



Environmental Chemists, Inc.

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ANALYTICAL & CONSULTING CHEMISTS

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December 20, 2018

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

Report #2018-19309
Collected – November 21, 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: 312882
 Project Description: Drinking Water
 Project Title: Template: 537PPTGENX Printed: 12/18/2018 17:32

Sample: 1095546_48871 Collected: 11/21/18 Analyzed: 12/12/18 - Analytes: 13

ANALYTE NAME	RESULT	UNITS	WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		1	6.6	21		
perfluorohexanoic acid (PFHxA)	[2.22]	ppt		1	1.3	4.0		J
perfluoro-2-propoxypropanoic acid (GenX)	[2.18]	ppt		1	0.73	2.3		J
perfluorooheptanoic acid (PFHpA)	[1.97]	ppt		1	0.80	2.6		J
perfluorohexanesulfonic acid (PFHxS)	ND	ppt		1	2.8	8.8		
perfluorooctanoic acid (PFOA)	4.2	ppt		1	1.2	3.9		
perfluorononanoic acid (PFNA)	ND	ppt		1	1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	7.2	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)	54.262%			1				SRS
C13-PFDA (SURR)	97.918%			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: 1095547_48872 Collected: 11/21/18 Analyzed: 12/12/18 - Analytes: 13

ANALYTE NAME	RESULT	UNITS	WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		1	6.6	21		
perfluorohexanoic acid (PFHxA)	[2.33]	ppt		1	1.3	4.0		J
perfluoro-2-propoxypropanoic acid (GenX)	ND	ppt		1	0.73	2.3		
perfluorooheptanoic acid (PFHpA)	[2.31]	ppt		1	0.80	2.6		J
perfluorohexanesulfonic acid (PFHxS)	ND	ppt		1	2.8	8.8		
perfluorooctanoic acid (PFOA)	[3.38]	ppt		1	1.2	3.9		J
perfluorononanoic acid (PFNA)	ND	ppt		1	1.5	4.9		
perfluorooctanesulfonic acid (PFOS)	6.08	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)	47.721%			1				SRS
C13-PFDA (SURR)	86.01%			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.



Analytical & Consulting Chemists

ENVIRONMENTAL CHEMISTS, INC

NC DENR: DWO CERTIFICATION # 94 NCDHHS: DLS CERTIFICATION # 37729

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COLLECTION AND CHAIN OF CUSTODY

CLIENT: Braunsowick County Water	PROJECT NAME:	REPORT NO:
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@braunsowickcounty.gov

Sampled By: _____ 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
112118-501	11-21-18	0930	12	R/W	C	P		48871								EPA 537 + GENX
112118-E01	11-21-18	0930	12	D/W	C	P		48872								/
					C	P										
					C	P										
					G	P										
					C	P										
					G	P										
					C	P										
					G	P										
					C	P										
					G	P										

Transfer	Relinquished By: Thaddeus Hill	Date/Time: 11/21/18	Received By:	Date/Time:
Temperature when Received:	Accepted: <input checked="" type="checkbox"/>	Rejected: <input type="checkbox"/>	Resample Requested: <input type="checkbox"/>	Date: 11/21/18 Time: 1105
Delivered By: _____	Received By: <u>Shynee Lee</u>		TURNAROUND: _____	
Comments: _____				