POLLEN ENVIRONMENTAL, LLC.

3536 International Street
Fairbanks, AK 99701
(907) 479-8368 Phone (907) 452-6853 Fax
jerry@pollenenv.com

CHAIN OF CUSTODY/WORKORDER FORM

COC# CONP 2017

CLIENT INFORMATION	Contact Person: **Paul Trissel**
Company: **City of North Pole**	
Address: **125 Snowman Lane**	**WWTP APDES #:**
City, State Zip: **North Pole, AK 99705**	**PWS ID #: 310675**
Phone: **907-388-1907**	Send Results to ADEC:
Fax: **907-488-1825**	√ Yes ☐ No
Email: **northpoleutilities@alaska.net**	Purchase Order/Charge Code:
Project Name: **Bi-Annual WTP Monitoring**	2017-446
Sampled By: **JEP**	

Requested Analysis — Perservative Added

Page 1 of 1

☐ Normal Turnaround

☐ RUSH ____ day(s)

Sample Identification	Sample Date	Sample Time	Matrix	Lab ID#	Sub Lab ID#	Number of Containers	PFC'S							Sample Comments
Well A	8/8/2017	0937	W	PEF35638		2	X							Raw Water
City WTP	8/8/2017	0952	W	PEF35639		2	X							Entry Point

Possible Hazard Identification:

☐ *Non-Hazardous* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Unknown*

Sample Condition:

Pollen Env Temperature on arrival: °C *COC Seal:* ☐ *Intact* ☐ *Broken* ☐ *Absent*

Sub Lab Temperature on arrival: °C *COC Seal:* ☐ *Intact* ☐ *Broken* ☐ *Absent*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date & Time:	Received by:	Company:	Date & Time:
Jerry Allen	Pollen Env	8-8-17@1100am			
Relinquished by:	Company:	Date & Time:	Received by:	Company:	Date & Time:
Relinquished by:	Company:	Date & Time:	Received by:	Company:	Date & Time:

Pollen Environmental, LLC.
Pouch 340135 Prudhoe Bay, AK. 99734 3536 International Street Fairbanks, AK. 99701
(907)659-2324 Phone (907)659-2325 Fax (907)479-8368 Phone (907)452-6853 Fax
www.pollenenv.com

CERTIFICATE OF ANALYSIS

City of North Pole WTP
Attn: Paul Trissel
125 Snowman Lane
North Pole, AK 99705
Phone: 907-388-1907
Fax: 907-488-1825
northpoleutilities@alaska.net

Report Date: 8/18/2017
Sample Date: 8/8/2017
Sample Time: 9:37-9:52 AM
Sampled By: Jerry Pollen

Project Name:	**CONP WTP PFOS Monitoring**
Analysis:	**PFC'S**
Analysis Method:	**EPA 537**
COC#:	**CONP 2017**
Sample Matrix:	**Drinking Water**
PWS ID#:	**AK2310675**

Attached are the results for analysis of your samples. This sample was analyzed by Eurofins Eaton Analytical in South Bend, IN.

Client Sample ID:	Pollen Env ID:	Eurofins Eaton Analytical ID:
Well A	PEF35638	3752131
City WTP	PEF35639	3752132

Jerry Pollen
Pollen Environmental, LLC - Fairbanks

eurofins

Eaton Analytical

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

eurofins

Eaton Analytical

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Montana	CERT0026
Alaska	IN00035	Nebraska	NE-OS-05-04
Arizona	AZ0432	Nevada	IN00035
Arkansas	IN00035	New Hampshire*	2124
California	2920	New Jersey*	IN598
Colorado	IN035	New Mexico	IN00035
Colorado Radiochemistry	IN035	New York*	11398
Connecticut	PH-0132	North Carolina	18700
Delaware	IN035	North Dakota	R-035
Florida*	E87775	Ohio	87775
Georgia	929	Oklahoma	D9508
Hawaii	IN035	Oregon (Primary AB)*	4074-001
Idaho	IN00035	Pennsylvania*	68-00466
Illinois*	200001	Puerto Rico	IN00035
Illinois Microbiology	17767	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA170006	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
Missouri	880		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 05/15/2017

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Pollen Environmental LLC

Attn: Jerry Pollen
3536 International Avenue
Fairbanks, AK 99701

Report: 395158
Priority: Standard Written
Status: Final
PWS ID: AK2310675
Alaska Lab ID # IN00035

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
3752131	PEF35638/Well A	537	08/08/17 09:37	Client	08/09/17 08:30
3752132	PEF35639/City WTP	537	08/08/17 09:52	Client	08/09/17 08:30

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Traci Chlebowski at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Traci Chlebowski ASM — 08/18/2017

