



Environmental Chemists, Inc.

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ANALYTICAL & CONSULTING CHEMISTS

info@environmentalchemists.com

November 21, 2017

Brunswick County Public Utilities

Post Office Box 249

Bolivia, NC 28422

Attn: Glenn Walker

Report #2017-16974

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 Chemicals NLS Project: 290513
 Project Description: GenX Samples
 Project Title: Template: 537PPTGENX Printed: 11/17/2017 15:54

Sample: 1029282_41078 Collected: 11/02/17 Analyzed: 11/17/17 - Analytes: 13

ANALYTE NAME	RESULT	UNITS	WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		1	6.6	21		
perfluorohexanoic acid (PFHxA)	41.3	ppt		1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	46.5	ppt		1	0.73	2.3		
perfluorohexanoic acid (PFHxA)	34.4	ppt		1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[7.56]	ppt		1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	15.2	ppt		1	1.2	3.9		
perfluorononanoic acid (PFNA)	[3.93]	ppt		1	1.5	4.9		J
perfluorooctanesulfonic acid (PFOS)	12.4	ppt		1	1.7	5.3		
perfluorodecanoic acid (PFDA)	3.0	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)	110.042%							S
C13-PFDA (SURR)	85.234%							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: 1029283_41079 Collected: 11/02/17 Analyzed: 11/17/17 - Analytes: 13

ANALYTE NAME	RESULT	UNITS	WWB	DIL	LOD	LOQ	MCL	Note
perfluorobutanesulfonic acid (PFBS)	ND	ppt		1	6.6	21		
perfluorohexanoic acid (PFHxA)	34.8	ppt		1	1.3	4.0		
perfluoro-2-propoxypropanoic acid (GenX)	41.6	ppt		1	0.73	2.3		
perfluorohexanoic acid (PFHxA)	25.9	ppt		1	0.80	2.6		
perfluorohexanesulfonic acid (PFHxS)	[4.8]	ppt		1	2.8	8.8		J
perfluorooctanoic acid (PFOA)	10.4	ppt		1	1.2	3.9		
perfluorononanoic acid (PFNA)	[2.41]	ppt		1	1.5	4.9		J
perfluorooctanesulfonic acid (PFOS)	6.75	ppt		1	1.7	5.3		
perfluorodecanoic acid (PFDA)	[1.56]	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 (PFTDA)	ND	ppt		1	3.2	10		
perfluorotetradecanoic acid (PFTA)	ND	ppt		1	2.8	8.9		
C13-PFHxA (SURR)	108.067%							S
C13-PFDA (SURR)	89.777%							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 PLUD
ADDRESS: PO Box 249
Belvia, NC 28422

PROJECT NAME: Gen X Compounds
CONTACT NAME: Glenn Walker
REPORT TO: Glenn Walker
COPY TO:

REPORT NO: 17-10974
PO NO:
PHONE/FAX: 910-371-3490
email: glenn.walker@brunswickcountync.com

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

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
11217-501	11/21/17	0830	18.8	RW	C	P		41078								EPA 537 + Gen X
11217-E01	11/21/17	0830		DW	G	P		41079								
					C	P										
					C	P										
					C	P										
					G	G										
					C	P										
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Transfer: Relinquished By: Date/Time Received By: Date/Time

1. Temperature when Received: 1.0 Accepted: Rejected: Resample Requested: Delivered By: Thaddus Hill Received By: Date: 11/21/17 Time: 10:35

Comments: TURNAROUND: