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Letter of Transmittal

Attention:	Mr. Matt Thompson WDNR, Eau Claire Service Center 1300 W Clairemont Ave, Eau Claire, WI 54701	Date:	3/27/2024
Project reference:	Chippewa Valley Regional Airport PFAS BRRTS No. 02-09-588115	Project number:	60710448

We are sending you the following:

Number of originals:	Number of copies:	Description:
One	Zero	2023 Supplemental Site Investigation for Per- and Polyfluoroalkyl Substances (PFAS)

Mr. Thompson,

Attached is the *2023 Supplemental Site Investigation for Per- and Polyfluoroalkyl Substances (PFAS)* report for the Chippewa Valley Regional Airport, Eau Claire Wisconsin.

The report is being submitted without a review fee.

Please let me know if you have any questions.

Thank you.

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Cc: Charity Zich, Airport Director, Chippewa Valley Regional
Airport

2023 Supplemental Site Investigation for Per- and Polyfluoroalkyl Substances (PFAS)

Chippewa Valley Regional Airport
3800 Starr Avenue
Eau Claire, Wisconsin

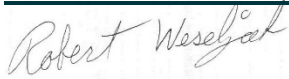
WDNR BRRTS No.: 02-09-588115

AECOM Project number: 60710448

March 27, 2024

Quality information

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I, Paul Sklar, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, the information contained in this document is correct and the document was prepared in compliance with applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.



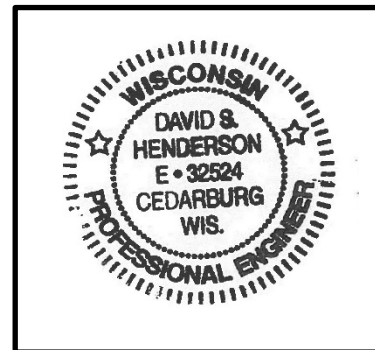
Paul Sklar, PG
Senior Hydrogeologist



I, David Henderson, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, information contained in this document is correct and the document was prepared in compliance with applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.



David Henderson, P.E.
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Executive Summary

AECOM Technical Services, Inc. (AECOM) was retained by the Chippewa Valley Regional Airport (CVRA) to conduct a supplemental site investigation (SSI) for per- and polyfluoroalkyl substances (PFAS) on the airport property located at 3800 Starr Avenue, Eau Claire, Chippewa County, Wisconsin (Property).

The CVRA PFAS site investigation (SI) is being conducted in a phased approach with the initial investigation completed in 2022 and the SSI completed in 2023. The purpose of the SSI was to further evaluate the extent of PFAS groundwater impacts within the limits of the airport property in general conformance with Wisconsin Administrative Code (WAC) Chapter NR 716 *Site Investigation* requirements.

The proposed 2023 scope of work included the drilling of six additional groundwater monitoring wells along with one round of groundwater sampling for PFAS, Wisconsin 33 list, from the five existing 2022 wells and the new 2023 wells. No monitoring wells were proposed south of Runway 4-22, along the southern property line, due to FAA Runway Safety Area constraints and the focus to delineate on-property.

On August 7 through 17, 2023, soil borings were advanced and groundwater monitoring wells were installed using a roto sonic tracked drill rig. Due to difficult drilling conditions and after three attempts, AMW-08 was advanced only to 50 of the planned 65 feet and since there was no water encountered, no well was installed, and the boring was abandoned. Therefore, only five of the planned six soil borings and groundwater monitoring wells were installed. The monitoring wells (AMW-06, AMW-07, AMW-09, AMW-10 and AMW-11) were installed in general conformance with NR141 requirements.

AECOM developed the monitoring wells on August 10, 23, and 25, 2023, and conducted a single groundwater monitoring event on September 12th and 13th, 2023. A total of nine monitoring wells were sampled, including AMW-01, AMW-03 through AMW-07, and AMW-09 through AMW-11. Monitoring well AMW-02, a perched aquifer well, purged dry and did not recover. Therefore, it was not sampled.

Water samples were stored and shipped on-ice under chain of custody control to Enthalpy Analytical Laboratory a State of Wisconsin certified laboratory (Certification # 998036160) located in El Dorado Hills, California. Samples were analyzed for PFAS; EPA Method 537 modified isotope dilution for the State of Wisconsin list of 33 analytes.

Groundwater analytical results were compared to the Wisconsin Department of Health Services (WDHS) Cycle 11 recommendations. Currently there are individual groundwater standard recommendations for seventeen (17) PFAS and one combined standard for six (6) compounds (i.e., PFOSA, NETFOSE, NETFOSA, NETFOSAA, PFOS, and PFOA). The proposed standards include recommended Preventative Action limits (RPALs) and recommended Enforcement Standards (RESs). In addition, the WDHS recommended Hazard Quotient (HQ) and Hazard Index (HI) were calculated for each sample.

In summary, the 2023 SSI groundwater elevation/flow direction and analytical results indicate:

- Groundwater contaminant concentrations confirm the AWM-03 AFFF Testing and the AMW-05 Live Fire Training Area #2 source areas. While the PFAS present at the two source areas are similar, it is notable that the AFFF Testing source area on the northern portion of the property does not have detections of PFOSA while the Live Fire Training Area #2 source area on the southeastern portion of the property has a significant concentration of PFOSA.
- The southwesterly groundwater flow direction at AMW-07 indicates the well is up-gradient from the AMW-03 AFFF Testing source area. Of the two PFAS present at AMW-07, PFBA is 'J' flagged and PFOSA is a compound not present in the AWM-03 AFFF Testing source area. Therefore, the groundwater flow direction in concert with contaminant data indicate there may be an off-site/up-gradient source for the PFAS detected at this location.

- Groundwater flow along the western Property boundary is to the south/southwest. This flow direction is away from the Village of Lake Hallie neighborhood and side-gradient from the AMW-03 AFFF Testing source area. Of the PFAS present in the two wells (AMW-09, AMW-10) there are no RES exceedances and PFOSA is the only compound with an RPAL exceedance. Since PFOSA is not present in the AMW-03 AFFF Testing source area, both the groundwater flow direction and the presence of PFOSA indicates there may be an off-site/up-gradient source contributing to the PFAS detected at these locations.
- The groundwater flow direction at the AMW-05 Live Fire Training Area #2 source area is northwesterly. This puts monitoring well AMW-06 side-gradient and well AMW-04 down-gradient from this source area. Well AMW-06, on the southeastern property line, has a single PFAS compound, PFHxS, with an RPAL exceedance and no PFAS with RES exceedances.
- There is a data gap for both groundwater elevation and PFAS iso-concentration data along the southern airport property line.

AECOM recommends continued PFAS site investigation activities, to be carried out in a phased manner, including the following next phase:

- Continued on-site PFAS groundwater monitoring, including select NPI monitoring wells, to improve the spatial distribution of groundwater elevation and contaminant iso-concentration data.
- Sampling of select off-site groundwater monitoring wells along the southern Property line. This will require requesting access to NPI and/or city of Eau Claire monitoring wells. This monitoring should provide groundwater elevation and PFAS iso-concentration data along the southern Property line.

1. Introduction

1.1 Purpose

AECOM Technical Services, Inc. (AECOM) was retained by the Chippewa Valley Regional Airport (CVRA) to conduct a supplemental site investigation (SSI) for per- and polyfluoroalkyl substances (PFAS) on the airport property located at 3800 Starr Avenue, Eau Claire, Chippewa County, Wisconsin (Property) see Figure 1. The initial phase of the site investigation was completed in 2022¹ and the SSI was completed in 2023. The purpose of the 2023 SSI was to further evaluate the extent of PFAS impacts in groundwater within the limits of the airport property in general conformance with Wisconsin Administrative Code (WAC) Chapter NR 716 *Site Investigation* requirements.

The report includes background information, investigation methods, and results.

1.2 Background

Prior to the current PFAS investigation, a portion of the Property was included in a larger environmental assessment by Gannett Flemming, Inc. for the National Presto Industries, Inc. (NPI) site located at 3925 North Hastings Way in Eau Claire (WDNR BRRTS No. 02-09-000267). The NPI site investigation was for a chlorinated volatile organic compound (CVOC) release and it included the installation of groundwater monitoring wells on airport property that have been monitored by Gannett Flemming for a number of years.

AECOM initiated the PFAS site investigation in 2022 when the history of PFAS use on the Property was reviewed and PFAS areas of concern (AOCs) were identified. The initial site investigation scope of work included one hand auger and six soil borings for collection of soil samples at the suspected PFAS AOC locations. A total of 10 soil samples were obtained and analyzed for PFAS, Wisconsin 33 list. Five NR 141-compliant groundwater monitoring wells (i.e., AMW-1 thru AMW-5) were installed for the collection of groundwater samples (Figure 2). One round of groundwater sampling, including two NPI monitoring wells, was conducted and groundwater was analyzed for PFAS Wisconsin 33 list.

The initial PFAS investigation identified two possible PFAS source areas associated with the training and testing of aqueous film-forming foam (AFFF), which was mandated by the Federal Aviation Administration for Aircraft Rescue and Firefighting. Monitoring well AMW-03 is located at the AFFF Testing AOC just north of the fuel farm and monitoring well AMW-05 is located at Live Fire Training Area 2, at the Runway 32 Runup Pad (Figure 2).

AECOM's 2022 investigation noted two general data gaps for additional assessment.

- Delineation of groundwater impacts.
- Delineation of soil impacts at the AFFF Testing and Live Fire Training Area #2 AOCs.

CVRA submitted the results of the initial investigation² to the Wisconsin Department of Natural Resources (WDNR or Department) in January 2023.

1.3 2023 SSI Scope of Work

The CVRA PFAS site investigation is being conducted in a phased approach, with the proposed 2023 scope of work focused on delineating groundwater impacts on the airport property.

¹ 2022 *Site Investigation for Per- and Polyfluoroalkyl Substances (PFAS)*, Chippewa Valley Regional Airport, Eau Claire, WI., AECOM Technical Services, Inc., January 2023.

² IBID.

The proposed 2023 scope of work included the drilling of six additional groundwater monitoring wells along with one round of groundwater sampling for PFAS Wisconsin 33 list, from the five existing (i.e., 2022 wells) and six new wells. The geographic location and purpose of the 2023 wells was as follows:

- AMW-06: located south of the AMW-05, Live Fire Training Area #2 AOC, to delineate side or down-gradient impacts.
- AMW-07: located northeast of the AMW-03, AFFF Testing AOC, to delineate up-gradient impacts.
- AMW-09 and AMW-10: located northwest of the AMW-03, AFFF Testing AOC, to delineate possible impacts towards the Village of Lake Hallie neighborhood.
- AMW-11: located along the western perimeter of the airport to delineate impacts towards the Chippewa River.

Monitoring wells were not constructed south of Runway 4-22 due to FAA Runway Safety Area constraints and the focus to delineate on-property.

The scope of work as completed only included the construction of five monitoring wells. AMW-08 was not installed as drilling was difficult and the boring was not completed to the required depth.

1.4 FAA Regulatory Status

Construction activities within the airport's 'airside operations area' are regulated by the Federal Aviation Administration (FAA). CVRA and the airport engineer prepared and submitted to the FAA a *Notice of Proposed Construction or Alteration* (FAA Form 7460-1) for the 2023 drilling and construction of the monitoring wells. CVRA filed the notice with the FAA on April 18, 2023, and received FAA approval for the proposed work dated July 20, 2023.

1.5 Project Team

The project team involved in the 2023 SSI activities included:

Responsible Party

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Eau Claire, WI 54703
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Eau Claire County
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Consultant

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Drilling Subcontractor

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(715)-355-8516

Laboratory

Enthalpy Analytical Laboratory (Vista)
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El Dorado Hills California 95762
(916) 673-1520

2. Investigation Methods and Procedures

There are potential cross contamination issues associated with PFAS sampling due to the presence of these compounds in many commercial products. Therefore, AECOM PFAS-certified sampling teams conducted the PFAS monitoring well installation and groundwater sampling event. AECOM certification

requires attending an internal PFAS sampling training course and reviewing the AECOM PFAS Sampling Guidance document designed to make AECOM samplers aware of the products known to have tested positive for PFAS compounds, as well as identifying PFAS-free products that are appropriate to use in the sampling environment.

2.1 Site Health and Safety Plan

AECOM prepared a site-specific health and safety plan (HASP) to cover field activities for AECOM staff in accordance with Occupational Safety and Health Administration (OSHA) and AECOM requirements prior to initiating investigation activities. Additionally, CVRA staff accompanied AECOM field staff during field work to provide compliance with on-site health and safety protocols as well as FAA requirements.

2.2 Utility Clearance

AECOM contacted Digger's Hotline for the location of public utilities in the area of the investigation prior to commencing work. Most of the on-site/airside utilities belonged to the airport. Therefore, Definitive GPR and Construction Services, a private utility locator, and airport staff marked utilities prior to drilling. There were no conflicts with the boring locations and utilities.

2.3 Soil Borings

A total of six soil borings (i.e., AMW-06 through AMW-11) were proposed for the SSI. On August 7 through 17, 2023, the driller, Cascade, advanced the borings using a rotasonic tracked drill rig. Due to difficult drilling conditions and after three attempts, AMW-08 was advanced only to 50 of the planned 65 feet and since there was no water encountered, no well was installed, and the boring was abandoned.

Continuous soil sample cores were obtained. The soil samples were collected inside an inner barrel and extruded into a plastic sleeve. Soil samples were visually classified in general conformance with the unified soil classification system (USCS) and were described with respect to soil type, grain size distribution, color, odor, and moisture content. Since the soil borings were advanced for a groundwater investigation and they were not located in any of the previously identified source areas, no soil samples for laboratory analysis were obtained.

Field observations were recorded on soil boring logs (WDNR Form 4400-122). Soil boring logs and the Borehole Filling & Sealing Report (WDNR Form 3300-005) for the AMW-08 location are provided in Appendix A.

2.4 Drilling Quality Control Samples

PFAS quality control (QC) samples were obtained during drilling and well development activities. This included one driller's source water sample, one aqueous ambient field blank, and one aqueous equipment blank.

The driller's supply water (i.e., source water blank) was sampled from the support truck water tank on August 17, 2023, during drilling activities. The driller obtained the water from the city of Eau Claire, Water Treatment facility bulk filling station. The sample represents water brought to the site by the driller for use during the drilling and equipment decontamination processes. The sample was collected in laboratory supplied containers.

The ambient field blank was collected on August 25, 2023, while drilling near the AMW-06 location. The ambient field blank was collected by pouring laboratory-certified PFAS-free water into a laboratory-provided sampling container.

The equipment blank representative of the well development equipment was collected on August 23, 2023. The equipment blank was collected by pouring laboratory-certified PFAS-free water through the development pump and into a laboratory-provided sampling container.

Quality control samples were stored and shipped on-ice under chain of custody (COC) control to Enthalpy Analytical Laboratory (Enthalpy), a State of Wisconsin certified laboratory (Certification # 998036160) located in El Dorado Hills, California. Samples were analyzed for PFAS; EPA Method 537 modified isotope dilution for the State of Wisconsin list of 33 analytes. Chain of custody form and the laboratory analytical report are provided in Appendix B.

2.5 Monitoring Well Installation and Development

Groundwater monitoring wells were installed at five locations (AMW-06, AMW-07, AMW-09, AMW-10 and AMW-11) in general conformance with NR141 requirements.

Monitoring wells were installed within the outer casing of the roto-sonic drill string. The casing was removed as the well was completed. The installed depth of the monitoring well screens was based on soil moisture observations during drilling. The monitoring wells were constructed with 2-inch diameter polyvinyl chloride (PVC) riser pipes and 10-foot lengths of 0.10-inch slot size PVC well screens. The well installation procedures were completed in the following order:

- a filter pack sand was placed extending from the bottom of the boring up to 2 to 3-feet above the top of the well screen;
- 1 to 2-feet of fine sand was placed on top of the filter pack sand;
- a 4-foot-thick bentonite seal was placed on top of fine sand; and.
- the remaining annular space was filled with a bentonite-cement grout.

If the bentonite-cement grout settled additional bentonite chips were used to bring the annular space up to the base of the monitoring well protective casing. Monitoring wells were completed with flush-mounted protective covers. Monitoring well total depths ranged from 63 to 87 feet below ground surface (bgs). The specific depth of each well and the screened interval are included on Table 1.

AECOM developed the monitoring wells a minimum of 24 hours after well installation on August 10, 2023, and 25, 2023. Development was conducted by measuring the depth to water with a water level indicator, withdrawing groundwater with a PVC submersible pump that used high density polyethylene (HDPE) and silicone tubing. New tubing was used for each well.

Monitoring well construction (WDNR Form 4400-113A) and development forms (WDNR Form 4400-113B) are provided in Appendix C.

2.6 Groundwater Sampling

Following monitoring well installation and development, AECOM conducted a single groundwater monitoring event on September 12th and 13th, 2023. A total of nine monitoring wells were sampled, including AMW-01, AMW-03 through AMW-07, and AMW-09 through AMW-11. Monitoring well AMW-02, a perched aquifer well, purged dry and did not recover and was not sampled.

Depths to groundwater measurements were obtained using an electronic water level indicator (accuracy to 0.01 foot) prior to purging the wells for sampling. Measurements were made from the top of each well casing to the top of the groundwater surface.

The monitoring wells were then purged and groundwater samples were collected utilizing low flow sampling techniques (submersible pump and dedicated polyethylene tubing). Field observations and measurements for temperature, turbidity, specific conductivity, pH, dissolved oxygen (DO) and oxidation-reduction potential (ORP) were measured utilizing a flow through cell or in-well sensor to minimize sample contact with the atmosphere. Groundwater samples for laboratory analysis were placed in laboratory-supplied 250ml HDPE bottles without preservative as required by the analytical method. Well purging and sample collection forms are provided in Appendix D.

Water samples were stored and shipped on-ice under COC control to Enthalpy. Groundwater samples were analyzed for PFAS; EPA Method 537 modified isotope dilution for the State of Wisconsin list of 33 analytes. Chain of custody forms and laboratory analytical reports are provided in Appendix E.

2.7 Groundwater Sampling Quality Control

PFAS groundwater QC sampling included one duplicate sample, one ambient field blank, two equipment blanks, and one each for a matrix spike (MS) and a matrix spike duplicate (MSD).

AECOM collected a duplicate sample on September 12, 2023, from the AMW-04 well. The duplicate sample was obtained immediately after the original sample for that location. On the COC, the duplicate sample identified as DUP.

The ambient field blank was collected on September 12, 2023, adjacent to sampling location AMW-06. The ambient field blank was collected by pouring laboratory-certified PFAS-free water through the air and into a laboratory-provided sampling container.

Two equipment blanks representative of the sampling equipment were collected. The equipment blanks were collected September 12 and 13, 2023 by pumping laboratory-certified PFAS-free water through the low-flow sample tubing and into a laboratory-provided sampling container.

Groundwater QC samples were stored and shipped on-ice along with the field samples to Enthalpy under COC control. Chain of custody forms and groundwater laboratory analytical reports are provided in Appendix E.

2.8 Investigation Derived Wastes

In accordance with the 2021 site investigation work plan, soil cuttings were thin spread at the locations of the individual soil borings or near AMW-03, the location where AFFF has historically been discharged. Groundwater from developing, purging, and sampling was containerized, identified by well location, and stored at a secure location on the airport property. The containerized groundwater will be picked up by Veolia ES Special Services, Inc. and disposed of by incineration.

2.9 Survey

AECOM surveyed the new monitoring well locations (Wisconsin County Coordinate System (WCCS), Chippewa County Zone, NAD83, 2011 Adjustment) and top of casing (TOC) elevations. Survey information is incorporated on the WDNR Monitoring Well Construction Forms and Table 1, Groundwater Measurements and Elevations.

3. Results

3.1 Drilling Quality Control Samples

The results of the drilling QC samples are summarized below.

Source Water Blank: The driller's water supply was sampled from the support truck water tank on August 17, 2023. The driller obtained the water from the city of Eau Claire, Water Treatment facility bulk filling station. Laboratory analytical results indicate that nine PFAS were detected in the source water blank. See the 'drilling fluid' results in Table 2.

The sample represents water brought to the site by the driller for use during the drilling and for drilling equipment decontamination. Typically, roto-sonic drilling does not require using water 'down-hole' except for difficult drilling situations where water is used to lubricate the drill string. AECOM field staff noted that the driller used limited amounts of water while drilling soil borings AMW-06, AMW-09, and AMW-10. A larger volume of water was used for the difficult drilling at AMW-08, where the bore hole was abandoned with no monitoring well installed.

Since the AMW-08 soil boring was not advanced to the water table and no monitoring well was installed, the down-hole use of drilling water is not anticipated to influence groundwater results from other samples.

Post-drilling monitoring well development and pre-sampling purging procedures are designed to limit the effects of drilling on groundwater sampling. At the AMW-06, AMW-09, and AMW-10 locations, based on a comparison of the analytical results for both the detected compounds and the concentrations of detected compounds in the source water and groundwater samples, it does not appear that the limited use of water for drilling influenced the groundwater analytical results.

Field (Ambient) Blank: The ambient field blank was collected on August 25, 2023, while drilling at the AMW-06 location. No PFAS were detected in the blank above laboratory method detection limits (MDLs). This indicates ambient (i.e., background atmospheric) conditions did not create cross contamination during the drilling activities.

Equipment Blank: An equipment blank was collected on August 23, 2023, from the well development pump and tubing. No PFAS were detected in the blank above laboratory MDLs. This indicates decontamination procedures for the well development equipment were effective.

Based on the drilling water QC data, drilling activities have not influenced groundwater analytical results, in AECOM's opinion. The drilling water QC laboratory report is included in Appendix B.

3.2 Groundwater Flow

Gannett Flemming has been monitoring groundwater elevations at the NPI related monitoring wells located on a limited area of the airport property for a number of years. The NPI *Remedial Action Status Report for 2022*³, Figure 1 *Water Table Groundwater Contour Map (June 2022) with 1993 Plume Locations*, shows an interpreted groundwater flow under the airport property. Groundwater from the NPI site, located to the east of the airport, flows westward towards the airport to a point beneath the airport, where the flow turns southwesterly towards the municipal well field. AECOM confirmed with Mr. Cliff Wright, P.E., Gannett Flemming Project Engineer⁴ that the unpublished groundwater flow map for 2023 is similar to historical mapping, including the June 2022 map.

AECOM's groundwater elevation data from September 2023 includes measurements obtained from monitoring wells AMW-01, AMW-03 through AMW-07, and AMW-09 through AMW-11. Groundwater was observed in the monitoring wells at depths ranging from approximately 56 ft to 79 ft bgs with groundwater elevations ranging from 798.27 ft MSL at AMW-11 to 833.88 ft MSL at AMW-09.

Due to the SSI focus to delineate on-property and the FAA Runway Safety Area constraints in the vicinity of Runway 4-22, there is a data gap across the southern portion of the airport property, approximately 1-mile in length, without groundwater elevation data from September 2023. Additionally, AECOM recognizes the NPI interpreted groundwater flow direction through this same area, with south/southwesterly flow into the city of Eau Claire municipal well field. Therefore, AECOM has limited our interpretation of the September 2023 groundwater elevation data to only indicate an interpreted groundwater flow for those wells on the northern and southeastern portion of the property as shown on Figure 3.

AECOM's September 2023 interpreted groundwater flow indicates the following:

- Monitoring well AMW-07 is up-gradient from the AMW-03, AFFF Testing source area.
- Monitoring wells AMW-01, AMW-09, and AMW-10 are side-gradient from the AMW-03, AFFF Testing source area.
- Monitoring well AMW-06 is side-gradient from the AMW-05, Live Fire Training Area #2 source area.

³ *Annual Interim Remedial Action Status Report for 2022*, National Presto Industries, Inc., Eau Claire, Wisconsin, USEPA CERCLIS ID WI006196174, WDNR BRRTS 02-09-000267 and FID 609038320, Gannett Flemming, Inc., May 25, 2023.

⁴ Personal communication, Mr. Cliff Wright, P.E., Gannett Flemming and Mr. David Henderson, P.E., AECOM, March 6, 2024.

- Monitoring well AMW-04 is down-gradient from the AMW-05, Live Fire Training Area #2 source area.
- Groundwater flow direction varies across the Property, with southern flow on the northern portion of the Property and west/southwesterly flow on the eastern portion of the Property.

Horizontal hydraulic gradients estimated from September 2023 groundwater elevation data for well pairs AMW-09 and AMW-10 and AMW-7 and AMW-03 ranged from 0.02 ft/ft to 0.006 ft/ft, respectively. A horizontal gradient of 0.007 ft/ft was also estimated along the flowline shown in Figure 3 and between the 815 and 830 groundwater contours. These estimates indicate that hydraulic conductivity varies across the Property by approximately one order of magnitude. Vertical gradients could not be estimated for September 2023 due to a lack of co-located wells (shallow/deep). Water level elevation data is presented in Table 1.

3.3 Regulatory Standards

The State of Wisconsin does not currently have promulgated groundwater standards for PFAS. Groundwater analytical results for PFAS are compared to the Wisconsin Department of Health Services (WDHS) Cycle 11 recommendations. Currently there are individual groundwater standard recommendations for 17 PFAS and one combined standard for six compounds (i.e., PFOSA, NETFOSE, NETFOSEA, NETFOSAA, PFOS, and PFOA). The proposed standards include recommended Preventative Action limits (RPALs) and recommended Enforcement Standards (RESs).

In addition, the Hazard Quotient (HQ) and Hazard Index (HI) were calculated based on the WDHS letter dated June 8, 2021. The HQs were calculated from the detection results divided by the RES and the HI was the sum of the HQs.

3.4 Groundwater Analytical Results

Groundwater laboratory analytical results are provided in Table 2 and presented on Figure 4. The groundwater laboratory analytical report is provided in Appendix E.

Groundwater analytical results for the September 2023 monitoring event are as follows:

AMW-01: Eight PFAS were detected. PFHxS and the Combined 6 exceeded their individual and/or combined RPALs. The remainder of the detections were below proposed regulatory standards or standards are not established. The HI at 0.7 is below 1 and is considered a low-risk location. PFAS concentrations at this location are about the same as 2022 concentrations.

AMW-02 (perched aquifer): AMW-02 was purged dry and did not recover in time for the September 2023 sampling.

AMW-03: This is a source area well (AFFF Testing). Thirteen PFAS were detected. PFHxS and the Combined 6 exceeded their individual and/or combined RES. PFNA exceeded its RPAL. The remainder of the detections were below proposed regulatory standards or standards are not established. The HI at 344 is above 1. PFAS concentrations at this location have decreased compared to 2022 concentrations.

AMW-04: Twelve PFAS were detected in the original sample and eleven PFAS were detected in the duplicate sample. PFHxS and the Combined 6 exceeded their individual and/or their RESs. The remainder of the detections were below proposed regulatory standards or standards are not established. The HI of the original sample at 15 is above 1. PFAS concentrations at this location are about the same compared to 2022 data.

AMW-05: This is a source area well (Live Fire Training Area #2). Fourteen PFAS were detected. PFHxS and the Combined 6 exceeded their individual and/or their combined RESs. PFNA exceeded its RPAL. The remainder of the detections were below proposed regulatory standards or standards are not established. The HI at 246 is above 1. PFAS concentrations at this location have decreased compared to 2022 data.

AMW-06: Four PFAS were detected with only PFHxS exceeding its individual RPAL. The HI at 0.2 is below 1 and this is considered a low-risk location.

AMW-07: Two PFAS were detected. The Combined 6 standard exceeded the RPAL, which was dominated by PFOSA. The PFOSA result was J coded and qualified as high biased because PFOSA was also detected in the equipment blank. The HI at 0.5 is below 1 and this considered a low-risk location.

AMW-09: Five PFAS were detected. The Combined 6 exceeded the RPAL. The remainder of the detections were below proposed regulatory standards or standards are not established. The HI at 0.5 is below 1 and this is considered a low-risk location.

AMW-10: One PFAS was detected. The Combined 6 (only PFOSA detected) exceeded the RPAL. The HI at 0.4 is below 1 and this is considered a low-risk location.

AMW-11: Three PFAS were detected. The Combined 6 (only PFOSA detected) exceeded the RPAL. The HI at 0.2 is below 1 and this is considered a low-risk location.

3.5 Groundwater Quality Control Samples

Quality control samples obtained during groundwater sampling activities included one duplicate sample, one ambient field blank, two equipment blanks, and one each for a matrix spike (MS) and a matrix spike duplicate (MSD).

Duplicate: Analytical results from the original sample (AMW-04) and the duplicate sample (Dup 1) show similar compounds present at approximately the same concentrations. Therefore, the duplicate sample confirms the validity of the original analytical result.

Field (Ambient) Blank: The ambient field blank was collected while at a groundwater sampling location during the sampling event. The field blank analytical result showed two PFAS present (i.e., PFPeA and 6:2 FTS) that are also present at similar concentrations in the associated laboratory Method Blank for Batch B231086. Therefore, the detects in the ambient field blank are determined to be the result of laboratory contamination. This indicates ambient (i.e., background atmospheric) conditions did not create cross contamination during the drilling activities.

Equipment Blanks: Equipment blanks were collected on September 12 and 13, 2023. One PFAS compound (PFOSA) was reported in the equipment blank collected on September 12, 2023. No PFAS were detected in the equipment blank collected on September 13, 2023. The detect of PFOSA in the September 12th equipment blank (3.23 ppt) may indicate a minor cross contamination issue with the groundwater pump decontamination process and the associated field results for September 12th are qualified as estimated and biased high for PFOSA.

Matrix Spike (MS) and a Matrix Spike Duplicate (MSD): MS and MSD blanks are an optional laboratory data quality check. The MS and MSD results associated with sample AMW-03 were within the laboratory specified QC limits and were acceptable with the result for 6:2 FTS to be estimated and biased high.

Data Validation

Data validation of the PFAS laboratory results were conducted with reference to:

- Wisconsin DNR PFAS Updates, March 1, 2021
- Wisconsin PFAS Aqueous (Non-Potable Water) and Non-Aqueous Matrices Method Expectations, EA-19-0001-C, 12/19/2019.
- Data Validation Guidelines Module3: Data Validation Procedure for Per- and Polyfluoroalkyl Substances Analysis by QSM Table B-15, Department of Defense, 5/1/2020.

Based on the QC and data validation review, the PFAS results are acceptable for use as qualified. The validation report is included in Appendix E and provides a detailed quality control review of the analytical results.

