

Serialized: 07/07/2017 03:18pm QC36

RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD

WARRINGTON, PA 18976

Regarding:
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD
WARRINGTON, PA 18976

PROJECT ID:

W00674 BRISTOL EPA

LABORATORY REPORT NUMBER:

L6807988



Authorized by: Raphael C. Fratti, Laboratory Director

RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD
WARRINGTON, PA 18976

Regarding:
RICK ZEITLER
WARRINGTON TOWNSHIP WATER & SEWER
852 EASTON ROAD
WARRINGTON, PA 18976

Account No: W00674, WARRINGTON TWP WATER & SEWER **P.O. No:** **Inv. No:** EOM-07/17
Project No: W00674 BRISTOL EPA, WARRINGTON TOWNSHIP WATER & SEWER **PWSID No:** 1090070

Sample ID	Sample Description	Samp. Date/Time/Temp	Sampled by
L6807988-1	EP104 WELL 8 SINK	06/19/17 11:42am NA C	Suzanne E. Hughes, Eurofins QC, Inc.
Received Date/Time/Temp 06/19/17 03:15pm 5.8 C		Iced (Y/N): Y	

--SUBCONTRACTED RESULT REFERENCES--

See attached reports for the following Subcontract Laboratories:

Eurofins - Lancaster Laboratories, Environmental (ELLE)
PENTADEC AFLUORO-OCTANOIC ACID

Sample ID	Sample Description	Samp. Date/Time/Temp	Sampled by
L6807988-2	EP105 WELL 8 SINK	06/19/17 11:00am NA C	Suzanne E. Hughes, Eurofins QC, Inc.
Received Date/Time/Temp 06/19/17 03:15pm 5.8 C		Iced (Y/N): Y	

--SUBCONTRACTED RESULT REFERENCES--

See attached reports for the following Subcontract Laboratories:

Eurofins - Lancaster Laboratories, Environmental (ELLE)
PENTADEC AFLUORO-OCTANOIC ACID

Sample ID	Sample Description	Samp. Date/Time/Temp	Sampled by
L6807988-3	EP107 WELL 11 SINK	06/19/17 12:30pm NA C	Suzanne E. Hughes, Eurofins QC, Inc.
Received Date/Time/Temp 06/19/17 03:15pm 5.8 C		Iced (Y/N): Y	

--SUBCONTRACTED RESULT REFERENCES--

See attached reports for the following Subcontract Laboratories:

Eurofins - Lancaster Laboratories, Environmental (ELLE)
PENTADEC AFLUORO-OCTANOIC ACID

Sample Comments | Result Qualifiers:

PIN: 85448

Serial Number: 6337924

Account No: W00674, WARRINGTON TWP WATER & SEWER

P.O. No:

Inv. No: EOM-07/17

Project No: W00674 BRISTOL EPA, WARRINGTON TOWNSHIP WATER & SEWER

PWSID No: 1090070

L6807988-1 :

L6807988-2 :

L6807988-3 :



DEFINITIONS

Eurofins OC, Inc. (EOC)

The following terms or abbreviations are used in this report:

MPN	Most probable number	DF	Dilution Factor (For Microbiology, DF = volume of sample tested)
CFU	Colony forming unit	QUAL	Qualifier (Q)
POS	Positive / Present	NTU	Nephelometric turbidity units
NEG	Negative / Absent	RL	Laboratory reporting limit or Limit of Quantitation (LOQ)
PRES	Presumptive	MCL	EPA recommended "Maximum Contaminant Level"
MF	Membrane Filtration	MDL	Method Detection Limit
TNTC	Too numerous to count	ND	Analyte concentration not detected greater than the RL / MDL
DRY	The result was reported on a dry weight basis.	ND	For the odor test: No Odor Observed
TON	Threshold Odor Number		

ppm (mg/l) Parts per million: equivalent to 1 milligram per kilogram (mg/Kg) for solids or one milligram per liter (mg/L) for aqueous samples.

ppb (ug/L) Parts per billion: equivalent to 1 microgram per kilogram (ug/Kg) for solids or one microgram per liter (ug/L) for aqueous samples.

