

ANALYTICAL REPORT

Eurofins Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

Laboratory Job ID: 280-165140-1
Client Project/Site: Gadsden PFAS Sampling

For:
Gadsden Water Works
515 Albert Rains Blvd
Gadsden, Alabama 35901

Attn: Mike Lankford



Authorized for release by:
8/31/2022 2:07:09 PM

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Case Narrative

Client: Gadsden Water Works
Project/Site: Gadsden PFAS Sampling

Job ID: 280-165140-1

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Narrative

CASE NARRATIVE

Client: Gadsden Water Works

Project: Gadsden PFAS Sampling

Report Number: 280-165140-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 08/04/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.0 C.

The client sample ID on the container label for the following samples did not match the information listed on the Chain-of-Custody (COC): GADSDEN : RW (280-165140-1), GADSDEN : FW (280-165140-2) and GADSDEN : DISCHARGE (280-165140-3). The container labels do not have "GADSDEN" in the client sample ID. All other information on the labels matches the chain of custody for each sample. Client sample IDs were logged per the information on the chain of custody.

PERFLUORINATED HYDROCARBONS (PFAS) MOD

Samples GADSDEN : RW (280-165140-1), GADSDEN : FW (280-165140-2) and GADSDEN : DISCHARGE (280-165140-3) were analyzed for Perfluorinated Hydrocarbons (PFAS) MOD in accordance with 537 MOD. The samples were prepared on 08/16/2022 and analyzed on 08/18/2022 and 08/20/2022.

The following samples in preparation batch 320-609808 were observed to have floating particulates present in the sample bottle prior to extraction: GADSDEN : RW (280-165140-1).

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

Client Sample Results

Client: Gadsden Water Works
Project/Site: Gadsden PFAS Sampling

Job ID: 280-165140-1

Method: 537 (modified) - Fluorinated Alkyl Substances

Client Sample ID: GADSDEN : RW

Date Collected: 08/02/22 20:24

Date Received: 08/04/22 10:00

Lab Sample ID: 280-165140-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	12		4.7	2.2	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorodecanoic acid (PFDA)	3.5		1.9	0.29	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorododecanoic acid (PFDoA)	0.51	U	1.9	0.51	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluoroheptanoic acid (PFHpA)	9.5		1.9	0.23	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorohexanoic acid (PFHxA)	23		1.9	0.54	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorononanoic acid (PFNA)	2.7		1.9	0.25	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorooctanoic acid (PFOA)	25		1.9	0.80	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorooctane sulfonate (PFOS)	29		1.9	0.51	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluoropentanoic acid (PFPA)	37		1.9	0.46	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorotetradecanoic acid (PFTeA)	0.68	U	1.9	0.68	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorotridecanoic acid (PFTriA)	1.2	U	1.9	1.2	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluoroundecanoic acid (PFUnA)	1.0	U	1.9	1.0	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorobutanesulfonic acid (PFBS)	90		1.9	0.19	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorodecanesulfonic acid (PFDS)	0.30	U	1.9	0.30	ng/L		08/16/22 12:13	08/18/22 17:43	1
Perfluorohexanesulfonic acid (PFHxS)	3.2		1.9	0.53	ng/L		08/16/22 12:13	08/18/22 17:43	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFBA	91		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C5 PFPeA	97		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C2 PFHxA	112		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C4 PFHpA	106		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C4 PFOA	104		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C5 PFNA	104		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C2 PFDA	102		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C2 PFUnA	98		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C2 PFDoA	92		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C2 PFTeA	79		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C3 PFBS	96		25 - 150	08/16/22 12:13	08/18/22 17:43	1
18O2 PFHxS	111		25 - 150	08/16/22 12:13	08/18/22 17:43	1
13C4 PFOS	110		25 - 150	08/16/22 12:13	08/18/22 17:43	1

Client Sample ID: GADSDEN : FW

Date Collected: 08/03/22 11:00

Date Received: 08/04/22 10:00

Lab Sample ID: 280-165140-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	14		4.7	2.2	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorodecanoic acid (PFDA)	2.6		1.9	0.29	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorododecanoic acid (PFDoA)	0.51	U	1.9	0.51	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluoroheptanoic acid (PFHpA)	9.4		1.9	0.23	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorohexanoic acid (PFHxA)	28		1.9	0.54	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorononanoic acid (PFNA)	1.8	J	1.9	0.25	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorooctanoic acid (PFOA)	23		1.9	0.79	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorooctane sulfonate (PFOS)	23		1.9	0.50	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluoropentanoic acid (PFPA)	44		1.9	0.46	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorotetradecanoic acid (PFTeA)	0.68	U	1.9	0.68	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorotridecanoic acid (PFTriA)	1.2	U	1.9	1.2	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluoroundecanoic acid (PFUnA)	1.0	U	1.9	1.0	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorobutanesulfonic acid (PFBS)	110		1.9	0.19	ng/L		08/16/22 12:13	08/20/22 14:23	1

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Client Sample Results

Client: Gadsden Water Works
Project/Site: Gadsden PFAS Sampling

Job ID: 280-165140-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: GADSDEN : FW

Lab Sample ID: 280-165140-2

Date Collected: 08/03/22 11:00

Matrix: Water

Date Received: 08/04/22 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorodecanesulfonic acid (PFDS)	0.30	U	1.9	0.30	ng/L		08/16/22 12:13	08/20/22 14:23	1
Perfluorohexanesulfonic acid (PFHxS)	2.4		1.9	0.53	ng/L		08/16/22 12:13	08/20/22 14:23	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C4 PFBA	95		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C5 PFPeA	96		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C2 PFHxA	108		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C4 PFHpA	103		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C4 PFOA	102		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C5 PFNA	102		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C2 PFDA	101		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C2 PFUnA	100		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C2 PFDoA	91		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C2 PFTeDA	87		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C3 PFBS	99		25 - 150				08/16/22 12:13	08/20/22 14:23	1
18O2 PFHxS	111		25 - 150				08/16/22 12:13	08/20/22 14:23	1
13C4 PFOS	107		25 - 150				08/16/22 12:13	08/20/22 14:23	1

