County of Brunswick

3954 Clearwell Dr NE
Leland, NC 28451

211 Well Field

Southport, NC
Samples Received: 08/01/22

Analytical Report
0822-705

Isotope Dilution Method

PFAS

Enthalpy Analytical, LLC – Ultratrace

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I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized in the appropriate narrative(s)

This analytical report was prepared in Portable Document Format (.PDF) and contains __37__ pages.

QA Review Performed by: Laura K. Boivin

Report Issued Date: 08/08/2022

ENTHALPY ANALYTICAL

Summary of Results

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A

Site: 211 Well Field, Southport NC

Summary

	Compound	CAS	080122-1 ng/L	080122-2 ng/L	080122-16 ng/L	080122-17 ng/L	080122-18 ng/L
Acids	PFBA	375-22-4	ND U	ND U	ND U	ND U	ND U
	PFPeA	2706-90-3	ND U	ND U	ND U	ND U	ND U
	PFHxA	307-24-4	ND U	ND U	ND U	ND U	ND U
	PFHpA	375-85-9	0.0604 L	ND U	ND U	ND U	ND U
	PFOA	335-67-1	ND U	ND U	ND U	ND U	ND U
	PFNA	375-95-1	ND U	ND U	ND U	ND U	ND U
	PFDA	335-76-2	ND U	ND U	ND U	ND U	ND U
	PFUnDA	2058-94-8	ND U	ND U	ND U	ND U	ND U
	PFDoDA	307-55-1	ND U	ND U	ND U	ND U	ND U
	PFTrDA	72629-94-8	ND U	ND U	ND U	0.0916 LB	ND U
	PFTeDA	376-06-7	ND U	ND U	ND U	ND U	ND U
Sulfonates	PFBS	375-73-5	ND U	ND U	ND U	ND U	ND U
	PFPeS	2706-91-4	ND U	ND U	ND U	ND U	ND U
	PFHxS	355-46-4	ND U	ND U	ND U	ND U	ND U
	PFHpS	375-92-8	ND U	ND U	ND U	ND U	ND U
	PFOS	1763-23-1	ND U	ND U	ND U	ND U	ND U
	PFNS	68259-12-1	ND U	ND U	ND U	ND U	ND U
	PFDS	335-77-3	ND U	ND U	ND U	ND U	ND U
	4:2 FTS	757124-72-4	ND U	ND U	ND U	ND U	ND U
	6:2 FTS	27619-97-2	ND U	ND U	ND U	ND U	ND U
	8:2 FTS	39108-34-4	ND U	ND U	ND U	ND U	ND U
Other	PFOSA	754-91-6	0.0826 L	ND U	0.0686 L	0.0792 L	0.0872 L
	N-MeFOSAA	2355-31-9	ND U	ND U	ND U	ND U	ND U
	N-EtFOSAA	2991-50-6	ND U	ND U	ND U	ND U	ND U
	HFPO-DA	13252-13-6	0.0692 L	ND U	ND U	ND U	ND U
	PFMOAA	674-13-5	2.77	ND U	ND U	ND U	ND U
	PFMOPrA	377-73-1	ND U	ND U	ND U	ND U	ND U
	PFO2HxA	39492-88-1	ND U	ND U	ND U	ND U	ND U
	PFO3OA	39492-89-2	ND U	ND U	ND U	ND U	ND U
	PFO4DA	39492-90-5	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 1	29311-67-9	ND U	ND U	ND U	ND U	ND U
	ADONA	919005-14-4	ND U	ND U	ND U	ND U	ND U
	9Cl-PF3ONS	756426-58-1	ND U	ND U	ND U	ND U	ND U
	11Cl-PF3OUdS	763051-92-9	ND U	ND U	ND U	ND U	ND U
	10:2 FTS	120226-60-0	ND U	ND U	ND U	ND U	ND U
	EVE Acid	69087-46-3	ND U	ND U	ND U	ND U	ND U
	FBSA	30334-69-1	ND U	ND U	ND U	ND U	ND U
	Hydro-EVE Acid	773804-62-9	ND U	ND U	ND U	ND U	ND U
	Hydrolyzed PSDA	2416366-19-1	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 2	749836-20-2	ND U	ND U	ND U	ND U	ND U
	N-EtFOSA	4151-50-2	ND U	ND U	ND U	ND U	ND U
	N-EtFOSE	1691-99-2	ND U	ND U	ND U	ND U	ND U
	NFDHA	151772-58-6	ND U	ND U	ND U	ND U	ND U
	N-MeFOSA	31506-32-8	ND U	ND U	ND U	ND U	ND U
	N-MeFOSE	24448-09-7	ND U	ND U	ND U	ND U	ND U
	NVHOS	1132933-86-8	ND U	ND U	ND U	ND U	ND U
	PEPA	267239-61-2	ND U	ND U	ND U	ND U	ND U
	PFECA-G	801212-59-9	ND U	ND U	ND U	ND U	ND U
	PFEESA	113507-82-7	ND U	ND U	ND U	ND U	ND U
	PFHxDA	67905-19-5	ND U	0.0597 L	ND U	0.0484 L	0.0900 L
	PFMOBA	863090-89-5	ND U	ND U	ND U	ND U	ND U
	PFO5DA	39492-91-6	ND U	ND U	ND U	ND U	ND U
	PMPA	13140-29-9	0.329 L	ND U	0.305 L	ND U	ND U
	R-EVE	2416366-22-6	ND U	ND U	ND U	ND U	ND U
	R-PSDA	2416366-18-0	ND U	ND U	ND U	ND U	ND U
	R-PSDCA	241636-21-5	ND U	ND U	ND U	ND U	ND U

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A

Site: 211 Well Field, Southport NC

Summary

	Compound	CAS	080122-19 ng/L	080122-15 ng/L	080122-8 ng/L	080122-12A ng/L	0800122-12 ng/L
Acids	PFBA	375-22-4	ND U	ND U	ND U	ND U	ND U
	PFPeA	2706-90-3	ND U	ND U	ND U	ND U	ND U
	PFHxA	307-24-4	ND U	0.146 L	ND U	ND U	0.165 L
	PFHpA	375-85-9	ND U	0.0372 L	0.0369 L	ND U	ND U
	PFOA	335-67-1	ND U	ND U	0.0862 LB	ND U	0.121 LB
	PFNA	375-95-1	ND U	ND U	ND U	ND U	ND U
	PFDA	335-76-2	0.0184 L	ND U	ND U	ND U	ND U
	PFUnDA	2058-94-8	ND U	ND U	ND U	ND U	ND U
	PFDoDA	307-55-1	ND U	ND U	ND U	ND U	ND U
	PFTrDA	72629-94-8	ND U	ND U	ND U	ND U	ND U
	PFTeDA	376-06-7	ND U	ND U	ND U	ND U	ND U
Sulfonates	PFBS	375-73-5	ND U	ND U	ND U	ND U	ND U
	PFPeS	2706-91-4	ND U	ND U	ND U	ND U	ND U
	PFHxS	355-46-4	ND U	ND U	ND U	ND U	0.371 JB
	PFHpS	375-92-8	ND U	ND U	ND U	ND U	0.0412 L
	PFOS	1763-23-1	ND U	ND U	ND U	0.167 J	1.28
	PFNS	68259-12-1	ND U	ND U	ND U	ND U	ND U
	PFDS	335-77-3	ND U	ND U	ND U	ND U	ND U
	4:2 FTS	757124-72-4	ND U	ND U	ND U	ND U	ND U
	6:2 FTS	27619-97-2	ND U	ND U	ND U	ND U	ND U
	8:2 FTS	39108-34-4	ND U	ND U	ND U	ND U	ND U
Other	PFOSA	754-91-6	0.0678 L	0.0690 L	0.0581 L	0.0626 L	0.0699 L
	N-MeFOSAA	2355-31-9	ND U	ND U	ND U	ND U	ND U
	N-EtFOSAA	2991-50-6	ND U	ND U	ND U	ND U	ND U
	HFPO-DA	13252-13-6	ND U	0.0197 L	ND U	0.0407 L	0.309 J
	PFMOAA	674-13-5	ND U	ND U	ND U	ND U	22.1
	PFMOPrA	377-73-1	ND U	ND U	ND U	ND U	ND U
	PFO2HxA	39492-88-1	ND U	ND U	ND U	ND U	ND U
	PFO3OA	39492-89-2	ND U	ND U	ND U	ND U	ND U
	PFO4DA	39492-90-5	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 1	29311-67-9	ND U	ND U	ND U	ND U	ND U
	ADONA	919005-14-4	ND U	ND U	ND U	ND U	ND U
	9Cl-PF3ONS	756426-58-1	ND U	ND U	ND U	ND U	ND U
	11Cl-PF3OUdS	763051-92-9	ND U	ND U	ND U	ND U	ND U
	10:2 FTS	120226-60-0	ND U	ND U	ND U	ND U	ND U
	EVE Acid	69087-46-3	ND U	ND U	ND U	ND U	ND U
	FBSA	30334-69-1	ND U	ND U	ND U	ND U	0.103 L
	Hydro-EVE Acid	773804-62-9	ND U	ND U	ND U	ND U	ND U
	Hydrolyzed PSDA	2416366-19-1	ND U	ND U	ND U	ND U	ND U
	Nafion Byproduct 2	749836-20-2	ND U	ND U	ND U	ND U	ND U
	N-EtFOSA	4151-50-2	ND U	ND U	ND U	ND U	ND U
	N-EtFOSE	1691-99-2	ND U	ND U	ND U	ND U	ND U
	NFDHA	151772-58-6	ND U	ND U	ND U	ND U	ND U
	N-MeFOSA	31506-32-8	ND U	ND U	ND U	ND U	ND U
	N-MeFOSE	24448-09-7	ND U	ND U	ND U	ND U	ND U
	NVHOS	1132933-86-8	ND U	ND U	ND U	ND U	ND U
	PEPA	267239-61-2	ND U	ND U	ND U	ND U	ND U
	PFECA-G	801212-59-9	ND U	ND U	ND U	ND U	ND U
	PFEESA	113507-82-7	ND U	ND U	ND U	ND U	ND U
	PFHxDA	67905-19-5	0.0378 L	0.0283 L	ND U	ND U	0.0373 L
	PFMOBA	863090-89-5	ND U	ND U	ND U	ND U	ND U
	PFO5DA	39492-91-6	ND U	ND U	ND U	ND U	ND U
	PMPA	13140-29-9	ND U	0.416 L	ND U	0.160 L	0.349 L
	R-EVE	2416366-22-6	ND U	ND U	ND U	ND U	ND U
	R-PSDA	2416366-18-0	ND U	ND U	ND U	ND U	ND U
	R-PSDCA	241636-21-5	ND U	ND U	ND U	ND U	ND U

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A

Site: 211 Well Field, Southport NC

Summary

	Compound	CAS	080122-11 ng/L	080122-6A ng/L	080122-5 ng/L	080122-3 ng/L
Acids	PFBA	375-22-4	ND U	ND U	ND U	ND U
	PFPeA	2706-90-3	ND U	ND U	ND U	ND U
	PFHxA	307-24-4	ND U	ND U	ND U	ND U
	PFHpA	375-85-9	ND U	ND U	ND U	ND U
	PFOA	335-67-1	0.104 LB	0.0667 LB	ND U	ND U
	PFNA	375-95-1	ND U	ND U	ND U	ND U
	PFDA	335-76-2	ND U	ND U	ND U	ND U
	PFUnDA	2058-94-8	ND U	ND U	ND U	ND U
	PFDoDA	307-55-1	ND U	ND U	ND U	ND U
	PFTrDA	72629-94-8	ND U	ND U	ND U	ND U
	PFTeDA	376-06-7	ND U	ND U	ND U	ND U
Sulfonates	PFBS	375-73-5	ND U	ND U	ND U	ND U
	PFPeS	2706-91-4	ND U	ND U	ND U	ND U
	PFHxS	355-46-4	0.161 LB	ND U	ND U	ND U
	PFHpS	375-92-8	ND U	ND U	ND U	ND U
	PFOS	1763-23-1	ND U	ND U	ND U	ND U
	PFNS	68259-12-1	ND U	ND U	ND U	ND U
	PFDS	335-77-3	ND U	ND U	ND U	ND U
	4:2 FTS	757124-72-4	ND U	ND U	ND U	ND U
	6:2 FTS	27619-97-2	ND U	ND U	ND U	ND U
	8:2 FTS	39108-34-4	ND U	ND U	ND U	ND U
Other	PFOSA	754-91-6	ND U	0.0751 L	0.0715 L	0.0735 L
	N-MeFOSAA	2355-31-9	ND U	ND U	ND U	ND U
	N-EtFOSAA	2991-50-6	ND U	ND U	ND U	ND U
	HFPO-DA	13252-13-6	ND U	ND U	ND U	ND U
	PFMOAA	674-13-5	5.12	1.32	ND U	ND U
	PFMOPrA	377-73-1	ND U	ND U	ND U	ND U
	PFO2HxA	39492-88-1	ND U	ND U	ND U	ND U
	PFO3OA	39492-89-2	ND U	ND U	ND U	ND U
	PFO4DA	39492-90-5	ND U	ND U	ND U	ND U
	Nafion Byproduct 1	29311-67-9	ND U	ND U	ND U	ND U
	ADONA	919005-14-4	ND U	ND U	ND U	ND U
	9Cl-PF3ONS	756426-58-1	ND U	ND U	ND U	ND U
	11Cl-PF3OUdS	763051-92-9	ND U	ND U	ND U	ND U
	10:2 FTS	120226-60-0	ND U	ND U	ND U	ND U
	EVE Acid	69087-46-3	ND U	ND U	ND U	ND U
	FBSA	30334-69-1	ND U	ND U	ND U	ND U
	Hydro-EVE Acid	773804-62-9	ND U	ND U	ND U	ND U
	Hydrolyzed PSDA	2416366-19-1	ND U	ND U	ND U	ND U
	Nafion Byproduct 2	749836-20-2	ND U	ND U	ND U	ND U
	N-EtFOSA	4151-50-2	ND U	ND U	ND U	ND U
	N-EtFOSE	1691-99-2	ND U	ND U	ND U	ND U
	NFDHA	151772-58-6	ND U	ND U	ND U	ND U
	N-MeFOSA	31506-32-8	ND U	ND U	ND U	ND U
	N-MeFOSE	24448-09-7	ND U	ND U	ND U	ND U
	NVHOS	1132933-86-8	ND U	ND U	ND U	ND U
	PEPA	267239-61-2	ND U	ND U	ND U	ND U
	PFECA-G	801212-59-9	ND U	ND U	ND U	ND U
	PFEESA	113507-82-7	ND U	ND U	ND U	ND U
	PFHxDA	67905-19-5	0.0565 L	ND U	ND U	ND U
	PFMOBA	863090-89-5	ND U	ND U	ND U	ND U
	PFO5DA	39492-91-6	ND U	ND U	ND U	ND U
	PMPA	13140-29-9	0.526 L	ND U	ND U	ND U
	R-EVE	2416366-22-6	ND U	ND U	ND U	ND U
	R-PSDA	2416366-18-0	ND U	ND U	ND U	ND U
	R-PSDCA	241636-21-5	ND U	ND U	ND U	ND U

