



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
GRAND RAPIDS DISTRICT OFFICE



LIESL EICHLER CLARK  
DIRECTOR

March 3, 2022

VIA E-MAIL AND  
CERTIFIED MAIL – 7018 2290 0001 5106 1878  
RETURN RECEIPT REQUESTED

Mr. Dave Latchana  
Associate General Counsel  
Wolverine World Wide, Inc.  
9341 Courtland Drive, NE  
Rockford, Michigan 49351

Dear Mr. Latchana:

SUBJECT: Compliance Communication Regarding the Release at the Former Wolverine Sole Plant;  
485 Wolverine Drive, NE, Rockford, Kent County, Michigan;  
Facility ID No.: 41002445

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) has information indicating environmental contamination is present on the property located at 485 Wolverine Drive, NE, Rockford, Michigan (Property). Subject to Michigan's environmental cleanup law, Part 201, Environmental Remediation, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, EGLE considers Wolverine World Wide (Wolverine) responsible for the contamination.

On December 1 and 2, 2021, EGLE, Grand Rapids Remediation and Redevelopment Division staff and subcontractor, AECOM, collected groundwater samples for analysis of 28 different per- and polyfluoroalkyl substances (PFAS) from five monitoring wells installed at the Property. The wells were installed as part of EGLE Superfund Section's recent Site Inspection (SI) activities completed under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The groundwater sample results identified perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) at concentrations exceeding Part 201 Generic Cleanup Criteria in all five monitoring wells sampled for these compounds. Perfluorononanoic acid (PFNA) was also detected in one monitoring well above Part 201 Generic Cleanup Criteria. Enclosed is a figure depicting the sampling locations and PFAS groundwater results. Also enclosed is the analytical laboratory report. PFOS, PFOA, and PFNA are hazardous substances under Part 201. An area where hazardous substances exceed the criteria for unrestricted residential use is known as a Facility as defined in Part 201, which triggers obligations under the law. The concentration of PFOA, PFOS, and PFNA found at the Property makes it a Facility regulated by Part 201, and steps are required to clean up the contamination.

This Property is not located within the boundaries of the North Kent Study Area and is, therefore, not subject to the requirements of the Consent Decree (Court Case. 1:18-cv-00039; effective February 19, 2020) between the State of Michigan, Algoma and Plainfield Townships, and Wolverine. EGLE considers the contamination identified at this Property to be a new and separate Part 201 issue that Wolverine is responsible to manage.

As a person liable under Section 20126 of Part 201, Wolverine has responsibility for an affirmative obligation to comply with Section 20114 of Part 201, which lists the requirements of a liable party to address environmental contamination. These steps include, as applicable:

- Immediately taking measures to contain or remove the contamination source;
- Immediately identifying and eliminating any threat of fire or explosion or direct contact hazards;
- Notifying EGLE and affected neighbors if contamination has migrated off the Property;
- Delineating the extent of the contamination; and
- Undertaking the cleanup of the contamination.

Additional requirements under Section 20114 of Part 201 may apply to this situation.

EGLE is requesting Wolverine to submit a work plan for proposed response activities that will demonstrate Wolverine is in compliance with Part 201 by April 18, 2022, to the following address:

Karen Vorce, Project Manager  
Grand Rapids District Office  
Remediation and Redevelopment Division  
Michigan Department of Environment, Great Lakes, and Energy  
350 Ottawa Avenue, NW, Unit 10  
Grand Rapids, Michigan 49503-2341  
Telephone: 616-439-8008  
Email: VorceK@michigan.gov

Since environmental contamination is present on the Property, Wolverine also has a responsibility as the owner or operator of the Property to take certain measures, commonly called due care, to ensure that existing contamination on the Property does not cause unacceptable risks and is not exacerbated. The due care provisions are found in Section 20107a of Part 201, and include:

- Preventing exacerbation of the existing contamination;
- Preventing unacceptable human exposure and mitigating fire and explosion hazards to allow for the intended use of the Former Sole Plant Facility in a manner that protects the public health and safety; and
- Taking reasonable precautions against the reasonably foreseeable acts or omissions of a third party.

Additional guidance on complying with due care is found in Part 10 (Compliance with Section 20107a of Act) of the Part 201 Administrative Rules.

The explanations of Part 201 in this letter should not be considered a complete listing of Wolverine's legal obligations. The Part 201 statute and rules can be found in its entirety at the EGLE Website: [www.michigan.gov/deq](http://www.michigan.gov/deq), by clicking on 'Land', 'Land Remediation & Redevelopment', then 'Site Investigation and Remediation'.

The information used to prepare this letter is located in EGLE, Grand Rapids District Office located at 350 Ottawa Avenue, NW, Unit 10, Grand Rapids, Michigan 49503-2341. If Wolverine wishes to review this information or if you have questions regarding this letter, please contact

Karen Vorce, Project Manager, at 616-439-8008 or via email at [VorceK@michigan.gov](mailto:VorceK@michigan.gov); or you may contact me at the telephone number listed below. EGLE looks forward to your cooperation in addressing the contamination at the Former Wolverine Sole Plant Facility.

