NAVFAC
Naval Facilities Engineering Command

Off-Base Drinking Water Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Figure, SDG J23970-1

Naval Air Station Whidbey Island
Oak Harbor, Washington

June 2019

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Sacramento
880 Riverside Parkway
West Sacramento, CA 95605
Tel: (916)373-5600

TestAmerica Job ID: 320-23970-1
Client Project/Site: Whidbey Island

For:
CH2M Hill Constructors, Inc.
1100 NE Circle Blvd
Corvallis, Oregon 97330

Attn: Tiffany Hill

Authorized for release by:
12/13/2016 5:59:07 PM

Laura Turpen, Project Manager I
(916)374-4414
laura.turpen@testamericainc.com

Table of Contents

Definitions/Glossary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Qualifiers

LCMS

Qualifier	Qualifier Description
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.
M	Manual integrated compound.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 320-23970-1

Laboratory: TestAmerica Sacramento

Narrative

CASE NARRATIVE

Client: CH2M Hill Constructors, Inc.

Project: Whidbey Island

Report Number: 320-23970-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Sacramento attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

All parameters for which TestAmerica Sacramento has certification were evaluated to the QSM specified reporting convention or to the client specified format if different from QSM. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/02/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

PFOA/PFOS

Samples WI-CV-1RW11-1116 (320-23970-1), WI-CV-1FB11-1116 (320-23970-2), WI-CV-1RW12-1116 (320-23970-3), WI-CV-1FB12-1116 (320-23970-4), WI-CV-3RW12-1116 (320-23970-5) and WI-CV-3FB12-1116 (320-23970-6) were analyzed for PFOA/PFOS in accordance with 537. The samples were prepared on 12/05/2016 and analyzed on 12/11/2016.

Surrogate recovery for the following sample was outside control limits: WI-CV-1RW11-1116 (320-23970-1). Re-analysis was performed with concurring results. The original analysis has been reported. There is no impact on the data as the associated analytes were Non-Detect (ND).

Job ID: 320-23970-1 (Continued)

Laboratory: TestAmerica Sacramento (Continued)

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-140632.

These samples have a pH 9: WI-CV-1FB11-1116 (320-23970-2), WI-CV-1FB12-1116 (320-23970-4), WI-CV-3RW12-1116 (320-23970-5) and WI-CV-3FB12-1116 (320-23970-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Client Sample ID: WI-CV-1RW11-1116 — Lab Sample ID: 320-23970-1

No Detections.

Client Sample ID: WI-CV-1FB11-1116 — Lab Sample ID: 320-23970-2

No Detections.

Client Sample ID: WI-CV-1RW12-1116 — Lab Sample ID: 320-23970-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.025	J M	0.030	0.0094	ug/L	1		537	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.14	0.047	ug/L	1		537	Total/NA

Client Sample ID: WI-CV-1FB12-1116 — Lab Sample ID: 320-23970-4

No Detections.

Client Sample ID: WI-CV-3RW12-1116 — Lab Sample ID: 320-23970-5

No Detections.

Client Sample ID: WI-CV-3FB12-1116 — Lab Sample ID: 320-23970-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: WI-CV-1RW11-1116

Lab Sample ID: 320-23970-1
Date Collected: 11/30/16 09:51
Matrix: Water
Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.047	U M	0.059	0.015	ug/L		12/05/16 11:42	12/11/16 21:25	1
Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.0092	ug/L		12/05/16 11:42	12/11/16 21:25	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.14	0.047	ug/L		12/05/16 11:42	12/11/16 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*134*	*Q*	*70 - 130*	*12/05/16 11:42*	*12/11/16 21:25*	*1*
13C2 PFDA	*134*	*Q*	*70 - 130*	*12/05/16 11:42*	*12/11/16 21:25*	*1*

Client Sample ID: WI-CV-1FB11-1116

Lab Sample ID: 320-23970-2
Date Collected: 11/30/16 09:50
Matrix: Water
Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.045	U	0.056	0.014	ug/L		12/05/16 11:42	12/11/16 21:54	1
Perfluorooctanoic acid (PFOA)	0.022	U	0.028	0.0087	ug/L		12/05/16 11:42	12/11/16 21:54	1
Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.044	ug/L		12/05/16 11:42	12/11/16 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*115*		*70 - 130*	*12/05/16 11:42*	*12/11/16 21:54*	*1*
13C2 PFDA	*112*		*70 - 130*	*12/05/16 11:42*	*12/11/16 21:54*	*1*

Client Sample ID: WI-CV-1RW12-1116

Lab Sample ID: 320-23970-3
Date Collected: 11/30/16 10:08
Matrix: Water
Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.048	U	0.060	0.015	ug/L		12/05/16 11:42	12/11/16 22:24	1
Perfluorooctanoic acid (PFOA)	**0.025**	**J M**	0.030	0.0094	ug/L		12/05/16 11:42	12/11/16 22:24	1
Perfluorobutanesulfonic acid (PFBS)	**0.11**	**J**	0.14	0.047	ug/L		12/05/16 11:42	12/11/16 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*103*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:24*	*1*
13C2 PFDA	*126*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:24*	*1*

Client Sample ID: WI-CV-1FB12-1116

Lab Sample ID: 320-23970-4
Date Collected: 11/30/16 10:07
Matrix: Water
Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.015	ug/L		12/05/16 11:42	12/11/16 22:54	1
Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.0090	ug/L		12/05/16 11:42	12/11/16 22:54	1
Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.045	ug/L		12/05/16 11:42	12/11/16 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*106*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:54*	*1*
13C2 PFDA	*110*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:54*	*1*

Client Sample ID: WI-CV-3RW12-1116

Lab Sample ID: 320-23970-5

Date Collected: 11/30/16 09:12

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.015	ug/L		12/05/16 11:42	12/11/16 23:23	1
Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.0090	ug/L		12/05/16 11:42	12/11/16 23:23	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.045	ug/L		12/05/16 11:42	12/11/16 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*101*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:23*	*1*
13C2 PFDA	*110*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:23*	*1*

Client Sample ID: WI-CV-3FB12-1116

Lab Sample ID: 320-23970-6

Date Collected: 11/30/16 09:13

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.015	ug/L		12/05/16 11:42	12/11/16 23:53	1
Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.0090	ug/L		12/05/16 11:42	12/11/16 23:53	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.045	ug/L		12/05/16 11:42	12/11/16 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*118*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:53*	*1*
13C2 PFDA	*111*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:53*	*1*

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)									
		3C2 PFHx	3C2 PFDA								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
320-23970-1	WI-CV-1RW11-1116	134 Q	134 Q								
320-23970-2	WI-CV-1FB11-1116	115	112								
320-23970-3	WI-CV-1RW12-1116	103	126								
320-23970-4	WI-CV-1FB12-1116	106	110								
320-23970-5	WI-CV-3RW12-1116	101	110								
320-23970-6	WI-CV-3FB12-1116	118	111								
LCS 320-140632/2-A	Lab Control Sample	113	110								
LCSD 320-140632/3-A	Lab Control Sample Dup	117	111								
MB 320-140632/1-A	Method Blank	106	104								

Surrogate Legend

13C2 PFHxA = 13C2 PFHxA
13C2 PFDA = 13C2 PFDA

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MB 320-140632/1-A
Matrix: Water
Analysis Batch: 141573

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 140632

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.048	U M	0.060	0.016	ug/L		12/05/16 11:42	12/11/16 13:31	1
Perfluorooctanoic acid (PFOA)	0.024	U M	0.030	0.0094	ug/L		12/05/16 11:42	12/11/16 13:31	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.14	0.048	ug/L		12/05/16 11:42	12/11/16 13:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*106*		*70 - 130*	*12/05/16 11:42*	*12/11/16 13:31*	*1*
13C2 PFDA	*104*		*70 - 130*	*12/05/16 11:42*	*12/11/16 13:31*	*1*

Lab Sample ID: LCS 320-140632/2-A
Matrix: Water
Analysis Batch: 141573

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 140632

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanesulfonic acid (PFOS)	0.160	0.124		ug/L		77	70 - 130
Perfluorooctanoic acid (PFOA)	0.0811	0.0619		ug/L		76	70 - 130
Perfluorobutanesulfonic acid (PFBS)	0.359	0.275		ug/L		77	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFHxA	*113*		*70 - 130*
13C2 PFDA	*110*		*70 - 130*

Lab Sample ID: LCSD 320-140632/3-A
Matrix: Water
Analysis Batch: 141573

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 140632

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)	0.160	0.129		ug/L		80	70 - 130	4	30
Perfluorooctanoic acid (PFOA)	0.0811	0.0627		ug/L		77	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)	0.359	0.294		ug/L		82	70 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 PFHxA	*117*		*70 - 130*
13C2 PFDA	*111*		*70 - 130*

QC Association Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

LCMS

Prep Batch: 140632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-23970-1	WI-CV-1RW11-1116	Total/NA	Water	537	
320-23970-2	WI-CV-1FB11-1116	Total/NA	Water	537	
320-23970-3	WI-CV-1RW12-1116	Total/NA	Water	537	
320-23970-4	WI-CV-1FB12-1116	Total/NA	Water	537	
320-23970-5	WI-CV-3RW12-1116	Total/NA	Water	537	
320-23970-6	WI-CV-3FB12-1116	Total/NA	Water	537	
MB 320-140632/1-A	Method Blank	Total/NA	Water	537	
LCS 320-140632/2-A	Lab Control Sample	Total/NA	Water	537	
LCSD 320-140632/3-A	Lab Control Sample Dup	Total/NA	Water	537	

Analysis Batch: 141573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-140632/1-A	Method Blank	Total/NA	Water	537	140632
LCS 320-140632/2-A	Lab Control Sample	Total/NA	Water	537	140632
LCSD 320-140632/3-A	Lab Control Sample Dup	Total/NA	Water	537	140632

Analysis Batch: 141574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-23970-1	WI-CV-1RW11-1116	Total/NA	Water	537	140632
320-23970-2	WI-CV-1FB11-1116	Total/NA	Water	537	140632
320-23970-3	WI-CV-1RW12-1116	Total/NA	Water	537	140632
320-23970-4	WI-CV-1FB12-1116	Total/NA	Water	537	140632
320-23970-5	WI-CV-3RW12-1116	Total/NA	Water	537	140632
320-23970-6	WI-CV-3FB12-1116	Total/NA	Water	537	140632

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Client Sample ID: WI-CV-1RW11-1116
Date Collected: 11/30/16 09:51
Date Received: 12/02/16 09:40

Lab Sample ID: 320-23970-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			255.7 mL	1.0 mL	140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1			141574	12/11/16 21:25	JRB	TAL SAC

Client Sample ID: WI-CV-1FB11-1116
Date Collected: 11/30/16 09:50
Date Received: 12/02/16 09:40

Lab Sample ID: 320-23970-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			269.6 mL	1.0 mL	140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1			141574	12/11/16 21:54	JRB	TAL SAC

Client Sample ID: WI-CV-1RW12-1116
Date Collected: 11/30/16 10:08
Date Received: 12/02/16 09:40

Lab Sample ID: 320-23970-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			251.4 mL	1.0 mL	140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1			141574	12/11/16 22:24	JRB	TAL SAC

Client Sample ID: WI-CV-1FB12-1116
Date Collected: 11/30/16 10:07
Date Received: 12/02/16 09:40

Lab Sample ID: 320-23970-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			262 mL	1.0 mL	140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1			141574	12/11/16 22:54	JRB	TAL SAC

Client Sample ID: WI-CV-3RW12-1116
Date Collected: 11/30/16 09:12
Date Received: 12/02/16 09:40

Lab Sample ID: 320-23970-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			261.5 mL	1.0 mL	140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1			141574	12/11/16 23:23	JRB	TAL SAC

Client Sample ID: WI-CV-3FB12-1116
Date Collected: 11/30/16 09:13
Date Received: 12/02/16 09:40

Lab Sample ID: 320-23970-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			261.7 mL	1.0 mL	140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1			141574	12/11/16 23:53	JRB	TAL SAC

Lab Chronicle

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Method	Method Description	Protocol	Laboratory
537	Perfluorinated Alkyl Acids (LC/MS)	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-23970-1	WI-CV-1RW11-1116	Water	11/30/16 09:51	12/02/16 09:40
320-23970-2	WI-CV-1FB11-1116	Water	11/30/16 09:50	12/02/16 09:40
320-23970-3	WI-CV-1RW12-1116	Water	11/30/16 10:08	12/02/16 09:40
320-23970-4	WI-CV-1FB12-1116	Water	11/30/16 10:07	12/02/16 09:40
320-23970-5	WI-CV-3RW12-1116	Water	11/30/16 09:12	12/02/16 09:40
320-23970-6	WI-CV-3FB12-1116	Water	11/30/16 09:13	12/02/16 09:40

TestAmerica Sacramento
880 Riverside Parkway

West Sacramento, CA 95605
phone 916.373.5600 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Katie Tippin	Site Contact: Eric Epple	Date: 12/1/2016	COC No: 3
Tiffany Hill	Tel/Fax: (757) 671-6258	Lab Contact: Laura Turpen	Carrier: FedEx	1 of 1 COCs
Project Chemist	Analysis Turnaround Time			Sampler:
1100 NE Circle Blvd Ste 300 Corvallis, OR 97330	☑CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(541) 768-3109	TAT if different from Below _7-Day_____			Walk-in Client:
(541) 908-3794	☐ 2 weeks			Lab Sampling:
Project Name: CTO-08	☐ 1 week			
Site: OLF Coupeville	☐ 2 days			Job / SDG No.:
P O #: 100067106050 - 679580.09.FI.FS	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	USEPA Method 537 (PFOA, PFOS, and PFBS)	Sample Specific Notes:
WI-CV-1RW11-1116	11/30/16	0951	G	DW	2	N	N	X	
WI-CV-1FB11-1116	11/30/16	0950	G	DW	2	N	N	X	
WI-CV-1RW12-1116	11/30/16	1008	G	DW	2	N	N	X	
WI-CV-1FB12-1116	11/30/16	1007	G	DW	2	N	N	X	
WI-CV-3RW12-1116	11/30/16	0912	G	DW	2	N	N	X	
WI-CV-3FB12-1116	11/30/16	0913	G	DW	2	N	N	X	

320-23970 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _Trizma_ — 6

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☑Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 3.5 Corr'd: 2.6 Therm ID No.: 12

	Company	Date/Time	Received by	Company	Date/Time
Relinquished by: Eric Epple	Company: CH2M	Date/Time: 12-1-16/1600	Received by:	Company: TAWS	Date/Time: 12/2/16 0940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.3, dated 12/05/2013

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 320-23970-1

Login Number: 23970
List Number: 1
Creator: Turpen, Troy

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	Seal
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Job Number: 320-23970-1

Job Description: Whidbey Island

For:
CH2M Hill Constructors, Inc.
1100 NE Circle Blvd
Corvallis, OR 97330

Attention: Tiffany Hill

Approved for release.
Laura Turpen
Project Manager I
12/13/2016 6:02 PM

Laura Turpen, Project Manager I
880 Riverside Parkway, West Sacramento, CA, 95605
(916)374-4414
laura.turpen@testamericainc.com
12/13/2016

Table of Contents

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Qualifiers

LCMS

Qualifier	Qualifier Description
Q	One or more quality control criteria failed.
U	Undetected at the Limit of Detection.
M	Manual integrated compound.
J	Estimated: The analyte was positively identified; the quantitation is an estimation

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

CASE NARRATIVE

Client: CH2M Hill Constructors, Inc.

Project: Whidbey Island

Report Number: 320-23970-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

TestAmerica Sacramento attests to the validity of the laboratory data generated by TestAmerica facilities reported herein. All analyses performed by TestAmerica facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the applicable methods. TestAmerica's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

TestAmerica utilizes USEPA approved methods and DOD QSM, where applicable, in all analytical work. The samples presented in this report were analyzed for the parameter(s) listed on the analytical methods summary page in accordance with the method(s) indicated. A summary of QC data for these analyses is included at the back of the report.

All parameters for which TestAmerica Sacramento has certification were evaluated to the QSM specified reporting convention or to the client specified format if different from QSM. Parameters not certified under QSM, if any, were evaluated to the detection limit (DL) and include qualified results where applicable.

The sample(s) that contain constituents flagged with U are undetected. The result associated with this flag is the limit of detection (LOD).

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

All solid sample results are reported on an "as received" basis unless otherwise indicated by the presence of a % solids value in the method header.

This laboratory report is confidential and is intended for the sole use of TestAmerica and its client.

RECEIPT

The samples were received on 12/02/2016; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.6 C.

PFOA/PFOS

Samples WI-CV-1RW11-1116 (320-23970-1), WI-CV-1FB11-1116 (320-23970-2), WI-CV-1RW12-1116 (320-23970-3), WI-CV-1FB12-1116 (320-23970-4), WI-CV-3RW12-1116 (320-23970-5) and WI-CV-3FB12-1116 (320-23970-6) were analyzed for PFOA/PFOS in accordance with 537. The samples were prepared on 12/05/2016 and analyzed on 12/11/2016.

Surrogate recovery for the following sample was outside control limits: WI-CV-1RW11-1116 (320-23970-1). Re-analysis was performed with concurring results. The original analysis has been reported. There is no impact on the data as the associated analytes were Non-Detect (ND).

Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-140632.

These samples have a pH 9: WI-CV-1FB11-1116 (320-23970-2), WI-CV-1FB12-1116 (320-23970-4), WI-CV-3RW12-1116 (320-23970-5) and WI-CV-3FB12-1116 (320-23970-6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Detection Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Client Sample ID: WI-CV-1RW11-1116 — Lab Sample ID: 320-23970-1

No Detections.

Client Sample ID: WI-CV-1FB11-1116 — Lab Sample ID: 320-23970-2

No Detections.

Client Sample ID: WI-CV-1RW12-1116 — Lab Sample ID: 320-23970-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.025	J M	0.030	0.0094	ug/L	1		537	Total/NA
Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.14	0.047	ug/L	1		537	Total/NA

Client Sample ID: WI-CV-1FB12-1116 — Lab Sample ID: 320-23970-4

No Detections.

Client Sample ID: WI-CV-3RW12-1116 — Lab Sample ID: 320-23970-5

No Detections.

Client Sample ID: WI-CV-3FB12-1116 — Lab Sample ID: 320-23970-6

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: WI-CV-1RW11-1116

Lab Sample ID: 320-23970-1

Date Collected: 11/30/16 09:51

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.047	U M	0.059	0.015	ug/L		12/05/16 11:42	12/11/16 21:25	1
Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.0092	ug/L		12/05/16 11:42	12/11/16 21:25	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.14	0.047	ug/L		12/05/16 11:42	12/11/16 21:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*134*	*Q*	*70 - 130*	*12/05/16 11:42*	*12/11/16 21:25*	*1*
13C2 PFDA	*134*	*Q*	*70 - 130*	*12/05/16 11:42*	*12/11/16 21:25*	*1*

Client Sample ID: WI-CV-1FB11-1116

Lab Sample ID: 320-23970-2

Date Collected: 11/30/16 09:50

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.045	U	0.056	0.014	ug/L		12/05/16 11:42	12/11/16 21:54	1
Perfluorooctanoic acid (PFOA)	0.022	U	0.028	0.0087	ug/L		12/05/16 11:42	12/11/16 21:54	1
Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.044	ug/L		12/05/16 11:42	12/11/16 21:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*115*		*70 - 130*	*12/05/16 11:42*	*12/11/16 21:54*	*1*
13C2 PFDA	*112*		*70 - 130*	*12/05/16 11:42*	*12/11/16 21:54*	*1*

Client Sample ID: WI-CV-1RW12-1116

Lab Sample ID: 320-23970-3

Date Collected: 11/30/16 10:08

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.048	U	0.060	0.015	ug/L		12/05/16 11:42	12/11/16 22:24	1
Perfluorooctanoic acid (PFOA)	**0.025**	**J M**	0.030	0.0094	ug/L		12/05/16 11:42	12/11/16 22:24	1
Perfluorobutanesulfonic acid (PFBS)	**0.11**	**J**	0.14	0.047	ug/L		12/05/16 11:42	12/11/16 22:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*103*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:24*	*1*
13C2 PFDA	*126*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:24*	*1*

Client Sample ID: WI-CV-1FB12-1116

Lab Sample ID: 320-23970-4

Date Collected: 11/30/16 10:07

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.015	ug/L		12/05/16 11:42	12/11/16 22:54	1
Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.0090	ug/L		12/05/16 11:42	12/11/16 22:54	1
Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.045	ug/L		12/05/16 11:42	12/11/16 22:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*106*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:54*	*1*
13C2 PFDA	*110*		*70 - 130*	*12/05/16 11:42*	*12/11/16 22:54*	*1*

Client Sample ID: WI-CV-3RW12-1116

Lab Sample ID: 320-23970-5

Date Collected: 11/30/16 09:12

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.015	ug/L		12/05/16 11:42	12/11/16 23:23	1
Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.0090	ug/L		12/05/16 11:42	12/11/16 23:23	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.045	ug/L		12/05/16 11:42	12/11/16 23:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*101*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:23*	*1*
13C2 PFDA	*110*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:23*	*1*

Client Sample ID: WI-CV-3FB12-1116

Lab Sample ID: 320-23970-6

Date Collected: 11/30/16 09:13

Matrix: Water

Date Received: 12/02/16 09:40

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.015	ug/L		12/05/16 11:42	12/11/16 23:53	1
Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.0090	ug/L		12/05/16 11:42	12/11/16 23:53	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.045	ug/L		12/05/16 11:42	12/11/16 23:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*118*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:53*	*1*
13C2 PFDA	*111*		*70 - 130*	*12/05/16 11:42*	*12/11/16 23:53*	*1*

Default Detection Limits

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Prep: 537

Analyte	LOQ	DL	Units	Method
Perfluorobutanesulfonic acid (PFBS)	0.14	0.048	ug/L	537
Perfluorooctanesulfonic acid (PFOS)	0.060	0.016	ug/L	537
Perfluorooctanoic acid (PFOA)	0.030	0.0094	ug/L	537

Surrogate Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)									
		3C2 PFHx	3C2 PFDA								
Lab Sample ID	Client Sample ID	(70-130)	(70-130)								
320-23970-1	WI-CV-1RW11-1116	134 Q	134 Q								
320-23970-2	WI-CV-1FB11-1116	115	112								
320-23970-3	WI-CV-1RW12-1116	103	126								
320-23970-4	WI-CV-1FB12-1116	106	110								
320-23970-5	WI-CV-3RW12-1116	101	110								
320-23970-6	WI-CV-3FB12-1116	118	111								
LCS 320-140632/2-A	Lab Control Sample	113	110								
LCSD 320-140632/3-A	Lab Control Sample Dup	117	111								
MB 320-140632/1-A	Method Blank	106	104								

Surrogate Legend

13C2 PFHxA = 13C2 PFHxA
13C2 PFDA = 13C2 PFDA

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MB 320-140632/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 141573 — **Prep Batch: 140632**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	0.048	U M	0.060	0.016	ug/L		12/05/16 11:42	12/11/16 13:31	1
Perfluorooctanoic acid (PFOA)	0.024	U M	0.030	0.0094	ug/L		12/05/16 11:42	12/11/16 13:31	1
Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.14	0.048	ug/L		12/05/16 11:42	12/11/16 13:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*106*		*70 - 130*	*12/05/16 11:42*	*12/11/16 13:31*	*1*
13C2 PFDA	*104*		*70 - 130*	*12/05/16 11:42*	*12/11/16 13:31*	*1*

Lab Sample ID: LCS 320-140632/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 141573 — **Prep Batch: 140632**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Perfluorooctanesulfonic acid (PFOS)			0.160	0.124		ug/L		77	70 - 130		
Perfluorooctanoic acid (PFOA)			0.0811	0.0619		ug/L		76	70 - 130		
Perfluorobutanesulfonic acid (PFBS)			0.359	0.275		ug/L		77	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFHxA	*113*		*70 - 130*
13C2 PFDA	*110*		*70 - 130*

Lab Sample ID: LCSD 320-140632/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 141573 — **Prep Batch: 140632**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)			0.160	0.129		ug/L		80	70 - 130	4	30
Perfluorooctanoic acid (PFOA)			0.0811	0.0627		ug/L		77	70 - 130	1	30
Perfluorobutanesulfonic acid (PFBS)			0.359	0.294		ug/L		82	70 - 130	7	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C2 PFHxA	*117*		*70 - 130*
13C2 PFDA	*111*		*70 - 130*

LCMS

Prep Batch: 140632

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-23970-1	WI-CV-1RW11-1116	Total/NA	Water	537	
320-23970-2	WI-CV-1FB11-1116	Total/NA	Water	537	
320-23970-3	WI-CV-1RW12-1116	Total/NA	Water	537	
320-23970-4	WI-CV-1FB12-1116	Total/NA	Water	537	
320-23970-5	WI-CV-3RW12-1116	Total/NA	Water	537	
320-23970-6	WI-CV-3FB12-1116	Total/NA	Water	537	
MB 320-140632/1-A	Method Blank	Total/NA	Water	537	
LCS 320-140632/2-A	Lab Control Sample	Total/NA	Water	537	
LCSD 320-140632/3-A	Lab Control Sample Dup	Total/NA	Water	537	

Analysis Batch: 141573

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-140632/1-A	Method Blank	Total/NA	Water	537	140632
LCS 320-140632/2-A	Lab Control Sample	Total/NA	Water	537	140632
LCSD 320-140632/3-A	Lab Control Sample Dup	Total/NA	Water	537	140632

Analysis Batch: 141574

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-23970-1	WI-CV-1RW11-1116	Total/NA	Water	537	140632
320-23970-2	WI-CV-1FB11-1116	Total/NA	Water	537	140632
320-23970-3	WI-CV-1RW12-1116	Total/NA	Water	537	140632
320-23970-4	WI-CV-1FB12-1116	Total/NA	Water	537	140632
320-23970-5	WI-CV-3RW12-1116	Total/NA	Water	537	140632
320-23970-6	WI-CV-3FB12-1116	Total/NA	Water	537	140632

Client Sample ID: WI-CV-1RW11-1116
Lab Sample ID: 320-23970-1
Date Collected: 11/30/16 09:51
Matrix: Water
Date Received: 12/02/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1	141574	12/11/16 21:25	JRB	TAL SAC

Client Sample ID: WI-CV-1FB11-1116
Lab Sample ID: 320-23970-2
Date Collected: 11/30/16 09:50
Matrix: Water
Date Received: 12/02/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1	141574	12/11/16 21:54	JRB	TAL SAC

Client Sample ID: WI-CV-1RW12-1116
Lab Sample ID: 320-23970-3
Date Collected: 11/30/16 10:08
Matrix: Water
Date Received: 12/02/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1	141574	12/11/16 22:24	JRB	TAL SAC

Client Sample ID: WI-CV-1FB12-1116
Lab Sample ID: 320-23970-4
Date Collected: 11/30/16 10:07
Matrix: Water
Date Received: 12/02/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1	141574	12/11/16 22:54	JRB	TAL SAC

Client Sample ID: WI-CV-3RW12-1116
Lab Sample ID: 320-23970-5
Date Collected: 11/30/16 09:12
Matrix: Water
Date Received: 12/02/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1	141574	12/11/16 23:23	JRB	TAL SAC

Client Sample ID: WI-CV-3FB12-1116
Lab Sample ID: 320-23970-6
Date Collected: 11/30/16 09:13
Matrix: Water
Date Received: 12/02/16 09:40

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			140632	12/05/16 11:42	NS1	TAL SAC
Total/NA	Analysis	537		1	141574	12/11/16 23:53	JRB	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Laboratory: TestAmerica Sacramento

Unless otherwise noted, all analytes for this laboratory were covered under each certification below.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	01-31-17

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Method	Method Description	Protocol	Laboratory
537	Perfluorinated Alkyl Acids (LC/MS)	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: CH2M Hill Constructors, Inc.
Project/Site: Whidbey Island

TestAmerica Job ID: 320-23970-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-23970-1	WI-CV-1RW11-1116	Water	11/30/16 09:51	12/02/16 09:40
320-23970-2	WI-CV-1FB11-1116	Water	11/30/16 09:50	12/02/16 09:40
320-23970-3	WI-CV-1RW12-1116	Water	11/30/16 10:08	12/02/16 09:40
320-23970-4	WI-CV-1FB12-1116	Water	11/30/16 10:07	12/02/16 09:40
320-23970-5	WI-CV-3RW12-1116	Water	11/30/16 09:12	12/02/16 09:40
320-23970-6	WI-CV-3FB12-1116	Water	11/30/16 09:13	12/02/16 09:40

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Instrument ID: A6 Analysis Batch Number: 140688

Lab Sample ID: STD 320-140688/2 IC Client Sample ID:

Date Analyzed: 12/05/16 17:26 Lab File ID: 05DEC2016A6A_004.d GC Column: Acquity ID: 2.1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluoroheptanoic acid	19.37	Split Peak	barnettj	12/06/16 10:00
Perfluorooctanoic acid (PFOA)	20.05	Split Peak	barnettj	12/06/16 10:00

Lab Sample ID: STD 320-140688/3 IC Client Sample ID:

Date Analyzed: 12/05/16 17:55 Lab File ID: 05DEC2016A6A_005.d GC Column: Acquity ID: 2.1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluoroheptanoic acid	19.38	Split Peak	barnettj	12/06/16 10:03
Perfluorooctanoic acid (PFOA)	20.05	Split Peak	barnettj	12/06/16 10:03

Lab Sample ID: CCV 320-140688/9 CCVL Client Sample ID:

Date Analyzed: 12/05/16 20:53 Lab File ID: 05DEC2016A6A_011.d GC Column: Acquity ID: 2.1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluoroheptanoic acid	19.38	Split Peak	barnettj	12/06/16 10:08
Perfluorooctanoic acid (PFOA)	20.05	Split Peak	barnettj	12/06/16 10:08

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Instrument ID: A6 Analysis Batch Number: 141573

Lab Sample ID: MB 320-140632/1-A Client Sample ID:

Date Analyzed: 12/11/16 13:31 Lab File ID: 11DEC2016A6A_006.d GC Column: Acquity ID: 2.1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	20.05	Split Peak	barnettj	12/12/16 15:00
Perfluorooctanesulfonic acid (PFOS)	20.66	Missed Peak	barnettj	12/12/16 15:00

537

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Instrument ID: A6 Analysis Batch Number: 141574

Lab Sample ID: 320-23970-1 Client Sample ID: WI-CV-1RW11-1116

Date Analyzed: 12/11/16 21:25 Lab File ID: 11DEC2016A6A_022.d GC Column: Acquity ID: 2.1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	20.09	Split Peak	barnettj	12/12/16 15:58
Perfluorooctanesulfonic acid (PFOS)	20.67	Missed Peak	barnettj	12/12/16 15:58

Lab Sample ID: 320-23970-3 Client Sample ID: WI-CV-1RW12-1116

Date Analyzed: 12/11/16 22:24 Lab File ID: 11DEC2016A6A_024.d GC Column: Acquity ID: 2.1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	20.05	Incomplete Integration	barnettj	12/12/16 16:00

Lab Sample ID: 320-23970-5 Client Sample ID: WI-CV-3RW12-1116

Date Analyzed: 12/11/16 23:23 Lab File ID: 11DEC2016A6A_026.d GC Column: Acquity ID: 2.1(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	20.05	Split Peak	barnettj	12/12/16 16:02

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LC537-ICV_00017	01/13/17	08/09/16	MeOH/H2O, Lot 067374	10 mL	LC537-IS_00018	200 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
.LC537-IS_00018	01/13/17	07/13/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00004	100 uL	13C2-PFOA	0.5 ug/mL
					LCMPFOS_00013	300 uL	13C4 PFOS	1.434 ug/mL
..LCM2PFOA_00004	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00013	01/22/21	Wellington Laboratories, Lot MPFOS0116			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
LC537-ICV_00017	01/13/17	08/09/16	MeOH/H2O, Lot 067374	10 mL	LC537-SU_00017	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
					LC537ICIM_00013	25 uL	Perfluorobutanesulfonic acid (PFBS)	114.77 ng/mL
							Perfluorooctanoic acid (PFOA)	25.0965 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	27.2389 ng/mL
.LC537-SU_00017	01/19/17	07/19/16	Methanol, Lot 104453	25000 uL	LCMPFDA_00008	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00008	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00009	04/09/20	Wellington Laboratories, Lot MPFHxA0415			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
.LC537ICIM_00013	02/05/17	08/09/16	Methanol, Lot 090285	25 mL	LC537-PFBS2_00005	0.5 mL	Perfluorobutanesulfonic acid (PFBS)	45.908 ug/mL
					LC537-PFOA2_00007	0.13 mL	Perfluorooctanoic acid (PFOA)	10.0386 ug/mL
					LC537-PFOS2_00005	0.22 mL	Perfluorooctanesulfonic acid (PFOS)	10.8956 ug/mL
..LC537-PFBS2_00005	03/01/17	02/29/16	Methanol, Lot 090285	10 mL	LC537_PFBS2_00001	0.023 g	Perfluorobutanesulfonic acid (PFBS)	2295.4 ug/mL
...LC537_PFBS2_00001	08/09/17	Santa Cruz Biotechnology, Lot H0112			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	0.998 g/g
..LC537-PFOA2_00007	07/25/17	08/05/16	Methanol, Lot 090285	10 mL	LC537_PFOA2_00001	0.0195 g	Perfluorooctanoic acid (PFOA)	1930.5 ug/mL
...LC537_PFOA2_00001	07/25/17	Afla Aesar, Lot D24Y026			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.99 g/g
..LC537-PFOS2_00005	03/01/17	02/29/16	Methanol, Lot 090285	10 mL	LC537_PFOS2_00001	0.0159 g	Perfluorooctanesulfonic acid (PFOS)	1238.13 ug/mL
...LC537_PFOS2_00001	07/26/17	Sigma, Lot BCBF5116V			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.7787 g/g
LC537-IS_00025	03/19/17	11/21/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00003	100 uL	13C2-PFOA	0.5 ug/mL
					LCMPFOS_00018	300 uL	13C4 PFOS	1.434 ug/mL
.LCM2PFOA_00003	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCMPFOS_00018	08/03/21	Wellington Laboratories, Lot MPFOS0816			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
LC537-L1_00015	01/13/17	07/28/16	MeOH/H2O, Lot 090285	5 mL	LC537-IS_00018	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-MSP_00012	24.4 uL	Perfluorobutanesulfonic acid (PFBS)	8.76058 ng/mL
							Perfluoroheptanoic acid	0.993847 ng/mL
							Perfluorohexanesulfonic acid	2.9532 ng/mL
							Perfluorononanoic acid	1.91737 ng/mL
							Perfluorooctanoic acid (PFOA)	1.9793 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	3.91048 ng/mL
					LC537-SU_00017	250 uL	13C2 PFDA	10 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C2 PFHxA	10 ng/mL
.LC537-IS_00018	01/13/17	07/13/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00004	100 uL	13C2-PFOA	0.5 ug/mL
					LCMPFOS_00013	300 uL	13C4 PFOS	1.434 ug/mL
..LCM2PFOA_00004	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00013	01/22/21	Wellington Laboratories, Lot MPFOS0116			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-MSP_00012	01/28/17	07/28/16	Methanol, Lot 090285	10000 uL	LC537SPIM_00012	200 uL	Perfluorobutanesulfonic acid (PFBS)	1795.2 ng/mL
							Perfluoroheptanoic acid	203.657 ng/mL
							Perfluorohexanesulfonic acid	605.164 ng/mL
							Perfluorononanoic acid	392.904 ng/mL
							Perfluorooctanoic acid (PFOA)	405.594 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	801.328 ng/mL
..LC537SPIM_00012	01/28/17	07/28/16	Methanol, Lot 104453	10 mL	LC537-PFBS_00006	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	89.76 ug/mL
					LC537-PFHpA_00010	0.1 mL	Perfluoroheptanoic acid	10.1829 ug/mL
					LC537-PFHxS_00008	0.3 mL	Perfluorohexanesulfonic acid	30.2582 ug/mL
					LC537-PFNA_00008	0.2 mL	Perfluorononanoic acid	19.6452 ug/mL
					LC537-PFOA_00009	0.098 mL	Perfluorooctanoic acid (PFOA)	20.2797 ug/mL
					LC537-PFOS_00006	0.4 mL	Perfluorooctanesulfonic acid (PFOS)	40.0664 ug/mL
...LC537-PFBS_00006	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFBS_00002	0.0102 g	Perfluorobutanesulfonic acid (PFBS)	2040 ug/mL
....LC537_PFBS_00002	04/01/18	Sigma, Lot MKBP8842V			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00010	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFHpA_00002	0.0072 g	Perfluoroheptanoic acid	1018.29 ug/mL
....LC537_PFHpA_00002	04/01/18	Aldrich, Lot BCBM2579V			(Purchased Reagent)		Perfluoroheptanoic acid	0.99 g/g
...LC537-PFHxS_00008	07/28/17	07/28/16	Methanol, Lot 090285	5.5 mL	LC537_PFHxS_00002	0.0061 g	Perfluorohexanesulfonic acid	1008.61 ug/mL
....LC537_PFHxS_00002	04/01/18	Sigma, Lot BCBL3545V			(Purchased Reagent)		Perfluorohexanesulfonic acid	0.9094 g/g
...LC537-PFNA_00008	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFNA_00002	0.0051 g	Perfluorononanoic acid	982.26 ug/mL
....LC537_PFNA_00002	04/01/18	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid	0.963 g/g
...LC537-PFOA_00009	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFOA_00002	0.0145 g	Perfluorooctanoic acid (PFOA)	2069.36 ug/mL
....LC537_PFOA_00002	11/04/18	Fluka, Lot SZBD308XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00006	07/28/17	07/28/16	Methanol, Lot 090285	6 mL	LC537_PFOS_00002	0.0066 g	Perfluorooctanesulfonic acid (PFOS)	1001.66 ug/mL
....LC537_PFOS_00002	08/09/17	Fluka, Lot SZBC222XV			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.9106 g/g
.LC537-SU_00017	01/19/17	07/19/16	Methanol, Lot 104453	25000 uL	LCMPFDA_00008	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00008	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00009	04/09/20	Wellington Laboratories, Lot MPFHxA0415			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L2_00014	01/13/17	07/28/16	MeOH/H2O, Lot 090285	5 mL	LC537-HSP_00010	34 uL	Perfluorobutanesulfonic acid (PFBS)	22.8888 ng/mL
							Perfluoroheptanoic acid	2.59663 ng/mL
							Perfluorohexanesulfonic acid	7.71585 ng/mL
							Perfluorononanoic acid	5.00953 ng/mL
							Perfluorooctanoic acid (PFOA)	5.17132 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	10.2169 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LC537-IS_00018	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00017	250 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00010	01/28/17	07/28/16	Methanol, Lot 090285	10000 uL	LC537SPIM_00012	375 uL	Perfluorobutanesulfonic acid (PFBS)	3366 ng/mL
							Perfluoroheptanoic acid	381.857 ng/mL
							Perfluorohexanesulfonic acid	1134.68 ng/mL
							Perfluorononanoic acid	736.695 ng/mL
							Perfluorooctanoic acid (PFOA)	760.489 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	1502.49 ng/mL
..LC537SPIM_00012	01/28/17	07/28/16	Methanol, Lot 104453	10 mL	LC537-PFBS_00006	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	89.76 ug/mL
					LC537-PFHpA_00010	0.1 mL	Perfluoroheptanoic acid	10.1829 ug/mL
					LC537-PFHxS_00008	0.3 mL	Perfluorohexanesulfonic acid	30.2582 ug/mL
					LC537-PFNA_00008	0.2 mL	Perfluorononanoic acid	19.6452 ug/mL
					LC537-PFOA_00009	0.098 mL	Perfluorooctanoic acid (PFOA)	20.2797 ug/mL
					LC537-PFOS_00006	0.4 mL	Perfluorooctanesulfonic acid (PFOS)	40.0664 ug/mL
...LC537-PFBS_00006	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFBS_00002	0.0102 g	Perfluorobutanesulfonic acid (PFBS)	2040 ug/mL
....LC537_PFBS_00002	04/01/18		Sigma, Lot MKBP8842V		(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00010	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFHpA_00002	0.0072 g	Perfluoroheptanoic acid	1018.29 ug/mL
....LC537_PFHpA_00002	04/01/18		Aldrich, Lot BCBM2579V		(Purchased Reagent)		Perfluoroheptanoic acid	0.99 g/g
...LC537-PFHxS_00008	07/28/17	07/28/16	Methanol, Lot 090285	5.5 mL	LC537_PFHxS_00002	0.0061 g	Perfluorohexanesulfonic acid	1008.61 ug/mL
....LC537_PFHxS_00002	04/01/18		Sigma, Lot BCBL3545V		(Purchased Reagent)		Perfluorohexanesulfonic acid	0.9094 g/g
...LC537-PFNA_00008	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFNA_00002	0.0051 g	Perfluorononanoic acid	982.26 ug/mL
....LC537_PFNA_00002	04/01/18		TCI America, Lot QN44F		(Purchased Reagent)		Perfluorononanoic acid	0.963 g/g
...LC537-PFOA_00009	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFOA_00002	0.0145 g	Perfluorooctanoic acid (PFOA)	2069.36 ug/mL
....LC537_PFOA_00002	11/04/18		Fluka, Lot SZBD308XV		(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00006	07/28/17	07/28/16	Methanol, Lot 090285	6 mL	LC537_PFOS_00002	0.0066 g	Perfluorooctanesulfonic acid (PFOS)	1001.66 ug/mL
....LC537_PFOS_00002	08/09/17		Fluka, Lot SZBC222XV		(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.9106 g/g
.LC537-IS_00018	01/13/17	07/13/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00004	100 uL	13C2-PFOA	0.5 ug/mL
					LCMPFOS_00013	300 uL	13C4 PFOS	1.434 ug/mL
..LCM2PFOA_00004	03/19/17		Wellington Laboratories, Lot M2PFOA0312		(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00013	01/22/21		Wellington Laboratories, Lot MPFOS0116		(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00017	01/19/17	07/19/16	Methanol, Lot 104453	25000 uL	LCMPFDA_00008	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00008	08/19/20		Wellington Laboratories, Lot MPFDA0815		(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00009	04/09/20		Wellington Laboratories, Lot MPFHxA0415		(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L3_00016	01/28/17	11/07/16	MeOH/H2O, Lot 090285	5 mL	LC537-HSP_00010	67 uL	Perfluorobutanesulfonic acid (PFBS)	45.1044 ng/mL
							Perfluoroheptanoic acid	5.11689 ng/mL
							Perfluorohexanesulfonic acid	15.2048 ng/mL
							Perfluorononanoic acid	9.87171 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctanoic acid (PFOA)	10.1905 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	20.1334 ng/mL
					LC537-IS_00024	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00020	250 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00010	01/28/17	07/28/16	Methanol, Lot 090285	10000 uL	LC537SPIM_00012	375 uL	Perfluorobutanesulfonic acid (PFBS)	3366 ng/mL
							Perfluoroheptanoic acid	381.857 ng/mL
							Perfluorohexanesulfonic acid	1134.68 ng/mL
							Perfluorononanoic acid	736.695 ng/mL
							Perfluorooctanoic acid (PFOA)	760.489 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	1502.49 ng/mL
..LC537SPIM_00012	01/28/17	07/28/16	Methanol, Lot 104453	10 mL	LC537-PFBS_00006	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	89.76 ug/mL
					LC537-PFHpA_00010	0.1 mL	Perfluoroheptanoic acid	10.1829 ug/mL
					LC537-PFHxS_00008	0.3 mL	Perfluorohexanesulfonic acid	30.2582 ug/mL
					LC537-PFNA_00008	0.2 mL	Perfluorononanoic acid	19.6452 ug/mL
					LC537-PFOA_00009	0.098 mL	Perfluorooctanoic acid (PFOA)	20.2797 ug/mL
					LC537-PFOS_00006	0.4 mL	Perfluorooctanesulfonic acid (PFOS)	40.0664 ug/mL
...LC537-PFBS_00006	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFBS_00002	0.0102 g	Perfluorobutanesulfonic acid (PFBS)	2040 ug/mL
....LC537_PFBS_00002	04/01/18		Sigma, Lot MKBP8842V		(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00010	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFHpA_00002	0.0072 g	Perfluoroheptanoic acid	1018.29 ug/mL
....LC537_PFHpA_00002	04/01/18		Aldrich, Lot BCBM2579V		(Purchased Reagent)		Perfluoroheptanoic acid	0.99 g/g
...LC537-PFHxS_00008	07/28/17	07/28/16	Methanol, Lot 090285	5.5 mL	LC537_PFHxS_00002	0.0061 g	Perfluorohexanesulfonic acid	1008.61 ug/mL
....LC537_PFHxS_00002	04/01/18		Sigma, Lot BCBL3545V		(Purchased Reagent)		Perfluorohexanesulfonic acid	0.9094 g/g
...LC537-PFNA_00008	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFNA_00002	0.0051 g	Perfluorononanoic acid	982.26 ug/mL
....LC537_PFNA_00002	04/01/18		TCI America, Lot QN44F		(Purchased Reagent)		Perfluorononanoic acid	0.963 g/g
...LC537-PFOA_00009	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFOA_00002	0.0145 g	Perfluorooctanoic acid (PFOA)	2069.36 ug/mL
....LC537_PFOA_00002	11/04/18		Fluka, Lot SZBD308XV		(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00006	07/28/17	07/28/16	Methanol, Lot 090285	6 mL	LC537_PFOS_00002	0.0066 g	Perfluorooctanesulfonic acid (PFOS)	1001.66 ug/mL
....LC537_PFOS_00002	08/09/17		Fluka, Lot SZBC222XV		(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.9106 g/g
.LC537-IS_00024	03/19/17	11/03/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00003	100 uL	13C2-PFOA	0.5 ug/mL
					LCMPFOS_00018	300 uL	13C4 PFOS	1.434 ug/mL
..LCM2PFOA_00003	03/19/17		Wellington Laboratories, Lot M2PFOA0312		(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00018	08/03/21		Wellington Laboratories, Lot MPFOS0816		(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00020	04/07/17	10/07/16	Methanol, Lot 104453	25000 uL	LCMPFDA_00008	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00008	08/19/20		Wellington Laboratories, Lot MPFDA0815		(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00009	04/09/20		Wellington Laboratories, Lot MPFHxA0415		(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L4_00015	01/13/17	07/28/16	MeOH/H2O, Lot 090285	5 mL	LC537-HSP_00010	135 uL	Perfluorobutanesulfonic acid (PFBS)	90.882 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluoroheptanoic acid	10.3101 ng/mL
							Perfluorohexanesulfonic acid	30.6364 ng/mL
							Perfluorononanoic acid	19.8908 ng/mL
							Perfluorooctanoic acid (PFOA)	20.5332 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	40.5672 ng/mL
					LC537-IS_00018	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00017	250 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00010	01/28/17	07/28/16	Methanol, Lot 090285	10000 uL	LC537SPIM_00012	375 uL	Perfluorobutanesulfonic acid (PFBS)	3366 ng/mL
							Perfluoroheptanoic acid	381.857 ng/mL
							Perfluorohexanesulfonic acid	1134.68 ng/mL
							Perfluorononanoic acid	736.695 ng/mL
							Perfluorooctanoic acid (PFOA)	760.489 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	1502.49 ng/mL
..LC537SPIM_00012	01/28/17	07/28/16	Methanol, Lot 104453	10 mL	LC537-PFBS_00006	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	89.76 ug/mL
					LC537-PFHpA_00010	0.1 mL	Perfluoroheptanoic acid	10.1829 ug/mL
					LC537-PFHxS_00008	0.3 mL	Perfluorohexanesulfonic acid	30.2582 ug/mL
					LC537-PFNA_00008	0.2 mL	Perfluorononanoic acid	19.6452 ug/mL
					LC537-PFOA_00009	0.098 mL	Perfluorooctanoic acid (PFOA)	20.2797 ug/mL
					LC537-PFOS_00006	0.4 mL	Perfluorooctanesulfonic acid (PFOS)	40.0664 ug/mL
...LC537-PFBS_00006	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFBS_00002	0.0102 g	Perfluorobutanesulfonic acid (PFBS)	2040 ug/mL
....LC537_PFBS_00002	04/01/18		Sigma, Lot MKBP8842V		(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00010	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFHpA_00002	0.0072 g	Perfluoroheptanoic acid	1018.29 ug/mL
....LC537_PFHpA_00002	04/01/18		Aldrich, Lot BCBM2579V		(Purchased Reagent)		Perfluoroheptanoic acid	0.99 g/g
...LC537-PFHxS_00008	07/28/17	07/28/16	Methanol, Lot 090285	5.5 mL	LC537_PFHxS_00002	0.0061 g	Perfluorohexanesulfonic acid	1008.61 ug/mL
....LC537_PFHxS_00002	04/01/18		Sigma, Lot BCBL3545V		(Purchased Reagent)		Perfluorohexanesulfonic acid	0.9094 g/g
...LC537-PFNA_00008	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFNA_00002	0.0051 g	Perfluorononanoic acid	982.26 ug/mL
....LC537_PFNA_00002	04/01/18		TCI America, Lot QN44F		(Purchased Reagent)		Perfluorononanoic acid	0.963 g/g
...LC537-PFOA_00009	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFOA_00002	0.0145 g	Perfluorooctanoic acid (PFOA)	2069.36 ug/mL
....LC537_PFOA_00002	11/04/18		Fluka, Lot SZBD308XV		(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00006	07/28/17	07/28/16	Methanol, Lot 090285	6 mL	LC537_PFOS_00002	0.0066 g	Perfluorooctanesulfonic acid (PFOS)	1001.66 ug/mL
....LC537_PFOS_00002	08/09/17		Fluka, Lot SZBC222XV		(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.9106 g/g
.LC537-IS_00018	01/13/17	07/13/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00004	100 uL	13C2-PFOA	0.5 ug/mL
					LCMPFOS_00013	300 uL	13C4 PFOS	1.434 ug/mL
..LCM2PFOA_00004	03/19/17		Wellington Laboratories, Lot M2PFOA0312		(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00013	01/22/21		Wellington Laboratories, Lot MPFOS0116		(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00017	01/19/17	07/19/16	Methanol, Lot 104453	25000 uL	LCMPFDA_00008	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00008	08/19/20		Wellington Laboratories, Lot MPFDA0815		(Purchased Reagent)		13C2 PFDA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFHxA_00009	04/09/20	Wellington Laboratories, Lot MPFHxA0415			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L5_00017	01/28/17	11/07/16	MeOH/H2O, Lot 090285	5 mL	LC537-HSP_00010	200 uL	Perfluorobutanesulfonic acid (PFBS)	134.64 ng/mL
							Perfluoroheptanoic acid	15.2743 ng/mL
							Perfluorohexanesulfonic acid	45.3873 ng/mL
							Perfluorononanoic acid	29.4678 ng/mL
							Perfluorooctanoic acid (PFOA)	30.4196 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	60.0996 ng/mL
					LC537-IS_00024	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00020	250 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00010	01/28/17	07/28/16	Methanol, Lot 090285	10000 uL	LC537SPIM_00012	375 uL	Perfluorobutanesulfonic acid (PFBS)	3366 ng/mL
							Perfluoroheptanoic acid	381.857 ng/mL
							Perfluorohexanesulfonic acid	1134.68 ng/mL
							Perfluorononanoic acid	736.695 ng/mL
							Perfluorooctanoic acid (PFOA)	760.489 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	1502.49 ng/mL
..LC537SPIM_00012	01/28/17	07/28/16	Methanol, Lot 104453	10 mL	LC537-PFBS_00006	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	89.76 ug/mL
					LC537-PFHpA_00010	0.1 mL	Perfluoroheptanoic acid	10.1829 ug/mL
					LC537-PFHxS_00008	0.3 mL	Perfluorohexanesulfonic acid	30.2582 ug/mL
					LC537-PFNA_00008	0.2 mL	Perfluorononanoic acid	19.6452 ug/mL
					LC537-PFOA_00009	0.098 mL	Perfluorooctanoic acid (PFOA)	20.2797 ug/mL
					LC537-PFOS_00006	0.4 mL	Perfluorooctanesulfonic acid (PFOS)	40.0664 ug/mL
...LC537-PFBS_00006	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFBS_00002	0.0102 g	Perfluorobutanesulfonic acid (PFBS)	2040 ug/mL
....LC537_PFBS_00002	04/01/18	Sigma, Lot MKBP8842V			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00010	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFHpA_00002	0.0072 g	Perfluoroheptanoic acid	1018.29 ug/mL
....LC537_PFHpA_00002	04/01/18	Aldrich, Lot BCBM2579V			(Purchased Reagent)		Perfluoroheptanoic acid	0.99 g/g
...LC537-PFHxS_00008	07/28/17	07/28/16	Methanol, Lot 090285	5.5 mL	LC537_PFHxS_00002	0.0061 g	Perfluorohexanesulfonic acid	1008.61 ug/mL
....LC537_PFHxS_00002	04/01/18	Sigma, Lot BCBL3545V			(Purchased Reagent)		Perfluorohexanesulfonic acid	0.9094 g/g
...LC537-PFNA_00008	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFNA_00002	0.0051 g	Perfluorononanoic acid	982.26 ug/mL
....LC537_PFNA_00002	04/01/18	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid	0.963 g/g
...LC537-PFOA_00009	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFOA_00002	0.0145 g	Perfluorooctanoic acid (PFOA)	2069.36 ug/mL
....LC537_PFOA_00002	11/04/18	Fluka, Lot SZBD308XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00006	07/28/17	07/28/16	Methanol, Lot 090285	6 mL	LC537_PFOS_00002	0.0066 g	Perfluorooctanesulfonic acid (PFOS)	1001.66 ug/mL
....LC537_PFOS_00002	08/09/17	Fluka, Lot SZBC222XV			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.9106 g/g
.LC537-IS_00024	03/19/17	11/03/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00003	100 uL	13C2-PFOA	0.5 ug/mL
					LCMPFOS_00018	300 uL	13C4 PFOS	1.434 ug/mL
..LCM2PFOA_00003	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00018	08/03/21	Wellington Laboratories, Lot MPFOS0816			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.LC537-SU_00020	04/07/17	10/07/16	Methanol, Lot 104453	25000 uL	LCMPFDA_00008	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00008	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00009	04/09/20	Wellington Laboratories, Lot MPFHxA0415			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L6_00014	01/13/17	07/28/16	MeOH/H2O, Lot 090285	5 mL	LC537-HSP_00010	265 uL	Perfluorobutanesulfonic acid (PFBS)	178.398 ng/mL
							Perfluoroheptanoic acid	20.2384 ng/mL
							Perfluorohexanesulfonic acid	60.1382 ng/mL
							Perfluorononanoic acid	39.0448 ng/mL
							Perfluorooctanoic acid (PFOA)	40.3059 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	79.632 ng/mL
					LC537-IS_00018	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00017	250 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00010	01/28/17	07/28/16	Methanol, Lot 090285	10000 uL	LC537SPIM_00012	375 uL	Perfluorobutanesulfonic acid (PFBS)	3366 ng/mL
							Perfluoroheptanoic acid	381.857 ng/mL
							Perfluorohexanesulfonic acid	1134.68 ng/mL
							Perfluorononanoic acid	736.695 ng/mL
							Perfluorooctanoic acid (PFOA)	760.489 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	1502.49 ng/mL
..LC537SPIM_00012	01/28/17	07/28/16	Methanol, Lot 104453	10 mL	LC537-PFBS_00006	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	89.76 ug/mL
					LC537-PFHpA_00010	0.1 mL	Perfluoroheptanoic acid	10.1829 ug/mL
					LC537-PFHxS_00008	0.3 mL	Perfluorohexanesulfonic acid	30.2582 ug/mL
					LC537-PFNA_00008	0.2 mL	Perfluorononanoic acid	19.6452 ug/mL
					LC537-PFOA_00009	0.098 mL	Perfluorooctanoic acid (PFOA)	20.2797 ug/mL
					LC537-PFOS_00006	0.4 mL	Perfluorooctanesulfonic acid (PFOS)	40.0664 ug/mL
...LC537-PFBS_00006	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFBS_00002	0.0102 g	Perfluorobutanesulfonic acid (PFBS)	2040 ug/mL
....LC537_PFBS_00002	04/01/18	Sigma, Lot MKBP8842V			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00010	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFHpA_00002	0.0072 g	Perfluoroheptanoic acid	1018.29 ug/mL
....LC537_PFHpA_00002	04/01/18	Aldrich, Lot BCBM2579V			(Purchased Reagent)		Perfluoroheptanoic acid	0.99 g/g
...LC537-PFHxS_00008	07/28/17	07/28/16	Methanol, Lot 090285	5.5 mL	LC537_PFHxS_00002	0.0061 g	Perfluorohexanesulfonic acid	1008.61 ug/mL
....LC537_PFHxS_00002	04/01/18	Sigma, Lot BCBL3545V			(Purchased Reagent)		Perfluorohexanesulfonic acid	0.9094 g/g
...LC537-PFNA_00008	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFNA_00002	0.0051 g	Perfluorononanoic acid	982.26 ug/mL
....LC537_PFNA_00002	04/01/18	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid	0.963 g/g
...LC537-PFOA_00009	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFOA_00002	0.0145 g	Perfluorooctanoic acid (PFOA)	2069.36 ug/mL
....LC537_PFOA_00002	11/04/18	Fluka, Lot SZBD308XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00006	07/28/17	07/28/16	Methanol, Lot 090285	6 mL	LC537_PFOS_00002	0.0066 g	Perfluorooctanesulfonic acid (PFOS)	1001.66 ug/mL
....LC537_PFOS_00002	08/09/17	Fluka, Lot SZBC222XV			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.9106 g/g
.LC537-IS_00018	01/13/17	07/13/16	Methanol, Lot 090285	10000 uL	LCM2PFOA_00004	100 uL	13C2-PFOA	0.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCMPFOS_00013	300 uL	13C4 PFOS	1.434 ug/mL
..LCM2PFOA_00004	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00013	01/22/21	Wellington Laboratories, Lot MPFOS0116			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00017	01/19/17	07/19/16	Methanol, Lot 104453	25000 uL	LCMPFDA_00008	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00008	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00009	04/09/20	Wellington Laboratories, Lot MPFHxA0415			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-MSP_00014	03/14/17	09/14/16	Methanol, Lot 090285	10000 uL	LC537SPIM_00013	200 uL	Perfluorobutane Sulfonate	1795.2 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	1795.2 ng/mL
							Perfluoroheptanoic acid	203.657 ng/mL
							Perfluorohexanesulfonic acid	605.164 ng/mL
							Perfluorononanoic acid	392.904 ng/mL
							Perfluorooctanoic acid (PFOA)	405.594 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	801.328 ng/mL
.LC537SPIM_00013	03/14/17	09/14/16	Methanol, Lot 104453	10000 uL	LC537-PFBS_00006	440 uL	Perfluorobutane Sulfonate	89760 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	89760 ng/mL
					LC537-PFHpA_00010	100 uL	Perfluoroheptanoic acid	10182.9 ng/mL
					LC537-PFHxS_00008	300 uL	Perfluorohexanesulfonic acid	30258.2 ng/mL
					LC537-PFNA_00008	200 uL	Perfluorononanoic acid	19645.2 ng/mL
					LC537-PFOA_00009	98 uL	Perfluorooctanoic acid (PFOA)	20279.7 ng/mL
					LC537-PFOS_00006	400 uL	Perfluorooctanesulfonic acid (PFOS)	40066.4 ng/mL
..LC537-PFBS_00006	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFBS_00002	0.0102 g	Perfluorobutane Sulfonate	2040 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	2040 ug/mL
...LC537_PFBS_00002	04/01/18	Sigma, Lot MKBP8842V			(Purchased Reagent)		Perfluorobutane Sulfonate	1 g/g
							Perfluorobutanesulfonic acid (PFBS)	1 g/g
..LC537-PFHpA_00010	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFHpA_00002	0.0072 g	Perfluoroheptanoic acid	1018.29 ug/mL
...LC537_PFHpA_00002	04/01/18	Aldrich, Lot BCBM2579V			(Purchased Reagent)		Perfluoroheptanoic acid	0.99 g/g
..LC537-PFHxS_00008	07/28/17	07/28/16	Methanol, Lot 090285	5.5 mL	LC537_PFHxS_00002	0.0061 g	Perfluorohexanesulfonic acid	1008.61 ug/mL
...LC537_PFHxS_00002	04/01/18	Sigma, Lot BCBL3545V			(Purchased Reagent)		Perfluorohexanesulfonic acid	0.9094 g/g
..LC537-PFNA_00008	07/28/17	07/28/16	Methanol, Lot 090285	5 mL	LC537_PFNA_00002	0.0051 g	Perfluorononanoic acid	982.26 ug/mL
...LC537_PFNA_00002	04/01/18	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid	0.963 g/g
..LC537-PFOA_00009	07/28/17	07/28/16	Methanol, Lot 090285	7 mL	LC537_PFOA_00002	0.0145 g	Perfluorooctanoic acid (PFOA)	2069.36 ug/mL
...LC537_PFOA_00002	11/04/18	Fluka, Lot SZBD308XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
..LC537-PFOS_00006	07/28/17	07/28/16	Methanol, Lot 090285	6 mL	LC537_PFOS_00002	0.0066 g	Perfluorooctanesulfonic acid (PFOS)	1001.66 ug/mL
...LC537_PFOS_00002	08/09/17	Fluka, Lot SZBC222XV			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	0.9106 g/g
LC537-SU_00022	05/21/17	11/21/16	Methanol, Lot 104453	20000 uL	LCMPFDA_00008	80 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00009	80 uL	13C2 PFHxA	0.2 ug/mL
.LCMPFDA_00008	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
.LCMPFHxA_00009	04/09/20	Wellington Laboratories, Lot MPFHxA0415			(Purchased Reagent)		13C2 PFHxA	50 ug/mL

Reagent

LC537_PFBS_00002

R: 4/1/15 SPV

SIGMA-ALDRICH®

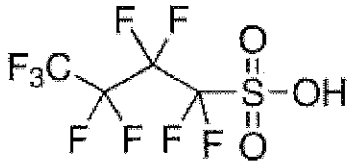
sigma-aldrich.com

3050 Spruce Street, Saint Louis, MO 63103, USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:
Nonafluorobutane-1-sulfonic acid - 97%

Product Number:	**562629**
Batch Number:	**MKBP8842V**
Brand:	ALDRICH
CAS Number:	375-73-5
MDL Number:	MFCD01320794
Formula:	C4HF9O3S
Formula Weight:	300.10 g/mol
Storage Temperature:	Store at 2 - 8 °C
Quality Release Date:	11 OCT 2013



PFBS

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared Spectrum	Conforms to Structure	Conforms
Fluorine NMR Spectrum	Conforms to Structure	Conforms
Purity (Titration by NaOH)	96.5 - 103.5 %	101.6 %

Jamie Gleason

Jamie Gleason, Manager
Quality Control
Milwaukee, Wisconsin US

Reagent

LC537_PFBS2_00001

CERTIFICATE OF ANALYSIS

The Power to Question

Catalog Number:	sc-236187
Product Name:	Nonafluorobutane-1-sulfonic acid
CAS Number:	375-73-5
Molecular Formula:	$C_4HF_9O_3S$
Molecular Weight:	300.10
Lot Number:	H0112

Test		Result
Refractive Index	1.3200 to 1.3290	1.3219
Purity (Titration)	min. 98.0%	99.8%

Test Conditions: Refractive Indea: n20/D

Reagent

LC537_PFHpA_00002

R: 4/1/15 SRV

SIGMA-ALDRICH®

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

PFHpA

Product Name:	PERFLUOROHEPTANOIC ACID 99 %
Product Number:	342041
Batch Number:	BCBM2579V
Brand:	Aldrich
CAS Number:	375-85-9
Formula:	$CF_3(CF_2)_5CO_2H$
Formula Weight:	364.06
Quality Release Date:	06 DEC 2013
Recommended Retest Date:	OCT 2018

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	COLORLESS OR WHITE	WHITE
APPEARANCE (FORM)	LIQUID OR SOLID	SOLID
TITRATION	98.5 - 101.5 %	99.8 %
TITRATION (METHOD)	-	BACK TITRATION
PURITY (GC AREA %)	≥ 98.5 %	99.5 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS

Claudia Geitner

Dr. Claudia Geitner
Manager Quality Control
Buchs, Switzerland

Reagent

LC537_PFHxS_00002

R: 4/1/15 SKV

SIGMA-ALDRICH®

3050 Spruce Street, Saint Louis, MO 63103 USA
Email USA: techserv@sial.com Outside USA: eurtechserv@sial.com

Certificate of Analysis

Product Name:	TRIDECAFLUOROHEXANE-1-SULFONIC ACID POTASSIUM SALT >= 98.0 % T
Product Number:	50929
Batch Number:	BCBL3545V
Brand:	Aldrich
CAS Number:	3871-99-6
Formula:	$C_6F_{13}KO_3S$
Formula Weight:	438.20
Quality Release Date:	20 JUN 2013

PFH_xS-K

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE TO FAINT BEIGE	WHITE
APPEARANCE (FORM)	POWDER OR CRYSTALS	POWDER
TITRATION (ION EXCHANGE)	≥ 98.0 %	99.5 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS

Claudia Geitner

Dr. Claudia Geitner
Manager Quality Control
Buchs, Switzerland

$$\text{MW corr} = \frac{(\text{k form}) - (\text{K}) + (\text{H})}{(438.20 - 39.10 + 1.01)} = \frac{0.91307}{438.20\ (\text{K form})}$$ (anion form)

Purity = 90.94 % w/m.w correction

SKV 4/1/15

Reagent

LC537_PFNA_00002

R: 4/1/15 SKV

Certificate of Analysis

Apr 2, 2015 (JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.
4-10-1 Nihonbashi-Honcho, Chuo-ku, Tokyo 103-0023 Japan

Chemical Name: Heptadecafluorononanoic Acid		
Product Number: H0843 CAS: 375-95-1	Lot: QN44F	

Tests	Results	Specifications
Purity(GC)	96.3 %	min. 95.0 %
Purity(Neutralization titration)	98.1 %	min. 95.0 %
Melting point	63.3 deg-C	62.0 to 67.0 deg-C

TCI Lot numbers are 4-5 characters in length.
Characters listed after the first 4-5 characters are control numbers for internal purpose only.

