



MEMORANDUM

To: Tom Rauth, NAVFAC SE
From: AH Engineering Consultants, Inc.
Subject: NS Mayport, FL., Per- and Polyfluoroalkyl Substances [PFAS] Sampling Support Analytical Results (USEPA Methods 533 and 537.1) – Event 2
Date: 1 October 2024

On 17 September 2024, AH engineer Nick DeGuida, visited NS Mayport water treatment plant, following logistics coordination with Heather Hahn, IEPD, to collect samples from the potable water system that were subsequently analyzed for the presence of PFAS substances (USEPA Method 537.1 and 533).

Finished water samples were collected from the water treatment plant sample sink. All PFAS sampling protocols were followed during sample collection and there were no anomalies. Samples were prepared for shipping in accordance with the sample collection protocols for PFAS sample collection and were hand delivered to Pace Analytical Services located in Ormond Beach, Florida. Samples were received in the laboratory on 17 September 2024 in satisfactory condition.

Analytical results show that none of the 29 PFAS parameters analyzed were detected above the respective Practical Quantification Limits (PQLs). PFOS/PFOA were not detected. Lab QA/QC checks were satisfactory (Field Blank, Method Blank, Matrix Spike/Matrix Spike Duplicates).

Table 1 - PFAS Analytical Results

Parameter	CAS Number	Method	Results (ng/L)	Practical Quantification Limit (PQL) AKA Method Report Limit (MRL (ng/L)	Method Detection Limit (MDL) (ng/L)
11CI-PF3OUdS	763051-92-9	533	0.43U	1.9	0.43
4:2 FTS	757124-72-4	533	0.55U	1.9	0.55
6:2 FTS	27619-97-2	533	3.4U	3.8	3.4
8:2 FTS	39108-34-4	533	0.46U	1.9	0.46
9CI-PF3ONS	756426-58-1	533	0.48U	1.9	0.48
ADONA	919005-14-4	533	0.42U	1.9	0.42
HFPO-DA	13252-13-6	533	0.71U	1.9	0.71
NFDHA	151772-58-6	533	1.6U	1.9	1.6
PFBA	375-22-4	533	0.60U	1.9	0.60
PFEESA	113507-82-7	533	0.34U	1.9	0.34
PFHpS	375-92-8	533	0.39U	1.9	0.39
PFMBA	863090-89-5	533	0.26U	1.9	0.26
PFMPA	377-73-1	533	0.32U	1.9	0.32
PFPeA	2706-90-3	533	0.35 J	1.9	0.30
PFPeS	2706-91-4	533	0.74U	1.9	0.74
NeFOSAA	2991-50-6	537.1	0.92U	1.9	0.92
NMeFOSAA	2355-31-9	537.1	1.5U	1.9	1.5
Perfluorobutanesulfonic acid (PFBSA)	375-73-5	533	0.42U	1.9	0.42
Perfluorodecanoic acid (PFDA)	335-76-2	533	0.30U	1.9	0.30
Perfluorododecanoic acid (PFDOA)	307-55-1	533	0.52U	1.9	0.52
Perfluoroheptanoic acid (PFHPA)	375-85-9	533	0.43U	1.9	0.43
Perfluorohexanesulfonic acid (PFHXA)	355-46-4	533	0.89U	1.9	0.89
Perfluorohexanoic acid (PFHXA)	307-24-4	533	0.32 J	1.9	0.30
Perfluorononanoic acid (PFNA)	375-95-1	533	0.32U	1.9	0.32
Perfluorooctanesulfonic acid (PFOS)	1763-23-1	533	0.34U	1.9	0.34
Perfluorooctanoic acid (PFOA)	335-67-1	533	0.30U	1.9	0.30
Perfluorotetradecanoic acid (PFTEA)	376-06-7	537.1	1.9U	1.9	1.9
Perfluorotridecanoic acid (PFTRIA)	72629-94-8	537.1	1.7U	1.9	1.7
Perfluoroundecanoic acid (PFUNA)	2058-94-8	533	0.41U	1.9	0.41
Notes:					
J – Estimated concentration above the adjusted method detection limit and below the adjusted method reporting limit					
U – Indicates the compound was analyzed for, but not detected.					

In accordance with the USEPAs April 10, 2024, publishing of the PFAS National Primary Drinking Water Regulations (NPDWR), AH compared the published MCLs with the results in Table 1. Table 2 below provides the results of this comparison, showing that of the 5 PFAS MCLs, none exceeded their respective MCLs. Additionally, the USEPA PFAS NPDWR also includes a final Hazard Index (unitless MCL of 1) for a mixture of PFHxS,

PFNA, HFPO-DA, and PFBS. AH calculated the hazard index per the regulatory prescribed method and determined a Hazard Index of 0.0 (refer to Table 3).

Table 2 - Individual USEPA PFAS MCL Comparison

Individual USEPA PFAS MCL Comparison		
Individual PFAS	Result (ng/L)	USEPA MCL (ng/L)
PFOA	0.30U	0
PFOS	0.34U	0
PFHxS	0.89U	10
HFPO-DA	0.71U	10
PFNA	0.32U	10

Table 3 - USEPA Hazard Index MCL Calculation

USEPA Hazard Index MCL Calculation:		
HFPO-DA	0.71U	0
PFBS	0.42U	0
PFNA	0.32U	0
PFHxS	0.89U	0
Hazard Index:		0.00
USEPA Hazard Index MCL = 1 (unitless)		

Attachment 1 provides the subject Pace Analytical Laboratory Report (USEPA Method 533 and 537.1), with the respective chain of custody forms.

Should you have any questions please let us know.

Attachment 1

Analytical Results Report



September 20, 2024

Anthony Gruber
AH Environmental

,

RE: Project: NS Mayport
Pace Project No.: 35906397

Dear Anthony Gruber:

Enclosed are the analytical results for sample(s) received by the laboratory on September 17, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Bo Garcia".

