233155	

RETURN WITH SAMPLES

Hazard Shipping Placard In Place : NO

*Sample receiving hours are Mon-Fri 7:30am-7:00pm and Sat 9:00am-1:00pm unless special arrangements are made with your project manager.
*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.
*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.
*Payment term are net 30 days.
*Please include the proposal number on the chain of custody to ensure proper billing.

LAB USE:

Ship Date :	09/05/2024
Prepared By:	PC
Verified By:	
Tracking Num:	

CLIENT USE (Optional):

Date Rec'd:	
Received By:	
Verified By:	

Sample Notes :

F-ALL-C-009-rev.00, 19Dec2016

Workorder #: _____

No Temp Blank		
Read Temp	**Corrected Temp**	**Average temp**
1.4	1.2	
1.2	1.0	1.2
1.6	1.4	
1.4	1.2	

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples

Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								YES	NO	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

_____

_____

_____

Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

October 03, 2024

Scott Clearwater
Arcadis U.S., Inc.
28550 Cabot Drive
Suite 500
Novi, MI 48377

RE: Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Dear Scott Clearwater:

Enclosed are the analytical results for sample(s) received by the laboratory on September 12, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Minneapolis

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Olivia Deck
olivia.deck@pacelabs.com
(317)228-3102
Project Manager

Enclosures

cc: Amanda Robinson, Arcadis U.S., Inc.

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CERTIFICATIONS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Pace Analytical Services, LLC - Minneapolis MN
1700 Elm Street SE, Minneapolis, MN 55414
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
DoD Certification via A2LA #: 2926.01
EPA Region 8 Tribal Water Systems+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
GMP+ Certification #: GMP050884
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
ISO/IEC 17025 Certification via A2LA #: 2926.01
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: AI-03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137
Minnesota Dept of Ag Approval: via MN 027-053-137
Minnesota Petrofund Registration #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification (A2LA) #: R-036
North Dakota Certification (MN) #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification (1700) #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #:74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification via A2LA #: 2926.01
USDA Permit #: P330-19-00208

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SAMPLE SUMMARY

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Lab ID	Sample ID	Matrix	Date Collected	Date Received
50382545001	**B-3R_09112024**	Water	09/11/24 13:00	09/12/24 18:28
50382545002	**QPTW-13R_09112024**	Water	09/11/24 13:20	09/12/24 18:28
50382545003	**MW-131WT_09112024**	Water	09/11/24 13:40	09/12/24 18:28
50382545004	**MW-134WT_09112024**	Water	09/11/24 14:00	09/12/24 18:28
50382545005	**MW-108S1_09112024**	Water	09/11/24 14:20	09/12/24 18:28
50382545006	**EB-02_09112024**	Water	09/11/24 14:50	09/12/24 18:28

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SAMPLE ANALYTE COUNT

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
50382545001	**B-3R_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382545002	**QPTW-13R_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382545003	**MW-131WT_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382545004	**MW-134WT_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382545005	**MW-108S1_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M
50382545006	**EB-02_09112024**	ENV-SOP-MIN4-0178	MJL	61	PASI-M

PASI-M = Pace Analytical Services - Minneapolis

REPORT OF LABORATORY ANALYSIS

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(317)228-3100

SUMMARY OF DETECTION

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
50382545001	**B-3R_09112024**					
ENV-SOP-MIN4-0178	PFOS	11.4	ng/L	4.0	10/01/24 08:36	
50382545002	**QPTW-13R_09112024**					
ENV-SOP-MIN4-0178	PFBS	6.6	ng/L	3.8	10/01/24 08:43	
ENV-SOP-MIN4-0178	PFOS	7.6	ng/L	3.9	10/01/24 08:43	
50382545003	**MW-131WT_09112024**					
ENV-SOP-MIN4-0178	PFHxS	8.0	ng/L	4.0	10/01/24 08:50	
ENV-SOP-MIN4-0178	PFOS	12.2	ng/L	4.0	10/01/24 08:50	
50382545004	**MW-134WT_09112024**					
ENV-SOP-MIN4-0178	PFBA	5.3	ng/L	4.0	10/01/24 08:58	
50382545005	**MW-108S1_09112024**					
ENV-SOP-MIN4-0178	PFOS	4.1	ng/L	1.9	10/01/24 09:19	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: B-3R_09112024 **Lab ID: 50382545001** Collected: 09/11/24 13:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.1	1.9	1	09/30/24 07:33	10/01/24 08:36	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	4.0	0.87	1	09/30/24 07:33	10/01/24 08:36	763051-92-9	
4:2 FTS	ND	ng/L	4.0	0.78	1	09/30/24 07:33	10/01/24 08:36	757124-72-4	
6:2 FTS	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 08:36	27619-97-2	
8:2 FTS	ND	ng/L	4.1	1.7	1	09/30/24 07:33	10/01/24 08:36	39108-34-4	
9Cl-PF3ONS	ND	ng/L	4.0	0.76	1	09/30/24 07:33	10/01/24 08:36	756426-58-1	
ADONA	ND	ng/L	4.0	0.68	1	09/30/24 07:33	10/01/24 08:36	919005-14-4	
HFPO-DA	ND	ng/L	4.3	0.54	1	09/30/24 07:33	10/01/24 08:36	13252-13-6	
NEtFOSAA	ND	ng/L	4.3	1.2	1	09/30/24 07:33	10/01/24 08:36	2991-50-6	
NEtFOSA	ND	ng/L	4.3	0.97	1	09/30/24 07:33	10/01/24 08:36	4151-50-2	
NEtFOSE	ND	ng/L	4.3	1.3	1	09/30/24 07:33	10/01/24 08:36	1691-99-2	
NMeFOSAA	ND	ng/L	4.3	1.7	1	09/30/24 07:33	10/01/24 08:36	2355-31-9	
NMeFOSA	ND	ng/L	4.3	1.3	1	09/30/24 07:33	10/01/24 08:36	31506-32-8	
NMeFOSE	ND	ng/L	4.3	1.0	1	09/30/24 07:33	10/01/24 08:36	24448-09-7	
PFBS	ND	ng/L	3.8	0.43	1	09/30/24 07:33	10/01/24 08:36	375-73-5	
PFDA	ND	ng/L	4.3	0.53	1	09/30/24 07:33	10/01/24 08:36	335-76-2	
PFHxA	ND	ng/L	4.3	0.81	1	09/30/24 07:33	10/01/24 08:36	307-24-4	
PFBA	ND	ng/L	4.3	0.60	1	09/30/24 07:33	10/01/24 08:36	375-22-4	
PFDS	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 08:36	335-77-3	
PFDoS	ND	ng/L	4.2	1.1	1	09/30/24 07:33	10/01/24 08:36	79780-39-5	
PFHpS	ND	ng/L	4.1	1.3	1	09/30/24 07:33	10/01/24 08:36	375-92-8	
PFHxDA	ND	ng/L	4.3	0.68	1	09/30/24 07:33	10/01/24 08:36	67905-19-5	
PFNS	ND	ng/L	4.1	1.0	1	09/30/24 07:33	10/01/24 08:36	68259-12-1	
PFODA	ND	ng/L	4.3	1.4	1	09/30/24 07:33	10/01/24 08:36	16517-11-6	
PFOSA	ND	ng/L	4.3	0.85	1	09/30/24 07:33	10/01/24 08:36	754-91-6	
PFPeA	ND	ng/L	4.3	0.39	1	09/30/24 07:33	10/01/24 08:36	2706-90-3	
PFPeS	ND	ng/L	4.0	0.55	1	09/30/24 07:33	10/01/24 08:36	2706-91-4	
PFDoA	ND	ng/L	4.3	0.92	1	09/30/24 07:33	10/01/24 08:36	307-55-1	
PFHpA	ND	ng/L	4.3	0.50	1	09/30/24 07:33	10/01/24 08:36	375-85-9	
PFHxS	ND	ng/L	3.9	0.50	1	09/30/24 07:33	10/01/24 08:36	355-46-4	
PFNA	ND	ng/L	4.3	0.45	1	09/30/24 07:33	10/01/24 08:36	375-95-1	
PFOS	**11.4**	ng/L	4.0	1.1	1	09/30/24 07:33	10/01/24 08:36	1763-23-1	
PFOA	ND	ng/L	4.3	0.57	1	09/30/24 07:33	10/01/24 08:36	335-67-1	
PFTeDA	ND	ng/L	4.3	0.77	1	09/30/24 07:33	10/01/24 08:36	376-06-7	
PFTrDA	ND	ng/L	4.3	0.60	1	09/30/24 07:33	10/01/24 08:36	72629-94-8	
PFUnA	ND	ng/L	4.3	1.4	1	09/30/24 07:33	10/01/24 08:36	2058-94-8	
Surrogates									
13C26:2FTS (S)	315	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C28:2FTS (S)	400	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C24:2FTS (S)	203	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C2-PFDoA (S)	58	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C2PFHxDA (S)	12	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C2-PFTA (S)	31	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C3HFPO-DA (S)	45	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C3-PFBS (S)	56	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		

REPORT OF LABORATORY ANALYSIS

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Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: B-3R_09112024 **Lab ID: 50382545001** Collected: 09/11/24 13:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	69	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C4-PFBA (S)	59	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C4-PFHpA (S)	73	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C5-PFHxA (S)	70	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C5-PFPeA (S)	46	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C6-PFDA (S)	76	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C7-PFUdA (S)	65	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C8-PFOA (S)	74	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C8-PFOS (S)	69	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
13C8-PFOSA (S)	17	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		S0
13C9-PFNA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
d3-MeFOSAA (S)	71	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
d3-NMeFOSA (S)	1	%.	10-150		1	09/30/24 07:33	10/01/24 08:36		S0
d5-EtFOSAA (S)	73	%.	50-150		1	09/30/24 07:33	10/01/24 08:36		
d5-NEtFOSA (S)	1	%.	10-150		1	09/30/24 07:33	10/01/24 08:36		S0
d7-NMeFOSE (S)	5	%.	10-150		1	09/30/24 07:33	10/01/24 08:36		S0
d9-NEtFOSE (S)	4	%.	10-150		1	09/30/24 07:33	10/01/24 08:36		S0

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: QPTW-13R_09112024 **Lab ID: 50382545002** Collected: 09/11/24 13:20 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.1	1.9	1	09/30/24 07:33	10/01/24 08:43	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	4.0	0.86	1	09/30/24 07:33	10/01/24 08:43	763051-92-9	
4:2 FTS	ND	ng/L	4.0	0.77	1	09/30/24 07:33	10/01/24 08:43	757124-72-4	
6:2 FTS	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 08:43	27619-97-2	
8:2 FTS	ND	ng/L	4.1	1.7	1	09/30/24 07:33	10/01/24 08:43	39108-34-4	
9Cl-PF3ONS	ND	ng/L	3.9	0.75	1	09/30/24 07:33	10/01/24 08:43	756426-58-1	
ADONA	ND	ng/L	4.0	0.68	1	09/30/24 07:33	10/01/24 08:43	919005-14-4	
HFPO-DA	ND	ng/L	4.2	0.53	1	09/30/24 07:33	10/01/24 08:43	13252-13-6	
NEtFOSAA	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 08:43	2991-50-6	
NEtFOSA	ND	ng/L	4.2	0.96	1	09/30/24 07:33	10/01/24 08:43	4151-50-2	
NEtFOSE	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 08:43	1691-99-2	
NMeFOSAA	ND	ng/L	4.2	1.7	1	09/30/24 07:33	10/01/24 08:43	2355-31-9	
NMeFOSA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 08:43	31506-32-8	
NMeFOSE	ND	ng/L	4.2	1.0	1	09/30/24 07:33	10/01/24 08:43	24448-09-7	
PFBS	**6.6**	ng/L	3.8	0.43	1	09/30/24 07:33	10/01/24 08:43	375-73-5	
PFDA	ND	ng/L	4.2	0.53	1	09/30/24 07:33	10/01/24 08:43	335-76-2	
PFHxA	ND	ng/L	4.2	0.80	1	09/30/24 07:33	10/01/24 08:43	307-24-4	
PFBA	ND	ng/L	4.2	0.59	1	09/30/24 07:33	10/01/24 08:43	375-22-4	
PFDS	ND	ng/L	4.1	1.2	1	09/30/24 07:33	10/01/24 08:43	335-77-3	
PFDoS	ND	ng/L	4.1	1.1	1	09/30/24 07:33	10/01/24 08:43	79780-39-5	
PFHpS	ND	ng/L	4.0	1.3	1	09/30/24 07:33	10/01/24 08:43	375-92-8	
PFHxDA	ND	ng/L	4.2	0.67	1	09/30/24 07:33	10/01/24 08:43	67905-19-5	
PFNS	ND	ng/L	4.1	1.0	1	09/30/24 07:33	10/01/24 08:43	68259-12-1	
PFODA	ND	ng/L	4.2	1.3	1	09/30/24 07:33	10/01/24 08:43	16517-11-6	
PFOSA	ND	ng/L	4.2	0.84	1	09/30/24 07:33	10/01/24 08:43	754-91-6	
PFPeA	ND	ng/L	4.2	0.39	1	09/30/24 07:33	10/01/24 08:43	2706-90-3	
PFPeS	ND	ng/L	4.0	0.54	1	09/30/24 07:33	10/01/24 08:43	2706-91-4	
PFDoA	ND	ng/L	4.2	0.92	1	09/30/24 07:33	10/01/24 08:43	307-55-1	
PFHpA	ND	ng/L	4.2	0.50	1	09/30/24 07:33	10/01/24 08:43	375-85-9	
PFHxS	ND	ng/L	3.9	0.50	1	09/30/24 07:33	10/01/24 08:43	355-46-4	
PFNA	ND	ng/L	4.2	0.44	1	09/30/24 07:33	10/01/24 08:43	375-95-1	
PFOS	**7.6**	ng/L	3.9	1.1	1	09/30/24 07:33	10/01/24 08:43	1763-23-1	
PFOA	ND	ng/L	4.2	0.57	1	09/30/24 07:33	10/01/24 08:43	335-67-1	
PFTeDA	ND	ng/L	4.2	0.77	1	09/30/24 07:33	10/01/24 08:43	376-06-7	
PFTrDA	ND	ng/L	4.2	0.60	1	09/30/24 07:33	10/01/24 08:43	72629-94-8	
PFUnA	ND	ng/L	4.2	1.4	1	09/30/24 07:33	10/01/24 08:43	2058-94-8	
Surrogates									
13C26:2FTS (S)	296	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C28:2FTS (S)	306	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C24:2FTS (S)	220	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C2-PFDoA (S)	40	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C2PFHxDA (S)	7	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C2-PFTA (S)	14	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C3HFPO-DA (S)	41	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C3-PFBS (S)	53	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: QPTW-13R_09112024 **Lab ID: 50382545002** Collected: 09/11/24 13:20 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	61	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
13C4-PFBA (S)	42	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C4-PFHpA (S)	52	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
13C5-PFHxA (S)	58	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
13C5-PFPeA (S)	40	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C6-PFDA (S)	56	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
13C7-PFUdA (S)	50	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
13C8-PFOA (S)	52	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
13C8-PFOS (S)	56	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
13C8-PFOSA (S)	19	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
13C9-PFNA (S)	54	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		
d3-MeFOSAA (S)	43	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
d3-NMeFOSA (S)	2	%.	10-150		1	09/30/24 07:33	10/01/24 08:43		S0
d5-EtFOSAA (S)	43	%.	50-150		1	09/30/24 07:33	10/01/24 08:43		S0
d5-NEtFOSA (S)	1	%.	10-150		1	09/30/24 07:33	10/01/24 08:43		S0
d7-NMeFOSE (S)	4	%.	10-150		1	09/30/24 07:33	10/01/24 08:43		S0
d9-NEtFOSE (S)	6	%.	10-150		1	09/30/24 07:33	10/01/24 08:43		S0