Client Sample ID: GADSDEN : DISCHARGE

Lab Sample ID: 280-165140-3

Date Collected: 08/03/22 09:00

Matrix: Water

Date Received: 08/04/22 10:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanoic acid (PFBA)	11		4.5	2.1	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorodecanoic acid (PFDA)	3.2		1.8	0.28	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorododecanoic acid (PFDoA)	0.49	U	1.8	0.49	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluoroheptanoic acid (PFHpA)	9.0		1.8	0.22	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorohexanoic acid (PFHxA)	22		1.8	0.52	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorononanoic acid (PFNA)	2.1		1.8	0.24	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorooctanoic acid (PFOA)	23		1.8	0.76	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorooctane sulfonate (PFOS)	29		1.8	0.48	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluoropentanoic acid (PFPA)	36		1.8	0.44	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorotetradecanoic acid (PFTeA)	0.65	U	1.8	0.65	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorotridecanoic acid (PFTriA)	1.2	U	1.8	1.2	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluoroundecanoic acid (PFUnA)	0.98	U	1.8	0.98	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorooctanesulfonamide (PFOSA)	0.93	J	1.8	0.88	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorobutanesulfonic acid (PFBS)	85		1.8	0.18	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorodecanesulfonic acid (PFDS)	0.29	U	1.8	0.29	ng/L		08/16/22 12:13	08/18/22 18:03	1
Perfluorohexanesulfonic acid (PFHxS)	2.9		1.8	0.51	ng/L		08/16/22 12:13	08/18/22 18:03	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C8 FOSA	113		25 - 150				08/16/22 12:13	08/18/22 18:03	1
13C4 PFBA	100		25 - 150				08/16/22 12:13	08/18/22 18:03	1
13C5 PFPeA	102		25 - 150				08/16/22 12:13	08/18/22 18:03	1
13C2 PFHxA	116		25 - 150				08/16/22 12:13	08/18/22 18:03	1
13C4 PFHpA	114		25 - 150				08/16/22 12:13	08/18/22 18:03	1
13C4 PFOA	109		25 - 150				08/16/22 12:13	08/18/22 18:03	1
13C5 PFNA	110		25 - 150				08/16/22 12:13	08/18/22 18:03	1
13C2 PFDA	110		25 - 150				08/16/22 12:13	08/18/22 18:03	1

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Client Sample Results

Client: Gadsden Water Works
Project/Site: Gadsden PFAS Sampling

Job ID: 280-165140-1

Method: 537 (modified) - Fluorinated Alkyl Substances (Continued)

Client Sample ID: GADSDEN : DISCHARGE

Date Collected: 08/03/22 09:00

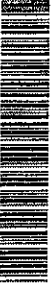
Date Received: 08/04/22 10:00

Lab Sample ID: 280-165140-3

Matrix: Water

<u>Isotope Dilution</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
13C2 PFUnA	105		25 - 150	08/16/22 12:13	08/18/22 18:03	1
13C2 PFDoA	102		25 - 150	08/16/22 12:13	08/18/22 18:03	1
13C2 PFTeDA	99		25 - 150	08/16/22 12:13	08/18/22 18:03	1
13C3 PFBS	105		25 - 150	08/16/22 12:13	08/18/22 18:03	1
18O2 PFHxS	117		25 - 150	08/16/22 12:13	08/18/22 18:03	1
13C4 PFOS	115		25 - 150	08/16/22 12:13	08/18/22 18:03	1

8



Client Information (Sub Contract Lab)		Lab Pk.:	Bienilius, Dylan T							
Client Contact:		Carrier Tracking No(s):	280-624454-1							
Shipping/Receiving		State of Origin:	Alabama							
Company:		E-Mail:	Dylan.Bienilius@et.eurofins.us.com							
Eurofins Environment Testing Northern Ca		Accreditations Required (See note)								
Address:		Due Date Requested:								
880 Riverside Parkway,		8/17/2022								
City:		TAT Requested (days):								
West Sacramento										
State, Zip:		PO #:								
CA, 95605										
Phone:		WO #:								
916-373-5600(Tel) 916-372-1059(Fax)										
Email:		Project #:								
		28020645								
Project Name:		SSOW#:								
Gadsden PFAS Sampling										
Site:										
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Newer, Solid, Over-sat)	Field Filtered Sample (Yes/No)	Perform MS/MSD (Yes/No)	PFC (DA/3533_PFC (MOD) PFC Waters ONLY)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
GADSDEN : RW (280-165140-1)	8/2/22	20:24 Central		Water	X	X	X		2	
GADSDEN : FW (280-165140-2)	8/3/22	11:50 Central		Water	X	X	X		2	
GADSDEN : DISCHARGE (280-165140-3)	8/3/22	09:00 Central		Water	X	X	X		2	
<p>Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.</p>										
<p>Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 4 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:</p>										
<p>Empty Kit Relinquished by: _____ Date: _____ Time: _____ Method of Shipment: _____ Relinquished by: <u>Madeline Davis</u> Date/Time: <u>8/5/22 1520</u> Company: <u>Eurofins</u> Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Custody Seals Intact _____ Custody Seal No.: _____ Δ Yes Δ No</p>										
<p>Cooler Temperature(s) °C and Other Remarks:</p>										