Bo Garcia
bo.garcia@pacelabs.com
(386)672-5668
Project Manager

Enclosures

cc: Jay Allen, AH Environmental Consultants
Faysal Bekdash, AH Environmental Consultants, Inc.
Nick DeGuida, AH Environmental Consultants



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: NS Mayport

Pace Project No.: 35906397

Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

California Certification# 3096

Colorado Certification: FL NELAC Reciprocity

Connecticut Certification #: PH-0216

Delaware Certification: FL NELAC Reciprocity

DoD-ANAB #:ADE-3199

Florida Certification #: E83079

Georgia Certification #: 955

Guam Certification: FL NELAC Reciprocity

Hawaii Certification: FL NELAC Reciprocity

Illinois Certification #: 200068

Indiana Certification: FL NELAC Reciprocity

Kansas Certification #: E-10383

Kentucky Certification #: 90050

Louisiana Certification #: FL NELAC Reciprocity

Louisiana Environmental Certificate #: 05007

Maine Certification #: FL01264

Maryland Certification: #346

Massachusetts Certification #: M-FL1264

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

Nevada Certification: FL NELAC Reciprocity

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Ohio DEP 87780

Oklahoma Certification #: D9947

Pennsylvania Certification #: 68-00547

Puerto Rico Certification #: FL01264

South Carolina Certification: #96042001

Tennessee Certification #: TN02974

Texas Certification: FL NELAC Reciprocity

US Virgin Islands Certification: FL NELAC Reciprocity

Utah FL NELAC Reciprocity

Utah

Virginia Environmental Certification #: 460165

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: NS Mayport

Pace Project No.: 35906397

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35906397001	MPT WTP Q3 - 537.1	Drinking Water	09/17/24 09:45	09/17/24 18:12
35906397002	MPT WTP Q3 533	Drinking Water	09/17/24 09:50	09/17/24 18:12
35906397003	Field Blank	Drinking Water	09/17/24 09:45	09/17/24 18:12
35906397004	Field Blank	Drinking Water	09/17/24 09:50	09/17/24 18:12

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SAMPLE ANALYTE COUNT

Project: NS Mayport

Pace Project No.: 35906397

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35906397001	MPT WTP Q3 - 537.1	EPA 537.1	TMM1	22	PASI-O
35906397002	MPT WTP Q3 533	EPA 533	TSW	41	PASI-O
35906397003	Field Blank	EPA 537.1	TMM1	22	PASI-O
35906397004	Field Blank	EPA 533	TSW	41	PASI-O

PASI-O = Pace Analytical Services - Ormond Beach

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ANALYTICAL RESULTS

Project: NS Mayport
Pace Project No.: 35906397

Sample: MPT WTP Q3 - 537.1 Lab ID: 35906397001 Collected: 09/17/24 09:45 Received: 09/17/24 18:12 Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
537.1 PFAS Compounds, Water									
Analytical Method: EPA 537.1 Preparation Method: EPA 537.1 Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	1.6U	ng/L	1.9	1.6	1	09/18/24 04:00	09/18/24 20:50	763051-92-9	
9CI-PF3ONS	1.1U	ng/L	1.9	1.1	1	09/18/24 04:00	09/18/24 20:50	756426-58-1	
ADONA	0.71U	ng/L	1.9	0.71	1	09/18/24 04:00	09/18/24 20:50	919005-14-4	
HFPO-DA	1.6U	ng/L	1.9	1.6	1	09/18/24 04:00	09/18/24 20:50	13252-13-6	
NEtFOSAA	0.92U	ng/L	1.9	0.92	1	09/18/24 04:00	09/18/24 20:50	2991-50-6	
NMeFOSAA	1.5U	ng/L	1.9	1.5	1	09/18/24 04:00	09/18/24 20:50	2355-31-9	
PFBS	0.66U	ng/L	1.9	0.66	1	09/18/24 04:00	09/18/24 20:50	375-73-5	
PFDA	0.95U	ng/L	1.9	0.95	1	09/18/24 04:00	09/18/24 20:50	335-76-2	
PFHxA	1.3U	ng/L	1.9	1.3	1	09/18/24 04:00	09/18/24 20:50	307-24-4	
PFDoA	1.4U	ng/L	1.9	1.4	1	09/18/24 04:00	09/18/24 20:50	307-55-1	
PFHpA	0.99U	ng/L	1.9	0.99	1	09/18/24 04:00	09/18/24 20:50	375-85-9	
PFHxS	0.72U	ng/L	1.9	0.72	1	09/18/24 04:00	09/18/24 20:50	355-46-4	
PFNA	1.9U	ng/L	1.9	1.9	1	09/18/24 04:00	09/18/24 20:50	375-95-1	
PFOS	1.2U	ng/L	1.9	1.2	1	09/18/24 04:00	09/18/24 20:50	1763-23-1	
PFOA	0.86U	ng/L	1.9	0.86	1	09/18/24 04:00	09/18/24 20:50	335-67-1	
PFTeDA	1.9U	ng/L	1.9	1.9	1	09/18/24 04:00	09/18/24 20:50	376-06-7	
PFTrDA	1.7U	ng/L	1.9	1.7	1	09/18/24 04:00	09/18/24 20:50	72629-94-8	
PFUnA	1.9U	ng/L	1.9	1.9	1	09/18/24 04:00	09/18/24 20:50	2058-94-8	
Surrogates									
13C2-PFDA (S)	105	%	70-130		1	09/18/24 04:00	09/18/24 20:50		
13C2-PFHxA (S)	87	%	70-130		1	09/18/24 04:00	09/18/24 20:50		
NEtFOSAA-d5 (S)	105	%	70-130		1	09/18/24 04:00	09/18/24 20:50		
HFPO-DAS (S)	103	%	70-130		1	09/18/24 04:00	09/18/24 20:50		