4. Summary & Recommendations

The 2023 SSI groundwater monitoring event results indicate:

- Groundwater contaminant concentrations confirm the AWM-03 AFFF Testing and the AMW-05 Live Fire Training Area #2 source areas. While the PFAS present at the two source areas are similar, it is notable that the AFFF Testing source area on the northern portion of the property does not have detections of PFOSA while the Live Fire Training Area #2 source area on the southeastern portion of the property has a significant concentration of PFOSA.
- The southwesterly groundwater flow direction at AMW-07 indicates the well is up-gradient from the AMW-03 AFFF Testing source area. Of the two PFAS present at AMW-07, PFBA is 'J' flagged and PFOSA is a compound not present in the AWM-03 AFFF Testing source area. Therefore, the groundwater flow direction in concert with contaminant data indicate there may be an off-site/up-gradient source for the PFAS detected at this location.
- Groundwater flow along the western Property boundary is to the south/southwest. This flow direction is away from the Village of Lake Hallie neighborhood and side-gradient from the AMW-03 AFFF Testing source area. Of the PFAS present in the two wells (AMW-09, AMW-10), there are no RES exceedances and PFOSA is the only compound with an RPAL exceedance. Since PFOSA is not present in the AMW-03 AFFF Testing source area, both the groundwater flow direction and the presence of PFOSA indicates there may be an off-site/up-gradient source contributing to the PFAS detected at these locations.
- The groundwater flow direction at the AMW-05 Live Fire Training Area #2 source area is northwesterly. This puts monitoring well AMW-06 side-gradient and well AMW-04 down-gradient from this source area. Well AMW-06, on the southeastern property line, has a single PFAS compound, PFHxS, with an RPAL exceedance and no PFAS with RES exceedances.
- There is a data gap for both groundwater elevation and PFAS iso-concentration data along the southern airport property line.

AECOM recommends continued PFAS site investigation activities, to be carried out in a phased manner. The following activities will take place in the next phase:

- Continued on-site PFAS groundwater monitoring, including select NPI monitoring wells, to improve the spatial distribution of groundwater elevation and contaminant iso-concentration data.
- Sampling of select off-site groundwater monitoring wells along the southern Property line. This will require requesting access to NPI and/or city of Eau Claire monitoring wells. This monitoring should provide groundwater elevation and PFAS iso-concentration data along the southern Property line.

Future phases of site investigation may include some or all of the following activities:

- Sampling of select off-site groundwater monitoring wells to the east of the Property. This will require requesting access to NPI monitoring wells. This monitoring should help to delineate the groundwater plume to the east, including identifying potential contributions of PFAS.
- Delineation of PFAS soil impacts at the AFFF Testing and Live Fire Training Area #2 source areas.

5. General Qualifications

The purpose of this environmental assessment is to investigate possible soil and/or groundwater impacts, and related liabilities, associated with past and current property uses. The extent of the investigation is limited to the area and location described in this report.

AECOM has prepared this report at the request of its client. AECOM assumes responsibility for the accuracy of the report's content, subject to what is stated elsewhere in this section. AECOM recommends the report be used only for the purpose intended by the client and AECOM, as stated in the report. AECOM disclaims responsibility for the application or interpretation of the results by anyone other than the client. Reliance on the contents of this report by anyone other than the client, without the prior expressed written consent of AECOM, is done at the sole risk of the user.

The results and conclusions presented in this report are based on the data obtained from a limited number of soil boring locations and at the soil sample and groundwater sample locations as indicated in this report. Variations in conditions can occur between these boring, soil sample, and groundwater sample locations. In addition, seasonal and annual fluctuations of the groundwater table, which may influence the distribution of contaminants, can occur. Actual groundwater flow rates may vary from those estimated in this report based on soil conditions.

This report has been prepared in conformance with the care and skill ordinarily exercised by reputable members of the professional engineering community practicing under similar conditions at the same time in the same or similar locality. No other warranty of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended.

Tables

Table 1 Groundwater Measurements and Elevations

Table 2 Groundwater Summary Results



**Table 1
Groundwater Measurements and Elevations
Chippewa Valley Regional Airport (CVRA)
Eau Claire, Wisconsin**

Well Number	AMW-01		AMW-02		AMW-03		AMW-04		AMW-05	
Easting	148132.156		148878.449		149848.559		147677.135		148606.366	
Northing	104992.260		105767.238		104649.959		101358.765		101350.779	
Ground Elevation (ft)	890.20		890.11		887.52		884.02		883.68	
Top of PVC Casing (TOC) Elevation (ft)	890.88		890.31		888.18		883.68		883.94	
Top of Screen Elevation (ft)	815.78		867.21		822.45		820.62		822.12	
Screen Length (ft)	10		10		10		10		10	
TOC to Bottom of Well (ft) ^A	85.10		33.10		75.73		73.06		71.82	
Date	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)
6/7/2022	79.95	810.93	31.41	858.90	66.72	821.46	68.84	814.84	65.72	818.22
8/23/2023	--	--	--	--	--	--	--	--	--	--
9/13/2023	78.02	812.86	31.24	859.07	65.55	822.63	68.15	815.53	64.74	819.20

ft = feet
^A = as measured inside well
 NI = Not Installed
 NM = Not Measured
 -- no elevation
 Wisconsin County Coordinate System (WCCS), Chippewa County Zone, NAD83, 2011 Adjustment



**Table 1
Groundwater Measurements and Elevations
Chippewa Valley Regional Airport (CVRA)
Eau Claire, Wisconsin**

Well Number	AMW-06		AMW-7		AMW-9		AMW-10		AMW-11	
Easting	148339.051		151159.703		148017.607		146685.225		144885.103	
Northing	100334.587		105525.856		106455.604		105877.711		104659.328	
Ground Elevation (ft)	883.92		889.23		893.09		885.63		878.36	
Top of PVC Casing (TOC) Elevation (ft)	883.48		888.78		892.73		885.27		877.92	
Top of Screen Elevation (ft)	825.81		835.78		839.62		809.17		802.46	
Screen Length (ft)	10		10		10		10		10	
TOC to Bottom of Well (ft) ^A	67.67		63.00		63.11		86.10		85.46	
Date	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)	Depth to GW from TOC (ft)	Groundwater Elevation (ft)
6/7/2022	--	--	--	--	--	--	--	--	--	--
8/23/2023	63.33	820.15	55.00	833.78	57.98	834.75	78.28	806.99	79.42	798.50
9/13/2023	63.30	820.18	56.25	832.53	58.85	833.88	78.38	806.89	79.65	798.27

ft = feet

^A = as measured inside well

NI = Not Installed

NM = Not Measured

-- no elevation

Wisconsin County Coordinate System (WCCS), Chippewa County Zone, NAD83, 2011 Adjustment

Table 2
 PFAS Groundwater Summary Results
 Chippewa Valley Regional Airport (CVRA)
 Eau Claire, Wisconsin

Acronym	Analyte	CAS No	Units	ES (proposed)	PAL (proposed)	Location: Sample Date:				AMW-01		AMW-02		AMW-03	
						6/7/2022		9/13/2023		6/7/2022		6/8/2022		9/13/2023	
							HQ		HQ		HQ		HQ		HQ
Carboxylic Acids:															
PFBA	Perfluorobutanoic acid	375-22-4	ng/L	10000	2000	3.95	0.0	2.60	0.0	R		1120	0.1	1280	0.1
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	--	--	9.02		5.33		< 1.08		6040		5990	
PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	150000	30000	7.2	0.0	4.11	0.0	< 1.16		3270	0.0	4330	0.0
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	--	--	2.59		< 0.888		< 1.33		1220		1420	
PFOA	Perfluorooctanoic acid	335-67-1	ng/L	20 ^A	2 ^A	1.99		< 1.13		1.55		1020		915	
PFNA	Perfluorononanoic acid	375-95-1	ng/L	30	3	< 0.736		< 1.26		< 1.08		11.8	0.4	9.89	0.3
PFDA	Perfluorodecanoic acid	335-76-2	ng/L	300	60	< 0.921		< 1.23		< 1.35		< 0.942		< 1.25	
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	3000	600	< 0.736		< 1.09		< 1.08		< 0.752		< 1.11	
PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	500	100	< 0.951		< 1.35		< 1.39		< 0.972		< 1.38	
PFTTrDA	Perfluorotridecanoic acid	72629-94-8	ng/L	--	--	< 0.639		< 1.42		R		< 0.653		< 1.44	
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	10000	2000	< 0.795		< 1.17		R		< 0.812		< 1.19	
Sulfonic Acids:															
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	450000	90000	6.51	0.0	5.27	0.0	< 1.29		534	0.0	459	0.0
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	--	--	7.05		6.38		< 1.17		791		744	
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ng/L	40	4	27.0	0.7	19.6	0.5	2.18	0.1	7080	177.0	4910	122.8
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	--	--	< 0.580		< 1.66		< 0.848		273		212	
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	20 ^A	2 ^A	6.13		5.19		4.79 J		5230		3500	
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	--	--	< 1.13		< 1.67		< 1.65		< 1.15		< 1.70	
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	--	--	< 0.741		< 1.57		< 1.08		< 0.757		< 1.60	
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	--	--	< 1.38		< 1.76		< 2.02		< 1.41		< 1.79	
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	--	--	< 0.926		< 1.32		< 1.35		257		196	
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	--	--	9.80		2.53		< 1.60		12800 J		14200 J+	
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	--	--	< 1.11		< 1.74		< 1.62		2.02		< 1.78	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:															
PFOSA or FOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	20 ^A	2 ^A	< 1.06		< 1.76		6.98		< 1.09		< 1.79	
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	--	--	R		< 3.05		R		< 2.23		< 3.11	
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	20 ^A	2 ^A	R		< 2.49		R		< 2.32		< 2.54	
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	--	--	< 0.926		< 1.40		< 1.35		< 0.947		< 1.43	
EtFOSAA or NEtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	20 ^A	2 ^A	< 1.01		< 1.36		< 1.48		< 1.04		< 1.38	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	--	--	< 1.95		< 2.38		R		< 1.99		< 2.43	
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	20 ^A	2 ^A	< 1.53		< 2.14		R		< 1.56		< 2.19	
Replacement Chemicals:															
HFPO-DA (GenX)	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	300	30	< 1.53		< 1.98		< 2.23		< 1.56		< 2.02	
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/L	3000	600	< 0.624		< 1.11		< 0.912		< 0.638		< 1.13	
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	--	--	< 1.04		< 1.52		< 1.52		< 1.06		< 1.55	
11Cl-PF3OUds	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	--	--	< 0.965		< 1.21		< 1.41		< 0.986		< 1.24	
Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA			ng/L	20 ^A	2 ^A	8.12	0.4	5.19	0.3	13.3	0.7	6250	312.5	4420	221.0
Hazard Index (HI) = [sum of Hazard Quotients (HQ)]			ng/L	--	--		1.1		0.7		0.7	490.0		344.2	

Notes:
 ng/L - nanograms per liter
 J - Estimated concentration (+/- indicate the direction of bias).
 -- No NR 140 ES or PAL established.
 HQ = Detected result divided by the RES
 Bold indicates a RS exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
 Italics and underline indicates an RPAL exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
^A DHS recommends a combined (c) standard for NEtFOSE, NEtFOSA, NEtFOSAA, FOSA, PFOS and PFOA.

Non-detects reported as < MDL
 NR - Result not reported - QC issue.
 R - Rejected - quality control exceedance
 HI = Sum of HQ

Table 2
 PFAS Groundwater Summary Results
 Chippewa Valley Regional Airport (CVRA)
 Eau Claire, Wisconsin

Acronym	Analyte	CAS No	Units	Location:		AMW-04				AMW-05			
				ES (proposed)	PAL (proposed)	6/8/2022		9/12/2023		6/7/2022		9/12/2023	
						HQ	HQ	HQ	HQ	HQ	HQ		
Carboxylic Acids:													
PFBA	Perfluorobutanoic acid	375-22-4	ng/L	10000	2000	15.6	0.0	28.6	0.0	22.7	0.0	22.2	0.0
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	--	--	50.0		107		51.3		50.4	
PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	150000	30000	27.6	0.0	52.0	0.0	248	0.0	191	0.0
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	--	--	17.3		17.6		70.6		56.5	
PFOA	Perfluorooctanoic acid	335-67-1	ng/L	20 ^A	2 ^A	11.5		17.4		553		534	
PFNA	Perfluorononanoic acid	375-95-1	ng/L	30	3	< 0.745		< 1.32		<i>5.91</i>	0.2	<i>8.94 J</i>	0.3
PFDA	Perfluorodecanoic acid	335-76-2	ng/L	300	60	< 0.933		< 1.28		< 0.960		< 1.26	
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	3000	600	< 0.745		< 1.13		< 0.767		< 1.11	
PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	500	100	< 0.962		< 1.40		< 0.991		< 1.38	
PFTTrDA	Perfluorotridecanoic acid	72629-94-8	ng/L	--	--	< 0.647		< 1.47		< 0.666		< 1.45	
PFTTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	10000	2000	< 0.804		< 1.21		< 0.828		< 1.19	
Sulfonic Acids:													
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	450000	90000	4.88	0.0	8.68	0.0	65.4	0.0	48.4	0.0
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	--	--	2.83		8.34 J		139		106	
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ng/L	40	4	52.2	1.3	77.8	1.9	3610	90.3	2470	61.8
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	--	--	3.50		4.89		90.3		127	
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	20 ^A	2 ^A	230		241		3160		2590	
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	--	--	< 1.14		< 1.74		< 1.17		< 1.71	
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	--	--	< 0.750		< 1.63		< 0.772		< 1.60	
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	--	--	< 1.40		< 1.83		< 1.44		< 1.80	
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	--	--	< 0.938		< 1.38		< 0.965		< 1.36	
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	--	--	119		114		93.5		74.7	
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	--	--	< 1.12		< 1.81		7.33		7.56	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:													
PFOSA or FOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	20 ^A	2 ^A	1.99		2.95 J+		601		563	
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	--	--	< 2.21		< 3.17		< 2.28		< 3.12	
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	20 ^A	2 ^A	< 2.29		< 2.59		< 2.36		< 2.55	
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	--	--	< 0.938		< 1.46		< 0.965		< 1.43	
EtFOSAA or NEtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	20 ^A	2 ^A	< 1.03		< 1.41		< 1.06		< 1.39	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	--	--	< 1.97		< 2.48		< 2.03		< 2.44	
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	20 ^A	2 ^A	< 1.55		< 2.23		< 1.60		< 2.19	
Replacement Chemicals:													
HFPO-DA (GenX)	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	300	30	< 1.54		< 2.06		< 1.59		< 2.03	
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/L	3000	600	< 0.632		< 1.16		< 0.650		< 1.14	
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	--	--	< 1.05		< 1.58		< 1.08		< 1.56	
11Cl-PF3OUdS	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	--	--	< 0.977		< 1.26		< 1.01		< 1.24	
^A Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA			ng/L	20 ^A	2 ^A	243	12.2	261	13.1	4310	215.5	3690	184.5
Hazard Index (HI) = [sum of Hazard Quotients (HQ)]			ng/L	--	--		13.5		15.0		306.0		246.6

Notes:

- ng/L - nanograms per liter
- J - Estimated concentration (+/- indicate the direction of bias).
- No NR 140 ES or PAL established.
- HQ = Detected result divided by the RS
- Bold indicates a RS exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
- Italics and underline indicates an RPAL exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
- ^A DHS recommends a combined (c) standard for NEtFOSE, NEtFOSA, NEtFOSAA, FOSA, PFOS and PFOA.
- Non-detects reported as < MDL
- NR - Result not reported - QC issue.
- R - Rejected - quality control exceedance
- HI = Sum of HQ

Table 2
 PFAS Groundwater Summary Results
 Chippewa Valley Regional Airport (CVRA)
 Eau Claire, Wisconsin

Acronym	Analyte	CAS No	Units	Location:		AMW-06		AMW-07		AMW-09		AMW-10		AMW-11	
				ES (proposed)	PAL (proposed)	Sample Date:		9/12/2023		9/12/2023		9/13/2023		9/13/2023	
							HQ		HQ		HQ		HQ		HQ
Carboxylic Acids:															
PFBA	Perfluorobutanoic acid	375-22-4	ng/L	10000	2000	3.18	0.0	1.76 J	0.0	3.5	0.0	< 1.49		3.1	0.0
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	--	--	< 1.36		< 1.35		2.27 J+		< 1.46		< 1.39	
PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	150000	30000	1.38 J	0.0	< 1.31		4.18	0.0	< 1.42		< 1.35	
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	--	--	< 0.918		< 0.909		< 0.931		< 0.985		< 0.936	
PFOA	Perfluorooctanoic acid	335-67-1	ng/L	20 ^A	2 ^A	< 1.17		< 1.15		< 1.18		< 1.25		< 1.19	
PFNA	Perfluorononanoic acid	375-95-1	ng/L	30	3	< 1.31		< 1.29		< 1.33		< 1.40		< 1.33	
PFDA	Perfluorodecanoic acid	335-76-2	ng/L	300	60	< 1.27		< 1.26		< 1.29		< 1.36		< 1.29	
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	3000	600	< 1.12		< 1.11		< 1.14		< 1.20		< 1.14	
PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	500	100	< 1.40		< 1.38		< 1.42		< 1.50		< 1.42	
PFTTrDA	Perfluorotridecanoic acid	72629-94-8	ng/L	--	--	< 1.46		< 1.45		< 1.49		< 1.57		< 1.49	
PFTTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	10000	2000	< 1.21		< 1.19		< 1.22		< 1.29		< 1.23	
Sulfonic Acids:															
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	450000	90000	1.36 J	0.0	< 1.18		2.16	0.0	< 1.28		< 1.22	
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	--	--	< 1.82		< 1.80		< 1.85		< 1.95		< 1.86	
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ng/L	40	4	9.76	0.2	< 1.47		< 1.51		< 1.60		3.12 J	0.1
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	--	--	< 1.72		< 1.70		< 1.74		< 1.84		< 1.75	
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	20 ^A	2 ^A	< 1.95		< 1.93		< 1.98		< 2.09		< 1.99	
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	--	--	< 1.73		< 1.71		< 1.75		< 1.85		< 1.76	
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	--	--	< 1.62		< 1.60		< 1.64		< 1.74		< 1.65	
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	--	--	< 1.82		< 1.80		< 1.84		< 1.95		< 1.85	
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	--	--	< 1.37		< 1.36		< 1.39		< 1.47		< 1.40	
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	--	--	< 1.53		< 1.51		< 1.55		< 1.64		< 1.56	
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	--	--	< 1.80		< 1.78		< 1.83		< 1.93		< 1.83	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:															
PFOSA or FOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	20 ^A	2 ^A	< 1.82		9.95 J+		4.51		7.70		3.03 J+	
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	--	--	< 3.15		< 3.12		< 3.19		< 3.38		< 3.21	
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	20 ^A	2 ^A	< 2.58		< 2.55		< 2.61		< 2.76		< 2.63	
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	--	--	< 1.45		< 1.43		< 1.47		< 1.55		< 1.48	
EtFOSAA or NEtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	20 ^A	2 ^A	< 1.40		< 1.39		< 1.42		< 1.50		< 1.43	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	--	--	< 2.46		< 2.44		< 2.50		< 2.64		< 2.51	
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	20 ^A	2 ^A	< 2.21		< 2.19		< 2.25		< 2.37		< 2.26	
Replacement Chemicals:															
HFPO-DA (GenX)	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	300	30	< 2.05		< 2.03		< 2.08		< 2.19		< 2.09	
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/L	3000	600	< 1.15		< 1.14		< 1.17		< 1.23		< 1.17	
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	--	--	< 1.57		< 1.56		< 1.60		< 1.69		< 1.60	
11Cl-PF3OUds	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	--	--	< 1.25		< 1.24		< 1.27		< 1.34		< 1.28	
Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA			ng/L	20 ^A	2 ^A	< 2.58		9.95	0.5	4.51	0.2	7.7	0.4	3.03	0.2
Hazard Index (HI) = [sum of Hazard Quotients (HQ)]			ng/L	--	--		0.2		0.5		0.2		0.4		0.2

Notes:
 ng/L - nanograms per liter
 J - Estimated concentration (+/- indicate the direction of bias).
 -- No NR 140 ES or PAL established.
 HQ = Detected result divided by the RES
 Bold indicates a RS exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
 Italics and underline indicates an RPAL exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
^A DHS recommends a combined (c) standard for NEtFOSE, NEtFOSA, NEtFOSAA, FOSA, PFOS and PFOA.

Non-detects reported as < MDL
 NR - Result not reported - QC issue.
 R - Rejected - quality control exceedance
 HI = Sum of HQ

Table 2
 PFAS Groundwater Summary Results
 Chippewa Valley Regional Airport (CVRA)
 Eau Claire, Wisconsin

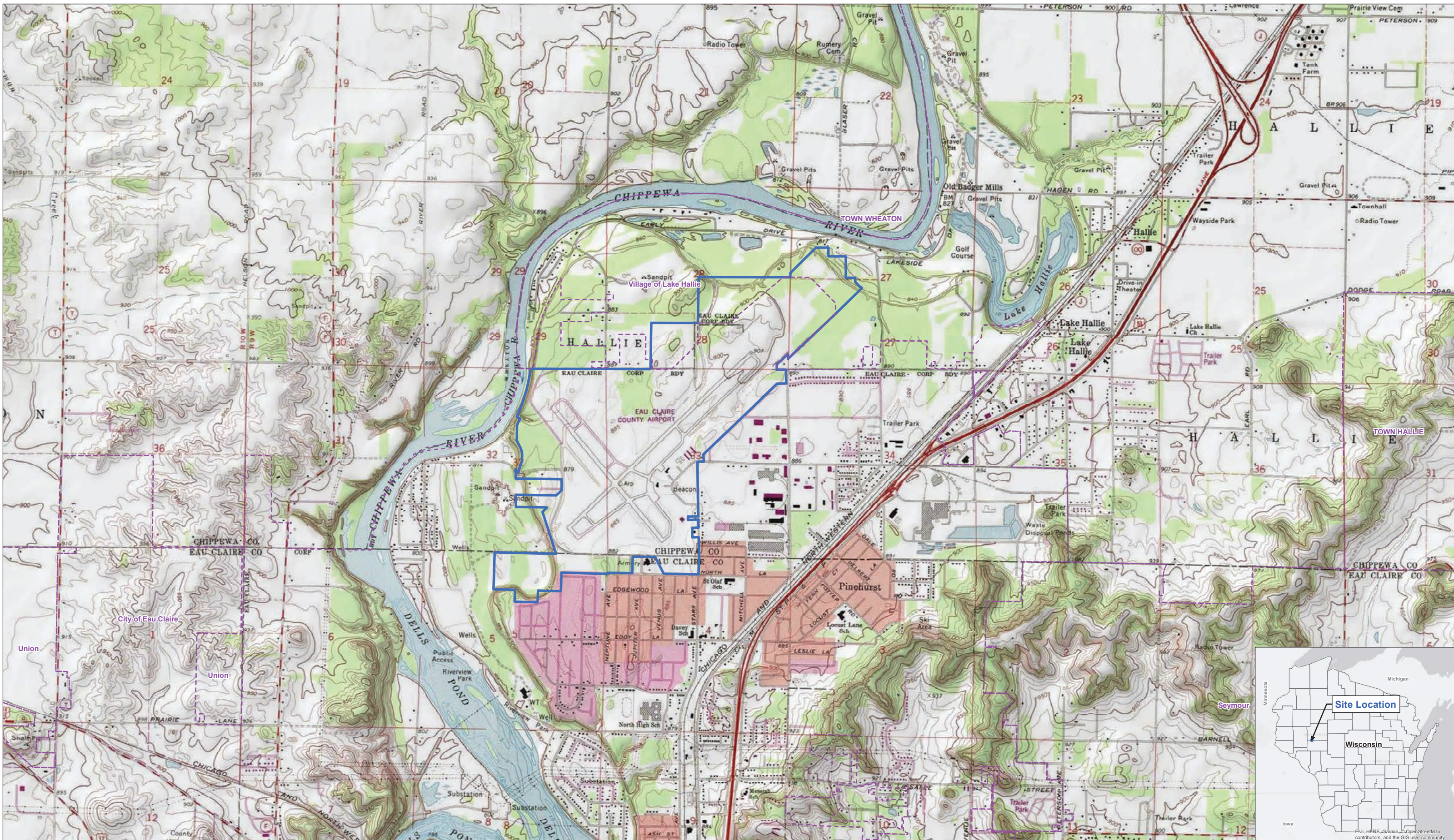
Acronym	Analyte	CAS No	Units	Location:		MW-51A		MW-51A		MW-55A		Drilling Fluid 8/17/23	
				ES (proposed)	PAL (proposed)	6/7/2022		6/7/2022		6/7/2022			
				Sample Date:		HQ		HQ		HQ			
Carboxylic Acids:													
PFBA	Perfluorobutanoic acid	375-22-4	ng/L	10000	2000	55.7	0.0	57.1	0.0	5.39	0.0	5.52	
PFPeA	Perfluoropentanoic acid	2706-90-3	ng/L	--	--	14.0		14.2		5.94		1.69	
PFHxA	Perfluorohexanoic acid	307-24-4	ng/L	150000	30000	14.1	0.0	14.3	0.0	2.14	0.0	1.64	
PFHpA	Perfluoroheptanoic acid	375-85-9	ng/L	--	--	4.5		3.78		< 0.947		0.923	
PFOA	Perfluorooctanoic acid	335-67-1	ng/L	20 ^A	2 ^A	14.0		13.2		< 0.968		3.8	
PFNA	Perfluorononanoic acid	375-95-1	ng/L	30	3	< 0.747		< 0.747		< 0.765		<1.25	
PFDA	Perfluorodecanoic acid	335-76-2	ng/L	300	60	< 0.936		< 0.936		< 0.957		<1.21	
PFUnA	Perfluoroundecanoic acid	2058-94-8	ng/L	3000	600	< 0.747		< 0.747		< 0.765		<1.07	
PFDoA	Perfluorododecanoic acid	307-55-1	ng/L	500	100	< 0.965		< 0.965		< 0.988		<1.33	
PFTTrDA	Perfluorotridecanoic acid	72629-94-8	ng/L	--	--	< 0.648		< 0.648		< 0.664		<1.4	
PFTeDA	Perfluorotetradecanoic acid	376-06-7	ng/L	10000	2000	< 0.807		< 0.807		< 0.826		<1.15	
Sulfonic Acids:													
PFBS	Perfluorobutanesulfonic acid	375-73-5	ng/L	450000	90000	21.9	0.0	21.6	0.0	12.6	0.0	3.27	
PFPeS	Perfluoropentane Sulfonic Acid	2706-91-4	ng/L	--	--	2.22		2.00		1.89		<1.74	
PFHxS	Perfluorohexanesulfonic acid	355-46-4	ng/L	40	4	6.48	0.2	6.64	0.2	10.5	0.3	7.94	
PFHpS	Perfluoroheptanesulfonic acid	375-92-8	ng/L	--	--	< 0.589		< 0.589		1.64		<1.64	
PFOS	Perfluorooctanesulfonic acid	1763-23-1	ng/L	20 ^A	2 ^A	2.14		2.41		11.9 J		3.3	
PFNS	Perfluorononanesulfonic acid	68259-12-1	ng/L	--	--	< 1.14		< 1.14		< 1.17		<1.65	
PFDS	Perfluorodecanesulfonic acid	335-77-3	ng/L	--	--	< 0.752		< 0.752		< 0.770		<1.55	
PFDoS	Perfluorododecanesulfonic acid	79780-39-5	ng/L	--	--	< 1.40		< 1.40		< 1.43		<1.73	
4:2 FTS	4:2 Fluorotelomer Sulfonic Acid	757124-72-4	ng/L	--	--	< 0.941		< 0.940		< 0.963		<1.31	
6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2	ng/L	--	--	< 1.11		< 1.11		< 1.14		<1.46	
8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4	ng/L	--	--	< 1.12		< 1.12		< 1.15		<1.72	
Sulfonamides, Sulfonamidoacetic acids, Sulfonamidoethanols:													
PFOSA or FOSA	Perfluorooctane sulfonamide	754-91-6	ng/L	20 ^A	2 ^A	2.19 J		2.45		3.95 J		35.2	
NMeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8	ng/L	--	--	< 2.22		< 2.22		< 2.27		<3.0	
NEtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2	ng/L	20 ^A	2 ^A	< 2.30		< 2.30		< 2.36		<2.46	
MeFOSAA	N-Methylperfluorooctanesulfonamidoacetic acid	2355-31-9	ng/L	--	--	< 0.941		< 0.940		< 0.963		<1.38	
EtFOSAA or NEtFOSAA	N-Ethylperfluorooctanesulfonamidoacetic acid	2991-50-6	ng/L	20 ^A	2 ^A	< 1.03		< 1.03		< 1.05		<1.34	
NMeFOSE	N-Methyl perfluorooctane sulfonamidoethanol	24448-09-7	ng/L	--	--	< 1.98		< 1.98		< 2.03		<2.35	
NEtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2	ng/L	20 ^A	2 ^A	< 1.55		< 1.55		< 1.59		<2.11	
Replacement Chemicals:													
HFPO-DA (GenX)	Hexafluoropropylene oxide dimer acid	13252-13-6	ng/L	300	30	< 1.55		< 1.55		< 1.59		<1.95	
DONA	4,8-dioxa-3H-perfluorononanoic acid	919005-14-4	ng/L	3000	600	< 0.634		< 0.634		< 0.648		<1.1	
9Cl-PF3ONS	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	756426-58-1	ng/L	--	--	< 1.05		< 1.05		< 1.08		<1.5	
11Cl-PF3OUdS	11-chloroeicosafuoro-3-oxaundecane-1-sulfonic acid	763051-92-9	ng/L	--	--	< 0.980		< 0.980		< 1.00		<1.2	
^A Sum of FOSA, NEtFOSE, NEtFOSA, NEtFOSAA, PFOS, and PFOA				ng/L	20 ^A	2 ^A	18.3	0.9	18.1	0.9	15.9	0.8	42.3
Hazard Index (HI) = [sum of Hazard Quotients (HQ)]				ng/L	--	--	1.1		1.1		1.1		1.1

Notes:

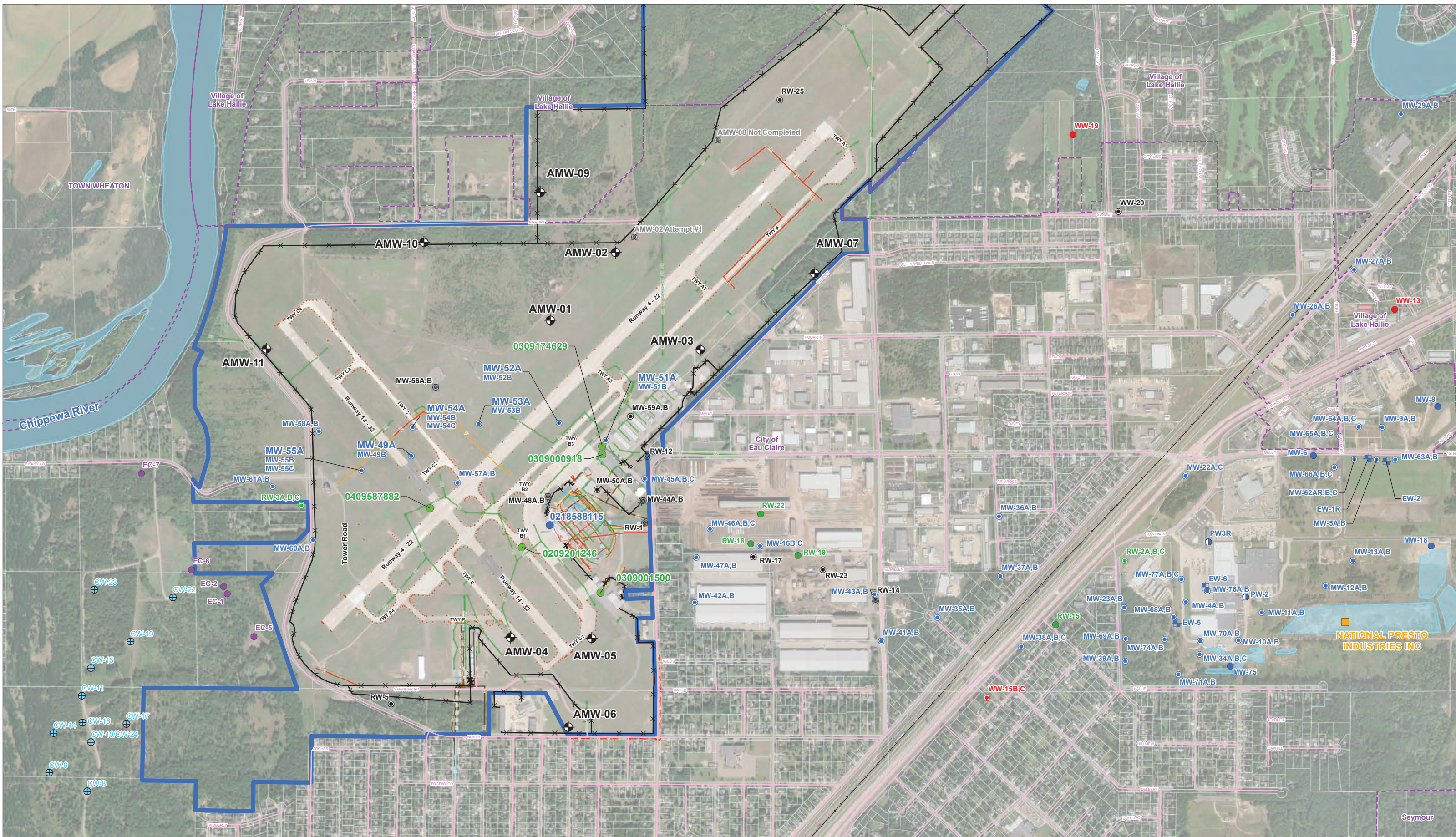
- ng/L - nanograms per liter
- J - Estimated concentration (+/- indicate the direction of bias)
- No NR 140 ES or PAL established.
- HQ = Detected result divided by the RES
- Bold indicates a RS exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
- Italics and underline indicates a RPAL exceedance. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
- ^A DHS recommends a combined (c) standard for NEtFOSE, NEtFOSA, NEtFOSAA, FOSA, PFOS and PFOA.
- Non-detects reported as < MDL
- NR - Result not reported - QC issue.
- R - Rejected - quality control exceedance
- HI = Sum of HQ

Figures

- Figure 1 Site Location
- Figure 2 2023 Site Features
- Figure 3 Piezometric Contour Map (September 13, 2023)
- Figure 3 Groundwater Analytical Map



<p>Legend</p> <ul style="list-style-type: none"> Municipal Boundaries Site Location Property Line 	<p>NOTES</p> <p>1. US Topo Map: Copyright © 2013 National Geographic Society, I-cubed</p> <p>0 625 1,250 2,500 Feet</p>	<p>AECOM Milwaukee Office 1555 River Center Dr Milwaukee WI</p> <p>AECOM</p>	<p>CHIPPEAU VALLEY REGIONAL AIRPORT SITE INVESTIGATION</p> <p>SITE LOCATION</p> <p>Project No. 60669304</p> <p>Date: December 2023</p> <p>FIGURE 1</p>
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Legend

<ul style="list-style-type: none"> ● AECOM Monitoring Well ⊕ Abandoned Well ⊙ Lost Well ● City of Eau Claire Monitoring Well ● USEPA Monitoring Well Nest ● NPI LUST Well ⊕ NPI Superfund Extraction Well 	<ul style="list-style-type: none"> ● NPI Superfund Monitoring Well ● NPI Superfund Monitoring Well Nest ● USEPA Monitoring Well ● USEPA Monitoring Well Nest ● WDNR Monitoring Well ● WDNR Monitoring Well Nest 	<ul style="list-style-type: none"> ● Remediation - Open Site Points ● Remediation - Closed Site Points ■ Solid Waste Landfills and Historic Waste Site Points ⊕ City Wells ⊕ Fence ⊕ Municipal Boundaries 	<ul style="list-style-type: none"> — Property Line ▭ Parcels — Water Bank — Water Body — Electrical Panel — Electrical (AFDL-ELEC-PAPI) — Electrical (AFDL-ELEC-REIL) — Electrical Runway Lights — Electrical (AFDL-ELEC-THD LITE) — Electrical (undefined) — Electrical - Beacon — Electrical (AFDL-ELEC-WINDCONE) — Electrical (AFDL-ELEC-HH) — Electrical (GROUND ROD) — Electrical (beacon wiring) — Site Lights — Fiber Optics — Charter Cable — Telephone — Gas — Sanitary Sewer — Storm Sewer — Water
--	---	---	---

NOTES:
 1. GIS county data was obtained from Eau Claire County GIS and Chippewa County GIS departments. Historical well data adapted from Gannett Fleming figures dated 2012.
 2. AMW-08 not completed due to drilling conditions

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CHIPPEWA VALLEY REGIONAL AIRPORT SITE INVESTIGATION

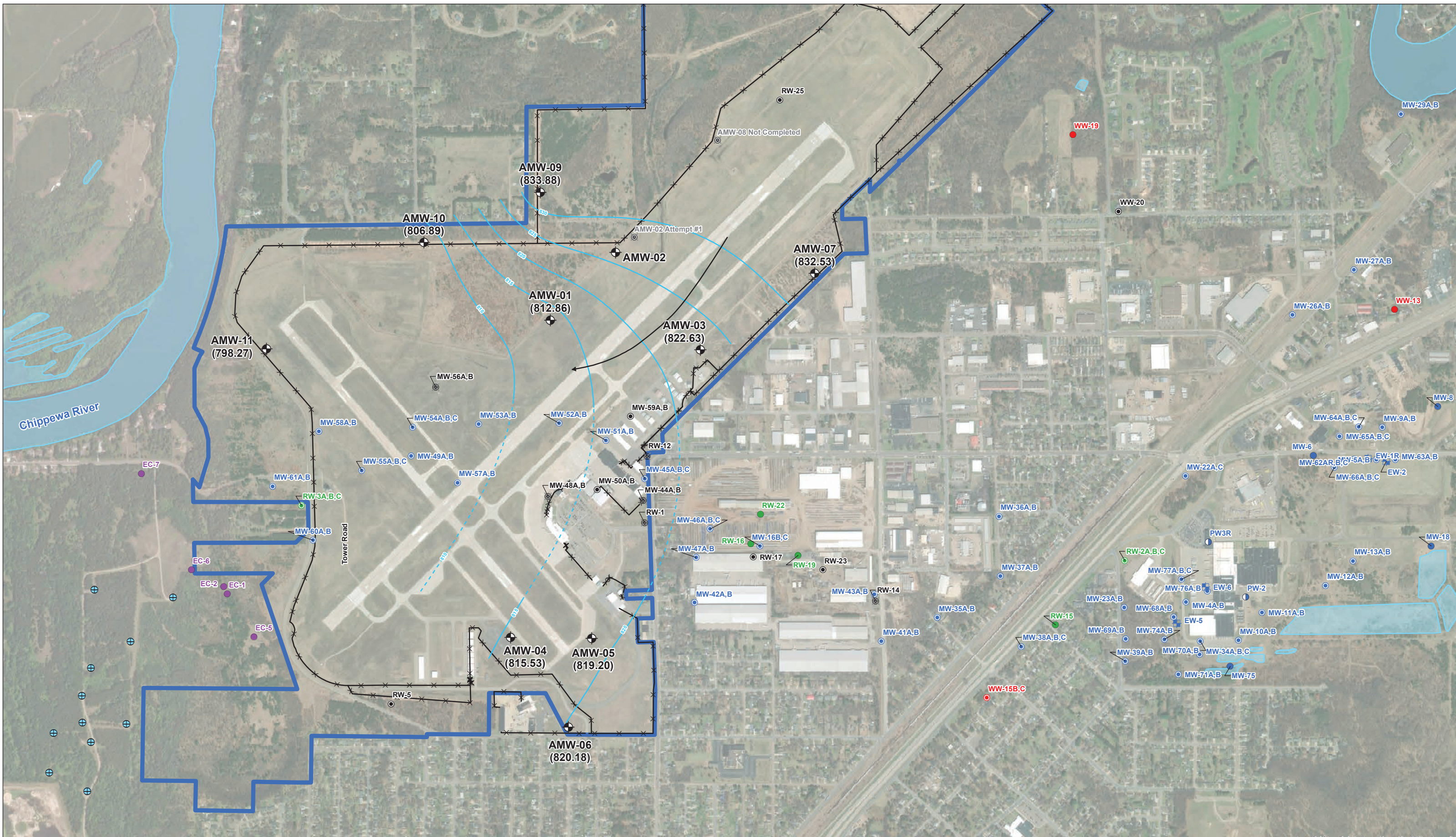
2023 SITE FEATURES

Project No. 60710448

Date: December 2023

FIGURE 2

C:\data\Projects\ChippewaValleyRegionalAirport\MapDocs\Map_2023_12_01.mxd



Legend

- ⊕ AECOM Monitoring Well
- ⊖ Abandoned Well
- ⊙ Lost Well
- ⊕ City of Eau Claire Monitoring Well
- ⊕ NPI LUST Well
- ⊕ NPI Superfund Extraction Well
- ⊕ NPI Superfund Monitoring Well
- ⊕ NPI Superfund Monitoring Well Nest
- ⊕ USEPA Monitoring Well
- ⊕ USEPA Monitoring Well Nest
- ⊕ WDNR Monitoring Well
- ⊕ WDNR Monitoring Well Nest
- ⊕ City Wells
- Groundwater Flow Direction
- ⊕ Fence
- Piezometric Surface Contour 5-foot Interval (September 13, 2023)
- - - Inferred Piezometric Surface Contour 5-foot Interval (September 13, 2023)
- Property Line
- Water Bank
- Water Body

NOTES:

1. GIS county data was obtained from Eau Claire County GIS and Chippewa County GIS departments. Historical well data adapted from Gannett Fleming figures dated 2012.

0 250 500 1,000 Feet

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CHIPPEWA VALLEY REGIONAL AIRPORT SITE INVESTIGATION

PIEZOMETRIC CONTOUR MAP (SEPTEMBER 13, 2023)

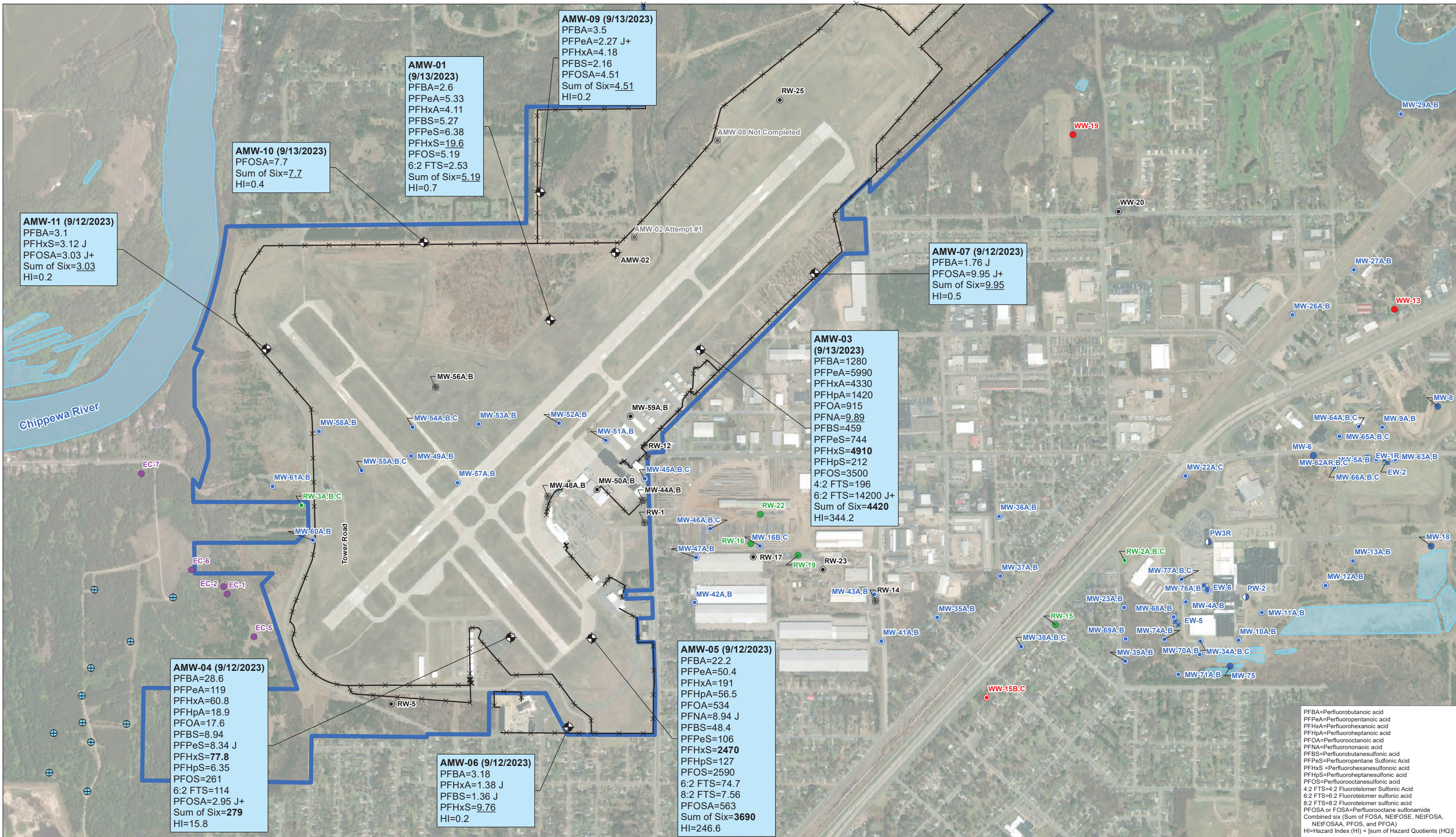
Project No. 60710448

Date: March 2024

FIGURE 3

C:\data\Projects\ChippewaValleyRegional\Maping\3_B1_GWFlowSep2023.mxd

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



AMW-11 (9/12/2023)
 PFBA=3.1
 PFHxS=3.12 J
 PFOSA=3.03 J+
 Sum of Six=3.03
 HI=0.2

AMW-10 (9/13/2023)
 PFOSA=7.7
 Sum of Six=7.7
 HI=0.4

AMW-01 (9/13/2023)
 PFBA=2.6
 PFPeA=5.33
 PFHxA=4.11
 PFBS=5.27
 PFPeS=6.38
 PFHxS=19.6
 PFOS=5.19
 6:2 FTS=2.53
 Sum of Six=5.19
 HI=0.7

AMW-09 (9/13/2023)
 PFBA=3.5
 PFPeA=2.27 J+
 PFHxA=4.18
 PFBS=2.16
 PFOSA=4.51
 Sum of Six=4.51
 HI=0.2

AMW-07 (9/12/2023)
 PFBA=1.76 J
 PFOSA=9.95 J+
 Sum of Six=9.95
 HI=0.5

AMW-03 (9/13/2023)
 PFBA=1280
 PFPeA=5990
 PFHxA=4330
 PFHpA=1420
 PFOA=915
 PFNA=9.89
 PFBS=459
 PFPeS=744
 PFHxS=4910
 PFHpS=212
 PFOS=3500
 4:2 FTS=196
 6:2 FTS=14200 J+
 Sum of Six=4420
 HI=344.2

AMW-04 (9/12/2023)
 PFBA=28.6
 PFPeA=119
 PFHxA=60.8
 PFHpA=18.9
 PFOA=17.6
 PFBS=8.94
 PFPeS=8.34 J
 PFHxS=77.8
 PFHpS=6.35
 PFOS=261
 6:2 FTS=114
 PFOSA=2.95 J+
 Sum of Six=279
 HI=15.8

AMW-06 (9/12/2023)
 PFBA=3.18
 PFHxA=1.38 J
 PFBS=1.36 J
 PFHxS=9.76
 HI=0.2

AMW-05 (9/12/2023)
 PFBA=22.2
 PFPeA=50.4
 PFHxA=191
 PFHpA=56.5
 PFOA=534
 PFNA=8.94 J
 PFBS=48.4
 PFPeS=106
 PFHxS=2470
 PFHpS=127
 PFOS=2590
 6:2 FTS=74.7
 8:2 FTS=7.56
 PFOSA=563
 Sum of Six=3690
 HI=246.6

PFBA=Perfluorobutanoic acid
 PFPeA=Perfluoropentanoic acid
 PFHxA=Perfluorohexanoic acid
 PFHpA=Perfluorohexanoic acid
 PFOA=Perfluorooctanoic acid
 PFNA=Perfluorononanoic acid
 PFBS=Perfluorobutanesulfonic acid
 PFPeS=Perfluoropentanesulfonic acid
 PFHxS=Perfluorohexanesulfonic acid
 PFHpS=Perfluorohexanesulfonic acid
 PFOS=Perfluorooctanesulfonic acid
 4:2 FTS=4:2 Fluorotelomer Sulfonic Acid
 6:2 FTS=6:2 Fluorotelomer sulfonic acid
 8:2 FTS=8:2 Fluorotelomer sulfonic acid
 PFOSA or FOSA=Perfluorooctane sulfonamide
 Combined six (Sum of FOSA, NEFOSA, NEFOSA,
 NEFOSAA, PFOS, and PFOA)
 HI=Hazard Index (HI) = [Sum of Hazard Quotients (HQ)]

Legend

- AECOM Monitoring Well
- Abandoned Well
- Lost Well
- City of Eau Claire Monitoring Well
- NPI LUST Well
- NPI Superfund Extraction Well
- NPI Superfund Monitoring Well
- NPI Superfund Monitoring Well Nest
- USEPA Monitoring Well
- USEPA Monitoring Well Nest
- City Wells
- Fence
- Property Line
- Water Bank
- Water Body
- USEPA Monitoring Well Nest
- WDNR Monitoring Well
- WDNR Monitoring Well Nest

NOTES:

1. GIS county data was obtained from Eau Claire County GIS and Chippewa County GIS departments. Historical well data adapted from Gannett Fleming figures dated 2012.
2. Units are in nanograms per liter (ng/L).
3. J - Estimated concentration (+/- indicate the direction of bias).
4. See laboratory reports for full list of analytes.
5. Bold indicates an ES exceedance, proposed. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
6. Underlining indicates a PAL exceedance, proposed. Recommended Groundwater Standards (Cycle 11), November 6, 2020.
7. Samples were collected on September 12 and 13, 2023.

Scale: 0 250 500 1,000 Feet

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CHIPPEWA VALLEY REGIONAL AIRPORT SITE INVESTIGATION

GROUNDWATER ANALYTICAL MAP

Project No. 60710448

Date: March 2024

FIGURE 4

Appendix A - Soil Boring Logs & Borehole Filling and Sealing Reports

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Chippewa Valley Regional Airport (CVRA)		License/Permit/Monitoring Number		Boring Number AMW-6	
Boring Drilled By: Name of crew chief (first, last) and Firm Ray Buckenburger Cascade		Date Drilling Started 8/16/2023	Date Drilling Completed 8/17/2023	Drilling Method sonic	
WI Unique Well No. WF194	DNR Well ID No.	Common Well Name AMW-6	Final Static Water Level Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 6.00
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 100334.59 N, 148339.05 E S/C/N		Lat _____ ° _____ ' _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NE 1/4 of NW 1/4 of Section 4, T 27 N, R 9 W		Long _____ ° _____ ' _____ "			
Facility ID 609109380	County Chippewa	County Code 9	Civil Town/City/ or Village City of Eau Claire		

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			3 6 9 12 15 18 21 24 27 30 33 36 39	POORLY GRADED SAND, brown, dry, trace gravel	SP									
				POORLY GRADED SAND, light gray, dry, trace gravel	SP									

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

Signature <i>Chris Strubing</i>	Firm AECOM	Tel: Fax:
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Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Chippewa Valley Regional Airport (CVRA)			License/Permit/Monitoring Number		Boring Number AMW-7
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff John Cascade			Date Drilling Started 8/7/2023	Date Drilling Completed 8/8/2023	Drilling Method sonic
WI Unique Well No. WF190	DNR Well ID No.	Common Well Name AMW-7	Final Static Water Level 56.00 Feet MSL	Surface Elevation Feet MSL	Borehole Diameter 6.00
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 105525.86 N, 151159.70 E S/C/N			Lat _____ ° _____ ' _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W
NE 1/4 of NE 1/4 of Section 33 , T 28 N, R 9 W			Long _____ ° _____ ' _____ "		
Facility ID 609109380		County Chippewa	County Code 9	Civil Town/City/ or Village City of Eau Claire	

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments	
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200		
			3	TOPSOIL and roots											
			6	POORLY GRADED SAND, pale gray to white, dry, no odor											
			9												
			12												
			15												
			18												
			21												
			24		SP										
			27												
			30												
			33												
			36												
			39												

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

Signature <i>Chris Strucking</i>	Firm AECOM	Tel: Fax:
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Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Chippewa Valley Regional Airport (CVRA)			License/Permit/Monitoring Number		Boring Number AMW-8	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff John Cascade			Date Drilling Started 8/10/2023	Date Drilling Completed 8/17/2023	Drilling Method sonic	
WI Unique Well No.	DNR Well ID No.	Common Well Name	Final Static Water Level Feet MSL		Surface Elevation Feet MSL	Borehole Diameter 6.00
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 106952.00 N, 149978.71 E S/C/N			Lat _____ ° _____ ' _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
SW 1/4 of SE 1/4 of Section 28, T 28 N, R 9 W			Long _____ ° _____ ' _____ "		Feet <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID 609109380		County Chippewa	County Code 9	Civil Town/City/ or Village City of Eau Claire		

Sample	Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments		
										Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200			
				0	TOPSOIL, black	Topsoil											
				3	POORLY GRADED SAND, tan, dry, trace gravel	SP											
				12	SILTY SAND, tan, wet, some interbedded silt seams	SM											
				21	POORLY GRADED SAND, light gray, dry, trace gravel	SP											
				30	SILTY SAND, tan, moist	SM											

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

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

Verification Only of Fill and Seal

Route to DNR Bureau:

- Drinking Water Watershed/Wastewater Remediation/Redevelopment
 Waste Management Other: _____

Boring or Well ID _____

1. Well Location Information **2. Facility / Owner Information**

County		WI Unique Well # of Removed Well	Hicap #
Latitude / Longitude (see instructions)		Format Code	Method Code
_____ N	_____ W	<input type="checkbox"/> DD <input type="checkbox"/> DDM	<input type="checkbox"/> GPS008 <input type="checkbox"/> SCR002 <input type="checkbox"/> OTH001
1/4 / 1/4	1/4	Section	Township
or Govt Lot #			Range <input type="checkbox"/> E <input type="checkbox"/> W
Well Street Address			
Well City, Village or Town		Well ZIP Code	
Subdivision Name		Lot #	
Reason for Removal from Service		WI Unique Well # of Replacement Well	

Facility Name		
Facility ID (FID or PWS)		
License/Permit/Monitoring #		
Original Well Owner		
Present Well Owner		
Mailing Address of Present Owner		
City of Present Owner	State	ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy)
<input type="checkbox"/> Water Well	
<input type="checkbox"/> Borehole / Drillhole	If a Well Construction Report is available, please attach.
Construction Type:	
<input type="checkbox"/> Drilled	<input type="checkbox"/> Driven (Sandpoint)
<input type="checkbox"/> Other (specify): _____	
Formation Type:	
<input type="checkbox"/> Unconsolidated Formation	<input type="checkbox"/> Bedrock
Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Lower Drillhole Diameter (in.)	Casing Depth (ft.)
Was well annular space grouted?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown
If yes, to what depth (feet)?	Depth to Water (feet)

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

Pump and piping removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did sealing material rise to surface?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Required Method of Placing Sealing Material	
<input type="checkbox"/> Conductor Pipe-Gravity	<input type="checkbox"/> Conductor Pipe-Pumped
<input type="checkbox"/> Screened & Poured (Bentonite Chips)	<input type="checkbox"/> Other (Explain): _____
Sealing Materials	
<input type="checkbox"/> Neat Cement Grout	<input type="checkbox"/> Concrete
<input type="checkbox"/> Sand-Cement (Concrete) Grout	<input type="checkbox"/> Bentonite Chips
For Monitoring Wells and Monitoring Well Boreholes Only:	
<input type="checkbox"/> Bentonite Chips	<input type="checkbox"/> Bentonite - Cement Grout
<input type="checkbox"/> Granular Bentonite	<input type="checkbox"/> Bentonite - Sand Slurry

5. Material Used to Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight
Surface			

6. Comments

7. Supervision of Work **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)	Date Received	Noted By
Street or Route		Telephone Number ()	Comments	
City	State	ZIP Code	Signature of Person Doing Work <i>Chris Struchling</i>	Date Signed

Instructions

Well Filling and Sealing

Wisconsin Administrative Code (NR 811, NR 812, and NR 141 requires well owners to permanently fill and seal any unused wells/drillholes/boreholes on their property. **As of June 1, 2008 water supply wells can only be filled and sealed by licensed well drillers and pump installers.**

1. Remove any pump, pump piping, debris or other obstacles that could interfere with the sealing operation.
2. Except when bentonite chips are used, the sealing material must be placed with the use of a conductor (tremie) pipe to fill the entire well column to the top with required sealing material. Refer to NR 812 and NR 141 for more details on filling and sealing requirements.

General Instructions: Fill out Well/Drillhole/Borehole Filling & Sealing Report Form 3300-005 as completely as possible for each well or borehole filled and sealed. Information should be provided for every box on the form where available. Sign each form. Please note that these forms are subject to change. (Personally identifiable information on these forms is not intended to be used for any other purpose.)

Verification Only of Fill and Seal: If you are only verifying that filling and sealing has previously occurred on a well and are NOT performing any filling and sealing work on the well, check the box near the top of the form. Complete Parts 1 and 2 of the form completely and any information you can provide in Parts 3, 4 and 5. You must provide comments in Part 6 as to the method used to verify both the filling and sealing of the well. Complete Part 7, including the date of Filling and Sealing or verification. It will be implied that you did do the filling and sealing work or the verification as stated in Part 7.

Route to: Check the appropriate routing box on the top of the form to assure proper routing to the DNR program requiring this well be filled and sealed. Mail the form and any attachments to the Department of Natural Resources, PO Box 7921, Madison, WI 53707-7921.

If you do any work to fill or seal the well, you must complete this form as intended and do not check the Verification Only of Fill and Seal box.

(1) WELL LOCATION INFORMATION

WI Unique Well #: Fill in the 2 alphabetic and 3 numeric Wisconsin Unique Well Number (WUWN) of the well being filled and sealed. Check the well, sample tap in the house or the fuse box for a WUWN if one has been assigned to the well.

Hicap #: If this was a high capacity well, enter the number assigned to the well by the Department.

Well Location: Locate the well by Public Land Survey (Gov't Lot or ¼ ¼, ¼, Section, Township and Range) AND latitude and longitude coordinates, using GPS or on-line map locators.

Format Code: Check which format you are reporting in: DD = Decimal Degrees ____ . ____ ° or DDM = Degrees Decimal Minutes ____ ° ____ . ____ ' (Place decimal point appropriately).

Method Code: Check which method you are using to determine latitude/longitude: GPS008 = GPS Receiver; SCR002 = Online Map/Viewer; OTH001 = Other.

(2) FACILITY / OWNER INFORMATION

If the well is located at a commercial or government facility, fill in the name of landfill, wastewater treatment facility, surface impoundment, spill or project.

Facility ID: Fill in the nine digits Facility ID (FID or PWS) assigned to the site by the Department.

License/Permit/Monitoring #: Fill in number assigned to facility by the Department. If unknown, leave blank.

Present Well Owner: Fill in the name, address, city, state and ZIP code of the present owner.

(3) FILLED & SEALED WELL/DRILLHOLE/BOREHOLE INFORMATION

Original Construction Date: Fill in the original date of construction for the well or boring in mm/dd/yyyy format. This section should include information about the original well.

Depth to Water: Enter depth to water from ground surface.

- (4) **PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL:** Check only one box where Yes, No or Not Applicable is indicated. Check all boxes which apply otherwise.

- (5) **MATERIAL USED TO FILL THE WELL/DRILLHOLE:** Enter the description of the filling material, the depth From and To, circle one measurement unit (Yards, Sacks or Volume), and enter the mix ratio or mud weight (in pounds per gallon).

- (6) **COMMENTS:** Describe any of the above boxes in more detail or add information as required to describe the filling and sealing procedures.

- (7) **NAME OF PERSON OR FIRM DOING SEALING WORK:** Enter the name (first and last) or firm name, address, and phone number of the person who supervised the work.

Date of Filling & Sealing or Verification: List Month/Day/Year (mm/dd/yyyy) the well was filled & sealed or verified filled & sealed.

Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Chippewa Valley Regional Airport (CVRA)			License/Permit/Monitoring Number		Boring Number AMW-9	
Boring Drilled By: Name of crew chief (first, last) and Firm Ray Buckenburger Cascade			Date Drilling Started 8/15/2023	Date Drilling Completed 8/16/2023	Drilling Method sonic	
WI Unique Well No. WF191	DNR Well ID No.	Common Well Name AMW-9	Final Static Water Level Feet MSL		Surface Elevation Feet MSL	Borehole Diameter 6.00
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 106455.60 N, 148017.61 E S/C/N SE 1/4 of SW 1/4 of Section 28, T 28 N, R 9 W			Lat _____ ° _____ ' _____ " Long _____ ° _____ ' _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID 609109380		County Chippewa	County Code 9	Civil Town/City/ or Village City of Eau Claire		

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			3 6 9 12 15 18 21 24 27 30 33 36 39	SILTY SAND, brown, dry	SM									
				SILTY SAND, brown, dry, trace gravel	SM									

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

Signature <i>Chris Struching</i>	Firm AECOM	Tel: Fax:
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Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Chippewa Valley Regional Airport (CVRA)			License/Permit/Monitoring Number		Boring Number AMW-10	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff John Cascade			Date Drilling Started 8/14/2023	Date Drilling Completed 8/15/2023	Drilling Method sonic	
WI Unique Well No. WF192	DNR Well ID No.	Common Well Name AMW-10	Final Static Water Level Feet MSL		Surface Elevation Feet MSL	Borehole Diameter 6.00
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 105877.71 N, 146685.23 E S/C/N			Lat _____ ° _____ ' _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
NW 1/4 of NW 1/4 of Section 33, T 28 N, R 9 W			Long _____ ° _____ ' _____ "		Feet <input type="checkbox"/> S Feet <input type="checkbox"/> W	
Facility ID 609109380		County Chippewa	County Code 9	Civil Town/City/ or Village City of Eau Claire		

Sample Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
									Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			3 6 9 12 15 18 21 24 27 30 33 36 39	POORLY GRADED SAND, brown, dry, trace gravel	SP									
				POORLY GRADED SAND, light brown, dry, trace gravel	SP									

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

Signature <i>Chris Struching</i>	Firm AECOM	Tel: Fax:
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Route To: Watershed/Wastewater Waste Management
Remediation/Redevelopment Other

Facility/Project Name Chippewa Valley Regional Airport (CVRA)			License/Permit/Monitoring Number		Boring Number AMW-11	
Boring Drilled By: Name of crew chief (first, last) and Firm Jeff John Cascade			Date Drilling Started 8/9/2023	Date Drilling Completed 8/9/2023	Drilling Method sonic	
WI Unique Well No. WF193	DNR Well ID No.	Common Well Name AMW-11	Final Static Water Level Feet MSL		Surface Elevation Feet MSL	Borehole Diameter 6.00
Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Boring Location <input type="checkbox"/> State Plane 104659.33 N, 144885.10 E S/C/N			Lat _____ ° _____ ' _____ "		Local Grid Location <input type="checkbox"/> N <input type="checkbox"/> E <input type="checkbox"/> S <input type="checkbox"/> W	
SW 1/4 of NE 1/4 of Section 32, T 28 N, R 9 W			Long _____ ° _____ ' _____ "		Feet <input type="checkbox"/> S <input type="checkbox"/> W	
Facility ID 609109380		County Chippewa	County Code 9	Civil Town/City/ or Village City of Eau Claire		

Sample		Blow Counts	Depth In Feet	Soil/Rock Description And Geologic Origin For Each Major Unit	U S C S	Graphic Log	Well Diagram	PID/FID	Soil Properties					RQD/ Comments
Number and Type	Length Att. & Recovered (in)								Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	
			3 6 9 12 15 18 21 24 27 30 33 36 39	POORLY GRADED SAND, brown, dry, trace gravel	SP									

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

Signature <i>Chris Struching</i>	Firm AECOM	Tel: Fax:
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Appendix B - Drilling Fluid Laboratory Analytical Report



September 19, 2023

**Enthalpy Analytical - El Dorado Hills
Work Order No. 2308286**

Ms. Lanette Altenbach
AECOM
1555 N. River Center Drive
Milwaukee, WI 53212

Dear Ms. Altenbach,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on August 29, 2023 under your Project Name 'Chippewa Valley Regional Airport / 60710448'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mark.rein@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

for

Mark Rein
Project Manager

Enthalpy Analytical -EDH certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Enthalpy Analytical -EDH.

Enthalpy Analytical - EDH Work Order No. 2308286

Case Narrative

Sample Condition on Receipt:

Three aqueous samples were received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements. During extraction, the initial sample weights were not taken and a nominal value of .250 L was used for the samples.

Analytical Notes:

PFAS Isotope Dilution Method

Sample "Equipment Blank" contained particulate and was centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of PFAS using Enthalpy Analytical - EDH's PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the Reporting Limits (RL). The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2308286-01	Drilling Fluid	17-Aug-23 16:35	29-Aug-23 11:40	HDPE Bottle, 250 mL
2308286-02	Equipment Blank	23-Aug-23 18:00	29-Aug-23 11:40	HDPE Bottle, 250 mL
2308286-03	Ambient Blank	25-Aug-23 16:55	29-Aug-23 11:40	HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank					PFAS Isotope Dilution Method						
Client Data				Laboratory Data							
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B23H304-BLK1	Column:	BEH C18				
Project:	Chippewa Valley Regional Airport / 60710448										
Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	<1.33	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFPeA	2706-90-3	<1.30	1.30	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFBS	375-73-5	<1.14	1.14	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
4:2 FTS	757124-72-4	<1.31	1.31	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFHxA	307-24-4	<1.26	1.26	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFPeS	2706-91-4	<1.74	1.74	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
HFPO-DA	13252-13-6	<1.95	1.95	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFHpA	375-85-9	<0.875	0.875	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
ADONA	919005-14-4	<1.10	1.10	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFHxS	355-46-4	<1.42	1.42	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
6:2 FTS	27619-97-2	<1.46	1.46	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFOA	335-67-1	<1.11	1.11	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFHpS	375-92-8	<1.64	1.64	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFNA	375-95-1	<1.25	1.25	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFOSA	754-91-6	<1.73	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFOS	1763-23-1	<1.86	1.86	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
9Cl-PF3ONS	756426-58-1	<1.50	1.50	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFDA	335-76-2	<1.21	1.21	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
8:2 FTS	39108-34-4	<1.72	1.72	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFNS	68259-12-1	<1.65	1.65	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
MeFOSAA	2355-31-9	<1.38	1.38	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
EtFOSAA	2991-50-6	<1.34	1.34	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFUnA	2058-94-8	<1.07	1.07	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFDS	335-77-3	<1.55	1.55	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
11Cl-PF3OUdS	763051-92-9	<1.20	1.20	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFDoA	307-55-1	<1.33	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
MeFOSA	31506-32-8	<3.00	3.00	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFTTrDA	72629-94-8	<1.40	1.40	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFDoS	79780-39-5	<1.73	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
PFTeDA	376-06-7	<1.15	1.15	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
EtFOSA	4151-50-2	<2.46	2.46	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
MeFOSE	24448-09-7	<2.35	2.35	2.50		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
EtFOSE	1691-99-2	<2.11	2.11	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBA	IS	73.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1		
13C3-PFPeA	IS	79.5	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1		
13C3-PFBS	IS	76.5	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1		
13C2-4:2 FTS	IS	71.2	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1		

Sample ID: Method Blank **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B23H304-BLK1	Column:	BEH C18
Project:	Chippewa Valley Regional Airport / 60710448						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	IS	73.3	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C3-HFPO-DA	IS	82.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C4-PFHpA	IS	75.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C3-PFHxS	IS	78.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C2-6:2 FTS	IS	75.2	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C2-PFOA	IS	77.9	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C5-PFNA	IS	71.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C8-PFOA	IS	49.9	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C8-PFOS	IS	69.3	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C2-PFDA	IS	69.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C2-8:2 FTS	IS	67.5	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
d3-MeFOSAA	IS	56.5	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
d5-EtFOSAA	IS	53.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C2-PFUnA	IS	68.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C2-PFDoA	IS	57.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
d3-MeFOSA	IS	16.3	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
13C2-PFTeDA	IS	56.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
d5-EtFOSA	IS	14.5	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
d7-MeFOSE	IS	30.6	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1
d9-EtFOSE	IS	30.1	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:16	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR

PFAS Isotope Dilution Method

Client Data					Laboratory Data				
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	B23H304-BS1	Column:	BEH C18	
Project:	Chippewa Valley Regional Airport / 60710448								

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	4.35	4.00	109	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFPeA	2706-90-3	3.71	4.00	92.8	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFBS	375-73-5	3.28	4.00	82.0	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
4:2 FTS	757124-72-4	3.48	4.00	86.9	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFHxA	307-24-4	3.51	4.00	87.9	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFPeS	2706-91-4	3.69	4.00	92.3	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
HFPO-DA	13252-13-6	3.56	4.00	88.9	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFHpA	375-85-9	3.62	4.00	90.6	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
ADONA	919005-14-4	3.98	4.00	99.5	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFHxS	355-46-4	3.31	4.00	82.6	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
6:2 FTS	27619-97-2	3.52	4.00	88.1	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFOA	335-67-1	3.72	4.00	93.0	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFHpS	375-92-8	3.47	4.00	86.8	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFNA	375-95-1	3.68	4.00	92.0	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFOSA	754-91-6	3.90	4.00	97.6	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFOS	1763-23-1	3.75	4.00	93.6	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
9Cl-PF3ONS	756426-58-1	3.77	4.00	94.2	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFDA	335-76-2	3.54	4.00	88.5	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
8:2 FTS	39108-34-4	3.46	4.00	86.5	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFNS	68259-12-1	3.79	4.00	94.7	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
MeFOSAA	2355-31-9	3.25	4.00	81.2	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
EtFOSAA	2991-50-6	3.62	4.00	90.4	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFUnA	2058-94-8	3.60	4.00	89.9	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFDS	335-77-3	3.27	4.00	81.8	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
11Cl-PF3OUdS	763051-92-9	3.81	4.00	95.1	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFDoA	307-55-1	3.51	4.00	87.8	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
MeFOSA	31506-32-8	3.75	4.00	93.9	50 - 150	J	B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFTtDA	72629-94-8	3.32	4.00	83.0	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFDoS	79780-39-5	3.93	4.00	98.2	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
PFTeDA	376-06-7	3.36	4.00	83.9	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
EtFOSA	4151-50-2	4.30	4.00	107	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1

Sample ID: OPR

PFAS Isotope Dilution Method

Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	B23H304-BS1	Column:	BEH C18			
Project:	Chippewa Valley Regional Airport / 60710448										

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
MeFOSE	24448-09-7	3.30	4.00	82.4	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
EtFOSE	1691-99-2	5.09	4.00	127	50 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
Labeled Standards			Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA			IS	88.6	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C3-PFPeA			IS	93.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C3-PFBS			IS	93.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-4:2 FTS			IS	90.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-PFHxA			IS	87.9	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C3-HFPO-DA			IS	89.2	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C4-PFHpA			IS	88.6	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C3-PFHxS			IS	93.3	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-6:2 FTS			IS	96.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-PFOA			IS	84.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C5-PFNA			IS	86.5	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C8-PFOA			IS	47.6	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C8-PFOS			IS	85.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-PFDA			IS	85.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-8:2 FTS			IS	91.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
d3-MeFOSAA			IS	75.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
d5-EtFOSAA			IS	67.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-PFUnA			IS	82.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-PFDoA			IS	64.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
d3-MeFOSA			IS	12.7	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
13C2-PFTeDA			IS	65.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
d5-EtFOSA			IS	11.0	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
d7-MeFOSE			IS	29.4	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1
d9-EtFOSE			IS	27.3	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 06:26	1

Sample ID: Drilling Fluid					PFAS Isotope Dilution Method						
Client Data					Laboratory Data						
Name:	AECOM		Matrix:	Aqueous	Lab Sample:	2308286-01		Column:	BEH C18		
Project:	Chippewa Valley Regional Airport / 60710448		Date Collected:	17-Aug-23 16:35	Date Received:	29-Aug-23 11:40					
Location:	Water Tank (drilling)										
Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	5.52	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFPeA	2706-90-3	1.69	1.30	2.00	J	B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFBS	375-73-5	3.27	1.14	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
4:2 FTS	757124-72-4	<1.31	1.31	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFHxA	307-24-4	1.64	1.26	2.00	J	B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFPeS	2706-91-4	<1.74	1.74	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
HFPO-DA	13252-13-6	<1.95	1.95	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFHpA	375-85-9	0.923	0.875	2.00	J	B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
ADONA	919005-14-4	<1.10	1.10	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFHxS	355-46-4	7.94	1.42	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
6:2 FTS	27619-97-2	<1.46	1.46	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFOA	335-67-1	3.80	1.11	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFHpS	375-92-8	<1.64	1.64	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFNA	375-95-1	<1.25	1.25	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFOSA	754-91-6	35.2	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFOS	1763-23-1	3.30	1.86	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
9Cl-PF3ONS	756426-58-1	<1.50	1.50	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFDA	335-76-2	<1.21	1.21	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
8:2 FTS	39108-34-4	<1.72	1.72	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFNS	68259-12-1	<1.65	1.65	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
MeFOSAA	2355-31-9	<1.38	1.38	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
EtFOSAA	2991-50-6	<1.34	1.34	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFUnA	2058-94-8	<1.07	1.07	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFDS	335-77-3	<1.55	1.55	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
11Cl-PF3OUdS	763051-92-9	<1.20	1.20	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFDoA	307-55-1	<1.33	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
MeFOSA	31506-32-8	<3.00	3.00	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFTTrDA	72629-94-8	<1.40	1.40	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFDoS	79780-39-5	<1.73	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
PFTeDA	376-06-7	<1.15	1.15	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
EtFOSA	4151-50-2	<2.46	2.46	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
MeFOSE	24448-09-7	<2.35	2.35	2.50		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
EtFOSE	1691-99-2	<2.11	2.11	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
Labeled Standards	Type	% Recovery	Limits		Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C3-PFBA	IS	25.2	25 - 150			B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
13C3-PFPeA	IS	82.4	25 - 150			B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	
13C3-PFBS	IS	91.0	25 - 150			B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1	

Sample ID: Drilling Fluid **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2308286-01	Column:	BEH C18
Project:	Chippewa Valley Regional Airport / 60710448	Date Collected:	17-Aug-23 16:35	Date Received:	29-Aug-23 11:40		
Location:	Water Tank (drilling)						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	93.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-PFHxA	IS	85.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C3-HFPO-DA	IS	95.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C4-PFHpA	IS	93.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C3-PFHxS	IS	90.5	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-6:2 FTS	IS	80.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-PFOA	IS	87.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C5-PFNA	IS	87.6	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C8-PFOA	IS	77.3	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C8-PFOS	IS	86.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-PFDA	IS	92.6	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-8:2 FTS	IS	88.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
d3-MeFOSAA	IS	92.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
d5-EtFOSAA	IS	82.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-PFUnA	IS	90.3	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-PFDoA	IS	82.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
d3-MeFOSA	IS	27.0	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
13C2-PFTeDA	IS	85.9	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
d5-EtFOSA	IS	21.7	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
d7-MeFOSE	IS	45.1	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1
d9-EtFOSE	IS	48.4	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:18	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Equipment Blank					PFAS Isotope Dilution Method						
Client Data					Laboratory Data						
Name:	AECOM		Matrix:	Aqueous	Lab Sample:	2308286-02		Column:	BEH C18		
Project:	Chippewa Valley Regional Airport / 60710448		Date Collected:	23-Aug-23 18:00	Date Received:	29-Aug-23 11:40					
Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	<1.33	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFPeA	2706-90-3	<1.30	1.30	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFBS	375-73-5	<1.14	1.14	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
4:2 FTS	757124-72-4	<1.31	1.31	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFHxA	307-24-4	<1.26	1.26	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFPeS	2706-91-4	<1.74	1.74	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
HFPO-DA	13252-13-6	<1.95	1.95	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFHpA	375-85-9	<0.875	0.875	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
ADONA	919005-14-4	<1.10	1.10	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFHxS	355-46-4	<1.42	1.42	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
6:2 FTS	27619-97-2	<1.46	1.46	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFOA	335-67-1	<1.11	1.11	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFHpS	375-92-8	<1.64	1.64	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFNA	375-95-1	<1.25	1.25	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFOSA	754-91-6	<1.73	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFOS	1763-23-1	<1.86	1.86	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
9Cl-PF3ONS	756426-58-1	<1.50	1.50	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFDA	335-76-2	<1.21	1.21	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
8:2 FTS	39108-34-4	<1.72	1.72	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFNS	68259-12-1	<1.65	1.65	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
MeFOSAA	2355-31-9	<1.38	1.38	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
EtFOSAA	2991-50-6	<1.34	1.34	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFUnA	2058-94-8	<1.07	1.07	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFDS	335-77-3	<1.55	1.55	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
11Cl-PF3OUdS	763051-92-9	<1.20	1.20	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFDoA	307-55-1	<1.33	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
MeFOSA	31506-32-8	<3.00	3.00	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFTrDA	72629-94-8	<1.40	1.40	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFDoS	79780-39-5	<1.73	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
PFTeDA	376-06-7	<1.15	1.15	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
EtFOSA	4151-50-2	<2.46	2.46	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
MeFOSE	24448-09-7	<2.35	2.35	2.50		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
EtFOSE	1691-99-2	<2.11	2.11	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBA	IS	93.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1		
13C3-PFPeA	IS	99.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1		
13C3-PFBS	IS	102	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1		

Sample ID: Equipment Blank **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2308286-02	Column:	BEH C18
Project:	Chippewa Valley Regional Airport / 60710448	Date Collected:	23-Aug-23 18:00	Date Received:	29-Aug-23 11:40		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	96.9	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-PFHxA	IS	97.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C3-HFPO-DA	IS	107	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C4-PFHpA	IS	106	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C3-PFHxS	IS	105	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-6:2 FTS	IS	97.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-PFOA	IS	106	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C5-PFNA	IS	98.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C8-PFOA	IS	61.0	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C8-PFOS	IS	97.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-PFDA	IS	99.9	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-8:2 FTS	IS	104	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
d3-MeFOSAA	IS	100	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
d5-EtFOSAA	IS	92.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-PFUnA	IS	100	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-PFDoA	IS	92.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
d3-MeFOSA	IS	23.6	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
13C2-PFTeDA	IS	63.3	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
d5-EtFOSA	IS	20.2	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
d7-MeFOSE	IS	32.7	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1
d9-EtFOSE	IS	30.1	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:29	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Ambient Blank					PFAS Isotope Dilution Method						
Client Data					Laboratory Data						
Name:	AECOM		Matrix:	Aqueous	Lab Sample:	2308286-03	Column:	BEH C18			
Project:	Chippewa Valley Regional Airport / 60710448		Date Collected:	25-Aug-23 16:55	Date Received:	29-Aug-23 11:40					
Location:	Near AMW-06										
Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	<1.33	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFPeA	2706-90-3	<1.30	1.30	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFBS	375-73-5	<1.14	1.14	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
4:2 FTS	757124-72-4	<1.31	1.31	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFHxA	307-24-4	<1.26	1.26	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFPeS	2706-91-4	<1.74	1.74	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
HFPO-DA	13252-13-6	<1.95	1.95	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFHpA	375-85-9	<0.875	0.875	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
ADONA	919005-14-4	<1.10	1.10	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFHxS	355-46-4	<1.42	1.42	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
6:2 FTS	27619-97-2	<1.46	1.46	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFOA	335-67-1	<1.11	1.11	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFHpS	375-92-8	<1.64	1.64	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFNA	375-95-1	<1.25	1.25	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFOSA	754-91-6	<1.73	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFOS	1763-23-1	<1.86	1.86	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
9Cl-PF3ONS	756426-58-1	<1.50	1.50	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFDA	335-76-2	<1.21	1.21	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
8:2 FTS	39108-34-4	<1.72	1.72	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFNS	68259-12-1	<1.65	1.65	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
MeFOSAA	2355-31-9	<1.38	1.38	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
EtFOSAA	2991-50-6	<1.34	1.34	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFUnA	2058-94-8	<1.07	1.07	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFDS	335-77-3	<1.55	1.55	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
11Cl-PF3OUdS	763051-92-9	<1.20	1.20	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFDoA	307-55-1	<1.33	1.33	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
MeFOSA	31506-32-8	<3.00	3.00	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFTrDA	72629-94-8	<1.40	1.40	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFDoS	79780-39-5	<1.73	1.73	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
PFTeDA	376-06-7	<1.15	1.15	2.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
EtFOSA	4151-50-2	<2.46	2.46	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
MeFOSE	24448-09-7	<2.35	2.35	2.50		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
EtFOSE	1691-99-2	<2.11	2.11	4.00		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBA	IS	96.9	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1		
13C3-PFPeA	IS	101	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1		
13C3-PFBS	IS	99.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1		

Sample ID: Ambient Blank **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2308286-03	Column:	BEH C18
Project:	Chippewa Valley Regional Airport / 60710448	Date Collected:	25-Aug-23 16:55	Date Received:	29-Aug-23 11:40		
Location:	Near AMW-06						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	100	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-PFHxA	IS	98.1	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C3-HFPO-DA	IS	103	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C4-PFHpA	IS	101	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C3-PFHxS	IS	107	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-6:2 FTS	IS	102	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-PFOA	IS	101	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C5-PFNA	IS	92.2	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C8-PFOA	IS	50.4	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C8-PFOS	IS	98.8	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-PFDA	IS	93.2	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-8:2 FTS	IS	102	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
d3-MeFOSAA	IS	84.6	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
d5-EtFOSAA	IS	76.7	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-PFUnA	IS	89.0	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-PFDoA	IS	77.3	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
d3-MeFOSA	IS	24.8	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
13C2-PFTeDA	IS	77.4	25 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
d5-EtFOSA	IS	24.3	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
d7-MeFOSE	IS	35.7	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1
d9-EtFOSE	IS	35.7	10 - 150		B23H304	11-Sep-23	0.250 L	15-Sep-23 07:39	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

For Laboratory Use Only

Work Order #: 2308286 Temp: 4.0 °C

Storage ID: R-13 W-2 Storage Secured: Yes No

Project ID: Chippewa Valley Regional Airport#: Sample: Chris Strubing / Marcus Hopkins
(name)

TAT Standard: 21 days
(check one): Rush (surcharge may apply)
 14 days 7 days Other: _____

Invoice to: Name	Company	Address	City	State	Phone #
<u>Lanette Altenbach</u>	<u>AECOM</u>	<u>Lanette.Altenbach@aecom.com</u>	<u>Milwaukee</u>	<u>WI</u>	<u>414-944-6186</u>
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
<u>Marcus Hopkins / [Signature]</u>	<u>8/28/23</u>	<u>1300</u>	<u>Karyn At K</u>	<u>08/28/23</u>	<u>11:40</u>
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

SHIP TO: Enthalpy Analytical - EDH
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520

ATTN: _____

Method of Shipment: _____

Tracking No.: _____

Quantity	Type	Matrix	Add Analysis(es) Requested					Other	Requirements:
			PFAS by Isotope Dilution	PFAS by Isotope Dilution	PFAS by Isotope Dilution	PFAS by Isotope Dilution	Drinking Water		
1	AQ	X						<input checked="" type="checkbox"/> State-specific (list state): <u>Wisconsin</u>	
1	AQ	X						<input type="checkbox"/> DoD QSM Compliant	
1	AQ	X						<input type="checkbox"/> PFAS List Below (or attach compound list):	

Sample ID	Date	Time	Location/ Sample Description
<u>Drilling Fluid</u>	<u>8/17/23</u>	<u>1635</u>	<u>Water Tank (drilling)</u>
<u>Equipment Blank</u>	<u>8/23/23</u>	<u>1800</u>	
<u>Ambient Blank</u>	<u>8/25/23</u>	<u>1655</u>	<u>near Airport</u>

Other Instructions/ Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Lanette Altenbach
Company: AECOM
Address: _____
City: _____ State: _____ Zip: _____
Phone: _____
Email: _____

Container Types: P= HDPE, PJ= HDPE Jar Bottle Preservation Type: _____
PY= Polypropylene, O = Other: _____ TZ = Trizma: _____ AA = Amm. Acetate: _____
Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, SD = Sediment, T=Tissue
SL = Sludge, SO = Soil, WW = Wastewater, O = Other: _____

Sample Log-In Checklist

Page # 1 of 1

Work Order #: 2308286 TAT 545

Samples Arrival:	Date/Time <u>08/29/23 11:40</u>	Initials: <u>JK</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>N12</u>
Delivered By:	FedEx	<input checked="" type="checkbox"/> UPS	On Trac
		GLS	DHL
		Hand Delivered	Other
Preservation:	<input checked="" type="checkbox"/> Ice	Blue Ice	Techni Ice
		Dry Ice	None
Temp °C: <u>2.6</u> (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N		Thermometer ID: <u>IR-3</u>
Temp °C: <u>4.0</u> (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?			<input checked="" type="checkbox"/>
Airbill <u>✓</u>	Trk # <u>1Z A 77 8E9 13 9160 6745</u>	<input checked="" type="checkbox"/>	
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Shipping Container	<input checked="" type="checkbox"/> Enthalpy	Client	<input checked="" type="checkbox"/> Retain
		Return	Dispose
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		
Logged In:	Date/Time <u>08/30/23 14:17</u>	Initials: <u>JK</u>	Location: <u>R-17, WR-2</u>
			Shelf/Rack: <u>A-2, B-6</u>
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

CoC/Label Reconciliation Report WO# 2308286

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2308286-01	A Drilling Fluid	Water Tank1(drilling)	17-Aug-23 16:35	HDPE Bottle, 250 mL	Aqueous	
2308286-02	A Equipment Blank		23-Aug-23 18:00	HDPE Bottle, 250 mL	Aqueous	
2308286-03	A Ambient Blank	Near AMW-06	25-Aug-23 16:55	HDPE Bottle, 250 mL	Aqueous	

A
↓

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	/		
Sample Custody Seals Intact?		/	/
Adequate Sample Volume?	/		
Container Type Appropriate for Analysis(es)	/		

Comments: A No Backup Bottle

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

Verified by/Date: SNH 08/30/23

KR 08/30/23

Appendix C - Well Construction & Well Development Forms

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

Facility/Project Name: **Chippewa Valley Regional Airport** Local Grid Location of Well: _____ Well Name: **AMW-06**

Facility License, Permit or Monitoring No.: _____ Local Grid Origin: _____ Estimated: or Well Location: Wis. Unique Well No: **WF194** DNR Well Id No: _____

Facility ID: **609109380** Lat: _____ Long: _____ Date Well Installed: **08 / 17 / 2023**

Type of Well: _____ Section Location of Waste/Source: _____ Well Installed By: Name (first, last) and Firm: **Cascade (Jeff John)**

Well Code: **11 / mw** Location of Well relative to Waste/Source: _____ Gov. Lot No.: _____

Distance from Waste/Source: _____ ft. Enf. Stds. Apply: u Upgradient s Sidegradient
d Downgradient n Not Known

A. Protective pipe, top elevation: **NA** ft. MSL 1. Cap and lock? Yes No

B. Well casing, top elevation: **883.48** ft. MSL 2. Protective cover pipe: **FLUSH MOUNT**

C. Land surface elevation: **883.92** ft. MSL a. Inside diameter: **10.0** In.

D. Surface seal, bottom: **1.0** Ft. b. Length: **1.0** Ft.

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

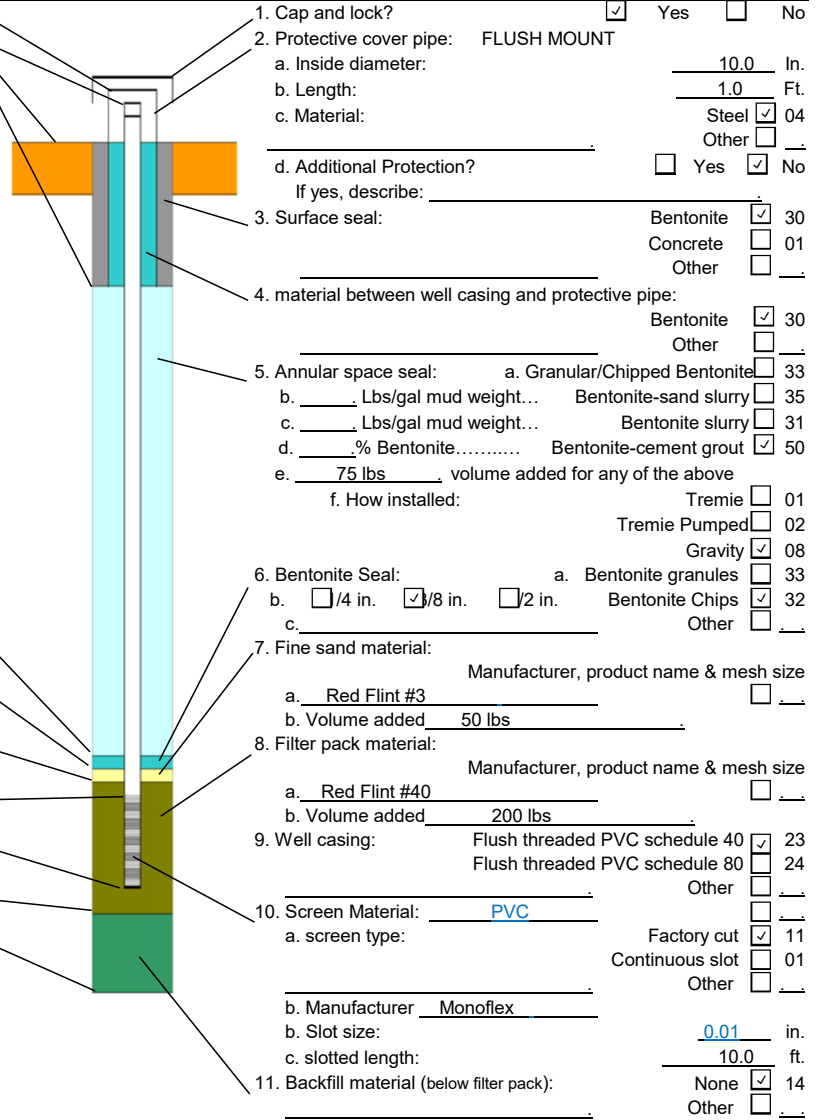
13. Sieve analysis performed? Yes No

14 Drilling method used: Rotary 50
 Hollow Stem Auger 41
 Rotosonic Other

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

16 Drilling additives used? Yes No
 Describe: _____

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



E Bentonite seal, top: **833.92** ft. MSL **50.0** ft.

