NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 2 Laboratory Report, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG J6160-1

Washington Navy Yard
Washington, D.C.

July 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: 320-6160-1
Client Project/Site: CTU-JU22 Washington Navy Yard

For:
CH2M Hill, Inc.
15010 Conference Center
Suite 200
Chantilly, Virginia 20151

Attn: Mr. Michael Zamboni

Jill Kellmann

Authorized for release by:
3/19/2014 11:22:33 AM

Jill Kellmann, Senior Project Manager
(916)374-4402
jill.kellmann@testamericainc.com

Table of Contents

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Qualifiers

LCMS

Qualifier	Qualifier Description
U	Undetected at the Limit of Detection.

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
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: 320-6160-1

Laboratory: TestAmerica Sacramento

Narrative

CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: CTU-JU22 Washington Navy Yard

Report Number: 320-6160-1

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 West 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 West 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.

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

RECEIPT

The samples were received on 02/18/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

PFOA/PFOS

No difficulties were encountered during the PFOA/PFOS analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Client Sample ID: WS22-MW01-0214 — Lab Sample ID: 320-6160-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	67		2.0	0.74	ng/L	1		WS-LC-0025	Total/NA
Perfluorooctane Sulfonate (PFOS)	18		2.0	1.3	ng/L	1		WS-LC-0025	Total/NA

Client Sample ID: WS22-MW01P-214 — Lab Sample ID: 320-6160-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	69		2.0	0.73	ng/L	1		WS-LC-0025	Total/NA
Perfluorooctane Sulfonate (PFOS)	16		2.0	1.3	ng/L	1		WS-LC-0025	Total/NA

Client Sample ID: WS22-EB01-021714 — Lab Sample ID: 320-6160-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Client Sample ID: WS22-MW01-0214

Lab Sample ID: 320-6160-1

Date Collected: 02/17/14 16:10
Matrix: Water
Date Received: 02/18/14 09:00

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	67		2.0	0.74	ng/L		02/24/14 07:45	03/03/14 14:51	1
Perfluorooctane Sulfonate (PFOS)	18		2.0	1.3	ng/L		02/24/14 07:45	03/03/14 14:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*121*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:51*	*1*
13C4 PFOA	*107*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:51*	*1*

Client Sample ID: WS22-MW01P-214

Lab Sample ID: 320-6160-2

Date Collected: 02/17/14 16:15
Matrix: Water
Date Received: 02/18/14 09:00

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	69		2.0	0.73	ng/L		02/24/14 07:45	03/03/14 15:55	1
Perfluorooctane Sulfonate (PFOS)	16		2.0	1.3	ng/L		02/24/14 07:45	03/03/14 15:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*117*		*25 - 150*	*02/24/14 07:45*	*03/03/14 15:55*	*1*
13C4 PFOA	*102*		*25 - 150*	*02/24/14 07:45*	*03/03/14 15:55*	*1*

Client Sample ID: WS22-EB01-021714

Lab Sample ID: 320-6160-3

Date Collected: 02/17/14 17:45
Matrix: Water
Date Received: 02/18/14 09:00

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.5	U	2.0	0.73	ng/L		02/24/14 07:45	03/03/14 16:16	1
Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.2	ng/L		02/24/14 07:45	03/03/14 16:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*124*		*25 - 150*	*02/24/14 07:45*	*03/03/14 16:16*	*1*
13C4 PFOA	*118*		*25 - 150*	*02/24/14 07:45*	*03/03/14 16:16*	*1*

Isotope Dilution Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

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

		Percent Isotope Dilution Recovery (Acceptance Limits)									
		13C4 PFOS	13C4 PFOA								
Lab Sample ID	Client Sample ID	(25-150)	(25-150)								
320-6160-1	WS22-MW01-0214	121	107								
320-6160-1 MS	WS22-MW01-0214	121	101								
320-6160-1 MSD	WS22-MW01-0214	110	98								
320-6160-2	WS22-MW01P-214	117	102								
320-6160-3	WS22-EB01-021714	124	118								
LCS 320-36921/2-A	Lab Control Sample	122	129								
MB 320-36921/1-A	Method Blank	126	132								

Surrogate Legend

13C4 PFOS = 13C4 PFOS

13C4 PFOA = 13C4 PFOA

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Lab Sample ID: MB 320-36921/1-A
Matrix: Water
Analysis Batch: 37466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36921

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.5	U	2.0	0.75	ng/L		02/24/14 07:45	03/03/14 14:09	1
Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.3	ng/L		02/24/14 07:45	03/03/14 14:09	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*126*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:09*	*1*
13C4 PFOA	*132*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:09*	*1*

Lab Sample ID: LCS 320-36921/2-A
Matrix: Water
Analysis Batch: 37466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	40.0	41.2		ng/L		103	60 - 140
Perfluorooctane Sulfonate (PFOS)	38.2	40.5		ng/L		106	60 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFOS	*122*		*25 - 150*
13C4 PFOA	*129*		*25 - 150*

Lab Sample ID: 320-6160-1 MS
Matrix: Water
Analysis Batch: 37466

Client Sample ID: WS22-MW01-0214
Prep Type: Total/NA
Prep Batch: 36921

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	67		40.2	110		ng/L		108	60 - 140
Perfluorooctane Sulfonate (PFOS)	18		38.5	55.9		ng/L		99	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFOS	*121*		*25 - 150*
13C4 PFOA	*101*		*25 - 150*

Lab Sample ID: 320-6160-1 MSD
Matrix: Water
Analysis Batch: 37466

Client Sample ID: WS22-MW01-0214
Prep Type: Total/NA
Prep Batch: 36921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	67		40.6	111		ng/L		110	60 - 140	1	30
Perfluorooctane Sulfonate (PFOS)	18		38.8	63.4		ng/L		117	60 - 140	13	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFOS	*110*		*25 - 150*
13C4 PFOA	*98*		*25 - 150*

QC Association Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

LCMS

Prep Batch: 36921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-6160-1	WS22-MW01-0214	Total/NA	Water	3535	
320-6160-1 MS	WS22-MW01-0214	Total/NA	Water	3535	
320-6160-1 MSD	WS22-MW01-0214	Total/NA	Water	3535	
320-6160-2	WS22-MW01P-214	Total/NA	Water	3535	
320-6160-3	WS22-EB01-021714	Total/NA	Water	3535	
LCS 320-36921/2-A	Lab Control Sample	Total/NA	Water	3535	
MB 320-36921/1-A	Method Blank	Total/NA	Water	3535	

Analysis Batch: 37466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-6160-1	WS22-MW01-0214	Total/NA	Water	WS-LC-0025	36921
320-6160-1 MS	WS22-MW01-0214	Total/NA	Water	WS-LC-0025	36921
320-6160-1 MSD	WS22-MW01-0214	Total/NA	Water	WS-LC-0025	36921
320-6160-2	WS22-MW01P-214	Total/NA	Water	WS-LC-0025	36921
320-6160-3	WS22-EB01-021714	Total/NA	Water	WS-LC-0025	36921
LCS 320-36921/2-A	Lab Control Sample	Total/NA	Water	WS-LC-0025	36921
MB 320-36921/1-A	Method Blank	Total/NA	Water	WS-LC-0025	36921

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Client Sample ID: WS22-MW01-0214

Lab Sample ID: 320-6160-1

Date Collected: 02/17/14 16:10

Matrix: Water

Date Received: 02/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			503.1 mL	1.00 mL	36921	02/24/14 07:45	HJA	TAL SAC
Total/NA	Analysis	WS-LC-0025		1	503.1 mL	1.00 mL	37466	03/03/14 14:51	JRB	TAL SAC

Client Sample ID: WS22-MW01P-214

Lab Sample ID: 320-6160-2

Date Collected: 02/17/14 16:15

Matrix: Water

Date Received: 02/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			510.2 mL	1.00 mL	36921	02/24/14 07:45	HJA	TAL SAC
Total/NA	Analysis	WS-LC-0025		1	510.2 mL	1.00 mL	37466	03/03/14 15:55	JRB	TAL SAC

Client Sample ID: WS22-EB01-021714

Lab Sample ID: 320-6160-3

Date Collected: 02/17/14 17:45

Matrix: Water

Date Received: 02/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			511.9 mL	1.00 mL	36921	02/24/14 07:45	HJA	TAL SAC
Total/NA	Analysis	WS-LC-0025		1	511.9 mL	1.00 mL	37466	03/03/14 16:16	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, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	03-31-14

Method Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Method	Method Description	Protocol	Laboratory
WS-LC-0025	Perfluorinated Hydrocarbons	TAL SOP	TAL SAC

Protocol References:

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-6160-1	WS22-MW01-0214	Water	02/17/14 16:10	02/18/14 09:00
320-6160-2	WS22-MW01P-214	Water	02/17/14 16:15	02/18/14 09:00
320-6160-3	WS22-EB01-021714	Water	02/17/14 17:45	02/18/14 09:00

Chain of Custody Record

Temperature on Receipt 1.9°C

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
CH2M HILL	Sandy Brown	02-17-14	267725
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
15010 Conference Center Dr. Suite 200	703-376-5301		
City / State / Zip Code	**Site Contact**	**Lab Contact**	**Analysis (Attach list if more space is needed)**
Chantilly / VA / 20151	Mike Zamboni	Jill Kellmann	PFOA/PFOS
Project Name and Location (State)	**Carrier/Waybill Number**		
Navy CLEAN 8012 CTO-JU22			
Contract/Purchase Order/Quote No			
non-P.O.			

320-6160 Chain of Custody

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	#	PFOA/PFOS	
WS22-MW01-0214	02-17-14	1610		X			X						2	X	
WS22-MW01P-0214		1615		X			X						2	X	
WS22-MW01-0214-MS		1610		X			X						2	X	Run QA/QC
WS22-MW01-0214-SD		1610		X			X						2	X	Run QA/QC
WS22-EB01-021714		1745		X			X						2	X	

02/17/14

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

TB 3.8°C

	Date	Time		Date	Time
1. Relinquished By	02/17/14	2000	1. Received By	2/18/14	0902
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments: ~~PN: 474535.FI.FK.22~~ PN: 474535.FI.WS.22

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

3/19/2014

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 320-6160-1

Login Number: 6160

List Number: 1

Creator: Hytrek, Cheryl

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	
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.	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	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 320-6160-1

Job Description: CTU-JU22 Washington Navy Yard

For:
CH2M Hill, Inc.
15010 Conference Center
Suite 200
Chantilly, VA 20151

Attention: Mr. Michael Zamboni

Approved for release.
Jill Kellmann
Senior Project Manager
3/19/2014 11:26 AM

Jill Kellmann, Senior Project Manager
880 Riverside Parkway, West Sacramento, CA, 95605
(916)374-4402
jill.kellmann@testamericainc.com
03/19/2014

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Glossary

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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, Inc.

Project: CTU-JU22 Washington Navy Yard

Report Number: 320-6160-1

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 West 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.

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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.

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

RECEIPT

The samples were received on 02/18/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

PFOA/PFOS

No difficulties were encountered during the PFOA/PFOS analysis.

All quality control parameters were within the acceptance limits.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Client Sample ID: WS22-MW01-0214 — Lab Sample ID: 320-6160-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	67		2.0	0.74	ng/L	1		WS-LC-0025	Total/NA
Perfluorooctane Sulfonate (PFOS)	18		2.0	1.3	ng/L	1		WS-LC-0025	Total/NA

Client Sample ID: WS22-MW01P-214 — Lab Sample ID: 320-6160-2

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	69		2.0	0.73	ng/L	1		WS-LC-0025	Total/NA
Perfluorooctane Sulfonate (PFOS)	16		2.0	1.3	ng/L	1		WS-LC-0025	Total/NA

Client Sample ID: WS22-EB01-021714 — Lab Sample ID: 320-6160-3

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: WS22-MW01-0214

Lab Sample ID: 320-6160-1

Date Collected: 02/17/14 16:10

Matrix: Water

Date Received: 02/18/14 09:00

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	67		2.0	0.74	ng/L		02/24/14 07:45	03/03/14 14:51	1
Perfluorooctane Sulfonate (PFOS)	18		2.0	1.3	ng/L		02/24/14 07:45	03/03/14 14:51	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*121*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:51*	*1*
13C4 PFOA	*107*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:51*	*1*

Client Sample ID: WS22-MW01P-214

Lab Sample ID: 320-6160-2

Date Collected: 02/17/14 16:15

Matrix: Water

Date Received: 02/18/14 09:00

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	69		2.0	0.73	ng/L		02/24/14 07:45	03/03/14 15:55	1
Perfluorooctane Sulfonate (PFOS)	16		2.0	1.3	ng/L		02/24/14 07:45	03/03/14 15:55	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*117*		*25 - 150*	*02/24/14 07:45*	*03/03/14 15:55*	*1*
13C4 PFOA	*102*		*25 - 150*	*02/24/14 07:45*	*03/03/14 15:55*	*1*

Client Sample ID: WS22-EB01-021714

Lab Sample ID: 320-6160-3

Date Collected: 02/17/14 17:45

Matrix: Water

Date Received: 02/18/14 09:00

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.5	U	2.0	0.73	ng/L		02/24/14 07:45	03/03/14 16:16	1
Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.2	ng/L		02/24/14 07:45	03/03/14 16:16	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*124*		*25 - 150*	*02/24/14 07:45*	*03/03/14 16:16*	*1*
13C4 PFOA	*118*		*25 - 150*	*02/24/14 07:45*	*03/03/14 16:16*	*1*

Default Detection Limits

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Analyte	LOQ	DL	Units	Method
Perfluorooctane Sulfonate (PFOS)	2.0	1.3	ng/L	WS-LC-0025
Perfluorooctanoic acid (PFOA)	2.0	0.75	ng/L	WS-LC-0025

Isotope Dilution Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)									
		13C4 PFOS	13C4 PFOA								
Lab Sample ID	Client Sample ID	(25-150)	(25-150)								
320-6160-1	WS22-MW01-0214	121	107								
320-6160-1 MS	WS22-MW01-0214	121	101								
320-6160-1 MSD	WS22-MW01-0214	110	98								
320-6160-2	WS22-MW01P-214	117	102								
320-6160-3	WS22-EB01-021714	124	118								
LCS 320-36921/2-A	Lab Control Sample	122	129								
MB 320-36921/1-A	Method Blank	126	132								

Surrogate Legend

13C4 PFOS = 13C4 PFOS

13C4 PFOA = 13C4 PFOA

Method: WS-LC-0025 - Perfluorinated Hydrocarbons

Lab Sample ID: MB 320-36921/1-A
Matrix: Water
Analysis Batch: 37466

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 36921

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.5	U	2.0	0.75	ng/L		02/24/14 07:45	03/03/14 14:09	1
Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.3	ng/L		02/24/14 07:45	03/03/14 14:09	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*126*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:09*	*1*
13C4 PFOA	*132*		*25 - 150*	*02/24/14 07:45*	*03/03/14 14:09*	*1*

Lab Sample ID: LCS 320-36921/2-A
Matrix: Water
Analysis Batch: 37466

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 36921

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	40.0	41.2		ng/L		103	60 - 140
Perfluorooctane Sulfonate (PFOS)	38.2	40.5		ng/L		106	60 - 140

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFOS	*122*		*25 - 150*
13C4 PFOA	*129*		*25 - 150*

Lab Sample ID: 320-6160-1 MS
Matrix: Water
Analysis Batch: 37466

Client Sample ID: WS22-MW01-0214
Prep Type: Total/NA
Prep Batch: 36921

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	67		40.2	110		ng/L		108	60 - 140
Perfluorooctane Sulfonate (PFOS)	18		38.5	55.9		ng/L		99	60 - 140

Isotope Dilution	*MS %Recovery*	*MS Qualifier*	*Limits*
13C4 PFOS	*121*		*25 - 150*
13C4 PFOA	*101*		*25 - 150*

Lab Sample ID: 320-6160-1 MSD
Matrix: Water
Analysis Batch: 37466

Client Sample ID: WS22-MW01-0214
Prep Type: Total/NA
Prep Batch: 36921

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)	67		40.6	111		ng/L		110	60 - 140	1	30
Perfluorooctane Sulfonate (PFOS)	18		38.8	63.4		ng/L		117	60 - 140	13	30

Isotope Dilution	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C4 PFOS	*110*		*25 - 150*
13C4 PFOA	*98*		*25 - 150*

LCMS

Prep Batch: 36921

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-6160-1	WS22-MW01-0214	Total/NA	Water	3535	
320-6160-1 MS	WS22-MW01-0214	Total/NA	Water	3535	
320-6160-1 MSD	WS22-MW01-0214	Total/NA	Water	3535	
320-6160-2	WS22-MW01P-214	Total/NA	Water	3535	
320-6160-3	WS22-EB01-021714	Total/NA	Water	3535	
LCS 320-36921/2-A	Lab Control Sample	Total/NA	Water	3535	
MB 320-36921/1-A	Method Blank	Total/NA	Water	3535	

Analysis Batch: 37466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-6160-1	WS22-MW01-0214	Total/NA	Water	WS-LC-0025	36921
320-6160-1 MS	WS22-MW01-0214	Total/NA	Water	WS-LC-0025	36921
320-6160-1 MSD	WS22-MW01-0214	Total/NA	Water	WS-LC-0025	36921
320-6160-2	WS22-MW01P-214	Total/NA	Water	WS-LC-0025	36921
320-6160-3	WS22-EB01-021714	Total/NA	Water	WS-LC-0025	36921
LCS 320-36921/2-A	Lab Control Sample	Total/NA	Water	WS-LC-0025	36921
MB 320-36921/1-A	Method Blank	Total/NA	Water	WS-LC-0025	36921

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Client Sample ID: WS22-MW01-0214

Lab Sample ID: 320-6160-1

Date Collected: 02/17/14 16:10

Matrix: Water

Date Received: 02/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			36921	02/24/14 07:45	HJA	TAL SAC
Total/NA	Analysis	WS-LC-0025		1	37466	03/03/14 14:51	JRB	TAL SAC

Client Sample ID: WS22-MW01P-214

Lab Sample ID: 320-6160-2

Date Collected: 02/17/14 16:15

Matrix: Water

Date Received: 02/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			36921	02/24/14 07:45	HJA	TAL SAC
Total/NA	Analysis	WS-LC-0025		1	37466	03/03/14 15:55	JRB	TAL SAC

Client Sample ID: WS22-EB01-021714

Lab Sample ID: 320-6160-3

Date Collected: 02/17/14 17:45

Matrix: Water

Date Received: 02/18/14 09:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			36921	02/24/14 07:45	HJA	TAL SAC
Total/NA	Analysis	WS-LC-0025		1	37466	03/03/14 16:16	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, Inc.
TestAmerica Job ID: 320-6160-1
Project/Site: CTU-JU22 Washington Navy Yard

Laboratory: TestAmerica Sacramento

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
A2LA	DoD ELAP		2928-01	03-31-14

Method Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Method	Method Description	Protocol	Laboratory
WS-LC-0025	Perfluorinated Hydrocarbons	TAL SOP	TAL SAC

Protocol References:

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

Laboratory References:

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

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: CTU-JU22 Washington Navy Yard

TestAmerica Job ID: 320-6160-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-6160-1	WS22-MW01-0214	Water	02/17/14 16:10	02/18/14 09:00
320-6160-2	WS22-MW01P-214	Water	02/17/14 16:15	02/18/14 09:00
320-6160-3	WS22-EB01-021714	Water	02/17/14 17:45	02/18/14 09:00

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
.LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
.LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
.LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
.LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
.LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
.LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
.LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
.LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
.LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
.LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
.LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
.LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
.LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
LCMPFOASU_00002	05/12/14	07/10/13	Methanol, Lot 09092	5 mL	LCMPFOA_00001	0.1 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00003	0.1 mL	13C4 PFOS	0.956 ug/mL
.LCMPFOA_00001	05/12/14	Wellington Laboratories, Lot MPFOA0511			(Purchased Reagent)		13C4 PFOA	50 ug/mL
.LCMPFOS_00003	06/19/15	Wellington Laboratories, Lot MPFOS0612			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
LCPFC-L1_00003	07/03/14	01/20/14	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
					LCPFCSP_00012	25 uL	Perfluorobutyric acid	0.5 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorobutane Sulfonate	0.442 ng/mL
							Perfluorodecanoic acid	0.5 ng/mL
							Perfluorododecanoic acid	0.5 ng/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	0.484 ng/mL
							Perfluorodecane Sulfonate	0.482 ng/mL
							Perfluoroheptanoic acid	0.5 ng/mL
							Perfluoroheptane Sulfonate	0.476 ng/mL
							Perfluorohexanoic acid	0.5 ng/mL
							Perfluorohexadecanoic acid	0.5 ng/mL
							Perfluorohexane Sulfonate	0.473 ng/mL
							Perfluorononanoic acid	0.5 ng/mL
							PFNS (Perflouro-1-nonanesulfonate)	0.48 ng/mL
							Perfluorooctanoic acid (PFOA)	0.5 ng/mL
							Perfluorooctandecanoic acid	0.5 ng/mL
							Perfluorooctane Sulfonate (PFOS)	0.478 ng/mL
							Perfluorooctane Sulfonamide	0.5 ng/mL
							Perfluoropentanoic acid	0.5 ng/mL
							PFPeS (Perflouro-1-pentanesulfonate)	0.469 ng/mL
							Perfluorotetradecanoic acid	0.5 ng/mL
							Perfluorotridecanoic acid	0.5 ng/mL
							Perfluoroundecanoic acid	0.5 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00012	07/03/14	01/03/14	Methanol, Lot 042259	5 mL	LCPFCSP_00011	0.5 mL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutane Sulfonate	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	0.0968 ug/mL
							Perfluorodecane Sulfonate	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptane Sulfonate	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexane Sulfonate	0.0946 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							PFNS (Perflouro-1-nonanesulfonate)	0.096 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctandecanoic acid	0.1 ug/mL
							Perfluorooctane Sulfonate (PFOS)	0.0956 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							PFPeS (Perflouro-1-pentanesulfonate)	0.0938 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFCSP_00011	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCPFBA_00002	0.2 mL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00002	0.2 mL	Perfluorobutane Sulfonate	0.884 ug/mL
					LCPFDA_00002	0.2 mL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00002	0.2 mL	Perfluorododecanoic acid	1 ug/mL
					LCPFDoS_00001	0.2 mL	PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ug/mL
					LCPFDS_00002	0.2 mL	Perfluorodecane Sulfonate	0.964 ug/mL
					LCPFHpA_00002	0.2 mL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00004	0.2 mL	Perfluoroheptane Sulfonate	0.952 ug/mL
					LCPFHxA_00002	0.2 mL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00003	0.2 mL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS_00002	0.2 mL	Perfluorohexane Sulfonate	0.946 ug/mL
					LCPFNA_00002	0.2 mL	Perfluorononanoic acid	1 ug/mL
					LCPFNS_00001	0.2 mL	PFNS (Perflouro-1-nonanesulfonate)	0.96 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFOA_00002	0.2 mL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00003	0.2 mL	Perfluorooctandecanoic acid	1 ug/mL
					LCPFOS_00002	0.2 mL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
					LCPFOSA_00004	0.2 mL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00002	0.2 mL	Perfluoropentanoic acid	1 ug/mL
					LCPFPeS_00001	0.2 mL	PFPeS (Perflouro-1-pentanesulfonate)	0.938 ug/mL
					LCPFTeDA_00002	0.2 mL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00002	0.2 mL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00002	0.2 mL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00002	02/22/15	Wellington Laboratories, Lot PFBA0212			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00002	06/21/15	Wellington Laboratories, Lot LPFBS0612			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
...LCPFDA_00002	07/26/14	Wellington Laboratories, Lot PFDA0711			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00002	11/17/14	Wellington Laboratories, Lot PFDoA1111			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDoS_00001	10/06/14	Wellington Laboratories, Lot LPFDoS1011			(Purchased Reagent)		PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ug/mL
...LCPFDS_00002	06/21/15	Wellington Laboratories, Lot LPFDS0612			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
...LCPFHpA_00002	04/18/15	Wellington Laboratories, Lot PFHpA0412			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00004	11/21/17	Wellington Laboratories, Lot LPFHpS1112			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
...LCPFHxA_00002	10/29/15	Wellington Laboratories, Lot PFHxA1012			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00003	11/28/17	Wellington Laboratories, Lot PFHxDA0707			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS_00002	03/27/15	Wellington Laboratories, Lot LPFHxS0312			(Purchased Reagent)		Perfluorohexane Sulfonate	47.3 ug/mL
...LCPFNA_00002	06/14/15	Wellington Laboratories, Lot PFNA0612			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFNS_00001	07/04/15	Wellington Laboratories, Lot LPFNS0712			(Purchased Reagent)		PFNS (Perflouro-1-nonanesulfonate)	48 ug/mL
...LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00003	07/13/15	Wellington Laboratories, Lot PFHODA0807			(Purchased Reagent)		Perfluorooctandecanoic acid	50 ug/mL
...LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL
...LCPFOSA_00004	09/13/15	Wellington Laboratories, Lot FOSA0912M			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00002	11/17/14	Wellington Laboratories, Lot PFPeA1111			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFPeS_00001	06/21/15	Wellington Laboratories, Lot LPFPeS0712			(Purchased Reagent)		PFPeS (Perflouro-1-pentanesulfonate)	46.9 ug/mL
...LCPFTeDA_00002	03/07/15	Wellington Laboratories, Lot PFTeDA0312			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00002	03/26/15	Wellington Laboratories, Lot PFTrDA0312			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00002	03/19/15	Wellington Laboratories, Lot PFUdA0312			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC-L2_00003	07/03/14	01/20/14	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
					LCPFCSP_00012	50 uL	Perfluorobutyric acid	1 ng/mL
							Perfluorobutane Sulfonate	0.884 ng/mL
							Perfluorodecanoic acid	1 ng/mL
							Perfluorododecanoic acid	1 ng/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ng/mL
							Perfluorodecane Sulfonate	0.964 ng/mL
							Perfluoroheptanoic acid	1 ng/mL
							Perfluoroheptane Sulfonate	0.952 ng/mL
							Perfluorohexanoic acid	1 ng/mL
							Perfluorohexadecanoic acid	1 ng/mL
							Perfluorohexane Sulfonate	0.946 ng/mL
							Perfluorononanoic acid	1 ng/mL
							PFNS (Perflouro-1-nonanesulfonate)	0.96 ng/mL
							Perfluorooctanoic acid (PFOA)	1 ng/mL
							Perfluorooctandecanoic acid	1 ng/mL
							Perfluorooctane Sulfonate (PFOS)	0.956 ng/mL
							Perfluorooctane Sulfonamide	1 ng/mL
							Perfluoropentanoic acid	1 ng/mL
							PFPeS (Perflouro-1-pentanesulfonate)	0.938 ng/mL
							Perfluorotetradecanoic acid	1 ng/mL
							Perfluorotridecanoic acid	1 ng/mL
							Perfluoroundecanoic acid	1 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00012	07/03/14	01/03/14	Methanol, Lot 042259	5 mL	LCPFCSP_00011	0.5 mL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutane Sulfonate	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	0.0968 ug/mL
							Perfluorodecane Sulfonate	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptane Sulfonate	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexane Sulfonate	0.0946 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							PFNS (Perflouro-1-nonanesulfonate)	0.096 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctandecanoic acid	0.1 ug/mL
							Perfluorooctane Sulfonate (PFOS)	0.0956 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							PFPeS (Perflouro-1-pentanesulfonate)	0.0938 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFCSP_00011	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCPFBA_00002	0.2 mL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00002	0.2 mL	Perfluorobutane Sulfonate	0.884 ug/mL
					LCPFDA_00002	0.2 mL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00002	0.2 mL	Perfluorododecanoic acid	1 ug/mL
					LCPFDoS_00001	0.2 mL	PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ug/mL
					LCPFDS_00002	0.2 mL	Perfluorodecane Sulfonate	0.964 ug/mL
					LCPFHpA_00002	0.2 mL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00004	0.2 mL	Perfluoroheptane Sulfonate	0.952 ug/mL
					LCPFHxA_00002	0.2 mL	Perfluorohexanoic acid	1 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFHxDA_00003	0.2 mL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS_00002	0.2 mL	Perfluorohexane Sulfonate	0.946 ug/mL
					LCPFNA_00002	0.2 mL	Perfluorononanoic acid	1 ug/mL
					LCPFNS_00001	0.2 mL	PFNS (Perflouro-1-nonanesulfonate)	0.96 ug/mL
					LCPFOA_00002	0.2 mL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00003	0.2 mL	Perfluorooctandecanoic acid	1 ug/mL
					LCPFOS_00002	0.2 mL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
					LCPFOSA_00004	0.2 mL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00002	0.2 mL	Perfluoropentanoic acid	1 ug/mL
					LCPFPeS_00001	0.2 mL	PFPeS (Perflouro-1-pentanesulfonate)	0.938 ug/mL
					LCPFTeDA_00002	0.2 mL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00002	0.2 mL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00002	0.2 mL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00002	02/22/15	Wellington Laboratories, Lot PFBA0212			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00002	06/21/15	Wellington Laboratories, Lot LPFBS0612			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
...LCPFDA_00002	07/26/14	Wellington Laboratories, Lot PFDA0711			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00002	11/17/14	Wellington Laboratories, Lot PFDoA1111			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDoS_00001	10/06/14	Wellington Laboratories, Lot LPFDoS1011			(Purchased Reagent)		PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ug/mL
...LCPFDS_00002	06/21/15	Wellington Laboratories, Lot LPFDS0612			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
...LCPFHpA_00002	04/18/15	Wellington Laboratories, Lot PFHpA0412			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00004	11/21/17	Wellington Laboratories, Lot LPFHpS1112			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
...LCPFHxA_00002	10/29/15	Wellington Laboratories, Lot PFHxA1012			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00003	11/28/17	Wellington Laboratories, Lot PFHxDA0707			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS_00002	03/27/15	Wellington Laboratories, Lot LPFHxS0312			(Purchased Reagent)		Perfluorohexane Sulfonate	47.3 ug/mL
...LCPFNA_00002	06/14/15	Wellington Laboratories, Lot PFNA0612			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFNS_00001	07/04/15	Wellington Laboratories, Lot LPFNS0712			(Purchased Reagent)		PFNS (Perflouro-1-nonanesulfonate)	48 ug/mL
...LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00003	07/13/15	Wellington Laboratories, Lot PFHODA0807			(Purchased Reagent)		Perfluorooctandecanoic acid	50 ug/mL
...LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL
...LCPFOSA_00004	09/13/15	Wellington Laboratories, Lot FOSA0912M			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00002	11/17/14	Wellington Laboratories, Lot PFPeA1111			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFPeS_00001	06/21/15	Wellington Laboratories, Lot LPFPeS0712			(Purchased Reagent)		PFPeS (Perflouro-1-pentanesulfonate)	46.9 ug/mL
...LCPFTeDA_00002	03/07/15	Wellington Laboratories, Lot PFTeDA0312			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00002	03/26/15	Wellington Laboratories, Lot PFTrDA0312			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00002	03/19/15	Wellington Laboratories, Lot PFUdA0312			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC-L3_00003	07/03/14	01/20/14	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
					LCPFCSP_00012	250 uL	Perfluorobutyric acid	5 ng/mL
							Perfluorobutane Sulfonate	4.42 ng/mL
							Perfluorodecanoic acid	5 ng/mL
							Perfluorododecanoic acid	5 ng/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	4.84 ng/mL
							Perfluorodecane Sulfonate	4.82 ng/mL
							Perfluoroheptanoic acid	5 ng/mL
							Perfluoroheptane Sulfonate	4.76 ng/mL
							Perfluorohexanoic acid	5 ng/mL
							Perfluorohexadecanoic acid	5 ng/mL
							Perfluorohexane Sulfonate	4.73 ng/mL
							Perfluorononanoic acid	5 ng/mL
							PFNS (Perflouro-1-nonanesulfonate)	4.8 ng/mL
							Perfluorooctanoic acid (PFOA)	5 ng/mL
							Perfluorooctandecanoic acid	5 ng/mL
							Perfluorooctane Sulfonate (PFOS)	4.78 ng/mL
							Perfluorooctane Sulfonamide	5 ng/mL
							Perfluoropentanoic acid	5 ng/mL
							PFPeS (Perflouro-1-pentanesulfonate)	4.69 ng/mL
							Perfluorotetradecanoic acid	5 ng/mL
							Perfluorotridecanoic acid	5 ng/mL
							Perfluoroundecanoic acid	5 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00012	07/03/14	01/03/14	Methanol, Lot 042259	5 mL	LCPFCSP_00011	0.5 mL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutane Sulfonate	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	0.0968 ug/mL
							Perfluorodecane Sulfonate	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptane Sulfonate	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexane Sulfonate	0.0946 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							PFNS (Perflouro-1-nonanesulfonate)	0.096 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctandecanoic acid	0.1 ug/mL
							Perfluorooctane Sulfonate (PFOS)	0.0956 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							PFPeS (Perflouro-1-pentanesulfonate)	0.0938 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFCSP_00011	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCPFBA_00002	0.2 mL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00002	0.2 mL	Perfluorobutane Sulfonate	0.884 ug/mL
					LCPFDA_00002	0.2 mL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00002	0.2 mL	Perfluorododecanoic acid	1 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFDoS_00001	0.2 mL	PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ug/mL
					LCPFDS_00002	0.2 mL	Perfluorodecane Sulfonate	0.964 ug/mL
					LCPFHpA_00002	0.2 mL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00004	0.2 mL	Perfluoroheptane Sulfonate	0.952 ug/mL
					LCPFHxA_00002	0.2 mL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00003	0.2 mL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS_00002	0.2 mL	Perfluorohexane Sulfonate	0.946 ug/mL
					LCPFNA_00002	0.2 mL	Perfluorononanoic acid	1 ug/mL
					LCPFNS_00001	0.2 mL	PFNS (Perflouro-1-nonanesulfonate)	0.96 ug/mL
					LCPFOA_00002	0.2 mL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00003	0.2 mL	Perfluorooctandecanoic acid	1 ug/mL
					LCPFOS_00002	0.2 mL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
					LCPFOSA_00004	0.2 mL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00002	0.2 mL	Perfluoropentanoic acid	1 ug/mL
					LCPFPeS_00001	0.2 mL	PFPeS (Perflouro-1-pentanesulfonate)	0.938 ug/mL
					LCPFTeDA_00002	0.2 mL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00002	0.2 mL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00002	0.2 mL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00002	02/22/15	Wellington Laboratories, Lot PFBA0212			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00002	06/21/15	Wellington Laboratories, Lot LPFBS0612			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
...LCPFDA_00002	07/26/14	Wellington Laboratories, Lot PFDA0711			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00002	11/17/14	Wellington Laboratories, Lot PFDoA1111			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDoS_00001	10/06/14	Wellington Laboratories, Lot LPFDoS1011			(Purchased Reagent)		PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ug/mL
...LCPFDS_00002	06/21/15	Wellington Laboratories, Lot LPFDS0612			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
...LCPFHpA_00002	04/18/15	Wellington Laboratories, Lot PFHpA0412			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00004	11/21/17	Wellington Laboratories, Lot LPFHpS1112			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
...LCPFHxA_00002	10/29/15	Wellington Laboratories, Lot PFHxA1012			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00003	11/28/17	Wellington Laboratories, Lot PFHxDA0707			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS_00002	03/27/15	Wellington Laboratories, Lot LPFHxS0312			(Purchased Reagent)		Perfluorohexane Sulfonate	47.3 ug/mL
...LCPFNA_00002	06/14/15	Wellington Laboratories, Lot PFNA0612			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFNS_00001	07/04/15	Wellington Laboratories, Lot LPFNS0712			(Purchased Reagent)		PFNS (Perflouro-1-nonanesulfonate)	48 ug/mL
...LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00003	07/13/15	Wellington Laboratories, Lot PFHODA0807			(Purchased Reagent)		Perfluorooctandecanoic acid	50 ug/mL
...LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL
...LCPFOSA_00004	09/13/15	Wellington Laboratories, Lot FOSA0912M			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00002	11/17/14	Wellington Laboratories, Lot PFPeA1111			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFPeS_00001	06/21/15	Wellington Laboratories, Lot LPFPeS0712			(Purchased Reagent)		PFPeS (Perflouro-1-pentanesulfonate)	46.9 ug/mL
...LCPFTeDA_00002	03/07/15	Wellington Laboratories, Lot PFTeDA0312			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00002	03/26/15	Wellington Laboratories, Lot PFTrDA0312			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...LCPFUdA_00002	03/19/15	Wellington Laboratories, Lot PFUdA0312			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC-L4_00003	07/03/14	01/20/14	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
					LCPFCSP_00012	1000 uL	Perfluorobutyric acid	20 ng/mL
							Perfluorobutane Sulfonate	17.68 ng/mL
							Perfluorodecanoic acid	20 ng/mL
							Perfluorododecanoic acid	20 ng/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	19.36 ng/mL
							Perfluorodecane Sulfonate	19.28 ng/mL
							Perfluoroheptanoic acid	20 ng/mL
							Perfluoroheptane Sulfonate	19.04 ng/mL
							Perfluorohexanoic acid	20 ng/mL
							Perfluorohexadecanoic acid	20 ng/mL
							Perfluorohexane Sulfonate	18.92 ng/mL
							Perfluorononanoic acid	20 ng/mL
							PFNS (Perflouro-1-nonanesulfonate)	19.2 ng/mL
							Perfluorooctanoic acid (PFOA)	20 ng/mL
							Perfluorooctandecanoic acid	20 ng/mL
							Perfluorooctane Sulfonate (PFOS)	19.12 ng/mL
							Perfluorooctane Sulfonamide	20 ng/mL
							Perfluoropentanoic acid	20 ng/mL
							PFPeS (Perflouro-1-pentanesulfonate)	18.76 ng/mL
							Perfluorotetradecanoic acid	20 ng/mL
							Perfluorotridecanoic acid	20 ng/mL
							Perfluoroundecanoic acid	20 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00012	07/03/14	01/03/14	Methanol, Lot 042259	5 mL	LCPFCSP_00011	0.5 mL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutane Sulfonate	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	0.0968 ug/mL
							Perfluorodecane Sulfonate	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptane Sulfonate	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexane Sulfonate	0.0946 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							PFNS (Perflouro-1-nonanesulfonate)	0.096 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctandecanoic acid	0.1 ug/mL
							Perfluorooctane Sulfonate (PFOS)	0.0956 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							PFPeS (Perflouro-1-pentanesulfonate)	0.0938 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFCSP_00011	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCPFBA_00002	0.2 mL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00002	0.2 mL	Perfluorobutane Sulfonate	0.884 ug/mL
					LCPFDA_00002	0.2 mL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00002	0.2 mL	Perfluorododecanoic acid	1 ug/mL
					LCPFDoS_00001	0.2 mL	PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ug/mL
					LCPFDS_00002	0.2 mL	Perfluorodecane Sulfonate	0.964 ug/mL
					LCPFHpA_00002	0.2 mL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00004	0.2 mL	Perfluoroheptane Sulfonate	0.952 ug/mL
					LCPFHxA_00002	0.2 mL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00003	0.2 mL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS_00002	0.2 mL	Perfluorohexane Sulfonate	0.946 ug/mL
					LCPFNA_00002	0.2 mL	Perfluorononanoic acid	1 ug/mL
					LCPFNS_00001	0.2 mL	PFNS (Perflouro-1-nonanesulfonate)	0.96 ug/mL
					LCPFOA_00002	0.2 mL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00003	0.2 mL	Perfluorooctandecanoic acid	1 ug/mL
					LCPFOS_00002	0.2 mL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
					LCPFOSA_00004	0.2 mL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00002	0.2 mL	Perfluoropentanoic acid	1 ug/mL
					LCPFPeS_00001	0.2 mL	PFPeS (Perflouro-1-pentanesulfonate)	0.938 ug/mL
					LCPFTeDA_00002	0.2 mL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00002	0.2 mL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00002	0.2 mL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00002	02/22/15	Wellington Laboratories, Lot PFBA0212			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00002	06/21/15	Wellington Laboratories, Lot LPFBS0612			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
...LCPFDA_00002	07/26/14	Wellington Laboratories, Lot PFDA0711			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00002	11/17/14	Wellington Laboratories, Lot PFDoA1111			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDoS_00001	10/06/14	Wellington Laboratories, Lot LPFDoS1011			(Purchased Reagent)		PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ug/mL
...LCPFDS_00002	06/21/15	Wellington Laboratories, Lot LPFDS0612			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
...LCPFHpA_00002	04/18/15	Wellington Laboratories, Lot PFHpA0412			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00004	11/21/17	Wellington Laboratories, Lot LPFHpS1112			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
...LCPFHxA_00002	10/29/15	Wellington Laboratories, Lot PFHxA1012			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00003	11/28/17	Wellington Laboratories, Lot PFHxDA0707			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS_00002	03/27/15	Wellington Laboratories, Lot LPFHxS0312			(Purchased Reagent)		Perfluorohexane Sulfonate	47.3 ug/mL
...LCPFNA_00002	06/14/15	Wellington Laboratories, Lot PFNA0612			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFNS_00001	07/04/15	Wellington Laboratories, Lot LPFNS0712			(Purchased Reagent)		PFNS (Perflouro-1-nonanesulfonate)	48 ug/mL
...LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00003	07/13/15	Wellington Laboratories, Lot PFHODA0807			(Purchased Reagent)		Perfluorooctandecanoic acid	50 ug/mL
...LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL
...LCPFOSA_00004	09/13/15	Wellington Laboratories, Lot FOSA0912M			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...LCPFPeA_00002	11/17/14	Wellington Laboratories, Lot PFPeA1111			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFPeS_00001	06/21/15	Wellington Laboratories, Lot LPFPeS0712			(Purchased Reagent)		PFPeS (Perflouro-1-pentanesulfonate)	46.9 ug/mL
...LCPFTeDA_00002	03/07/15	Wellington Laboratories, Lot PFTeDA0312			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00002	03/26/15	Wellington Laboratories, Lot PFTrDA0312			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00002	03/19/15	Wellington Laboratories, Lot PFUdA0312			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC-L5_00004	07/03/14	01/20/14	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
					LCPFCSP_00011	250 uL	Perfluorobutyric acid	50 ng/mL
							Perfluorobutane Sulfonate	44.2 ng/mL
							Perfluorodecanoic acid	50 ng/mL
							Perfluorododecanoic acid	50 ng/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ng/mL
							Perfluorodecane Sulfonate	48.2 ng/mL
							Perfluoroheptanoic acid	50 ng/mL
							Perfluoroheptane Sulfonate	47.6 ng/mL
							Perfluorohexanoic acid	50 ng/mL
							Perfluorohexadecanoic acid	50 ng/mL
							Perfluorohexane Sulfonate	47.3 ng/mL
							Perfluorononanoic acid	50 ng/mL
							PFNS (Perflouro-1-nonanesulfonate)	48 ng/mL
							Perfluorooctanoic acid (PFOA)	50 ng/mL
							Perfluorooctandecanoic acid	50 ng/mL
							Perfluorooctane Sulfonate (PFOS)	47.8 ng/mL
							Perfluorooctane Sulfonamide	50 ng/mL
							Perfluoropentanoic acid	50 ng/mL
							PFPeS (Perflouro-1-pentanesulfonate)	46.9 ng/mL
							Perfluorotetradecanoic acid	50 ng/mL
							Perfluorotridecanoic acid	50 ng/mL
							Perfluoroundecanoic acid	50 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00011	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCPFBA_00002	0.2 mL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00002	0.2 mL	Perfluorobutane Sulfonate	0.884 ug/mL
					LCPFDA_00002	0.2 mL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00002	0.2 mL	Perfluorododecanoic acid	1 ug/mL
					LCPFDoS_00001	0.2 mL	PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ug/mL
					LCPFDS_00002	0.2 mL	Perfluorodecane Sulfonate	0.964 ug/mL
					LCPFHpA_00002	0.2 mL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00004	0.2 mL	Perfluoroheptane Sulfonate	0.952 ug/mL
					LCPFHxA_00002	0.2 mL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00003	0.2 mL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS_00002	0.2 mL	Perfluorohexane Sulfonate	0.946 ug/mL
					LCPFNA_00002	0.2 mL	Perfluorononanoic acid	1 ug/mL
					LCPFNS_00001	0.2 mL	PFNS (Perflouro-1-nonanesulfonate)	0.96 ug/mL
					LCPFOA_00002	0.2 mL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00003	0.2 mL	Perfluorooctandecanoic acid	1 ug/mL
					LCPFOS_00002	0.2 mL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
					LCPFOSA_00004	0.2 mL	Perfluorooctane Sulfonamide	1 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFPeA_00002	0.2 mL	Perfluoropentanoic acid	1 ug/mL
					LCPFPeS_00001	0.2 mL	PFPeS (Perflouro-1-pentanesulfonate)	0.938 ug/mL
					LCPFTeDA_00002	0.2 mL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00002	0.2 mL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00002	0.2 mL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00002	02/22/15	Wellington Laboratories, Lot PFBA0212			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00002	06/21/15	Wellington Laboratories, Lot LPFBS0612			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
..LCPFDA_00002	07/26/14	Wellington Laboratories, Lot PFDA0711			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00002	11/17/14	Wellington Laboratories, Lot PFDoA1111			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDoS_00001	10/06/14	Wellington Laboratories, Lot LPFDoS1011			(Purchased Reagent)		PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ug/mL
..LCPFDS_00002	06/21/15	Wellington Laboratories, Lot LPFDS0612			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
..LCPFHpA_00002	04/18/15	Wellington Laboratories, Lot PFHpA0412			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00004	11/21/17	Wellington Laboratories, Lot LPFHpS1112			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
..LCPFHxA_00002	10/29/15	Wellington Laboratories, Lot PFHxA1012			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00003	11/28/17	Wellington Laboratories, Lot PFHxDA0707			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS_00002	03/27/15	Wellington Laboratories, Lot LPFHxS0312			(Purchased Reagent)		Perfluorohexane Sulfonate	47.3 ug/mL
..LCPFNA_00002	06/14/15	Wellington Laboratories, Lot PFNA0612			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFNS_00001	07/04/15	Wellington Laboratories, Lot LPFNS0712			(Purchased Reagent)		PFNS (Perflouro-1-nonanesulfonate)	48 ug/mL
..LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00003	07/13/15	Wellington Laboratories, Lot PFHODA0807			(Purchased Reagent)		Perfluorooctandecanoic acid	50 ug/mL
..LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL
..LCPFOSA_00004	09/13/15	Wellington Laboratories, Lot FOSA0912M			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00002	11/17/14	Wellington Laboratories, Lot PFPeA1111			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFPeS_00001	06/21/15	Wellington Laboratories, Lot LPFPeS0712			(Purchased Reagent)		PFPeS (Perflouro-1-pentanesulfonate)	46.9 ug/mL
..LCPFTeDA_00002	03/07/15	Wellington Laboratories, Lot PFTeDA0312			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00002	03/26/15	Wellington Laboratories, Lot PFTrDA0312			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00002	03/19/15	Wellington Laboratories, Lot PFUdA0312			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC-L6_00003	07/03/14	01/20/14	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
					LCPFCSP_00011	1000 uL	Perfluorobutyric acid	200 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorobutane Sulfonate	176.8 ng/mL
							Perfluorodecanoic acid	200 ng/mL
							Perfluorododecanoic acid	200 ng/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	193.6 ng/mL
							Perfluorodecane Sulfonate	192.8 ng/mL
							Perfluoroheptanoic acid	200 ng/mL
							Perfluoroheptane Sulfonate	190.4 ng/mL
							Perfluorohexanoic acid	200 ng/mL
							Perfluorohexadecanoic acid	200 ng/mL
							Perfluorohexane Sulfonate	189.2 ng/mL
							Perfluorononanoic acid	200 ng/mL
							PFNS (Perflouro-1-nonanesulfonate)	192 ng/mL
							Perfluorooctanoic acid (PFOA)	200 ng/mL
							Perfluorooctandecanoic acid	200 ng/mL
							Perfluorooctane Sulfonate (PFOS)	191.2 ng/mL
							Perfluorooctane Sulfonamide	200 ng/mL
							Perfluoropentanoic acid	200 ng/mL
							PFPeS (Perflouro-1-pentanesulfonate)	187.6 ng/mL
							Perfluorotetradecanoic acid	200 ng/mL
							Perfluorotridecanoic acid	200 ng/mL
							Perfluoroundecanoic acid	200 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00011	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCPFBA_00002	0.2 mL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00002	0.2 mL	Perfluorobutane Sulfonate	0.884 ug/mL
					LCPFDA_00002	0.2 mL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00002	0.2 mL	Perfluorododecanoic acid	1 ug/mL
					LCPFDoS_00001	0.2 mL	PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ug/mL
					LCPFDS_00002	0.2 mL	Perfluorodecane Sulfonate	0.964 ug/mL
					LCPFHpA_00002	0.2 mL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00004	0.2 mL	Perfluoroheptane Sulfonate	0.952 ug/mL
					LCPFHxA_00002	0.2 mL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00003	0.2 mL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS_00002	0.2 mL	Perfluorohexane Sulfonate	0.946 ug/mL
					LCPFNA_00002	0.2 mL	Perfluorononanoic acid	1 ug/mL
					LCPFNS_00001	0.2 mL	PFNS (Perflouro-1-nonanesulfonate)	0.96 ug/mL
					LCPFOA_00002	0.2 mL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00003	0.2 mL	Perfluorooctandecanoic acid	1 ug/mL
					LCPFOS_00002	0.2 mL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
					LCPFOSA_00004	0.2 mL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00002	0.2 mL	Perfluoropentanoic acid	1 ug/mL
					LCPFPeS_00001	0.2 mL	PFPeS (Perflouro-1-pentanesulfonate)	0.938 ug/mL
					LCPFTeDA_00002	0.2 mL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00002	0.2 mL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00002	0.2 mL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00002	02/22/15	Wellington Laboratories, Lot PFBA0212			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00002	06/21/15	Wellington Laboratories, Lot LPFBS0612			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
..LCPFDA_00002	07/26/14	Wellington Laboratories, Lot PFDA0711			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00002	11/17/14	Wellington Laboratories, Lot PFDoA1111			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDoS_00001	10/06/14	Wellington Laboratories, Lot LPFDoS1011			(Purchased Reagent)		PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ug/mL
..LCPFDS_00002	06/21/15	Wellington Laboratories, Lot LPFDS0612			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
..LCPFHpA_00002	04/18/15	Wellington Laboratories, Lot PFHpA0412			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00004	11/21/17	Wellington Laboratories, Lot LPFHpS1112			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
..LCPFHxA_00002	10/29/15	Wellington Laboratories, Lot PFHxA1012			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00003	11/28/17	Wellington Laboratories, Lot PFHxDA0707			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS_00002	03/27/15	Wellington Laboratories, Lot LPFHxS0312			(Purchased Reagent)		Perfluorohexane Sulfonate	47.3 ug/mL
..LCPFNA_00002	06/14/15	Wellington Laboratories, Lot PFNA0612			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFNS_00001	07/04/15	Wellington Laboratories, Lot LPFNS0712			(Purchased Reagent)		PFNS (Perflouro-1-nonanesulfonate)	48 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00003	07/13/15	Wellington Laboratories, Lot PFHODA0807			(Purchased Reagent)		Perfluorooctandecanoic acid	50 ug/mL
..LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL
..LCPFOSA_00004	09/13/15	Wellington Laboratories, Lot FOSA0912M			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00002	11/17/14	Wellington Laboratories, Lot PFPeA1111			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFPeS_00001	06/21/15	Wellington Laboratories, Lot LPFPeS0712			(Purchased Reagent)		PFPeS (Perflouro-1-pentanesulfonate)	46.9 ug/mL
..LCPFTeDA_00002	03/07/15	Wellington Laboratories, Lot PFTeDA0312			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00002	03/26/15	Wellington Laboratories, Lot PFTrDA0312			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00002	03/19/15	Wellington Laboratories, Lot PFUdA0312			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC-L7_00003	07/03/14	01/20/14	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
					LCPFCSP_00011	2500 uL	Perfluorobutyric acid	500 ng/mL
							Perfluorobutane Sulfonate	442 ng/mL
							Perfluorodecanoic acid	500 ng/mL
							Perfluorododecanoic acid	500 ng/mL
							PFDoS (Perflouro-1-dodecanesulfonate)	484 ng/mL
							Perfluorodecane Sulfonate	482 ng/mL
							Perfluoroheptanoic acid	500 ng/mL
							Perfluoroheptane Sulfonate	476 ng/mL
							Perfluorohexanoic acid	500 ng/mL
							Perfluorohexadecanoic acid	500 ng/mL
							Perfluorohexane Sulfonate	473 ng/mL
							Perfluorononanoic acid	500 ng/mL
							PFNS (Perflouro-1-nonanesulfonate)	480 ng/mL
							Perfluorooctanoic acid (PFOA)	500 ng/mL
							Perfluorooctandecanoic acid	500 ng/mL
							Perfluorooctane Sulfonate (PFOS)	478 ng/mL
							Perfluorooctane Sulfonamide	500 ng/mL
							Perfluoropentanoic acid	500 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							PFPeS (Perflouro-1-pentanesulfonate)	469 ng/mL
							Perfluorotetradecanoic acid	500 ng/mL
							Perfluorotridecanoic acid	500 ng/mL
							Perfluoroundecanoic acid	500 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00011	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCPFBA_00002	0.2 mL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00002	0.2 mL	Perfluorobutane Sulfonate	0.884 ug/mL
					LCPFDA_00002	0.2 mL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00002	0.2 mL	Perfluorododecanoic acid	1 ug/mL
					LCPFDoS_00001	0.2 mL	PFDoS (Perflouro-1-dodecanesulfonate)	0.968 ug/mL
					LCPFDS_00002	0.2 mL	Perfluorodecane Sulfonate	0.964 ug/mL
					LCPFHpA_00002	0.2 mL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00004	0.2 mL	Perfluoroheptane Sulfonate	0.952 ug/mL
					LCPFHxA_00002	0.2 mL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00003	0.2 mL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS_00002	0.2 mL	Perfluorohexane Sulfonate	0.946 ug/mL
					LCPFNA_00002	0.2 mL	Perfluorononanoic acid	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFNS_00001	0.2 mL	PFNS (Perflouro-1-nonanesulfonate)	0.96 ug/mL
					LCPFOA_00002	0.2 mL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00003	0.2 mL	Perfluorooctandecanoic acid	1 ug/mL
					LCPFOS_00002	0.2 mL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
					LCPFOSA_00004	0.2 mL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00002	0.2 mL	Perfluoropentanoic acid	1 ug/mL
					LCPFPeS_00001	0.2 mL	PFPeS (Perflouro-1-pentanesulfonate)	0.938 ug/mL
					LCPFTeDA_00002	0.2 mL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00002	0.2 mL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00002	0.2 mL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00002	02/22/15	Wellington Laboratories, Lot PFBA0212			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00002	06/21/15	Wellington Laboratories, Lot LPFBS0612			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
..LCPFDA_00002	07/26/14	Wellington Laboratories, Lot PFDA0711			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00002	11/17/14	Wellington Laboratories, Lot PFDoA1111			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDoS_00001	10/06/14	Wellington Laboratories, Lot LPFDoS1011			(Purchased Reagent)		PFDoS (Perflouro-1-dodecanesulfonate)	48.4 ug/mL
..LCPFDS_00002	06/21/15	Wellington Laboratories, Lot LPFDS0612			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
..LCPFHpA_00002	04/18/15	Wellington Laboratories, Lot PFHpA0412			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00004	11/21/17	Wellington Laboratories, Lot LPFHpS1112			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
..LCPFHxA_00002	10/29/15	Wellington Laboratories, Lot PFHxA1012			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00003	11/28/17	Wellington Laboratories, Lot PFHxDA0707			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS_00002	03/27/15	Wellington Laboratories, Lot LPFHxS0312			(Purchased Reagent)		Perfluorohexane Sulfonate	47.3 ug/mL
..LCPFNA_00002	06/14/15	Wellington Laboratories, Lot PFNA0612			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFNS_00001	07/04/15	Wellington Laboratories, Lot LPFNS0712			(Purchased Reagent)		PFNS (Perflouro-1-nonanesulfonate)	48 ug/mL
..LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00003	07/13/15	Wellington Laboratories, Lot PFHODA0807			(Purchased Reagent)		Perfluorooctandecanoic acid	50 ug/mL
..LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL
..LCPFOSA_00004	09/13/15	Wellington Laboratories, Lot FOSA0912M			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00002	11/17/14	Wellington Laboratories, Lot PFPeA1111			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFPeS_00001	06/21/15	Wellington Laboratories, Lot LPFPeS0712			(Purchased Reagent)		PFPeS (Perflouro-1-pentanesulfonate)	46.9 ug/mL
..LCPFTeDA_00002	03/07/15	Wellington Laboratories, Lot PFTeDA0312			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00002	03/26/15	Wellington Laboratories, Lot PFTrDA0312			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00002	03/19/15	Wellington Laboratories, Lot PFUdA0312			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC-L9_00003	07/03/14	01/20/14	MeOH/H2O, Lot 042259	10 mL	LCMPFCSU_00007	500 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	20 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
LCPFCIC_00003	06/24/14	10/28/13	MeOH/H2O, Lot 042259	5 mL	LCMPFCSU_00007	250 uL	13C2-PFHxDA	20 ng/mL
							13C2-PFTeDA	20 ng/mL
							13C4-PFHpA	20 ng/mL
							13C5-PFPeA	20 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	20 ng/mL
							13C2 PFDA	20 ng/mL
							13C2 PFDoA	20 ng/mL
							13C2 PFHxA	20 ng/mL
							18O2 PFHxS	18.92 ng/mL
							13C5 PFNA	20 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C2 PFUnA	20 ng/mL
					LCPFACMXB_00002	125 uL	Perfluorooctane Sulfonate (PFOS)	47.75 ng/mL
							Perfluorooctanoic acid (PFOA)	50 ng/mL
.LCMPFCSU_00007	07/03/14	01/03/14	Methanol, Lot 042259	10 mL	LCM2PFHxDA_00001	0.08 mL	13C2-PFHxDA	0.4 ug/mL
					LCM2PFTeDA_00001	0.08 mL	13C2-PFTeDA	0.4 ug/mL
					LCM4PFHPA_00001	0.08 mL	13C4-PFHpA	0.4 ug/mL
					LCM5PFPEA_00002	0.08 mL	13C5-PFPeA	0.4 ug/mL
					LCM8FOSA_00003	0.2 mL	13C8 FOSA	1 ug/mL
					LCMPFBA_00002	0.08 mL	13C4 PFBA	0.4 ug/mL
					LCMPFDA_00003	0.08 mL	13C2 PFDA	0.4 ug/mL
					LCMPFDoA_00002	0.08 mL	13C2 PFDoA	0.4 ug/mL
					LCMPFHxA_00004	0.08 mL	13C2 PFHxA	0.4 ug/mL
					LCMPFHxS_00002	0.08 mL	18O2 PFHxS	0.3784 ug/mL
					LCMPFNA_00002	0.08 mL	13C5 PFNA	0.4 ug/mL
					LCMPFOA_00003	0.2 mL	13C4 PFOA	1 ug/mL
					LCMPFOS_00004	0.2 mL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00002	0.08 mL	13C2 PFUnA	0.4 ug/mL
..LCM2PFHxDA_00001	11/29/15	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00001	11/29/15	Wellington Laboratories, Lot M2PFTeDA1112			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00001	01/20/15	Wellington Laboratories, Lot M4PFHpA0112			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00002	03/07/15	Wellington Laboratories, Lot M5PFPeA0312			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00003	06/19/15	Wellington Laboratories, Lot M8FOSA0612M			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00002	08/13/15	Wellington Laboratories, Lot MPFBA0812			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00003	09/13/17	Wellington Laboratories, Lot MPFDA0912			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00002	03/26/15	Wellington Laboratories, Lot MPFDoA0312			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00004	02/14/18	Wellington Laboratories, Lot MPFHxA0213			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00002	03/08/15	Wellington Laboratories, Lot MPFHxS0312			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00002	09/13/15	Wellington Laboratories, Lot MPFNA0912			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00003	03/19/15	Wellington Laboratories, Lot MPFOA0312			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00004	01/22/18	Wellington Laboratories, Lot MPFOS0113			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00002	09/29/14	Wellington Laboratories, Lot MPFUdA0911			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFACMXB_00002	03/08/15	Wellington Laboratories, Lot PFACMXB0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	1.91 ug/mL
							Perfluorooctanoic acid (PFOA)	2 ug/mL
LCPFOASP_00003	07/20/14	01/20/14	Methanol, Lot 042259	5 mL	LCPFOA_00002	100 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFOS_00002	100 uL	Perfluorooctane Sulfonate (PFOS)	0.956 ug/mL
.LCPFOA_00002	12/21/14	Wellington Laboratories, Lot PFOA1211			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
.LCPFOS_00002	03/26/15	Wellington Laboratories, Lot LPFOS0312			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	47.8 ug/mL

