Regional Water Authority

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
phennessy@holbrookmassachusetts.us

ANALYTICAL REPORT

Project: FEE-RANDOLPHHOLBROOK-25-000009

Report Date: 9/25/2025

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.

Richard Sibley
Laboratory Manager
Technical Representative

Regional Water Authority
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SAMPLE SUMMARY

Sample ID	Customer ID	Collection Date/Time	Receipt Date
300748215	RAW	9/10/2025 1400	9/11/25
300748216	Field Blank - RAW	9/10/2025 1400	9/11/25
300748217	FINISHED	9/10/2025 1400	9/11/25
300748218	Field Blank - FINISHED	9/10/2025 1400	9/11/25

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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.

Method	CAS#	PFAS Analyte (Acronymn)
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	Perfluorohepatanoic 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-dioxa-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.

Regional Water Authority

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203-401-6743 or 877-894-5773 (Telephone) • Website: www.rwater.com

Sample ID: 300748215

Collection Date: 09/10/2025 14:00

Customer ID: RAW

PWS ID# / LOC ID#: RAW

Project: FEE-RANDOLPHHOLBROOK-25-000009

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	3.00	0.97	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFHxA	307-24-4	3.73	0.77	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
HFPO-DA	13252-13-6	ND	1.16	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFHpA	375-85-9	2.13	0.71	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFHxS	355-46-4	2.50	0.85	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
ADONA	919005-14-4	ND	0.64	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFOA	335-67-1	5.20	0.78	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFOS	1763-23-1	9.14	1.03	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFNA	375-95-1	1.13	0.73	2.04	ng/L	1.02	J	EPA 537.1	9/19/25 2146	CSS
9Cl-PF3ONS	756426-58-1	ND	0.86	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFDA	335-76-2	ND	0.77	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFUnA	2058-94-8	ND	0.96	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
11Cl-PF3OUdS	763051-92-9	ND	1.06	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
NMeFOSAA	2355-31-9	ND	1.17	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
NEtFOSAA	2991-50-6	ND	1.17	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFDoA	307-55-1	ND	0.92	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFTrDA	72629-94-8	ND	0.95	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFTA	376-06-7	ND	1.06	2.04	ng/L	1.02		EPA 537.1	9/19/25 2146	CSS
PFAS6 (MassDEP)		18.97	2.04	2.04	ng/L	1.02				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	109.80	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	111.30	70 - 130	Pass
13C-PFDA (SUR) % Recovery	106.10	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	95.90	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300748215	PFAS_537	537_EXT-250916-1	244	09/16/2025

Regional Water Authority

90 Sargent Drive • New Haven, Connecticut 06511-5966

203-401-6743 or 877-894-5773 (Telephone) • Website: www.rwater.com

Sample ID: 300748216

Collection Date: 09/10/2025 14:00

Customer ID: Field Blank - RAW

PWS ID# / LOC ID#: FIELD BLANK

Project: FEE-RANDOLPHHOLBROOK-25-000009

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		EPA 537.1	9/18/25 0529	CSS
PFHxA	307-24-4	ND	0.74	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
HFPO-DA	13252-13-6	ND	1.13	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFHpA	375-85-9	ND	0.69	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFHxS	355-46-4	ND	0.82	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
ADONA	919005-14-4	ND	0.62	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFOA	335-67-1	ND	0.75	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFOS	1763-23-1	ND	1.00	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFNA	375-95-1	ND	0.71	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
9Cl-PF3ONS	756426-58-1	ND	0.83	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFDA	335-76-2	ND	0.74	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFUnA	2058-94-8	ND	0.93	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
11Cl-PF3OUdS	763051-92-9	ND	1.03	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
NMeFOSAA	2355-31-9	ND	1.14	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
NEtFOSAA	2991-50-6	ND	1.14	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFDoA	307-55-1	ND	0.89	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFTrDA	72629-94-8	ND	0.92	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFTA	376-06-7	ND	1.03	1.98	ng/L	0.99		EPA 537.1	9/18/25 0529	CSS
PFAS6 (MassDEP)		ND	1.98	1.98	ng/L	0.99				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	97.40	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	112.60	70 - 130	Pass
13C-PFDA (SUR) % Recovery	94.20	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	88.90	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300748216	PFAS_537	537_EXT-250916-1	252	09/16/2025