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: MW-131WT_09112024 **Lab ID: 50382545003** Collected: 09/11/24 13:40 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	4.2	1.9	1	09/30/24 07:33	10/01/24 08:50	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	4.1	0.89	1	09/30/24 07:33	10/01/24 08:50	763051-92-9	
4:2 FTS	ND	ng/L	4.1	0.79	1	09/30/24 07:33	10/01/24 08:50	757124-72-4	
6:2 FTS	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 08:50	27619-97-2	
8:2 FTS	ND	ng/L	4.2	1.7	1	09/30/24 07:33	10/01/24 08:50	39108-34-4	
9Cl-PF3ONS	ND	ng/L	4.1	0.77	1	09/30/24 07:33	10/01/24 08:50	756426-58-1	
ADONA	ND	ng/L	4.1	0.70	1	09/30/24 07:33	10/01/24 08:50	919005-14-4	
HFPO-DA	ND	ng/L	4.4	0.55	1	09/30/24 07:33	10/01/24 08:50	13252-13-6	
NEtFOSAA	ND	ng/L	4.4	1.2	1	09/30/24 07:33	10/01/24 08:50	2991-50-6	
NEtFOSA	ND	ng/L	4.4	0.99	1	09/30/24 07:33	10/01/24 08:50	4151-50-2	
NEtFOSE	ND	ng/L	4.4	1.3	1	09/30/24 07:33	10/01/24 08:50	1691-99-2	
NMeFOSAA	ND	ng/L	4.4	1.7	1	09/30/24 07:33	10/01/24 08:50	2355-31-9	
NMeFOSA	ND	ng/L	4.4	1.4	1	09/30/24 07:33	10/01/24 08:50	31506-32-8	
NMeFOSE	ND	ng/L	4.4	1.1	1	09/30/24 07:33	10/01/24 08:50	24448-09-7	
PFBS	ND	ng/L	3.9	0.44	1	09/30/24 07:33	10/01/24 08:50	375-73-5	
PFDA	ND	ng/L	4.4	0.55	1	09/30/24 07:33	10/01/24 08:50	335-76-2	
PFHxA	ND	ng/L	4.4	0.83	1	09/30/24 07:33	10/01/24 08:50	307-24-4	
PFBA	ND	ng/L	4.4	0.61	1	09/30/24 07:33	10/01/24 08:50	375-22-4	
PFDS	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 08:50	335-77-3	
PFDoS	ND	ng/L	4.2	1.2	1	09/30/24 07:33	10/01/24 08:50	79780-39-5	
PFHpS	ND	ng/L	4.2	1.4	1	09/30/24 07:33	10/01/24 08:50	375-92-8	
PFHxDA	ND	ng/L	4.4	0.70	1	09/30/24 07:33	10/01/24 08:50	67905-19-5	
PFNS	ND	ng/L	4.2	1.0	1	09/30/24 07:33	10/01/24 08:50	68259-12-1	
PFODA	ND	ng/L	4.4	1.4	1	09/30/24 07:33	10/01/24 08:50	16517-11-6	
PFOSA	ND	ng/L	4.4	0.87	1	09/30/24 07:33	10/01/24 08:50	754-91-6	
PFPeA	ND	ng/L	4.4	0.40	1	09/30/24 07:33	10/01/24 08:50	2706-90-3	
PFPeS	ND	ng/L	4.1	0.56	1	09/30/24 07:33	10/01/24 08:50	2706-91-4	
PFDoA	ND	ng/L	4.4	0.94	1	09/30/24 07:33	10/01/24 08:50	307-55-1	
PFHpA	ND	ng/L	4.4	0.51	1	09/30/24 07:33	10/01/24 08:50	375-85-9	
PFHxS	**8.0**	ng/L	4.0	0.51	1	09/30/24 07:33	10/01/24 08:50	355-46-4	
PFNA	ND	ng/L	4.4	0.46	1	09/30/24 07:33	10/01/24 08:50	375-95-1	
PFOS	**12.2**	ng/L	4.0	1.1	1	09/30/24 07:33	10/01/24 08:50	1763-23-1	
PFOA	ND	ng/L	4.4	0.58	1	09/30/24 07:33	10/01/24 08:50	335-67-1	
PFTeDA	ND	ng/L	4.4	0.79	1	09/30/24 07:33	10/01/24 08:50	376-06-7	
PFTrDA	ND	ng/L	4.4	0.62	1	09/30/24 07:33	10/01/24 08:50	72629-94-8	
PFUnA	ND	ng/L	4.4	1.4	1	09/30/24 07:33	10/01/24 08:50	2058-94-8	
Surrogates									
13C26:2FTS (S)	179	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
13C28:2FTS (S)	172	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
13C24:2FTS (S)	130	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C2-PFDoA (S)	45	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
13C2PFHxDA (S)	24	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
13C2-PFTA (S)	40	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
13C3HFPO-DA (S)	59	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C3-PFBS (S)	62	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: MW-131WT_09112024 **Lab ID: 50382545003** Collected: 09/11/24 13:40 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	77	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C4-PFBA (S)	67	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C4-PFHpA (S)	77	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C5-PFHxA (S)	74	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C5-PFPeA (S)	55	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C6-PFDA (S)	76	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C7-PFUdA (S)	56	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C8-PFOA (S)	78	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C8-PFOS (S)	67	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
13C8-PFOSA (S)	36	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
13C9-PFNA (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		
d3-MeFOSAA (S)	46	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
d3-NMeFOSA (S)	6	%.	10-150		1	09/30/24 07:33	10/01/24 08:50		S0
d5-EtFOSAA (S)	43	%.	50-150		1	09/30/24 07:33	10/01/24 08:50		S0
d5-NEtFOSA (S)	5	%.	10-150		1	09/30/24 07:33	10/01/24 08:50		S0
d7-NMeFOSE (S)	16	%.	10-150		1	09/30/24 07:33	10/01/24 08:50		
d9-NEtFOSE (S)	12	%.	10-150		1	09/30/24 07:33	10/01/24 08:50		

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: MW-134WT_09112024 **Lab ID: 50382545004** Collected: 09/11/24 14:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	3.9	1.8	1	09/30/24 07:33	10/01/24 08:58	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	3.8	0.82	1	09/30/24 07:33	10/01/24 08:58	763051-92-9	
4:2 FTS	ND	ng/L	3.8	0.74	1	09/30/24 07:33	10/01/24 08:58	757124-72-4	
6:2 FTS	ND	ng/L	3.8	1.2	1	09/30/24 07:33	10/01/24 08:58	27619-97-2	
8:2 FTS	ND	ng/L	3.9	1.6	1	09/30/24 07:33	10/01/24 08:58	39108-34-4	
9Cl-PF3ONS	ND	ng/L	3.8	0.71	1	09/30/24 07:33	10/01/24 08:58	756426-58-1	
ADONA	ND	ng/L	3.8	0.65	1	09/30/24 07:33	10/01/24 08:58	919005-14-4	
HFPO-DA	ND	ng/L	4.0	0.51	1	09/30/24 07:33	10/01/24 08:58	13252-13-6	
NEtFOSAA	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 08:58	2991-50-6	
NEtFOSA	ND	ng/L	4.0	0.92	1	09/30/24 07:33	10/01/24 08:58	4151-50-2	
NEtFOSE	ND	ng/L	4.0	1.2	1	09/30/24 07:33	10/01/24 08:58	1691-99-2	
NMeFOSAA	ND	ng/L	4.0	1.6	1	09/30/24 07:33	10/01/24 08:58	2355-31-9	
NMeFOSA	ND	ng/L	4.0	1.3	1	09/30/24 07:33	10/01/24 08:58	31506-32-8	
NMeFOSE	ND	ng/L	4.0	0.97	1	09/30/24 07:33	10/01/24 08:58	24448-09-7	
PFBS	ND	ng/L	3.6	0.41	1	09/30/24 07:33	10/01/24 08:58	375-73-5	
PFDA	ND	ng/L	4.0	0.51	1	09/30/24 07:33	10/01/24 08:58	335-76-2	
PFHxA	ND	ng/L	4.0	0.77	1	09/30/24 07:33	10/01/24 08:58	307-24-4	
PFBA	**5.3**	ng/L	4.0	0.57	1	09/30/24 07:33	10/01/24 08:58	375-22-4	
PFDS	ND	ng/L	3.9	1.2	1	09/30/24 07:33	10/01/24 08:58	335-77-3	
PFDoS	ND	ng/L	3.9	1.1	1	09/30/24 07:33	10/01/24 08:58	79780-39-5	
PFHpS	ND	ng/L	3.8	1.3	1	09/30/24 07:33	10/01/24 08:58	375-92-8	
PFHxDA	ND	ng/L	4.0	0.64	1	09/30/24 07:33	10/01/24 08:58	67905-19-5	
PFNS	ND	ng/L	3.9	0.96	1	09/30/24 07:33	10/01/24 08:58	68259-12-1	
PFODA	ND	ng/L	4.0	1.3	1	09/30/24 07:33	10/01/24 08:58	16517-11-6	
PFOSA	ND	ng/L	4.0	0.81	1	09/30/24 07:33	10/01/24 08:58	754-91-6	
PFPeA	ND	ng/L	4.0	0.37	1	09/30/24 07:33	10/01/24 08:58	2706-90-3	
PFPeS	ND	ng/L	3.8	0.52	1	09/30/24 07:33	10/01/24 08:58	2706-91-4	
PFDoA	ND	ng/L	4.0	0.87	1	09/30/24 07:33	10/01/24 08:58	307-55-1	
PFHpA	ND	ng/L	4.0	0.48	1	09/30/24 07:33	10/01/24 08:58	375-85-9	
PFHxS	ND	ng/L	3.7	0.47	1	09/30/24 07:33	10/01/24 08:58	355-46-4	
PFNA	ND	ng/L	4.0	0.42	1	09/30/24 07:33	10/01/24 08:58	375-95-1	
PFOS	ND	ng/L	3.7	1.0	1	09/30/24 07:33	10/01/24 08:58	1763-23-1	
PFOA	ND	ng/L	4.0	0.54	1	09/30/24 07:33	10/01/24 08:58	335-67-1	
PFTeDA	ND	ng/L	4.0	0.73	1	09/30/24 07:33	10/01/24 08:58	376-06-7	
PFTrDA	ND	ng/L	4.0	0.57	1	09/30/24 07:33	10/01/24 08:58	72629-94-8	
PFUnA	ND	ng/L	4.0	1.3	1	09/30/24 07:33	10/01/24 08:58	2058-94-8	
Surrogates									
13C26:2FTS (S)	241	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		S0
13C28:2FTS (S)	220	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		S0
13C24:2FTS (S)	151	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		S0
13C2-PFDoA (S)	84	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C2PFHxDA (S)	71	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C2-PFTA (S)	79	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C3HFPO-DA (S)	57	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C3-PFBS (S)	65	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: MW-134WT_09112024 **Lab ID: 50382545004** Collected: 09/11/24 14:00 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C4-PFBA (S)	59	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C4-PFHpA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C5-PFHxA (S)	77	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C5-PFPeA (S)	54	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C6-PFDA (S)	88	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C7-PFUdA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C8-PFOA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C8-PFOS (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C8-PFOSA (S)	77	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
13C9-PFNA (S)	91	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
d3-MeFOSAA (S)	77	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
d3-NMeFOSA (S)	57	%.	10-150		1	09/30/24 07:33	10/01/24 08:58		
d5-EtFOSAA (S)	81	%.	50-150		1	09/30/24 07:33	10/01/24 08:58		
d5-NEtFOSA (S)	51	%.	10-150		1	09/30/24 07:33	10/01/24 08:58		
d7-NMeFOSE (S)	74	%.	10-150		1	09/30/24 07:33	10/01/24 08:58		
d9-NEtFOSE (S)	69	%.	10-150		1	09/30/24 07:33	10/01/24 08:58		

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(317)228-3100

ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: MW-108S1_09112024 **Lab ID: 50382545005** Collected: 09/11/24 14:20 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	2.0	0.92	1	09/30/24 07:33	10/01/24 09:19	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	2.0	0.43	1	09/30/24 07:33	10/01/24 09:19	763051-92-9	
4:2 FTS	ND	ng/L	2.0	0.38	1	09/30/24 07:33	10/01/24 09:19	757124-72-4	
6:2 FTS	ND	ng/L	2.0	0.60	1	09/30/24 07:33	10/01/24 09:19	27619-97-2	
8:2 FTS	ND	ng/L	2.0	0.83	1	09/30/24 07:33	10/01/24 09:19	39108-34-4	
9Cl-PF3ONS	ND	ng/L	2.0	0.37	1	09/30/24 07:33	10/01/24 09:19	756426-58-1	
ADONA	ND	ng/L	2.0	0.34	1	09/30/24 07:33	10/01/24 09:19	919005-14-4	
HFPO-DA	ND	ng/L	2.1	0.26	1	09/30/24 07:33	10/01/24 09:19	13252-13-6	
NEtFOSAA	ND	ng/L	2.1	0.60	1	09/30/24 07:33	10/01/24 09:19	2991-50-6	
NEtFOSA	ND	ng/L	2.1	0.48	1	09/30/24 07:33	10/01/24 09:19	4151-50-2	
NEtFOSE	ND	ng/L	2.1	0.63	1	09/30/24 07:33	10/01/24 09:19	1691-99-2	
NMeFOSAA	ND	ng/L	2.1	0.82	1	09/30/24 07:33	10/01/24 09:19	2355-31-9	
NMeFOSA	ND	ng/L	2.1	0.66	1	09/30/24 07:33	10/01/24 09:19	31506-32-8	
NMeFOSE	ND	ng/L	2.1	0.50	1	09/30/24 07:33	10/01/24 09:19	24448-09-7	
PFBS	ND	ng/L	1.9	0.21	1	09/30/24 07:33	10/01/24 09:19	375-73-5	
PFDA	ND	ng/L	2.1	0.26	1	09/30/24 07:33	10/01/24 09:19	335-76-2	
PFHxA	ND	ng/L	2.1	0.40	1	09/30/24 07:33	10/01/24 09:19	307-24-4	
PFBA	ND	ng/L	2.1	0.29	1	09/30/24 07:33	10/01/24 09:19	375-22-4	
PFDS	ND	ng/L	2.0	0.60	1	09/30/24 07:33	10/01/24 09:19	335-77-3	
PFDoS	ND	ng/L	2.0	0.56	1	09/30/24 07:33	10/01/24 09:19	79780-39-5	
PFHpS	ND	ng/L	2.0	0.66	1	09/30/24 07:33	10/01/24 09:19	375-92-8	
PFHxDA	ND	ng/L	2.1	0.33	1	09/30/24 07:33	10/01/24 09:19	67905-19-5	
PFNS	ND	ng/L	2.0	0.50	1	09/30/24 07:33	10/01/24 09:19	68259-12-1	
PFODA	ND	ng/L	2.1	0.66	1	09/30/24 07:33	10/01/24 09:19	16517-11-6	
PFOSA	ND	ng/L	2.1	0.42	1	09/30/24 07:33	10/01/24 09:19	754-91-6	
PFPeA	ND	ng/L	2.1	0.19	1	09/30/24 07:33	10/01/24 09:19	2706-90-3	
PFPeS	ND	ng/L	2.0	0.27	1	09/30/24 07:33	10/01/24 09:19	2706-91-4	
PFDoA	ND	ng/L	2.1	0.45	1	09/30/24 07:33	10/01/24 09:19	307-55-1	
PFHpA	ND	ng/L	2.1	0.25	1	09/30/24 07:33	10/01/24 09:19	375-85-9	
PFHxS	ND	ng/L	1.9	0.25	1	09/30/24 07:33	10/01/24 09:19	355-46-4	
PFNA	ND	ng/L	2.1	0.22	1	09/30/24 07:33	10/01/24 09:19	375-95-1	
PFOS	**4.1**	ng/L	1.9	0.53	1	09/30/24 07:33	10/01/24 09:19	1763-23-1	
PFOA	ND	ng/L	2.1	0.28	1	09/30/24 07:33	10/01/24 09:19	335-67-1	
PFTeDA	ND	ng/L	2.1	0.38	1	09/30/24 07:33	10/01/24 09:19	376-06-7	
PFTrDA	ND	ng/L	2.1	0.30	1	09/30/24 07:33	10/01/24 09:19	72629-94-8	
PFUnA	ND	ng/L	2.1	0.67	1	09/30/24 07:33	10/01/24 09:19	2058-94-8	
Surrogates									
13C26:2FTS (S)	253	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		S0
13C28:2FTS (S)	249	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		S0
13C24:2FTS (S)	183	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		S0
13C2-PFDoA (S)	50	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C2PFHxDA (S)	2	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		S0
13C2-PFTA (S)	17	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		S0
13C3HFPO-DA (S)	49	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		S0
13C3-PFBS (S)	59	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, LLC
7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: MW-108S1_09112024 **Lab ID: 50382545005** Collected: 09/11/24 14:20 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	76	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C4-PFBA (S)	54	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C4-PFHpA (S)	72	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C5-PFHxA (S)	74	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C5-PFPeA (S)	50	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C6-PFDA (S)	80	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C7-PFUdA (S)	66	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C8-PFOA (S)	73	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C8-PFOS (S)	73	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
13C8-PFOSA (S)	15	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		S0
13C9-PFNA (S)	83	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
d3-MeFOSAA (S)	71	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
d3-NMeFOSA (S)	0	%.	10-150		1	09/30/24 07:33	10/01/24 09:19		S0
d5-EtFOSAA (S)	78	%.	50-150		1	09/30/24 07:33	10/01/24 09:19		
d5-NEtFOSA (S)	1	%.	10-150		1	09/30/24 07:33	10/01/24 09:19		S0
d7-NMeFOSE (S)	2	%.	10-150		1	09/30/24 07:33	10/01/24 09:19		S0
d9-NEtFOSE (S)	2	%.	10-150		1	09/30/24 07:33	10/01/24 09:19		S0

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ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: EB-02_09112024 **Lab ID: 50382545006** Collected: 09/11/24 14:50 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178								
	Pace Analytical Services - Minneapolis								
10:2 FTS	ND	ng/L	1.9	0.88	1	09/30/24 07:33	10/01/24 09:26	120226-60-0	
11Cl-PF3OUdS	ND	ng/L	1.9	0.41	1	09/30/24 07:33	10/01/24 09:26	763051-92-9	
4:2 FTS	ND	ng/L	1.9	0.37	1	09/30/24 07:33	10/01/24 09:26	757124-72-4	
6:2 FTS	ND	ng/L	1.9	0.58	1	09/30/24 07:33	10/01/24 09:26	27619-97-2	
8:2 FTS	ND	ng/L	1.9	0.80	1	09/30/24 07:33	10/01/24 09:26	39108-34-4	
9Cl-PF3ONS	ND	ng/L	1.9	0.36	1	09/30/24 07:33	10/01/24 09:26	756426-58-1	
ADONA	ND	ng/L	1.9	0.32	1	09/30/24 07:33	10/01/24 09:26	919005-14-4	
HFPO-DA	ND	ng/L	2.0	0.25	1	09/30/24 07:33	10/01/24 09:26	13252-13-6	
NEtFOSAA	ND	ng/L	2.0	0.57	1	09/30/24 07:33	10/01/24 09:26	2991-50-6	
NEtFOSA	ND	ng/L	2.0	0.46	1	09/30/24 07:33	10/01/24 09:26	4151-50-2	
NEtFOSE	ND	ng/L	2.0	0.61	1	09/30/24 07:33	10/01/24 09:26	1691-99-2	
NMeFOSAA	ND	ng/L	2.0	0.79	1	09/30/24 07:33	10/01/24 09:26	2355-31-9	
NMeFOSA	ND	ng/L	2.0	0.63	1	09/30/24 07:33	10/01/24 09:26	31506-32-8	
NMeFOSE	ND	ng/L	2.0	0.49	1	09/30/24 07:33	10/01/24 09:26	24448-09-7	
PFBS	ND	ng/L	1.8	0.20	1	09/30/24 07:33	10/01/24 09:26	375-73-5	
PFDA	ND	ng/L	2.0	0.25	1	09/30/24 07:33	10/01/24 09:26	335-76-2	
PFHxA	ND	ng/L	2.0	0.38	1	09/30/24 07:33	10/01/24 09:26	307-24-4	
PFBA	ND	ng/L	2.0	0.28	1	09/30/24 07:33	10/01/24 09:26	375-22-4	
PFDS	ND	ng/L	1.9	0.57	1	09/30/24 07:33	10/01/24 09:26	335-77-3	
PFDoS	ND	ng/L	2.0	0.54	1	09/30/24 07:33	10/01/24 09:26	79780-39-5	
PFHpS	ND	ng/L	1.9	0.64	1	09/30/24 07:33	10/01/24 09:26	375-92-8	
PFHxDA	ND	ng/L	2.0	0.32	1	09/30/24 07:33	10/01/24 09:26	67905-19-5	
PFNS	ND	ng/L	1.9	0.48	1	09/30/24 07:33	10/01/24 09:26	68259-12-1	
PFODA	ND	ng/L	2.0	0.64	1	09/30/24 07:33	10/01/24 09:26	16517-11-6	
PFOSA	ND	ng/L	2.0	0.40	1	09/30/24 07:33	10/01/24 09:26	754-91-6	
PFPeA	ND	ng/L	2.0	0.18	1	09/30/24 07:33	10/01/24 09:26	2706-90-3	
PFPeS	ND	ng/L	1.9	0.26	1	09/30/24 07:33	10/01/24 09:26	2706-91-4	
PFDoA	ND	ng/L	2.0	0.44	1	09/30/24 07:33	10/01/24 09:26	307-55-1	
PFHpA	ND	ng/L	2.0	0.24	1	09/30/24 07:33	10/01/24 09:26	375-85-9	
PFHxS	ND	ng/L	1.8	0.24	1	09/30/24 07:33	10/01/24 09:26	355-46-4	
PFNA	ND	ng/L	2.0	0.21	1	09/30/24 07:33	10/01/24 09:26	375-95-1	
PFOS	ND	ng/L	1.9	0.51	1	09/30/24 07:33	10/01/24 09:26	1763-23-1	
PFOA	ND	ng/L	2.0	0.27	1	09/30/24 07:33	10/01/24 09:26	335-67-1	
PFTeDA	ND	ng/L	2.0	0.36	1	09/30/24 07:33	10/01/24 09:26	376-06-7	
PFTrDA	ND	ng/L	2.0	0.28	1	09/30/24 07:33	10/01/24 09:26	72629-94-8	
PFUnA	ND	ng/L	2.0	0.64	1	09/30/24 07:33	10/01/24 09:26	2058-94-8	
Surrogates									
13C26:2FTS (S)	84	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C28:2FTS (S)	260	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		S3
13C24:2FTS (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C2-PFDoA (S)	92	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C2PFHxDA (S)	71	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C2-PFTA (S)	87	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C3HFPO-DA (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C3-PFBS (S)	87	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		

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(317)228-3100

ANALYTICAL RESULTS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Sample: EB-02_09112024 **Lab ID: 50382545006** Collected: 09/11/24 14:50 Received: 09/12/24 18:28 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
PFAS ID NPW	Analytical Method: ENV-SOP-MIN4-0178 Preparation Method: ENV-SOP-MIN4-0178 Pace Analytical Services - Minneapolis								
Surrogates									
13C3-PFHxS (S)	89	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C4-PFBA (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C4-PFHpA (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C5-PFHxA (S)	84	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C5-PFPeA (S)	84	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C6-PFDA (S)	99	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C7-PFUdA (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C8-PFOA (S)	87	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C8-PFOS (S)	86	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C8-PFOSA (S)	88	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
13C9-PFNA (S)	96	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
d3-MeFOSAA (S)	85	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
d3-NMeFOSA (S)	73	%.	10-150		1	09/30/24 07:33	10/01/24 09:26		
d5-EtFOSAA (S)	82	%.	50-150		1	09/30/24 07:33	10/01/24 09:26		
d5-NEtFOSA (S)	73	%.	10-150		1	09/30/24 07:33	10/01/24 09:26		
d7-NMeFOSE (S)	94	%.	10-150		1	09/30/24 07:33	10/01/24 09:26		
d9-NEtFOSE (S)	92	%.	10-150		1	09/30/24 07:33	10/01/24 09:26		

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

QC Batch: 970442
QC Batch Method: ENV-SOP-MIN4-0178
Analysis Method: ENV-SOP-MIN4-0178
Analysis Description: PFAS Compounds, Water
Laboratory: Pace Analytical Services - Minneapolis
Associated Lab Samples: 50382545001, 50382545002, 50382545003, 50382545004, 50382545005, 50382545006

METHOD BLANK: 5071225 Matrix: Water
Associated Lab Samples: 50382545001, 50382545002, 50382545003, 50382545004, 50382545005, 50382545006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
10:2 FTS	ng/L	ND	1.9	0.88	10/01/24 07:38	
11Cl-PF3OUdS	ng/L	ND	1.9	0.41	10/01/24 07:38	
4:2 FTS	ng/L	ND	1.9	0.37	10/01/24 07:38	
6:2 FTS	ng/L	ND	1.9	0.57	10/01/24 07:38	
8:2 FTS	ng/L	ND	1.9	0.79	10/01/24 07:38	
9Cl-PF3ONS	ng/L	ND	1.9	0.36	10/01/24 07:38	
ADONA	ng/L	ND	1.9	0.32	10/01/24 07:38	
HFPO-DA	ng/L	ND	2.0	0.25	10/01/24 07:38	
NEtFOSA	ng/L	ND	2.0	0.46	10/01/24 07:38	
NEtFOSAA	ng/L	ND	2.0	0.57	10/01/24 07:38	
NEtFOSE	ng/L	ND	2.0	0.60	10/01/24 07:38	
NMeFOSA	ng/L	ND	2.0	0.63	10/01/24 07:38	
NMeFOSAA	ng/L	ND	2.0	0.78	10/01/24 07:38	
NMeFOSE	ng/L	ND	2.0	0.48	10/01/24 07:38	
PFBA	ng/L	ND	2.0	0.28	10/01/24 07:38	
PFBS	ng/L	ND	1.8	0.20	10/01/24 07:38	
PFDA	ng/L	ND	2.0	0.25	10/01/24 07:38	
PFDoA	ng/L	ND	2.0	0.43	10/01/24 07:38	
PFDoS	ng/L	ND	2.0	0.54	10/01/24 07:38	
PFDS	ng/L	ND	1.9	0.57	10/01/24 07:38	
PFHpA	ng/L	ND	2.0	0.24	10/01/24 07:38	
PFHpS	ng/L	ND	1.9	0.63	10/01/24 07:38	
PFHxA	ng/L	ND	2.0	0.38	10/01/24 07:38	
PFHxDA	ng/L	ND	2.0	0.32	10/01/24 07:38	
PFHxS	ng/L	ND	1.8	0.24	10/01/24 07:38	
PFNA	ng/L	ND	2.0	0.21	10/01/24 07:38	
PFNS	ng/L	ND	1.9	0.48	10/01/24 07:38	
PFOA	ng/L	ND	2.0	0.27	10/01/24 07:38	
PFODA	ng/L	ND	2.0	0.64	10/01/24 07:38	
PFOS	ng/L	ND	1.9	0.51	10/01/24 07:38	
PFOSA	ng/L	ND	2.0	0.40	10/01/24 07:38	
PFPeA	ng/L	ND	2.0	0.18	10/01/24 07:38	
PFPeS	ng/L	ND	1.9	0.26	10/01/24 07:38	
PFTeDA	ng/L	ND	2.0	0.36	10/01/24 07:38	
PFTrDA	ng/L	ND	2.0	0.28	10/01/24 07:38	
PFUnA	ng/L	ND	2.0	0.64	10/01/24 07:38	
13C2-PFDoA (S)	%.	89	50-150		10/01/24 07:38	
13C2-PFTA (S)	%.	83	50-150		10/01/24 07:38	
13C24:2FTS (S)	%.	121	50-150		10/01/24 07:38	
13C26:2FTS (S)	%.	130	50-150		10/01/24 07:38	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