Customer service:

TCI AMERICA
Tel: +1-800-423-8616 / +1-503-283-1681
Fax: +1-888-520-1075 / +1-503-283-1987
E-mail: Sales-US@TCIchemicals.com

PFNA

Reagent

LC537_PFOA_00002

P: 3/26/15 RV

SIGMA-ALDRICH®

CERTIFICATE OF ANALYSIS

Sigma-Aldrich Laborchemikalien GmbH D-30918 Seelze
Telefon: +49 5137 8238-150

Seelze, 13.11.2013/505378/13/24029

Order-No.:
Customer-No.:

Order-Code:

Quantity:

Production Date: 04.Nov.2013
Expiry Date: 04.Nov.2018

Article/Product: 33824 Batch : SZBD308XV

PFOA

Pentadecafluorooctanoic acid OEKANAL®

Reference Material (RM)

1. General Information

Formula: C8HF15O2
CAS-No.: [335-67-1]
Usage : PFOA

Molar mass: 414.07 g/Mole
Recomm. storage temp.: roomtemp.

The estimated uncertainty of a single measurement of the assay can be expected to be 0.5 % relative (confidence level = 95%, n= 6) whereby the assay measurements are calculated by 100% minus found impurities.

2. Batch Analysis

identiy (GC-MS)	complying
Assay (GCMS)	99.4 %
Date of Analysis	13.Nov.2013

3. Advice and Remarks

- The expiry date is based on the current knowledge and holds only for proper storage conditions in the originally closed flasks/ packages.
- Whenever the container is opened for removal of aliqout portions of the substance, the person handling the substance must assure, that the integrity of the substance is maintained and proper records of all its handlings are kept. Special care has to be taken to avoid any contamination or adulteration of the substance.
- We herewith confirm that the delivery is effected according to the technical delivery conditions agreed.
- Particular properties of the products or the suitability for a particular area of application are not assured.
- We guarantee a proper quality within our General Conditions of Sales.

Sigma-Aldrich Laborchemikalien GmbH
Quality Management SA-LC

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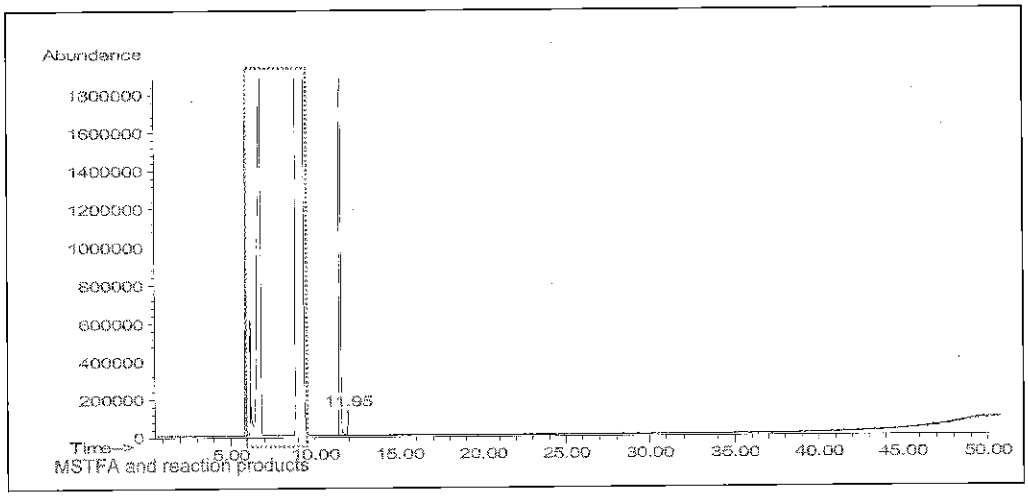
GC/MS-Method

Analytical Department

Article: **Pentadecafluorooctanoic acid OEKANAL**
Article-No.: **33824**
Batch: **SZBD308XV**

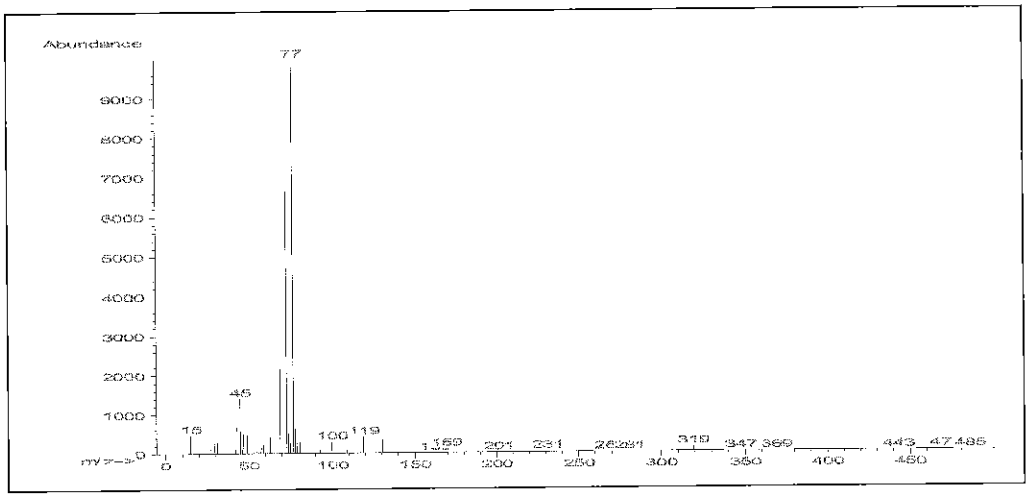
Column:	XTI-5 (Restek); 30 m; fs cap.; I.D.:0.25 mm; 1 µm df
Injector:	Split mode
Injection:	approx. 1 µl of reaction mixture with MSTFA (approx. 10 mg + 200 µl MSTFA)
Inj.-temp.:	280°C
Oven-temp.:	40°C (for 2 min) to 320°C (6°C/min) hold for 2 min
Split:	1:100
Flow:	1 ml He/min (Constant flow mode)
Detector:	MSD
Mass range:	10-600 amu (Scan mode)
Evaluation:	Purity: Total Ion Chromatogram (MSTFA and reaction products blinded out in report) Identity: Mass spectrum complies
Operator:	Ahrens / 2013-11-13

Total Ion Chromatogram:



Ret.time	Area	Area-%	Com
11.54	565.1670	99.4	Pentadecafluorooctanoic acid (as TMS-ester)
11.95	3.6792	0.64	

Mass spectrum (rt = 11.54 min):



Reagent

LC537_PFOA2_00001

Certificate of Analysis

Alfa Aesar
A Johnson Matthey Company

Product No.:	L08862
Product:	Perfluorooctanoic acid, 95%
Lot No.:	D24Y026

PFOA

Appearance	White solid
Melting point	58 - 60°C
Assay	99 %
Identity	Matches reference

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Reagent

LC537_PFOS_00002

Γ: 4/1/15 SV

SIGMA-ALDRICH®

CERTIFICATE OF ANALYSIS

Sigma-Aldrich Laborchemikalien GmbH D-30918 Seelze
Telefon: +49 5137 8238-150

Seelze, 13.08.2012/419060/12/17583

Order-No.:
Customer-No.:

Order-Code:

Quantity:

Production Date: 09.Aug.2012
Expiry Date: 09.Aug.2017 – EXP date

Article/Product: 33829 Batch : SZBC222XV

Heptadecafluorooctanesulfonic acid potassium salt OEKANAL® PFOS-K+

Reference Material (RM)

1. General Information

Formula: C8F17KO3S
CAS-No.: [2795-39-3]
Usage : PFOS

Molar mass: 538.22 g/Mole
Recomm. storage temp.: roomtemp.

The estimated uncertainty of a single measurement of the assay can be expected to be 0.5 % relative (confidence level = 95%, n= 6) whereby the assay measurements are calculated by 100% minus found impurities.

2. Batch Analysis

Identity	complying
Assay (LC-MS)	98 %
Date of Analysis	10.Aug.2012

MW-correction: $\frac{538.22 - 39.10 + 1.01}{538.22} = \frac{500.13}{538.22} = 0.92923$

Purity = 91.66 %

3. Advice and Remarks

- The minimum shelf life is based on the current knowledge and holds only for proper storage conditions in the originally closed flasks/ packages.
- Whenever the container is opened for removal of aliqout portions of the substance, the person handling the substance must assure, that the integrity of the substance is maintained and proper records of all its handlings are kept. Special care has to be taken to avoid any contamination or adulteration of the substance.
- We herewith confirm that the delivery is effected according to the technical delivery conditions agreed.
- Particular properties of the products or the suitability for a particular area of application are not assured.
- We guarantee a proper quality within our General Conditions of Sales.

Sigma-Aldrich Laborchemikalien GmbH
Quality Management SA-LC

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Reagent

LC537_PFOS2_00001

ALDRICH
Industriestrasse 25, CH-9471 Buchs (SG), Switzerland
Tel: +41 81 755 2511 Fax: +41 81 756 5449

INV 820
12LCMS 0579

Certificate of Analysis

Product Name:	HEPTADECAFLUOROOCTANESULFONIC ACID TETRAETHYLAMMONIUM SALT 98 %
Product Number:	365289
Product Brand:	Aldrich
Molecular Formula:	$C_{16}H_{20}F_{17}NO_3S$
Molecular Mass:	629.37
CAS Number:	56773-42-3

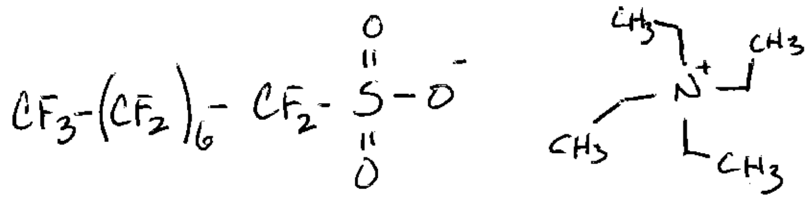
TEST	SPECIFICATION	LOT BCBF5116V RESULTS
APPEARANCE (COLOR)	OFF-WHITE TO WHITE	WHITE
APPEARANCE (FORM)	POWDER, LUMPS OR CHUNKS	POWDER WITH LUMPS
CARBON CONTENT	29.77 % - 31.29 %	30.52
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS

QC RELEASE DATE 13/APR/11

MW correction = $\frac{500.125}{629.37}$ ~~100 = 79.467~~ = 0.7946 DEH 7-26-12

Purity + MW Correction = 77.87%.

Edeltraud Schwärzler, Manager
Quality Control
Buchs, Switzerland



	$C_8F_{17}SO_3 + H$	$C_8H_{20}N$
C = 12.011	96.088	96.088
F = 18.998	322.966	-
S = 32.066	32.066	-
O = 15.999	47.997	-
H = 1.008	1.008	20.160
N = 14.007	-	14.007
	500.125	130.255 →

SIGMA-ALDRICH

3050 Spruce Street, Saint Louis, MO 63103 USA
Website: www.sigmaaldrich.com
Email USA techserv@sial.com
Outside USA eurtechserv@sial.com

Certificate of Origin

Product Name:	Heptadecafluorooctanesulfonic acid tetraethylammonium salt 98 %
Product Number:	365289
Product Brand:	Aldrich
Lot:	BCBF5116V
Molecular Formula:	$C_{16}H_{20}F_{17}NO_3S$
Molecular Mass:	629.37
CAS Number:	56773-42-3
Date of Issue:	30-MAR-11

Country of Origin	China

product is of synthetic origin	yes
only synthetic materials used in the manufacturing process	yes
compounds of animal origin used	no
genetically modified organisms used	no
allergenic materials used	no
procedures in place to avoid cross contamination with residue of animal, human, GMO or allergenes in manufacturing process	yes

Sigma-Aldrich has quality systems and procedures in place for monitoring the production process, traceablility and batch consistency.

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For further questions please contact your local Sigma-Aldrich representative.

We are committed to the success of our Customers, Employees and Shareholders through leadership in Life Science, High Technology and Service.

Reagent

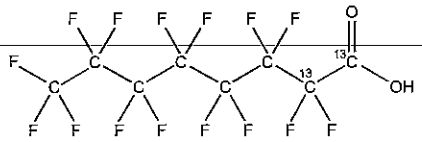
LCM2PFOA_00003

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFOA
LOT NUMBER: M2PFOA0312
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_6HF_{15}O_2$
MOLECULAR WEIGHT: 416.05
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)
CHEMICAL PURITY: >98%
ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy) 03/19/2012
EXPIRY DATE: (mm/dd/yyyy) 03/19/2017
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/09/2013 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. They are designed to be used as reference standards for the identification and/or quantification of specific chemical compound(s).

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Material Safety Data Sheets (MSDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product, unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, x-ray crystallography and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS and/or LC/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external, ISO/IEC 17025:2005 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

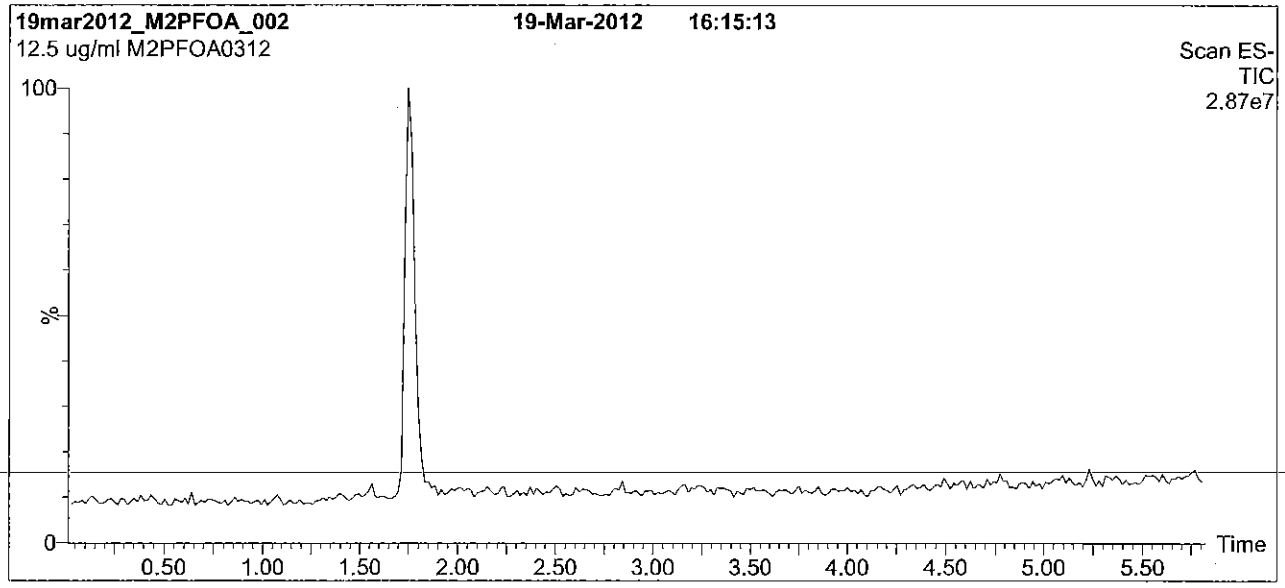
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

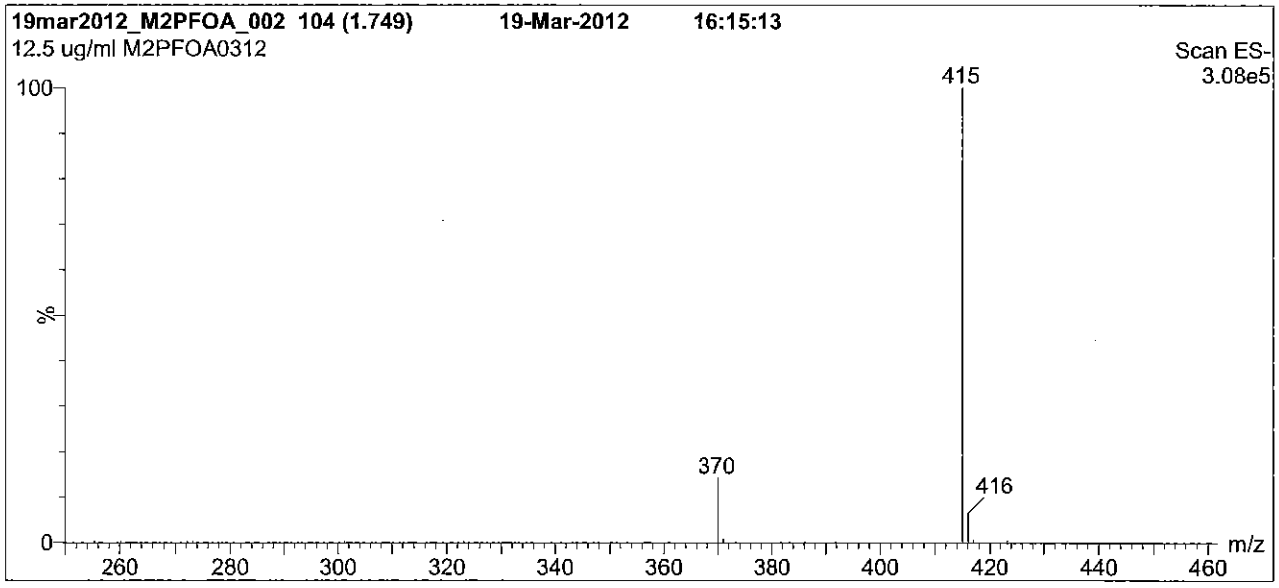
CALA

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **M2PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 6.5 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

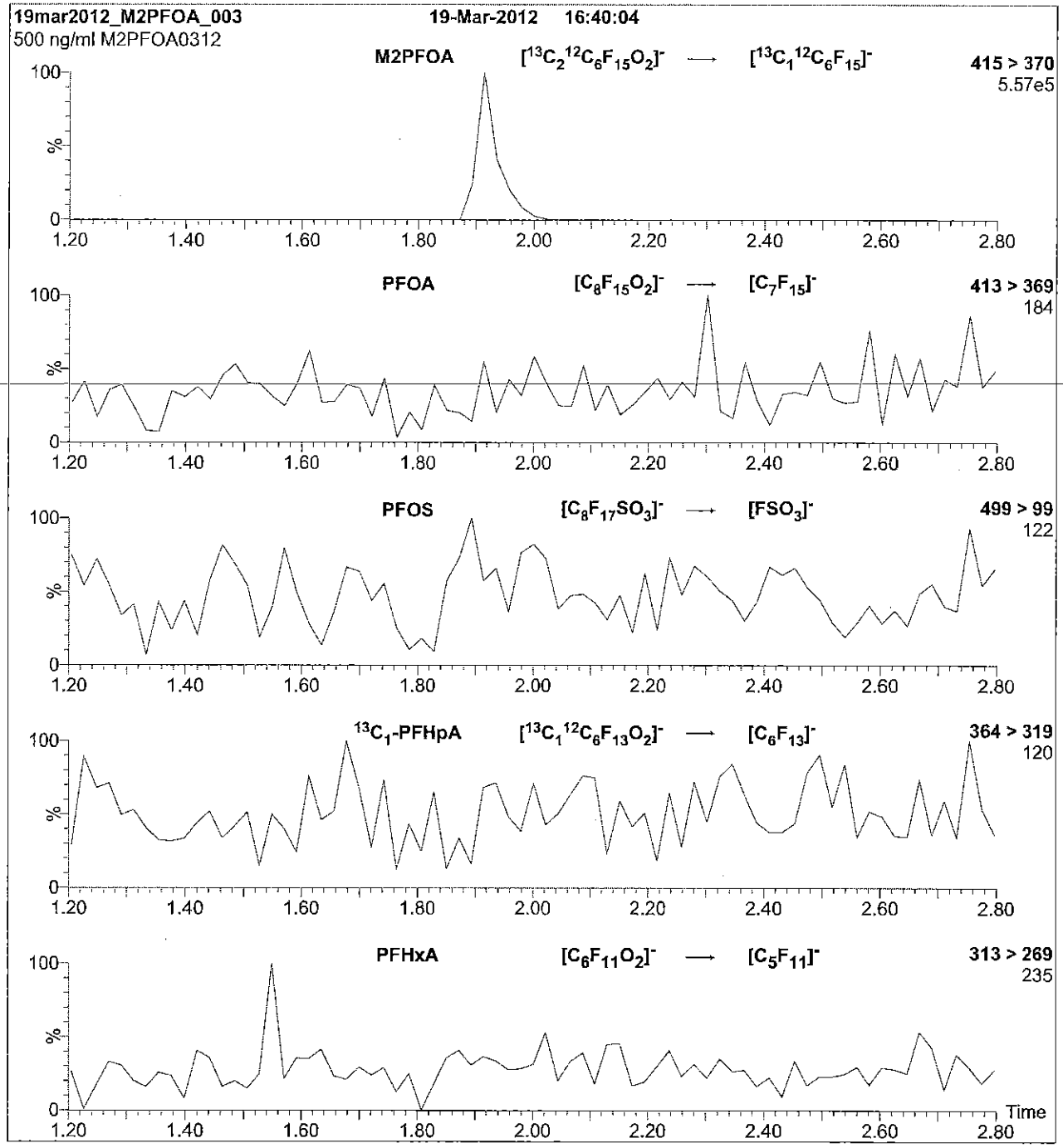
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFOA)

Mobile phase: Isocratic 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 11

Reagent

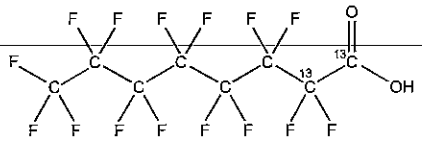
LCM2PFOA_00004

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFOA
LOT NUMBER: M2PFOA0312
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6HF_{15}O_2$	**MOLECULAR WEIGHT:**	416.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	03/19/2012		
EXPIRY DATE: (mm/dd/yyyy)	03/19/2017		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/09/2013 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. They are designed to be used as reference standards for the identification and/or quantification of specific chemical compound(s).

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Material Safety Data Sheets (MSDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product, unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, x-ray crystallography and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS and/or LC/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external, ISO/IEC 17025:2005 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

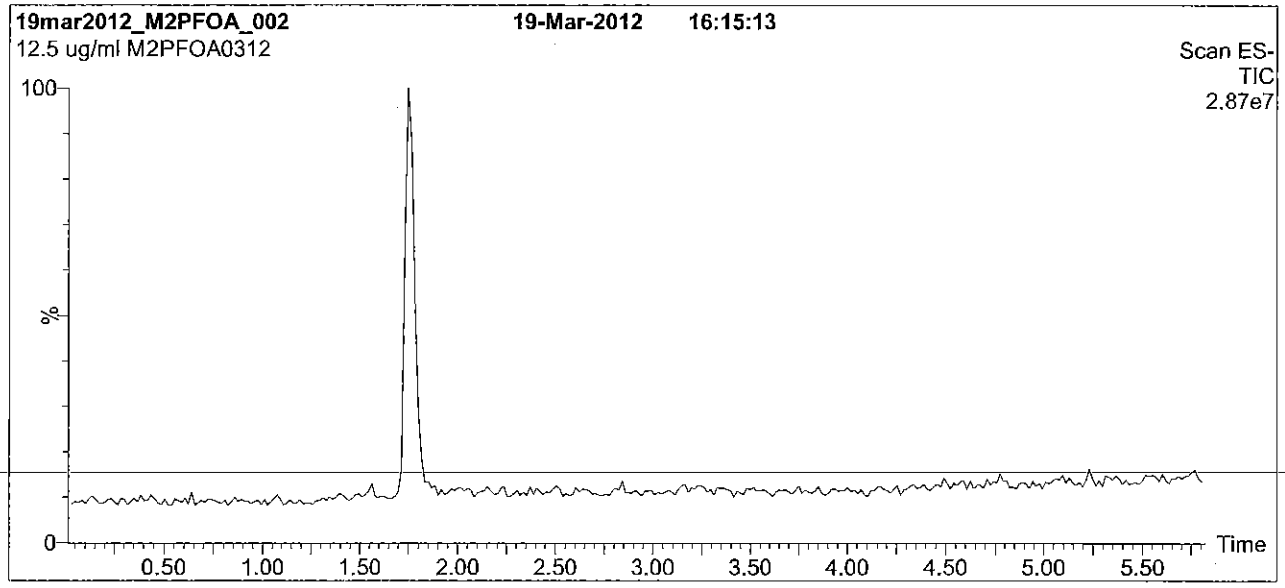
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

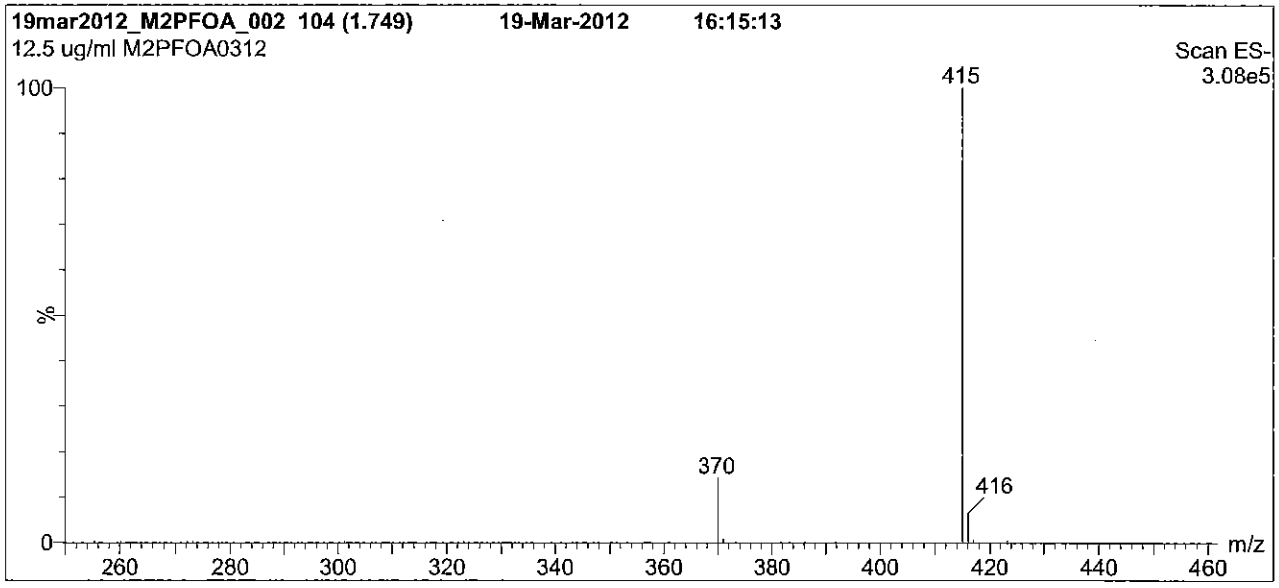
CALA Testing Accreditation No.: A1226

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **M2PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 6.5 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

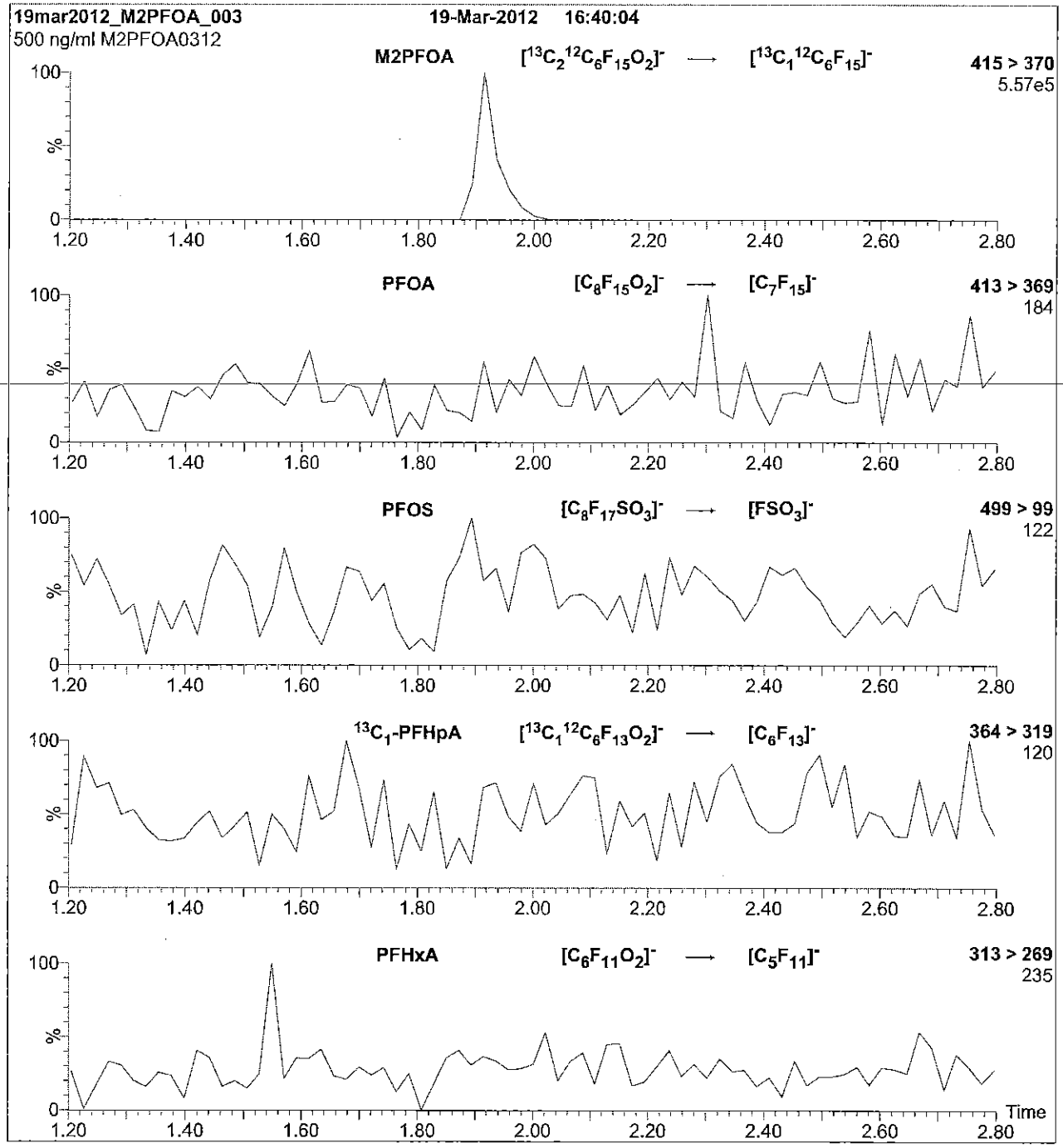
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2PFOA)
Mobile phase:	Isocratic 70% (80:20 MeOH:ACN) / 30% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 11

Reagent

LCMPFDA_00008

605243
ID: LCMPFDA_00008
Exp: 08/19/20 Prpd: CBW
13C2-Perfluorodecanoic a

Rec. 3/29/16 JRB ✓

WELLINGTON LABORATORIES

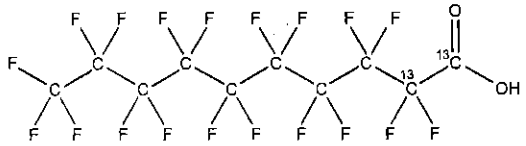
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

LOT NUMBER: MPFDA0815

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8HF_{19}O_2$	**MOLECULAR WEIGHT:**	516.07
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	08/19/2015		
EXPIRY DATE: (mm/dd/yyyy)	08/19/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of $^{13}C_1$-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 08/21/2015 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

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QUALITY MANAGEMENT:

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CALA Testing

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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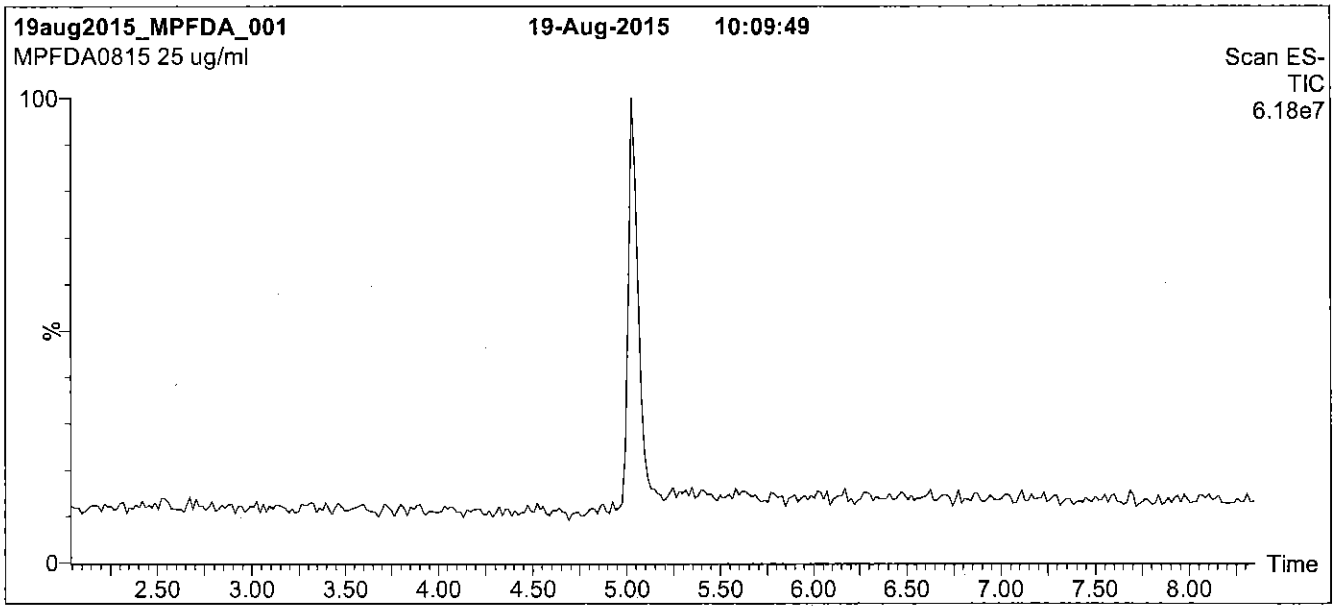
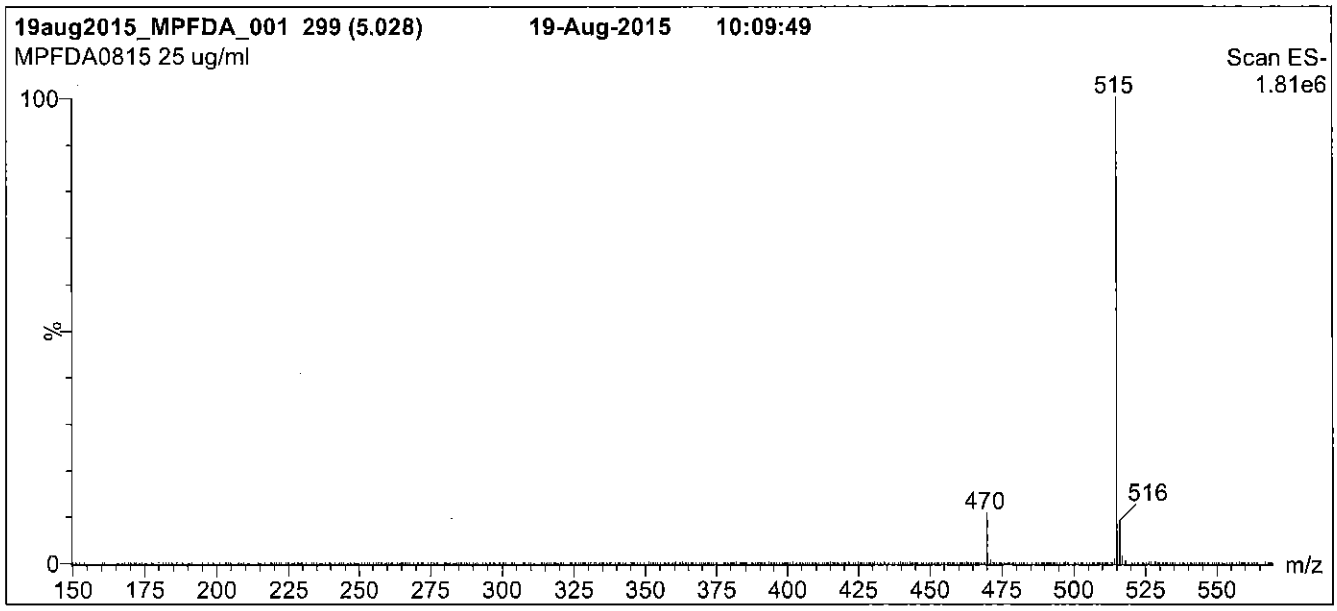
Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

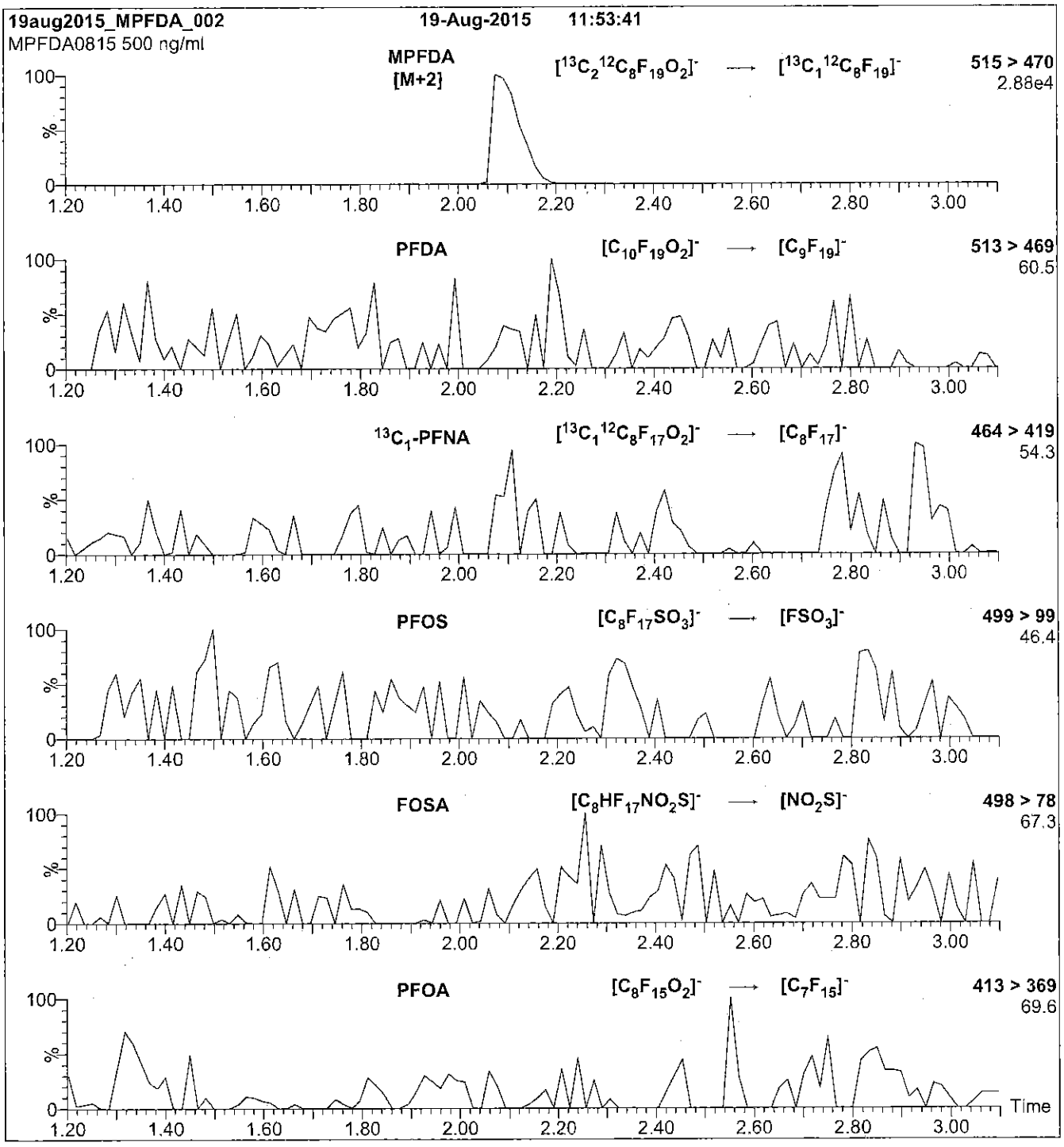
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **MPFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 13

Reagent

LCMPFHxA_00009

Rec. 3/29/16 JRB ✓

WELLINGTON LABORATORIES

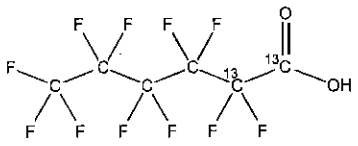
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFHxA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

LOT NUMBER: MPFHxA0415

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4HF_{11}O_2$	**MOLECULAR WEIGHT:**	316.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	04/09/2015		
EXPIRY DATE: (mm/dd/yyyy)	04/09/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 04/14/2015 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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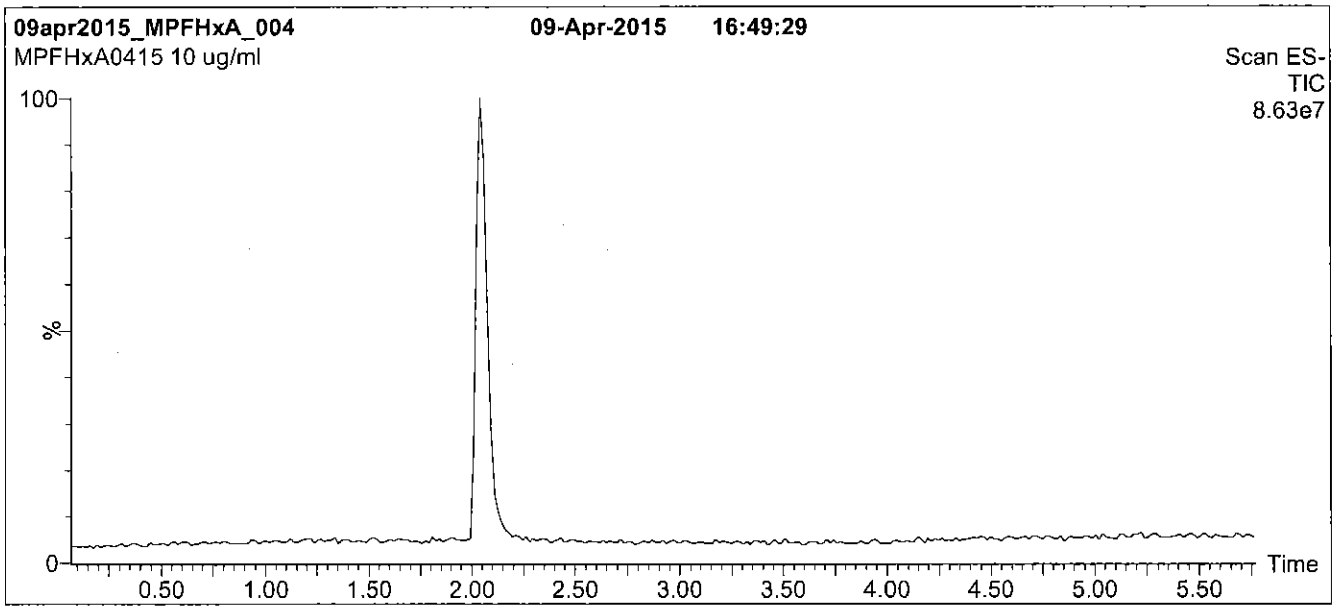
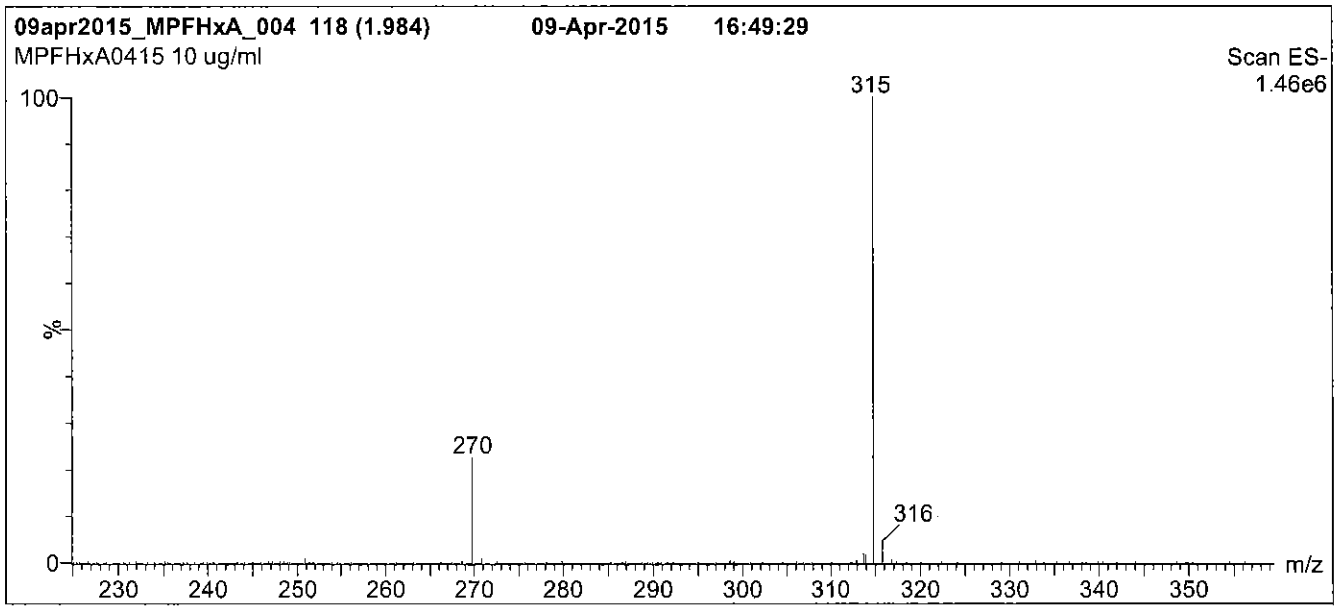
CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **MPFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions over 0.5 min.
Time: 10 min

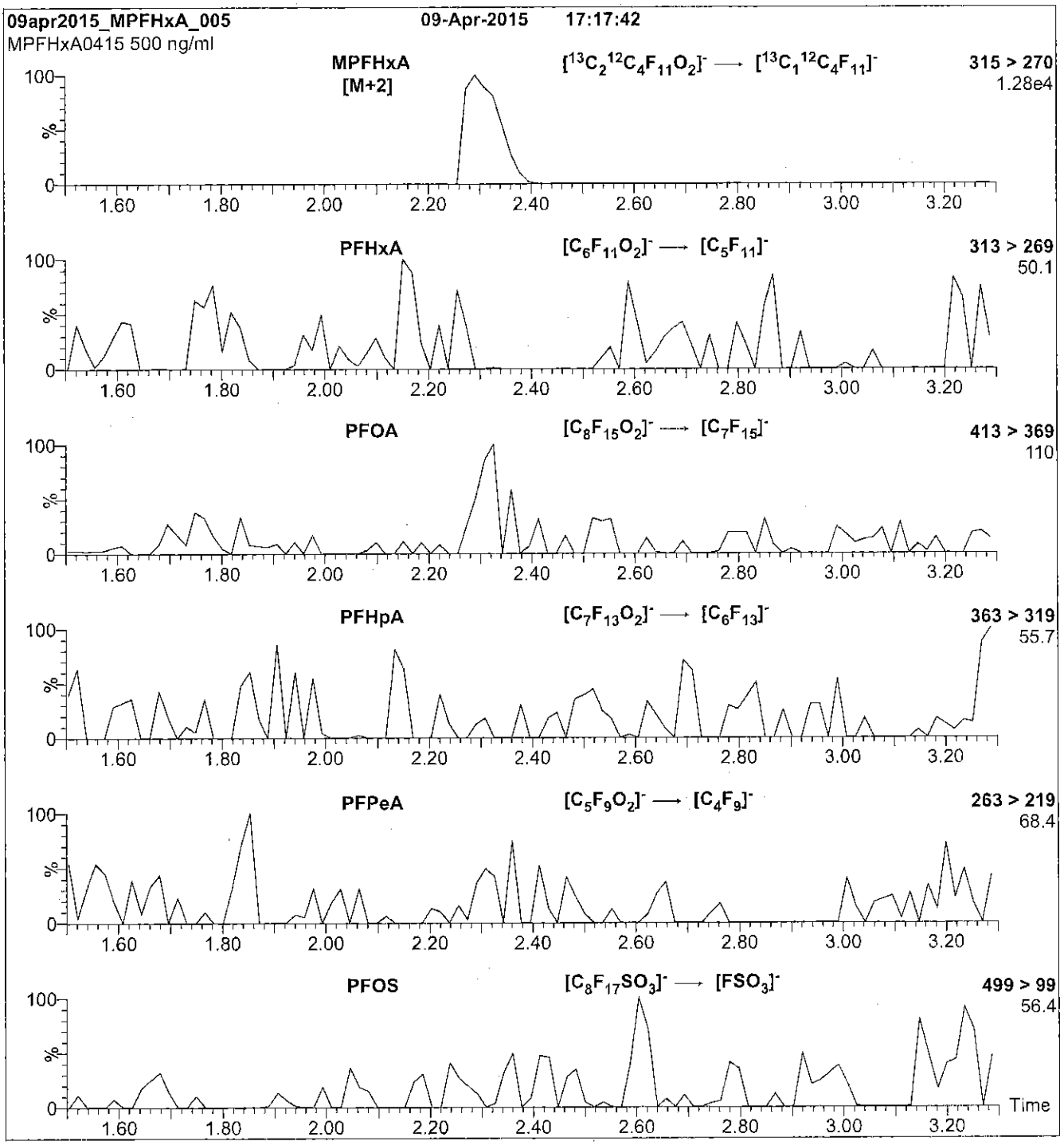
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **MPFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFHxA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 10

Reagent

LCMPFOS_00013

Rec. 3/29/16 JRB ✓

605227
ID: LCMPFOS_00012
Exp: 01/22/21 Prpd: CBW
13C4-Perfluorooctanesulfo

606228
ID: LCMPFOS_00013
Exp: 01/22/21 Prpd: CBW
13C4-Perfluorooctanesulfo

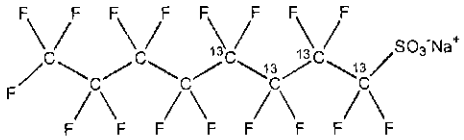
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0116

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	01/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/01/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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CALA

ANAB ACCREDITED

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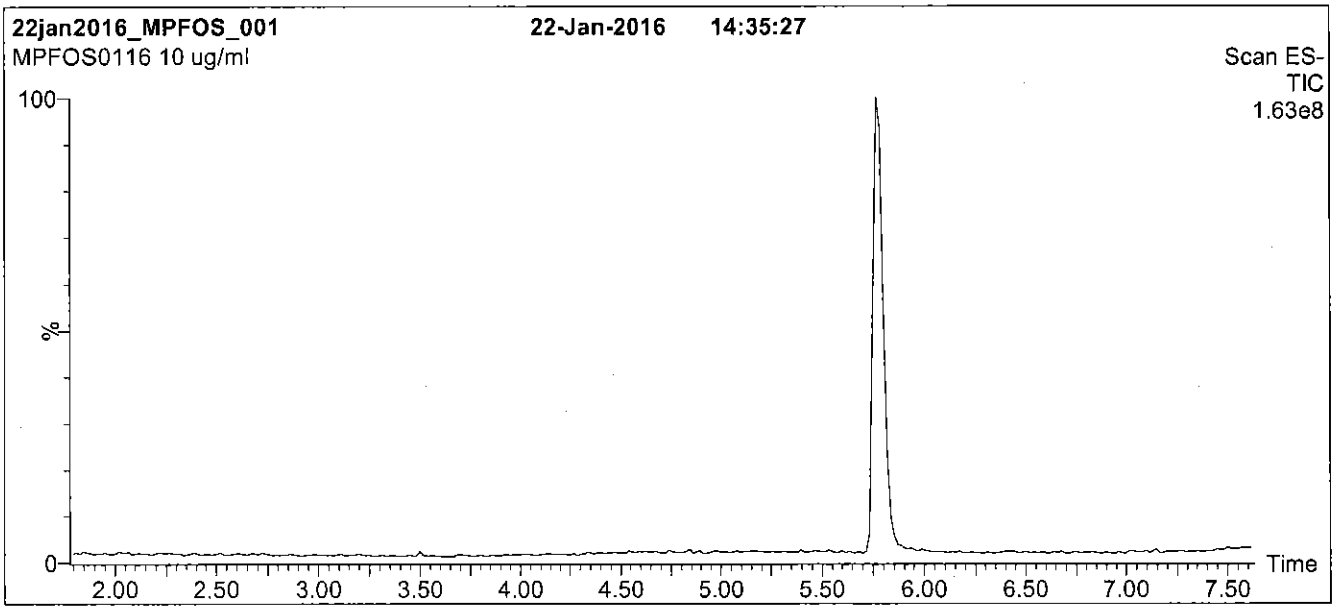
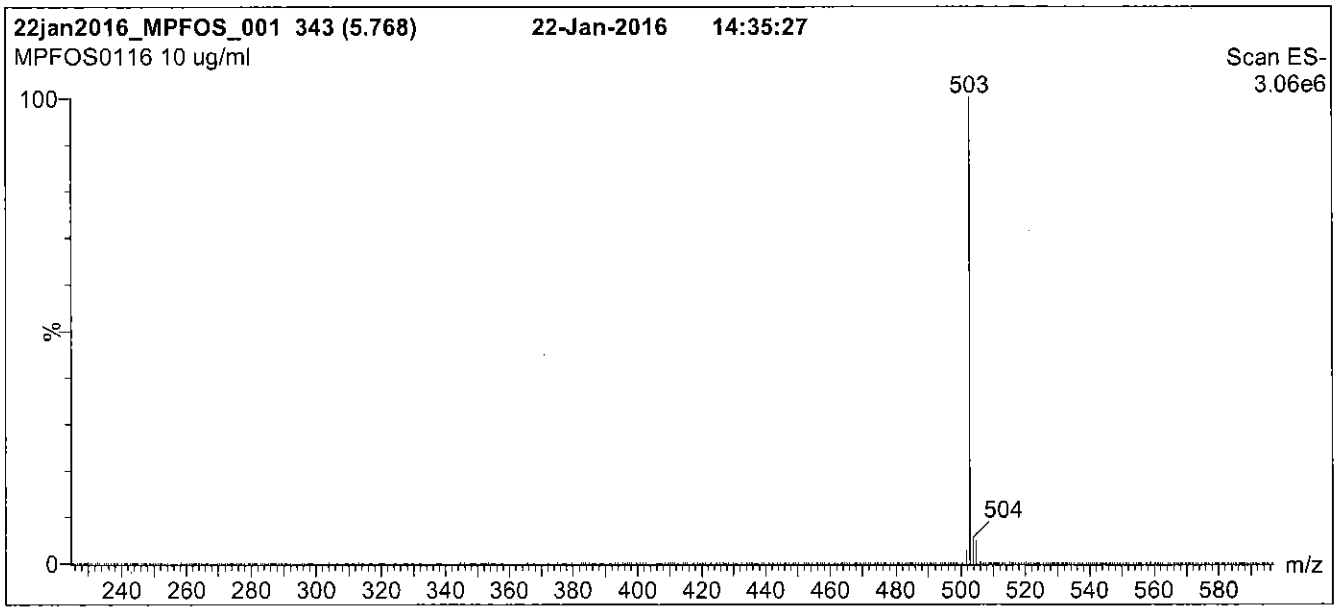
Figure 1: **MPFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

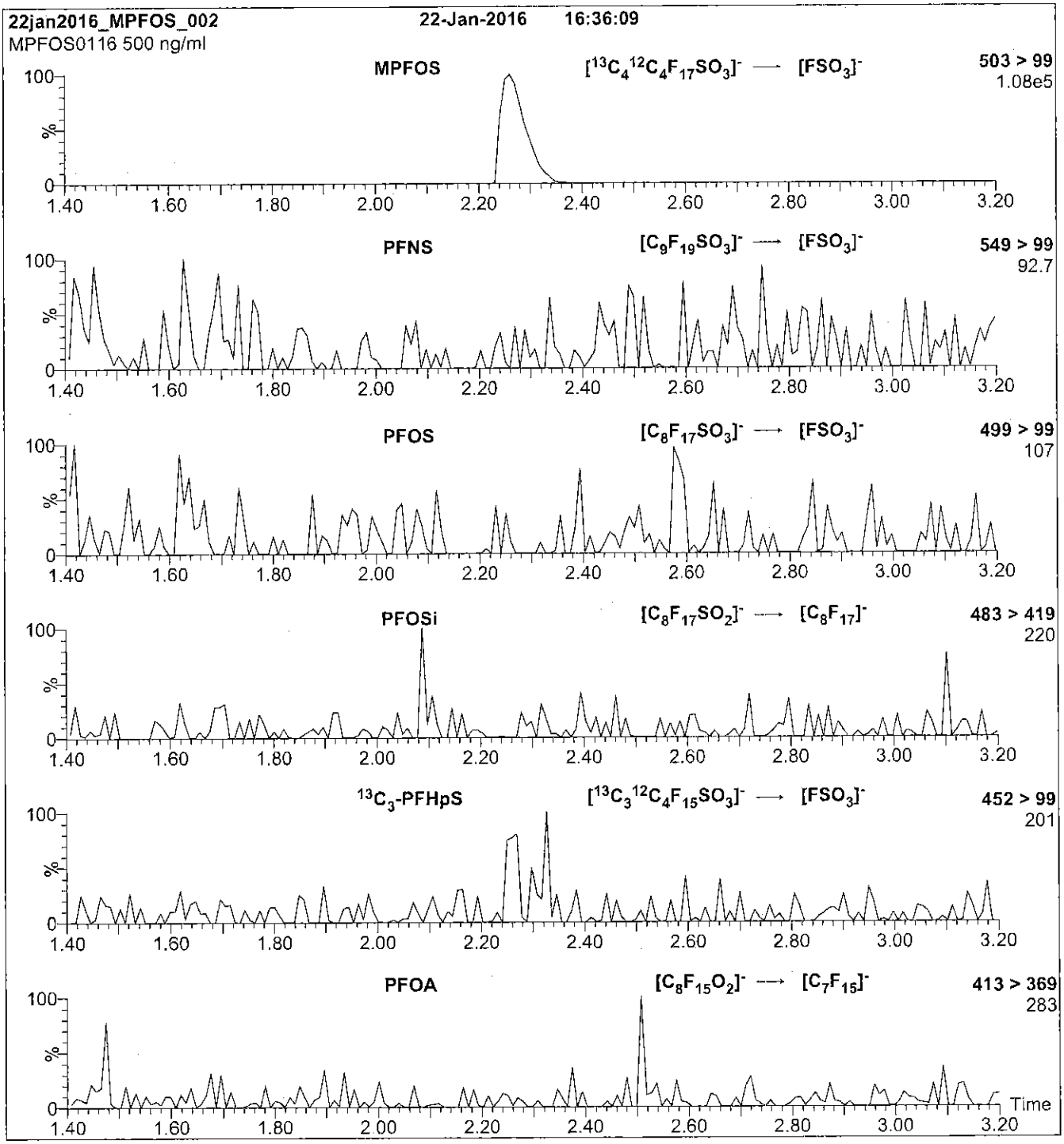
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **MPFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.70e-3
Collision Energy (eV) = 40