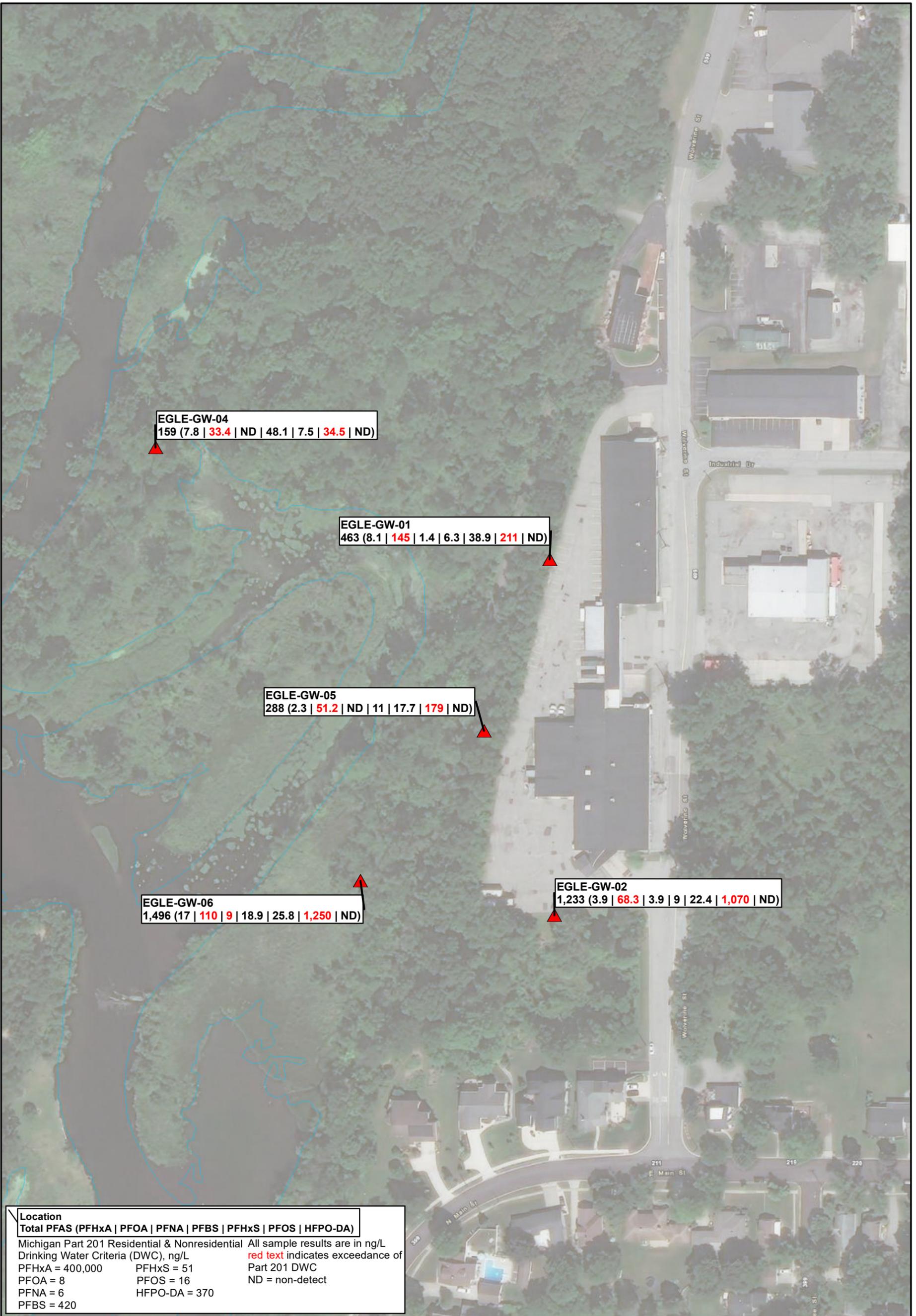
Sincerely,



David Bandlow  
Acting District Supervisor  
Grand Rapids District Office  
Remediation and Redevelopment Division  
616-745-5337  
[BandlowD@michigan.gov](mailto:BandlowD@michigan.gov)

Enclosures

- cc: Mr. John Byl, Warner Norcross & Judd LLP  
Ms. Polly Synk, Department of Attorney General  
Ms. Danielle Allison-Yokom, Department of Attorney General  
Ms. Abigail Hendershott, MPART  
Mr. Dan Yordanich, EGLE  
Mr. Matt Gamble, EGLE  
Mr. David Kline, EGLE  
Ms. Ashley Fuller, EGLE  
Ms. Nancy Johnson, EGLE  
Ms. Karen Vorce, EGLE