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ANALYTICAL RESULTS

Project: NS Mayport

Pace Project No.: 35906397

Sample: MPT WTP Q3 533 Lab ID: 35906397002 Collected: 09/17/24 09:50 Received: 09/17/24 18:12 Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
533 PFAS Compounds, Water									
Analytical Method: EPA 533 Preparation Method: EPA 533									
Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	0.43U	ng/L	1.9	0.43	1	09/18/24 12:40	09/20/24 01:09	763051-92-9	
4:2 FTS	0.55U	ng/L	1.9	0.55	1	09/18/24 12:40	09/20/24 01:09	757124-72-4	
6:2 FTS	3.4U	ng/L	3.8	3.4	1	09/18/24 12:40	09/20/24 01:09	27619-97-2	
8:2 FTS	0.46U	ng/L	1.9	0.46	1	09/18/24 12:40	09/20/24 01:09	39108-34-4	
9CI-PF3ONS	0.48U	ng/L	1.9	0.48	1	09/18/24 12:40	09/20/24 01:09	756426-58-1	
ADONA	0.42U	ng/L	1.9	0.42	1	09/18/24 12:40	09/20/24 01:09	919005-14-4	
HFPO-DA	0.71U	ng/L	1.9	0.71	1	09/18/24 12:40	09/20/24 01:09	13252-13-6	
NFDHA	1.6U	ng/L	1.9	1.6	1	09/18/24 12:40	09/20/24 01:09	151772-58-6	
PFBS	0.42U	ng/L	1.9	0.42	1	09/18/24 12:40	09/20/24 01:09	375-73-5	
PFDA	0.30U	ng/L	1.9	0.30	1	09/18/24 12:40	09/20/24 01:09	335-76-2	
PFHxA	0.32J	ng/L	1.9	0.30	1	09/18/24 12:40	09/20/24 01:09	307-24-4	
PFBA	0.60U	ng/L	1.9	0.60	1	09/18/24 12:40	09/20/24 01:09	375-22-4	
PFEESA	0.34U	ng/L	1.9	0.34	1	09/18/24 12:40	09/20/24 01:09	113507-82-7	
PFHpS	0.39U	ng/L	1.9	0.39	1	09/18/24 12:40	09/20/24 01:09	375-92-8	
PFMBA	0.26U	ng/L	1.9	0.26	1	09/18/24 12:40	09/20/24 01:09	863090-89-5	
PFMPA	0.32U	ng/L	1.9	0.32	1	09/18/24 12:40	09/20/24 01:09	377-73-1	
PFPeA	0.35J	ng/L	1.9	0.30	1	09/18/24 12:40	09/20/24 01:09	2706-90-3	
PFPeS	0.74U	ng/L	1.9	0.74	1	09/18/24 12:40	09/20/24 01:09	2706-91-4	
PFDaA	0.52U	ng/L	1.9	0.52	1	09/18/24 12:40	09/20/24 01:09	307-55-1	
PFHpA	0.43U	ng/L	1.9	0.43	1	09/18/24 12:40	09/20/24 01:09	375-85-9	
PFHxS	0.89U	ng/L	1.9	0.89	1	09/18/24 12:40	09/20/24 01:09	355-46-4	
PFNA	0.32U	ng/L	1.9	0.32	1	09/18/24 12:40	09/20/24 01:09	375-95-1	
PFOS	0.34U	ng/L	1.9	0.34	1	09/18/24 12:40	09/20/24 01:09	1763-23-1	
PFOA	0.30U	ng/L	1.9	0.30	1	09/18/24 12:40	09/20/24 01:09	335-67-1	
PFUnA	0.41U	ng/L	1.9	0.41	1	09/18/24 12:40	09/20/24 01:09	2058-94-8	
Surrogates									
13C24:2FTS (S)	137	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C26:2FTS (S)	91	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C28:2FTS (S)	84	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C2-PFDaA (S)	72	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C3HFPO-DA(S)	79	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C3-PFBS (S)	95	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C3-PFHxS (S)	98	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C4-PFBA (S)	93	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C4-PFHpA (S)	87	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C5-PFHxA (S)	82	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C5-PFPeA (S)	69	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C6-PFDA (S)	72	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C7-PFUdA (S)	65	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C8-PFOA (S)	81	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C8-PFOS (S)	99	%	50-200		1	09/18/24 12:40	09/20/24 01:09		
13C9-PFNA (S)	78	%	50-200		1	09/18/24 12:40	09/20/24 01:09		

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: NS Mayport
Pace Project No.: 35906397

Sample: Field Blank Lab ID: 35906397003 Collected: 09/17/24 09:45 Received: 09/17/24 18:12 Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
537.1 PFAS Compounds, Water									
Analytical Method: EPA 537.1 Preparation Method: EPA 537.1									
Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	1.7U	ng/L	2.1	1.7	1	09/18/24 04:00	09/18/24 21:06	763051-92-9	
9CI-PF3ONS	1.2U	ng/L	2.1	1.2	1	09/18/24 04:00	09/18/24 21:06	756426-58-1	
ADONA	0.78U	ng/L	2.1	0.78	1	09/18/24 04:00	09/18/24 21:06	919005-14-4	
HFPO-DA	1.8U	ng/L	2.1	1.8	1	09/18/24 04:00	09/18/24 21:06	13252-13-6	
NEtFOSAA	1.0U	ng/L	2.1	1.0	1	09/18/24 04:00	09/18/24 21:06	2991-50-6	
NMeFOSAA	1.7U	ng/L	2.1	1.7	1	09/18/24 04:00	09/18/24 21:06	2355-31-9	
PFBS	0.72U	ng/L	2.1	0.72	1	09/18/24 04:00	09/18/24 21:06	375-73-5	
PFDA	1.0U	ng/L	2.1	1.0	1	09/18/24 04:00	09/18/24 21:06	335-76-2	
PFHxA	1.4U	ng/L	2.1	1.4	1	09/18/24 04:00	09/18/24 21:06	307-24-4	
PFDoA	1.6U	ng/L	2.1	1.6	1	09/18/24 04:00	09/18/24 21:06	307-55-1	
PFHpA	1.1U	ng/L	2.1	1.1	1	09/18/24 04:00	09/18/24 21:06	375-85-9	
PFHxS	0.79U	ng/L	2.1	0.79	1	09/18/24 04:00	09/18/24 21:06	355-46-4	
PFNA	2.1U	ng/L	2.1	2.1	1	09/18/24 04:00	09/18/24 21:06	375-95-1	
PFOS	1.3U	ng/L	2.1	1.3	1	09/18/24 04:00	09/18/24 21:06	1763-23-1	
PFOA	0.94U	ng/L	2.1	0.94	1	09/18/24 04:00	09/18/24 21:06	335-67-1	
PFTeDA	2.0U	ng/L	2.1	2.0	1	09/18/24 04:00	09/18/24 21:06	376-06-7	
PFTrDA	1.9U	ng/L	2.1	1.9	1	09/18/24 04:00	09/18/24 21:06	72629-94-8	
PFUnA	2.1U	ng/L	2.1	2.1	1	09/18/24 04:00	09/18/24 21:06	2058-94-8	
Surrogates									
13C2-PFDA (S)	110	%	70-130		1	09/18/24 04:00	09/18/24 21:06		
13C2-PFHxA (S)	107	%	70-130		1	09/18/24 04:00	09/18/24 21:06		
NEtFOSAA-d5 (S)	109	%	70-130		1	09/18/24 04:00	09/18/24 21:06		
HFPO-DAS (S)	116	%	70-130		1	09/18/24 04:00	09/18/24 21:06		