< Less than: In conjunction with a numerical value, indicates a concentration less than RL / MDL.

> Greater than: In conjunction with a numerical value, indicates a concentration greater than RL / MDL.

Data Qualifiers

J	Estimated value \geq MDL but < RL.
T	Temperature receipt exceedance, refer to Sample Comments/ Results Qualifiers section.
E	Microbiology: estimated CFU count
Q	Qualifier: defined in Sample Comment section on report

Warranties, Terms, and Conditions

- Analyses for Odor and Odor Threshold are performed at the EQCI Southampton facility (1205 Industrial Boulevard, Southampton, PA 18966). Unless otherwise specified in the Parameter field, analyses (excluding "Field Parameters") for environmental microbiology, environmental chemistry, and pharmaceutical microbiology are performed at the EQCI Horsham facility (702 Electronic Dr. Horsham, PA 19044).
- The test results meet all TNI or other applicable regulatory agency requirements, including holding times and preservation, unless otherwise indicated.
- The report shall not be reproduced, except in full, without the written consent of the laboratory.
- All samples are collected as "grab" samples unless otherwise identified.
- The reported results relate only to the sample as tested. EQCI is not responsible for sample integrity unless sampling has been performed by a member of our staff.
- EQCI is not responsible for sampling and/or testing omissions. Note that regulatory authorities may assess substantial fines for testing omissions. Please track your sample collection schedules and results on a regular basis (e.g. weekly, monthly, or quarterly) to ensure compliance. EQCI's internet program "LIVE ACCESS" will provide you with real-time access to collection dates and testing results. Please contact Customer Service for further information.
- The following personnel or their deputies have approved the results of the tests performed by EQCI: Nicki Smith (Environmental Chemistry), Amanda Berd (Pharmaceutical), Sue Abbott (EQCI Delaware), and Bhavita Shah (EQCI Horsham, Microbiology).

EOC Accreditations

Southampton, PA	EPA ID: PA00018	Horsham, PA	NELAP IDs: PA: 46-05499
	NELAP IDs: PA 09-00131; NJ PA166; NY 11223		NJ: PA093
	State IDs: DE PA-018;		
	FDA Reg #: 3009048205		
New Castle, DE	State IDs: DE 00011; MD 138		
Wind Gap, PA	State IDs: PA 48-01334; NJ PA001		
East Rutherford, NJ	State ID: NJ 02015		
Vineland, NJ	State ID: NJ 06005		

EQC Picksheet: P6807988
 Eurofins QC, Inc Cust: W00674 BRISTOL EPA
 Schd: 50081

Expected: MONDAY 06/05/17 - 06/30/17
 Project Name: WARRINGTON TOWNSHIP WATER & SEWER
 Start Date: 11/17/16 Stop Date:
 Comments/Schedule Details:
 GF 287218

RICK ZEITLER
 WARRINGTON TOWNSHIP WATER & SEWER
 852 EASTON ROAD

WARRINGTON, PA 18976
 (215)343-1800
 (215)768-6109 SAM-CELL
 (215)768-6103 RICK ZEITLER-CELL

Route: 6 SUE HUGHES

PWSID: 1090070

③ Trizma 250mg/l

LAB USE ONLY
 Bottle Type # HCL Viols
 # Ascorbic/HCL Viols
 # NA2S2O3
 # NaOH/Zn acetate pH
 # HNO3 pH
 # H2SO4 pH
 # NaOH pH
 # Unpreserved
 # HCL
 # NH4CL
 # MEQH
 # Na2SO3/HCL
 # DI Water