**Location**  
**Total PFAS (PFHxA | PFOA | PFNA | PFBS | PFHxS | PFOS | HFPO-DA)**  
 Michigan Part 201 Residential & Nonresidential All sample results are in ng/L  
 Drinking Water Criteria (DWC), ng/L red text indicates exceedance of  
 PFHxA = 400,000    PFHxS = 51    Part 201 DWC  
 PFOA = 8    PFOS = 16    ND = non-detect  
 PFNA = 6    HFPO-DA = 370  
 PFBS = 420

Prepared: 2/17/2022



**Legend**  
**Groundwater Sampling Location**  
**Michigan Part 201 Drinking Water Criteria**

- ▲ No Detections of PFNA, PFOA, PFHxA, PFOS, PFHxS, PFBS, or HFPO-DA
- ▲ One or more PFAS Analytes Detected Below Drinking Water Criteria
- ▲ One or more PFAS Analytes Detected Above Drinking Water Criteria

0      120      240  
 Feet

N

DECEMBER 2021 GROUNDWATER  
 SAMPLE RESULTS

FORMER WOLVERINE SOLE PLANT  
 485 WOLVERINE DRIVE NE  
 ROCKFORD, MICHIGAN

January 04, 2022

**Vista Work Order No. 2112038**

Dr. Dorin Bogdan  
AECOM  
5350 Sparks Dr SE  
Grand Rapids, MI 49546

Dear Dr. Bogdan,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on December 03, 2021 under your Project Name 'EGLE North Kent PFAS'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [jfox@vista-analytical.com](mailto:jfox@vista-analytical.com).

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Jamie Fox  
Laboratory Director



*Vista Analytical Laboratory 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 Vista.*

## **Vista Work Order No. 2112038**

### **Case Narrative**

#### **Sample Condition on Receipt:**

Six aqueous samples were received and stored securely in accordance with Vista 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**

Samples "GW2112011520JLB" and "GW2112021025JLB" contained particulate and were centrifuged prior to extraction.

The samples were extracted and analyzed for a selected list of PFAS using Vista'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 LOQ. The OPR recoveries were within the acceptance criteria.

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

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# Sample Inventory Report



Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2112038-01	GW2112010940JLB	01-Dec-21 09:40	03-Dec-21 12:21	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112038-02	GW2112011140JLB	01-Dec-21 11:40	03-Dec-21 12:21	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112038-03	GW2112011450JLB	01-Dec-21 14:50	03-Dec-21 12:21	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112038-04	FB2112011455JLB	01-Dec-21 14:55	03-Dec-21 12:21	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112038-05	GW2112011520JLB	01-Dec-21 15:20	03-Dec-21 12:21	HDPE Bottle, 250 mL HDPE Bottle, 250 mL
2112038-06	GW2112021025JLB	02-Dec-21 10:25	03-Dec-21 12:21	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

## **ANALYTICAL RESULTS**

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

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B1L0027-BLK1	Column:	BEH C18
Project:	EGLE North Kent PFAS						

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFPeA	2706-90-3	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFBS	375-73-5	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
4:2 FTS	757124-72-4	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFHxA	307-24-4	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFPeS	2706-91-4	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
HFPO-DA	13252-13-6	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFHpA	375-85-9	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
ADONA	919005-14-4	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFHxS	355-46-4	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
6:2 FTS	27619-97-2	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFOA	335-67-1	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFHpS	375-92-8	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFNA	375-95-1	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFOSA	754-91-6	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFOS	1763-23-1	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
9CI-PF3ONS	756426-58-1	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFDA	335-76-2	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
8:2 FTS	39108-34-4	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFNS	68259-12-1	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
MeFOSAA	2355-31-9	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
EtFOSAA	2991-50-6	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFUnA	2058-94-8	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFDS	335-77-3	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
11CI-PF3OUdS	763051-92-9	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFDoA	307-55-1	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFTTrDA	72629-94-8	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
PFTeDA	376-06-7	ND	1.00	2.00	4.00		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	84.9	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C3-PFPeA	IS	93.7	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C3-PFBS	IS	93.3	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C3-HFPO-DA	IS	93.0	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-4:2 FTS	IS	82.3	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-PFHxA	IS	97.5	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C4-PFHpA	IS	96.2	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C3-PFHxS	IS	87.2	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-6:2 FTS	IS	86.6	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1

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

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B1L0027-BLK1	Column:	BEH C18
Project:	EGLE North Kent PFAS						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C5-PFNA	IS	94.9	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C8-PFOA	IS	29.8	10 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-PFOA	IS	96.9	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C8-PFOS	IS	90.0	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-PFDA	IS	83.6	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-8:2 FTS	IS	87.3	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
d3-MeFOSAA	IS	77.5	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-PFUnA	IS	91.1	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
d5-EtFOSAA	IS	74.9	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-PFDoA	IS	74.9	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1
13C2-PFTeDA	IS	71.1	20 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:23	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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:	B1L0027-BS1	Column:	BEH C18	
Project:	EGLE North Kent PFAS								