Reagent

LCM2PFHxDA_00001

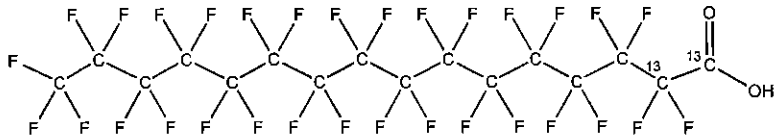
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

12-19-12 New pdf

PRODUCT CODE: M2PFHxDA
LOT NUMBER: M2PFHxDA1112
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexadecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{14}HF_{31}O_2$	**MOLECULAR WEIGHT:**	816.11
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)	11/29/2012		
EXPIRY DATE: (mm/dd/yyyy)	11/29/2015		
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 ~ 0.3% of native perfluoro-n-hexadecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/05/2012 (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:

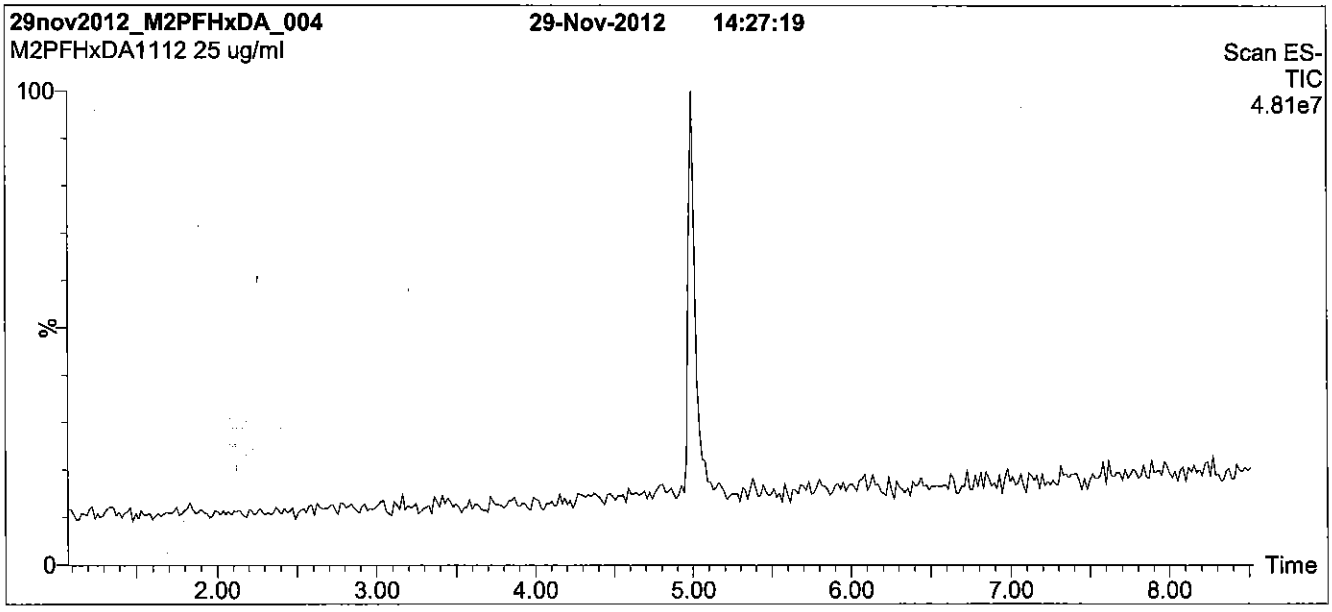
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

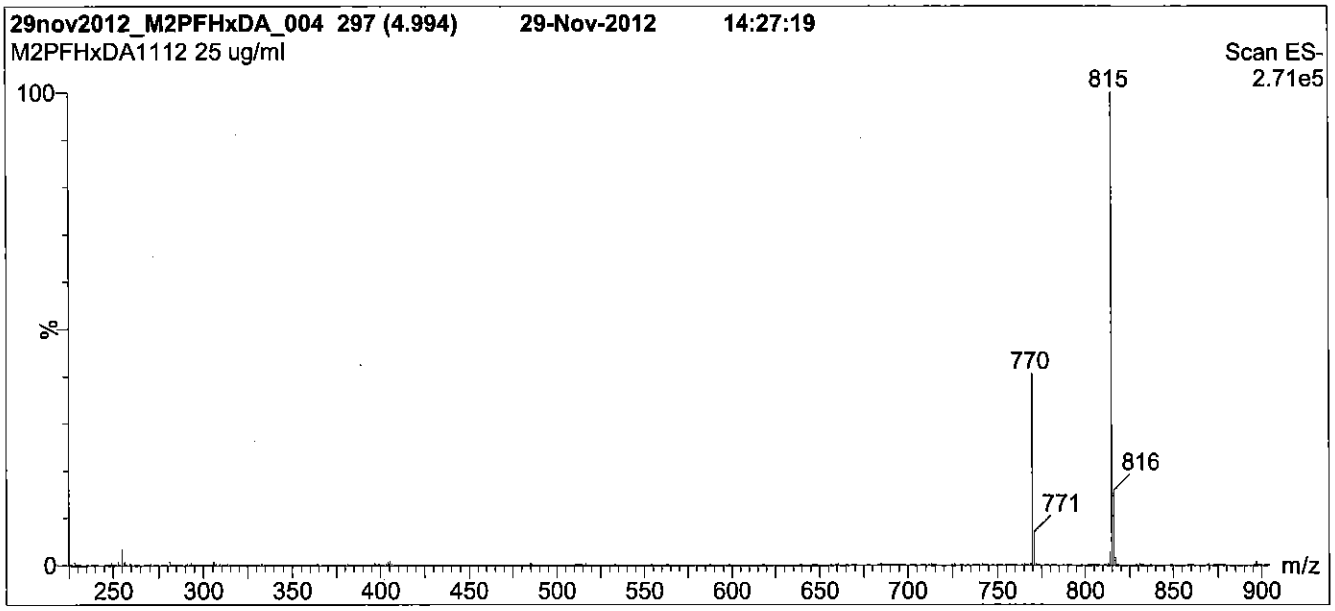
CALA Testing Accreditation No. A1226

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: **M2PFHxDA; 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 100% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

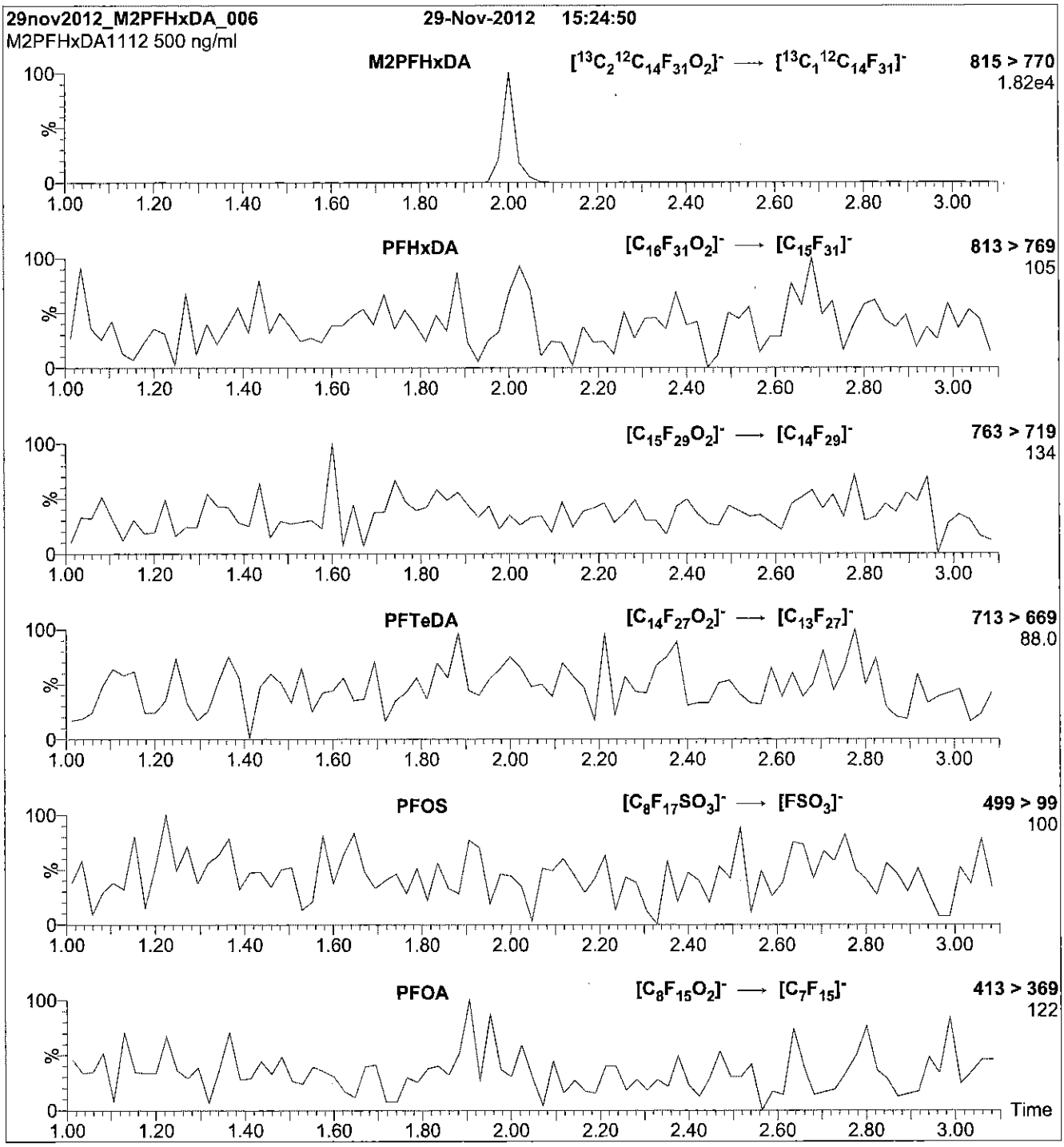
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2PFHxDA)
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) = 3.39e-3
Collision Energy (eV) = 15

Reagent

LCM2PFTeDA_00001

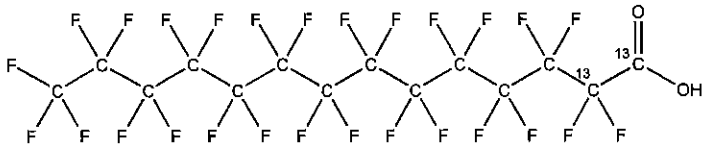
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

12-19-12 New pdt.

PRODUCT CODE: M2PFTeDA
LOT NUMBER: M2PFTeDA1112
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{12}HF_{27}O_2$	**MOLECULAR WEIGHT:**	716.10
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)	11/29/2012		
EXPIRY DATE: (mm/dd/yyyy)	11/29/2015		
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:** 12/04/2012 (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:

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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:

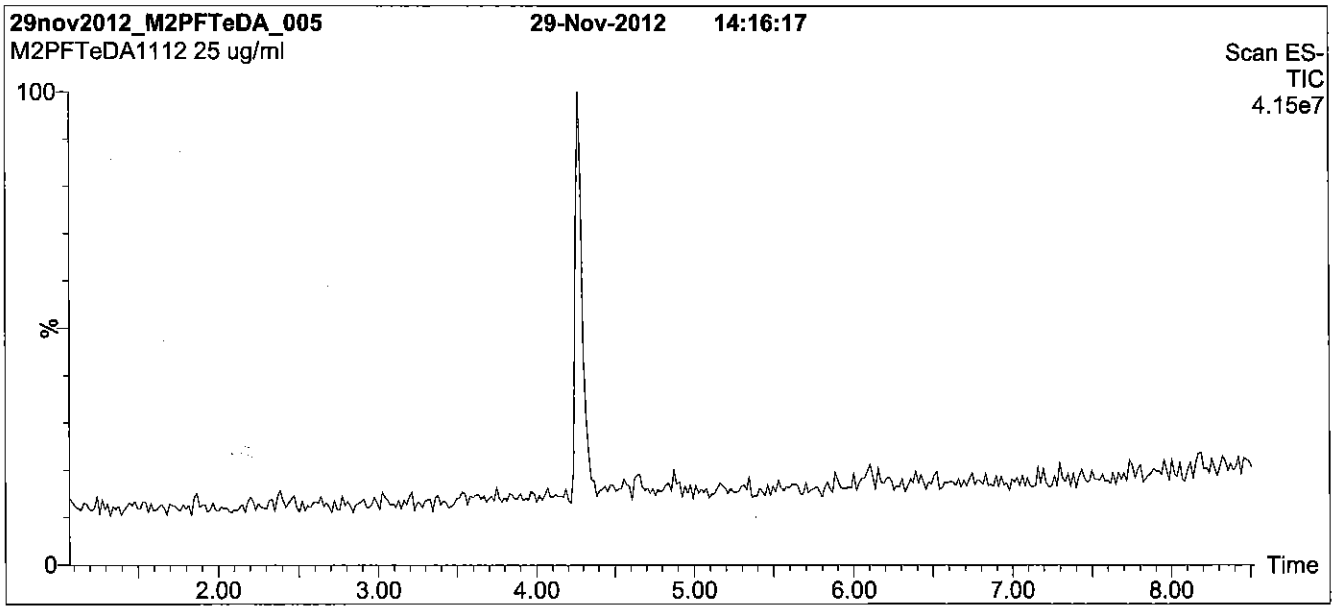
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

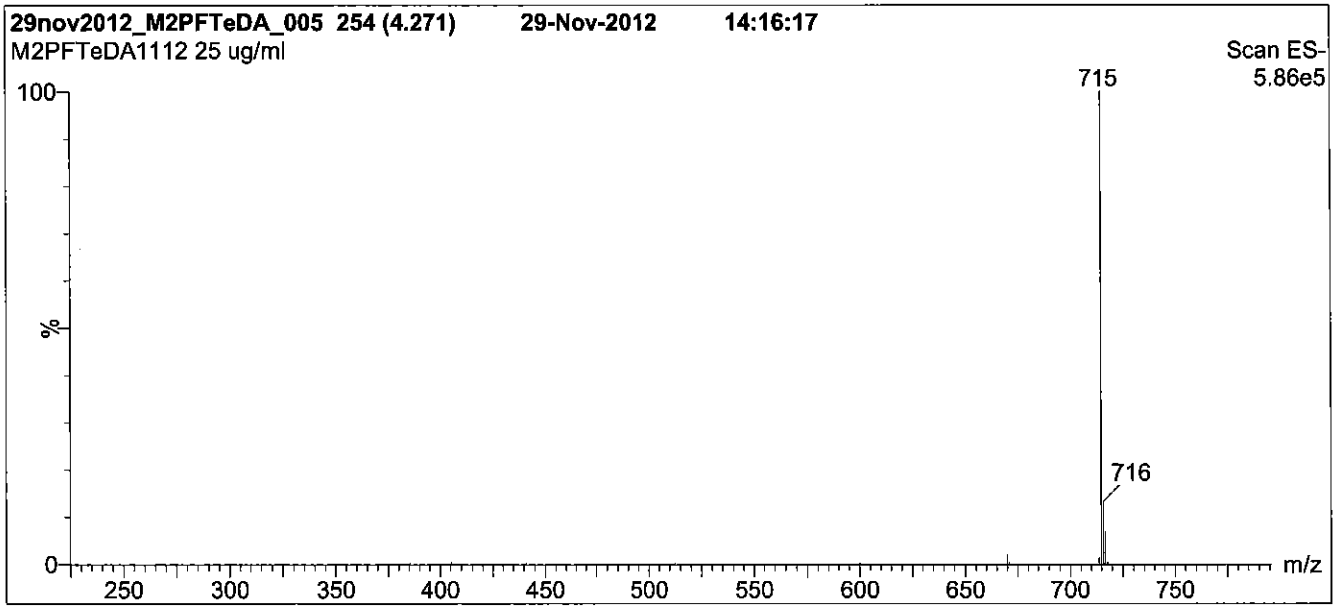
CALA Testing Accreditation No. A 1226

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: **M2PFTeDA; 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 100% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

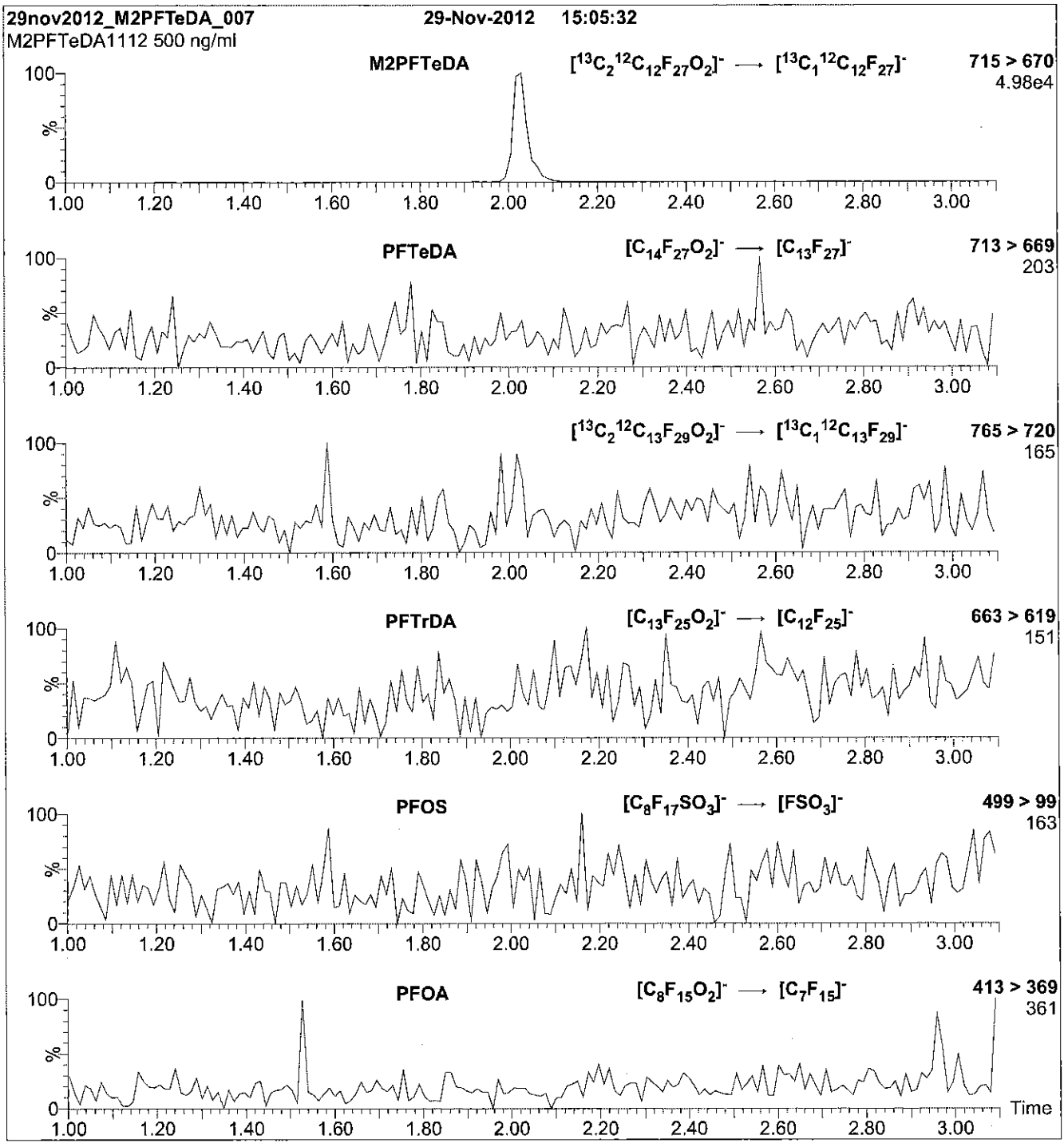
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2PFTeDA)
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) = 3.66e-3
Collision Energy (eV) = 14

Reagent

LCM4PFHPA_00001

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R: 12-14-12

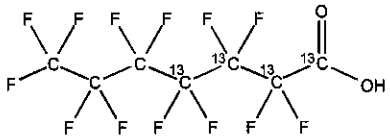
LCM4PFHPA_00001

PRODUCT CODE: M4PFHpA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

LOT NUMBER: M4PFHpA0112

STRUCTURE:

CAS # Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_3HF_{13}O_2$	**MOLECULAR WEIGHT:**	368.03
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	01/20/2012		
EXPIRY DATE: (mm/dd/yyyy)	01/20/2015		
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:** 01/23/2012 (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:

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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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.

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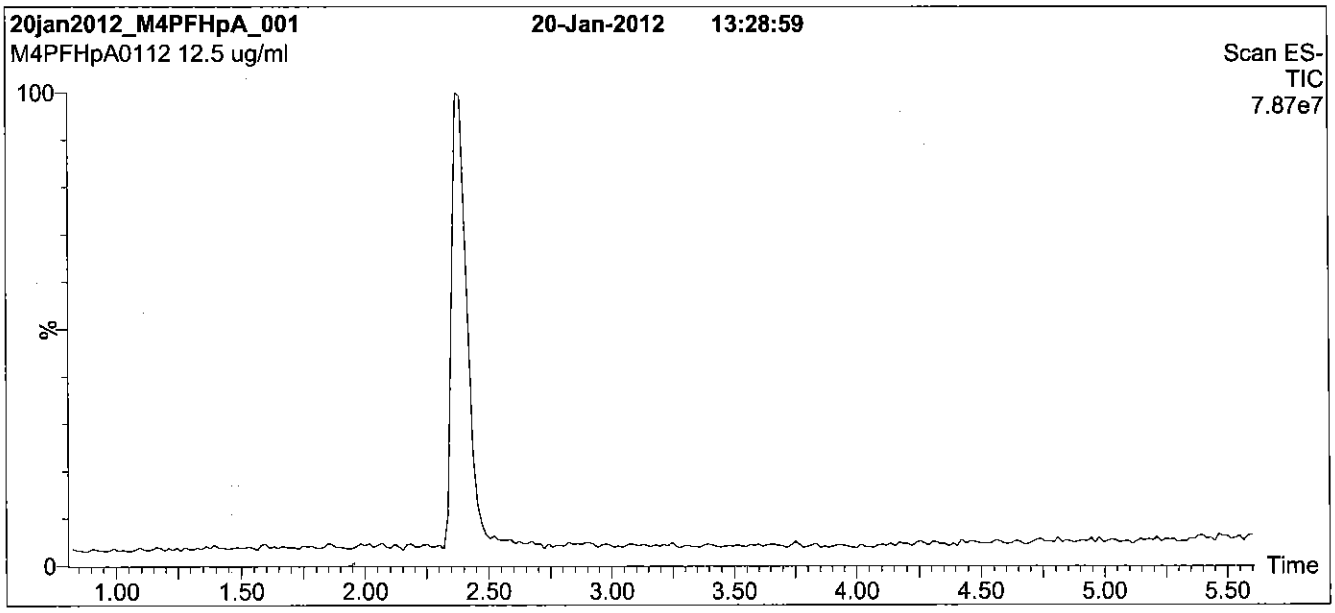
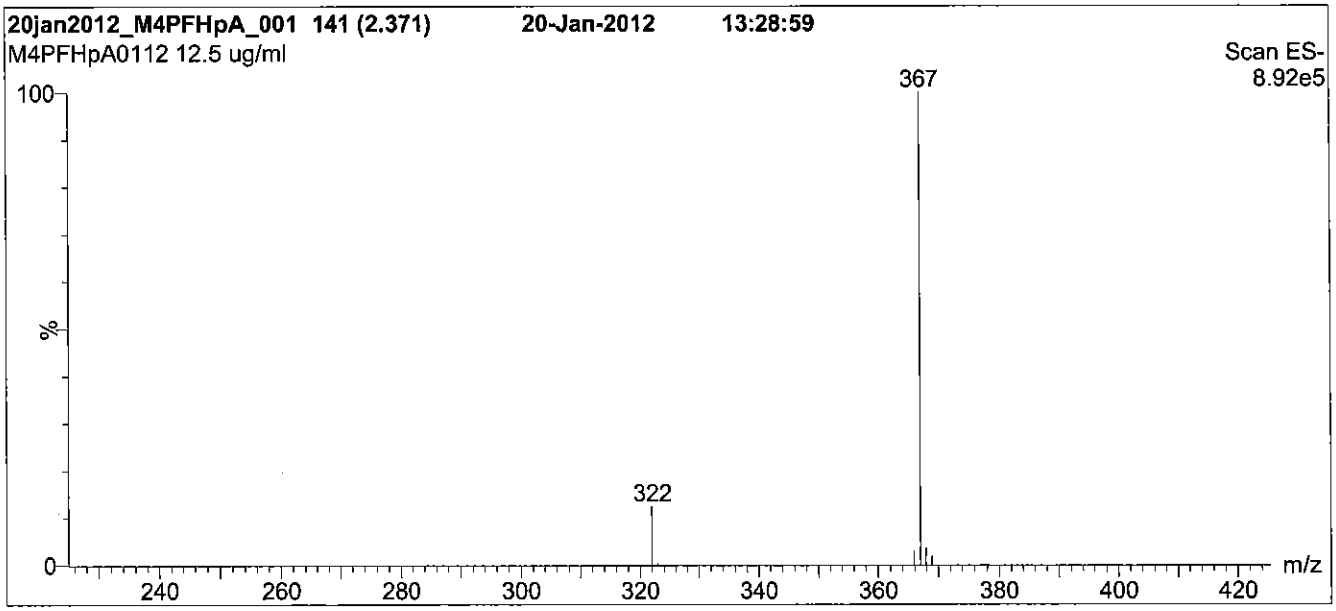
Figure 1: **M4PFHpA; LC/MS Data (TIC and Mass Spectrum)**





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

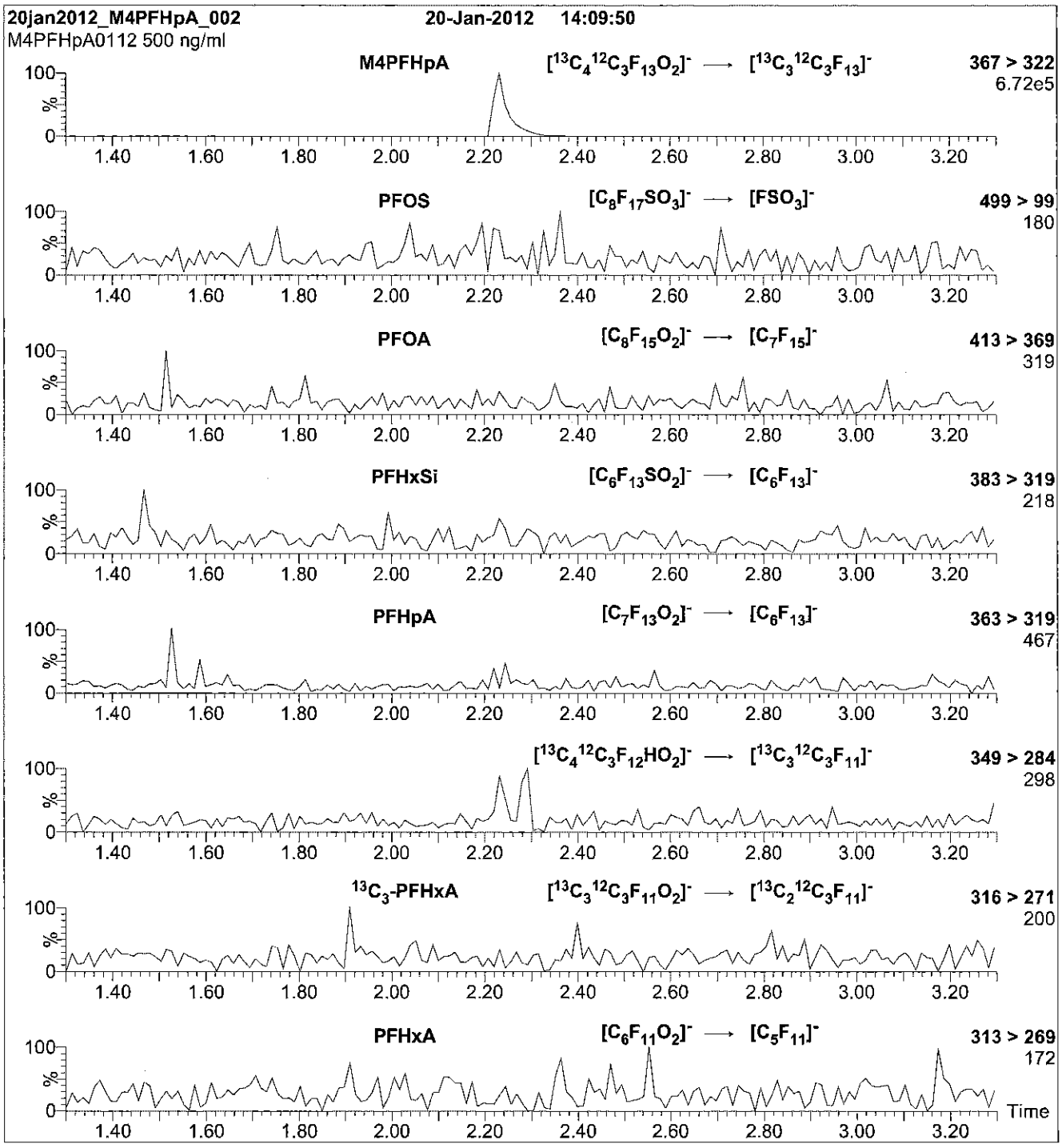
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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: **M4PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M4PFHpA)

Mobile phase: Isocratic 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 11

Reagent

LCM5PFPEA_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R: 12-14-12

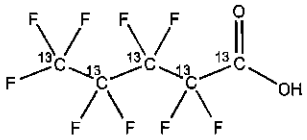
~~LCPF~~ LCM5PFPeA_00002
DEL 12-19-12

PRODUCT CODE: M5PFPeA
COMPOUND: Perfluoro-n-[$^{13}C_5$]pentanoic acid

LOT NUMBER: M5PFPeA0312

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_5HF_9O_2$	**MOLECULAR WEIGHT:**	269.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	03/07/2012		
EXPIRY DATE: (mm/dd/yyyy)	03/07/2015		
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-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/19/2012 (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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$$u_c(y(x_1, x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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

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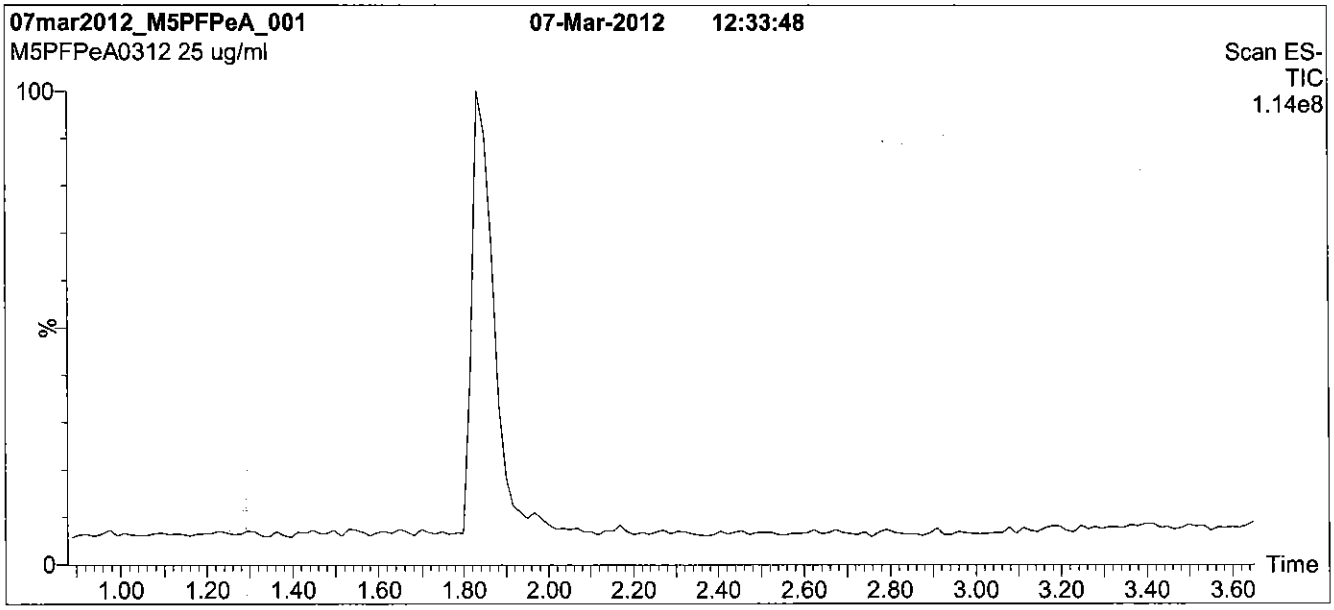
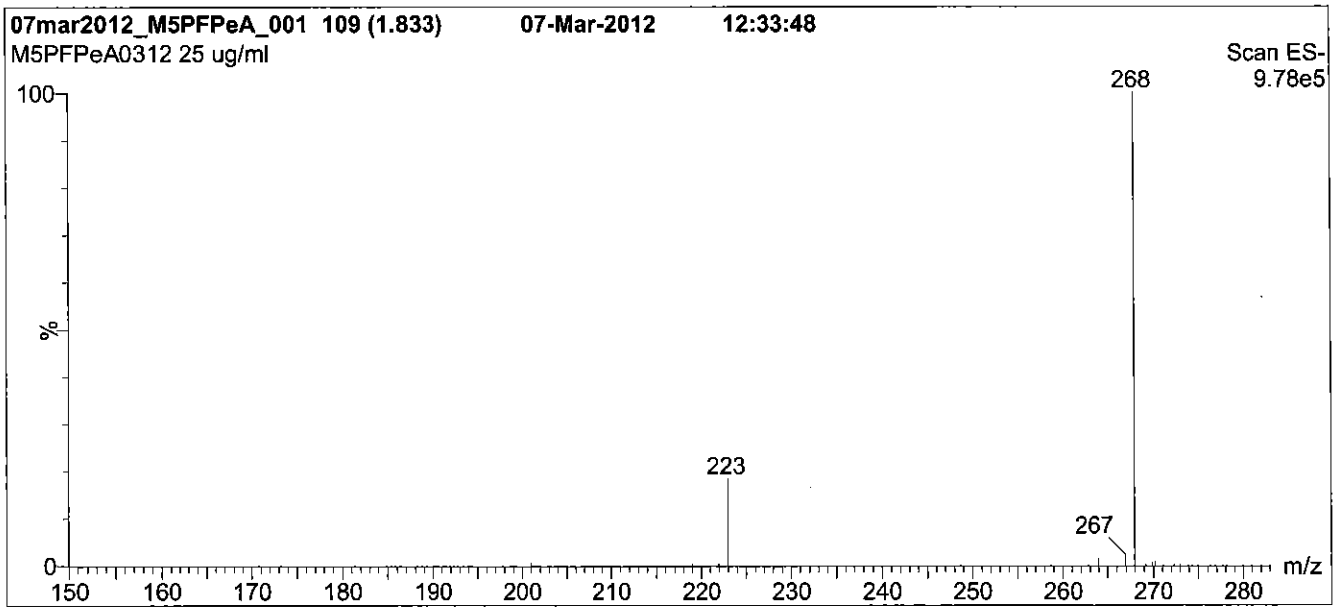
Figure 1: **M5PFPeA; LC/MS Data (TIC and Mass Spectrum)**





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: 35% (80:20 MeOH:ACN) / 65% H_2O
(both with 10 mM NH_4OAc)
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

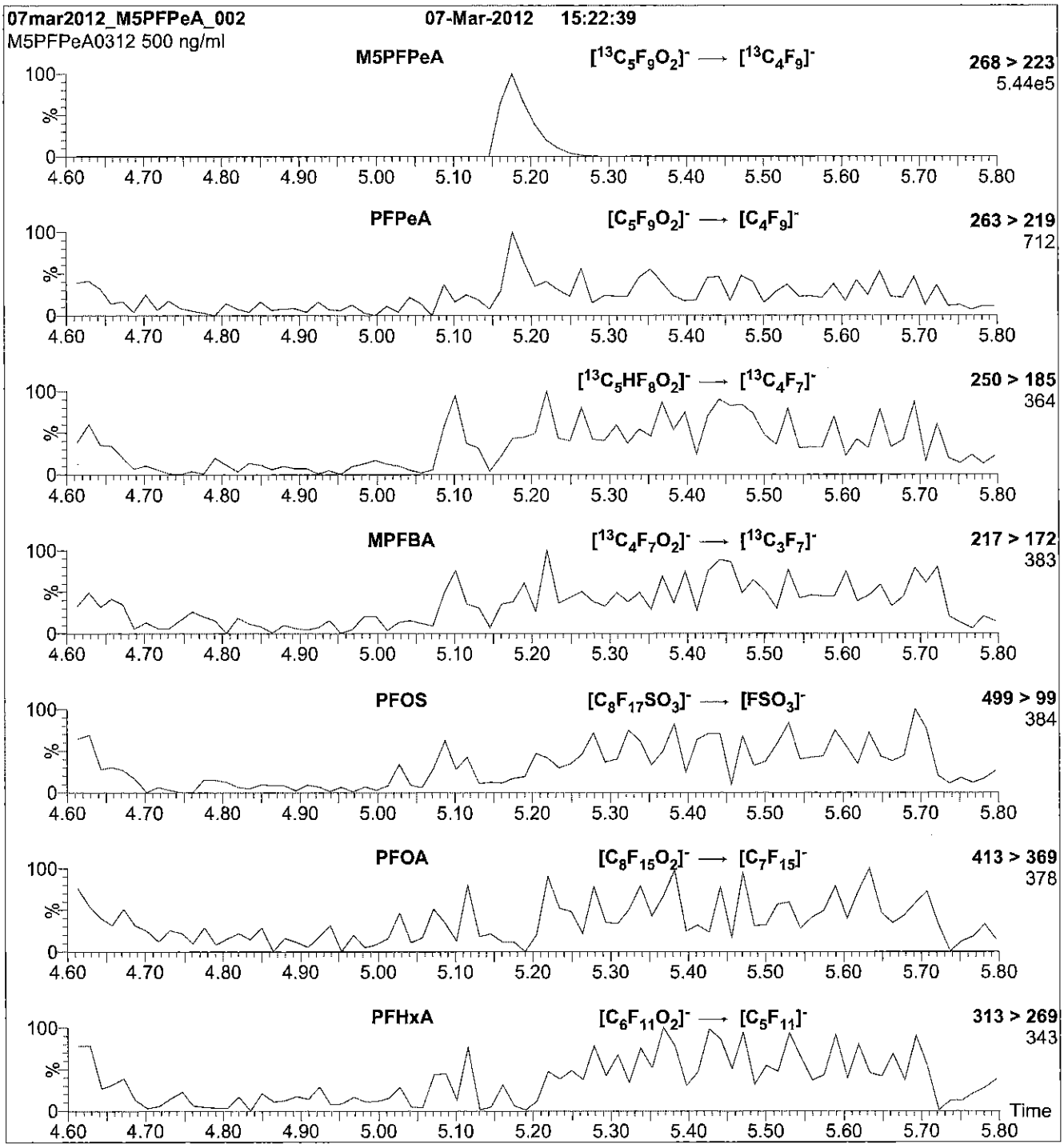
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M5PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M5PFPeA)
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) = 3.39e-3
Collision Energy (eV) = 9

Reagent

LCM8FOSA_00003

WELLINGTON LABORATORIES

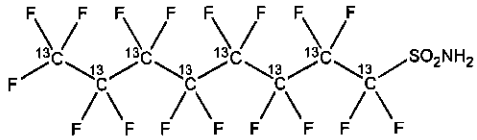
CERTIFICATE OF ANALYSIS
DOCUMENTATION

2-12-14-12

LCM8FOSA_00003

PRODUCT CODE: M8FOSA-M
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide
LOT NUMBER: M8FOSA0612M

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	06/19/2012		
EXPIRY DATE: (mm/dd/yyyy)	06/19/2015		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/21/2012 (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:

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HOMOGENEITY:

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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:

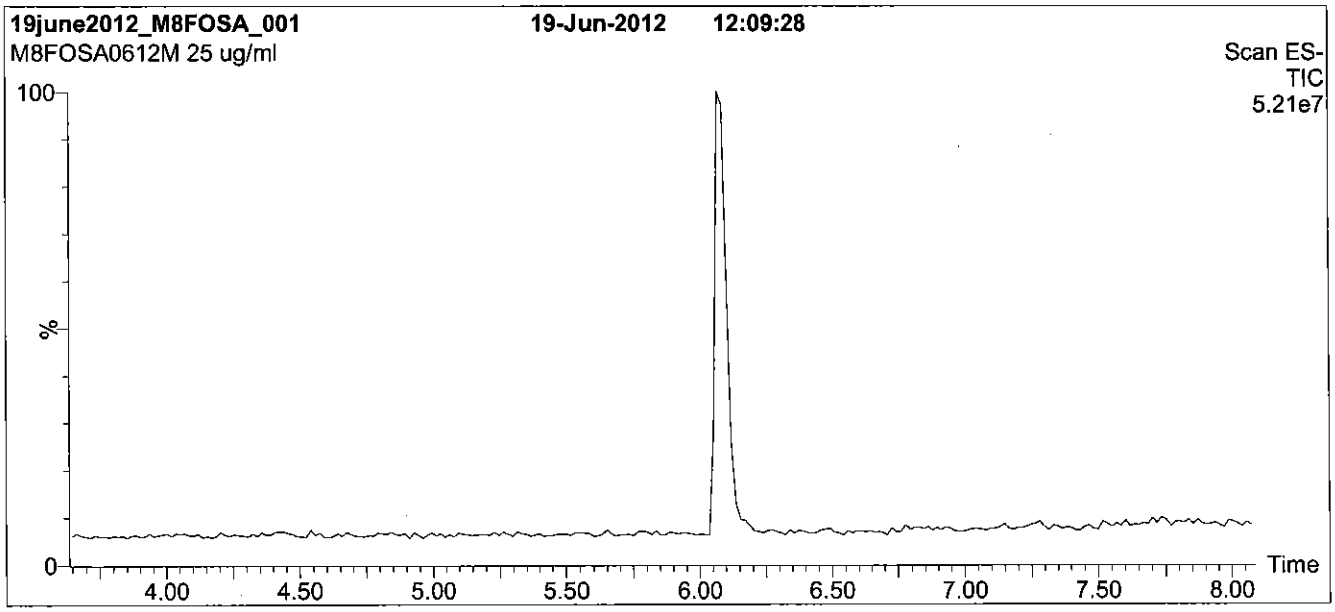
Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

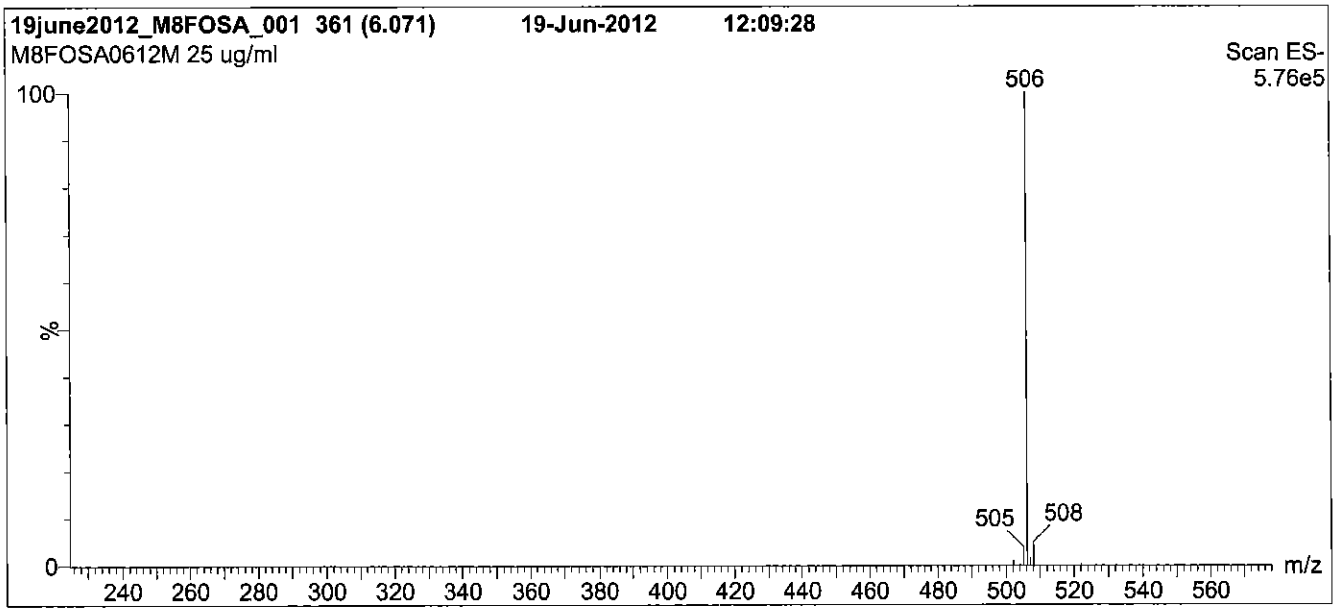
LIMITED WARRANTY:

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.