P
 d
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 C
 C
 C
 C

Collection Date	Collection Time Total (Military)	# Bottles	Field Tests By: /Time:		
			Free Cl2 mg/l	pH/TempC	BR2 mg/l
6-19-17	1142	1			
↓	1100	1			
↓	1230	1			

6807988-1 PFOA) EP104 WELL 5 SINK
 PFOA
 SUB TO ELLE * SPECIAL PURPOSE

6807988-2 EP105 WELL 8 SINK
 PFOA

6807988-3 EP107 WELL 11 SINK
 PFOA

Cooler ID:

Sample Collected By	Circle One	Initials
	Client	EQC SET

Required TAT: Standard /Rush # Days

Relinquished By	Time	Date	Received By	Time	Date	Temp	Iced Y/N	Site	Initials
<i>[Signature]</i>	1515	6-19-17	<i>[Signature]</i>	1515	6-19-17	5.8C	Y	EQC	SET

Comments (reporting, methods, etc)

Hazardous Y/N

M: 08:00-14:30 T: 08:00-14:30 W: 08:00-14:30 Th: 08:00-14:30 F: 08:00-14:30 S: - Sn: - Printed: 05/17/17 GPS X: -75.14407 Y: 40.27073
 M: - T: - W: - Th: - F: - S: - Sn: -
 PM: DOUG

ANALYTICAL RESULTS

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

Report Date: June 27, 2017

Project: L6807988

Submittal Date: 06/19/2017

Group Number: 1815081

PO Number: L6807988

State of Sample Origin: PA

Client Sample Description

L6807988-1 Drinking Water
L6807988-2 Drinking Water
L6807988-3 Drinking Water

Lancaster Labs

(LL) #

9056968

9056969

9056970

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To Eurofins QC Labs

Attn: Nicki Smith

Respectfully Submitted,



Wendy A. Kozma
Principal Specialist Group Leader

Project Name: L6807988
LL Group #: 1815081

General Comments:

See the Laboratory Sample Analysis Record section of the Analysis Report for the method references.

All QC met criteria unless otherwise noted in an Analysis Specific Comment below. Refer to the QC Summary for specific values and acceptance criteria.

Project specific QC samples are not included in this data set

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Surrogate recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in an Analysis Specific Comment below.

The samples were received at the appropriate temperature and in accordance with the chain of custody unless otherwise noted.

Analysis Specific Comments:**EPA 537 Rev. 1.1 modified, Misc. Organics**

Sample #s: 9056968, 9056969, 9056970

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Batch #: 17172007 (Sample number(s): 9056968-9056970 UNSPK: 9056968)

The recovery(ies) for one or more surrogates were below the acceptance window for sample(s) 9056968, 9056969, Blank, LCS, MS

Sample Description: L6807988-1 Drinking Water
EP104 Well 5 Sink

LL Sample # PW 9056968
LL Group # 1815081
Account # 25996

Project Name: L6807988

Collected: 06/19/2017 11:42 by SEH

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

Submitted: 06/19/2017 18:10

Reported: 06/27/2017 20:46

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Misc. Organics		EPA 537 Rev. 1.1 modified	ng/l	ng/l	
10954	Perfluorooctanoic acid	335-67-1	13	2	1
10954	Perfluorononanoic acid	375-95-1	N.D.	2	1
10954	Perfluorodecanoic acid	335-76-2	N.D.	2	1
10954	Perfluoroundecanoic acid	2058-94-8	N.D.	3	1
10954	Perfluorododecanoic acid	307-55-1	N.D.	2	1
10954	Perfluorotridecanoic acid	72629-94-8	N.D.	2	1
10954	Perfluorotetradecanoic acid	376-06-7	N.D.	2	1
10954	Perfluorohexanoic acid	307-24-4	5	2	1
10954	Perfluoroheptanoic acid	375-85-9	4	2	1
10954	Perfluorobutanesulfonate	375-73-5	4	3	1
10954	Perfluorohexanesulfonate	355-46-4	4	3	1
10954	Perfluoro-octanesulfonate	1763-23-1	16	6	1
10954	NETFOSAA	2991-50-6	N.D.	3	1
	NETFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.				
10954	NMeFOSAA	2355-31-9	N.D.	3	1
	NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.				