Regional Water Authority

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Sample ID: 300748217

Collection Date: 09/10/2025 14:00

Customer ID: FINISHED

PWS ID# / LOC ID#: 4244001/10296

Project: FEE-RANDOLPHHOLBROOK-25-000009

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	2.74	0.95	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFHxA	307-24-4	3.79	0.75	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
HFPO-DA	13252-13-6	ND	1.14	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFHpA	375-85-9	2.41	0.70	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFHxS	355-46-4	2.64	0.83	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
ADONA	919005-14-4	ND	0.63	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFOA	335-67-1	4.98	0.76	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFOS	1763-23-1	9.17	1.01	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFNA	375-95-1	1.11	0.72	2.0	ng/L	1.0	J	EPA 537.1	9/18/25 0545	CSS
9Cl-PF3ONS	756426-58-1	ND	0.84	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFDA	335-76-2	ND	0.75	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFUnA	2058-94-8	ND	0.94	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
11Cl-PF3OUdS	763051-92-9	ND	1.04	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
NMeFOSAA	2355-31-9	ND	1.15	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
NEtFOSAA	2991-50-6	ND	1.15	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFDoA	307-55-1	ND	0.90	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFTrDA	72629-94-8	ND	0.93	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFTA	376-06-7	ND	1.04	2.0	ng/L	1.0		EPA 537.1	9/18/25 0545	CSS
PFAS6 (MassDEP)		19.20	2.00	2.0	ng/L	1.0				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	97.30	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	128.10	70 - 130	Pass
13C-PFDA (SUR) % Recovery	97.20	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	88.30	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300748217	PFAS_537	537_EXT-250916-1	250	09/16/2025

Regional Water Authority

90 Sargent Drive • New Haven, Connecticut 06511-5966

203-401-6743 or 877-894-5773 (Telephone) • Website: www.rwater.com

Sample ID: 300748218

Collection Date: 09/10/2025 14:00

Customer ID: Field Blank - FINISHED

PWS ID# / LOC ID#: FIELD BLANK

Project: FEE-RANDOLPHHOLBROOK-25-000009

Analyte	CAS#	Results	MDL	RL	Units	Dilution	Qualifier	Method	Date Time/ Analyzed	Analyst
PFBS	375-73-5	ND	0.96	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFHxA	307-24-4	ND	0.76	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
HFPO-DA	13252-13-6	ND	1.15	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFHpA	375-85-9	ND	0.71	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFHxS	355-46-4	ND	0.84	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
ADONA	919005-14-4	ND	0.64	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFOA	335-67-1	ND	0.77	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFOS	1763-23-1	ND	1.02	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFNA	375-95-1	ND	0.73	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
9Cl-PF3ONS	756426-58-1	ND	0.85	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFDA	335-76-2	ND	0.76	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFUnA	2058-94-8	ND	0.95	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
11Cl-PF3OUdS	763051-92-9	ND	1.05	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
NMeFOSAA	2355-31-9	ND	1.16	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
NEtFOSAA	2991-50-6	ND	1.16	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFDoA	307-55-1	ND	0.91	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFTrDA	72629-94-8	ND	0.94	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFTA	376-06-7	ND	1.05	2.02	ng/L	1.01		EPA 537.1	9/18/25 0601	CSS
PFAS6 (MassDEP)		ND	2.02	2.02	ng/L	1.01				

Surrogates	Results	Recovery Limits	Pass/Fail
13C-PFHxA (SUR) % Recovery	94.50	70 - 130	Pass
13C3-HFPO-DA (SUR) % Recovery	116.20	70 - 130	Pass
13C-PFDA (SUR) % Recovery	90.80	70 - 130	Pass
d5-NEtFOSAA (SUR) % Recovery	92.30	70 - 130	Pass