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ANALYTICAL RESULTS

Project: NS Mayport

Pace Project No.: 35906397

Sample: Field Blank Lab ID: 35906397004 Collected: 09/17/24 09:50 Received: 09/17/24 18:12 Matrix: Drinking Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
533 PFAS Compounds, Water									
Analytical Method: EPA 533 Preparation Method: EPA 533									
Pace Analytical Services - Ormond Beach									
11CI-PF3OUdS	0.47U	ng/L	2.1	0.47	1	09/18/24 12:40	09/20/24 01:26	763051-92-9	
4:2 FTS	0.61U	ng/L	2.1	0.61	1	09/18/24 12:40	09/20/24 01:26	757124-72-4	
6:2 FTS	3.8U	ng/L	4.2	3.8	1	09/18/24 12:40	09/20/24 01:26	27619-97-2	
8:2 FTS	0.52U	ng/L	2.1	0.52	1	09/18/24 12:40	09/20/24 01:26	39108-34-4	
9CI-PF3ONS	0.54U	ng/L	2.1	0.54	1	09/18/24 12:40	09/20/24 01:26	756426-58-1	
ADONA	0.46U	ng/L	2.1	0.46	1	09/18/24 12:40	09/20/24 01:26	919005-14-4	
HFPO-DA	0.79U	ng/L	2.1	0.79	1	09/18/24 12:40	09/20/24 01:26	13252-13-6	
NFDHA	1.7U	ng/L	2.1	1.7	1	09/18/24 12:40	09/20/24 01:26	151772-58-6	
PFBS	0.46U	ng/L	2.1	0.46	1	09/18/24 12:40	09/20/24 01:26	375-73-5	
PFDA	0.34U	ng/L	2.1	0.34	1	09/18/24 12:40	09/20/24 01:26	335-76-2	
PFHxA	0.34U	ng/L	2.1	0.34	1	09/18/24 12:40	09/20/24 01:26	307-24-4	
PFBA	0.66U	ng/L	2.1	0.66	1	09/18/24 12:40	09/20/24 01:26	375-22-4	
PFEESA	0.38U	ng/L	2.1	0.38	1	09/18/24 12:40	09/20/24 01:26	113507-82-7	
PFHpS	0.43U	ng/L	2.1	0.43	1	09/18/24 12:40	09/20/24 01:26	375-92-8	
PFMBA	0.28U	ng/L	2.1	0.28	1	09/18/24 12:40	09/20/24 01:26	863090-89-5	
PFMPA	0.36U	ng/L	2.1	0.36	1	09/18/24 12:40	09/20/24 01:26	377-73-1	
PFPeA	0.34U	ng/L	2.1	0.34	1	09/18/24 12:40	09/20/24 01:26	2706-90-3	
PFPeS	0.82U	ng/L	2.1	0.82	1	09/18/24 12:40	09/20/24 01:26	2706-91-4	
PFDoA	0.58U	ng/L	2.1	0.58	1	09/18/24 12:40	09/20/24 01:26	307-55-1	
PFHpA	0.47U	ng/L	2.1	0.47	1	09/18/24 12:40	09/20/24 01:26	375-85-9	
PFHxS	0.99U	ng/L	2.1	0.99	1	09/18/24 12:40	09/20/24 01:26	355-46-4	
PFNA	0.36U	ng/L	2.1	0.36	1	09/18/24 12:40	09/20/24 01:26	375-95-1	
PFOS	0.38U	ng/L	2.1	0.38	1	09/18/24 12:40	09/20/24 01:26	1763-23-1	
PFOA	0.34U	ng/L	2.1	0.34	1	09/18/24 12:40	09/20/24 01:26	335-67-1	
PFUnA	0.45U	ng/L	2.1	0.45	1	09/18/24 12:40	09/20/24 01:26	2058-94-8	
Surrogates									
13C24:2FTS (S)	85	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C26:2FTS (S)	75	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C28:2FTS (S)	78	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C2-PFDaA (S)	85	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C3HFPO-DA(S)	84	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C3-PFBS (S)	106	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C3-PFHxS (S)	100	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C4-PFBA (S)	92	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C4-PFHpA (S)	88	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C5-PFHxA (S)	90	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C5-PFPeA (S)	85	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C6-PFDA (S)	74	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C7-PFUdA (S)	75	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C8-PFOA (S)	83	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C8-PFOS (S)	98	%	50-200		1	09/18/24 12:40	09/20/24 01:26		
13C9-PFNA (S)	81	%	50-200		1	09/18/24 12:40	09/20/24 01:26		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

QC Batch: 1042184

Analysis Method: EPA 533

QC Batch Method: EPA 533

Analysis Description: 533 PFAS Compounds, Water

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35906397002, 35906397004

METHOD BLANK: 5727013

Matrix: Drinking Water

Associated Lab Samples: 35906397002, 35906397004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	0.45U	2.0	0.45	09/19/24 21:25	
4:2 FTS	ng/L	0.58U	2.0	0.58	09/19/24 21:25	
6:2 FTS	ng/L	3.6U	4.0	3.6	09/19/24 21:25	
8:2 FTS	ng/L	0.49U	2.0	0.49	09/19/24 21:25	
9CI-PF3ONS	ng/L	0.51U	2.0	0.51	09/19/24 21:25	
ADONA	ng/L	0.44U	2.0	0.44	09/19/24 21:25	
HFPO-DA	ng/L	0.75U	2.0	0.75	09/19/24 21:25	
NFDHA	ng/L	1.6U	2.0	1.6	09/19/24 21:25	
PFBA	ng/L	0.63U	2.0	0.63	09/19/24 21:25	
PFBS	ng/L	0.44U	2.0	0.44	09/19/24 21:25	
PFDA	ng/L	0.32U	2.0	0.32	09/19/24 21:25	
PFDaA	ng/L	0.55U	2.0	0.55	09/19/24 21:25	
PFEESA	ng/L	0.36U	2.0	0.36	09/19/24 21:25	
PFHpA	ng/L	0.45U	2.0	0.45	09/19/24 21:25	
PFHpS	ng/L	0.41U	2.0	0.41	09/19/24 21:25	
PFHxA	ng/L	0.32U	2.0	0.32	09/19/24 21:25	
PFHxS	ng/L	0.94U	2.0	0.94	09/19/24 21:25	
PFMBA	ng/L	0.27U	2.0	0.27	09/19/24 21:25	
PFMPA	ng/L	0.34U	2.0	0.34	09/19/24 21:25	
PFNA	ng/L	0.34U	2.0	0.34	09/19/24 21:25	
PFOA	ng/L	0.32U	2.0	0.32	09/19/24 21:25	
PFOS	ng/L	0.36U	2.0	0.36	09/19/24 21:25	
PFPeA	ng/L	0.32U	2.0	0.32	09/19/24 21:25	
PFPeS	ng/L	0.78U	2.0	0.78	09/19/24 21:25	
PFUnA	ng/L	0.43U	2.0	0.43	09/19/24 21:25	
13C2-PFDaA (S)	%	88	50-200		09/19/24 21:25	
13C24:2FTS (S)	%	84	50-200		09/19/24 21:25	
13C26:2FTS (S)	%	75	50-200		09/19/24 21:25	
13C28:2FTS (S)	%	80	50-200		09/19/24 21:25	
13C3-PFBS (S)	%	106	50-200		09/19/24 21:25	
13C3-PFHxS (S)	%	101	50-200		09/19/24 21:25	
13C3HFPO-DA(S)	%	86	50-200		09/19/24 21:25	
13C4-PFBA (S)	%	92	50-200		09/19/24 21:25	
13C4-PFHpA (S)	%	90	50-200		09/19/24 21:25	
13C5-PFHxA (S)	%	91	50-200		09/19/24 21:25	
13C5-PFPeA (S)	%	86	50-200		09/19/24 21:25	
13C6-PFDA (S)	%	84	50-200		09/19/24 21:25	
13C7-PFUDaA (S)	%	80	50-200		09/19/24 21:25	
13C8-PFOA (S)	%	85	50-200		09/19/24 21:25	
13C8-PFOS (S)	%	99	50-200		09/19/24 21:25	