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10954	PFAS in Water by LC/MS/MS	EPA 537 Rev. 1.1 modified	1	17172007	06/25/2017 22:43	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Rev. 1.1 modified	1	17172007	06/21/2017 12:20	Pamela Rothharpt	1

Sample Description: L6807988-2 Drinking Water
EP105 Well 8 Sink

LL Sample # PW 9056969
LL Group # 1815081
Account # 25996

Project Name: L6807988

Collected: 06/19/2017 11:00 by SEH

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

Submitted: 06/19/2017 18:10

Reported: 06/27/2017 20:46

Sample Description: L6807988-2 Drinking Water
EP105 Well 8 Sink

LL Sample # PW 9056969
LL Group # 1815081
Account # 25996

Project Name: L6807988

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Misc. Organics		EPA 537 Rev. 1.1 modified	ng/l	ng/l	
10954	Perfluorooctanoic acid	335-67-1	9	2	1
10954	Perfluorononanoic acid	375-95-1	N.D.	2	1
10954	Perfluorodecanoic acid	335-76-2	N.D.	2	1
10954	Perfluoroundecanoic acid	2058-94-8	N.D.	3	1
10954	Perfluorododecanoic acid	307-55-1	N.D.	2	1
10954	Perfluorotridecanoic acid	72629-94-8	N.D.	2	1
10954	Perfluorotetradecanoic acid	376-06-7	N.D.	2	1
10954	Perfluorohexanoic acid	307-24-4	4	2	1
10954	Perfluoroheptanoic acid	375-85-9	3	2	1
10954	Perfluorobutanesulfonate	375-73-5	N.D.	3	1
10954	Perfluorohexanesulfonate	355-46-4	6	3	1
10954	Perfluoro-octanesulfonate	1763-23-1	12	6	1
10954	NETFOSAA	2991-50-6	N.D.	3	1
NETFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
10954	NMeFOSAA	2355-31-9	N.D.	3	1
NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					

The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10954	PFAS in Water by LC/MS/MS	EPA 537 Rev. 1.1 modified	1	17172007	06/25/2017 23:04	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Rev. 1.1 modified	1	17172007	06/21/2017 12:20	Pamela Rothharpt	1

Sample Description: L6807988-3 Drinking Water
EP107 Well 11 Sink

LL Sample # PW 9056970
LL Group # 1815081
Account # 25996

Project Name: L6807988

Collected: 06/19/2017 12:30 by SEH

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

Submitted: 06/19/2017 18:10

Reported: 06/27/2017 20:46

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
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Sample Description: L6807988-3 Drinking Water
EP107 Well 11 Sink

