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## ANALYTICAL REPORT

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

Laboratory Job ID: 280-160652-1  
Client Project/Site: Gadsden PFC Sampling

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

Attn: Mike Lankford

Authorized for release by:  
4/19/2022 6:25:42 PM

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### LINKS

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*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 PFC Sampling

Job ID: 280-160652-1

**Job ID: 280-160652-1**

**Laboratory: Eurofins Denver**

**Narrative**

## CASE NARRATIVE

**Client: Gadsden Water Works**

**Project: Gadsden PFC Sampling**

**Report Number: 280-160652-1**

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 04/07/2022; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.2 C.

The sample collection time was not recorded on the sample containers received. Logged per the COC for the following samples

GADSDEN - RW (280-160652-1), GADSDEN - FW (280-160652-2) and GADSDEN - DISCHARGE (280-160652-3)

### PERFLUORINATED HYDROCARBONS (PFAS) MOD

Samples GADSDEN - RW (280-160652-1), GADSDEN - FW (280-160652-2) and GADSDEN - DISCHARGE (280-160652-3) were analyzed for Perfluorinated Hydrocarbons (PFAS) MOD in accordance with 537 MOD. The samples were prepared on 04/10/2022 and analyzed on 04/13/2022.

The following sample was yellow and contained floating particulates at the bottom of the bottle prior to extraction: GADSDEN - F (280-160652-1).

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 PFC Sampling

Job ID: 280-160652-1

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

Client Sample ID: GADSDEN - RW

Date Collected: 04/05/22 22:10

Date Received: 04/07/22 09:45

Lab Sample ID: 280-160652-1

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11CI-PF3OUdS	0.28	U	1.7	0.28	ng/L		04/10/22 21:21	04/13/22 01:26	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.34	U	1.7	0.34	ng/L		04/10/22 21:21	04/13/22 01:26	1
9CI-PF3ONS	0.21	U	1.7	0.21	ng/L		04/10/22 21:21	04/13/22 01:26	1
HFPO-DA	1.3	U	3.4	1.3	ng/L		04/10/22 21:21	04/13/22 01:26	1
NEtFOSAA	1.1	U	4.3	1.1	ng/L		04/10/22 21:21	04/13/22 01:26	1
NMeFOSAA	1.0	U	4.3	1.0	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorobutanesulfonic acid (PFBS)	78		1.7	0.17	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorobutanoic acid (PFBA)	8.5		4.3	2.1	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorodecanoic acid (PFDA)	2.4		1.7	0.27	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorododecanoic acid (PFDoA)	0.47	U	1.7	0.47	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluoroheptanoic acid (PFHpA)	7.6		1.7	0.21	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorohexanesulfonic acid (PFHxS)	2.9		1.7	0.49	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorohexanoic acid (PFHxA)	19		1.7	0.50	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorononanoic acid (PFNA)	2.0		1.7	0.23	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorooctanesulfonic acid (PFOS)	27		1.7	0.46	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorooctanoic acid (PFOA)	23		1.7	0.73	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorotetradecanoic acid (PFTA)	0.63	U	1.7	0.63	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluorotridecanoic acid (PFTrDA)	1.1	U	1.7	1.1	ng/L		04/10/22 21:21	04/13/22 01:26	1
Perfluoroundecanoic acid (PFUnA)	0.95	U	1.7	0.95	ng/L		04/10/22 21:21	04/13/22 01:26	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFDA	84		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C2 PFDoA	82		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C2 PFHxA	80		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C2 PFTrDA	66		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C2 PFUnA	84		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C3 HFPO-DA	75		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C3 PFBS	87		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C4 PFBA	74		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C4 PFHpA	85		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C4 PFOA	85		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C4 PFOS	88		25 - 150				04/10/22 21:21	04/13/22 01:26	1
13C5 PFNA	91		25 - 150				04/10/22 21:21	04/13/22 01:26	1
18O2 PFHxS	90		25 - 150				04/10/22 21:21	04/13/22 01:26	1
d3-NMeFOSAA	79		25 - 150				04/10/22 21:21	04/13/22 01:26	1
d5-NEtFOSAA	78		25 - 150				04/10/22 21:21	04/13/22 01:26	1

