

90 Sargent Drive • New Haven, Connecticut 06511-5966
203-401-6743 or 877-894-5773 (Telephone) • Website: www.rwater.com

Laboratory Certification IDs

CT: PH-0411, NH: 2239, NY: 11867, PA: 68-05519, RI: LAO00339, MA: M-CT004
See website, www.rwalab.com/rwa-lab-certifications, for certified analyte list.

Client: Paul Hennessy
Randolph-Holbrook Joint Water

275 Pond St
Randolph, MA 02368

781-964-9292
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ANALYTICAL REPORT

Project: FEE-RANDOLPHHOLBROOK-25-000003

Report Date: 4/2/2025

This Laboratory is in compliance with the NELAP requirements of procedures used except where indicated .
This report contains results for the analysis tested, under the sampling conditions described on the Chain Of Custody (COC), as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

The COC form has been scanned to accompany the analytical report and is an exact copy of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact RWA Client Services at (203) 401-6743 or (877) 894-5773. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

A handwritten signature in black ink, appearing to read "Richard Sibley".

Richard Sibley
Laboratory Manager
Technical Representative

SAMPLE SUMMARY

Sample ID	Customer ID	Collection Date/Time	Receipt Date
300669623	Raw	3/4/2025 1300	3/5/25
300669624	Field Blank - Raw	3/4/2025 1300	3/5/25
300669625	Finished	3/4/2025 1300	3/5/25
300669626	Field Blank - Finished	3/4/2025 1300	3/5/25

Case Narrative and Comments

All QC passes criteria unless noted in a Comment below.

Samples were received at the appropriate temperature and in accordance with the chain of custody unless noted.

E = Exceeds calibration range

ND = Non Detect

FB = Field Blank

RL = Minimum Reporting Level

MDL = Method Detection Limit

J = The reported result is below RL but greater than the MDL. The reported result is an estimate.

Massachusetts samples for required water quality sampling are included.

Samples and FBs were received in bottles with preservatives Trizma HCL & Trizma base per method requirements.

"FB" added at beginning/end designates "Field Blank" (Field Reagent Blank) for associated Customer ID sample. Field Blank analytes (unless noted) were shown to be less than 1/3 of the RL as per EPA537 or EPA537.1.

Method EPA537 or EPA537.1 Analyte Results, MDL and RL are adjusted to reflect the actual Final (mL) volume used.

<u>Method</u>	<u>CAS#</u>	<u>PFAS Analyte (Acronym)</u>
537, 537.1	1763-23-1	Perfluorooctanesulfonic acid (PFOS)
537, 537.1	335-67-1	Perfluorooctanoic acid (PFOA)
537, 537.1	355-46-4	Perfluorohexanesulfonic acid (PFHxS)
537, 537.1	375-95-1	Perfluorononanoic acid (PFNA)
537, 537.1	375-85-9	Perfluoroheptanoic acid (PFHpA)
537, 537.1	335-76-2	Perfluorodecanoic acid (PFDA)
537, 537.1	375-73-5	Perfluorobutanesulfonic acid (PFBS)
537, 537.1	307-55-1	Perfluorododecanoic acid (PFDoA)
537, 537.1	307-24-4	Perfluorohexanoic acid (PFHxA)
537, 537.1	376-06-7	Perfluorotetradecanoic acid (PFTA)
537, 537.1	72629-94-8	Perfluorotridecanoic acid (PFTrDA)
537, 537.1	2058-94-8	Perfluoroundecanoic acid (PFUnA)
537, 537.1	2991-50-6	N-ethyl perfluorooctanesulfonamidoacetic acid (NEtFOSAA)
537, 537.1	2355-31-9	N-methyl perfluorooctanesulfonamidoacetic acid (NMeFOSAA)
537.1	763051-92-9	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (11Cl-PF3OUdS)
537.1	756426-58-1	9-chlorohexadecafluoro-3-oxanone-1-sulfonic acid (9Cl-PF3ONS)
537.1	919005-14-4	4,8-dioxo-3H-perfluorononanoic acid (ADONA)
537.1	13252-13-6	Hexafluoropropylene oxide dimer acid (HFPO-DA)

PFAS6 (MassDEP) = sum of PFOS, PFOA, PFHxS, PFNA, PFHpA and PFDA (only include Results at or above the RL)

MassDEP has established a maximum contaminant level (MCL) of 20 ng/L for PFAS6.

Method EPA537.1 Analyte Results and RL are adjusted to reflect the actual sample Final (mL) volume used.