Reagent

LCMPFOS_00018

R: SBC 9/22/16

738686
ID: LCMPFOS_00018
Exp: 08/03/21 Rpd: SBC
13C4-Perfluorooctanesulfo

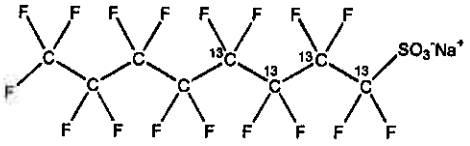
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0816

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	08/03/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/03/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 08/05/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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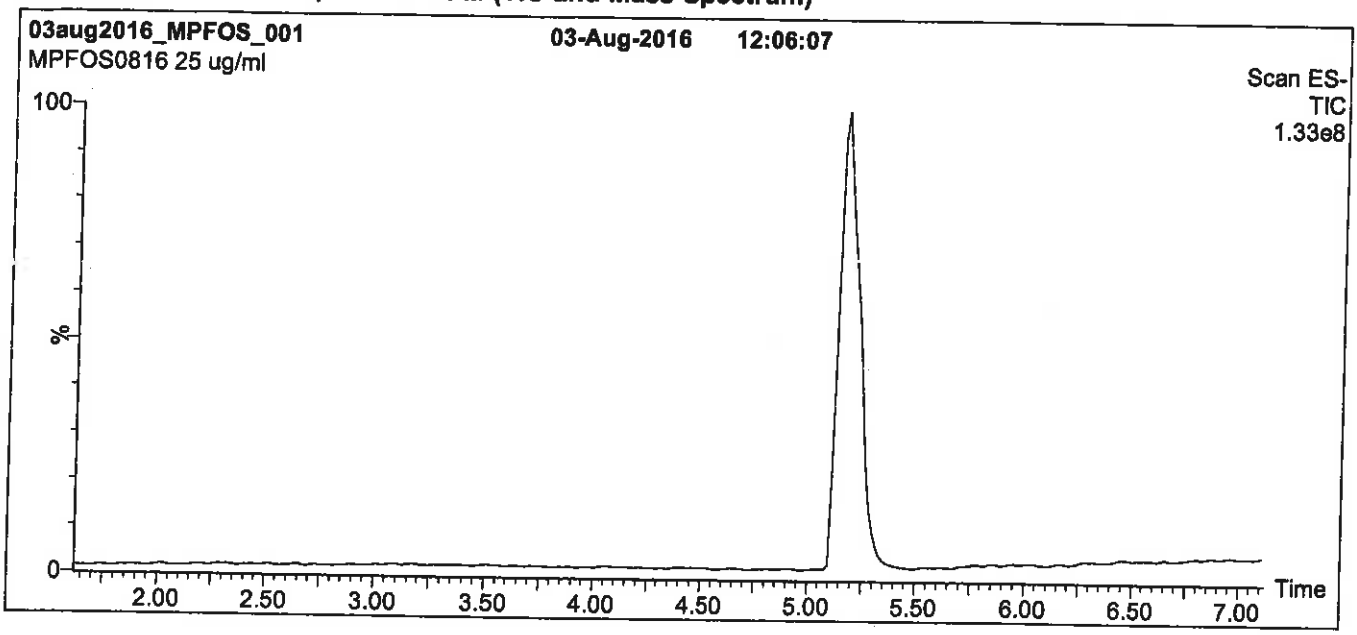

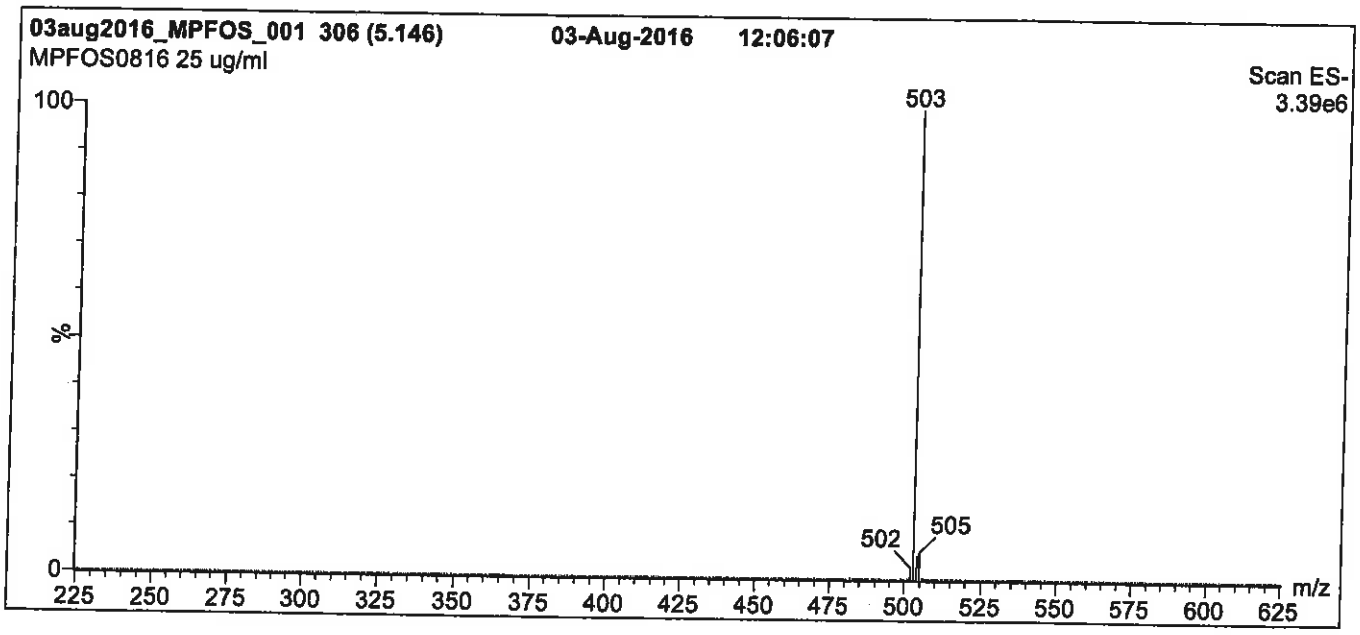

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before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
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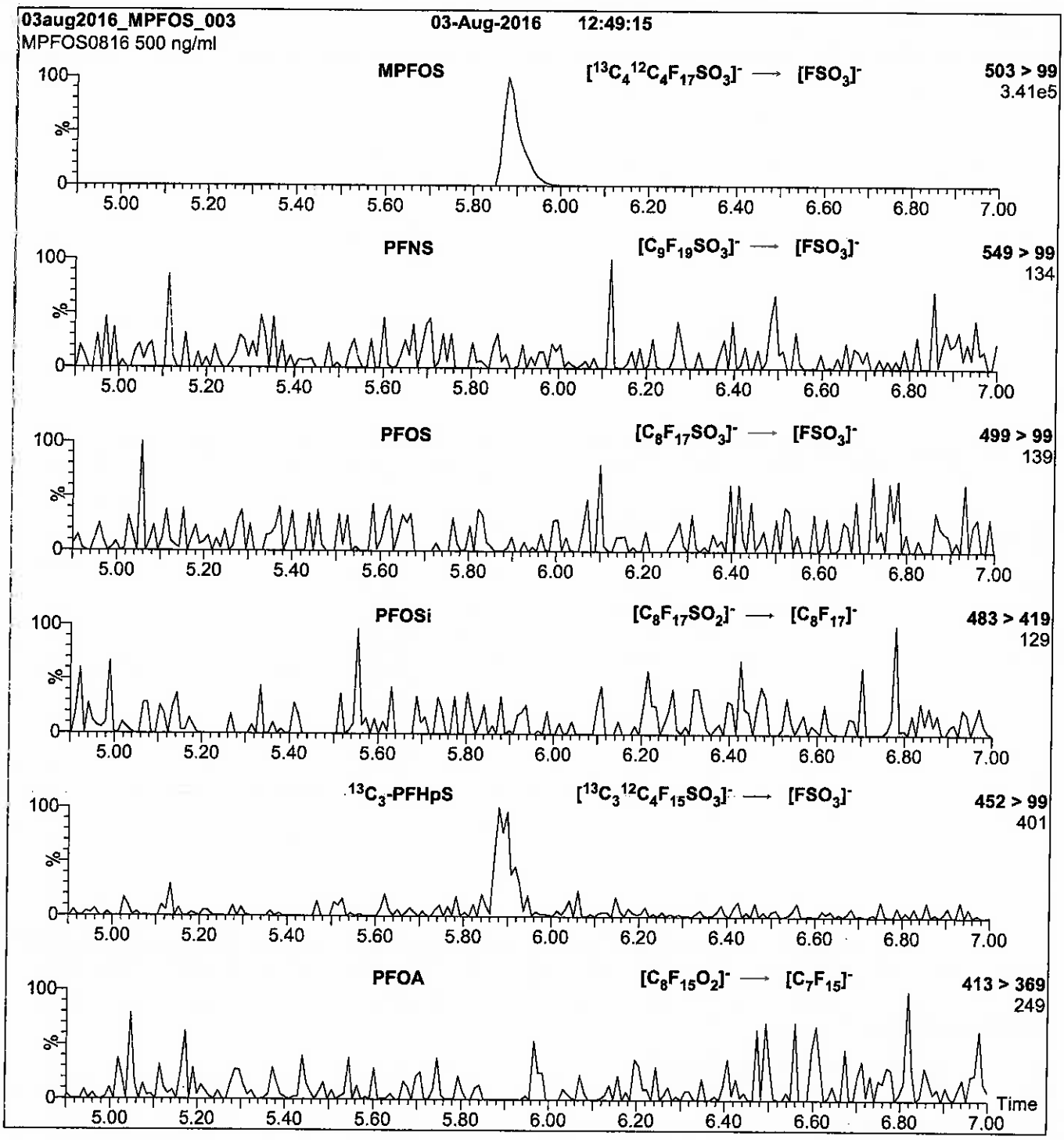

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 40

Method 537 DOD

Perfluorinated Alkyl Acids (LC/MS) by Method 537 DOD

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Acquity ID: 2.1 (mm)

Client Sample ID	Lab Sample ID	PFHxA	#	PFDA	#
WI-CV-1RW11-1116	320-23970-1	134	Q	134	Q
WI-CV-1FB11-1116	320-23970-2	115		112	
WI-CV-1RW12-1116	320-23970-3	103		126	
WI-CV-1FB12-1116	320-23970-4	106		110	
WI-CV-3RW12-1116	320-23970-5	101		110	
WI-CV-3FB12-1116	320-23970-6	118		111	
	MB 320-140632/1-A	106		104	
	LCS 320-140632/2-A	113		110	
	LCSD 320-140632/3-A	117		111	

	QC LIMITS
PFHxA = 13C2 PFHxA	70-130
PFDA = 13C2 PFDA	70-130

Column to be used to flag recovery values

FORM II 537

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 11DEC2016A6A_007.d

Lab ID: LCS 320-140632/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perfluorooctanesulfonic acid (PFOS)	0.160	0.124	77	70-130	
Perfluorooctanoic acid (PFOA)	0.0811	0.0619	76	70-130	
Perfluorobutanesulfonic acid (PFBS)	0.359	0.275	77	70-130	

Column to be used to flag recovery and RPD values

FORM III 537

FORM III
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 11DEC2016A6A_008.d

Lab ID: LCSD 320-140632/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorooctanesulfonic acid (PFOS)	0.160	0.129	80	4	30	70-130	
Perfluorooctanoic acid (PFOA)	0.0811	0.0627	77	1	30	70-130	
Perfluorobutanesulfonic acid (PFBS)	0.359	0.294	82	7	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 537

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab File ID: 11DEC2016A6A_006.d Lab Sample ID: MB 320-140632/1-A

Matrix: Water Date Extracted: 12/05/2016 11:42

Instrument ID: A6 Date Analyzed: 12/11/2016 13:31

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-140632/2-A	11DEC2016A6A_007.d	12/11/2016 14:01
	LCSD 320-140632/3-A	11DEC2016A6A_008.d	12/11/2016 14:30
WI-CV-1RW11-1116	320-23970-1	11DEC2016A6A_022.d	12/11/2016 21:25
WI-CV-1FB11-1116	320-23970-2	11DEC2016A6A_023.d	12/11/2016 21:54
WI-CV-1RW12-1116	320-23970-3	11DEC2016A6A_024.d	12/11/2016 22:24
WI-CV-1FB12-1116	320-23970-4	11DEC2016A6A_025.d	12/11/2016 22:54
WI-CV-3RW12-1116	320-23970-5	11DEC2016A6A_026.d	12/11/2016 23:23
WI-CV-3FB12-1116	320-23970-6	11DEC2016A6A_027.d	12/11/2016 23:53

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Instrument ID: A6 Calibration Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.1(mm) Calibration End Date: 12/05/2016 19:54

Calibration ID: 26888

		13PFOA		PFOS			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		965911	20.05	2046916	20.67		
UPPER LIMIT		1448867	20.55	3070374	21.17		
LOWER LIMIT		482956	19.55	1023458	20.17		
LAB SAMPLE ID	CLIENT SAMPLE ID						
CCV 320-140688/9 CCVL		1025187	20.05	2358079	20.67		
ICV 320-140688/11		877210	20.05	2015178	20.67		
CCV 320-141573/3 CCVL		802153	20.06	1836390	20.68		
CCV 320-141573/4 CCVIS		900761	20.06	1778917	20.68		
MB 320-140632/1-A		764515	20.06	1993596	20.68		
LCS 320-140632/2-A		813368	20.06	2105344	20.68		
LCSD 320-140632/3-A		733684	20.06	1868957	20.68		
CCV 320-141573/17 CCVIS		805687	20.05	1720352	20.68		
CCV 320-141574/17 CCVIS		805687	20.05	1720352	20.68		
320-23970-1	WI-CV-1RW11-1116	613919	20.05	2148420	20.68		
320-23970-2	WI-CV-1FB11-1116	742690	20.06	2209949	20.68		
320-23970-3	WI-CV-1RW12-1116	617118	20.05	2143620	20.68		
320-23970-4	WI-CV-1FB12-1116	833766	20.06	2354088	20.68		
320-23970-5	WI-CV-3RW12-1116	696681	20.05	2029883	20.67		
320-23970-6	WI-CV-3FB12-1116	714355	20.05	2109447	20.67		
CCV 320-141574/29 CCVIS		886505	20.05	1829934	20.68		

13PFOA = 13C2-PFOA
PFOS = 13C4 PFOS

Area Limit = 50%-150% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Sample No.: CCV 320-141573/4 Date Analyzed: 12/11/2016 12:32

Instrument ID: A6 GC Column: Acquity ID: 2.1(mm)

Lab File ID (Standard): 11DEC2016A6A_004.d Heated Purge: (Y/N) N

Calibration ID: 26888

		13PFOA		PFOS			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		900761	20.06	1778917	20.68		
UPPER LIMIT		1261065	20.56	2490484	21.18		
LOWER LIMIT		630533	19.56	1245242	20.18		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 320-140632/1-A		764515	20.06	1993596	20.68		
LCS 320-140632/2-A		813368	20.06	2105344	20.68		
LCSD 320-140632/3-A		733684	20.06	1868957	20.68		

13PFOA = 13C2-PFOA
PFOS = 13C4 PFOS

Area Limit = 70%-140% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Sample No.: CCV 320-141573/17 Date Analyzed: 12/11/2016 18:57

Instrument ID: A6 GC Column: Acquity ID: 2.1(mm)

Lab File ID (Standard): 11DEC2016A6A_017.d Heated Purge: (Y/N) N

Calibration ID: 26888

		13PFOA		PFOS			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		805687	20.05	1720352	20.68		
UPPER LIMIT		1127962	20.55	2408493	21.18		
LOWER LIMIT		563981	19.55	1204246	20.18		
LAB SAMPLE ID	CLIENT SAMPLE ID						
MB 320-140632/1-A		764515	20.06	1993596	20.68		
LCS 320-140632/2-A		813368	20.06	2105344	20.68		
LCSD 320-140632/3-A		733684	20.06	1868957	20.68		

13PFOA = 13C2-PFOA
PFOS = 13C4 PFOS

Area Limit = 70%-140% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Sample No.: CCV 320-141574/17 Date Analyzed: 12/11/2016 18:57

Instrument ID: A6 GC Column: Acquity ID: 2.1(mm)

Lab File ID (Standard): 11DEC2016A6A_017.d Heated Purge: (Y/N) N

Calibration ID: 26888

		13PFOA		PFOS			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		805687	20.05	1720352	20.68		
UPPER LIMIT		1127962	20.55	2408493	21.18		
LOWER LIMIT		563981	19.55	1204246	20.18		
LAB SAMPLE ID	CLIENT SAMPLE ID						
320-23970-1	WI-CV-1RW11-1116	613919	20.05	2148420	20.68		
320-23970-2	WI-CV-1FB11-1116	742690	20.06	2209949	20.68		
320-23970-3	WI-CV-1RW12-1116	617118	20.05	2143620	20.68		
320-23970-4	WI-CV-1FB12-1116	833766	20.06	2354088	20.68		
320-23970-5	WI-CV-3RW12-1116	696681	20.05	2029883	20.67		
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13PFOA = 13C2-PFOA
PFOS = 13C4 PFOS

Area Limit = 70%-140% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 537

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Sample No.: CCV 320-141574/29 Date Analyzed: 12/12/2016 00:52

Instrument ID: A6 GC Column: Acquity ID: 2.1(mm)

Lab File ID (Standard): 11DEC2016A6A_029.d Heated Purge: (Y/N) N

Calibration ID: 26888

		13PFOA		PFOS			
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		886505	20.05	1829934	20.68		
UPPER LIMIT		1241107	20.55	2561908	21.18		
LOWER LIMIT		620554	19.55	1280954	20.18		
LAB SAMPLE ID	CLIENT SAMPLE ID						
320-23970-1	WI-CV-1RW11-1116	613919	20.05	2148420	20.68		
320-23970-2	WI-CV-1FB11-1116	742690	20.06	2209949	20.68		
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FORM VIII 537

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1RW11-1116 Lab Sample ID: 320-23970-1

Matrix: Water Lab File ID: 11DEC2016A6A_022.d

Analysis Method: 537 Date Collected: 11/30/2016 09:51

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 255.7(mL) Date Analyzed: 12/11/2016 21:25

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.047	U M	0.059	0.047	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.023	0.0092
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.14	0.11	0.047

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	134	Q	70-130
STL00996	13C2 PFDA	134	Q	70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_022.d
Lims ID: 320-23970-A-1-A
Client ID: WI-CV-1RW11-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 21:25:13 ALS Bottle#: 30 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-1-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 15:58:51

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	959369	13.4	30958	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.368	19.391	-0.023	1.000	638	0.008552	0.3	
* 5 13C2-PFOA								
415.0 > 370.0	20.046	20.047	-0.001		613919	10.0	16029	
6 Perfluorooctanoic acid								M
413.0 > 369.0	20.094	20.058	0.036	1.000	435	0.006810	0.2	M
7 Perfluorooctane sulfonic acid								M
499.0 > 80.0	20.667	20.619	0.048	1.000	1899	0.0243	52.3	M
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		2148420	28.7	28107	
9 Perfluorononanoic acid								M
463.0 > 419.0	20.761	20.750	0.011	1.000	2907	0.0417	85.5	M
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	721965	13.4	5670	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 12-Dec-2016 16:02:53 Chrom Revision: 2.2 05-Dec-2016 12:37:22

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_022.d

Injection Date: 11-Dec-2016 21:25:13 Instrument ID: A6

Lims ID: 320-23970-A-1-A Lab Sample ID: 320-23970-1

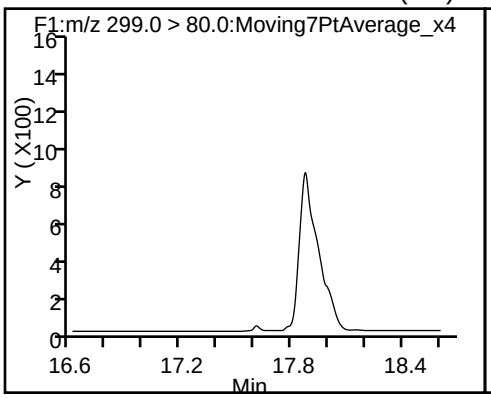
Client ID: WI-CV-1RW11-1116

Operator ID: CBW ALS Bottle#: 30 Worklist Smp#: 22

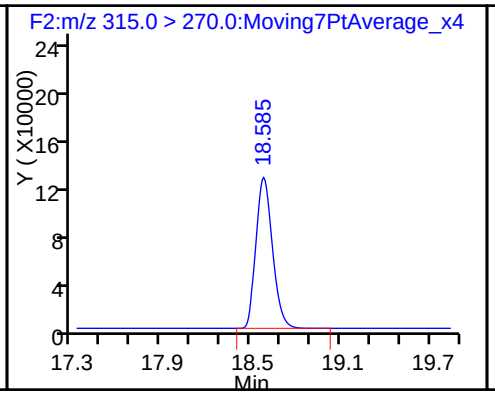
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537__A6 Limit Group: LC 537 ICAL

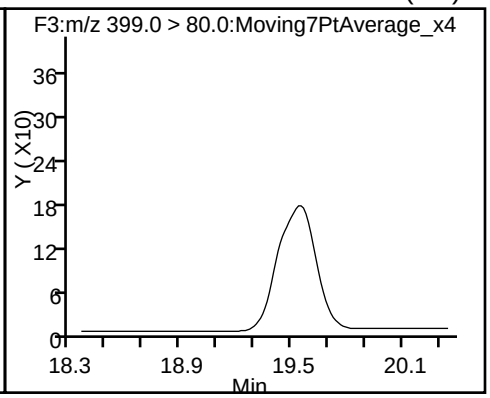
1 Perfluorobutanesulfonic acid (ND)



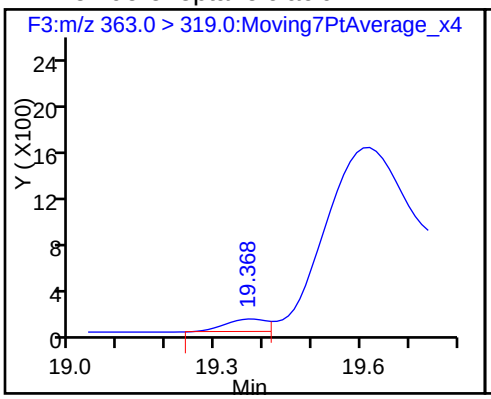
$ 2 13C2 PFHxA



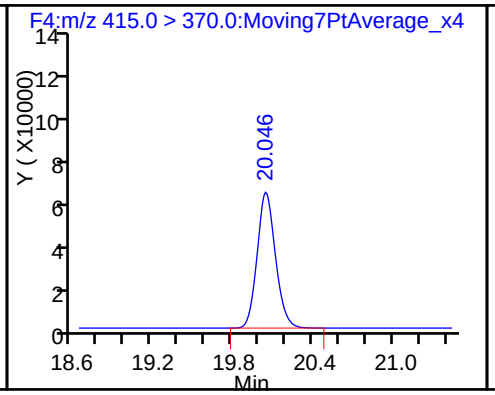
3 Perfluorohexanesulfonic acid (ND)



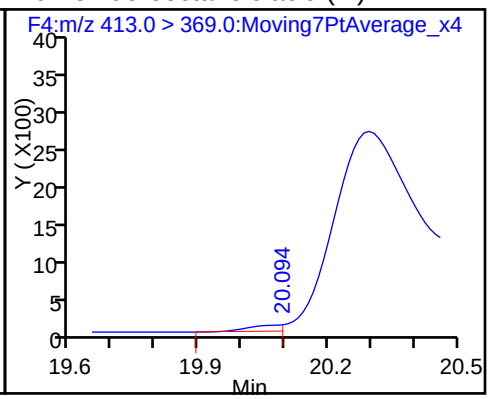
4 Perfluoroheptanoic acid



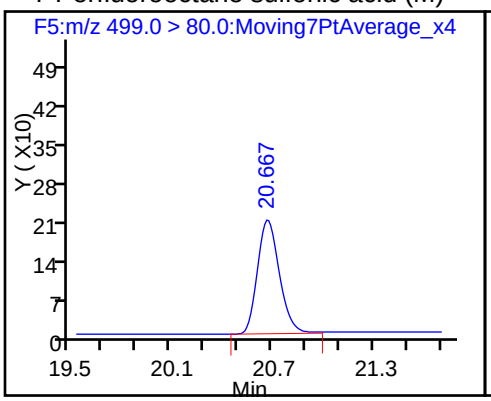
* 5 13C2-PFOA



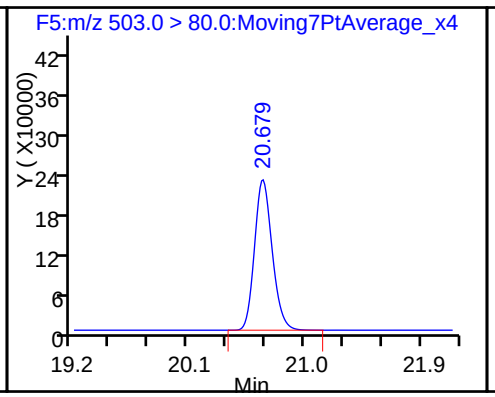
6 Perfluorooctanoic acid (M)



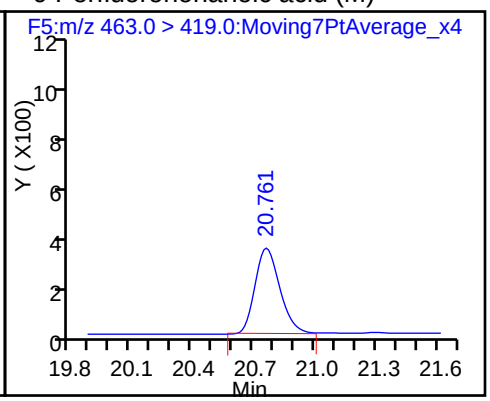
7 Perfluorooctane sulfonic acid (M)



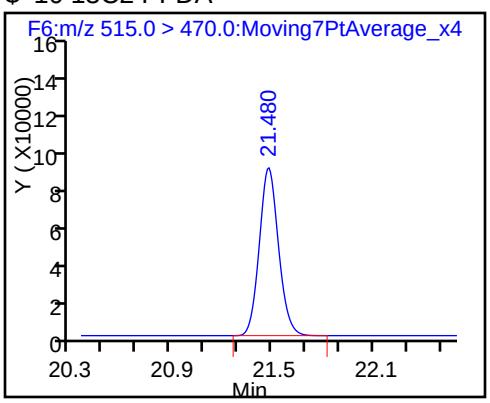
* 8 13C4 PFOS



9 Perfluorononanoic acid (M)



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_022.d
Lims ID: 320-23970-A-1-A
Client ID: WI-CV-1RW11-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 21:25:13 ALS Bottle#: 30 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-1-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 15:58:51

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	13.4	133.96
$ 10 13C2 PFDA	10.0	13.4	134.20

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

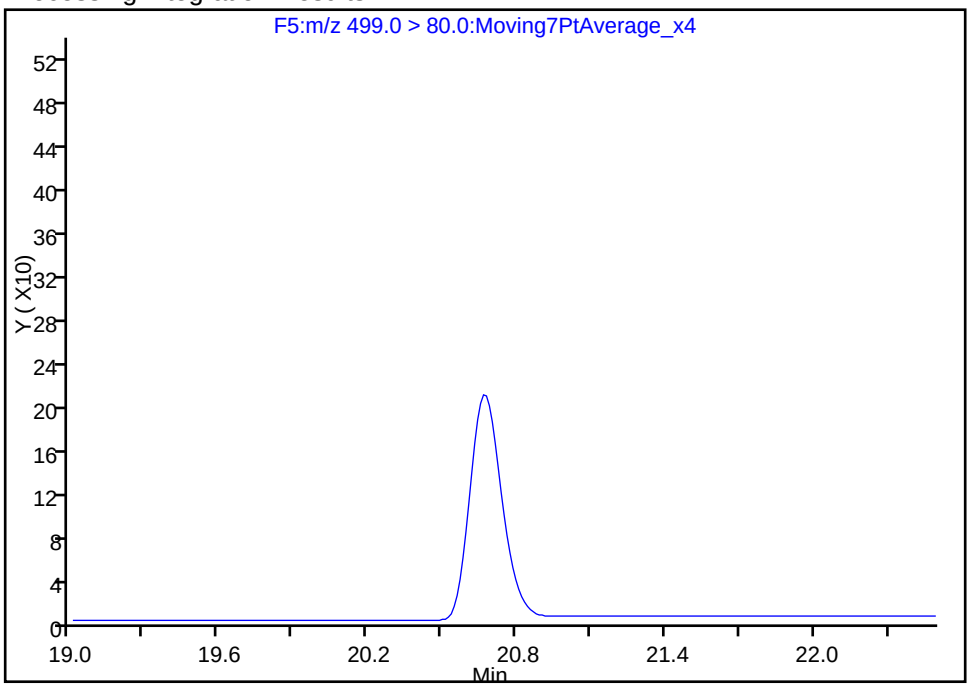
Data File:	\\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_022.d				
Injection Date:	11-Dec-2016 21:25:13	Instrument ID:	A6		
Lims ID:	320-23970-A-1-A	Lab Sample ID:	320-23970-1		
Client ID:	WI-CV-1RW11-1116				
Operator ID:	CBW	ALS Bottle#:	30	Worklist Smp#:	22
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537__A6	Limit Group:	LC 537 ICAL		
Column:	Acquity BEH C18 (2.10 mm)	Detector	F5:MRM		

7 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

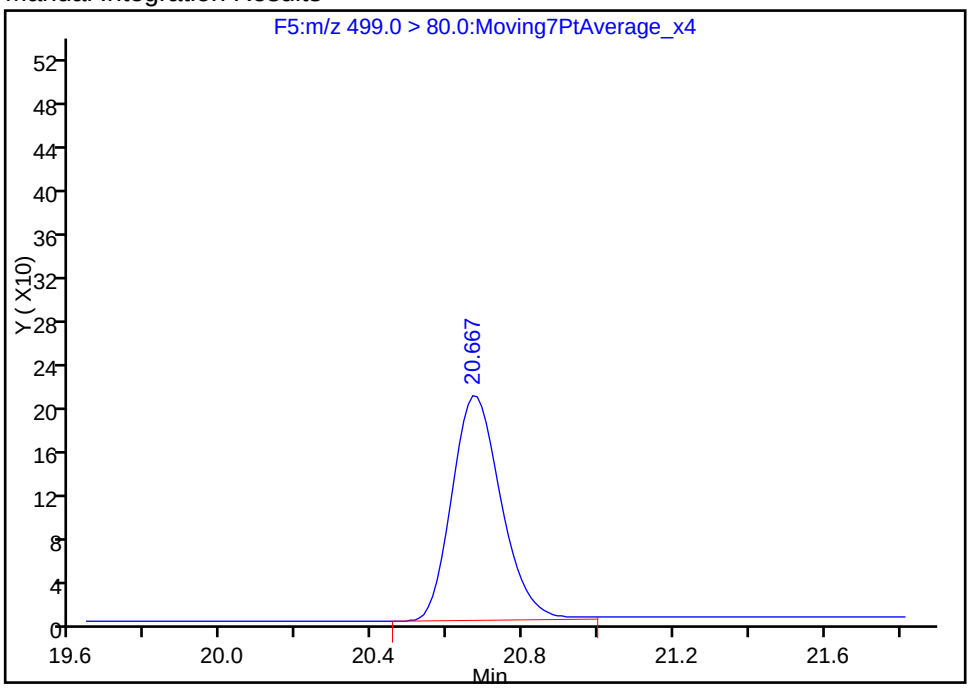
Processing Integration Results

Not Detected
Expected RT: 20.62



Manual Integration Results

RT: 20.67
Area: 1899
Amount: 0.024282
Amount Units: ng/ml



Reviewer: barnettj, 12-Dec-2016 15:58:51
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

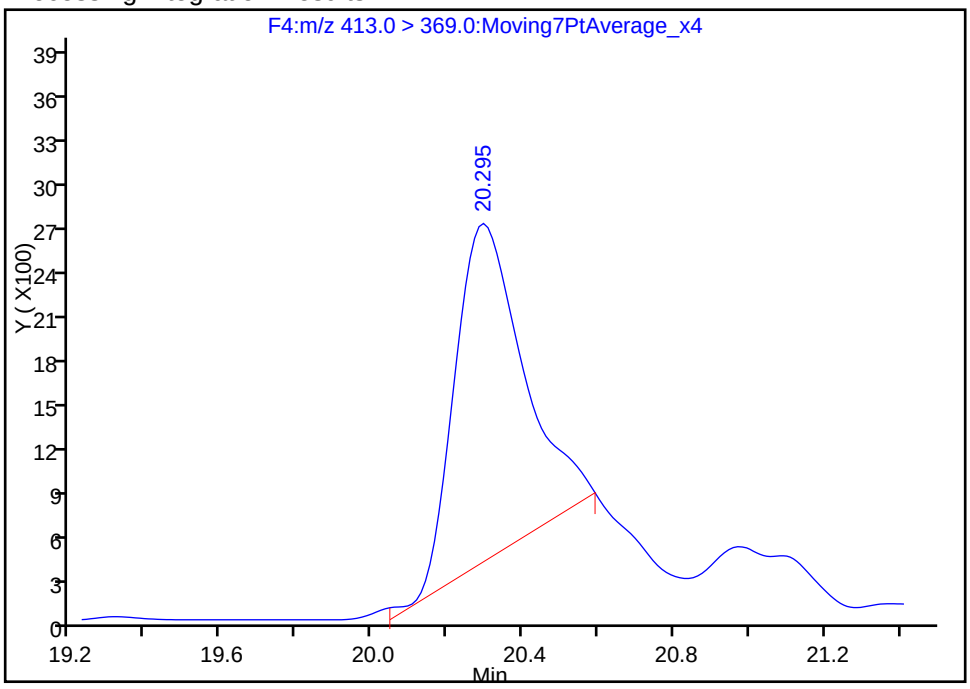
Data File:	\\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_022.d				
Injection Date:	11-Dec-2016 21:25:13	Instrument ID:	A6		
Lims ID:	320-23970-A-1-A	Lab Sample ID:	320-23970-1		
Client ID:	WI-CV-1RW11-1116				
Operator ID:	CBW	ALS Bottle#:	30	Worklist Smp#:	22
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537__A6	Limit Group:	LC 537 ICAL		
Column:	Acquity BEH C18 (2.10 mm)	Detector	F4:MRM		

6 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

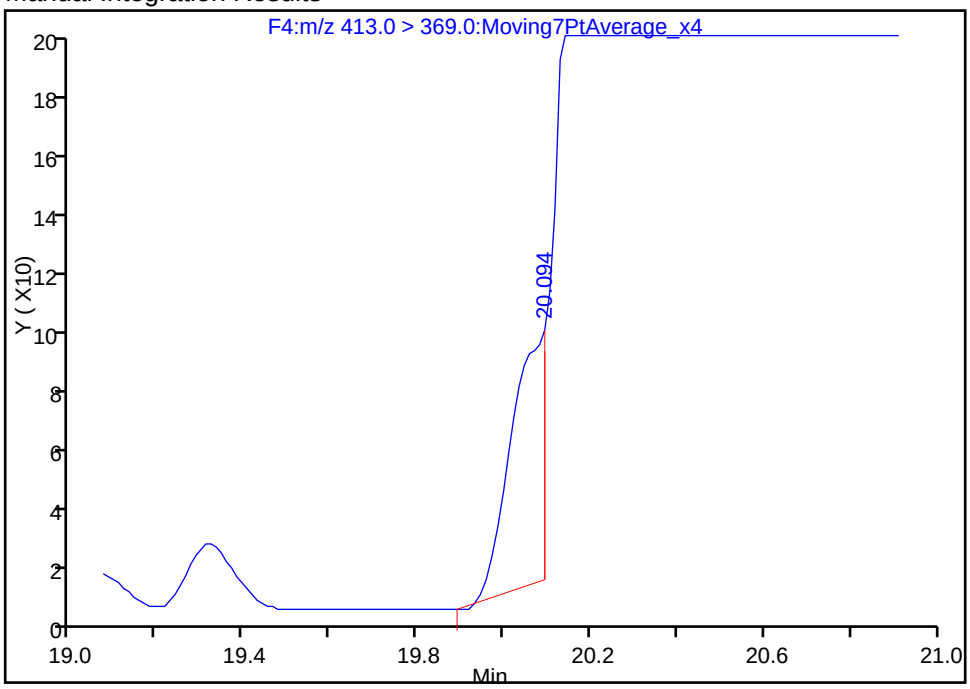
Processing Integration Results

RT: 20.30
Area: 29210
Amount: 0.457309
Amount Units: ng/ml



Manual Integration Results

RT: 20.09
Area: 435
Amount: 0.006810
Amount Units: ng/ml



Reviewer: barnettj, 12-Dec-2016 15:58:51

Audit Action: Manually Integrated Audit Reason: Split Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1FB11-1116 Lab Sample ID: 320-23970-2

Matrix: Water Lab File ID: 11DEC2016A6A_023.d

Analysis Method: 537 Date Collected: 11/30/2016 09:50

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 269.6(mL) Date Analyzed: 12/11/2016 21:54

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.045	U	0.056	0.045	0.014
335-67-1	Perfluorooctanoic acid (PFOA)	0.022	U	0.028	0.022	0.0087
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.10	0.044

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	115		70-130
STL00996	13C2 PFDA	112		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_023.d
Lims ID: 320-23970-A-2-A
Client ID: WI-CV-1FB11-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 21:54:49 ALS Bottle#: 31 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-2-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

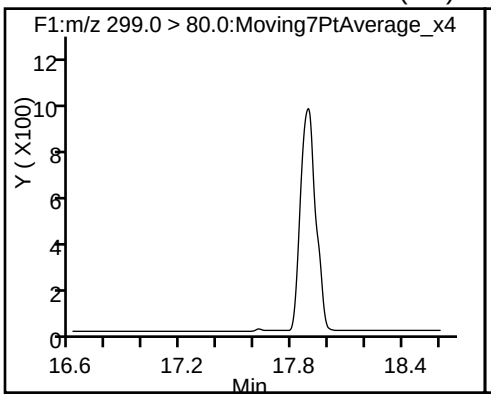
Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 15:59:11

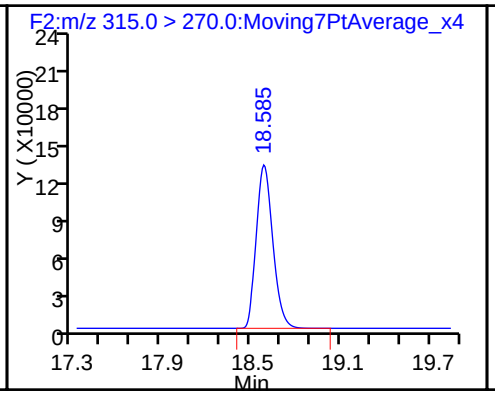
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	998951	11.5	32124	
* 5 13C2-PFOA								
415.0 > 370.0	20.059	20.047	0.012		742690	10.0	19634	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		2209949	28.7	58193	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	4705	0.0559	108	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	730966	11.2	23045	

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_023.d
Injection Date: 11-Dec-2016 21:54:49 Instrument ID: A6
Lims ID: 320-23970-A-2-A Lab Sample ID: 320-23970-2
Client ID: WI-CV-1FB11-1116
Operator ID: CBW ALS Bottle#: 31 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

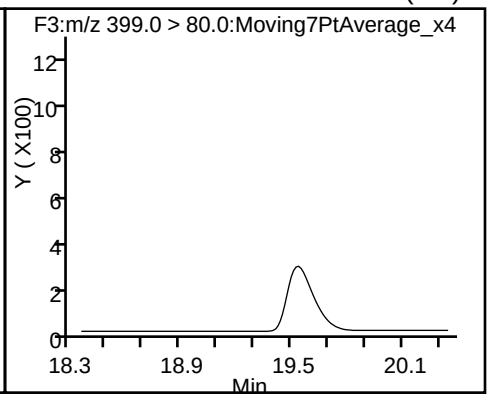
1 Perfluorobutanesulfonic acid (ND)



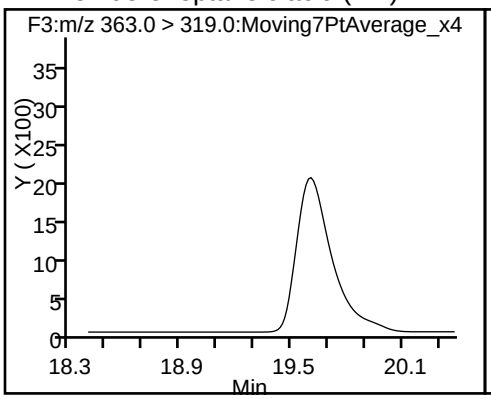
$ 2 13C2 PFHxA



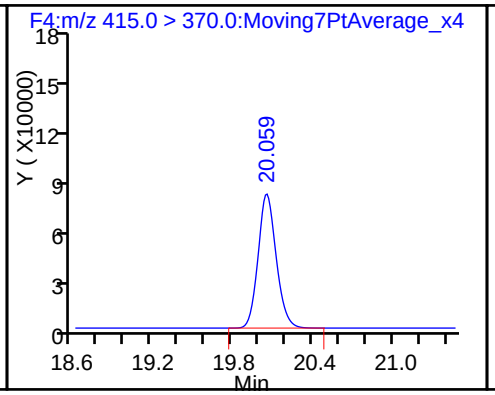
3 Perfluorohexanesulfonic acid (ND)



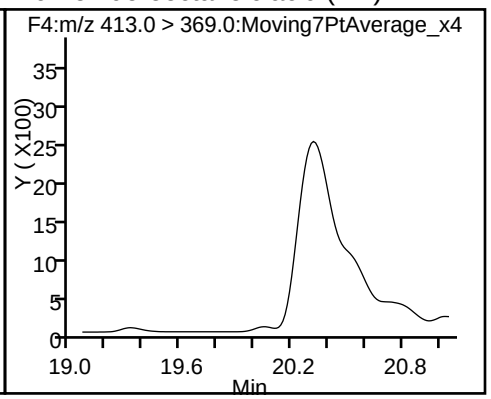
4 Perfluoroheptanoic acid (ND)



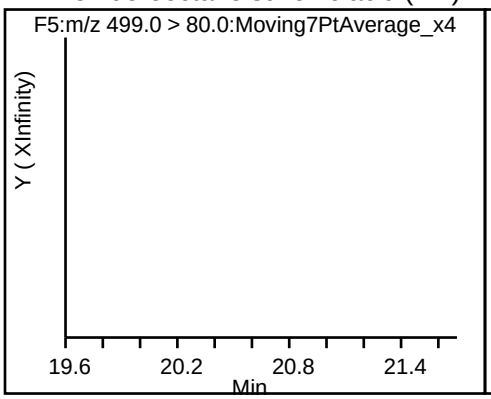
* 5 13C2-PFOA



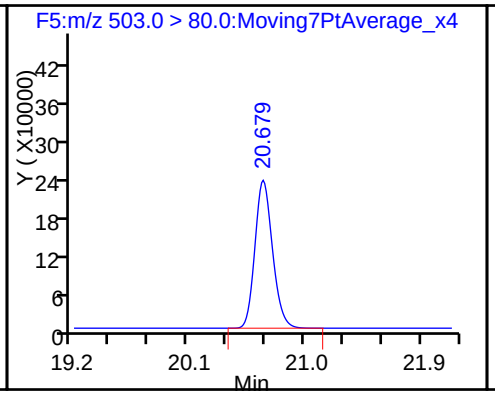
6 Perfluorooctanoic acid (ND)



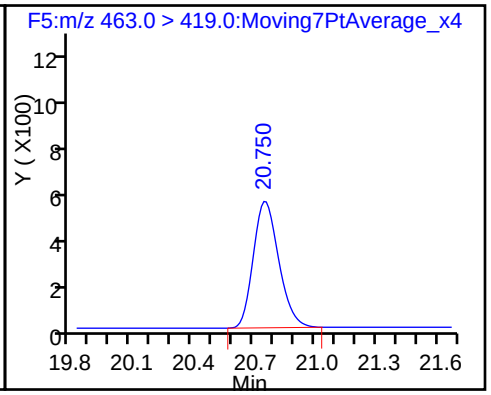
7 Perfluorooctane sulfonic acid (ND)



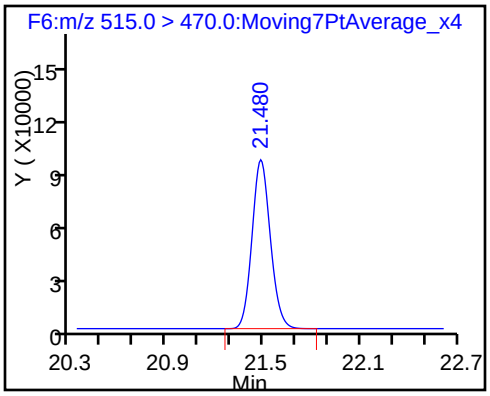
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_023.d
Lims ID: 320-23970-A-2-A
Client ID: WI-CV-1FB11-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 21:54:49 ALS Bottle#: 31 Worklist Smp#: 23
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-2-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 15:59:11

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	11.5	115.30
$ 10 13C2 PFDA	10.0	11.2	112.32

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1RW12-1116 Lab Sample ID: 320-23970-3

Matrix: Water Lab File ID: 11DEC2016A6A_024.d

Analysis Method: 537 Date Collected: 11/30/2016 10:08

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 251.4(mL) Date Analyzed: 12/11/2016 22:24

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.048	U	0.060	0.048	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.025	J M	0.030	0.024	0.0094
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.14	0.11	0.047

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	103		70-130
STL00996	13C2 PFDA	126		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_024.d
Lims ID: 320-23970-A-3-A
Client ID: WI-CV-1RW12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 22:24:25 ALS Bottle#: 32 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-3-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:00:39

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.618	17.608	0.010	1.000	1514779	28.9	574	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	742703	10.3	23225	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.356	-0.012	1.000	679608	10.1	11233	
4 Perfluoroheptanoic acid								M
363.0 > 319.0	19.380	19.391	-0.011	1.000	575412	7.67	150	M
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		617118	10.0	16042	
6 Perfluorooctanoic acid								M
413.0 > 369.0	20.047	20.058	-0.011	1.000	405941	6.32	46.4	M
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		2143620	28.7	24987	
9 Perfluorononanoic acid								M
463.0 > 419.0	20.774	20.750	0.024	1.000	1873	0.0268	20.3	M
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	681605	12.6	21464	

QC Flag Legend

Review Flags
M - Manually Integrated

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_024.d

Injection Date: 11-Dec-2016 22:24:25 Instrument ID: A6

Lims ID: 320-23970-A-3-A Lab Sample ID: 320-23970-3

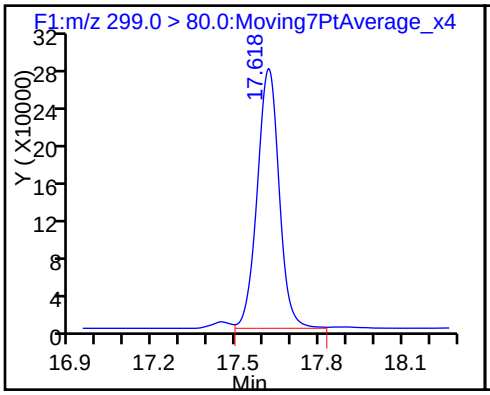
Client ID: WI-CV-1RW12-1116

Operator ID: CBW ALS Bottle#: 32 Worklist Smp#: 24

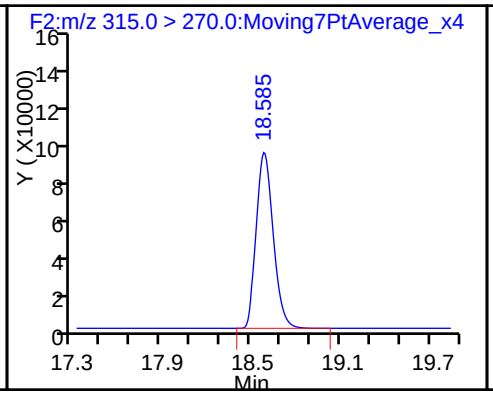
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537__A6 Limit Group: LC 537 ICAL

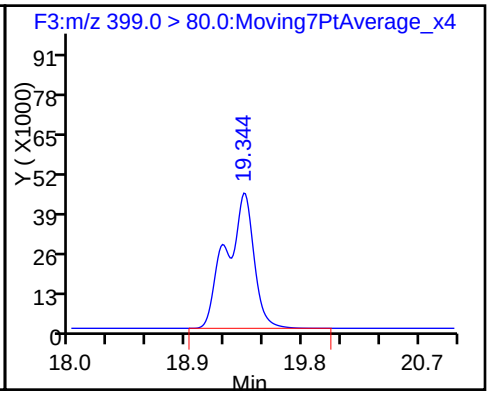
1 Perfluorobutanesulfonic acid



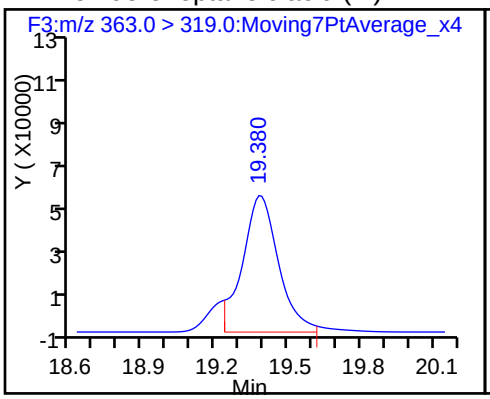
$ 2 13C2 PFHxA



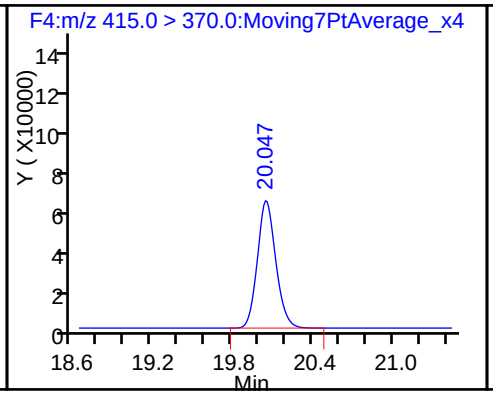
3 Perfluorohexanesulfonic acid



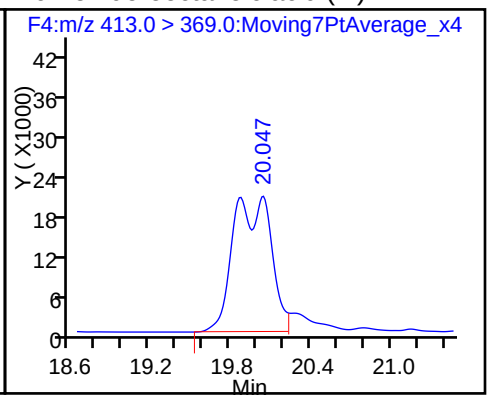
4 Perfluoroheptanoic acid (M)



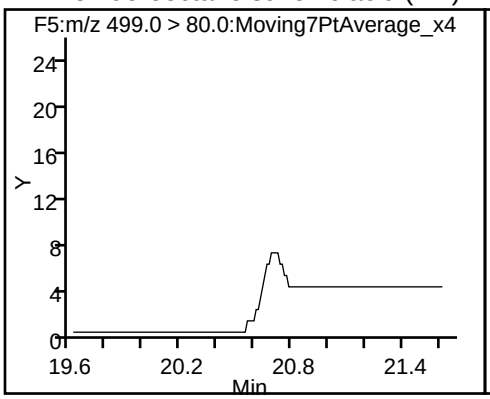
* 5 13C2-PFOA



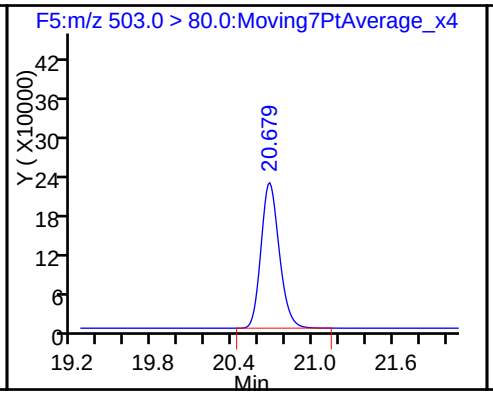
6 Perfluorooctanoic acid (M)



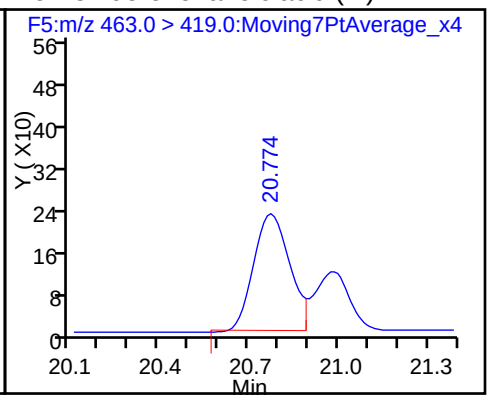
7 Perfluorooctane sulfonic acid (ND)



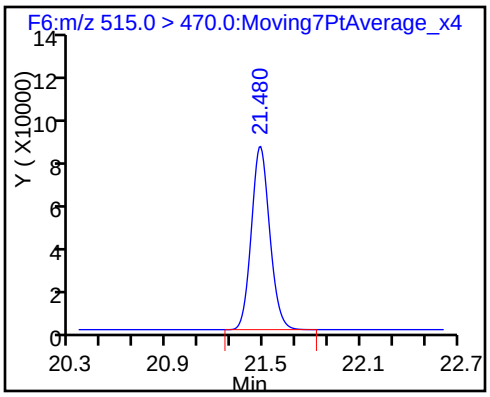
* 8 13C4 PFOS



9 Perfluorononanoic acid (M)



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_024.d
Lims ID: 320-23970-A-3-A
Client ID: WI-CV-1RW12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 22:24:25 ALS Bottle#: 32 Worklist Smp#: 24
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-3-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:00:39

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	10.3	103.17
$ 10 13C2 PFDA	10.0	12.6	126.04

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

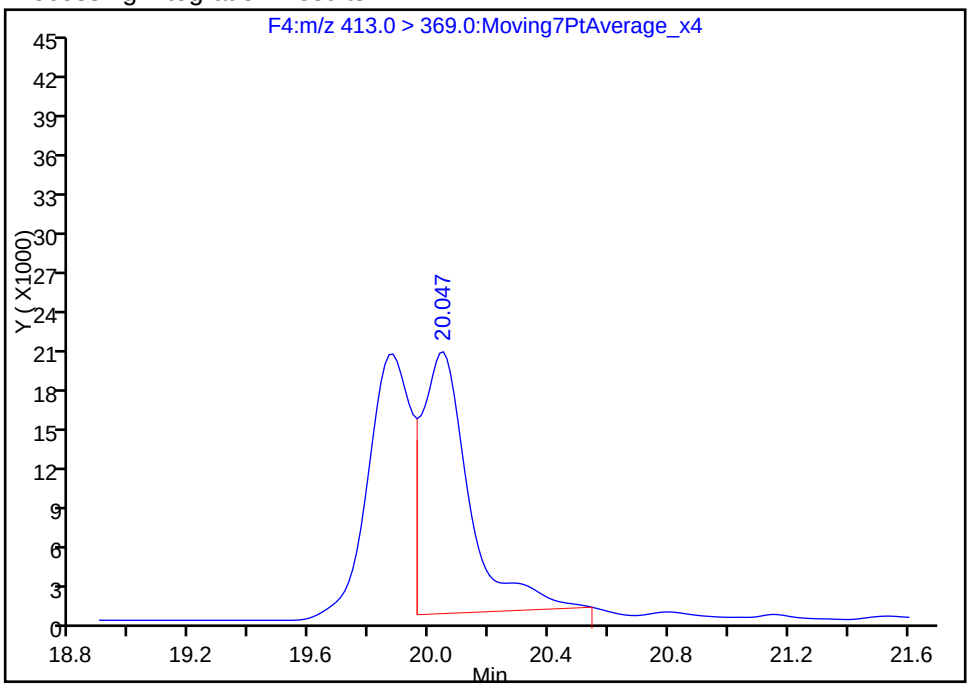
Data File:	\\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_024.d				
Injection Date:	11-Dec-2016 22:24:25	Instrument ID:	A6		
Lims ID:	320-23970-A-3-A	Lab Sample ID:	320-23970-3		
Client ID:	WI-CV-1RW12-1116				
Operator ID:	CBW	ALS Bottle#:	32	Worklist Smp#:	24
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537__A6	Limit Group:	LC 537 ICAL		
Column:	Acquity BEH C18 (2.10 mm)	Detector	F4:MRM		

6 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

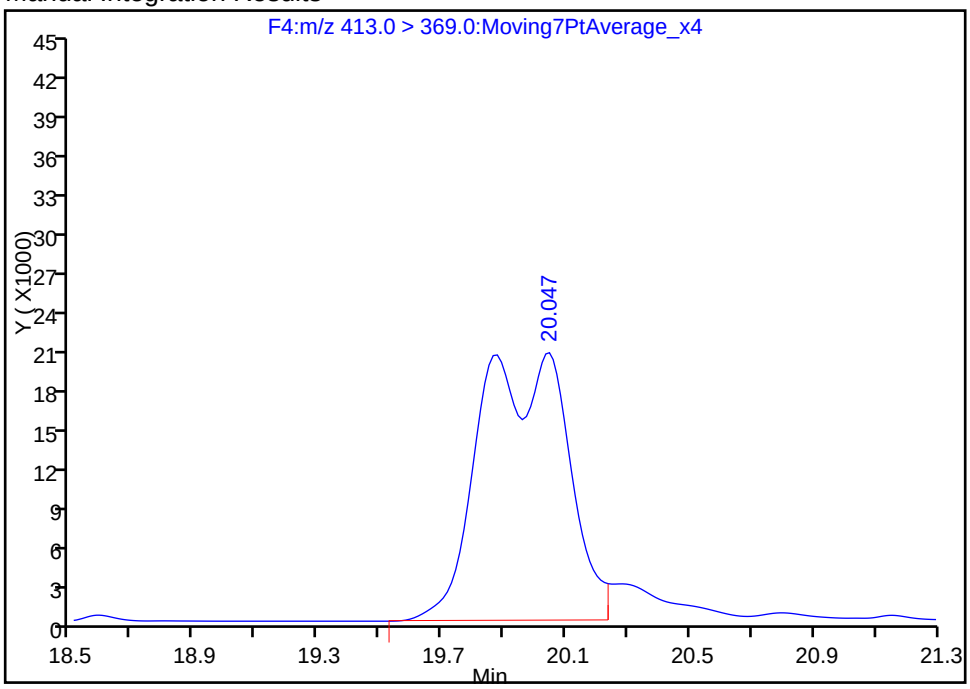
Processing Integration Results

RT: 20.05
Area: 215346
Amount: 3.353960
Amount Units: ng/ml



Manual Integration Results

RT: 20.05
Area: 405941
Amount: 6.322429
Amount Units: ng/ml



Reviewer: barnettj, 12-Dec-2016 16:00:39

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1FB12-1116 Lab Sample ID: 320-23970-4

Matrix: Water Lab File ID: 11DEC2016A6A_025.d

Analysis Method: 537 Date Collected: 11/30/2016 10:07

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 262(mL) Date Analyzed: 12/11/2016 22:54

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.046	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.023	0.0090
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.10	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	106		70-130
STL00996	13C2 PFDA	110		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_025.d
Lims ID: 320-23970-A-4-A
Client ID: WI-CV-1FB12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 22:54:02 ALS Bottle#: 33 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-4-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

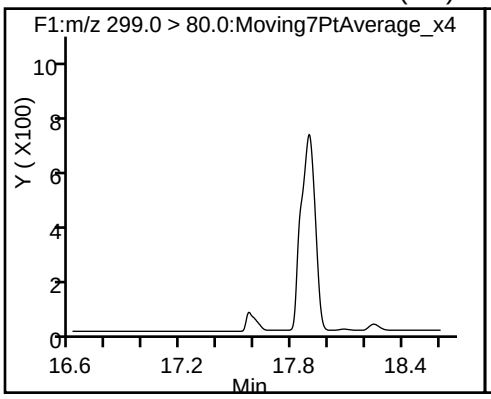
Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:00:59

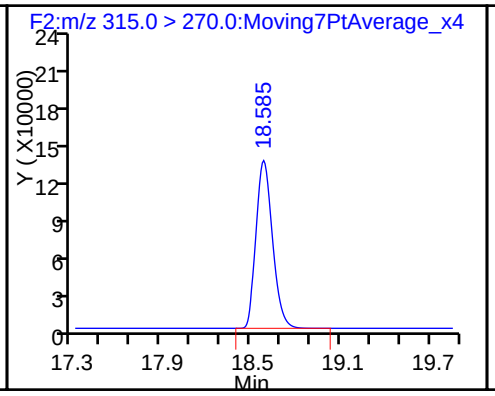
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	1034855	10.6	33406	
* 5 13C2-PFOA								
415.0 > 370.0	20.058	20.047	0.011		833766	10.0	21886	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		2354088	28.7	61683	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	802529	11.0	25406	