F. Fine sand, top: **829.92** ft. MSL **54.0** ft.

G. Filter Pack, top: **827.92** ft. MSL **56.0** ft.

H. Screen joint, top: **825.81** ft. MSL **58.11** ft.

I. Well Bottom: **815.81** ft. MSL **68.11** ft.

J. Filter Pack, bottom: **813.92** ft. MSL **70.0** ft.

K. Borehole, bottom: **813.92** ft. MSL **70.0** ft.

L. Borehole, diameter: **6.0** In..

M. O.D. well casing: **2.375** In..

N. I.D. well casing: **2.047** In..

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

Signature: *Chris Struening* Firm: **AECOM**
 Madison, WI

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

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

Facility/Project Name: **Chippewa Valley Regional Airport** Local Grid Location of Well: _____ Well Name: **AMW-07**

Facility License, Permit or Monitoring No.: _____ Local Grid Origin: _____ Estimated: or Well Location: _____ Wis. Unique Well No: **WF190** DNR Well Id No: _____

Facility ID: **609109380** Lat: _____ Long: _____ Date Well Installed: **08 / 8 / 2023**

Type of Well: _____ Section Location of Waste/Source: _____ Well Installed By: Name (first, last) and Firm: **Cascade (Jeff John)**

Well Code: **11 / mw** Location of Well relative to Waste/Source: _____ Gov. Lot No: _____

Distance from Waste/Source: _____ ft. Enf. Stds. Apply: u Upgradient s Sidegradient
d Downgradient n Not Known

A. Protective pipe, top elevation: NA ft. MSL 1. Cap and lock? Yes No

B. Well casing, top elevation: 888.78 ft. MSL 2. Protective cover pipe: **FLUSH MOUNT**

C. Land surface elevation: 889.23 ft. MSL a. Inside diameter: 10.0 In.

D. Surface seal, bottom: 1.0 Ft. b. Length: 1.0 Ft.

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

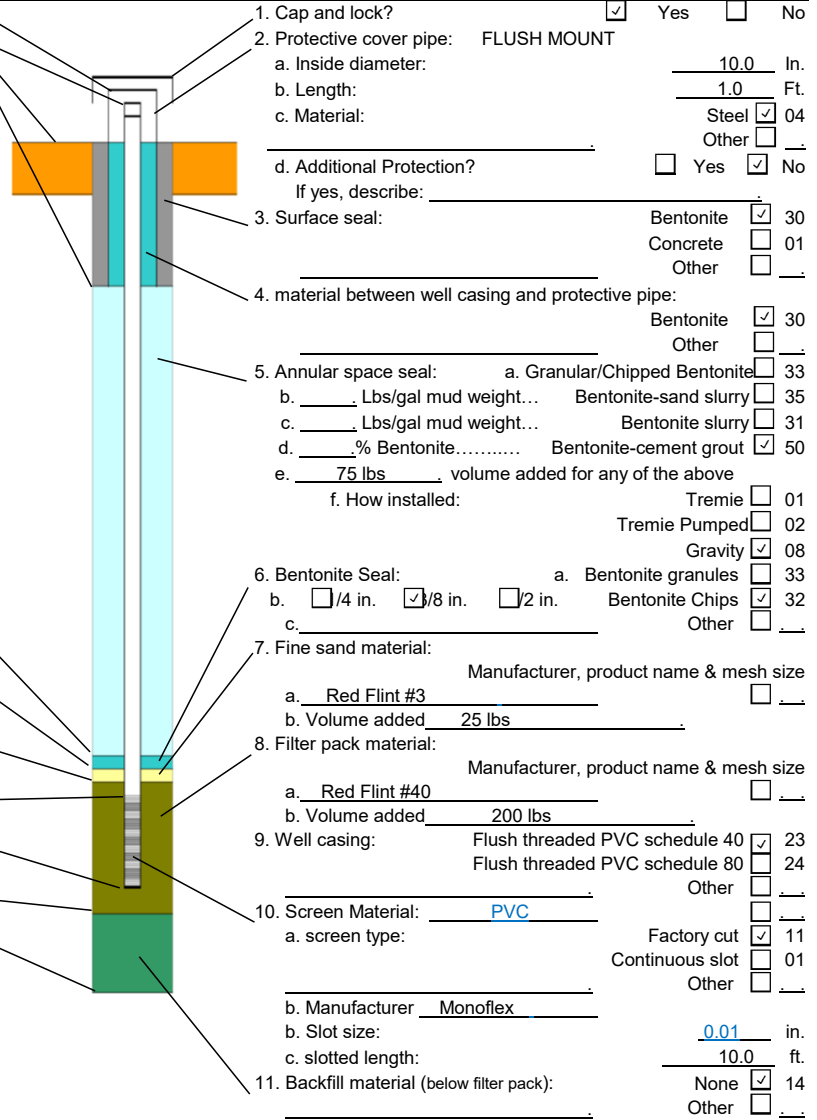
13. Sieve analysis performed? Yes No

14 Drilling method used: Rotary 50
 Hollow Stem Auger 41
 Rotosonic Other

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

16 Drilling additives used? Yes No
 Describe: _____

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



E. Bentonite seal, top	<u>844.23</u> ft. MSL	<u>45.0</u> ft.
F. Fine sand, top	<u>840.23</u> ft. MSL	<u>49.0</u> ft.
G. Filter Pack, top	<u>838.23</u> ft. MSL	<u>51.0</u> ft.
H. Screen joint, top	<u>835.78</u> ft. MSL	<u>53.45</u> ft.
I. Well Bottom	<u>825.78</u> ft. MSL	<u>63.45</u> ft.
J. Filter Pack, bottom	<u>825.73</u> ft. MSL	<u>63.5</u> ft.
K. Borehole, bottom	<u>825.73</u> ft. MSL	<u>63.5</u> ft.
L. Borehole, diameter	<u>6.0</u> In..	
M. O.D. well casing	<u>2.375</u> In..	
N. I.D. well casing	<u>2.047</u> In..	

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

Signature: Marcus Hopkins Firm: **AECOM**
 Stevens Point, WI

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

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

Facility/Project Name: **Chippewa Valley Regional Airport** Local Grid Location of Well: _____ Well Name: **AMW-09**

Facility License, Permit or Monitoring No.: _____ Local Grid Origin: _____ Estimated: or Well Location: Wis. Unique Well No: _____ DNR Well Id No: _____

Facility ID: **609109380** Lat: _____ Long: _____ or **WF191**

Wisconsin County Coordinate System, Chippewa County Zone, NAD83, 2011 Adj St. Plane: **106455.604** ft N **148017.607** ft E S/C/N _____ Date Well Installed: **08 / 16 / 2023**

Type of Well: _____ Section Location of Waste/Source: _____ Well Installed By: Name (first, last) and Firm: **Cascade (Jeff John)**

Well Code: **11 / mw** Location of Well relative to Waste/Source: _____ Gov. Lot No.: _____

Distance from Waste/Source: _____ ft. Enf. Stds. Apply: u Upgradient s Sidegradient
d Downgradient n Not Known

A. Protective pipe, top elevation: NA ft. MSL 1. Cap and lock? Yes No

B. Well casing, top elevation: 892.73 ft. MSL 2. Protective cover pipe: **FLUSH MOUNT**

C. Land surface elevation: 893.09 ft. MSL a. Inside diameter: 10.0 In.

D. Surface seal, bottom: 1.0 Ft. b. Length: 1.0 Ft.

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

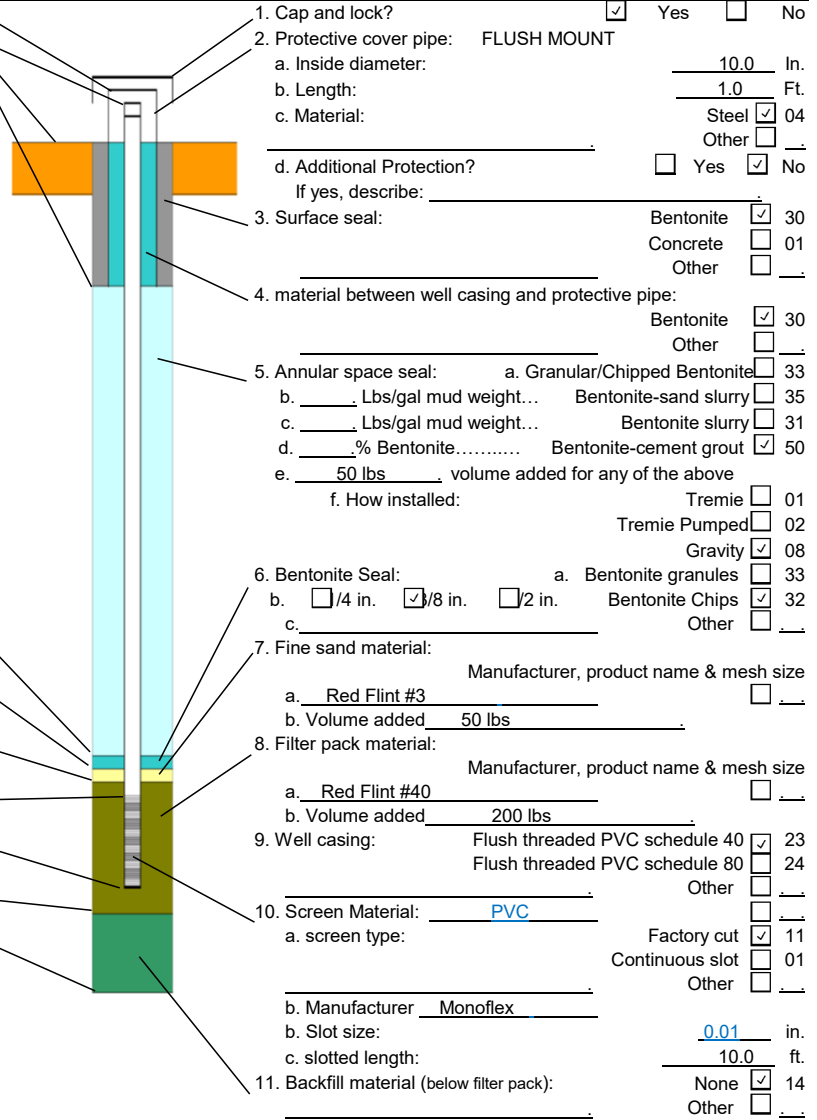
13. Sieve analysis performed? Yes No

14 Drilling method used: Rotary 50
 Hollow Stem Auger 41
 Rotosonic Other

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

16 Drilling additives used? Yes No
 Describe: _____

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



E. Bentonite seal, top	<u>845.09</u> ft. MSL	<u>48.0</u> ft.
F. Fine sand, top	<u>841.09</u> ft. MSL	<u>52.0</u> ft.
G. Filter Pack, top	<u>840.09</u> ft. MSL	<u>53.0</u> ft.
H. Screen joint, top	<u>839.62</u> ft. MSL	<u>53.47</u> ft.
I. Well Bottom	<u>829.62</u> ft. MSL	<u>63.47</u> ft.
J. Filter Pack, bottom	<u>826.09</u> ft. MSL	<u>67.0</u> ft.
K. Borehole, bottom	<u>813.09</u> ft. MSL	<u>80.0</u> ft.
L. Borehole, diameter	<u>6.0</u> In..	
M. O.D. well casing	<u>2.375</u> In..	
N. I.D. well casing	<u>2.047</u> In..	

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

Signature: Chris Struening Firm: **AECOM**
 Madison, WI

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

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

Facility/Project Name: **Chippewa Valley Regional Airport** Local Grid Location of Well: _____ Well Name: **AMW-10**

Facility License, Permit or Monitoring No.: _____ Local Grid Origin Estimated: or Well Location Wis. Unique Well No. _____ DNR Well Id No. _____

Facility ID: **609109380** Lat. _____ Long. _____ or **WF192**

Wisconsin County Coordinate System, Chippewa County Zone, NAD83, 2011 Adj St. Plane **105877.711** ft N **146685.225** ft E S/C/N _____ Date Well Installed **08 / 15 / 2023**

Type of Well: _____ Section Location of Waste/Source _____ Well Installed By: Name (first, last) and Firm **Cascade (Jeff John)**

Well Code **11 / mw** Location of Well relative to Waste/Source _____ Gov. Lot No. _____

Distance from Waste/Source _____ ft. Enf. Stds. Apply u Upgradient s Sidegradient
d Downgradient n Not Known

A. Protective pipe, top elevation NA ft. MSL 1. Cap and lock? Yes No
 B. Well casing, top elevation 885.27 ft. MSL 2. Protective cover pipe: **FLUSH MOUNT**
 C. Land surface elevation 885.63 ft. MSL a. Inside diameter: 10.0 In.
 D. Surface seal, bottom 1.0 Ft. b. Length: 1.0 Ft.
 c. Material: Steel 04
 Other _____
 d. Additional Protection? Yes No
 If yes, describe: _____

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

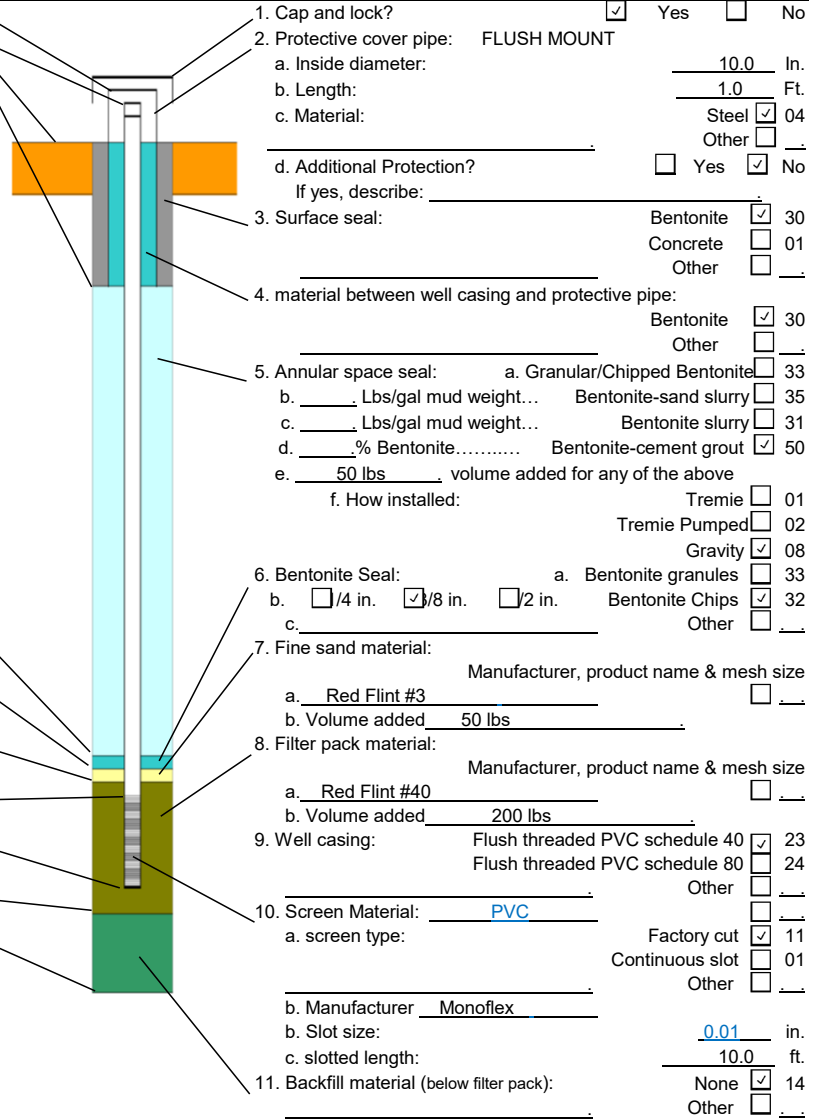
13. Sieve analysis performed? Yes No

14 Drilling method used: Rotary 50
 Hollow Stem Auger 41
 Rotosonic Other _____

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

16 Drilling additives used? Yes No
 Describe: _____

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



E Bentonite seal, top 816.63 ft. MSL 69.0 ft.
 F. Fine sand, top 812.63 ft. MSL 73.0 ft.
 G. Filter Pack, top 810.63 ft. MSL 75.0 ft.
 H. Screen joint, top 809.17 ft. MSL 76.46 ft.
 I. Well Bottom 799.17 ft. MSL 86.46 ft.
 J. Filter Pack, bottom 795.63 ft. MSL 90.0 ft.
 K. Borehole, bottom 795.63 ft. MSL 90.0 ft.
 L. Borehole, diameter 6.0 In..
 M. O.D. well casing 2.375 In..
 N. I.D. well casing 2.047 In..

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

Signature: Chris Struening Firm: **AECOM**
 Madison, WI

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

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

Facility/Project Name: **Chippewa Valley Regional Airport** Local Grid Location of Well: _____ Well Name: **AMW-11**

Facility License, Permit or Monitoring No.: _____ Local Grid Origin: _____ Estimated: or Well Location: _____ Wis. Unique Well No: **WF193** DNR Well Id No: _____

Facility ID: **609109380** Lat: _____ Long: _____ Date Well Installed: **08 / 09 / 2023**

Type of Well: _____ Section Location of Waste/Source: _____ Well Installed By: Name (first, last) and Firm: **Cascade (Jeff John)**

Well Code: **11 / mw** Location of Well relative to Waste/Source: _____ Gov. Lot No: _____

Distance from Waste/Source: _____ ft. Enf. Stds. Apply: u Upgradient s Sidegradient
d Downgradient n Not Known

A. Protective pipe, top elevation: NA ft. MSL 1. Cap and lock? Yes No

B. Well casing, top elevation: 877.92 ft. MSL 2. Protective cover pipe: **FLUSH MOUNT**

C. Land surface elevation: 878.36 ft. MSL a. Inside diameter: 10.0 In.

D. Surface seal, bottom: 1.0 Ft. b. Length: 1.0 Ft.

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

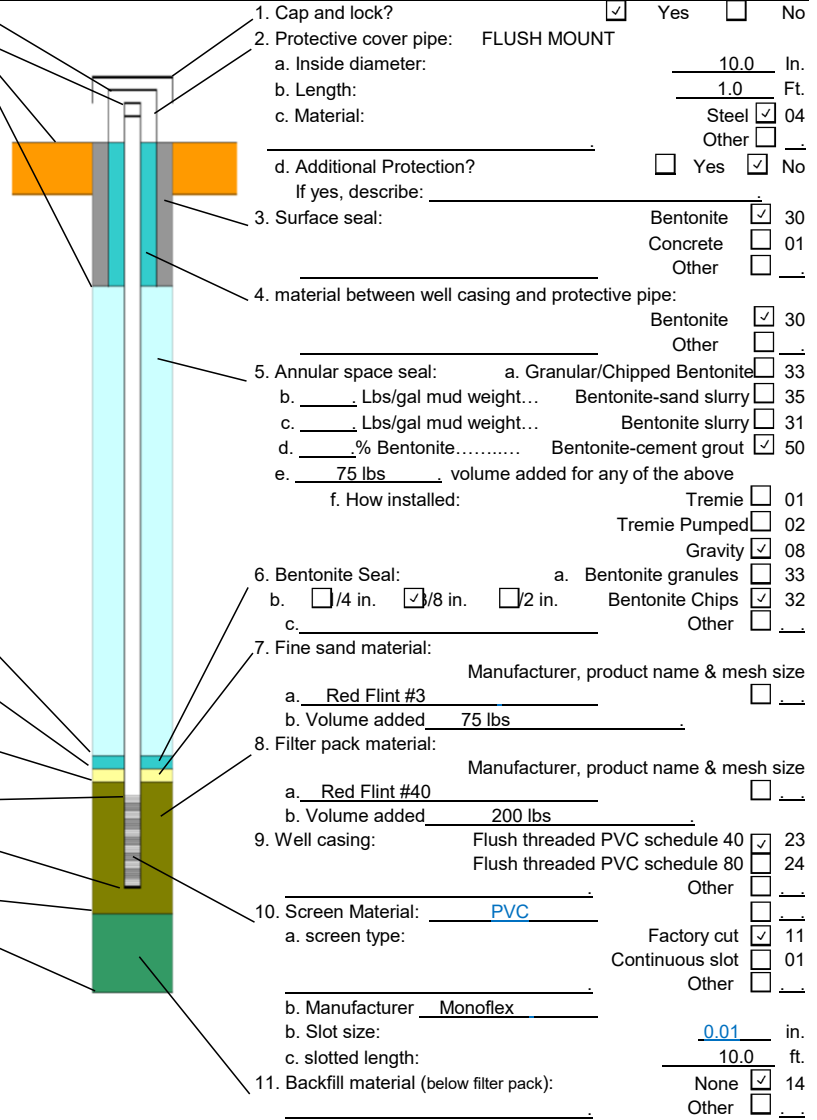
13. Sieve analysis performed? Yes No

14 Drilling method used: Rotary 50
 Hollow Stem Auger 41
 Rotosonic Other

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

16 Drilling additives used? Yes No
 Describe: _____

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



E Bentonite seal, top: 811.36 ft. MSL 67.0 ft.

F. Fine sand, top: 807.36 ft. MSL 71.0 ft.

G. Filter Pack, top: 805.36 ft. MSL 73.0 ft.

H. Screen joint, top: 802.46 ft. MSL 75.9 ft.

I. Well Bottom: 792.46 ft. MSL 85.9 ft.

J. Filter Pack, bottom: 788.36 ft. MSL 90.0 ft.

K. Borehole, bottom: 788.36 ft. MSL 90.0 ft.

L. Borehole, diameter: 6.0 In..

M. O.D. well casing: 2.375 In..

N. I.D. well casing: 2.047 In..

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

Signature: *Chris Struening* Firm: **AECOM**
 Madison, WI

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

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

Facility/Project Name <u>CURA</u>	County Name <u>Chippewa</u>	Well Name <u>Amn-6</u>
Facility License, Permit or Monitoring Number	County Code <u>9</u>	Wis. Unique Well Number <u>WF195</u>
		DNR Well ID Number _____

1. Can this well be purged dry? Yes No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/>	41
surged with bailer and pumped	<input type="checkbox"/>	61
surged with block and bailed	<input type="checkbox"/>	42
surged with block and pumped	<input checked="" type="checkbox"/>	62
surged with block, bailed and pumped	<input type="checkbox"/>	70
compressed air	<input type="checkbox"/>	20
bailed only	<input type="checkbox"/>	10
pumped only	<input type="checkbox"/>	51
pumped slowly	<input type="checkbox"/>	50
Other _____	<input type="checkbox"/>	

3. Time spent developing well _____ 6 min. hr

4. Depth of well (from top of well casing) _____ 67.67 ft.

5. Inside diameter of well _____ 2. in.

6. Volume of water in filter pack and well casing _____ 15 gal.

7. Volume of water removed from well _____ 10 gal.

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

9. Source of water added _____ NA

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	<u>63.33</u> ft.	<u>43.24</u> ft.
Date	<u>6/25/2023</u> m d d y y y	<u>9/25/2023</u> m d d y y y
Time	<u>11:16</u> <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	<u>10:20</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>rich light green</u>	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 (Describe) <u>clear</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>NA</u> mg/l	<u>NA</u> mg/l
15. COD	<u>NA</u> mg/l	<u>NA</u> mg/l
16. Well developed by: Name (first, last) and Firm	First Name: <u>Chris</u> Last Name: <u>Stuebel</u> Firm: <u>AECOM</u>	

17. Additional comments on development:
Well purged dry, would run ~~30 min~~ ^{15 min} at lowest flow and would need ~15 min recharge time - some well time spent replace ~~drill~~ pump
drillers used ~90 gal during construction of well ~~time lost~~
- 90 gallons to be removed

Name and Address of Facility Contact/Owner/Responsible Party

First Name: _____ Last Name: _____
Name: _____

Facility/Firm: _____

Street: _____

City/State/Zip: _____

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

Signature: _____
Print Name: Chris Stuebel
Firm: AECOM

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

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

Facility/Project Name CURA	County Name ean clone	Well Name Amur 2
Facility License, Permit or Monitoring Number	County Code 9	Wisconsin Unique Well Number WF 190
		DNR Well Number

1. Can this well be purged dry? Yes No

2. Well development method

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

3. Time spent developing well **1 hr 40 min.**

4. Depth of well (from top of well casing) **63** ft.

5. Inside diameter of well **2** in.

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

7. Volume of water removed from well **50** gal.

8. Volume of water added (if any) **x** gal.

9. Source of water added **x**

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. 55 ft.	56.5 ft.
Date	b. 6/10/23 m.m/dd/yyyy	6/10/23 m.m/dd/yyyy
Time	c. 1030 <input checked="" type="checkbox"/> a.m. <input type="checkbox"/> p.m.	1211 <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	_____ inches	_____ inches
13. Water clarity (Describe)	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 brown and cloudy	Clear <input checked="" type="checkbox"/> 20 Turbid <input type="checkbox"/> 25 clear
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	_____ mg/l	_____ mg/l
15. COD	_____ mg/l	_____ mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	Chris	Last Name: Straubing
Firm:	AECOM	

16. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party First Name: _____ Last Name: _____	I hereby certify that the above information is correct and true to the best of my knowledge
Facility/Firm: _____	Signature: [Signature]
Street: _____	Print Name: Chris Straubing
City/State/Zip: _____	Firm: AECOM

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

Facility/Project Name Chippewa Valley Regional Airport	County Name Chippewa	Well Name AMW-09
Facility License, Permit or Monitoring Number	County Code	Wisconsin Unique Well Number
		DNR Well Number

1. Can this well be purged dry? Yes No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/>	41
surged with bailer and pumped	<input type="checkbox"/>	61
surged with block and bailed	<input type="checkbox"/>	42
surged with block and pumped	<input checked="" type="checkbox"/>	62
surged with block, bailed and pumped	<input type="checkbox"/>	70
compressed air	<input type="checkbox"/>	20
bailed only	<input type="checkbox"/>	10
pumped only	<input type="checkbox"/>	51
pumped slowly	<input type="checkbox"/>	50
Other	<input type="checkbox"/>	

3. Time spent developing well ~105 min.

4. Depth of well (from top of well casing) 63.11 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 7.5 gal.

7. Volume of water removed from well ~406 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added M/A

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>57.98</u> ft.	_____ ft.
Date	b. <u>08/23/2023</u> m.m / d.d / y.y.y.y	<u>08/23/2021</u> m.m / d.d / y.y.y.y
Time	c. <u>1500</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>1645</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25
(Describe)	<u>DK Brn, High Turbidity</u>	<u>mod Brn, mod Turbidity</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>N/A</u> mg/l	<u>N/A</u> mg/l
15. COD	<u>N/A</u> mg/l	<u>N/A</u> mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	<u>Marcus Hopkins</u>	
Last Name:	<u></u>	
Firm:	<u>AFCom</u>	

16. Additional comments on development:
Well purged dry during well development. Surged out purge dry 8 times with approx 10-15 min recovery/recharge time. 3x well volume could not be removed. DTW after development will be collected ~~after~~ during gw sampling event.

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the above information is correct and true to the best of my knowledge
First Name: _____ Last Name: _____	Signature: _____
Facility/Firm: _____	Print Name: _____
Street: _____	Firm: _____
City/State/Zip: _____	

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

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

Facility/Project Name <u>Chippewa Valley Regional Airport</u>	County Name <u>Chippewa</u>	Well Name <u>AMW-10</u>
Facility License, Permit or Monitoring Number	County Code	Wisconsin Unique Well Number
		DNR Well Number

1. Can this well be purged dry? Yes No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/>	41
surged with bailer and pumped	<input type="checkbox"/>	61
surged with block and bailed	<input type="checkbox"/>	42
surged with block and pumped	<input checked="" type="checkbox"/>	62
surged with block, bailed and pumped	<input type="checkbox"/>	70
compressed air	<input type="checkbox"/>	20
bailed only	<input type="checkbox"/>	10
pumped only	<input type="checkbox"/>	51
pumped slowly	<input type="checkbox"/>	50
Other	<input type="checkbox"/>	

3. Time spent developing well ~160 min.

4. Depth of well (from top of well casing) 86.10 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing ~11.5 gal.

7. Volume of water removed from well ~20 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added N/A

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>78.28</u> ft.	_____ ft.
Date	b. <u>08/23/2023</u> m.m / dd / y.y.y.y	<u>08/23/2023</u> m.m / dd / y.y.y.y
Time	c. <u>1700</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>1940</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25
(Describe)	<u>DK Bm</u>	<u>Lt Bm</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>N/A</u> mg/l	<u>N/A</u> mg/l
15. COD	<u>N/A</u> mg/l	<u>N/A</u> mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	<u>Marcus</u>	Last Name: <u>Hopkin</u>
Firm:	<u>AECOM</u>	

16. Additional comments on development:
Well purges dry while developing, pumped dry multiples of times and allowed to recharge prior to surging the well. Unable to pump 3x well volume. Despite pumping dry gw is clearing up significant compared to start. DTW will be collected prior to sampling

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the above information is correct and true to the best of my knowledge
First Name: _____ Last Name: _____	Signature: _____
Facility/Firm: _____	Print Name: _____
Street: _____	Firm: _____
City/State/Zip: _____	

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

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

Facility/Project Name Chippewa Valley Regional Airport	County Name Chippewa	Well Name AMW-11	
Facility License, Permit or Monitoring Number	County Code	Wisconsin Unique Well Number	DNR Well Number

1. Can this well be purged dry? Yes No

2. Well development method

surged with bailer and bailed	<input type="checkbox"/>	41
surged with bailer and pumped	<input type="checkbox"/>	61
surged with block and bailed	<input type="checkbox"/>	42
surged with block and pumped	<input checked="" type="checkbox"/>	62
surged with block, bailed and pumped	<input type="checkbox"/>	70
compressed air	<input type="checkbox"/>	20
bailed only	<input type="checkbox"/>	10
pumped only	<input type="checkbox"/>	51
pumped slowly	<input type="checkbox"/>	50
Other	<input type="checkbox"/>	_____

3. Time spent developing well 70 min.

4. Depth of well (from top of well casing) 85.46 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing 29.18 gal.

7. Volume of water removed from well 245 gal.

8. Volume of water added (if any) 0 gal.

9. Source of water added N/A

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

	Before Development	After Development
11. Depth to Water (from top of well casing)	a. <u>79.42</u> ft.	_____ ft.
Date	b. <u>8/23/23</u> <small>m m / d d / y y y y</small>	<u>8/23/23</u> <small>m m / d d / y y y y</small>
Time	c. <u>1220</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.	<u>1230</u> <input type="checkbox"/> a.m. <input checked="" type="checkbox"/> p.m.
12. Sediment in well bottom	<u>0</u> inches	<u>0</u> inches
13. Water clarity	Clear <input type="checkbox"/> 10 Turbid <input checked="" type="checkbox"/> 15 (Describe) <u>DK Brn, V. Turbid</u>	Clear <input type="checkbox"/> 20 Turbid <input checked="" type="checkbox"/> 25 (Describe) <u>Lt Brn, Slight Turbidity</u>
Fill in if drilling fluids were used and well is at solid waste facility:		
14. Total suspended solids	<u>N/A</u> mg/l	<u>N/A</u> mg/l
15. COD	<u>N/A</u> mg/l	<u>N/A</u> mg/l
16. Well developed by: Name (first, last) and Firm		
First Name:	<u>Marcus</u>	Last Name: <u>Hopkins</u>
Firm:	<u>AECOM</u>	

16. Additional comments on development:

Name and Address of Facility Contact/Owner/Responsible Party	I hereby certify that the above information is correct and true to the best of my knowledge
First Name: _____ Last Name: _____	
Facility/Firm: _____	Signature: _____
Street: _____	Print Name: _____
City/State/Zip: _____	Firm: _____

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

Appendix D - Groundwater Sampling Forms



Well Purging and Sample Collection

Well No. AMW-01 Site Name/Location CVRA
 Water Level (ft TPVC) 78.02 AECOM Job No. 60710488
 Well Depth (ft TPVC) - Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing
 Purging Method low flow
 Purge Start Time 1245
 Purge Stop Time _____
 Sampling Method Submersible
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate _____
 Sample Collection Time 1315

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
1250	5.29	13.4	6.95	92.0	165.6	82.3	Bm	no	78.36	
1255	5.21	14.2	6.96	97.6	162.1	48.8	Lt Bm	no	78.40	
1300	5.56	14.6	6.85	96.9	125.2	106.7	Lt Bm	no	78.50	
1305	5.77	14.7	6.82	96.4	119.8	OR	Lt Bm	no	78.50	
1310	6.13	14.9	6.74	93.8	120.0	OR	Lt Bm	no	78.48	
1315	6.64	14.3	6.68	89.5	123.7	OR	Lt Bm	no	78.44	2.5

rate
175 ml/min

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments _____

Well Condition	Repairs Required	Comments
Protective Cover	_____	_____
Concrete Pad	_____	_____
Inner Well Casing	_____	_____
Locking Cap	_____	_____

Form Completed By: Marcus H. Title Geologist Date 9/3/22



Well Purging and Sample Collection

Well No. Amw-02 Site Name/Location CVRA
 Water Level (ft TPVC) 31.24 AECOM Job No. 60710488
 Well Depth (ft TPVC) - Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing

Purging Method _____
 Purge Start Time _____
 Purge Stop Time _____

Sampling Method _____
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate _____
 Sample Collection Time _____

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)

Stabilization Criteria

pH: ± 0.1
 Specific Conductance ± 3%
 ORP ± 10 mV
 Turbidity ± 10% (when >10 NTU)
 DO ± 0.3 mg/L

Comments Well Well purged dry and is not receding. unable to sample

Well Condition	Repairs Required	Comments
Protective Cover _____	_____	_____
Concrete Pad _____	_____	_____
Inner Well Casing _____	_____	_____
Locking Cap _____	_____	_____

Form Completed By: Marcus H Title Geol Date 9/13/23



Well Purging and Sample Collection

Well No. AMW-03 Site Name/Location CVRA
 Water Level (ft TPVC) 65.55 AECOM Job No. 60710488
 Well Depth (ft TPVC) -- Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing
 Purging Method low flow
 Purge Start Time 1425
 Purge Stop Time _____
 Sampling Method Submersible
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate 200ml/min
 Sample Collection Time 1510

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
1440	9.07	14.2	--	--	--	--	--	--	--	--
1445	9.07	14.2	--	--	--	--	--	--	--	--
1450	9.07	14.2	6.37	50.7	159.9	67.9	400	ND	65.65	
1455	9.12	13.6	6.38	50.2	133.2	42.4	400	ND		
1500	8.89	14.9	6.37	52.1	122.3	58.6	400	ND	65.68	
1505	8.99	14.2	6.37	51.3	106.7	82.8	400	ND	65.79	
1510	8.84	14.5	6.37	51.7	65.2	106.3	400	ND	65.67	

rate
200 ml/min
200 ml/min

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments _____

Well Condition	Repairs Required	Comments
Protective Cover	<u>NO</u>	_____
Concrete Pad	<u>↓</u>	_____
Inner Well Casing	<u>↓</u>	_____
Locking Cap	<u>↓</u>	_____

Form Completed By: Marcus H. Title Geologist Date 9/13/22



Well Purging and Sample Collection

Well No. Amw-04 Site Name/Location CVRA
 Water Level (ft TPVC) 68.15 AECOM Job No. 60710488
 Well Depth (ft TPVC) -- Weather _____
 Purging Method 1220 1 or flow Person(s) Sampling Marcus Hopkins / Chris Stuebing
 Purge Start Time 1220
 Purge Stop Time 1245
 Sampling Method Submersible
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate 220 ml/min
 Sample Collection Time 1245

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
1225	2.57	15.3	6.58	212.5	95.1	OR	Lt Brn	no	68.12	
1230	2.61	14.0	6.59	201.8	84.1	104.8	Lt Brn	no	68.14	
1235	2.74	14.4	6.57	204.1	79.1	72.5	Lt Brn	no	68.14	
1240	2.71	14.5	6.56	201.2	75.3	47.8	Lt Brn	no	68.14	
1245	2.68	14.6	6.56	201.9	72.1	25.4	Lt Brn	no	68.14	

rate
220 ml/min
220 ml/min

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments OR = over Range

Well Condition	Repairs Required	Comments
Protective Cover	<u>NO</u>	
Concrete Pad		
Inner Well Casing	<u>↓</u>	
Locking Cap		

Form Completed By: Marcus H. Title _____ Date 9/12



Well Purging and Sample Collection

Well No. AMW-05

Site Name/Location CVRA

Water Level (ft TPVC) 64.74

AECOM Job No. 60710488

Well Depth (ft TPVC) -

Weather _____

Person(s) Sampling Marcus Hopkins / Chris Stuebing

Purging Method low flow

Purge Start Time 1505

Purge Stop Time 1530

Sampling Method Submaxi. by

Sampler Intake Depth (ft) _____

Average Sample Flow Rate 3.0ml/min

Sample Collection Time 1530

Field Measurements and Observations

Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
1510	8.67	13.2	6.36	214.1	117.0	71.3	lt Brn	no	64.75	
1515	8.32	13.5	6.35	213.5	117.8	72.1	lt Brn	no	64.75	
1520	8.35	14.4	6.33	215.7	119.7	54.5	lt Brn	no	64.76	
1525	8.25	14.3	6.32	212.7	121.1	53.5	lt Brn	no	64.77	
1530	8.56	14.4	6.32	211.5	121.5	41.0	lt Brn	no	64.77	

rate
2.0ml/min

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments _____

Well Condition	Repairs Required	Comments
Protective Cover	<u>NO</u>	_____
Concrete Pad	<u>↓</u>	_____
Inner Well Casing	<u>↓</u>	_____
Locking Cap	<u>↓</u>	_____

Form Completed By: Marcus Hopkins Title _____ Date 9/12



Well Purging and Sample Collection

Well No. AMW-06 Site Name/Location CVRA
 Water Level (ft TPVC) 63.30 AECOM Job No. 60710488
 Well Depth (ft TPVC) -- Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing
 Purging Method low flow
 Purge Start Time 1620
 Purge Stop Time _____
 Sampling Method Submersible
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate _____
 Sample Collection Time _____

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
1625	10.10	14.1	6.60	52.1	95.6	-	LTBm	N2	-	
1700	10.79	13.1	6.65	48.5	97.3	24.5	CLK	N2	-	

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments Well purged dry before first readings were completed. Well was allowed to recharge for 35 minutes before sample was collected.

