

ANALYTICAL REPORT

PREPARED FOR

Attn: Mike Lankford
Gadsden Water Works
515 Albert Rains Blvd
Gadsden, Alabama 35901

Generated 7/13/2023 8:58:58 PM

JOB DESCRIPTION

GWWSB Pilot

JOB NUMBER

810-65546-1

Case Narrative

Client: Gadsden Water Works
Project/Site: GWWSB Pilot

Job ID: 810-65546-1

Job ID: 810-65546-1

Laboratory: Eurofins Eaton Analytical South Bend

Narrative

Job Narrative
810-65546-1

Receipt

The samples were received on 6/8/2023 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 0.4°C and 8.6°C

GC/MS VOA

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

GC/MS Semi VOA

Method 525.2_PREC: Recovery standard p-Terphenyl-d14 response @ 135% for the following sample was outside of acceptance limits (70-130%): Gadsden-Source (810-65546-1). This recovery standard was not used to calculate any analyte result.

Method 525.2_PREC: Recovery standard p-Terphenyl-d14 response @ 135% for the following sample was outside of acceptance limits (70-130%): (810-65546-G-2-A DU). This recovery standard was not used to calculate any analyte result.

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

PFAS

Method 533: Internal standard (ISTD) response for the following sample was outside of acceptance limits: Wigen-Concentrate (810-65546-2). 13C3-PFBA response was 28%. Limit 50-150%. This ISTD is used to quantitate 13C4 PFBA and 13C5 PFPeA only, which meet method recovery requirements. Results should not be affected.

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

Metals

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

General Chemistry

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

Client Sample ID: Gadsden RW PFAS

Lab Sample ID: 810-65546-5

Date Collected: 06/07/23 20:33

Matrix: Water

Date Received: 06/08/23 09:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	14		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1
Perfluoropentanoic acid (PFPeA)	43		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1
Perfluorohexanoic acid (PFHxA)	26		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1
Perfluoroheptanoic acid (PFHpA)	9.6		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1
Perfluorooctanoic acid (PFOA)	27		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1
Perfluorononanoic acid (PFNA)	2.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1

Eurofins Eaton Analytical South Bend

Client Sample Results

Client: Gadsden Water Works
Project/Site: GWWSB Pilot

Job ID: 810-65546-1

Client Sample ID: Gadsden RW PFAS

Lab Sample ID: 810-65546-5

Date Collected: 06/07/23 20:33

Matrix: Water

Date Received: 06/08/23 09:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)									
Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac	
Perfluorodecanoic acid (PFDA)	3.4		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluoroundecanoic acid (PFUnA)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluorododecanoic acid (PFDoA)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluorobutanesulfonic acid (PFBS)	110		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluoropentanesulfonic acid (PFPeS)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluorohexanesulfonic acid (PFHxS)	3.8		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluoroheptanesulfonic acid (PFHpS)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluorooctanesulfonic acid (PFOS)	38		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluoro (2-ethoxyethane) sulfonic acid (PFEEESA)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
11-Chloroicosafafluoro-3-oxaundecane-1-sulfonic acid	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluoro(4-methoxybutanoic acid)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Perfluoro-3,6-dioxaheptanoic acid	<1.9		1.9	ng/L		06/26/23 06:41	06/27/23 02:08	1	
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac	
13C4 PFBA	78		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C5 PFPeA	84		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C5 PFHxA	77		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C4 PFHpA	77		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C8 PFOA	76		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C9 PFNA	78		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C6 PFDA	77		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C7 PFUnA	76		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C2 PFDoA	74		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C3 HFPO-DA	71		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C3 PFBS	79		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C8 PFOS	80		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C2-4:2-FTS	95		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C2-6:2-FTS	89		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C2-8:2-FTS	89		50 - 200			06/26/23 06:41	06/27/23 02:08	1	
13C3 PFHxS	80		50 - 200			06/26/23 06:41	06/27/23 02:08	1	