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_025.d
Injection Date: 11-Dec-2016 22:54:02 Instrument ID: A6
Lims ID: 320-23970-A-4-A Lab Sample ID: 320-23970-4
Client ID: WI-CV-1FB12-1116
Operator ID: CBW ALS Bottle#: 33 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

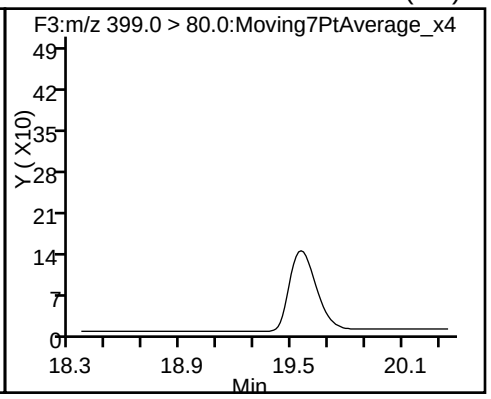
1 Perfluorobutanesulfonic acid (ND)



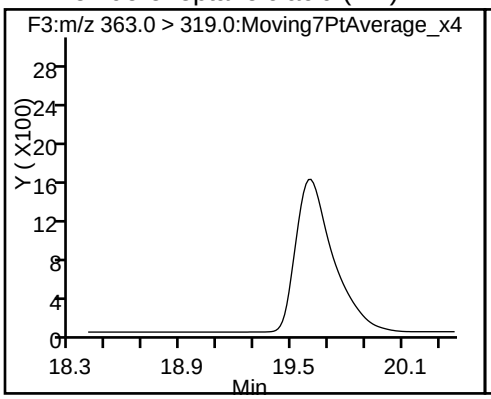
$ 2 13C2 PFHxA



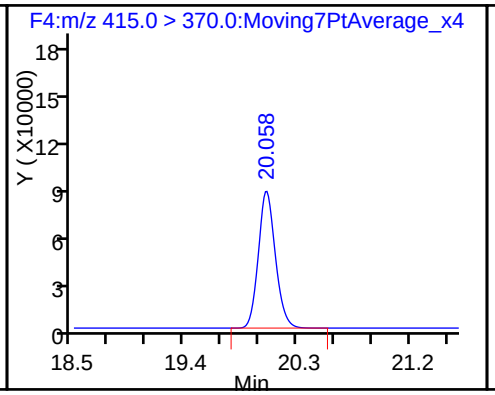
3 Perfluorohexanesulfonic acid (ND)



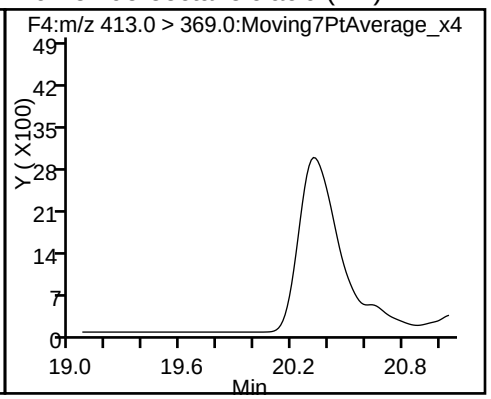
4 Perfluoroheptanoic acid (ND)



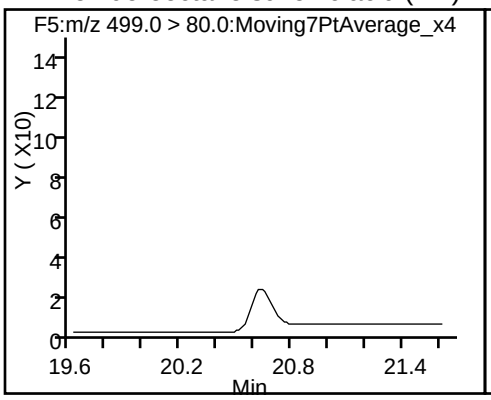
* 5 13C2-PFOA



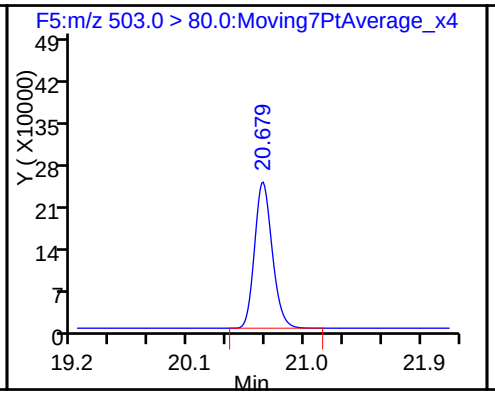
6 Perfluorooctanoic acid (ND)



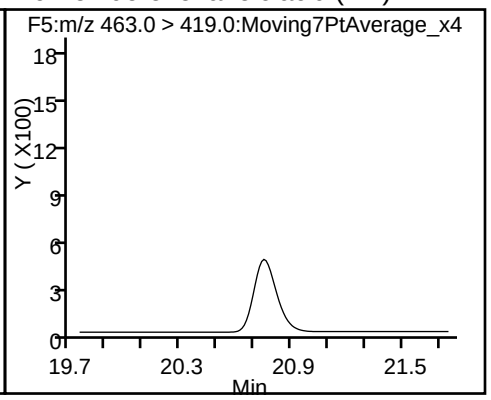
7 Perfluorooctane sulfonic acid (ND)



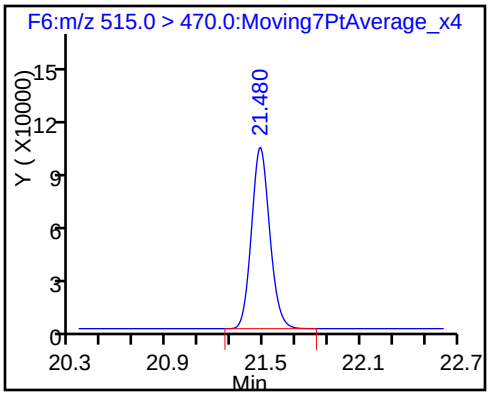
* 8 13C4 PFOS



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_025.d
Lims ID: 320-23970-A-4-A
Client ID: WI-CV-1FB12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 22:54:02 ALS Bottle#: 33 Worklist Smp#: 25
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-4-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:00:59

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	10.6	106.40
$ 10 13C2 PFDA	10.0	11.0	109.84

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-3RW12-1116 Lab Sample ID: 320-23970-5

Matrix: Water Lab File ID: 11DEC2016A6A_026.d

Analysis Method: 537 Date Collected: 11/30/2016 09:12

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 261.5(mL) Date Analyzed: 12/11/2016 23:23

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.046	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.023	0.0090
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.11	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	101		70-130
STL00996	13C2 PFDA	110		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_026.d
Lims ID: 320-23970-A-5-A
Client ID: WI-CV-3RW12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 23:23:36 ALS Bottle#: 34 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-5-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:02:05

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
315.0 > 270.0	18.576	18.585	-0.009	1.000	817847	10.1	26652	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		696681	10.0	18007	
6 Perfluorooctanoic acid								M
413.0 > 369.0	20.047	20.058	-0.011	1.000	783	0.0108	0.3	M
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.679	-0.012		2029883	28.7	53381	
9 Perfluorononanoic acid								
463.0 > 419.0	20.738	20.750	-0.012	1.000	14116	0.1786	101	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.480	-0.009	1.000	672244	11.0	21319	

QC Flag Legend

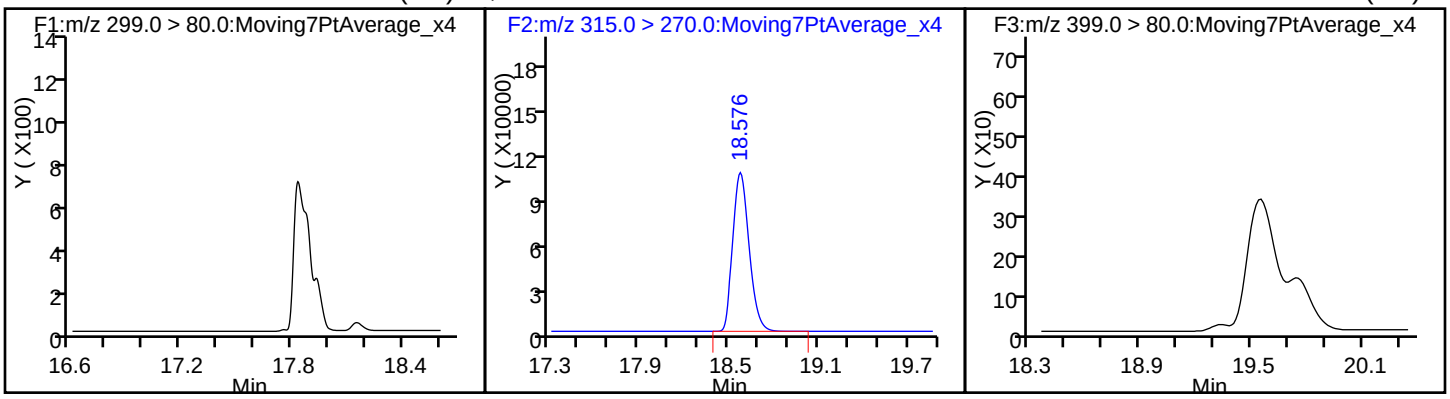
Review Flags
M - Manually Integrated

TestAmerica Sacramento

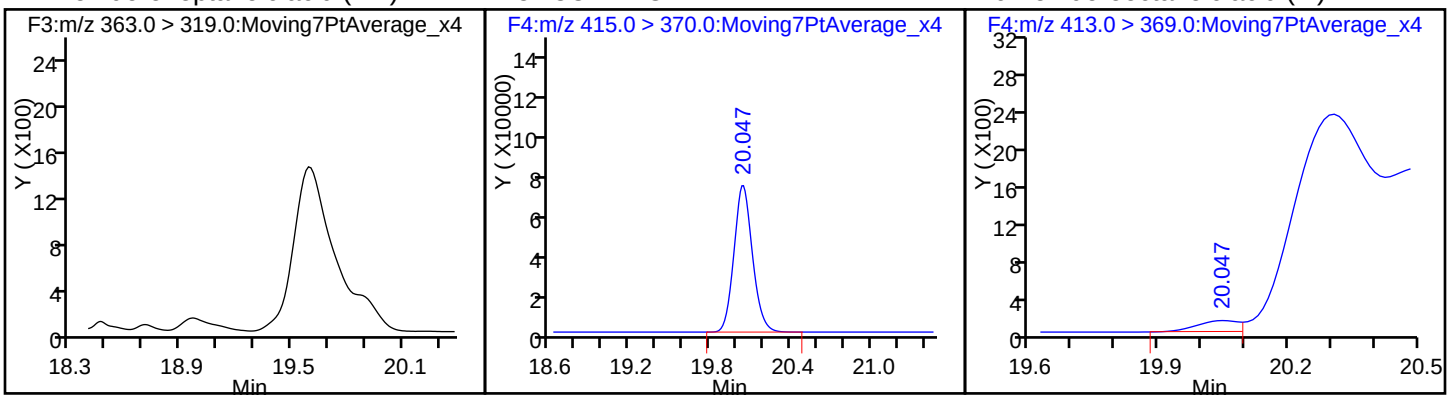
Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_026.d

Injection Date:	11-Dec-2016 23:23:36	Instrument ID:	A6		
Lims ID:	320-23970-A-5-A	Lab Sample ID:	320-23970-5		
Client ID:	WI-CV-3RW12-1116				
Operator ID:	CBW	ALS Bottle#:	34	Worklist Smp#:	26
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537__A6	Limit Group:	LC 537 ICAL		

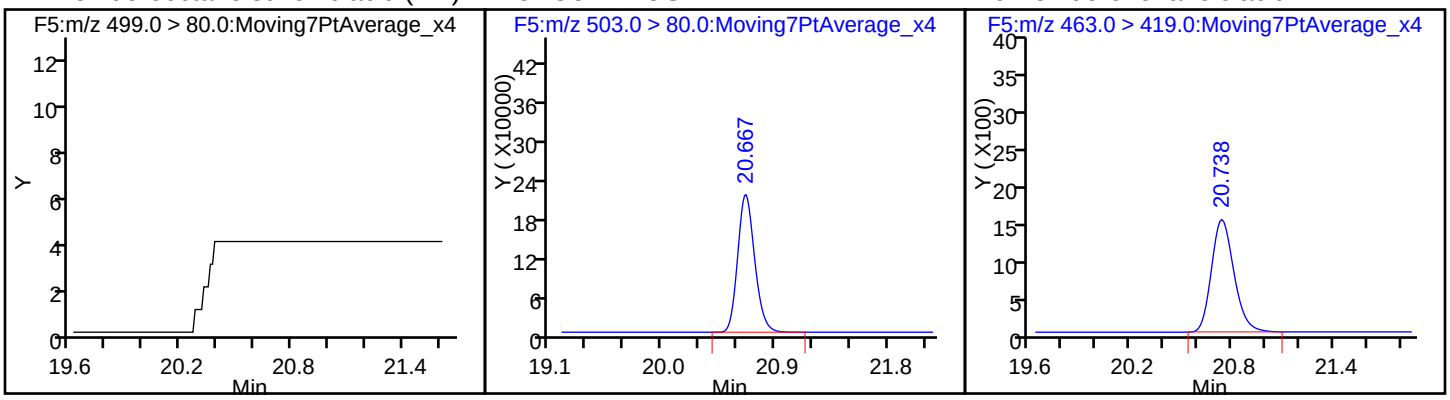
1 Perfluorobutanesulfonic acid (ND) $ 2 13C2 PFHxA 3 Perfluorohexanesulfonic acid (ND)



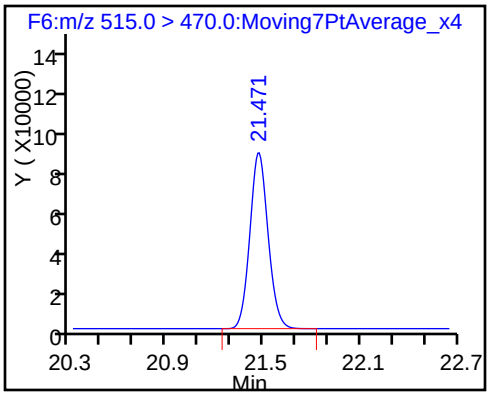
4 Perfluoroheptanoic acid (ND) * 5 13C2-PFOA 6 Perfluorooctanoic acid (M)



7 Perfluorooctane sulfonic acid (ND) * 8 13C4 PFOS 9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_026.d
Lims ID: 320-23970-A-5-A
Client ID: WI-CV-3RW12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 23:23:36 ALS Bottle#: 34 Worklist Smp#: 26
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-5-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:02:05

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	10.1	100.63
$ 10 13C2 PFDA	10.0	11.0	110.12

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

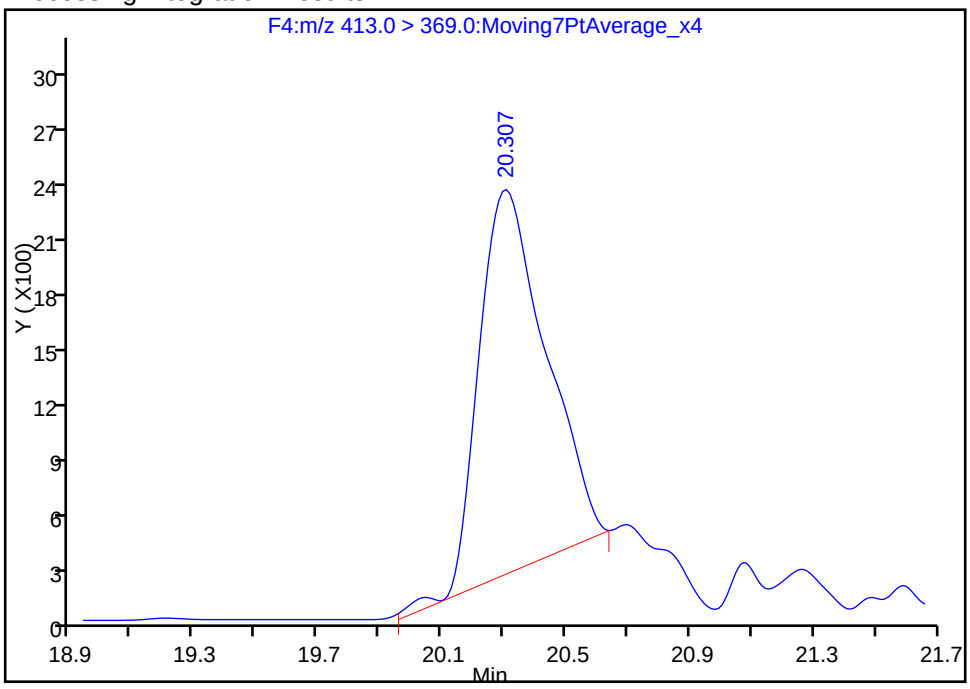
Data File:	\\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_026.d				
Injection Date:	11-Dec-2016 23:23:36	Instrument ID:	A6		
Lims ID:	320-23970-A-5-A	Lab Sample ID:	320-23970-5		
Client ID:	WI-CV-3RW12-1116				
Operator ID:	CBW	ALS Bottle#:	34	Worklist Smp#:	26
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537__A6	Limit Group:	LC 537 ICAL		
Column:	Acquity BEH C18 (2.10 mm)	Detector	F4:MRM		

6 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

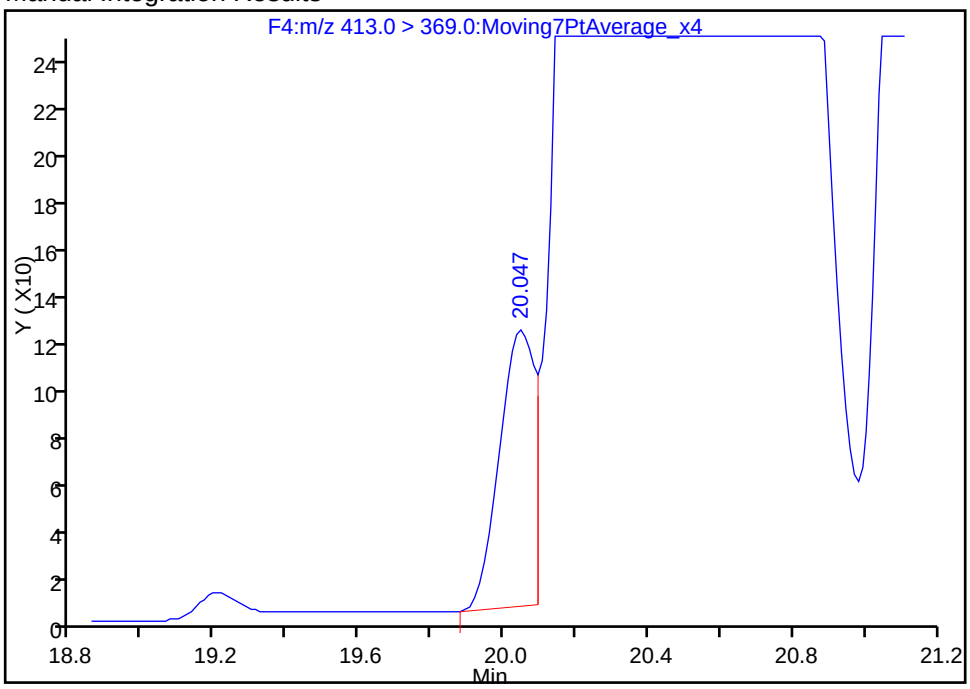
Processing Integration Results

RT: 20.31
Area: 31032
Amount: 0.428120
Amount Units: ng/ml



Manual Integration Results

RT: 20.05
Area: 783
Amount: 0.010802
Amount Units: ng/ml



Reviewer: barnettj, 12-Dec-2016 16:02:05

Audit Action: Manually Integrated Audit Reason: Split Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-3FB12-1116 Lab Sample ID: 320-23970-6

Matrix: Water Lab File ID: 11DEC2016A6A_027.d

Analysis Method: 537 Date Collected: 11/30/2016 09:13

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 261.7(mL) Date Analyzed: 12/11/2016 23:53

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.046	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.023	0.0090
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.11	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	118		70-130
STL00996	13C2 PFDA	111		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_027.d
Lims ID: 320-23970-A-6-A
Client ID: WI-CV-3FB12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 23:53:12 ALS Bottle#: 35 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-6-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

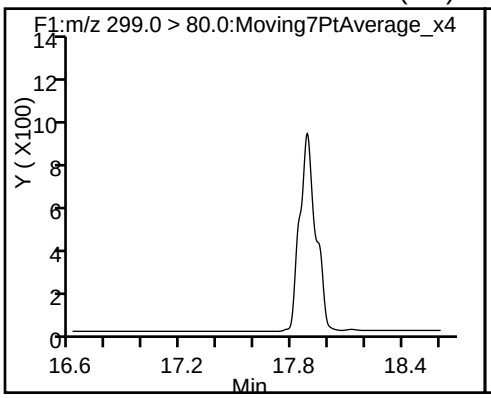
Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:02:26

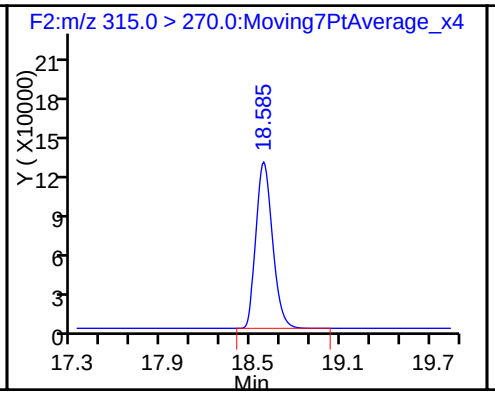
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	981061	11.8	31475	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		714355	10.0	18678	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.679	-0.012		2109447	28.7	44226	
9 Perfluorononanoic acid								
463.0 > 419.0	20.738	20.750	-0.012	1.000	8285	0.1023	231	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.480	-0.009	1.000	696914	11.1	21904	

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_027.d
Injection Date: 11-Dec-2016 23:53:12 Instrument ID: A6
Lims ID: 320-23970-A-6-A Lab Sample ID: 320-23970-6
Client ID: WI-CV-3FB12-1116
Operator ID: CBW ALS Bottle#: 35 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

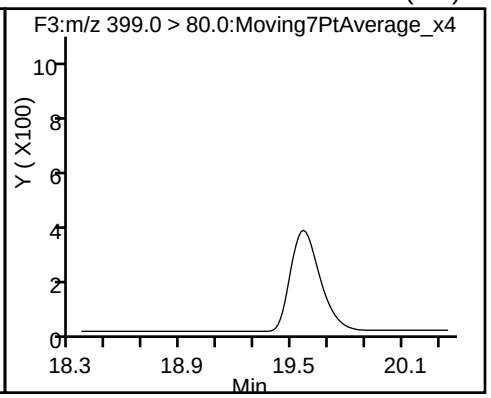
1 Perfluorobutanesulfonic acid (ND)



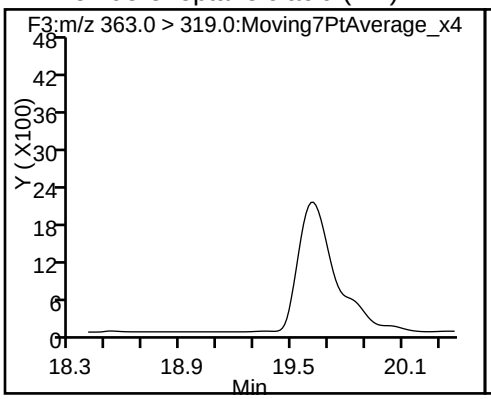
$ 2 13C2 PFHxA



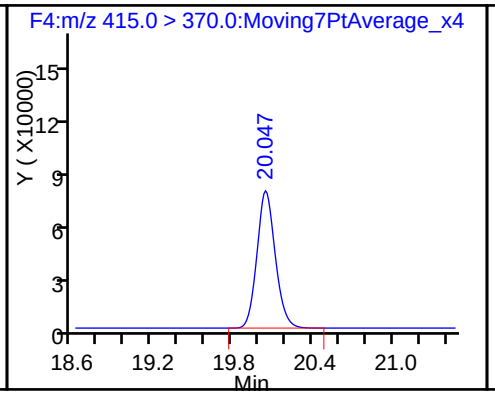
3 Perfluorohexanesulfonic acid (ND)



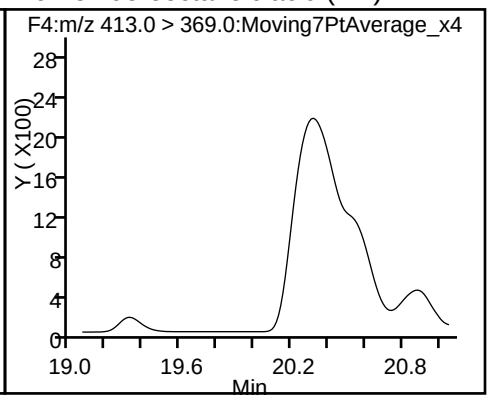
4 Perfluoroheptanoic acid (ND)



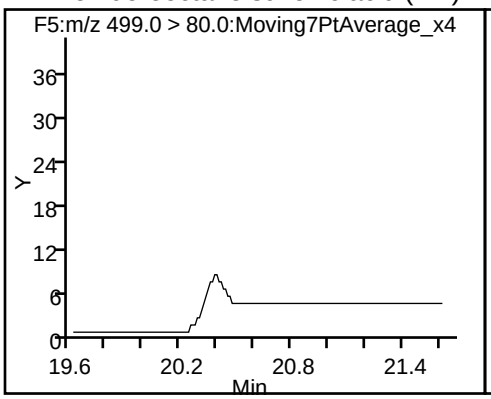
* 5 13C2-PFOA



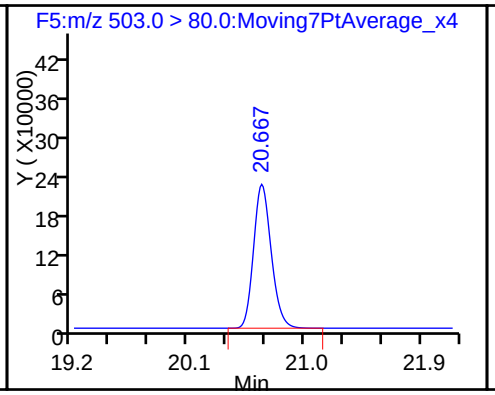
6 Perfluorooctanoic acid (ND)



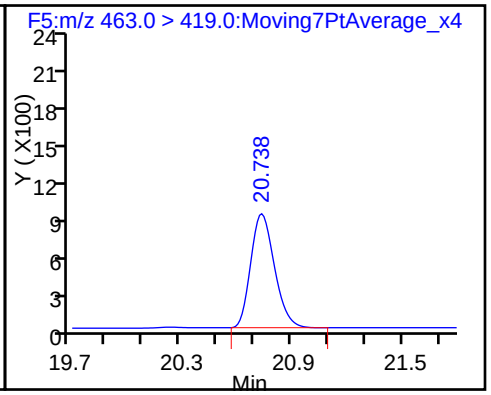
7 Perfluorooctane sulfonic acid (ND)



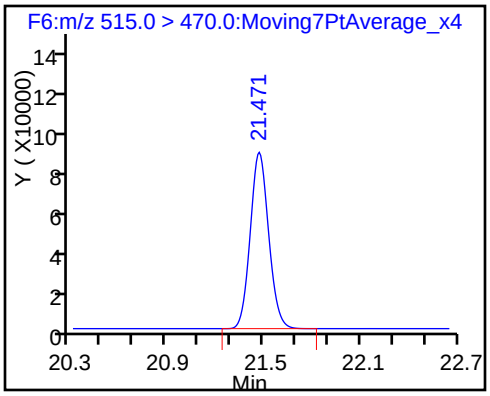
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_027.d
Lims ID: 320-23970-A-6-A
Client ID: WI-CV-3FB12-1116
Sample Type: Client
Inject. Date: 11-Dec-2016 23:53:12 ALS Bottle#: 35 Worklist Smp#: 27
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-23970-a-6-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:02:26 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 16:02:26

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	11.8	117.73
$ 10 13C2 PFDA	10.0	11.1	111.33

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1 Analy Batch No.: 140688

SDG No.:

Instrument ID: A6 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/05/2016 17:26 Calibration End Date: 12/05/2016 19:54 Calibration ID: 26888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 320-140688/2	05DEC2016A6A_004.d
Level 2	STD 320-140688/3	05DEC2016A6A_005.d
Level 3	STD 320-140688/4	05DEC2016A6A_006.d
Level 4	STD 320-140688/5	05DEC2016A6A_007.d
Level 5	STD 320-140688/6	05DEC2016A6A_008.d
Level 6	STD 320-140688/7	05DEC2016A6A_009.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorobutanesulfonic acid (PFBS)	0.7247 0.6563	0.6525	0.7178	0.7256	0.7321	Ave		0.7015				5.2		30.0			
Perfluorohexanesulfonic acid	0.8344 0.8930	0.7757	0.9290	0.9478	1.0082	Ave		0.8980				9.3		30.0			
Perfluoroheptanoic acid	1.4137 1.1078	1.1891	1.2161	1.1975	1.1665	Ave		1.2151				8.6		30.0			
Perfluorooctanoic acid (PFOA)	0.9720 1.0610	0.9049	1.0674	1.1235	1.1136	Ave		1.0404				8.2		30.0			
Perfluorooctanesulfonic acid (PFOS)	0.8855 1.0951	0.9020	1.0711	1.0966	1.2136	Ave		1.0440				12.1		30.0			
Perfluorononanoic acid	0.9735 1.1655	0.9961	1.1929	1.2321	1.2453	Ave		1.1342				10.5		30.0			
13C2 PFHxA	1.0366 1.2091	1.0515	1.1929	1.2298	1.2791	Ave		1.1665				8.5		30.0			
13C2 PFDA	0.8084 0.9456	0.7439	0.8674	0.9054	0.9868	Ave		0.8763				10.2		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1 Analy Batch No.: 140688

SDG No.:

Instrument ID: A6 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 12/05/2016 17:26 Calibration End Date: 12/05/2016 19:54 Calibration ID: 26888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 320-140688/2	05DEC2016A6A_004.d
Level 2	STD 320-140688/3	05DEC2016A6A_005.d
Level 3	STD 320-140688/4	05DEC2016A6A_006.d
Level 4	STD 320-140688/5	05DEC2016A6A_007.d
Level 5	STD 320-140688/6	05DEC2016A6A_008.d
Level 6	STD 320-140688/7	05DEC2016A6A_009.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perfluorobutanesulfonic acid (PFBS)	PFOS	Ave	437563 7753569	1227165	2489398	4401661	6630132	8.76 178	22.9	45.1	90.9	135
Perfluorohexanesulfonic acid	PFOS	Ave	169827 3556638	491809	1086082	1938237	3077974	2.95 60.1	7.72	15.2	30.6	45.4
Perfluoroheptanoic acid	13PFOA	Ave	126557 2032288	324913	658044	1121930	1727957	0.994 20.2	2.60	5.12	10.3	15.3
Perfluorooctanoic acid (PFOA)	13PFOA	Ave	173304 3876381	492431	1150281	2096404	3285195	1.98 40.3	5.17	10.2	20.5	30.4
Perfluorooctanesulfonic acid (PFOS)	PFOS	Ave	238662 5775285	757269	1658139	2969550	4906017	3.91 79.6	10.2	20.1	40.6	60.1
Perfluorononanoic acid	13PFOA	Ave	168128 4124664	525061	1245341	2227031	3558831	1.92 39.0	5.01	9.87	19.9	29.5
13C2 PFHxA	13PFOA	Ave	933751 1095977	1106485	1261522	1117585	1240474	10.0 10.0	10.0	10.0	10.0	10.0
13C2 PFDA	13PFOA	Ave	728204 857144	782778	917302	822787	957025	10.0 10.0	10.0	10.0	10.0	10.0

Curve Type Legend:
Ave = Average ISTD

FORM VI
LCMS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1 Analy Batch No.: 140688

SDG No.:

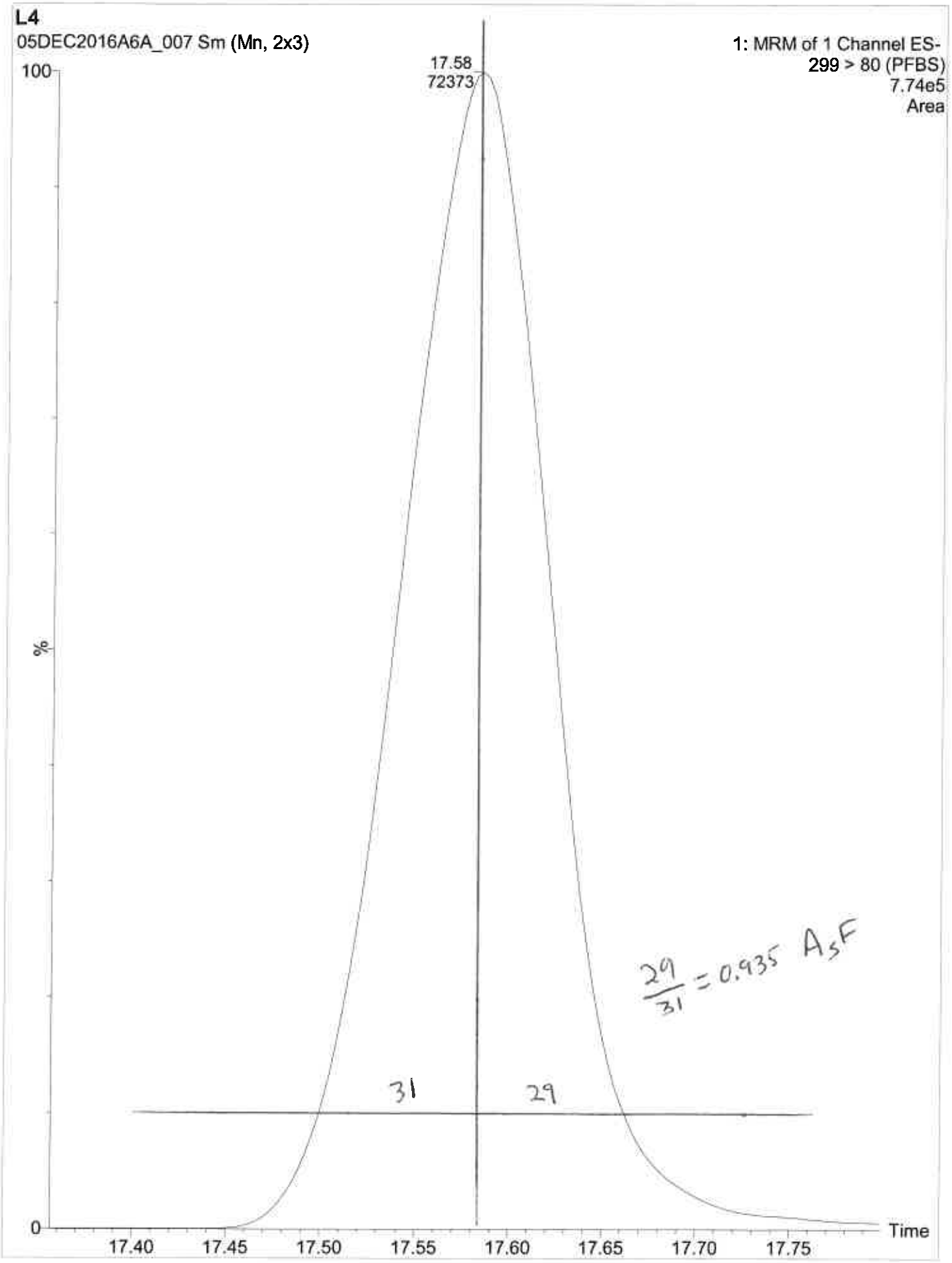
Instrument ID: A6 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

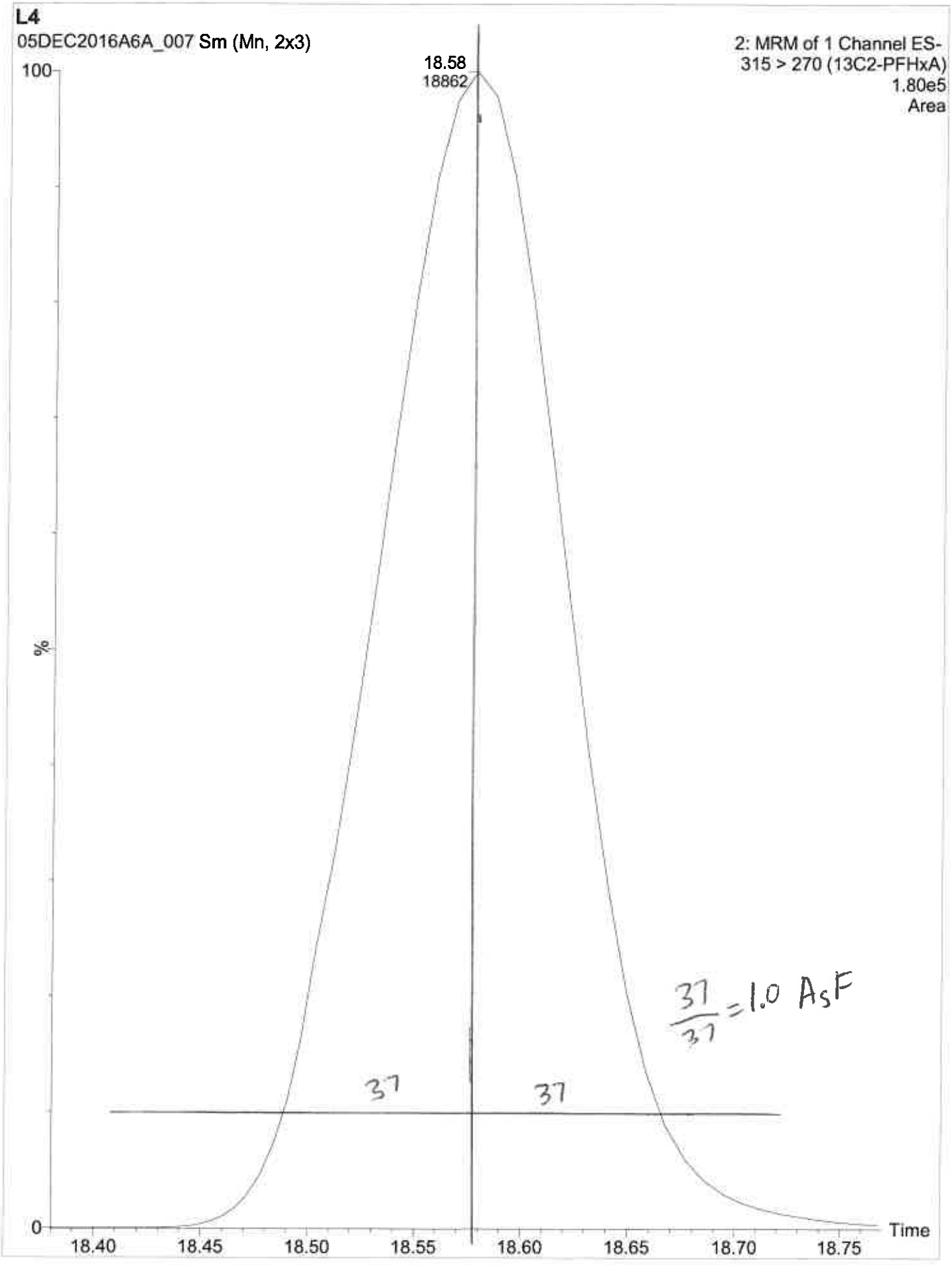
Calibration Start Date: 12/05/2016 17:26 Calibration End Date: 12/05/2016 19:54 Calibration ID: 26888

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 320-140688/2	05DEC2016A6A_004.d
Level 2	STD 320-140688/3	05DEC2016A6A_005.d
Level 3	STD 320-140688/4	05DEC2016A6A_006.d
Level 4	STD 320-140688/5	05DEC2016A6A_007.d
Level 5	STD 320-140688/6	05DEC2016A6A_008.d
Level 6	STD 320-140688/7	05DEC2016A6A_009.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
Perfluorobutanesulfonic acid (PFBS)	3.3	-7.0	2.3	3.4	4.4	-6.4	50	50	50	50	50	50
Perfluorohexanesulfonic acid	-7.1	-13.6	3.4	5.5	12.3	-0.6	50	50	50	50	50	50
Perfluoroheptanoic acid	16.3	-2.1	0.1	-1.5	-4.0	-8.8	50	50	50	50	50	50
Perfluorooctanoic acid (PFOA)	-6.6	-13.0	2.6	8.0	7.0	2.0	50	50	50	50	50	50
Perfluorooctanesulfonic acid (PFOS)	-15.2	-13.6	2.6	5.0	16.2	4.9	50	50	50	50	50	50
Perfluorononanoic acid	-14.2	-12.2	5.2	8.6	9.8	2.8	50	50	50	50	50	50
13C2 PFHxA	-11.1	-9.9	2.3	5.4	9.7	3.7	30	30	30	30	30	30
13C2 PFDA	-7.7	-15.1	-1.0	3.3	12.6	7.9	30	30	30	30	30	30


L4
05DEC2016A6A_007 Sm (Mn, 2x3)
1: MRM of 1 Channel ES-
299 > 80 (PFBS)
7.74e5
Area
17.58
72373
100
%
0
31
29
29/31 = 0.935 A_SF
17.40
17.45
17.50
17.55
17.60
17.65
17.70
17.75
Time


L4
05DEC2016A6A_007 Sm (Mn, 2x3)
2: MRM of 1 Channel ES-
315 > 270 (13C2-PFHxA)
1.80e5
Area
18.58
18862
100
%
0
37
37
37/37 = 1.0 AsF
18.40
18.45
18.50
18.55
18.60
18.65
18.70
18.75
Time

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_004.d
Lims ID: STD L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 05-Dec-2016 17:26:03 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L1 L1
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:35:34 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

First Level Reviewer: barnettj Date: 06-Dec-2016 10:00:02

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.576	17.581	-0.005	1.000	437563	9.05	466	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	933751	8.89	30467	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.332	19.342	-0.010	1.000	169827	2.74	4140	
4 Perfluoroheptanoic acid								M
363.0 > 319.0	19.368	19.378	-0.010	1.000	126557	1.16	45.1	M
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		900764	10.0	23392	
6 Perfluorooctanoic acid								M
413.0 > 369.0	20.047	20.047	0.0	1.000	173304	1.85	35.0	M
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	238662	3.32	2941	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.669	-0.002		1976615	28.7	40886	
9 Perfluorononanoic acid								
463.0 > 419.0	20.738	20.748	-0.010	1.000	168128	1.65	6043	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.474	-0.003	1.000	728204	9.23	22953	

QC Flag Legend

Review Flags

M - Manually Integrated

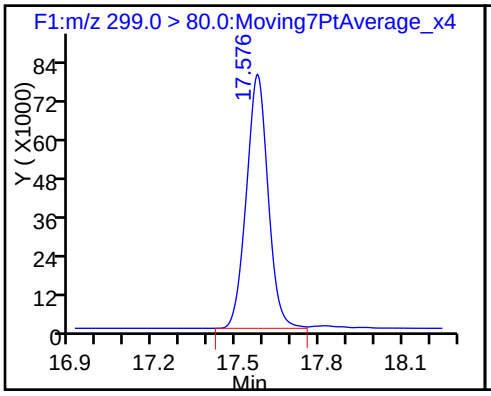
Reagents:

LC537-L1_00015 Amount Added: 1.00 Units: mL

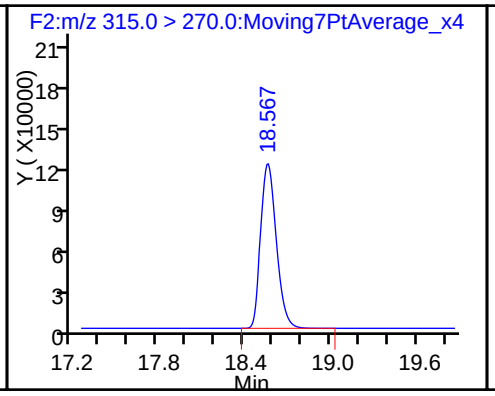
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_004.d
Injection Date: 05-Dec-2016 17:26:03 Instrument ID: A6
Lims ID: STD L1
Client ID:
Operator ID: CBW ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

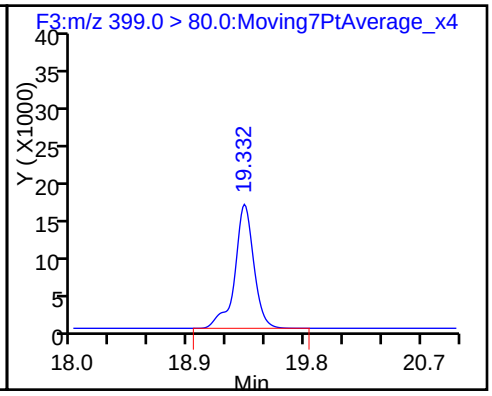
1 Perfluorobutanesulfonic acid



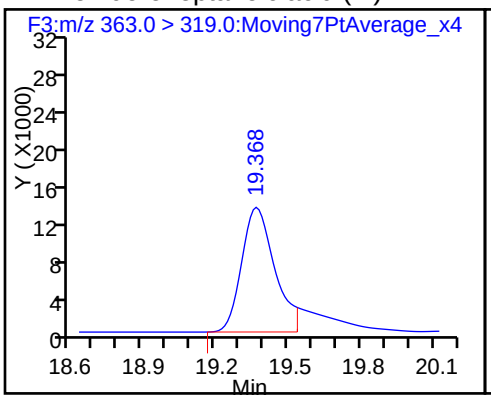
$ 2 13C2 PFHxA



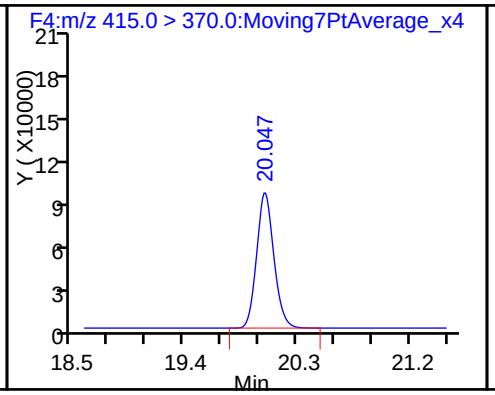
3 Perfluorohexanesulfonic acid



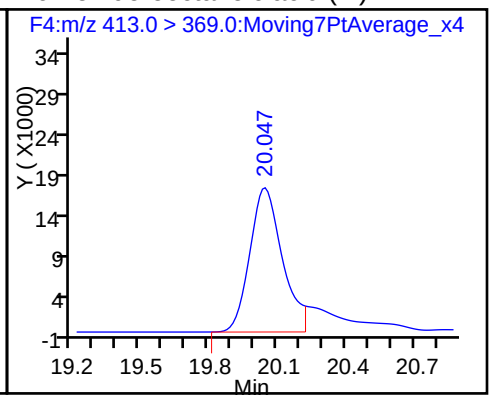
4 Perfluoroheptanoic acid (M)



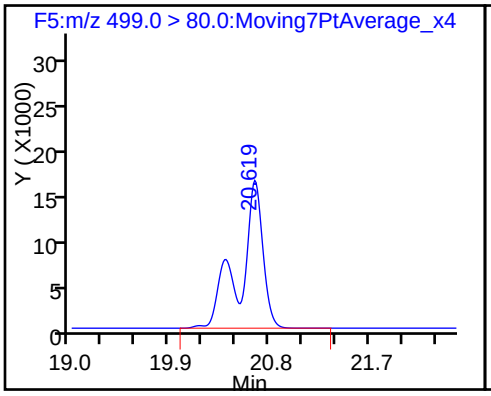
* 5 13C2-PFOA



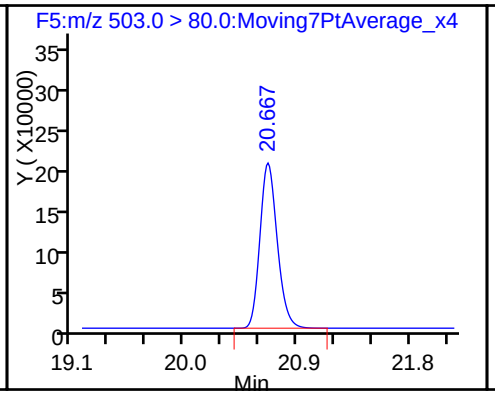
6 Perfluorooctanoic acid (M)



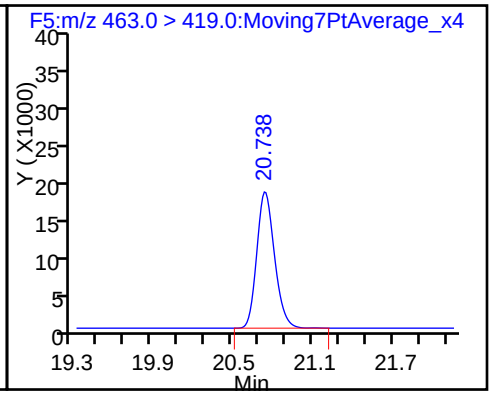
7 Perfluorooctane sulfonic acid



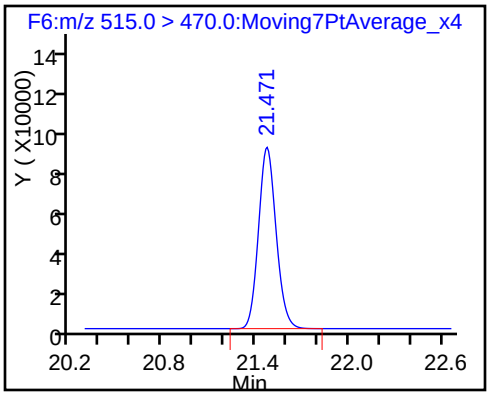
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

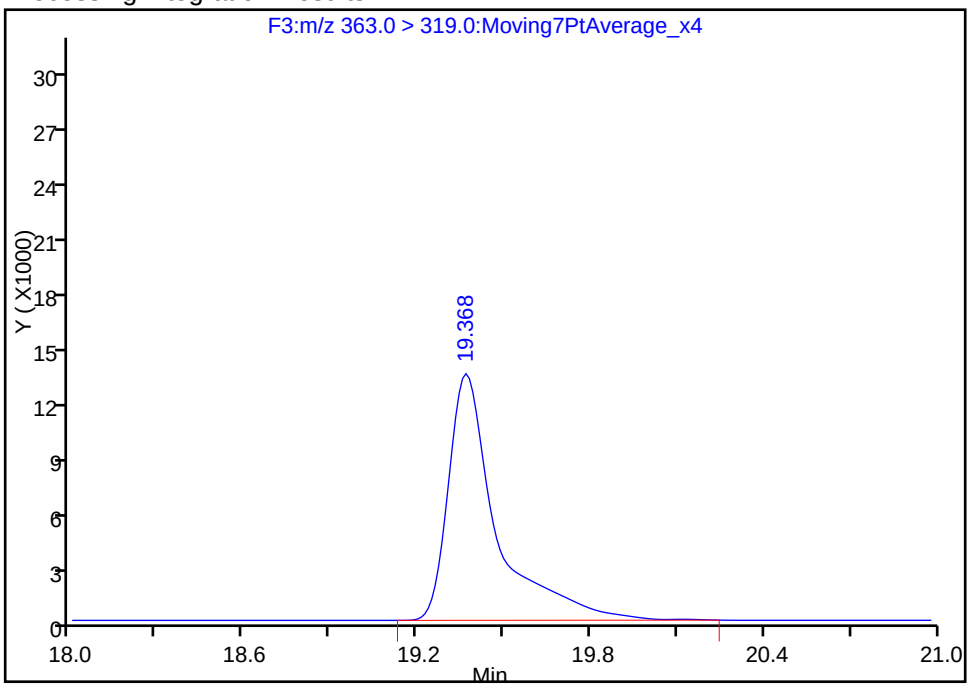
Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_004.d
Injection Date: 05-Dec-2016 17:26:03 Instrument ID: A6
Lims ID: STD L1
Client ID:
Operator ID: CBW ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F3:MRM

4 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

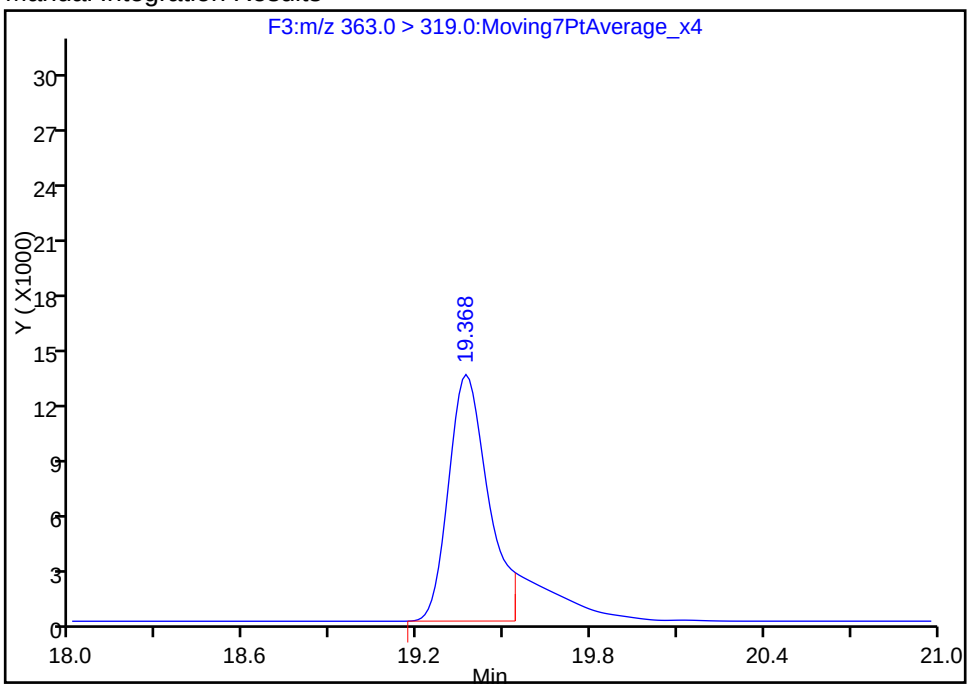
Processing Integration Results

RT: 19.37
Area: 155591
Amount: 1.476072
Amount Units: ng/ml



Manual Integration Results

RT: 19.37
Area: 126557
Amount: 1.156251
Amount Units: ng/ml



Reviewer: barnettj, 06-Dec-2016 10:00:02
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

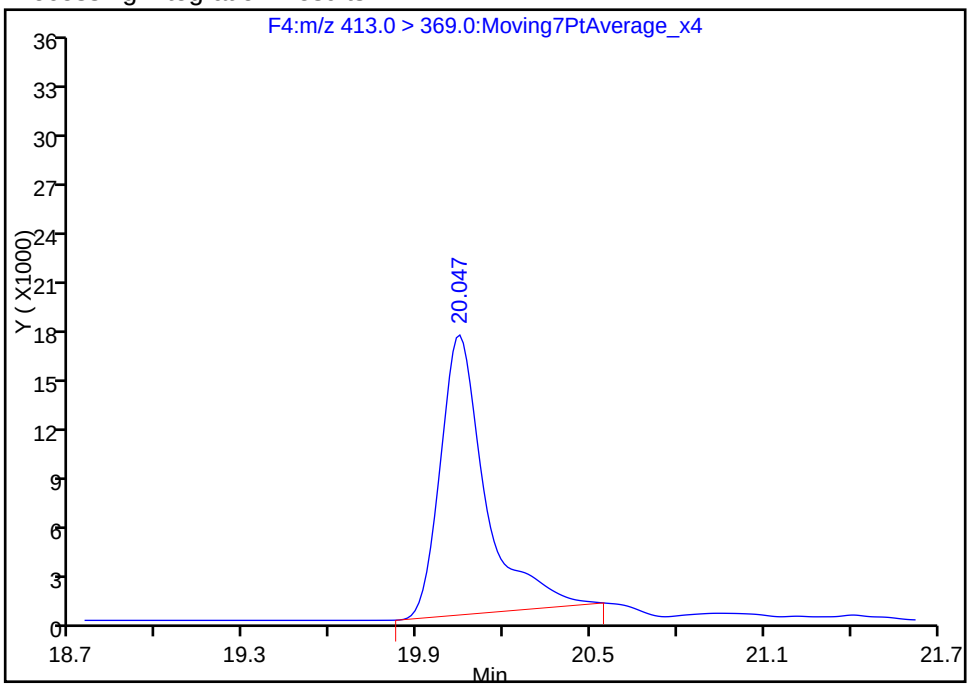
Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_004.d
Injection Date: 05-Dec-2016 17:26:03 Instrument ID: A6
Lims ID: STD L1
Client ID:
Operator ID: CBW ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F4:MRM

6 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

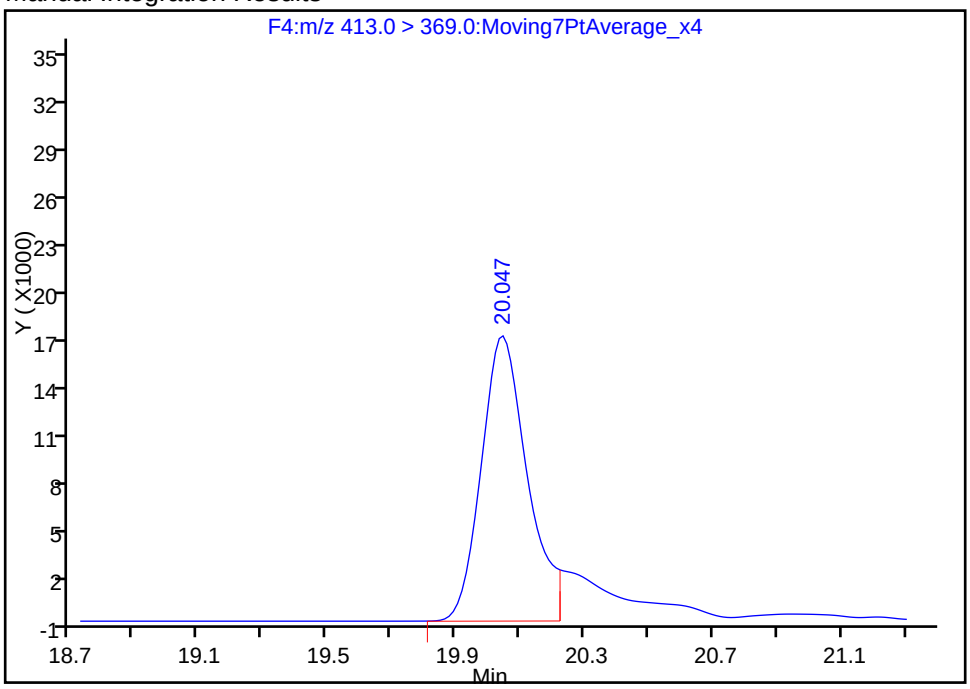
Processing Integration Results

RT: 20.05
Area: 186490
Amount: 1.959453
Amount Units: ng/ml



Manual Integration Results

RT: 20.05
Area: 173304
Amount: 1.849212
Amount Units: ng/ml



Reviewer: barnettj, 06-Dec-2016 10:00:02
Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_005.d
Lims ID: STD L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 05-Dec-2016 17:55:38 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L2 L2
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:35:35 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

First Level Reviewer: barnettj Date: 06-Dec-2016 09:58:24

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.582	17.581	0.001	1.000	1227165	21.3	5055	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	1106485	9.01	35678	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.342	0.002	1.000	491809	6.67	11495	
4 Perfluoroheptanoic acid								M
363.0 > 319.0	19.380	19.378	0.002	1.000	324913	2.54	155	M
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		1052273	10.0	27645	
6 Perfluorooctanoic acid								M
413.0 > 369.0	20.047	20.047	0.0	1.000	492431	4.50	100	M
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	757269	8.83	8449	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.669	-0.002		2356620	28.7	30757	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.748	0.002	1.000	525061	4.40	13911	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.474	0.006	1.000	782778	8.49	24678	

QC Flag Legend

Review Flags

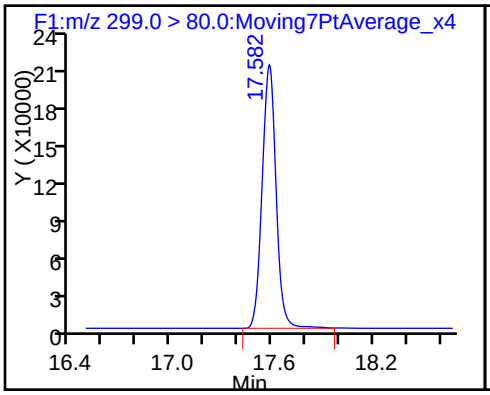
M - Manually Integrated

Reagents:

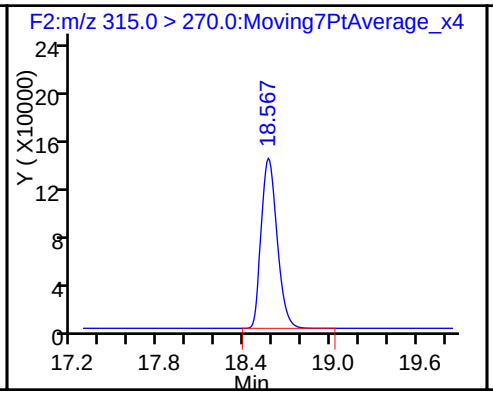
LC537-L2_00014 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_005.d
Injection Date: 05-Dec-2016 17:55:38 Instrument ID: A6
Lims ID: STD L2
Client ID:
Operator ID: CBW ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