Analyte	CAS Number	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	41.3	40.0	103	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFPeA	2706-90-3	38.9	40.0	97.4	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFBS	375-73-5	39.7	40.0	99.2	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
4:2 FTS	757124-72-4	41.5	40.0	104	60 - 145		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFHxA	307-24-4	40.7	40.0	102	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFPeS	2706-91-4	39.2	40.0	98.0	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
HFPO-DA	13252-13-6	30.2	40.0	75.4	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFHpA	375-85-9	39.9	40.0	99.7	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
ADONA	919005-14-4	42.2	40.0	105	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFHxS	355-46-4	37.2	40.0	93.1	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
6:2 FTS	27619-97-2	39.7	40.0	99.1	60 - 140		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFOA	335-67-1	40.9	40.0	102	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFHpS	375-92-8	42.3	40.0	106	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFNA	375-95-1	39.3	40.0	98.2	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFOSA	754-91-6	39.8	40.0	99.6	65 - 140		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFOS	1763-23-1	41.3	40.0	103	65 - 140		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
9Cl-PF3ONS	756426-58-1	40.8	40.0	102	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFDA	335-76-2	46.6	40.0	116	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
8:2 FTS	39108-34-4	38.8	40.0	97.0	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFNS	68259-12-1	43.7	40.0	109	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
MeFOSAA	2355-31-9	41.5	40.0	104	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
EtFOSAA	2991-50-6	41.1	40.0	103	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFUnA	2058-94-8	39.1	40.0	97.7	65 - 140		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFDS	335-77-3	37.4	40.0	93.6	50 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
11Cl-PF3OUdS	763051-92-9	42.3	40.0	106	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFDoA	307-55-1	38.6	40.0	96.6	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFTTrDA	72629-94-8	33.2	40.0	83.0	60 - 140		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
PFTeDA	376-06-7	41.0	40.0	102	65 - 135		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	76.1	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C3-PFPeA	IS	84.7	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C3-PFBS	IS	90.7	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C3-HFPO-DA	IS	101	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-4:2 FTS	IS	87.3	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-PFHxA	IS	86.7	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1

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

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	B1L0027-BS1	Column:	BEH C18
Project:	EGLE North Kent PFAS						

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C4-PFHpA	IS	81.5	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C3-PFHxS	IS	85.4	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-6:2 FTS	IS	81.0	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C5-PFNA	IS	89.3	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C8-PFOA	IS	24.7	10 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-PFOA	IS	80.4	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C8-PFOS	IS	86.0	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-PFDA	IS	74.9	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-8:2 FTS	IS	82.1	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
d3-MeFOSAA	IS	70.8	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-PFUnA	IS	83.8	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
d5-EtFOSAA	IS	69.5	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-PFDoA	IS	78.6	25 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1
13C2-PFTeDA	IS	62.6	20 - 150		B1L0027	15-Dec-21	0.250 L	17-Dec-21 19:34	1

**Sample ID: GW2112010940JLB**
**PFAS Isotope Dilution Method**

Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	2112038-01	Column:	BEH C18			
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 09:40		Date Received:	03-Dec-21 12:21					
Location:	EGLE-GW-01										

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	5.29	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFPeA	2706-90-3	6.27	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFBS	375-73-5	6.32	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
4:2 FTS	757124-72-4	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFHxA	307-24-4	8.14	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFPeS	2706-91-4	4.39	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
HFPO-DA	13252-13-6	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFHpA	375-85-9	9.02	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
ADONA	919005-14-4	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFHxS	355-46-4	38.9	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
6:2 FTS	27619-97-2	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFOA	335-67-1	145	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFHpS	375-92-8	24.8	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFNA	375-95-1	1.37	1.02	2.03	4.06	J	B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFOSA	754-91-6	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFOS	1763-23-1	211	1.02	2.03	4.06	Q	B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
9Cl-PF3ONS	756426-58-1	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFDA	335-76-2	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
8:2 FTS	39108-34-4	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFNS	68259-12-1	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
MeFOSAA	2355-31-9	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
EtFOSAA	2991-50-6	2.09	1.02	2.03	4.06	J	B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFUnA	2058-94-8	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFDS	335-77-3	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
11Cl-PF3OUdS	763051-92-9	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFDoA	307-55-1	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFTTrDA	72629-94-8	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
PFTeDA	376-06-7	ND	1.02	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	62.9	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C3-PFPeA	IS	77.2	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C3-PFBS	IS	80.1	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C3-HFPO-DA	IS	90.4	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-4:2 FTS	IS	84.9	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-PFHxA	IS	80.1	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C4-PFHpA	IS	83.0	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C3-PFHxS	IS	76.7	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1