METHOD BLANK: 5071225 Matrix: Water
Associated Lab Samples: 50382545001, 50382545002, 50382545003, 50382545004, 50382545005, 50382545006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
13C28:2FTS (S)	%.	210	50-150		10/01/24 07:38	S3
13C2PFHxDA (S)	%.	70	50-150		10/01/24 07:38	
13C3-PFBS (S)	%.	96	50-150		10/01/24 07:38	
13C3-PFHxS (S)	%.	94	50-150		10/01/24 07:38	
13C3HFPO-DA (S)	%.	95	50-150		10/01/24 07:38	
13C4-PFBA (S)	%.	97	50-150		10/01/24 07:38	
13C4-PFHpA (S)	%.	93	50-150		10/01/24 07:38	
13C5-PFHxA (S)	%.	89	50-150		10/01/24 07:38	
13C5-PFPeA (S)	%.	97	50-150		10/01/24 07:38	
13C6-PFDA (S)	%.	97	50-150		10/01/24 07:38	
13C7-PFUdA (S)	%.	83	50-150		10/01/24 07:38	
13C8-PFOA (S)	%.	97	50-150		10/01/24 07:38	
13C8-PFOS (S)	%.	87	50-150		10/01/24 07:38	
13C8-PFOSA (S)	%.	90	50-150		10/01/24 07:38	
13C9-PFNA (S)	%.	101	50-150		10/01/24 07:38	
d3-MeFOSAA (S)	%.	82	50-150		10/01/24 07:38	
d3-NMeFOSA (S)	%.	75	10-150		10/01/24 07:38	
d5-EtFOSAA (S)	%.	78	50-150		10/01/24 07:38	
d5-NEtFOSA (S)	%.	66	10-150		10/01/24 07:38	
d7-NMeFOSE (S)	%.	102	10-150		10/01/24 07:38	
d9-NEtFOSE (S)	%.	93	10-150		10/01/24 07:38	

LABORATORY CONTROL SAMPLE & LCSD: 5071226 5071227

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
10:2 FTS	ng/L	3.9	3.8	4.0	98	106	70-140	3	30	
11Cl-PF3OUdS	ng/L	3.8	4.5	4.1	118	111	70-140	11	30	
4:2 FTS	ng/L	3.8	4.2	4.1	109	114	63-143	1	30	
6:2 FTS	ng/L	3.9	4.5	4.4	117	119	64-140	4	30	
8:2 FTS	ng/L	3.9	4.6	4.3	117	117	67-138	5	30	
9Cl-PF3ONS	ng/L	3.8	4.5	4.2	119	117	70-140	7	30	
ADONA	ng/L	3.8	4.1	3.9	108	107	70-140	6	30	
HFPO-DA	ng/L	4.1	4.5	4.1	111	106	70-140	10	30	
NEtFOSA	ng/L	4.1	4.0	4.4	97	115	70-140	11	30	
NEtFOSAA	ng/L	4.1	4.9	4.4	119	113	61-135	10	30	
NEtFOSE	ng/L	4.1	4.9	4.0	120	103	70-140	21	30	
NMeFOSA	ng/L	4.1	3.8	4.2	93	109	68-141	12	30	
NMeFOSAA	ng/L	4.1	4.5	4.3	110	112	65-136	4	30	
NMeFOSE	ng/L	4.1	4.7	3.6	116	94	70-140	26	30	
PFBA	ng/L	4.1	4.6	4.4	113	113	73-129	6	30	
PFBS	ng/L	3.6	4.0	3.9	112	113	72-130	5	30	
PFDA	ng/L	4.1	4.5	4.5	110	116	71-129	0	30	
PFDoA	ng/L	4.1	4.6	4.2	114	109	72-134	10	30	
PFDoS	ng/L	3.9	3.8	3.9	96	104	60-140	4	30	

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

LABORATORY CONTROL SAMPLE & LCSD: 5071226 5071227

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
PFDS	ng/L	3.9	4.0	3.9	103	103	53-142	5	30	
PFHpA	ng/L	4.1	4.6	4.3	112	111	72-130	6	30	
PFHpS	ng/L	3.9	4.6	4.8	119	129	69-134	4	30	
PFHxA	ng/L	4.1	4.8	4.6	118	120	72-129	3	30	
PFHxDA	ng/L	4.1	4.7	4.3	116	111	70-140	9	30	
PFHxS	ng/L	3.7	4.2	4.0	113	113	68-131	6	30	
PFNA	ng/L	4.1	4.3	4.7	105	121	69-130	9	30	
PFNS	ng/L	3.9	4.6	4.1	118	111	69-127	11	30	
PFOA	ng/L	4.1	4.9	4.5	119	115	71-133	9	30	
PFODA	ng/L	4.1	3.3	3.2	82	83	30-140	4	30	
PFOS	ng/L	3.8	4.4	4.4	116	122	65-140	0	30	
PFOSA	ng/L	4.1	4.5	4.4	111	113	67-137	4	30	
PFPeA	ng/L	4.1	4.9	4.6	120	119	72-129	5	30	
PFPeS	ng/L	3.8	4.0	4.1	105	112	71-127	1	30	
PFTeDA	ng/L	4.1	4.5	4.2	110	108	71-132	7	30	
PFTrDA	ng/L	4.1	4.7	4.6	117	119	65-144	3	30	
PFUnA	ng/L	4.1	4.4	4.5	107	115	69-133	2	30	
13C2-PFDoA (S)	%.				91	94	50-150			
13C2-PFTA (S)	%.				90	91	50-150			
13C24:2FTS (S)	%.				118	120	50-150			
13C26:2FTS (S)	%.				122	130	50-150			
13C28:2FTS (S)	%.				153	140	50-150			S0
13C2PFHxDA (S)	%.				85	82	50-150			
13C3-PFBS (S)	%.				93	96	50-150			
13C3-PFHxS (S)	%.				91	93	50-150			
13C3HFPO-DA (S)	%.				93	94	50-150			
13C4-PFBA (S)	%.				93	96	50-150			
13C4-PFHpA (S)	%.				91	92	50-150			
13C5-PFHxA (S)	%.				87	89	50-150			
13C5-PFPeA (S)	%.				95	97	50-150			
13C6-PFDA (S)	%.				95	98	50-150			
13C7-PFUdA (S)	%.				87	85	50-150			
13C8-PFOA (S)	%.				93	96	50-150			
13C8-PFOS (S)	%.				89	88	50-150			
13C8-PFOSA (S)	%.				91	91	50-150			
13C9-PFNA (S)	%.				102	100	50-150			
d3-MeFOSAA (S)	%.				89	87	50-150			
d3-NMeFOSA (S)	%.				65	68	10-150			
d5-EtFOSAA (S)	%.				85	83	50-150			
d5-NEtFOSA (S)	%.				65	66	10-150			
d7-NMeFOSE (S)	%.				95	101	10-150			
d9-NEtFOSE (S)	%.				94	96	10-150			

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5071228 5071229

Parameter	Units	50382544004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
10:2 FTS	ng/L	ND	7.7	7.8	5.9	6.2	77	79	70-130	4	30	
11Cl-PF3OUdS	ng/L	ND	7.5	7.7	9.1	9.1	121	118	70-130	1	30	
4:2 FTS	ng/L	ND	7.5	7.6	8.8	8.9	117	117	70-130	1	30	
6:2 FTS	ng/L	ND	7.6	7.7	9.7	9.7	114	112	70-130	0	30	
8:2 FTS	ng/L	ND	7.7	7.8	8.9	8.8	116	113	70-130	0	30	
9Cl-PF3ONS	ng/L	ND	7.5	7.6	9.1	8.9	122	117	70-130	3	30	
ADONA	ng/L	ND	7.5	7.7	8.6	8.7	114	113	70-130	1	30	
HFPO-DA	ng/L	ND	8	8.1	8.5	7.7	107	95	70-130	10	30	
NEtFOSA	ng/L	ND	8	8.1	10.3	9.1	129	112	70-130	12	30	
NEtFOSAA	ng/L	ND	8	8.1	10.5	10.1	131	125	70-130	3	30	M1
NEtFOSE	ng/L	ND	8	8.1	10.4	10.1	130	124	70-130	3	30	
NMeFOSA	ng/L	ND	8	8.1	7.2	9.6	90	119	70-130	29	30	
NMeFOSAA	ng/L	ND	8	8.1	11.4	10.9	143	134	70-130	5	30	M1
NMeFOSE	ng/L	ND	8	8.1	10	10	117	115	70-130	0	30	
PFBA	ng/L	8.4	8	8.1	17.3	19.3	112	135	70-130	11	30	M1
PFBS	ng/L	ND	7.1	7.2	9.6	9.6	119	118	70-130	0	30	
PFDA	ng/L	ND	8	8.1	9.0	9.3	113	115	70-130	3	30	
PFDoA	ng/L	ND	8	8.1	9.5	9.9	119	122	70-130	4	30	
PFDoS	ng/L	ND	7.7	7.9	8.4	9.6	109	123	70-130	13	30	
PFDS	ng/L	ND	7.7	7.8	9.3	9.6	120	123	70-130	4	30	
PFHpA	ng/L	ND	8	8.1	10.2	9.8	121	115	70-130	3	30	
PFHpS	ng/L	ND	7.6	7.8	10.9	10.9	142	140	70-130	0	30	M1
PFHxA	ng/L	ND	8	8.1	10.8	11.0	125	126	70-130	2	30	
PFHxDA	ng/L	ND	8	8.1	10.1	9.8	126	120	70-130	3	30	
PFHxS	ng/L	ND	7.3	7.4	8.8	9.6	114	123	70-130	9	30	
PFNA	ng/L	ND	8	8.1	9.2	9.5	115	117	70-130	4	30	
PFNS	ng/L	ND	7.7	7.8	9.8	8.9	127	114	70-130	10	30	
PFOA	ng/L	5.8	8	8.1	15.9	15.7	126	121	70-130	2	30	
PFODA	ng/L	ND	8	8.1	4.9	8.4	61	103	70-130	53	30	M1,R1
PFOS	ng/L	ND	7.4	7.5	9.4	9.7	118	121	70-130	4	30	
PFOSA	ng/L	ND	8	8.1	8.8	10.3	110	127	70-130	16	30	
PFPeA	ng/L	ND	8	8.1	11.3	10.3	133	119	70-130	9	30	M1
PFPeS	ng/L	ND	7.5	7.6	8.8	9.0	115	116	70-130	2	30	
PFTeDA	ng/L	ND	8	8.1	9.2	9.3	116	114	70-130	0	30	
PFTrDA	ng/L	ND	8	8.1	9.7	10.2	122	125	70-130	4	30	
PFUnA	ng/L	ND	8	8.1	9.9	8.8	124	109	70-130	11	30	
13C2-PFDoA (S)	%.						87	92	50-150			
13C2-PFTA (S)	%.						79	89	50-150			
13C24:2FTS (S)	%.						85	117	50-150			
13C26:2FTS (S)	%.						361	404	50-150			S0
13C28:2FTS (S)	%.						178	237	50-150			S0
13C2PFHxDA (S)	%.						57	81	50-150			
13C3-PFBS (S)	%.						74	73	50-150			
13C3-PFHxS (S)	%.						85	83	50-150			
13C3HFPO-DA (S)	%.						80	72	50-150			
13C4-PFBA (S)	%.						70	67	50-150			

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7726 Moller Road
Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5071228 5071229

Parameter	Units	50382544004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
13C4-PFHpA (S)	%.						82	82	50-150			
13C5-PFHxA (S)	%.						81	83	50-150			
13C5-PFPeA (S)	%.						68	66	50-150			
13C6-PFDA (S)	%.						95	93	50-150			
13C7-PFUdA (S)	%.						83	88	50-150			
13C8-PFOA (S)	%.						86	85	50-150			
13C8-PFOS (S)	%.						81	83	50-150			
13C8-PFOSA (S)	%.						63	78	50-150			
13C9-PFNA (S)	%.						98	94	50-150			
d3-MeFOSAA (S)	%.						79	83	50-150			
d3-NMeFOSA (S)	%.						11	52	10-150			
d5-EtFOSAA (S)	%.						85	90	50-150			
d5-NEtFOSA (S)	%.						10	53	10-150			
d7-NMeFOSE (S)	%.						39	80	10-150			
d9-NEtFOSE (S)	%.						29	79	10-150			

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QUALIFIERS

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
R1	RPD value was outside control limits.
S0	Surrogate recovery outside laboratory control limits.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

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Indianapolis, IN 46268
(317)228-3100

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Arcadis Saginaw - SMI
Pace Project No.: 50382545

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
50382545001	**B-3R_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382545002	**QPTW-13R_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382545003	**MW-131WT_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382545004	**MW-134WT_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382545005	**MW-108S1_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057
50382545006	**EB-02_09112024**	ENV-SOP-MIN4-0178	970442	ENV-SOP-MIN4-0178	971057

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Pace® Location Requested (City/State):