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

METHOD BLANK: 5727013

Matrix: Drinking Water

Associated Lab Samples: 35906397002, 35906397004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
13C9-PFNA (S)	%	88	50-200		09/19/24 21:25	

LABORATORY CONTROL SAMPLE: 5727014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	37.8	37.9	100	70-130	
4:2 FTS	ng/L	37.5	39.9	106	70-130	
6:2 FTS	ng/L	38.1	35.7	94	70-130	
8:2 FTS	ng/L	38.4	37.1	97	70-130	
9CI-PF3ONS	ng/L	37.4	37.1	99	70-130	
ADONA	ng/L	37.8	36.8	97	70-130	
HFPO-DA	ng/L	40	38.0	95	70-130	
NFDHA	ng/L	40	37.8	94	70-130	
PFBA	ng/L	40	42.3	106	70-130	
PFBS	ng/L	35.5	32.7	92	70-130	
PFDA	ng/L	40	41.8	104	70-130	
PFDaA	ng/L	40	41.4	103	70-130	
PFEESA	ng/L	35.7	33.6	94	70-130	
PFHpA	ng/L	40	38.4	96	70-130	
PFHpS	ng/L	38.2	38.7	101	70-130	
PFHxA	ng/L	40	40.6	101	70-130	
PFHxS	ng/L	36.5	34.6	95	70-130	
PFMBA	ng/L	40	42.7	107	70-130	
PFMPA	ng/L	40	40.2	101	70-130	
PFNA	ng/L	40	40.4	101	70-130	
PFOA	ng/L	40	42.5	106	70-130	
PFOS	ng/L	37.2	36.8	99	70-130	
PFPeA	ng/L	40	45.8	114	70-130	
PFPeS	ng/L	37.6	36.0	96	70-130	
PFUnA	ng/L	40	41.3	103	70-130	
13C2-PFDaA (S)	%			92	50-200	
13C24:2FTS (S)	%			87	50-200	
13C26:2FTS (S)	%			79	50-200	
13C28:2FTS (S)	%			83	50-200	
13C3-PFBS (S)	%			109	50-200	
13C3-PFHxS (S)	%			102	50-200	
13C3HFPO-DA(S)	%			88	50-200	
13C4-PFBA (S)	%			92	50-200	
13C4-PFHpA (S)	%			91	50-200	
13C5-PFHxA (S)	%			93	50-200	
13C5-PFPeA (S)	%			87	50-200	
13C6-PFDA (S)	%			86	50-200	
13C7-PFUDa (S)	%			81	50-200	
13C8-PFOA (S)	%			86	50-200	

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

LABORATORY CONTROL SAMPLE: 5727014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C8-PFOS (S)	%			103	50-200	
13C9-PFNA (S)	%			89	50-200	

LABORATORY CONTROL SAMPLE: 5727015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11Cl-PF3OUdS	ng/L	1.9	1.7J	89	50-150	
4:2 FTS	ng/L	1.9	1.8J	96	50-150	
6:2 FTS	ng/L	1.9	3.6U	82	50-150	
8:2 FTS	ng/L	1.9	1.9J	101	50-150	
9Cl-PF3ONS	ng/L	1.9	1.7J	90	50-150	
ADONA	ng/L	1.9	1.7J	88	50-150	
HFPO-DA	ng/L	2	2.0	100	50-150	
NFDHA	ng/L	2	1.9J	93	50-150	
PFBA	ng/L	2	1.9J	97	50-150	
PFBS	ng/L	1.8	1.4J	81	50-150	
PFDA	ng/L	2	2.0J	98	50-150	
PFDaA	ng/L	2	1.8J	92	50-150	
PFEESA	ng/L	1.8	1.4J	80	50-150	
PFHpA	ng/L	2	1.8J	90	50-150	
PFHpS	ng/L	1.9	1.9J	101	50-150	
PFHxA	ng/L	2	1.8J	92	50-150	
PFHxS	ng/L	1.8	1.6J	88	50-150	
PFMBA	ng/L	2	1.9J	96	50-150	
PFMPA	ng/L	2	1.8J	92	50-150	
PFNA	ng/L	2	1.9J	95	50-150	
PFOA	ng/L	2	2.0	101	50-150	
PFOS	ng/L	1.9	1.8J	94	50-150	
PFPeA	ng/L	2	2.2	108	50-150	
PFPeS	ng/L	1.9	1.6J	86	50-150	
PFUnA	ng/L	2	1.9J	93	50-150	
13C2-PFDaA (S)	%			92	50-200	
13C24:2FTS (S)	%			86	50-200	
13C26:2FTS (S)	%			78	50-200	
13C28:2FTS (S)	%			83	50-200	
13C3-PFBS (S)	%			109	50-200	
13C3-PFHxS (S)	%			104	50-200	
13C3HFPO-DA(S)	%			83	50-200	
13C4-PFBA (S)	%			90	50-200	
13C4-PFHpA (S)	%			89	50-200	
13C5-PFHxA (S)	%			89	50-200	
13C5-PFPeA (S)	%			84	50-200	
13C6-PFDA (S)	%			87	50-200	
13C7-PFUdA (S)	%			83	50-200	
13C8-PFOA (S)	%			85	50-200	