LL Sample # PW 9056970
LL Group # 1815081
Account # 25996

Project Name: L6807988

Collected: 06/19/2017 12:30 by SEH

Eurofins QC Labs
702 Electric Avenue
Horsham PA 19044

Submitted: 06/19/2017 18:10

Reported: 06/27/2017 20:46

CAT No.	Analysis Name	CAS Number	Result	Limit of Quantitation	Dilution Factor
Misc. Organics		EPA 537 Rev. 1.1 modified	ng/l	ng/l	
10954	Perfluorooctanoic acid	335-67-1	12	2	1
10954	Perfluorononanoic acid	375-95-1	N.D.	2	1
10954	Perfluorodecanoic acid	335-76-2	N.D.	2	1
10954	Perfluoroundecanoic acid	2058-94-8	N.D.	3	1
10954	Perfluorododecanoic acid	307-55-1	N.D.	2	1
10954	Perfluorotridecanoic acid	72629-94-8	N.D.	2	1
10954	Perfluorotetradecanoic acid	376-06-7	N.D.	2	1
10954	Perfluorohexanoic acid	307-24-4	7	2	1
10954	Perfluoroheptanoic acid	375-85-9	4	2	1
10954	Perfluorobutanesulfonate	375-73-5	6	3	1
10954	Perfluorohexanesulfonate	355-46-4	N.D.	3	1
10954	Perfluoro-octanesulfonate	1763-23-1	12	6	1
10954	NETFOSAA	2991-50-6	N.D.	3	1
NETFOSAA is the acronym for N-ethyl perfluorooctanesulfonamidoacetic Acid.					
10954	NMeFOSAA	2355-31-9	N.D.	3	1
NMeFOSAA is the acronym for N-methyl perfluorooctanesulfonamidoacetic Acid.					
The stated QC limits are advisory only until sufficient data points can be obtained to calculate statistical limits.					

Sample Comments

PA DEP Lab Certification ID 36-00037, Expiration Date: 1/31/18.

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10954	PFAS in Water by LC/MS/MS	EPA 537 Rev. 1.1 modified	1	17172007	06/25/2017 23:24	Devon M Whooley	1
14091	PFAS Water Prep	EPA 537 Rev. 1.1 modified	1	17172007	06/21/2017 12:20	Pamela Rothharpt	1

Quality Control Summary

Client Name: Eurofins QC Labs
Reported: 06/27/2017 20:46

Group Number: 1815081

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	LOQ
	ng/l	ng/l
Batch number: 17172007	Sample number(s): 9056968-9056970	
Perfluorooctanoic acid	N.D.	2
Perfluorononanoic acid	N.D.	2
Perfluorodecanoic acid	N.D.	2
Perfluoroundecanoic acid	N.D.	3
Perfluorododecanoic acid	N.D.	2
Perfluorotridecanoic acid	N.D.	2
Perfluorotetradecanoic acid	N.D.	2
Perfluorohexanoic acid	N.D.	2
Perfluoroheptanoic acid	N.D.	2
Perfluorobutanesulfonate	N.D.	3
Perfluorohexanesulfonate	N.D.	3
Perfluoro-octanesulfonate	N.D.	6
NEtFOSAA	N.D.	3
NMeFOSAA	N.D.	3

LCS/LCSD

Analysis Name	LCS Spike Added	LCS Conc	LCSD Spike Added	LCSD Conc	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
	ng/l	ng/l	ng/l	ng/l					
Batch number: 17172007	Sample number(s): 9056968-9056970								
Perfluorooctanoic acid	200	176.04	200	171.32	88	86	70-130	3	30
Perfluorononanoic acid	200	187.07	200	180.26	94	90	70-130	4	30
Perfluorodecanoic acid	200	196.37	200	169.69	98	85	70-130	15	30
Perfluoroundecanoic acid	200	204.48	200	182.06	102	91	70-130	12	30
Perfluorododecanoic acid	200	193.28	200	186.23	97	93	70-130	4	30
Perfluorotridecanoic acid	200	185.7	200	169.17	93	85	70-130	9	30
Perfluorotetradecanoic acid	200	189.87	200	174.26	95	87	70-130	9	30
Perfluorohexanoic acid	200	191.9	200	178.78	96	89	70-130	7	30
Perfluoroheptanoic acid	200	183.37	200	171.78	92	86	70-130	7	30
Perfluorobutanesulfonate	176.8	154.96	176.8	163.37	88	92	70-130	5	30
Perfluorohexanesulfonate	189.2	177.36	189.2	175.25	94	93	70-130	1	30
Perfluoro-octanesulfonate	191.2	192.57	191.2	175.02	101	92	70-130	10	30
NEtFOSAA	200	187.03	200	162.88	94	81	70-130	14	30
NMeFOSAA	200	179.55	200	165.27	90	83	70-130	8	30

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Eurofins QC Labs
Reported: 06/27/2017 20:46