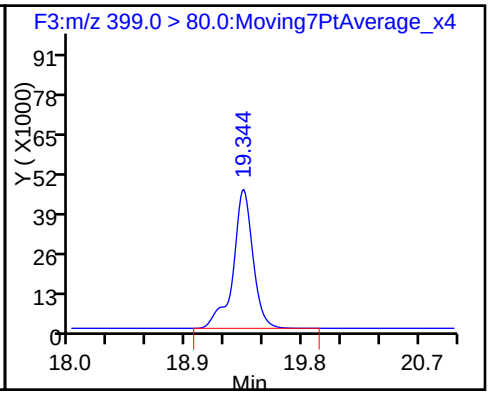
1 Perfluorobutanesulfonic acid



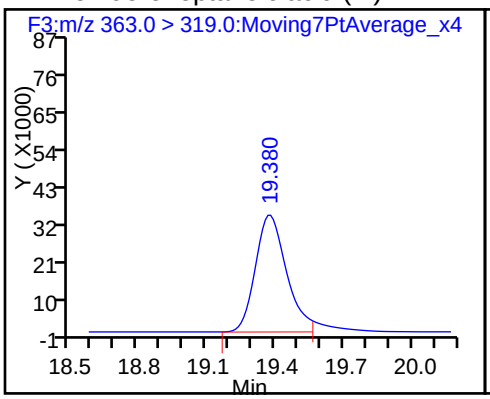
$ 2 13C2 PFHxA



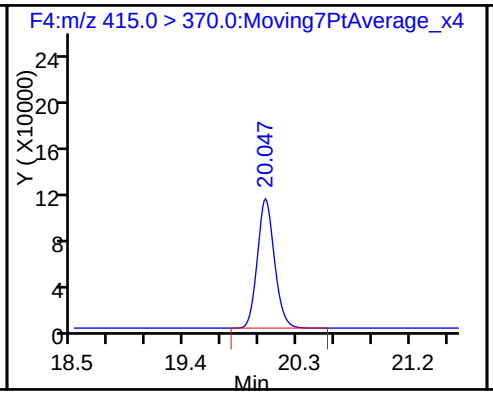
3 Perfluorohexanesulfonic acid



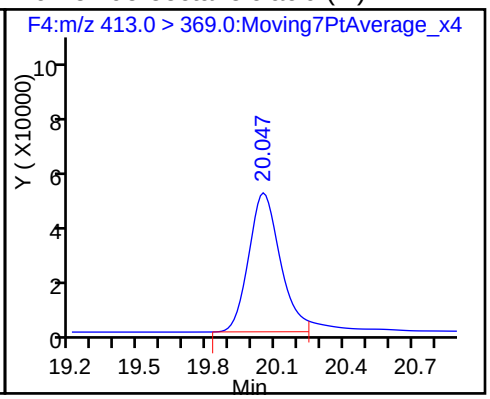
4 Perfluoroheptanoic acid (M)



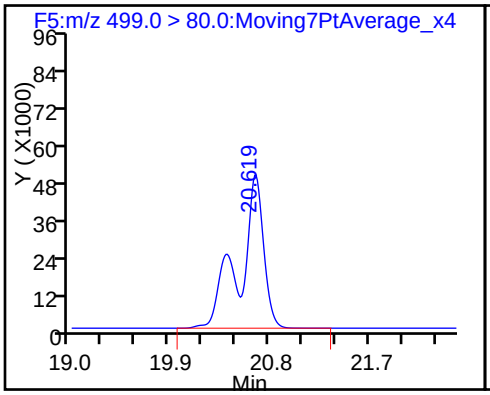
* 5 13C2-PFOA



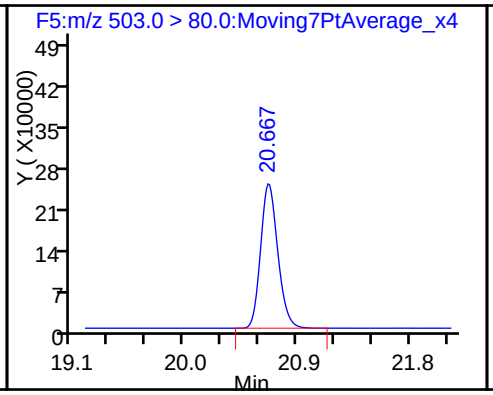
6 Perfluorooctanoic acid (M)



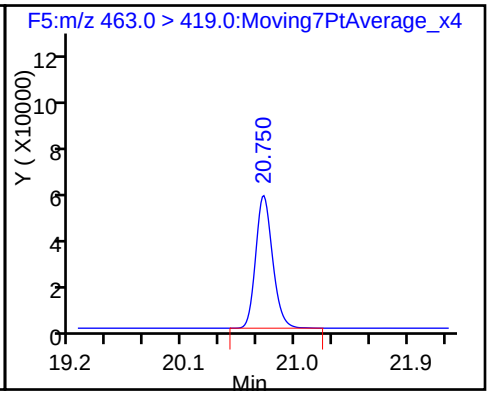
7 Perfluorooctane sulfonic acid



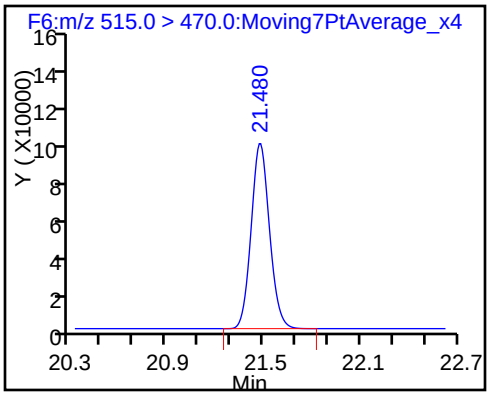
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

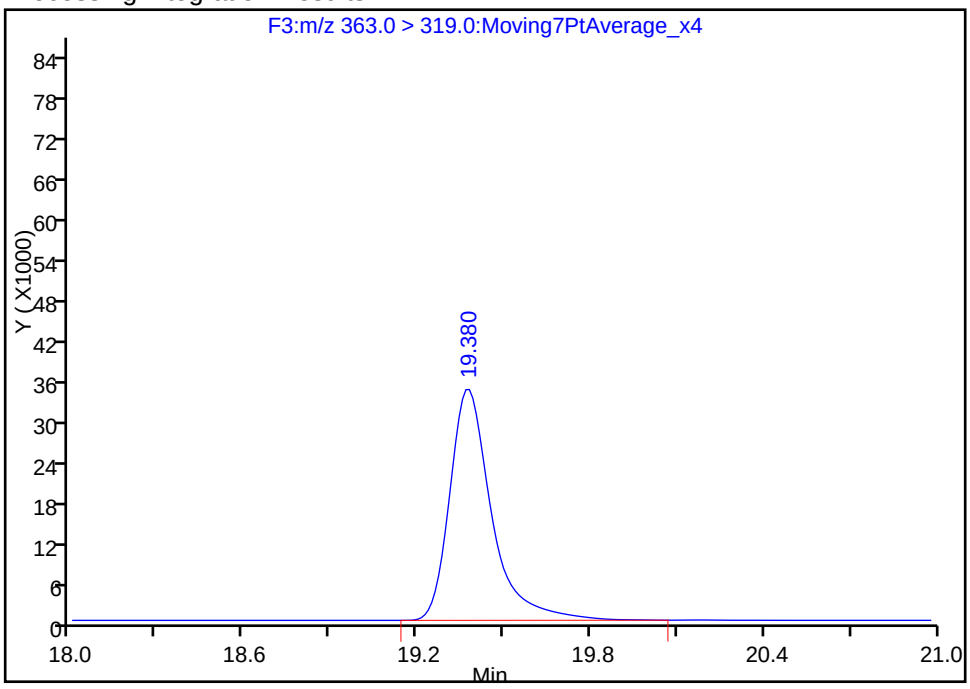
Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_005.d
Injection Date: 05-Dec-2016 17:55:38 Instrument ID: A6
Lims ID: STD L2
Client ID:
Operator ID: CBW ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F3:MRM

4 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

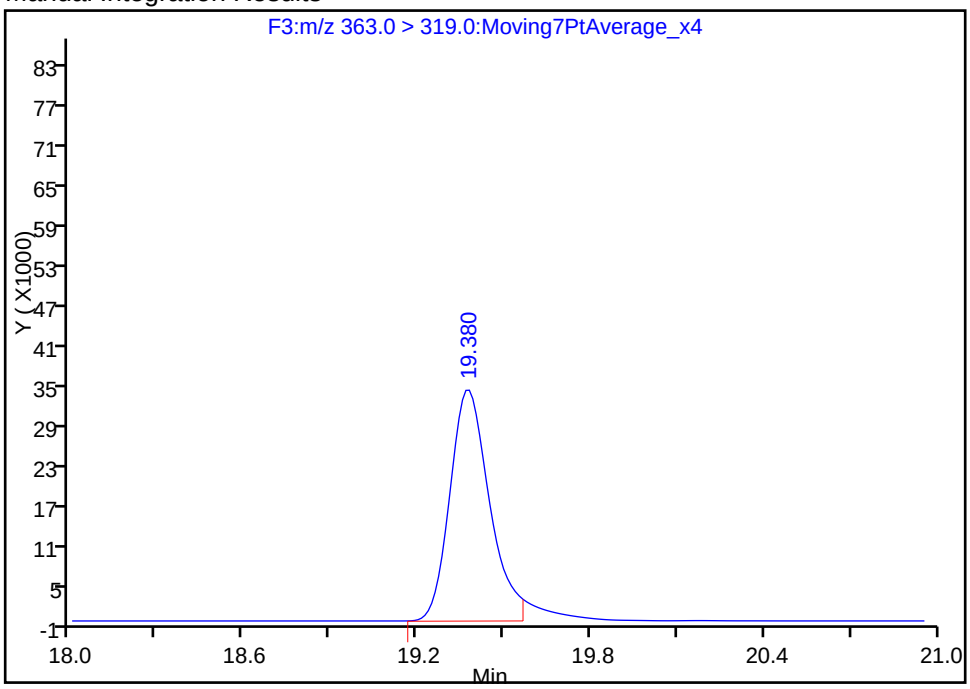
Processing Integration Results

RT: 19.38
Area: 344811
Amount: 2.670013
Amount Units: ng/ml



Manual Integration Results

RT: 19.38
Area: 324913
Amount: 2.541065
Amount Units: ng/ml



Reviewer: barnettj, 06-Dec-2016 10:03:30
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

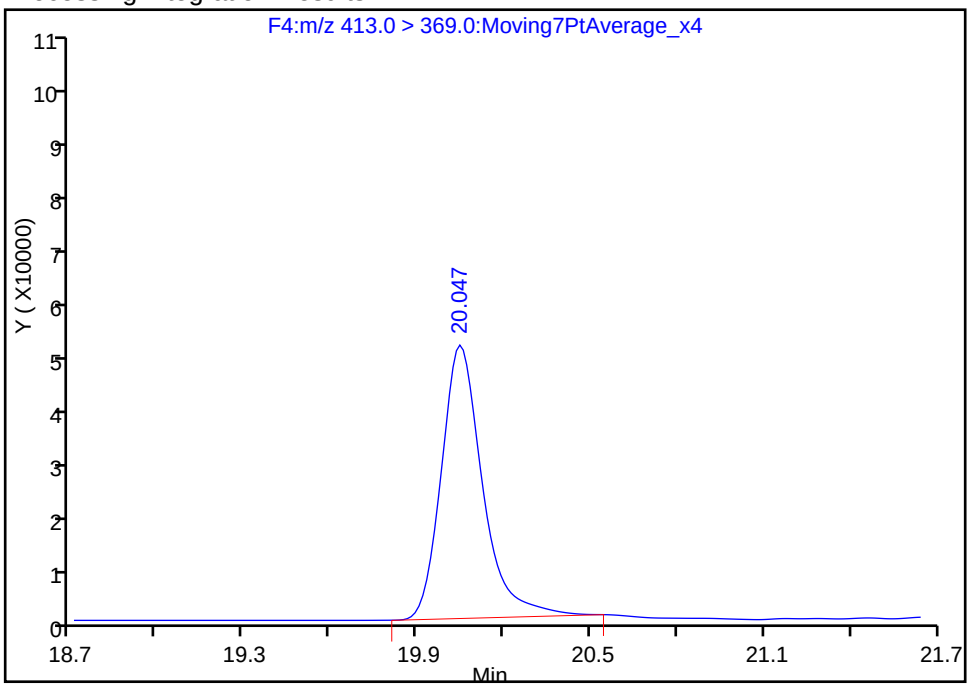
Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_005.d
Injection Date: 05-Dec-2016 17:55:38 Instrument ID: A6
Lims ID: STD L2
Client ID:
Operator ID: CBW ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F4:MRM

6 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

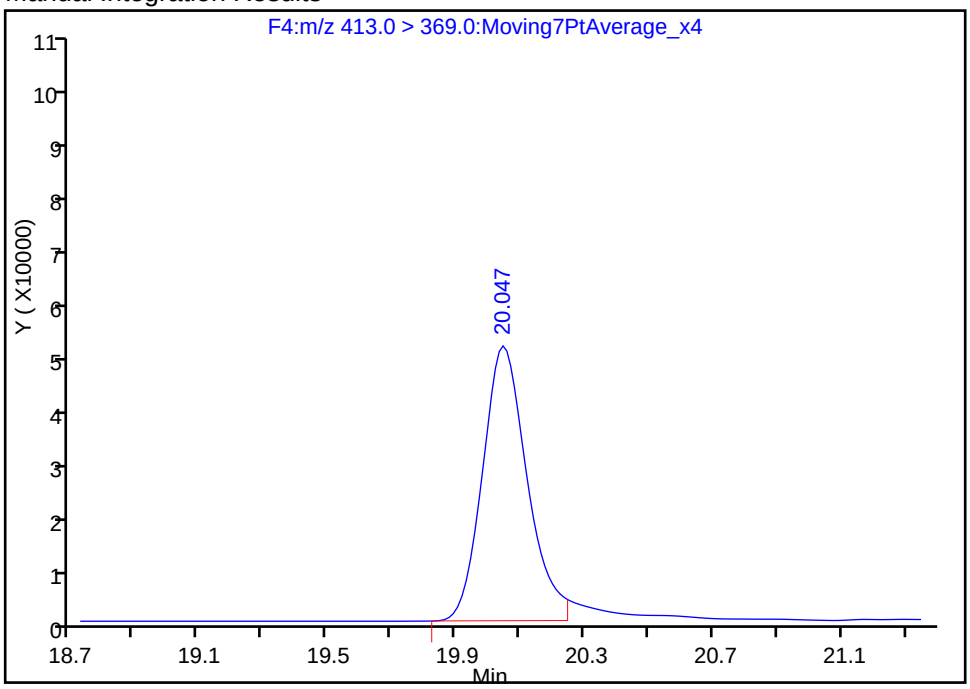
Processing Integration Results

RT: 20.05
Area: 504990
Amount: 4.595586
Amount Units: ng/ml



Manual Integration Results

RT: 20.05
Area: 492431
Amount: 4.497863
Amount Units: ng/ml



Reviewer: barnettj, 06-Dec-2016 10:03:30
Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_006.d
Lims ID: STD L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 05-Dec-2016 18:25:13 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L3 L3
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:35:36 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

First Level Reviewer: barnettj Date: 06-Dec-2016 09:58:05

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.582	17.581	0.001	1.000	2489398	46.2	1804	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	1261522	10.2	40506	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.342	0.002	1.000	1086082	15.7	25400	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.380	19.378	0.002	1.000	658044	5.12	4774	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		1057506	10.0	27287	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.047	20.047	0.0	1.000	1150281	10.5	429	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	1658139	20.7	19019	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.669	-0.002		2205243	28.7	57142	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.748	0.002	1.000	1245341	10.4	13210	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.474	-0.003	1.000	917302	9.90	28753	

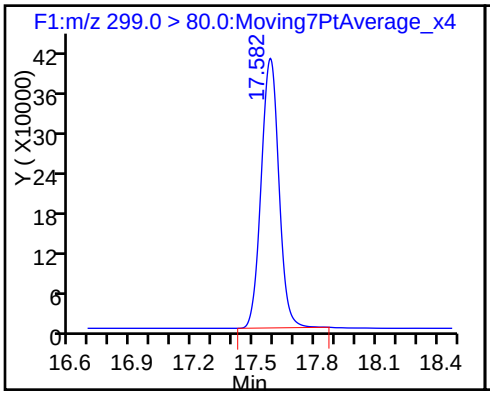
Reagents:

LC537-L3_00016 Amount Added: 1.00 Units: mL

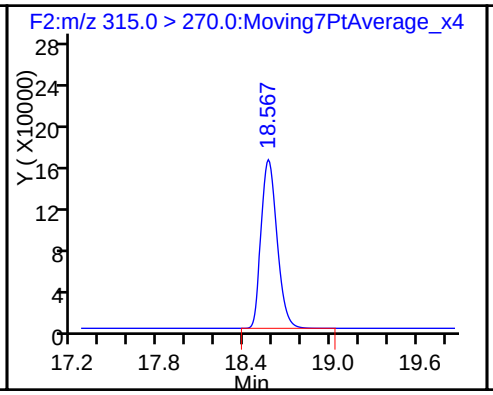
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_006.d
Injection Date: 05-Dec-2016 18:25:13 Instrument ID: A6
Lims ID: STD L3
Client ID:
Operator ID: CBW ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

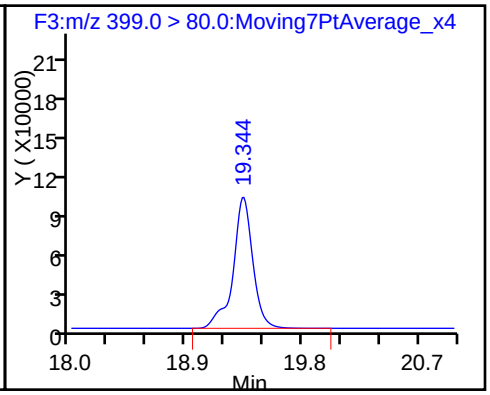
1 Perfluorobutanesulfonic acid



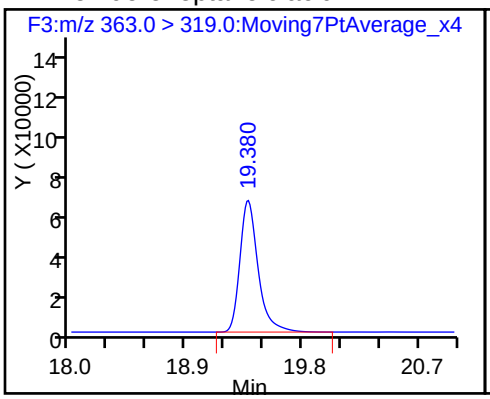
$ 2 13C2 PFHxA



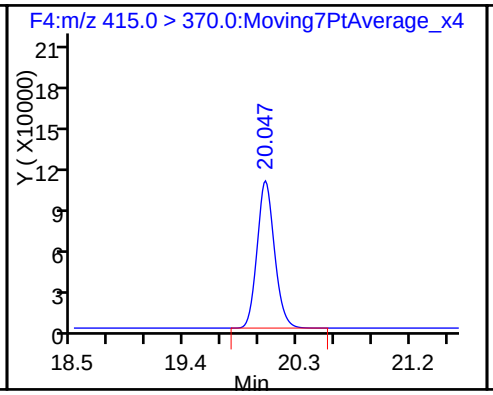
3 Perfluorohexanesulfonic acid



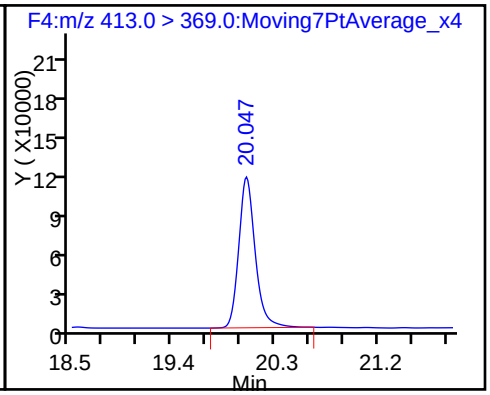
4 Perfluoroheptanoic acid



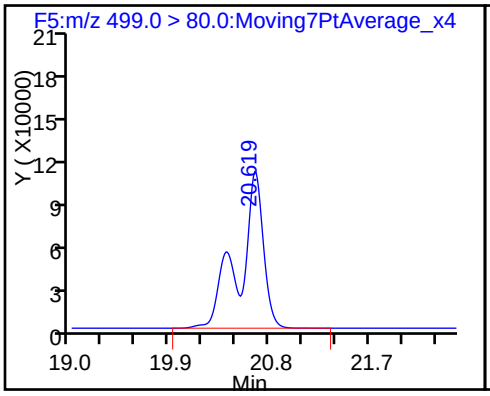
* 5 13C2-PFOA



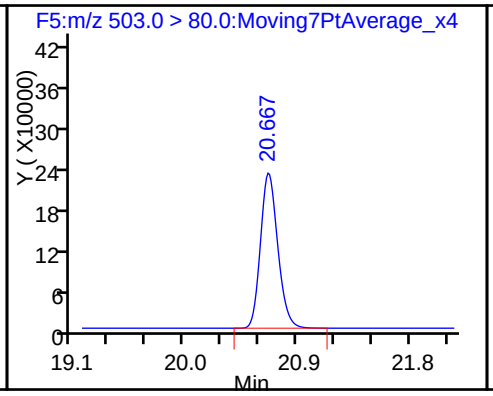
6 Perfluorooctanoic acid



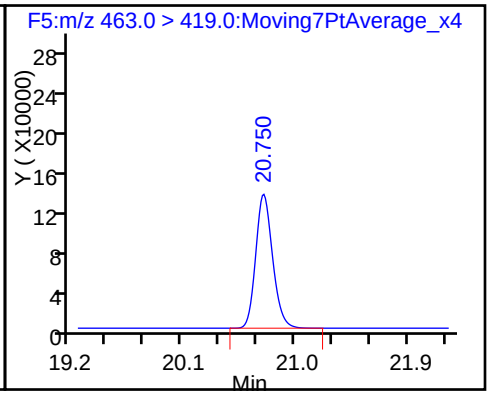
7 Perfluorooctane sulfonic acid



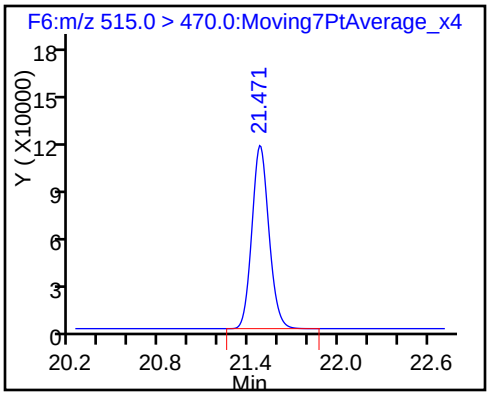
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_007.d
Lims ID: STD L4
Client ID:
Sample Type: ICISAV Calib Level: 4
Inject. Date: 05-Dec-2016 18:54:48 ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L4 L4
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:35:37 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

First Level Reviewer: barnettj Date: 06-Dec-2016 13:43:03

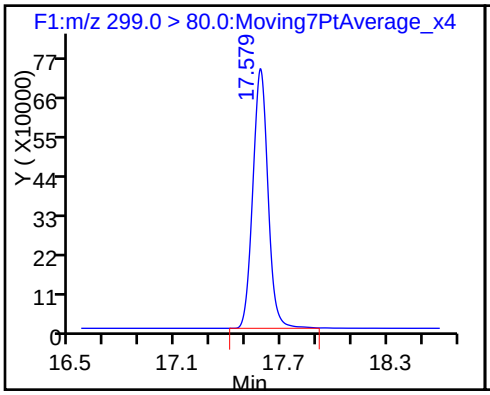
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.579	17.581	-0.002	1.000	4401661	94.0	2768	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	1117585	10.5	28676	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.342	0.002	1.000	1938237	32.3	25196	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.380	19.378	0.002	1.000	1121930	10.2	12796	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		908727	10.0	23744	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.047	20.047	0.0	1.000	2096404	22.2	516	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	2969550	42.6	9704	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.669	-0.002		1914415	28.7	28032	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.748	0.002	1.000	2227031	21.6	23494	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.474	-0.003	1.000	822787	10.3	25796	

Reagents:

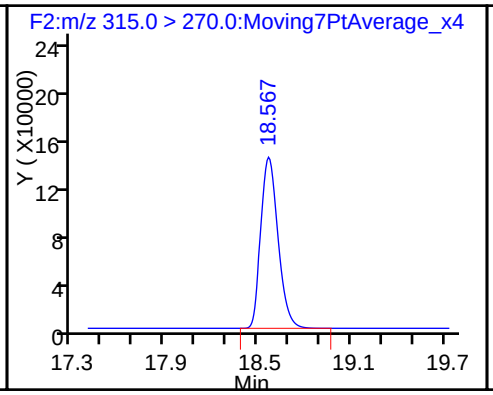
LC537-L4_00015 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_007.d
Injection Date: 05-Dec-2016 18:54:48 Instrument ID: A6
Lims ID: STD L4
Client ID:
Operator ID: CBW ALS Bottle#: 4 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

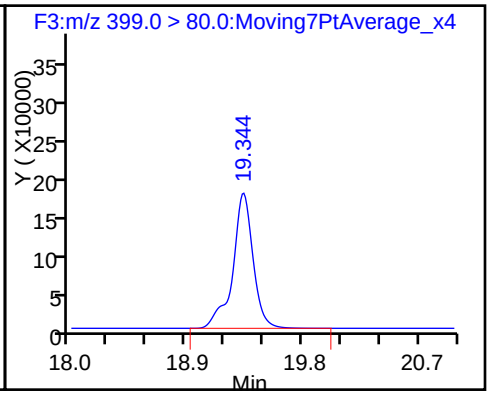
1 Perfluorobutanesulfonic acid



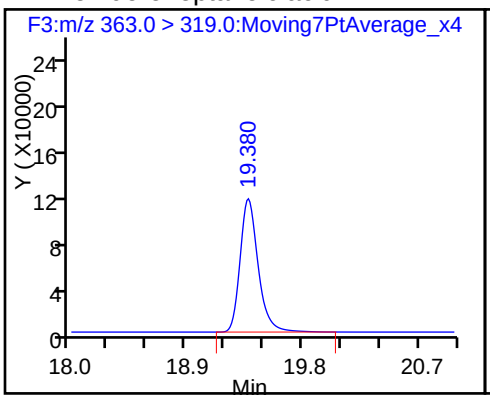
$ 2 13C2 PFHxA



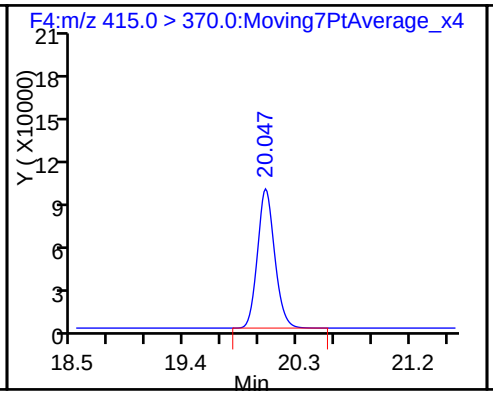
3 Perfluorohexanesulfonic acid



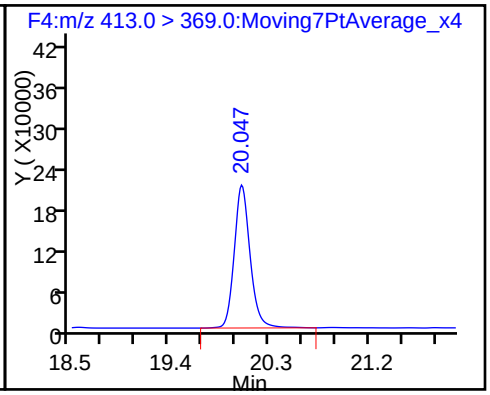
4 Perfluoroheptanoic acid



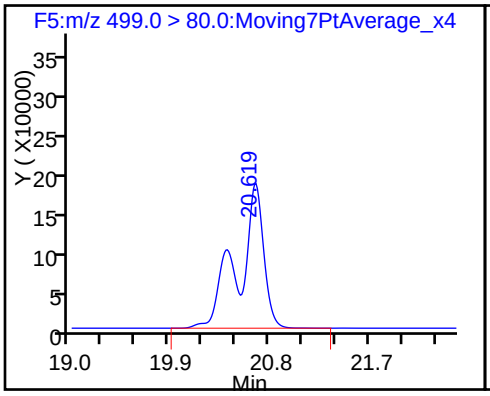
* 5 13C2-PFOA



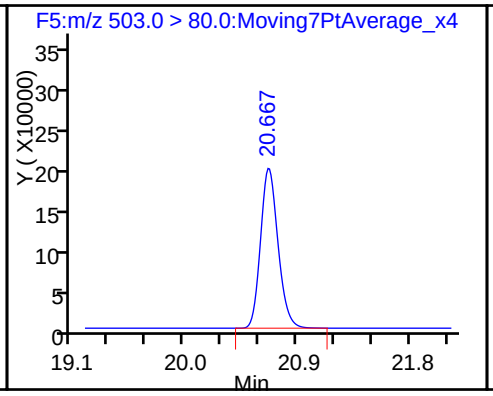
6 Perfluorooctanoic acid



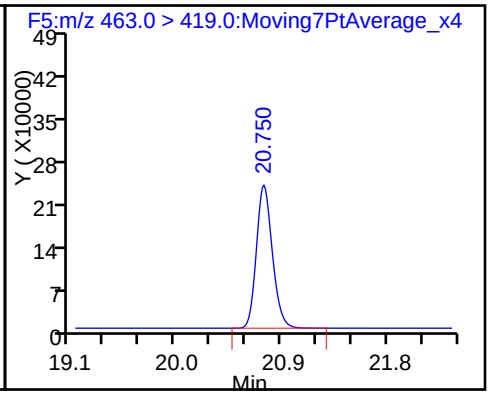
7 Perfluorooctane sulfonic acid



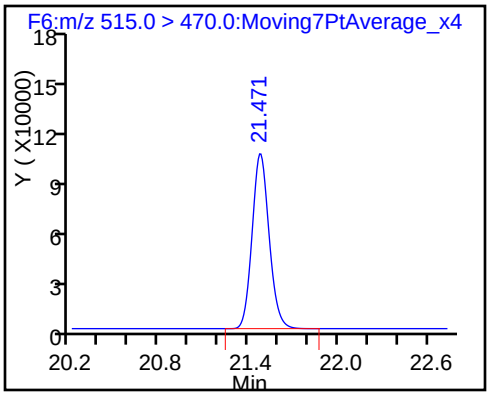
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_008.d
Lims ID: STD L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 05-Dec-2016 19:24:23 ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L5 L5
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:35:38 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

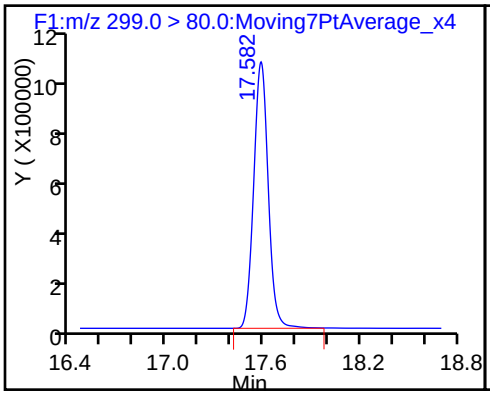
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.582	17.581	0.001	1.000	6630132	140.5	3208	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	1240474	11.0	39454	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.342	0.002	1.000	3077974	51.0	14553	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.380	19.378	0.002	1.000	1727957	14.7	6886	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		969779	10.0	24964	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.047	20.047	0.0	1.000	3285195	32.6	1114	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.620	20.619	0.001	1.000	4906017	69.9	10146	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.669	0.010		1929192	28.7	32805	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.748	0.002	1.000	3558831	32.4	16307	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.474	0.006	1.000	957025	11.3	30231	

Reagents:

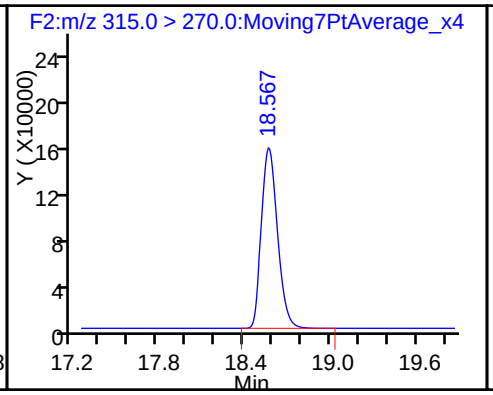
LC537-L5_00017 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_008.d
Injection Date: 05-Dec-2016 19:24:23 Instrument ID: A6
Lims ID: STD L5
Client ID:
Operator ID: CBW ALS Bottle#: 5 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

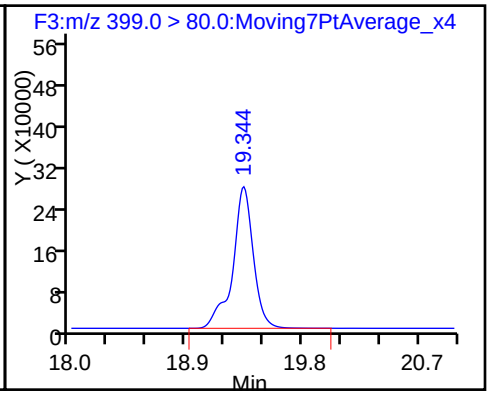
1 Perfluorobutanesulfonic acid



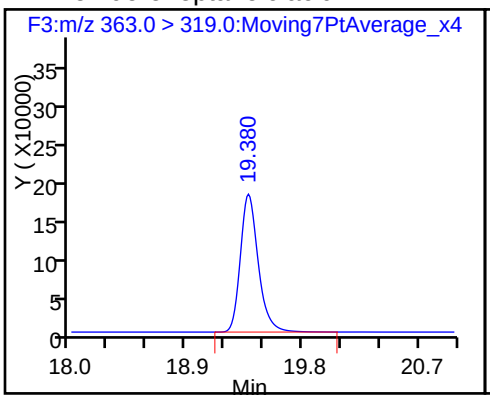
$ 2 13C2 PFHxA



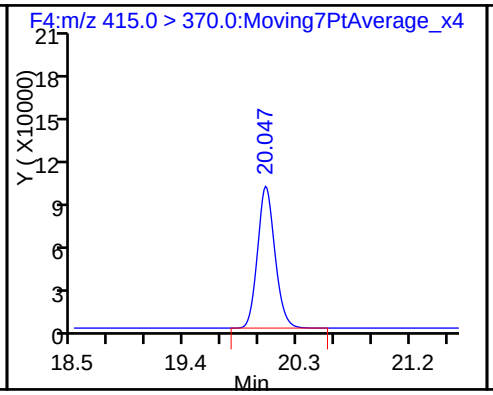
3 Perfluorohexanesulfonic acid



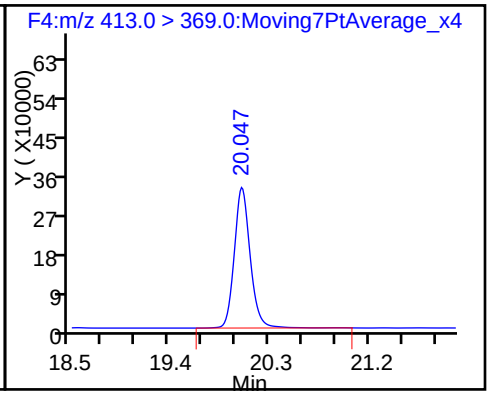
4 Perfluoroheptanoic acid



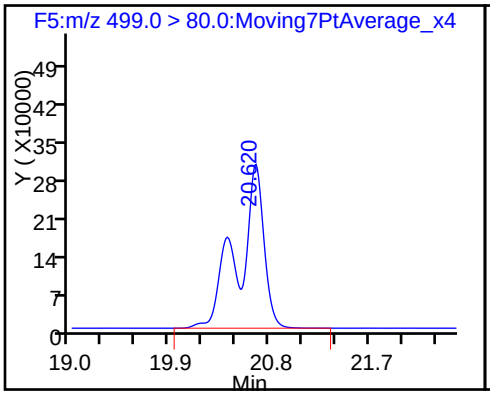
* 5 13C2-PFOA



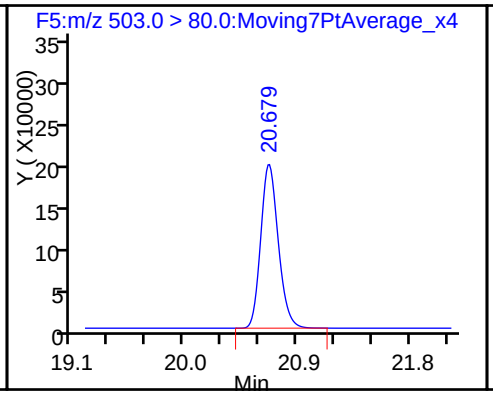
6 Perfluorooctanoic acid



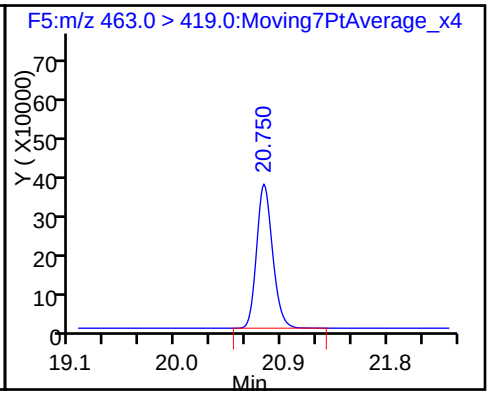
7 Perfluorooctane sulfonic acid



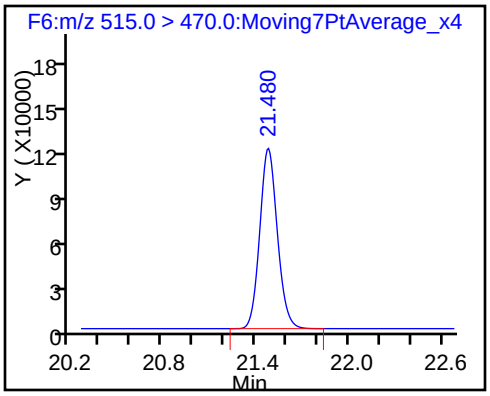
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d
Lims ID: STD L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 05-Dec-2016 19:54:00 ALS Bottle#: 6 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L6 L6
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:35:39 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.582	17.581	0.001	1.000	7753569	166.9	8570	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	1095977	10.4	34796	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.342	0.002	1.000	3556638	59.8	31299	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.380	19.378	0.002	1.000	2032288	18.5	6367	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		906416	10.0	23083	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.047	20.047	0.0	1.000	3876381	41.1	917	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	5775285	83.5	12991	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.669	-0.002		1899408	28.7	17628	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.748	0.002	1.000	4124664	40.1	17939	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.474	-0.003	1.000	857144	10.8	26862	

Reagents:

LC537-L6_00014 Amount Added: 1.00 Units: mL

Report Date: 06-Dec-2016 16:35:40 Chrom Revision: 2.2 05-Dec-2016 12:37:22

TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Injection Date: 05-Dec-2016 19:54:00 Instrument ID: A6

Lims ID: STD L6

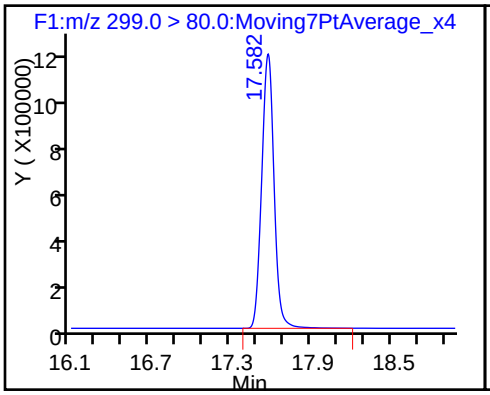
Client ID:

Operator ID: CBW ALS Bottle#: 6 Worklist Smp#: 7

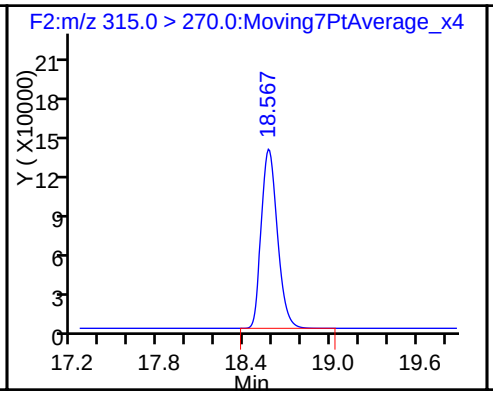
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537__A6 Limit Group: LC 537 ICAL

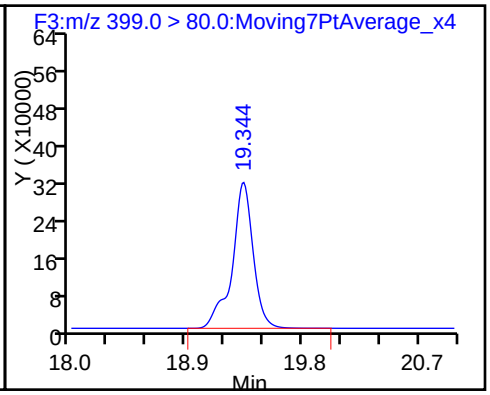
1 Perfluorobutanesulfonic acid



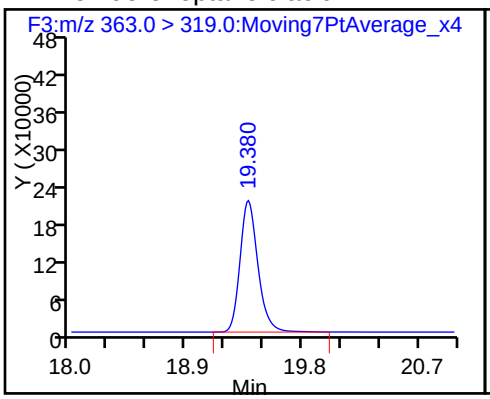
$ 2 13C2 PFHxA



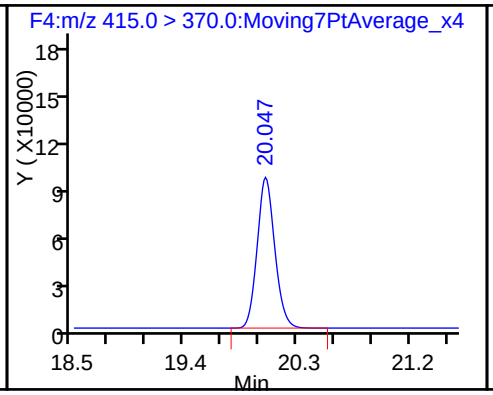
3 Perfluorohexanesulfonic acid



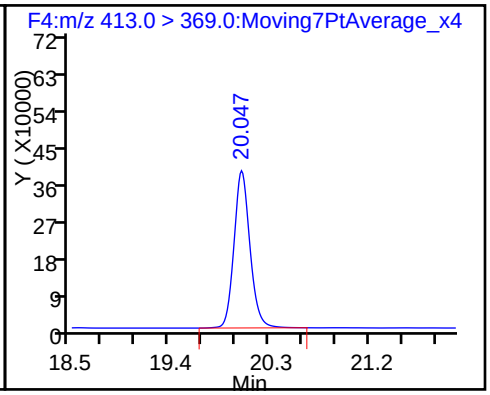
4 Perfluoroheptanoic acid



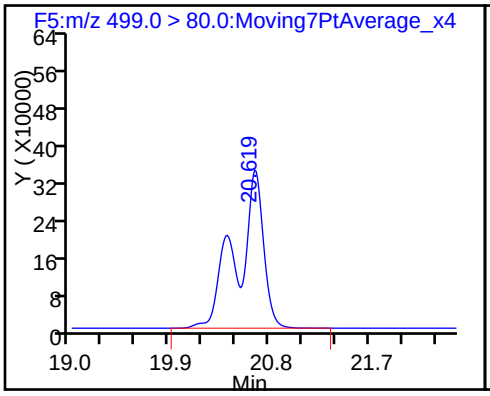
* 5 13C2-PFOA



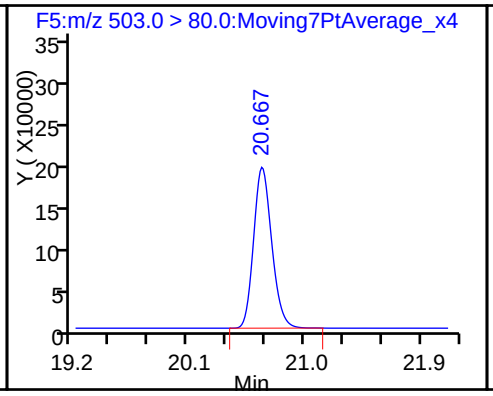
6 Perfluorooctanoic acid



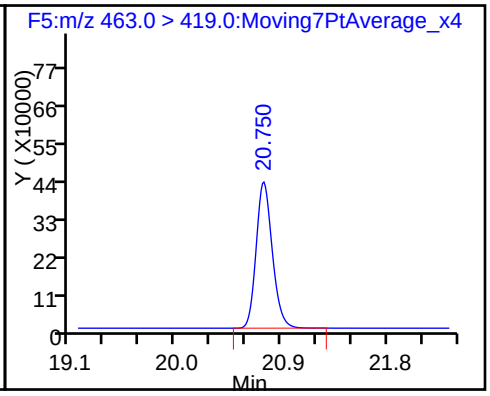
7 Perfluorooctane sulfonic acid



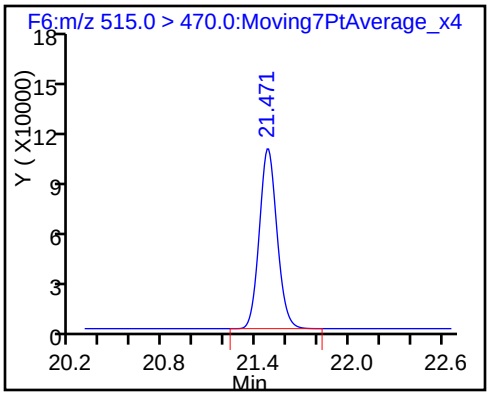
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab Sample ID: CCV 320-140688/9 Calibration Date: 12/05/2016 20:53

Instrument ID: A6 Calib Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.10(mm) Calib End Date: 12/05/2016 19:54

Lab File ID: 05DEC2016A6A_011.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Ave	0.7015	0.6306		20.6	22.9	-10.1	50.0
Perfluorohexanesulfonic acid	Ave	0.8980	0.7822		6.72	7.72	-12.9	50.0
Perfluoroheptanoic acid	Ave	1.215	1.239		2.65	2.60	1.9	50.0
Perfluorooctanoic acid (PFOA)	Ave	1.040	0.9133		4.54	5.17	-12.2	50.0
Perfluorooctanesulfonic acid (PFOS)	Ave	1.044	0.8902		8.71	10.2	-14.7	50.0
Perfluorononanoic acid	Ave	1.134	1.093		4.83	5.01	-3.6	50.0
13C2 PFHxA	Ave	1.167	1.081		9.27	10.0	-7.3	30.0
13C2 PFDA	Ave	0.8763	0.8211		9.37	10.0	-6.3	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_011.d
Lims ID: CCV L2
Client ID:
Sample Type: CCVL
Inject. Date: 05-Dec-2016 20:53:12 ALS Bottle#: 2 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCV L2 CCV L2
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:35:40 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

First Level Reviewer: barnettj Date: 06-Dec-2016 10:08:33

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.586	17.581	0.005	1.000	1186753	20.6	693	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	1108698	9.27	35970	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.342	0.002	1.000	496197	6.72	11535	
4 Perfluoroheptanoic acid								M
363.0 > 319.0	19.380	19.378	0.002	1.000	329772	2.65	166	M
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		1025187	10.0	21492	
6 Perfluorooctanoic acid								M
413.0 > 369.0	20.047	20.047	0.0	1.000	484196	4.54	93.2	M
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	747766	8.71	8549	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.669	-0.002		2358079	28.7	20478	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.748	0.002	1.000	561371	4.83	15032	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.474	-0.003	1.000	841818	9.37	26813	

QC Flag Legend

Review Flags

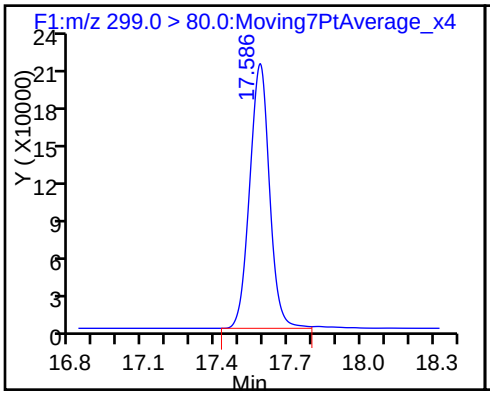
M - Manually Integrated

Reagents:

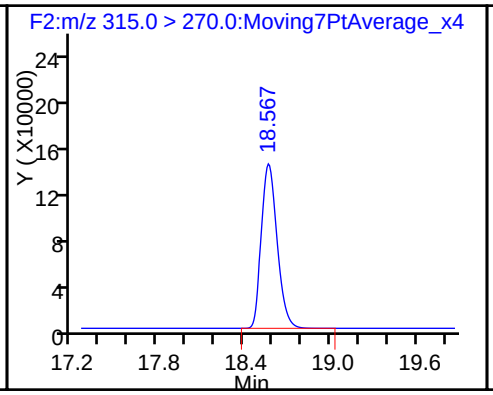
LC537-L2_00014 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_011.d
Injection Date: 05-Dec-2016 20:53:12 Instrument ID: A6
Lims ID: CCV L2
Client ID:
Operator ID: CBW ALS Bottle#: 2 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

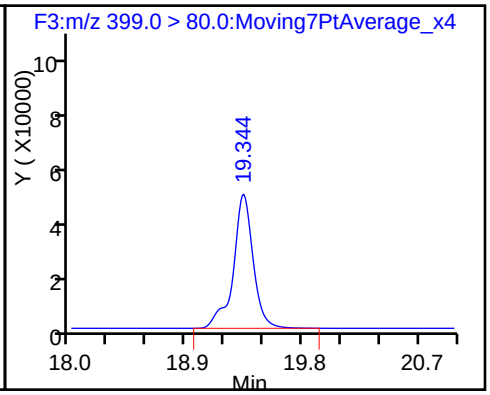
1 Perfluorobutanesulfonic acid



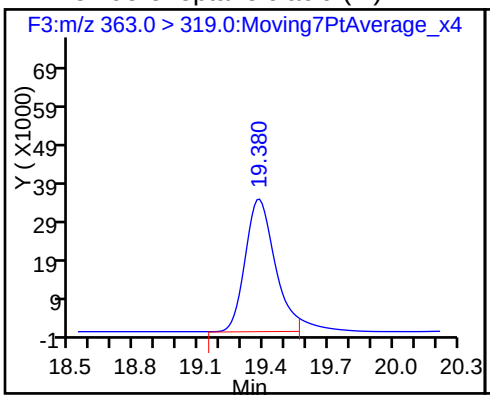
$ 2 13C2 PFHxA



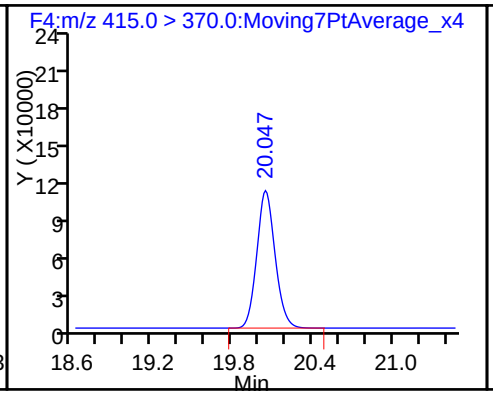
3 Perfluorohexanesulfonic acid



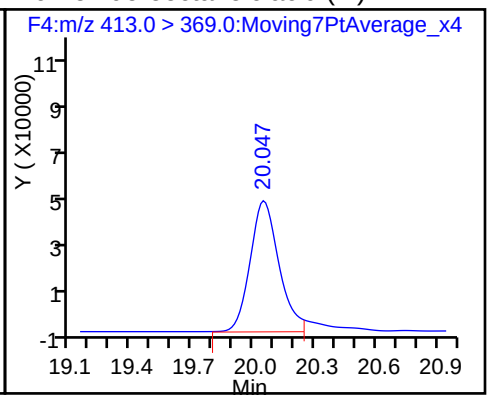
4 Perfluoroheptanoic acid (M)



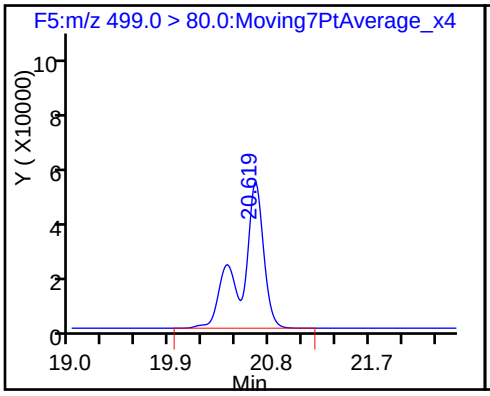
* 5 13C2-PFOA



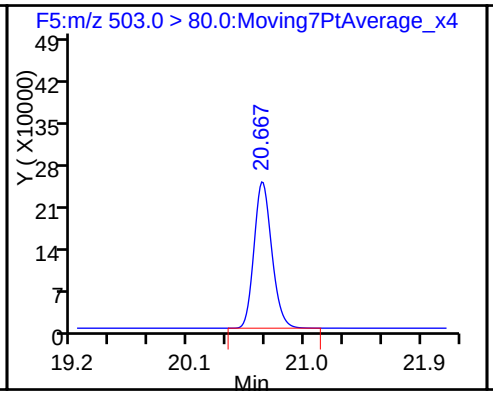
6 Perfluorooctanoic acid (M)



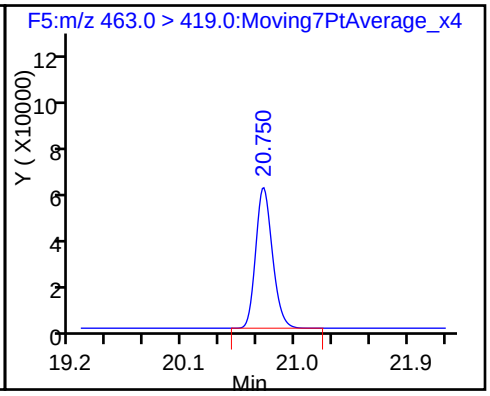
7 Perfluorooctane sulfonic acid



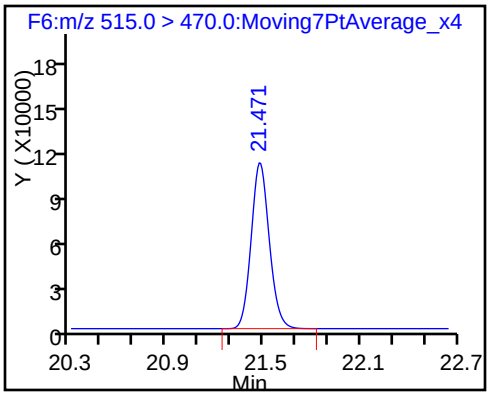
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

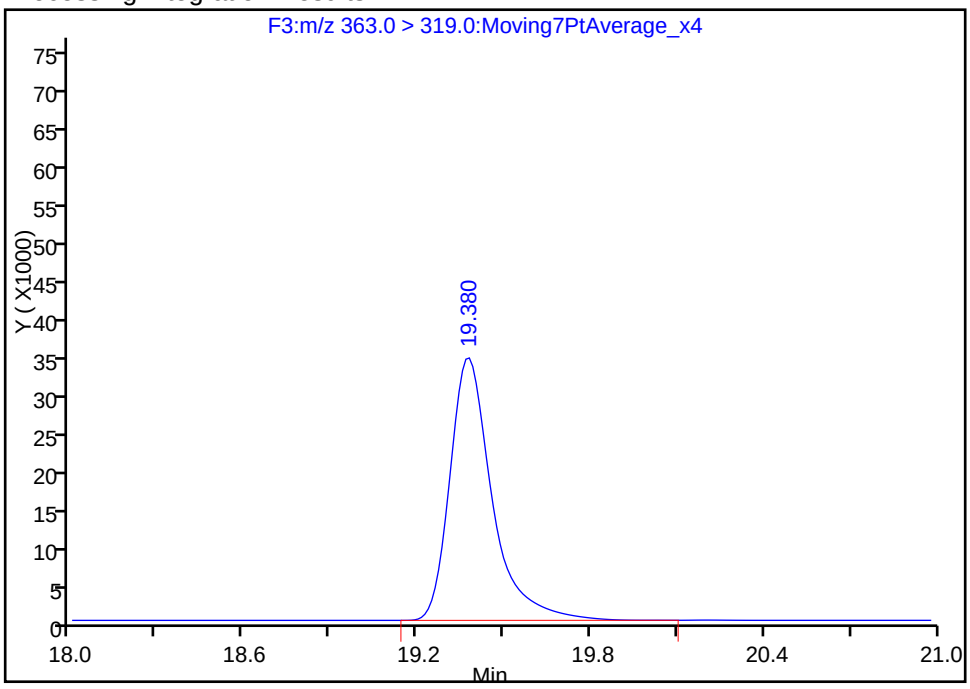
Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_011.d
Injection Date: 05-Dec-2016 20:53:12 Instrument ID: A6
Lims ID: CCV L2
Client ID:
Operator ID: CBW ALS Bottle#: 2 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F3:MRM

4 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

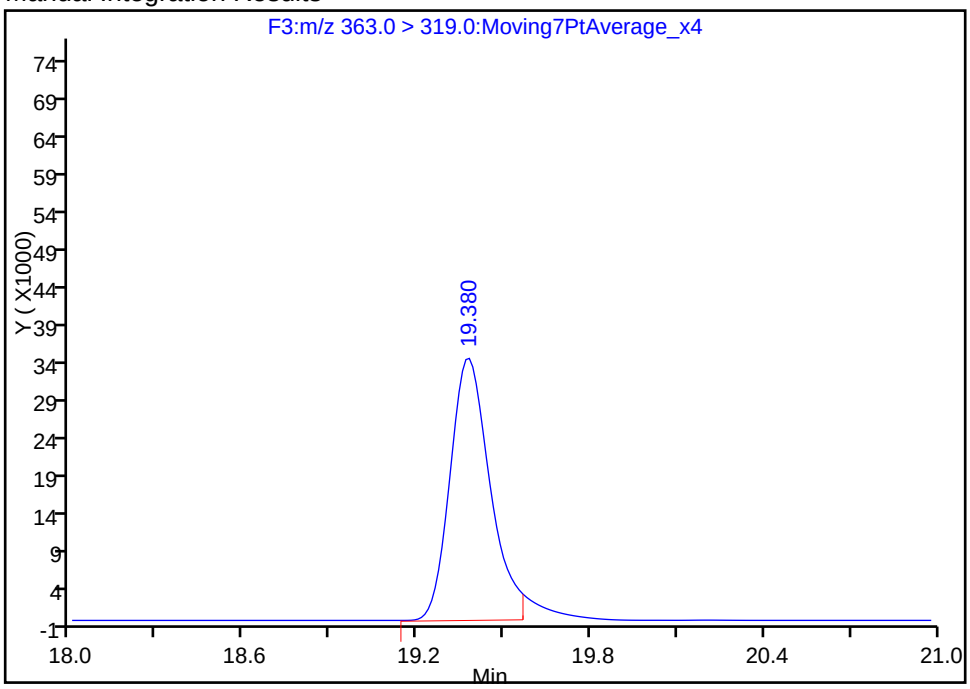
Processing Integration Results

RT: 19.38
Area: 349162
Amount: 2.802857
Amount Units: ng/ml



Manual Integration Results

RT: 19.38
Area: 329772
Amount: 2.647206
Amount Units: ng/ml



Reviewer: barnettj, 06-Dec-2016 10:08:33
Audit Action: Manually Integrated Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

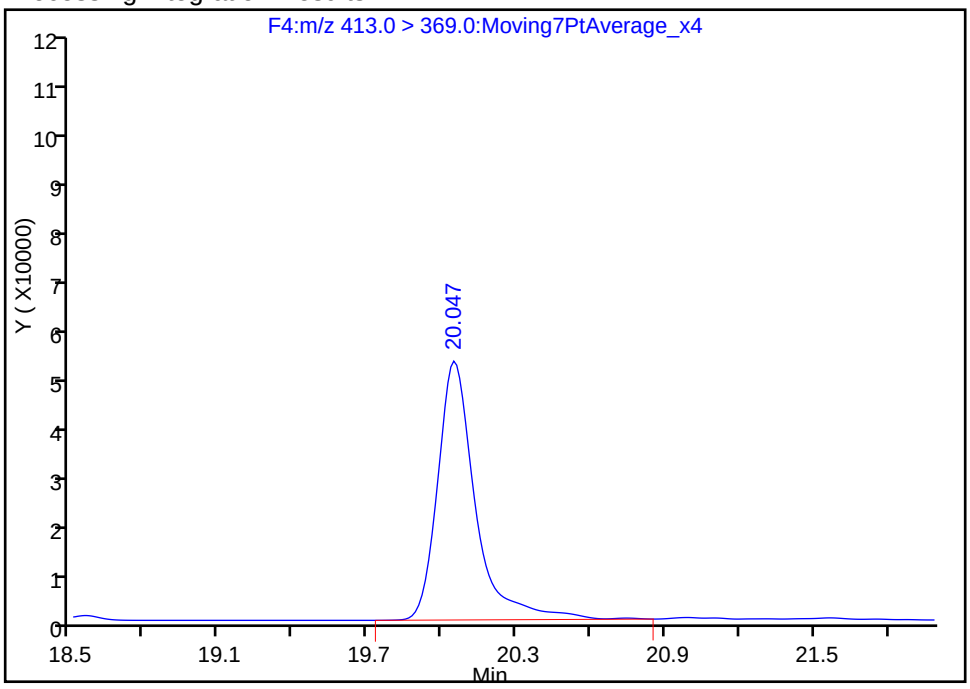
Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_011.d
Injection Date: 05-Dec-2016 20:53:12 Instrument ID: A6
Lims ID: CCV L2
Client ID:
Operator ID: CBW ALS Bottle#: 2 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F4:MRM