Well Condition	Repairs Required	Comments
Protective Cover	<u>NW</u>	
Concrete Pad		
Inner Well Casing	<u>Y</u>	
Locking Cap	<u>Y</u>	

Form Completed By: Marcus Hopkins Title Geologist Date 9/17/23



Well Purging and Sample Collection

Well No. AMW-07
 Water Level (ft TPVC) 56.25'
 Well Depth (ft TPVC) --

Site Name/Location CVRA
 AECOM Job No. 60710488
 Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing

Purging Method Submersible (low flow)
 Purge Start Time 0930
 Purge Stop Time 0945

Sampling Method w
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate 300ml/min
 Sample Collection Time 0945

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
0925	9.10	10.7	6.41	33.6	90.4	20R76.5	lt Brn	No	55.56	
0930	8.45	11.7	6.38	31.0	78.0	66.9	lt Brn	No	55.51	
0935	8.26	11.8	6.39	31.2	66.6	63.7	lt Brn	No	55.54	
0940	8.10	12.1	6.39	31.6	60.4	63.3	lt Brn	No	55.58	
0945	7.98	11.9	6.39	31.1	56.7	50.7	lt Brn	No	55.61	

Rate
ml/min
300ml/min
300ml/min

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments Well NO. = WF190

Well Condition	Repairs Required	Comments
Protective Cover	<u>NO</u>	
Concrete Pad		
Inner Well Casing	<u>↓</u>	
Locking Cap		

Form Completed By: Marcus H. Title Geologist Date 9/12/20



Amw-09

Well Purging and Sample Collection

Well No. Amw-09-04 (n)
 Water Level (ft TPVC) 58.85
 Well Depth (ft TPVC) -

Site Name/Location CVRA
 AECOM Job No. 60710488
 Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing

Purging Method low flow
 Purge Start Time 0955
 Purge Stop Time _____

Sampling Method Submersible
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate 180 ml/min
 Sample Collection Time 1025

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
1000	8.10	11.2	6.85	66.1	11.0	OK	4 Bm	no	-	
1005	7.47	11.6	6.93	70.3	-6.3	OK	4 Bm	no	62.55	
1010	7.11	12.2	6.91	73.3	-22.1	OK	4 Bm	no	-	
1015	6.64	12.6	6.95	74.5	-28.5	102.1	4 Bm	no	-	
1020	6.45	12.8	6.97	75.1	-26.7	OK	4 Bm	no	-	
1025 1025	6.30	12.9	6.99	75.1	-25.5	OK	4 Bm	no	-	

rate
180ml/min
180ml/min

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments OR = 2 yr range, well purged to below ^{TOP of} pump, under TD
collected depth TD water

Well Condition	Repairs Required	Comments
Protective Cover	<u>NO</u>	
Concrete Pad	<u>↓</u>	
Inner Well Casing	<u>↓</u>	
Locking Cap	<u>↓</u>	

Form Completed By: Marcus H Title Geologist Date 9/13/27



Well Purging and Sample Collection

Well No. AMW-10 Site Name/Location CVRA
 Water Level (ft TPVC) 78.38 AECOM Job No. 60710488
 Well Depth (ft TPVC) -- Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing
 Purging Method low flow
 Purge Start Time 0815
 Purge Stop Time 0845
 Sampling Method Submersible
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate 300ml/min
 Sample Collection Time 0845

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
0820	0.47	10.4	8.18	124.3	-255.8	OK	Lt Brn	no		
0825	0.31	11.4	8.32	114.4	-310.0	100.8	Lt Brn	no	80.86	
0830	0.51	12.4	8.38	103.9	-348.1	85.7	Lt Brn	no	80.61	
0835	0.63	12.4	8.41	99.5	-349.0	73.9	Lt Brn	no	80.58	
0840	1.01	12.7	8.43	96.2	-339.5	61.1	Lt Brn	no	80.59	
0845	1.43	12.8	8.43	94.5	-325.0	50.9	Lt Brn	no	80.59	

rate
300 ml/min
300ml/min
↓

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments OR = over range

Well Condition	Repairs Required	Comments
Protective Cover	<u>NO</u>	
Concrete Pad		
Inner Well Casing	<u>↓</u>	
Locking Cap		

Form Completed By: Marcus H. Title Geologist Date 9/13/27



Well Purging and Sample Collection

Well No. Amw-11
 Water Level (ft TPVC) 79.65
 Well Depth (ft TPVC) -

Site Name/Location CVRA
 AECOM Job No. 60710488
 Weather _____
 Person(s) Sampling Marcus Hopkins / Chris Stuebing

Purging Method low flow
 Purge Start Time 1055
 Purge Stop Time _____

Sampling Method Submersible
 Sampler Intake Depth (ft) _____
 Average Sample Flow Rate 250 ml/min
 Sample Collection Time 1125

Field Measurements and Observations										
Time	DO (mg/L)	Temp (deg C)	pH	Cond (uMhos/cm)	ORP (mV)	Turbidity (NTU)	Color	Odor	Water Level (ft TPVC)	Vol. Purged (gal)
1105 1100	10.49	12.3	6.92	53.3	101.9	OR	Lt Brn	no	79.66	
1105	9.71	12.6	6.94	58.3	52.2	OR	Lt Brn	no	79.66	
1110	9.33	13.0	6.94	59.1	44.5	93.2	Lt Brn	no	79.66	
1115	9.73	12.6	6.94	58.0	41.8	70.7	Lt Brn	no	79.67	
1120	9.20	13.8	6.93	56.8	43.9	44.9	Lt Brn	no	79.66	
1125	9.07	14.2	6.93	57.5	44.8	35.9	Lt Brn	no	79.66	

rate
250 ml/min

Stabilization Criteria	
pH:	± 0.1
Specific Conductance	± 3%
ORP	± 10 mV
Turbidity	± 10% (when >10 NTU)
DO	± 0.3 mg/L

Comments OR = Over range, Well ID = WJF193

Well Condition	Repairs Required	Comments
Protective Cover	_____	_____
Concrete Pad	_____	_____
Inner Well Casing	_____	_____
Locking Cap	_____	_____

Form Completed By: Marcus H. Title Geologist Date 7/12/23

Appendix E - Groundwater Laboratory Analytical Report with Data Validation

- AECOM Data Validation – Groundwater Laboratory Report
- Enthalpy Groundwater Laboratory Report



AECOM
1555 N. RiverCenter Drive, Suite 214
Milwaukee, WI 53212

414.944.6080 tel
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Data Validation Report

Project:	Chippewa Valley Regional Airport		
Laboratory:	Enthalpy Analytical Laboratory, 1104 Windfield Way, El Dorado Hills, CA 95762		
Work Order (WO):	2309111		
Analyses/Method:	Per- and Polyfluorinated Alkyl Substances (PFASs) / PFAS Isotope Dilution Method / Method 537 Modified		
Validation Level:	Level 2		
Prepared by:	Lisa Smith (CEAC)	Completed on:	11/7/2023

The samples listed below were collected by AECOM on September 12 and 13, 2023.

Sample ID	Quality Control	Sample Date/Time	Laboratory ID
Groundwater Samples:			
AMW-01		9/13/2023	2309111-01
AMW-03	MS/MSD	9/13/2023	2309111-02
AMW-04		9/12/2023	2309111-03
DUP1	Field duplicate of AMW-04	9/12/2023	2309111-10
AMW-05		9/12/2023	2309111-04
AMW-06		9/12/2023	2309111-05
AMW-07		9/12/2023	2309111-06
AMW-09		9/13/2023	2309111-07
AMW-10		9/13/2023	2309111-08
AMW-11		9/12/2023	2309111-09
Field Quality Control Samples:			
AB091223	Ambient Blank	9/12/2023	2309111-13
EB091223	Equipment Blank	9/12/2023	2309111-11
EB091323	Equipment Blank	9/13/2023	2309111-12

Data validation activities were conducted with reference to:

- *Wisconsin DNR PFAS Updates, March 1, 2021*
- *Wisconsin PFAS Aqueous (Non-Potable Water) and Non-Aqueous Matrices Method Expectations, EA-19-0001-C, 12/19/2019.*
- *Data Validation Guidelines Module 3: Data Validation Procedure for Per- and Polyfluoroalkyl Substances Analysis by QSM Table B-15, Department of Defense, 5/1/2020.*

In the absence of method-specific information, laboratory quality control (QC) limits, or project-specific requirements, AECOMs professional judgment was used as appropriate.

REVIEW ELEMENTS

The data were evaluated based on the following parameters (where applicable to the method):

- ✓ Data completeness (chain-of-custody (CoC)/sample integrity)
- ✓ Holding times
- ✗ Laboratory blanks
- ✗ Field and Equipment blanks
- ✓ Extracted Internal Standards (EIS)
- ✓ Laboratory control sample (LCS)
- ✓ Matrix Spike/Matrix Spike Duplicates (MS/MSDs)
- ✗ Ion ratios (IR) (Lab Q flag)
- ✗ Field duplicates

The symbol (✓) indicates that no validation qualifiers were applied based on this parameter. The symbol (✗) indicates that a QC nonconformance resulted in the qualification of data. Any QC nonconformance that resulted in the qualification of data is discussed below. In addition, nonconformances or other issues that were noted during validation, but did not result in qualification of data, may be discussed for informational purposes only.

SUMMARY

Based on the results of the validation, the data are valid as reported and may be used for decision making purposes. Four results were qualified U/J+ due method or equipment blank detections. In addition, results were also qualified as estimated (J flag, with bias flags as appropriate) due to matrix spike recoveries, transition ion ratios, or field imprecision. A detailed data validation discussion is provided below.

DETAILED REVIEW

Data Completeness

The data packages were reviewed and met the following acceptance criteria for completeness:

- The CoCs were reviewed for completeness of information relevant to the samples and requested analyses, and for signatures indicating transfer of sample custody.
- The laboratory sample login sheet(s) were reviewed for issues potentially affecting sample integrity, including the condition of sample containers upon receipt at the laboratory.
- Completeness of analyses was verified by comparing the reported results to the CoC requests.

The following items are noted for informational purposes (and do not affect data usability):

- The sample collection time was not listed on the CoC for sample AMW-06. The laboratory logged in the sample using the collection time on the container labels.

Holding Times

Samples were extracted within the 28-day holding time and analyzed within 30 days of extraction.

Laboratory Blanks

Laboratory method blanks were analyzed to assess contamination from laboratory procedures. The method blanks were analyzed at the correct frequency. Analytes detected in the method blanks are summarized below. Associated sample detects that were below the RL were qualified as nondetect

(U), and associated results that were above the RL, but within five times the blank concentration were qualified as estimated biased high (J+).

Batch	Analyte	Units	Blank Concentration	Results Qualified
B23I086	PFPeA	ng/L	1.64 J	Results qualified nondetect: AB091223
	6:2 FTS	ng/L	1.91 J	Results qualified as estimated biased high (J+): AMW-09 Results qualified as estimated biased high (J+): AB091223

Field (Ambient) and Equipment Blanks

Field blanks are analyzed to assess contamination from field procedures. Field equipment and ambient blanks were analyzed at the correct frequency. Analytes detected in the field QC blanks are summarized below.

Blank ID	Analyte	Units	Blank Concentration	Results Qualified
AB091223	PFPeA	ng/L	1.83 J	These detections were previously determined to be laboratory contamination.
	6:2 FTS	ng/L	2.26	
EB091223	PFOA	ng/L	3.23	Associated results were qualified as estimated biased high (J+): AMW-04 AMW-07 AMW-11

Extracted Internal Standards

Extracted internal standards (EISs) are spiked into all field samples, field QC samples, and method QC samples and are used to quantitate the analytes. The EIS recoveries were within the WI limits of 10-150% for the FOSA, NMeFOSA, NEtFOSA, NMeFOSE, and NEtFOSE EISs, and were within the limits of 25-150% for other EISs.

LCS Results (OPR)

The OPR (Ongoing Precision and Recovery sample) or LCS, was analyzed to monitor the accuracy of the analytical method independent of matrix effects. Recoveries (%Rs) were within the WI limits of 60% to 135% for normal range LCSs and were acceptable.

Matrix Spike/Matrix Spike Duplicates (MS/MSDs)

Matrix spikes are analyzed to determine the effects of sample matrix on the measurement methodology. MS/MSD results were provided for sample AMW-03. Recoveries (%Rs) were within the laboratory specified QC limits and were acceptable, except as listed in the table below.

Analyte	% Recovery	% Recovery Limits	RPD	RPD Limits	Results Qualified
6:2 FTS	212/289	50-150	30.7	50	The detect for sample AMW-03 was qualified as estimated biased high (J+).
PFNS	154/127	50-150	19.2	50	The results for sample AMW-03 were nondetect and were acceptable without qualification.
PFDA	152/122	50-150	21.9	50	
PFDoS	168/124	50-150	30.1	50	
MeFOSAA	153/117	50-150	26.7	50	
4:2 FTS	435/117	50-150	115	50	The sample concentration was greater

Analyte	% Recovery	% Recovery Limits	RPD	RPD Limits	Results Qualified
PFBA	324/223	50-150	36.9	50	than four times the spike concentration. No qualifiers.
PFBS	340/203	50-150	50.5	50	
PFPeA	111/54.2	50-150	68.8	50	
PFPeS	514/268	50-150	62.9	50	
PFHxA	38/-52.8	50-150	1230	50	
PFHxS	0.366/-63.2	50-150	202	50	
PFHpA	233/283	50-150	19.4	50	
PFHpS	187/141	50-150	28.0	50	
PFOA	371/186	50-150	66.4	50	
PFOS	-76.6/364	50-150	307	50	

Ion Transition Ratios

Laboratory qualifiers indicate that several samples did not meet the ion transition ratio criteria which were qualified as "Q" by the laboratory and summarized below. These results were qualified as estimated (J) and are considered as estimated maximum concentrations.

Sample ID	Parameter	Concentration and Validator Flag	Units	MDL	RL
AMW-05	PFNA	8.94 J	ng/L	1.29	2.08
AMW-06	PFHxA	1.38 J	ng/L	1.32	2.10
AMW-07	PFOSA	9.95 J	ng/L	1.80	2.08
AMW-11	PFOSA	3.03 J	ng/L	1.85	2.14
AMW-11	PFHxS	3.12 J	ng/L	1.52	2.14

Field Duplicate Results

Field duplicates are collected to assess the overall precision of field sampling and laboratory analysis. Samples AMW-04 and DUP1 were parent and field duplicate, respectively. A summary of the field duplicate results (detections only) and RPDs are as listed in the table below. Field duplicate relative percent differences (RPDs) were less than the groundwater criteria of 30%, or the absolute difference of the results were with \pm the reporting limit (RL) if one or both results were less than five times the RL, except as indicated in bold in the table below. Results associated with field imprecision were qualified as estimated (J).

Analytes	Units	RL (max)	Sample Concentration	Field Duplicate Concentration	RPD (%)
6:2 FTS	ng/L	2.13	114	112	1.8
PFBA	ng/L	2.13	28.6	27.0	5.8
PFBS	ng/L	2.13	8.68	8.94	3.0
PFPeA	ng/L	2.13	107	119	10.6
PFPeS	ng/L	2.19	8.34	4.64	> \pm RL
PFHxA	ng/L	2.13	52.0	60.8	15.6
PFHxS	ng/L	2.13	77.8	72.6	6.9
PFHpA	ng/L	2.13	17.6	18.9	7.1
PFHpS	ng/L	2.13	4.89	6.35	26
PFOA	ng/L	2.13	17.4	17.6	1.1
PFOS	ng/L	2.13	241	261	8.0
PFOSA	ng/L	2.13	2.95	2.13 U	--

Bold indicates an exceedance

Sample Results and Quantitation

Sample results were reviewed for correct methods, units, and reported analytes. No issues or discrepancies were found during this review.

The laboratory case narrative indicated that six of the samples contained particulate and were centrifuged prior to extraction.

Dilutions were performed for samples AMW-03 and AMW-05 due to elevated target compound concentrations. The laboratory flagged the affected sample results with a D flag. No qualification was required for diluted results.

Qualified Analytical Results

Results reported below the Reporting Limit were qualified as estimated (J) by the laboratory; qualifications of these results were accepted by the Validator; however, they are not listed in the table below.

Table 1 - Data Validation Summary of Qualified Data

Sample ID	Lab ID	Analyte	Validation Qualifier ⁽¹⁾	Units	Reason Code ⁽²⁾
AMW-09	2309111-07	PFPeA	J+	ng/l	mb
AB091223	2309111-13	PFPeA	U	ng/l	mb
		6:2 FTS	J+	ng/l	mb
AMW-04	2309111-03	PFOSA	J+	ng/l	eb
AMW-07	2309111-06				
AMW-11	2309111-09				
AMW-03	2309111-02	6:2 FTS	J+	ng/l	m
AMW-05	2309111-04	PFNA	J	ng/l	ir
AMW-06	2309111-05	PFHxA	J	ng/l	ir
AMW-07	2309111-06	PFOSA	J	ng/l	ir
AMW-11	2309111-09	PFOSA	J	ng/l	ir
AMW-11	2309111-09	PFHxS	J	ng/l	ir
AMW-04	2309111-03	PFPeS	J	ng/l	fd
DUP1	2309111-10				

(1): Data Validation Qualifiers:

J Estimated, +/- indicate the direction of bias
U Nondetect

(2): Reason Codes:

eb Equipment blank
fd Field imprecision
ir Ion ratios
mb Method blank
m Matrix spike



October 11, 2023

**Enthalpy Analytical - El Dorado Hills
Work Order No. 2309111**

Ms. Lanette Altenbach
AECOM
1555 N. River Center Drive
Milwaukee, WI 53212

Dear Ms. Altenbach,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on September 15, 2023 under your Project Name '60710448'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mark.rein@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

Mark Rein
Project Manager

Enthalpy Analytical -EDH certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Enthalpy Analytical -EDH.

Enthalpy Analytical - EDH Work Order No. 2309111

Case Narrative

Sample Condition on Receipt:

Thirteen aqueous samples were received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The samples were received in good condition and within the recommended temperature requirements.

Analytical Notes:

PFAS Isotope Dilution Method

The following samples contained particulate and were centrifuged prior to extraction:

<u>Laboratory ID</u>	<u>Sample Name</u>
2309111-01	AMW-01
2309111-02	AMW-03
2309111-04	AMW-05
2309111-07	AMW-09
2309111-08	AMW-10
2309111-09	AMW-11

The samples were extracted and analyzed for a selected list of PFAS using Enthalpy Analytical - EDH's PFAS Isotope Dilution Method. The results for PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Holding Times

The samples were extracted and analyzed within the hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with each preparation batch. The concentration of PFPeA and 6:2 FTS were detected in the Method Blank over Reporting Limits (RL). The reported sample results for this analyte may be biased high. The OPR recoveries were within the method acceptance criteria.

As requested, an MS/MSD was performed on sample "AMW-03". The MS/MSD recoveries and RPDs outside of the acceptance criteria are flagged with an "H" qualifier.

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

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Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2309111-01	AMW-01	13-Sep-23 13:15	13-Sep-23 09:00	HDPE Bottle, 250 mL
2309111-02	AMW-03	13-Sep-23 15:10	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-03	AMW-04	12-Sep-23 12:45	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-04	AMW-05	12-Sep-23 15:30	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-05	AMW-06	12-Sep-23 17:00	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-06	AMW-07	12-Sep-23 09:45	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-07	AMW-09	13-Sep-23 10:25	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-08	AMW-10	13-Sep-23 08:45	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-09	AMW-11	12-Sep-23 11:25	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-10	Dup1	12-Sep-23 12:45	13-Sep-23 09:00	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2309111-11	EB091223	12-Sep-23 16:00	13-Sep-23 09:00	HDPE Bottle, 250 mL
2309111-12	EB091323	13-Sep-23 14:20	13-Sep-23 09:00	HDPE Bottle, 250 mL
2309111-13	AB091223	12-Sep-23 16:05	13-Sep-23 09:00	HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank					PFAS Isotope Dilution Method						
Client Data				Laboratory Data							
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B23I086-BLK1	Column:	BEH C18				
Project:	60710448										
Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	<1.33	1.33	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFPeA	2706-90-3	1.64	1.30	2.00	J	B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFBS	375-73-5	<1.14	1.14	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
4:2 FTS	757124-72-4	<1.31	1.31	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFHxA	307-24-4	<1.26	1.26	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFPeS	2706-91-4	<1.74	1.74	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
HFPO-DA	13252-13-6	<1.95	1.95	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFHpA	375-85-9	<0.875	0.875	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
ADONA	919005-14-4	<1.10	1.10	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFHxS	355-46-4	<1.42	1.42	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
6:2 FTS	27619-97-2	1.91	1.46	2.00	J, Q	B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFOA	335-67-1	<1.11	1.11	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFHpS	375-92-8	<1.64	1.64	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFNA	375-95-1	<1.25	1.25	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFOSA	754-91-6	<1.73	1.73	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFOS	1763-23-1	<1.86	1.86	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
9Cl-PF3ONS	756426-58-1	<1.50	1.50	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFDA	335-76-2	<1.21	1.21	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
8:2 FTS	39108-34-4	<1.72	1.72	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFNS	68259-12-1	<1.65	1.65	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
MeFOSAA	2355-31-9	<1.38	1.38	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
EtFOSAA	2991-50-6	<1.34	1.34	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFUnA	2058-94-8	<1.07	1.07	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFDS	335-77-3	<1.55	1.55	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
11Cl-PF3OUdS	763051-92-9	<1.20	1.20	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFDoA	307-55-1	<1.33	1.33	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
MeFOSA	31506-32-8	<3.00	3.00	4.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFTTrDA	72629-94-8	<1.40	1.40	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFDoS	79780-39-5	<1.73	1.73	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
PFTeDA	376-06-7	<1.15	1.15	2.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
EtFOSA	4151-50-2	<2.46	2.46	4.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
MeFOSE	24448-09-7	<2.35	2.35	4.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
EtFOSE	1691-99-2	<2.11	2.11	4.00		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBA	IS	105	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1		
13C3-PFPeA	IS	99.9	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1		
13C3-PFBS	IS	99.8	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1		
13C2-4:2 FTS	IS	134	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1		

Sample ID: Method Blank **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B23I086-BLK1	Column:	BEH C18
Project:	60710448						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	IS	102	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C3-HFPO-DA	IS	102	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C4-PFHpA	IS	98.2	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C3-PFHxS	IS	90.7	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C2-6:2 FTS	IS	106	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C2-PFOA	IS	97.9	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C5-PFNA	IS	106	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C8-PFOA	IS	70.2	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C8-PFOS	IS	99.4	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C2-PFDA	IS	87.5	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C2-8:2 FTS	IS	106	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
d3-MeFOSAA	IS	96.9	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
d5-EtFOSAA	IS	80.1	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C2-PFUnA	IS	91.8	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C2-PFDoA	IS	88.5	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
d3-MeFOSA	IS	35.6	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
13C2-PFTeDA	IS	88.7	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
d5-EtFOSA	IS	28.9	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
d7-MeFOSE	IS	41.0	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1
d9-EtFOSE	IS	42.1	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 17:55	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR

PFAS Isotope Dilution Method

Client Data					Laboratory Data							
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	B231086-BS1	Column:	BEH C18				
Project:	60710448											

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	40.0	40.0	100	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFPeA	2706-90-3	40.4	40.0	101	50 - 150	B	B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFBS	375-73-5	40.3	40.0	101	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
4:2 FTS	757124-72-4	36.2	40.0	90.4	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFHxA	307-24-4	41.6	40.0	104	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFPeS	2706-91-4	47.1	40.0	118	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
HFPO-DA	13252-13-6	41.3	40.0	103	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFHpA	375-85-9	46.7	40.0	117	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
ADONA	919005-14-4	46.2	40.0	115	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFHxS	355-46-4	42.2	40.0	105	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
6:2 FTS	27619-97-2	38.7	40.0	96.7	50 - 150	B	B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFOA	335-67-1	48.3	40.0	121	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFHpS	375-92-8	39.9	40.0	99.8	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFNA	375-95-1	41.6	40.0	104	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFOSA	754-91-6	37.8	40.0	94.4	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFOS	1763-23-1	38.0	40.0	95.0	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
9Cl-PF3ONS	756426-58-1	38.5	40.0	96.2	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFDA	335-76-2	45.5	40.0	114	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
8:2 FTS	39108-34-4	36.7	40.0	91.8	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFNS	68259-12-1	43.2	40.0	108	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
MeFOSAA	2355-31-9	39.8	40.0	99.5	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
EtFOSAA	2991-50-6	40.3	40.0	101	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFUnA	2058-94-8	42.7	40.0	107	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFDS	335-77-3	38.7	40.0	96.7	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
11Cl-PF3OUdS	763051-92-9	43.6	40.0	109	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFDoA	307-55-1	41.7	40.0	104	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
MeFOSA	31506-32-8	51.4	40.0	129	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFTTrDA	72629-94-8	43.5	40.0	109	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFDoS	79780-39-5	44.3	40.0	111	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
PFTeDA	376-06-7	38.6	40.0	96.5	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
EtFOSA	4151-50-2	48.5	40.0	121	50 - 150		B231086	25-Sep-23	0.250 L	29-Sep-23 18:06	1

Sample ID: OPR

PFAS Isotope Dilution Method

Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	B23I086-BS1	Column:	BEH C18			
Project:	60710448										

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
MeFOSE	24448-09-7	43.9	40.0	110	50 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
EtFOSE	1691-99-2	42.3	40.0	106	50 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
Labeled Standards			Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA			IS	95.3	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C3-PFPeA			IS	96.1	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C3-PFBS			IS	87.6	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-4:2 FTS			IS	108	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-PFHxA			IS	96.4	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C3-HFPO-DA			IS	101	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C4-PFHpA			IS	85.8	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C3-PFHxS			IS	86.3	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-6:2 FTS			IS	94.5	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-PFOA			IS	79.2	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C5-PFNA			IS	88.5	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C8-PFOA			IS	68.7	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C8-PFOS			IS	94.1	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-PFDA			IS	84.6	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-8:2 FTS			IS	89.9	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
d3-MeFOSAA			IS	85.5	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
d5-EtFOSAA			IS	71.6	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-PFUnA			IS	79.5	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-PFDoA			IS	82.0	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
d3-MeFOSA			IS	29.7	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
13C2-PFTeDA			IS	81.0	25 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
d5-EtFOSA			IS	26.4	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
d7-MeFOSE			IS	45.7	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1
d9-EtFOSE			IS	47.4	10 - 150		B23I086	25-Sep-23	0.250 L	29-Sep-23 18:06	1