Group Number: 1815081

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ng/l	MS Spike Added ng/l	MS Conc ng/l	MSD Spike Added ng/l	MSD Conc ng/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 17172007	Sample number(s): 9056968-9056970 UNSPK: 9056968									
Perfluorooctanoic acid	12.91	200.08	188.01			88		70-130		
Perfluorononanoic acid	1.45	200.08	180.69			90		70-130		
Perfluorodecanoic acid	N.D.	200.08	173.33			87		70-130		
Perfluoroundecanoic acid	N.D.	200.08	187.55			94		70-130		
Perfluorododecanoic acid	N.D.	200.08	198.56			99		70-130		
Perfluorotridecanoic acid	N.D.	200.08	198.67			99		70-130		
Perfluorotetradecanoic acid	N.D.	200.08	186.61			93		70-130		
Perfluorohexanoic acid	4.85	200.08	186.68			91		70-130		
Perfluoroheptanoic acid	3.63	200.08	188.69			92		70-130		
Perfluorobutanesulfonate	4.08	176.87	167.26			92		70-130		
Perfluorohexanesulfonate	4.40	189.28	185.22			96		70-130		
Perfluoro-octanesulfonate	16.37	191.28	199.57			96		70-130		
NEtFOSAA	N.D.	200.08	164.1			82		70-130		
NMeFOSAA	N.D.	200.08	180.39			90		70-130		

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PFAS in Water by LC/MS/MS
Batch number: 17172007

	13C3-PFBS	13C5-PFHxA	13C3-PFHxS	13C4-PFHpA	13C8-PFOA	13C8-PFOS
9056968	79	83	75	75	73	74
9056969	73	89	88	92	82	81
9056970	85	73	72	76	79	83
Blank	69*	88	80	81	75	79
LCS	76	82	82	82	80	74
LCSD	70	85	80	84	79	77
MS	71	69*	71	75	77	77
Limits:	70-130	70-130	70-130	70-130	70-130	70-130

	13C9-PFNA	13C6-PFDA	d3-NMeFOSAA	13C7-PFUnDA	d5-NEtFOSAA	13C2-PFDoDA
9056968	74	79	54*	77	71	73
9056969	87	90	65*	94	80	87
9056970	86	81	74	94	91	98
Blank	85	82	69*	80	73	93
LCS	77	76	63*	74	69*	81
LCSD	76	84	74	89	77	95
MS	81	78	67*	78	72	77

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

Quality Control Summary

Client Name: Eurofins QC Labs
Reported: 06/27/2017 20:46

Group Number: 1815081

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: PFAS in Water by LC/MS/MS
Batch number: 17172007

Limits:	70-130	70-130	70-130	70-130	70-130	70-130
	13C2-PFTeDA					
9056968	62*					
9056969	67*					
9056970	91					
Blank	73					
LCS	79					
LCSD	91					
MS	69*					
Limits:	70-130					

*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.

P##### is indicative of a Background or Unspiked sample that is batch matrix QC and was not performed using a sample from this submission group.

EQC Picksheet: P6807988
 Eurofins QC, Inc Cust: W00674 BRISTOL EPA
 Schd: 50081

RICK ZEITLER
 WARRINGTON TOWNSHIP WATER & SEWER
 852 EASTON ROAD

WARRINGTON, PA 18976
 (215)343-1800
 (215)768-6109 SAM-CELL
 (215)768-6103 RICK ZEITLER-CELL

Route: 6 SUE HUGHES

1815081

Expected: MONDAY 06/05/17 - 06/30/17

Project Name: WARRINGTON TOWNSHIP WATER & SEWER
 Start Date: 11/17/16 Stop Date:
 Comments/Schedule Details:
 GF 287218