90 Sargent Drive • New Haven, Connecticut 06511-5966
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Sample ID: 300669623

Customer ID: Raw

Collection Date: 03/04/2025 13:00

PWS ID# / LOC ID#: Raw

Project: FEE-RANDOLPHHOLBROOK-25-000003

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	3.42	0.96	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFHxA	307-24-4	3.66	0.76	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
HFPO-DA	13252-13-6	ND	1.15	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFHpA	375-85-9	1.72	0.71	2.02	ng/L	1.01	J	EPA537.1	3/13/25 0250	CSS
PFHxS	355-46-4	3.57	0.84	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
ADONA	919005-14-4	ND	0.64	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFOA	335-67-1	4.15	0.77	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFOS	1763-23-1	7.48	1.02	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFNA	375-95-1	0.84	0.73	2.02	ng/L	1.01	J	EPA537.1	3/13/25 0250	CSS
9CI-PF3ONS	756426-58-1	ND	0.85	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFDA	335-76-2	ND	0.76	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFUnA	2058-94-8	ND	0.95	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
11CI-PF3OUdS	763051-92-9	ND	1.05	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
NMeFOSAA	2355-31-9	ND	1.16	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
NEtFOSAA	2991-50-6	ND	1.16	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFDoA	307-55-1	ND	0.91	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFTTrDA	72629-94-8	ND	0.94	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFTA	376-06-7	ND	1.05	2.02	ng/L	1.01		EPA537.1	3/13/25 0250	CSS
PFAS6 (MassDEP)		15.20	2.02	2.02	ng/L	1.01				
Surrogates			Results		Recovery Limits		Pass/Fail			
13C-PFHxA (SUR) % Recovery			97.64		70 - 130		Pass			
13C3-HFPO-DA (SUR) % Recovery			84.54		70 - 130		Pass			
13C-PFDA (SUR) % Recovery			87.22		70 - 130		Pass			
d5-NEtFOSAA (SUR) % Recovery			84.12		70 - 130		Pass			

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300669623	PFAS_537	537_EXT-250310-1	248	03/10/2025

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Sample ID: 300669624

Customer ID: Field Blank - Raw

Collection Date: 03/04/2025 13:00

PWS ID# / LOC ID#: Field Blank

Project: FEE-RANDOLPHHOLBROOK-25-000003

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.94	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFHxA	307-24-4	ND	0.74	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
HFPO-DA	13252-13-6	ND	1.13	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFHpA	375-85-9	ND	0.69	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFHxS	355-46-4	ND	0.82	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
ADONA	919005-14-4	ND	0.62	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFOA	335-67-1	ND	0.75	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFOS	1763-23-1	ND	1.00	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFNA	375-95-1	ND	0.71	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
9CI-PF3ONS	756426-58-1	ND	0.83	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFDA	335-76-2	ND	0.74	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFUnA	2058-94-8	ND	0.93	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
11CI-PF3OUdS	763051-92-9	ND	1.03	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
NMeFOSAA	2355-31-9	ND	1.14	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
NEtFOSAA	2991-50-6	ND	1.14	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFDoA	307-55-1	ND	0.89	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFTTrDA	72629-94-8	ND	0.92	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFTA	376-06-7	ND	1.03	1.98	ng/L	0.99		EPA537.1	3/13/25 0303	CSS
PFAS6 (MassDEP)		ND	1.98	1.98	ng/L	0.99				
Surrogates			Results		Recovery Limits		Pass/Fail			
13C-PFHxA (SUR) % Recovery			92.14		70 - 130		Pass			
13C3-HFPO-DA (SUR) % Recovery			83.12		70 - 130		Pass			
13C-PFDA (SUR) % Recovery			92.61		70 - 130		Pass			
d5-NEtFOSAA (SUR) % Recovery			88.82		70 - 130		Pass			

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300669624	PFAS_537	537_EXT-250310-1	252	03/10/2025