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here

50382545

Scan QR Code for instructions

Company Name: ARCADIS	Contact/Report To: AMANDA ROBINSON
Street Address: 28550 CABOT DR. SUITE 500 NOVI, MI 48377	Phone #: 989-854-8672
	E-Mail: AMANDA.ROBINSON@ARCADIS.COM
	Cc E-Mail: SCOTT.CLEARWATER@ARCADIS.COM
Customer Project #: 30213352.12000	Invoice to:
Project Name: RACER SAGINAW SMI	Invoice E-mail:
Site Collection Info/Facility ID (as applicable):	Purchase Order # (if applicable):
	Quote #:
Time Zone Collected: [ ] AK [ ] PT [ ] MT [ ] CT [ ] ET	County / State origin of sample(s): MICHIGAN
Data Deliverables: [ ] Level II [ ] Level III [ ] Level IV [ ] EQUIS [ ] Other	Regulatory Program (DW, RCRA, etc.) as applicable: Reportable [ ] Yes [ ] No
	Rush (Pre-approval required): [ ] Same Day [ ] 1 Day [ ] 2 Day [ ] 3 Day Other Date Results Requested:
	DW PWSID # or WW Permit # as applicable: Field Filtered (if applicable): [ ] Yes [ ] No Analysis:

Specify Container Size **: 3

Identify Container Preservative Type***: 1

Analysis Requested

**Container Size: (1) 1L, (2) 500mL, (3) 250mL, (4) 125mL, (5) 100mL, (6) 40mL vial, (7) EnCore, (8) TerraCore, (9) 90mL, (10) Other

*** Preservative Types: (1) None, (2) HNO3, (3) H2SO4, (4) HCl, (5) NaOH, (6) Zn Acetate, (7) NaHSO4, (8) Sod. Thiosulfate, (9) Ascorbic Acid, (10) MeOH, (11) Other

Lab Use Only: Proj. Mgr: / AcctNum / Client ID: / Table #: / Profile / Template: / Prelog / Bottle Ord. ID: 47274

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SS), Oil (OL), Wipe (WP), Tissue (TS), Bioassay (B), Vapor (V), Surface Water (SW), Sediment (SED), Sludge (SL), Caulk (CK), Leachate (LL), Biosolid (BS), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Composite Start Date	Composite Start Time	Collected or Composite End Date	Collected or Composite End Time	# Cont.	Residual Chlorine Result	Residual Chlorine Units	0 ENV	Sample Comment	Preservation non-conformance identified for sample.
B-3R_09112024	GW	G			9/11/24	1300	2			X	001	
QPTW-13R_09112024	GW	G			9/11/24	1320	2			X	002	
MW-13IWT_09112024	GW	G			9/11/24	1340	2			X	003	
MW-134WT_09112024	GW	G			9/11/24	1400	2			X	004	
MW-10851_09112024	GW	G			9/11/24	1420	2			X	005	
EB-02_09112024	GW	G			9/11/24	1450	2			X	006	

Additional Instructions from Pace® :

Collected By: Printed Name: Ryan J. Green Signature:

Customer Remarks / Special Conditions / Possible Hazards:

# Coolers:	Thermometer ID:	Correction Factor (°C):	Obs. Temp. (°C):	Corrected Temp. (°C):	[ ] On Ice
1	T9	-0.1	1.3	1.2	Y

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Tracking Number:
ARCADIS	9/11/24 1800	Sabrina Blodgett/Pace 9.12.24	1828	
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Delivered by: [ ] In-Person [ ] Courier
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	[ ] FedEx [ ] UPS [ ] Other
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:	Page: of

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace® Terms and Conditions found at https://www.pacelabs.com/resource-library/resource/pace-terms-and-conditions/

ENV-FRM-CORQ-0019_v02_110123 ©

ENV-FRM-MIN4-0150 v17_Sample Condition Upon Receipt

CLIENT NAME: ArCadis-S **PROJECT #:**

Place LIMS WO Label Here

COURIER: ☐ Client ☐ Commercial ☒ FedEx ☐ Pace ☐ SpeeDee ☐ UPS ☐ USPS

TRACKING NUMBER: 279393116 4500 ☐ See Exceptions form ENV-FRM-MIN4-0142

Custody Seal on Cooler/Box Present: ☒ YES ☐ NO **Seals Intact:** ☒ YES ☐ NO **Biological Tissue Frozen:** ☐ YES ☒ NO ☐ N/A

Packing Material: ☐ Bubble Bags ☐ Bubble Wrap ☒ None ☐ Other **Temp Blank:** ☐ YES ☒ NO **Type of Ice:** ☐ Blue ☐ Dry ☒ Wet ☐ Melted ☐ None

Thermometer: ☐ T1 (0461) ☐ T2 (0436) ☐ T3 (0459) ☐ T4 (0402) ☐ T5 (0178) ☐ T6 (0235) ☐ T7 (0042) ☐ T8 (0775) ☒ T9 (0727) ☐ 01339252 (1710)

Did Samples Originate in West Virginia: ☐ YES ☒ NO	**Were All Container Temps taken:** ☐ YES ☐ NO ☒ N/A
Correction Factor: _____ **Cooler Temp Read w/Temp Blank:** _____ °C **Cooler Temp Corrected w/Temp Blank:** _____ °C	**Average Corrected Temp (no Temp Blank Only):** 1.2 °C
NOTE: *Temp should be above freezing to 6°C.*	☒ See Exceptions Form ENV-FRM-MIN4-0142 ☐ 1 Container
USDA Regulated Soil: ☒ N/A – Water Sample/Other (describe): _____	**Initials & Date of Person Examining Contents:** CMA 9-13-24
Did Samples originate from one of the following states (check maps) – AL, AR, AZ, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA: ☐ YES ☐ NO	Did samples originate from a foreign source (international, including Hawaii and Puerto Rico): ☐ YES ☐ NO
NOTE: If YES to either question, fill out a Regulated Soil Checklist (ENV-FRM-MIN4-0154) and include with SCUR/COC paperwork.	

LOCATION (check one): ☐ DULUTH ☒ MINNEAPOLIS ☐ VIRGINIA	YES	NO	N/A	COMMENT(S)
Chain of Custody Present and Filled Out?	☒	☐		1.
Chain of Custody Relinquished?	☒	☐		2.
Sampler Name and/or Signature on COC?	☐	☒	☐	3.
Samples Arrived within Hold Time?	☒	☐		4. If Fecal: ☐ <8 hrs ☐ >8 hr, <24 hr ☐ No
Short Hold Time Analysis (<72 hr)?	☐	☒		5. ☐ BOD / cBOD ☐ Fecal coliform ☐ Hex Chrom ☐ HPC ☐ Nitrate ☐ Nitrite ☐ Ortho Phos ☐ Total coliform/*E. coli* ☐ Other: _____
Rush Turn Around Time Requested?	☐	☒		6.
Sufficient Sample Volume?	☒	☐		7.
Correct Containers Used?	☒	☐	☐	8.
-- Pace Containers Used?	☒	☐		
Containers Intact?	☒	☐		9.
Field Filtered Volume Received for Dissolved Tests?	☐	☐	☒	10. Is sediment visible in the dissolved container: ☐ YES ☐ NO
Is sufficient information available to reconcile the samples to the COC? **NOTE:** If ID/Date/Time don't match fill out section 11. Matrix: ☐ Oil ☐ Soil ☒ Water ☐ Other	☐	☒		11. **If NO, write ID/Date/Time of container below:** MW-131WT No time on Container ☐ See Exceptions form ENV-FRM-MIN4-0142
All containers needing acid/base preservation have been checked?	☐	☐	☒	12. Sample #:
All containers needing preservation are found to be in compliance with EPA recommendation? (HNO_3, H_2SO_4, < 2 pH, NaOH > 9 Sulfide, NaOH > 10 Cyanide)	☐	☐	☒	☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ Zinc Acetate
Exceptions: VOA, Coliform, TOC/DOC, Oil & Grease, DRO/8015 (water) and Dioxins/PFAS	☐	☐	☒	Positive for Residual Chlorine: ☐ YES ☐ NO
NOTE: If adding preservation to the container, **verify with the PM first.** Clients may require adding preservative to the field and equipment blanks when this occurs.				**pH Paper Lot #**
				Residual Chlorine / 0-6 Roll / 0-6 Strip / 0-14 Strip
				☐ See Exceptions form ENV-FRM-MIN4-0142
Headspace in Methyl Mercury Container?	☐	☐	☒	13.
Extra labels present on soil VOA or WIDRO containers?	☐	☐	☒	14.
Headspace in VOA Vials (greater than 6mm)?	☐	☐	☒	☐ See Exceptions form ENV-FRM-MIN4-0140
Trip Blanks Present?	☐	☐	☒	15.
Trip Blank Custody Seals Present?	☐	☐	☒	Pace Trip Blank Lot # (if purchased): _____

CLIENT NOTIFICATION / RESOLUTION **FIELD DATA REQUIRED:** ☐ YES ☐ NO

Person Contacted: _____ Date & Time: _____

Comments / Resolution: _____

Project Manager Review: _____ **Date:** _____

NOTE: *When there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEQ Certification Office (i.e., out of hold, incorrect preservative, out of temp, incorrect containers).*

Labeled By: _____ **Line:** _____

Workorder #: _____

No Temp Blank		
Read Temp	Corrected Temp	Average temp
1.4	1.2	
1.2	1.0	1.2
1.6	1.4	
1.4	1.2	

PM Notified of Out of Temp Cooler? ☐ YES ☐ NO

If yes, indicate who was contacted, date and time.
If no, indicate reason why.

_____

Multiple Cooler Project? ☐ YES ☐ NO

If anything is OVER 6.0°C, you MUST document containers in this section HERE

Tracking Number	Temperature

Out of Temp Sample ID	Container Type	# of Containers

pH Adjustment Log for Preserved Samples										
Sample ID	Type Of Preserve	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance After Addition?		Initials
								YES	NO	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	
								☐	☐	

Comments:

_____

_____

_____

Attachment 5

Field Sampling Logs

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-117S1
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 35.48	**Screened Interval (ft btoc):** 30.5 to 35.5
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 10:53		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 4.13		**Total well depth at time of deployment (ft btoc):** 35.48
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 34.7		

Retrieval

Date and time of Retrieval: 09/10/2024 11:40	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
14	-56.9	6.93	3.8	1.669

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 235		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-117S1_09102024	**Replicate ID:** N/A	**Sample Time:** 11:40
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Bill

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-117WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 18.45	**Screened Interval (ft btoc):** 13.5 to 18.5
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 10:58		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 3.28		**Total well depth at time of deployment (ft btoc):** 18.45
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom.		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 17.65		

Retrieval

Date and time of Retrieval: 09/10/2024 12:00	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
15.4	-75	6.39	3.04	7.905

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 386.53		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-117WT_09102024	**Replicate ID:** N/A	**Sample Time:** 12:00
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Bill

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-118S1
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 34.45	**Screened Interval (ft btoc):** 29.5 to 34.5
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 10:36		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 3.93		**Total well depth at time of deployment (ft btoc):** 34.45
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Bottom Anchor: Weight attached to bottom of Hydrasleeve TM. Weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 33.65		

Retrieval

Date and time of Retrieval: 09/10/2024 11:00	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
16.2	-37.5	7.65	6.02	0.917

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 139.04		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-118S1_09102024	**Replicate ID:** N/A	**Sample Time:** 11:00
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Bill

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-118WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 16.9	**Screened Interval (ft btoc):** 12 to 17
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 10:44		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 3.29		**Total well depth at time of deployment (ft btoc):** 16.9
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 16.1		

Retrieval

Date and time of Retrieval: 09/10/2024 11:20	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
16	-70.5	6.74	4.29	2.156

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 78.12		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-118WT_09102024	**Replicate ID:** N/A	**Sample Time:** 11:20
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Bill

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-125WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 15.45	**Screened Interval (ft btoc):** 10.45 to 15.45
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 16:45		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 4.99		**Total well depth at time of deployment (ft btoc):** 15.45
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 14.64		

Retrieval

Date and time of Retrieval: 09/11/2024 11:15	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
19.4	-12.4	6.99	1.22	0.999

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 124.33		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-125WT_09112024	**Replicate ID:** N/A	**Sample Time:** 11:15
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-183WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 18.33	**Screened Interval (ft btoc):** 13.33 to 18.33
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 15:02		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 8.46		**Total well depth at time of deployment (ft btoc):** 18.33
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 17.53		

Retrieval

Date and time of Retrieval: 09/10/2024 16:20	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17.8	-112.1	7.39	2.1	0.771

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 248.58		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-183WT_09102024	**Replicate ID:** N/A	**Sample Time:** 16:20
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , TWW-1
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 10.56	**Screened Interval (ft btoc):** 5.56 to 10.56
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 16:35		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 6.53		**Total well depth at time of deployment (ft btoc):** 10.56
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 9.76		

Retrieval

Date and time of Retrieval: 09/11/2024 11:40	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
19.7	-68.7	6.99	2.58	0.997

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 37.48		**Post-filtered Turbidity (NTU):** N/A
Sample ID: TWW-1_09112024	**Replicate ID:** N/A	**Sample Time:** 11:40
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-2A
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 11.55	**Screened Interval (ft btoc):** 6.55 to 11.55
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 15:13		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 5.45		**Total well depth at time of deployment (ft btoc):** 11.55
Hydrasleeve length (in): 30	**Hydrasleeve diameter (in):** 1.25	**Hydrasleeve™ model:** GSH110
Deployment Method/Position of weight: Bottom Anchor: Weight attached to bottom of Hydrasleeve TM. Weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 10.75		

Retrieval

Date and time of Retrieval: 09/11/2024 12:30	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
18.7	99.4	9.21	3.05	0.722

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 54.74		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-2A_09112025	**Replicate ID:** DUP-05_09112024	**Sample Time:** 12:30
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Austin & Billy

Groundwater Sampling Form

Location ID:	X-4AR	**Date(s):**	2024-09-12	**Work Order(s):**		N/A	
Client:	RACER Trust	**Facility:**	RACER Saginaw 2024	**Facility Location:**	RACER Saginaw 2024	**Area:**	N/A
Weather(°F):	NA			**Field Technician:**		Bill and Austin	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	-	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	6.85	**Total Depth (ft-bmp):**	8.64	**Water Column(ft):**	1.79	**Gallons in Well:**	0.29
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	8.5	**Purge Method:**	No-Purge	**Purging Equipment:**	Peristaltic
Purge Start Time:	11:30	**Total Volume Purged ():**	2250	**Sample ID:**	X-4AR_09122024	**Sample Time:**	11:30
Purge End Time:	NA	**Well Volumes Purged (total):**	2.05	**Replicate Type / Replicate ID:**	NA / NA / DUP-11_09122024	**Water Quality Meter/ ID:**	YSI Pro Series / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
										Color	Odor
11:42	0	100	mL/min	7.15	7.06	0.617	3.49	19.8	-98.6	Clear	None

Constituent Sampled	Container	Number	Preservative
See COC			

Comments: NA

Well Information:

Well Labeled Properly:	yes
Is Well in Good Condition?	NA
Well Inspection Comments:	NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-4CAUGR
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 16.97	**Screened Interval (ft btoc):** 11.97 to 16.97
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 14:55		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 5.6		**Total well depth at time of deployment (ft btoc):** 16.97
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Bottom Anchor: Weight attached to bottom of Hydrasleeve TM. Weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 16.17		

Retrieval

Date and time of Retrieval: 09/10/2024 15:25	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
19.2	-114.6	7.32	2.07	0.744

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 129.75		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-4CAUGR_09102024	**Replicate ID:** DUP-01_09102024	**Sample Time:** 15:25
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-4D
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 47.41	**Screened Interval (ft btoc):** 42.41 to 47.41
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 14:50		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 2.31		**Total well depth at time of deployment (ft btoc):** 47.41
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 46.61		

Retrieval

Date and time of Retrieval: 09/10/2024 15:50	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17	-110.4	7.34	1.65	4.201

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 17.03		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-4D_09102024	**Replicate ID:** DUP-02_09102024	**Sample Time:** 15:50
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-9AR
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 15.97	**Screened Interval (ft btoc):** 11 to 16
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 14:10		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 7.93		**Total well depth at time of deployment (ft btoc):** 15.97
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 15.2		

Retrieval

Date and time of Retrieval: 09/10/2024 13:05	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17.8	-96.3	6.99	2.53	0.768
Water Quality Meter: YSI Quattro			**Serial #:** 23L103652	

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 88.06		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-9AR_09102024	**Replicate ID:** N/A	**Sample Time:** 13:05
Notes/Observations:		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Bill

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-9BR
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 34.15	**Screened Interval (ft btoc):** 29.15 to 34.15
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 14:13		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 7.31		**Total well depth at time of deployment (ft btoc):** 34.15
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 33.35		

Retrieval

Date and time of Retrieval: 09/10/2024 13:35	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
14.9	-147.9	7.18	1.44	1.533

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 67.55		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-9BR_09102024	**Replicate ID:** DUP-03_09102024	**Sample Time:** 13:35
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-9CAUG**R**
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 28.12	**Screened Interval (ft btoc):** 23.12 to 28.12
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 14:15		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 7.1		**Total well depth at time of deployment (ft btoc):** 28.12
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 27.32		

Retrieval

Date and time of Retrieval: 09/10/2024 14:05	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
18.9	-114.4	6.99	0.89	1.135

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 781.41		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-9CAUG_09102024	**Replicate ID:** X-9CAUG_09102025	**Sample Time:** 14:05
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: MS/SD		**Field Sampling Technician(S):** Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-9D
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 50.23	**Screened Interval (ft btoc):** 45.23 to 50.23
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 14:20		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 3.58		**Total well depth at time of deployment (ft btoc):** 50.23
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 49.43		

Retrieval

Date and time of Retrieval: 09/10/2024 14:55	**Total Days of Deployment:** 1
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17.5	-101.9	7.34	2.64	4.135

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 216.24		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-9D_09102024	**Replicate ID:** DUP-04_09102024	**Sample Time:** 14:55
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , X-10AR2
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 18.4	**Screened Interval (ft btoc):** 13.4 to 18.4
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 15:48		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 8.25		**Total well depth at time of deployment (ft btoc):** 18.4
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 17.6		

Retrieval

Date and time of Retrieval: 09/11/2024 12:00	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17	-52.3	6.94	2.31	0.961

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 90.16		**Post-filtered Turbidity (NTU):** N/A
Sample ID: X-10AR2_09112024	**Replicate ID:** X-10AR2_09112024	**Sample Time:** 12:00
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: MS/SD		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , B-3R
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 18.89	**Screened Interval (ft btoc):** 13.89 to 18.89
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 15:42		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 8.86		**Total well depth at time of deployment (ft btoc):** 18.89
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 18.09		

Retrieval

Date and time of Retrieval: 09/11/2024 13:00	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17.1	-134.4	7.84	2.78	1.001

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 174.31		**Post-filtered Turbidity (NTU):** N/A
Sample ID: B-3R_09112024	**Replicate ID:** N/A	**Sample Time:** 13:00
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-107S1
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 17.25	**Screened Interval (ft btoc):** 12.25 to 17.25
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 11:47		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 8.63		**Total well depth at time of deployment (ft btoc):** 17.25
Hydrasleeve length (in): 68	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH475
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 16.45		

Retrieval

Date and time of Retrieval: 09/11/2024 15:50	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
15.5	-77	7.35	3.59	1.312

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 11.24		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-107S1_09112024	**Replicate ID:** N/A	**Sample Time:** 15:50
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Groundwater Sampling Form

Location ID:	MW-107WT	**Date(s):**	2024-09-11	**Work Order(s):**		N/A	
Client:	RACER Trust	**Facility:**	RACER Saginaw 2024	**Facility Location:**	RACER Saginaw 2024	**Area:**	N/A
Weather(°F):	NA			**Field Technician:**		Bill and Austin	
Measuring Pt. Description:	Top of Inner Casing	**Screen Setting (ft-bgs):**	-	**Casing Diameter (in):**	2	**Well Casing Material:**	PVC
Static Water Level (ft-bmp):	7.86	**Total Depth (ft-bmp):**	8.85	**Water Column(ft):**	0.99	**Gallons in Well:**	0.16
Depth to Product (ft-bmp):	NA	**Pump Intake Depth(ft-bmp):**	8.85	**Purge Method:**	No-Purge	**Purging Equipment:**	Bailer
Purge Start Time:	NA	**Total Volume Purged ():**	1750	**Sample ID:**	MW-107WT_09112025	**Sample Time:**	15:15
Purge End Time:	NA	**Well Volumes Purged (total):**	2.89	**Replicate Type / Replicate ID:**	NA / NA / MW-107WT_09112024	**Water Quality Meter/ ID:**	YSI Pro Series / NA
Scope of work completed?	Yes						

Time	Total Elapsed (min)	Flow Rate	Flow Rate Unit	Depth to Water (ft)	pH (S.U.)	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Temp. (°C)	Redox (mV)	Appearance	
										Color	Odor
15:42	0	100	mL/min	7.86	6.89	0.973	1.14	19.2	-23.7	Clear	None

Constituent Sampled	Container	Number	Preservative
SEE COC			

Comments: NA

Well Information:

Well Labeled Properly: yes

Is Well in Good Condition? no

Well Inspection Comments: NA

ft-bmp = feet below measuring point
in = inches
ft = feet
mL/min = milliliters per minute
uS/cm = microSiemens per centimeter
NTU = Nephelometric Turbidity Unit
mg/L = milligrams per liter
S.U = standard units
mS/cm = milli

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-108S1
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 17.21	**Screened Interval (ft btoc):** 12.2 to 17.2
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 12:13		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 10.02		**Total well depth at time of deployment (ft btoc):** 17.21
Hydrasleeve length (in): 68	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH475
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 16.4		

Retrieval

Date and time of Retrieval: 09/11/2024 14:20	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17.6	26.4	6.85	4.86	0.799
Water Quality Meter: YSI Quattro			**Serial #:** 23L103652	

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 465.75		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-108S1_09112024	**Replicate ID:** DUP-06_09112024	**Sample Time:** 14:20
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate,MS/SD		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-108S2
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 30.57	**Screened Interval (ft btoc):** 25.5 to 30.5
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 12:15		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 11.14		**Total well depth at time of deployment (ft btoc):** 30.57
Hydrasleeve length (in): 68	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH475
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 29.3		

Retrieval

Date and time of Retrieval: 09/11/2024 16:10	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
12.6	-58.5	7.6	4.03	0.682

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 13.41		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-018S2_09112024	**Replicate ID:** DUP-07_09112024	**Sample Time:** 16:10
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-110WTR
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 17.5	**Screened Interval (ft btoc):** 12.5 to 17.5
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 12:26		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 12.58		**Total well depth at time of deployment (ft btoc):** 17.5
Hydrasleeve length (in): 68	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH475
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 16.7		

Retrieval

Date and time of Retrieval: 09/12/2024 09:20	**Total Days of Deployment:** 3
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
16.4	-87.7	6.98	1.97	1.132

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 189.73		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-110WTR_09122024	**Replicate ID:** DUP-08_09122024	**Sample Time:** 09:20
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Austin and Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-111WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 12.9	**Screened Interval (ft btoc):** 7.9 to 12.9
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 12:43		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 9.4		**Total well depth at time of deployment (ft btoc):** 12.9
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 12.1		

Retrieval

Date and time of Retrieval: 09/12/2024 09:50	**Total Days of Deployment:** 3
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
17.6	-97.1	6.94	2.63	0.853
Water Quality Meter: YSI Quattro			**Serial #:** 23L103652	

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 52.43		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-111WT_09122024	**Replicate ID:** DUP-09_09122024	**Sample Time:** 09:50
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-114S2
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 30.85	**Screened Interval (ft btoc):** 25.85 to 30.85
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 13:10		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 10.92		**Total well depth at time of deployment (ft btoc):** 30.85
Hydrasleeve length (in): 68	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH475
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 30.05		

Retrieval

Date and time of Retrieval: 09/11/2024 16:30	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
15.3	16.9	7.53	3.15	0.483
Water Quality Meter: YSI Quattro			**Serial #:** 23L103652	

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 5.29		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-114S2_09112024	**Replicate ID:** N/A	**Sample Time:** 16:30
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-114WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 11.05	**Screened Interval (ft btoc):** 6.05 to 11.05
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 13:05		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 8.1		**Total well depth at time of deployment (ft btoc):** 11.05
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 10.25		

Retrieval

Date and time of Retrieval: 09/11/2024 16:50	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
16.4	-43.7	7.19	1.89	1.142

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 68.69		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-114WT_09112024	**Replicate ID:** MW-114WT_09112024	**Sample Time:** 16:50
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: MS/SD		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-131WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 14.4	**Screened Interval (ft btoc):** 9.4 to 14.4
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 18:02		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 5.51		**Total well depth at time of deployment (ft btoc):** 14.4
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 13.6		

Retrieval

Date and time of Retrieval: 09/11/2024 13:40	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
18.4	-109.8	7.48	2.42	0.643

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 120.75		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-131Wat_09112024	**Replicate ID:** N/A	**Sample Time:** 13:40
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-134WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 12.49	**Screened Interval (ft btoc):** 7.49 to 12.49
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 18:25		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 4.25		**Total well depth at time of deployment (ft btoc):** 12.49
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 11.69		

Retrieval

Date and time of Retrieval: 09/11/2024 14:00	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
19.4	-113.4	6.9	1.43	0.812
Water Quality Meter: YSI Quattro			**Serial #:** 23L103652	

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 49.05		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-134WT_09112024	**Replicate ID:** N/A	**Sample Time:** 14:00
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-149WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 20.35	**Screened Interval (ft btoc):** 15.35 to 20.35
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 11:36		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 13		**Total well depth at time of deployment (ft btoc):** 20.36
Hydrasleeve length (in): 68	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH475
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 19.55		

Retrieval

Date and time of Retrieval: 09/12/2024 09:00	**Total Days of Deployment:** 3
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
16.4	-31.7	7.12	3.08	0.874

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 7.12		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-149WT_09122024	**Replicate ID:** DUP-10_09122024	**Sample Time:** 09:00
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: Duplicate		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-185WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 10.46	**Screened Interval (ft btoc):** 5.46 to 10.46
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 12:49		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 7.01		**Total well depth at time of deployment (ft btoc):** 10.46
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 9.75		

Retrieval

Date and time of Retrieval: 09/12/2024 10:20	**Total Days of Deployment:** 3
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
19.5	141.9	7.69	4.37	0.494

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 31.35		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-185WT_09122024	**Replicate ID:** N/A	**Sample Time:** 10:20
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , MW-186WT
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 21.2	**Screened Interval (ft btoc):** 16.2 to 21.2
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 12:54		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 9.48		**Total well depth at time of deployment (ft btoc):** 21.2
Hydrasleeve length (in): 68	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH475
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 20.4		

Retrieval

Date and time of Retrieval: 09/12/2024 10:50	**Total Days of Deployment:** 3
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
19.4	138	7.1	2.93	0.444

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 6.36		**Post-filtered Turbidity (NTU):** N/A
Sample ID: MW-186WT_09122024	**Replicate ID:** MW-186WT_09122024	**Sample Time:** 10:50
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: MS/SD		**Field Sampling Technician(S):** Austin & Billy

Hydrasleeve™ Field Form

Site and Well Information

Site: RACER Saginaw	**Location and Well ID:** Saginaw, Michigan , QPTW-13R
Well Finish: Stick Up	**Measuring Point:** Top of Casing
Total Depth as Constructed (ft btoc): 14.29	**Screened Interval (ft btoc):** 9.29 to 14.29
Well Casing Diameter: 2	**Well Casing Material:** PVC

Deployment

Date and Time of Deployment: 09/09/2024 18:40		**Weather Condition:** Partly Cloudy
Depth to water at time of deployment (ft btoc): 4.99		**Total well depth at time of deployment (ft btoc):** 14.29
Hydrasleeve length (in): 38	**Hydrasleeve diameter (in):** 1.75	**Hydrasleeve™ model:** GSH470
Deployment Method/Position of weight: Top Down: Weight attached to top and bottom of Hydrasleeve TM. Bottom weight rest on well bottom		
Deployment Depth (top of Hydrasleeve™) (ft btoc): 13.49		

Retrieval

Date and time of Retrieval: 09/11/2024 13:20	**Total Days of Deployment:** 2
Weather Condition: Partly Cloudy	**PID (ppm):** N/A
Depth to Groundwater at Time of Retrieval (measured before retrieval) (ft btoc): N/A	**Total Well Depth at Time of Retrieval (measured before retrieval (ft btoc):** N/A

Downhole Field Parameter Upon Retrieval

Temp (deg C)	ORP (mV)	pH	DO (mg/L)	Cond (mS/cm)
19.1	-79.2	6.79	2.29	0.983

Water Quality Meter: YSI Quattro	**Serial #:** 23L103652

Turbidity of Groundwater Sample (dispensed from Hydrasleeve™)

Turbidity Meter: YSI Quattro		**Serial #:** 23L103652
Pre-filtered Turbidity (NTU): 478.64		**Post-filtered Turbidity (NTU):** N/A
Sample ID: QPTW-13R_09112024	**Replicate ID:** N/A	**Sample Time:** 13:20
Notes/Observations: N/A		
Sampled for (minimum volume (mL) in parentheses): See COC		
QA/QC: N/A		**Field Sampling Technician(S):** Austin & Billy