Client Sample Results

Client: Gadsden Water Works
Project/Site: GWWSB Pilot

Job ID: 810-65546-1

Client Sample ID: Gadsden RW PFAS

Lab Sample ID: 810-65546-5

Date Collected: 06/07/23 20:33

Matrix: Water

Date Received: 06/08/23 09:00

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeDA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:37	1
Perfluorotridecanoic acid (PFTriDA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:37	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:37	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEtFOSAA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C2 PFHxA	85		70 - 130	06/20/23 07:45	06/20/23 22:37	1
13C2 PFDA	84		70 - 130	06/20/23 07:45	06/20/23 22:37	1
13C3 HFPO-DA	81		70 - 130	06/20/23 07:45	06/20/23 22:37	1
d5-NEtFOSAA	83		70 - 130	06/20/23 07:45	06/20/23 22:37	1

Client Sample ID: Gadsden FW PFAS

Lab Sample ID: 810-65546-6

Date Collected: 06/07/23 10:00

Matrix: Water

Date Received: 06/08/23 09:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	15		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoropentanoic acid (PFPeA)	44		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluorohexanoic acid (PFHxA)	30		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoroheptanoic acid (PFHpA)	9.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluorooctanoic acid (PFOA)	25		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluorononanoic acid (PFNA)	2.2		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluorodecanoic acid (PFDA)	2.4		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoroundecanoic acid (PFUnA)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluorododecanoic acid (PFDoA)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluorobutanesulfonic acid (PFBS)	120		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoropentanesulfonic acid (PFPeS)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoroheptanesulfonic acid (PFHpS)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluorooctanesulfonic acid (PFOS)	27		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoro (2-ethoxyethane) sulfonic acid (PFEESA)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
1H,1H,2H,2H-Perfluorohexane sulfonic acid (4:2 FTS)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
1H,1H,2H,2H-Perfluorooctane sulfonic acid (6:2 FTS)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
1H,1H,2H,2H-Perfluorodecane sulfonic acid (8:2 FTS)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Hexafluoropropylene Oxide Dimer Acid (HFPO-DA)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
11-Chloroheptafluoro-3-oxaundecane-1-sulfonic acid	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1

Eurofins Eaton Analytical South Bend

Client Sample Results

Client: Gadsden Water Works
Project/Site: GWWSB Pilot

Job ID: 810-65546-1

Client Sample ID: Gadsden FW PFAS

Lab Sample ID: 810-65546-6

Date Collected: 06/07/23 10:00

Matrix: Water

Date Received: 06/08/23 09:00

Method: EPA 533 - Perfluorinated and Polyfluorinated Alkyl Substances in Drinking Water (Continued)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluoro(4-methoxybutanoic acid)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoro-3-methoxypropanoic acid (PFMPA)	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Perfluoro-3,6-dloxaheptanoic acid	<1.9		1.9	ng/L		06/19/23 06:25	06/20/23 04:16	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C4 PFBA	93		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C5 PFPoA	110		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C5 PFHxA	91		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C4 PFHpA	92		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C8 PFOA	93		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C9 PFNA	100		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C6 PFDA	96		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C7 PFUnA	91		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C2 PFDoA	92		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C3 HFPO-DA	90		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C3 PFBS	90		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C8 PFOS	89		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C2-4:2-FTS	83		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C2-6:2-FTS	94		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C2-8:2-FTS	99		50 - 200			06/19/23 06:25	06/20/23 04:16	1
13C3 PFHxS	92		50 - 200			06/19/23 06:25	06/20/23 04:16	1

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeDA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:47	1
Perfluorotridecanoic acid (PFTrDA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:47	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:47	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEFOSAA)	<1.9		1.9	ng/L		06/20/23 07:45	06/20/23 22:47	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C2 PFHxA	89		70 - 130			06/20/23 07:45	06/20/23 22:47	1
13C2 PFDA	89		70 - 130			06/20/23 07:45	06/20/23 22:47	1
13C3 HFPO-DA	87		70 - 130			06/20/23 07:45	06/20/23 22:47	1
d5-NEFOSAA	85		70 - 130			06/20/23 07:45	06/20/23 22:47	1