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: **M8FOSA-M; 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: 40% (80:20 MeOH:ACN) / 60% 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

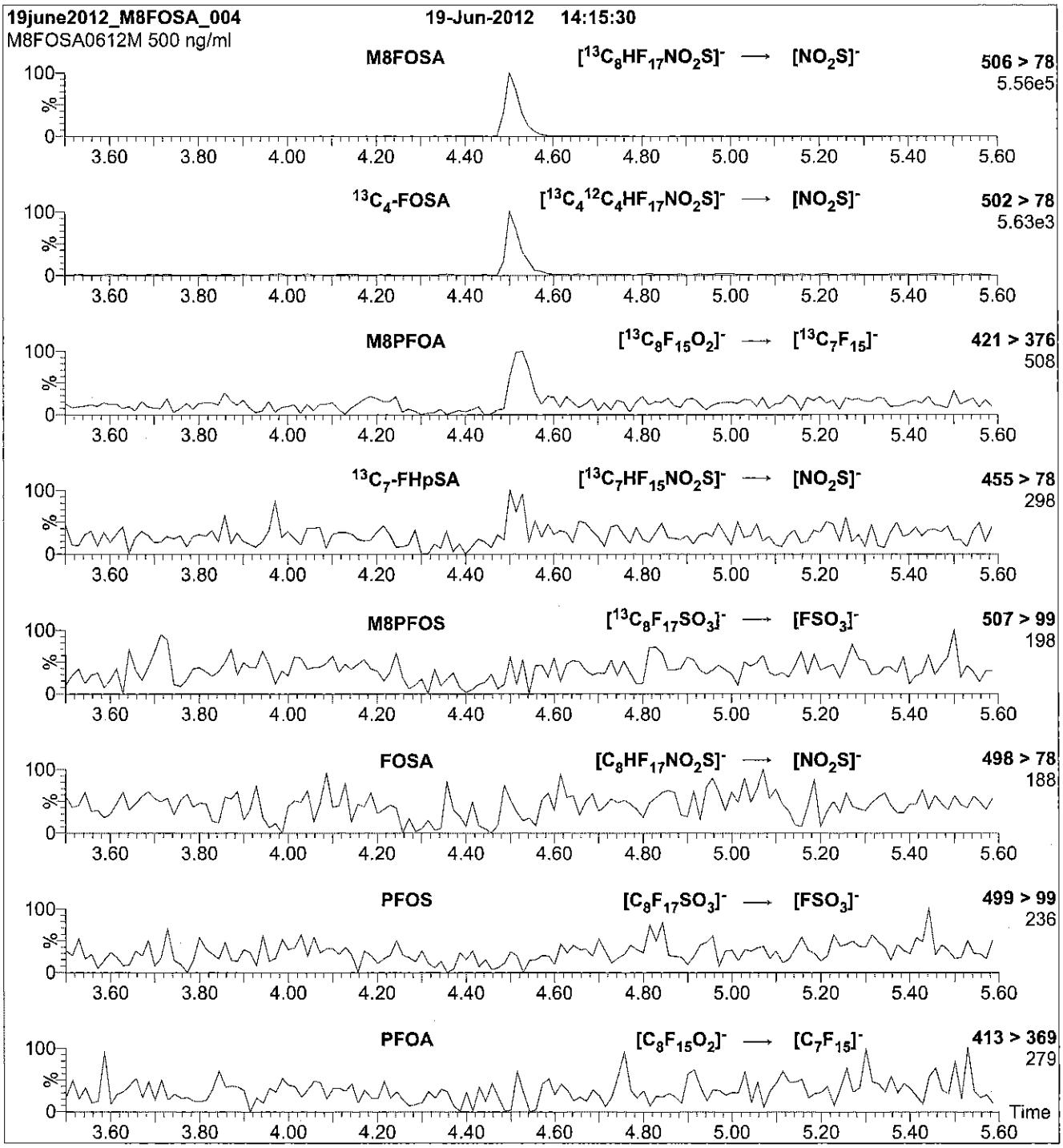
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M8FOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8FOSA-M)

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) = 30

Reagent

LCMPFBA_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

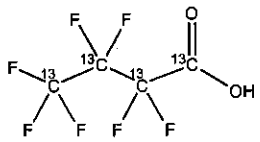
R 12-14-12
LCMPFBA_00002

PRODUCT CODE: MPFBA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid

LOT NUMBER: MPFBA0812

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	08/13/2012		
EXPIRY DATE: (mm/dd/yyyy)	08/13/2015		
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 ~ 0.7% of native PFBA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/23/2012
B.G. Chittim (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:

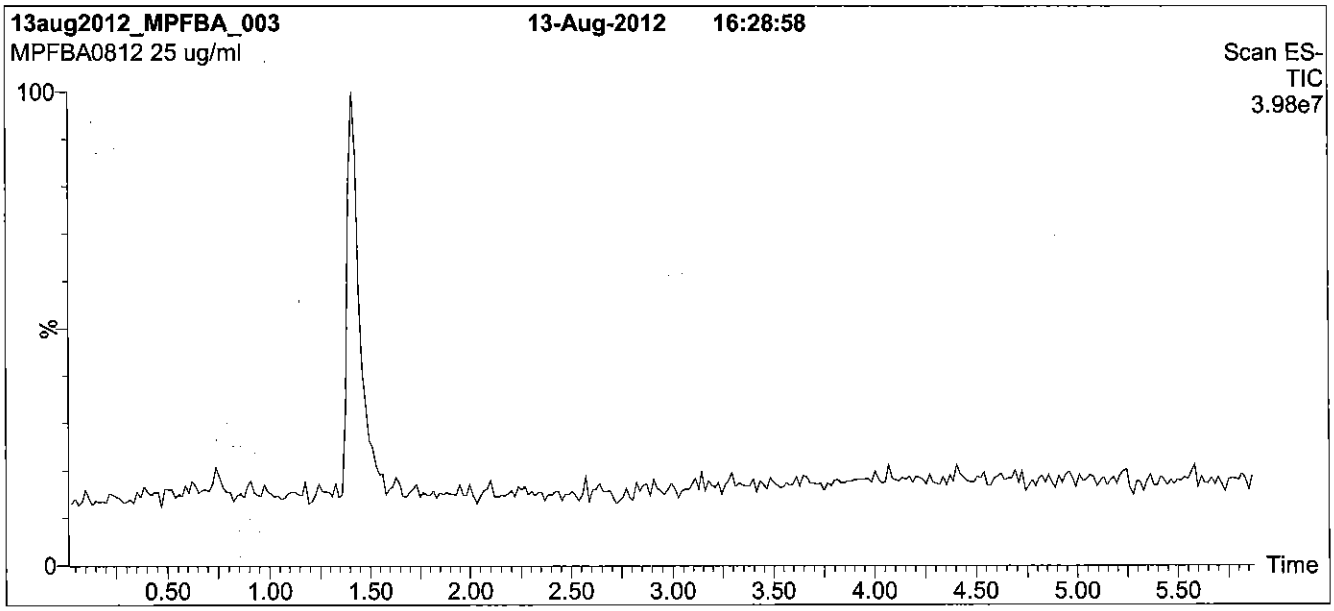
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

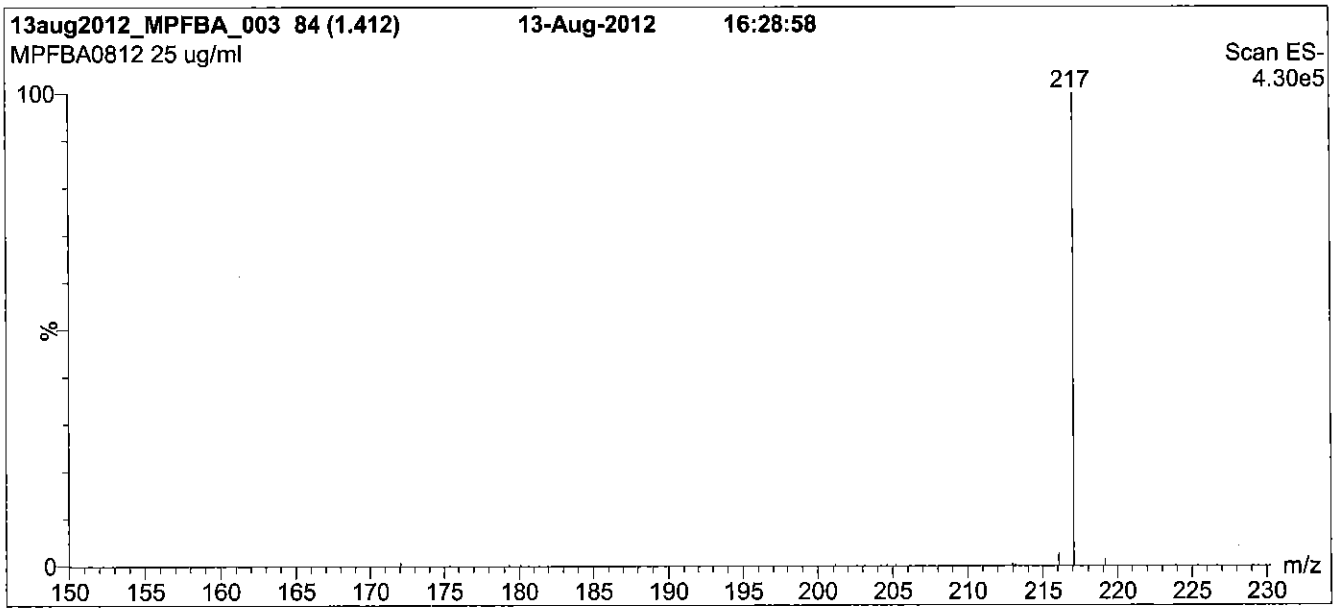
CALA Testing Accreditation No. A1226

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: **MPFBA; 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: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

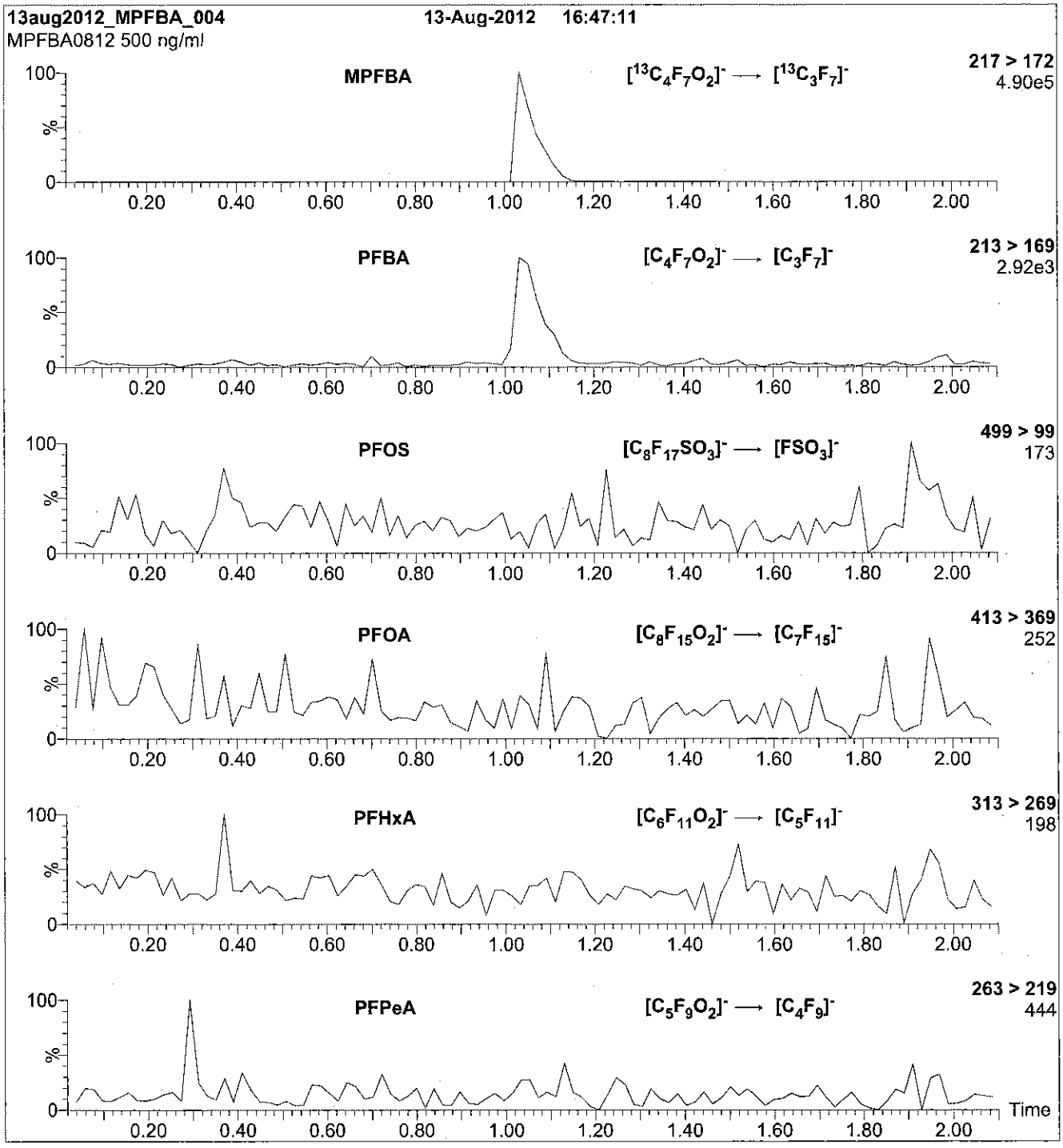
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml MPFBA)
Mobile phase:	Isocratic 60% (80:20 MeOH:ACN) / 40% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.62e-3
Collision Energy (eV) = 10

Reagent

LCMPFDA_00003

WELLINGTON LABORATORIES

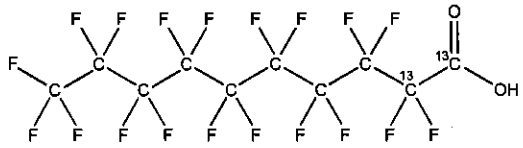
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

LOT NUMBER: MPFDA0912

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 ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	09/13/2012		
EXPIRY DATE: (mm/dd/yyyy)	09/13/2017		
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.
- Contains ~ 0.1% of $^{13}C_1$-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

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 Testing Accreditation No. A 1226

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER

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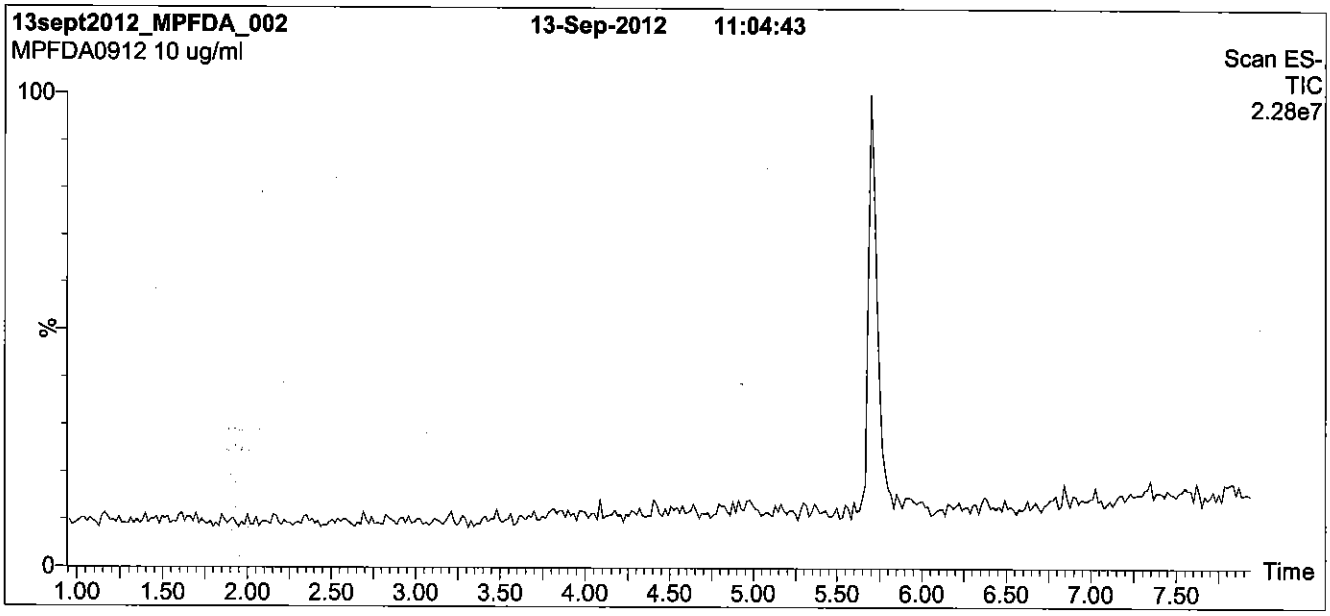
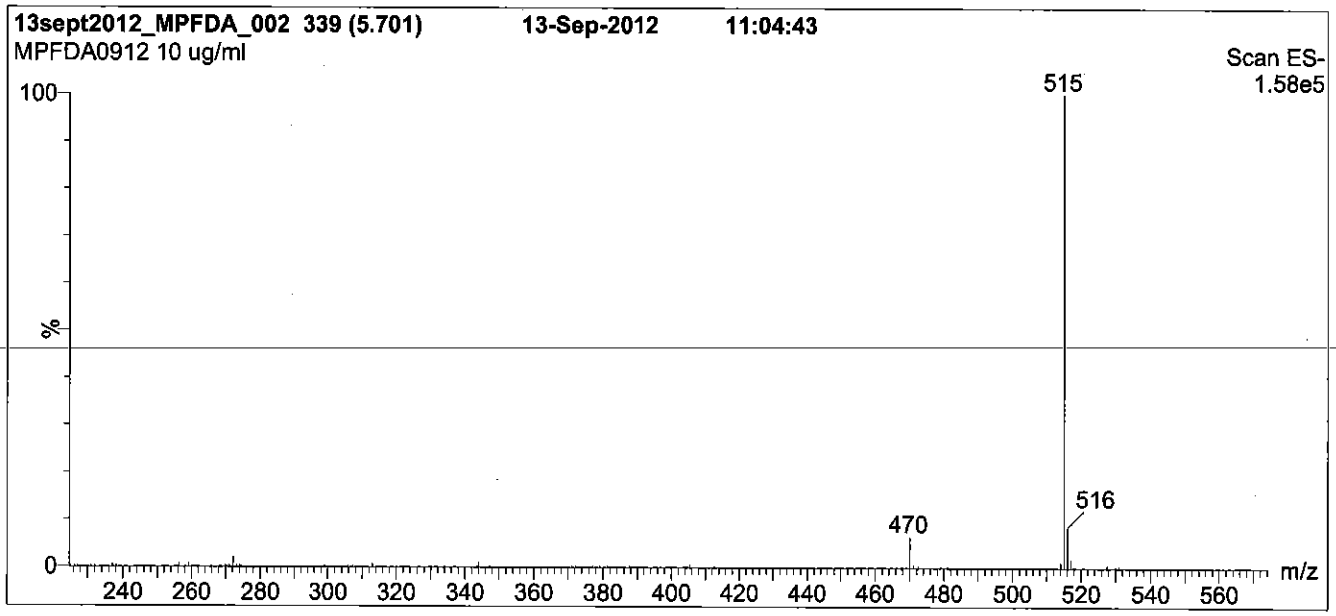
Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





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: 40% (80:20 MeOH:ACN) / 60% 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

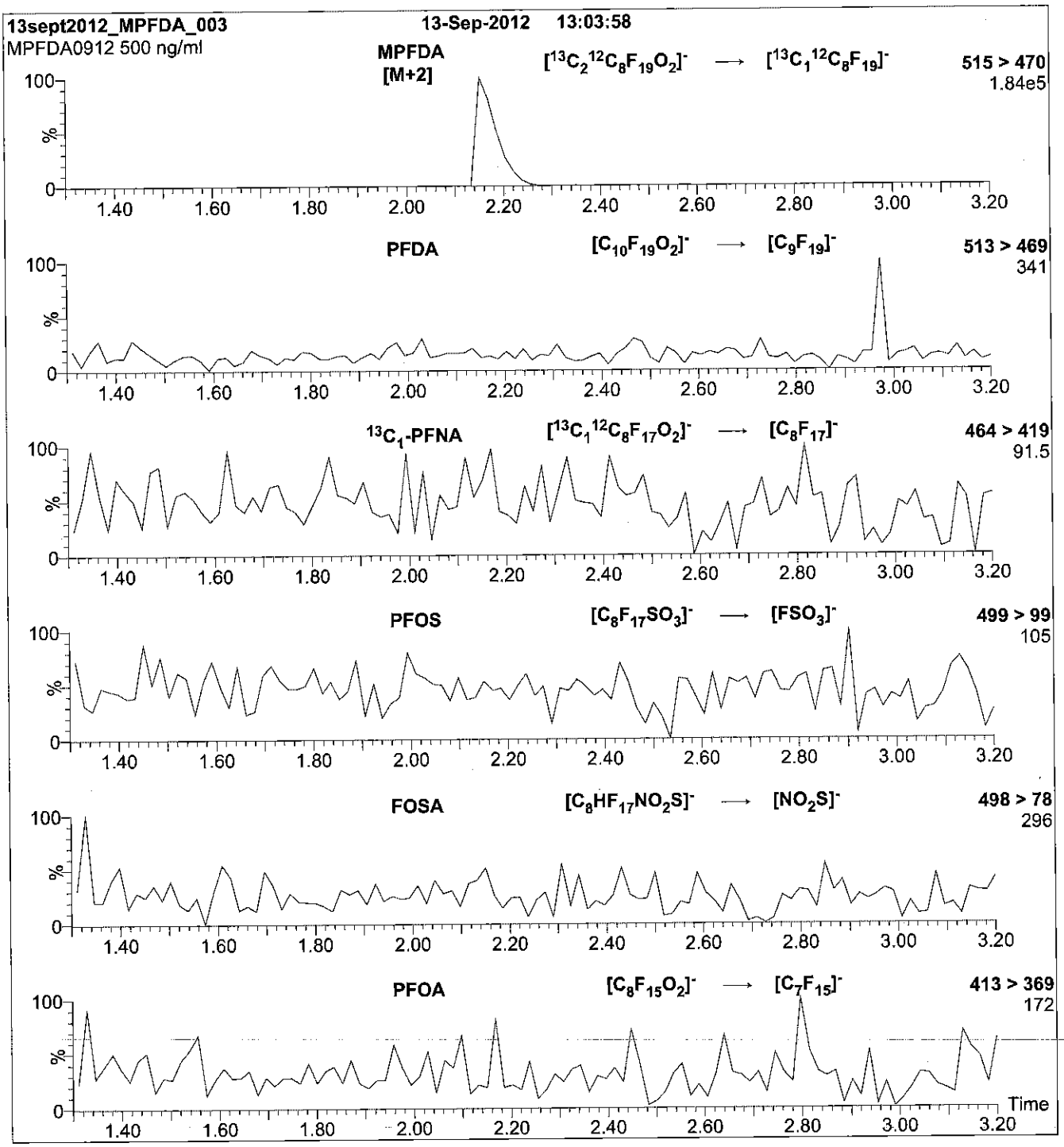
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 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) = 3.62e-3
Collision Energy (eV) = 13

Reagent

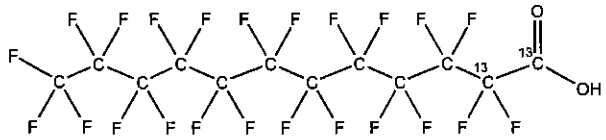
LCMPFDoA_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R: 12-14-12
LCMPFDoA_00002

PRODUCT CODE:	MPFDoA	**LOT NUMBER:**	MPFDoA0312
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{10}HF_{23}O_2$	**MOLECULAR WEIGHT:**	616.08
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)	03/26/2012		
EXPIRY DATE: (mm/dd/yyyy)	03/26/2015		
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: _____ **Date:** 04/04/2012
B.G. Chittim (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:

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HAZARDS:

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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:

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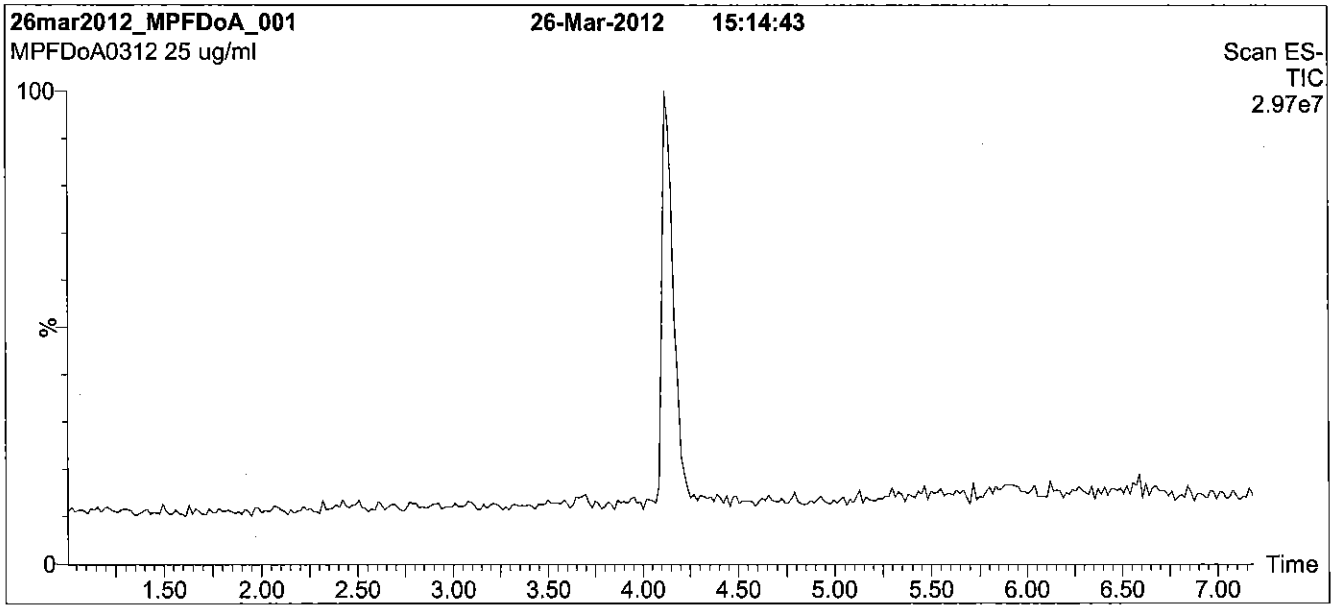
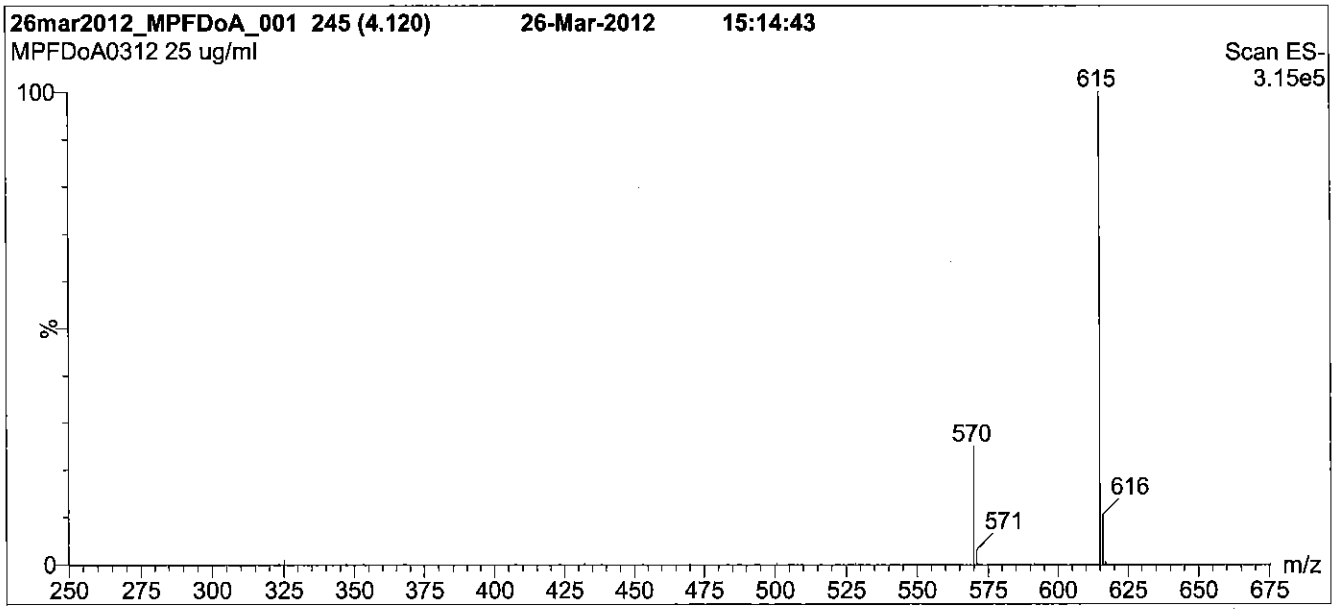
Figure 1: **MPFDoA; LC/MS Data (TIC and Mass Spectrum)**





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 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

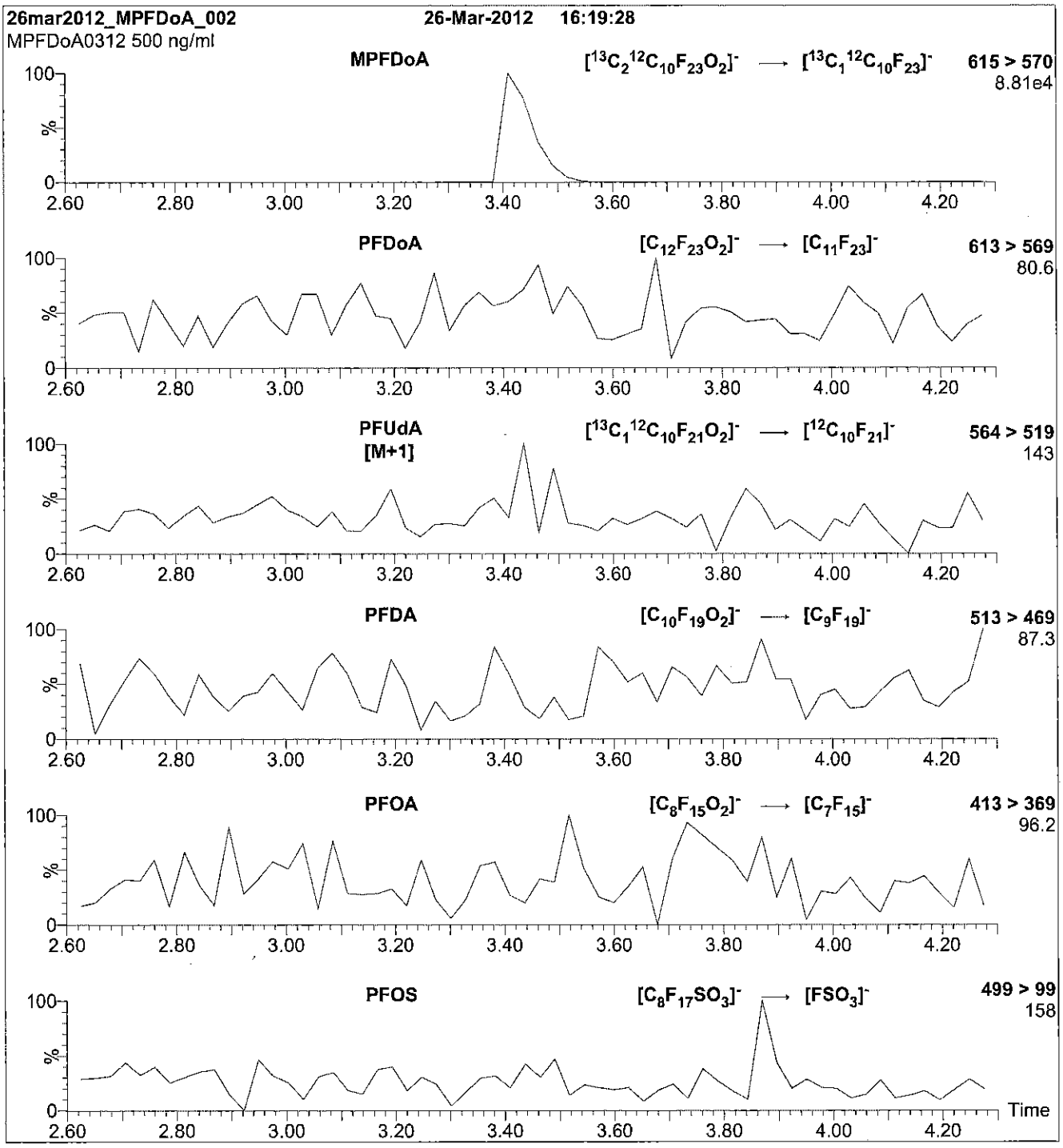
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 60% (80:20 MeOH:ACN) / 40% 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

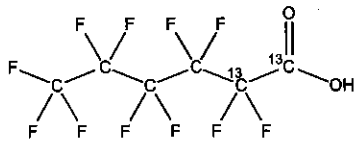
LCMPFHxA_00004

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxA
LOT NUMBER: MPFHxA0213
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

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)	02/14/2013		
EXPIRY DATE: (mm/dd/yyyy)	02/14/2018		
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:** 02/20/2013 (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

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EXPIRY DATE / PERIOD OF VALIDITY:

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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:

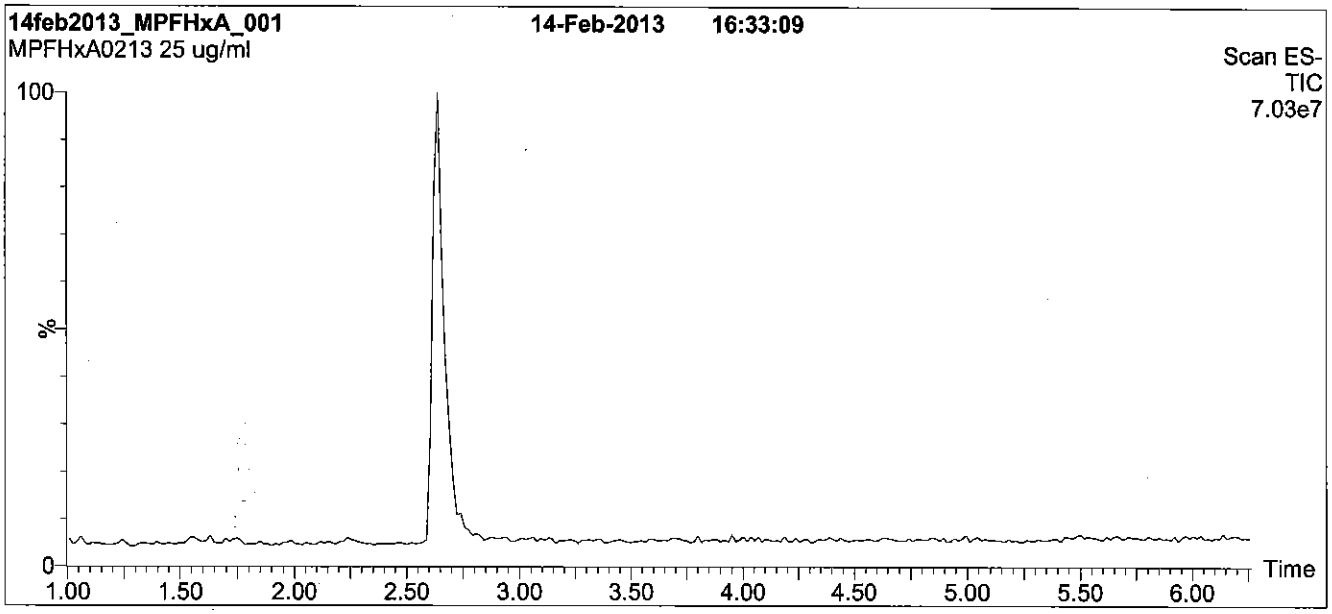
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

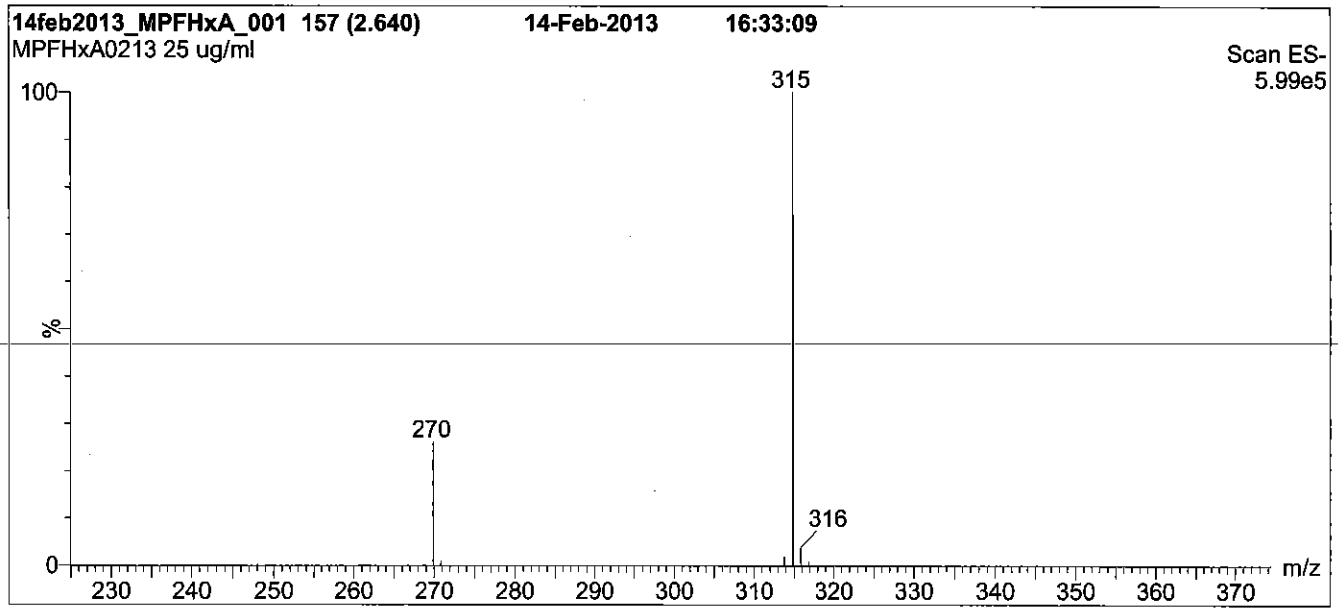
CALA Testing Accreditation No. A1226

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: **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: 40% (80:20 MeOH:ACN) / 60% 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

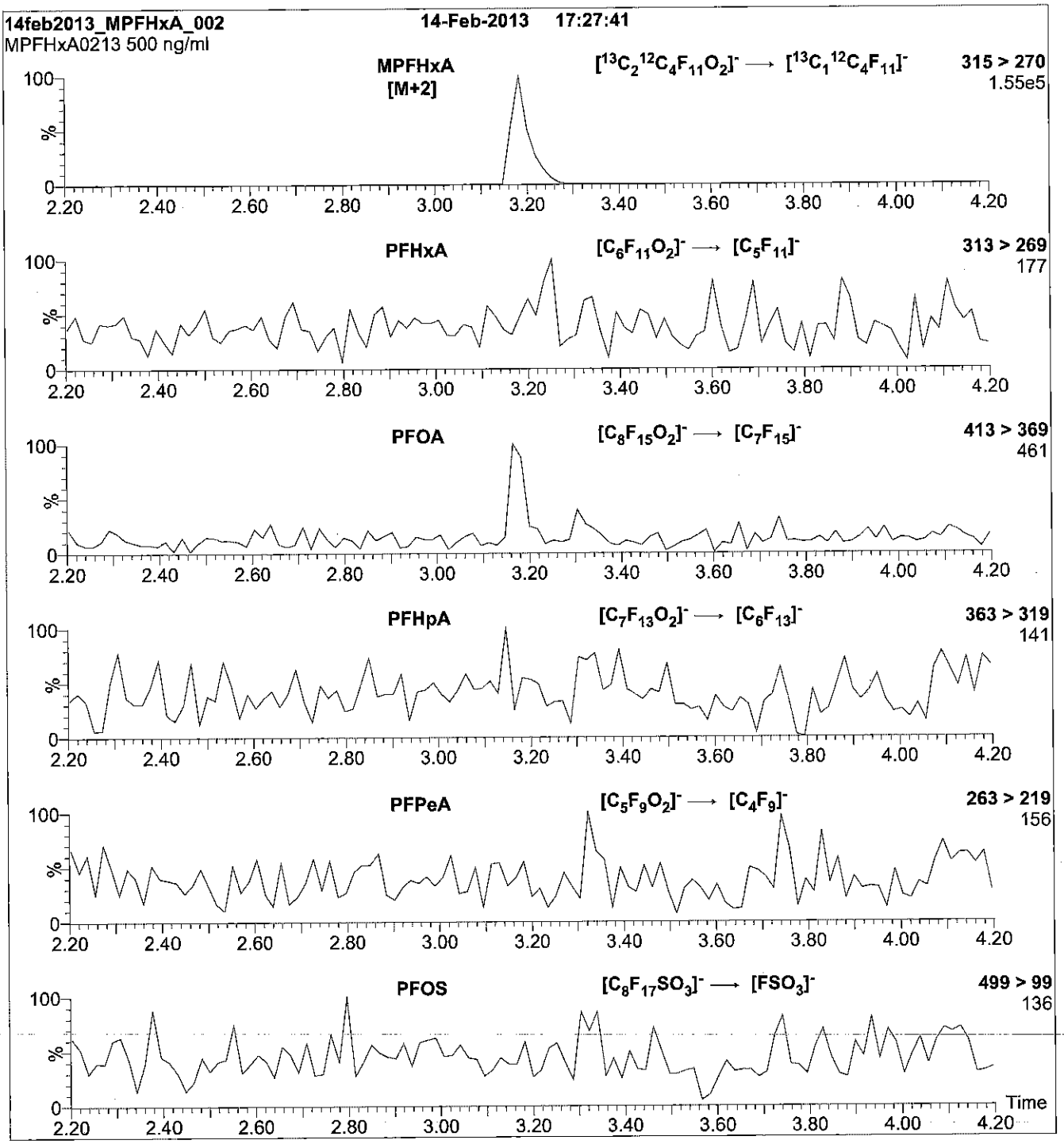
Flow: 300 µl/min

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) = 3.43e-3
Collision Energy (eV) = 10