**Sample ID: GW2112010940JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-01	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 09:40	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-01						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-6:2 FTS	IS	64.9	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C5-PFNA	IS	73.0	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C8-PFOSA	IS	48.4	10 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-PFOA	IS	76.1	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C8-PFOS	IS	78.0	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-PFDA	IS	71.2	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-8:2 FTS	IS	71.2	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
d3-MeFOSAA	IS	76.7	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-PFUnA	IS	78.4	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
d5-EtFOSAA	IS	69.5	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-PFDoA	IS	74.8	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1
13C2-PFTeDA	IS	69.9	20 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 21:16	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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: GW2112011140JLB**
**PFAS Isotope Dilution Method**

Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	2112038-02		Column:	BEH C18		
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 11:40		Date Received:	03-Dec-21 12:21					
Location:	EGLE-GW-02										

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	3.12	1.03	2.06	4.12	J	B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFPeA	2706-90-3	1.61	1.03	2.06	4.12	J	B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFBS	375-73-5	9.04	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
4:2 FTS	757124-72-4	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFHxA	307-24-4	3.86	1.03	2.06	4.12	J	B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFPeS	2706-91-4	3.67	1.03	2.06	4.12	J	B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
HFPO-DA	13252-13-6	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFHpA	375-85-9	4.48	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
ADONA	919005-14-4	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFHxS	355-46-4	22.4	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
6:2 FTS	27619-97-2	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFOA	335-67-1	68.3	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFHpS	375-92-8	19.9	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFNA	375-95-1	3.93	1.03	2.06	4.12	J	B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFOSA	754-91-6	8.10	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFOS	1763-23-1	1070	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
9Cl-PF3ONS	756426-58-1	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFDA	335-76-2	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
8:2 FTS	39108-34-4	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFNS	68259-12-1	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
MeFOSAA	2355-31-9	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
EtFOSAA	2991-50-6	14.1	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFUnA	2058-94-8	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFDS	335-77-3	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
11Cl-PF3OUdS	763051-92-9	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFDoA	307-55-1	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFTTrDA	72629-94-8	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
PFTeDA	376-06-7	ND	1.03	2.06	4.12		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	49.7	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C3-PFPeA	IS	80.1	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C3-PFBS	IS	85.9	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C3-HFPO-DA	IS	101	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-4:2 FTS	IS	91.5	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-PFHxA	IS	84.3	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C4-PFHpA	IS	87.8	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C3-PFHxS	IS	83.0	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1

**Sample ID: GW2112011140JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-02	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 11:40	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-02						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-6:2 FTS	IS	83.3	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C5-PFNA	IS	84.3	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C8-PFOSA	IS	55.7	10 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-PFOA	IS	88.7	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C8-PFOS	IS	87.2	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-PFDA	IS	80.8	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-8:2 FTS	IS	87.4	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
d3-MeFOSAA	IS	85.8	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-PFUnA	IS	79.9	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
d5-EtFOSAA	IS	87.2	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-PFDoA	IS	85.3	25 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1
13C2-PFTeDA	IS	68.5	20 - 150		B1L0027	15-Dec-21	0.243 L	17-Dec-21 21:57	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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: GW2112011450JLB**
**PFAS Isotope Dilution Method**

Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	2112038-03	Column:	BEH C18			
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 14:50		Date Received:	03-Dec-21 12:21					
Location:	EGLE-GW-05										

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	2.09	1.02	2.04	4.08	J	B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFPeA	2706-90-3	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFBS	375-73-5	11.0	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
4:2 FTS	757124-72-4	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFHxA	307-24-4	2.28	1.02	2.04	4.08	J	B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFPeS	2706-91-4	1.46	1.02	2.04	4.08	J	B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
HFPO-DA	13252-13-6	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFHpA	375-85-9	4.65	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
ADONA	919005-14-4	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFHxS	355-46-4	17.7	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
6:2 FTS	27619-97-2	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFOA	335-67-1	51.2	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFHpS	375-92-8	4.89	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFNA	375-95-1	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFOSA	754-91-6	2.46	1.02	2.04	4.08	J	B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFOS	1763-23-1	179	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
9Cl-PF3ONS	756426-58-1	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFDA	335-76-2	1.93	1.02	2.04	4.08	J	B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
8:2 FTS	39108-34-4	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFNS	68259-12-1	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
MeFOSAA	2355-31-9	2.24	1.02	2.04	4.08	J	B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
EtFOSAA	2991-50-6	6.69	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFUnA	2058-94-8	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFDS	335-77-3	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
11Cl-PF3OUdS	763051-92-9	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFDoA	307-55-1	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFTTrDA	72629-94-8	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
PFTeDA	376-06-7	ND	1.02	2.04	4.08		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	56.3	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C3-PFPeA	IS	78.5	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C3-PFBS	IS	84.4	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C3-HFPO-DA	IS	99.0	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-4:2 FTS	IS	82.5	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-PFHxA	IS	83.5	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C4-PFHpA	IS	85.9	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C3-PFHxS	IS	79.5	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1

