



# Environmental Chemists, Inc.

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ANALYTICAL & CONSULTING CHEMISTS

info@environmentalchemists.com

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August 9, 2017

Brunswick Regional Water & Sewer  
Post Office Box 2230  
Leland, NC 28451

Report #2017-10824

Enclosed please find your analytical report.

Sincerely,

A handwritten signature in cursive script that reads "Tammy Duran".

Tammy Duran

Environmental Chemists, Inc.

# ANALYTICAL REPORT

**NORTHERN LAKE SERVICE, INC.**  
 Analytical Laboratory and Environmental Services  
 400 North Lake Avenue - Crandon, WI 54520  
 Ph: (715)-478-2777 Fax: (715)-478-3060

**Client:** Environmental Chemists  
 Attn: Ray Porter  
 6602 Windmill Way  
 Wilmington, NC 28405

WDNR Laboratory ID No. 721026460  
 WDATCP Laboratory Certification No. 105-330  
 EPA Laboratory ID No. WI000034  
 Printed: 08/09/17 Page 1 of 1  
**NLS Project: 284122**  
**NLS Customer: 96259**  
 Fax: 910 392 4424 Phone: 910 392 0223

**Project:** GenX with Other PFCs

**25989 NLS ID: 1007904**

COC: 192201:1 Matrix: DW

Collected: 07/26/17 14:10 Received: 08/01/17

**Parameter:** Solid Phase Extraction by EPA Method 537  
 GenX and PFCs by EPA 537

Result	Units	Dilution	LOD	LOQ/MCL	Analyzed	Method	Lab
yes					08/02/17	EPA 537	721026460
see attached					08/03/17	EPA 537	721026460

**25989 FB NLS ID: 1007905**

COC: 192201:1 Matrix: FB

Collected: 07/26/17 14:10 Received: 08/01/17

**Parameter:** Solid Phase Extraction by EPA Method 537  
 GenX and PFCs by EPA 537

Result	Units	Dilution	LOD	LOQ	Analyzed	Method	Lab
not analyzed					08/03/17	EPA 537	721026460
not analyzed					08/03/17	EPA 537	721026460

Values in brackets represent results greater than or equal to the LOD but less than the LOQ and are within a region of "Less-Certain Quantitation". Results greater than or equal to the LOQ are considered to be in the region of "Certain Quantitation". LOD and/or LOQ tagged with an asterisk(\*) are considered Reporting Limits. All LOD/LOQs adjusted to reflect dilution and/or solids content.

ND = Not Detected (< LOD)    LOD = Limit of Detection    LOQ = Limit of Quantitation    NA = Not Applicable  
 DWB = Dry Weight Basis    %DWB = (mg/kg DWB) / 10000    1000 ug/L = 1 mg/L  
 MCL = Maximum Contaminant Levels for Drinking Water Samples.    Shaded results indicate >MCL.

Reviewed by:



Authorized by:  
 R. T. Krueger  
 President

**ANALYTICAL RESULTS: Perfluorinated Chemicals by EPA 537 Rev 1.1 Safe Drinking Water Analysis**

Customer: Environmental Chemists NLS Project: 284122  
 Project Description: GenX with Other PFCs  
 Project Title: Template: 537PPTGENX Printed: 08/09/2017 13:53

Sample: 1007904\_25989 Collected: 07/26/17 Analyzed: 08/03/17 - Analytes: 13

ANALYTE NAME	RESULT	UNITS	WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		1	6.6	21		
perfluorohexanoic acid (PFHxA)	10.5	ppt		1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	36	ppt		1	0.73	2.3		
perfluorohexanoic acid (PFHxPA)	8.09	ppt		1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[5.23]	ppt		1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	7.77	ppt		1	1.2	3.9		
perfluorononanoic acid (PFNA)	[1.54]	ppt		1	1.5	4.9		J
perfluorooctanesulfonic acid (PFOS)	9.96	ppt		1	1.7	5.3		
perfluorodecanoic acid (PFDA)	[0.99]	ppt		1	0.90	2.7		J
perfluoroundecanoic acid (PFUnA)	ND	ppt		1	1.0	3.0		
perfluorododecanoic acid (PFDoA)	ND	ppt		1	1.9	6.1		
perfluorotridecanoic acid (PFTriDA)	ND	ppt		1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt		1	2.8	8.9		
C13-PFHxA (SURR)	75.394%							S
C13-PFDA (SURR)	94.982%							S