Authorized Signature | Title | Date

Client Name: Pollen Environmental LLC
Report #: 395158

Client Name: Pollen Environmental LLC Report #: 395158

Sampling Point: PEF35638/Well A PWS ID: AK2310675

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
335-76-2	Perfluorodecanoic acid (PFDA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
375-85-9	Perfluoroheptanoic acid (PFHpA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537	---	2.0	**2.2**	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
307-24-4	Perfluorohexanoic acid (PFHxA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
307-55-1	Perfluorolauric acid (PFDoA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
376-06-7	Perfluoromyristic acid (PFTA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
375-95-1	Perfluorononanoic acid (PFNA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
1763-23-1	Perfluorooctane sulfonate (PFOS)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
335-67-1	Perfluorooctanoic acid (PFOA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 20:49	3752131

Sampling Point: PEF35639/City WTP PWS ID: AK2310675

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
375-73-5	Perfluorobutanesulfonic acid (PFBS)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
335-76-2	Perfluorodecanoic acid (PFDA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
375-85-9	Perfluoroheptanoic acid (PFHpA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	537	---	2.0	**2.3**	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
307-24-4	Perfluorohexanoic acid (PFHxA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
307-55-1	Perfluorolauric acid (PFDoA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
376-06-7	Perfluoromyristic acid (PFTA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
375-95-1	Perfluorononanoic acid (PFNA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
1763-23-1	Perfluorooctane sulfonate (PFOS)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
335-67-1	Perfluorooctanoic acid (PFOA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132
2058-94-8	Perfluoroundecanoic acid (PFUnA)	537	---	2.0	< 2.0	ng/L	08/10/17 07:20	08/10/17 21:06	3752132

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

POLLEN ENVIRONMENTAL, LLC.

CHAIN OF CUSTODY/WORKORDER FORM

3536 International Street
Fairbanks, AK 99701
(907) 479-8368 Phone (907) 452-6853 Fax
jerry@pollenenv.com

COC# CONP 2017
3244492

CLIENT INFORMATION	Contact Person: Paul Trissel	Requested Analysis: 3 95158	Page 1 of 1
Company: **City of North Pole**		Perservative Added	
Address: **125 Snowman Lane**	**WWTP APDES #:**		
City, State Zip: **North Pole, AK 99705**	**PWS ID #: 310675**		
Phone: **907-388-1907**	Send Results to ADEC:		☐ Normal Turnaround
Fax: **907-488-1825**	v Yes ☐ No		
Email: **northpoleutilities@alaska.net**	Purchase Order/Charge Code:		☐ RUSH ____ day(s)
Project Name: **Bi-Annual WTP Monitoring**	2017-446		
Sampled By: **JEP**			

Sample Identification	Sample Date	Sample Time	Matrix	Lab ID#	Sub Lab ID#	Number of Containers	PFC'S							Sample Comments
Well A	8/8/2017	0937	W	PEF35638	3752131	2	X	A						Raw Water
City WTP	8/8/2017	0952	W	PEF35639	↓ 132	2	X	A						Entry Point

Possible Hazard Identification:
☐ *Non-Hazardous* ☐ *Flammable* ☐ *Skin Irritant* ☐ *Unknown*

Sample Condition:
Pollen Env Temperature on arrival: 3.8 °C *COC Seal:* ☐ *Intact* ☐ *Broken* ☐ *Absent*
Sub Lab Temperature on arrival: 3.8 °C *COC Seal:* ☒ *Intact* ☐ *Broken* ☐ *Absent*

Special Instructions/QC Requirements & Comments:

Relinquished by:	Company:	Date & Time:	Received by:	Company:	Date & Time:
Jerry Ellen	Pollen Env	8-8-17@1100am			
Relinquished by:	Company:	Date & Time:	Received by:	Company:	Date & Time:
Relinquished by:	Company:	Date & Time:	Received by: KDuw	Company: EFA	Date & Time: 8-9-17 0830

Accuracy, Precision, and Professional Service

Eurofins Eaton Analytical
Run Log

Run ID: **232871** Method: **537**

Type	Sample Id	Sample Site	Matrix	Instrument ID	Analysis Date	Calibration File
CCL	3753222		OS	FL	08/10/2017 18:35	081017M537a-FL-PFC12.mdb
LRB	3753192		RW	FL	08/10/2017 19:09	081017M537a-FL-PFC12.mdb
FBM	3753193		RW	FL	08/10/2017 19:42	081017M537a-FL-PFC12.mdb
FS	3752131	PEF35638/Well A	DW	FL	08/10/2017 20:49	081017M537a-FL-PFC12.mdb
FS	3752132	PEF35639/City WTP	DW	FL	08/10/2017 21:06	081017M537a-FL-PFC12.mdb
CCM	3753223		OS	FL	08/10/2017 23:04	081017M537a-FL-PFC12.mdb