Attachment 6

GPL Well Construction Logs, Sampling Parameters, and Field Parameters

Attachment 6
Monitoring Well Sampling Plan and Construction Summary
2024 Annual Report
RACER Trust
Green Point Landfill
Saginaw, Michigan

Well ID	Screen Interval (ft bgs)[1]	Screened Unit/Zone	Well Construction	Date Installed	TIC[2] Elevation (ft AMSL)[3]
MW-117WT	3-13	Water Table	2" PVC	5/3/1995	582.37
MW-117S1	24.2-29.2	Lower Sand	2" PVC	5/3/1995	583.70
MW-118WT	1.6-11.6	Water Table	2" PVC	5/2/1995	582.98
MW-118S1	23.5-28.5	Lower Sand	2" PVC	5/2/1995	583.28
MW-125WT	2.5-12.5	Water Table	2” PVC	1/4/1995	586.98
MW-183WT	6-16	Water Table	2" PVC	7/24/2000	588.77
X-2A	8.6-11.6	Water Table	2” PVC	6/2/1980	593.12
X-4AR	3.3-8.3	Water Table	2" PVC	NA	586.82
X-4CAUGR	14-19	Upper Sand	2" PVC	7/24/2007	586.36
X-4D	40-45	Lower Sand	2" PVC	7/23/2007	586.32
X-9AR	3-13	Water Table	2" PVC	5/26/1995	586.95
X-9BR	26-31	Upper Sand	2" PVC	5/17/1995	586.85
X-9CAUG	20-25	Upper Sand	2" PVC	5/5/1995	586.62
X-9D	42.5-47.5	Lower Sand	2" PVC	7/23/2007	587.47
X-10AR2	6-16	Water Table	2” PVC	11/6/2001	594.67
TWW-1	1.5-6.5	Water Table	2” PVC	1/22/1997	587.31

Notes:

[1] Depths are in feet below ground surface (ft bgs)

[2] TIC = top of inner casing

[3] Elevations are in feet above mean sea level (ft AMSL)

“ PVC = inch polyvinyl chloride

NA = not available

Attachment 6
Groundwater Sampling Analytical Parameters
RACER Green Point Landfill
Saginaw, Michigan

		Constituent & Preservative - Container Description										
Well ID	**Proposed Monitoring Plan (2020)**	**6010 Total TAL Metals [1] HNO_3 - 250mL Poly**	**6010 TAL Dissolved Metals [1] HNO_3 - 250mL Poly**	**Total Cyanide NaOH - 250mL Poly**	**Dissolved Cyanide NaOH - 250mL Poly**	**TDS unpreserved - 250 mL Poly**	**Sulfate, Chloride, Nitrite, Nitrate [2] unpreserved - 250 mL Poly**	**Ammonia nitrogen H_2SO_4 - 250mL Poly**	**PFAS unpreserved - 2x250mL HDPE**	**Screen interval**	**QA/QC/Comments**	**Sampling Comments**
MW-117S1[3]	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 125 mL	120 - 175 mL	10 - 50 mL		24.2-29.2		Sample collected with hydrasleeve.
MW-117WT	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, ammonia nitrogen, and PFAS	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 125 mL	120 - 175 mL	10 - 50 mL	1 x 250 mL	3-13		Sample collected with hydrasleeve.
MW-118S1	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 250 mL	120 - 200 mL	10 - 50 mL		23.5-28.5		Sample collected with hydrasleeve.
MW-118WT[3]	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 125 mL	120 - 175 mL	10 - 50 mL		1.6-11.6		Sample collected with hydrasleeve.
MW-183WT[3]	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 125 mL	120 - 175 mL	10 - 50 mL		6-16		Sample collected with hydrasleeve.
X-4AR	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 250 mL	120 - 200 mL	10 - 50 mL		NA-8.3	Duplicate for total and dissolved TAL metals.	Well redeveloped prior to sampling. Sample collected with bailer.
X-4CAUGR	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	2 x (50 - 100) mL	2 x (50 - 100) mL	100 - 125 mL	120 - 175 mL	10 - 50 mL		14-19	Duplicate for total and dissolved cyanide.	Sample collected with hydrasleeve.
X-4D	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	2 x (100 -125) mL	120 - 200 mL	2 x (10 - 50) mL		40-45	Duplicate for TDS and ammonia nitrogen.	Sample collected with hydrasleeve.
X-9AR[3]	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 125 mL	120 - 175 mL	10 - 50 mL		3-13		Sample collected with hydrasleeve.
X-9BR	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	2 x (50 - 100) mL	2 x (50 - 100) mL	50 - 100 mL	50 - 100 mL	100 - 125 mL	120 - 175 mL	10 - 50 mL		26-31		Sample collected with hydrasleeve.
X-9CAUG	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	3 x (50 - 80) mL	3 x (50 - 80) mL	3 x (50 - 80) mL	3 x (50 - 80) mL	3 x (100 - 125) mL	3 x (120 - 150) mL	3 x (10 - 50) mL		20-25	MS/MSD for total and dissolved TAL metals, total and dissolved cyanide, chloride, sulfate, nitrite, nitrate, and TDS.	Sample collected with hydrasleeve.
X-9D	TAL metals (total and dissolved), cyanide (total and dissolved), TDS, chloride, sulfate, nitrite, nitrate, and ammonia nitrogen	50 - 100 mL	50 - 100 mL	50 - 100 mL	50 - 100 mL	100 - 200 mL	2 x (120 - 175) mL	10 - 50 mL		42.5-47.5	Duplicate for chloride, sulfate, nitrite, and nitrate.	Sample collected with hydrasleeve.

Attachment 6
Groundwater Sampling Analytical Parameters
RACER Green Point Landfill
Saginaw, Michigan

		Constituent & Preservative - Container Description										
Well ID	**Proposed Monitoring Plan (2020)**	**6010 Total TAL Metals [1] HNO_3 - 250mL Poly**	**6010 TAL Dissolved Metals [1] HNO_3 - 250mL Poly**	**Total Cyanide NaOH - 250mL Poly**	**Dissolved Cyanide NaOH - 250mL Poly**	**TDS unpreserved - 250 mL Poly**	**Sulfate, Chloride, Nitrite, Nitrate [2] unpreserved - 250 mL Poly**	**Ammonia nitrogen H_2SO_4 - 250mL Poly**	**PFAS unpreserved - 2x250mL HDPE**	**Screen interval**	**QA/QC/Comments**	**Sampling Comments**
TWW-1	PFAS							2 x 250 mL	1.5-6.5			Sample collected with hydrasleeve.
MW-122WT[3]												
MW-125WT	PFAS							2 x 250 mL	2.5-12.5			Sample collected with hydrasleeve.
X-10AR2	PFAS							4 x 250 mL	6-16		MS/MSD for PFAS.	Sample collected with hydrasleeve.
X-2A	PFAS							4 x 250 mL	8.6-11.6		Duplicate for PFAS.	Sample collected with hydrasleeve.

Notes:

[1]TAL dissolved metals plus cyanide, and indicator parameters (sulfate, chloride, total dissolved solids, nitrate, nitrite, and ammonia nitrogen).

[2] Sulfate, chloride, nitrite, and nitrate will all be included in one unpreserved 250 mL poly bottle and will be reported seperately.

[3] An email was received from EGLE on May 8, 2024, acknowledging the review of the 2023 Annual Report with an approvaval to discontinue PFAS analysis at monitoring wells MW-117S1, MW-118WT, MW-183WT, X-9AR, and MW-122WT.

Discontinue PFAS at five wells

HDPE = high-density ployethylene

HNO_3 = nitric acid

H_2SO_4 = sulfuric acid

mL = milliliter

MS/MSD = matrix spike/matrix spike duplicate

NA = not available

NaOH = sodium hydroxide

PFAS = per- and ployfluoroalkyl substances

VOC = volatile organic compound

Note: Each sample location are provided ranges of sample volumes to collect. The minimum limit is the absolute minimum volume that can be collected in order to run the analysis and the upper limit is what can be collected in order to conserve sample volume and be able to obtain samples for the remaining parameters.

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-117S1	**10/01/10**	1.243	0.21	-82.5	8.14	13.2	1.31
MW-117S1	**09/27/11**	1.700	1.26	-82.3	6.89	15.7	0.80
MW-117S1	**09/13/12**	1.310	-[2]	-90.3	6.77	15.6	0.42
MW-117S1	**09/24/13**	4.123	0.75	-126	6.87	11.2	0.40
MW-117S1	**09/22/14**	1.307	0.58	-50.4	6.45	12.1	4.45
MW-117S1	**10/01/15**	1.681	0.17	128	6.69	13.3	8.03
MW-117S1	**09/27/16**	0.643	0.89	-34.7	6.56	15.6	7.99
MW-117S1	**11/13/17**	1.043	0.20	161	5.88	10.3	3.58
MW-117S1	**08/21/19**	0.464	7.87	-44.6	6.88	18.6	1.49
MW-117S1	**08/13/20**	1.520	0.20	-90.6	6.91	27.0	8.98
MW-117S1	**08/17/21**	1.528	0.10	-104	6.94	21.4	1.82
MW-117S1	**09/21/22**	1.680	1.02	-117	6.82	23.1	0.02
MW-117S1[7]	**09/13/23**	1.528	4.11	-47.4	7.25	12.9	374
MW-117S1	**09/10/24**	1.669	3.80	-56.9	6.93	14.0	235
MW-117WT	**10/01/10**	8.450	0.11	-90.0	8.45	16.5	0.88
MW-117WT	**09/27/11**	9.535	0.68	-103	6.60	13.4	1.05
MW-117WT	**09/13/12**	10.33	-[2]	-77.2	6.23	16.3	0.68
MW-117WT	**09/24/13**	29.95	0.41	-110	6.37	12.7	0.80
MW-117WT	**09/23/14**	8.050	0.70	-57.8	6.25	12.1	8.60
MW-117WT	**10/01/15**	9.684	0.43	-97.4	6.55	12.7	5.96
MW-117WT	**09/27/16**	9.531	0.30	-158	6.71	15.9	2.72
MW-117WT	**08/13/20**	9.250	0.13	-95.7	6.41	25.1	12.2
MW-117WT	**08/17/21**	12.30	0.11	-95.5	6.45	21.2	1.79
MW-117WT	**09/22/22**	10.40	1.23	-106	6.40	14.9	0.02
MW-117WT[7]	**09/13/23**	8.225	1.78	-48.6	6.17	14.3	206
MW-117WT	**09/10/24**	7.905	3.04	-75.0	6.39	15.4	387
MW-118S1[1]	**09/27/11**	1.810	1.19	-91.9	7.02	17.6	0.30
MW-118S1	**09/13/12**	1.803	3.82	-230	6.83	15.8	1.03
MW-118S1	**09/24/13**	4.289	0.72	-95.8	6.36	13.2	0.90
MW-118S1	**09/22/14**	1.380	0.30	-56.0	6.35	12.5	9.72
MW-118S1	**10/01/15**	1.753	0.20	116	6.77	12.8	1.38
MW-118S1	**09/27/16**	0.662	0.94	13.8	6.71	14.3	7.91
MW-118S1	**11/13/17**	1.303	0.20	4.20	5.94	10.2	7.41
MW-118S1	**08/14/20**	0.370	0.10	-102	7.03	24.2	8.87
MW-118S1	**08/17/21**	1.358	0.14	-111	7.01	20.4	1.51
MW-118S1	**09/26/22**	0.630	0.16	-139	7.13	16.1	0.02
MW-118S1[7]	**09/13/23**	0.709	3.08	-85.3	7.05	12.9	40.7
MW-118S1	**09/10/24**	0.917	6.02	-37.5	7.65	16.2	139
MW-118WT	**09/30/10**	3.435	0.22	-104	7.27	14.9	1.84
MW-118WT	**09/27/11**	3.261	0.71	-92.8	6.43	17.1	0.30
MW-118WT	**09/13/12**	2.451	1.37	-201	6.74	17.0	0.66
MW-118WT	**09/24/13**	5.017	0.95	-115	6.38	15.2	0.40
MW-118WT	**09/22/14**	1.521	0.20	-60.4	6.72	12.9	8.15
MW-118WT	**10/01/15**	1.939	0.36	-127	6.99	17.0	1.39
MW-118WT	**09/27/16**	2.072	0.79	-161	6.99	15.7	0.79
MW-118WT	**11/13/17**	1.654	0.26	-27.8	6.05	11.5	0.87
MW-118WT	**08/14/20**	1.580	0.15	-115	6.79	22.2	5.45
MW-118WT	**08/17/21**	2.045	0.13	-109	6.92	22.9	1.31
MW-118WT	**09/22/22**	2.190	0.67	-99.8	6.70	16.1	0.87
MW-118WT[7]	**09/13/23**	1.576	4.21	-29.9	6.52	14.8	83.7
MW-118WT	**09/10/24**	2.156	4.29	-70.5	6.74	16.0	78.1
MW-122WT	**08/18/21**	0.809	0.12	-107	6.89	18.8	8.79
MW-122WT	**09/23/22**	1.080	0.68	-77.9	7.02	12.9	17.4
MW-122WT[7]	**09/13/23**	1.181	3.92	-104	7.14	18.0	451
MW-125WT	**09/08/20**	1.210	0.21	-47.1	6.80	16.9	8.85
MW-125WT[7]	**09/13/23**	0.934	3.99	103	7.13	16.2	472
MW-125WT	**09/11/24**	0.999	1.22	-12.4	6.99	19.4	124
MW-183WT	**09/28/10**	0.633	0.33	-120	7.45	13.0	3.46
MW-183WT	**09/28/11**	0.814	0.26	-128	7.73	13.8	1.20