Sample Extraction Data:

Lab Number (Field ID)	Prep Method	Batch	Final (mL)	Date
300748218	PFAS_537	537_EXT-250916-1	248	09/16/2025

Regional Water Authority
90 Sargent Dr, New Haven, CT 06511
Phone: 203-401-2700
Fax: 203-401-6799

Chain of Custody Form

Company Name	Company Address
RANDOLPH/HOLBROOK JOINT WATER	275 POND ST. RANDOLPH, MA 02368
Sampler	**PO Number**
PAUL HENNESSY	

Test Requested, Container, & Preservative

State Sample Collected: CT___ NY___ Other(specify)____

Thermometer ID:

Evidence of Cooling (Circle): Y or N

Cooler Temp °C: 2.8

Container & Preservative Meet Criteria (Circle): Yes/ No

RWA LIMS Number	Date Collected	Time Collected	Sample ID / Sample Location	Number of Bottles	EPA 537.1 PFAS 14 250mL Plastic w/Tris HydroChloride & Tris (Hydroxymethyl) Aminomethane	EPA 537.1 - Poured Field Blank 250mL Plastic w/Tris HydroChloride & Tris (Hydroxymethyl) Aminomethane	Field Blank #				Remarks
300748215	9/10/25	2PM	① RAW	5	4	1	300748216				NOT FOR COMPLIANCE
217	9/10/25	2PM	② FINISHED	5	4	1			218		MA DEP COMPLIANCE

Relinquished By (Signature):	Relinquished by (Signature):
PAUL HENNESSY	Fed Ex
Date & Time: 9/10/25 215PM	Date & Time:
Received By (Signature):	Received By (Signature):
Date & Time:	Date & Time: 9/11/25 1121

Comments:
Lot # 350955
Lot # 361330
PFAS 14

Fee-Randolph/Holbrook-25-000009

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: 9/16/2025 **Sample ID for LFSM/LFSMD:** 300747573

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	113.4	107.1	4.6	ND	[Y]	106.1
PFHxA	107.5	103.7	2.9	ND	[Y]	103.5
HFPO-DA	105.8	122.3	14.4	ND	[Y]	129.3
PFHpA	107.6	99.1	7.1	ND	[Y]	100.1
PFHxS	115.4	111.1	3.5	ND	[Y]	109.6
ADONA	110.9	100.9	9.4	ND	[Y]	98.2
PFOA	109.8	103.8	3.8	ND	[Y]	102.7
PFOS	106.7	106.4	0.2	ND	[Y]	105.3
PFNA	111.8	109.6	1.9	ND	[Y]	108.6
9Cl-PF3ONS	108.5	107.9	0.5	ND	[Y]	104.8
PFDA	109.4	105.9	3.3	ND	[Y]	104.8
PFUnA	107.6	105.1	2.3	ND	[Y]	105.8
11Cl-PF3OUdS	108.3	103.0	5.0	ND	[Y]	101.4
NMeFOSAA	103.6	99.9	3.6	ND	[Y]	101.9
NEtFOSAA	105.3	103.7	1.6	ND	[Y]	106.4
PFDoA	105.7	104.8	0.8	ND	[Y]	103.4
PFTrDA	106.3	105.3	0.9	ND	[Y]	102.6
PFTA	107.8	104.9	2.7	ND	[Y]	103.5

Surrogate %Recovery

$^{13}C_2$-PFHxA	$^{13}C_3$-HFPO-DA	$^{13}C_2$-PFDA	$^{d}_5$-NEtFOSAA	
94.80	85.70	91.50	88.70	LFSM
93.40	110.80	92.50	91.10	LFSMD
96.10	116.70	95.90	94.20	LRB
102.20	112.00	103.90	96.90	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. LFSM 20.0 ng/L 747573 18L fails high %REC HFPODA, reinjected in 9/19 batch and all criteria passes. Data for LFSM is from passing 9/19 reinjection.

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