Detailed Results

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-001-1	Prep Batch	EU13783	Sample Vol (mL)	286.5
Sample Name	080122-1	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 00:35	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.134	0.558			U
	PFPeA	2706-90-3	ND	ND	ND	0.148	0.558			U
	PFHxA	307-24-4	ND	ND	ND	0.168	0.558			U
	PFHpA	375-85-9	43.23	0.0604	0.0604	0.106	0.558			L
	PFOA	335-67-1	ND	ND	ND	0.154	0.558			U
	PFNA	375-95-1	ND	ND	ND	0.0664	0.558			U
	PFDA	335-76-2	ND	ND	ND	0.0737	0.558			U
	PFUnDA	2058-94-8	ND	ND	ND	0.161	0.558			U
	PFDoDA	307-55-1	ND	ND	ND	0.176	0.558			U
	PFTrDA	72629-94-8	ND	ND	ND	0.132	0.558			U
	PFTeDA	376-06-7	ND	ND	ND	0.190	0.558			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.310	0.652			U
	PFPeS	2706-91-4	ND	ND	ND	0.180	0.526			U
	PFHxS	355-46-4	ND	ND	ND	0.167	0.511			U
	PFHpS	375-92-8	ND	ND	ND	0.118	0.532			U
	PFOS	1763-23-1	ND	ND	ND	0.140	0.517			U
	PFNS	68259-12-1	ND	ND	ND	0.0754	0.538			U
	PFDS	335-77-3	ND	ND	ND	0.168	0.538			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.103	0.523			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.101	0.532			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.149	0.535			U
Other	PFOSA	754-91-6	59.18	0.0826	0.0826	0.113	0.558			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.126	0.558			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0951	0.558			U
	HFPO-DA	13252-13-6	49.54	0.0692	0.0692	0.199	0.558			L
	PFMOAA	674-13-5	1983.25	2.77	2.77	1.26	1.26			
	PFMOPrA	377-73-1	ND	ND	ND	0.209	0.558			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.26	1.26			U
	PFO3OA	39492-89-2	ND	ND	ND	1.26	1.26			U
	PFO4DA	39492-90-5	ND	ND	ND	1.33	1.33			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.265	0.558			U
	ADONA	919005-14-4	ND	ND	ND	0.105	0.529			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.105	0.520			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.105	0.526			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.209	0.558			U
	EVE Acid	69087-46-3	ND	ND	ND	1.26	1.26			U
	FBSA	30334-69-1	ND	ND	ND	0.209	0.558			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.26	1.26			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.26	1.26			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.265	0.558			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.209	0.558			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.28	6.28			U
	NFDHA	151772-58-6	ND	ND	ND	0.209	0.558			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.209	0.558			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.28	6.28			U
	NVHOS	1132933-86-8	ND	ND	ND	1.26	1.26			U
	PEPA	267239-61-2	ND	ND	ND	1.26	1.26			U
	PFECA-G	801212-59-9	ND	ND	ND	0.265	1.26			U
	PFEESA	113507-82-7	ND	ND	ND	0.209	0.558			U
	PFHxDA	67905-19-5	ND	ND	ND	1.26	1.26			U
	PFMOBA	863090-89-5	ND	ND	ND	1.26	1.26			U
	PFO5DA	39492-91-6	ND	ND	ND	1.33	1.33			U
	PMPA	13140-29-9	236.00	0.329	0.329	1.26	1.26			L
	R-EVE	2416366-22-6	ND	ND	ND	1.26	1.26			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.26	1.26			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.26	1.26			U
ES	MPFBA		5050.59	7.05				20-150%	101.0%	
	M5PFPeA		12804.09	17.9				20-150%	256.1%	Q
	M3PFBS		28601.65	39.9				20-150%	572.0%	Q
	M2-4:2 FTS		19684.50	27.5				20-150%	393.7%	Q
	M5PFHxA		4624.66	6.46				20-150%	92.5%	
	M3HFPO-DA		3178.48	4.44				20-150%	63.6%	
	M4PFHpA		5406.29	7.55				20-150%	108.1%	
	M3PFHxS		6614.64	9.24				20-150%	132.3%	
	M2-6:2 FTS		6901.29	9.64				20-150%	138.0%	
	M8PFOA		5234.90	7.31				20-150%	104.7%	
	M9PFNA		4608.05	6.43				20-150%	92.2%	
	M8PFOS		4969.46	6.94				20-150%	99.4%	
	M2-8:2 FTS		5525.04	7.71				20-150%	110.5%	
	M8FOSA-I		3735.11	5.21				20-150%	74.7%	
	M6PFDA		5005.25	6.99				20-150%	100.1%	
	d3-N-MeFOSAA		4364.99	6.09				20-150%	87.3%	
	d5-N-EtFOSAA		3821.53	5.34				20-150%	76.4%	
	M7PFUdA		4233.50	5.91				20-150%	84.7%	
	MPFDoA		2849.92	3.98				20-150%	57.0%	
	M2PFTeDA		1232.17	1.72				20-150%	24.6%	
	d3-N-MeFOSA		1231.80	1.72				10-200%	12.3%	
	d5-N-EtFOSA		886.82	1.24				10-200%	8.9%	Q
	d7-N-MeFOSE		3540.38	4.94				10-200%	35.4%	
	d9-N-EtFOSE		2741.11	3.83				10-200%	27.4%	
	M2PFHxDA		1002.36	1.40				10-200%	20.0%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-002-1	Prep Batch	EU13783	Sample Vol (mL)	289.21
Sample Name	080122-2	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 00:58	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.132	0.553			U
	PFPeA	2706-90-3	ND	ND	ND	0.147	0.553			U
	PFHxA	307-24-4	ND	ND	ND	0.167	0.553			U
	PFHpA	375-85-9	ND	ND	ND	0.105	0.553			U
	PFOA	335-67-1	ND	ND	ND	0.153	0.553			U
	PFNA	375-95-1	ND	ND	ND	0.0658	0.553			U
	PFDA	335-76-2	ND	ND	ND	0.0730	0.553			U
	PFUnDA	2058-94-8	ND	ND	ND	0.160	0.553			U
	PFDoDA	307-55-1	ND	ND	ND	0.175	0.553			U
	PFTrDA	72629-94-8	ND	ND	ND	0.131	0.553			U
	PFTeDA	376-06-7	ND	ND	ND	0.188	0.553			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.307	0.646			U
	PFPeS	2706-91-4	ND	ND	ND	0.178	0.521			U
	PFHxS	355-46-4	ND	ND	ND	0.165	0.507			U
	PFHpS	375-92-8	ND	ND	ND	0.117	0.527			U
	PFOS	1763-23-1	ND	ND	ND	0.138	0.512			U
	PFNS	68259-12-1	ND	ND	ND	0.0747	0.533			U
	PFDS	335-77-3	ND	ND	ND	0.166	0.533			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.102	0.518			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.100	0.527			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.148	0.530			U
Other	PFOSA	754-91-6	ND	ND	ND	0.112	0.553			U
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.124	0.553			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0942	0.553			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.197	0.553			U
	PFMOAA	674-13-5	ND	ND	ND	1.24	1.24			U
	PFMOPrA	377-73-1	ND	ND	ND	0.207	0.553			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.24	1.24			U
	PFO3OA	39492-89-2	ND	ND	ND	1.24	1.24			U
	PFO4DA	39492-90-5	ND	ND	ND	1.31	1.31			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.263	0.553			U
	ADONA	919005-14-4	ND	ND	ND	0.104	0.524			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.104	0.515			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.104	0.521			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.207	0.553			U
	EVE Acid	69087-46-3	ND	ND	ND	1.24	1.24			U
	FBSA	30334-69-1	ND	ND	ND	0.207	0.553			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.24	1.24			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.24	1.24			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.263	0.553			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.207	0.553			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.22	6.22			U
	NFDHA	151772-58-6	ND	ND	ND	0.207	0.553			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.207	0.553			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.22	6.22			U
	NVHOS	1132933-86-8	ND	ND	ND	1.24	1.24			U
	PEPA	267239-61-2	ND	ND	ND	1.24	1.24			U
	PFECA-G	801212-59-9	ND	ND	ND	0.263	1.24			U
	PFEESA	113507-82-7	ND	ND	ND	0.207	0.553			U
	PFHxDA	67905-19-5	43.17	0.0597	0.0597	1.24	1.24			L
	PFMOBA	863090-89-5	ND	ND	ND	1.24	1.24			U
	PFO5DA	39492-91-6	ND	ND	ND	1.31	1.31			U
	PMPA	13140-29-9	ND	ND	ND	1.24	1.24			U
	R-EVE	2416366-22-6	ND	ND	ND	1.24	1.24			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.24	1.24			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.24	1.24			U
ES	MPFBA		5101.34	7.06				20-150%	102.0%	
	M5PFPeA		11018.04	15.2				20-150%	220.4%	Q
	M3PFBS		23194.25	32.1				20-150%	463.9%	Q
	M2-4:2 FTS		20491.81	28.3				20-150%	409.8%	Q
	M5PFHxA		4775.51	6.60				20-150%	95.5%	
	M3HFPO-DA		3427.81	4.74				20-150%	68.6%	
	M4PFHpA		5513.49	7.63				20-150%	110.3%	
	M3PFHxS		6880.48	9.52				20-150%	137.6%	
	M2-6:2 FTS		7545.14	10.4				20-150%	150.9%	Q
	M8PFOA		5452.45	7.54				20-150%	109.0%	
	M9PFNA		4588.71	6.35				20-150%	91.8%	
	M8PFOS		5329.47	7.37				20-150%	106.6%	
	M2-8:2 FTS		5855.36	8.10				20-150%	117.1%	
	M8FOSA-I		4334.91	6.00				20-150%	86.7%	
	M6PFDA		5375.29	7.43				20-150%	107.5%	
	d3-N-MeFOSAA		4688.24	6.48				20-150%	93.8%	
	d5-N-EtFOSAA		4186.78	5.79				20-150%	83.7%	
	M7PFUdA		4482.35	6.20				20-150%	89.6%	
	MPFDoA		3007.46	4.16				20-150%	60.1%	
	M2PFTeDA		1295.05	1.79				20-150%	25.9%	
	d3-N-MeFOSA		2338.84	3.23				10-200%	23.4%	
	d5-N-EtFOSA		1740.86	2.41				10-200%	17.4%	
	d7-N-MeFOSE		3919.66	5.42				10-200%	39.2%	
	d9-N-EtFOSE		2990.52	4.14				10-200%	29.9%	
	M2PFHxDA		1066.55	1.48				10-200%	21.3%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-003-1	Prep Batch	EU13783	Sample Vol (mL)	286.4
Sample Name	080122-16	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 01:20	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.134	0.559			U
	PFPeA	2706-90-3	ND	ND	ND	0.148	0.559			U
	PFHxA	307-24-4	ND	ND	ND	0.168	0.559			U
	PFHpA	375-85-9	ND	ND	ND	0.106	0.559			U
	PFOA	335-67-1	ND	ND	ND	0.155	0.559			U
	PFNA	375-95-1	ND	ND	ND	0.0664	0.559			U
	PFDA	335-76-2	ND	ND	ND	0.0738	0.559			U
	PFUnDA	2058-94-8	ND	ND	ND	0.161	0.559			U
	PFDoDA	307-55-1	ND	ND	ND	0.176	0.559			U
	PFTrDA	72629-94-8	ND	ND	ND	0.132	0.559			U
	PFTeDA	376-06-7	ND	ND	ND	0.190	0.559			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.310	0.652			U
	PFPeS	2706-91-4	ND	ND	ND	0.180	0.526			U
	PFHxS	355-46-4	ND	ND	ND	0.167	0.512			U
	PFHpS	375-92-8	ND	ND	ND	0.118	0.532			U
	PFOS	1763-23-1	ND	ND	ND	0.140	0.517			U
	PFNS	68259-12-1	ND	ND	ND	0.0754	0.538			U
	PFDS	335-77-3	ND	ND	ND	0.168	0.538			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.103	0.523			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.101	0.532			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.149	0.535			U
Other	PFOSA	754-91-6	49.11	0.0686	0.0686	0.113	0.559			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.126	0.559			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0952	0.559			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.199	0.559			U
	PFMOAA	674-13-5	ND	ND	ND	1.26	1.26			U
	PFMOPrA	377-73-1	ND	ND	ND	0.209	0.559			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.26	1.26			U
	PFO3OA	39492-89-2	ND	ND	ND	1.26	1.26			U
	PFO4DA	39492-90-5	ND	ND	ND	1.33	1.33			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.265	0.559			U
	ADONA	919005-14-4	ND	ND	ND	0.105	0.529			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.105	0.520			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.105	0.526			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.209	0.559			U
	EVE Acid	69087-46-3	ND	ND	ND	1.26	1.26			U
	FBSA	30334-69-1	ND	ND	ND	0.209	0.559			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.26	1.26			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.26	1.26			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.265	0.559			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.209	0.559			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.28	6.28			U
	NFDHA	151772-58-6	ND	ND	ND	0.209	0.559			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.209	0.559			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.28	6.28			U
	NVHOS	1132933-86-8	ND	ND	ND	1.26	1.26			U
	PEPA	267239-61-2	ND	ND	ND	1.26	1.26			U
	PFECA-G	801212-59-9	ND	ND	ND	0.265	1.26			U
	PFEESA	113507-82-7	ND	ND	ND	0.209	0.559			U
	PFHxDA	67905-19-5	ND	ND	ND	1.26	1.26			U
	PFMOBA	863090-89-5	ND	ND	ND	1.26	1.26			U
	PFO5DA	39492-91-6	ND	ND	ND	1.33	1.33			U
	PMPA	13140-29-9	218.26	0.305	0.305	1.26	1.26			L
	R-EVE	2416366-22-6	ND	ND	ND	1.26	1.26			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.26	1.26			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.26	1.26			U
ES	MPFBA		5184.88	7.24				20-150%	103.7%	
	M5PFPeA		13568.70	19.0				20-150%	271.4%	Q
	M3PFBS		34012.59	47.5				20-150%	680.3%	Q
	M2-4:2 FTS		18755.12	26.2				20-150%	375.1%	Q
	M5PFHxA		4205.56	5.87				20-150%	84.1%	
	M3HFPO-DA		2921.90	4.08				20-150%	58.4%	
	M4PFHpA		5228.79	7.30				20-150%	104.6%	
	M3PFHxS		6327.60	8.84				20-150%	126.6%	
	M2-6:2 FTS		6951.42	9.71				20-150%	139.0%	
	M8PFOA		5064.39	7.07				20-150%	101.3%	
	M9PFNA		4292.78	6.00				20-150%	85.9%	
	M8PFOS		4761.83	6.65				20-150%	95.2%	
	M2-8:2 FTS		5146.38	7.19				20-150%	102.9%	
	M8FOSA-I		3057.01	4.27				20-150%	61.1%	
	M6PFDA		5069.58	7.08				20-150%	101.4%	
	d3-N-MeFOSAA		3945.83	5.51				20-150%	78.9%	
	d5-N-EtFOSAA		3593.11	5.02				20-150%	71.9%	
	M7PFUdA		4014.08	5.61				20-150%	80.3%	
	MPFDoA		2608.85	3.64				20-150%	52.2%	
	M2PFTeDA		892.46	1.25				20-150%	17.8%	Q
	d3-N-MeFOSA		173.81	0.243				10-200%	1.7%	Q
	d5-N-EtFOSA		97.68	0.136				10-200%	1.0%	Q
	d7-N-MeFOSE		2576.53	3.60				10-200%	25.8%	
	d9-N-EtFOSE		1715.87	2.40				10-200%	17.2%	
	M2PFHxDA		348.89	0.487				10-200%	7.0%	Q

