



# Environmental Chemists, Inc.

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ANALYTICAL & CONSULTING CHEMISTS

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December 1, 2018

Brunswick County Public Utilities  
Post Office Box 249  
Bolivia, NC 28422  
Attn: Glenn Walker

Report #2018-17230  
Collected – October 18, 2018

Enclosed please find your analytical report.

Sincerely,

Tammy Duran  
Environmental Chemists, Inc.

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

Customer: Environmental Chemists NLS Project: 311677  
 Project Description: PFCs by EPA 537 w/GenX  
 Project Title: Template: 537PPTGENX Printed: 11/30/2018 17:36

Sample: 1092151\_43548 Collected: 10/18/18 Analyzed: 11/22/18 - Analytes: 13

ANALYTE NAME	RESULT	UNITS	WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		1	6.6	21		
perfluorohexanoic acid (PFHxA)	4.38	ppt		1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	3.39	ppt		1	0.73	2.3		
perfluorheptanoic acid (PFHpA)	4.25	ppt		1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[3.15]	ppt		1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	5.39	ppt		1	1.2	3.9		
perfluorononanoic acid (PFNA)	ND	ppt		1	1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	10.3	ppt		1	1.7	5.3		
perfluorodecanoic acid (PFDA)	ND	ppt		1	0.90	2.7		
perfluoroundecanoic acid (PFUnA)	ND	ppt		1	1.0	3.0		
perfluorododecanoic acid (PFDoA)	ND	ppt		1	1.9	6.1		
perfluorotridecanoic acid (PFTDA)	ND	ppt		1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt		1	2.8	8.9		
C13-PFHxA (SURR)	62.074%			1				SR S
C13-PFDA (SURR)	89.268%			1				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.  
 SR = Surrogate recovery was outside QC limits.  
 C13-PFHxA recovered below QC limits.

Sample: 1092152\_43549 Collected: 10/18/18 Analyzed: 11/22/18 - Analytes: 13

ANALYTE NAME	RESULT	UNITS	WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		1	6.6	21		
perfluorohexanoic acid (PFHxA)	5.11	ppt		1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	5.64	ppt		1	0.73	2.3		
perfluorheptanoic acid (PFHpA)	4.79	ppt		1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[3.21]	ppt		1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	5.15	ppt		1	1.2	3.9		
perfluorononanoic acid (PFNA)	ND	ppt		1	1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	8.6	ppt		1	1.7	5.3		
perfluorodecanoic acid (PFDA)	ND	ppt		1	0.90	2.7		
perfluoroundecanoic acid (PFUnA)	ND	ppt		1	1.0	3.0		
perfluorododecanoic acid (PFDoA)	ND	ppt		1	1.9	6.1		
perfluorotridecanoic acid (PFTDA)	ND	ppt		1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt		1	2.8	8.9		
C13-PFHxA (SURR)	59.275%			1				SR S
C13-PFDA (SURR)	87.435%			1				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.  
 SR = Surrogate recovery was outside QC limits.  
 C13-PFHxA recovered below QC limits.

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



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

## COLLECTION AND CHAIN OF CUSTODY

CLIENT: Browns Wake County Water	PROJECT NAME:	REPORT NO: 18-17230
ADDRESS: P.O. Box 249	CONTACT NAME: GLENN WALKER	PO NO:
BOLIVIA, N.C. 28422	REPORT TO: SAME	PHONE/FAX:
	COPY TO:	email: glenn.walker@browns.wakecounty.gov

Sampled By: Billy Benson 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
101818 - SO1	10-18-18	1005 AM	23°	RAW	C	P		43548								ERA 537 + GENX
101818 - ED1	10-18-18	1005 AM	22°	DW	C	G		43549								
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