**NOTES APPLICABLE TO THIS ANALYSIS:**

J = Result enclosed in brackets is between LOD and LOQ, a region of less certain quantitation.  
 S = This compound is a surrogate used to evaluate the quality control of a method.

The PFOA branch isotope peak is included in the PFOA calculation per EPA directive. GenX analysis performed by Modified EPA Method 537.



Analytical & Consulting Chemists

# ENVIRONMENTAL CHEMISTS, INC

NCDENR: DWQ CERTIFICATION # 94 NCDHHS: DLS CERTIFICATION # 37729

6602 Windmill Way Wilmington, NC 28405  
OFFICE: 910-392-0223 FAX 910-392-4424  
info@environmentalchemists.com

## COLLECTION AND CHAIN OF CUSTODY

CLIENT: <u>H260</u>	PROJECT NAME:	REPORT NO: <u>17-10824</u>
ADDRESS: <u>516 Village Rd</u>	CONTACT NAME: <u>Bob Walker</u>	PO NO:
<u>behind RR 25451</u>	REPORT TO: <u>Bob Walker</u>	PHONE/FAX:
	COPY TO: <u>Russ Lantz</u>	email:

Sampled By: Scott Lewis SAMPLE TYPE: I = Influent, E = Effluent, W = Well, ST = Stream, SO = Soil, SL = Sludge, Other:

Sample Identification	Collection			Sample Type	Composite or Grab	Container (P or G)	Chlorine mg/L	LAB ID NUMBER	PRESERVATION						ANALYSIS REQUESTED	
	Date	Time	Temp						NONE	HCL	H2SO4	HNO3	NAOH	THIO		Zn acetate
<u>001</u>	<u>7/26/17</u>	<u>14:10</u>		<u>C</u>	<u>G</u>	<u>P</u>		<u>05989</u>								<u>EPA 537 + GenX</u>
<u>Field Blank</u>				<u>C</u>	<u>G</u>	<u>P</u>		<u>05991</u>								<u>Field</u>
				<u>G</u>	<u>G</u>	<u>G</u>										
				<u>C</u>	<u>G</u>	<u>P</u>										
				<u>G</u>	<u>G</u>	<u>G</u>										
				<u>C</u>	<u>G</u>	<u>P</u>										
				<u>G</u>	<u>G</u>	<u>G</u>										
				<u>C</u>	<u>G</u>	<u>P</u>										
				<u>G</u>	<u>G</u>	<u>G</u>										
				<u>C</u>	<u>G</u>	<u>P</u>										
				<u>G</u>	<u>G</u>	<u>G</u>										
				<u>C</u>	<u>G</u>	<u>P</u>										
				<u>G</u>	<u>G</u>	<u>G</u>										
				<u>C</u>	<u>G</u>	<u>P</u>										
				<u>G</u>	<u>G</u>	<u>G</u>										

Transfer	Relinquished By:	Date/Time	Received By:	Date/Time
1. <u>Subble</u>	<u>Scott Lewis</u>	<u>7/26/17 14:50</u>		
2.				

Temperature when Received: 3.5 Accepted:  Rejected:  Resample Requested:

Delivered By: \_\_\_\_\_ Received By: L.A. Hood Date: 7/26/17 Time: 4:00pm

Comments: \_\_\_\_\_ TURNDAROUND: \_\_\_\_\_