6 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

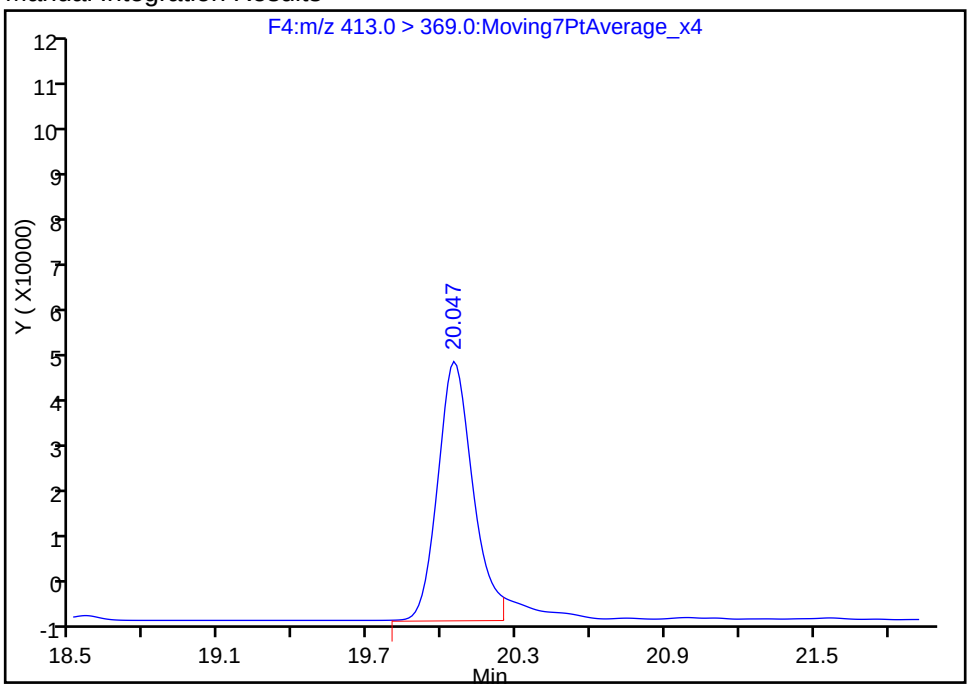
Processing Integration Results

RT: 20.05
Area: 520603
Amount: 4.880820
Amount Units: ng/ml



Manual Integration Results

RT: 20.05
Area: 484196
Amount: 4.539493
Amount Units: ng/ml



Reviewer: barnettj, 06-Dec-2016 10:08:33
Audit Action: Manually Integrated Audit Reason: Split Peak

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab Sample ID: ICV 320-140688/11 Calibration Date: 12/05/2016 21:52

Instrument ID: A6 Calib Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.10(mm) Calib End Date: 12/05/2016 19:54

Lab File ID: 05DEC2016A6A_013.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Ave	0.7015	0.5756		94.2	115	-18.0	30.0
Perfluorohexanesulfonic acid	Ave	0.8980	0.6976		20.6	26.5	-22.3	30.0
Perfluoroheptanoic acid	Ave	1.215	1.155		11.9	12.5	-4.9	30.0
Perfluorooctanoic acid (PFOA)	Ave	1.040	0.9604		23.2	25.1	-7.7	30.0
Perfluorooctanesulfonic acid (PFOS)	Ave	1.044	0.8424		22.0	27.2	-19.3	30.0
Perfluorononanoic acid	Ave	1.134	0.9316		20.6	25.1	-17.9	30.0
13C2 PFHxA	Ave	1.167	1.079		9.25	10.0	-7.5	30.0
13C2 PFDA	Ave	0.8763	0.8628		9.85	10.0	-1.5	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_013.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 05-Dec-2016 21:52:24 ALS Bottle#: 7 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: ICV ICV
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist:

Method: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 06-Dec-2016 16:53:23 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK024

First Level Reviewer: barnettj Date: 06-Dec-2016 16:34:53

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.582	17.581	0.001	1.000	4641388	94.2	8629	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.567	18.567	0.0	1.000	946677	9.25	29673	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.342	0.002	1.000	1298107	20.6	29738	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.380	19.378	0.002	1.000	1267011	11.9	9991	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		877210	10.0	22431	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.047	20.047	0.0	1.000	2114272	23.2	647	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	1612191	22.0	13496	
* 8 13C4 PFOS								
503.0 > 80.0	20.667	20.669	-0.002		2015178	28.7	51574	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.748	0.002	1.000	2051048	20.6	7161	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.474	0.006	1.000	756809	9.85	23714	

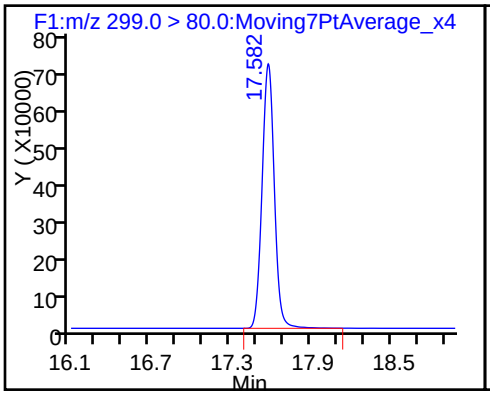
Reagents:

LC537-ICV_00017 Amount Added: 1.00 Units: mL

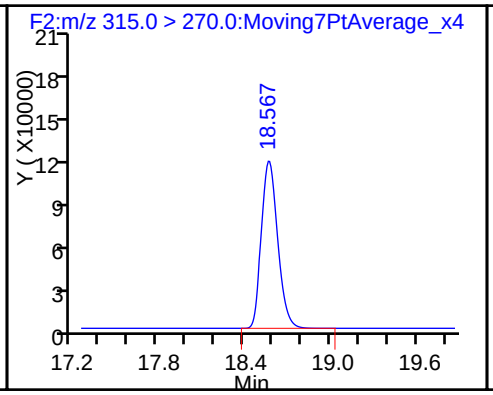
TestAmerica Sacramento

Data File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_013.d
Injection Date: 05-Dec-2016 21:52:24 Instrument ID: A6
Lims ID: ICV
Client ID:
Operator ID: CBW ALS Bottle#: 7 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

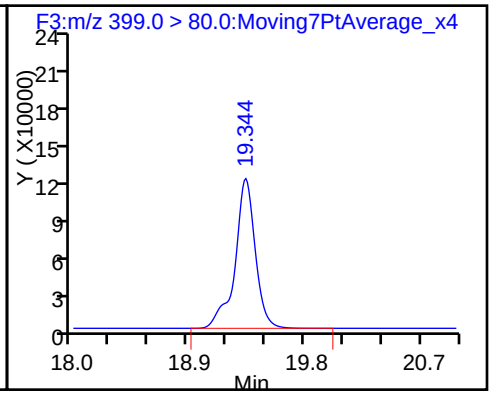
1 Perfluorobutanesulfonic acid



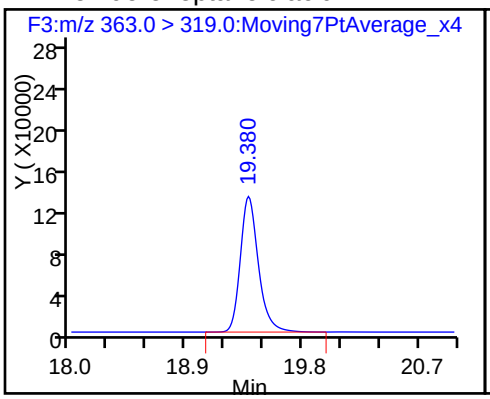
$ 2 13C2 PFHxA



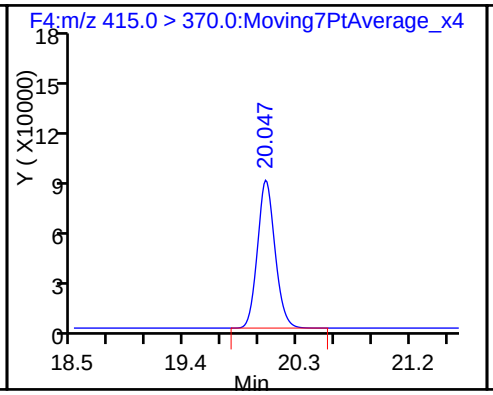
3 Perfluorohexanesulfonic acid



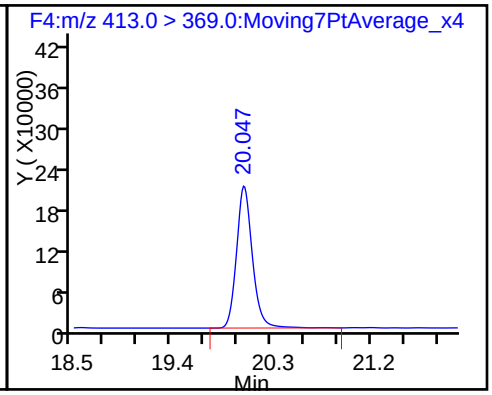
4 Perfluoroheptanoic acid



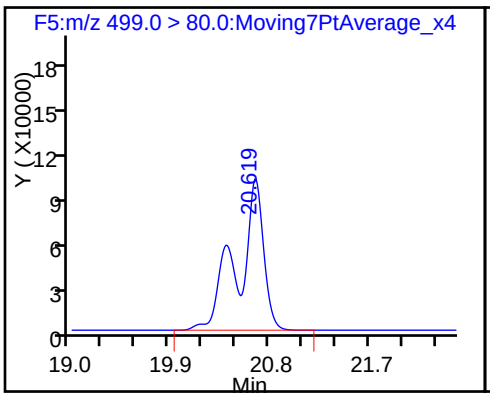
* 5 13C2-PFOA



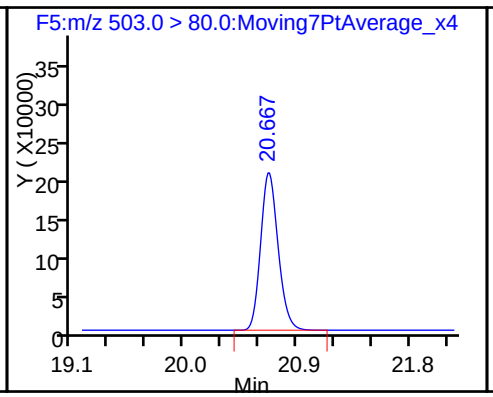
6 Perfluorooctanoic acid



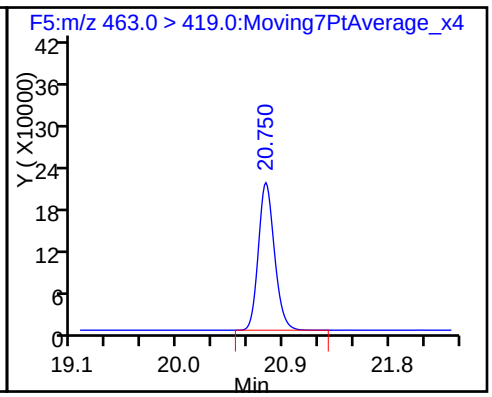
7 Perfluorooctane sulfonic acid



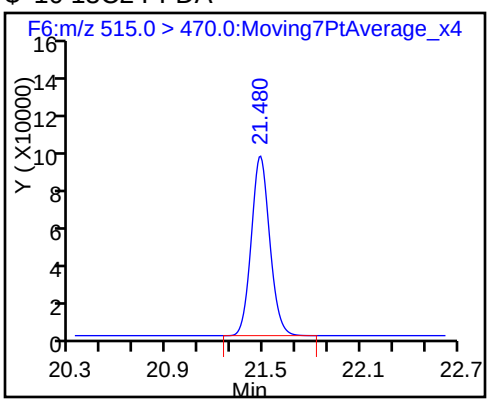
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab Sample ID: CCV 320-141573/3 Calibration Date: 12/11/2016 12:02

Instrument ID: A6 Calib Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.10(mm) Calib End Date: 12/05/2016 19:54

Lab File ID: 11DEC2016A6A_003.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Ave	0.7015	0.6477		21.1	22.9	-7.7	50.0
Perfluorohexanesulfonic acid	Ave	0.8980	0.7642		6.57	7.72	-14.9	50.0
Perfluoroheptanoic acid	Ave	1.215	1.413		3.02	2.60	16.3	50.0
Perfluorooctanoic acid (PFOA)	Ave	1.040	1.044		5.19	5.17	0.3	50.0
Perfluorooctanesulfonic acid (PFOS)	Ave	1.044	0.8884		8.69	10.2	-14.9	50.0
Perfluorononanoic acid	Ave	1.134	1.098		4.85	5.01	-3.2	50.0
13C2 PFHxA	Ave	1.167	1.108		9.50	10.0	-5.0	30.0
13C2 PFDA	Ave	0.8763	0.7903		9.02	10.0	-9.8	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_003.d
Lims ID: CCV L2
Client ID:
Sample Type: CCVL
Inject. Date: 11-Dec-2016 12:02:56 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCV L2 CCV L2
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:28 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: westendorfc Date: 11-Dec-2016 12:36:03

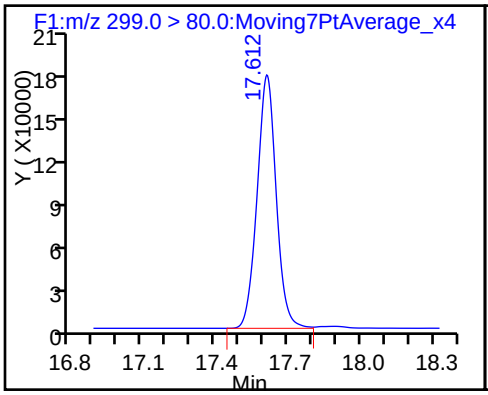
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.612	17.612	0.0	1.000	949190	21.1	569	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	889175	9.50	27996	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.356	19.356	0.0	1.000	377563	6.57	8685	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.391	19.391	0.0	1.000	294373	3.02	4026	
* 5 13C2-PFOA								
415.0 > 370.0	20.058	20.058	0.0		802153	10.0	20748	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.058	20.058	0.0	1.000	432862	5.19	181	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	581183	8.69	5853	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		1836390	28.7	27361	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	441361	4.85	3888	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	633909	9.02	19884	

Reagents:

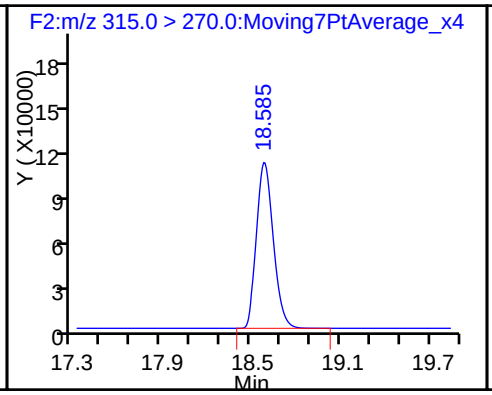
LC537-L2_00014 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_003.d
Injection Date: 11-Dec-2016 12:02:56 Instrument ID: A6
Lims ID: CCV L2
Client ID:
Operator ID: CBW ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

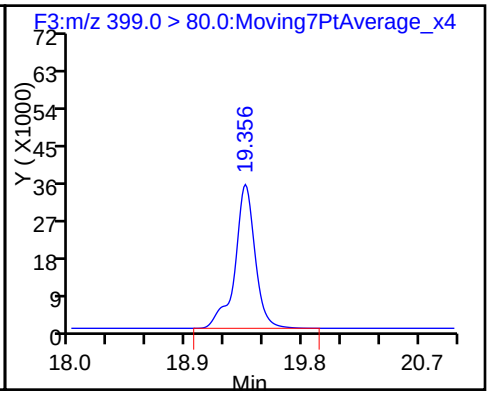
1 Perfluorobutanesulfonic acid



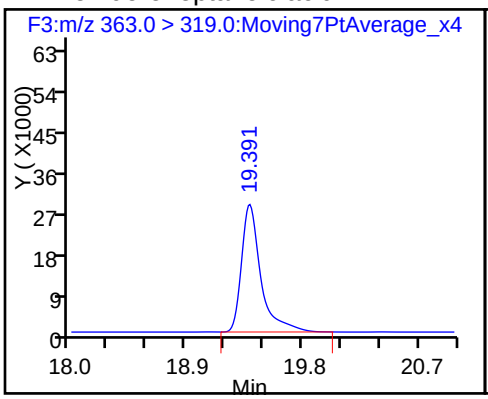
$ 2 13C2 PFHxA



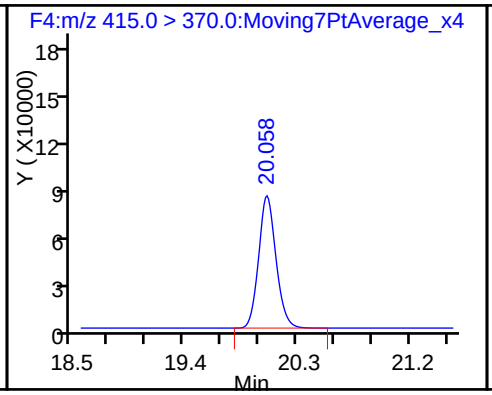
3 Perfluorohexanesulfonic acid



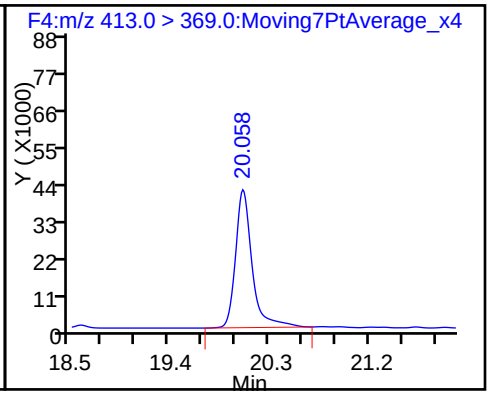
4 Perfluoroheptanoic acid



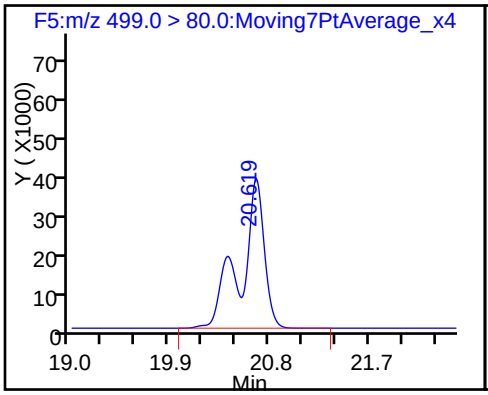
* 5 13C2-PFOA



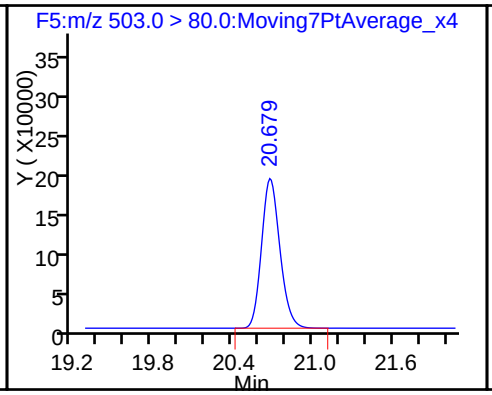
6 Perfluorooctanoic acid



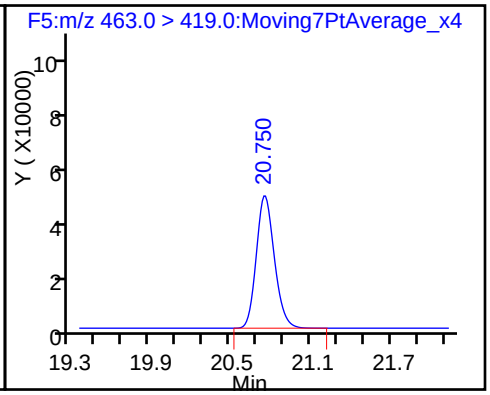
7 Perfluorooctane sulfonic acid



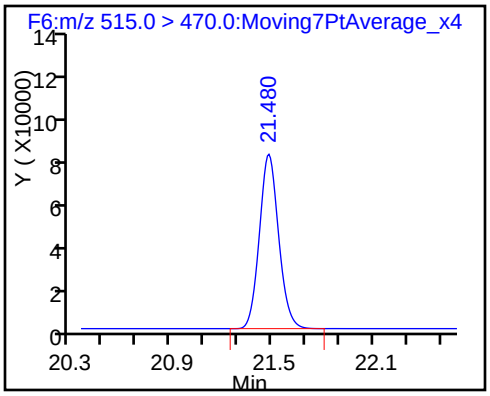
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab Sample ID: CCV 320-141573/4 Calibration Date: 12/11/2016 12:32

Instrument ID: A6 Calib Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.10(mm) Calib End Date: 12/05/2016 19:54

Lab File ID: 11DEC2016A6A_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Ave	0.7015	0.7094		136	135	1.1	30.0
Perfluorohexanesulfonic acid	Ave	0.8980	1.006		50.9	45.4	12.1	30.0
Perfluoroheptanoic acid	Ave	1.215	1.198		15.1	15.3	-1.4	30.0
Perfluorooctanoic acid (PFOA)	Ave	1.040	1.111		32.5	30.4	6.8	30.0
Perfluorooctanesulfonic acid (PFOS)	Ave	1.044	1.179		67.8	60.1	12.9	30.0
Perfluorononanoic acid	Ave	1.134	1.179		30.6	29.5	3.9	30.0
13C2 PFHxA	Ave	1.167	1.324		11.4	10.0	13.5	30.0
13C2 PFDA	Ave	0.8763	0.9513		10.9	10.0	8.6	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_004.d
Lims ID: CCV L5
Client ID:
Sample Type: CCVIS
Inject. Date: 11-Dec-2016 12:32:31 ALS Bottle#: 5 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5 CCV L5
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:30 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

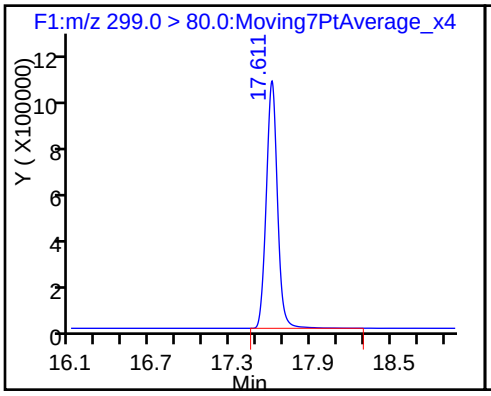
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.611	17.611	0.0	1.000	5924235	136.2	7103	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	1192925	11.4	38299	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.356	19.356	0.0	1.000	2833340	50.9	25601	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.391	19.391	0.0	1.000	1648862	15.1	5901	
* 5 13C2-PFOA								
415.0 > 370.0	20.058	20.058	0.0		900761	10.0	23241	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.058	20.058	0.0	1.000	3044806	32.5	748	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	4393612	67.8	5235	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		1778917	28.7	16519	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	3128230	30.6	15591	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	856896	10.9	27089	

Reagents:

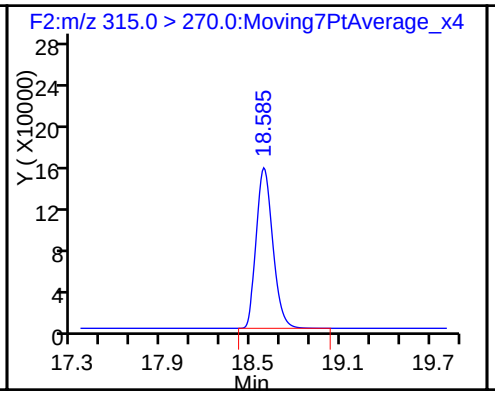
LC537-L5_00017 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_004.d
Injection Date: 11-Dec-2016 12:32:31 Instrument ID: A6
Lims ID: CCV L5
Client ID:
Operator ID: CBW ALS Bottle#: 5 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

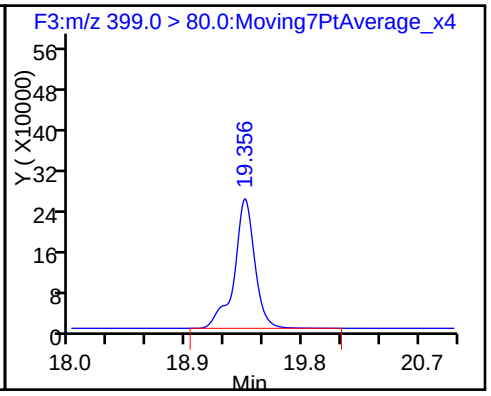
1 Perfluorobutanesulfonic acid



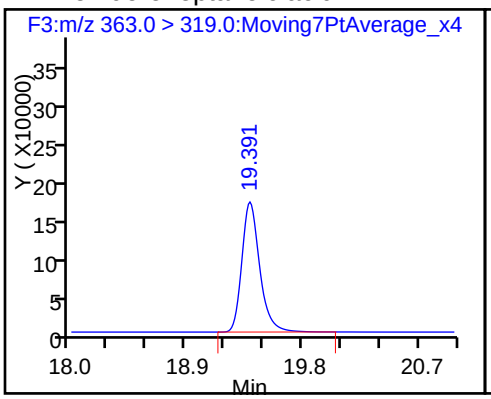
$ 2 13C2 PFHxA



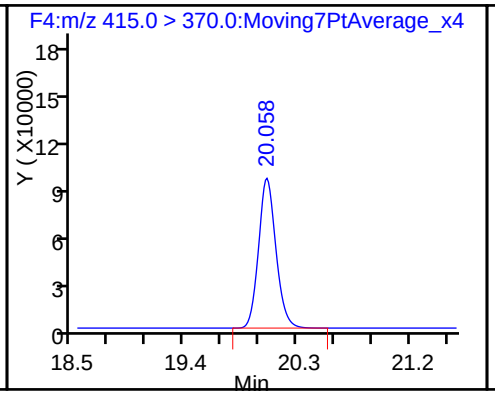
3 Perfluorohexanesulfonic acid



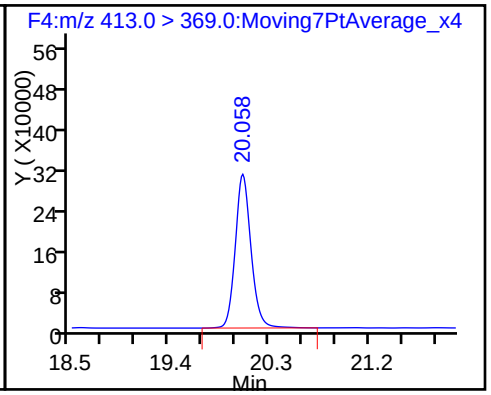
4 Perfluoroheptanoic acid



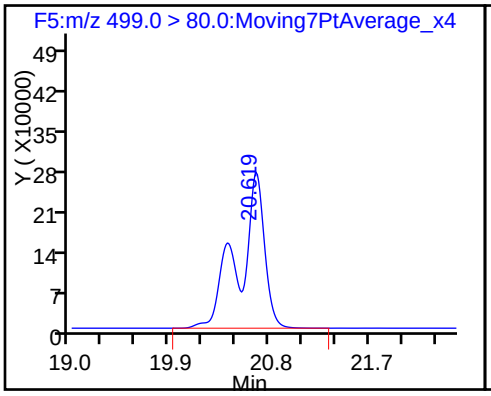
* 5 13C2-PFOA



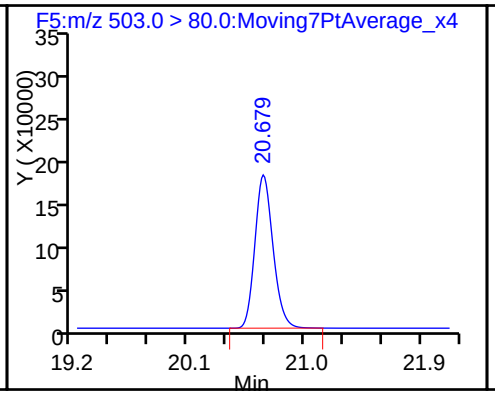
6 Perfluorooctanoic acid



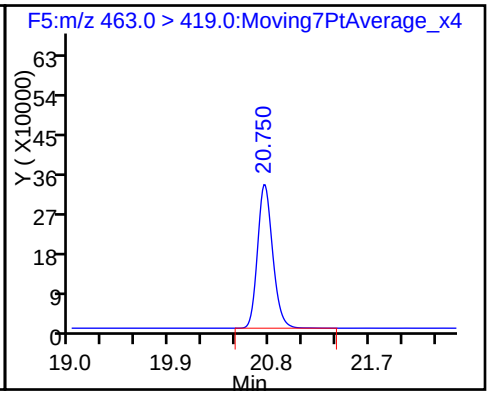
7 Perfluorooctane sulfonic acid



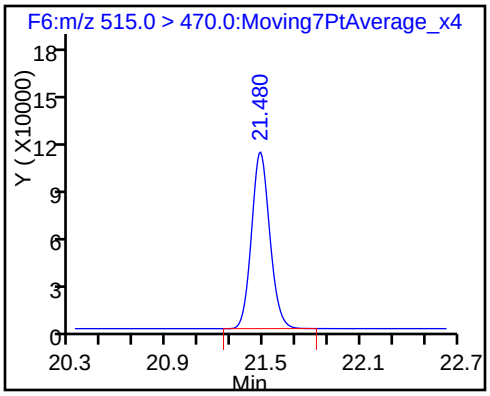
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab Sample ID: CCV 320-141573/17 Calibration Date: 12/11/2016 18:57

Instrument ID: A6 Calib Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.10(mm) Calib End Date: 12/05/2016 19:54

Lab File ID: 11DEC2016A6A_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Ave	0.7015	0.7477		48.1	45.1	6.6	30.0
Perfluorohexanesulfonic acid	Ave	0.8980	0.9640		16.3	15.2	7.4	30.0
Perfluoroheptanoic acid	Ave	1.215	1.333		5.61	5.12	9.7	30.0
Perfluorooctanoic acid (PFOA)	Ave	1.040	1.051		10.3	10.2	1.1	30.0
Perfluorooctanesulfonic acid (PFOS)	Ave	1.044	1.062		20.5	20.1	1.7	30.0
Perfluorononanoic acid	Ave	1.134	1.172		10.2	9.87	3.3	30.0
13C2 PFHxA	Ave	1.167	1.173		10.1	10.0	0.5	30.0
13C2 PFDA	Ave	0.8763	0.8911		10.2	10.0	1.7	30.0

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab Sample ID: CCV 320-141574/17 Calibration Date: 12/11/2016 18:57

Instrument ID: A6 Calib Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.10(mm) Calib End Date: 12/05/2016 19:54

Lab File ID: 11DEC2016A6A_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Ave	0.7015	0.7477		48.1	45.1	6.6	30.0
Perfluorohexanesulfonic acid	Ave	0.8980	0.9640		16.3	15.2	7.4	30.0
Perfluoroheptanoic acid	Ave	1.215	1.333		5.61	5.12	9.7	30.0
Perfluorooctanoic acid (PFOA)	Ave	1.040	1.051		10.3	10.2	1.1	30.0
Perfluorooctanesulfonic acid (PFOS)	Ave	1.044	1.062		20.5	20.1	1.7	30.0
Perfluorononanoic acid	Ave	1.134	1.172		10.2	9.87	3.3	30.0
13C2 PFHxA	Ave	1.167	1.173		10.1	10.0	0.5	30.0
13C2 PFDA	Ave	0.8763	0.8911		10.2	10.0	1.7	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_017.d
Lims ID: CCV L3
Client ID:
Sample Type: CCVIS
Inject. Date: 11-Dec-2016 18:57:16 ALS Bottle#: 3 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCV L3 CCV L3
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:44 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.608	17.608	0.0	1.000	2022947	48.1	841	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	944910	10.1	29815	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.356	19.356	0.0	1.000	879241	16.3	20597	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.391	19.391	0.0	1.000	549674	5.61	6137	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		805687	10.0	20791	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.058	20.058	0.0	1.000	863299	10.3	241	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	1282046	20.5	12589	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		1720352	28.7	22446	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	931931	10.2	10954	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	717912	10.2	22552	

Reagents:

LC537-L3_00016 Amount Added: 1.00 Units: mL

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_017.d
Lims ID: CCV L3
Client ID:
Sample Type: CCVIS
Inject. Date: 11-Dec-2016 18:57:16 ALS Bottle#: 3 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCV L3 CCV L3
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:44 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

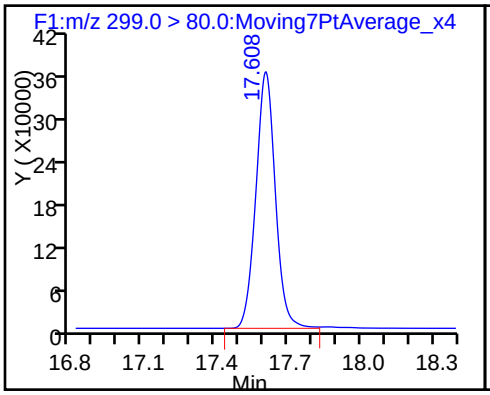
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.608	17.608	0.0	1.000	2022947	48.1	841	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	944910	10.1	29815	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.356	19.356	0.0	1.000	879241	16.3	20597	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.391	19.391	0.0	1.000	549674	5.61	6137	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		805687	10.0	20791	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.058	20.058	0.0	1.000	863299	10.3	241	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	1282046	20.5	12589	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		1720352	28.7	22446	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	931931	10.2	10954	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	717912	10.2	22552	

Reagents:

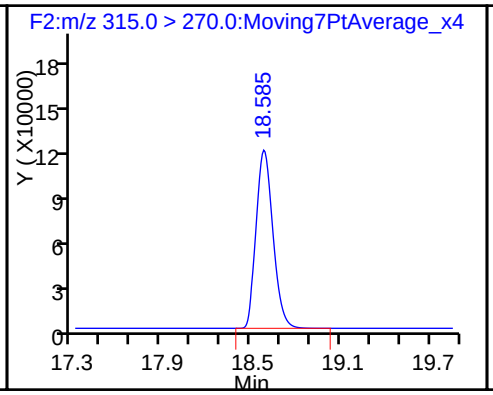
LC537-L3_00016 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_017.d
Injection Date: 11-Dec-2016 18:57:16 Instrument ID: A6
Lims ID: CCV L3
Client ID:
Operator ID: CBW ALS Bottle#: 3 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

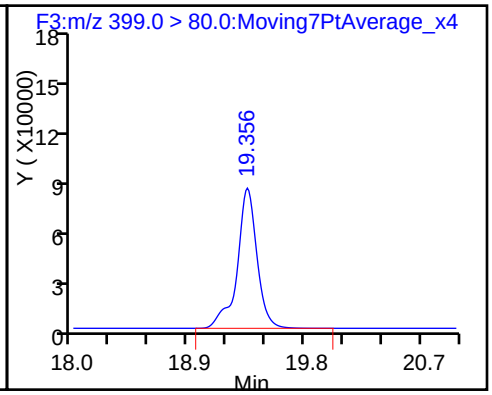
1 Perfluorobutanesulfonic acid



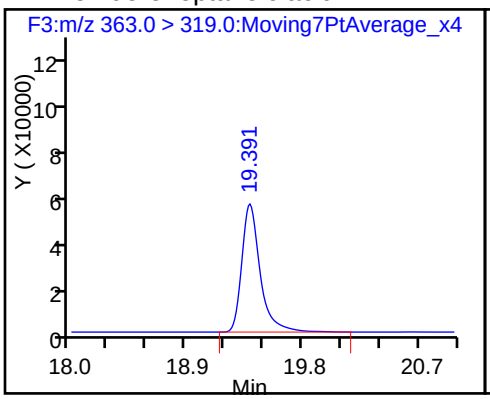
$ 2 13C2 PFHxA



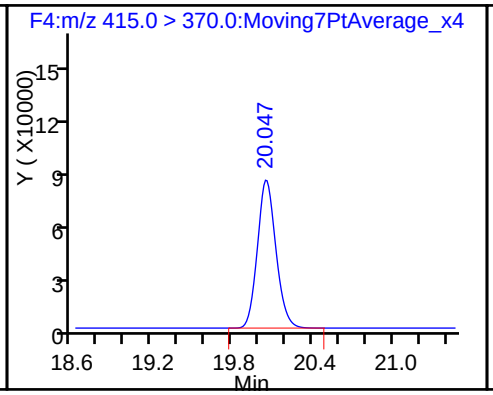
3 Perfluorohexanesulfonic acid



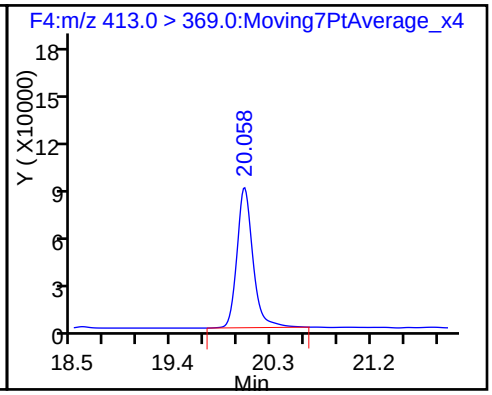
4 Perfluoroheptanoic acid



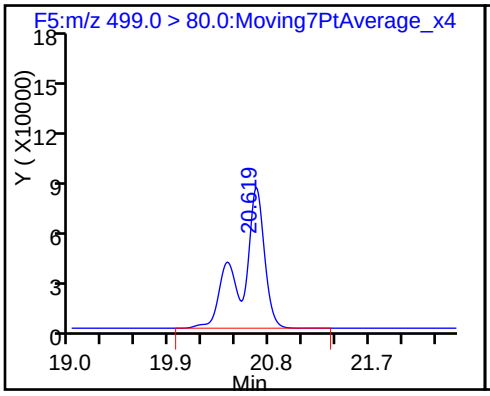
* 5 13C2-PFOA



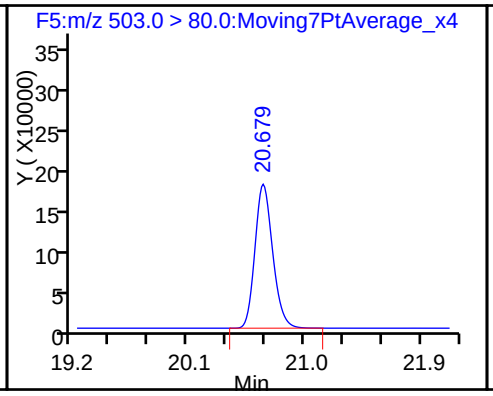
6 Perfluorooctanoic acid



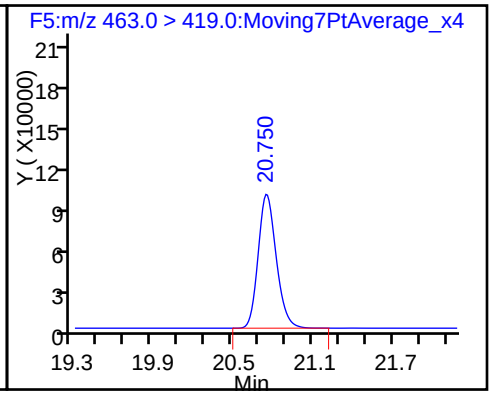
7 Perfluorooctane sulfonic acid



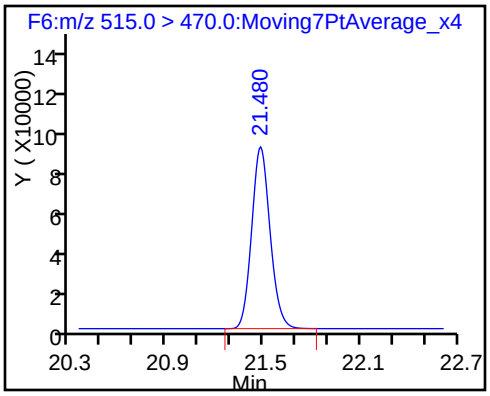
* 8 13C4 PFOS



9 Perfluorononanoic acid

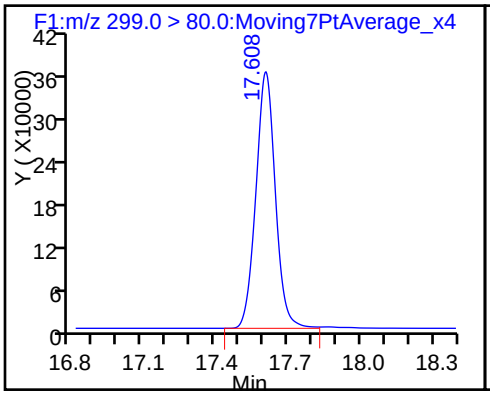


$ 10 13C2 PFDA

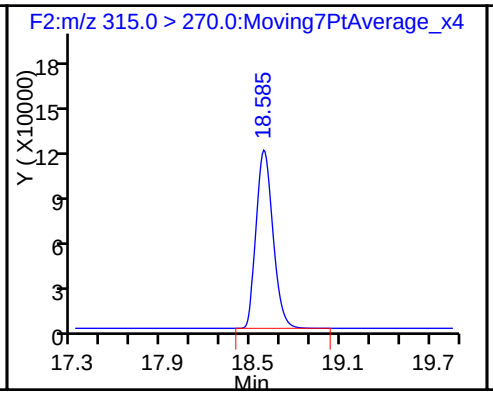


Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_017.d
Injection Date: 11-Dec-2016 18:57:16 Instrument ID: A6
Lims ID: CCV L3
Client ID:
Operator ID: CBW ALS Bottle#: 3 Worklist Smp#: 17
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

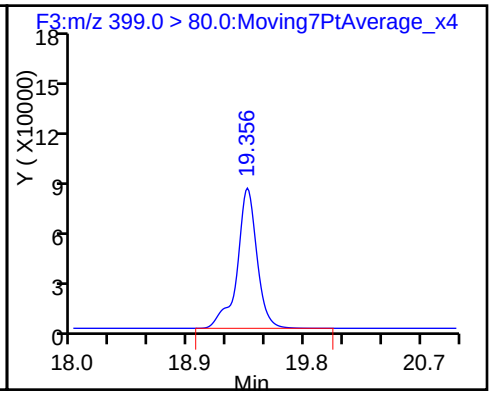
1 Perfluorobutanesulfonic acid



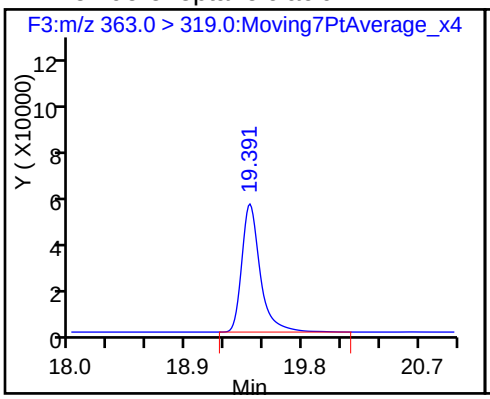
$ 2 13C2 PFHxA



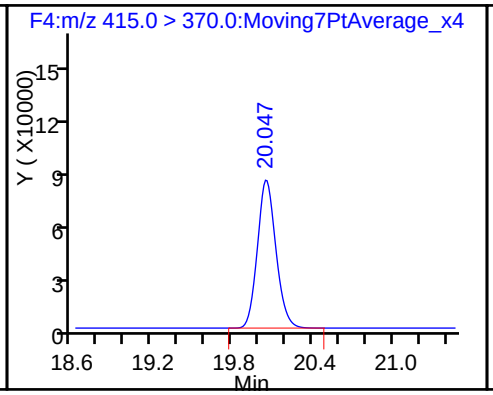
3 Perfluorohexanesulfonic acid



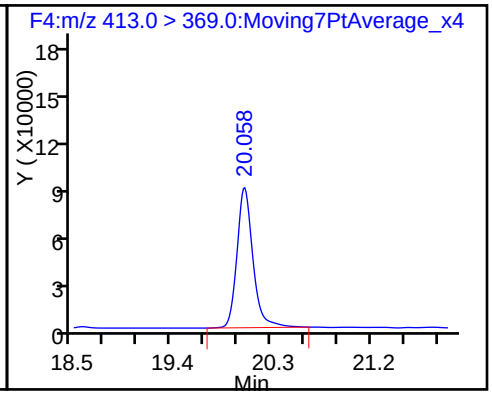
4 Perfluoroheptanoic acid



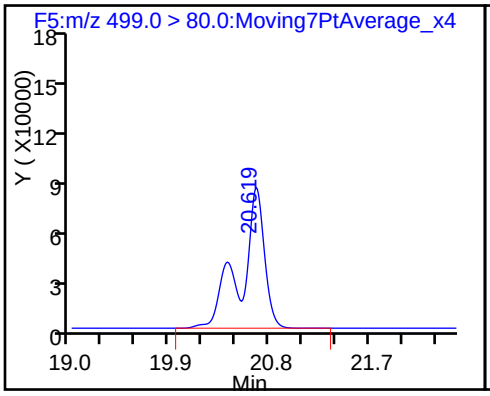
* 5 13C2-PFOA



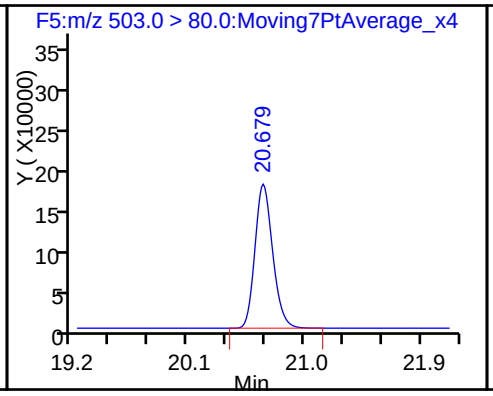
6 Perfluorooctanoic acid



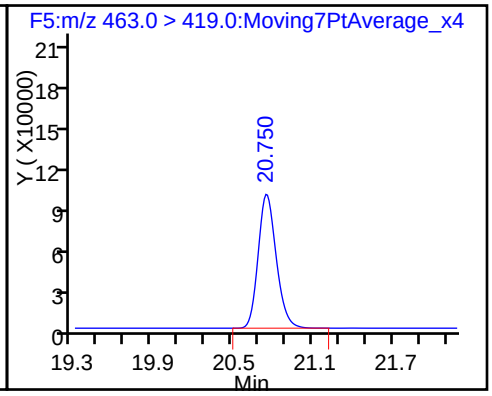
7 Perfluorooctane sulfonic acid



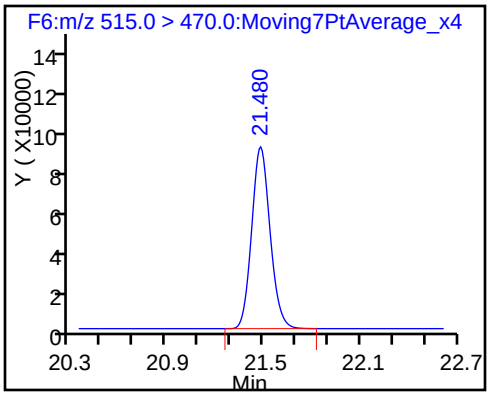
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Lab Sample ID: CCV 320-141574/29 Calibration Date: 12/12/2016 00:52

Instrument ID: A6 Calib Start Date: 12/05/2016 17:26

GC Column: Acquity ID: 2.10(mm) Calib End Date: 12/05/2016 19:54

Lab File ID: 11DEC2016A6A_029.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Ave	0.7015	0.7417		142	135	5.7	30.0
Perfluorohexanesulfonic acid	Ave	0.8980	1.056		53.4	45.4	17.6	30.0
Perfluoroheptanoic acid	Ave	1.215	1.187		14.9	15.3	-2.3	30.0
Perfluorooctanoic acid (PFOA)	Ave	1.040	1.100		32.2	30.4	5.7	30.0
Perfluorooctanesulfonic acid (PFOS)	Ave	1.044	1.251		72.0	60.1	19.8	30.0
Perfluorononanoic acid	Ave	1.134	1.223		31.8	29.5	7.8	30.0
13C2 PFHxA	Ave	1.167	1.297		11.1	10.0	11.2	30.0
13C2 PFDA	Ave	0.8763	0.9257		10.6	10.0	5.6	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_029.d
Lims ID: CCV L5
Client ID:
Sample Type: CCVIS
Inject. Date: 12-Dec-2016 00:52:23 ALS Bottle#: 5 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5 CCV L5
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6
Sublist: chrom-537__A6*sub3

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 16:03:06 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

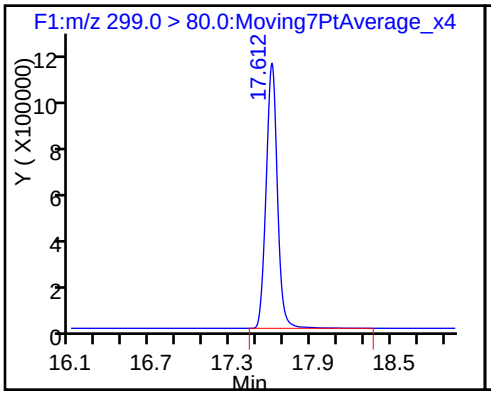
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.612	17.612	0.0	1.000	6371773	142.4	26361	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	1149765	11.1	37115	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.344	19.344	0.0	1.000	3058257	53.4	68628	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.380	19.380	0.0	1.000	1607457	14.9	23861	
* 5 13C2-PFOA								
415.0 > 370.0	20.047	20.047	0.0		886505	10.0	22969	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.047	20.047	0.0	1.000	2965495	32.2	1550	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	4797861	72.0	24477	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		1829934	28.7	37378	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	3194560	31.8	47943	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.471	0.0	1.000	820622	10.6	25626	

Reagents:

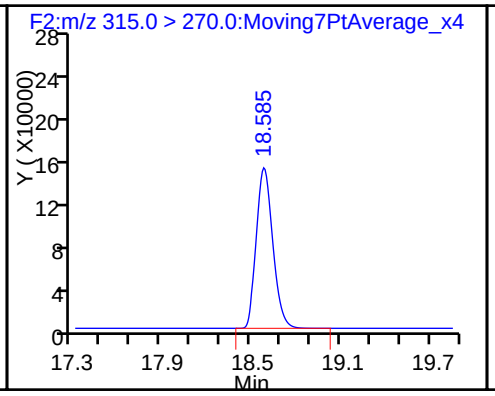
LC537-L5_00017 Amount Added: 1.00 Units: mL

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_029.d
Injection Date: 12-Dec-2016 00:52:23 Instrument ID: A6
Lims ID: CCV L5
Client ID:
Operator ID: CBW ALS Bottle#: 5 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

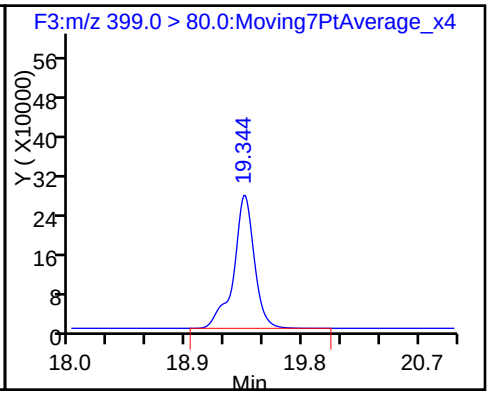
1 Perfluorobutanesulfonic acid



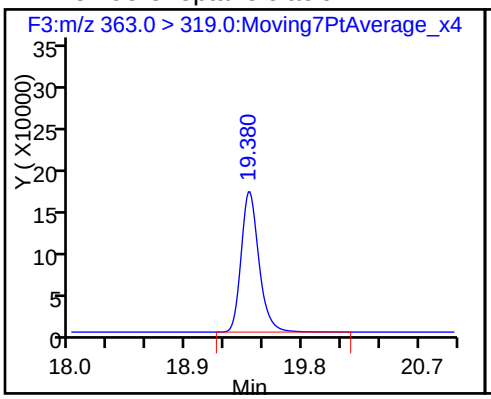
$ 2 13C2 PFHxA



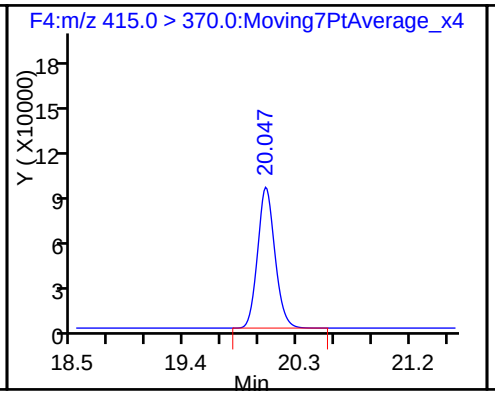
3 Perfluorohexanesulfonic acid



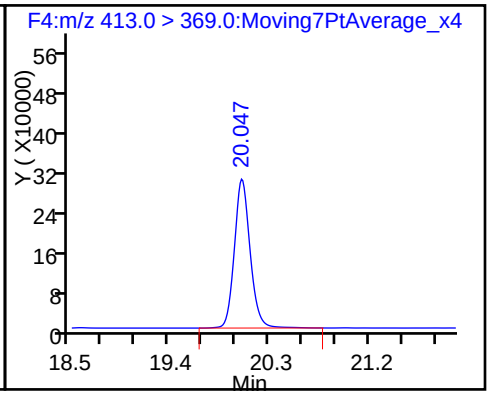
4 Perfluoroheptanoic acid



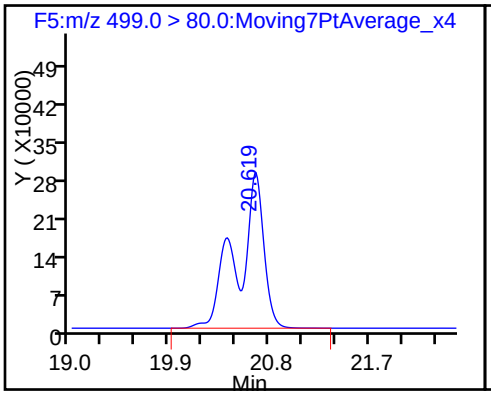
* 5 13C2-PFOA



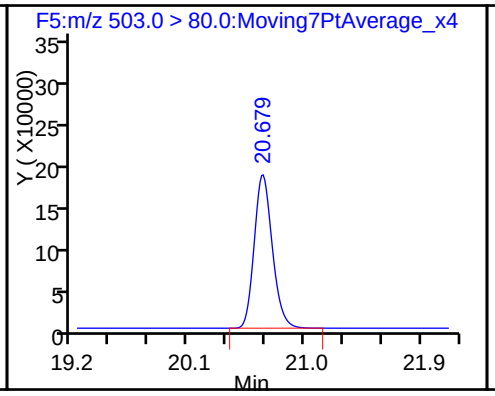
6 Perfluorooctanoic acid



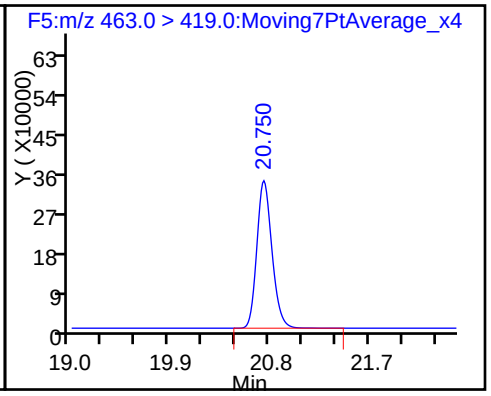
7 Perfluorooctane sulfonic acid



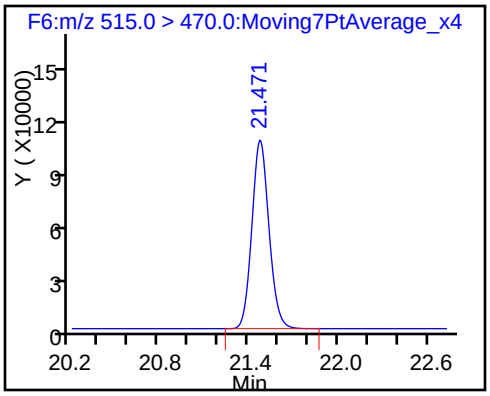
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-140632/1-A

Matrix: Water Lab File ID: 11DEC2016A6A_006.d

Analysis Method: 537 Date Collected:

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 250(mL) Date Analyzed: 12/11/2016 13:31

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.048	U M	0.060	0.048	0.016
335-67-1	Perfluorooctanoic acid (PFOA)	0.024	U M	0.030	0.024	0.0094
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.14	0.11	0.048

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	106		70-130
STL00996	13C2 PFDA	104		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_006.d
Lims ID: MB 320-140632/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2016 13:31:42 ALS Bottle#: 17 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: mb 320-140632/1-a BOX 17
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:30 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 15:00:54

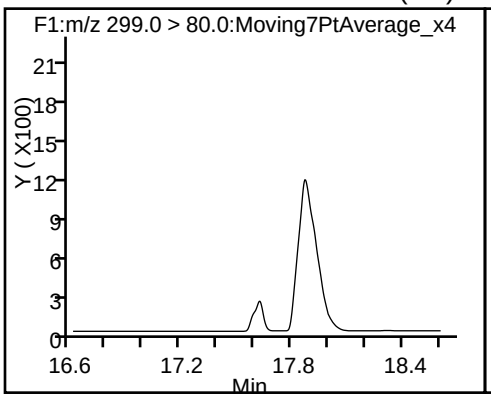
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	941882	10.6	30302	
* 5 13C2-PFOA								
415.0 > 370.0	20.059	20.058	0.001		764515	10.0	20056	
6 Perfluorooctanoic acid								M
413.0 > 369.0	20.047	20.058	-0.011	1.000	1174	0.0148	0.3	M
7 Perfluorooctane sulfonic acid								M
499.0 > 80.0	20.655	20.619	0.036	1.000	732	0.0101	14.8	M
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		1993596	28.7	51558	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.480	-0.009	1.000	696850	10.4	21920	

QC Flag Legend

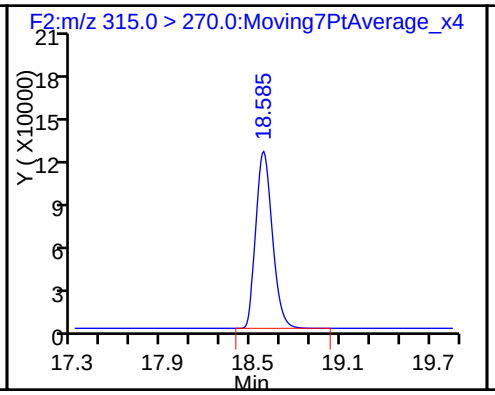
Review Flags
M - Manually Integrated

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_006.d
Injection Date: 11-Dec-2016 13:31:42 Instrument ID: A6
Lims ID: MB 320-140632/1-A
Client ID:
Operator ID: CBW ALS Bottle#: 17 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

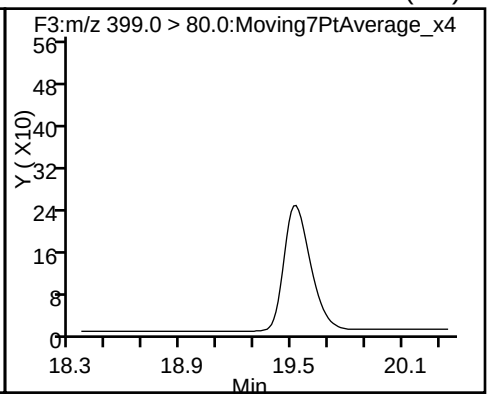
1 Perfluorobutanesulfonic acid (ND)



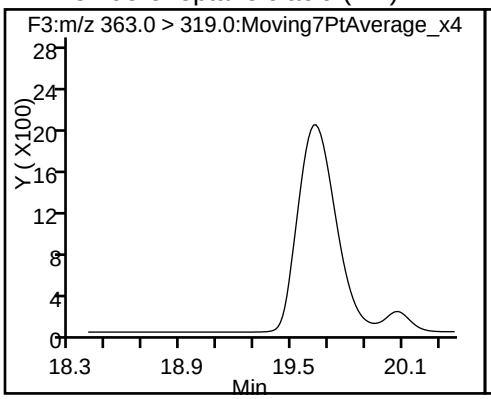
$ 2 13C2 PFHxA



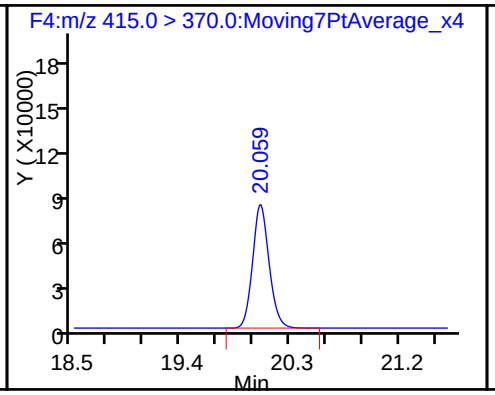
3 Perfluorohexanesulfonic acid (ND)



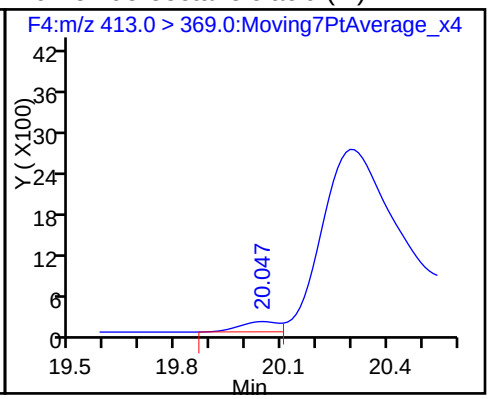
4 Perfluoroheptanoic acid (ND)



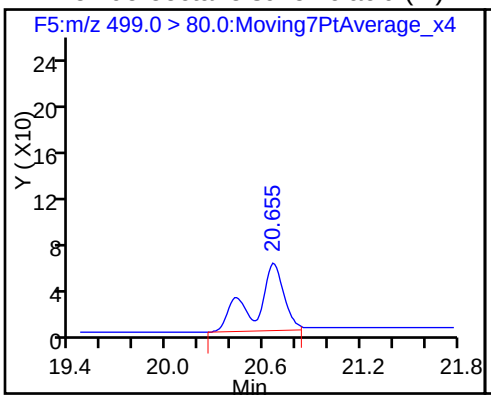
* 5 13C2-PFOA



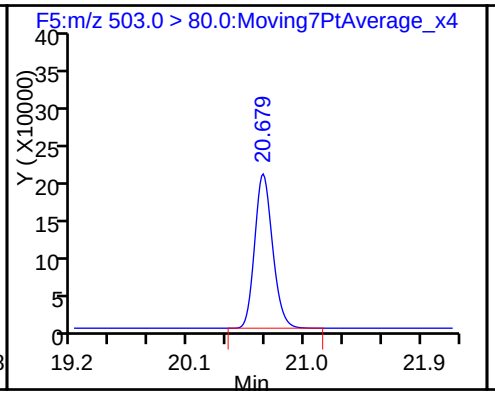
6 Perfluorooctanoic acid (M)