**Sample ID: GW2112011450JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-03	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 14:50	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-05						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-6:2 FTS	IS	79.2	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C5-PFNA	IS	86.9	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C8-PFOSA	IS	57.4	10 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-PFOA	IS	83.5	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C8-PFOS	IS	83.0	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-PFDA	IS	75.6	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-8:2 FTS	IS	85.2	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
d3-MeFOSAA	IS	80.1	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-PFUnA	IS	82.2	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
d5-EtFOSAA	IS	83.0	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-PFDoA	IS	81.7	25 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1
13C2-PFTeDA	IS	60.8	20 - 150		B1L0027	15-Dec-21	0.245 L	17-Dec-21 22:07	1

DL - Detection Limit

 LOD - Limit of Detection  
 LOQ - Limit of quantitation

Results reported to the DL.

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: FB2112011455JLB**
**PFAS Isotope Dilution Method**

Client Data					Laboratory Data						
Name:	AECOM	Matrix:	Aqueous		Lab Sample:	2112038-04	Column:	BEH C18			
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 14:55		Date Received:	03-Dec-21 12:21					
Location:	EGLE-GW-05										

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFPeA	2706-90-3	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFBS	375-73-5	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
4:2 FTS	757124-72-4	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFHxA	307-24-4	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFPeS	2706-91-4	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
HFPO-DA	13252-13-6	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFHpA	375-85-9	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
ADONA	919005-14-4	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFHxS	355-46-4	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
6:2 FTS	27619-97-2	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFOA	335-67-1	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFHpS	375-92-8	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFNA	375-95-1	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFOSA	754-91-6	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFOS	1763-23-1	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
9Cl-PF3ONS	756426-58-1	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFDA	335-76-2	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
8:2 FTS	39108-34-4	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFNS	68259-12-1	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
MeFOSAA	2355-31-9	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
EtFOSAA	2991-50-6	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFUnA	2058-94-8	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFDS	335-77-3	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
11Cl-PF3OUdS	763051-92-9	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFDoA	307-55-1	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFTTrDA	72629-94-8	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
PFTeDA	376-06-7	ND	1.01	2.02	4.04		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	83.1	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C3-PFPeA	IS	88.4	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C3-PFBS	IS	94.8	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C3-HFPO-DA	IS	111	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-4:2 FTS	IS	85.6	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-PFHxA	IS	88.9	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C4-PFHpA	IS	89.7	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C3-PFHxS	IS	82.5	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1

**Sample ID: FB2112011455JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-04	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 14:55	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-05						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-6:2 FTS	IS	83.2	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C5-PFNA	IS	87.3	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C8-PFOSA	IS	47.0	10 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-PFOA	IS	83.8	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C8-PFOS	IS	90.5	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-PFDA	IS	83.1	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-8:2 FTS	IS	84.3	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
d3-MeFOSAA	IS	76.8	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-PFUnA	IS	82.0	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
d5-EtFOSAA	IS	71.2	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-PFDoA	IS	84.4	25 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1
13C2-PFTeDA	IS	70.6	20 - 150		B1L0027	15-Dec-21	0.248 L	17-Dec-21 22:17	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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: GW2112011520JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-05	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 15:20	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-06						

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	12.8	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFPeA	2706-90-3	9.81	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFBS	375-73-5	18.9	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
4:2 FTS	757124-72-4	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFHxA	307-24-4	17.0	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFPeS	2706-91-4	4.99	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
HFPO-DA	13252-13-6	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFHpA	375-85-9	11.1	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
ADONA	919005-14-4	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFHxS	355-46-4	25.8	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
6:2 FTS	27619-97-2	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFOA	335-67-1	110	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFHpS	375-92-8	23.1	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFNA	375-95-1	9.04	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFOSA	754-91-6	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFOS	1763-23-1	1250	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
9Cl-PF3ONS	756426-58-1	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFDA	335-76-2	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
8:2 FTS	39108-34-4	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFNS	68259-12-1	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
MeFOSAA	2355-31-9	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
EtFOSAA	2991-50-6	3.22	1.01	2.02	4.05	J	B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFUnA	2058-94-8	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFDS	335-77-3	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
11Cl-PF3OUdS	763051-92-9	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFDoA	307-55-1	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFTTrDA	72629-94-8	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
PFTeDA	376-06-7	ND	1.01	2.02	4.05		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	69.0	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C3-PFPeA	IS	82.7	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C3-PFBS	IS	87.0	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C3-HFPO-DA	IS	106	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-4:2 FTS	IS	79.5	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-PFHxA	IS	82.9	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C4-PFHpA	IS	82.7	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C3-PFHxS	IS	79.6	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1