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Sample ID: 300669625

Customer ID: Finished

Collection Date: 03/04/2025 13:00

PWS ID# / LOC ID#: 4244001/10296

Project: FEE-RANDOLPHHOLBROOK-25-000003

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.55	0.95	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFHxA	307-24-4	4.02	0.75	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFHpA	375-85-9	1.74	0.70	2.0	ng/L	1.0	J	EPA537.1	3/13/25 0317	CSS
PFHxS	355-46-4	3.08	0.83	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFOA	335-67-1	4.54	0.76	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFOS	1763-23-1	8.39	1.01	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFNA	375-95-1	1.06	0.72	2.0	ng/L	1.0	J	EPA537.1	3/13/25 0317	CSS
9CI-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
11CI-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFTTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA537.1	3/13/25 0317	CSS
PFAS6 (MassDEP)		16.01	2.0	2.0	ng/L	1.0				
Surrogates		Results		Recovery Limits		Pass/Fail				
13C-PFHxA (SUR) % Recovery		109.11		70 - 130		Pass				
13C3-HFPO-DA (SUR) % Recovery		100.26		70 - 130		Pass				
13C-PFDA (SUR) % Recovery		103.74		70 - 130		Pass				
d5-NEtFOSAA (SUR) % Recovery		87.63		70 - 130		Pass				

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300669625	PFAS_537	537_EXT-250310-1	250	03/10/2025