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-004-1	Prep Batch	EU13783	Sample Vol (mL)	288.49
Sample Name	080122-17	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 01:43	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.133	0.555			U
	PFPeA	2706-90-3	ND	ND	ND	0.147	0.555			U
	PFHxA	307-24-4	ND	ND	ND	0.167	0.555			U
	PFHpA	375-85-9	ND	ND	ND	0.106	0.555			U
	PFOA	335-67-1	ND	ND	ND	0.153	0.555			U
	PFNA	375-95-1	ND	ND	ND	0.0659	0.555			U
	PFDA	335-76-2	ND	ND	ND	0.0732	0.555			U
	PFUnDA	2058-94-8	ND	ND	ND	0.160	0.555			U
	PFDoDA	307-55-1	ND	ND	ND	0.175	0.555			U
	PFTrDA	72629-94-8	66.07	0.0916	0.0916	0.131	0.555			LB
	PFTeDA	376-06-7	ND	ND	ND	0.189	0.555			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.308	0.648			U
	PFPeS	2706-91-4	ND	ND	ND	0.179	0.523			U
	PFHxS	355-46-4	ND	ND	ND	0.166	0.508			U
	PFHpS	375-92-8	ND	ND	ND	0.117	0.528			U
	PFOS	1763-23-1	ND	ND	ND	0.139	0.514			U
	PFNS	68259-12-1	ND	ND	ND	0.0749	0.534			U
	PFDS	335-77-3	ND	ND	ND	0.166	0.534			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.102	0.520			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.101	0.528			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.148	0.531			U
Other	PFOSA	754-91-6	57.15	0.0792	0.0792	0.113	0.555			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.125	0.555			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0945	0.555			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.198	0.555			U
	PFMOAA	674-13-5	ND	ND	ND	1.25	1.25			U
	PFMOPrA	377-73-1	ND	ND	ND	0.208	0.555			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.25	1.25			U
	PFO3OA	39492-89-2	ND	ND	ND	1.25	1.25			U
	PFO4DA	39492-90-5	ND	ND	ND	1.32	1.32			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.263	0.555			U
	ADONA	919005-14-4	ND	ND	ND	0.104	0.525			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.104	0.517			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.104	0.523			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.208	0.555			U
	EVE Acid	69087-46-3	ND	ND	ND	1.25	1.25			U
	FBSA	30334-69-1	ND	ND	ND	0.208	0.555			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.25	1.25			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.25	1.25			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.263	0.555			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.208	0.555			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.24	6.24			U
	NFDHA	151772-58-6	ND	ND	ND	0.208	0.555			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.208	0.555			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.24	6.24			U
	NVHOS	1132933-86-8	ND	ND	ND	1.25	1.25			U
	PEPA	267239-61-2	ND	ND	ND	1.25	1.25			U
	PFECA-G	801212-59-9	ND	ND	ND	0.263	1.25			U
	PFEESA	113507-82-7	ND	ND	ND	0.208	0.555			U
	PFHxDA	67905-19-5	34.87	0.0484	0.0484	1.25	1.25			L
	PFMOBA	863090-89-5	ND	ND	ND	1.25	1.25			U
	PFO5DA	39492-91-6	ND	ND	ND	1.32	1.32			U
	PMPA	13140-29-9	ND	ND	ND	1.25	1.25			U
	R-EVE	2416366-22-6	ND	ND	ND	1.25	1.25			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.25	1.25			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.25	1.25			U
ES	MPFBA		4858.48	6.74				20-150%	97.2%	
	M5PFPeA		10209.66	14.2				20-150%	204.2%	Q
	M3PFBS		21573.77	29.9				20-150%	431.5%	Q
	M2-4:2 FTS		20351.21	28.2				20-150%	407.0%	Q
	M5PFHxA		4523.72	6.27				20-150%	90.5%	
	M3HFPO-DA		2963.32	4.11				20-150%	59.3%	
	M4PFHpA		5403.32	7.49				20-150%	108.1%	
	M3PFHxS		6370.93	8.83				20-150%	127.4%	
	M2-6:2 FTS		7452.57	10.3				20-150%	149.1%	
	M8PFOA		5230.47	7.25				20-150%	104.6%	
	M9PFNA		4529.69	6.28				20-150%	90.6%	
	M8PFOS		4985.64	6.91				20-150%	99.7%	
	M2-8:2 FTS		5262.04	7.30				20-150%	105.2%	
	M8FOSA-I		3721.62	5.16				20-150%	74.4%	
	M6PFDA		5020.71	6.96				20-150%	100.4%	
	d3-N-MeFOSAA		4140.43	5.74				20-150%	82.8%	
	d5-N-EtFOSAA		3701.48	5.13				20-150%	74.0%	
	M7PFUdA		4023.84	5.58				20-150%	80.5%	
	MPFDoA		2657.21	3.68				20-150%	53.1%	
	M2PFTeDA		903.86	1.25				20-150%	18.1%	Q
	d3-N-MeFOSA		1639.83	2.27				10-200%	16.4%	
	d5-N-EtFOSA		1017.90	1.41				10-200%	10.2%	
	d7-N-MeFOSE		2959.43	4.10				10-200%	29.6%	
	d9-N-EtFOSE		2138.82	2.97				10-200%	21.4%	
	M2PFHxDA		825.34	1.14				10-200%	16.5%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-005-1	Prep Batch	EU13783	Sample Vol (mL)	282
Sample Name	080122-18	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 02:06	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.136	0.567			U
	PFPeA	2706-90-3	ND	ND	ND	0.151	0.567			U
	PFHxA	307-24-4	ND	ND	ND	0.171	0.567			U
	PFHpA	375-85-9	ND	ND	ND	0.108	0.567			U
	PFOA	335-67-1	ND	ND	ND	0.157	0.567			U
	PFNA	375-95-1	ND	ND	ND	0.0675	0.567			U
	PFDA	335-76-2	ND	ND	ND	0.0749	0.567			U
	PFUnDA	2058-94-8	ND	ND	ND	0.164	0.567			U
	PFDoDA	307-55-1	ND	ND	ND	0.179	0.567			U
	PFTrDA	72629-94-8	ND	ND	ND	0.134	0.567			U
	PFTeDA	376-06-7	ND	ND	ND	0.193	0.567			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.315	0.663			U
	PFPeS	2706-91-4	ND	ND	ND	0.183	0.535			U
	PFHxS	355-46-4	ND	ND	ND	0.169	0.520			U
	PFHpS	375-92-8	ND	ND	ND	0.120	0.541			U
	PFOS	1763-23-1	ND	ND	ND	0.142	0.526			U
	PFNS	68259-12-1	ND	ND	ND	0.0766	0.546			U
	PFDS	335-77-3	ND	ND	ND	0.170	0.546			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.105	0.532			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.103	0.541			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.152	0.543			U
Other	PFOSA	754-91-6	61.44	0.0872	0.0872	0.115	0.567			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.128	0.567			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0966	0.567			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.202	0.567			U
	PFMOAA	674-13-5	ND	ND	ND	1.28	1.28			U
	PFMOPrA	377-73-1	ND	ND	ND	0.213	0.567			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.28	1.28			U
	PFO3OA	39492-89-2	ND	ND	ND	1.28	1.28			U
	PFO4DA	39492-90-5	ND	ND	ND	1.35	1.35			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.270	0.567			U
	ADONA	919005-14-4	ND	ND	ND	0.106	0.538			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.106	0.529			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.106	0.535			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.213	0.567			U
	EVE Acid	69087-46-3	ND	ND	ND	1.28	1.28			U
	FBSA	30334-69-1	ND	ND	ND	0.213	0.567			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.28	1.28			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.28	1.28			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.270	0.567			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.213	0.567			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.38	6.38			U
	NFDHA	151772-58-6	ND	ND	ND	0.213	0.567			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.213	0.567			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.38	6.38			U
	NVHOS	1132933-86-8	ND	ND	ND	1.28	1.28			U
	PEPA	267239-61-2	ND	ND	ND	1.28	1.28			U
	PFECA-G	801212-59-9	ND	ND	ND	0.270	1.28			U
	PFEESA	113507-82-7	ND	ND	ND	0.213	0.567			U
	PFHxDA	67905-19-5	63.42	0.0900	0.0900	1.28	1.28			L
	PFMOBA	863090-89-5	ND	ND	ND	1.28	1.28			U
	PFO5DA	39492-91-6	ND	ND	ND	1.35	1.35			U
	PMPA	13140-29-9	ND	ND	ND	1.28	1.28			U
	R-EVE	2416366-22-6	ND	ND	ND	1.28	1.28			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.28	1.28			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.28	1.28			U
ES	MPFBA		4637.15	6.58				20-150%	92.7%	
	M5PFPeA		9101.29	12.9				20-150%	182.0%	Q
	M3PFBS		18353.07	26.0				20-150%	367.1%	Q
	M2-4:2 FTS		21533.11	30.5				20-150%	430.7%	Q
	M5PFHxA		4443.33	6.30				20-150%	88.9%	
	M3HFPO-DA		2786.49	3.95				20-150%	55.7%	
	M4PFHpA		5326.36	7.56				20-150%	106.5%	
	M3PFHxS		6502.05	9.22				20-150%	130.0%	
	M2-6:2 FTS		7746.48	11.0				20-150%	154.9%	Q
	M8PFOA		5072.49	7.20				20-150%	101.4%	
	M9PFNA		4329.11	6.14				20-150%	86.6%	
	M8PFOS		4815.03	6.83				20-150%	96.3%	
	M2-8:2 FTS		5452.40	7.73				20-150%	109.0%	
	M8FOSA-I		3862.90	5.48				20-150%	77.3%	
	M6PFDA		5086.53	7.21				20-150%	101.7%	
	d3-N-MeFOSAA		4308.23	6.11				20-150%	86.2%	
	d5-N-EtFOSAA		3747.88	5.32				20-150%	75.0%	
	M7PFUdA		4086.55	5.80				20-150%	81.7%	
	MPFDoA		2671.38	3.79				20-150%	53.4%	
	M2PFTeDA		995.04	1.41				20-150%	19.9%	Q
	d3-N-MeFOSA		1657.79	2.35				10-200%	16.6%	
	d5-N-EtFOSA		1034.75	1.47				10-200%	10.3%	
	d7-N-MeFOSE		3051.42	4.33				10-200%	30.5%	
	d9-N-EtFOSE		2098.22	2.98				10-200%	21.0%	
	M2PFHxDA		1490.53	2.11				10-200%	29.8%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-006-1	Prep Batch	EU13783	Sample Vol (mL)	286.85
Sample Name	080122-19	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 02:29	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.133	0.558			U
	PFPeA	2706-90-3	ND	ND	ND	0.148	0.558			U
	PFHxA	307-24-4	ND	ND	ND	0.168	0.558			U
	PFHpA	375-85-9	ND	ND	ND	0.106	0.558			U
	PFOA	335-67-1	ND	ND	ND	0.154	0.558			U
	PFNA	375-95-1	ND	ND	ND	0.0663	0.558			U
	PFDA	335-76-2	13.21	0.0184	0.0184	0.0736	0.558			L
	PFUnDA	2058-94-8	ND	ND	ND	0.161	0.558			U
	PFDoDA	307-55-1	ND	ND	ND	0.176	0.558			U
	PFTrDA	72629-94-8	ND	ND	ND	0.132	0.558			U
	PFTeDA	376-06-7	ND	ND	ND	0.190	0.558			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.309	0.651			U
	PFPeS	2706-91-4	ND	ND	ND	0.180	0.525			U
	PFHxS	355-46-4	ND	ND	ND	0.166	0.511			U
	PFHpS	375-92-8	ND	ND	ND	0.118	0.531			U
	PFOS	1763-23-1	ND	ND	ND	0.139	0.517			U
	PFNS	68259-12-1	ND	ND	ND	0.0753	0.537			U
	PFDS	335-77-3	ND	ND	ND	0.167	0.537			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.103	0.523			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.101	0.531			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.149	0.534			U
Other	PFOSA	754-91-6	48.62	0.0678	0.0678	0.113	0.558			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.126	0.558			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0950	0.558			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.199	0.558			U
	PFMOAA	674-13-5	ND	ND	ND	1.26	1.26			U
	PFMOPrA	377-73-1	ND	ND	ND	0.209	0.558			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.26	1.26			U
	PFO3OA	39492-89-2	ND	ND	ND	1.26	1.26			U
	PFO4DA	39492-90-5	ND	ND	ND	1.32	1.32			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.265	0.558			U
	ADONA	919005-14-4	ND	ND	ND	0.105	0.528			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.105	0.520			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.105	0.525			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.209	0.558			U
	EVE Acid	69087-46-3	ND	ND	ND	1.26	1.26			U
	FBSA	30334-69-1	ND	ND	ND	0.209	0.558			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.26	1.26			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.26	1.26			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.265	0.558			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.209	0.558			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.28	6.28			U
	NFDHA	151772-58-6	ND	ND	ND	0.209	0.558			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.209	0.558			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.28	6.28			U
	NVHOS	1132933-86-8	ND	ND	ND	1.26	1.26			U
	PEPA	267239-61-2	ND	ND	ND	1.26	1.26			U
	PFECA-G	801212-59-9	ND	ND	ND	0.265	1.26			U
	PFEESA	113507-82-7	ND	ND	ND	0.209	0.558			U
	PFHxDA	67905-19-5	27.13	0.0378	0.0378	1.26	1.26			L
	PFMOBA	863090-89-5	ND	ND	ND	1.26	1.26			U
	PFO5DA	39492-91-6	ND	ND	ND	1.32	1.32			U
	PMPA	13140-29-9	ND	ND	ND	1.26	1.26			U
	R-EVE	2416366-22-6	ND	ND	ND	1.26	1.26			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.26	1.26			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.26	1.26			U
ES	MPFBA		4911.51	6.85				20-150%	98.2%	
	M5PFPeA		10403.30	14.5				20-150%	208.1%	Q
	M3PFBS		23522.11	32.8				20-150%	470.4%	Q
	M2-4:2 FTS		21513.60	30.0				20-150%	430.3%	Q
	M5PFHxA		4146.07	5.78				20-150%	82.9%	
	M3HFPO-DA		2896.28	4.04				20-150%	57.9%	
	M4PFHpA		5190.61	7.24				20-150%	103.8%	
	M3PFHxS		6669.91	9.30				20-150%	133.4%	
	M2-6:2 FTS		8306.91	11.6				20-150%	166.1%	Q
	M8PFOA		5247.64	7.32				20-150%	105.0%	
	M9PFNA		4417.72	6.16				20-150%	88.4%	
	M8PFOS		5203.95	7.26				20-150%	104.1%	
	M2-8:2 FTS		5764.61	8.04				20-150%	115.3%	
	M8FOSA-I		4049.83	5.65				20-150%	81.0%	
	M6PFDA		5307.05	7.40				20-150%	106.1%	
	d3-N-MeFOSAA		4594.24	6.41				20-150%	91.9%	
	d5-N-EtFOSAA		4074.26	5.68				20-150%	81.5%	
	M7PFUdA		4337.21	6.05				20-150%	86.7%	
	MPFDoA		2738.00	3.82				20-150%	54.8%	
	M2PFTeDA		1073.33	1.50				20-150%	21.5%	
	d3-N-MeFOSA		2076.56	2.90				10-200%	20.8%	
	d5-N-EtFOSA		1384.80	1.93				10-200%	13.8%	
	d7-N-MeFOSE		3551.90	4.95				10-200%	35.5%	
	d9-N-EtFOSE		2780.31	3.88				10-200%	27.8%	
	M2PFHxDA		1173.72	1.64				10-200%	23.5%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-007-1	Prep Batch	EU13783	Sample Vol (mL)	283.26
Sample Name	080122-15	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 02:52	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.135	0.565			U
	PFPeA	2706-90-3	ND	ND	ND	0.150	0.565			U
	PFHxA	307-24-4	103.55	0.146	0.146	0.170	0.565			L
	PFHpA	375-85-9	26.31	0.0372	0.0372	0.108	0.565			L
	PFOA	335-67-1	ND	ND	ND	0.156	0.565			U
	PFNA	375-95-1	ND	ND	ND	0.0672	0.565			U
	PFDA	335-76-2	ND	ND	ND	0.0746	0.565			U
	PFUnDA	2058-94-8	ND	ND	ND	0.163	0.565			U
	PFDoDA	307-55-1	ND	ND	ND	0.178	0.565			U
	PFTrDA	72629-94-8	ND	ND	ND	0.133	0.565			U
	PFTeDA	376-06-7	ND	ND	ND	0.192	0.565			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.313	0.660			U
	PFPeS	2706-91-4	ND	ND	ND	0.182	0.532			U
	PFHxS	355-46-4	ND	ND	ND	0.169	0.517			U
	PFHpS	375-92-8	ND	ND	ND	0.119	0.538			U
	PFOS	1763-23-1	ND	ND	ND	0.141	0.523			U
	PFNS	68259-12-1	ND	ND	ND	0.0763	0.544			U
	PFDS	335-77-3	ND	ND	ND	0.169	0.544			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.104	0.529			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.102	0.538			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.151	0.541			U
Other	PFOSA	754-91-6	48.83	0.0690	0.0690	0.115	0.565			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.127	0.565			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0962	0.565			U
	HFPO-DA	13252-13-6	13.94	0.0197	0.0197	0.201	0.565			L
	PFMOAA	674-13-5	ND	ND	ND	1.27	1.27			U
	PFMOPrA	377-73-1	ND	ND	ND	0.212	0.565			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.27	1.27			U
	PFO3OA	39492-89-2	ND	ND	ND	1.27	1.27			U
	PFO4DA	39492-90-5	ND	ND	ND	1.34	1.34			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.268	0.565			U
	ADONA	919005-14-4	ND	ND	ND	0.106	0.535			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.106	0.526			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.106	0.532			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.212	0.565			U
	EVE Acid	69087-46-3	ND	ND	ND	1.27	1.27			U
	FBSA	30334-69-1	ND	ND	ND	0.212	0.565			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.27	1.27			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.27	1.27			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.268	0.565			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.212	0.565			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.35	6.35			U
	NFDHA	151772-58-6	ND	ND	ND	0.212	0.565			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.212	0.565			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.35	6.35			U
	NVHOS	1132933-86-8	ND	ND	ND	1.27	1.27			U
	PEPA	267239-61-2	ND	ND	ND	1.27	1.27			U
	PFECA-G	801212-59-9	ND	ND	ND	0.268	1.27			U
	PFEESA	113507-82-7	ND	ND	ND	0.212	0.565			U
	PFHxDA	67905-19-5	20.07	0.0283	0.0283	1.27	1.27			L
	PFMOBA	863090-89-5	ND	ND	ND	1.27	1.27			U
	PFO5DA	39492-91-6	ND	ND	ND	1.34	1.34			U
	PMPA	13140-29-9	294.57	0.416	0.416	1.27	1.27			L
	R-EVE	2416366-22-6	ND	ND	ND	1.27	1.27			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.27	1.27			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.27	1.27			U
ES	MPFBA		4364.84	6.16				20-150%	87.3%	
	M5PFPeA		12404.78	17.5				20-150%	248.1%	Q
	M3PFBS		28325.02	40.0				20-150%	566.5%	Q
	M2-4:2 FTS		19410.83	27.4				20-150%	388.2%	Q
	M5PFHxA		4106.92	5.80				20-150%	82.1%	
	M3HFPO-DA		3051.70	4.31				20-150%	61.0%	
	M4PFHpA		4998.98	7.06				20-150%	100.0%	
	M3PFHxS		6583.76	9.30				20-150%	131.7%	
	M2-6:2 FTS		7352.79	10.4				20-150%	147.1%	
	M8PFOA		5299.67	7.48				20-150%	106.0%	
	M9PFNA		4215.12	5.95				20-150%	84.3%	
	M8PFOS		5290.82	7.47				20-150%	105.8%	
	M2-8:2 FTS		5655.32	7.99				20-150%	113.1%	
	M8FOSA-I		4045.18	5.71				20-150%	80.9%	
	M6PFDA		4823.80	6.81				20-150%	96.5%	
	d3-N-MeFOSAA		4463.93	6.30				20-150%	89.3%	
	d5-N-EtFOSAA		4137.89	5.84				20-150%	82.8%	
	M7PFUdA		4164.82	5.88				20-150%	83.3%	
	MPFDoA		2859.98	4.04				20-150%	57.2%	
	M2PFTeDA		1147.57	1.62				20-150%	23.0%	
	d3-N-MeFOSA		1894.33	2.68				10-200%	18.9%	
	d5-N-EtFOSA		1362.46	1.92				10-200%	13.6%	
	d7-N-MeFOSE		4021.72	5.68				10-200%	40.2%	
	d9-N-EtFOSE		3182.33	4.49				10-200%	31.8%	
	M2PFHxDA		749.93	1.06				10-200%	15.0%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-008-1	Prep Batch	EU13783	Sample Vol (mL)	293.49
Sample Name	080122-8	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 03:15	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	PFBA	375-22-4	ND	ND	ND	0.130	0.545			U
	PFPeA	2706-90-3	ND	ND	ND	0.145	0.545			U
	PFHxA	307-24-4	ND	ND	ND	0.164	0.545			U
	PFHpA	375-85-9	27.06	0.0369	0.0369	0.104	0.545			L
	PFOA	335-67-1	63.28	0.0862	0.0862	0.151	0.545			LB
Acids	PFNA	375-95-1	ND	ND	ND	0.0648	0.545			U
	PFDA	335-76-2	ND	ND	ND	0.0720	0.545			U
	PFUnDA	2058-94-8	ND	ND	ND	0.158	0.545			U
	PFDoDA	307-55-1	ND	ND	ND	0.172	0.545			U
	PFTrDA	72629-94-8	ND	ND	ND	0.129	0.545			U
	PFTeDA	376-06-7	ND	ND	ND	0.186	0.545			U
	PFBS	375-73-5	ND	ND	ND	0.302	0.637			U
	PFPeS	2706-91-4	ND	ND	ND	0.175	0.514			U
	PFHxS	355-46-4	ND	ND	ND	0.163	0.499			U
	PFHpS	375-92-8	ND	ND	ND	0.115	0.519			U
Sulfonates	PFOS	1763-23-1	ND	ND	ND	0.136	0.505			U
	PFNS	68259-12-1	ND	ND	ND	0.0736	0.525			U
	PFDS	335-77-3	ND	ND	ND	0.164	0.525			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.101	0.511			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.0988	0.519			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.146	0.522			U
	PFOSA	754-91-6	42.66	0.0581	0.0581	0.111	0.545			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.123	0.545			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0929	0.545			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.194	0.545			U
	PFMOAA	674-13-5	ND	ND	ND	1.23	1.23			U
	PFMOPrA	377-73-1	ND	ND	ND	0.204	0.545			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.23	1.23			U
	PFO3OA	39492-89-2	ND	ND	ND	1.23	1.23			U
	PFO4DA	39492-90-5	ND	ND	ND	1.29	1.29			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.259	0.545			U
	ADONA	919005-14-4	ND	ND	ND	0.102	0.516			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.102	0.508			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.102	0.514			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.204	0.545			U
	EVE Acid	69087-46-3	ND	ND	ND	1.23	1.23			U
	FBSA	30334-69-1	ND	ND	ND	0.204	0.545			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.23	1.23			U
Other	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.23	1.23			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.259	0.545			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.204	0.545			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.13	6.13			U
	NFDHA	151772-58-6	ND	ND	ND	0.204	0.545			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.204	0.545			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.13	6.13			U
	NVHOS	1132933-86-8	ND	ND	ND	1.23	1.23			U
	PEPA	267239-61-2	ND	ND	ND	1.23	1.23			U
	PFECA-G	801212-59-9	ND	ND	ND	0.259	1.23			U
	PFEESA	113507-82-7	ND	ND	ND	0.204	0.545			U
	PFHxDA	67905-19-5	ND	ND	ND	1.23	1.23			U
	PFMOBA	863090-89-5	ND	ND	ND	1.23	1.23			U
	PFO5DA	39492-91-6	ND	ND	ND	1.29	1.29			U
	PMPA	13140-29-9	ND	ND	ND	1.23	1.23			U
	R-EVE	2416366-22-6	ND	ND	ND	1.23	1.23			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.23	1.23			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.23	1.23			U
	MPFBA		5099.13	6.95				20-150%	102.0%	
	M5PFPeA		11241.57	15.3				20-150%	224.8%	Q
	M3PFBS		26262.12	35.8				20-150%	525.2%	Q
	M2-4:2 FTS		21831.63	29.8				20-150%	436.6%	Q
	M5PFHxA		4304.06	5.87				20-150%	86.1%	
	M3HFPO-DA		2894.33	3.94				20-150%	57.9%	
	M4PFHpA		5517.26	7.52				20-150%	110.3%	
	M3PFHxS		7433.12	10.1				20-150%	148.7%	
	M2-6:2 FTS		8569.29	11.7				20-150%	171.4%	Q
	M8PFOA		5267.61	7.18				20-150%	105.4%	
	M9PFNA		4494.36	6.13				20-150%	89.9%	
	M8PFOS		5647.95	7.70				20-150%	113.0%	
ES	M2-8:2 FTS		6084.58	8.29				20-150%	121.7%	
	M8FOSA-I		4343.76	5.92				20-150%	86.9%	
	M6PFDA		5371.75	7.32				20-150%	107.4%	
	d3-N-MeFOSAA		4703.61	6.41				20-150%	94.1%	
	d5-N-EtFOSAA		4351.68	5.93				20-150%	87.0%	
	M7PFUdA		4342.13	5.92				20-150%	86.8%	
	MPFDoA		3064.66	4.18				20-150%	61.3%	
	M2PFTeDA		1336.47	1.82				20-150%	26.7%	
	d3-N-MeFOSA		2482.42	3.38				10-200%	24.8%	
	d5-N-EtFOSA		1759.89	2.40				10-200%	17.6%	
	d7-N-MeFOSE		4533.65	6.18				10-200%	45.3%	
	d9-N-EtFOSE		3466.22	4.72				10-200%	34.7%	
	M2PFHxDA		913.22	1.24				10-200%	18.3%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-009-1	Prep Batch	EU13783	Sample Vol (mL)	288.11
Sample Name	080122-12A	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 03:38	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.133	0.555			U
	PFPeA	2706-90-3	ND	ND	ND	0.148	0.555			U
	PFHxA	307-24-4	ND	ND	ND	0.167	0.555			U
	PFHpA	375-85-9	ND	ND	ND	0.106	0.555			U
	PFOA	335-67-1	ND	ND	ND	0.154	0.555			U
	PFNA	375-95-1	ND	ND	ND	0.0660	0.555			U
	PFDA	335-76-2	ND	ND	ND	0.0733	0.555			U
	PFUnDA	2058-94-8	ND	ND	ND	0.161	0.555			U
	PFDoDA	307-55-1	ND	ND	ND	0.175	0.555			U
	PFTrDA	72629-94-8	ND	ND	ND	0.131	0.555			U
	PFTeDA	376-06-7	ND	ND	ND	0.189	0.555			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.308	0.649			U
	PFPeS	2706-91-4	ND	ND	ND	0.179	0.523			U
	PFHxS	355-46-4	ND	ND	ND	0.166	0.509			U
	PFHpS	375-92-8	ND	ND	ND	0.117	0.529			U
	PFOS	1763-23-1	120.44	0.167	0.167	0.139	0.514			J
	PFNS	68259-12-1	ND	ND	ND	0.0750	0.535			U
	PFDS	335-77-3	ND	ND	ND	0.167	0.535			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.102	0.520			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.101	0.529			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.148	0.532			U
Other	PFOSA	754-91-6	45.12	0.0626	0.0626	0.113	0.555			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.125	0.555			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0946	0.555			U
	HFPO-DA	13252-13-6	29.33	0.0407	0.0407	0.198	0.555			L
	PFMOAA	674-13-5	ND	ND	ND	1.25	1.25			U
	PFMOPrA	377-73-1	ND	ND	ND	0.208	0.555			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.25	1.25			U
	PFO3OA	39492-89-2	ND	ND	ND	1.25	1.25			U
	PFO4DA	39492-90-5	ND	ND	ND	1.32	1.32			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.264	0.555			U
	ADONA	919005-14-4	ND	ND	ND	0.104	0.526			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.104	0.517			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.104	0.523			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.208	0.555			U
	EVE Acid	69087-46-3	ND	ND	ND	1.25	1.25			U
	FBSA	30334-69-1	ND	ND	ND	0.208	0.555			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.25	1.25			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.25	1.25			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.264	0.555			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.208	0.555			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.25	6.25			U
	NFDHA	151772-58-6	ND	ND	ND	0.208	0.555			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.208	0.555			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.25	6.25			U
	NVHOS	1132933-86-8	ND	ND	ND	1.25	1.25			U
	PEPA	267239-61-2	ND	ND	ND	1.25	1.25			U
	PFECA-G	801212-59-9	ND	ND	ND	0.264	1.25			U
	PFEESA	113507-82-7	ND	ND	ND	0.208	0.555			U
	PFHxDA	67905-19-5	ND	ND	ND	1.25	1.25			U
	PFMOBA	863090-89-5	ND	ND	ND	1.25	1.25			U
	PFO5DA	39492-91-6	ND	ND	ND	1.32	1.32			U
	PMPA	13140-29-9	115.22	0.160	0.160	1.25	1.25			L
	R-EVE	2416366-22-6	ND	ND	ND	1.25	1.25			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.25	1.25			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.25	1.25			U
ES	MPFBA		5126.01	7.12				20-150%	102.5%	
	M5PFPeA		11455.13	15.9				20-150%	229.1%	Q
	M3PFBS		26132.68	36.3				20-150%	522.7%	Q
	M2-4:2 FTS		19250.00	26.7				20-150%	385.0%	Q
	M5PFHxA		4354.81	6.05				20-150%	87.1%	
	M3HFPO-DA		3036.80	4.22				20-150%	60.7%	
	M4PFHpA		5210.71	7.23				20-150%	104.2%	
	M3PFHxS		6541.43	9.08				20-150%	130.8%	
	M2-6:2 FTS		7152.48	9.93				20-150%	143.0%	
	M8PFOA		5257.55	7.30				20-150%	105.2%	
	M9PFNA		4207.51	5.84				20-150%	84.2%	
	M8PFOS		4912.25	6.82				20-150%	98.2%	
	M2-8:2 FTS		5172.99	7.18				20-150%	103.5%	
	M8FOSA-I		4072.33	5.65				20-150%	81.4%	
	M6PFDA		5058.23	7.02				20-150%	101.2%	
	d3-N-MeFOSAA		4091.80	5.68				20-150%	81.8%	
	d5-N-EtFOSAA		3757.25	5.22				20-150%	75.1%	
	M7PFUdA		4253.32	5.91				20-150%	85.1%	
	MPFDoA		3056.53	4.24				20-150%	61.1%	
	M2PFTeDA		1224.72	1.70				20-150%	24.5%	
	d3-N-MeFOSA		2413.71	3.35				10-200%	24.1%	
	d5-N-EtFOSA		1779.47	2.47				10-200%	17.8%	
	d7-N-MeFOSE		4637.61	6.44				10-200%	46.4%	
	d9-N-EtFOSE		3663.48	5.09				10-200%	36.6%	
	M2PFHxDA		745.70	1.04				10-200%	14.9%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-010-1	Prep Batch	EU13783	Sample Vol (mL)	283.53
Sample Name	0800122-12	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 04:01	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.135	0.564			U
	PFPeA	2706-90-3	ND	ND	ND	0.150	0.564			U
	PFHxA	307-24-4	116.95	0.165	0.165	0.170	0.564			L
	PFHpA	375-85-9	ND	ND	ND	0.108	0.564			U
	PFOA	335-67-1	85.73	0.121	0.121	0.156	0.564			LB
	PFNA	375-95-1	ND	ND	ND	0.0671	0.564			U
	PFDA	335-76-2	ND	ND	ND	0.0745	0.564			U
	PFUnDA	2058-94-8	ND	ND	ND	0.163	0.564			U
	PFDoDA	307-55-1	ND	ND	ND	0.178	0.564			U
	PFTrDA	72629-94-8	ND	ND	ND	0.133	0.564			U
	PFTeDA	376-06-7	ND	ND	ND	0.192	0.564			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.313	0.659			U
	PFPeS	2706-91-4	ND	ND	ND	0.182	0.532			U
	PFHxS	355-46-4	263.08	0.371	0.371	0.168	0.517			JB
	PFHpS	375-92-8	29.21	0.0412	0.0412	0.119	0.538			L
	PFOS	1763-23-1	904.42	1.28	1.28	0.141	0.523			
	PFNS	68259-12-1	ND	ND	ND	0.0762	0.544			U
	PFDS	335-77-3	ND	ND	ND	0.169	0.544			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.104	0.529			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.102	0.538			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.151	0.541			U
Other	PFOSA	754-91-6	49.56	0.0699	0.0699	0.115	0.564			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.127	0.564			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0961	0.564			U
	HFPO-DA	13252-13-6	218.77	0.309	0.309	0.201	0.564			J
	PFMOAA	674-13-5	15689.40	22.1	22.1	1.27	1.27			
	PFMOPrA	377-73-1	ND	ND	ND	0.212	0.564			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.27	1.27			U
	PFO3OA	39492-89-2	ND	ND	ND	1.27	1.27			U
	PFO4DA	39492-90-5	ND	ND	ND	1.34	1.34			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.268	0.564			U
	ADONA	919005-14-4	ND	ND	ND	0.106	0.535			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.106	0.526			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.106	0.532			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.212	0.564			U
	EVE Acid	69087-46-3	ND	ND	ND	1.27	1.27			U
	FBSA	30334-69-1	73.24	0.103	0.103	0.212	0.564			L
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.27	1.27			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.27	1.27			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.268	0.564			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.212	0.564			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.35	6.35			U
	NFDHA	151772-58-6	ND	ND	ND	0.212	0.564			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.212	0.564			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.35	6.35			U
	NVHOS	1132933-86-8	ND	ND	ND	1.27	1.27			U
	PEPA	267239-61-2	ND	ND	ND	1.27	1.27			U
	PFECA-G	801212-59-9	ND	ND	ND	0.268	1.27			U
	PFEESA	113507-82-7	ND	ND	ND	0.212	0.564			U
	PFHxDA	67905-19-5	26.41	0.0373	0.0373	1.27	1.27			L