**Sample ID: GW2112011520JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-05	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	01-Dec-21 15:20	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-06						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-6:2 FTS	IS	80.7	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C5-PFNA	IS	82.2	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C8-PFOSA	IS	52.4	10 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-PFOA	IS	77.9	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C8-PFOS	IS	76.5	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-PFDA	IS	80.6	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-8:2 FTS	IS	77.9	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
d3-MeFOSAA	IS	68.4	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-PFUnA	IS	76.1	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
d5-EtFOSAA	IS	68.5	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-PFDoA	IS	74.3	25 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1
13C2-PFTeDA	IS	68.1	20 - 150		B1L0027	15-Dec-21	0.247 L	17-Dec-21 22:27	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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: GW2112021025JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-06	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	02-Dec-21 10:25	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-04						

Analyte	CAS Number	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBA	375-22-4	13.2	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFPeA	2706-90-3	4.75	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFBS	375-73-5	48.1	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
4:2 FTS	757124-72-4	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFHxA	307-24-4	7.75	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFPeS	2706-91-4	6.53	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
HFPO-DA	13252-13-6	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFHpA	375-85-9	3.31	1.01	2.03	4.06	J	B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
ADONA	919005-14-4	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFHxS	355-46-4	7.49	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
6:2 FTS	27619-97-2	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFOA	335-67-1	33.4	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFHpS	375-92-8	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFNA	375-95-1	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFOSA	754-91-6	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFOS	1763-23-1	34.5	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
9Cl-PF3ONS	756426-58-1	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFDA	335-76-2	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
8:2 FTS	39108-34-4	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFNS	68259-12-1	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
MeFOSAA	2355-31-9	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
EtFOSAA	2991-50-6	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFUnA	2058-94-8	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFDS	335-77-3	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
11Cl-PF3OUdS	763051-92-9	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFDoA	307-55-1	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFTTrDA	72629-94-8	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
PFTeDA	376-06-7	ND	1.01	2.03	4.06		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBA	IS	36.1	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C3-PFPeA	IS	72.8	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C3-PFBS	IS	83.9	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C3-HFPO-DA	IS	86.9	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-4:2 FTS	IS	81.1	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-PFHxA	IS	82.3	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C4-PFHpA	IS	80.8	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C3-PFHxS	IS	78.9	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1

**Sample ID: GW2112021025JLB**
**PFAS Isotope Dilution Method**

Client Data				Laboratory Data			
Name:	AECOM	Matrix:	Aqueous	Lab Sample:	2112038-06	Column:	BEH C18
Project:	EGLE North Kent PFAS	Date Collected:	02-Dec-21 10:25	Date Received:	03-Dec-21 12:21		
Location:	EGLE-GW-04						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-6:2 FTS	IS	79.2	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C5-PFNA	IS	85.2	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C8-PFOSA	IS	54.7	10 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-PFOA	IS	77.5	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C8-PFOS	IS	79.6	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-PFDA	IS	79.3	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-8:2 FTS	IS	73.1	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
d3-MeFOSAA	IS	71.9	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-PFUnA	IS	70.8	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
d5-EtFOSAA	IS	74.3	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-PFDoA	IS	82.0	25 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1
13C2-PFTeDA	IS	64.5	20 - 150		B1L0027	15-Dec-21	0.246 L	17-Dec-21 22:37	1

DL - Detection Limit

LOD - Limit of Detection

Results reported to the DL.

LOQ - Limit of quantitation

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.

### Vista Analytical Laboratory 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 17025:2005	3091.01
Florida Department of Health	E87777-26
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Massachusetts Department of Environmental Protection	M-CA413
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1980678
New Hampshire Environmental Accreditation Program	207720
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-016
Pennsylvania Department of Environmental Protection	017
Texas Commission on Environmental Quality	T104704189-21-12
Vermont Department of Health	VT-4042
Virginia Department of General Services	10769
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.*

## NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p- Dioxins & Polychlorinated Dibenzofurans	EPA 23
Polychlorinated Dibenzodioxins in Ambient Air by GC/HRMS	EPA TO-9A

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613/1613B
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537.1
Determination of Per- and Polyfluoroalkyl Substances in Drinking Water by Isotope Dilution Anion Exchange Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry	EPA 533
Perfluorooctanesulfonate (PFOS) and Perfluorooctanoate (PFOA) - Method for Unfiltered Samples Using Solid Phase Extraction and Liquid Chromatography/Mass Spectrometry	ISO 25101 2009

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

# CHAIN OF CUSTODY

For Laboratory Use Only

Work Order #: 2112038 Temp: 0.6 °C

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

Project ID: EGLE North Kent PFAS PO#: 60556961 Sampler: Jim Buzzell (name)