Reagent

LCMPFHxS_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R: 12-14-12

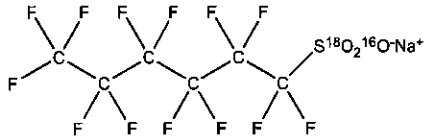
LCMPFHxS-00002

PRODUCT CODE: MPFHxS
COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate

LOT NUMBER: MPFHxS0312

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_6F_{13}S^{18}O_2{}^{16}ONa$	**MOLECULAR WEIGHT:**	426.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.3 ± 2.4 µg/ml (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED: (mm/dd/yyyy)	03/08/2012		
EXPIRY DATE: (mm/dd/yyyy)	03/08/2015		
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.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/19/2012 (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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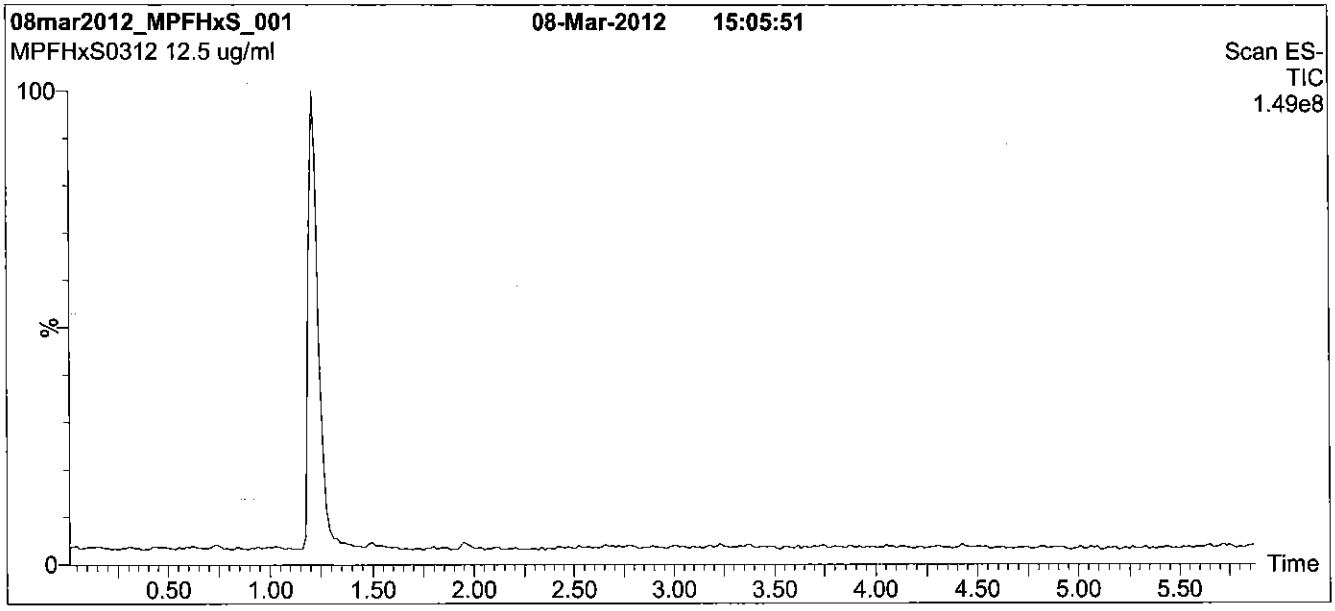
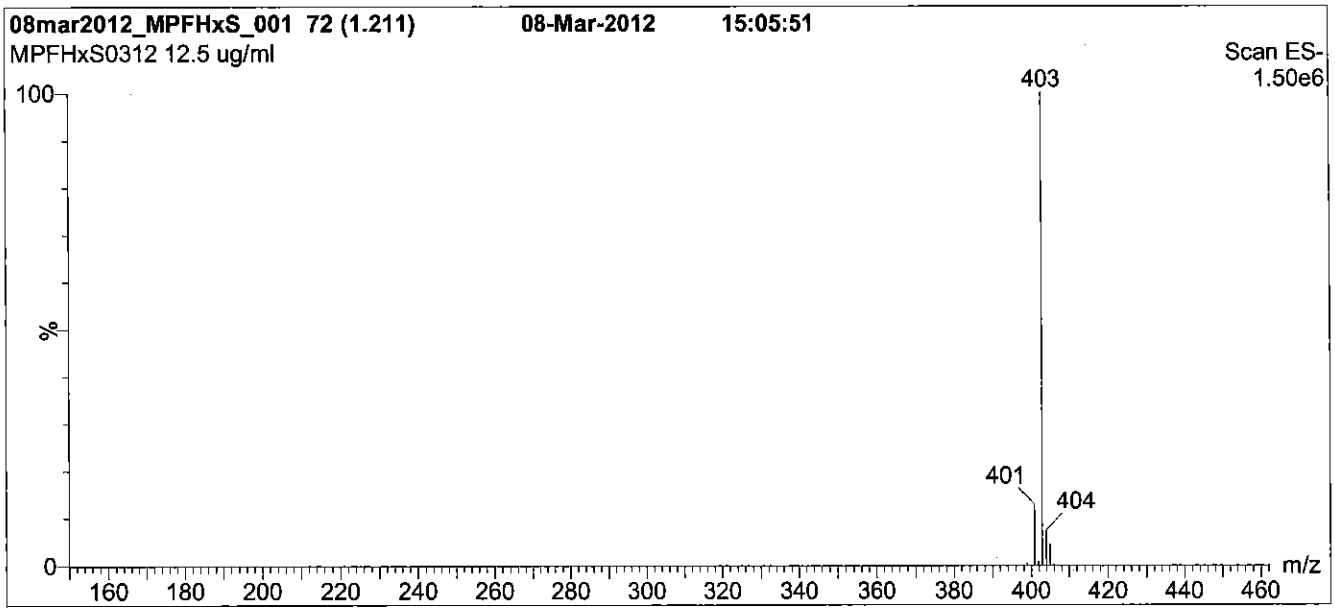




Conditions for Figure 1:

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: Isocratic with flush
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Hold for 6.5 min. Ramp to 90% organic over 0.5 min. Hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

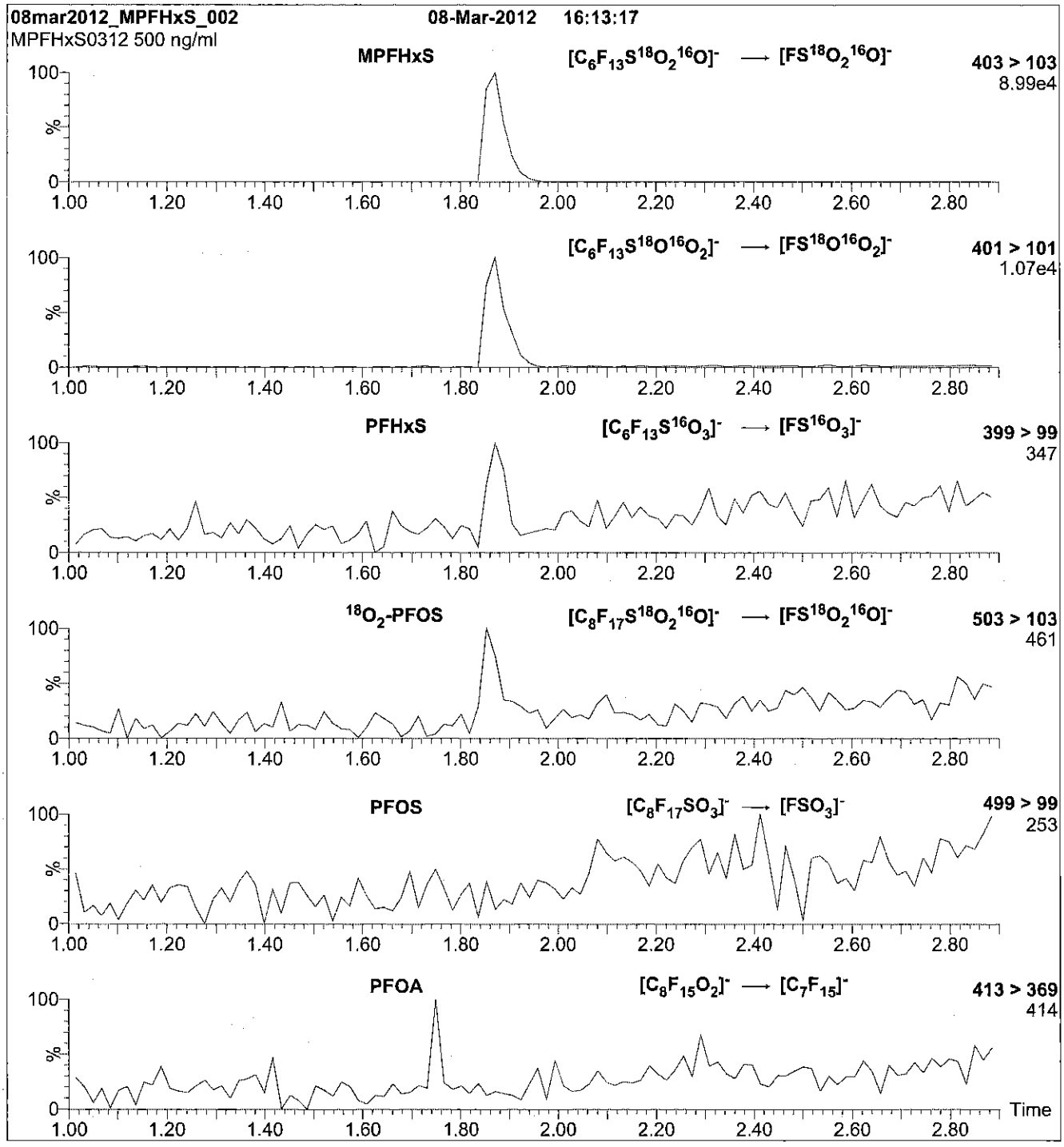
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 3.28e-3
Collision Energy (eV) = 30

Reagent

LCMPFNA_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

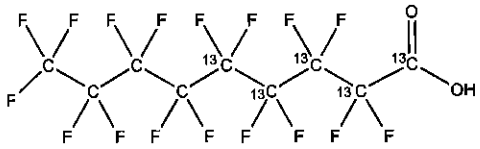
12-14-12
LCMPFNA_00002

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA0912

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_5{}^{12}C_4HF_{17}O_2$	**MOLECULAR WEIGHT:**	469.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4,5-$^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	09/13/2012		
EXPIRY DATE: (mm/dd/yyyy)	09/13/2015		
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.

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Certified By: B.G. Chittim **Date:** 09/26/2012 (mm/dd/yyyy)

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

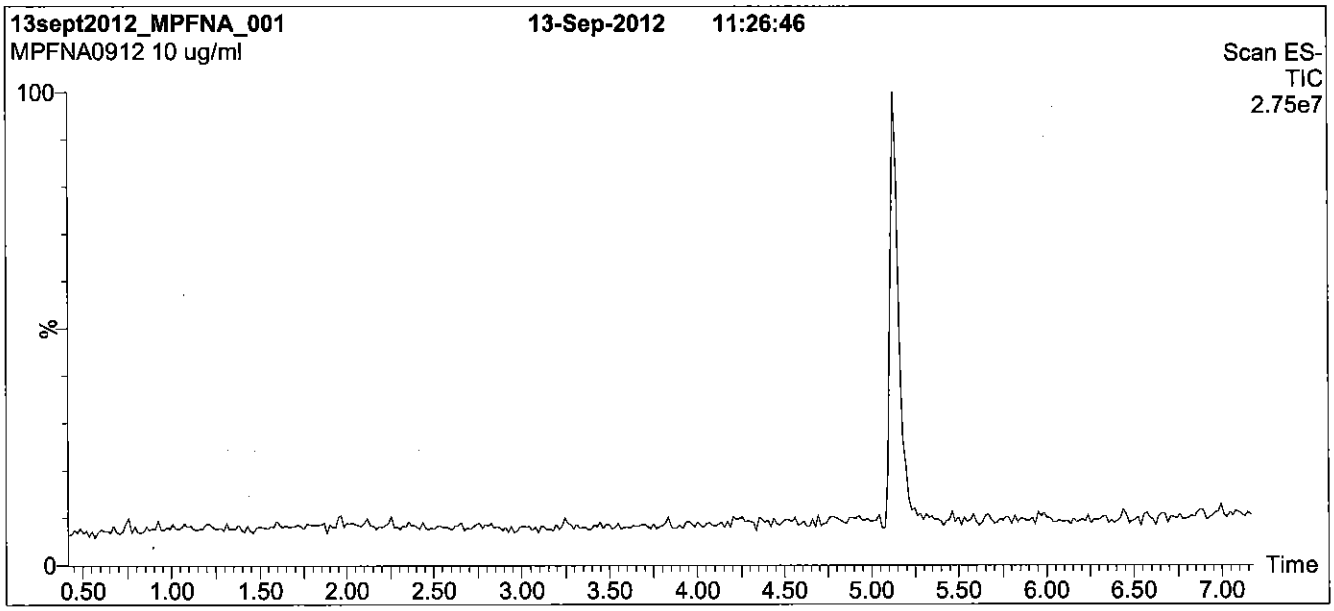
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

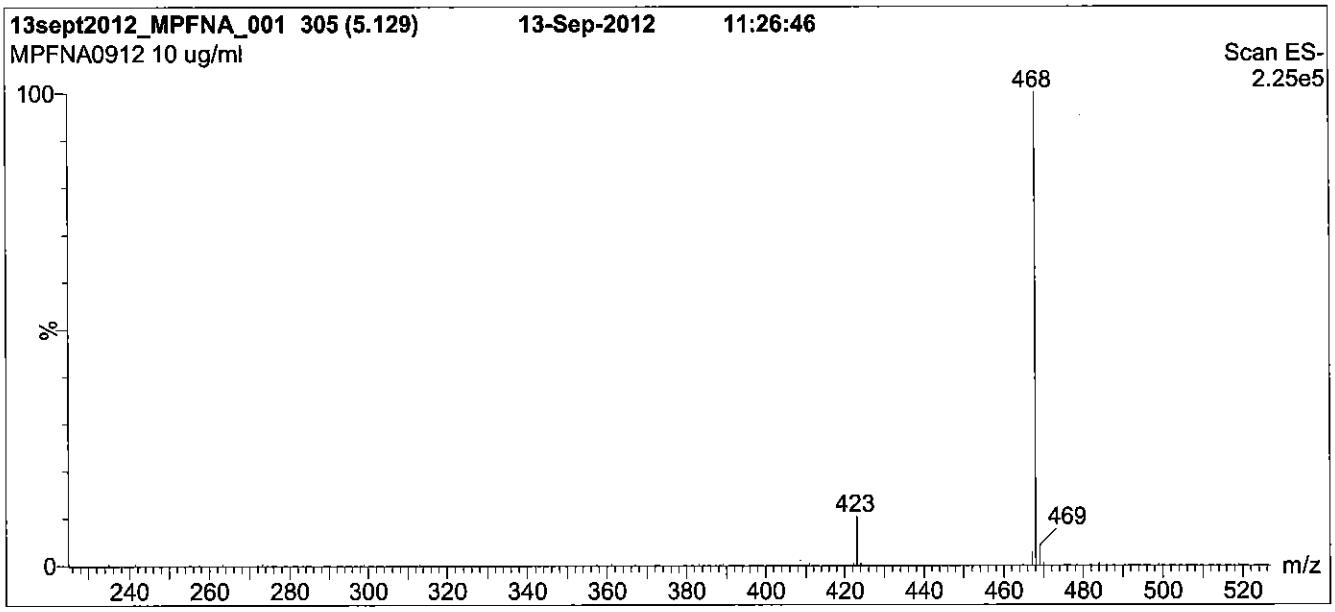
CALA Testing Accreditation No. A1226

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: **MPFNA; 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: 40% (80:20 MeOH:ACN) / 60% 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

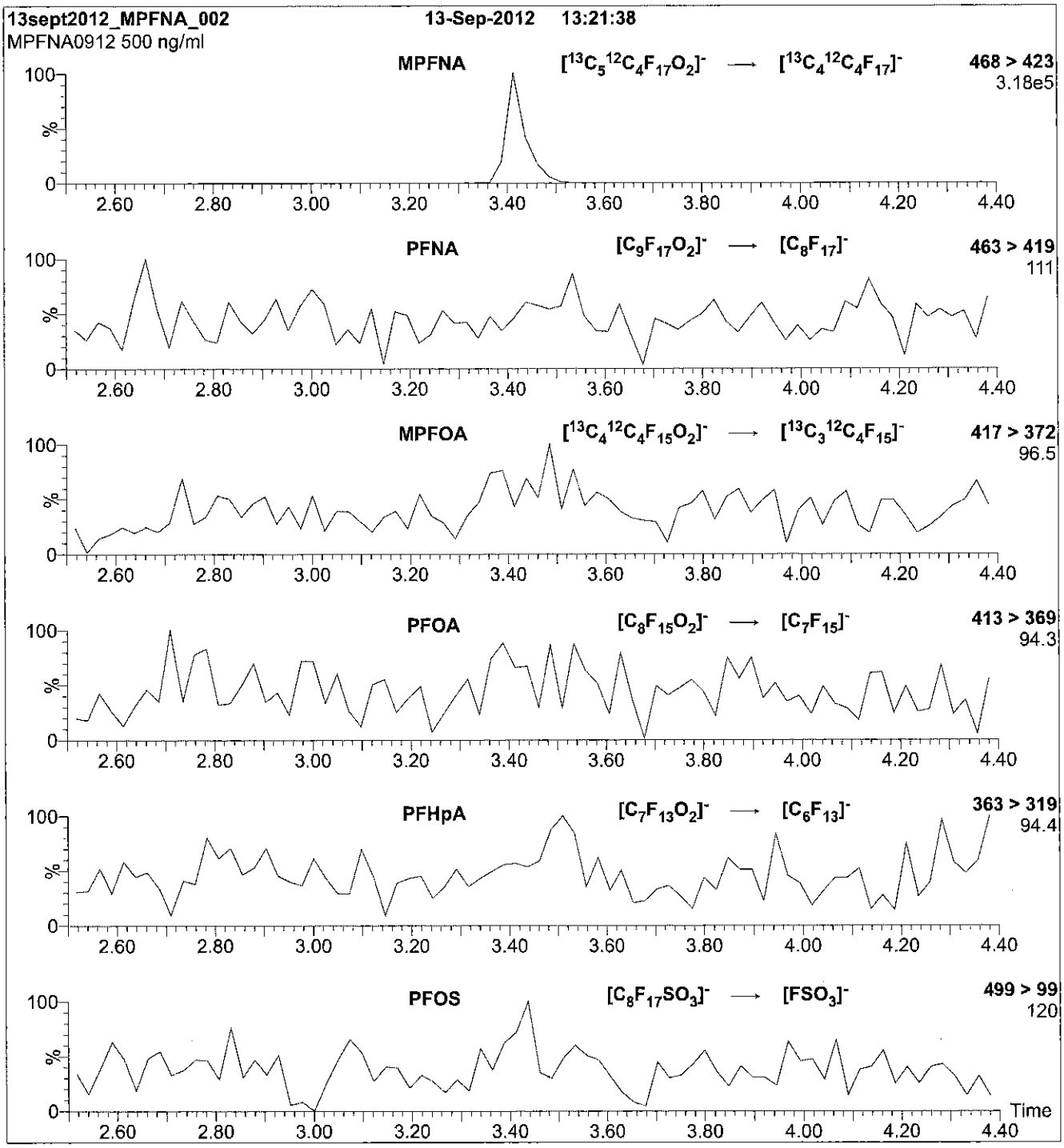
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

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

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



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml MPFNA)
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) = 11

Reagent

LCMPFOA_00001

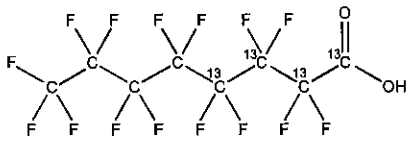
R: 10-20-2011

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

12LCMS0260
LCMPFOA-00001

PRODUCT CODE:	MPFOA	**LOT NUMBER:**	MPFOA0511
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid		
STRUCTURE:		**CAS #**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4HF_{15}O_2$	**MOLECULAR WEIGHT:**	418.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	05/12/2011		
EXPIRY DATE: (mm/dd/yyyy)	05/12/2014		
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 native perfluoro-n-octanoic acid (PFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ B.G. Chittim **Date:** 05/17/2011 (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:

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HAZARDS:

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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.

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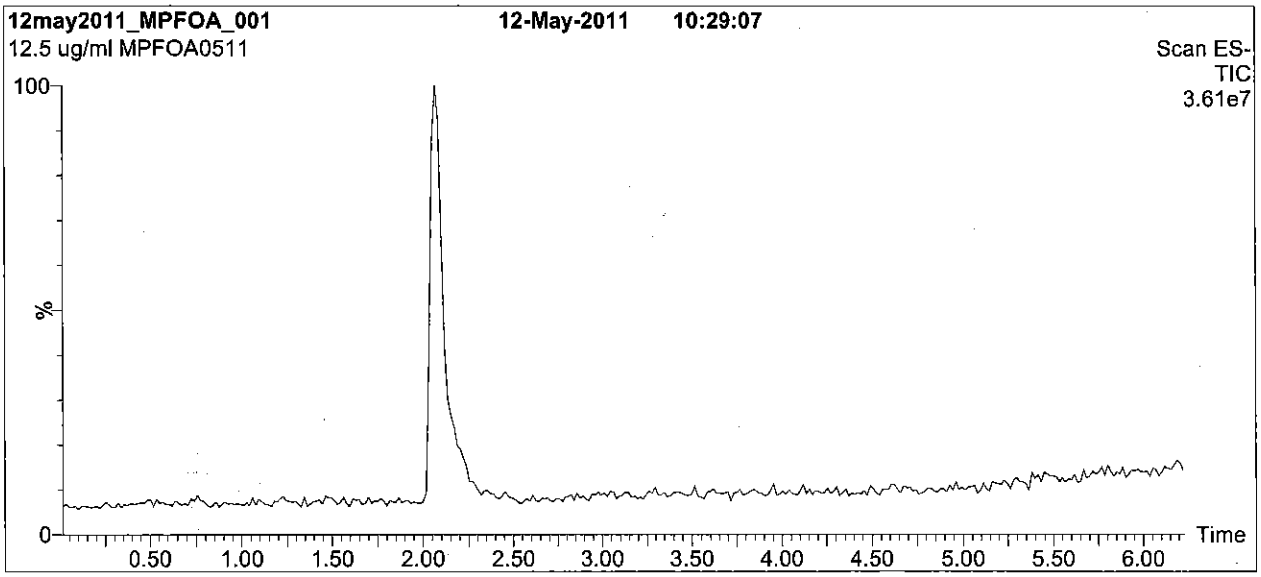
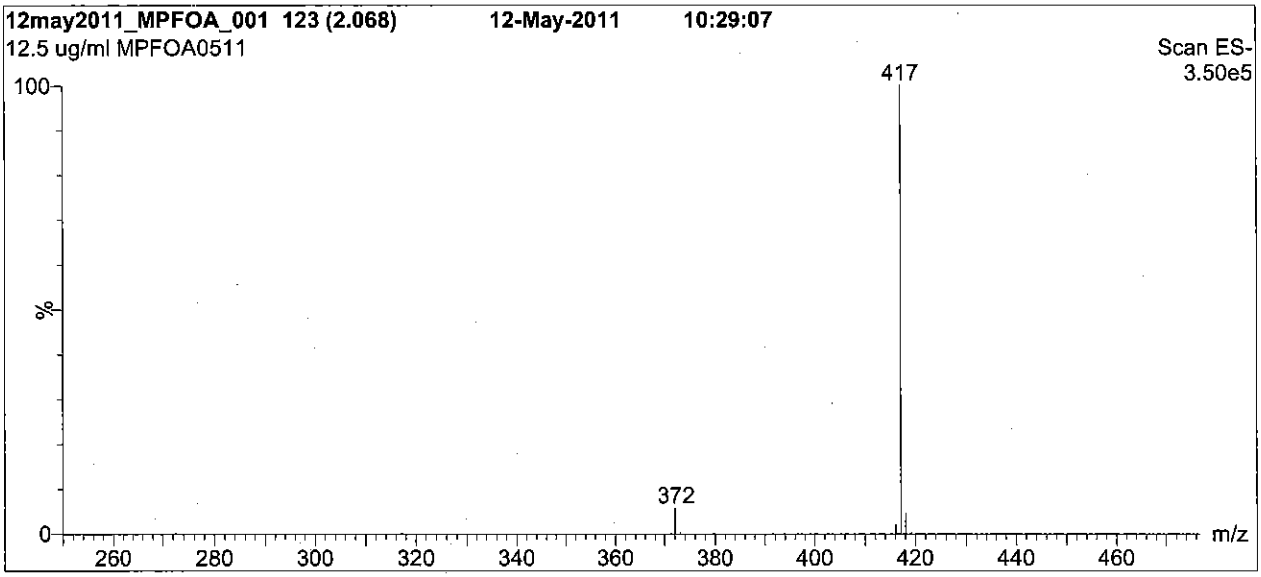




Conditions for Figure 1:

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

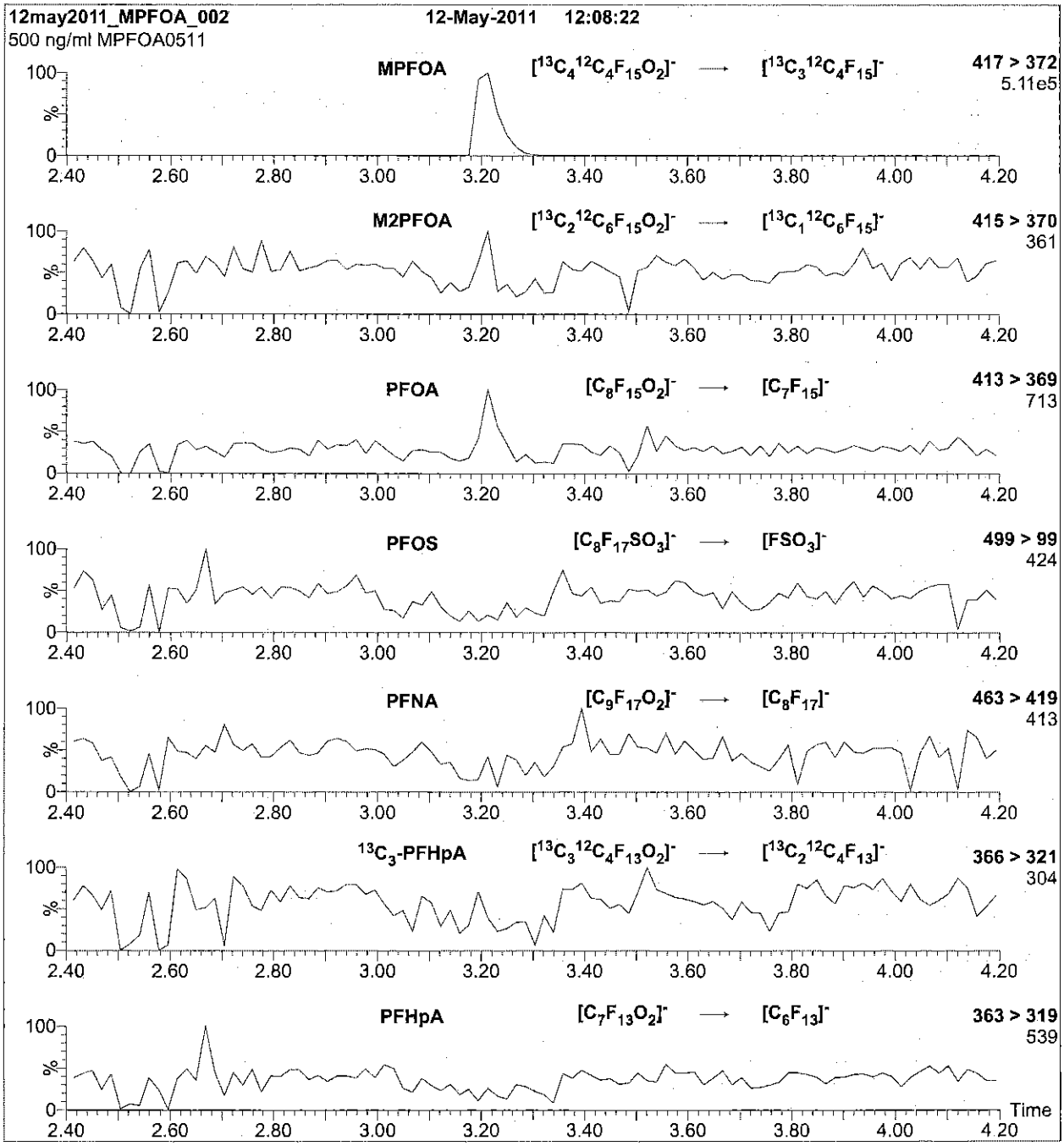
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **MPFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

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

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) = 3.58e-3
Collision Energy (eV) = 11

Reagent

LCMPFOA_00003

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

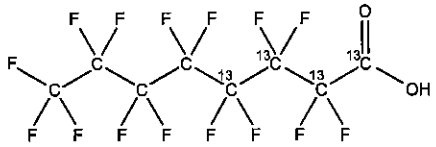
R: 12-14-12
LCMPFOA_00002

PRODUCT CODE: MPFOA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid

LOT NUMBER: MPFOA0312

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4HF_{15}O_2$	**MOLECULAR WEIGHT:**	418.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	03/19/2012		
EXPIRY DATE: (mm/dd/yyyy)	03/19/2015		
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 native perfluoro-n-octanoic acid (PFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/27/2012 (mm/dd/yyyy)
B.G. Chittim

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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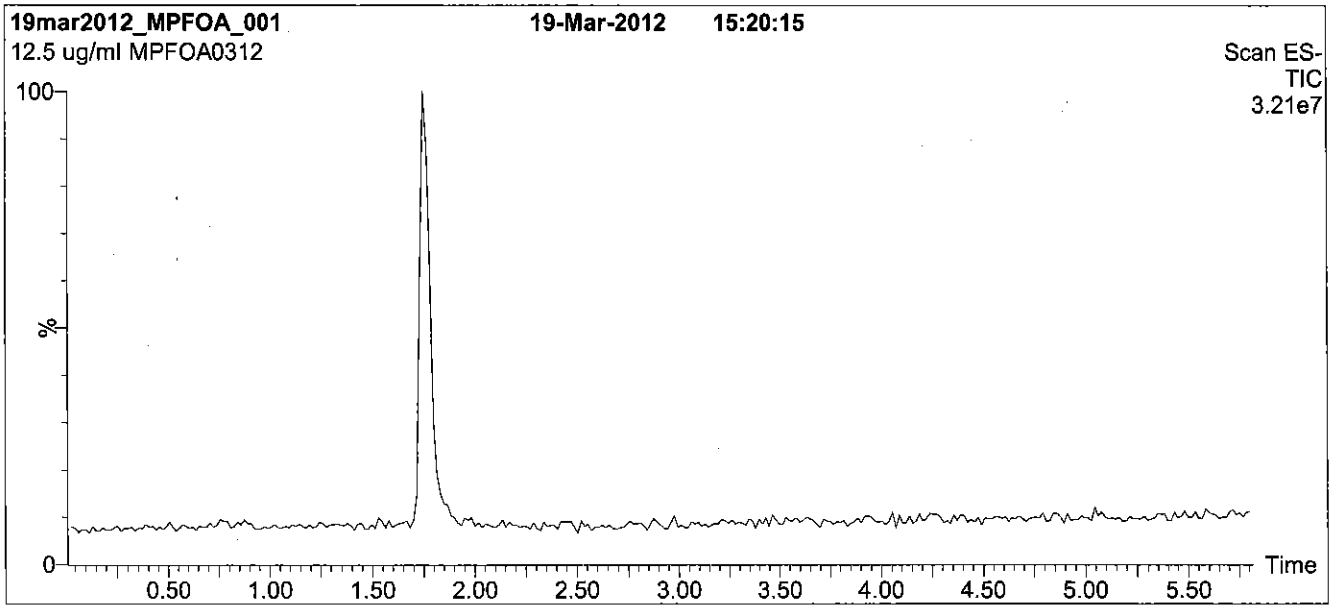

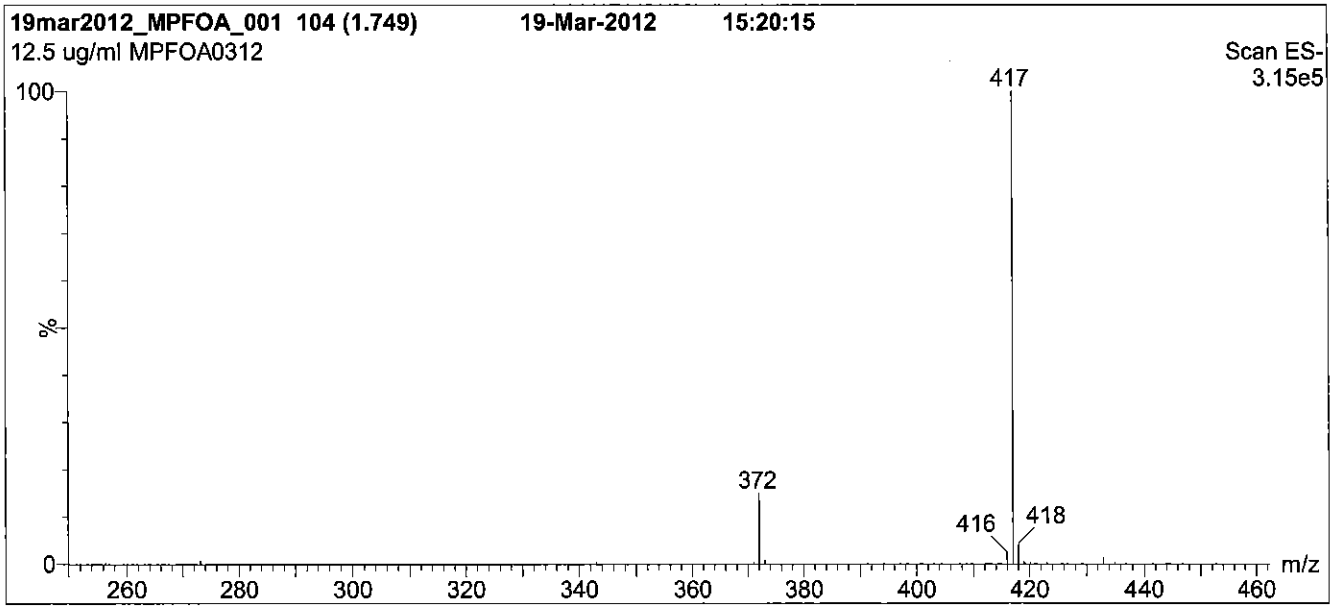

Conditions for Figure 1:

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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

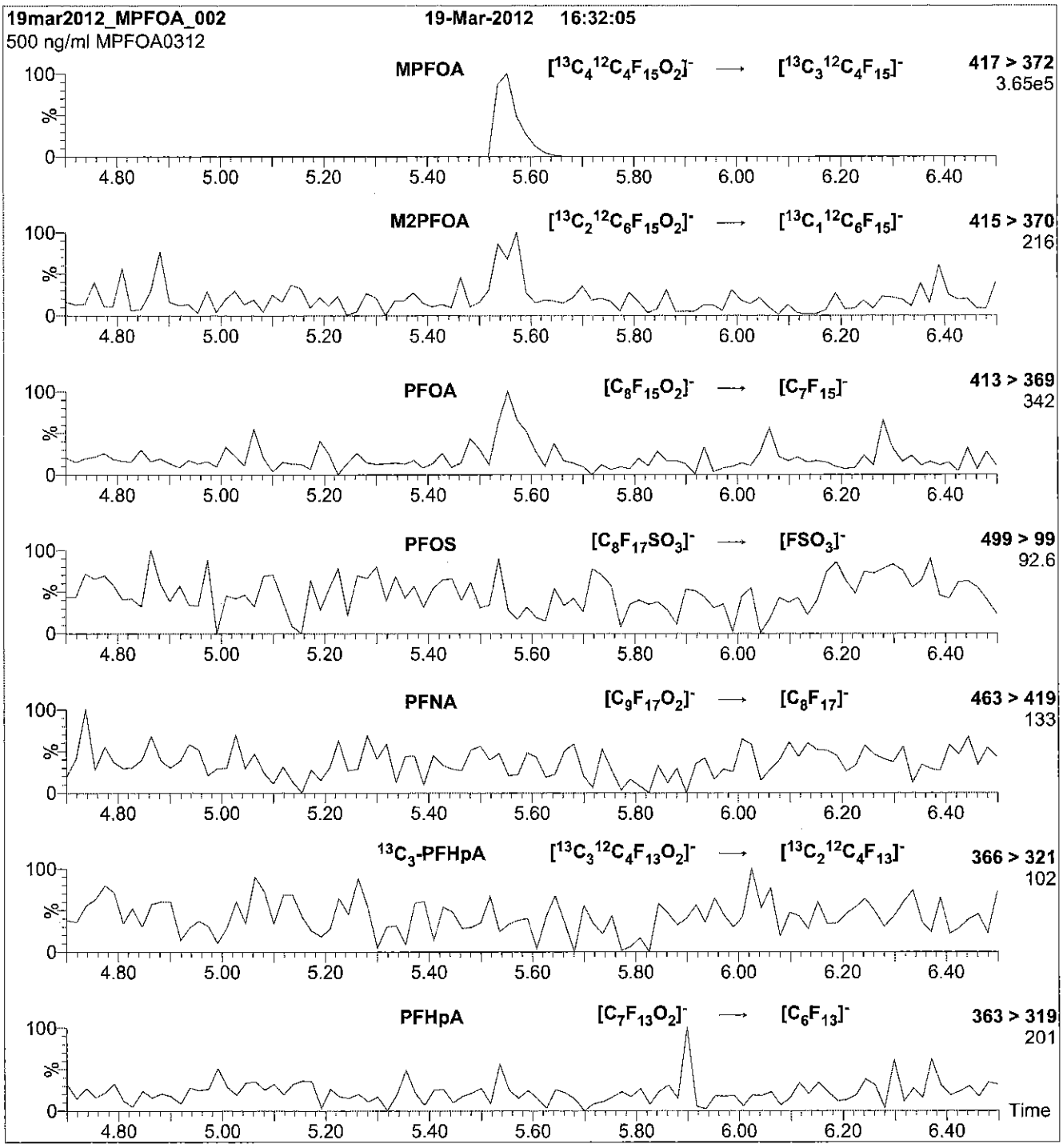
Flow: 300 µl/min

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: **MPFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

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

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

LCMPFOS_00004

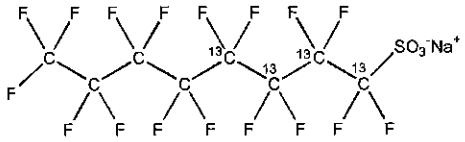
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0113

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 ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	01/22/2013		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2018		
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 ~ 0.5% 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:** 01/24/2013 (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

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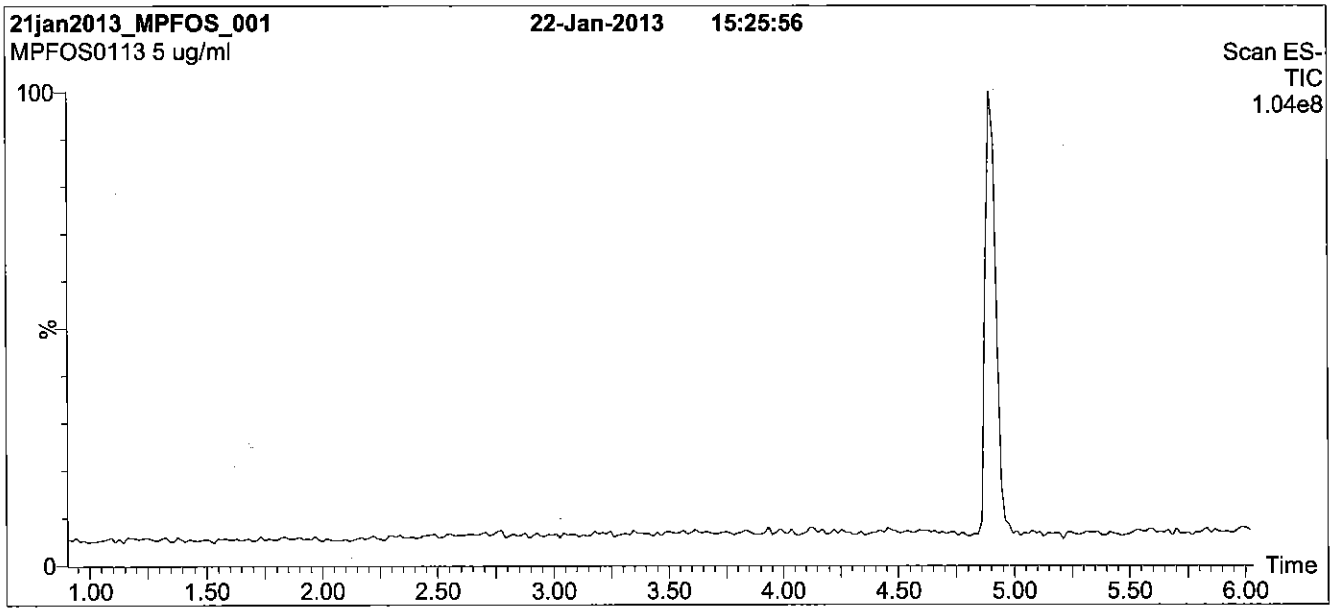

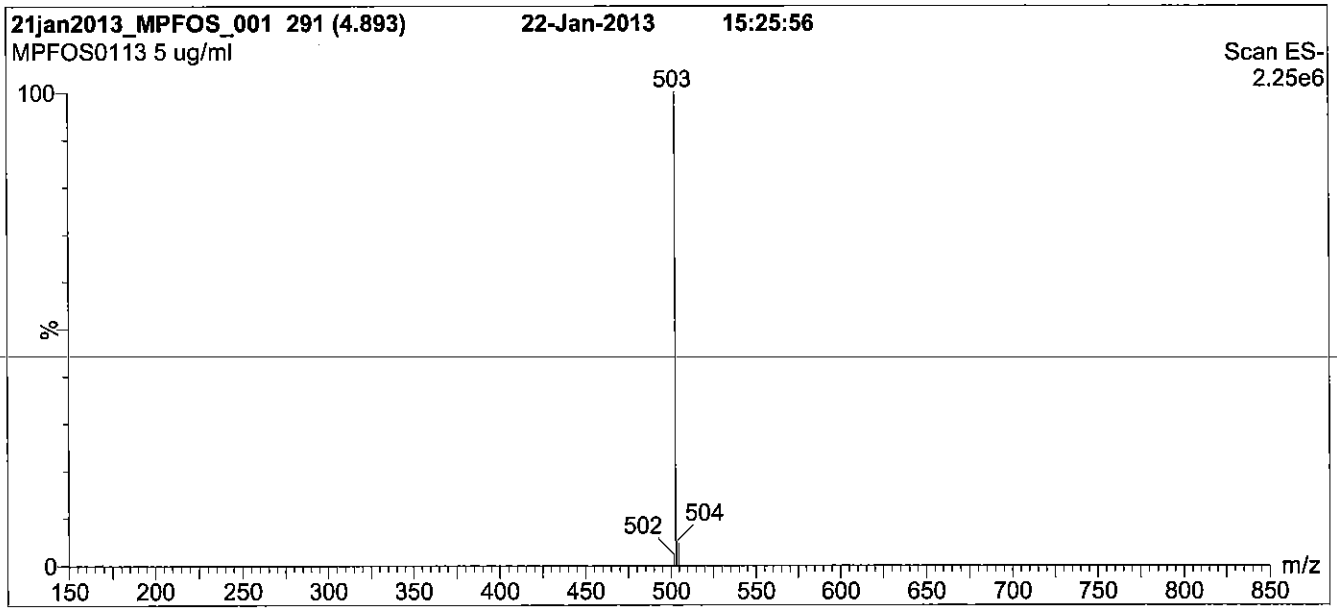

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MS: **Micromass Quattro *micro* API MS**

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1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% 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

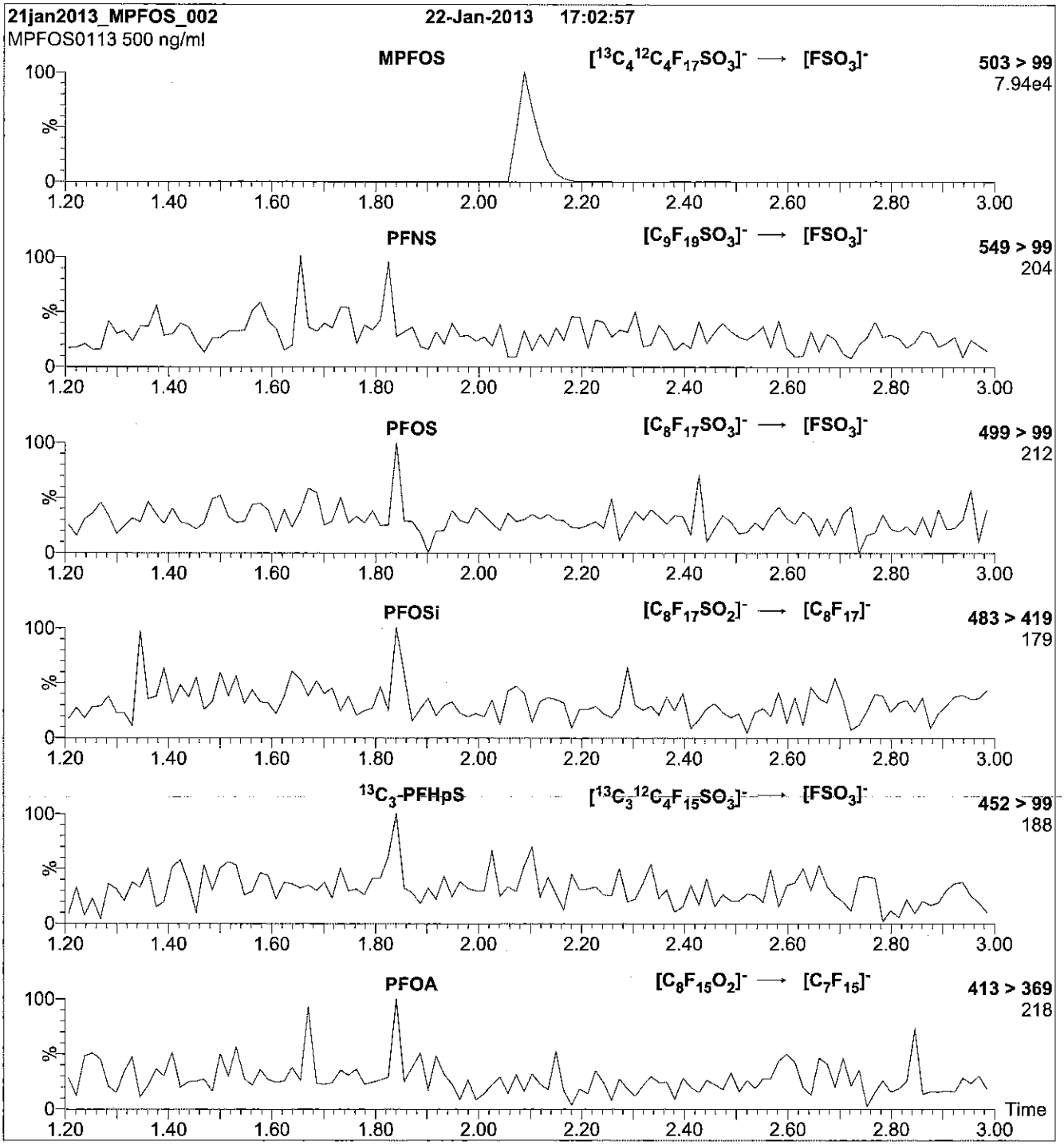
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 700

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) = 3.39e-3
Collision Energy (eV) = 40

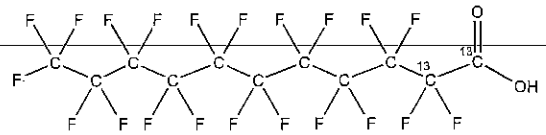
Reagent

LCMPFUdA_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFUdA	**LOT NUMBER:**	MPFUdA0911
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
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)	09/29/2011		
EXPIRY DATE: (mm/dd/yyyy)	09/29/2016		
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.
- Presence of 1-$^{13}C_1$-PFUdA (~1%; see Figure 2), 2-$^{13}C_1$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

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:

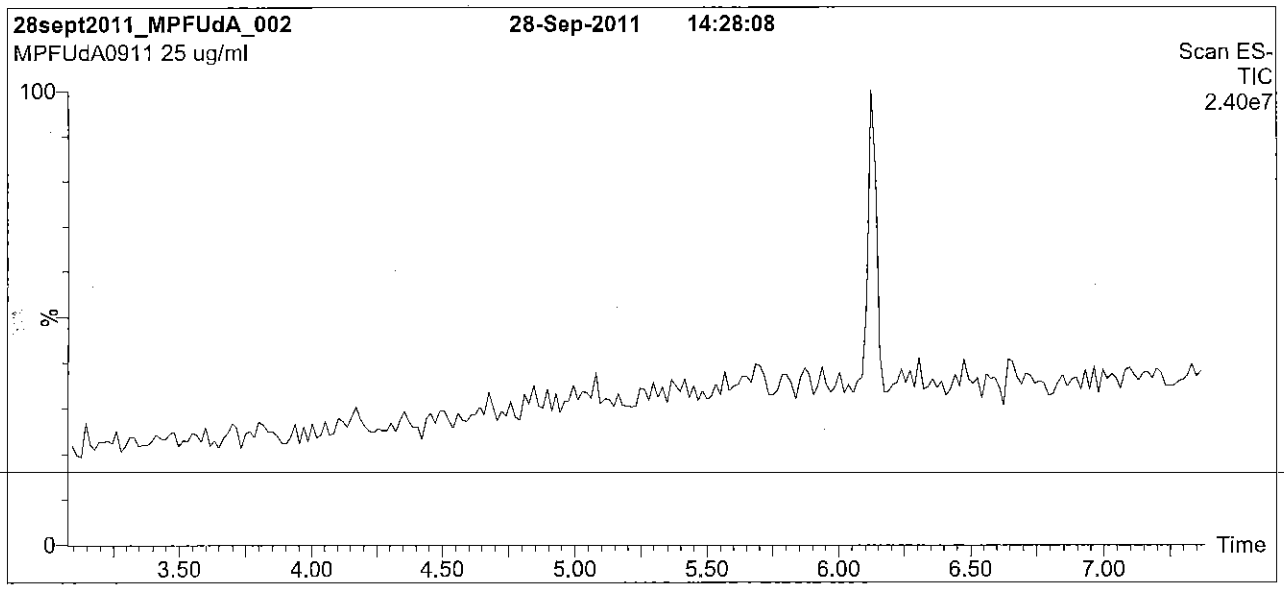
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