	PFMOBA	863090-89-5	ND	ND	ND	1.27	1.27			U
	PFO5DA	39492-91-6	ND	ND	ND	1.34	1.34			U
	PMPA	13140-29-9	247.21	0.349	0.349	1.27	1.27			L
	R-EVE	2416366-22-6	ND	ND	ND	1.27	1.27			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.27	1.27			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.27	1.27			U
ES	MPFBA		5093.94	7.19				20-150%	101.9%	
	M5PFPeA		12243.15	17.3				20-150%	244.9%	Q
	M3PFBS		31643.83	44.6				20-150%	632.9%	Q
	M2-4:2 FTS		17869.26	25.2				20-150%	357.4%	Q
	M5PFHxA		4082.77	5.76				20-150%	81.7%	
	M3HFPO-DA		3051.23	4.30				20-150%	61.0%	
	M4PFHpA		5110.29	7.21				20-150%	102.2%	
	M3PFHxS		6617.63	9.34				20-150%	132.4%	
	M2-6:2 FTS		7309.71	10.3				20-150%	146.2%	
	M8PFOA		5288.69	7.46				20-150%	105.8%	
	M9PFNA		4367.48	6.16				20-150%	87.3%	
	M8PFOS		4680.05	6.60				20-150%	93.6%	
	M2-8:2 FTS		4901.20	6.91				20-150%	98.0%	
	M8FOSA-I		3771.31	5.32				20-150%	75.4%	
	M6PFDA		4895.75	6.91				20-150%	97.9%	
	d3-N-MeFOSAA		4058.33	5.73				20-150%	81.2%	
	d5-N-EtFOSAA		3747.46	5.29				20-150%	74.9%	
	M7PFUdA		3969.24	5.60				20-150%	79.4%	
	MPFDoA		2879.19	4.06				20-150%	57.6%	
	M2PFTeDA		982.49	1.39				20-150%	19.6%	Q
	d3-N-MeFOSA		2379.74	3.36				10-200%	23.8%	
	d5-N-EtFOSA		1559.81	2.20				10-200%	15.6%	
	d7-N-MeFOSE		4148.44	5.85				10-200%	41.5%	
	d9-N-EtFOSE		3140.16	4.43				10-200%	31.4%	
	M2PFHxDA		590.52	0.833				10-200%	11.8%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-011-1	Prep Batch	EU13783	Sample Vol (mL)	284.73
Sample Name	080122-11	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 04:47	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	PFBA	375-22-4	ND	ND	ND	0.134	0.562			U
	PFPeA	2706-90-3	ND	ND	ND	0.149	0.562			U
	PFHxA	307-24-4	ND	ND	ND	0.169	0.562			U
	PFHpA	375-85-9	ND	ND	ND	0.107	0.562			U
	PFOA	335-67-1	74.09	0.104	0.104	0.155	0.562			LB
Acids	PFNA	375-95-1	ND	ND	ND	0.0668	0.562			U
	PFDA	335-76-2	ND	ND	ND	0.0742	0.562			U
	PFUnDA	2058-94-8	ND	ND	ND	0.162	0.562			U
	PFDoDA	307-55-1	ND	ND	ND	0.177	0.562			U
	PFTrDA	72629-94-8	ND	ND	ND	0.133	0.562			U
	PFTeDA	376-06-7	ND	ND	ND	0.191	0.562			U
	PFBS	375-73-5	ND	ND	ND	0.312	0.656			U
	PFPeS	2706-91-4	ND	ND	ND	0.181	0.529			U
	PFHxS	355-46-4	114.44	0.161	0.161	0.168	0.515			LB
	PFHpS	375-92-8	ND	ND	ND	0.119	0.535			U
	PFOS	1763-23-1	ND	ND	ND	0.140	0.521			U
Sulfonates	PFNS	68259-12-1	ND	ND	ND	0.0759	0.541			U
	PFDS	335-77-3	ND	ND	ND	0.169	0.541			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.104	0.526			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.102	0.535			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.150	0.538			U
	PFOSA	754-91-6	ND	ND	ND	0.114	0.562			U
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.126	0.562			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0957	0.562			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.200	0.562			U
	PFMOAA	674-13-5	3641.91	5.12	5.12	1.26	1.26			
	PFMOPrA	377-73-1	ND	ND	ND	0.211	0.562			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.26	1.26			U
	PFO3OA	39492-89-2	ND	ND	ND	1.26	1.26			U
	PFO4DA	39492-90-5	ND	ND	ND	1.33	1.33			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.267	0.562			U
	ADONA	919005-14-4	ND	ND	ND	0.105	0.532			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.105	0.523			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.105	0.529			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.211	0.562			U
	EVE Acid	69087-46-3	ND	ND	ND	1.26	1.26			U
	FBSA	30334-69-1	ND	ND	ND	0.211	0.562			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.26	1.26			U
Other	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.26	1.26			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.267	0.562			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.211	0.562			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.32	6.32			U
	NFDHA	151772-58-6	ND	ND	ND	0.211	0.562			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.211	0.562			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.32	6.32			U
	NVHOS	1132933-86-8	ND	ND	ND	1.26	1.26			U
	PEPA	267239-61-2	ND	ND	ND	1.26	1.26			U
	PFECA-G	801212-59-9	ND	ND	ND	0.267	1.26			U
	PFEESA	113507-82-7	ND	ND	ND	0.211	0.562			U
	PFHxDA	67905-19-5	40.25	0.0565	0.0565	1.26	1.26			L
	PFMOBA	863090-89-5	ND	ND	ND	1.26	1.26			U
	PFO5DA	39492-91-6	ND	ND	ND	1.33	1.33			U
	PMPA	13140-29-9	374.68	0.526	0.526	1.26	1.26			L
	R-EVE	2416366-22-6	ND	ND	ND	1.26	1.26			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.26	1.26			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.26	1.26			U
	MPFBA		5674.79	7.97				20-150%	113.5%	
	M5PFPeA		14074.77	19.8				20-150%	281.5%	Q
	M3PFBS		37692.93	53.0				20-150%	753.9%	Q
	M2-4:2 FTS		19831.56	27.9				20-150%	396.6%	Q
	M5PFHxA		4182.22	5.88				20-150%	83.6%	
	M3HFPO-DA		2848.58	4.00				20-150%	57.0%	
	M4PFHpA		5063.47	7.11				20-150%	101.3%	
	M3PFHxS		6249.30	8.78				20-150%	125.0%	
	M2-6:2 FTS		7210.37	10.1				20-150%	144.2%	
	M8PFOA		5173.42	7.27				20-150%	103.5%	
	M9PFNA		4493.15	6.31				20-150%	89.9%	
	M8PFOS		4876.67	6.85				20-150%	97.5%	
ES	M2-8:2 FTS		5418.40	7.61				20-150%	108.4%	
	M8FOSA-I		3976.77	5.59				20-150%	79.5%	
	M6PFDA		5016.82	7.05				20-150%	100.3%	
	d3-N-MeFOSAA		4509.70	6.34				20-150%	90.2%	
	d5-N-EtFOSAA		3733.07	5.24				20-150%	74.7%	
	M7PFUdA		4002.96	5.62				20-150%	80.1%	
	MPFDoA		2628.23	3.69				20-150%	52.6%	
	M2PFTeDA		1173.29	1.65				20-150%	23.5%	
	d3-N-MeFOSA		2580.06	3.62				10-200%	25.8%	
	d5-N-EtFOSA		1803.16	2.53				10-200%	18.0%	
	d7-N-MeFOSE		4245.44	5.96				10-200%	42.5%	
	d9-N-EtFOSE		3204.71	4.50				10-200%	32.0%	
	M2PFHxDA		654.56	0.920				10-200%	13.1%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-012-1	Prep Batch	EU13783	Sample Vol (mL)	290.69
Sample Name	080122-6A	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 05:09	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.132	0.550			U
	PFPeA	2706-90-3	ND	ND	ND	0.146	0.550			U
	PFHxA	307-24-4	ND	ND	ND	0.166	0.550			U
	PFHpA	375-85-9	ND	ND	ND	0.105	0.550			U
	PFOA	335-67-1	48.50	0.0667	0.0667	0.152	0.550			LB
	PFNA	375-95-1	ND	ND	ND	0.0654	0.550			U
	PFDA	335-76-2	ND	ND	ND	0.0727	0.550			U
	PFUnDA	2058-94-8	ND	ND	ND	0.159	0.550			U
	PFDoDA	307-55-1	ND	ND	ND	0.174	0.550			U
	PFTrDA	72629-94-8	ND	ND	ND	0.130	0.550			U
	PFTeDA	376-06-7	ND	ND	ND	0.187	0.550			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.305	0.643			U
	PFPeS	2706-91-4	ND	ND	ND	0.177	0.519			U
	PFHxS	355-46-4	ND	ND	ND	0.164	0.504			U
	PFHpS	375-92-8	ND	ND	ND	0.116	0.524			U
	PFOS	1763-23-1	ND	ND	ND	0.138	0.510			U
	PFNS	68259-12-1	ND	ND	ND	0.0743	0.530			U
	PFDS	335-77-3	ND	ND	ND	0.165	0.530			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.101	0.516			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.0998	0.524			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.147	0.527			U
Other	PFOSA	754-91-6	54.56	0.0751	0.0751	0.112	0.550			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.124	0.550			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0937	0.550			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.196	0.550			U
	PFMOAA	674-13-5	958.20	1.32	1.32	1.24	1.24			
	PFMOPrA	377-73-1	ND	ND	ND	0.206	0.550			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.24	1.24			U
	PFO3OA	39492-89-2	ND	ND	ND	1.24	1.24			U
	PFO4DA	39492-90-5	ND	ND	ND	1.31	1.31			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.261	0.550			U
	ADONA	919005-14-4	ND	ND	ND	0.103	0.521			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.103	0.513			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.103	0.519			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.206	0.550			U
	EVE Acid	69087-46-3	ND	ND	ND	1.24	1.24			U
	FBSA	30334-69-1	ND	ND	ND	0.206	0.550			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.24	1.24			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.24	1.24			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.261	0.550			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.206	0.550			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.19	6.19			U
	NFDHA	151772-58-6	ND	ND	ND	0.206	0.550			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.206	0.550			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.19	6.19			U
	NVHOS	1132933-86-8	ND	ND	ND	1.24	1.24			U
	PEPA	267239-61-2	ND	ND	ND	1.24	1.24			U
	PFECA-G	801212-59-9	ND	ND	ND	0.261	1.24			U
	PFEESA	113507-82-7	ND	ND	ND	0.206	0.550			U
	PFHxDA	67905-19-5	ND	ND	ND	1.24	1.24			U
	PFMOBA	863090-89-5	ND	ND	ND	1.24	1.24			U
	PFO5DA	39492-91-6	ND	ND	ND	1.31	1.31			U
	PMPA	13140-29-9	ND	ND	ND	1.24	1.24			U
	R-EVE	2416366-22-6	ND	ND	ND	1.24	1.24			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.24	1.24			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.24	1.24			U
ES	MPFBA		5042.67	6.94				20-150%	100.9%	
	M5PFPeA		9009.00	12.4				20-150%	180.2%	Q
	M3PFBS		18933.50	26.1				20-150%	378.7%	Q
	M2-4:2 FTS		23108.40	31.8				20-150%	462.2%	Q
	M5PFHxA		4524.41	6.23				20-150%	90.5%	
	M3HFPO-DA		3168.37	4.36				20-150%	63.4%	
	M4PFHpA		5172.81	7.12				20-150%	103.5%	
	M3PFHxS		7390.07	10.2				20-150%	147.8%	
	M2-6:2 FTS		8436.92	11.6				20-150%	168.7%	Q
	M8PFOA		5321.89	7.32				20-150%	106.4%	
	M9PFNA		4270.66	5.88				20-150%	85.4%	
	M8PFOS		5455.73	7.51				20-150%	109.1%	
	M2-8:2 FTS		5923.62	8.15				20-150%	118.5%	
	M8FOSA-I		4376.14	6.02				20-150%	87.5%	
	M6PFDA		5115.41	7.04				20-150%	102.3%	
	d3-N-MeFOSAA		4960.59	6.83				20-150%	99.2%	
	d5-N-EtFOSAA		4555.36	6.27				20-150%	91.1%	
	M7PFUdA		4327.55	5.95				20-150%	86.6%	
	MPFDoA		2826.28	3.89				20-150%	56.5%	
	M2PFTeDA		1050.81	1.45				20-150%	21.0%	
	d3-N-MeFOSA		2385.68	3.28				10-200%	23.9%	
	d5-N-EtFOSA		1600.00	2.20				10-200%	16.0%	
	d7-N-MeFOSE		4167.17	5.73				10-200%	41.7%	
	d9-N-EtFOSE		2980.18	4.10				10-200%	29.8%	
	M2PFHxDA		650.26	0.895				10-200%	13.0%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-013-1	Prep Batch	EU13783	Sample Vol (mL)	285.98
Sample Name	080122-5	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 05:32	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.134	0.559			U
	PFPeA	2706-90-3	ND	ND	ND	0.149	0.559			U
	PFHxA	307-24-4	ND	ND	ND	0.169	0.559			U
	PFHpA	375-85-9	ND	ND	ND	0.107	0.559			U
	PFOA	335-67-1	ND	ND	ND	0.155	0.559			U
	PFNA	375-95-1	ND	ND	ND	0.0665	0.559			U
	PFDA	335-76-2	ND	ND	ND	0.0739	0.559			U
	PFUnDA	2058-94-8	ND	ND	ND	0.162	0.559			U
	PFDoDA	307-55-1	ND	ND	ND	0.177	0.559			U
	PFTrDA	72629-94-8	ND	ND	ND	0.132	0.559			U
	PFTeDA	376-06-7	ND	ND	ND	0.191	0.559			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.310	0.653			U
	PFPeS	2706-91-4	ND	ND	ND	0.180	0.527			U
	PFHxS	355-46-4	ND	ND	ND	0.167	0.512			U
	PFHpS	375-92-8	ND	ND	ND	0.118	0.533			U
	PFOS	1763-23-1	ND	ND	ND	0.140	0.518			U
	PFNS	68259-12-1	ND	ND	ND	0.0755	0.539			U
	PFDS	335-77-3	ND	ND	ND	0.168	0.539			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.103	0.524			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.101	0.533			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.149	0.536			U
Other	PFOSA	754-91-6	51.12	0.0715	0.0715	0.114	0.559			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.126	0.559			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0953	0.559			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.199	0.559			U
	PFMOAA	674-13-5	ND	ND	ND	1.26	1.26			U
	PFMOPrA	377-73-1	ND	ND	ND	0.210	0.559			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.26	1.26			U
	PFO3OA	39492-89-2	ND	ND	ND	1.26	1.26			U
	PFO4DA	39492-90-5	ND	ND	ND	1.33	1.33			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.266	0.559			U
	ADONA	919005-14-4	ND	ND	ND	0.105	0.530			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.105	0.521			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.105	0.527			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.210	0.559			U
	EVE Acid	69087-46-3	ND	ND	ND	1.26	1.26			U
	FBSA	30334-69-1	ND	ND	ND	0.210	0.559			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.26	1.26			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.26	1.26			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.266	0.559			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.210	0.559			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.29	6.29			U
	NFDHA	151772-58-6	ND	ND	ND	0.210	0.559			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.210	0.559			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.29	6.29			U
	NVHOS	1132933-86-8	ND	ND	ND	1.26	1.26			U
	PEPA	267239-61-2	ND	ND	ND	1.26	1.26			U
	PFECA-G	801212-59-9	ND	ND	ND	0.266	1.26			U
	PFEESA	113507-82-7	ND	ND	ND	0.210	0.559			U
	PFHxDA	67905-19-5	ND	ND	ND	1.26	1.26			U
	PFMOBA	863090-89-5	ND	ND	ND	1.26	1.26			U
	PFO5DA	39492-91-6	ND	ND	ND	1.33	1.33			U
	PMPA	13140-29-9	ND	ND	ND	1.26	1.26			U
	R-EVE	2416366-22-6	ND	ND	ND	1.26	1.26			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.26	1.26			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.26	1.26			U
ES	MPFBA		4982.40	6.97				20-150%	99.6%	
	M5PFPeA		10637.59	14.9				20-150%	212.8%	Q
	M3PFBS		21480.63	30.0				20-150%	429.6%	Q
	M2-4:2 FTS		22219.00	31.1				20-150%	444.4%	Q
	M5PFHxA		4609.31	6.45				20-150%	92.2%	
	M3HFPO-DA		2982.21	4.17				20-150%	59.6%	
	M4PFHpA		5255.32	7.35				20-150%	105.1%	
	M3PFHxS		6671.64	9.33				20-150%	133.4%	
	M2-6:2 FTS		7921.35	11.1				20-150%	158.4%	Q
	M8PFOA		5327.99	7.45				20-150%	106.6%	
	M9PFNA		4416.86	6.18				20-150%	88.3%	
	M8PFOS		5063.71	7.08				20-150%	101.3%	
	M2-8:2 FTS		5356.13	7.49				20-150%	107.1%	
	M8FOSA-I		3758.58	5.26				20-150%	75.2%	
	M6PFDA		5168.70	7.23				20-150%	103.4%	
	d3-N-MeFOSAA		4525.63	6.33				20-150%	90.5%	
	d5-N-EtFOSAA		4004.78	5.60				20-150%	80.1%	
	M7PFUdA		4394.07	6.15				20-150%	87.9%	
	MPFDoA		2783.57	3.89				20-150%	55.7%	
	M2PFTeDA		965.42	1.35				20-150%	19.3%	Q
	d3-N-MeFOSA		1773.38	2.48				10-200%	17.7%	
	d5-N-EtFOSA		1188.12	1.66				10-200%	11.9%	
	d7-N-MeFOSE		3224.44	4.51				10-200%	32.2%	
	d9-N-EtFOSE		2185.44	3.06				10-200%	21.9%	
	M2PFHxDA		659.67	0.923				10-200%	13.2%	