Sample ID: Method Blank					PFAS Isotope Dilution Method						
Client Data				Laboratory Data							
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B23I243-BLK1	Column:	BEH C18				
Project:	60710448										
Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	<1.33	1.33	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFPeA	2706-90-3	<1.30	1.30	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFBS	375-73-5	<1.14	1.14	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
4:2 FTS	757124-72-4	<1.31	1.31	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFHxA	307-24-4	<1.26	1.26	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
HFPO-DA	13252-13-6	<1.95	1.95	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFHpA	375-85-9	<0.875	0.875	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
ADONA	919005-14-4	<1.10	1.10	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFHxS	355-46-4	<1.42	1.42	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
6:2 FTS	27619-97-2	<1.46	1.46	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFOA	335-67-1	<1.11	1.11	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFHpS	375-92-8	<1.64	1.64	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFNA	375-95-1	<1.25	1.25	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFOSA	754-91-6	<1.73	1.73	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFOS	1763-23-1	<1.86	1.86	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
9Cl-PF3ONS	756426-58-1	<1.50	1.50	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFDA	335-76-2	<1.21	1.21	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
8:2 FTS	39108-34-4	<1.72	1.72	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFNS	68259-12-1	<1.65	1.65	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
MeFOSAA	2355-31-9	<1.38	1.38	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
EtFOSAA	2991-50-6	<1.34	1.34	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFUnA	2058-94-8	<1.07	1.07	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFDS	335-77-3	<1.55	1.55	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
11Cl-PF3OUdS	763051-92-9	<1.20	1.20	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFDoA	307-55-1	<1.33	1.33	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
MeFOSA	31506-32-8	<3.00	3.00	4.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFTTrDA	72629-94-8	<1.40	1.40	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFDoS	79780-39-5	<1.73	1.73	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
PFTeDA	376-06-7	<1.15	1.15	2.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
EtFOSA	4151-50-2	<2.46	2.46	4.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
MeFOSE	24448-09-7	<2.35	2.35	2.50		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
EtFOSE	1691-99-2	<2.11	2.11	4.00		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBA	IS	101	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1		
13C3-PFPeA	IS	104	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1		
13C3-PFBS	IS	99.1	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1		
13C2-4:2 FTS	IS	96.7	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1		
13C2-PFHxA	IS	105	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1		

Sample ID: Method Blank **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B23I243-BLK1	Column:	BEH C18
Project:	60710448						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-HFPO-DA	IS	103	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C4-PFHpA	IS	104	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C3-PFHxS	IS	109	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C2-6:2 FTS	IS	109	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C2-PFOA	IS	99.1	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C5-PFNA	IS	99.4	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C8-PFOA	IS	89.9	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C8-PFOS	IS	111	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C2-PFDA	IS	96.6	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C2-8:2 FTS	IS	95.2	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
d3-MeFOSAA	IS	108	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
d5-EtFOSAA	IS	99.1	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C2-PFUnA	IS	95.6	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C2-PFDoA	IS	91.7	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
d3-MeFOSA	IS	21.6	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
13C2-PFTeDA	IS	81.5	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
d5-EtFOSA	IS	14.1	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
d7-MeFOSE	IS	46.3	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1
d9-EtFOSE	IS	42.9	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 22:54	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: OPR
PFAS Isotope Dilution Method

Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	B23I243-BS1	Column:	BEH C18			
Project:	60710448										

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	40.0	40.0	100	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFPeA	2706-90-3	38.4	40.0	96.1	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFBS	375-73-5	36.2	40.0	90.5	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
4:2 FTS	757124-72-4	42.6	40.0	106	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFHxA	307-24-4	40.7	40.0	102	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
HFPO-DA	13252-13-6	40.1	40.0	100	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFHpA	375-85-9	41.1	40.0	103	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
ADONA	919005-14-4	42.7	40.0	107	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFHxS	355-46-4	37.5	40.0	93.8	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
6:2 FTS	27619-97-2	44.1	40.0	110	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFOA	335-67-1	37.9	40.0	94.6	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFHpS	375-92-8	37.5	40.0	93.7	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFNA	375-95-1	38.2	40.0	95.5	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFOSA	754-91-6	40.4	40.0	101	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFOS	1763-23-1	43.8	40.0	110	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
9Cl-PF3ONS	756426-58-1	37.6	40.0	94.1	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFDA	335-76-2	39.3	40.0	98.1	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
8:2 FTS	39108-34-4	40.2	40.0	101	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFNS	68259-12-1	37.3	40.0	93.2	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
MeFOSAA	2355-31-9	39.9	40.0	99.8	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
EtFOSAA	2991-50-6	40.5	40.0	101	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFUnA	2058-94-8	41.8	40.0	104	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFDS	335-77-3	35.4	40.0	88.6	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
11Cl-PF3OUdS	763051-92-9	42.2	40.0	105	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFDoA	307-55-1	39.7	40.0	99.2	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
MeFOSA	31506-32-8	41.0	40.0	103	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFTTrDA	72629-94-8	37.6	40.0	94.0	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFDoS	79780-39-5	41.2	40.0	103	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
PFTeDA	376-06-7	37.0	40.0	92.6	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
EtFOSA	4151-50-2	41.0	40.0	103	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
MeFOSE	24448-09-7	41.9	40.0	105	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
EtFOSE	1691-99-2	42.3	40.0	106	50 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
Labeled Standards	Type			% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS			104	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1

Sample ID: OPR
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B23I243-BS1	Column:	BEH C18
Project:	60710448						

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFPeA	IS	103	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C3-PFBS	IS	101	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-4:2 FTS	IS	94.8	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-PFHxA	IS	105	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C3-HFPO-DA	IS	112	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C4-PFHpA	IS	106	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C3-PFHxS	IS	104	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-6:2 FTS	IS	105	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-PFOA	IS	103	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C5-PFNA	IS	101	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C8-PFOSA	IS	79.7	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C8-PFOS	IS	115	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-PFDA	IS	102	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-8:2 FTS	IS	101	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
d3-MeFOSAA	IS	106	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
d5-EtFOSAA	IS	102	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-PFUnA	IS	94.8	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-PFDoA	IS	92.0	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
d3-MeFOSA	IS	24.0	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
13C2-PFTeDA	IS	89.5	25 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
d5-EtFOSA	IS	15.4	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
d7-MeFOSE	IS	50.2	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1
d9-EtFOSE	IS	50.2	10 - 150		B23I243	02-Oct-23	0.250 L	05-Oct-23 23:04	1

Sample ID: AMW-01
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-01	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 13:15	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	2.60	1.35	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFPeA	2706-90-3	5.33	1.32	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFBS	375-73-5	5.27	1.16	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
4:2 FTS	757124-72-4	<1.32	1.32	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFHxA	307-24-4	4.11	1.28	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFPeS	2706-91-4	6.38	1.83	2.11		B23I086	25-Sep-23	0.237 L	27-Sep-23 18:47	1
HFPO-DA	13252-13-6	<1.98	1.98	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFHpA	375-85-9	<0.888	0.888	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
ADONA	919005-14-4	<1.11	1.11	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFHxS	355-46-4	19.6	1.44	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
6:2 FTS	27619-97-2	2.53	1.48	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFOA	335-67-1	<1.13	1.13	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFHpS	375-92-8	<1.66	1.66	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFNA	375-95-1	<1.26	1.26	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFOSA	754-91-6	<1.76	1.76	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFOS	1763-23-1	5.19	1.89	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
9Cl-PF3ONS	756426-58-1	<1.52	1.52	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFDA	335-76-2	<1.23	1.23	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
8:2 FTS	39108-34-4	<1.74	1.74	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFNS	68259-12-1	<1.67	1.67	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
MeFOSAA	2355-31-9	<1.40	1.40	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
EtFOSAA	2991-50-6	<1.36	1.36	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFUnA	2058-94-8	<1.09	1.09	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFDS	335-77-3	<1.57	1.57	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
11Cl-PF3OUdS	763051-92-9	<1.21	1.21	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFDoA	307-55-1	<1.35	1.35	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
MeFOSA	31506-32-8	<3.05	3.05	4.06		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFTTrDA	72629-94-8	<1.42	1.42	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFDoS	79780-39-5	<1.76	1.76	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
PFTeDA	376-06-7	<1.17	1.17	2.03		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
EtFOSA	4151-50-2	<2.49	2.49	4.06		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
MeFOSE	24448-09-7	<2.38	2.38	2.54		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
EtFOSE	1691-99-2	<2.14	2.14	4.06		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	105	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C3-PFPeA	IS	106	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C3-PFBS	IS	107	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1

Sample ID: AMW-01 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-01	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 13:15	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	103	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-PFHxA	IS	106	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C3-HFPO-DA	IS	115	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C4-PFHpA	IS	109	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C3-PFHxS	IS	102	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-6:2 FTS	IS	111	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-PFOA	IS	105	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C5-PFNA	IS	107	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C8-PFOA	IS	79.5	10 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C8-PFOS	IS	111	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-PFDA	IS	102	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-8:2 FTS	IS	94.7	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
d3-MeFOSAA	IS	113	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
d5-EtFOSAA	IS	101	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-PFUnA	IS	90.0	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-PFDoA	IS	84.0	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
d3-MeFOSA	IS	25.9	10 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
13C2-PFTeDA	IS	56.8	25 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
d5-EtFOSA	IS	16.3	10 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
d7-MeFOSE	IS	55.1	10 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1
d9-EtFOSE	IS	50.7	10 - 150		B23I243	02-Oct-23	0.246 L	05-Oct-23 23:25	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-03
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-02	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 15:10	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	1280	1.37	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFPeA	2706-90-3	5990	13.5	20.7	D, B	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
PFBS	375-73-5	459	1.18	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
4:2 FTS	757124-72-4	196	1.35	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFHxA	307-24-4	4330	13.0	20.7	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
PFPeS	2706-91-4	744	1.80	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
HFPO-DA	13252-13-6	<2.02	2.02	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFHpA	375-85-9	1420	0.906	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
ADONA	919005-14-4	<1.13	1.13	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFHxS	355-46-4	4910	14.7	20.7	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
6:2 FTS	27619-97-2	14200	15.1	20.7	D, B	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
PFOA	335-67-1	915	1.15	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFHpS	375-92-8	212	1.69	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFNA	375-95-1	9.89	1.29	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFOSA	754-91-6	<1.79	1.79	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFOS	1763-23-1	3500	19.3	20.7	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
9Cl-PF3ONS	756426-58-1	<1.55	1.55	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFDA	335-76-2	<1.25	1.25	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
8:2 FTS	39108-34-4	<1.78	1.78	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFNS	68259-12-1	<1.70	1.70	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
MeFOSAA	2355-31-9	<1.43	1.43	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
EtFOSAA	2991-50-6	<1.38	1.38	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFUnA	2058-94-8	<1.11	1.11	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFDS	335-77-3	<1.60	1.60	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
11Cl-PF3OUdS	763051-92-9	<1.24	1.24	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFDoA	307-55-1	<1.38	1.38	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
MeFOSA	31506-32-8	<3.11	3.11	4.14		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFTrDA	72629-94-8	<1.44	1.44	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFDoS	79780-39-5	<1.79	1.79	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
PFTeDA	376-06-7	<1.19	1.19	2.07		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
EtFOSA	4151-50-2	<2.54	2.54	4.14		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
MeFOSE	24448-09-7	<2.43	2.43	4.14		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
EtFOSE	1691-99-2	<2.19	2.19	4.14		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	88.2	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C3-PFPeA	IS	88.0	25 - 150	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
13C3-PFBS	IS	92.2	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1

Sample ID: AMW-03 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-02	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 15:10	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	108	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C2-PFHxA	IS	96.0	25 - 150	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
13C3-HFPO-DA	IS	100	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C4-PFHpA	IS	81.5	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C3-PFHxS	IS	69.0	25 - 150	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
13C2-6:2 FTS	IS	121	25 - 150	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
13C2-PFOA	IS	82.8	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C5-PFNA	IS	88.4	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C8-PFOA	IS	63.3	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C8-PFOS	IS	93.0	25 - 150	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 19:29	10
13C2-PFDA	IS	81.0	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C2-8:2 FTS	IS	80.1	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
d3-MeFOSAA	IS	84.4	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
d5-EtFOSAA	IS	70.4	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C2-PFUnA	IS	85.2	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C2-PFDoA	IS	83.5	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
d3-MeFOSA	IS	27.8	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
13C2-PFTeDA	IS	77.2	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
d5-EtFOSA	IS	23.6	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
d7-MeFOSE	IS	48.8	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1
d9-EtFOSE	IS	48.9	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 19:39	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-03
PFAS Isotope Dilution Method

Name:	AECOM	Lab Sample:	B23I086-MS1/B23I086-MSD1	Source Lab Sample:	2309111-02
Project:	60710448	QC Batch:	B23I086	Date Extracted:	25-Sep-23
Matrix:	Aqueous	Samp Size:	0.234/0.244 L	Column:	BEH C18

Analyte	CAS Number	Sample (ng/L)	MS (ng/L)	MS Spike	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike	MSD % Rec	MSD RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBA	375-22-4	1280	1420	42.7	324	H	1370	41.0	223	36.9	H	50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFPeA	2706-90-3	5990	6470	427	111	D, B	6220	410	54.2	68.8	D, B, H	50-150	50	29-Sep-23 18:16	10	29-Sep-23 18:47	10
PFBS	375-73-5	459	604	42.7	340	H	542	41.0	203	50.5	H	50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
4:2 FTS	757124-72-4	196	382	42.7	435	H	244	41.0	117	115	H	50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFHxA	307-24-4	4330	4490	427	38.0	D, H	4120	410	-52.8	1230	D, H	50-150	50	29-Sep-23 18:16	10	29-Sep-23 18:47	10
PFPeS	2706-91-4	744	964	42.7	514	H	854	41.0	268	62.9	H	50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
HFPO-DA	13252-13-6	<2.02	56.8	42.7	133		43.6	41.0	106	22.6		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFHpA	375-85-9	1420	1520	42.7	233	H	1540	41.0	283	19.4	H	50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
ADONA	919005-14-4	<1.13	62.7	42.7	147		52.4	41.0	128	13.8		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFHxS	355-46-4	4910	4910	427	0.366	D, H	4650	410	-63.2	202	D, H	50-150	50	29-Sep-23 18:16	10	29-Sep-23 18:47	10
6:2 FTS	27619-97-2	14200	23300	4270	212	D, B, H	26100	4100	289	30.7	D, B, H	50-150	50	03-Oct-23 14:47	100	03-Oct-23 14:58	100
PFOA	335-67-1	915	1070	42.7	371	H	992	41.0	186	66.4	H	50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFHpS	375-92-8	212	292	42.7	187	H	270	41.0	141	28		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFNA	375-95-1	9.89	64.2	42.7	127		55.5	41.0	111	13.4		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFOSA	754-91-6	<1.79	58.9	42.7	138		48.9	41.0	119	14.8		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFOS	1763-23-1	3500	3180	427	-76.6	D, H	4990	410	364	307	D, H	50-150	50	29-Sep-23 18:16	10	29-Sep-23 18:47	10
9Cl-PF3ONS	756426-58-1	<1.55	61.1	42.7	143		50.2	41.0	122	15.8	Q	50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFDA	335-76-2	<1.25	64.9	42.7	152	H	49.8	41.0	122	21.9		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
8:2 FTS	39108-34-4	<1.78	58.8	42.7	137		50.6	41.0	123	10.8		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFNS	68259-12-1	<1.70	65.7	42.7	154	H	52.2	41.0	127	19.2		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
MeFOSAA	2355-31-9	<1.43	65.5	42.7	153	H	47.9	41.0	117	26.7		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
EtFOSAA	2991-50-6	<1.38	61.5	42.7	144		44.8	41.0	109	27.7		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFUnA	2058-94-8	<1.11	59.4	42.7	139		42.6	41.0	104	28.8		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFDS	335-77-3	<1.60	60.4	42.7	141		54.9	41.0	134	5.09		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
11Cl-PF3OUdS	763051-92-9	<1.24	61.2	42.7	143		48.9	41.0	119	18.3		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFDoA	307-55-1	<1.38	58.6	42.7	137		45.9	41.0	112	20.1		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
MeFOSA	31506-32-8	<3.11	62.5	42.7	146		50.9	41.0	124	16.3		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFTTrDA	72629-94-8	<1.44	56.5	42.7	132		43.2	41.0	105	22.8		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFDoS	79780-39-5	<1.79	71.9	42.7	168	H	51.0	41.0	124	30.1		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
PFTeDA	376-06-7	<1.19	56.0	42.7	131		42.6	41.0	104	23		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
EtFOSA	4151-50-2	<2.54	58.7	42.7	137		51.0	41.0	124	9.96		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
MeFOSE	24448-09-7	<2.43	43.2	42.7	101		44.4	41.0	108	6.7		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1
EtFOSE	1691-99-2	<2.19	59.4	42.7	139		46.3	41.0	113	20.6		50-150	50	29-Sep-23 18:26	1	29-Sep-23 18:58	1

Sample ID: AMW-03
PFAS Isotope Dilution Method

Name:	AECOM	Lab Sample:	B23I086-MS1/B23I086-MSD1	Source Lab Sample:	2309111-02
Project:	60710448	QC Batch:	B23I086	Date Extracted:	25-Sep-23
Matrix:	Aqueous	Samp Size:	0.234/0.244 L	Column:	BEH C18

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBA	IS	84.6		87.7		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C3-PFPeA	IS	84.0	D	80.0	D	25 - 150	29-Sep-23 18:16	10	29-Sep-23 18:47	10
13C3-PFBS	IS	75.5		96.1		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C2-4:2 FTS	IS	82.0		113		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C2-PFHxA	IS	98.0	D	97.0	D	25 - 150	29-Sep-23 18:16	10	29-Sep-23 18:47	10
13C3-HFPO-DA	IS	102		94.7		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C4-PFHpA	IS	83.4		77.4		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C3-PFHxS	IS	77.0	D	78.0	D	25 - 150	29-Sep-23 18:16	10	29-Sep-23 18:47	10
13C2-6:2 FTS	IS	106	D	95.1	D	25 - 150	03-Oct-23 14:47	100	03-Oct-23 14:58	100
13C2-PFOA	IS	82.4		81.1		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C5-PFNA	IS	91.9		84.0		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C8-PFOSA	IS	67.2		63.5		10 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C8-PFOS	IS	108	D	62.0	D	25 - 150	29-Sep-23 18:16	10	29-Sep-23 18:47	10
13C2-PFDA	IS	81.3		82.5		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C2-8:2 FTS	IS	96.2		80.3		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
d3-MeFOSAA	IS	77.4		86.6		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
d5-EtFOSAA	IS	70.4		80.8		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C2-PFUnA	IS	77.9		86.7		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C2-PFDoA	IS	82.0		80.4		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
d3-MeFOSA	IS	27.1		25.9		10 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
13C2-PFTeDA	IS	66.4		73.1		25 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
d5-EtFOSA	IS	19.9		23.7		10 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
d7-MeFOSE	IS	50.5		45.0		10 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1
d9-EtFOSE	IS	46.6		47.3		10 - 150	29-Sep-23 18:26	1	29-Sep-23 18:58	1

Sample ID: AMW-04					PFAS Isotope Dilution Method						
Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	2309111-03		Column:	BEH C18		
Project:	60710448	Date Collected:	12-Sep-23 12:45		Date Received:	13-Sep-23 09:00					
Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
PFBA	375-22-4	28.6	1.40	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFPeA	2706-90-3	107	1.37	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFBS	375-73-5	8.68	1.20	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
4:2 FTS	757124-72-4	<1.38	1.38	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFHxA	307-24-4	52.0	1.33	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFPeS	2706-91-4	8.34	1.90	2.19		B23I086	25-Sep-23	0.229 L	27-Sep-23 19:08	1	
HFPO-DA	13252-13-6	<2.06	2.06	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFHpA	375-85-9	17.6	0.924	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
ADONA	919005-14-4	<1.16	1.16	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFHxS	355-46-4	77.8	1.50	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
6:2 FTS	27619-97-2	114	1.54	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFOA	335-67-1	17.4	1.17	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFHpS	375-92-8	4.89	1.73	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFNA	375-95-1	<1.32	1.32	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFOSA	754-91-6	2.95	1.83	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFOS	1763-23-1	241	1.96	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
9Cl-PF3ONS	756426-58-1	<1.58	1.58	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFDA	335-76-2	<1.28	1.28	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
8:2 FTS	39108-34-4	<1.81	1.81	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFNS	68259-12-1	<1.74	1.74	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
MeFOSAA	2355-31-9	<1.46	1.46	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
EtFOSAA	2991-50-6	<1.41	1.41	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFUnA	2058-94-8	<1.13	1.13	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFDS	335-77-3	<1.63	1.63	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
11Cl-PF3OUdS	763051-92-9	<1.26	1.26	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFDoA	307-55-1	<1.40	1.40	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
MeFOSA	31506-32-8	<3.17	3.17	4.23		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFTrDA	72629-94-8	<1.47	1.47	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFDoS	79780-39-5	<1.83	1.83	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
PFTeDA	376-06-7	<1.21	1.21	2.11		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
EtFOSA	4151-50-2	<2.59	2.59	4.23		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
MeFOSE	24448-09-7	<2.48	2.48	2.64		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
EtFOSE	1691-99-2	<2.23	2.23	4.23		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1	
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution		
13C3-PFBA	IS	105	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1		
13C3-PFPeA	IS	105	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1		
13C3-PFBS	IS	103	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1		

Sample ID: AMW-04 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-03	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 12:45	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	95.7	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-PFHxA	IS	109	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C3-HFPO-DA	IS	115	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C4-PFHpA	IS	112	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C3-PFHxS	IS	104	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-6:2 FTS	IS	111	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-PFOA	IS	103	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C5-PFNA	IS	102	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C8-PFOA	IS	94.8	10 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C8-PFOS	IS	120	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-PFDA	IS	104	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-8:2 FTS	IS	99.2	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
d3-MeFOSAA	IS	119	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
d5-EtFOSAA	IS	98.8	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-PFUnA	IS	97.7	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-PFDoA	IS	101	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
d3-MeFOSA	IS	33.3	10 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
13C2-PFTeDA	IS	83.4	25 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
d5-EtFOSA	IS	29.9	10 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
d7-MeFOSE	IS	78.1	10 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1
d9-EtFOSE	IS	76.7	10 - 150		B23I243	02-Oct-23	0.237 L	05-Oct-23 23:35	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-05
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-04	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 15:30	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	22.2	1.38	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFPeA	2706-90-3	50.4	1.35	2.08	B	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFBS	375-73-5	48.4	1.18	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
4:2 FTS	757124-72-4	<1.36	1.36	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFHxA	307-24-4	191	1.31	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFPeS	2706-91-4	106	1.80	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
HFPO-DA	13252-13-6	<2.03	2.03	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFHpA	375-85-9	56.5	0.909	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
ADONA	919005-14-4	<1.14	1.14	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFHxS	355-46-4	2470	14.7	20.8	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:00	10
6:2 FTS	27619-97-2	74.7	1.51	2.08	B	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFOA	335-67-1	534	1.15	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFHpS	375-92-8	127	1.70	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFNA	375-95-1	8.94	1.29	2.08	Q	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFOSA	754-91-6	563	1.80	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFOS	1763-23-1	2590	19.3	20.8	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:00	10
9Cl-PF3ONS	756426-58-1	<1.56	1.56	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFDA	335-76-2	<1.26	1.26	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
8:2 FTS	39108-34-4	7.56	1.78	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFNS	68259-12-1	<1.71	1.71	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
MeFOSAA	2355-31-9	<1.43	1.43	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
EtFOSAA	2991-50-6	<1.39	1.39	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFUnA	2058-94-8	<1.11	1.11	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFDS	335-77-3	<1.60	1.60	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
11Cl-PF3OUdS	763051-92-9	<1.24	1.24	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFDoA	307-55-1	<1.38	1.38	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
MeFOSA	31506-32-8	<3.12	3.12	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFTTrDA	72629-94-8	<1.45	1.45	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFDoS	79780-39-5	<1.80	1.80	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
PFTeDA	376-06-7	<1.19	1.19	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
EtFOSA	4151-50-2	<2.55	2.55	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
MeFOSE	24448-09-7	<2.44	2.44	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
EtFOSE	1691-99-2	<2.19	2.19	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	86.7	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C3-PFPeA	IS	88.4	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C3-PFBS	IS	90.5	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1

Sample ID: AMW-05 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-04	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 15:30	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	107	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C2-PFHxA	IS	87.9	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C3-HFPO-DA	IS	90.4	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C4-PFHpA	IS	83.1	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C3-PFHxS	IS	87.0	25 - 150	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:00	10
13C2-6:2 FTS	IS	103	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C2-PFOA	IS	80.2	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C5-PFNA	IS	87.7	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C8-PFOA	IS	62.1	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C8-PFOS	IS	109	25 - 150	D	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:00	10
13C2-PFDA	IS	84.9	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C2-8:2 FTS	IS	77.3	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
d3-MeFOSAA	IS	71.9	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
d5-EtFOSAA	IS	75.8	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C2-PFUnA	IS	77.5	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C2-PFDoA	IS	75.9	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
d3-MeFOSA	IS	35.2	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
13C2-PFTeDA	IS	78.8	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
d5-EtFOSA	IS	28.4	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
d7-MeFOSE	IS	46.9	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1
d9-EtFOSE	IS	49.0	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:10	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-06
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-05	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 17:00	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	3.18	1.39	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFPeA	2706-90-3	<1.36	1.36	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFBS	375-73-5	1.36	1.20	2.10	J	B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
4:2 FTS	757124-72-4	<1.37	1.37	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFHxA	307-24-4	1.38	1.32	2.10	J, Q	B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFPeS	2706-91-4	<1.82	1.82	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
HFPO-DA	13252-13-6	<2.05	2.05	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFHpA	375-85-9	<0.918	0.918	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
ADONA	919005-14-4	<1.15	1.15	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFHxS	355-46-4	9.76	1.49	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
6:2 FTS	27619-97-2	<1.53	1.53	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFOA	335-67-1	<1.17	1.17	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFHpS	375-92-8	<1.72	1.72	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFNA	375-95-1	<1.31	1.31	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFOSA	754-91-6	<1.82	1.82	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFOS	1763-23-1	<1.95	1.95	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
9Cl-PF3ONS	756426-58-1	<1.57	1.57	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFDA	335-76-2	<1.27	1.27	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
8:2 FTS	39108-34-4	<1.80	1.80	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFNS	68259-12-1	<1.73	1.73	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
MeFOSAA	2355-31-9	<1.45	1.45	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
EtFOSAA	2991-50-6	<1.40	1.40	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFUnA	2058-94-8	<1.12	1.12	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFDS	335-77-3	<1.62	1.62	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
11Cl-PF3OUdS	763051-92-9	<1.25	1.25	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFDoA	307-55-1	<1.40	1.40	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
MeFOSA	31506-32-8	<3.15	3.15	4.20		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFTTrDA	72629-94-8	<1.46	1.46	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFDoS	79780-39-5	<1.82	1.82	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
PFTeDA	376-06-7	<1.21	1.21	2.10		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
EtFOSA	4151-50-2	<2.58	2.58	4.20		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
MeFOSE	24448-09-7	<2.46	2.46	4.20		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
EtFOSE	1691-99-2	<2.21	2.21	4.20		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	85.0	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C3-PFPeA	IS	87.2	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C3-PFBS	IS	85.5	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1

Sample ID: AMW-06 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-05	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 17:00	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	114	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-PFHxA	IS	90.8	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C3-HFPO-DA	IS	100	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C4-PFHpA	IS	82.4	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C3-PFHxS	IS	75.4	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-6:2 FTS	IS	92.8	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-PFOA	IS	80.1	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C5-PFNA	IS	86.3	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C8-PFOA	IS	63.8	10 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C8-PFOS	IS	86.4	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-PFDA	IS	78.8	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-8:2 FTS	IS	82.5	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
d3-MeFOSAA	IS	78.7	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
d5-EtFOSAA	IS	67.8	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-PFUnA	IS	79.7	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-PFDoA	IS	78.6	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
d3-MeFOSA	IS	22.4	10 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
13C2-PFTeDA	IS	76.6	25 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
d5-EtFOSA	IS	20.2	10 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
d7-MeFOSE	IS	42.5	10 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1
d9-EtFOSE	IS	44.0	10 - 150		B23I086	25-Sep-23	0.238 L	29-Sep-23 20:31	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-07
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-06	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 09:45	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	1.76	1.38	2.08	J	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFPeA	2706-90-3	<1.35	1.35	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFBS	375-73-5	<1.18	1.18	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
4:2 FTS	757124-72-4	<1.36	1.36	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFHxA	307-24-4	<1.31	1.31	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFPeS	2706-91-4	<1.80	1.80	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
HFPO-DA	13252-13-6	<2.03	2.03	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFHpA	375-85-9	<0.909	0.909	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
ADONA	919005-14-4	<1.14	1.14	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFHxS	355-46-4	<1.47	1.47	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
6:2 FTS	27619-97-2	<1.51	1.51	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFOA	335-67-1	<1.15	1.15	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFHpS	375-92-8	<1.70	1.70	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFNA	375-95-1	<1.29	1.29	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFOSA	754-91-6	9.95	1.80	2.08	Q	B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFOS	1763-23-1	<1.93	1.93	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
9Cl-PF3ONS	756426-58-1	<1.56	1.56	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFDA	335-76-2	<1.26	1.26	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
8:2 FTS	39108-34-4	<1.78	1.78	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFNS	68259-12-1	<1.71	1.71	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
MeFOSAA	2355-31-9	<1.43	1.43	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
EtFOSAA	2991-50-6	<1.39	1.39	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFUnA	2058-94-8	<1.11	1.11	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFDS	335-77-3	<1.60	1.60	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
11Cl-PF3OUdS	763051-92-9	<1.24	1.24	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFDoA	307-55-1	<1.38	1.38	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
MeFOSA	31506-32-8	<3.12	3.12	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFTTrDA	72629-94-8	<1.45	1.45	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFDoS	79780-39-5	<1.80	1.80	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
PFTeDA	376-06-7	<1.19	1.19	2.08		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
EtFOSA	4151-50-2	<2.55	2.55	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
MeFOSE	24448-09-7	<2.44	2.44	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
EtFOSE	1691-99-2	<2.19	2.19	4.15		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	85.4	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C3-PFPeA	IS	83.6	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C3-PFBS	IS	89.3	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1