Client Sample ID: FTB

Lab Sample ID: 810-65546-7

Date Collected: 06/07/23 10:00

Matrix: Water

Date Received: 06/08/23 09:00

Method: EPA 537.1 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorotetradecanoic acid (PFTeDA)	<1.9		1.9	ng/L		06/21/23 08:19	06/22/23 18:01	1
Perfluorotridecanoic acid (PFTrDA)	<1.9		1.9	ng/L		06/21/23 08:19	06/22/23 18:01	1
N-methylperfluorooctanesulfonamidoacetic acid (NMeFOSAA)	<1.9		1.9	ng/L		06/21/23 08:19	06/22/23 18:01	1
N-ethylperfluorooctanesulfonamidoacetic acid (NEFOSAA)	<1.9		1.9	ng/L		06/21/23 08:19	06/22/23 18:01	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
13C2 PFHxA	94		70 - 130			06/21/23 08:19	06/22/23 18:01	1

Eurofins Eaton Analytical South Bend

Eurofins Eaton Analytical South Bend

110 S Hill Street
 South Bend, IN 46617
 Phone: 574-233-4777 Fax: 574-233-8207

Chain of Custody Record

Client Information
 Client Contact: **MIKE LANKFORD**
 Company: **Gadsden Water Works**
 Address: **515 Albert Rains Blvd**
 City: **Gadsden**
 State, Zip: **AL, 35901**
 Phone: _____
 Email: **mlankford@gadsdenwater.org**
 Project Name: **GWWSB Pilot**
 Site: **GADSDEN**

Sample Information
 Sample: **MICHAEL BROOKINS**
 Phone: **(256) 543-2884**
 Lab Pk: **Trowbridge, Nathan**
 E-Mail: **Nathan.Trowbridge@ef.eurofins.com**
 Carrier: _____
 State of: _____

Date/Date Requested: _____
TAI Requested (y/n): _____
Compliance Project: Yes No
Purchase Order: Not required
PO #: _____
Project #: **81005583**
SSOW #: _____

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Element, Compound, Other)	Field Filtered Sample (Yes or No)												Special Instructions/Notes	
					HA	NI	DI	Y	N	DI	N	DI	N	DI	N	DI		
GADSDEN - SOURCE	6/7/03	0900	G	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
WIGEN - CONCENTRATE	6/7/03	0900	G	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
DESALITEC - CONCENTRATE	6/7/03	0900	G	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
WIGEN - PERMEATE	6/7/03	0900	G	Drinking Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
DESALITEC - PERMEATE	6/7/03	0900	G	Drinking Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
TRIP BLANK	6/12/2003																	
GADSDEN RW PFAS	6/16/03	2033	G	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
GADSDEN FW PFAS	6/7/03	1000	G	Water	X	X	X	X	X	X	X	X	X	X	X	X	X	
537 PFB																		

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
Deliverable Requested: I, II, III, IV, Other (specify) _____

Empty Kit Relinquished by: _____
Relinquished by: **M. BROOKINS to COOLER**
 Date/Time: **6/7/03 1100**
Relinquished by: _____
 Date/Time: _____
Relinquished by: _____
 Date/Time: _____
Custody Seals Intact: Yes No
Custody Seal No.: _____

Analysis Requested

2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	
2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008	2007, 2008

- Preservation Codes:**
 A - HCL
 B - NaOH
 C - Zn Acetate
 D - Nitric Acid
 E - NaHSO4
 F - MeOH
 G - Ammonia
 H - Acetic Acid
 I - Ice
 J - DI Water
 K - EDTA
 L - EDA
 Other: _____

- Special Instructions/Notes:**
 M - Hebane
 N - None
 O - AsNaO2
 P - Na2OAS
 Q - Na2SO3
 R - Na2S2O3
 S - H2SO4
 T - TSP Dodecahydrate
 U - Acetone
 V - MCAA
 W - pH 4-6
 Y - Trams
 Z - other (specify)

Sample Disposal: (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Special Instructions/QC Requirements: _____

Method of Shipment: _____
 Date/Time: _____
 Received by: _____
 Date/Time: _____
 Received by: _____
 Date/Time: _____
 Received by: _____
 Date/Time: _____
 Cooler Temperature (°C and Other Remarks): _____