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
MW-183WT	**09/14/12**	0.962	0.25	-208	7.11	15.3	0.43
MW-183WT	**09/24/13**	2.390	0.51	-105	6.56	17.1	1.80
MW-183WT	**09/22/14**	Missing field notes					
MW-183WT	**10/01/15**	0.750	0.37	-139	7.28	13.5	0.85
MW-183WT	**09/28/16**	1.299	0.20	-125	7.23	16.5	0.20
MW-183WT	**08/29/17**	0.665	1.09	-91.4	6.94	20.5	1.74
MW-183WT	**09/26/18**	0.550	0.60	-83.7	6.65	16.0	0.96
MW-183WT	**08/21/19**	0.700	0.27	-67.5	7.11	15.2	1.96
MW-183WT	**08/18/20**	0.670	0.50	-69.8	6.86	17.6	0.02
MW-183WT	**08/19/21**	0.640	0.33	-84.8	7.04	19.7	0.02
MW-183WT	**08/24/21**	0.660	0.37	-77.9	7.09	19.5	0.41
MW-183WT	**09/26/22**	0.636	0.12	-129	7.32	13.4	1.92
MW-183WT[7]	**09/13/23**	0.567	2.00	-97.4	7.34	15.8	274
MW-183WT	**09/10/24**	0.771	2.10	-112	7.39	17.8	249
TW-242	**08/30/17**	1.019	0.45	-96.1	7.01	17.1	9.02
TW-242	**09/25/18**	0.780	1.29	81.7	7.11	19.0	20.2
TW-242	**08/22/19**	1.110	0.37	-1.50	7.03	17.7	49.4
TW-242	**08/12/20**	1.130	0.31	21.1	7.04	21.4	2.42
TW-242	**08/18/21**	0.862	0.26	-31.1	7.07	18.7	2.81
TW-242	**09/23/22**	1.110	0.61	-6.20	7.13	14.6	9.73
TWW-1	**09/29/10**	3.924	1.15	-54.7	6.99	15.1	9.11
TWW-1	**09/21/11**	2.890	3.11	-7.1	6.87	18.4	1.20
TWW-1	**09/14/12**	2.289	-[2]	19.0	6.87	19.3	0.59
TWW-1	**09/24/13**	3.004	0.64	-140	6.84	17.5	2.27
TWW-1	**09/23/14**	2.342	0.23	-89.9	6.91	17.4	1.01
TWW-1	**10/01/15**	2.534	0.49	84.3	6.79	17.8	6.09
TWW-1	**09/28/16**	2.531	0.34	-157	7.06	18.0	1.56
TWW-1	**08/30/17**	1.712	7.70	-52.6	7.22	19.1	8.43
TWW-1	**09/25/18**	1.48[3]	0.54	-89.8	6.75	21.3	0.58
TWW-1	**08/22/19**	1.590	0.21	-10.1	6.91	20.8	0.02
TWW-1	**08/12/20**	1.920	0.22	-90.2	6.88	22.8	0.65
TWW-1	**09/08/20**	1.710	1.69	-51.3	6.94	17.6	11.2
TWW-1	**08/18/21**	1.622	0.11	-74.1	6.89	20.8	1.32
TWW-1	**09/23/22**	1.930	0.08	-90.1	6.99	17.9	9.40
TWW-1[7]	**09/13/23**	1.739	3.40	-62.8	7.05	17.3	63.8
TWW-1	**09/11/24**	0.997	2.58	-68.7	6.99	19.7	37.5
X-2A	**08/11/20**	0.720	0.62	61.8	8.88	20.4	6.68
X-2A	**09/08/20**	0.710	0.08	-125	8.83	15.3	9.73
X-2A	**08/18/21**	0.652	0.06	-144	9.29	17.6	4.11
X-2A	**09/21/22**	0.790	0.18	-106	9.36	20.6	9.77
X-2A[7]	**09/13/23**	0.663	3.17	-70.8	8.73	16.1	221
X-2A	**09/11/24**	0.722	3.05	99.4	9.21	18.7	54.7
X-4AR	**DRY 2010, 2011, 2012, 2013**	NA	NA	NA	NA	NA	NA
X-4AR	**10/01/15**	1.008	8.26	45.8	8.00	22.1	143
X-4AR[4]	**09/28/16**	0.360	2.07	9.63	7.23	17.1	20.1
X-4AR[4]	**08/29/17**	Well was pumped dry and sampled upon recharge					
X-4AR[5]	**09/26/18**	0.710	0.53	3.1	7.37	17.1	8.14
X-4AR	**08/18/20**	0.510	3.82	119	8.27	26.2	0.02
X-4AR	**08/17/21**	Well was pumped dry, unable to sample					
X-4AR	**09/21/22**	Well has previously pumped dry, sample collected after no-purge					
X-4AR	**09/13/23**	Unable to collect parameters, sample collected with bailer					
X-4AR	**09/12/24**	0.617	3.49	-98.6	7.06	19.8	NA
X-4CAUGR	**09/28/10**	1.030	0.34	-79.8	7.11	12.3	1.1
X-4CAUGR	**09/26/11**	0.971	1.17	-97.1	6.96	17.3	1.2
X-4CAUGR	**09/14/12**	1.050	0.19	-294	6.93	11.8	0.48
X-4CAUGR	**09/24/13**	0.783	0.19	-64.1	6.22	13.2	1.49
X-4CAUGR	**09/22/14**	Missing field notes					
X-4CAUGR	**10/01/15**	1.225	0.25	-117	7.10	13.4	2.29

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
X-4CAUGR	**09/28/16**	0.396	0.85	-14.2	6.78	14.9	0.68
X-4CAUGR	**08/29/17**	0.910	0.16	-45.2	7.26	25.8	1.89
X-4CAUGR	**09/26/18**	0.500	0.40	-23.1	6.72	16.1	4.69
X-4CAUGR	**08/22/19**	0.568	0.23	-62.8	7.02	17.8	1.83
X-4CAUGR	**08/17/20**	0.528	0.25	-72.9	6.85	19.6	0.02
X-4CAUGR	**08/17/21**	0.540	0.25	-86.5	7.05	22.9	1.98
X-4CAUGR	**09/21/22**	0.610	0.21	-125	7.31	22.6	0.02
X-4CAUGR[7]	**09/13/23**	0.593	3.55	194	8.09	18.3	58.9
X-4CAUGR	**09/10/24**	0.744	2.07	-115	7.32	19.2	130
X-4D	**09/28/10**	4.580	0.53	-147	7.41	13.5	1.34
X-4D	**09/26/11**	4.897	1.67	-106	7.62	15.9	0.00
X-4D	**09/14/12**	4.884	0.50	-208	7.20	11.9	0.40
X-4D	**09/24/13**	3.937	0.23	-36.8	6.40	13.3	1.45
X-4D	**09/22/14**	Missing field notes					
X-4D	**10/01/15**	4.561	0.18	111	7.19	12.9	4.08
X-4D	**09/28/16**	4.908	0.22	-152	7.35	15.1	0.10
X-4D	**08/29/17**	4.451	0.94	117	7.18	24.2	0.38
X-4D	**09/26/18**	2.890	0.39	2.4	6.82	16.2	3.87
X-4D	**08/22/19**	0.710	0.37	18.7	7.11	17.9	1.93
X-4D	**08/17/20**	4.470	0.30	-97.7	7.33	23.5	0.02
X-4D	**08/17/21**	0.730	1.92	109	6.96	22.0	1.96
X-4D	**09/21/22**	4.850	0.91	-126	7.43	22.5	1.91
X-4D[7]	**09/13/23**	4.549	2.14	-81.3	7.41	15.1	141
X-4D	**09/10/24**	4.201	1.65	-110	7.34	17.0	17.0
X-9AR	**09/29/10**	0.815	0.24	-81.5	7.45	11.4	0.86
X-9AR	**09/23/11**	1.142	0.38	-115	7.09	11.6	0.00
X-9AR	**09/12/12**	1.056	8.20	-92.7	6.88	14.0	0.45
X-9AR	**09/25/13**	5.685	0.26	-123	6.95	10.5	1.90
X-9AR	**09/22/14**	Missing field notes					
X-9AR	**10/01/15**	1.224	0.71	-127	6.90	12.1	1.34
X-9AR	**09/28/16**	0.417	0.66	-56.9	6.63	15.0	1.95
X-9AR	**08/29/17**	0.816	0.28	-55.5	7.33	19.7	1.09
X-9AR	**09/26/18**	0.790	0.27	-70.4	6.30	17.6	2.54
X-9AR	**08/21/19**	0.730	0.28	-61.2	7.06	20.1	0.02
X-9AR	**08/17/20**	0.556	0.34	-94.7	7.09	19.3	0.02
X-9AR	**08/18/21**	0.720	0.27	-100	7.06	15.8	0.93
X-9AR	**09/22/22**	0.770	0.96	-123	7.28	10.6	1.98
X-9AR[7]	**09/13/23**	0.934	2.92	-99.3	7.02	14.4	27.6
X-9AR	**09/10/24**	0.768	2.53	-96.3	6.99	17.8	88.1
X-9BR	**09/28/10**	1.215	0.10	-93.4	7.09	14.5	0.80
X-9BR	**09/23/11**	1.410	0.20	-114	7.13	11.3	0.00
X-9BR	**09/12/12**	1.358	0.21	-218	6.69	14.0	0.97
X-9BR	**09/25/13**	6.571	0.24	-146	6.98	11.3	1.76
X-9BR	**09/22/14**	Missing field notes					
X-9BR	**10/01/15**	1.859	0.36	130	6.92	11.5	7.27
X-9BR	**09/28/16**	2.020	0.08	-169	7.19	15.3	2.36
X-9BR	**08/29/17**	1.595	1.42	-168	7.06	17.3	1.64
X-9BR	**09/26/18**	0.428	0.30	-23.6	6.64	16.1	3.06
X-9BR	**08/21/19**	1.290	2.47	-146	7.04	20.9	1.95
X-9BR	**08/18/20**	0.720	0.46	-91.4	7.08	21.2	0.02
X-9BR	**08/18/21**	0.595	0.06	-105	6.97	15.7	0.02
X-9BR	**09/22/22**	1.140	0.26	-154	7.38	12.8	0.02
X-9BR[7]	**09/13/23**	1.740	1.25	-135	7.18	14.1	321
X-9BR	**09/10/24**	1.533	1.44	-148	7.18	14.9	67.6
X-9CAUG	**09/28/10**	0.995	0.29	-72.3	6.97	12.5	0.10
X-9CAUG	**09/23/11**	1.070	0.45	-117	7.03	12.8	0.00
X-9CAUG	**09/12/12**	1.132	1.98	-137	6.65	21.0	0.76
X-9CAUG	**09/25/13**	5.046	0.27	-69.0	6.54	15.6	1.29
X-9CAUG	**09/22/14**	Missing field notes					

Well ID	Date Sampled	Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	pH (SU)	Temperature (°C)	Turbidity (NTUs)
X-9CAUG	**10/01/15**	1.469	0.27	-157	7.12	12.3	4.73
X-9CAUG	**09/28/16**	0.634	0.60	0.50	6.74	12.2	3.95
X-9CAUG	**08/29/17**	0.956	0.34	-99.4	7.33	17.0	1.71
X-9CAUG	**09/25/18**	0.80[3]	0.43	-98.2	7.11	19.8	517
X-9CAUG	**08/21/19**	0.930	0.35	-110	6.92	18.8	1.97
X-9CAUG	**08/18/20**	0.870	0.91	-88.0	6.92	17.4	1.82
X-9CAUGR	**08/18/21**	0.910	0.19	-97.3	6.97	19.4	1.92
X-9CAUGR	**09/22/22**	1.100	0.23	-99.8	7.12	14.2	1.89
X-9CAUGR[7]	**09/13/23**	1.251	5.21	256	7.41	14.6	1,872
X-9CAUGR	**09/10/24**	1.135	0.89	-114	6.99	18.9	781
X-9D	**09/28/10**	3.257	0.41	-93.2	7.31	12.5	0.10
X-9D	**09/23/11**	4.270	0.56	-114	7.44	11.7	0.00
X-9D	**09/12/12**	3.510	-[2]	-83.1	7.13	14.2	0.10
X-9D	**09/25/13**	19.53	0.17	-113	7.08	13.0	1.71
X-9D	**09/22/14**	Missing field notes					
X-9D	**10/01/15**	4.496	0.16	89.5	7.24	12.7	6.59
X-9D	**09/28/16**	4.567	0.12	166	7.23	11.2	1.24
X-9D	**08/29/17**	2.140	0.82	133	7.00	17.0	1.07
X-9D	**09/25/18**	3.44[3]	0.15	-139	7.11	18.6	14.9[6]
X-9D	**08/20/19**	4.520	0.30	-102	7.21	22.2	7.82
X-9D	**08/17/20**	1.050	0.33	-168	7.43	23.8	1.89
X-9D	**08/18/21**	1.140	0.42	-130	7.32	21.2	1.98
X-9D	**09/22/22**	1.240	0.16	21.6	7.44	17.9	0.02
X-9D[7]	**09/13/23**	1.176	8.21	289	7.61	14.2	21.6
X-9D	**09/10/24**	4.135	2.64	-102	7.34	17.5	216
X-10AR2	**08/12/20**	0.870	0.17	-62.4	6.89	17.1	0.02
X-10AR2	**09/08/20**	0.880	0.31	-63.3	7.01	15.5	9.45
X-10AR2	**08/18/21**	0.825	0.11	-70.4	6.99	19.1	1.90
X-10AR2	**09/22/22**	0.950	0.15	-77.9	7.11	15.0	8.19
X-10AR2[7]	**09/13/23**	1.044	2.98	-37.8	6.96	15.8	128
X-10AR2	**09/11/24**	0.961	2.31	-52.3	6.94	17.0	90.2
X-10BR	**09/29/10**	2.446	0.20	-101	6.69	14.2	1.43
X-10BR	**09/22/11**	1.692	0.79	-88.1	6.87	13.3	4.80
X-10BR	**09/14/12**	1.953	-[2]	-91.6	6.59	14.6	0.42
X-10BR	**09/24/13**	21.55	0.28	-105	6.40	14.2	4.89
X-10BR	**Well Abandoned**						

Notes:

°C = Celsius.

mg/L = milligrams per liter.

mV = millivolts.

NTUs = Nephelometric Turbidity Units.

SU = Standard Units.

mS/cm = milliSiemens per centimeter.

NA = not applicable/not available.

1. Monitoring well MW-188S1 was sampled on October 10, 2010 but the sampling log was not found.
2. No reading due to faulty dissolved oxygen sensor.
3. Conductivity not recorded. Specific conductance reported instead.
4. Monitoring well purged dry upon sampling. Well was allowed to recharge and then a sample was collected.
5. Monitoring well purged dry. Well did not sufficiently recharge during sampling event; therefore, no sample was collected.
6. Turbidimeter malfunctioned during sampling. Turbidity result is not accurate.
7. Sample collected with hydrasleeve.