Client Sample ID: GADSDEN - FW

Date Collected: 04/06/22 11:00

Date Received: 04/07/22 09:45

Lab Sample ID: 280-160652-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11CI-PF3OUdS	0.25	U	1.6	0.25	ng/L		04/10/22 21:21	04/13/22 01:36	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.32	U	1.6	0.32	ng/L		04/10/22 21:21	04/13/22 01:36	1
9CI-PF3ONS	0.19	U	1.6	0.19	ng/L		04/10/22 21:21	04/13/22 01:36	1
HFPO-DA	1.2	U	3.2	1.2	ng/L		04/10/22 21:21	04/13/22 01:36	1
NEtFOSAA	1.0	U	3.9	1.0	ng/L		04/10/22 21:21	04/13/22 01:36	1
NMeFOSAA	0.95	U	3.9	0.95	ng/L		04/10/22 21:21	04/13/22 01:36	1

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# Client Sample Results

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

Job ID: 280-160652-1

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

Client Sample ID: GADSDEN - FW

Date Collected: 04/06/22 11:00

Date Received: 04/07/22 09:45

Lab Sample ID: 280-160652-2

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorobutanesulfonic acid (PFBS)	63		1.6	0.16	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorobutanoic acid (PFBA)	13		3.9	1.9	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorodecanoic acid (PFDA)	1.8		1.6	0.24	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorododecanoic acid (PFDoA)	0.43	U	1.6	0.43	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluoroheptanoic acid (PFHpA)	5.0		1.6	0.20	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorohexanesulfonic acid (PFHxS)	1.6		1.6	0.45	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorohexanoic acid (PFHxA)	19		1.6	0.46	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorononanoic acid (PFNA)	1.3	J	1.6	0.21	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorooctanesulfonic acid (PFOS)	17		1.6	0.43	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorooctanoic acid (PFOA)	15		1.6	0.67	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorotetradecanoic acid (PFTA)	0.58	U	1.6	0.58	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluorotridecanoic acid (PFTTrDA)	1.0	U	1.6	1.0	ng/L		04/10/22 21:21	04/13/22 01:36	1
Perfluoroundecanoic acid (PFUnA)	0.87	U	1.6	0.87	ng/L		04/10/22 21:21	04/13/22 01:36	1
<b>Isotope Dilution</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
13C2 PFDA	82		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C2 PFDoA	84		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C2 PFHxA	89		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C2 PFTTrDA	79		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C2 PFUnA	87		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C3 HFPO-DA	89		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C3 PFBS	100		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C4 PFBA	93		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C4 PFHpA	103		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C4 PFOA	90		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C4 PFOS	99		25 - 150				04/10/22 21:21	04/13/22 01:36	1
13C5 PFNA	96		25 - 150				04/10/22 21:21	04/13/22 01:36	1
18O2 PFHxS	100		25 - 150				04/10/22 21:21	04/13/22 01:36	1
d3-NMeFOSAA	77		25 - 150				04/10/22 21:21	04/13/22 01:36	1
d5-NEtFOSAA	77		25 - 150				04/10/22 21:21	04/13/22 01:36	1

Client Sample ID: GADSDEN - DISCHARGE

Date Collected: 04/06/22 11:30

Date Received: 04/07/22 09:45

Lab Sample ID: 280-160652-3

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
11CI-PF3OUdS	0.26	U	1.6	0.26	ng/L		04/10/22 21:21	04/13/22 01:46	1
4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.32	U	1.6	0.32	ng/L		04/10/22 21:21	04/13/22 01:46	1
9CI-PF3ONS	0.19	U	1.6	0.19	ng/L		04/10/22 21:21	04/13/22 01:46	1
HFPO-DA	1.2	U	3.2	1.2	ng/L		04/10/22 21:21	04/13/22 01:46	1
NEtFOSAA	1.1	J	4.1	1.1	ng/L		04/10/22 21:21	04/13/22 01:46	1
NMeFOSAA	0.97	U	4.1	0.97	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorobutanesulfonic acid (PFBS)	76		1.6	0.16	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorobutanoic acid (PFBA)	8.8		4.1	1.9	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorodecanoic acid (PFDA)	2.2		1.6	0.25	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorododecanoic acid (PFDoA)	0.45	U	1.6	0.45	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluoroheptanoic acid (PFHpA)	6.5		1.6	0.20	ng/L		04/10/22 21:21	04/13/22 01:46	1