QC Summary Report

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCL	IS-PFOA-13C2	537	N/A	---		712319.00	712319	ng/L	100	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	IS-PFOS-13C4	537	N/A	---		132586.00	132586	ng/L	100	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	SS-PFDA-13C2	537	N/A	---		100.7820	100	ng/L	101	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	SS-PFHxA-13C2	537	N/A	---		50.5550	50.0	ng/L	101	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorobutanesulfonic acid (PFBS)	537	2.0	---		2.1208	2.0	ng/L	106	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorodecanoic acid (PFDA)	537	2.0	---		2.1013	2.0	ng/L	105	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluoroheptanoic acid (PFHpA)	537	2.0	---		2.0823	2.0	ng/L	104	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorohexanesulfonic acid (PFHxS)	537	2.0	---		2.0611	2.0	ng/L	103	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorohexanoic acid (PFHxA)	537	2.0	---		2.1256	2.0	ng/L	106	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorolauric acid (PFDoA)	537	2.0	---		2.1827	2.0	ng/L	109	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluoromyristic acid (PFTA)	537	2.0	---		2.1803	2.0	ng/L	109	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorononanoic acid (PFNA)	537	2.0	---		2.0906	2.0	ng/L	105	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorooctane sulfonate (PFOS)	537	2.0	---		2.1853	2.0	ng/L	109	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorooctanoic acid (PFOA)	537	2.0	---		2.1013	2.0	ng/L	105	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluorotridecanoic acid (PFTrDA)	537	2.0	---		2.2364	2.0	ng/L	112	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
CCL	Perfluoroundecanoic acid (PFUnA)	537	2.0	---		2.0988	2.0	ng/L	105	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 18:35	3753222
LRB	IS-PFOA-13C2	537	N/A	---		671706.00	712319	ng/L	94	50 - 150	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	IS-PFOS-13C4	537	N/A	---		126850.00	132586	ng/L	96	50 - 150	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	SS-PFDA-13C2	537	N/A	---		96.4498	100	ng/L	97	70 - 130	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	SS-PFHxA-13C2	537	N/A	---		46.2049	50.0	ng/L	93	70 - 130	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorobutanesulfonic acid (PFBS)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorodecanoic acid (PFDA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluoroheptanoic acid (PFHpA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorohexanesulfonic acid (PFHxS)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorohexanoic acid (PFHxA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorolauric acid (PFDoA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluoromyristic acid (PFTA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorononanoic acid (PFNA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorooctane sulfonate (PFOS)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorooctanoic acid (PFOA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluorotridecanoic acid (PFTrDA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
LRB	Perfluoroundecanoic acid (PFUnA)	537	2.0	---	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 19:09	3753192
FBM	IS-PFOA-13C2	537	N/A	---		743976.00	712319	ng/L	104	50 - 150	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	IS-PFOS-13C4	537	N/A	---		142271.00	132586	ng/L	107	50 - 150	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	SS-PFDA-13C2	537	N/A	---		93.5662	100	ng/L	94	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	SS-PFHxA-13C2	537	N/A	---		44.8052	50.0	ng/L	90	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorobutanesulfonic acid (PFBS)	537	2.0	---		95.3846	100	ng/L	95	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorodecanoic acid (PFDA)	537	2.0	---		92.9752	100	ng/L	93	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluoroheptanoic acid (PFHpA)	537	2.0	---		91.2432	100	ng/L	91	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorohexanesulfonic acid (PFHxS)	537	2.0	---		94.6293	100	ng/L	95	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
FBM	Perfluorohexanoic acid (PFHxA)	537	2.0	---		90.2823	100	ng/L	90	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorolauric acid (PFDoA)	537	2.0	---		92.0117	100	ng/L	92	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluoromyristic acid (PFTA)	537	2.0	---		91.0070	100	ng/L	91	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorononanoic acid (PFNA)	537	2.0	---		94.4262	100	ng/L	94	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorooctane sulfonate (PFOS)	537	2.0	---		94.7294	100	ng/L	95	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorooctanoic acid (PFOA)	537	2.0	---		92.3042	100	ng/L	92	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluorotridecanoic acid (PFTrDA)	537	2.0	---		90.3672	100	ng/L	90	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FBM	Perfluoroundecanoic acid (PFUnA)	537	2.0	---		91.5206	100	ng/L	92	70 - 130	---	---	1.0	08/10/2017 07:20	08/10/2017 19:42	3753193
FS	IS-PFOA-13C2	537	N/A	PEF35638/Well A		614227.00	712319	ng/L	86	50 - 150	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	IS-PFOS-13C4	537	N/A	PEF35638/Well A		116580.00	132586	ng/L	88	50 - 150	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	SS-PFDA-13C2	537	N/A	PEF35638/Well A		95.3581	100	ng/L	96	70 - 130	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	SS-PFHxA-13C2	537	N/A	PEF35638/Well A		48.0783	50.0	ng/L	97	70 - 130	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorobutanesulfonic acid (PFBS)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorodecanoic acid (PFDA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluoroheptanoic acid (PFHpA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorohexanesulfonic acid (PFHxS)	537	2.0	PEF35638/Well A		2.2		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorohexanoic acid (PFHxA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorolauric acid (PFDoA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluoromyristic acid (PFTA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorononanoic acid (PFNA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorooctane sulfonate (PFOS)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorooctanoic acid (PFOA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluorotridecanoic acid (PFTrDA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	Perfluoroundecanoic acid (PFUnA)	537	2.0	PEF35638/Well A	<	2.0		ng/L	---	---	---	---	0.99	08/10/2017 07:20	08/10/2017 20:49	3752131
FS	IS-PFOA-13C2	537	N/A	PEF35639/City WTP		629918.00	712319	ng/L	88	50 - 150	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	IS-PFOS-13C4	537	N/A	PEF35639/City WTP		119794.00	132586	ng/L	90	50 - 150	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	SS-PFDA-13C2	537	N/A	PEF35639/City WTP		95.0878	100	ng/L	97	70 - 130	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	SS-PFHxA-13C2	537	N/A	PEF35639/City WTP		48.7744	50.0	ng/L	100	70 - 130	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorobutanesulfonic acid (PFBS)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorodecanoic acid (PFDA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluoroheptanoic acid (PFHpA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorohexanesulfonic acid (PFHxS)	537	2.0	PEF35639/City WTP		2.3		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorohexanoic acid (PFHxA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorolauric acid (PFDoA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluoromyristic acid (PFTA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorononanoic acid (PFNA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorooctane sulfonate (PFOS)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorooctanoic acid (PFOA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluorotridecanoic acid (PFTrDA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
FS	Perfluoroundecanoic acid (PFUnA)	537	2.0	PEF35639/City WTP	<	2.0		ng/L	---	---	---	---	0.98	08/10/2017 07:20	08/10/2017 21:06	3752132
CCM	IS-PFOA-13C2	537	N/A	---		682521.00	682521	ng/L	100	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223

QC Summary Report (cont.)

Sample Type	Analyte	Method	MRL	Client ID	Result Flag	Amount	Target	Units	% Recovery	Recovery Limits	RPD	RPD Limit	Dil Factor	Extracted	Analyzed	EEA ID #
CCM	IS-PFOS-13C4	537	N/A	---		132505.00	132505	ng/L	100	50 - 150	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	SS-PFDA-13C2	537	N/A	---		99.1464	100	ng/L	99	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	SS-PFHxA-13C2	537	N/A	---		49.4848	50.0	ng/L	99	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorobutanesulfonic acid (PFBS)	537	2.0	---		101.6090	100	ng/L	102	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorodecanoic acid (PFDA)	537	2.0	---		99.6096	100	ng/L	100	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluoroheptanoic acid (PFHpA)	537	2.0	---		101.2560	100	ng/L	101	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorohexanesulfonic acid (PFHxS)	537	2.0	---		101.9230	100	ng/L	102	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorohexanoic acid (PFHxA)	537	2.0	---		101.0120	100	ng/L	101	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorolauric acid (PFDoA)	537	2.0	---		95.3817	100	ng/L	95	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluoromyristic acid (PFTA)	537	2.0	---		99.1548	100	ng/L	99	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorononanoic acid (PFNA)	537	2.0	---		100.6920	100	ng/L	101	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorooctane sulfonate (PFOS)	537	2.0	---		100.6480	100	ng/L	101	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorooctanoic acid (PFOA)	537	2.0	---		101.0150	100	ng/L	101	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluorotridecanoic acid (PFTrDA)	537	2.0	---		97.6978	100	ng/L	98	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223
CCM	Perfluoroundecanoic acid (PFUnA)	537	2.0	---		96.8866	100	ng/L	97	70 - 130	---	---	1.0	08/09/2017 11:35	08/10/2017 23:04	3753223

Sample Type Key

Type (Abbr.)	Sample Type	Type (Abbr.)	Sample Type
CCL	Continuing Calibration Low		
CCM	Continuing Calibration Mid		
FS	Field Sample		
FBM	Fortified Blank Mid		
LRB	Laboratory Reagent Blank		

END OF REPORT