



Environmental Chemists, Inc.

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ANALYTICAL & CONSULTING CHEMISTS

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December 19, 2017

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

Report #2017-19090

Enclosed please find your analytical report.

Sincerely,

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

Tammy Duran

Environmental Chemists, Inc.

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

Customer: Environmental Chemists NLS Project: 291782

Project Description: EPA 537 with GenX

Project Title: Template: 537PPTGENX Printed: 12/19/2017 08:38

Sample: 1032942 46302 Collected: 12/07/17 Analyzed: 12/15/17 - Analytes: 13

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	6.6	21		
perfluorohexanoic acid (PFHxA)	44.4	ppt	1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	33.4	ppt	1	0.73	2.3		
perfluoroheptanoic acid (PFHpA)	42.2	ppt	1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[8.14]	ppt	1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	18.7	ppt	1	1.2	3.9		
perfluorononanoic acid (PFNA)	[3.78]	ppt	1	1.5	4.9		J
perfluorooctanesulfonic acid (PFOS)	12	ppt	1	1.7	5.3		
perfluorodecanoic acid (PFDA)	[2.39]	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 (PFTTrDA)	ND	ppt	1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	2.8	8.9		
C13-PFHxA (SURR)	78.948%						S
C13-PFDA (SURR)	81.147%						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.

Sample: 1032943 46303 Collected: 12/07/17 Analyzed: 12/15/17 - Analytes: 13

ANALYTE NAME	RESULT	UNITS WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt	1	6.6	21		
perfluorohexanoic acid (PFHxA)	38.5	ppt	1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	32.2	ppt	1	0.73	2.3		
perfluoroheptanoic acid (PFHpA)	31.3	ppt	1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[3.98]	ppt	1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	12.7	ppt	1	1.2	3.9		
perfluorononanoic acid (PFNA)	[2.08]	ppt	1	1.5	4.9		J
perfluorooctanesulfonic acid (PFOS)	[4.34]	ppt	1	1.7	5.3		J
perfluorodecanoic acid (PFDA)	[1.11]	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 (PFTTrDA)	ND	ppt	1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt	1	2.8	8.9		
C13-PFHxA (SURR)	79.136%						S
C13-PFDA (SURR)	85.446%						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.

COLLECTION AND CHAIN OF CUSTODY

CLIENT: Brunswick County PLED	PROJECT NAME: Gen X + Compounds	REPORT NO: 17-19090
ADDRESS: PO Box 249	CONTACT NAME: Glenn Walker	PO NO:
Bolivia, NC 28422	REPORT TO: Glenn Walker	PHONE/FAX: 910-371-3490
	COPY TO:	email: glenn.walker@brunswickcountync.gov

Sampled By: Billy Benton

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	THO	OTHER	
120717-501	12-7-17	0835	13.8°	RAW	Ⓞ	Ⓟ		46302								EPA 537 + GenX
120717-E01	12-7-17	0835	13.8°	DW	Ⓞ	Ⓟ		46303								
					C	P										
					G	G										
					C	P										
					G	G										
					C	P										
					G	G										
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					C	P										
					G	G										
					C	P										
					G	G										

Transfer	Relinquished By:	Date/Time	Received By:	Date/Time
1.	<u>Billy Benton</u>	12-7-17		
2.				

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

Delivered By: _____ Received By: R. Walker Date: 12/7/17 Time: 10:00

Comments: _____ TURNAROUND: _____