TAT Standard:  21 days  
 (check one): Rush (surcharge may apply)  
 14 days  7 days Specify: \_\_\_\_\_

Invoice to: Name Karen Vorce Company EGLE Address 350 Ottawa Ave NW City Grand Rapids State MI Ph# 616-439-8008 Fax# \_\_\_\_\_

Relinquished by (printed name and signature) Jim Buzzell Date 12/2/2021 Time 15:00 Received by (printed name and signature) Justin Briseno Date 12/03/21 Time 12:21

Sample ID	Date	Time	Location/Sample Description	Add Analysis(es) Requested										Comments										
				Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	PFAS List of 28	Other: Please List Below	Branch and Linear	PFOA/PFOS		UCMR3 PFAS List 6	PFAS List: 14								
GW2112010940JLB	12/1/21	9:40	EGLE-GW-01	2	P	AQ																		
GW2112011140JLB	12/1/21	11:40	EGLE-GW-02	2	P	AQ																		
GW2112011450JLB	12/1/21	14:50	EGLE-GW-05	2	P	AQ																		
FB2112011455JLB	12/1/21	14:55	EGLE-GW-05	2	P	AQ																		
GW2112011520JLB	12/1/21	15:20	EGLE-GW-06	2	P	AQ																		
GW2112021025JLB	12/2/21	10:25	EGLE-GW-04	2	P	AQ																		

Special Instructions/Comments: Send Results and Acknowledgements to Project distribution list

**SEND DOCUMENTATION AND RESULTS TO:**

Name: Karen Vorce  
 Company: EGLE  
 Address: 350 Ottawa Ave NW  
 City: Grand Rapids State: MI Zip: 49503  
 Phone: 616-439-8008 Fax: \_\_\_\_\_  
 Email: hendershotta@michigan.gov

Container Types: P = HDPE, PJ = HDPE Jar  
 Bottle Preservation Type: T = Thiosulfate, TZ = Trizma  
 Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other

## Sample Log-In Checklist

Page # 1 of 1

Vista Work Order #: 2112038

TAT STD

Samples Arrival:	Date/Time <u>12/03/21 1221</u>		Initials: <u>[Signature]</u>		Location: <u>WR-2</u>		
	Shelf/Rack: <u>N/A</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>0.8</u> (uncorrected)	Probe used: Y / <input checked="" type="checkbox"/> N			Thermometer ID: <u>IR-3</u>			
Temp °C: <u>0.6</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>2809 7027 0140</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	<input type="checkbox"/> Vista	<input checked="" type="checkbox"/> Client	<input type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> 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>12/03/21 1442</u>		Initials: <u>[Signature]</u>
	Location: <u>R-13 WR-2</u>		Shelf/Rack: <u>A-1 F-5</u>
COC Anomaly/Sample Acceptance Form completed?			
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Comments:

# CoC/Label Reconciliation Report WO# 2112038

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2112038-01	A GW2112010940JLB	<input checked="" type="checkbox"/>	EGLE-GW-01	01-Dec-21 09:40	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-01	B GW2112010940JLB	<input checked="" type="checkbox"/>	EGLE-GW-01	01-Dec-21 09:40	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-02	A GW2112011140JLB	<input checked="" type="checkbox"/>	EGLE-GW-02	01-Dec-21 11:40	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-02	B GW2112011140JLB	<input checked="" type="checkbox"/>	EGLE-GW-02	01-Dec-21 11:40	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-03	A GW2112011450JLB	<input checked="" type="checkbox"/>	EGLE-GW-05	01-Dec-21 14:50	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-03	B GW2112011450JLB	<input checked="" type="checkbox"/>	EGLE-GW-05	01-Dec-21 14:50	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-04	A FB2112011455JLB	<input checked="" type="checkbox"/>	EGLE-GW-05	01-Dec-21 14:55	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-04	B FB2112011455JLB	<input checked="" type="checkbox"/>	EGLE-GW-05	01-Dec-21 14:55	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-05	A GW2112011520JLB	<input checked="" type="checkbox"/>	EGLE-GW-06	01-Dec-21 15:20	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-05	B GW2112011520JLB	<input checked="" type="checkbox"/>	EGLE-GW-06	01-Dec-21 15:20	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-06	A GW2112021025JLB	<input checked="" type="checkbox"/>	EGLE-GW-04	02-Dec-21 10:25	<input checked="" type="checkbox"/>	HDPE Bottle, 250 mL	Aqueous	
2112038-06	B GW2112021025JLB	<input checked="" type="checkbox"/>	EGLE-GW-04	02-Dec-21 10:25	<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?	<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Adequate Sample Volume?	<input checked="" type="checkbox"/>		
Container Type Appropriate for Analysis(es)	<input checked="" type="checkbox"/>		

Comments:

Preservation Documented: Na2S2O3    Trizma    NH4CH3CO2    None    Other

ALL

Verified by/Date: 4 12/03/21