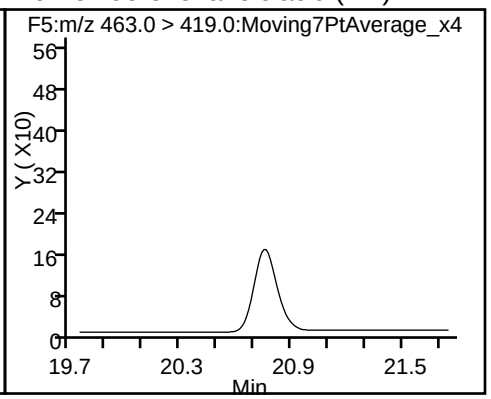
7 Perfluorooctane sulfonic acid (M)



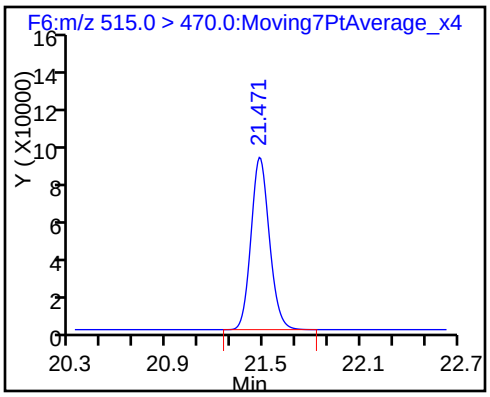
* 8 13C4 PFOS



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_006.d
Lims ID: MB 320-140632/1-A
Client ID:
Sample Type: MB
Inject. Date: 11-Dec-2016 13:31:42 ALS Bottle#: 17 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: mb 320-140632/1-a BOX 17
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:30 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 15:00:54

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	10.6	105.61
$ 10 13C2 PFDA	10.0	10.4	104.02

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

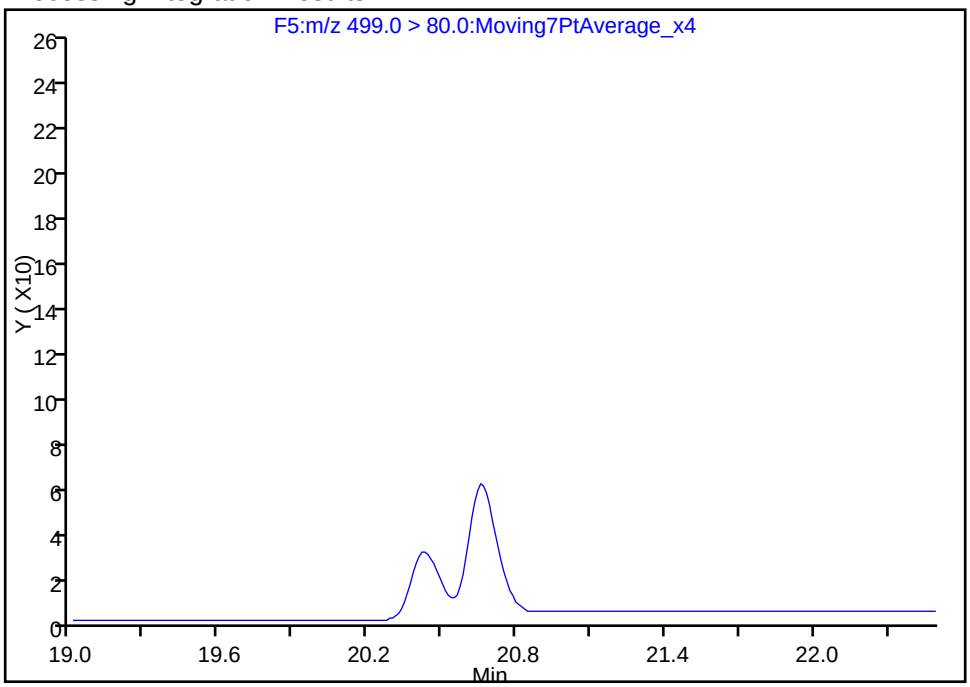
Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_006.d
Injection Date: 11-Dec-2016 13:31:42 Instrument ID: A6
Lims ID: MB 320-140632/1-A
Client ID:
Operator ID: CBW ALS Bottle#: 17 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F5:MRM

7 Perfluorooctane sulfonic acid, CAS: 1763-23-1

Signal: 1

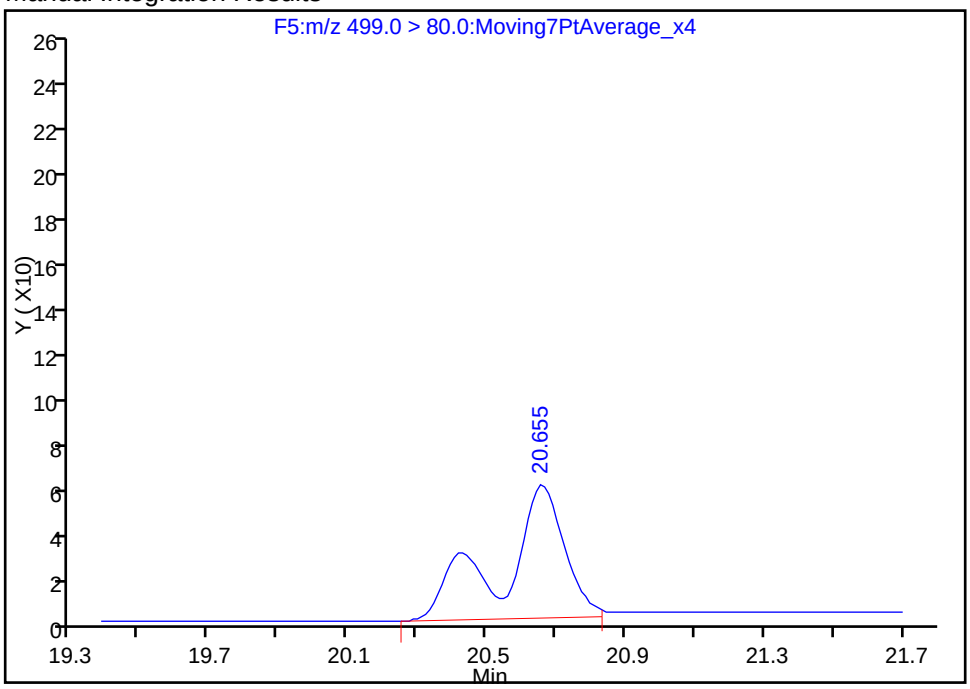
Not Detected
Expected RT: 20.62

Processing Integration Results



Manual Integration Results

RT: 20.66
Area: 732
Amount: 0.010087
Amount Units: ng/ml



Reviewer: barnettj, 12-Dec-2016 15:00:54
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

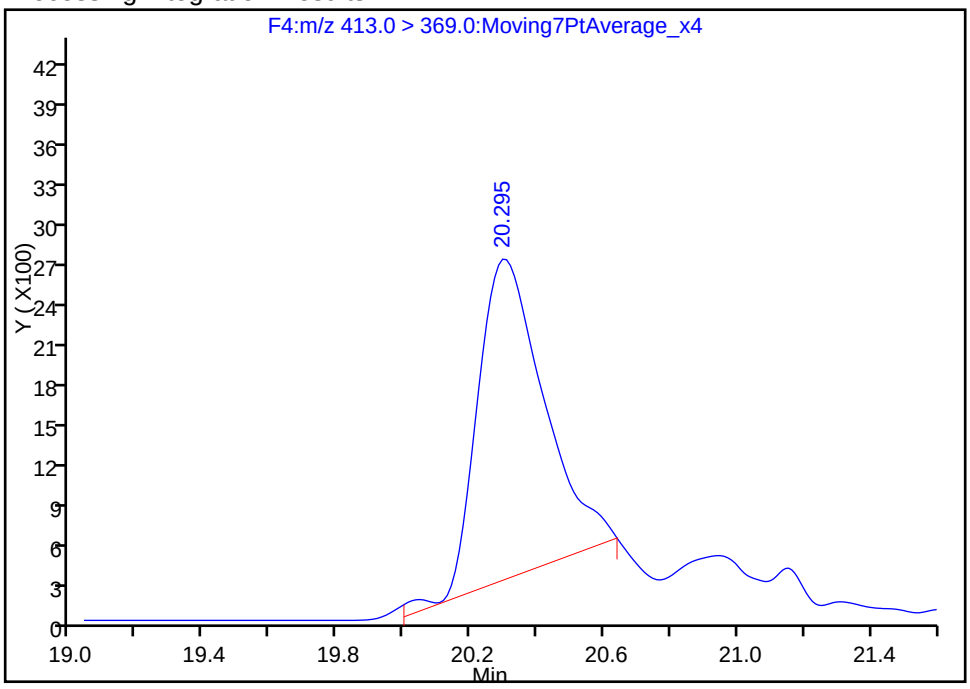
Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_006.d
Injection Date: 11-Dec-2016 13:31:42 Instrument ID: A6
Lims ID: MB 320-140632/1-A
Client ID:
Operator ID: CBW ALS Bottle#: 17 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL
Column: Acquity BEH C18 (2.10 mm) Detector F4:MRM

6 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

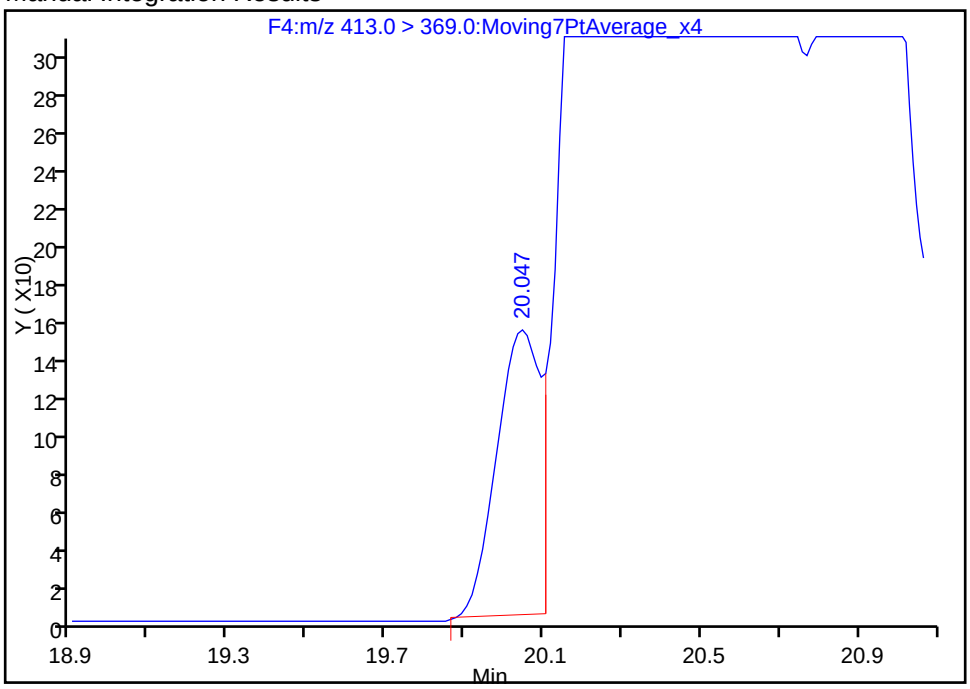
Processing Integration Results

RT: 20.30
Area: 33028
Amount: 0.415227
Amount Units: ng/ml



Manual Integration Results

RT: 20.05
Area: 1174
Amount: 0.014759
Amount Units: ng/ml



Reviewer: barnettj, 12-Dec-2016 15:00:54
Audit Action: Manually Integrated Audit Reason: Split Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 320-140632/2-A

Matrix: Water Lab File ID: 11DEC2016A6A_007.d

Analysis Method: 537 Date Collected:

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 250(mL) Date Analyzed: 12/11/2016 14:01

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.124		0.060	0.048	0.016
335-67-1	Perfluorooctanoic acid (PFOA)	0.0619		0.030	0.024	0.0094
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.275		0.14	0.11	0.048

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	113		70-130
STL00996	13C2 PFDA	110		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_007.d
Lims ID: LCS 320-140632/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2016 14:01:18 ALS Bottle#: 18 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: lcs 320-140632/2-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:30 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

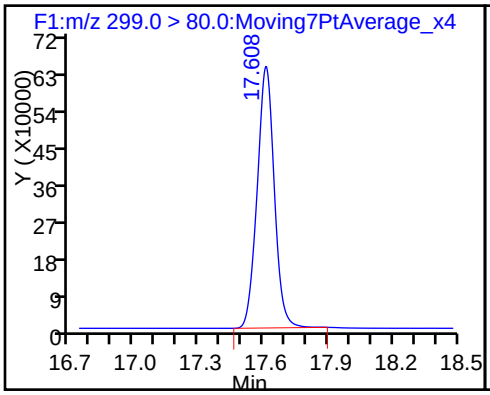
Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 13:50:34

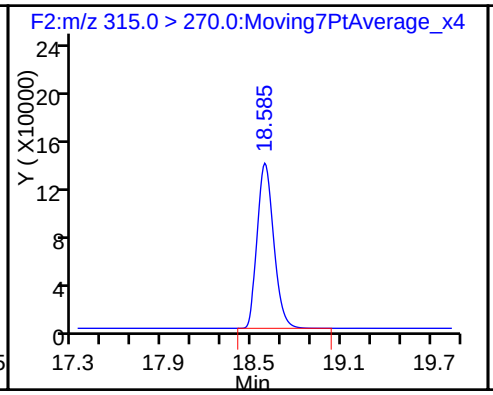
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.608	17.611	-0.003	1.000	3545743	68.9	1681	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	1070896	11.3	22997	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.356	19.356	0.0	1.000	1595835	24.2	36853	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.392	19.391	0.001	1.000	827715	8.37	5358	
* 5 13C2-PFOA								
415.0 > 370.0	20.059	20.058	0.001		813368	10.0	21246	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.059	20.058	0.001	1.000	1308804	15.5	572	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	2375806	31.0	24256	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		2105344	28.7	16826	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	1500116	16.3	15932	
$ 10 13C2 PFDA								
515.0 > 470.0	21.480	21.480	0.0	1.000	786329	11.0	24953	

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_007.d
Injection Date: 11-Dec-2016 14:01:18 Instrument ID: A6
Lims ID: LCS 320-140632/2-A
Client ID:
Operator ID: CBW ALS Bottle#: 18 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

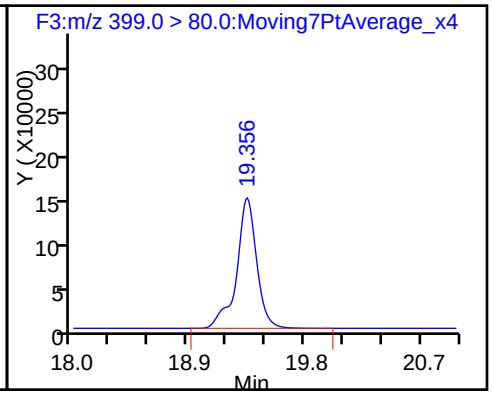
1 Perfluorobutanesulfonic acid



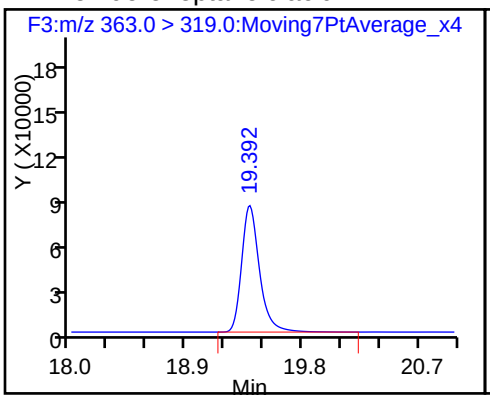
$ 2 13C2 PFHxA



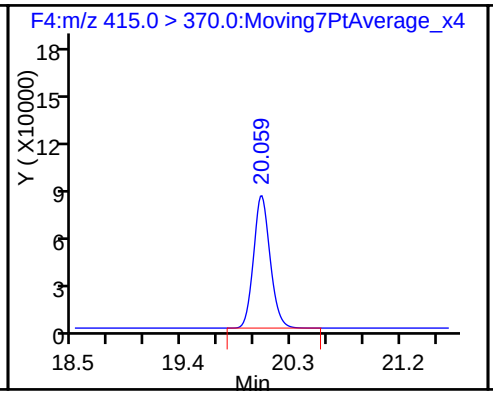
3 Perfluorohexanesulfonic acid



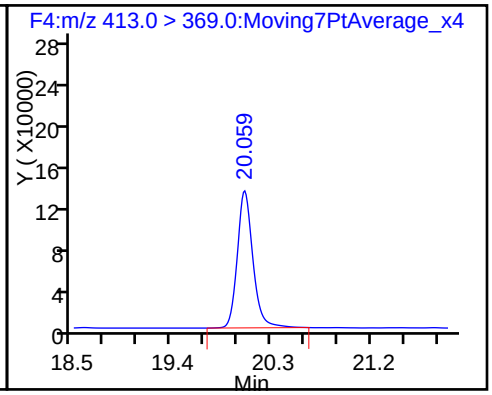
4 Perfluoroheptanoic acid



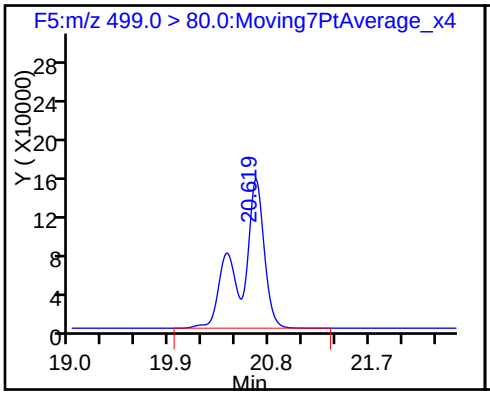
* 5 13C2-PFOA



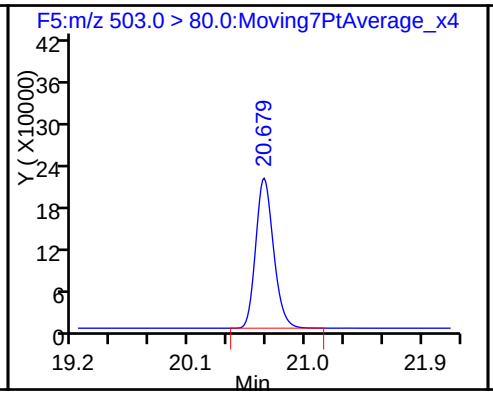
6 Perfluorooctanoic acid



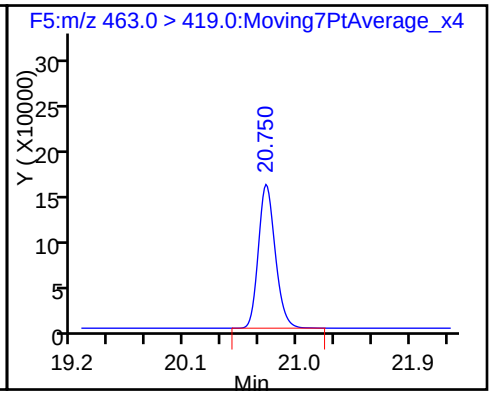
7 Perfluorooctane sulfonic acid



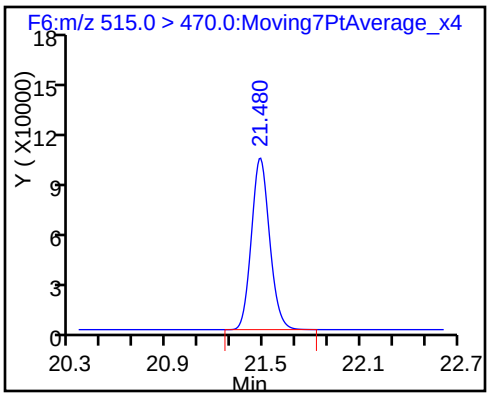
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_007.d
Lims ID: LCS 320-140632/2-A
Client ID:
Sample Type: LCS
Inject. Date: 11-Dec-2016 14:01:18 ALS Bottle#: 18 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: lcs 320-140632/2-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:30 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

First Level Reviewer: barnettj Date: 12-Dec-2016 13:50:34

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	11.3	112.87
$ 10 13C2 PFDA	10.0	11.0	110.33

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 320-140632/3-A

Matrix: Water Lab File ID: 11DEC2016A6A_008.d

Analysis Method: 537 Date Collected:

Extraction Method: 537 Date Extracted: 12/05/2016 11:42

Sample wt/vol: 250(mL) Date Analyzed: 12/11/2016 14:30

Con. Extract Vol.: 1.0(mL) Dilution Factor: 1

Injection Volume: 10(uL) GC Column: Acquity ID: 2.1(mm)

% Moisture: GPC Cleanup:(Y/N) N

Analysis Batch No.: 141573 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.129		0.060	0.048	0.016
335-67-1	Perfluorooctanoic acid (PFOA)	0.0627		0.030	0.024	0.0094
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.294		0.14	0.11	0.048

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	117		70-130
STL00996	13C2 PFDA	111		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_008.d
Lims ID: LCSD 320-140632/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 11-Dec-2016 14:30:53 ALS Bottle#: 19 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: lcsd 320-140632/3-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

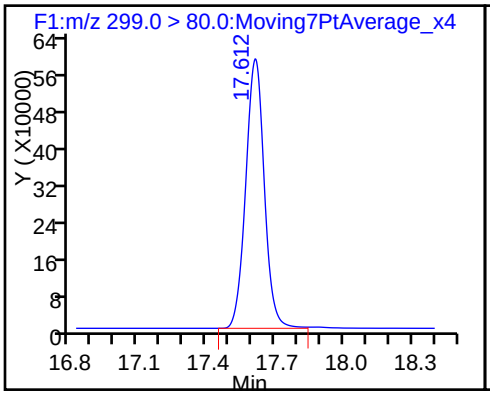
Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:30 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

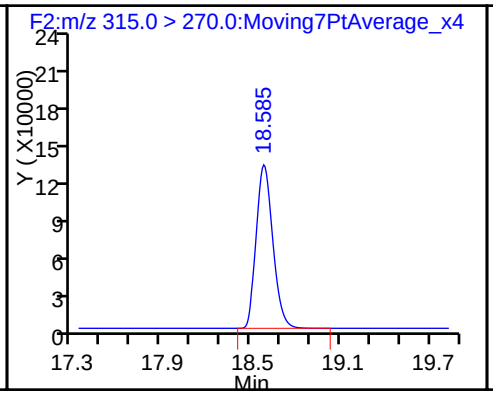
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
299.0 > 80.0	17.612	17.611	0.001	1.000	3361963	73.5	1101	
$ 2 13C2 PFHxA								
315.0 > 270.0	18.585	18.585	0.0	1.000	1000894	11.7	32019	
3 Perfluorohexanesulfonic acid								
399.0 > 80.0	19.356	19.356	0.0	1.000	1494371	25.5	22827	
4 Perfluoroheptanoic acid								
363.0 > 319.0	19.392	19.391	0.001	1.000	779470	8.74	5329	
* 5 13C2-PFOA								
415.0 > 370.0	20.058	20.058	0.0		733684	10.0	19232	
6 Perfluorooctanoic acid								
413.0 > 369.0	20.058	20.058	0.0	1.000	1196673	15.7	496	
7 Perfluorooctane sulfonic acid								
499.0 > 80.0	20.619	20.619	0.0	1.000	2187840	32.2	12847	
* 8 13C4 PFOS								
503.0 > 80.0	20.679	20.679	0.0		1868957	28.7	27574	
9 Perfluorononanoic acid								
463.0 > 419.0	20.750	20.750	0.0	1.000	1424554	17.1	16768	
$ 10 13C2 PFDA								
515.0 > 470.0	21.471	21.480	-0.009	1.000	711593	11.1	22420	

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_008.d
Injection Date: 11-Dec-2016 14:30:53 Instrument ID: A6
Lims ID: LCSD 320-140632/3-A
Client ID:
Operator ID: CBW ALS Bottle#: 19 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Method: 537__A6 Limit Group: LC 537 ICAL

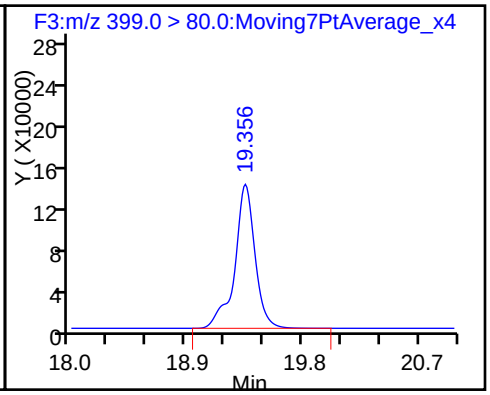
1 Perfluorobutanesulfonic acid



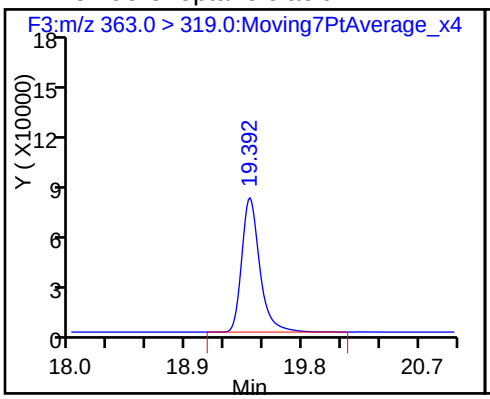
$ 2 13C2 PFHxA



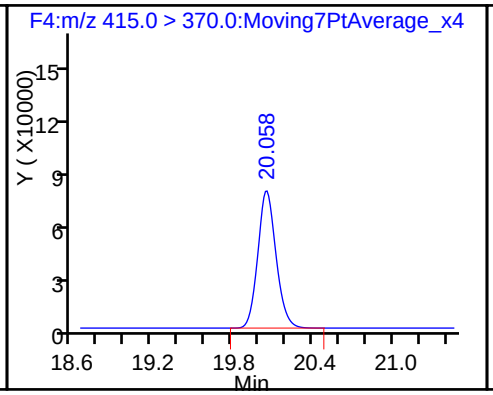
3 Perfluorohexanesulfonic acid



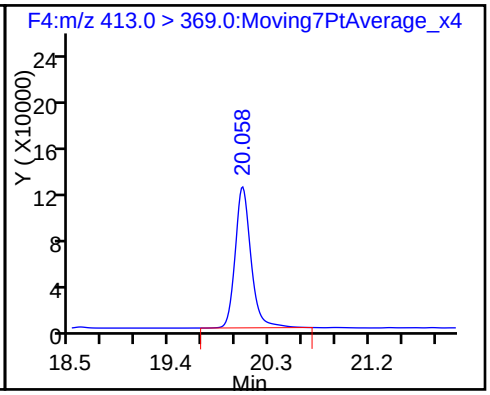
4 Perfluoroheptanoic acid



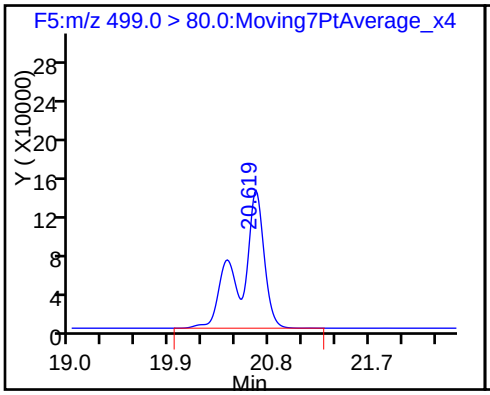
* 5 13C2-PFOA



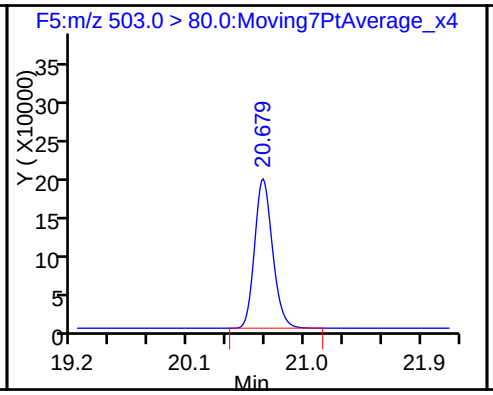
6 Perfluorooctanoic acid



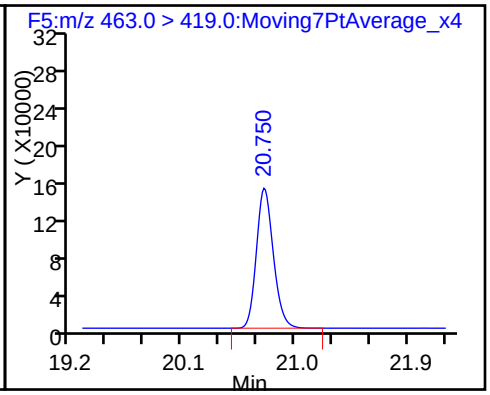
7 Perfluorooctane sulfonic acid



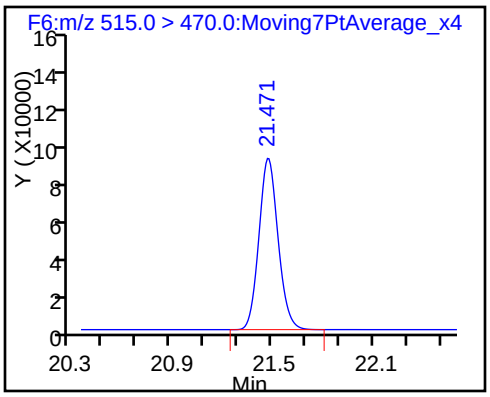
* 8 13C4 PFOS



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Recovery Report

Data File: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\11DEC2016A6A_008.d
Lims ID: LCSD 320-140632/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 11-Dec-2016 14:30:53 ALS Bottle#: 19 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: lcsd 320-140632/3-a
Misc. Info.: Acquity BEH 1.7um, 3X150mm T=35*C
Operator ID: CBW Instrument ID: A6

Method: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b\537__A6.m
Limit Group: LC 537 ICAL
Last Update: 12-Dec-2016 15:39:30 Calib Date: 05-Dec-2016 19:54:00
Integrator: Picker
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A6\20161205-37524.b\05DEC2016A6A_009.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK002

Compound	Amount Added	Amount Recovered	% Rec.
$ 2 13C2 PFHxA	10.0	11.7	116.95
$ 10 13C2 PFDA	10.0	11.1	110.68

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Instrument ID: A6 Start Date: 12/05/2016 17:26

Analysis Batch Number: 140688 End Date: 12/06/2016 02:48

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
STD 320-140688/2 IC		12/05/2016 17:26	1	05DEC2016A6A_004.d	Acquity 2.1(mm)
STD 320-140688/3 IC		12/05/2016 17:55	1	05DEC2016A6A_005.d	Acquity 2.1(mm)
STD 320-140688/4 IC		12/05/2016 18:25	1	05DEC2016A6A_006.d	Acquity 2.1(mm)
STD 320-140688/5 ICISAV		12/05/2016 18:54	1	05DEC2016A6A_007.d	Acquity 2.1(mm)
STD 320-140688/6 IC		12/05/2016 19:24	1	05DEC2016A6A_008.d	Acquity 2.1(mm)
STD 320-140688/7 IC		12/05/2016 19:54	1	05DEC2016A6A_009.d	Acquity 2.1(mm)
ZZZZZ		12/05/2016 20:23	1		Acquity 2.1(mm)
CCV 320-140688/9 CCVL		12/05/2016 20:53	1	05DEC2016A6A_011.d	Acquity 2.1(mm)
ZZZZZ		12/05/2016 21:22	1		Acquity 2.1(mm)
ICV 320-140688/11		12/05/2016 21:52	1	05DEC2016A6A_013.d	Acquity 2.1(mm)
ZZZZZ		12/05/2016 22:22	1		Acquity 2.1(mm)
ZZZZZ		12/05/2016 22:51	1		Acquity 2.1(mm)
ZZZZZ		12/05/2016 23:21	1		Acquity 2.1(mm)
ZZZZZ		12/05/2016 23:50	1		Acquity 2.1(mm)
ZZZZZ		12/06/2016 00:20	1		Acquity 2.1(mm)
ZZZZZ		12/06/2016 00:49	1		Acquity 2.1(mm)
ZZZZZ		12/06/2016 01:19	1		Acquity 2.1(mm)
ZZZZZ		12/06/2016 01:49	1		Acquity 2.1(mm)
ZZZZZ		12/06/2016 02:18	1		Acquity 2.1(mm)
CCV 320-140688/21 CCVIS		12/06/2016 02:48	1		Acquity 2.1(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Instrument ID: A6 Start Date: 12/11/2016 12:02

Analysis Batch Number: 141573 End Date: 12/11/2016 18:57

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-141573/3 CCVL		12/11/2016 12:02	1	11DEC2016A6A_003.d	Acquity 2.1(mm)
CCV 320-141573/4 CCVIS		12/11/2016 12:32	1	11DEC2016A6A_004.d	Acquity 2.1(mm)
ZZZZZ		12/11/2016 13:02	1		Acquity 2.1(mm)
MB 320-140632/1-A		12/11/2016 13:31	1	11DEC2016A6A_006.d	Acquity 2.1(mm)
LCS 320-140632/2-A		12/11/2016 14:01	1	11DEC2016A6A_007.d	Acquity 2.1(mm)
LCSD 320-140632/3-A		12/11/2016 14:30	1	11DEC2016A6A_008.d	Acquity 2.1(mm)
ZZZZZ		12/11/2016 15:00	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 15:30	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 15:59	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 16:29	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 16:58	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 17:28	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 17:58	1		Acquity 2.1(mm)
CCV 320-141573/17 CCVIS		12/11/2016 18:57	1	11DEC2016A6A_017.d	Acquity 2.1(mm)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Instrument ID: A6 Start Date: 12/11/2016 18:57

Analysis Batch Number: 141574 End Date: 12/12/2016 00:52

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-141574/17 CCVIS		12/11/2016 18:57	1	11DEC2016A6A_017.d	Acquity 2.1(mm)
ZZZZZ		12/11/2016 19:26	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 19:56	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 20:26	1		Acquity 2.1(mm)
ZZZZZ		12/11/2016 20:55	1		Acquity 2.1(mm)
320-23970-1		12/11/2016 21:25	1	11DEC2016A6A_022.d	Acquity 2.1(mm)
320-23970-2		12/11/2016 21:54	1	11DEC2016A6A_023.d	Acquity 2.1(mm)
320-23970-3		12/11/2016 22:24	1	11DEC2016A6A_024.d	Acquity 2.1(mm)
320-23970-4		12/11/2016 22:54	1	11DEC2016A6A_025.d	Acquity 2.1(mm)
320-23970-5		12/11/2016 23:23	1	11DEC2016A6A_026.d	Acquity 2.1(mm)
320-23970-6		12/11/2016 23:53	1	11DEC2016A6A_027.d	Acquity 2.1(mm)
CCV 320-141574/29 CCVIS		12/12/2016 00:52	1	11DEC2016A6A_029.d	Acquity 2.1(mm)

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Batch Number: 140632 Batch Start Date: 12/05/16 11:42 Batch Analyst: Sharifi, Nooshin

Batch Method: 537 Batch End Date: 12/06/16 18:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	ReceivedpH	LC537-IS 00025
MB 320-140632/1		537, 537				250 mL	1.0 mL	7 SU	20 uL
LCS 320-140632/2		537, 537				250 mL	1.0 mL	7 SU	20 uL
LCSD 320-140632/3		537, 537				250 mL	1.0 mL	7 SU	20 uL
320-23970-A-1	WI-CV-1RW11-1116	537, 537	T	293.55 g	37.83 g	255.7 mL	1.0 mL	7 SU	20 uL
320-23970-A-2	WI-CV-1FB11-1116	537, 537	T	296.96 g	27.32 g	269.6 mL	1.0 mL	9 SU	20 uL
320-23970-A-3	WI-CV-1RW12-1116	537, 537	T	289.54 g	38.13 g	251.4 mL	1.0 mL	7 SU	20 uL
320-23970-A-4	WI-CV-1FB12-1116	537, 537	T	289.59 g	27.60 g	262 mL	1.0 mL	9 SU	20 uL
320-23970-A-5	WI-CV-3RW12-1116	537, 537	T	289.52 g	27.99 g	261.5 mL	1.0 mL	9 SU	20 uL
320-23970-A-6	WI-CV-3FB12-1116	537, 537	T	288.84 g	27.15 g	261.7 mL	1.0 mL	9 SU	20 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LC537-MSP 00014	LC537-SU 00022	AnalysisComment			
MB 320-140632/1		537, 537			50 uL	Chlorine ND			
LCS 320-140632/2		537, 537		50 uL	50 uL	Chlorine ND			
LCSD 320-140632/3		537, 537		50 uL	50 uL	Chlorine ND			
320-23970-A-1	WI-CV-1RW11-1116	537, 537	T		50 uL	Chlorine ND			
320-23970-A-2	WI-CV-1FB11-1116	537, 537	T		50 uL	Chlorine ND			
320-23970-A-3	WI-CV-1RW12-1116	537, 537	T		50 uL	Chlorine ND			
320-23970-A-4	WI-CV-1FB12-1116	537, 537	T		50 uL	Chlorine ND			
320-23970-A-5	WI-CV-3RW12-1116	537, 537	T		50 uL	Chlorine ND			
320-23970-A-6	WI-CV-3FB12-1116	537, 537	T		50 uL	Chlorine ND			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-23970-1

SDG No.:

Batch Number: 140632 Batch Start Date: 12/05/16 11:42 Batch Analyst: Sharifi, Nooshin

Batch Method: 537 Batch End Date: 12/06/16 18:30

Batch Notes	
Manifold ID	2,4
Methanol ID	789820
Pipette ID	MD05306
Analyst ID - IS Reagent Drop	ERW
Analyst ID - IS Reagent Drop Witness	NSH
Analyst ID - SU Reagent Drop	NSH
Analyst ID - SU Reagent Drop Witness	VPM
Analyst ID - TA Reagent Drop	NSH
Analyst ID - TA Reagent Drop Witness	VPM
SPE Cartridge ID	6332578-03
Trizma ID	SLBN2122V
Reagent Water ID	11/29/16

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

Method 537 CCV/Data Review Checklist

A6

Job No: 23971, 23970 Instrument ID & Date: 12-11-16 ICAL Batch: 140688

Extraction Batch: 140632 Worklist #: 37708 TALS Batch: 141573, 141574, 141758

Review Items	— Level 1 — Yes	No	N/A	Level 2
Initial Calibration				
1. Is ICAL verified and locked in Chrom & TALS?	✓			✓
2. Is ICV properly linked in TALS?	✓			✓
Continuing Calibration				
1. Low-range CCV injected at start of analytical run? CCV injected after every 10 samples and at the end of the analytical run and alternated between Low-range, Mid-range and High-range?	✓			✓
2. If sequence was not after an ICAL was a low and mid range CCV injected at the start of the analytical run?	✓			✓
3. Native compounds and surrogates in control? Low-range within ±50% of true value Mid and High-range within ±30% of true value	✓			✓
4. Internal Standard areas in control? Areas ≥ 50% of average area of the ICal and 70-140% of the most recent CCV.	✓			✓
Client Samples & QC Sample Results				
1. Were preparation and analysis done within holding times?	✓			✓
2. Are Chromatograms reviewed and spectra verified?	✓			✓
3. Are positive results within calibration range?	✓			✓
4. Dilutions due to target cpds? ____ Dilutions due to non-targets? ____			✓	✓
5. All target compounds in MB < 1/3 RL ? (Requires NCM if "no.")	✓			✓
6. Are target constituents in LCS/LCSD within method control limits?	✓			✓
7. Internal Standard areas in control for all samples and QC reported? ±50% from the average area of the ICAL and 70-140% of the most recent CCV	✓			✓
8. Do results (e.g., dilutions/trip blanks) make sense?	✓			✓
9. Are MS/MSD recoveries and RPDs within method control limits?			✓	
10. Are all QC samples properly linked in TALS?	✓			✓
11. All manual integrations appropriate and completely documented?	✓			✓
12. Are nonconformances documented as NCMs?	✓			✓
13. Are all Chrom graphics uploaded?	✓			✓

1st Level Reviewer / Date: VRB 12-13-16 2nd Level Reviewer / Date: 12/13/2016

NCM # and Comments: 72739

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento

Method 537 ICAL Checklist

Instrument ID & Date: A6 12-5-16 Worklist#: 37524

ICAL Batch: 140688, 140689 Calibration ID number: 26888, 26889

Review Items	--- Level 1 ---			Level 2
Initial Calibration	Yes	No	N/A	
1. Mass calibration, as needed, verified by full scan of PFC stock standard. All PFC ions used for quantitation are within 0.3 m/z of true mass?	✓			✓
2. Responses increase with increasing concentration?	✓			✓
3. Fit used (circle): (Average) Linear (1/x²)Linear Quadratic (6 points minimum)				
4. Meets fit criteria? Intercept ≤ ½ RL RSD ≤ 30% for Average $R^2 \geq 0.990$ for Linear $R^2 \geq 0.990$ for Quadratic NOTE: "Force through Zero" must be used and weighted if needed	✓			✓
5. If quadratic fit used the curve does not "bend over".			✓	
6. Feed calibration points into the calculated curve. Are points ≤MRL within ±50% of true value? Are points >MRL within ±30% of true value?	✓			✓
7. Any carryover from the high calibration point must be < 1/3 RL	✓			✓
8. Asymmetry check meets criteria for the first two eluting peaks?.(0.8 - 1.5).	✓			✓
9. Is the asymmetry check scanned and linked in TALS to the calibration point?	✓			✓
10. Is ICV (2nd source) ± 30% of true value?	✓			✓
11. Is ICV (2nd source) internal standards ±50% of average area of the ICAL?	✓			✓
12. ICal locked in Chrom and uploaded to TALS?	✓			✓
13. ICal locked in TALS and scanned?				✓

1st Level Reviewer / Date: JRB 12-6-16 2nd Level Reviewer / Date: RHuh, 12/7/16

NCM # and Comments:

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 11DEC2016A_A6 537 Worklist Number: 37708
Instrument Name: A6 Chrom Method: 537__A6
Data Directory: \\ChromNA\Sacramento\ChromData\A6\20161211-37708.b
QC Batching: Enabled Limit Group Batching: Enabled

QC Batch: 1	LC 537 ICAL Raw Batch: 141573
# 1 RB	# 1 RB
# 2 RB	# 2 RB
# 3 CCV L2	# 3 CCV L2
# 4 CCV L5	# 4 CCV L5
# 5 RB	# 5 RB
# 6 MB 320-140632/1-A	# 6 MB 320-140632/1-A
# 7 LCS 320-140632/2-A	# 7 LCS 320-140632/2-A
# 8 LCSD 320-140632/3-A	# 8 LCSD 320-140632/3-A
# 9 320-23971-A-1-A	# 9 320-23971-A-1-A
#10 320-23971-A-2-A	#10 320-23971-A-2-A
#11 320-23971-A-3-A	#11 320-23971-A-3-A
#12 320-23971-A-4-A	#12 320-23971-A-4-A
#13 320-23971-A-5-A	#13 320-23971-A-5-A
#14 320-23971-B-6-A	#14 320-23971-B-6-A
#15 320-23971-A-7-A	#15 320-23971-A-7-A
#16 RB	#16 RB
#17 CCV L3	#17 CCV L3

QC Batch: 2	LC 537 ICAL Raw Batch: 141574
#17 CCV L3	#17 CCV L3
#18 RB	#18 RB
#19 320-23971-A-8-A	#19 320-23971-A-8-A
#20 320-23971-A-9-A	#20 320-23971-A-9-A
#21 320-23971-A-10-A	#21 320-23971-A-10-A
#22 320-23970-A-1-A	#22 320-23970-A-1-A — sur out,
#23 320-23970-A-2-A	#23 320-23970-A-2-A
#24 320-23970-A-3-A	#24 320-23970-A-3-A
#25 320-23970-A-4-A	#25 320-23970-A-4-A
#26 320-23970-A-5-A	#26 320-23970-A-5-A
#27 320-23970-A-6-A	#27 320-23970-A-6-A
#28 RB	#28 RB
#29 CCV L5	#29 CCV L5

QC Batch: 3	LC 537 ICAL Raw Batch: 141575
#29 CCV L5	#29 CCV L5
#30 RB	#30 RB
#31 MB 320-140697/1-A	#31 MB 320-140697/1-A
#32 LCS 320-140697/2-A	#32 LCS 320-140697/2-A
#33 LCSD 320-140697/3-A	#33 LCSD 320-140697/3-A
#34 320-24005-A-1-A	#34 320-24005-A-1-A
#35 320-24005-A-2-A	#35 320-24005-A-2-A
#36 320-24005-A-3-A	#36 320-24005-A-3-A
#37 320-24005-A-4-A	#37 320-24005-A-4-A
#38 320-24005-A-5-A	#38 320-24005-A-5-A
#39 320-24005-A-6-A	#39 320-24005-A-6-A
#40 320-24005-A-7-A	#40 320-24005-A-7-A
#41 RB	#41 RB
#42 CCV L3	#42 CCV L3

QC Batch: 4	LC 537 ICAL Raw Batch: 141576
#42 CCV L3	#42 CCV L3
#43 RB	#43 RB
#44 320-24005-A-8-A	#44 320-24005-A-8-A
#45 320-24007-A-1-A	#45 320-24007-A-1-A
#46 320-24007-A-2-A	#46 320-24007-A-2-A
#47 RB	#47 RB
#48 CCV L5	#48 CCV L5

QC Batch: 5	LC 537 ICAL Raw Batch: 141577
#48 CCV L5	#48 CCV L5
#49 RB	#49 RB
#50 320-23719-A-4-A	#50 320-23719-A-4-A
#51 320-23719-A-5-A	#51 320-23719-A-5-A
#52 320-23719-A-6-A	#52 320-23719-A-6-A
#53 320-23719-A-7-A	#53 320-23719-A-7-A
#54 320-23719-A-8-A	#54 320-23719-A-8-A
#55 320-23719-A-9-A	#55 320-23719-A-9-A
#56 320-23720-A-1-A	#56 320-23720-A-1-A
#57 320-23720-A-2-A	#57 320-23720-A-2-A
#58 320-23721-A-1-A	#58 320-23721-A-1-A
#59 320-23722-A-1-A	#59 320-23722-A-1-A
#60 RB	#60 RB
#61 CCV L3	#61 CCV L3

QC Batch: 6	LC 537 ICAL Raw Batch: 141758
#61 CCV L3	#61 CCV L3
#79 RB	#79 RB
#62 320-23928-A-15-A	#62 320-23928-A-15-A
#63 320-23928-A-28-A	#63 320-23928-A-28-A
#64 320-23928-A-25-D MS	#64 320-23928-A-25-D MS
#65 320-23928-A-25-D MS	#65 320-23928-A-25-D MS
#66 320-23928-A-27-D MS	#66 320-23928-A-27-D MS
#67 320-23928-A-27-A	#67 320-23928-A-27-A
#68 320-23928-A-27-D MS	#68 320-23928-A-27-D MS
#69 320-23970-A-1-A	#69 320-23970-A-1-A
#70 RB	#70 RB
#71 CCV L5	#71 CCV L5

QC Batch: 7	LC 537 ICAL Raw Batch: 141759
#71 CCV L5	#71 CCV L5
#72 RB	#72 RB
#73 320-24005-A-1-A	#73 320-24005-A-1-A
#74 320-24005-A-3-A	#74 320-24005-A-3-A
#75 320-24005-A-8-A	#75 320-24005-A-8-A
#76 320-24007-A-1-A	#76 320-24007-A-1-A
#77 RB	#77 RB
#78 CCV L3	#78 CCV L3
#80 RB	#80 RB

11 Rushes

Aqueous Extraction Analysis Sheet

AC 12/1/16

(To Accompany Samples to Instruments)

Batch Number: 320-140632

Method Code: 320-537_Prep-320

Analyst: Sharifi, Nooshin

Batch Open: 12/5/2016 11:42:00AM

Batch End: 12/06/16 18:30

Extraction of Perfluorinated Alkyl Acids

Screened AH 12/7/16

No dilutions needed

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB-320-140632/1 N/A	N/A		250 mL 1.0 mL	7			N/A	N/A	N/A	Chlorine ND	MB 320-140632/1-A
2	LCS-320-140632/2 N/A	N/A		250 mL 1.0 mL	7			N/A	N/A	N/A	Chlorine ND	LCS 320-140632/2-A
3	LCSD-320-140632/3 N/A	N/A		250 mL 1.0 mL	7			N/A	N/A	N/A	Chlorine ND	LCSD 320-140632/3-A
4	320-23971-A-1 (537_DOD5)	N/A (320-23971-1)	295.87 g 38.00 g	257.9 mL 1.0 mL	7			12/6/16	5_Days	4	Chlorine ND	320-23971-A-1-A
5	320-23971-A-2 (537_DOD5)	N/A (320-23971-1)	292.77 g 26.56 g	266.2 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND	320-23971-A-2-A
6	320-23971-A-3 (537_DOD5)	N/A (320-23971-1)	296.15 g 27.13 g	269 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND	320-23971-A-3-A
7	320-23971-A-4 (537_DOD5)	N/A (320-23971-1)	290.78 g 27.11 g	263.7 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND	320-23971-A-4-A
8	320-23971-A-5 (537_DOD5)	N/A (320-23971-1)	291.63 g 27.59 g	264 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND	320-23971-A-5-A
9	320-23971-B-6 (537_DOD5)	N/A (320-23971-1)	297.66 g 27.53 g	270.1 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND	320-23971-B-6-A
10	320-23971-A-7 (537_DOD5)	N/A (320-23971-1)	296.13 g 27.21 g	268.9 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND	320-23971-A-7-A

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-140632 Analyst: Sharifi, Nooshin Batch Open: 12/5/2016 11:42:00AM

Method Code: 320-537_Prep-320 Batch End:

11	320-23971-A-8 (537_DOD5)	N/A (320-23971-1)	292.51 g 27.39 g	265.1 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND
12	320-23971-A-9 (537_DOD5)	N/A (320-23971-1)	282.97 g 26.61 g	256.4 mL 1.0 mL	7			12/6/16	5_Days	4	Chlorine ND
13	320-23971-A-10 (537_DOD5)	N/A (320-23971-1)	292.38 g 27.21 g	265.2 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND
14	320-23970-A-1 (537_DOD5)	N/A (320-23970-1)	293.55 g 37.83 g	255.7 mL 1.0 mL	7			12/6/16	5_Days	4	Chlorine ND
15	320-23970-A-2 (537_DOD5)	N/A (320-23970-1)	296.96 g 27.32 g	269.6 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND
16	320-23970-A-3 (537_DOD5)	N/A (320-23970-1)	289.54 g 38.13 g	251.4 mL 1.0 mL	7			12/6/16	5_Days	4	Chlorine ND
17	320-23970-A-4 (537_DOD5)	N/A (320-23970-1)	289.59 g 27.60 g	262 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND
18	320-23970-A-5 (537_DOD5)	N/A (320-23970-1)	289.52 g 27.99 g	261.5 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND
19	320-23970-A-6 (537_DOD5)	N/A (320-23970-1)	288.84 g 27.15 g	261.7 mL 1.0 mL	9			12/6/16	5_Days	4	Chlorine ND

12/13/2016

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-140632

Analyst: Sharifi, Nooshin

Batch Open: 12/5/2016 11:42:00AM

Method Code: 320-537_Prep-320

Batch End:

Batch Notes

Manifold ID	2,4
Trizma ID	SLBN2122V
SPE Cartridge ID	6332578-03
Methanol ID	789820
Reagent Water ID	11/29/16
Pipette ID	MD05306
Analyst ID - TA Reagent Drop	NSH
Analyst ID - TA Reagent Drop Witness	VPM
Analyst ID - SU Reagent Drop	NSH
Analyst ID - SU Reagent Drop Witness	VPM
Analyst ID - IS Reagent Drop	NSH
Analyst ID - IS Reagent Drop Witness	ERW 12/6/16
Batch Comment	

Comments

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-140632
Method Code: 320-537_Prep-320

Analyst: Sharifi, Nooshin

Batch Open: 12/5/2016 11:42:00AM
Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-140632/1	LC537-SU_00022	50 uL	1.0 mL	NSH 12-5-16	VPM 12/05/16
LCS 320-140632/2	LC537-MSP_00014	50 uL	1.0 mL		
LCS 320-140632/2	LC537-SU_00022	50 uL	1.0 mL		
LCSD 320-140632/3	LC537-MSP_00014	50 uL	1.0 mL		
LCSD 320-140632/3	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-1	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-2	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-3	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-4	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-5	LC537-SU_00022	50 uL	1.0 mL		
320-23971-B-6	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-7	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-8	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-9	LC537-SU_00022	50 uL	1.0 mL		
320-23971-A-10	LC537-SU_00022	50 uL	1.0 mL		
320-23970-A-1	LC537-SU_00022	50 uL	1.0 mL		
320-23970-A-2	LC537-SU_00022	50 uL	1.0 mL		
320-23970-A-3	LC537-SU_00022	50 uL	1.0 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-140632

Analyst: Sharifi, Nooshin

Batch Open: 12/5/2016 11:42:00AM

Method Code: 320-537_Prep-320

Batch End:

320-23970-A-4	LC537-SU_00022	50 uL	1.0 mL	NSH 12-5-16	VPM 12/05/16
320-23970-A-5	LC537-SU_00022	50 uL	1.0 mL	↓	↓
320-23970-A-6	LC537-SU_00022	50 uL	1.0 mL	↓	↓

Other Reagents:

Reagent	Amount/Units	Lot#:
LC537-IS_00025	20 uL	
exp. 3/19/17		
0.5 - 1.434 ug/mL		

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 140632 Test: 537-00105 Rush

Earliest Holding Time: 12-14-16

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	✓	✓
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	✓	
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: VPM Date: 12/06/16

2nd Level Reviewer: ERW Date: 12/6/16

Comments: _____

Shipping and Receiving Documents

TestAmerica Sacramento
880 Riverside Parkway

West Sacramento, CA 95605
phone 916.373.5600 fax

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Regulatory Program: ☐DW ☐NPDES ☐RCRA ☐Other:

Client Contact	Project Manager: Katie Tippin	Site Contact: Eric Epple	Date: 12/1/2016	COC No: 3
Tiffany Hill	Tel/Fax: (757) 671-6258	Lab Contact: Laura Turpen	Carrier: FedEx	1 of 1 COCs
Project Chemist	Analysis Turnaround Time			Sampler:
1100 NE Circle Blvd Ste 300 Corvallis, OR 97330	☑CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(541) 768-3109	TAT if different from Below _7-Day_____			Walk-in Client:
(541) 908-3794	☐ 2 weeks			Lab Sampling:
Project Name: CTO-08	☐ 1 week			
Site: OLF Coupeville	☐ 2 days			Job / SDG No.:
P O #: 100067106050 - 679580.09.FI.FS	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	USEPA Method 537 (PFOA, PFOS, and PFBS)	Sample Specific Notes:
WI-CV-1RW11-1116	11/30/16	0951	G	DW	2	N	N	X	
WI-CV-1FB11-1116	11/30/16	0950	G	DW	2	N	N	X	
WI-CV-1RW12-1116	11/30/16	1008	G	DW	2	N	N	X	
WI-CV-1FB12-1116	11/30/16	1007	G	DW	2	N	N	X	
WI-CV-3RW12-1116	11/30/16	0912	G	DW	2	N	N	X	
WI-CV-3FB12-1116	11/30/16	0913	G	DW	2	N	N	X	
								6	

320-23970 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _Trizma_

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑Non-Hazard ☐Flammable ☐Skin Irritant ☐Poison B ☐Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐Return to Client ☑Disposal by Lab ☐Archive for_____ Months

Special Instructions/QC Requirements & Comments:

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: 3.5 Corr'd: 2.6 | Therm ID No.: 12

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Eric Epple	CH2M	12-1-16/1600		TIAWS	12/2/16 0940
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

12/13/2016

Login Sample Receipt Checklist

Client: CH2M Hill Constructors, Inc.