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

LABORATORY CONTROL SAMPLE: 5727015

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
13C8-PFOS (S)	%			103	50-200	
13C9-PFNA (S)	%			88	50-200	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5727016 5727017

Parameter	Units	35906337027 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
11CI-PF3OUdS	ng/L	ND	1.6	1.7	1.5J	1.5J	90	89	70-130		30	
4:2 FTS	ng/L	ND	1.6	1.7	1.5J	1.6J	90	92	70-130		30	
6:2 FTS	ng/L	ND	1.6	1.7	3.1U	5.2	-50	154	70-130		30	M1
8:2 FTS	ng/L	ND	1.6	1.7	1.6J	1.5J	96	88	70-130		30	
9CI-PF3ONS	ng/L	ND	1.6	1.7	1.5J	1.5J	88	91	70-130		30	
ADONA	ng/L	ND	1.6	1.7	1.5J	1.6J	89	90	70-130		30	
HFPO-DA	ng/L	ND	1.7	1.8	1.7	1.6J	99	87	70-130		30	
NFDHA	ng/L	ND	1.7	1.8	1.5J	1.7J	84	89	70-130		30	
PFBA	ng/L	0.0041 ug/L	1.7	1.8	5.4	5.1	73	56	70-130	5	30	M1
PFBS	ng/L	0.0022 ug/L	1.6	1.6	3.5	3.7	81	94	70-130	7	30	
PFDA	ng/L	ND	1.7	1.8	1.8	1.8	98	98	70-130	3	30	
PFDoA	ng/L	ND	1.7	1.8	1.6J	1.7J	90	94	70-130		30	
PFESA	ng/L	ND	1.6	1.6	1.3J	1.3J	81	81	70-130		30	
PFHpA	ng/L	ND	1.7	1.8	3.2	3.2	87	86	70-130	1	30	
PFHpS	ng/L	ND	1.6	1.7	2.0	2.1	97	102	70-130	6	30	
PFHxA	ng/L	0.0037 ug/L	1.7	1.8	5.6	5.6	109	106	70-130	0	30	
PFHxS	ng/L	0.011 ug/L	1.6	1.6	12.4	12.4	63	65	70-130	0	30	M1
PFMBA	ng/L	ND	1.7	1.8	1.7J	1.8J	97	98	70-130		30	
PFMPA	ng/L	ND	1.7	1.8	1.7J	1.7J	95	96	70-130		30	
PFNA	ng/L	ND	1.7	1.8	3.0	3.1	92	98	70-130	5	30	
PFOA	ng/L	0.0068 ug/L	1.7	1.8	8.4	8.5	92	94	70-130	1	30	
PFOS	ng/L	0.017 ug/L	1.6	1.7	17.0	18.0	19	75	70-130	6	30	M1
PFPeA	ng/L	0.0027 ug/L	1.7	1.8	4.5	4.8	105	115	70-130	5	30	
PFPeS	ng/L	ND	1.6	1.7	2.2	2.4	79	83	70-130	5	30	
PFUnA	ng/L	ND	1.7	1.8	1.7J	1.7J	92	93	70-130		30	
13C2-PFDoA (S)	%						76	70	50-200			
13C24:2FTS (S)	%						104	101	50-200			
13C26:2FTS (S)	%						86	87	50-200			
13C28:2FTS (S)	%						88	86	50-200			
13C3-PFBS (S)	%						109	105	50-200			
13C3-PFHxS (S)	%						104	102	50-200			
13C3HFPO-DA(S)	%						82	85	50-200			
13C4-PFBA (S)	%						96	94	50-200			
13C4-PFHpA (S)	%						89	86	50-200			
13C5-PFHxA (S)	%						90	87	50-200			

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5727016 5727017												
Parameter	Units	35906337027		MS	MSD	MS	MSD	MS	MSD	% Rec	RPD	Max
		Result	Spike	Spike	Result							
			Conc.	Conc.				% Rec	% Rec	Limits		Qual
13C5-PFPeA (S)	%							87	84	50-200		
13C6-PFDA (S)	%							74	70	50-200		
13C7-PFUdA (S)	%							68	64	50-200		
13C8-PFOA (S)	%							83	79	50-200		
13C8-PFOS (S)	%							103	101	50-200		
13C9-PFNA (S)	%							83	77	50-200		

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

QC Batch: 1042075

Analysis Method: EPA 537.1

QC Batch Method: EPA 537.1

Analysis Description: 537.1 PFOA Compounds, Water

Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35906397001, 35906397003

METHOD BLANK: 5726573

Matrix: Water

Associated Lab Samples: 35906397001, 35906397003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
11CI-PF3OUdS	ng/L	1.6U	2.0	1.6	09/18/24 18:30	
9CI-PF3ONS	ng/L	1.2U	2.0	1.2	09/18/24 18:30	
ADONA	ng/L	0.74U	2.0	0.74	09/18/24 18:30	
HFPO-DA	ng/L	1.7U	2.0	1.7	09/18/24 18:30	
NEtFOSAA	ng/L	0.95U	2.0	0.95	09/18/24 18:30	
NMeFOSAA	ng/L	1.6U	2.0	1.6	09/18/24 18:30	
PFBS	ng/L	0.68U	2.0	0.68	09/18/24 18:30	
PFDA	ng/L	0.99U	2.0	0.99	09/18/24 18:30	
PFDaA	ng/L	1.5U	2.0	1.5	09/18/24 18:30	
PFHpA	ng/L	1.0U	2.0	1.0	09/18/24 18:30	
PFHxA	ng/L	1.3U	2.0	1.3	09/18/24 18:30	
PFHxS	ng/L	0.75U	2.0	0.75	09/18/24 18:30	
PFNA	ng/L	2.0U	2.0	2.0	09/18/24 18:30	
PFOA	ng/L	0.89U	2.0	0.89	09/18/24 18:30	
PFOS	ng/L	1.2U	2.0	1.2	09/18/24 18:30	
PFTeDA	ng/L	1.9U	2.0	1.9	09/18/24 18:30	
PFTTrDA	ng/L	1.8U	2.0	1.8	09/18/24 18:30	
PFUnA	ng/L	2.0U	2.0	2.0	09/18/24 18:30	
13C2-PFDA (S)	%	110	70-130		09/18/24 18:30	
13C2-PFHxA (S)	%	109	70-130		09/18/24 18:30	
HFPO-DAS (S)	%	111	70-130		09/18/24 18:30	
NEtFOSAA-d5 (S)	%	110	70-130		09/18/24 18:30	