PWSID: 1090070

③ Trizma 250mg/l

LAB USE ONLY Bottle Type
 # _____ Ascorbic/HCL Vials # _____ HCL Vials
 # _____ NA2S2O3
 # _____ NaOH/Zn acetate pH _____
 # _____ HNO3 pH _____
 # _____ H2SO4 pH _____
 # _____ NaOH pH _____
 # _____ Unpreserved
 # _____ HCL
 # _____ NH4CL
 # _____ MEOH
 # _____ Na2SO3/HCL
 # _____ DI Water

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6807988-1 PFOA) EP104 WELL 5 SINK
 PFOA
 6807988-2 EP105 WELL 8 SINK
 PFOA
 6807988-3 EP107 WELL 11 SINK
 PFOA

SUB TO ELLE * SPECIAL PURPOSE

Collection Date	Collection Time (Military)	Total # Bottles	Field Tests By: /Time:		
			Free Cl2 mg/L	pH/TempC BR2 mg/L	Total CL2 mg/L
6-19-17	1142	1			
↓	1100	1			
↓	1230	1			

Cooler ID:

Sample Collected By	Circle One Client EQC	Initials SET
Relinquished By <i>Sue Hughes</i>	Time 1515	Date 6-19-17
Received By <i>COW</i>	Time 1810	Date 6-19-17

Required TAT: Standard ___/Rush ___ # Days ___

Time	Date	Temp	Iced Y/N	Site	Initials
1515	6-19-17	5.8C	Y	EQC	SET
1810	6-19-17		Y	ELLE	G

Comments (reporting, methods, etc)

M: 08:00-14:30 T: 08:00-14:30 W: 08:00-14:30 Th: 08:00-14:30 F: 08:00-14:30 S: 08:00-14:30
 M: - T: - W: - Th: - F: - St: - Sn: -

Printed: 05/17/17 GPS X: -75.14407 Y: 40.27073

PM: DOUG

Hazardous Y/N

Client: EQCL**Delivery and Receipt Information**

Delivery Method: EQCL Drop Off Arrival Timestamp: 06/19/2017 18:10
 Number of Packages: 1 Number of Projects: 8

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	VOA Vial Headspace \geq 6mm:	N/A
Samples Chilled:	Yes	Total Trip Blank Qty:	0
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by *Cory Jeremiah (110469)* at 18:45 on 06/19/2017**Samples Chilled Details**

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT146	3.0	DT	Wet	Y	Bagged	N

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	mg	milligram(s)
C	degrees Celsius	mL	milliliter(s)
cfu	colony forming units	MPN	Most Probable Number
CP Units	cobalt-chloroplatinate units	N.D.	none detected
F	degrees Fahrenheit	ng	nanogram(s)
g	gram(s)	NTU	nephelometric turbidity units
IU	International Units	pg/L	picogram/liter
kg	kilogram(s)	RL	Reporting Limit
L	liter(s)	TNTC	Too Numerous To Count
lb.	pound(s)	µg	microgram(s)
m3	cubic meter(s)	µL	microliter(s)
meq	milliequivalents	umhos/cm	micromhos/cm
<	less than		
>	greater than		
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.		
ppb	parts per billion		
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.		

Laboratory Data Qualifiers:

- C - Result confirmed by reanalysis
- E - Concentration exceeds the calibration range
- J (or G, I, X) - estimated value \geq the Method Detection Limit (MDL or DL) and $<$ the Limit of Quantitation (LOQ or RL)
- P - Concentration difference between the primary and confirmation column $>40\%$. The lower result is reported.
- U - Analyte was not detected at the value indicated
- V - Concentration difference between the primary and confirmation column $>100\%$. The reporting limit is raised due to this disparity and evident interference...
- W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

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Additional Data Qualifiers

Qualifier	Definition
B	Detection in the Blank
Q0	LCS/LCSD Low
Q1	LCS/LCSD High
Q4	MS/MSD Out of Range
Q7	LCS/LCSD RPD
Q8	DUP RPD
Q9	MS/MSD RPD
Z	Laboratory Defined - see analysis report