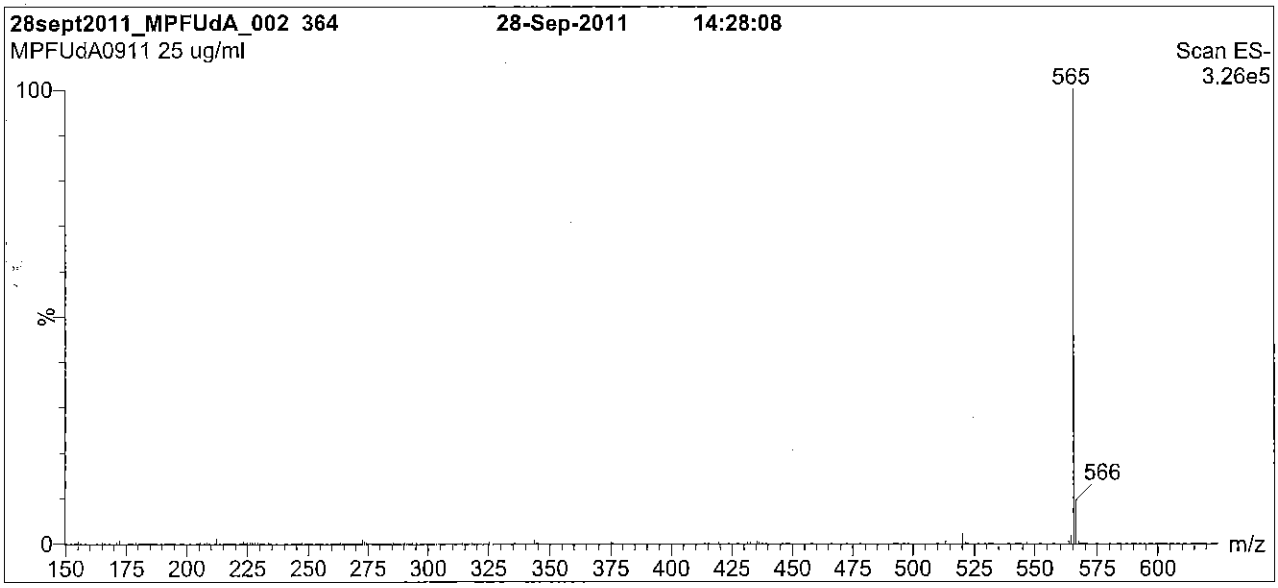
CALA Testing Accreditation No. A 1226

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: **MPFUdA; 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: Kinetex PFP
2.6 µm, 4.6 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Hold for 2 min. Ramp to 90% organic over 5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

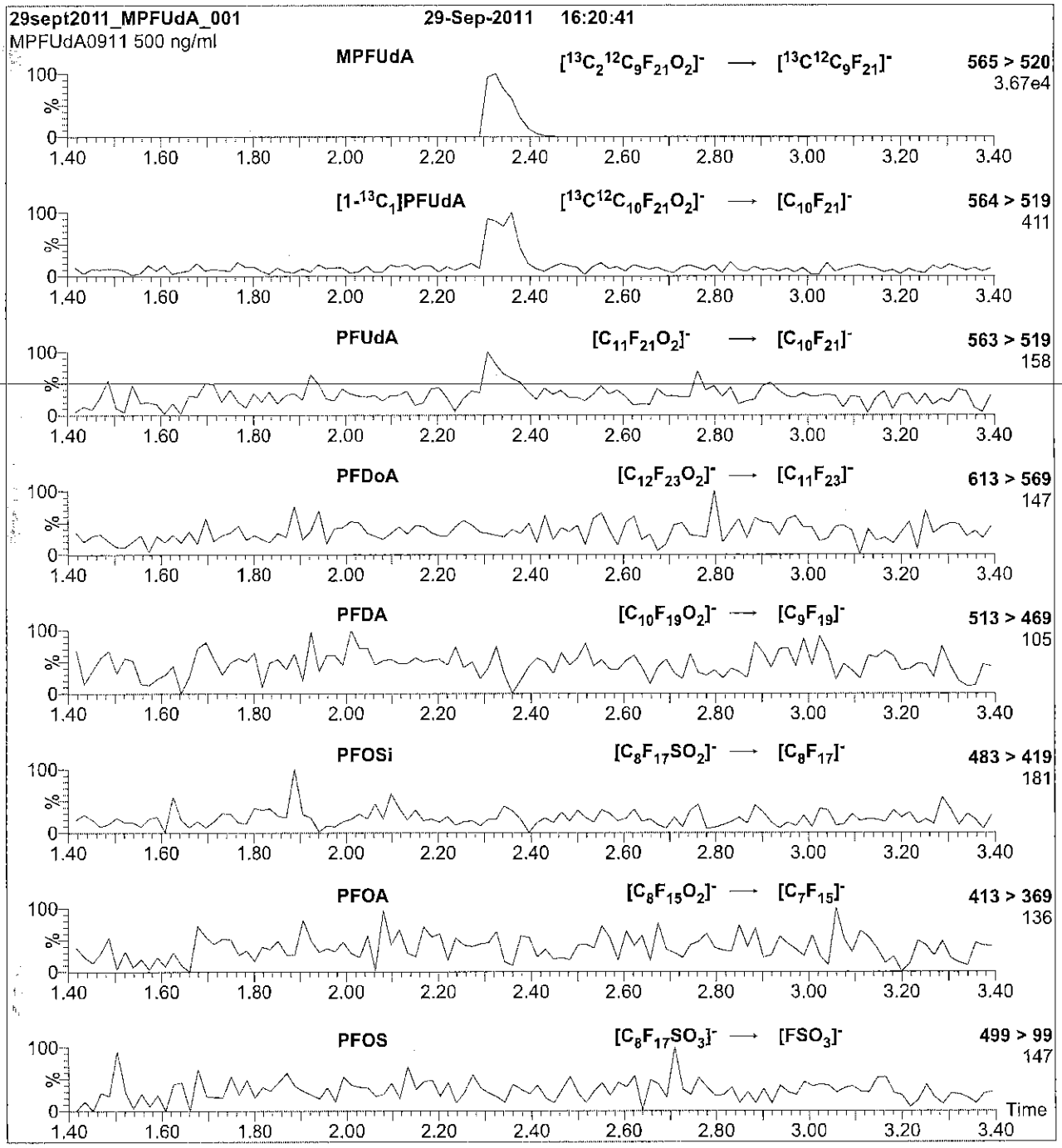
Flow: 1.0 ml/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 11

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

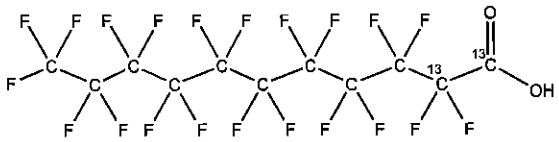
L 12-14-12
LCMPFUdA-00002

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

LOT NUMBER: MPFUdA0911

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
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)	09/29/2011		
EXPIRY DATE: (mm/dd/yyyy)	09/29/2014		
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.
- Presence of 1-$^{13}C_1$-PFUdA (~1%; see Figure 2), 2-$^{13}C_1$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/17/2011 (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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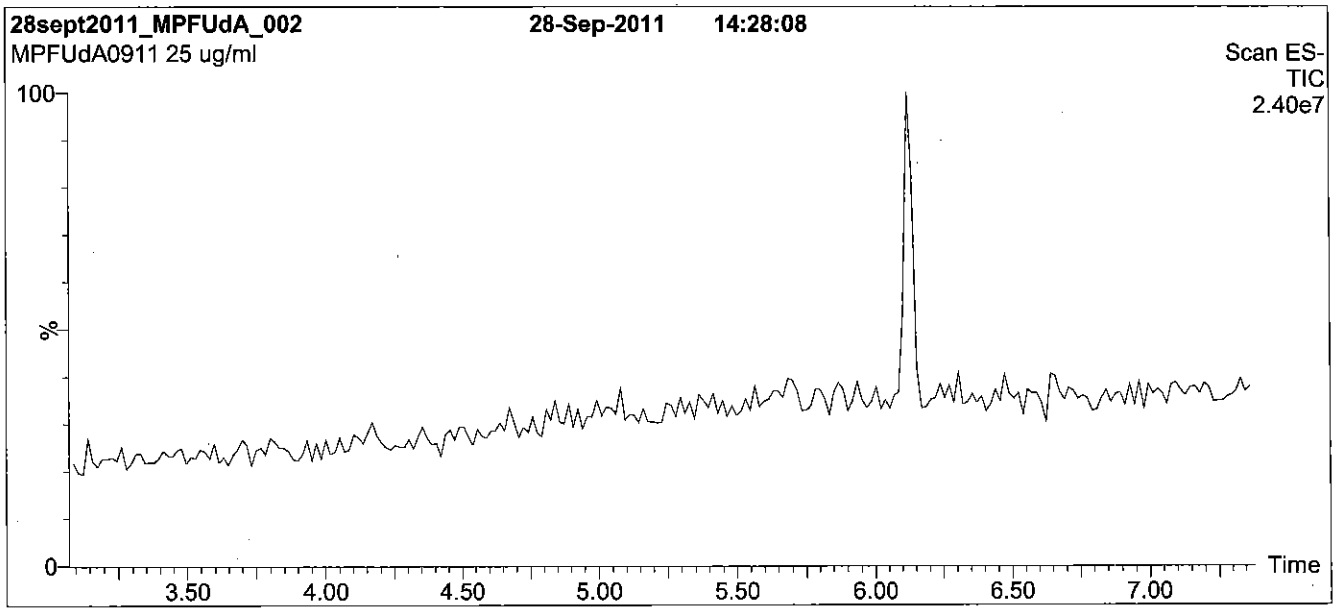
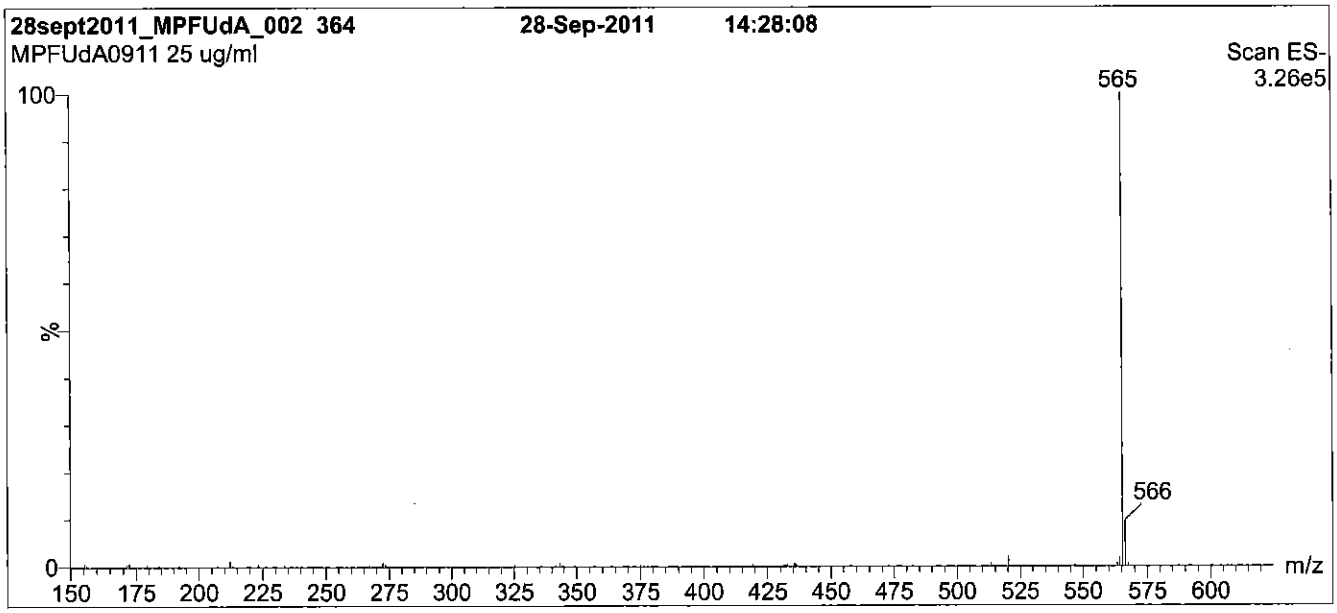
Figure 1: **MPFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

Column: Kinetex PFP
2.6 µm, 4.6 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Hold for 2 min. Ramp to 90% organic over 5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

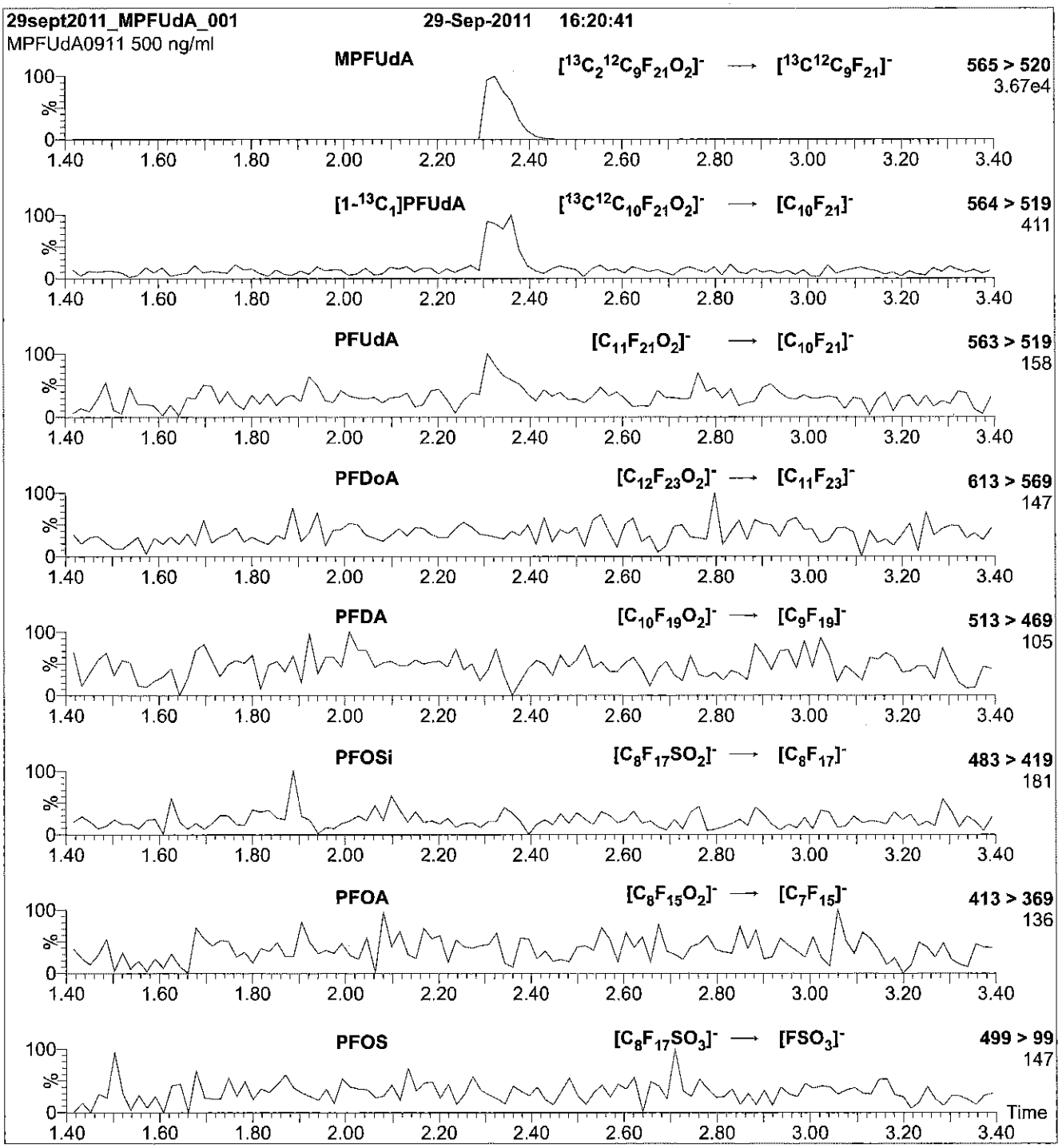
Flow: 1.0 ml/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 11

Reagent

LCPFACMXB_00002

PFAC-MXB

Solution/Mixture of Native Perfluoroalkylcarboxylic Acids and Native Perfluoroalkylsulfonates

PRODUCT CODE:	PFAC-MXB
LOT NUMBER:	PFACMXB0312
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	03/07/2012
LAST TESTED: (mm/dd/yyyy)	03/08/2012
EXPIRY DATE: (mm/dd/yyyy)	03/08/2015
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

PFAC-MXB is a solution/mixture of thirteen native perfluoroalkylcarboxylic acids (C_4-C_{14}, C_{16}, and C_{18}) and four native perfluoroalkylsulfonates (C_4, C_6, C_8 and C_{10}). The full name, abbreviation and concentration for each of the components are given in Table A.

The individual perfluoroalkylcarboxylic acids and perfluoroalkylsulfonates all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS data (Selected MRM Transitions)
Figure 3: 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

INTENDED USE:

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UNCERTAINTY:

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

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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:

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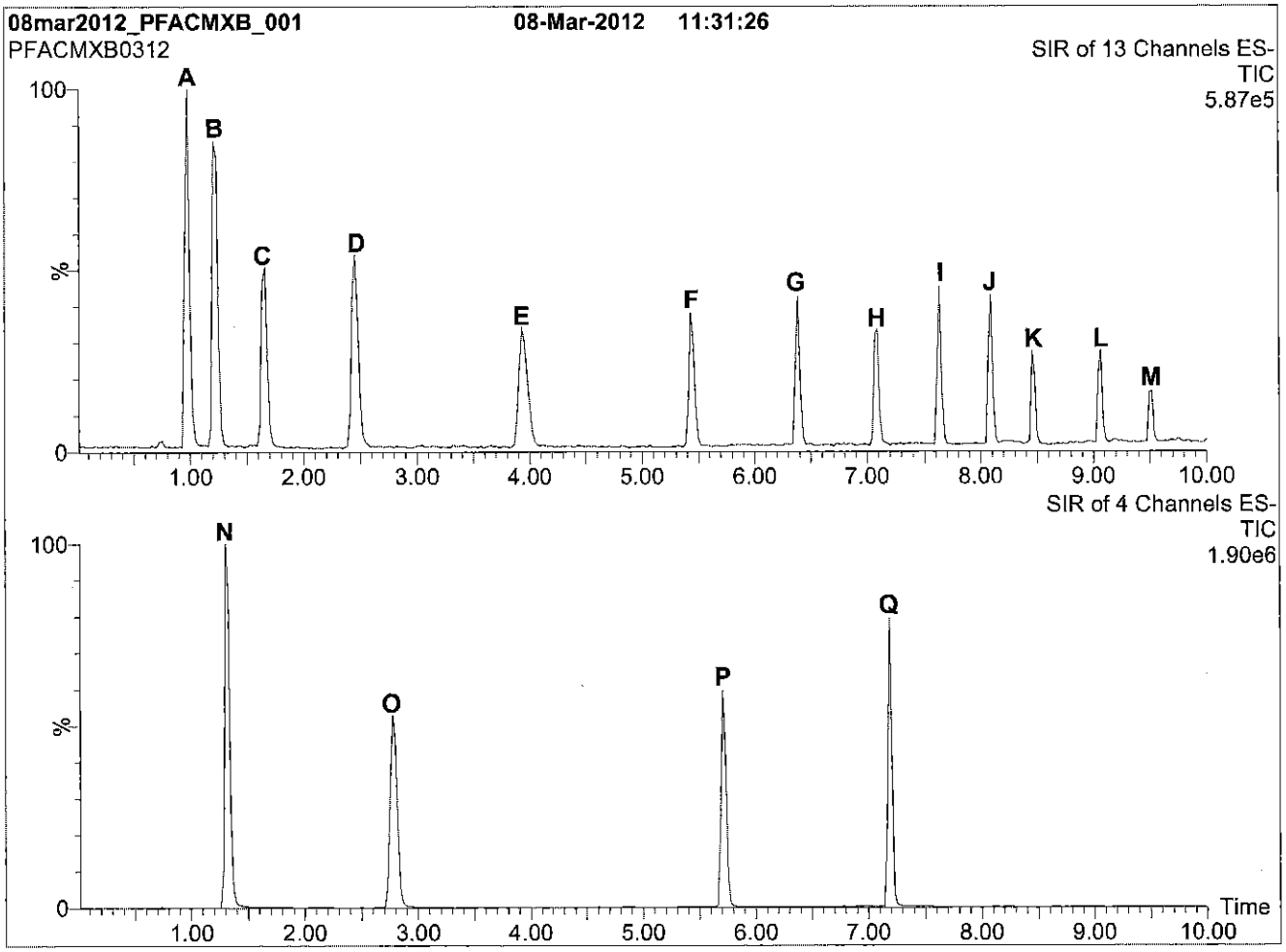
Table A: **PFAC-MXB; Components and Concentrations (ng/ml, ± 5% in Methanol / Water (<1%))**

Name	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-butanoic acid	PFBA	2000	A
Perfluoro-n-pentanoic acid	PFPeA	2000	B
Perfluoro-n-hexanoic acid	PFHxA	2000	C
Perfluoro-n-heptanoic acid	PFHpA	2000	D
Perfluoro-n-octanoic acid	PFOA	2000	E
Perfluoro-n-nonanoic acid	PFNA	2000	F
Perfluoro-n-decanoic acid	PFDA	2000	G
Perfluoro-n-undecanoic acid	PFUdA	2000	H
Perfluoro-n-dodecanoic acid	PFDoA	2000	I
Perfluoro-n-tridecanoic acid	PFTrDA	2000	J
Perfluoro-n-tetradecanoic acid	PFTeDA	2000	K
Perfluoro-n-hexadecanoic acid	PFHxDA	2000	L
Perfluoro-n-octadecanoic acid	PFODA	2000	M

Name	Abbreviation	Concentration (ng/ml)		Peak Assignment in Figure 1
		as the salt	as the anion	
Potassium perfluoro-1-butanesulfonate	L-PFBS	2000	1770	N
Sodium perfluoro-1-hexanesulfonate	L-PFHxS	2000	1890	O
Sodium perfluoro-1-octanesulfonate	L-PFOS	2000	1910	P
Sodium perfluoro-1-decanesulfonate	L-PFDS	2000	1930	Q

Certified By: B.G. Chittim **Date:** 03/19/2012 (mm/dd/yyyy)

Figure 1: **PFAC-MXB; LC/MS Data (Total Ion Current Chromatogram; SIR)**



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% H_2O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Hold for 3 min; ramp to 100% organic over 7 min,
hold for 2 min, then return to initial conditions in 0.5 min.

Time: 15 min

Flow: 300 µl/min

MS Parameters

Experiment:
Function 1: SIR of 13 Channels
Function 2: SIR of 4 Channels

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = variable (10-70)
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFAC-MXB; LC/MS/MS Data (Selected MRM Transitions)**

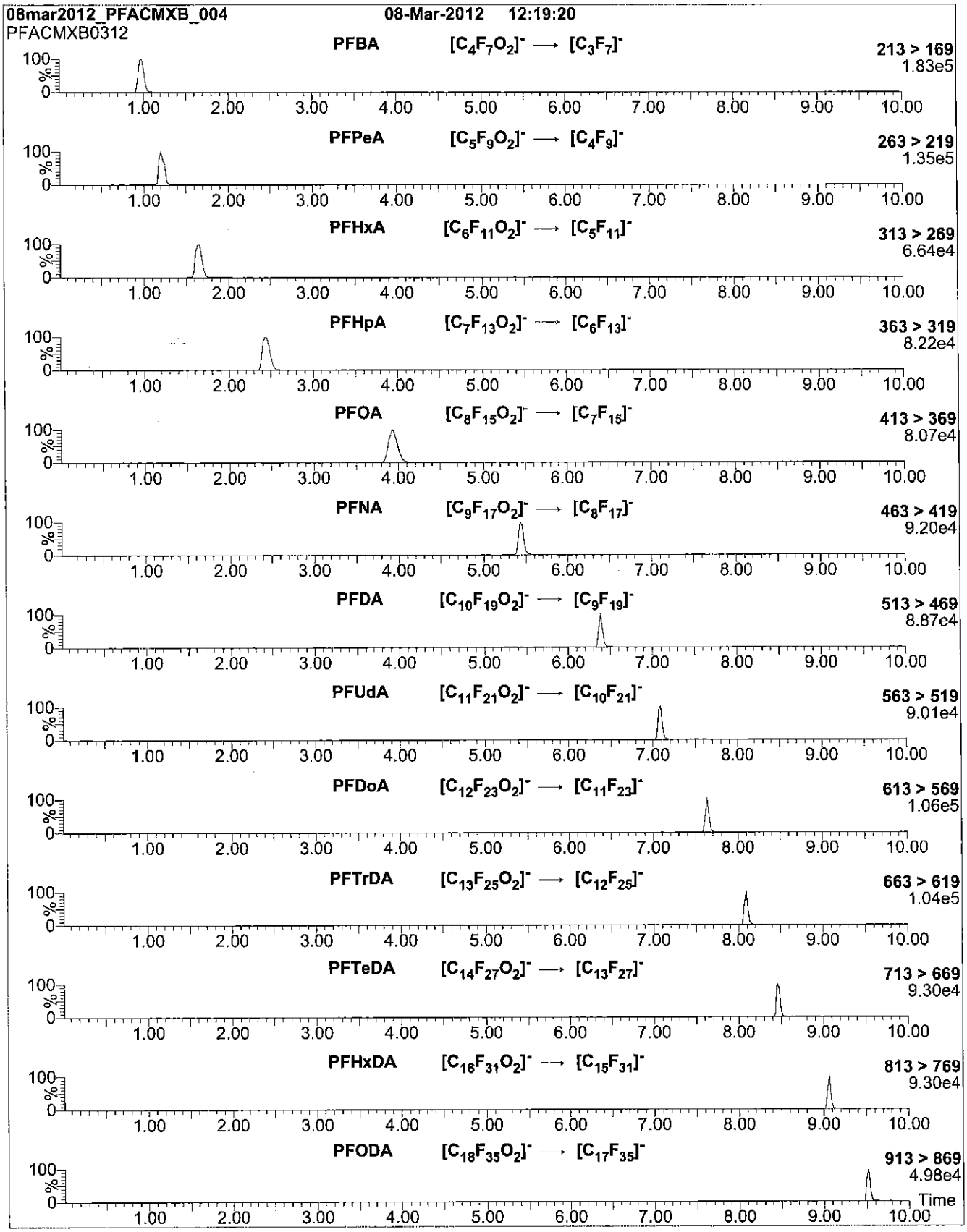
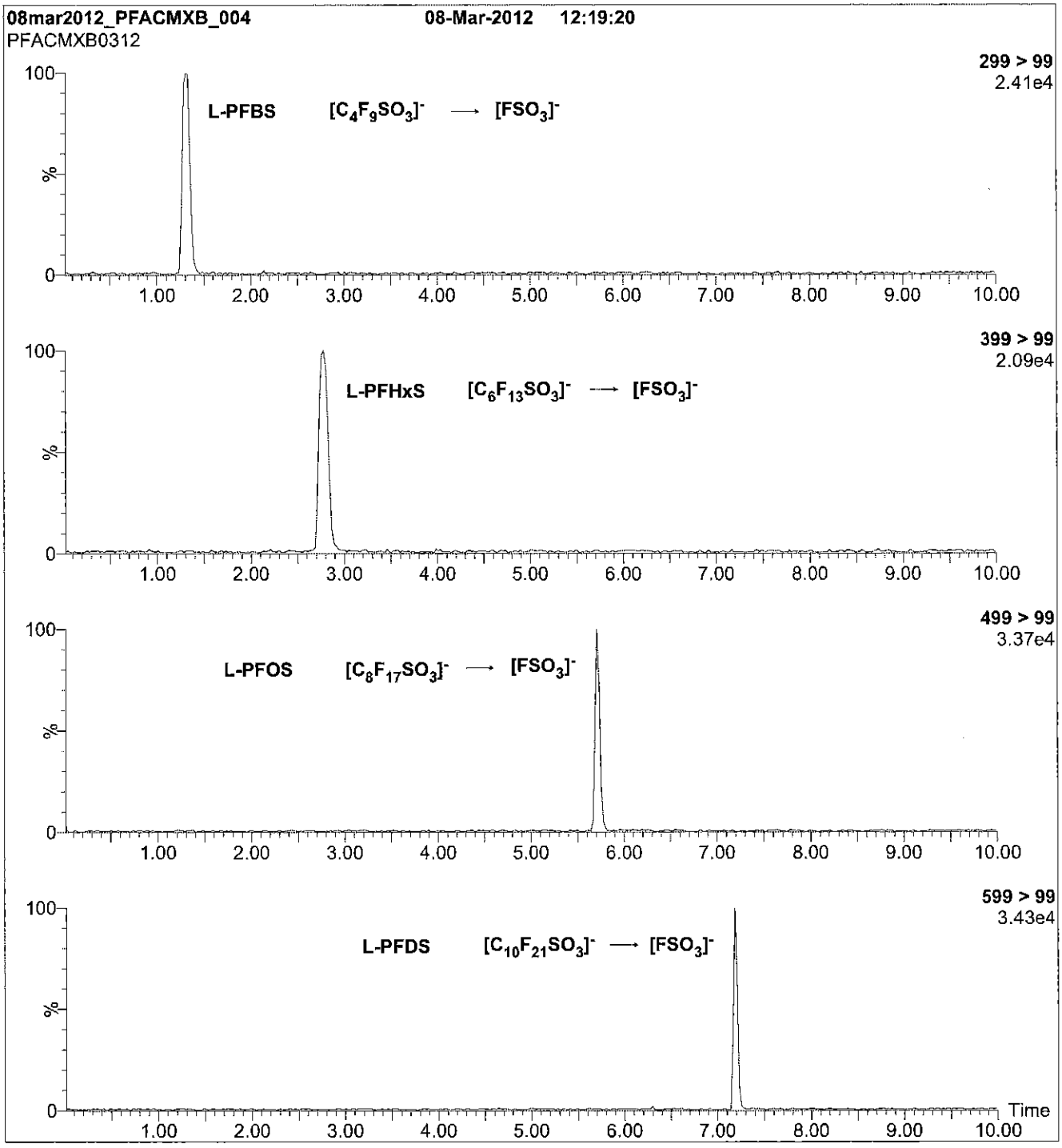


Figure 3: **PFAC-MXB; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figures 2 and 3:

Injection: on-column (PFAC-MXB)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.17e-3

Collision Energy (eV) = 9-50 (variable)

Reagent

LCPFBA_00002

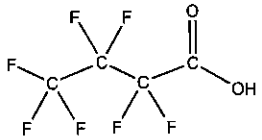
R: 3-15-12 DEL

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid
LOT NUMBER: PFBA0212

STRUCTURE:
CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
MOLECULAR WEIGHT: 214.04
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 02/22/2012
EXPIRY DATE: (mm/dd/yyyy) 02/22/2015
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:** 02/23/2012 (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:

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HOMOGENEITY:

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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:

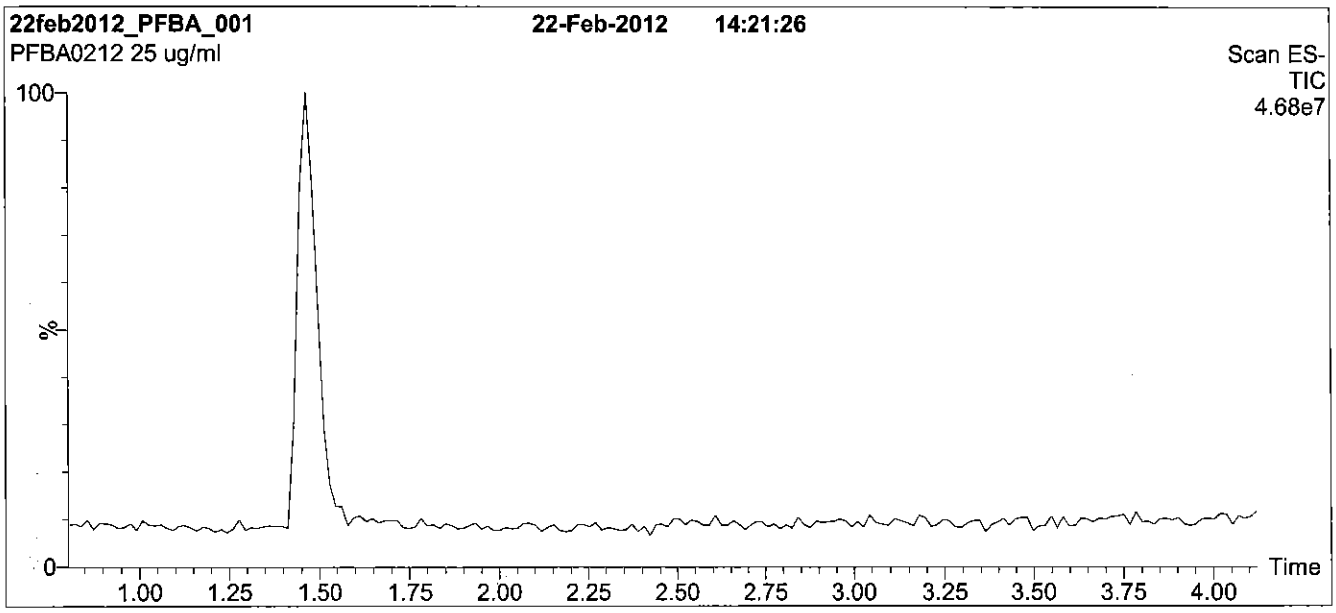
Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

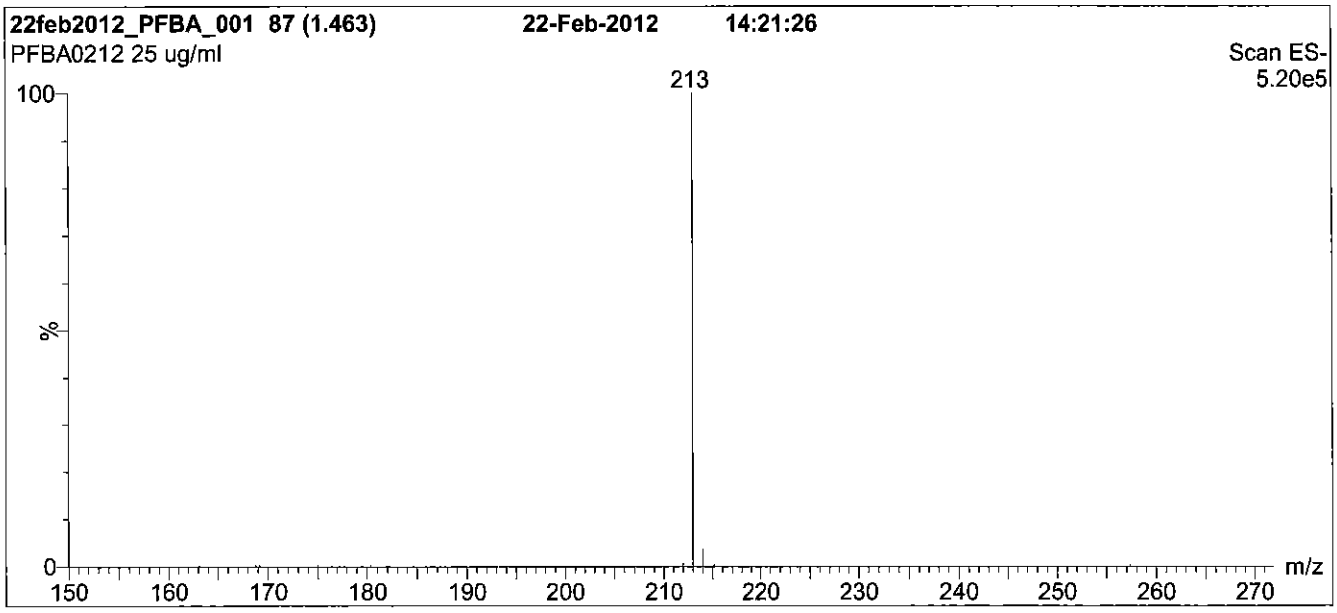
LIMITED WARRANTY:

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.

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: **PFBA; 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: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

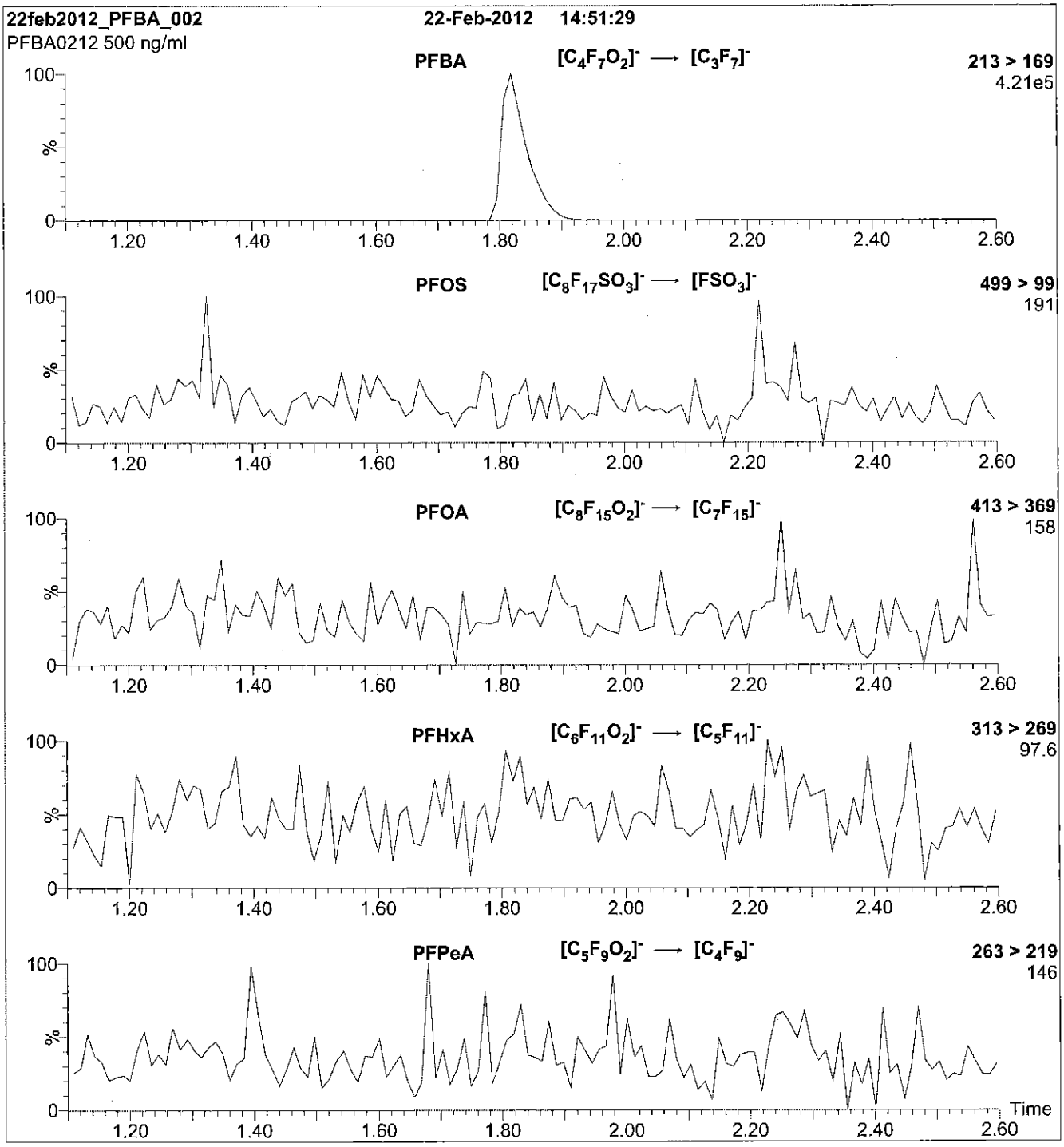
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.54e-3
Collision Energy (eV) = 10

Reagent

LCPFBS_00002

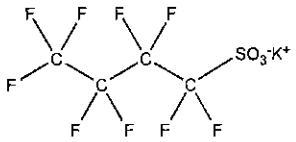
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R: 12-14-12
LCPFBS_00002

PRODUCT CODE: L-PFBS
COMPOUND: Potassium perfluoro-1-butanesulfonate
LOT NUMBER: LPFBS0612

STRUCTURE:
CAS #: 29420-49-3



MOLECULAR FORMULA:	$C_4F_9SO_3K$	**MOLECULAR WEIGHT:**	338.19
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 44.2 ± 2.2 µg/ml (PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	06/21/2012		
EXPIRY DATE: (mm/dd/yyyy)	06/21/2015		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/09/2012
B.G. Chittim (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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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:

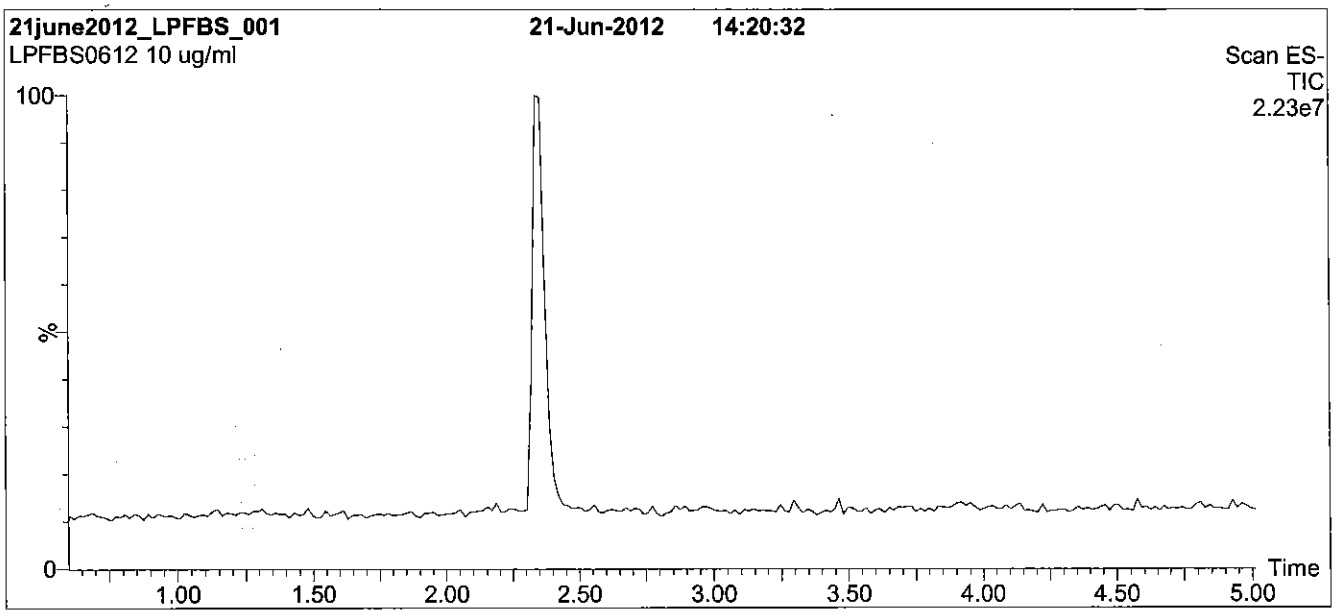
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

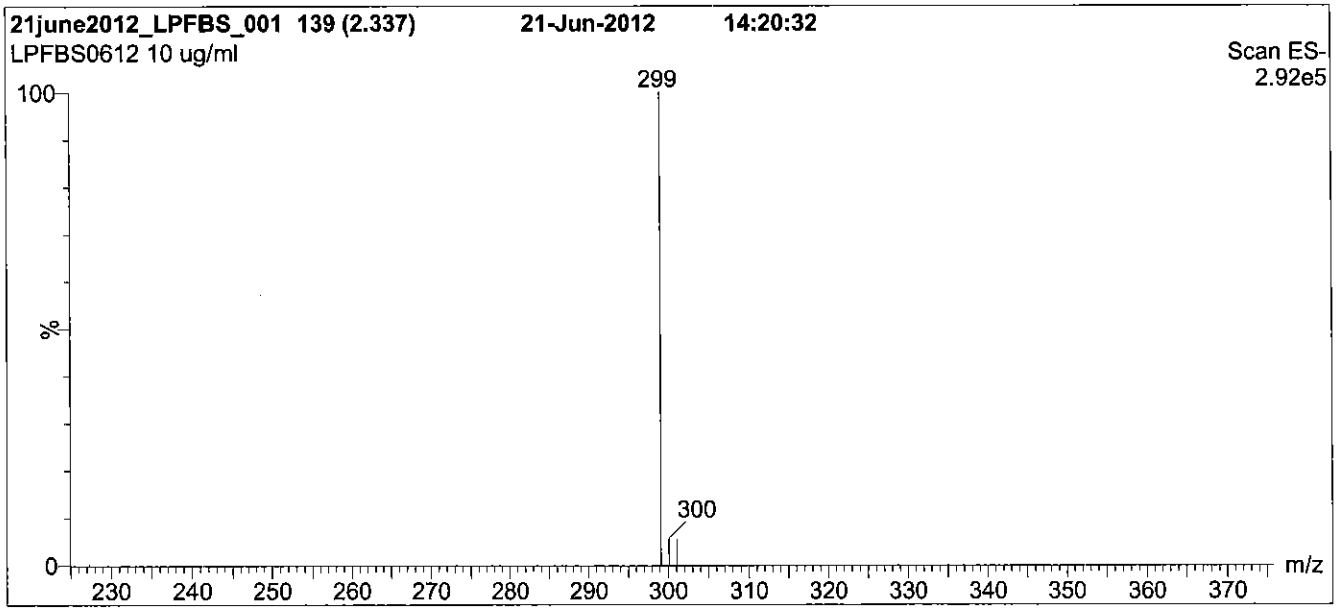
CALA Testing Accreditation No. A1226

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: **L-PFBS; 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: 40% (80:20 MeOH:ACN) / 60% 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

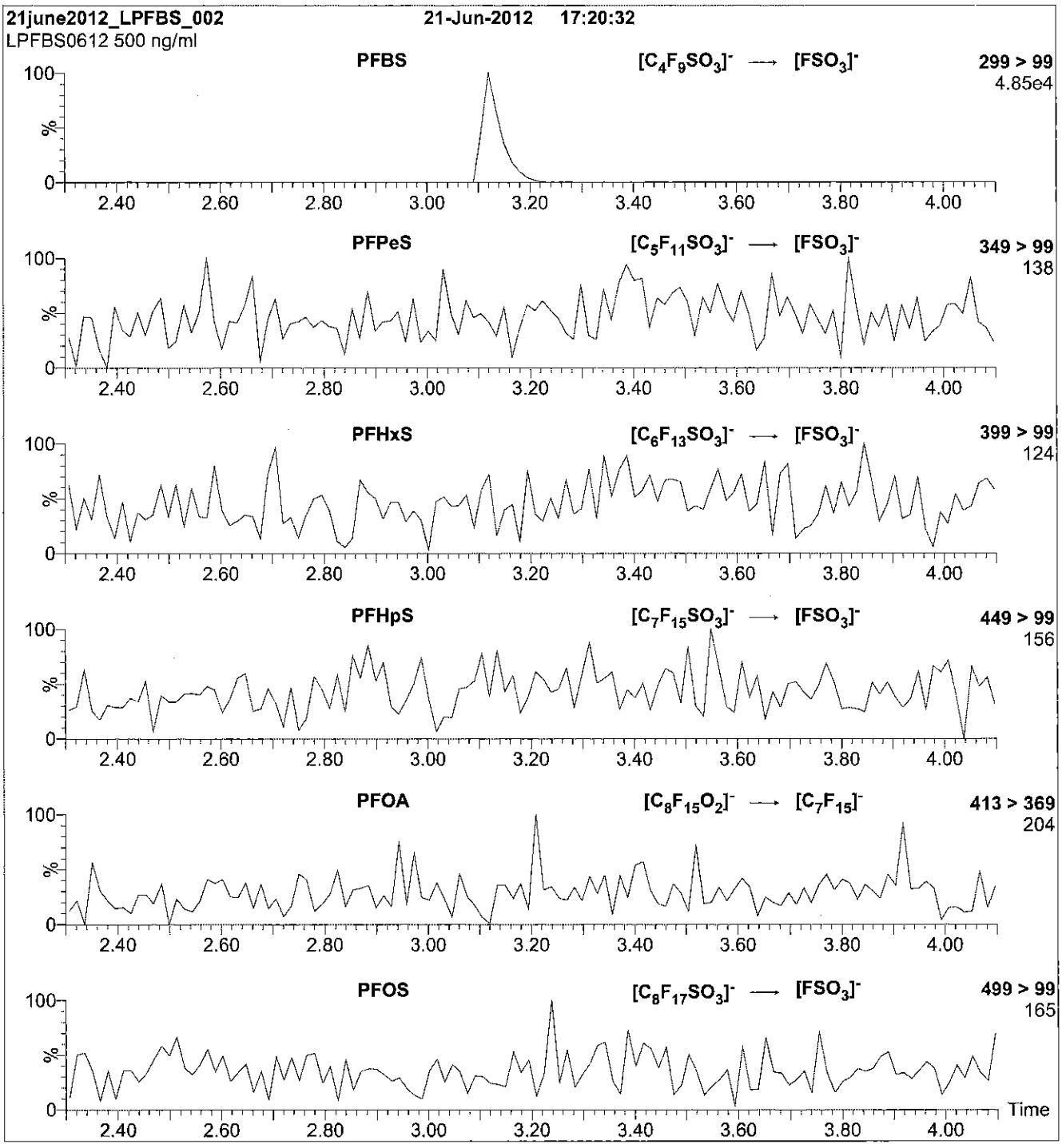
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **L-PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFBS)