LABORATORY CONTROL SAMPLE: 5726574

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	7.6	7.8	104	70-130	
9CI-PF3ONS	ng/L	7.5	7.9	105	70-130	
ADONA	ng/L	7.6	8.5	112	70-130	
HFPO-DA	ng/L	8	9.1	113	70-130	
NEtFOSAA	ng/L	8	8.9	111	70-130	
NMeFOSAA	ng/L	8	8.5	106	70-130	
PFBS	ng/L	7.1	8.1	114	70-130	
PFDA	ng/L	8	8.7	109	70-130	
PFDaA	ng/L	8	8.7	108	70-130	
PFHpA	ng/L	8	8.6	108	70-130	
PFHxA	ng/L	8	8.6	108	70-130	
PFHxS	ng/L	7.3	8.3	113	70-130	
PFNA	ng/L	8	7.3	91	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

LABORATORY CONTROL SAMPLE: 5726574

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
PFOA	ng/L	8	8.4	106	70-130	
PFOS	ng/L	7.4	8.2	110	70-130	
PFTeDA	ng/L	8	8.9	111	70-130	
PFTrDA	ng/L	8	8.9	111	70-130	
PFUnA	ng/L	8	8.8	111	70-130	
13C2-PFDA (S)	%			110	70-130	
13C2-PFHxA (S)	%			109	70-130	
HFPO-DAS (S)	%			111	70-130	
NEtFOSAA-d5 (S)	%			111	70-130	

LABORATORY CONTROL SAMPLE: 5726575

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
11CI-PF3OUdS	ng/L	1.9	1.8J	96	50-150	
9CI-PF3ONS	ng/L	1.9	1.8J	98	50-150	
ADONA	ng/L	1.9	2.0	107	50-150	
HFPO-DA	ng/L	2	2.3	116	50-150	
NEtFOSAA	ng/L	2	1.9J	97	50-150	
NMeFOSAA	ng/L	2	1.9J	97	50-150	
PFBS	ng/L	1.8	1.8J	101	50-150	
PFDA	ng/L	2	2.0	100	50-150	
PFDaA	ng/L	2	1.9J	96	50-150	
PFHpA	ng/L	2	2.0	101	50-150	
PFHxA	ng/L	2	2.1	103	50-150	
PFHxS	ng/L	1.8	2.0	112	50-150	
PFNA	ng/L	2	2.0U	87	50-150	
PFOA	ng/L	2	2.0	101	50-150	
PFOS	ng/L	1.9	1.9J	105	50-150	
PFTeDA	ng/L	2	2.0	102	50-150	
PFTrDA	ng/L	2	2.0J	100	50-150	
PFUnA	ng/L	2	2.0	102	50-150	
13C2-PFDA (S)	%			107	70-130	
13C2-PFHxA (S)	%			109	70-130	
HFPO-DAS (S)	%			111	70-130	
NEtFOSAA-d5 (S)	%			106	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5726576 5726577

Parameter	Units	35906162001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
11CI-PF3OUdS	ng/L	1.6U	7.5	7.4	7.7	7.6	101	103	70-130	0	30	
9CI-PF3ONS	ng/L	1.1U	7.5	7.3	7.7	7.6	103	104	70-130	1	30	
ADONA	ng/L	0.73U	7.5	7.4	8.3	7.9	110	107	70-130	5	30	
HFPO-DA	ng/L	1.6U	8	7.9	9.0	8.2	112	103	70-130	10	30	

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QUALITY CONTROL DATA

Project: NS Mayport

Pace Project No.: 35906397

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 5726576 5726577													
Parameter	Units	35906162001	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max	Qual
		Result	Spike	Spike									
NEtFOSAA	ng/L	0.93U	8	7.9	8.6	6.7	108	86	70-130	25	30		
NMeFOSAA	ng/L	1.6U	8	7.9	8.4	6.9	105	88	70-130	20	30		
PFBS	ng/L	0.67U	7.1	7	7.8	7.8	110	112	70-130	0	30		
PFDA	ng/L	0.97U	8	7.9	8.7	8.4	109	107	70-130	4	30		
PFDoA	ng/L	1.5U	8	7.9	8.6	8.5	108	108	70-130	2	30		
PFHpA	ng/L	1.0U	8	7.9	8.8	8.4	107	104	70-130	4	30		
PFHxA	ng/L	1.3U	8	7.9	8.5	8.2	106	103	70-130	4	30		
PFHxS	ng/L	0.74U	7.3	7.2	7.9	7.9	108	110	70-130	1	30		
PFNA	ng/L	2.0U	8	7.9	7.3	7.0	91	89	70-130	4	30		
PFOA	ng/L	0.88U	8	7.9	8.4	8.2	104	104	70-130	3	30		
PFOS	ng/L	1.2U	7.4	7.3	7.9	7.9	106	108	70-130	0	30		
PFTeDA	ng/L	1.9U	8	7.9	8.8	8.6	110	109	70-130	2	30		
PFTrDA	ng/L	1.8U	8	7.9	8.8	8.7	110	110	70-130	2	30		
PFUnA	ng/L	2.0U	8	7.9	8.7	8.3	109	105	70-130	5	30		
13C2-PFDA (S)	%						112	109	70-130				
13C2-PFHxA (S)	%						111	107	70-130				
HFPO-DAS (S)	%						116	108	70-130				
NEtFOSAA-d5 (S)	%						112	88	70-130				

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QUALIFIERS

Project: NS Mayport

Pace Project No.: 35906397

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NS Mayport
Pace Project No.: 35906397

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35906397002	MPT WTP Q3 533	EPA 533	1042184	EPA 533	1042478
35906397004	Field Blank	EPA 533	1042184	EPA 533	1042478
35906397001	MPT WTP Q3 - 537.1	EPA 537.1	1042075	EPA 537.1	1042270
35906397003	Field Blank	EPA 537.1	1042075	EPA 537.1	1042270

REPORT OF LABORATORY ANALYSIS

Pace Container Order #3066191

bo.garcia@pacelabs.com

Addresses

Order By :

Company AH Environmental Consultants,
 Contact Anthony Gruber
 Email agruber@ahenv.com
 Address
 Address 2
 City
 State Zip
 Phone

Ship To :

Company AH Environmental Consultants, Inc.
 Contact Nick DeGuida
 Email ndeguida@ahenv.com
 Address 11555 Central Parkway
 Address 2 Bldg 1004
 City Jacksonville
 State FL Zip 32224
 Phone 9044230949

Return To:

Company Ormond Beach, FL (Pace Analytical
 Contact Bo Garcia
 Email bo.garcia@pacelabs.com
 Address 8 East Tower Circle
 Address 2
 City Ormond Beach
 State FL Zip 32174
 Phone (386)672-5668