Sample ID: AMW-07 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-06	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 09:45	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	91.3	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-PFHxA	IS	86.0	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C3-HFPO-DA	IS	95.5	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C4-PFHpA	IS	84.3	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C3-PFHxS	IS	82.1	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-6:2 FTS	IS	89.0	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-PFOA	IS	79.1	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C5-PFNA	IS	88.9	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C8-PFOA	IS	63.1	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C8-PFOS	IS	82.6	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-PFDA	IS	82.8	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-8:2 FTS	IS	81.5	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
d3-MeFOSAA	IS	84.6	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
d5-EtFOSAA	IS	72.7	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-PFUnA	IS	81.2	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-PFDoA	IS	79.8	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
d3-MeFOSA	IS	23.1	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
13C2-PFTeDA	IS	79.1	25 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
d5-EtFOSA	IS	20.5	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
d7-MeFOSE	IS	51.8	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1
d9-EtFOSE	IS	54.1	10 - 150		B23I086	25-Sep-23	0.241 L	29-Sep-23 20:41	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-09
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-07	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 10:25	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	3.50	1.41	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFPeA	2706-90-3	2.27	1.38	2.13	B	B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFBS	375-73-5	2.16	1.21	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
4:2 FTS	757124-72-4	<1.39	1.39	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFHxA	307-24-4	4.18	1.34	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFPeS	2706-91-4	<1.85	1.85	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
HFPO-DA	13252-13-6	<2.08	2.08	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFHpA	375-85-9	<0.931	0.931	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
ADONA	919005-14-4	<1.17	1.17	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFHxS	355-46-4	<1.51	1.51	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
6:2 FTS	27619-97-2	<1.55	1.55	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFOA	335-67-1	<1.18	1.18	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFHpS	375-92-8	<1.74	1.74	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFNA	375-95-1	<1.33	1.33	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFOSA	754-91-6	4.51	1.84	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFOS	1763-23-1	<1.98	1.98	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
9Cl-PF3ONS	756426-58-1	<1.60	1.60	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFDA	335-76-2	<1.29	1.29	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
8:2 FTS	39108-34-4	<1.83	1.83	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFNS	68259-12-1	<1.75	1.75	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
MeFOSAA	2355-31-9	<1.47	1.47	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
EtFOSAA	2991-50-6	<1.42	1.42	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFUnA	2058-94-8	<1.14	1.14	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFDS	335-77-3	<1.64	1.64	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
11Cl-PF3OUdS	763051-92-9	<1.27	1.27	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFDoA	307-55-1	<1.42	1.42	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
MeFOSA	31506-32-8	<3.19	3.19	4.26		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFTTrDA	72629-94-8	<1.49	1.49	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFDoS	79780-39-5	<1.84	1.84	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
PFTeDA	376-06-7	<1.22	1.22	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
EtFOSA	4151-50-2	<2.61	2.61	4.26		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
MeFOSE	24448-09-7	<2.50	2.50	4.26		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
EtFOSE	1691-99-2	<2.25	2.25	4.26		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	86.2	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C3-PFPeA	IS	85.3	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C3-PFBS	IS	85.9	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1

Sample ID: AMW-09 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-07	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 10:25	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	95.4	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-PFHxA	IS	86.9	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C3-HFPO-DA	IS	87.0	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C4-PFHpA	IS	83.1	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C3-PFHxS	IS	86.1	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-6:2 FTS	IS	85.1	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-PFOA	IS	76.8	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C5-PFNA	IS	77.7	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C8-PFOA	IS	60.5	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C8-PFOS	IS	85.8	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-PFDA	IS	74.4	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-8:2 FTS	IS	77.9	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
d3-MeFOSAA	IS	72.2	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
d5-EtFOSAA	IS	70.1	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-PFUnA	IS	73.7	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-PFDoA	IS	76.4	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
d3-MeFOSA	IS	22.6	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
13C2-PFTeDA	IS	65.7	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
d5-EtFOSA	IS	19.9	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
d7-MeFOSE	IS	48.0	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1
d9-EtFOSE	IS	49.8	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 20:52	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-10
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-08	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 08:45	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.49	1.49	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFPeA	2706-90-3	<1.46	1.46	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFBS	375-73-5	<1.28	1.28	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
4:2 FTS	757124-72-4	<1.47	1.47	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFHxA	307-24-4	<1.42	1.42	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFPeS	2706-91-4	<1.95	1.95	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
HFPO-DA	13252-13-6	<2.19	2.19	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFHpA	375-85-9	<0.985	0.985	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
ADONA	919005-14-4	<1.23	1.23	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFHxS	355-46-4	<1.60	1.60	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
6:2 FTS	27619-97-2	<1.64	1.64	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFOA	335-67-1	<1.25	1.25	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFHpS	375-92-8	<1.84	1.84	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFNA	375-95-1	<1.40	1.40	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFOSA	754-91-6	7.70	1.95	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFOS	1763-23-1	<2.09	2.09	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
9Cl-PF3ONS	756426-58-1	<1.69	1.69	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFDA	335-76-2	<1.36	1.36	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
8:2 FTS	39108-34-4	<1.93	1.93	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFNS	68259-12-1	<1.85	1.85	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
MeFOSAA	2355-31-9	<1.55	1.55	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
EtFOSAA	2991-50-6	<1.50	1.50	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFUnA	2058-94-8	<1.20	1.20	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFDS	335-77-3	<1.74	1.74	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
11Cl-PF3OUdS	763051-92-9	<1.34	1.34	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFDoA	307-55-1	<1.50	1.50	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
MeFOSA	31506-32-8	<3.38	3.38	4.50		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFTrDA	72629-94-8	<1.57	1.57	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFDoS	79780-39-5	<1.95	1.95	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
PFTeDA	376-06-7	<1.29	1.29	2.25		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
EtFOSA	4151-50-2	<2.76	2.76	4.50		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
MeFOSE	24448-09-7	<2.64	2.64	4.50		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
EtFOSE	1691-99-2	<2.37	2.37	4.50		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	72.7	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C3-PFPeA	IS	80.2	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C3-PFBS	IS	80.2	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1

Sample ID: AMW-10 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-08	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 08:45	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	90.5	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-PFHxA	IS	86.0	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C3-HFPO-DA	IS	90.5	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C4-PFHpA	IS	80.4	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C3-PFHxS	IS	72.6	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-6:2 FTS	IS	77.9	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-PFOA	IS	75.5	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C5-PFNA	IS	77.7	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C8-PFOA	IS	77.1	10 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C8-PFOS	IS	80.4	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-PFDA	IS	72.8	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-8:2 FTS	IS	90.9	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
d3-MeFOSAA	IS	74.6	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
d5-EtFOSAA	IS	67.6	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-PFUnA	IS	77.9	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-PFDoA	IS	77.5	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
d3-MeFOSA	IS	29.3	10 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
13C2-PFTeDA	IS	69.3	25 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
d5-EtFOSA	IS	25.3	10 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
d7-MeFOSE	IS	54.2	10 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1
d9-EtFOSE	IS	57.2	10 - 150		B23I086	25-Sep-23	0.222 L	29-Sep-23 21:02	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AMW-11
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-09	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 11:25	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	3.10	1.42	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFPeA	2706-90-3	<1.39	1.39	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFBS	375-73-5	<1.22	1.22	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
4:2 FTS	757124-72-4	<1.40	1.40	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFHxA	307-24-4	<1.35	1.35	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFPeS	2706-91-4	<1.86	1.86	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
HFPO-DA	13252-13-6	<2.09	2.09	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFHpA	375-85-9	<0.936	0.936	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
ADONA	919005-14-4	<1.17	1.17	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFHxS	355-46-4	3.12	1.52	2.14	Q	B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
6:2 FTS	27619-97-2	<1.56	1.56	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFOA	335-67-1	<1.19	1.19	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFHpS	375-92-8	<1.75	1.75	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFNA	375-95-1	<1.33	1.33	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFOSA	754-91-6	3.03	1.85	2.14	Q	B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFOS	1763-23-1	<1.99	1.99	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
9Cl-PF3ONS	756426-58-1	<1.60	1.60	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFDA	335-76-2	<1.29	1.29	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
8:2 FTS	39108-34-4	<1.83	1.83	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFNS	68259-12-1	<1.76	1.76	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
MeFOSAA	2355-31-9	<1.48	1.48	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
EtFOSAA	2991-50-6	<1.43	1.43	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFUnA	2058-94-8	<1.14	1.14	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFDS	335-77-3	<1.65	1.65	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
11Cl-PF3OUdS	763051-92-9	<1.28	1.28	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFDoA	307-55-1	<1.42	1.42	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
MeFOSA	31506-32-8	<3.21	3.21	4.28		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFTTrDA	72629-94-8	<1.49	1.49	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFDoS	79780-39-5	<1.85	1.85	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
PFTeDA	376-06-7	<1.23	1.23	2.14		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
EtFOSA	4151-50-2	<2.63	2.63	4.28		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
MeFOSE	24448-09-7	<2.51	2.51	4.28		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
EtFOSE	1691-99-2	<2.26	2.26	4.28		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	80.4	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C3-PFPeA	IS	81.2	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C3-PFBS	IS	85.7	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1

Sample ID: AMW-11 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-09	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 11:25	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	85.0	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-PFHxA	IS	82.5	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C3-HFPO-DA	IS	95.8	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C4-PFHpA	IS	78.9	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C3-PFHxS	IS	76.1	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-6:2 FTS	IS	73.1	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-PFOA	IS	73.0	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C5-PFNA	IS	80.2	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C8-PFOA	IS	66.5	10 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C8-PFOS	IS	81.0	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-PFDA	IS	74.7	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-8:2 FTS	IS	92.8	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
d3-MeFOSAA	IS	78.9	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
d5-EtFOSAA	IS	73.9	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-PFUnA	IS	74.9	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-PFDoA	IS	75.8	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
d3-MeFOSA	IS	29.3	10 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
13C2-PFTeDA	IS	71.0	25 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
d5-EtFOSA	IS	26.3	10 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
d7-MeFOSE	IS	49.6	10 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1
d9-EtFOSE	IS	54.0	10 - 150		B23I086	25-Sep-23	0.234 L	29-Sep-23 21:13	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: Dup1
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-10	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 12:45	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	27.0	1.41	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFPeA	2706-90-3	119	1.38	2.13	B	B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFBS	375-73-5	8.94	1.21	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
4:2 FTS	757124-72-4	<1.39	1.39	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFHxA	307-24-4	60.8	1.34	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFPeS	2706-91-4	4.64	1.84	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
HFPO-DA	13252-13-6	<2.07	2.07	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFHpA	375-85-9	18.9	0.930	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
ADONA	919005-14-4	<1.16	1.16	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFHxS	355-46-4	72.6	1.51	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
6:2 FTS	27619-97-2	112	1.55	2.13	B	B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFOA	335-67-1	17.6	1.18	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFHpS	375-92-8	6.35	1.74	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFNA	375-95-1	<1.32	1.32	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFOSA	754-91-6	<1.84	1.84	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFOS	1763-23-1	261	1.98	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
9Cl-PF3ONS	756426-58-1	<1.59	1.59	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFDA	335-76-2	<1.29	1.29	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
8:2 FTS	39108-34-4	<1.82	1.82	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFNS	68259-12-1	<1.75	1.75	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
MeFOSAA	2355-31-9	<1.47	1.47	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
EtFOSAA	2991-50-6	<1.42	1.42	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFUnA	2058-94-8	<1.14	1.14	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFDS	335-77-3	<1.64	1.64	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
11Cl-PF3OUdS	763051-92-9	<1.27	1.27	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFDoA	307-55-1	<1.41	1.41	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
MeFOSA	31506-32-8	<3.19	3.19	4.25		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFTrDA	72629-94-8	<1.48	1.48	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFDoS	79780-39-5	<1.84	1.84	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
PFTeDA	376-06-7	<1.22	1.22	2.13		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
EtFOSA	4151-50-2	<2.61	2.61	4.25		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
MeFOSE	24448-09-7	<2.49	2.49	4.25		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
EtFOSE	1691-99-2	<2.24	2.24	4.25		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	84.1	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C3-PFPeA	IS	85.9	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C3-PFBS	IS	92.8	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1

Sample ID: Dup1
PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-10	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 12:45	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	119	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-PFHxA	IS	84.1	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C3-HFPO-DA	IS	97.2	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C4-PFHpA	IS	83.0	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C3-PFHxS	IS	79.3	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-6:2 FTS	IS	65.4	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-PFOA	IS	79.5	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C5-PFNA	IS	81.3	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C8-PFOA	IS	64.7	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C8-PFOS	IS	82.5	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-PFDA	IS	77.9	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-8:2 FTS	IS	75.9	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
d3-MeFOSAA	IS	78.8	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
d5-EtFOSAA	IS	73.6	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-PFUnA	IS	78.6	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-PFDoA	IS	82.3	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
d3-MeFOSA	IS	22.0	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
13C2-PFTeDA	IS	77.4	25 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
d5-EtFOSA	IS	19.3	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
d7-MeFOSE	IS	43.9	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1
d9-EtFOSE	IS	47.3	10 - 150		B23I086	25-Sep-23	0.235 L	29-Sep-23 21:54	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: EB091223

PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-11	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 16:00	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.47	1.47	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFPeA	2706-90-3	<1.45	1.45	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFBS	375-73-5	<1.27	1.27	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
4:2 FTS	757124-72-4	<1.45	1.45	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFHxA	307-24-4	<1.40	1.40	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFPeS	2706-91-4	<1.93	1.93	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
HFPO-DA	13252-13-6	<2.17	2.17	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFHpA	375-85-9	<0.973	0.973	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
ADONA	919005-14-4	<1.22	1.22	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFHxS	355-46-4	<1.58	1.58	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
6:2 FTS	27619-97-2	<1.62	1.62	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFOA	335-67-1	<1.23	1.23	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFHpS	375-92-8	<1.82	1.82	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFNA	375-95-1	<1.38	1.38	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFOSA	754-91-6	3.23	1.92	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFOS	1763-23-1	<2.07	2.07	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
9Cl-PF3ONS	756426-58-1	<1.67	1.67	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFDA	335-76-2	<1.35	1.35	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
8:2 FTS	39108-34-4	<1.91	1.91	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFNS	68259-12-1	<1.83	1.83	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
MeFOSAA	2355-31-9	<1.53	1.53	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
EtFOSAA	2991-50-6	<1.48	1.48	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFUnA	2058-94-8	<1.19	1.19	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFDS	335-77-3	<1.72	1.72	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
11Cl-PF3OUdS	763051-92-9	<1.33	1.33	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFDoA	307-55-1	<1.48	1.48	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
MeFOSA	31506-32-8	<3.34	3.34	4.45		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFTTrDA	72629-94-8	<1.55	1.55	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFDoS	79780-39-5	<1.92	1.92	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
PFTeDA	376-06-7	<1.28	1.28	2.22		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
EtFOSA	4151-50-2	<2.73	2.73	4.45		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
MeFOSE	24448-09-7	<2.61	2.61	4.45		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
EtFOSE	1691-99-2	<2.35	2.35	4.45		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	78.6	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C3-PFPeA	IS	79.7	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C3-PFBS	IS	81.3	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1

Sample ID: EB091223 **PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-11	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 16:00	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	105	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-PFHxA	IS	80.3	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C3-HFPO-DA	IS	85.0	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C4-PFHpA	IS	76.8	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C3-PFHxS	IS	80.0	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-6:2 FTS	IS	78.8	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-PFOA	IS	74.1	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C5-PFNA	IS	76.4	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C8-PFOA	IS	50.3	10 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C8-PFOS	IS	82.1	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-PFDA	IS	70.1	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-8:2 FTS	IS	59.7	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
d3-MeFOSAA	IS	81.0	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
d5-EtFOSAA	IS	67.5	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-PFUnA	IS	79.6	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-PFDoA	IS	72.7	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
d3-MeFOSA	IS	19.9	10 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
13C2-PFTeDA	IS	70.4	25 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
d5-EtFOSA	IS	17.4	10 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
d7-MeFOSE	IS	37.7	10 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1
d9-EtFOSE	IS	40.1	10 - 150		B23I086	25-Sep-23	0.225 L	29-Sep-23 22:05	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: EB091323

PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-12	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 14:20	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.42	1.42	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFPeA	2706-90-3	<1.39	1.39	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFBS	375-73-5	<1.22	1.22	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
4:2 FTS	757124-72-4	<1.40	1.40	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFHxA	307-24-4	<1.35	1.35	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFPeS	2706-91-4	<1.86	1.86	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
HFPO-DA	13252-13-6	<2.09	2.09	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFHpA	375-85-9	<0.938	0.938	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
ADONA	919005-14-4	<1.17	1.17	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFHxS	355-46-4	<1.52	1.52	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
6:2 FTS	27619-97-2	<1.56	1.56	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFOA	335-67-1	<1.19	1.19	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFHpS	375-92-8	<1.75	1.75	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFNA	375-95-1	<1.34	1.34	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFOSA	754-91-6	<1.86	1.86	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFOS	1763-23-1	<1.99	1.99	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
9Cl-PF3ONS	756426-58-1	<1.61	1.61	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFDA	335-76-2	<1.30	1.30	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
8:2 FTS	39108-34-4	<1.84	1.84	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFNS	68259-12-1	<1.76	1.76	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
MeFOSAA	2355-31-9	<1.48	1.48	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
EtFOSAA	2991-50-6	<1.43	1.43	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFUnA	2058-94-8	<1.15	1.15	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFDS	335-77-3	<1.66	1.66	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
11Cl-PF3OUdS	763051-92-9	<1.28	1.28	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFDoA	307-55-1	<1.43	1.43	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
MeFOSA	31506-32-8	<3.22	3.22	4.29		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFTTrDA	72629-94-8	<1.50	1.50	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFDoS	79780-39-5	<1.86	1.86	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
PFTeDA	376-06-7	<1.23	1.23	2.14		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
EtFOSA	4151-50-2	<2.63	2.63	4.29		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
MeFOSE	24448-09-7	<2.51	2.51	4.29		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
EtFOSE	1691-99-2	<2.26	2.26	4.29		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	80.9	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C3-PFPeA	IS	83.7	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C3-PFBS	IS	87.5	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1

Sample ID: EB091323

PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-12	Column:	BEH C18
Project:	60710448	Date Collected:	13-Sep-23 14:20	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	108	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-PFHxA	IS	87.7	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C3-HFPO-DA	IS	87.8	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C4-PFHpA	IS	80.4	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C3-PFHxS	IS	75.2	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-6:2 FTS	IS	80.8	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-PFOA	IS	76.3	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C5-PFNA	IS	81.3	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C8-PFOA	IS	59.4	10 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C8-PFOS	IS	78.5	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-PFDA	IS	71.6	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-8:2 FTS	IS	72.8	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
d3-MeFOSAA	IS	80.8	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
d5-EtFOSAA	IS	70.9	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-PFUnA	IS	78.6	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-PFDoA	IS	79.4	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
d3-MeFOSA	IS	23.2	10 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
13C2-PFTeDA	IS	71.2	25 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
d5-EtFOSA	IS	20.0	10 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
d7-MeFOSE	IS	41.2	10 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1
d9-EtFOSE	IS	41.6	10 - 150		B23I086	25-Sep-23	0.233 L	29-Sep-23 22:15	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: AB091223

PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-13	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 16:05	Date Received:	13-Sep-23 09:00		

Analyte	CAS Number	Conc. (ng/L)	MDL	RL	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	<1.38	1.38	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFPeA	2706-90-3	1.83	1.36	2.09	J, B	B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFBS	375-73-5	<1.19	1.19	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
4:2 FTS	757124-72-4	<1.36	1.36	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFHxA	307-24-4	<1.32	1.32	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFPeS	2706-91-4	<1.81	1.81	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
HFPO-DA	13252-13-6	<2.04	2.04	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFHpA	375-85-9	<0.914	0.914	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
ADONA	919005-14-4	<1.14	1.14	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFHxS	355-46-4	<1.48	1.48	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
6:2 FTS	27619-97-2	2.26	1.52	2.09	B	B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFOA	335-67-1	<1.16	1.16	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFHpS	375-92-8	<1.71	1.71	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFNA	375-95-1	<1.30	1.30	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFOSA	754-91-6	<1.81	1.81	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFOS	1763-23-1	<1.94	1.94	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
9Cl-PF3ONS	756426-58-1	<1.57	1.57	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFDA	335-76-2	<1.26	1.26	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
8:2 FTS	39108-34-4	<1.79	1.79	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFNS	68259-12-1	<1.72	1.72	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
MeFOSAA	2355-31-9	<1.44	1.44	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
EtFOSAA	2991-50-6	<1.39	1.39	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFUnA	2058-94-8	<1.12	1.12	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFDS	335-77-3	<1.61	1.61	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
11Cl-PF3OUdS	763051-92-9	<1.25	1.25	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFDoA	307-55-1	<1.39	1.39	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
MeFOSA	31506-32-8	<3.13	3.13	4.18		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFTTrDA	72629-94-8	<1.46	1.46	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFDoS	79780-39-5	<1.81	1.81	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
PFTeDA	376-06-7	<1.20	1.20	2.09		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
EtFOSA	4151-50-2	<2.56	2.56	4.18		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
MeFOSE	24448-09-7	<2.45	2.45	4.18		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
EtFOSE	1691-99-2	<2.20	2.20	4.18		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	80.2	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C3-PFPeA	IS	79.7	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C3-PFBS	IS	89.2	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1

Sample ID: AB091223

PFAS Isotope Dilution Method

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2309111-13	Column:	BEH C18
Project:	60710448	Date Collected:	12-Sep-23 16:05	Date Received:	13-Sep-23 09:00		

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-4:2 FTS	IS	93.7	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-PFHxA	IS	85.1	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C3-HFPO-DA	IS	84.1	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C4-PFHpA	IS	78.8	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C3-PFHxS	IS	72.6	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-6:2 FTS	IS	58.9	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-PFOA	IS	76.2	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C5-PFNA	IS	81.1	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C8-PFOA	IS	48.5	10 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C8-PFOS	IS	79.3	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-PFDA	IS	74.2	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-8:2 FTS	IS	72.4	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
d3-MeFOSAA	IS	68.2	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
d5-EtFOSAA	IS	65.6	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-PFUnA	IS	72.6	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-PFDoA	IS	66.9	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
d3-MeFOSA	IS	14.6	10 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
13C2-PFTeDA	IS	62.8	25 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
d5-EtFOSA	IS	10.5	10 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
d7-MeFOSE	IS	21.2	10 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1
d9-EtFOSE	IS	21.9	10 - 150		B23I086	25-Sep-23	0.239 L	29-Sep-23 22:25	1

MDL - Method Detection Limit

RL - Reporting limit

Results reported to MDL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

For Laboratory Use Only
 Work Order #: 2309111 Temp: 111 °C
 Storage ID: R-11, WR-7 Storage Secured: Yes No

Project ID: Chippewa Valley Regional Airport PO#: _____ Sampler: Marcus Hopkins
(name)

TAT Standard: 21 days
 (check one): Rush (surcharge may apply)
 14 days 7 days Other: _____

Invoice to: Name Marcus Hopkins Company Marcus Hopkins Address 1500 City Sovain Hegeybart Bull State _____ Phone # 915/23 0900
 Relinquished by (printed name and signature) _____ Date 9/14/23 Time _____ Received by (printed name and signature) _____ Date _____ Time _____

Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

SHIP TO: Enthality Analytical - EDH
 1104 Windfield Way
 El Dorado Hills, CA 95762
 (916) 673-1520
 ATTN: _____
 Method of Shipment: _____
 Tracking No.: _____

Container(s)	Add Analysis(es) Requested						
	Quantity	Type	Matrix	PFAS by Isotope Dilution	EPA 1631-Draft	DoD QSM Table B-15	Other:
				PFAS by Isotope Dilution			Drinking Water
				EPA 533			List of 29 (337.1 + 533)

Requirements:
 State-specific (list state): WI
 DoD QSM Compliant
 PFAS List Below (or attach compound list):

Sample ID	Date	Time	Location/ Sample Description	Quantity	Type	Matrix	PFAS by Isotope Dilution	EPA 1631-Draft	DoD QSM Table B-15	Other:	EPA 533	EPA 537.1	List of 29 (337.1 + 533)
AMW-01	9/13/23	1315		2			X						
AMW-03	9/13/23	1510		2			X						
AMW-03 MS	9/13/23	1510		2			X						
AMW-03 MSD	9/13/23	1510		2			X						
AMW-04	9/12/23	1245		2			X						
AMW-05	9/12/23	1630		2			X						
AMW-06	9/12/23			2			X						
AMW-07	9/12/23	0945		2			X						
AMW-08 (M)													
AMW-09	9/13/23	1025		2			X						

Other Instructions/ Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name: Lanette Lanette Altenbach
 Company: AECOM
 Address: _____
 City: Milwaukee State: WI Zip: _____
 Phone: 414-944-6186
 Email: Lanet.Altenbach@aecom.com

Container Types: P= HDPE, PJ= HDPE Jar
 PY= Polypropylene, O = Other: _____
 Bottle Preservation Type:
 TZ = Trizma: _____ AA = Amm. Acetate: _____
 Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, SD = Sediment, T=Tissue
 SL = Sludge, SO = Soil, WW = Wastewater, O = Other: _____

CHAIN OF CUSTODY
PFAS Methods

For Laboratory Use Only
 Work Order #: 2309111 Temp: 1.1 °C
 Storage ID: R-13, w R-1 Storage Secured: Yes No

Project ID: Chippewa Valley Regional Airport PO#: _____ Sampler: Marcus Hopkins
(name)

TAT Standard: 21 days
 (check one): Rush (surcharge may apply)
 14 days 7 days Other: _____

Invoice to: Name Marcus Hopkins / Lancaster Company _____ Address 1500 City _____ State _____ Phone # 915/23 0960
 Relinquished by (printed name and signature) _____ Date 9/14/23 Time _____ Received by (printed name and signature) Sarah Hogenbort Date _____ Time _____

Relinquished by (printed name and signature) _____ Date _____ Time _____ Received by (printed name and signature) _____ Date _____ Time _____

SHIP TO: Enthality Analytical - EDH 1104 Windfield Way El Dorado Hills, CA 95762 (916) 673-1520		Method of Shipment:		Add Analysis(es) Requested											
ATTN: _____		Tracking No.: _____		Container(s)											
Sample ID	Date	Time	Location/ Sample Description	Quantity	Type	Matrix	PFAS by Isotope Dilution	EPA 1631-Draft	DoD QSM Table B-15	Other:	EPA 533	EPA 537.1	List of 29 (537.1 + 533)	PFAS by Isotope Dilution	Drinking Water
<u>AMW-10</u>	<u>9/13/23</u>	<u>0845</u>		<u>2</u>			<u>X</u>								
<u>AMW-11</u>	<u>9/12/23</u>	<u>1125</u>		<u>2</u>			<u>X</u>								
<u>Dup 1</u>	<u>9/12/23</u>	<u>1245</u>		<u>2</u>			<u>X</u>								
<u>EB091223</u>	<u>9/12/23</u>	<u>1400</u>		<u>1</u>			<u>X</u>								
<u>EB091323</u>	<u>9/13/23</u>	<u>1420</u>		<u>1</u>			<u>X</u>								
<u>AB091223</u>	<u>9/12/23</u>	<u>1605</u>		<u>1</u>			<u>X</u>								

Requirements:
 State-specific (list state): WI
 DoD QSM Compliant
 PFAS List Below (or attach compound list):

Other Instructions/ Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name: Lanette Attenbach
 Company: AECOM
 Address: _____
 City: Milwaukee State: WI Zip _____
 Phone: 414-944-6186
 Email: Lanette.Attenbach@aecom.com

Container Types: P= HDPE, PJ= HDPE Jar Bottle Preservation Type: Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, SD = Sediment, T=Tissue
 PY= Polypropylene, O = Other: _____ TZ = Trizma: _____ AA = Amm. Acetate: _____ SL = Sludge, SO = Soil, WW = Wastewater, O = Other: _____

Sample Log-In Checklist

Page # 1 of 1

Work Order #: 2309111 TAT 5th

Samples Arrival:	Date/Time <u>01/15/23</u> <u>0900</u>		Initials: <u>SNH</u>		Location: <u>WR-2</u>		
	Shelf/Rack: <u>NA</u>						
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac	<input type="checkbox"/> GLS	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice		<input type="checkbox"/> Blue Ice		<input type="checkbox"/> Techni Ice	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None
Temp °C: <u>1.1</u>	(uncorrected)		Probe used: Y / <input checked="" type="checkbox"/> N			Thermometer ID: <u>IR-4</u>	
Temp °C: <u>1.1</u>	(corrected)						

	YES	NO	NA				
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Airbill <u> </u> Trk # <u>7734 1456 9833</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Shipping Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Shipping Container	Enthalpy	<input checked="" type="checkbox"/> Client	Retain	<input checked="" type="checkbox"/> Return	Dispose		
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Chain of Custody / Sample Documentation Complete?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Holding Time Acceptable?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Logged In:	Date/Time <u>01/18/23 15:07</u>		Initials: <u>lm</u>		Location: <u>R-17</u> <u>WR-1</u>		
					Shelf/Rack: <u>A-2</u> <u>J-7</u>		
COC Anomaly/Sample Acceptance Form completed?					<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

CoC/Label Reconciliation Report WO# 2309111

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2309111-01	A AMW-01	<input checked="" type="checkbox"/>	13-Sep-23 13:15	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-01	B AMW-01	<input checked="" type="checkbox"/>	13-Sep-23 13:15	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-02	A AMW-03	<input checked="" type="checkbox"/>	13-Sep-23 15:10	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous MS/MSD
2309111-02	B AMW-03	<input checked="" type="checkbox"/>	13-Sep-23 15:10	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous MS/MSD
2309111-02	C AMW-03	<input checked="" type="checkbox"/>	13-Sep-23 15:10	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous MS/MSD
2309111-02	D AMW-03	<input checked="" type="checkbox"/>	13-Sep-23 15:10	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous MS/MSD
2309111-02	E AMW-03	<input checked="" type="checkbox"/>	13-Sep-23 15:10	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous MS/MSD
2309111-02	F AMW-03	<input checked="" type="checkbox"/>	13-Sep-23 15:10	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous MS/MSD
2309111-03	A AMW-04	<input checked="" type="checkbox"/>	12-Sep-23 12:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-03	B AMW-04	<input checked="" type="checkbox"/>	12-Sep-23 12:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-04	A AMW-05	<input checked="" type="checkbox"/>	12-Sep-23 15:30	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-04	B AMW-05	<input checked="" type="checkbox"/>	12-Sep-23 15:30	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-05	A AMW-06	<input checked="" type="checkbox"/>	12-Sep-23 17:00	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-05	B AMW-06	<input checked="" type="checkbox"/>	12-Sep-23 17:00	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-06	A AMW-07	<input checked="" type="checkbox"/>	12-Sep-23 09:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-06	B AMW-07	<input checked="" type="checkbox"/>	12-Sep-23 09:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-07	A AMW-09	<input checked="" type="checkbox"/>	13-Sep-23 10:25	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-07	B AMW-09	<input checked="" type="checkbox"/>	13-Sep-23 10:25	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-08	A AMW-10	<input checked="" type="checkbox"/>	13-Sep-23 08:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-08	B AMW-10	<input checked="" type="checkbox"/>	13-Sep-23 08:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-09	A AMW-11	<input checked="" type="checkbox"/>	12-Sep-23 11:25	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-09	B AMW-11	<input checked="" type="checkbox"/>	12-Sep-23 11:25	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-10	A Dup1	<input checked="" type="checkbox"/>	12-Sep-23 12:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-10	B Dup1	<input checked="" type="checkbox"/>	12-Sep-23 12:45	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous
2309111-11	A EB091223	<input checked="" type="checkbox"/>	12-Sep-23 16:00	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous Equipment Blank
2309111-12	A EB091323	<input checked="" type="checkbox"/>	13-Sep-23 14:20	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous Equipment Blank
2309111-13	A AB091223	<input checked="" type="checkbox"/>	12-Sep-23 16:05	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

	Yes	No	NA
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		

Comments: ① Sample contain brown tint and ~ 10% particulate
 ② No time listed on COC. time pulled from sample label.

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 None Other

Verified by/Date: KA 09/18/23