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# Client Sample Results

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

Job ID: 280-160652-1

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

**Client Sample ID: GADSDEN - DISCHARGE**

**Lab Sample ID: 280-160652-3**

**Date Collected: 04/06/22 11:30**

**Matrix: Water**

**Date Received: 04/07/22 09:45**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorohexanesulfonic acid (PFHxS)	2.8		1.6	0.46	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorohexanoic acid (PFHxA)	17		1.6	0.47	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorononanoic acid (PFNA)	1.9		1.6	0.22	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorooctanesulfonic acid (PFOS)	27		1.6	0.44	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorooctanoic acid (PFOA)	18		1.6	0.69	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorotetradecanoic acid (PFTA)	0.59	U	1.6	0.59	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluorotridecanoic acid (PFTrDA)	1.1	U	1.6	1.1	ng/L		04/10/22 21:21	04/13/22 01:46	1
Perfluoroundecanoic acid (PFUnA)	0.89	U	1.6	0.89	ng/L		04/10/22 21:21	04/13/22 01:46	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C2 PFDA	82		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C2 PFDoA	72		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C2 PFHxA	88		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C2 PFTrDA	68		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C2 PFUnA	75		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C3 HFPO-DA	83		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C3 PFBS	94		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C4 PFBA	78		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C4 PFHpA	87		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C4 PFOA	95		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C4 PFOS	80		25 - 150				04/10/22 21:21	04/13/22 01:46	1
13C5 PFNA	86		25 - 150				04/10/22 21:21	04/13/22 01:46	1
18O2 PFHxS	95		25 - 150				04/10/22 21:21	04/13/22 01:46	1
d3-NMeFOSAA	72		25 - 150				04/10/22 21:21	04/13/22 01:46	1
d5-NEtFOSAA	71		25 - 150				04/10/22 21:21	04/13/22 01:46	1

**Eurofins Denver**  
 4955 Yarrow Street  
 Arvada, CO 80002  
 Phone: 303-736-0100 Fax: 303-431-7171

# Chain of Custody Record



Environment Testing  
 America



<b>Client Information (Sub Contract Lab)</b>		Sampler: Sara, Betsy A	Lab PM: Sara, Betsy A	Carrier Tracking No(s):	COC No: 280-609619.1
Client Contact: Shipping/Receiving		Phone: Betsy.Sara@et.eurofins.com	E-Mail: Betsy.Sara@et.eurofins.com	State of Origin: Alabama	Page: Page 1 of 1
Company: Eurofins Environment Testing Northern Ca		Accreditations Required (See note):		Job #: 280-160652-1	Preservation Codes: M - Hexane, N - None, O - AsNaO2, P - Na2OAS, Q - Na2SO3, R - Na2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Address: 880 Riverside Parkway, West Sacramento, CA, 95605		Due Date Requested: 4/20/2022		Analysis Requested	
City: West Sacramento		TAT Requested (days):		Total Number of Containers	
State, Zip: CA, 95605		PO #:		Field Filtered Sample (Yes or No)	
Phone: 916-373-5600(Tel) 916-372-1059(Fax)		WO #:		Perform MS/MSD (Yes or No)	
Email:		Project #: 28020645		PFC_IDA/355_PFC (MOD) PFAS Method 537.1 list	
Project Name: Gadsden PFC Sampling		SSOW#:		Matrix (Water, Seawater, Other)	
Site:		Sample Date		Sample Time	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time	
GADSDEN - RW (280-160652-1)	4/5/22	22:10 Central	Water	X	
GADSDEN - FW (280-160652-2)	4/6/22	11:00 Central	Water	X	
GADSDEN - DISCHARGE (280-160652-3)	4/6/22	11:30 Central	Water	X	
Special Instructions/Note:					
Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out 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/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.					
<b>Possible Hazard Identification</b>					
Unconfirmed					
Deliverable Requested: I, II, III, IV, Other (specify)					
Primary Deliverable Rank: 4					
Empty Kit Relinquished by:					
Relinquished by: JACQUEDENIS					
Relinquished by: JACQUEDENIS					
Relinquished by:					
Custody Seals Intact: Custody Seal No.: 966758					
Cooler Temperature(s) °C and Other Remarks: 10					