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	0822-705-014-1	Prep Batch	EU13783	Sample Vol (mL)	284.38
Sample Name	080122-3	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	Aqueous	Analysis Date	2022-08-05 05:55	Split Factor	N/A
Sampling Date	20220801 00:00	Analyst	wicleve	Method Code	WM-026
Received Date	2022-08-01 14:50	Instrument	Sauron	Sample Type	Sample

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	ND	ND	ND	0.135	0.563			U
	PFPeA	2706-90-3	ND	ND	ND	0.149	0.563			U
	PFHxA	307-24-4	ND	ND	ND	0.170	0.563			U
	PFHpA	375-85-9	ND	ND	ND	0.107	0.563			U
	PFOA	335-67-1	ND	ND	ND	0.156	0.563			U
	PFNA	375-95-1	ND	ND	ND	0.0669	0.563			U
	PFDA	335-76-2	ND	ND	ND	0.0743	0.563			U
	PFUnDA	2058-94-8	ND	ND	ND	0.163	0.563			U
	PFDoDA	307-55-1	ND	ND	ND	0.178	0.563			U
	PFTrDA	72629-94-8	ND	ND	ND	0.133	0.563			U
	PFTeDA	376-06-7	ND	ND	ND	0.192	0.563			U
Sulfonates	PFBS	375-73-5	ND	ND	ND	0.312	0.657			U
	PFPeS	2706-91-4	ND	ND	ND	0.181	0.530			U
	PFHxS	355-46-4	ND	ND	ND	0.168	0.515			U
	PFHpS	375-92-8	ND	ND	ND	0.119	0.536			U
	PFOS	1763-23-1	ND	ND	ND	0.141	0.521			U
	PFNS	68259-12-1	ND	ND	ND	0.0760	0.542			U
	PFDS	335-77-3	ND	ND	ND	0.169	0.542			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.104	0.527			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.102	0.536			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.150	0.539			U
Other	PFOSA	754-91-6	52.23	0.0735	0.0735	0.114	0.563			L
	N-MeFOSAA	2355-31-9	ND	ND	ND	0.127	0.563			U
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.0958	0.563			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.200	0.563			U
	PFMOAA	674-13-5	ND	ND	ND	1.27	1.27			U
	PFMOPrA	377-73-1	ND	ND	ND	0.211	0.563			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.27	1.27			U
	PFO3OA	39492-89-2	ND	ND	ND	1.27	1.27			U
	PFO4DA	39492-90-5	ND	ND	ND	1.34	1.34			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.267	0.563			U
	ADONA	919005-14-4	ND	ND	ND	0.105	0.533			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.105	0.524			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.105	0.530			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.211	0.563			U
	EVE Acid	69087-46-3	ND	ND	ND	1.27	1.27			U
	FBSA	30334-69-1	ND	ND	ND	0.211	0.563			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.27	1.27			U
	Hydrolyzed PSDA	2416366-19-1	ND	ND	ND	1.27	1.27			U
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.267	0.563			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.211	0.563			U
	N-EtFOSE	1691-99-2	ND	ND	ND	6.33	6.33			U
	NFDHA	151772-58-6	ND	ND	ND	0.211	0.563			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.211	0.563			U
	N-MeFOSE	24448-09-7	ND	ND	ND	6.33	6.33			U
	NVHOS	1132933-86-8	ND	ND	ND	1.27	1.27			U
	PEPA	267239-61-2	ND	ND	ND	1.27	1.27			U
	PFECA-G	801212-59-9	ND	ND	ND	0.267	1.27			U
	PFEESA	113507-82-7	ND	ND	ND	0.211	0.563			U
	PFHxDA	67905-19-5	ND	ND	ND	1.27	1.27			U
	PFMOBA	863090-89-5	ND	ND	ND	1.27	1.27			U
	PFO5DA	39492-91-6	ND	ND	ND	1.34	1.34			U
	PMPA	13140-29-9	ND	ND	ND	1.27	1.27			U
	R-EVE	2416366-22-6	ND	ND	ND	1.27	1.27			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.27	1.27			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.27	1.27			U
ES	MPFBA		4982.42	7.01				20-150%	99.6%	
	M5PFPeA		9351.01	13.2				20-150%	187.0%	Q
	M3PFBS		19184.58	27.0				20-150%	383.7%	Q
	M2-4:2 FTS		20957.54	29.5				20-150%	419.2%	Q
	M5PFHxA		4758.89	6.69				20-150%	95.2%	
	M3HFPO-DA		3320.07	4.67				20-150%	66.4%	
	M4PFHpA		5225.76	7.35				20-150%	104.5%	
	M3PFHxS		7219.71	10.2				20-150%	144.4%	
	M2-6:2 FTS		7353.03	10.3				20-150%	147.1%	
	M8PFOA		5302.75	7.46				20-150%	106.1%	
	M9PFNA		4393.35	6.18				20-150%	87.9%	
	M8PFOS		5139.33	7.23				20-150%	102.8%	
	M2-8:2 FTS		5174.43	7.28				20-150%	103.5%	
	M8FOSA-I		4204.64	5.91				20-150%	84.1%	
	M6PFDA		5227.58	7.35				20-150%	104.6%	
	d3-N-MeFOSAA		4261.54	5.99				20-150%	85.2%	
	d5-N-EtFOSAA		3772.27	5.31				20-150%	75.4%	
	M7PFUdA		4340.17	6.10				20-150%	86.8%	
	MPFDoA		2786.05	3.92				20-150%	55.7%	
	M2PFTeDA		974.77	1.37				20-150%	19.5%	Q
	d3-N-MeFOSA		2832.60	3.98				10-200%	28.3%	
	d5-N-EtFOSA		1944.18	2.73				10-200%	19.4%	
	d7-N-MeFOSE		3928.68	5.53				10-200%	39.3%	
	d9-N-EtFOSE		2916.67	4.10				10-200%	29.2%	
	M2PFHxDA		891.98	1.25				10-200%	17.8%	