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Sample ID: 300669626

Customer ID: Field Blank - Finished

Collection Date: 03/04/2025 13:00

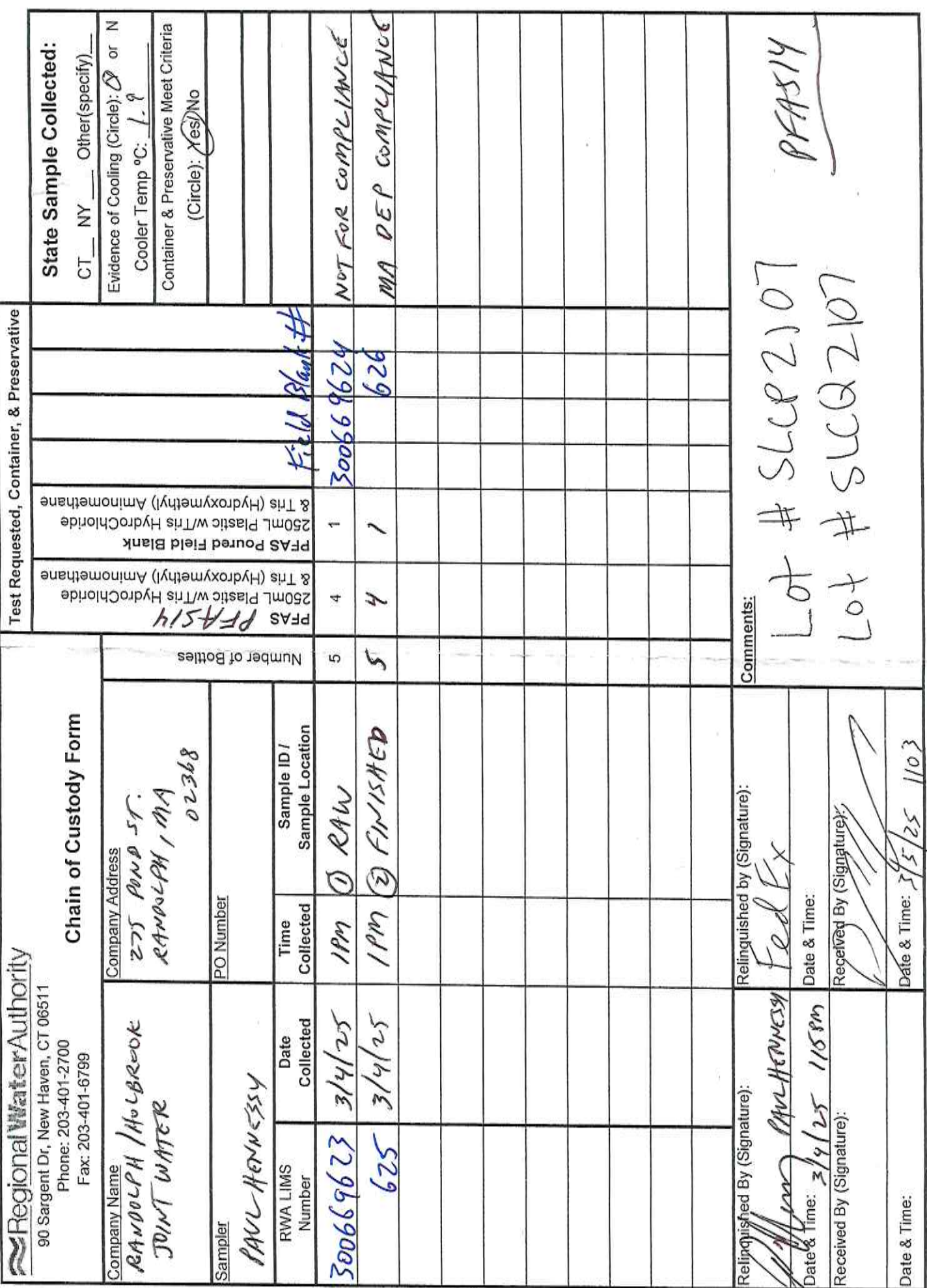
PWS ID# / LOC ID#: Field Blank

Project: FEE-RANDOLPHHOLBROOK-25-000003

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.95	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFHxA	307-24-4	ND	0.75	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFHpA	375-85-9	ND	0.70	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFHxS	355-46-4	ND	0.83	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFOA	335-67-1	ND	0.76	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFOS	1763-23-1	ND	1.01	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFNA	375-95-1	ND	0.72	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
9CI-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
11CI-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFTTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA537.1	3/13/25 0330	CSS
PFAS6 (MassDEP)		ND	2.0	2.0	ng/L	1.0				
Surrogates		Results		Recovery Limits		Pass/Fail				
13C-PFHxA (SUR) % Recovery		95.11		70 - 130		Pass				
13C3-HFPO-DA (SUR) % Recovery		87.27		70 - 130		Pass				
13C-PFDA (SUR) % Recovery		101.37		70 - 130		Pass				
d5-NEtFOSAA (SUR) % Recovery		99.81		70 - 130		Pass				

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300669626	PFAS_537	537_EXT-250310-1	250	03/10/2025



South Central Connecticut Regional Water Authority PFAS QA/QC Summary

Extraction Batch QC for: EPA 537.1

MA Lab Cert.#: M-CT004

Extraction Batch Date: 3/10/2025

Sample ID for LFSM/LFSMD: 300668847

Analyte	LFSM %Recovery	LFSMD %Recovery	RPD of LFSM/LFSMD	LRB (MRL is 2)		LFB 10 ng/L %Recovery
	Acceptance Range 70-130%	Acceptance Range 70-130%	Acceptance Limit <30%	Result, ng/L	Meets < 1/3 of MRL criteria?	Acceptance Range 70-130%
PFBS	97.0	109.4	11.2	ND	[Y]	86.2
PFHxA	106.6	107.4	0.7	ND	[Y]	108.7
HFPO-DA	114.3	123.4	7.6	ND	[Y]	101.4
PFHpA	91.8	97.6	5.8	ND	[Y]	100.8
PFHxS	91.7	103.7	11.5	ND	[Y]	96.5
ADONA	101.6	106.6	4.8	ND	[Y]	103.5
PFOA	97.6	99.4	1.7	ND	[Y]	97.2
PFOS	96.9	101.3	4.0	ND	[Y]	100.3
PFNA	93.3	103.3	10.0	ND	[Y]	100.2
9CI-PF3ONS	98.7	102.5	3.8	ND	[Y]	102.4
PFDA	93.5	96.3	2.9	ND	[Y]	93.9
PFUnA	97.0	105.2	8.0	ND	[Y]	101.5
11CI-PF3OUdS	87.2	102.5	16.1	ND	[Y]	102.0
NMeFOSAA	95.8	89.2	7.1	ND	[Y]	102.2
NEtFOSAA	91.2	103.8	12.9	ND	[Y]	86.7
PFDaA	87.0	101.8	15.6	ND	[Y]	101.0
PFTTrDA	85.1	98.2	14.4	ND	[Y]	98.1
PFTA	91.3	103.1	12.1	ND	[Y]	94.2

Surrogate %Recovery

¹³ C ₂ -PFHxA	¹³ C ₃ -HFPO-DA	¹³ C ₂ -PFDA	d ₅ -NEtFOSAA	
96.06	95.95	88.14	84.58	LFSM
114.22	101.72	114.43	97.75	LFSMD
108.02	99.81	109.73	100.45	LRB
91.30	82.29	95.62	89.27	LFB

Note: The Surrogate %Recovery for Samples and Poured Field Blanks is included on Final Reports.

All Batch QC passes method criteria unless noted in "Comments" section below

Comments: The matrix spike data is **NOT** from a sample in this upload batch.

LRB = Laboratory Reagent Blank

RPD = relative percent difference

FB = Field Blank

ND = Non-Detect

LFB = Laboratory Fortified Blank

MRL = Method Reporting Level

Results are ng/L (ppt)

LFSM = Laboratory Fortified Sample Matrix

LFSM/LFSMD spike concentration is 20 ng/L, unless noted otherwise

LFSMD = Laboratory Fortified Sample Matrix Duplicate

Surrogate Acceptance Limit is 70 - 130% Recovery