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) = 3.28e-3
Collision Energy (eV) = 25

Reagent

LCPFDA_00002

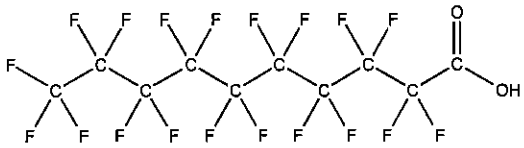
R. 3-15-12

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDA
COMPOUND: Perfluoro-n-decanoic acid
LOT NUMBER: PFDA0711

STRUCTURE:
CAS #: 335-76-2



MOLECULAR FORMULA: $C_{10}HF_{19}O_2$
MOLECULAR WEIGHT: 514.08
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 07/26/2011
EXPIRY DATE: (mm/dd/yyyy) 07/26/2014
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 ~ 0.4% PFNA and ~ 0.1% PFOA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 08/22/2011 (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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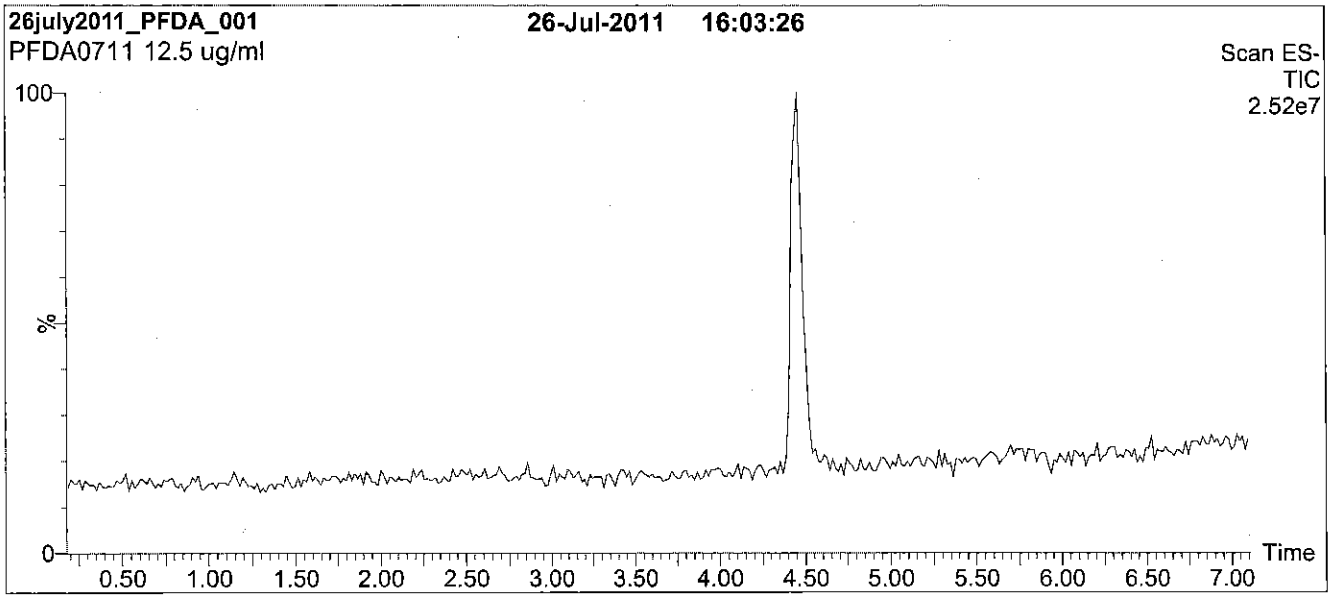
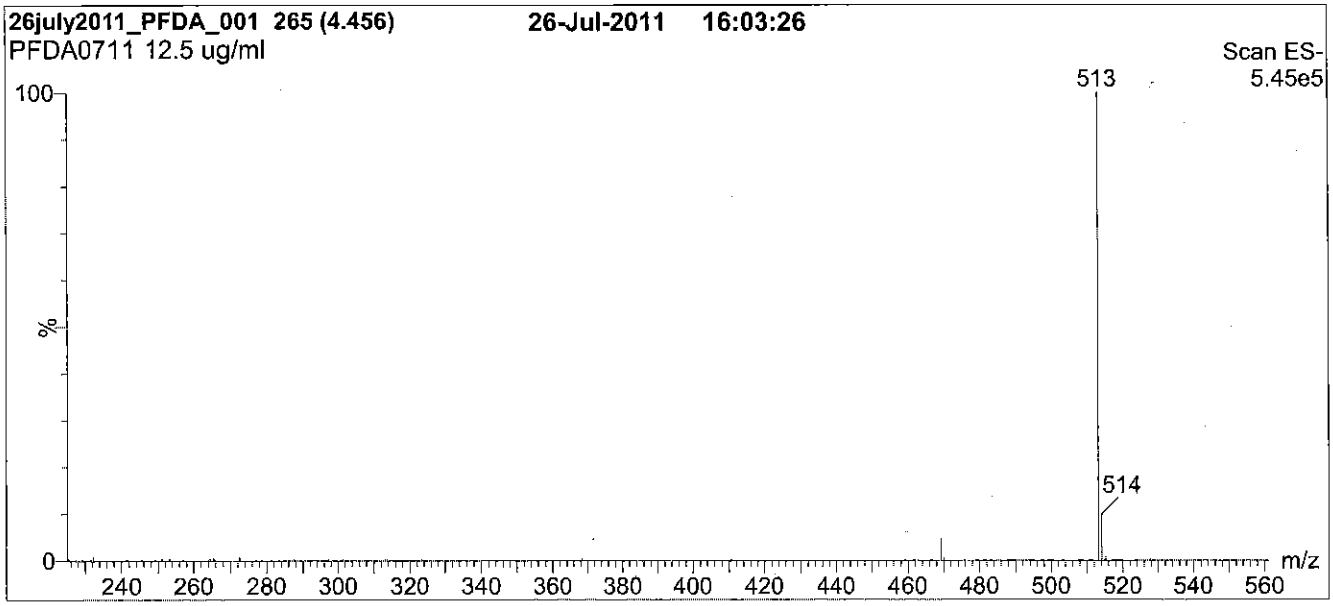




Conditions for Figure 1:

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: 40% (80:20 MeOH:ACN) / 60% 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

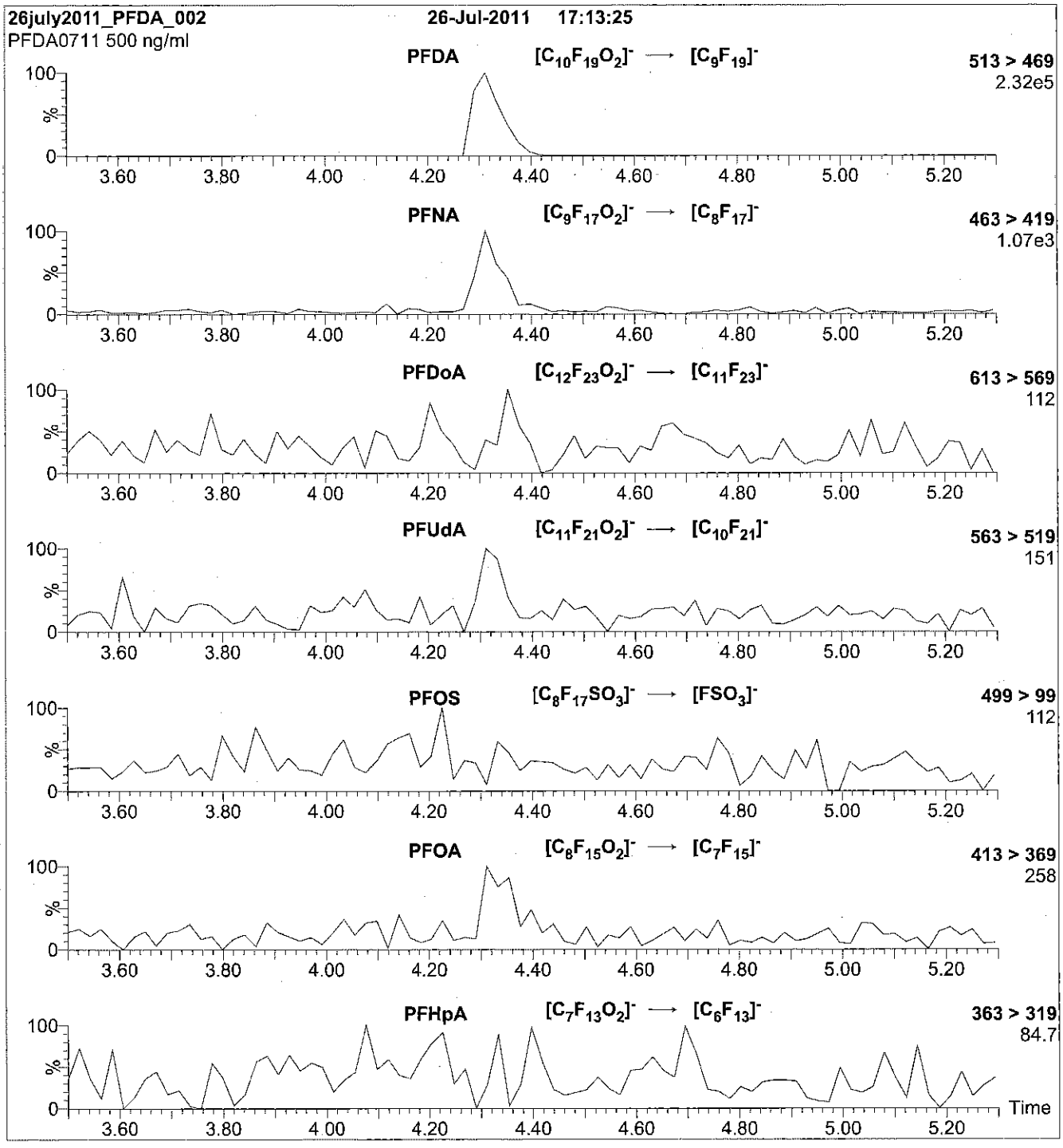
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

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

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.58e-3
Collision Energy (eV) = 13

Reagent

LCPFDoA_00002

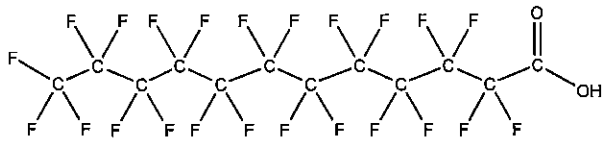
R: 3-15-12 DEL

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDoA
LOT NUMBER: PFDoA1111
COMPOUND: Perfluoro-n-dodecanoic acid

STRUCTURE:
CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
MOLECULAR WEIGHT: 614.10
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/17/2011
EXPIRY DATE: (mm/dd/yyyy) 11/17/2014
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.
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Certified By: B.G. Chittim **Date:** 12/07/2011 (mm/dd/yyyy)

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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:

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

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:

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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:

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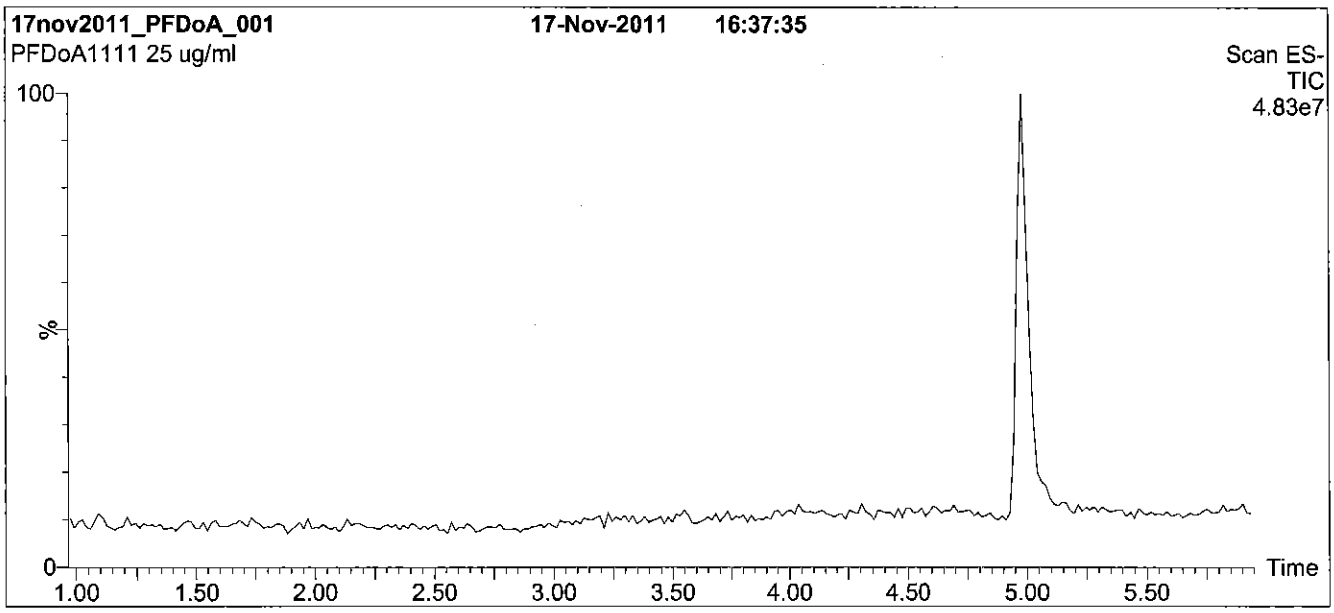
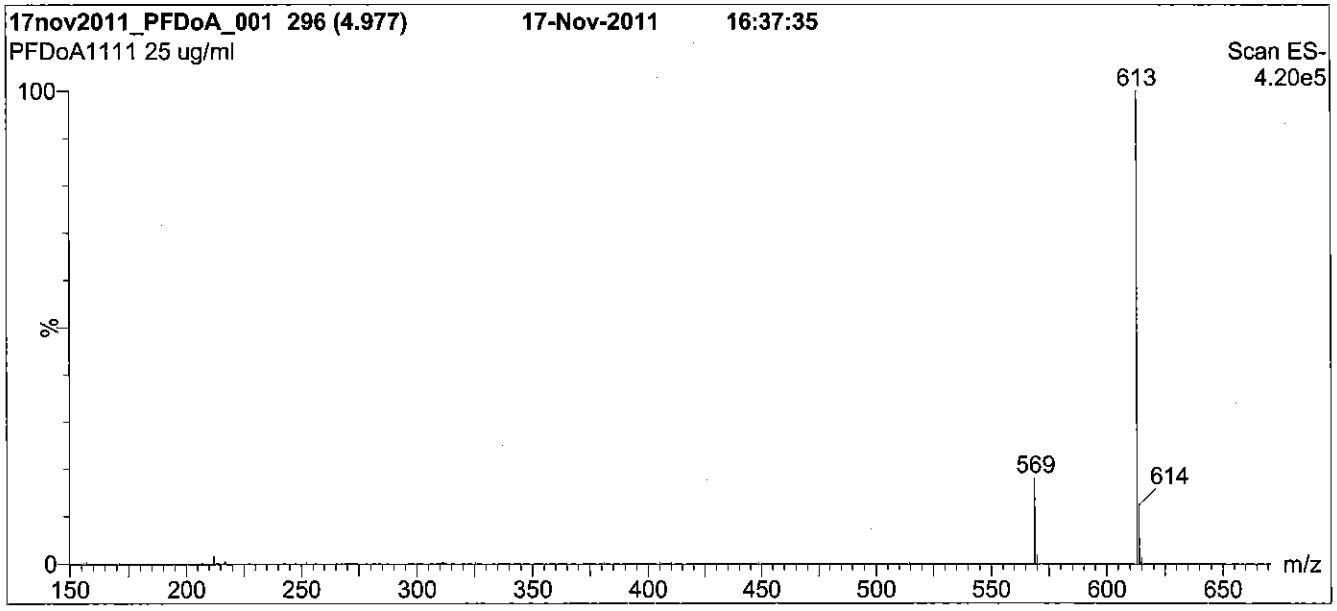
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFDoA; 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 7.5 min and hold for 1.5 min.
Return to initial conditions in 0.5 min.
Time: 10 min

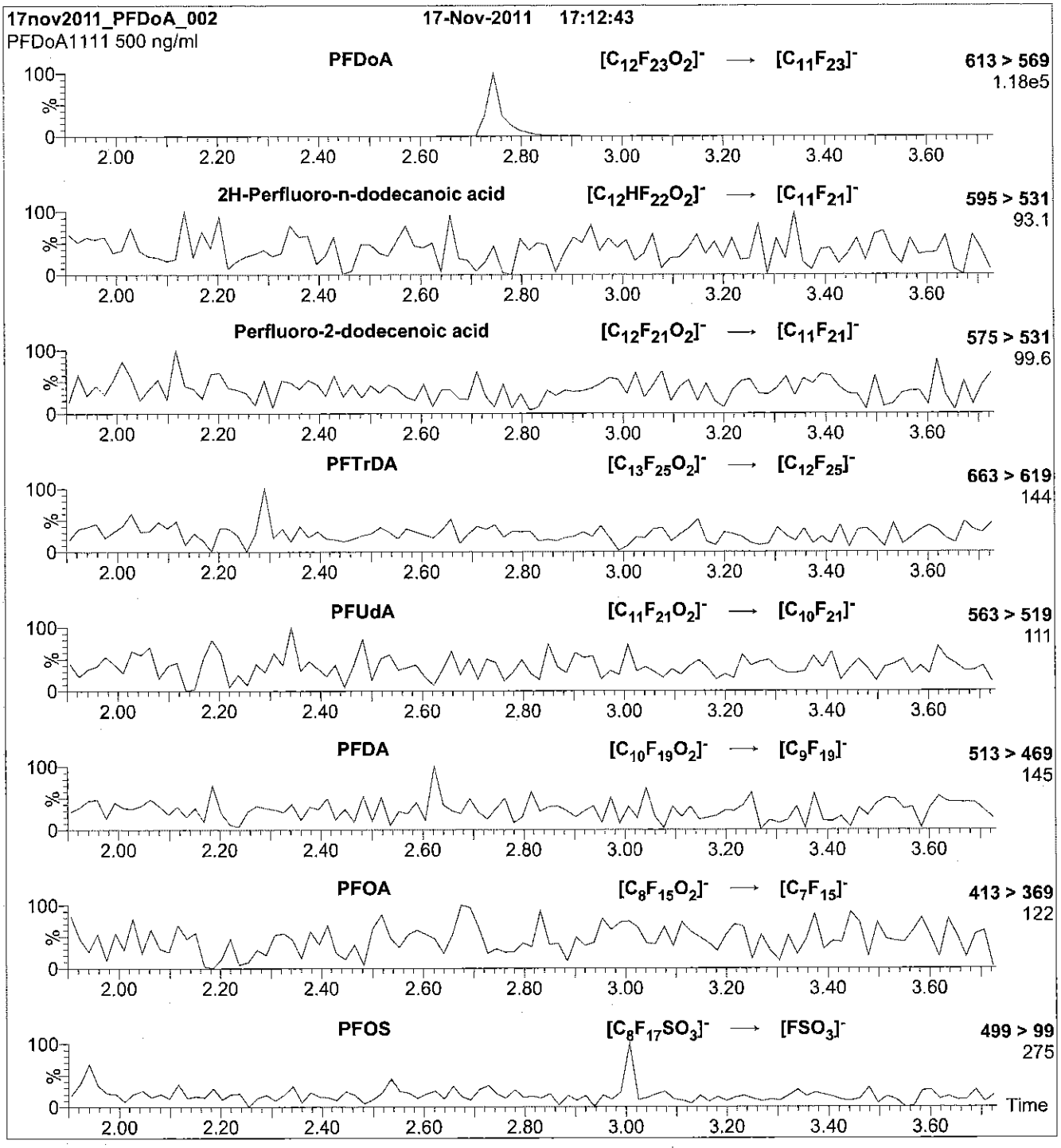
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 13

Reagent

LCPFDoS_00001

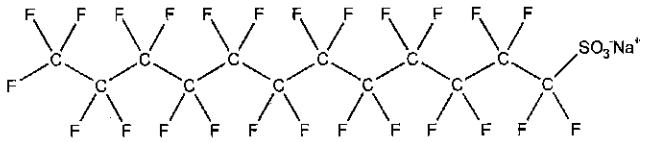
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R 12-14-12 New pdt.

PRODUCT CODE: L-PFDoS
LOT NUMBER: LPFDoS1011
COMPOUND: Sodium perfluoro-1-dodecanesulfonate

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA: $C_{12}F_{25}SO_3Na$
MOLECULAR WEIGHT: 722.14
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
48.4 ± 2.4 µg/ml (PFDoS anion)
SOLVENT(S): Methanol

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/06/2011
EXPIRY DATE: (mm/dd/yyyy) 10/06/2014
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 ~ 0.3% of sodium perfluoro-1-tetradecanesulfonate and ~ 0.8% of perfluoro-n-dodecanoic acid (PFDoA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/18/2011 (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.

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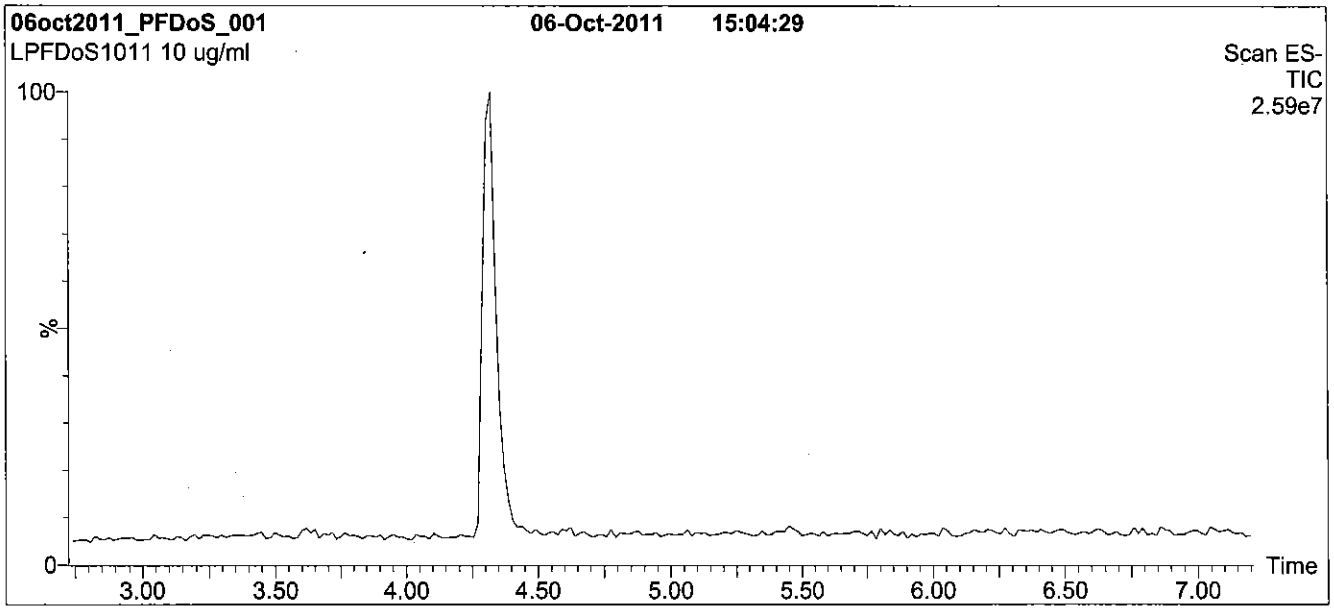
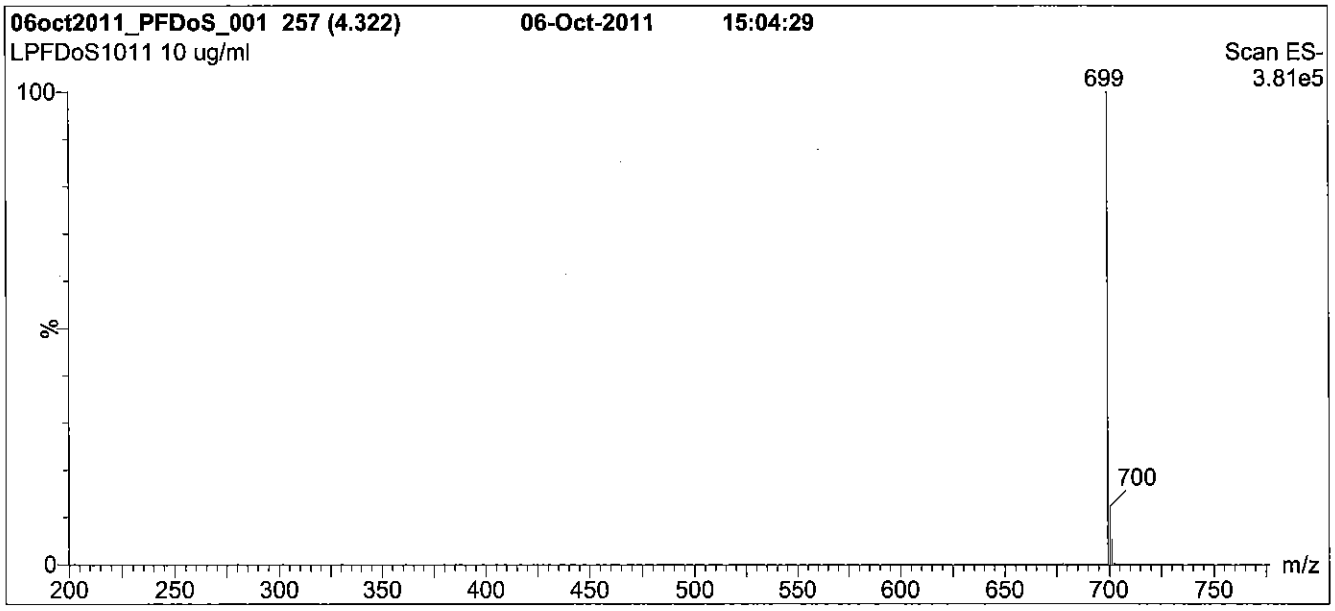
Figure 1: **L-PFDoS; LC/MS Data (TIC and Mass Spectrum)**





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: 65% (80:20 MeOH:ACN) / 35% 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

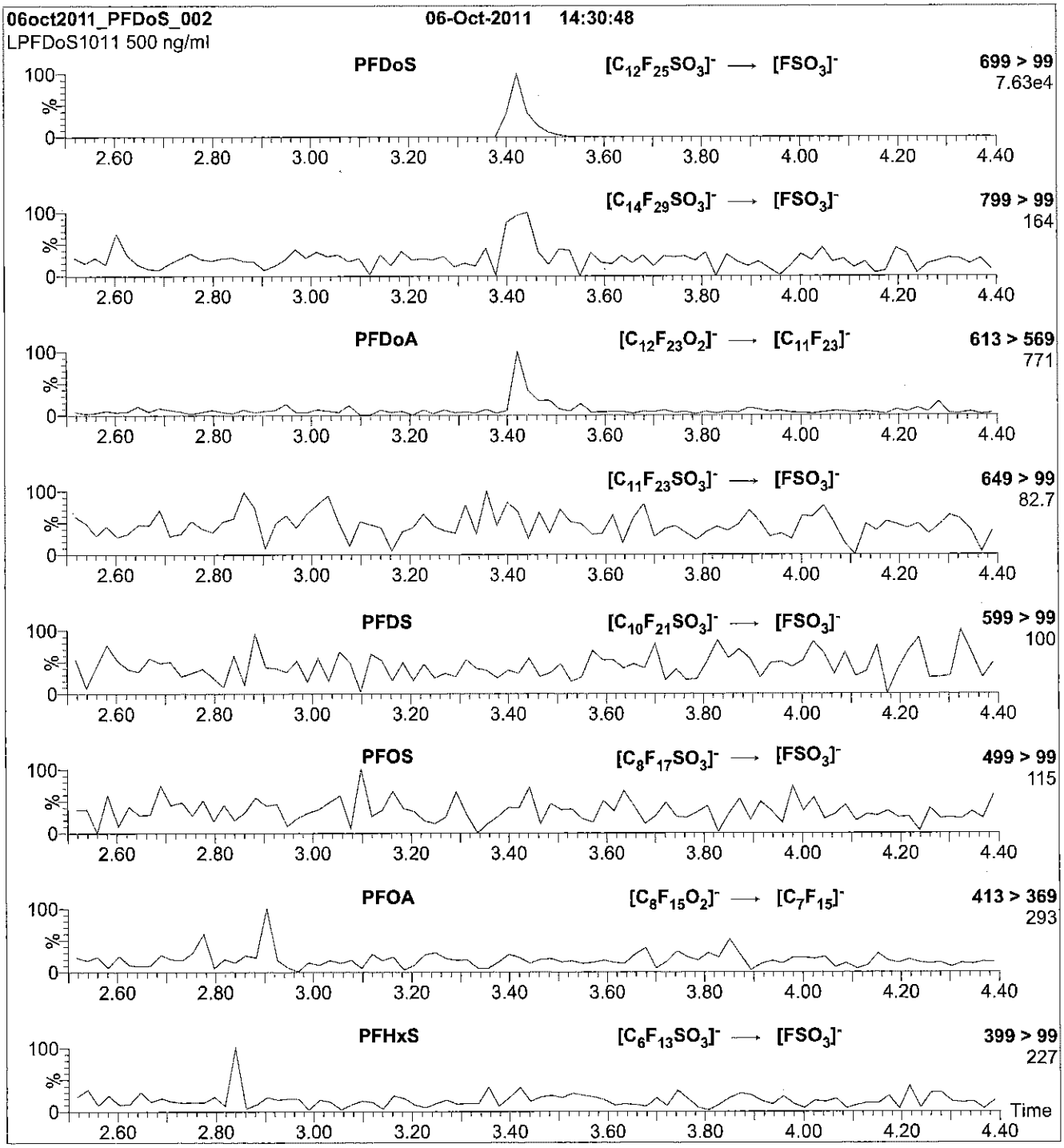
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (200 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 80.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **L-PFDoS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFDoS)

Mobile phase: Isocratic 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.54e-3
Collision Energy (eV) = 50

Reagent

LCPFDS_00002

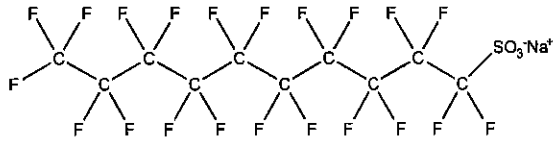
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R - 12-14-12
LCPFDS_00002

PRODUCT CODE: L-PFDS
COMPOUND: Sodium perfluoro-1-decanesulfonate
LOT NUMBER: LPFDS0612

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$C_{10}F_{21}SO_3Na$	**MOLECULAR WEIGHT:**	622.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.2 ± 2.4 µg/ml (PFDS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	06/21/2012		
EXPIRY DATE: (mm/dd/yyyy)	06/21/2015		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 07/12/2012 (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:

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LIMITED WARRANTY:

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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

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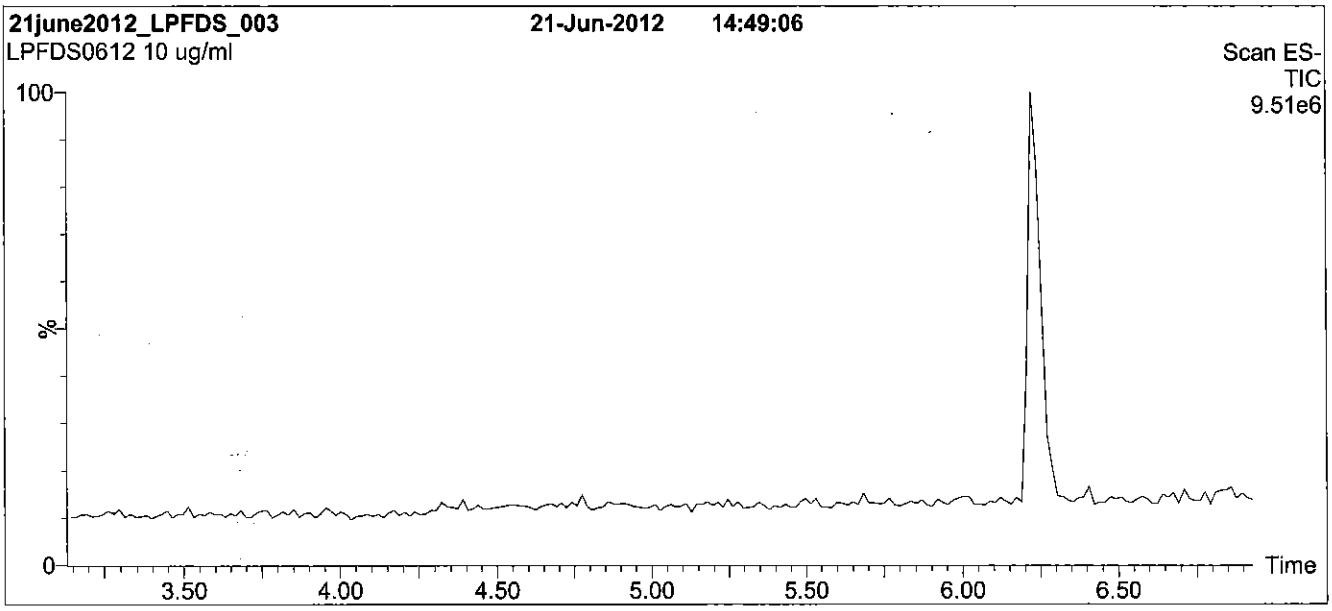
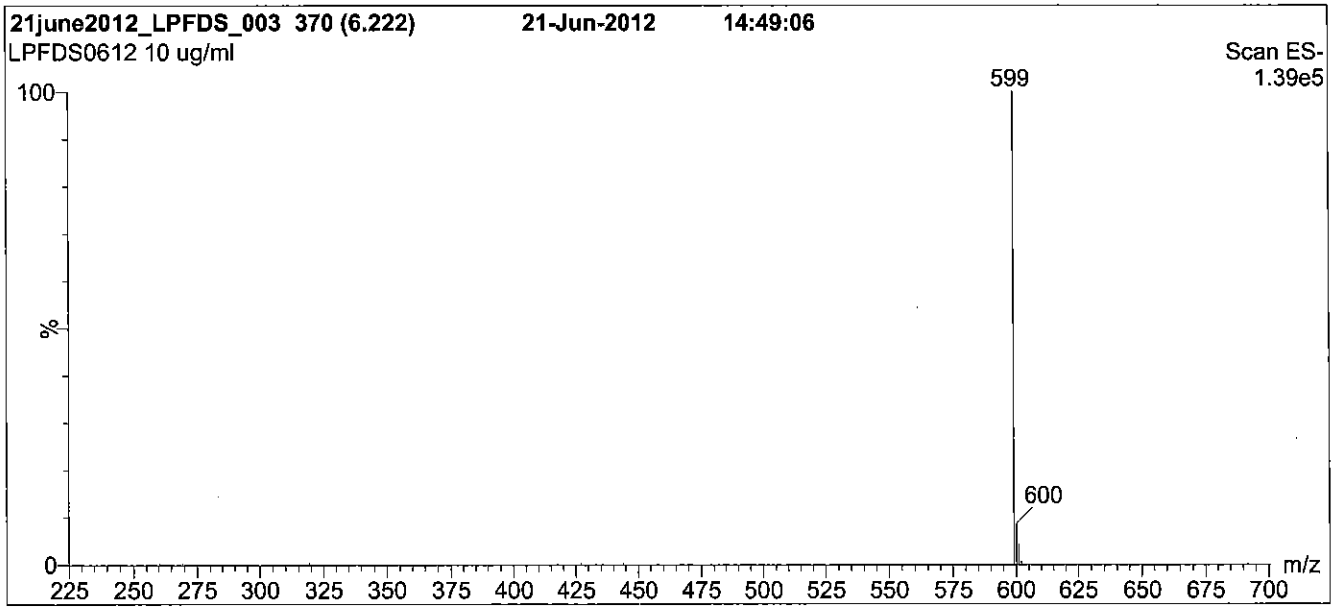
Figure 1: **L-PFDS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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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: 40% (80:20 MeOH:ACN) / 60% 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

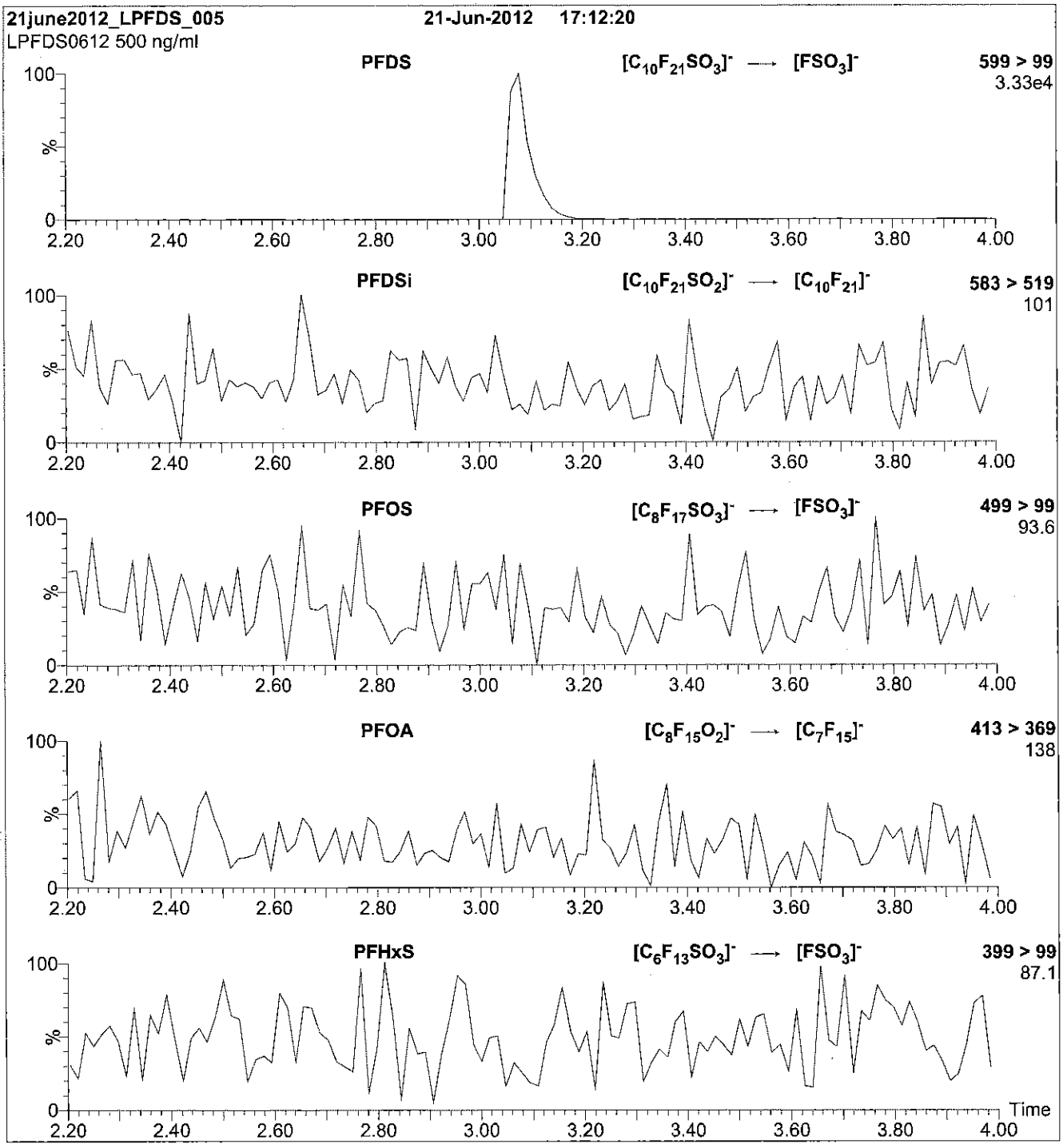
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 70.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 650

Figure 2: **L-PFDS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFDS)

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) = 50

Reagent

LCPFHpA_00002

R 9-17-12 DEL

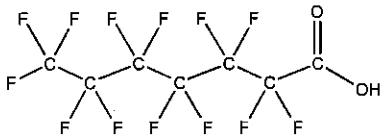
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

Dup LCPFHpA-00001
new lot LCPFHpA-000002

PRODUCT CODE: PFHpA
LOT NUMBER: PFHpA0412
COMPOUND: Perfluoro-n-heptanoic acid

STRUCTURE:
CAS #: 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$
MOLECULAR WEIGHT: 364.06
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/18/2012
EXPIRY DATE: (mm/dd/yyyy) 04/18/2015
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:** 05/03/2012 (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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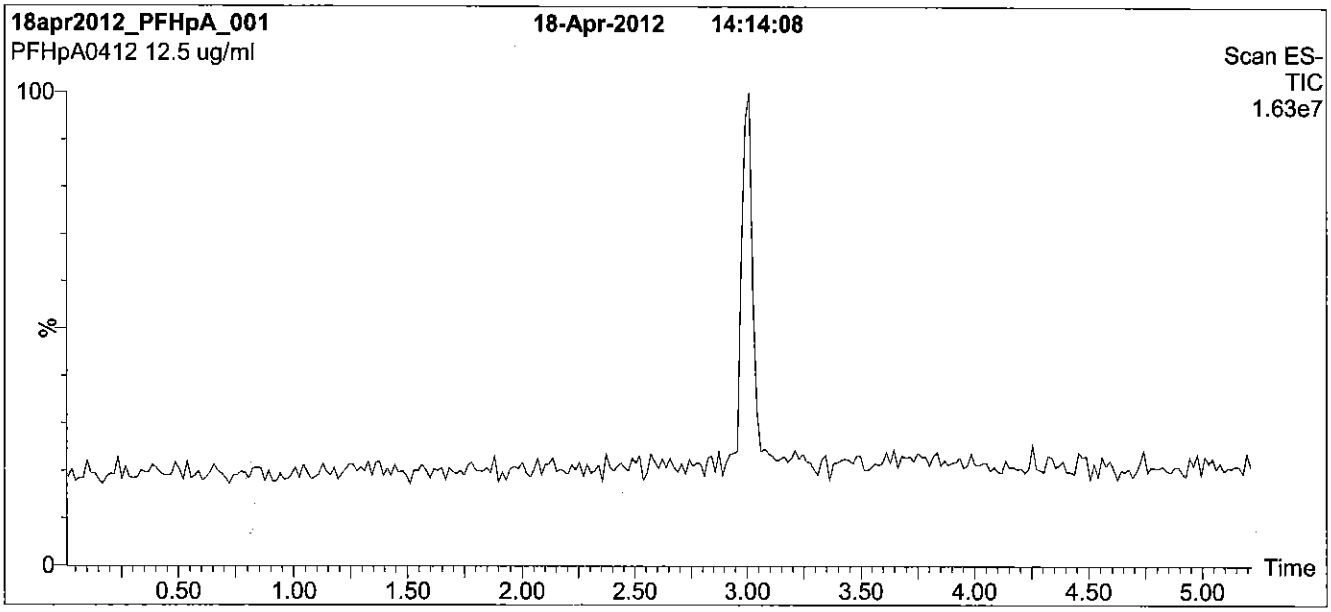

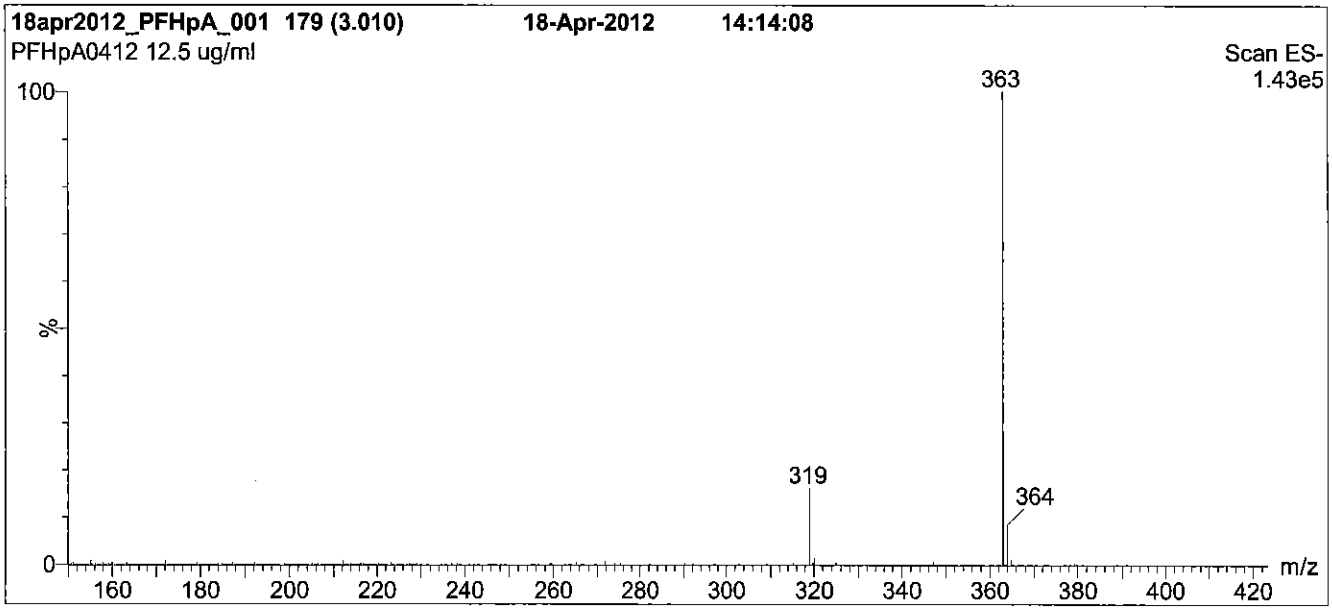

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Time: 10 min

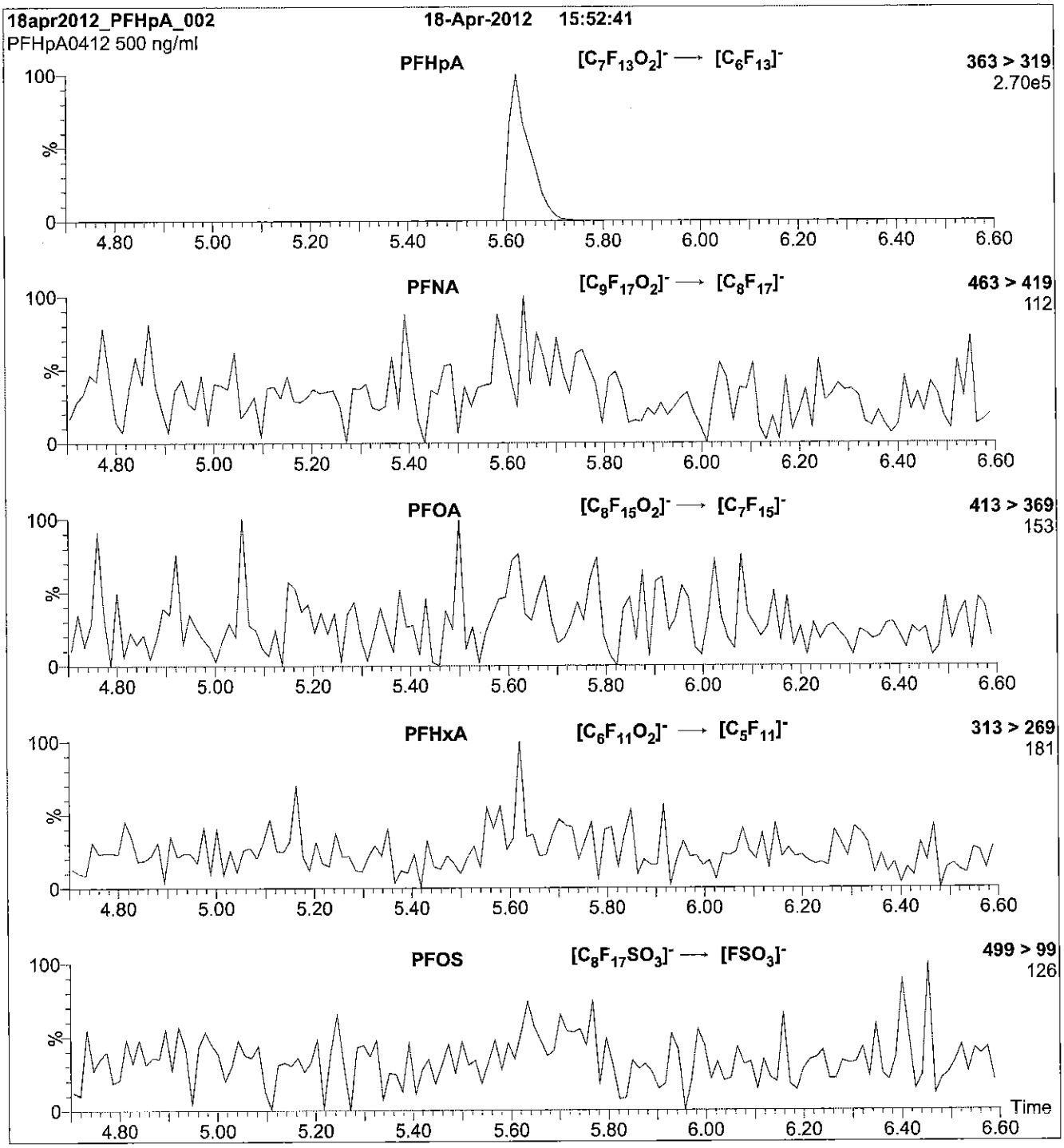
Flow: 300 µl/min

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: **PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