Job Number: 320-23970-1

Login Number: 23970
List Number: 1
Creator: Turpen, Troy

List Source: TestAmerica Sacramento

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	Seal
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	10:34:00	320-23917-1	5	2			Perfluorooctanoic acid (PFOA)	335-67-1		0.44	UG_L	D		PR	TRG					00000000				5.0	0.044	0.11	0.14	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	10:34:00	320-23917-1	5	2			13C2 PFHXA	13C2 PFHXA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	10:34:00	320-23917-1	5	2			13C2 PFDA	13C2 PFDA		103	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	13:32:00	320-23917-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.045	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.045	0.056	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	13:32:00	320-23917-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	13:32:00	320-23917-1	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	13:32:00	320-23917-1	1	1			13C2 PFDA	13C2 PFDA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	11:04:00	320-23917-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	11:04:00	320-23917-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0084	0.022	0.027	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	11:04:00	320-23917-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.099	UG_L	U		PR	TRG					00000000				5.0	0.043	0.099	0.13	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	11:04:00	320-23917-2	1	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:25	12/01/2016			20161202	07:42:00	20161207	11:04:00	320-23917-2	1	1			13C2 PFDA	13C2 PFDA		103	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:05	12/01/2016			20161202	07:42:00	20161207	11:34:00	320-23917-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:05	12/01/2016			20161202	07:42:00	20161207	11:34:00	320-23917-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:05	12/01/2016			20161202	07:42:00	20161207	11:34:00	320-23917-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.098	UG_L	U		PR	TRG					00000000				5.0	0.043	0.098	0.13	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:05	12/01/2016			20161202	07:42:00	20161207	11:34:00	320-23917-3	1	1			13C2 PFHXA	13C2 PFHXA		96	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:05	12/01/2016			20161202	07:42:00	20161207	11:34:00	320-23917-3	1	1			13C2 PFDA	13C2 PFDA		89	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:04	12/01/2016			20161202	07:42:00	20161207	12:03:00	320-23917-4	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:04	12/01/2016			20161202	07:42:00	20161207	12:03:00	320-23917-4	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0084	0.022	0.027	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:04	12/01/2016			20161202	07:42:00	20161207	12:03:00	320-23917-4	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.099	UG_L	U		PR	TRG					00000000				5.0	0.043	0.099	0.13	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:04	12/01/2016			20161202	07:42:00	20161207	12:03:00	320-23917-4	1	1			13C2 PFHXA	13C2 PFHXA		98	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:04	12/01/2016			20161202	07:42:00	20161207	12:03:00	320-23917-4	1	1			13C2 PFDA	13C2 PFDA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:09	12/01/2016			20161202	07:42:00	20161207	12:33:00	320-23917-5	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.045	UG_L	U		PR	TRG					00000000				5.0	0.014	0.045	0.056	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:09	12/01/2016			20161202	07:42:00	20161207	12:33:00	320-23917-5	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0088	0.022	0.028	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:09	12/01/2016			20161202	07:42:00	20161207	12:33:00	320-23917-5	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:09	12/01/2016			20161202	07:42:00	20161207	12:33:00	320-23917-5	1	1			13C2 PFHXA	13C2 PFHXA		120	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:09	12/01/2016			20161202	07:42:00	20161207	12:33:00	320-23917-5	1	1			13C2 PFDA	13C2 PFDA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:08	12/01/2016			20161202	07:42:00	20161207	13:02:00	320-23917-6	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:08	12/01/2016			20161202	07:42:00	20161207	13:02:00	320-23917-6	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:08	12/01/2016			20161202	07:42:00	20161207	13:02:00	320-23917-6	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.098	UG_L	U		PR	TRG					00000000				5.0	0.042	0.098	0.12	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:08	12/01/2016			20161202	07:42:00	20161207	13:02:00	320-23917-6	1	1			13C2 PFHXA	13C2 PFHXA		95	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:08	12/01/2016			20161202	07:42:00	20161207	13:02:00	320-23917-6	1	1			13C2 PFDA	13C2 PFDA		99	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:10	12/01/2016			20161202	07:42:00	20161207	15:30:00	320-23917-7	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:10	12/01/2016			20161202	07:42:00	20161207	15:30:00	320-23917-7	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0086	0.022	0.027	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:10	12/01/2016			20161202	07:42:00	20161207	15:30:00	320-23917-7	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.043	0.10	0.13	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:10	12/01/2016			20161202	07:42:00	20161207	15:30:00	320-23917-7	1	1			13C2 PFHXA	13C2 PFHXA		116	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:10	12/01/2016			20161202	07:42:00	20161207	15:30:00	320-23917-7	1	1			13C2 PFDA	13C2 PFDA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:09	12/01/2016			20161202	07:42:00	20161207	16:00:00	320-23917-8	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:09	12/01/2016			20161202	07:42:00	20161207	16:00:00	320-23917-8	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U		PR	TRG					00000000				5.0	0.0083	0.021	0.026	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:09	12/01/2016			20161202	07:42:00	20161207	16:00:00	320-23917-8	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:09	12/01/2016			20161202	07:42:00	20161207	16:00:00	320-23917-8	1	1			13C2 PFHXA	13C2 PFHXA		115	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:09	12/01/2016			20161202	07:42:00	20161207	16:00:00	320-23917-8	1	1			13C2 PFDA	13C2 PFDA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:17	12/01/2016			20161202	07:42:00	20161207	16:30:00	320-23917-9	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:17	12/01/2016			20161202	07:42:00	20161207	16:30:00	320-23917-9	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:17	12/01/2016			20161202	07:42:00	20161207	16:30:00	320-23917-9	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:17	12/01/2016			20161202	07:42:00	20161207	16:30:00	320-23917-9	1	1			13C2 PFHXA	13C2 PFHXA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:17	12/01/2016			20161202	07:42:00	20161207	16:30:00	320-23917-9	1	1			13C2 PFDA	13C2 PFDA		101	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:16	12/01/2016			20161202	07:42:00	20161207	16:59:00	320-23917-10	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:16	12/01/2016			20161202	07:42:00	20161207	16:59:00	320-23917-10	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0083	0.021	0.027	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:16	12/01/2016			20161202	07:42:00	20161207	16:59:00	320-23917-10	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:16	12/01/2016			20161202	07:42:00	20161207	16:59:00	320-23917-10	1	1			13C2 PFHXA	13C2 PFHXA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:16	12/01/2016			20161202	07:42:00	20161207	16:59:00	320-23917-10	1	1			13C2 PFDA	13C2 PFDA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	17:29:00	320-23917-11	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.047	UG_L	U		PR	TRG					00000000				5.0	0.015	0.047	0.059	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	17:29:00	320-23917-11	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U M		PR	TRG					00000000				5.0	0.0093	0.024	0.030	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	17:29:00	320-23917-11	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.047	0.11	0.14	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	17:29:00	320-23917-11	1	1			13C2 PFHXA	13C2 PFHXA		122	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	17:29:00	320-23917-11	1	1			13C2 PFDA	13C2 PFDA		119	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:16	12/01/2016			20161202	07:42:00	20161207	17:58:00	320-23917-12	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:16	12/01/2016			20161202	07:42:00	20161207	17:58:00	320-23917-12	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0085	0.022	0.027	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:16	12/01/2016			20161202	07:42:00	20161207	17:58:00	320-23917-12	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.043	0.10	0.13	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:16	12/01/2016			20161202	07:42:00	20161207	17:58:00	320-23917-12	1	1			13C2 PFHXA	13C2 PFHXA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:16	12/01/2016			20161202	07:42:00	20161207	17:58:00	320-23917-12	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:04	12/01/2016			20161202	07:42:00	20161207	19:57:00	320-23917-13	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.046	0.058	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:04	12/01/2016			20161202	07:42:00	20161207	19:57:00	320-23917-13	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.15	UG_L			PR	TRG					00000000				5.0	0.0091	0.023	0.029	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:04	12/01/2016			20161202	07:42:00	20161207	19:57:00	320-23917-13	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.13	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:04	12/01/2016			20161202	07:42:00	20161207	19:57:00	320-23917-13	1	1			13C2 PFHXA	13C2 PFHXA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:04	12/01/2016			20161202	07:42:00	20161207	19:57:00	320-23917-13	1	1			13C2 PFDA	13C2 PFDA		113	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:05	12/01/2016			20161202	07:42:00	20161207	18:58:00	320-23917-14	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:05	12/01/2016			20161202	07:42:00	20161207	18:58:00	320-23917-14	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:05	12/01/2016			20161202	07:42:00	20161207	18:58:00	320-23917-14	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.098	UG_L	U		PR	TRG					00000000				5.0	0.043	0.098	0.13	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:05	12/01/2016			20161202	07:42:00	20161207	18:58:00	320-23917-14	1	1			13C2 PFHXA	13C2 PFHXA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:05	12/01/2016			20161202	07:42:00	20161207	18:58:00	320-23917-14	1	1			13C2 PFDA	13C2 PFDA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:05	12/01/2016			20161202	07:42:00	20161207	19:27:00	320-23917-15	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.049	UG_L	U		PR	TRG					00000000				5.0	0.016	0.049	0.061	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:05	12/01/2016			20161202	07:42:00	20161207	19:27:00	320-23917-15	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U M		PR	TRG					00000000				5.0	0.0096	0.024	0.031	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:05	12/01/2016			20161202	07:42:00	20161207	19:27:00	320-23917-15	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:05	12/01/2016			20161202	07:42:00	20161207	19:27:00	320-23917-15	1	1			13C2 PFHXA	13C2 PFHXA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:05	12/01/2016			20161202	07:42:00	20161207	19:27:00	320-23917-15	1	1			13C2 PFDA	13C2 PFDA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140945		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:06	12/01/2016			20161202	07:42:00	20161207	21:55:00	320-23917-16	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.053	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:06	12/01/2016			20161202	07:42:00	20161207	21:55:00	320-23917-16	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:06	12/01/2016			20161202	07:42:00	20161207	21:55:00	320-23917-16	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.098	UG_L	U		PR	TRG					00000000				5.0	0.042	0.098	0.12	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:06	12/01/2016			20161202	07:42:00	20161207	21:55:00	320-23917-16	1	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:06	12/01/2016			20161202	07:42:00	20161207	21:55:00	320-23917-16	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:59	12/01/2016			20161202	07:42:00	20161207	22:25:00	320-23917-17	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.022	UG_L	J		PR	TRG					00000000				5.0	0.015	0.045	0.056	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:59	12/01/2016			20161202	07:42:00	20161207	22:25:00	320-23917-17	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.015	UG_L	J M		PR	TRG					00000000				5.0	0.0088	0.022	0.028	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:59	12/01/2016			20161202	07:42:00	20161207	22:25:00	320-23917-17	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.045	0.10	0.13	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:59	12/01/2016			20161202	07:42:00	20161207	22:25:00	320-23917-17	1	1			13C2 PFHXA	13C2 PFHXA		101	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:59	12/01/2016			20161202	07:42:00	20161207	22:25:00	320-23917-17	1	1			13C2 PFDA	13C2 PFDA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:00	12/01/2016			20161202	07:42:00	20161207	22:54:00	320-23917-18	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U M		PR	TRG					00000000				5.0	0.013	0.042	0.052	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:00	12/01/2016			20161202	07:42:00	20161207	22:54:00	320-23917-18	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0082	0.021	0.026	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:00	12/01/2016			20161202	07:42:00	20161207	22:54:00	320-23917-18	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.095	UG_L	U		PR	TRG					00000000				5.0	0.041	0.095	0.12	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:00	12/01/2016			20161202	07:42:00	20161207	22:54:00	320-23917-18	1	1			13C2 PFHXA	13C2 PFHXA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 17:00	12/01/2016			20161202	07:42:00	20161207	22:54:00	320-23917-18	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:14	12/01/2016			20161202	07:42:00	20161207	23:24:00	320-23917-19	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:14	12/01/2016			20161202	07:42:00	20161207	23:24:00	320-23917-19	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0085	0.022	0.027	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:14	12/01/2016			20161202	07:42:00	20161207	23:24:00	320-23917-19	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.099	UG_L	U		PR	TRG					00000000				5.0	0.043	0.099	0.13	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:14	12/01/2016			20161202	07:42:00	20161207	23:24:00	320-23917-19	1	1			13C2 PFHXA	13C2 PFHXA		118	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:14	12/01/2016			20161202	07:42:00	20161207	23:24:00	320-23917-19	1	1			13C2 PFDA	13C2 PFDA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	23:54:00	320-23917-20	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	23:54:00	320-23917-20	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U		PR	TRG					00000000				5.0	0.0083	0.021	0.026	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	23:54:00	320-23917-20	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	23:54:00	320-23917-20	1	1			13C2 PFHXA	13C2 PFHXA		0.1	PCT_REC	M Q		PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB01-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 13:15	12/01/2016			20161202	07:42:00	20161207	23:54:00	320-23917-20	1	1			13C2 PFDA	13C2 PFDA		0.3	PCT_REC	M Q		PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:14	12/01/2016			20161202	15:27:00	20161208	01:52:00	320-23917-21	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.047	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.047	0.059	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:14	12/01/2016			20161202	15:27:00	20161208	01:52:00	320-23917-21	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U M		PR	TRG					00000000				5.0	0.0092	0.023	0.029	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:14	12/01/2016			20161202	15:27:00	20161208	01:52:00	320-23917-21	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.14	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:14	12/01/2016			20161202	15:27:00	20161208	01:52:00	320-23917-21	1	1			13C2 PFHXA	13C2 PFHXA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:14	12/01/2016			20161202	15:27:00	20161208	01:52:00	320-23917-21	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:15	12/01/2016			20161202	15:27:00	20161208	02:22:00	320-23917-22	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.047	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.047	0.059	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:15	12/01/2016			20161202	15:27:00	20161208	02:22:00	320-23917-22	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U M		PR	TRG					00000000				5.0	0.0092	0.023	0.029	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:15	12/01/2016			20161202	15:27:00	20161208	02:22:00	320-23917-22	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.14	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:15	12/01/2016			20161202	15:27:00	20161208	02:22:00	320-23917-22	1	1			13C2 PFHXA	13C2 PFHXA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB02-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 14:15	12/01/2016			20161202	15:27:00	20161208	02:22:00	320-23917-22	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:11	12/01/2016			20161202	15:27:00	20161208	04:20:00	320-23917-23	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.048	0.060	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:11	12/01/2016			20161202	15:27:00	20161208	04:20:00	320-23917-23	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:11	12/01/2016			20161202	15:27:00	20161208	04:20:00	320-23917-23	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:11	12/01/2016			20161202	15:27:00	20161208	04:20:00	320-23917-23	1	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:11	12/01/2016			20161202	15:27:00	20161208	04:20:00	320-23917-23	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:12	12/01/2016			20161202	15:27:00	20161208	04:50:00	320-23917-24	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U		PR	TRG					00000000				5.0	0.015	0.046	0.058	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:12	12/01/2016			20161202	15:27:00	20161208	04:50:00	320-23917-24	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U		PR	TRG					00000000				5.0	0.0091	0.023	0.029	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:12	12/01/2016			20161202	15:27:00	20161208	04:50:00	320-23917-24	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.13	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:12	12/01/2016			20161202	15:27:00	20161208	04:50:00	320-23917-24	1	1			13C2 PFHXA	13C2 PFHXA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB03-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 15:12	12/01/2016			20161202	15:27:00	20161208	04:50:00	320-23917-24	1	1			13C2 PFDA	13C2 PFDA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:17	12/01/2016			20161202	15:27:00	20161208	05:19:00	320-23917-25	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U		PR	TRG					00000000				5.0	0.015	0.046	0.058	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:17	12/01/2016			20161202	15:27:00	20161208	05:19:00	320-23917-25	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U M		PR	TRG					00000000				5.0	0.0091	0.023	0.029	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:17	12/01/2016			20161202	15:27:00	20161208	05:19:00	320-23917-25	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.14	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:17	12/01/2016			20161202	15:27:00	20161208	05:19:00	320-23917-25	1	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:17	12/01/2016			20161202	15:27:00	20161208	05:19:00	320-23917-25	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:18	12/01/2016			20161202	15:27:00	20161208	05:49:00	320-23917-26	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.046	0.057	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:18	12/01/2016			20161202	15:27:00	20161208	05:49:00	320-23917-26	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U M		PR	TRG					00000000				5.0	0.0090	0.023	0.029	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:18	12/01/2016			20161202	15:27:00	20161208	05:49:00	320-23917-26	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.13	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:18	12/01/2016			20161202	15:27:00	20161208	05:49:00	320-23917-26	1	1			13C2 PFHXA	13C2 PFHXA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB04-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 16:18	12/01/2016			20161202	15:27:00	20161208	05:49:00	320-23917-26	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:08	12/01/2016			20161202	15:27:00	20161208	06:19:00	320-23917-27	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U		PR	TRG					00000000				5.0	0.015	0.048	0.060	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:08	12/01/2016			20161202	15:27:00	20161208	06:19:00	320-23917-27	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U M		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:08	12/01/2016			20161202	15:27:00	20161208	06:19:00	320-23917-27	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.047	0.11	0.14	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:08	12/01/2016			20161202	15:27:00	20161208	06:19:00	320-23917-27	1	1			13C2 PFHXA	13C2 PFHXA		130	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:08	12/01/2016			20161202	15:27:00	20161208	06:19:00	320-23917-27	1	1			13C2 PFDA	13C2 PFDA		124	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:09	12/01/2016			20161202	15:27:00	20161208	06:48:00	320-23917-28	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.046	0.057	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:09	12/01/2016			20161202	15:27:00	20161208	06:48:00	320-23917-28	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U M		PR	TRG					00000000				5.0	0.0090	0.023	0.029	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:09	12/01/2016			20161202	15:27:00	20161208	06:48:00	320-23917-28	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.13	320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:09	12/01/2016			20161202	15:27:00	20161208	06:48:00	320-23917-28	1	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/28/2016 18:09	12/01/2016			20161202	15:27:00	20161208	06:48:00	320-23917-28	1	1			13C2 PFDA	13C2 PFDA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140947		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140280/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:35:00	LCS 320-140280/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		105	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.016	0.048	0.060	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140280/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:35:00	LCS 320-140280/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		103	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140280/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:35:00	LCS 320-140280/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		86	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140280/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:35:00	LCS 320-140280/2-A	1	1			13C2 PFHXA	13C2 PFHXA		113	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140280/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:35:00	LCS 320-140280/2-A	1	1			13C2 PFDA	13C2 PFDA		101	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140280/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	10:05:00	LCSD 320-140280/3-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		107	PCT_REC	E		PR	TRG		LSP	130	70	00000000				5.0	0.016	0.048	0.060	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140280/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	10:05:00	LCSD 320-140280/3-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		103	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140280/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	10:05:00	LCSD 320-140280/3-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		96	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140280/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	10:05:00	LCSD 320-140280/3-A	1	1			13C2 PFHXA	13C2 PFHXA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140280/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	10:05:00	LCSD 320-140280/3-A	1	1			13C2 PFDA	13C2 PFDA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140400/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	00:53:00	LLCS 320-140400/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		79	PCT_REC	J		PR	TRG		LSA	150	50	00000000				5.0	0.016	0.048	0.060	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140400/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	00:53:00	LLCS 320-140400/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		90	PCT_REC	J		PR	TRG		LSA	150	50	00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140400/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	00:53:00	LLCS 320-140400/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		90	PCT_REC	J		PR	TRG		LSA	150	50	00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140400/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	00:53:00	LLCS 320-140400/2-A	1	1			13C2 PFHXA	13C2 PFHXA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140400/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	00:53:00	LLCS 320-140400/2-A	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCSD 320-140400/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	01:23:00	LLCSD 320-140400/3-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		79	PCT_REC	J		PR	TRG		LSP	150	50	00000000				5.0	0.016	0.048	0.060	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCSD 320-140400/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	01:23:00	LLCSD 320-140400/3-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		93	PCT_REC	J		PR	TRG		LSP	150	50	00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCSD 320-140400/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	01:23:00	LLCSD 320-140400/3-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		89	PCT_REC	J		PR	TRG		LSP	150	50	00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCSD 320-140400/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	01:23:00	LLCSD 320-140400/3-A	1	1			13C2 PFHXA	13C2 PFHXA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCSD 320-140400/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	01:23:00	LLCSD 320-140400/3-A	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140946		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140280/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:06:00	MB 320-140280/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U		PR	TRG					00000000				5.0	0.016	0.048	0.060	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140280/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:06:00	MB 320-140280/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U M		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140280/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:06:00	MB 320-140280/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140280/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:06:00	MB 320-140280/1-A	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140280/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 07:42	12/02/2016			20161202	07:42:00	20161207	09:06:00	MB 320-140280/1-A	1	1			13C2 PFDA	13C2 PFDA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140943		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140400/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	11:41:00	MB 320-140400/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U M		PR	TRG					00000000				5.0	0.016	0.048	0.060	320-23917-1	320-140948		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140400/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	11:41:00	MB 320-140400/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U M		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23917-1	320-140948		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140400/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	11:41:00	MB 320-140400/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-23917-1	320-140948		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140400/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	11:41:00	MB 320-140400/1-A	1	1			13C2 PFHXA	13C2 PFHXA		123	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140948		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140400/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 15:27	12/02/2016			20161202	15:27:00	20161208	11:41:00	MB 320-140400/1-A	1	1			13C2 PFDA	13C2 PFDA		120	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23917-1	320-140948		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:07	12/01/2016			20161202	20:12:00	20161209	23:56:00	320-23928-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.045	UG_L	U		PR	TRG					00000000				5.0	0.014	0.045	0.056	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:07	12/01/2016			20161202	20:12:00	20161209	23:56:00	320-23928-1	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0088	0.022	0.028	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:07	12/01/2016			20161202	20:12:00	20161209	23:56:00	320-23928-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:07	12/01/2016			20161202	20:12:00	20161209	23:56:00	320-23928-1	1	1			13C2 PFHXA	13C2 PFHXA		125	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:07	12/01/2016			20161202	20:12:00	20161209	23:56:00	320-23928-1	1	1			13C2 PFDA	13C2 PFDA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:06	12/01/2016			20161202	20:12:00	20161210	00:25:00	320-23928-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:06	12/01/2016			20161202	20:12:00	20161210	00:25:00	320-23928-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:06	12/01/2016			20161202	20:12:00	20161210	00:25:00	320-23928-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:06	12/01/2016			20161202	20:12:00	20161210	00:25:00	320-23928-2	1	1			13C2 PFHXA	13C2 PFHXA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:06	12/01/2016			20161202	20:12:00	20161210	00:25:00	320-23928-2	1	1			13C2 PFDA	13C2 PFDA		104	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	00:55:00	320-23928-3	4	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.17	UG_L	U M		PR	TRG					00000000				5.0	0.057	0.17	0.22	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	00:55:00	320-23928-3	4	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.26	UG_L	D		PR	TRG					00000000				5.0	0.034	0.087	0.11	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	00:55:00	320-23928-3	4	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.40	UG_L	U		PR	TRG					00000000				5.0	0.17	0.40	0.51	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	00:55:00	320-23928-3	4	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	00:55:00	320-23928-3	4	1			13C2 PFDA	13C2 PFDA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	04:52:00	320-23928-3	1	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	04:52:00	320-23928-3	1	2			Perfluorooctanoic acid (PFOA)	335-67-1		0.26	UG_L	E		PR	TRG					00000000				5.0	0.0086	0.022	0.027	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	04:52:00	320-23928-3	1	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.043	0.10	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	04:52:00	320-23928-3	1	2			13C2 PFHXA	13C2 PFHXA		119	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161202	20:12:00	20161210	04:52:00	320-23928-3	1	2			13C2 PFDA	13C2 PFDA		118	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:04	12/01/2016			20161202	20:12:00	20161210	01:25:00	320-23928-4	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:04	12/01/2016			20161202	20:12:00	20161210	01:25:00	320-23928-4	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:04	12/01/2016			20161202	20:12:00	20161210	01:25:00	320-23928-4	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.098	UG_L	U		PR	TRG					00000000				5.0	0.042	0.098	0.12	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:04	12/01/2016			20161202	20:12:00	20161210	01:25:00	320-23928-4	1	1			13C2 PFHXA	13C2 PFHXA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:04	12/01/2016			20161202	20:12:00	20161210	01:25:00	320-23928-4	1	1			13C2 PFDA	13C2 PFDA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:12	12/01/2016			20161202	20:12:00	20161210	01:54:00	320-23928-5	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:12	12/01/2016			20161202	20:12:00	20161210	01:54:00	320-23928-5	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0085	0.022	0.027	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:12	12/01/2016			20161202	20:12:00	20161210	01:54:00	320-23928-5	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.099	UG_L	U		PR	TRG					00000000				5.0	0.043	0.099	0.13	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:12	12/01/2016			20161202	20:12:00	20161210	01:54:00	320-23928-5	1	1			13C2 PFHXA	13C2 PFHXA		115	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:12	12/01/2016			20161202	20:12:00	20161210	01:54:00	320-23928-5	1	1			13C2 PFDA	13C2 PFDA		120	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:11	12/01/2016			20161202	20:12:00	20161210	02:24:00	320-23928-6	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:11	12/01/2016			20161202	20:12:00	20161210	02:24:00	320-23928-6	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:11	12/01/2016			20161202	20:12:00	20161210	02:24:00	320-23928-6	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:11	12/01/2016			20161202	20:12:00	20161210	02:24:00	320-23928-6	1	1			13C2 PFHXA	13C2 PFHXA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 12:11	12/01/2016			20161202	20:12:00	20161210	02:24:00	320-23928-6	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141292		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:17	12/01/2016			20161202	20:12:00	20161210	04:22:00	320-23928-7	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:17	12/01/2016			20161202	20:12:00	20161210	04:22:00	320-23928-7	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0086	0.022	0.027	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:17	12/01/2016			20161202	20:12:00	20161210	04:22:00	320-23928-7	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.043	0.10	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:17	12/01/2016			20161202	20:12:00	20161210	04:22:00	320-23928-7	1	1			13C2 PFHXA	13C2 PFHXA		126	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:17	12/01/2016			20161202	20:12:00	20161210	04:22:00	320-23928-7	1	1			13C2 PFDA	13C2 PFDA		116	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:16	12/01/2016			20161202	20:12:00	20161210	05:21:00	320-23928-8	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:16	12/01/2016			20161202	20:12:00	20161210	05:21:00	320-23928-8	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0085	0.022	0.027	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:16	12/01/2016			20161202	20:12:00	20161210	05:21:00	320-23928-8	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.099	UG_L	U		PR	TRG					00000000				5.0	0.043	0.099	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:16	12/01/2016			20161202	20:12:00	20161210	05:21:00	320-23928-8	1	1			13C2 PFHXA	13C2 PFHXA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:16	12/01/2016			20161202	20:12:00	20161210	05:21:00	320-23928-8	1	1			13C2 PFDA	13C2 PFDA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	05:51:00	320-23928-9	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	05:51:00	320-23928-9	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0085	0.022	0.027	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	05:51:00	320-23928-9	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.099	UG_L	U		PR	TRG					00000000				5.0	0.043	0.099	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	05:51:00	320-23928-9	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	05:51:00	320-23928-9	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:21:00	320-23928-9	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		83	PCT_REC			PR	TRG		MSA	130	70	00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:21:00	320-23928-9	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		81	PCT_REC			PR	TRG		MSA	130	70	00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:21:00	320-23928-9	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		80	PCT_REC			PR	TRG		MSA	130	70	00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:21:00	320-23928-9	1	1			13C2 PFHXA	13C2 PFHXA		119	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:21:00	320-23928-9	1	1			13C2 PFDA	13C2 PFDA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:50:00	320-23928-9	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		83	PCT_REC			PR	TRG		MSP	130	70	00000000				5.0	0.014	0.045	0.056	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:50:00	320-23928-9	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		85	PCT_REC			PR	TRG		MSP	130	70	00000000				5.0	0.0088	0.022	0.028	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:50:00	320-23928-9	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		83	PCT_REC			PR	TRG		MSP	130	70	00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:50:00	320-23928-9	1	1			13C2 PFHXA	13C2 PFHXA		120	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:29	12/01/2016			20161202	20:12:00	20161210	06:50:00	320-23928-9	1	1			13C2 PFDA	13C2 PFDA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:28	12/01/2016			20161202	20:12:00	20161210	07:20:00	320-23928-10	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.044	0.056	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:28	12/01/2016			20161202	20:12:00	20161210	07:20:00	320-23928-10	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:28	12/01/2016			20161202	20:12:00	20161210	07:20:00	320-23928-10	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:28	12/01/2016			20161202	20:12:00	20161210	07:20:00	320-23928-10	1	1			13C2 PFHXA	13C2 PFHXA		127	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:28	12/01/2016			20161202	20:12:00	20161210	07:20:00	320-23928-10	1	1			13C2 PFDA	13C2 PFDA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:29	12/01/2016			20161202	20:12:00	20161210	07:49:00	320-23928-11	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.047	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.047	0.059	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:29	12/01/2016			20161202	20:12:00	20161210	07:49:00	320-23928-11	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U		PR	TRG					00000000				5.0	0.0093	0.024	0.030	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:29	12/01/2016			20161202	20:12:00	20161210	07:49:00	320-23928-11	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.047	0.11	0.14	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:29	12/01/2016			20161202	20:12:00	20161210	07:49:00	320-23928-11	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:29	12/01/2016			20161202	20:12:00	20161210	07:49:00	320-23928-11	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:30	12/01/2016			20161202	20:12:00	20161210	08:19:00	320-23928-12	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:30	12/01/2016			20161202	20:12:00	20161210	08:19:00	320-23928-12	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0086	0.022	0.027	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:30	12/01/2016			20161202	20:12:00	20161210	08:19:00	320-23928-12	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:30	12/01/2016			20161202	20:12:00	20161210	08:19:00	320-23928-12	1	1			13C2 PFHXA	13C2 PFHXA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB05-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:30	12/01/2016			20161202	20:12:00	20161210	08:19:00	320-23928-12	1	1			13C2 PFDA	13C2 PFDA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:17:00	320-23928-13	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:17:00	320-23928-13	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.22	UG_L	E		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:17:00	320-23928-13	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:17:00	320-23928-13	1	1			13C2 PFHXA	13C2 PFHXA		105	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:17:00	320-23928-13	1	1			13C2 PFDA	13C2 PFDA		115	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:46:00	320-23928-13	2	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.089	UG_L	U		PR	TRG					00000000				5.0	0.029	0.089	0.11	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:46:00	320-23928-13	2	2			Perfluorooctanoic acid (PFOA)	335-67-1		0.23	UG_L	D		PR	TRG					00000000				5.0	0.017	0.044	0.055	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:46:00	320-23928-13	2	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.20	UG_L	U		PR	TRG					00000000				5.0	0.088	0.20	0.26	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:46:00	320-23928-13	2	2			13C2 PFHXA	13C2 PFHXA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 10:08	12/01/2016			20161203	12:19:00	20161210	11:46:00	320-23928-13	2	2			13C2 PFDA	13C2 PFDA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:09	12/01/2016			20161203	12:19:00	20161210	12:16:00	320-23928-14	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U		PR	TRG					00000000				5.0	0.015	0.046	0.057	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:09	12/01/2016			20161203	12:19:00	20161210	12:16:00	320-23928-14	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U		PR	TRG					00000000				5.0	0.0089	0.023	0.028	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:09	12/01/2016			20161203	12:19:00	20161210	12:16:00	320-23928-14	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.045	0.10	0.13	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:09	12/01/2016			20161203	12:19:00	20161210	12:16:00	320-23928-14	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:09	12/01/2016			20161203	12:19:00	20161210	12:16:00	320-23928-14	1	1			13C2 PFDA	13C2 PFDA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:59	12/01/2016			20161203	12:19:00	20161210	12:45:00	320-23928-15	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.045	UG_L	U		PR	TRG					00000000				5.0	0.014	0.045	0.056	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:59	12/01/2016			20161203	12:19:00	20161210	12:45:00	320-23928-15	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:59	12/01/2016			20161203	12:19:00	20161210	12:45:00	320-23928-15	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:59	12/01/2016			20161203	12:19:00	20161210	12:45:00	320-23928-15	1	1			13C2 PFHXA	13C2 PFHXA		115	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:59	12/01/2016			20161203	12:19:00	20161210	12:45:00	320-23928-15	1	1			13C2 PFDA	13C2 PFDA		143	PCT_REC	Q		PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:00	12/01/2016			20161203	12:19:00	20161210	13:15:00	320-23928-16	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:00	12/01/2016			20161203	12:19:00	20161210	13:15:00	320-23928-16	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0085	0.022	0.027	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:00	12/01/2016			20161203	12:19:00	20161210	13:15:00	320-23928-16	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.099	UG_L	U		PR	TRG					00000000				5.0	0.043	0.099	0.13	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:00	12/01/2016			20161203	12:19:00	20161210	13:15:00	320-23928-16	1	1			13C2 PFHXA	13C2 PFHXA		119	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-2FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:00	12/01/2016			20161203	12:19:00	20161210	13:15:00	320-23928-16	1	1			13C2 PFDA	13C2 PFDA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:15	12/01/2016			20161203	12:19:00	20161210	13:45:00	320-23928-17	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:15	12/01/2016			20161203	12:19:00	20161210	13:45:00	320-23928-17	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0083	0.021	0.026	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:15	12/01/2016			20161203	12:19:00	20161210	13:45:00	320-23928-17	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:15	12/01/2016			20161203	12:19:00	20161210	13:45:00	320-23928-17	1	1			13C2 PFHXA	13C2 PFHXA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:15	12/01/2016			20161203	12:19:00	20161210	13:45:00	320-23928-17	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:16	12/01/2016			20161203	12:19:00	20161210	14:14:00	320-23928-18	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:16	12/01/2016			20161203	12:19:00	20161210	14:14:00	320-23928-18	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0083	0.021	0.026	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:16	12/01/2016			20161203	12:19:00	20161210	14:14:00	320-23928-18	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:16	12/01/2016			20161203	12:19:00	20161210	14:14:00	320-23928-18	1	1			13C2 PFHXA	13C2 PFHXA		103	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB06-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 09:16	12/01/2016			20161203	12:19:00	20161210	14:14:00	320-23928-18	1	1			13C2 PFDA	13C2 PFDA		104	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161203	12:19:00	20161210	14:44:00	320-23928-19	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161203	12:19:00	20161210	14:44:00	320-23928-19	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161203	12:19:00	20161210	14:44:00	320-23928-19	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161203	12:19:00	20161210	14:44:00	320-23928-19	1	1			13C2 PFHXA	13C2 PFHXA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:05	12/01/2016			20161203	12:19:00	20161210	14:44:00	320-23928-19	1	1			13C2 PFDA	13C2 PFDA		102	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:06	12/01/2016			20161203	12:19:00	20161210	15:13:00	320-23928-20	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:06	12/01/2016			20161203	12:19:00	20161210	15:13:00	320-23928-20	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0083	0.021	0.026	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:06	12/01/2016			20161203	12:19:00	20161210	15:13:00	320-23928-20	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:06	12/01/2016			20161203	12:19:00	20161210	15:13:00	320-23928-20	1	1			13C2 PFHXA	13C2 PFHXA		104	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB07-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 10:06	12/01/2016			20161203	12:19:00	20161210	15:13:00	320-23928-20	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:11	12/01/2016			20161203	12:19:00	20161210	17:12:00	320-23928-21	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:11	12/01/2016			20161203	12:19:00	20161210	17:12:00	320-23928-21	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U M		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:11	12/01/2016			20161203	12:19:00	20161210	17:12:00	320-23928-21	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:11	12/01/2016			20161203	12:19:00	20161210	17:12:00	320-23928-21	1	1			13C2 PFHXA	13C2 PFHXA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:11	12/01/2016			20161203	12:19:00	20161210	17:12:00	320-23928-21	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:12	12/01/2016			20161203	12:19:00	20161210	17:41:00	320-23928-22	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:12	12/01/2016			20161203	12:19:00	20161210	17:41:00	320-23928-22	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U		PR	TRG					00000000				5.0	0.0082	0.021	0.026	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:12	12/01/2016			20161203	12:19:00	20161210	17:41:00	320-23928-22	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.096	UG_L	U		PR	TRG					00000000				5.0	0.042	0.096	0.12	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:12	12/01/2016			20161203	12:19:00	20161210	17:41:00	320-23928-22	1	1			13C2 PFHXA	13C2 PFHXA		98	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB08-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 11:12	12/01/2016			20161203	12:19:00	20161210	17:41:00	320-23928-22	1	1			13C2 PFDA	13C2 PFDA		104	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:05	12/01/2016			20161203	12:19:00	20161210	18:11:00	320-23928-23	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.042	UG_L	U		PR	TRG					00000000				5.0	0.014	0.042	0.053	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:05	12/01/2016			20161203	12:19:00	20161210	18:11:00	320-23928-23	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U		PR	TRG					00000000				5.0	0.0083	0.021	0.026	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:05	12/01/2016			20161203	12:19:00	20161210	18:11:00	320-23928-23	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:05	12/01/2016			20161203	12:19:00	20161210	18:11:00	320-23928-23	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:05	12/01/2016			20161203	12:19:00	20161210	18:11:00	320-23928-23	1	1			13C2 PFDA	13C2 PFDA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:06	12/01/2016			20161203	12:19:00	20161210	18:41:00	320-23928-24	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.053	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:06	12/01/2016			20161203	12:19:00	20161210	18:41:00	320-23928-24	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:06	12/01/2016			20161203	12:19:00	20161210	18:41:00	320-23928-24	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.098	UG_L	U		PR	TRG					00000000				5.0	0.042	0.098	0.12	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:06	12/01/2016			20161203	12:19:00	20161210	18:41:00	320-23928-24	1	1			13C2 PFHXA	13C2 PFHXA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-FB09-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 13:06	12/01/2016			20161203	12:19:00	20161210	18:41:00	320-23928-24	1	1			13C2 PFDA	13C2 PFDA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:10:00	320-23928-25	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.053	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:10:00	320-23928-25	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.13	UG_L	J		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:10:00	320-23928-25	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.076	UG_L	J		PR	TRG					00000000				5.0	0.042	0.098	0.12	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:10:00	320-23928-25	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:10:00	320-23928-25	1	1			13C2 PFDA	13C2 PFDA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:40:00	320-23928-25	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		93	PCT_REC	J		PR	TRG		MSA	130	70	00000000				5.0	0.014	0.042	0.053	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:40:00	320-23928-25	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		103	PCT_REC	E 4		PR	TRG		MSA	130	70	00000000				5.0	0.0083	0.021	0.026	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:40:00	320-23928-25	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		76	PCT_REC			PR	TRG		MSA	130	70	00000000				5.0	0.042	0.096	0.12	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:40:00	320-23928-25	1	1			13C2 PFHXA	13C2 PFHXA		116	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	19:40:00	320-23928-25	1	1			13C2 PFDA	13C2 PFDA		120	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	20:09:00	320-23928-25	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		87	PCT_REC	J		PR	TRG		MSP	130	70	00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	20:09:00	320-23928-25	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		53	PCT_REC	4		PR	TRG		MSP	130	70	00000000				5.0	0.0085	0.022	0.027	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	20:09:00	320-23928-25	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		73	PCT_REC			PR	TRG		MSP	130	70	00000000				5.0	0.043	0.099	0.13	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	20:09:00	320-23928-25	1	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:10	12/01/2016			20161203	12:19:00	20161210	20:09:00	320-23928-25	1	1			13C2 PFDA	13C2 PFDA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:12	12/01/2016			20161203	12:19:00	20161210	20:39:00	320-23928-26	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U		PR	TRG					00000000				5.0	0.014	0.043	0.053	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:12	12/01/2016			20161203	12:19:00	20161210	20:39:00	320-23928-26	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.021	UG_L	U M		PR	TRG					00000000				5.0	0.0083	0.021	0.027	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:12	12/01/2016			20161203	12:19:00	20161210	20:39:00	320-23928-26	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.097	UG_L	U		PR	TRG					00000000				5.0	0.042	0.097	0.12	320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:12	12/01/2016			20161203	12:19:00	20161210	20:39:00	320-23928-26	1	1			13C2 PFHXA	13C2 PFHXA		113	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB10-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:12	12/01/2016			20161203	12:19:00	20161210	20:39:00	320-23928-26	1	1			13C2 PFDA	13C2 PFDA		107	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141295		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:07:00	320-23928-27	10	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.43	UG_L	U M		PR	TRG					00000000				5.0	0.14	0.43	0.54	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:07:00	320-23928-27	10	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.59	UG_L	J D		PR	TRG					00000000				5.0	0.084	0.21	0.27	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:07:00	320-23928-27	10	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.98	UG_L	U		PR	TRG					00000000				5.0	0.43	0.98	1.3	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:07:00	320-23928-27	10	1			13C2 PFHXA	13C2 PFHXA		103	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:07:00	320-23928-27	10	1			13C2 PFDA	13C2 PFDA		89	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:37:00	320-23928-27	10	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		NC	PCT_REC	U M		PR	TRG		MSA	130	70	00000000				5.0	0.13	0.41	0.51	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:37:00	320-23928-27	10	1			Perfluorooctanoic acid (PFOA)	335-67-1		675	PCT_REC	4 D		PR	TRG		MSA	130	70	00000000				5.0	0.081	0.21	0.26	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:37:00	320-23928-27	10	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		NC	PCT_REC	U		PR	TRG		MSA	130	70	00000000				5.0	0.41	0.94	1.2	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:37:00	320-23928-27	10	1			13C2 PFHXA	13C2 PFHXA		115	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161210	23:37:00	320-23928-27	10	1			13C2 PFDA	13C2 PFDA		102	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:06:00	320-23928-27	10	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		NC	PCT_REC	U M		PR	TRG		MSP	130	70	00000000				5.0	0.14	0.43	0.54	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:06:00	320-23928-27	10	1			Perfluorooctanoic acid (PFOA)	335-67-1		462	PCT_REC	D 4		PR	TRG		MSP	130	70	00000000				5.0	0.084	0.21	0.27	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:06:00	320-23928-27	10	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		NC	PCT_REC	U		PR	TRG		MSP	130	70	00000000				5.0	0.43	0.98	1.3	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:06:00	320-23928-27	10	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	DL1	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:06:00	320-23928-27	10	1			13C2 PFDA	13C2 PFDA		103	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:36:00	320-23928-27	1	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.043	UG_L	U M		PR	TRG					00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:36:00	320-23928-27	1	2			Perfluorooctanoic acid (PFOA)	335-67-1		0.62	UG_L	J E		PR	TRG					00000000				5.0	0.0084	0.021	0.027	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:36:00	320-23928-27	1	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.052	UG_L	J		PR	TRG					00000000				5.0	0.043	0.098	0.13	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:36:00	320-23928-27	1	2			13C2 PFHXA	13C2 PFHXA		123	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	00:36:00	320-23928-27	1	2			13C2 PFDA	13C2 PFDA		131	PCT_REC	Q		PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:06:00	320-23928-27	1	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1		96	PCT_REC	J		PR	TRG		MSA	130	70	00000000				5.0	0.013	0.041	0.051	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:06:00	320-23928-27	1	2			Perfluorooctanoic acid (PFOA)	335-67-1		291	PCT_REC	E 4		PR	TRG		MSA	130	70	00000000				5.0	0.0081	0.021	0.026	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:06:00	320-23928-27	1	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5		89	PCT_REC			PR	TRG		MSA	130	70	00000000				5.0	0.041	0.094	0.12	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:06:00	320-23928-27	1	2			13C2 PFHXA	13C2 PFHXA		124	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MS	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:06:00	320-23928-27	1	2			13C2 PFDA	13C2 PFDA		135	PCT_REC	Q		PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:35:00	320-23928-27	1	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1		89	PCT_REC	J		PR	TRG		MSP	130	70	00000000				5.0	0.014	0.043	0.054	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:35:00	320-23928-27	1	2			Perfluorooctanoic acid (PFOA)	335-67-1		150	PCT_REC	E 4		PR	TRG		MSP	130	70	00000000				5.0	0.0084	0.021	0.027	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:35:00	320-23928-27	1	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5		88	PCT_REC	J		PR	TRG		MSP	130	70	00000000				5.0	0.043	0.098	0.13	320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:35:00	320-23928-27	1	2			13C2 PFHXA	13C2 PFHXA		127	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	MSD	W	4	11/29/2016 16:35	12/01/2016			20161203	12:19:00	20161211	01:35:00	320-23928-27	1	2			13C2 PFDA	13C2 PFDA		129	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141475		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:36	12/01/2016			20161203	12:19:00	20161212	18:08:00	320-23928-28	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.044	UG_L	U		PR	TRG					00000000				5.0	0.014	0.044	0.055	320-23928-1	320-141758		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:36	12/01/2016			20161203	12:19:00	20161212	18:08:00	320-23928-28	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0086	0.022	0.027	320-23928-1	320-141758		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:36	12/01/2016			20161203	12:19:00	20161212	18:08:00	320-23928-28	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.043	0.10	0.13	320-23928-1	320-141758		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:36	12/01/2016			20161203	12:19:00	20161212	18:08:00	320-23928-28	1	1			13C2 PFHXA	13C2 PFHXA		115	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141758		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/29/2016 16:36	12/01/2016			20161203	12:19:00	20161212	18:08:00	320-23928-28	1	1			13C2 PFDA	13C2 PFDA		123	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141758		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140442/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	18:00:00	LCS 320-140442/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		105	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.016	0.048	0.060	320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140442/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	18:00:00	LCS 320-140442/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		109	PCT_REC	E		PR	TRG		LSA	130	70	00000000				5.0	0.0094	0.024	0.030	320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140442/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	18:00:00	LCS 320-140442/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		87	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.048	0.11	0.14	320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140442/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	18:00:00	LCS 320-140442/2-A	1	1			13C2 PFHXA	13C2 PFHXA		129	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140442/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	18:00:00	LCS 320-140442/2-A	1	1			13C2 PFDA	13C2 PFDA		122	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140478/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	10:47:00	LLCS 320-140478/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		89	PCT_REC	J		PR	TRG		LSA	150	50	00000000				5.0	0.016	0.048	0.060	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140478/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	10:47:00	LLCS 320-140478/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		94	PCT_REC	J M		PR	TRG		LSA	150	50	00000000				5.0	0.0094	0.024	0.030	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140478/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	10:47:00	LLCS 320-140478/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		96	PCT_REC	J		PR	TRG		LSA	150	50	00000000				5.0	0.048	0.11	0.14	320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140478/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	10:47:00	LLCS 320-140478/2-A	1	1			13C2 PFHXA	13C2 PFHXA		109	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LLCS 320-140478/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	10:47:00	LLCS 320-140478/2-A	1	1			13C2 PFDA	13C2 PFDA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141294		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140442/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	17:31:00	MB 320-140442/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U M		PR	TRG					00000000				5.0	0.016	0.048	0.060	320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140442/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	17:31:00	MB 320-140442/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U M		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140442/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	17:31:00	MB 320-140442/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140442/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	17:31:00	MB 320-140442/1-A	1	1			13C2 PFHXA	13C2 PFHXA		118	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140442/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/02/2016 20:12	12/02/2016			20161202	20:12:00	20161209	17:31:00	MB 320-140442/1-A	1	1			13C2 PFDA	13C2 PFDA		108	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141291		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140478/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	08:49:00	MB 320-140478/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U		PR	TRG					00000000				5.0	0.016	0.048	0.060	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140478/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	08:49:00	MB 320-140478/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140478/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	08:49:00	MB 320-140478/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140478/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	08:49:00	MB 320-140478/1-A	1	1			13C2 PFHXA	13C2 PFHXA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140478/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/03/2016 12:19	12/03/2016			20161203	12:19:00	20161210	08:49:00	MB 320-140478/1-A	1	1			13C2 PFDA	13C2 PFDA		103	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23928-1	320-141293		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:51	12/02/2016			20161205	11:42:00	20161211	21:25:00	320-23970-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.047	UG_L	U M		PR	TRG					00000000				5.0	0.015	0.047	0.059	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:51	12/02/2016			20161205	11:42:00	20161211	21:25:00	320-23970-1	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U M		PR	TRG					00000000				5.0	0.0092	0.023	0.029	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:51	12/02/2016			20161205	11:42:00	20161211	21:25:00	320-23970-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.047	0.11	0.14	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:51	12/02/2016			20161205	11:42:00	20161211	21:25:00	320-23970-1	1	1			13C2 PFHXA	13C2 PFHXA		134	PCT_REC	Q		PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:51	12/02/2016			20161205	11:42:00	20161211	21:25:00	320-23970-1	1	1			13C2 PFDA	13C2 PFDA		134	PCT_REC	Q		PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:50	12/02/2016			20161205	11:42:00	20161211	21:54:00	320-23970-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.045	UG_L	U		PR	TRG					00000000				5.0	0.014	0.045	0.056	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:50	12/02/2016			20161205	11:42:00	20161211	21:54:00	320-23970-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.022	UG_L	U		PR	TRG					00000000				5.0	0.0087	0.022	0.028	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:50	12/02/2016			20161205	11:42:00	20161211	21:54:00	320-23970-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.044	0.10	0.13	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:50	12/02/2016			20161205	11:42:00	20161211	21:54:00	320-23970-2	1	1			13C2 PFHXA	13C2 PFHXA		115	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB11-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:50	12/02/2016			20161205	11:42:00	20161211	21:54:00	320-23970-2	1	1			13C2 PFDA	13C2 PFDA		112	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:08	12/02/2016			20161205	11:42:00	20161211	22:24:00	320-23970-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U		PR	TRG					00000000				5.0	0.015	0.048	0.060	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:08	12/02/2016			20161205	11:42:00	20161211	22:24:00	320-23970-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.025	UG_L	J M		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:08	12/02/2016			20161205	11:42:00	20161211	22:24:00	320-23970-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	J		PR	TRG					00000000				5.0	0.047	0.11	0.14	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:08	12/02/2016			20161205	11:42:00	20161211	22:24:00	320-23970-3	1	1			13C2 PFHXA	13C2 PFHXA		103	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:08	12/02/2016			20161205	11:42:00	20161211	22:24:00	320-23970-3	1	1			13C2 PFDA	13C2 PFDA		126	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:07	12/02/2016			20161205	11:42:00	20161211	22:54:00	320-23970-4	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U		PR	TRG					00000000				5.0	0.015	0.046	0.057	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:07	12/02/2016			20161205	11:42:00	20161211	22:54:00	320-23970-4	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U		PR	TRG					00000000				5.0	0.0090	0.023	0.029	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:07	12/02/2016			20161205	11:42:00	20161211	22:54:00	320-23970-4	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.10	UG_L	U		PR	TRG					00000000				5.0	0.045	0.10	0.13	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:07	12/02/2016			20161205	11:42:00	20161211	22:54:00	320-23970-4	1	1			13C2 PFHXA	13C2 PFHXA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-1FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 10:07	12/02/2016			20161205	11:42:00	20161211	22:54:00	320-23970-4	1	1			13C2 PFDA	13C2 PFDA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:12	12/02/2016			20161205	11:42:00	20161211	23:23:00	320-23970-5	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U		PR	TRG					00000000				5.0	0.015	0.046	0.057	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:12	12/02/2016			20161205	11:42:00	20161211	23:23:00	320-23970-5	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U M		PR	TRG					00000000				5.0	0.0090	0.023	0.029	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:12	12/02/2016			20161205	11:42:00	20161211	23:23:00	320-23970-5	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.045	0.11	0.13	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:12	12/02/2016			20161205	11:42:00	20161211	23:23:00	320-23970-5	1	1			13C2 PFHXA	13C2 PFHXA		101	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:12	12/02/2016			20161205	11:42:00	20161211	23:23:00	320-23970-5	1	1			13C2 PFDA	13C2 PFDA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:13	12/02/2016			20161205	11:42:00	20161211	23:53:00	320-23970-6	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U		PR	TRG					00000000				5.0	0.015	0.046	0.057	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:13	12/02/2016			20161205	11:42:00	20161211	23:53:00	320-23970-6	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U		PR	TRG					00000000				5.0	0.0090	0.023	0.029	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:13	12/02/2016			20161205	11:42:00	20161211	23:53:00	320-23970-6	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.045	0.11	0.13	320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:13	12/02/2016			20161205	11:42:00	20161211	23:53:00	320-23970-6	1	1			13C2 PFHXA	13C2 PFHXA		118	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB12-1116	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	11/30/2016 09:13	12/02/2016			20161205	11:42:00	20161211	23:53:00	320-23970-6	1	1			13C2 PFDA	13C2 PFDA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141574		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140632/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:01:00	LCS 320-140632/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		77	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.016	0.048	0.060	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140632/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:01:00	LCS 320-140632/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		76	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.0094	0.024	0.030	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140632/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:01:00	LCS 320-140632/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		77	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.048	0.11	0.14	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140632/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:01:00	LCS 320-140632/2-A	1	1			13C2 PFHXA	13C2 PFHXA		113	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140632/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:01:00	LCS 320-140632/2-A	1	1			13C2 PFDA	13C2 PFDA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140632/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:30:00	LCSD 320-140632/3-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		80	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.016	0.048	0.060	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140632/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:30:00	LCSD 320-140632/3-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		77	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.0094	0.024	0.030	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140632/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:30:00	LCSD 320-140632/3-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		82	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.048	0.11	0.14	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140632/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:30:00	LCSD 320-140632/3-A	1	1			13C2 PFHXA	13C2 PFHXA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140632/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	14:30:00	LCSD 320-140632/3-A	1	1			13C2 PFDA	13C2 PFDA		111	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140632/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	13:31:00	MB 320-140632/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U M		PR	TRG					00000000				5.0	0.016	0.048	0.060	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140632/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	13:31:00	MB 320-140632/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U M		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140632/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	13:31:00	MB 320-140632/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140632/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	13:31:00	MB 320-140632/1-A	1	1			13C2 PFHXA	13C2 PFHXA		106	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140632/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 11:42	12/05/2016			20161205	11:42:00	20161211	13:31:00	MB 320-140632/1-A	1	1			13C2 PFDA	13C2 PFDA		104	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-23970-1	320-141573		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:12	12/03/2016			20161205	19:07:00	20161212	08:45:00	320-24007-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.046	UG_L	U		PR	TRG					00000000				5.0	0.015	0.046	0.057	320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:12	12/03/2016			20161205	19:07:00	20161212	08:45:00	320-24007-1	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U		PR	TRG					00000000				5.0	0.0090	0.023	0.029	320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:12	12/03/2016			20161205	19:07:00	20161212	08:45:00	320-24007-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.046	0.11	0.13	320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:12	12/03/2016			20161205	19:07:00	20161212	08:45:00	320-24007-1	1	1			13C2 PFHXA	13C2 PFHXA		131	PCT_REC	Q		PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3RW13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:12	12/03/2016			20161205	19:07:00	20161212	08:45:00	320-24007-1	1	1			13C2 PFDA	13C2 PFDA		136	PCT_REC	Q		PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:13	12/03/2016			20161205	19:07:00	20161212	09:15:00	320-24007-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.047	UG_L	U		PR	TRG					00000000				5.0	0.015	0.047	0.059	320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:13	12/03/2016			20161205	19:07:00	20161212	09:15:00	320-24007-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.023	UG_L	U		PR	TRG					00000000				5.0	0.0092	0.023	0.029	320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:13	12/03/2016			20161205	19:07:00	20161212	09:15:00	320-24007-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.047	0.11	0.14	320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:13	12/03/2016			20161205	19:07:00	20161212	09:15:00	320-24007-2	1	1			13C2 PFHXA	13C2 PFHXA		118	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	WI-CV-3FB13-1216	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	REG	W	4	12/01/2016 09:13	12/03/2016			20161205	19:07:00	20161212	09:15:00	320-24007-2	1	1			13C2 PFDA	13C2 PFDA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141576		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140697/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:21:00	LCS 320-140697/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		103	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.016	0.048	0.060	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140697/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:21:00	LCS 320-140697/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		108	PCT_REC	E		PR	TRG		LSA	130	70	00000000				5.0	0.0094	0.024	0.030	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140697/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:21:00	LCS 320-140697/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		92	PCT_REC			PR	TRG		LSA	130	70	00000000				5.0	0.048	0.11	0.14	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140697/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:21:00	LCS 320-140697/2-A	1	1			13C2 PFHXA	13C2 PFHXA		125	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCS 320-140697/2-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BS	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:21:00	LCS 320-140697/2-A	1	1			13C2 PFDA	13C2 PFDA		124	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140697/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:50:00	LCSD 320-140697/3-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		100	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.016	0.048	0.060	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140697/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:50:00	LCSD 320-140697/3-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		98	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.0094	0.024	0.030	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140697/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:50:00	LCSD 320-140697/3-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		90	PCT_REC			PR	TRG		LSP	130	70	00000000				5.0	0.048	0.11	0.14	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140697/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:50:00	LCSD 320-140697/3-A	1	1			13C2 PFHXA	13C2 PFHXA		117	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	LCSD 320-140697/3-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	BSD	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	02:50:00	LCSD 320-140697/3-A	1	1			13C2 PFDA	13C2 PFDA		118	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140697/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	01:51:00	MB 320-140697/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.048	UG_L	U		PR	TRG					00000000				5.0	0.016	0.048	0.060	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140697/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	01:51:00	MB 320-140697/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.024	UG_L	U		PR	TRG					00000000				5.0	0.0094	0.024	0.030	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140697/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	01:51:00	MB 320-140697/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.11	UG_L	U		PR	TRG					00000000				5.0	0.048	0.11	0.14	320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140697/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	01:51:00	MB 320-140697/1-A	1	1			13C2 PFHXA	13C2 PFHXA		110	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141575		
N6247016D9000	0008		WHIDBEY_ISLAND_NAS	MB 320-140697/1-A	NONE		537	ORG	TAMER	Test America	NONE	NA	METHOD	000	LB1	W	4	12/05/2016 19:07	12/05/2016			20161205	19:07:00	20161212	01:51:00	MB 320-140697/1-A	1	1			13C2 PFDA	13C2 PFDA		114	PCT_REC			PR	SURR		SLSA	130	70	00000000				5.0				320-24007-1	320-141575		

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
WHIDBEY ISLAND, WASHINGTON

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 320-23970
Laboratory: Test America, Sacramento, California
Site: Whidbey Island, CTO-0008, Washington
Date: December 21, 2016

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	WI-CV-1RW11-1116	320-23970-1	Water
2	WI-CV-1FB11-1116	320-23970-2	Water
3	WI-CV-1RW12-1116	320-23970-3	Water
4	WI-CV-1FB12-1116	320-23970-4	Water
5	WI-CV-3RW12-1116	320-23970-5	Water
6	WI-CV-3FB12-1116	320-23970-6	Water

A full data validation was performed on the analytical data for three water samples and three aqueous field blank samples collected on November 30, 2016 by CH2M HILL at the Whidbey Island site in Washington. The samples were analyzed under the EPA Method "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)".

Specific method references are as follows:

Analysis	*Method References*
PFCs	USEPA Method 537 Rev 1.1 Modified

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, and the U.S. Department of Defense (DoD) Quality Systems Manual (QSM), Version 5.0 (DoD 2013) and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review," August 2014;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation

- Holding times
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes. There were no qualifications

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All percent difference (%D) or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- All field blank samples were free of contamination.

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values except for the following.

Sample ID	Surrogate	%R	Qualifier
1	13C2-PFHxA	134%	None - Sample ND
	13C2-PFDA	134%	

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- A MS/MSD sample was not collected.

Laboratory Control Samples/Laboratory Control Sample Duplicates

- The LCS/LCSD samples exhibited acceptable percent recoveries (%R) and RPD values.

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- All criteria were met. No action was required.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 12/21/16

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1RW11-1116 | Lab Sample ID: 320-23970-1

Matrix: Water | Lab File ID: 11DEC2016A6A_022.d

Analysis Method: 537 | Date Collected: 11/30/2016 09:51

Extraction Method: 537 | Date Extracted: 12/05/2016 11:42

Sample wt/vol: 255.7(mL) | Date Analyzed: 12/11/2016 21:25

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Acquity ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.047	U M	0.059	0.047	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.023	0.0092
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.14	0.11	0.047

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	134	Q	70-130
STL00996	13C2 PFDA	134	Q	70-130

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

2

Lab Name: TestAmerica Sacramento | Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1FB11-1116 | Lab Sample ID: 320-23970-2

Matrix: Water | Lab File ID: 11DEC2016A6A_023.d

Analysis Method: 537 | Date Collected: 11/30/2016 09:50

Extraction Method: 537 | Date Extracted: 12/05/2016 11:42

Sample wt/vol: 269.6(mL) | Date Analyzed: 12/11/2016 21:54

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Acquity ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.045	U	0.056	0.045	0.014
335-67-1	Perfluorooctanoic acid (PFOA)	0.022	U	0.028	0.022	0.0087
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.10	0.044

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	115		70-130
STL00996	13C2 PFDA	112		70-130

MW 12/21/16

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

3

Lab Name: TestAmerica Sacramento | Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1RW12-1116 | Lab Sample ID: 320-23970-3

Matrix: Water | Lab File ID: 11DEC2016A6A_024.d

Analysis Method: 537 | Date Collected: 11/30/2016 10:08

Extraction Method: 537 | Date Extracted: 12/05/2016 11:42

Sample wt/vol: 251.4(mL) | Date Analyzed: 12/11/2016 22:24

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Acquity ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.048	U	0.060	0.048	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.025	J M	0.030	0.024	0.0094
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	J	0.14	0.11	0.047

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	103		70-130
STL00996	13C2 PFDA	126		70-130

MW 12/21/16

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4

Lab Name: TestAmerica Sacramento | Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-1FB12-1116 | Lab Sample ID: 320-23970-4

Matrix: Water | Lab File ID: 11DEC2016A6A_025.d

Analysis Method: 537 | Date Collected: 11/30/2016 10:07

Extraction Method: 537 | Date Extracted: 12/05/2016 11:42

Sample wt/vol: 262(mL) | Date Analyzed: 12/11/2016 22:54

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Acquity ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.046	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.023	0.0090
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.10	U	0.13	0.10	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	106		70-130
STL00996	13C2 PFDA	110		70-130

NW 12/21/16

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5

Lab Name: TestAmerica Sacramento | Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-3RW12-1116 | Lab Sample ID: 320-23970-5

Matrix: Water | Lab File ID: 11DEC2016A6A_026.d

Analysis Method: 537 | Date Collected: 11/30/2016 09:12

Extraction Method: 537 | Date Extracted: 12/05/2016 11:42

Sample wt/vol: 261.5(mL) | Date Analyzed: 12/11/2016 23:23

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Acquity ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.046	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U M	0.029	0.023	0.0090
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.11	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	101		70-130
STL00996	13C2 PFDA	110		70-130

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

6

Lab Name: TestAmerica Sacramento | Job No.: 320-23970-1

SDG No.:

Client Sample ID: WI-CV-3FB12-1116 | Lab Sample ID: 320-23970-6

Matrix: Water | Lab File ID: 11DEC2016A6A_027.d

Analysis Method: 537 | Date Collected: 11/30/2016 09:13

Extraction Method: 537 | Date Extracted: 12/05/2016 11:42

Sample wt/vol: 261.7(mL) | Date Analyzed: 12/11/2016 23:53

Con. Extract Vol.: 1.0(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Acquity ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 141574 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	0.046	U	0.057	0.046	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	0.023	U	0.029	0.023	0.0090
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.11	U	0.13	0.11	0.045

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	118		70-130
STL00996	13C2 PFDA	111		70-130

12/12/16

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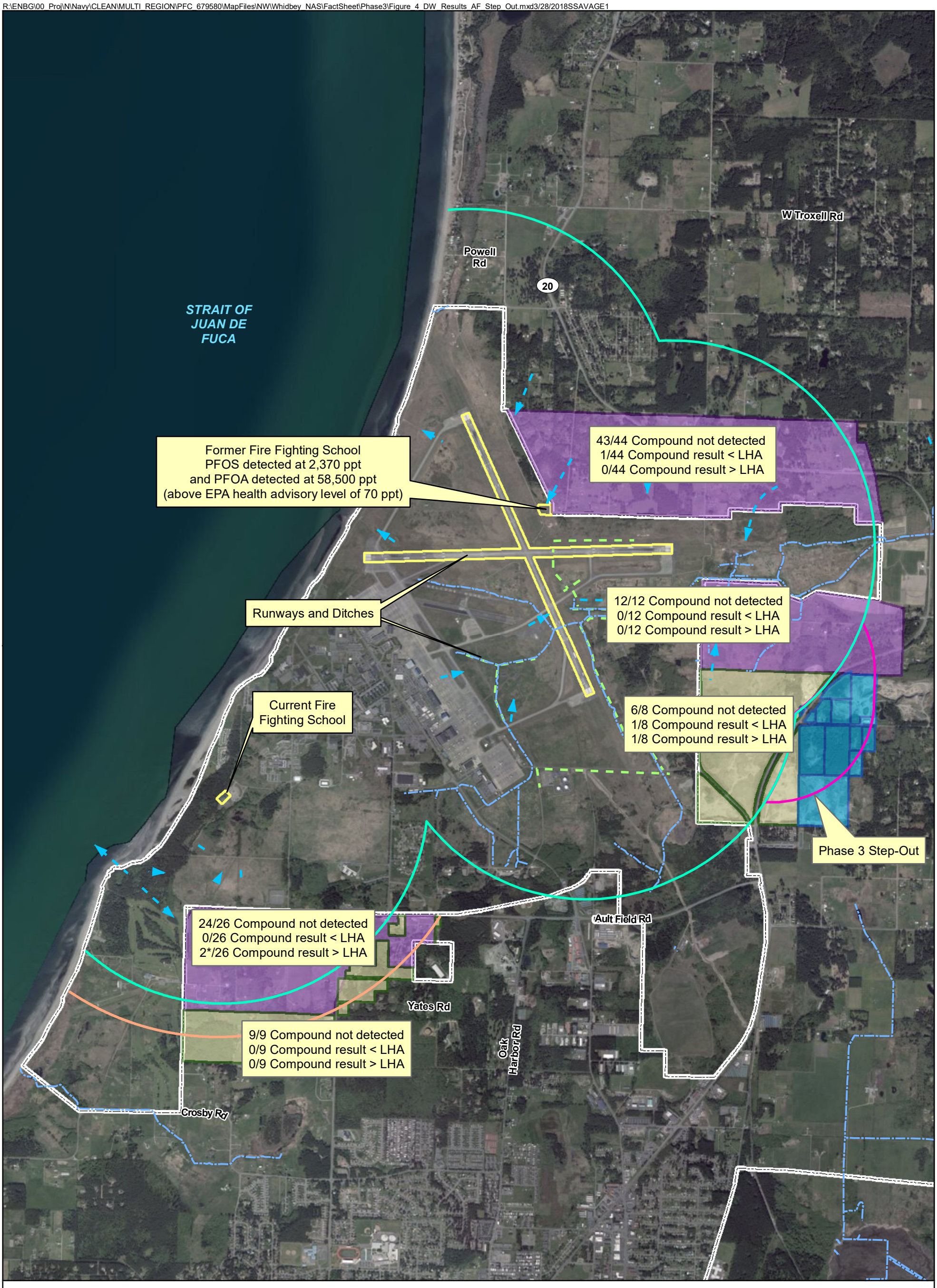

Legend

- 1 Mile Zone
- Half-mile Step-out Downgradient
- Surface Water
- Drainage Ditch
- Half-mile Step-out Downgradient
- Suspected Source Area
- Parcels in Phase 1 Sampling Area
- Parcels Identified in Phase 2 Sampling Area
- Parcels Identified in Phase 3 Sampling Area
- Base Boundary
- Inferred Groundwater Flow Direction

* Second result above the EPA health advisory is from a duplicate sample collected from the well with the first exceedance near Ault Field.

Note:
PFOA and PFOS results reflected on figure, PFBS results discussed in Table 2 and text.

N

0 0.225 0.45 Miles

1 inch = 0.45 mile

Imagery Source: Esri

Figure 2
Results for Drinking Water Well Sampling
Ault Field
Naval Air Station Whidbey Island
Oak Harbor, Washington