QC Data

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	MB-13783-PFAS	Prep Batch	EU13783	Sample Vol (mL)	250
Sample Name	MB-13783-PFAS	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	aqueous	Analysis Date	2022-08-04 23:49	Split Factor	N/A
Sampling Date		Analyst	wicleve	Method Code	WM-026
Received Date		Instrument	Sauron	Sample Type	Blank

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
	PFBA	375-22-4	ND	ND	ND	0.153	0.640			U
	PFPeA	2706-90-3	ND	ND	ND	0.170	0.640			U
	PFHxA	307-24-4	ND	ND	ND	0.193	0.640			U
	PFHpA	375-85-9	ND	ND	ND	0.122	0.640			U
	PFOA	335-67-1	25.74	0.0412	0.0412	0.177	0.640			L
Acids	PFNA	375-95-1	ND	ND	ND	0.0761	0.640			U
	PFDA	335-76-2	ND	ND	ND	0.0845	0.640			U
	PFUnDA	2058-94-8	ND	ND	ND	0.185	0.640			U
	PFDoDA	307-55-1	ND	ND	ND	0.202	0.640			U
	PFTrDA	72629-94-8	74.03	0.118	0.118	0.151	0.640			L
	PFTeDA	376-06-7	ND	ND	ND	0.218	0.640			U
	PFBS	375-73-5	ND	ND	ND	0.355	0.747			U
	PFPeS	2706-91-4	ND	ND	ND	0.206	0.603			U
	PFHxS	355-46-4	27.53	0.0440	0.0440	0.191	0.586			L
	PFHpS	375-92-8	ND	ND	ND	0.135	0.610			U
	PFOS	1763-23-1	ND	ND	ND	0.160	0.593			U
Sulfonates	PFNS	68259-12-1	ND	ND	ND	0.0864	0.616			U
	PFDS	335-77-3	ND	ND	ND	0.192	0.616			U
	4:2 FTS	757124-72-4	ND	ND	ND	0.118	0.600			U
	6:2 FTS	27619-97-2	ND	ND	ND	0.116	0.610			U
	8:2 FTS	39108-34-4	ND	ND	ND	0.171	0.613			U
	PFOSA	754-91-6	ND	ND	ND	0.130	0.640			U
	N-MeFOSAA	2355-31-9	6.43	0.0103	0.0103	0.144	0.640			L
	N-EtFOSAA	2991-50-6	ND	ND	ND	0.109	0.640			U
	HFPO-DA	13252-13-6	ND	ND	ND	0.228	0.640			U
	PFMOAA	674-13-5	ND	ND	ND	1.44	1.44			U
	PFMOPrA	377-73-1	ND	ND	ND	0.240	0.640			U
	PFO2HxA	39492-88-1	ND	ND	ND	1.44	1.44			U
	PFO3OA	39492-89-2	ND	ND	ND	1.44	1.44			U
	PFO4DA	39492-90-5	ND	ND	ND	1.52	1.52			U
	Nafion Byproduct 1	29311-67-9	ND	ND	ND	0.304	0.640			U
	ADONA	919005-14-4	ND	ND	ND	0.120	0.606			U
	9Cl-PF3ONS	756426-58-1	ND	ND	ND	0.120	0.596			U
	11Cl-PF3OUdS	763051-92-9	ND	ND	ND	0.120	0.603			U
	10:2 FTS	120226-60-0	ND	ND	ND	0.240	0.640			U
	EVE Acid	69087-46-3	ND	ND	ND	1.44	1.44			U
	FBSA	30334-69-1	ND	ND	ND	0.240	0.640			U
	Hydro-EVE Acid	773804-62-9	ND	ND	ND	1.44	1.44			U
Other	Hydrolyzed PSDA	2416366-19-1	66.98	0.107	0.107	1.44	1.44			L
	Nafion Byproduct 2	749836-20-2	ND	ND	ND	0.304	0.640			U
	N-EtFOSA	4151-50-2	ND	ND	ND	0.240	0.640			U
	N-EtFOSE	1691-99-2	ND	ND	ND	7.20	7.20			U
	NFDHA	151772-58-6	ND	ND	ND	0.240	0.640			U
	N-MeFOSA	31506-32-8	ND	ND	ND	0.240	0.640			U
	N-MeFOSE	24448-09-7	ND	ND	ND	7.20	7.20			U
	NVHOS	1132933-86-8	ND	ND	ND	1.44	1.44			U
	PEPA	267239-61-2	ND	ND	ND	1.44	1.44			U
	PFECA-G	801212-59-9	ND	ND	ND	0.304	1.44			U
	PFEESA	113507-82-7	ND	ND	ND	0.240	0.640			U
	PFHxDA	67905-19-5	ND	ND	ND	1.44	1.44			U
	PFMOBA	863090-89-5	ND	ND	ND	1.44	1.44			U
	PFO5DA	39492-91-6	ND	ND	ND	1.52	1.52			U
	PMPA	13140-29-9	ND	ND	ND	1.44	1.44			U
	R-EVE	2416366-22-6	ND	ND	ND	1.44	1.44			U
	R-PSDA	2416366-18-0	ND	ND	ND	1.44	1.44			U
	R-PSDCA	241636-21-5	ND	ND	ND	1.44	1.44			U
	MPFBA		4874.46	7.80				20-150%	97.5%	
	M5PFPeA		4263.21	6.82				20-150%	85.3%	
	M3PFBS		4425.50	7.08				20-150%	88.5%	
	M2-4:2 FTS		6682.24	10.7				20-150%	133.6%	
	M5PFHxA		5475.61	8.76				20-150%	109.5%	
	M3HFPO-DA		4405.22	7.05				20-150%	88.1%	
	M4PFHpA		5312.01	8.50				20-150%	106.2%	
	M3PFHxS		5524.45	8.84				20-150%	110.5%	
	M2-6:2 FTS		5752.78	9.20				20-150%	115.1%	
	M8PFOA		5414.90	8.66				20-150%	108.3%	
	M9PFNA		4528.60	7.25				20-150%	90.6%	
	M8PFOS		5017.21	8.03				20-150%	100.3%	
ES	M2-8:2 FTS		5253.30	8.41				20-150%	105.1%	
	M8FOSA-I		2911.66	4.66				20-150%	58.2%	
	M6PFDA		5057.77	8.09				20-150%	101.2%	
	d3-N-MeFOSAA		4818.59	7.71				20-150%	96.4%	
	d5-N-EtFOSAA		4299.01	6.88				20-150%	86.0%	
	M7PFUdA		4190.35	6.70				20-150%	83.8%	
	MPFDoA		3381.94	5.41				20-150%	67.6%	
	M2PFTeDA		1566.97	2.51				20-150%	31.3%	
	d3-N-MeFOSA		60.65	0.0970				10-200%	0.6%	Q
	d5-N-EtFOSA		43.19	0.0691				10-200%	0.4%	Q
	d7-N-MeFOSE		4119.38	6.59				10-200%	41.2%	
	d9-N-EtFOSE		3567.04	5.71				10-200%	35.7%	
	M2PFHxDA		98.71	0.158				10-200%	2.0%	Q

Enthalpy Analytical

Job No.: 0822-705-1 PFAS by Isotope Dilution (non-potable water)

Brunswick County Public Utilities - NC Client Project: N/A Site: 211 Well Field, Southport NC

Enthalpy ID	OPR-13783-PFAS	Prep Batch	EU13783	Sample Vol (mL)	250
Sample Name	OPR-13783-PFAS	Prep Date	2022-08-02 12:30	Extract Vol (mL)	0.4
Matrix	aqueous	Analysis Date	2022-08-05 00:12	Split Factor	N/A
Sampling Date		Analyst	wicleve	Method Code	WM-026
Received Date		Instrument	Sauron	Sample Type	Control

	Compound	CAS	Extract Concentration ng/L	Sample Concentration ng/L	Formatted Result ng/L	LOD ng/L	LOQ ng/L	Recovery Limits	Recovery	Flags
Acids	PFBA	375-22-4	14319.99	22.9	22.9	0.153	0.640	73-129%	114.6%	
	PFPeA	2706-90-3	13909.07	22.3	22.3	0.170	0.640	72-129%	111.3%	
	PFHxA	307-24-4	13072.48	20.9	20.9	0.193	0.640	72-129%	104.6%	
	PFHpA	375-85-9	13779.35	22.0	22.0	0.122	0.640	72-130%	110.2%	
	PFOA	335-67-1	13387.96	21.4	21.4	0.177	0.640	71-133%	107.1%	
	PFNA	375-95-1	13498.26	21.6	21.6	0.0761	0.640	69-130%	108.0%	
	PFDA	335-76-2	12466.09	19.9	19.9	0.0845	0.640	71-129%	99.7%	
	PFUnDA	2058-94-8	14078.38	22.5	22.5	0.185	0.640	69-133%	112.6%	
	PFDoDA	307-55-1	13613.28	21.8	21.8	0.202	0.640	72-134%	108.9%	
	PFTrDA	72629-94-8	19535.70	31.3	31.3	0.151	0.640	65-144%	156.3%	Q
	PFTeDA	376-06-7	13370.07	21.4	21.4	0.218	0.640	71-132%	107.0%	
Sulfonates	PFBS	375-73-5	11881.67	19.0	19.0	0.355	0.747	72-134%	107.2%	
	PFPeS	2706-91-4	12362.64	19.8	19.8	0.206	0.603	71-127%	105.1%	
	PFHxS	355-46-4	11340.25	18.1	18.1	0.191	0.586	68-131%	99.3%	
	PFHpS	375-92-8	12918.23	20.7	20.7	0.135	0.610	69-134%	108.4%	
	PFOS	1763-23-1	11808.17	18.9	18.9	0.160	0.593	65-140%	101.8%	
	PFNS	68259-12-1	11744.71	18.8	18.8	0.0864	0.616	69-127%	97.7%	
	PFDS	335-77-3	11041.30	17.7	17.7	0.192	0.616	53-142%	91.5%	
	4:2 FTS	757124-72-4	12614.65	20.2	20.2	0.118	0.600	63-143%	107.7%	
	6:2 FTS	27619-97-2	13248.19	21.2	21.2	0.116	0.610	64-140%	111.4%	
	8:2 FTS	39108-34-4	12850.63	20.6	20.6	0.171	0.613	67-138%	107.1%	
Other	PFOSA	754-91-6	15384.90	24.6	24.6	0.130	0.640	67-137%	123.1%	
	N-MeFOSAA	2355-31-9	13420.93	21.5	21.5	0.144	0.640	65-136%	107.4%	
	N-EtFOSAA	2991-50-6	14414.38	23.1	23.1	0.109	0.640	61-135%	115.3%	
	HFPO-DA	13252-13-6	12775.40	20.4	20.4	0.228	0.640	70-130%	102.2%	
ES	MPFBA		4683.95	7.49				20-150%	93.7%	
	M5PFPeA		4076.28	6.52				20-150%	81.5%	
	M3PFBS		4506.75	7.21				20-150%	90.1%	
	M2-4:2 FTS		6112.17	9.78				20-150%	122.2%	
	M5PFHxA		5495.55	8.79				20-150%	109.9%	
	M3HFPO-DA		4263.50	6.82				20-150%	85.3%	
	M4PFHpA		5045.30	8.07				20-150%	100.9%	
	M3PFHxS		5591.11	8.95				20-150%	111.8%	
	M2-6:2 FTS		5619.09	8.99				20-150%	112.4%	
	M8PFOA		5033.60	8.05				20-150%	100.7%	
	M9PFNA		4323.63	6.92				20-150%	86.5%	
	M8PFOS		4787.01	7.66				20-150%	95.7%	
	M2-8:2 FTS		4896.35	7.83				20-150%	97.9%	
	M8FOSA-I		3401.70	5.44				20-150%	68.0%	
	M6PFDA		4840.21	7.74				20-150%	96.8%	
	d3-N-MeFOSAA		4477.87	7.16				20-150%	89.6%	
	d5-N-EtFOSAA		4097.41	6.56				20-150%	81.9%	
	M7PFUdA		4186.04	6.70				20-150%	83.7%	
	MPFDoA		3529.34	5.65				20-150%	70.6%	
	M2PFTeDA		1986.27	3.18				20-150%	39.7%	
	M2PFHxDA		274.36	0.439				10-200%	5.5%	Q

Narrative Summary

Enthalpy Analytical Narrative Summary

Company	Brunswick County Public Utilities - NC
Job No.	0822-705-1 PFAS by Isotope Dilution (non-potable water)
Client ID.	N/A Site: 211 Well Field, Southport NC

1. Custody

Megan Holden received the samples on August 01, 2022 at 3.9 °C after being relinquished by Brunswick County Public Utilities - NC. The samples were received in good condition.

Prior to, during, and after analysis, the samples were kept under lock with access only to authorized personnel by Enthalpy Analytical, LLC.

Table 1 - Sample Inventory

EU Lab Sample ID	Client Sample ID	Matrix
0822-705-001-1	080122-1	Aqueous
0822-705-002-1	080122-2	Aqueous
0822-705-003-1	080122-16	Aqueous
0822-705-004-1	080122-17	Aqueous
0822-705-005-1	080122-18	Aqueous
0822-705-006-1	080122-19	Aqueous
0822-705-007-1	080122-15	Aqueous
0822-705-008-1	080122-8	Aqueous
0822-705-009-1	080122-12A	Aqueous
0822-705-010-1	0800122-12	Aqueous
0822-705-011-1	080122-11	Aqueous
0822-705-012-1	080122-6A	Aqueous
0822-705-013-1	080122-5	Aqueous
0822-705-014-1	080122-3	Aqueous

2. Methods and Analytes

A list of analytes of interest and corresponding methods of analysis is shown in Table 3. Abbreviations are defined in the listed Appendices.

Table 3 - Methods and Analytes

EU Method	Analytes	Cleanup Method
EU-047	Brunswick PFAS List	ENVI-Carb

3. Analysis

The samples were analyzed using Waters Acquity UPLC equipped with Xevo TQ MS (LC/MS/MS "Sauron" and "Kili").

For aqueous samples, the sample volume was measured gravimetrically by the laboratory, and spiked with Extraction Standard (ES). The sample was then mixed well and centrifuged, if needed. The samples were then extracted via SPE, and the extracts were cleaned up using ENVI-Carb.

Each final sample extract was transferred to an autosampler vial, spiked with Injection Standard (IS), and brought to a final volume of 400µL prior to analysis.

Enthalpy Analytical Narrative Summary

Company	Brunswick County Public Utilities - NC
Job No.	0822-705-1 PFAS by Isotope Dilution (non-potable water)
Client ID.	N/A Site: 211 Well Field, Southport NC

3. Analysis, continued

Samples that were run in more than one sequence and their comments are as follows:

080122-1, 080122-2, 080122-16, 080122-17, 080122-18, 080122-19, 080122-15, 080122-8, 080122-12A, 0800122-12, 080122-11, 080122-6A, 080122-5, 080122-3

The samples were analyzed on more than one instrument sequence in order to include all of the analytes of interest and to meet method acceptance criteria.

4. Calibration

In the initial calibration, the reported analytes exhibited R^2 of ≥ 0.99.

Except where noted below, the reported analytes in the calibration standards, continuing calibration (concal) and Initial Calibration Verification (ICV) met the 30% accuracy criterion for native analytes.

PFAS: Hydrolyzed PSDA, R-PSDA, R-EVE, NVHOS, and PFECA-G fell above method criteria in concals. These analytes were not detected in the samples; therefore, the data is reportable without adverse impact.

The Technical Director extended the method criteria for certain non-legacy analytes that do not have their own internal standard and exhibit observed variability during calibration.

5. QC Notes

Except where noted below, the QC sample analyses passed all method criteria.

QC samples that did not meet method acceptance criteria were:

OPR-13783-PFAS PFTrDA fell above method control limits. This analyte was not detected in the samples and the data is reported without adverse impact.

The samples were extracted within the 28-day from collection holding time and analyzed within the 28-day from extraction to analysis holding time required by the method.

6. Reporting Notes

This report provides all results including detections below LOD following client instruction.

Analyte(s) were detected in the method blank (MB) at less than 1/2 LOQ that may also be less than LOD. Any of these analyte(s) detected in the samples with less than 10 times the amount detected in MB were notated with a B qualifier and are reported with no adverse impact.

EPA Draft M1633 recognizes that ES d3-N-MeFOSA and ES d5-N-EtFOSA may exhibit low recoveries. When detected at a signal-to-noise above 10:1 the ES peak area is used to quantify its respective target analyte using accepted isotope dilution principles. The data is reported without adverse impact.

Enthalpy Analytical Narrative Summary

Company	Brunswick County Public Utilities - NC
Job No.	0822-705-1 PFAS by Isotope Dilution (non-potable water)
Client ID.	N/A Site: 211 Well Field, Southport NC

6. Reporting Notes, continued

Some labeled extraction standards in the sample analyses fell outside the control limits for ES recovery, as denoted by the "Q" qualifier. The target analytes are quantified based on their ratio to their labeled standard analogs. As a result, low or high labeled standard recovery do not cause any change to ratios or contribute any additional error in the measurement of the target analytes. The data have been accepted and reported with no further actions.

The results presented in this report are representative of the samples as provided to the laboratory.

These analyses met the requirements of the TNI Standard. Any deviations from the requirements of the reference method or TNI Standard have been stated above.

Enthalpy Analytical, LLC in Wilmington NC is accredited by the Louisiana Department of Environmental Quality to the 2009 TNI Standard under certificate number 05075.