Info

Project Name NS Mayport Due Date 07/26/2024 Profile 7971 Quote
 Project Manager Garcia, Bo Return Date Carrier FedEx Ground Location FL

Return Shipping Labels

Return Label Type
☐ No Shipper
☐ With Shipper

Bottle Labels

☐ Blank
☒ Pre-Printed No Sample IDs
☐ Pre-Printed With Sample IDs

Bottles

☐ Boxed Cases
☐ Individually Wrapped
☒ Grouped By Sample ID/Matrix

Trip Blanks

☐ Include Trip Blanks

COC Options

☐ Number of Blanks
☒ Pre-Printed 1

Misc

☒ Sampling Instructions
☐ Custody Seal
☐ Temp. Blanks
☒ Coolers 1
☐ Syringes
☐ Extra Bubble Wrap
☐ Short Hold/Rush Stickers
☐ DI Water
☐ USDA Regulated Soils
☐ Dry Weight

# of Samp Matrix	Analysis	Qty / Samp	Container	Total	# of QC	Lot #	Notes
1	DW	537.1 FIELD BLANK	4	2-250 mL plastic with Trizma + 2-250 mL with DI	4	M412704BB	
1	DW	533 FIELD BLANK	4	2-250 mL plastic with ammonium acetate + 2-250 mL with DI	4	M412106BB	
2	DW	533 PFAS	5	250 mL plastic with ammonium acetate	10	M412106BB	
2	DW	537.1 PFAS	5	250mL plastic Trizma	10	M412704BB	

Hazard Shipping Placard In Place : N/A

LAB USE:

*Sample receiving hours are typically 8am-5pm, but may differ by location. Please check with your Pace Project Manager.

*Pace Analytical reserves the right to return hazardous, toxic, or radioactive samples to you.

*Pace Analytical reserves the right to charge for unused bottles, as well as cost associated with sample storage/disposal.

*Payment term are net 30 days.

*Please include the proposal number on the chain of custody to ensure proper billing.

Ship Date : 07/25/2024

Prepared By: BLS.

Verified By:

CLIENT USE (Optional):

Date Rec'd:

Received By:

Sample Notes :

WO#: 35906397

CUR)

Project #

PM: VEG

Due Date: 10/02/24

Project Manager:

CLIENT: AHENVI

Client:

Date and Initials of person: 9/17/24

Examining contents: TSI

Verifying pH:

Thermometer Used: T-426

Date: 9/17/24

Time: 1846

Initials: TSI

State of Origin:

☐ For WV projects, all containers verified to ≤6 °C

Cooler #1 Temp. °C 33 (Visual) 0 (Correction Factor) 3.3 (Actual)

Cooler #2 Temp. °C (Visual) (Correction Factor) (Actual)

Cooler #3 Temp. °C (Visual) (Correction Factor) (Actual)

Cooler #4 Temp. °C (Visual) (Correction Factor) (Actual)

Cooler #5 Temp. °C (Visual) (Correction Factor) (Actual)

Cooler #6 Temp. °C (Visual) (Correction Factor) (Actual)

Recheck for OOT °C (Visual) (Correction Factor) (Actual)

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

☐ Samples on ice, cooling process has begun.

Time: Initials:

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☒ Pace ☐ Other:

Shipping Method: ☐ Standard Overnight ☐ First Overnight ☐ Priority Overnight ☐ Ground ☐ International Priority ☐ Other:

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☐ Unknown

Tracking #

Custody Seal Present: ☐ Yes ☒ No Seal properly placed and intact: ☐ Yes ☐ No

Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None ☐ Melted

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other:

Samples shorted to lab: ☐ Yes ☐ No (If yes, complete the following)

Shorted Date:

Shorted Time:

Bottle Quantity / Type:

Chain of Custody:	Present: ☒ Yes ☐ No Filled Out: ☒ Yes ☐ No ☐ N/A Sampler Name: ☒ Yes ☐ No ☐ N/A	
	Relinquished To Pace: ☐ Yes ☐ No ☐ N/A Sampling Date(s): ☒ Yes ☐ No ☐ N/A Sampling Time(s): ☒ Yes ☐ No ☐ N/A	
Samples Arrived within Hold Time.	☒ Yes ☐ No ☐ N/A	Comments:
Rush Turnaround Requested on COC.	☐ Yes ☒ No ☐ N/A	Comments:
Sufficient Volume.	☒ Yes ☐ No ☐ N/A	Comments:
Correct Containers Used.	☒ Yes ☐ No ☐ N/A	Comments:
Containers Intact.	☒ Yes ☐ No ☐ N/A	Comments:
Sample Labels Match COC (Sample ID, Date/Time of Collection).	☒ Yes ☒ No ☐ N/A	Comments:
All containers needing acid / base preservation have been checked.	☐ Yes ☐ No ☒ N/A	COC: TRIP BLANK VS. FIELD BLANK ON BOTTLES Preservation Information Preservative: _____ Date: _____ Lot / Trace: _____ Time: _____ Amount added (mL): _____ Initials: _____
All containers needing preservation are found to be in compliance with EPA recommendation:	☐ Yes ☐ No ☒ N/A	
Exceptions: Vials, Microbiology, O&G, PFAS		
Headspace in Volatile Vials? (>6mm):	☐ Yes ☐ No ☒ N/A	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	

Comments / Resolutions (use back for additional comments):

Labeled by: TSI

Reviewed by: DY/PACE

Delivered by: DY

PFC Sample Collection Form

Facility:	NS Mayport WTP		
Sample Collection Date/Time:	17 September 2024, 0945		
Sampled By:	Nick DeGuida		
Sample Location Description - (Well House, WTP, etc.):	WTP Laboratory sink		
Water Supply Source (Check one)	Well #4	Surface Water	Consecutive System
Sample Port Type (tap, hose bib, etc.)	Sink Faucet, continuous running sample tap; no aerator.		
Weather Conditions:	Sunny, dry.		
Field Blank Collected:	Yes	No	
Duplicate Collected:	Yes	No	
Shipping Container type:	Cooler	Box	
Ice Added?	Yes	No	
Shipper Used?	No. Sampler delivered samples to Pace Analytical JAX service center.		
Notes & Photos:	Observed by NS Mayport Water Programs Manager (Victoria) & Natural Resources Coordinator (Matthew) Well #4 (Gas Station) has been the supply source for the last several days as per the WTP operator on duty (Rick) at the sample collection time.		