General Reporting Notes – Data Qualifiers

The following are general reporting notes that are applicable to all Enthalpy Analytical, LLC - Wilmington, NC data reports, unless specifically noted otherwise.

General Data Qualifiers

- B – The analyte was found in the method blank, at a concentration that was at least 10% of the amount in the sample.
- Cxx – Two or more congeners co-elute. In EDDs, C denotes the lowest IUPAC congener in a co-elution group and additional co-eluters for the group ('xx') are shown with the number of the lowest IUPAC co-eluter**.**
- E – The reported concentration exceeds the calibration range (upper point of the calibration curve). For HRMS data, this condition does not imply additional measurement uncertainty. For LC-MS/MS data, these values should be considered as having measurement uncertainty higher than values within the calibration range.
- EDL – Estimated Detection Level: The EDL is unique to isotope dilution methods and reflects the conditions of analysis at the time of analysis, including the equipment used. Where the MDL is a static value, the EDL is a dynamic value.
- EMPC – Estimated Maximum Possible Concentration: EMPC is specific to Dioxin/Furan tests to indicate the determined ion-abundance ratio was outside the allowed theoretical range (usually due to being near the detection limit, although it can very rarely be caused by a co-eluting interference). The EMPC concentration is adjusted to reflect the value at the theoretical ion-abundance ratio.
- IR – The ion ratio between the primary and secondary ions was observed to be outside the method criteria. The analyte concentration may be inaccurate due to interference.
- J – The analyte has a concentration below the minimum calibration level (LOQ value) but greater than the LOD. These values should be considered as having measurement uncertainty higher than values within the calibration range
- L - Indicates that an analyte has a concentration below the Minimum Detection Limit (MDL). The reported concentration is not recommended for regulatory use as the analyte signal may have a signal-to-noise ratio less than the criteria deemed necessary to be considered a detected analyte.
- LOD – Limit of Detection: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOD. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the minimum detection limit (MDL). The LOD is adjusted for sample weight or volume.
- LOQ – Limit of Quantitation: For reports conforming to the DOD ELAP QSM, this is the QSM-defined LOQ. For reports conforming to TNI requirements (but not DOD ELAP QSM requirements), this value is the reporting limit (RL). The LOQ is adjusted for sample weight or volume.

General Reporting Notes – Data Qualifiers

- <LOD() – Analyte was not found at a concentration high enough to be reported as detected. It is reported as less than the LOD, and the LOD is given in the parentheses.
- <LOQ() – Analyte was not found at a concentration high enough to be reported as above the QSM-defined LOQ or TNI defined Reporting Limit. It is reported as less than the LOQ, and the LOQ is given in the parentheses.
- ND – Indicates a non-detect.
- NR – Indicates a value that is not reportable due to issues observed in sample preparation or analysis.
- PR – The associated congener(s) is(are) poorly resolved.
- QI – Indicates the presence of a quantitative interference.
- RL – Reporting Limit. Lowest reportable value. The level is higher than the MDL.
- SI – Denotes "Single Ion Mode" and is utilized for PCBs where the secondary ion trace has a significantly elevated noise level due to background PFK. Responses for such peaks are calculated using an EMPC approach based solely on the primary ion area(s) and may be considered estimates.
- U – The analyte was not detected.
- V / Q – The labeled standard recovery is not within method control limits.
- X – Indicates the result is from re-injection/repeat/second-column analysis.

Lab Identifiers/ Data Attributes

- AR – Indicates use of the archived portion of the sample extract.
- CU – Indicates a sample that required additional clean-up prior to HRMS injection/processing.
- D – Dilution Data. Result was obtained from the analysis of a dilution. The number that follows the "D" indicates the dilution factor.
- DE – Indicates a dilution performed with the addition of ES (Extraction Standard) solution.
- DUP – Designation for a duplicate sample.
- MS – Designation for a matrix spike.
- MSD – Designation for a matrix spike duplicate.
- R – Indicates a re-extraction of the sample.
- RJ – Indicates a reinjection of the sample extract.

- S – Indicates a sample split. The number that follows the "S" indicates the split factor.
- SAT – Indicates an analyte saturated the detector.

PFAS Compound Acronym List		
Acronym	CAS #	Compound Name
Target Analytes		
* Analyte is not accredited		
PFBA	375-22-4	Perfluorobutanoic Acid
PFPeA	2706-90-3	Perfluoropentanoic Acid
PFHxA	307-24-4	Perfluorohexanoic Acid
PFHpA	375-85-9	Perfluoroheptanoic Acid
PFOA	335-67-1	Perfluorooctanoic Acid
PFNA	375-95-1	Perfluorononanoic Acid
PFDA	335-76-2	Perfluorodecanoic acid
PFUnA (PFUnDA)	2058-94-8	Perfluoroundecanoic acid
PFDoA (PFDoDA)	307-55-1	Perfluorododecanoic acid
PFTrDA (PFTriA)	72629-94-8	Perfluorotridecanoic acid
PFTeDA (PFTA)	376-06-7	Perfluorotetradecanoic acid
PFBS	375-73-5	Perfluorobutane sulfonic acid
PFPeS	2706-91-4	Perfluoropentane sulfonic acid
PFHxS	355-46-4	Perfluorohexane sulfonic acid
PFHpS	375-92-8	Perfluoroheptane sulfonic acid
PFOS	1763-23-1	Perfluorooctane sulfonic acid
PFNS	68259-12-1	Perfluorononane sulfonic acid
PFDS	335-77-3	Perfluorodecane sulfonic acid
4:2 FTS	757124-72-4	4:2 fluorotelomer sulfonic acid
6:2 FTS	27619-97-2	6:2 fluorotelomer sulfonic acid
8:2 FTS	39108-34-4	8:2 fluorotelomer sulfonic acid
PFOSA (FOSA)	754-91-6	Perfluorooctane sulfonamide
N-MeFOSAA	2355-31-9	N-methyl perfluorooctane sulfonamido acetic acid
N-EtFOSAA	2991-50-6	N-ethyl perfluorooctane sulfonamido acetic acid
HFPO-DA	13252-13-6	2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid (Gen-X)
11Cl-PF3OUdS	763051-92-9	11-chloroeicosafluoro-3-oxaundecane-1-sulfonic acid
9Cl-PF3ONS	756426-58-1	9-chlorohexadecafluoro-3-oxanonane-1-sulfonic acid
ADONA	919005-14-4	4,8-dioxa-3H-perfluorononanoic acid
PFEESA	113507-82-7	Perfluoro(2-ethoxyethane)sulphonic acid
PFMOBA (PFMBA)	863090-89-5	Perfluoro-4-methoxybutanic acid
NFDHA	151772-58-6	Nonafluoro-3,6-dioxaheptanoic acid
PFMOPrA (PFMPA)	377-73-1	Perfluoro-3-methoxypropanoic acid
* PFMOAA	674-13-5	Perfluoro-2-methoxyacetic acid
* PFO2HxA	39492-88-1	Perfluoro (3,5-dioxahexanoic) acid
* PFO3OA	39492-89-2	Perfluoro (3,5,7-trioxaoctanoic) acid
* PFO4DA	39492-90-5	Perfluoro (3,5,7,9-tetraoxadecanoic) acid
* PFO5DA	39492-91-6	Perfluoro(3,5,7,9,11-pentaoxadodecanoic) acid
* Nafion Byproduct 1	29311-67-9	Nafion Byproduct 1
* Nafion Byproduct 2	749836-20-2	Nafion Byproduct 2
* PEPA	267239-61-2	Perfluoro-2-ethoxypropanoic acid
* PMPA	13140-29-9	Perfluoro-2-methoxypropanoic acid
* 10:2 FTS	120226-60-0	Fluorotelomer sulfonate 10:2
* N-EtFOSA	4151-50-2	N-ethylperfluoro-1-octanesulfonamide
* N-EtFOSE	1691-99-2	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol
* N-MeFOSA	31506-32-8	N-methylperfluoro-1-octanesulfonamide
* N-MeFOSE	24448-09-7	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol
* PFECA-G	801212-59-9	4-(Heptafluoroisopropoxy)hexafluorobutanoic acid
* PFHxDA	67905-19-5	Perfluorohexadecanoic acid
* R-PSDA (Nafion Byproduct 4)	2416366-18-0	Perfluoro-4-(2-sulfoethoxy)pentanoic acid

PFAS Compound Acronym List			
	Acronym	CAS #	Compound Name
	Target Analytes		
	*** Analyte is not accredited**		
*	Hydrolyzed PSDA (Nafion Byproduct 5)	2416366-19-1	2-fluoro-2-[1,1,2,3,3,3-hexafluoro-2-(1,1,2,2-tetrafluoro-2-sulfoethoxy)propoxy]-acetic acid
*	R-PSDCA (Nafion Byproduct 6)	2416366-21-5	1,1,2,2-tetrafluoro-2-[1,2,2,3,3-pentafluoro-1-(trifluoromethyl)propoxy] ethanesulfonic acid
*	EVE Acid	69087-46-3	2,2,3,3-tetrafluoro-3-({1,1,1,2,3,3-hexafluoro-3-[(1,2,2-trifluoroethenyl)oxy]propan-2-yl}oxy)propionic acid
*	FBSA	30334-69-1	Perfluorobutylsulfonamide
*	Hydro-EVE Acid	773804-62-9	2,2,3,3-Tetrafluoro-3-{[1,1,1,2,3,3-hexafluoro-3-(1,2,2,2-tetrafluoroethoxy)propan-2-yl]oxy}propanoic acid
*	R-EVE Acid	2416366-22-6	4-(2-carboxy-1,1,2,2-tetrafluoroethoxy)-2,2,3,3,4,5,5,5-octafluoro-pentanoic acid
*	NVHOS	1132933-86-8	Perfluoroethoxysulfonic acid
*	PFDoS	79780-39-5	Perfluorododecane sulfonic acid
*	PFODA	16517-11-6	Perfluorooctadecanoic acid
*	3:3 FTCA	356-02-5	2H,2H,3H,3H-Perfluorohexanoic acid
*	5:3 FTCA	914637-49-3	2H,2H,3H,3H-Perfluorooctanoic acid
*	7:3 FTCA	812-70-4	2H,2H,3H,3H-Perfluorodecanoic acid
*	N-AP-FHxSA	50598-28-2	N-(3-(Dimethylamino)propyl)tridecafluoro-1-hexanesulfonamide
*	N-CMAmP-6:2 FOSA	34455-29-3	N-(Carboxymethyl)-N,N-dimethyl-3-(((3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl)sulfonyl)amino)1-propanaminium

Sample Custody

ENTHALPY
ANALYTICAL

0822-705

Chain of Custody Record

Enthalpy Ultratrace Job#: _____ COC Page 1 of 2

Special Handling:
- ☐ Standard Turn Around Time
- ☐ Rush Turn Around Time -- Date Needed _____
- All Fast TATs Subject to Approval by Enthalpy Analytical, LLC
- All Samples Disposed of After 6 months Unless Otherwise Instructed.

Enthalpy Analytical-Wilmington, NC has added enhancements to standard methods to improve accuracy, precision and permit an assessment of laboratory performance in the context of your specific data needs. For more information email Lindsay.Boone@enthalpy.com

Client Name: Brunswick County Water
Project Manager: Glen Walker
Report To: Same

Project Number: _____
Site Name: 211 Well Field
Location: Southport

PO#: _____
Telephone#: _____
Email: _____

This Chain of Custody is applicable to Non-Air samples. Standard TAT differ per analysis and are provided by request.

Client Special Instructions:

Matrix: GW-Groundwater, WW-Wastewater, NW-Non-Potable Water, DW-Drinking Water, S-Soil, SL-Sludge, BT-Biological Tissue, O-Other

Type: G=Grab C=Composite Q=Quality Control

SAMPLED BY:

Sample ID	Date	Time	Sample Volume	Type	Matrix	Sample Containers: # of Bottles	# of Jars	# of Bags	# Other	Analyses: PFAS by Isotope Dilution	PFAS: DW M533	PFAS: DW M537.1	PFAS: DOD Table B-15	PFAS: Screen	Method 8290A	Method 1613B	PAHs by HRGC/HRMS	Method 1668A/B/C	Sample on Hold	Analyte List and Notes:
080122-1	8-1-22	1055		G	DW	2														
080122-2		1105																		
080122-16		1110																		
080122-17		1120																		
080122-18		1125																		
080122-19		1135																		
080122-15		1150																		
080122-8		1200																		
080122-12A		1210																		
080122-12		1215																		
080122-11		1225		G	DW	2														
[redacted]																				

Analyte list selections for PFAS by Isotope Dilution:
- PF = PFOA/PFOS
- L24 = Legacy 24 + GenX
- P49 = PFAS 49 List
- CL = custom list attached

Courier, cooler on ice, no seals, good condition

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Temperature Upon Receipt:
Phil McWilloch	8-1-22	Meyan Holden	8.1.22	14:50	☐ Iced ☐ Ambient °C 3.9+1.0
					☐ Iced ☐ Ambient °C
					☐ Iced ☐ Ambient °C

8-1-22

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0822-705

Chain of Custody Record

Enthalpy Ultratrace Job#: _____ **COC Page** 2 of 2

Special Handling:
- ☐ Standard Turn Around Time
- ☐ Rush Turn Around Time -- Date Needed_____
- All Fast TATs Subject to Approval by Enthalpy Analytical, LLC
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Enthalpy Analytical-Wilmington, NC has added enhancements to standard methods to improve accuracy, precision and permit an assessment of laboratory performance in the context of your specific data needs. For more information email Lindsay.Boore@enthalpy.com

Client Name: Brunswick County Water
Project Manager: Glen Walker
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Project Number: _____
Site Name: 211 well Field
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This Chain of Custody is applicable to Non-Air samples. Standard TAT differ per analysis and are provided by request.

Client Special Instructions:

Matrix: GW-Groundwater, WW-Wastewater, NW-Non-Potable Water, DW-Drinking Water, S-Soil, SL-Sludge, BT-Biological Tissue, O-Other

Type: G=Grab C=Composite Q=Quality Control

SAMPLED BY:

Sample ID	Date	Time	Sample Volume	Type	Matrix	Sample Containers: # of Bottles	# of Jars	# of Bags	# Other	Analyses: PFAS by Isotope Dilution	PFAS: DW M533	PFAS: DW M537.1	PFAS: DOD Table B-15	PFAS: Screen	Method 8290A	Method 1613B	PAHs by HRGC/HRMS	Method 1668A/B/C	Sample on Hold	Analyte List and Notes:
080122 6A	8-1-22	1020		G	DW	2														
080122 5		1035		?	?	?														
[redacted]		[redacted]	[redacted]																	
080122 3		1045		G	DW	2														

Analyte list selections for PFAS by Isotope Dilution
- **PF** = PFOA/PFOS
- **L24** = Legacy 24 + GenX
- **P49** = PFAS 49 List
- **CL** = custom list attached

Relinquished By:	Date:	Received By:	Date:	Time:	Sample Temperature Upon Receipt:
Phillip McWilbch	8-1-22	Meagan Golden recd info pg 1			☐ Iced ☐ Ambient °C_____
					☐ Iced ☐ Ambient °C_____
					☐ Iced ☐ Ambient °C_____

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This Is The Last Page Of This Report.