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

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) = 3.54e-3
Collision Energy (eV) = 11

Reagent

LCPFHxA_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

R: 12-14-12

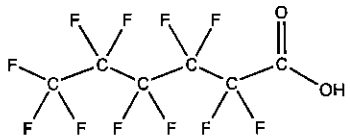
LCPFHxA-00002

PRODUCT CODE: PFHxA
COMPOUND: Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA1012

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 314.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/29/2012
EXPIRY DATE: (mm/dd/yyyy) 10/29/2015
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:** 11/01/2012 (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:

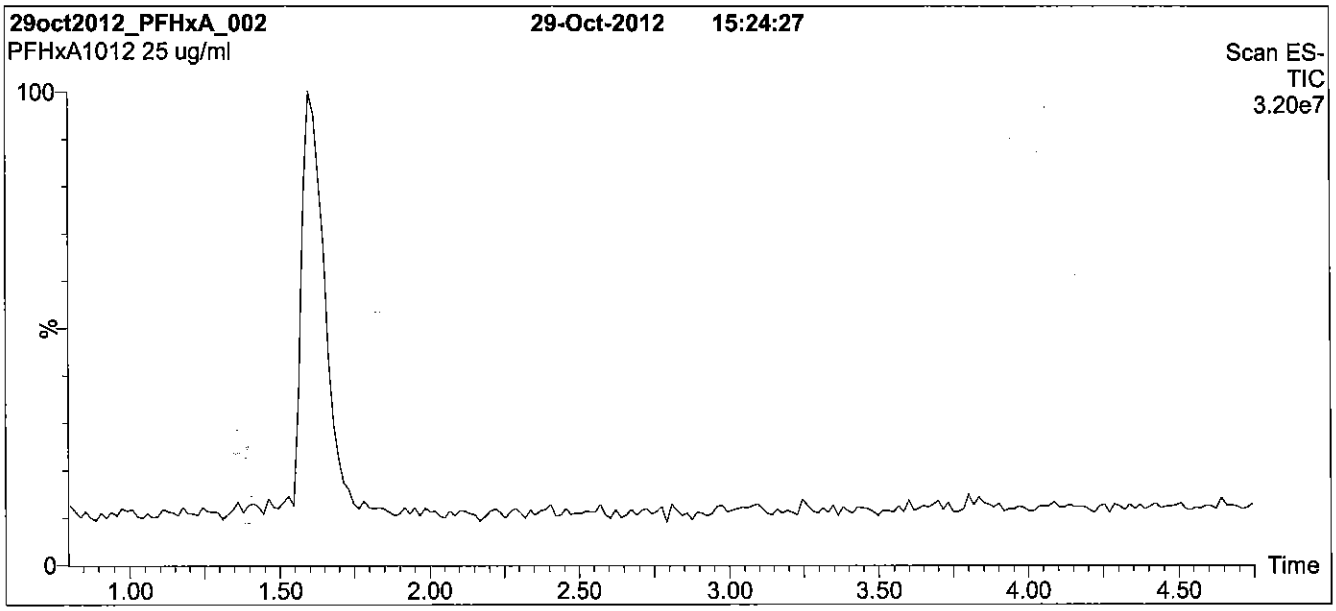
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

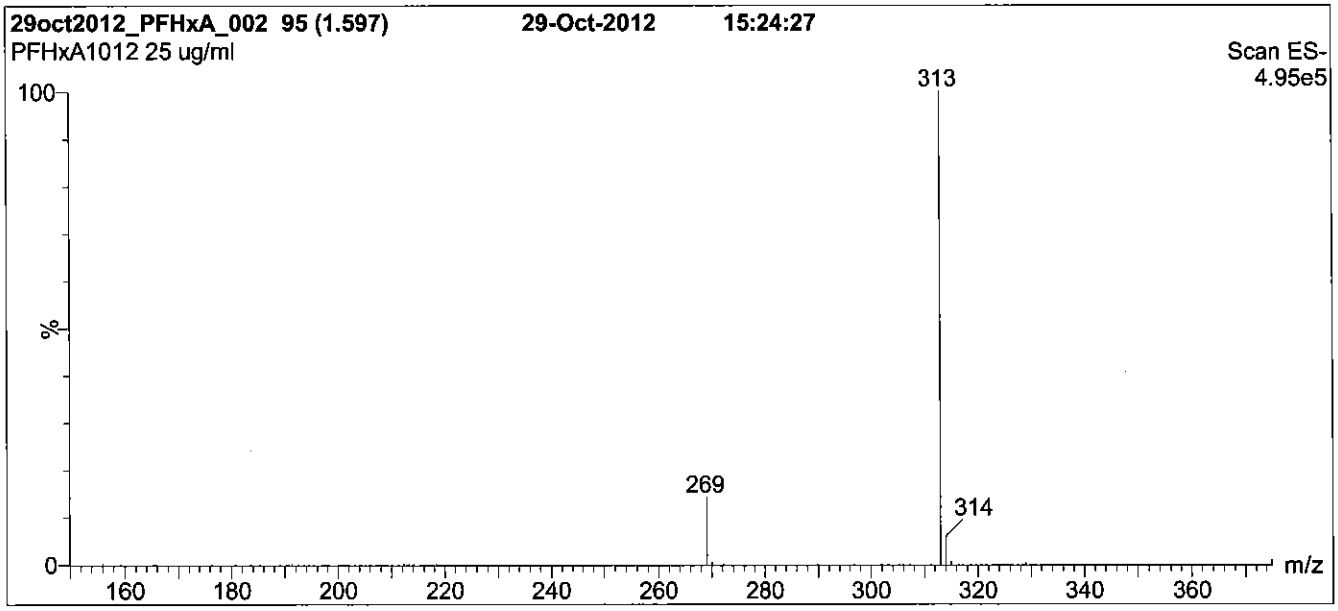
CALA Testing Accreditation No. A1226

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: **PFHxA; 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

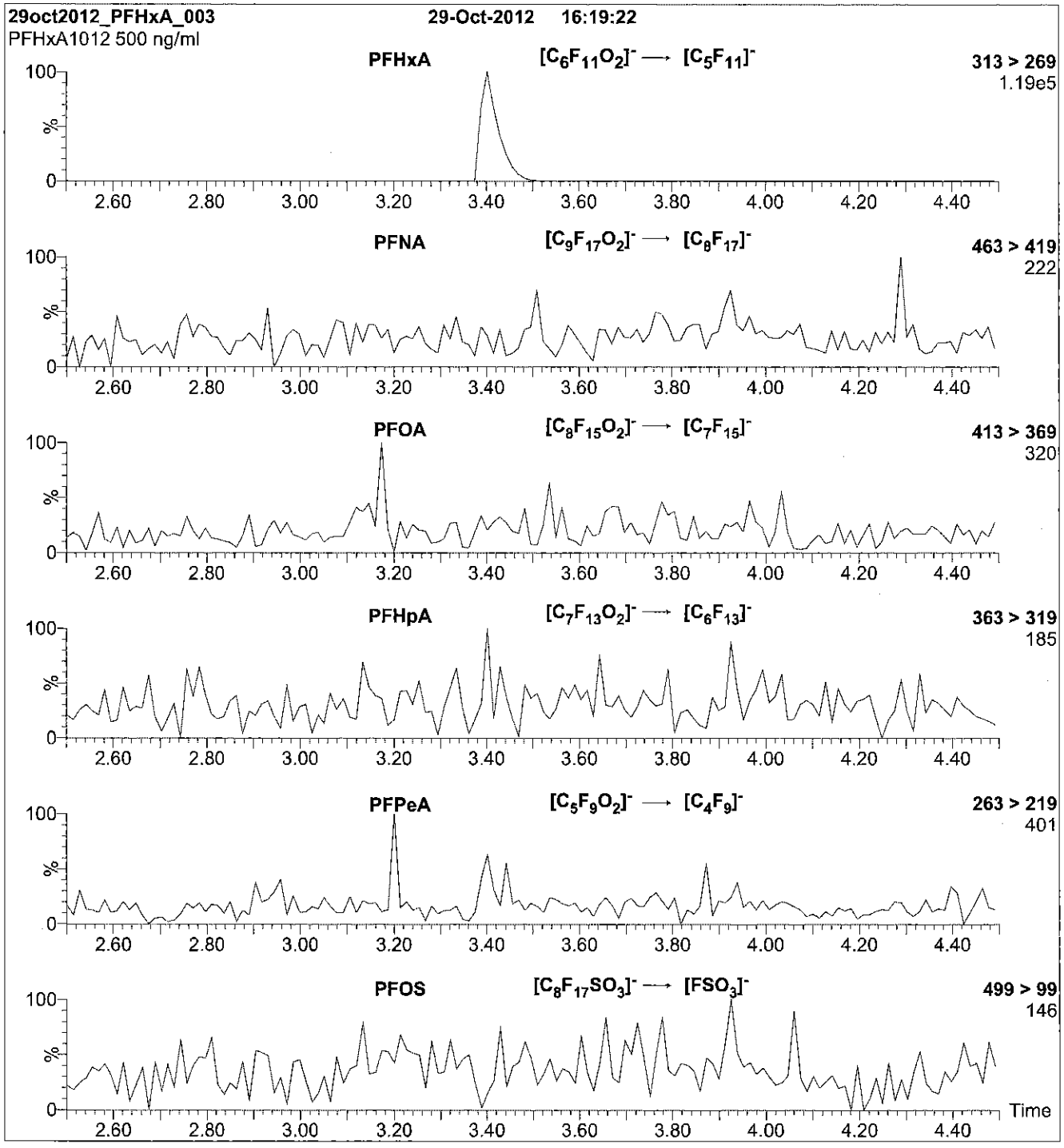
Flow: 300 µl/min

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) = 100
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 3.13e-3
Collision Energy (eV) = 10

Reagent

LCPFHxS_00002

R 9-17-12 DEL

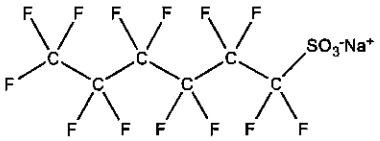
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

Dup LCPFHxS-00001
new lot LCPFHxS-00002

PRODUCT CODE: L-PFHxS
LOT NUMBER: LPFHxS0312
COMPOUND: Sodium perfluoro-1-hexanesulfonate

STRUCTURE:
CAS #: 82382-12-5



MOLECULAR FORMULA: $C_8F_{13}SO_3Na$
MOLECULAR WEIGHT: 422.10
CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.3 ± 2.4 µg/ml (PFHxS anion) ✓
SOLVENT(S): Methanol

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 03/27/2012
EXPIRY DATE: (mm/dd/yyyy) 03/27/2015
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 04/18/2012 (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:

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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:

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

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:

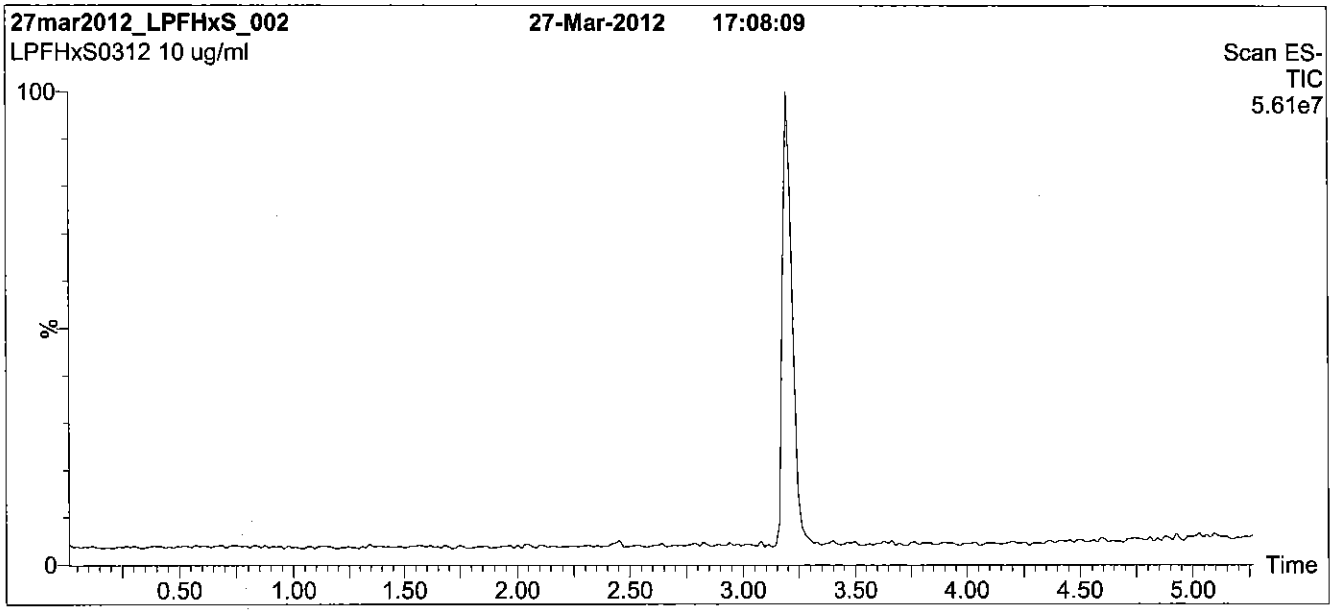
Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

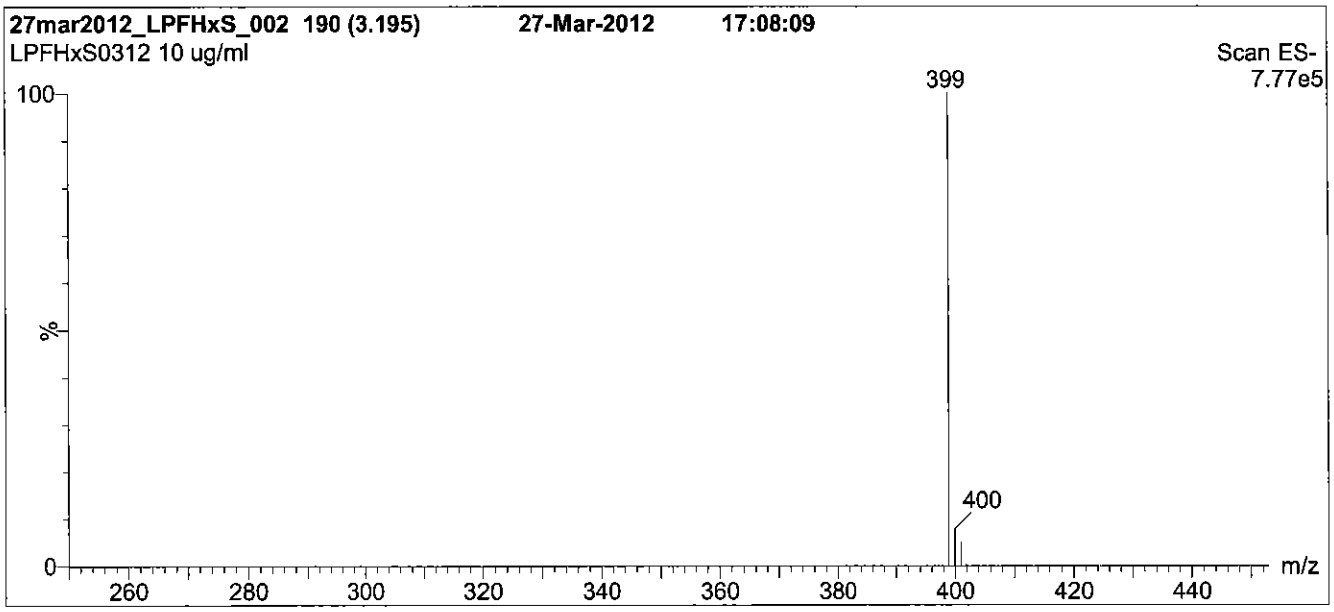
LIMITED WARRANTY:

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.

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: **L-PFHxS; 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: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

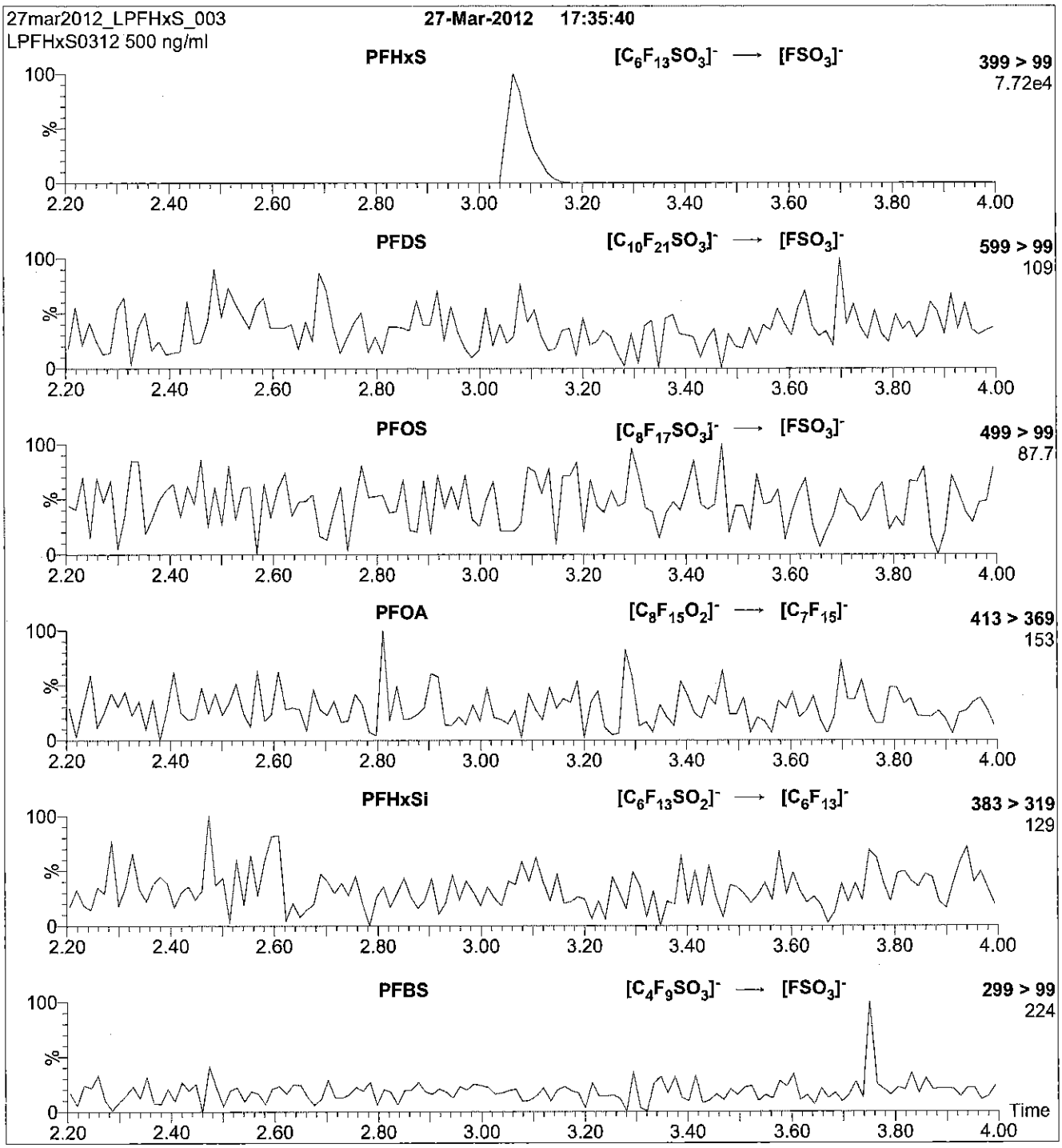
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **L-PFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFHxS)

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

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 30

Reagent

LCPFNA_00002

R 9-17-12 DEL

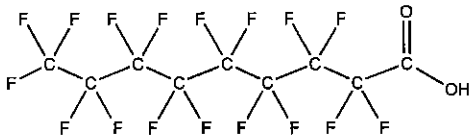
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

Dup LCPFDA_00001
new lot LCPFOA_00002

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid
LOT NUMBER: PFNA0612

STRUCTURE:
CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
MOLECULAR WEIGHT: 464.08
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 06/14/2012
EXPIRY DATE: (mm/dd/yyyy) 06/14/2015
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-octanoic acid (PFOA) and < 0.1% of perfluoro-n-heptanoic acid (PFHpA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/15/2012 (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:

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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.

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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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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

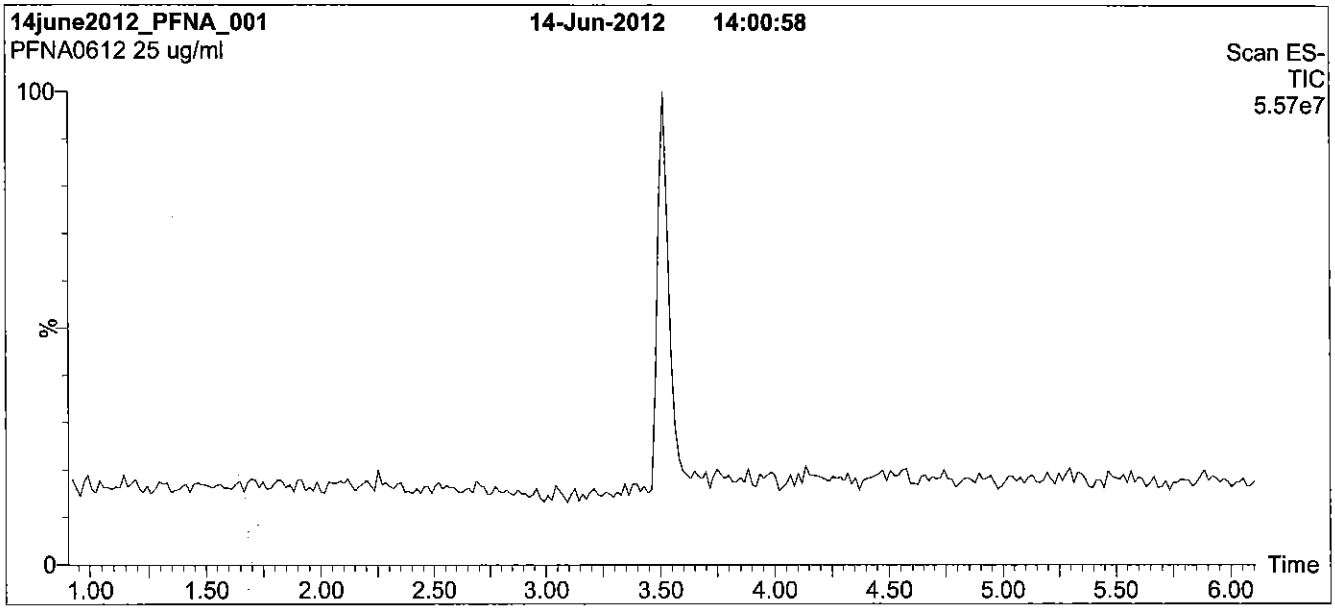
Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

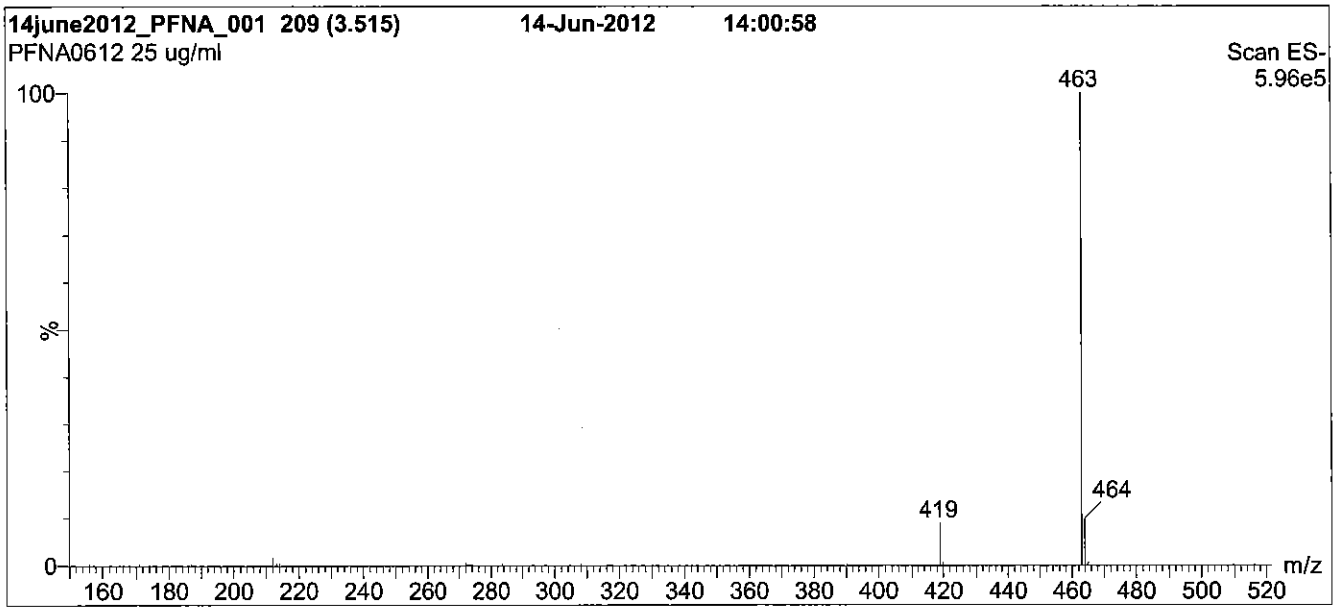
LIMITED WARRANTY:

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.

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: **PFNA; 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 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

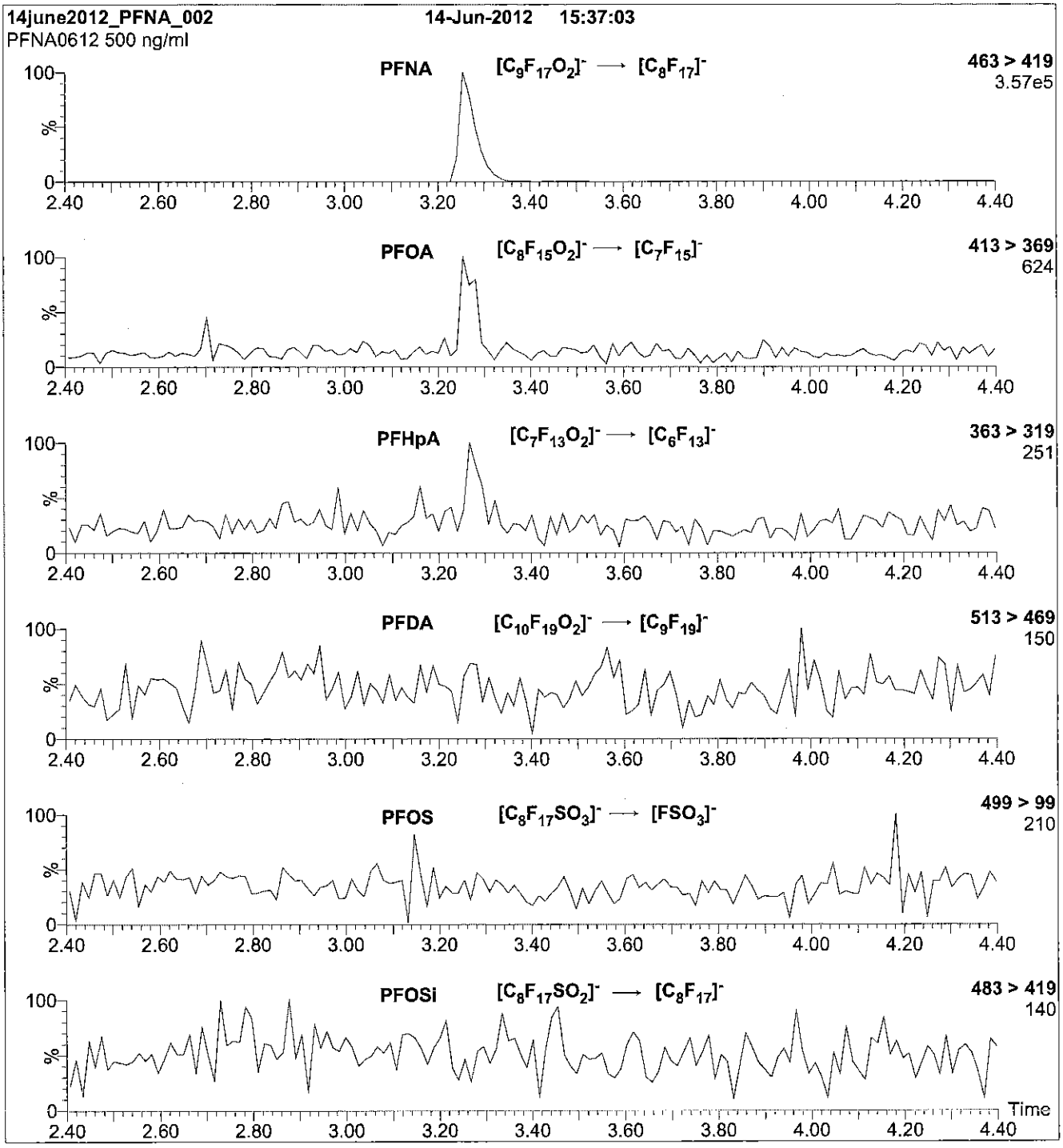
Flow: 300 µl/min

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: **PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

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

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) = 11

Reagent

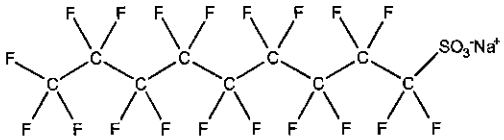
LCPFNS_00001

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R= 12-14-12

PRODUCT CODE:	L-PFNS	**LOT NUMBER:**	LPFNS0712
COMPOUND:	Sodium perfluoro-1-nonanesulfonate		
STRUCTURE:		**CAS #:**	98789-57-2



MOLECULAR FORMULA:	$C_9F_{19}SO_3Na$	**MOLECULAR WEIGHT:**	572.12
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.0 ± 2.4 µg/ml (PFNS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/04/2012		
EXPIRY DATE: (mm/dd/yyyy)	07/04/2015		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 07/12/2012 (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:

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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.

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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 Accredited Lab No. A1226

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER

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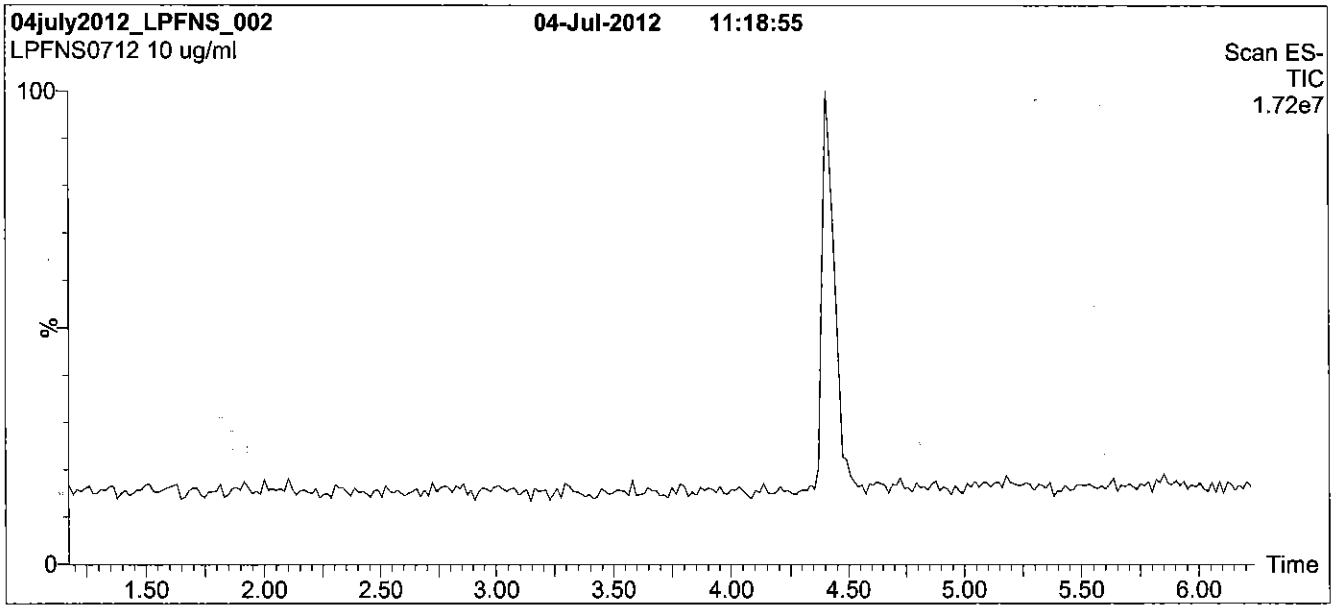
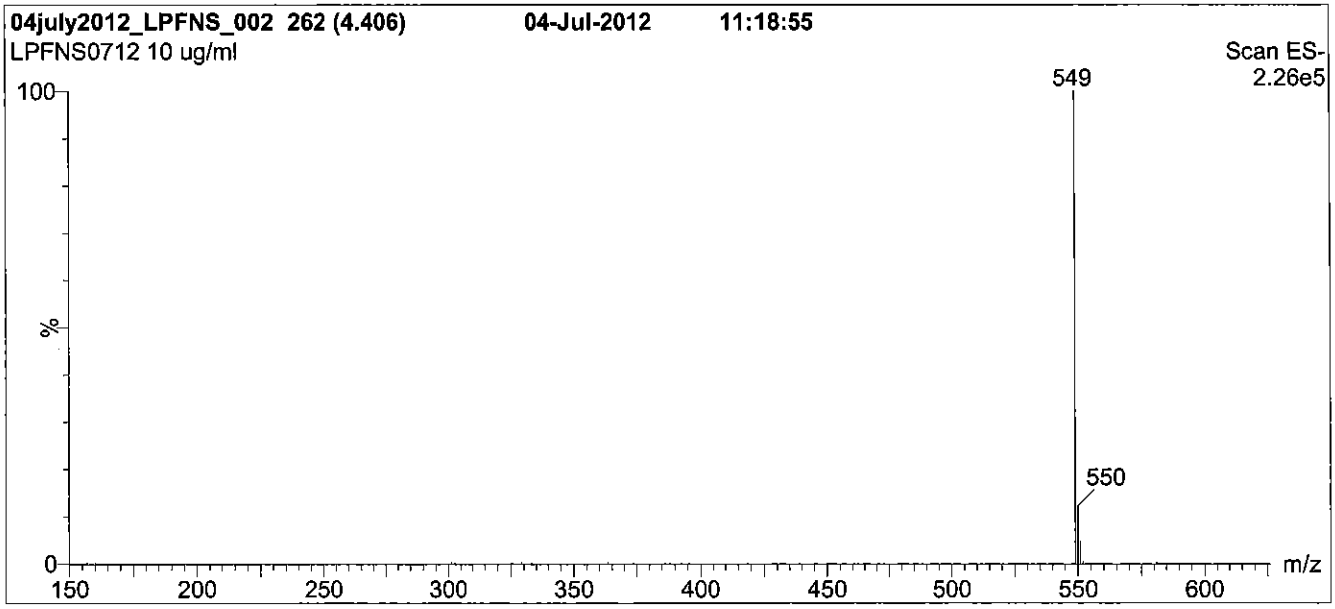
Figure 1: **L-PFNS; LC/MS Data (TIC and Mass Spectrum)**





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

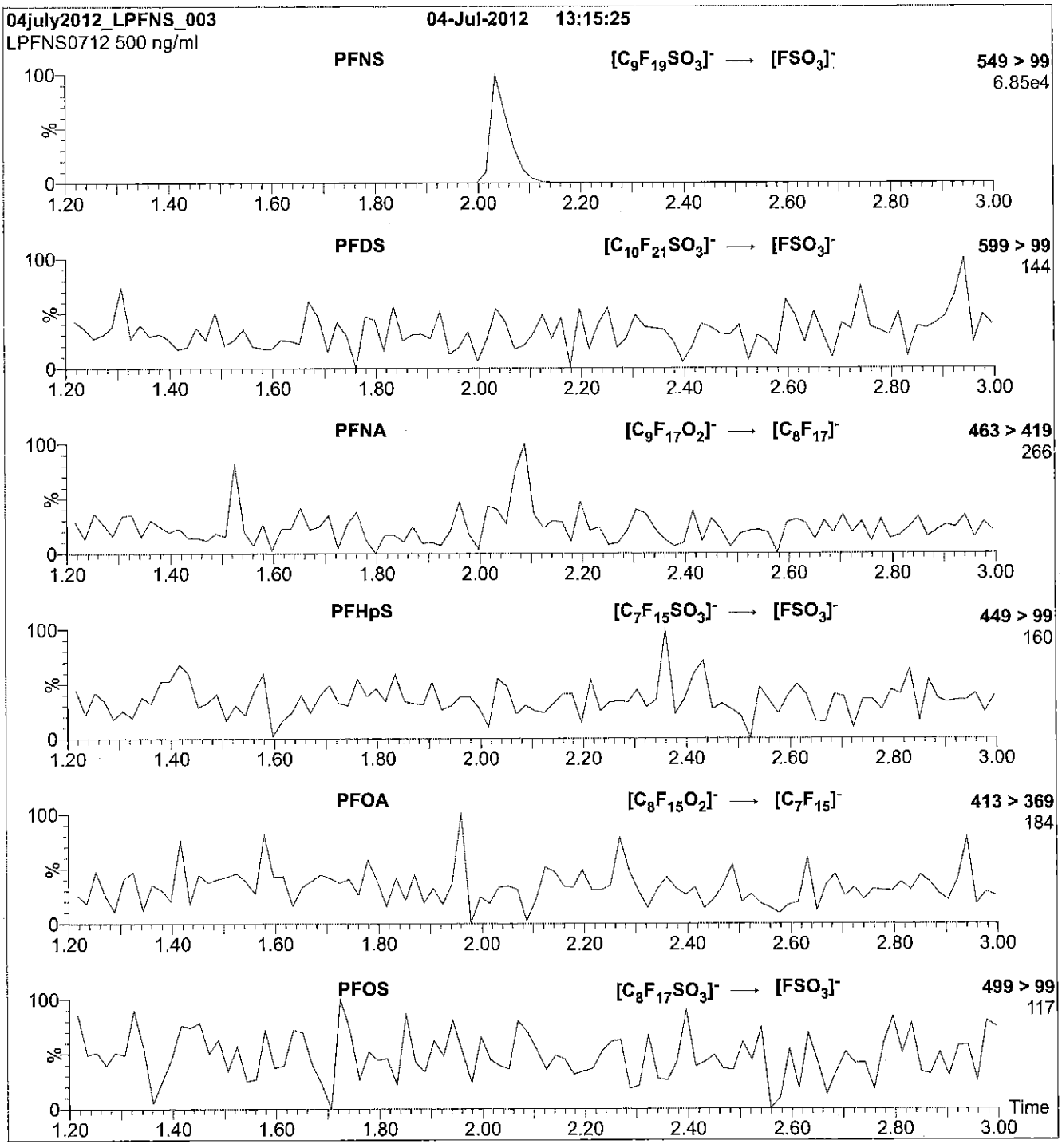
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 65.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **L-PFNS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFNS)

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) = 3.54e-3
Collision Energy (eV) = 45

Reagent

LCPFOA_00002

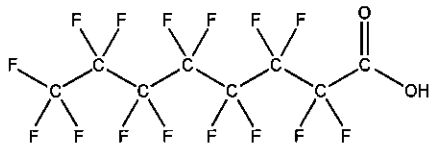
R: 3-15-12 DEG

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFOA
COMPOUND: Perfluoro-n-octanoic acid
LOT NUMBER: PFOA1211

STRUCTURE:
CAS #: 335-67-1



MOLECULAR FORMULA: $C_8HF_{15}O_2$
MOLECULAR WEIGHT: 414.07
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/21/2011
EXPIRY DATE: (mm/dd/yyyy) 12/21/2014
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:** 12/22/2011 (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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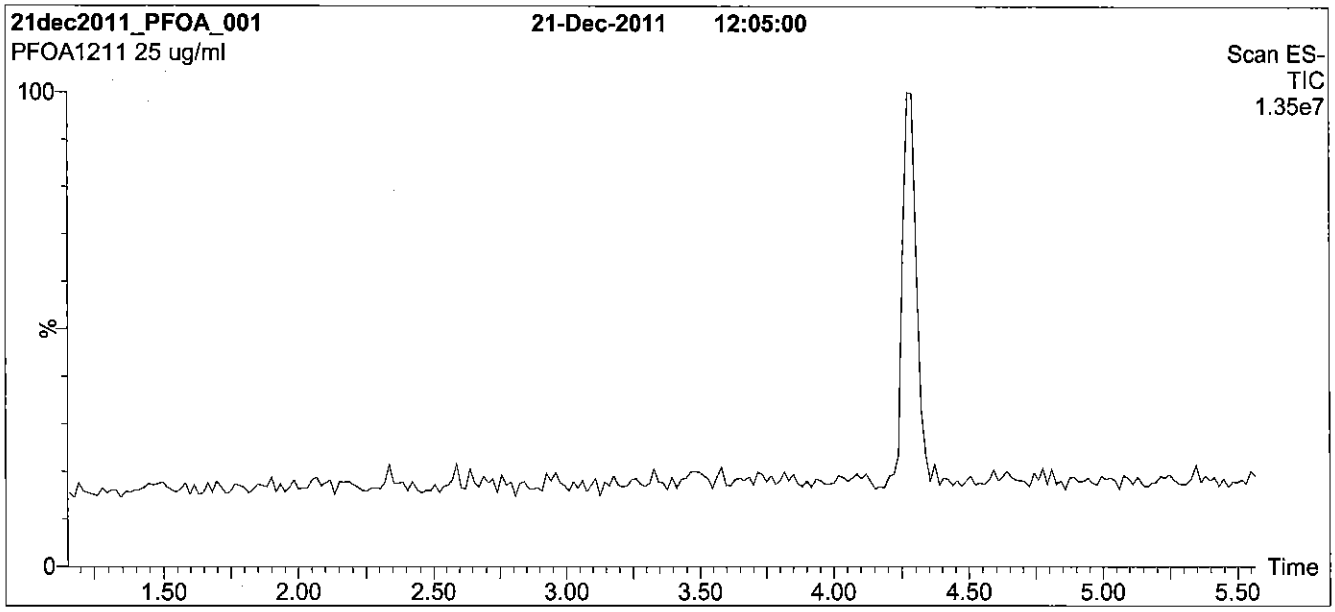
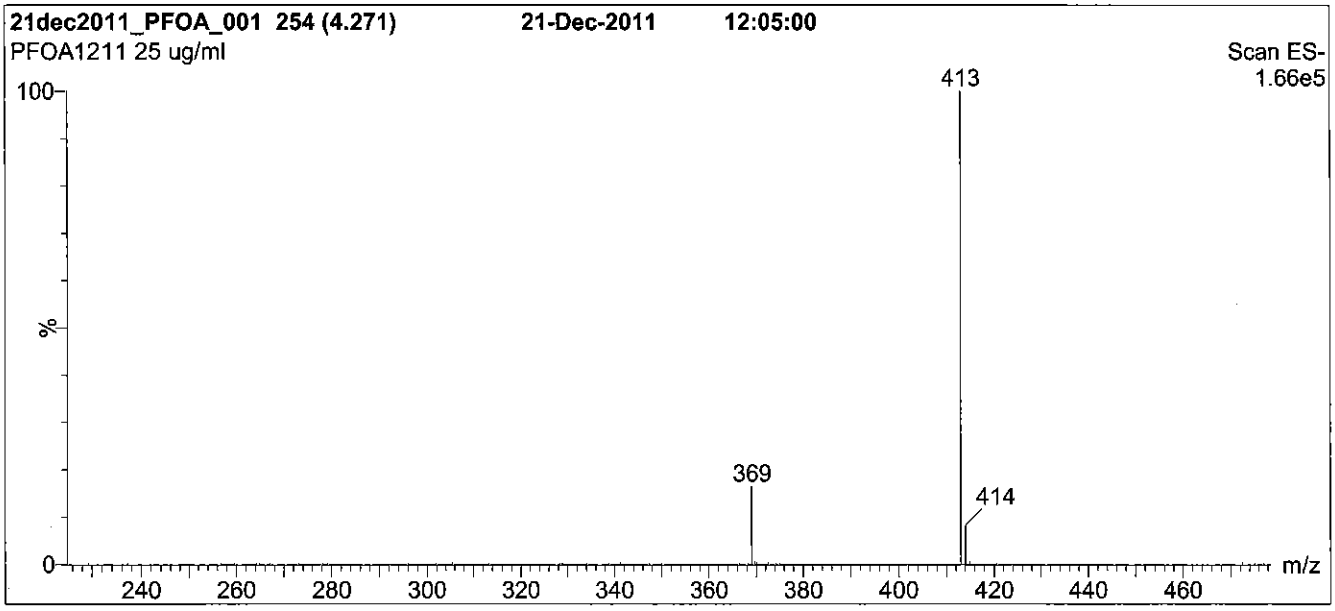
Figure 1: **PFOA; LC/MS Data (TIC and Mass Spectrum)**





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: 40% (80:20 MeOH:ACN) / 60% 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

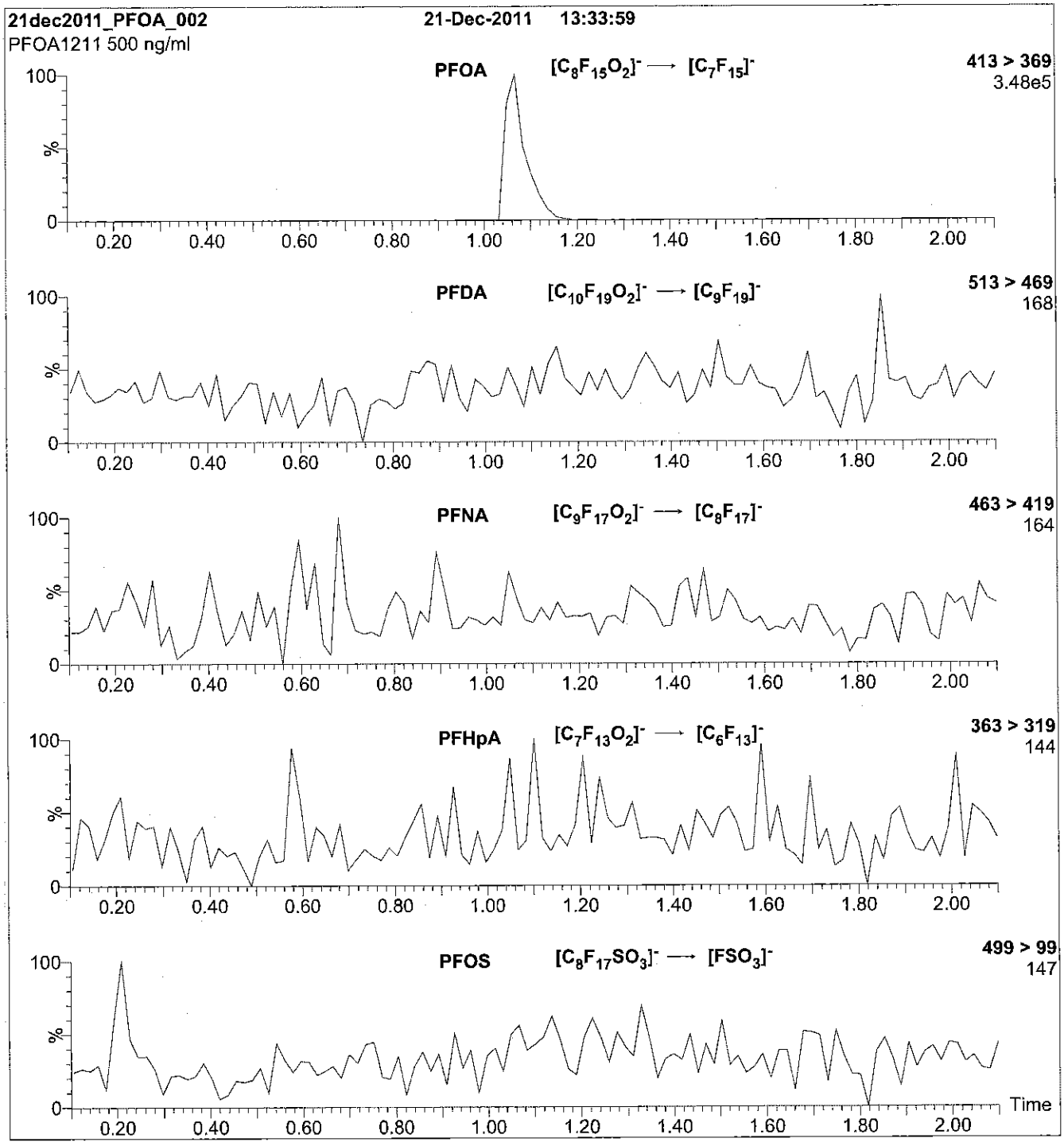
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

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

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



Conditions for Figure 2:

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

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) = 3.31e-3
Collision Energy (eV) = 11

Reagent

LCPFOS_00002

R - 9-17-12 DEL

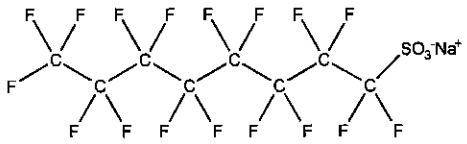
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

Dup LCPFOS_00001
new lot LCPFOS_00002

PRODUCT CODE: L-PFOS
COMPOUND: Sodium perfluoro-1-octanesulfonate
LOT NUMBER: LPFOS0312

STRUCTURE:



CAS #: 4021-47-0

MOLECULAR FORMULA:	$C_8F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	522.11
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (PFOS anion) ✓	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	03/26/2012		
EXPIRY DATE: (mm/dd/yyyy)	03/26/2015		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 04/04/2012 (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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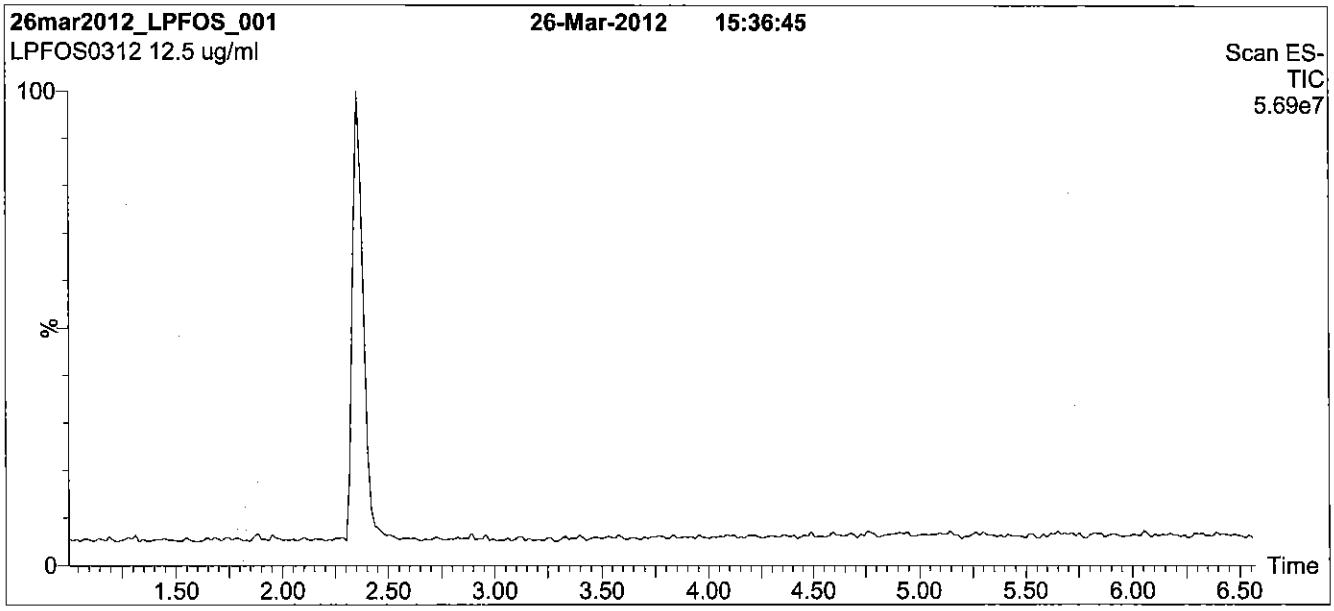
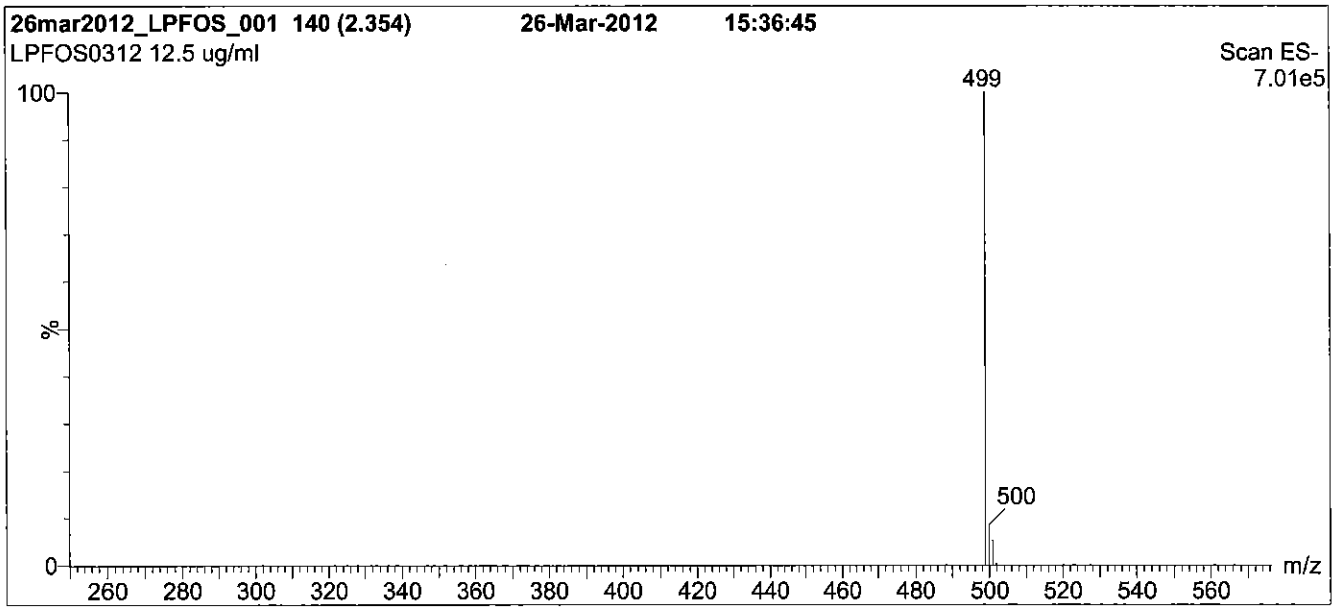
Figure 1: **L-PFOS; LC/MS Data (TIC and Mass Spectrum)**





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)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

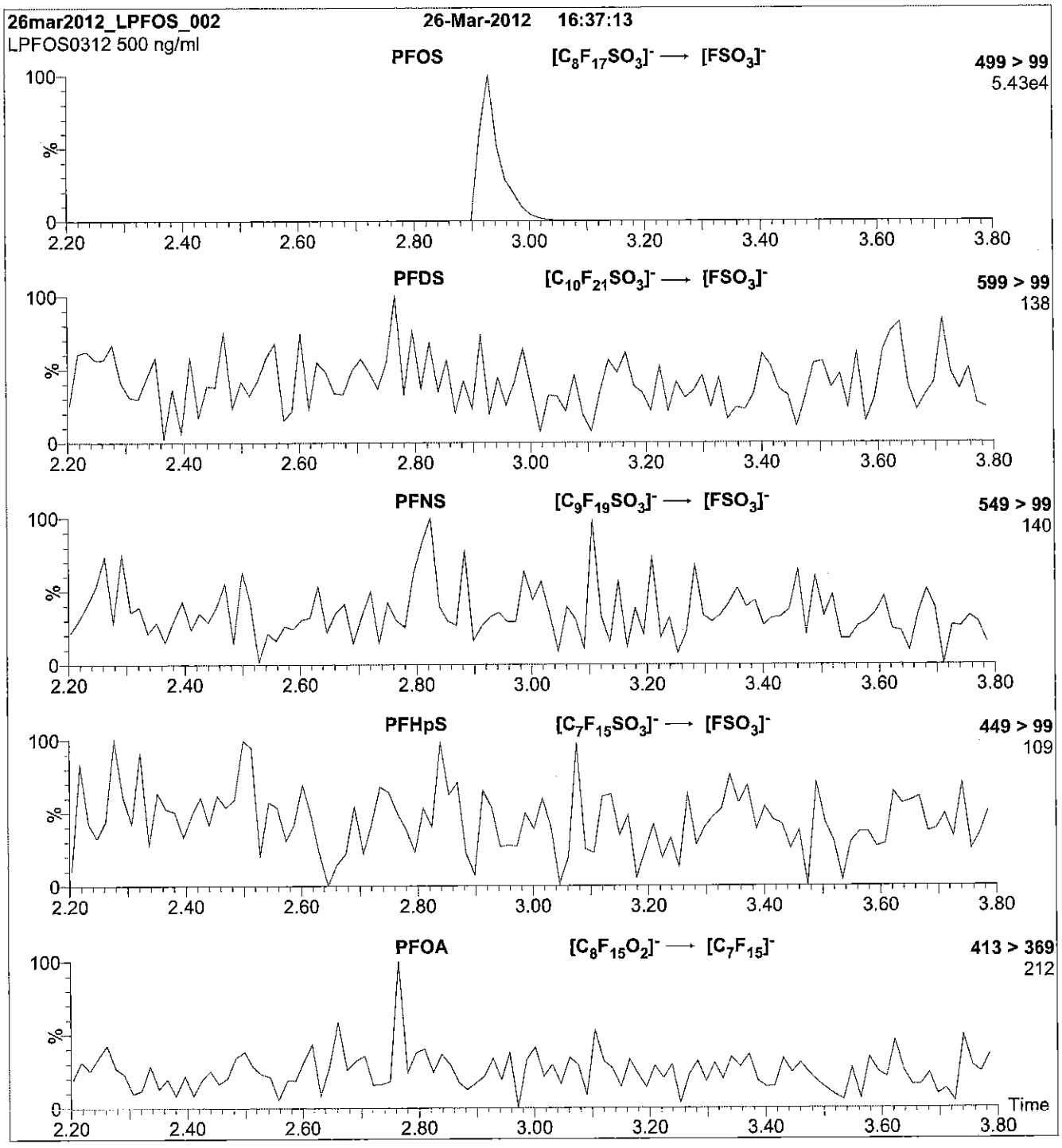
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 700

Figure 2: **L-PFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFOS)

Mobile phase: Isocratic 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 40

Reagent

LCPFOSA_00004

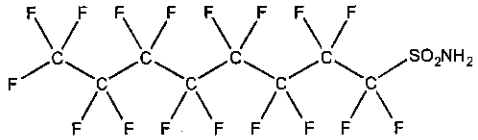
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

R12-14-12
LCPFOSA-00004

PRODUCT CODE: FOSA-M
COMPOUND: Perfluoro-1-octanesulfonamide
LOT NUMBER: FOSA0912M

STRUCTURE:
CAS #: 754-91-6



MOLECULAR FORMULA:	$C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	499.14
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	09/13/2012		
EXPIRY DATE: (mm/dd/yyyy)	09/13/2015		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

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Certified By: B.G. Chittim **Date:** 10/03/2012 (mm/dd/yyyy)

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CALA Testing Accreditation No. A 1226

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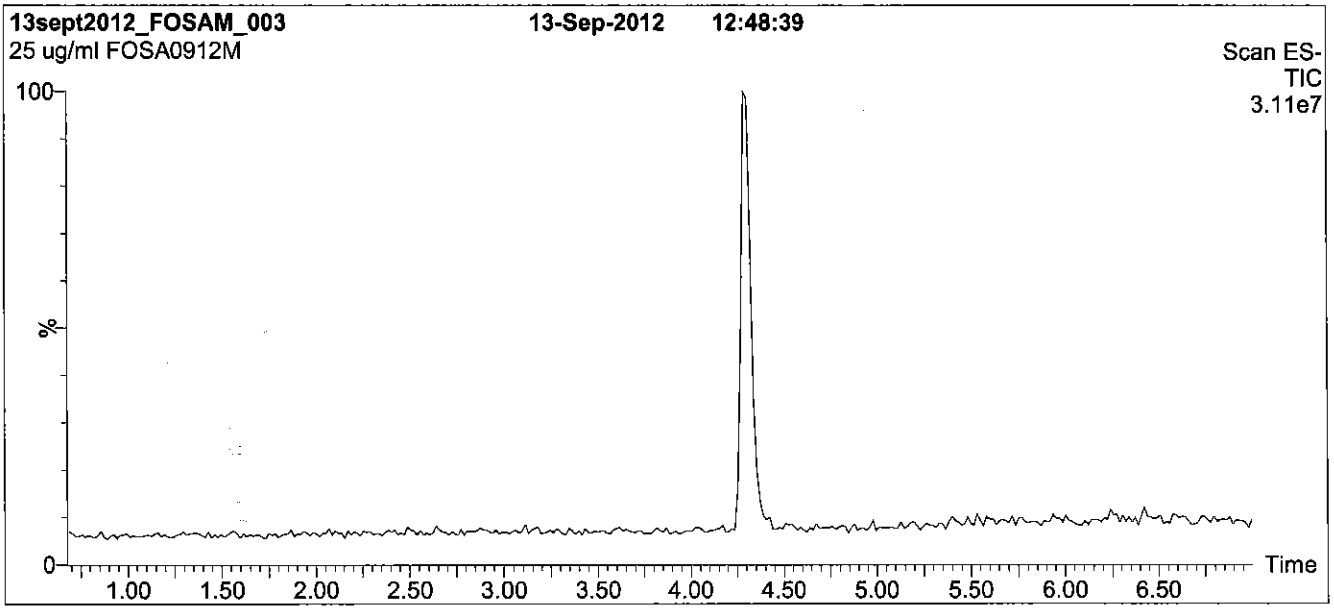
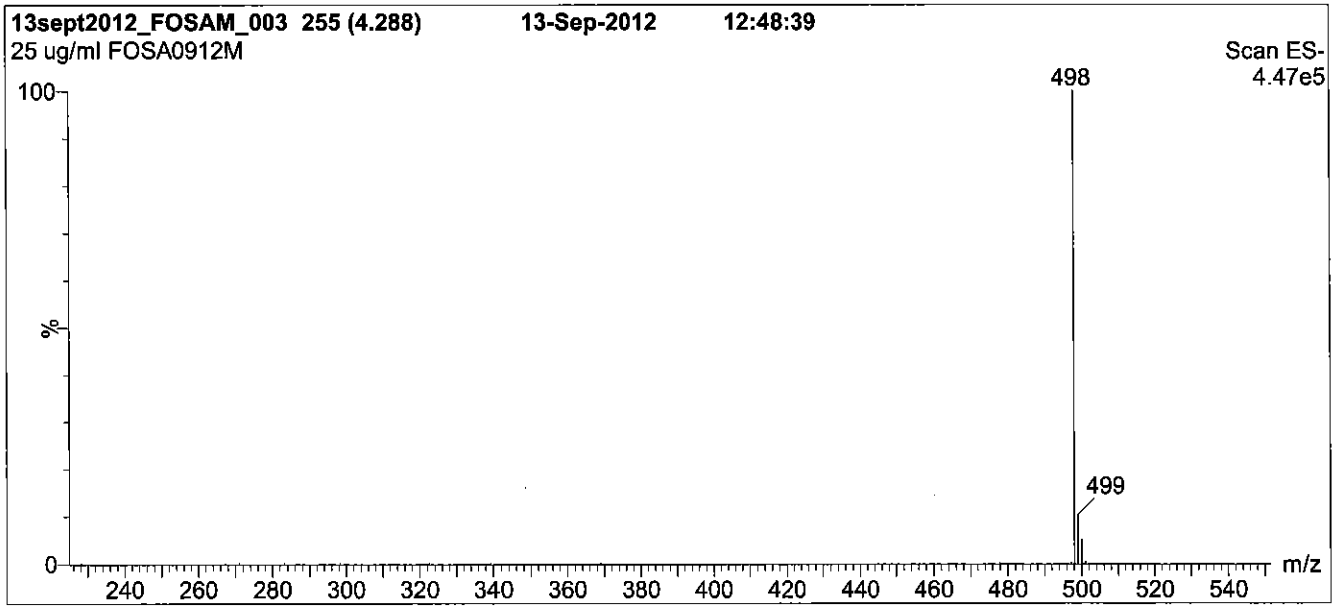
Figure 1: **FOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

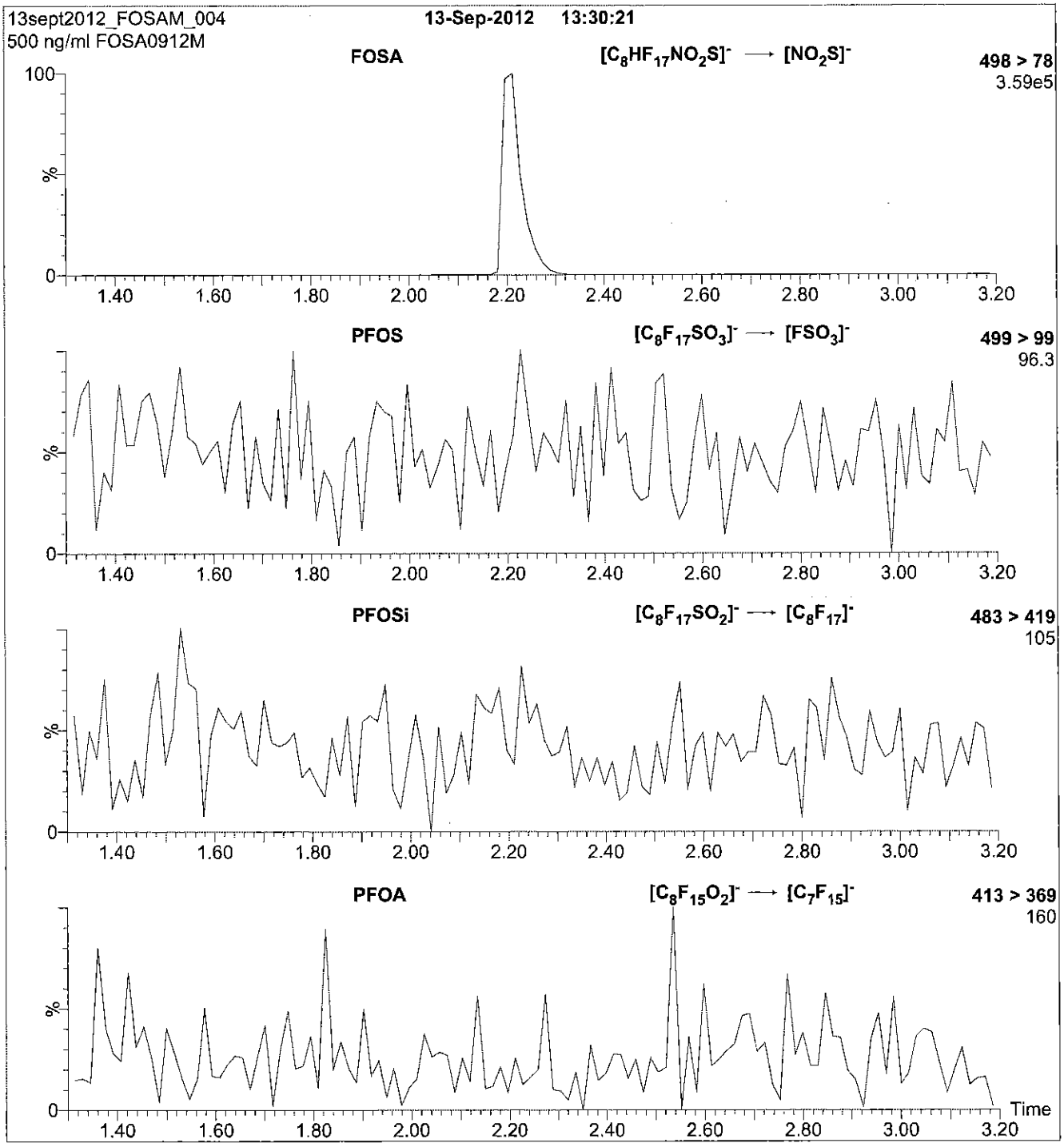
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **FOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml FOSA-M)
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) = 3.43e-3
Collision Energy (eV) = 30

Reagent

LCPFPeA_00002

R: 3-15-12 DEL

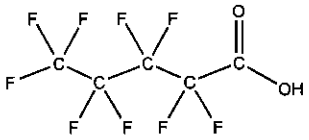
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid
LOT NUMBER: PFPeA1111

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
MOLECULAR WEIGHT: 264.05
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/17/2011
EXPIRY DATE: (mm/dd/yyyy) 11/17/2014
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 ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_5H_2F_8O_2$ (hydrido - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 11/30/2011 (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:

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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.

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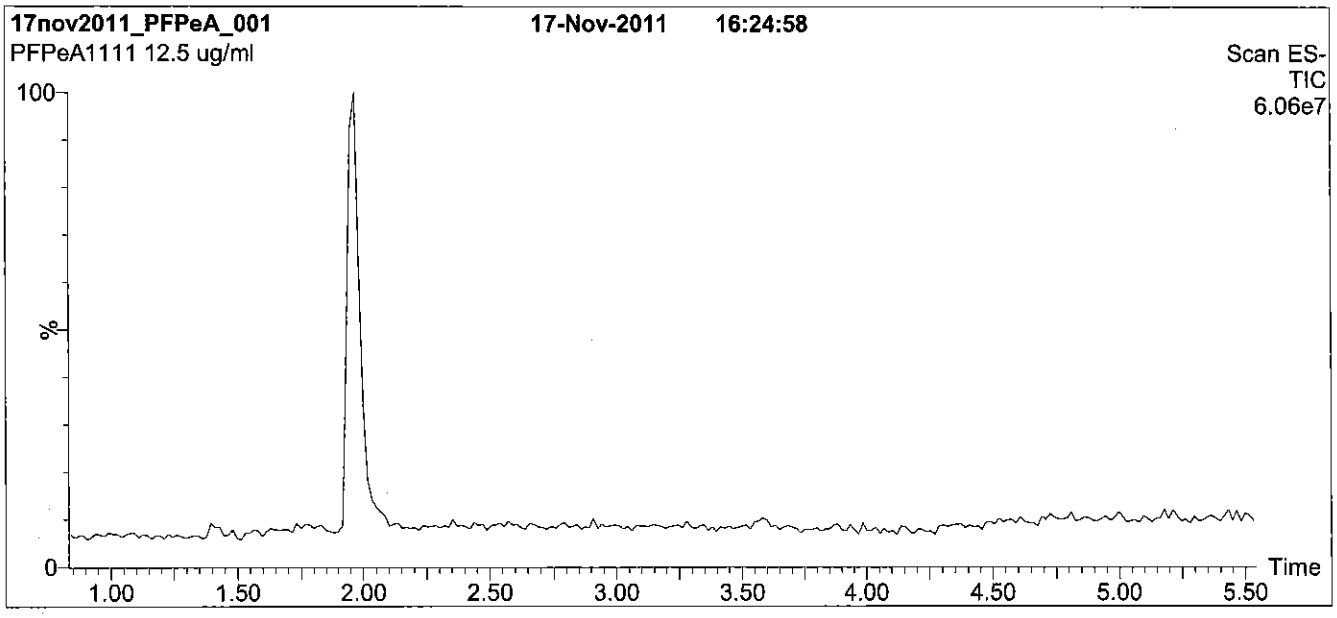
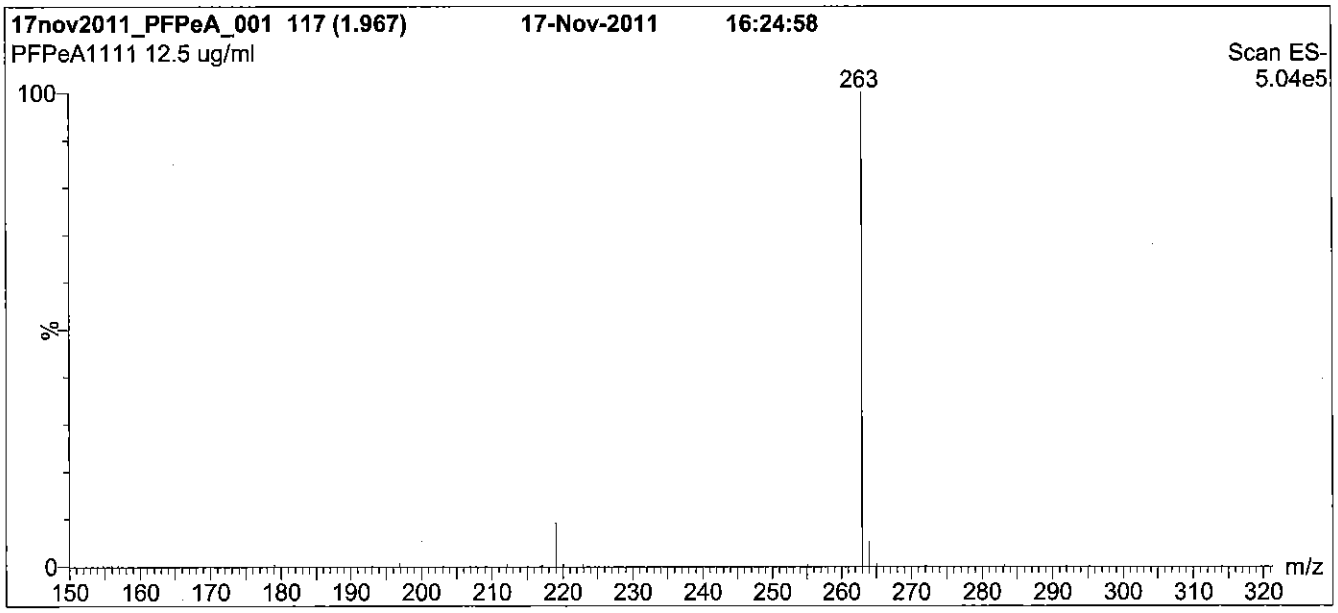
Figure 1: **PFPeA; LC/MS Data (TIC and Mass Spectrum)**





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: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min. Hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

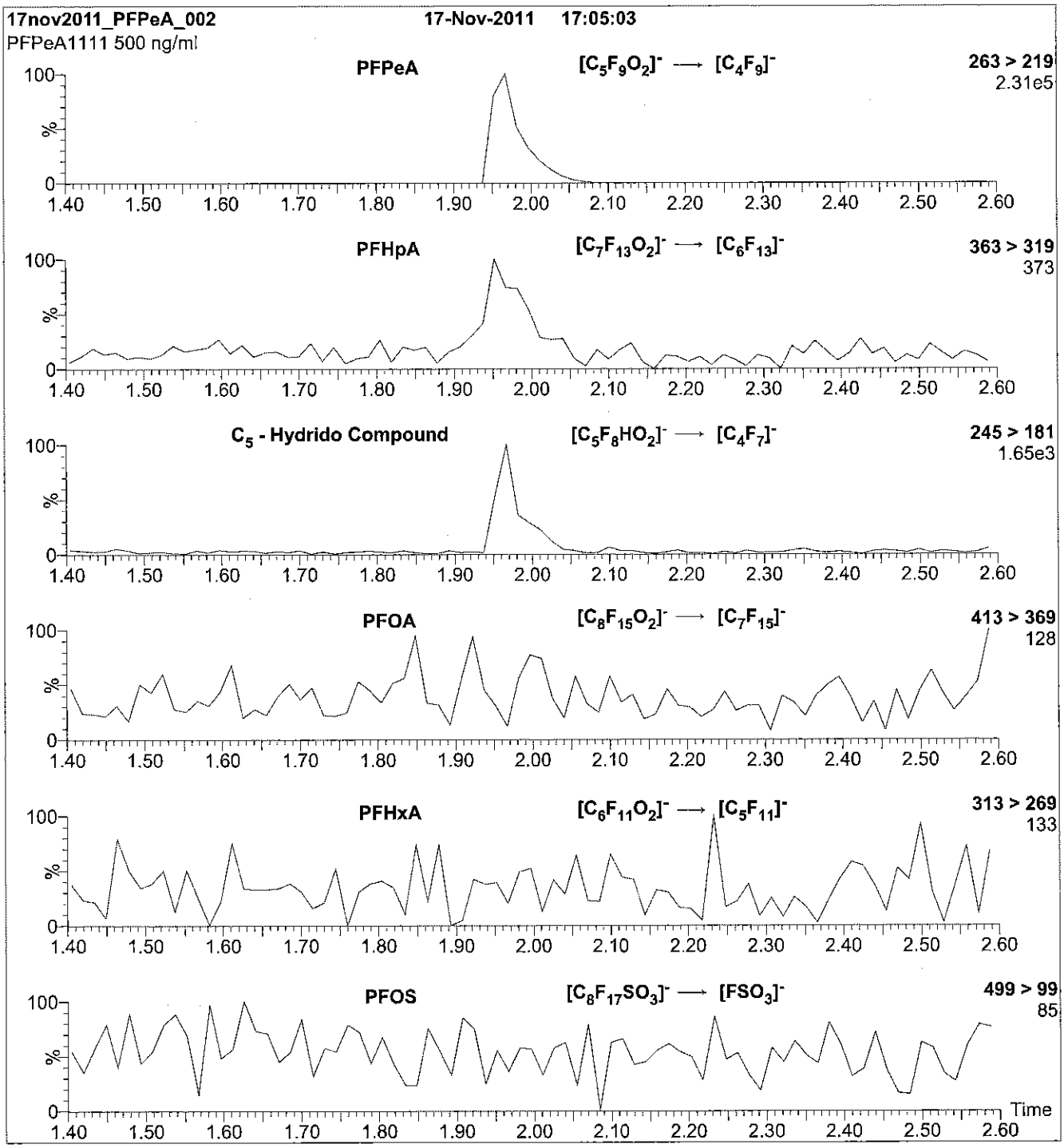
Flow: 300 µl/min

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) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 9

Reagent

LCPFPeS_00001

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

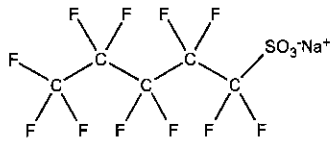
R: 12-14-12 New pdt-
LCPFPeS_00001

PRODUCT CODE: L-PFPeS
COMPOUND: Sodium perfluoro-1-pentanesulfonate

LOT NUMBER: LPFPeS0712

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_5F_{11}SO_3Na$	**MOLECULAR WEIGHT:**	372.09
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.9 ± 2.3 µg/ml (PFPeS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/04/2012		
EXPIRY DATE: (mm/dd/yyyy)	07/04/2015		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 07/09/2012 (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

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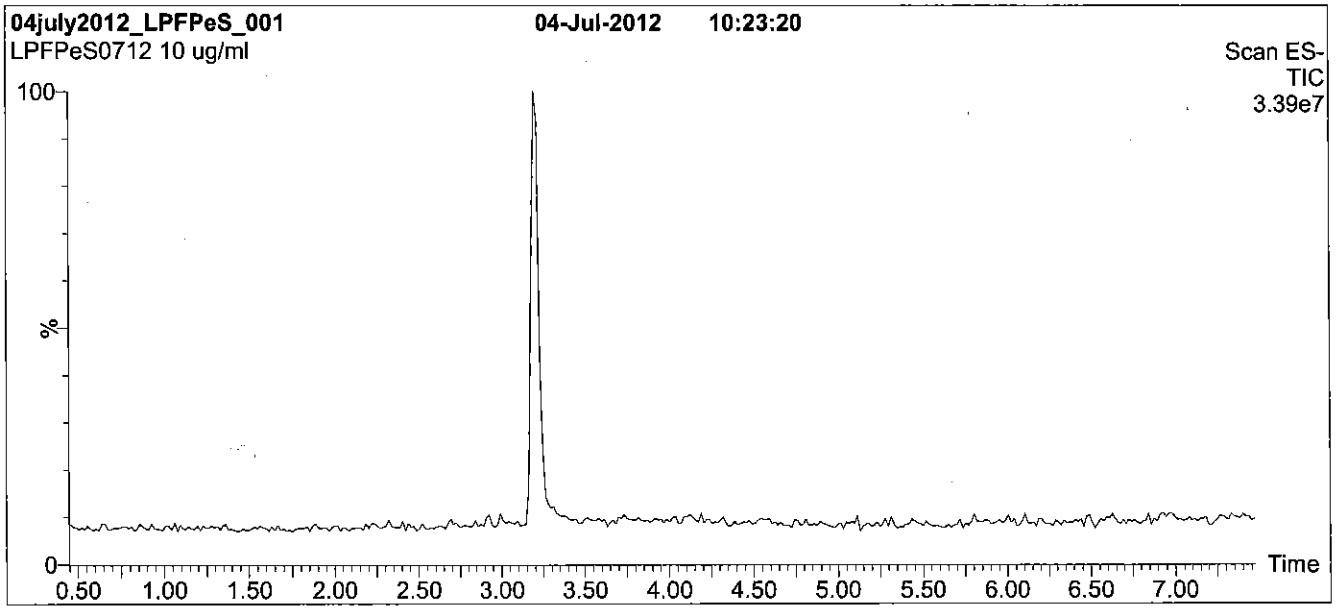
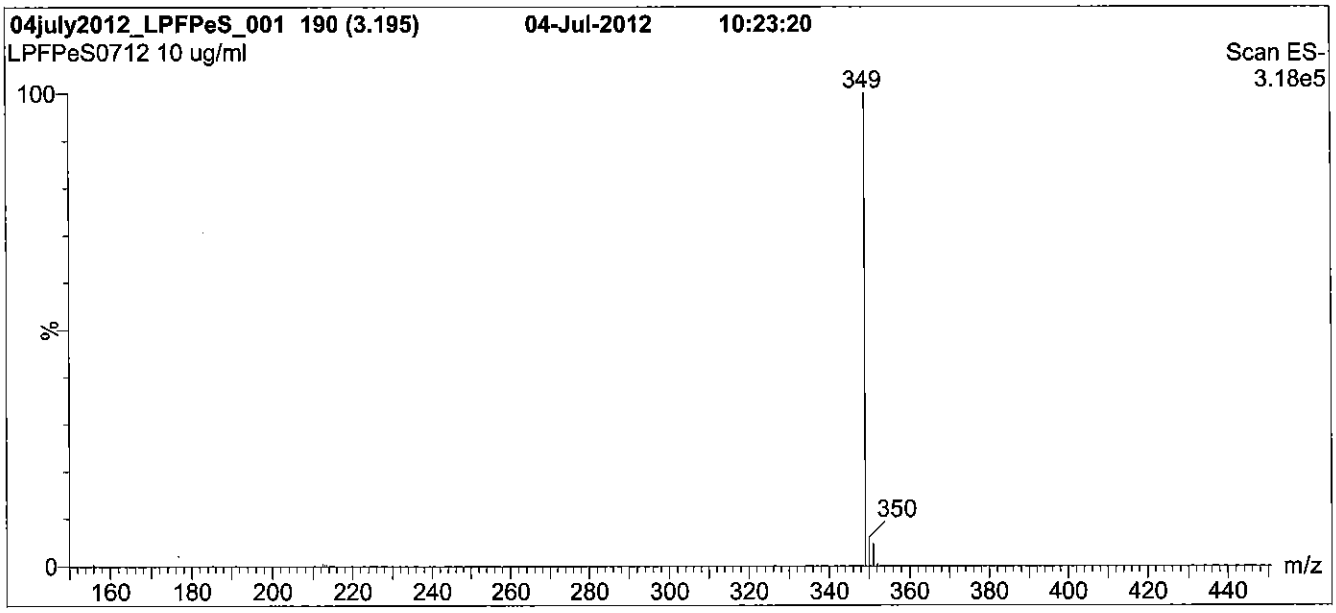
Figure 1: **L-PFPeS; LC/MS Data (TIC and Mass Spectrum)**





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: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min
and hold for 1.5 min before returning
to initial conditions in 0.5 min.
Time: 10 min

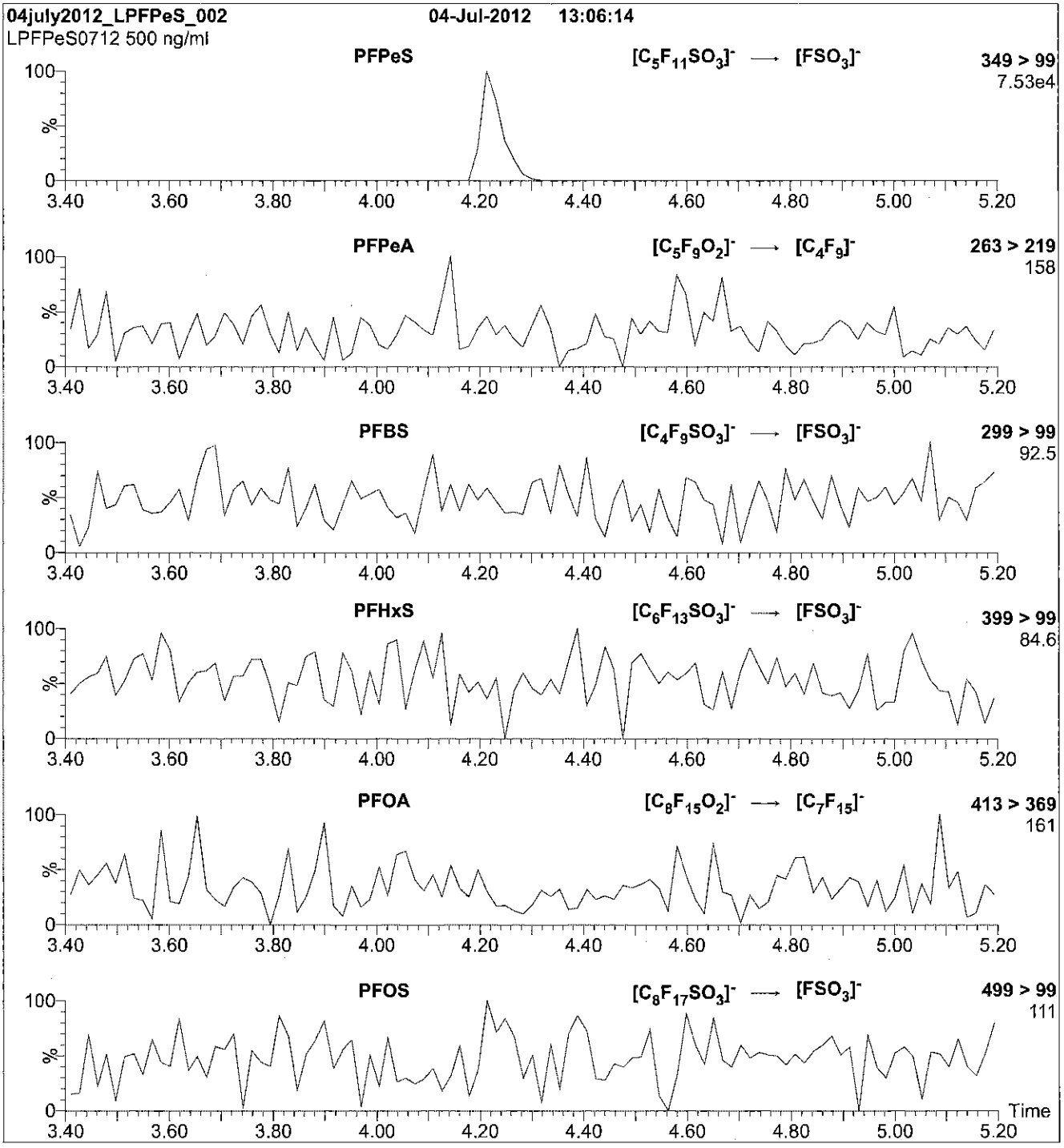
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **L-PFPeS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFPeS)

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) = 3.66e-3
Collision Energy (eV) = 30

Reagent

LCPFTeDA_00002

WELLINGTON LABORATORIES

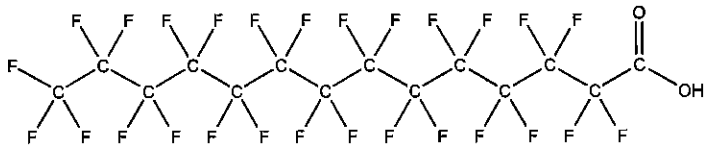
CERTIFICATE OF ANALYSIS
DOCUMENTATION

R: 12-14-12

LC PFTeDA - 00002

PRODUCT CODE: PFTeDA
COMPOUND: Perfluoro-n-tetradecanoic acid
LOT NUMBER: PFTeDA0312

STRUCTURE:
CAS #: 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$
MOLECULAR WEIGHT: 714.11
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 03/07/2012
EXPIRY DATE: (mm/dd/yyyy) 03/07/2015
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 ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.2% of PFPeDA ($C_{15}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/09/2012 (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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where x is expressed as a relative standard uncertainty of the individual parameter.

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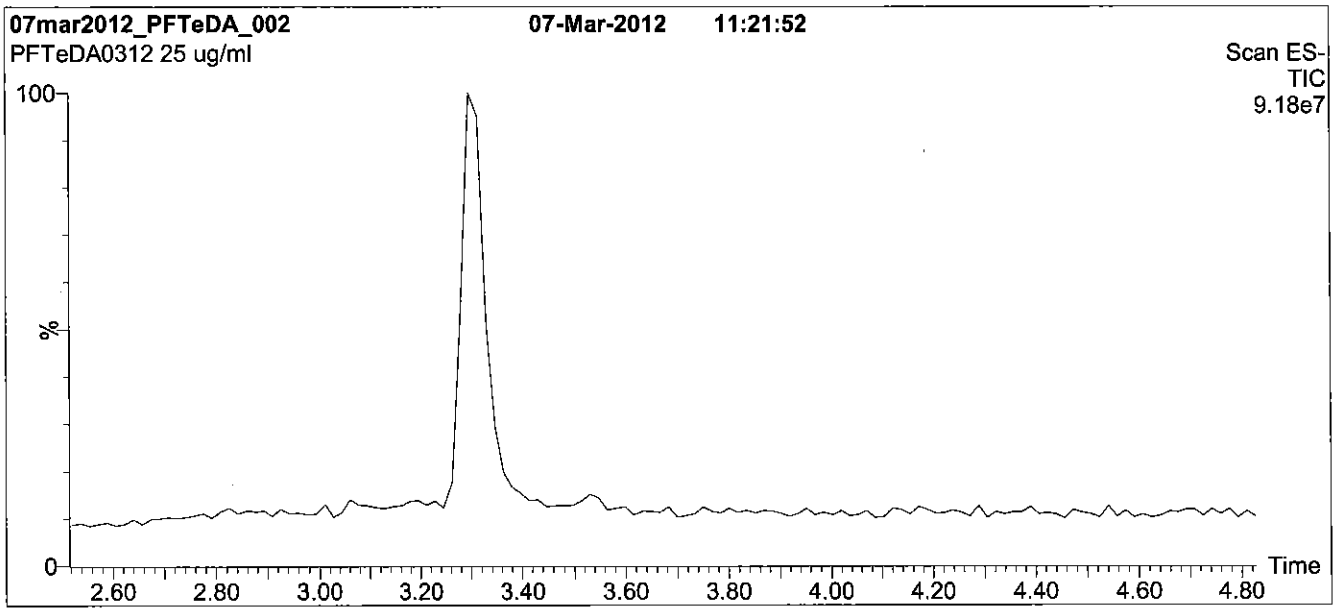
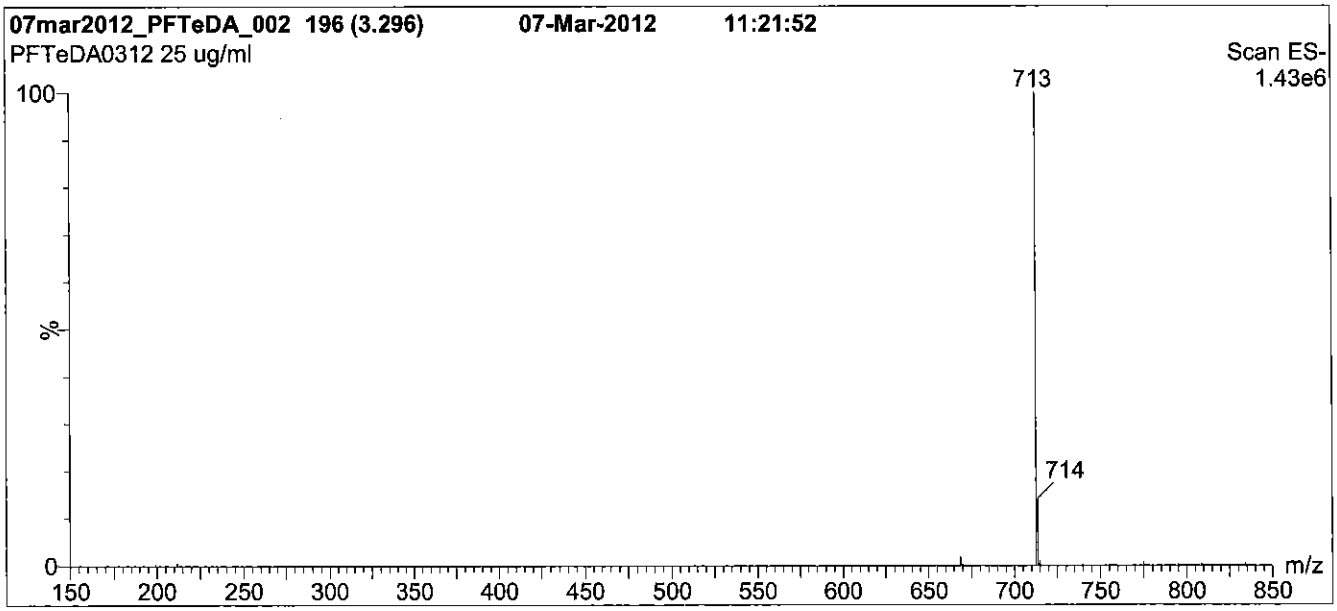
Figure 1: **PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





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: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 100% organic over 7 min and hold 1.5 min
before returning to initial conditions in 0.50 min.
Time: 10 min

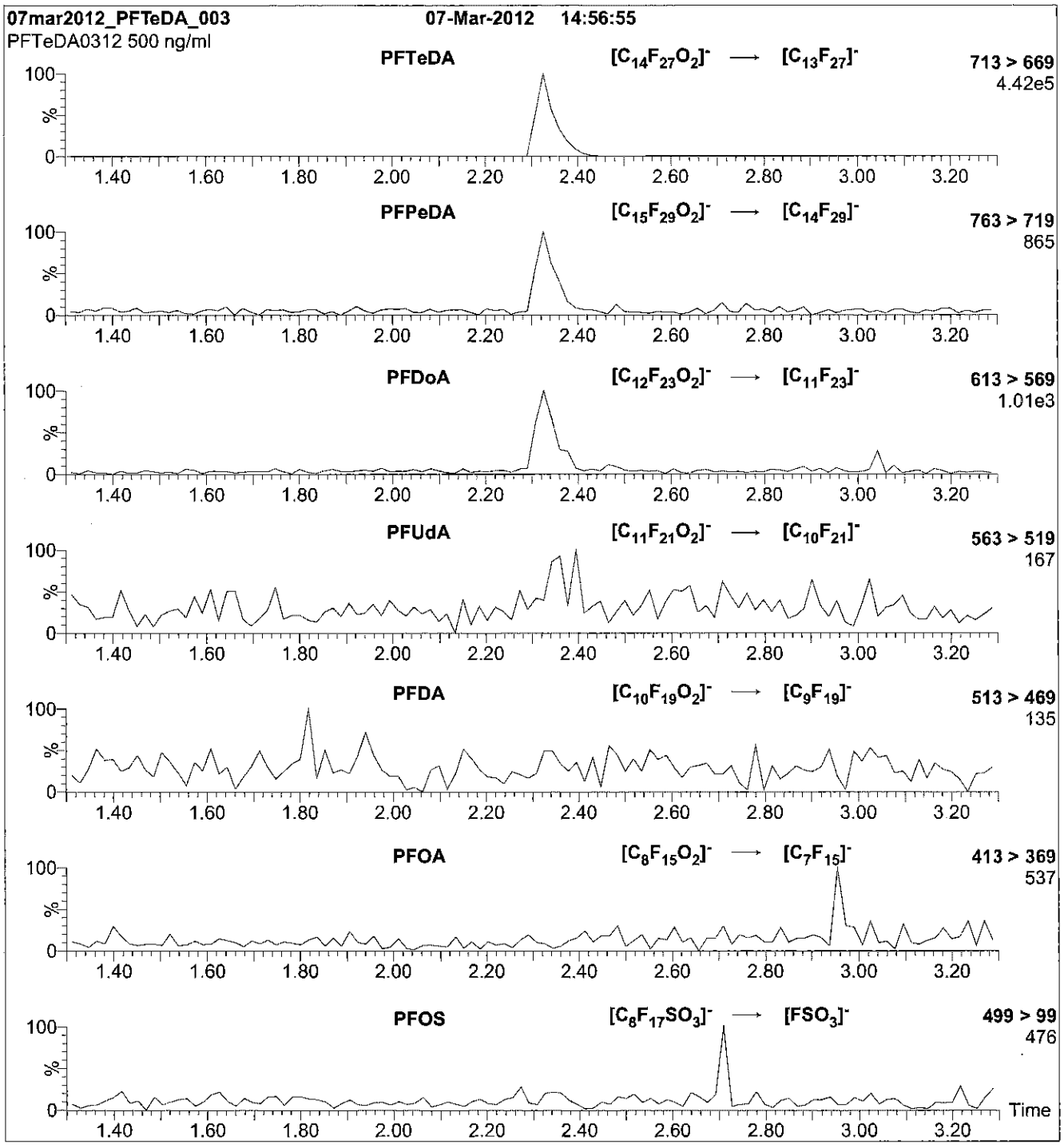
Flow: 300 µl/min

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) = 60
Desolvation Gas Flow (l/hr) = 650

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



Conditions for Figure 2:

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

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) = 3.31e-3
Collision Energy (eV) = 14

Reagent

LCPFTrDA_00002

WELLINGTON LABORATORIES

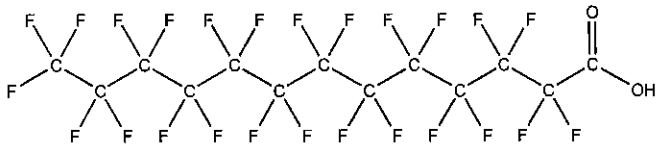
CERTIFICATE OF ANALYSIS
DOCUMENTATION

R: 12-14-12

LCPFTrDA-00002

PRODUCT CODE: PFTrDA
LOT NUMBER: PFTrDA0312
COMPOUND: Perfluoro-n-tridecanoic acid

STRUCTURE:
CAS #: 72629-94-8



MOLECULAR FORMULA: $C_{13}HF_{25}O_2$
MOLECULAR WEIGHT: 664.11
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 03/26/2012
EXPIRY DATE: (mm/dd/yyyy) 03/26/2015
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 PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 04/04/2012 (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:

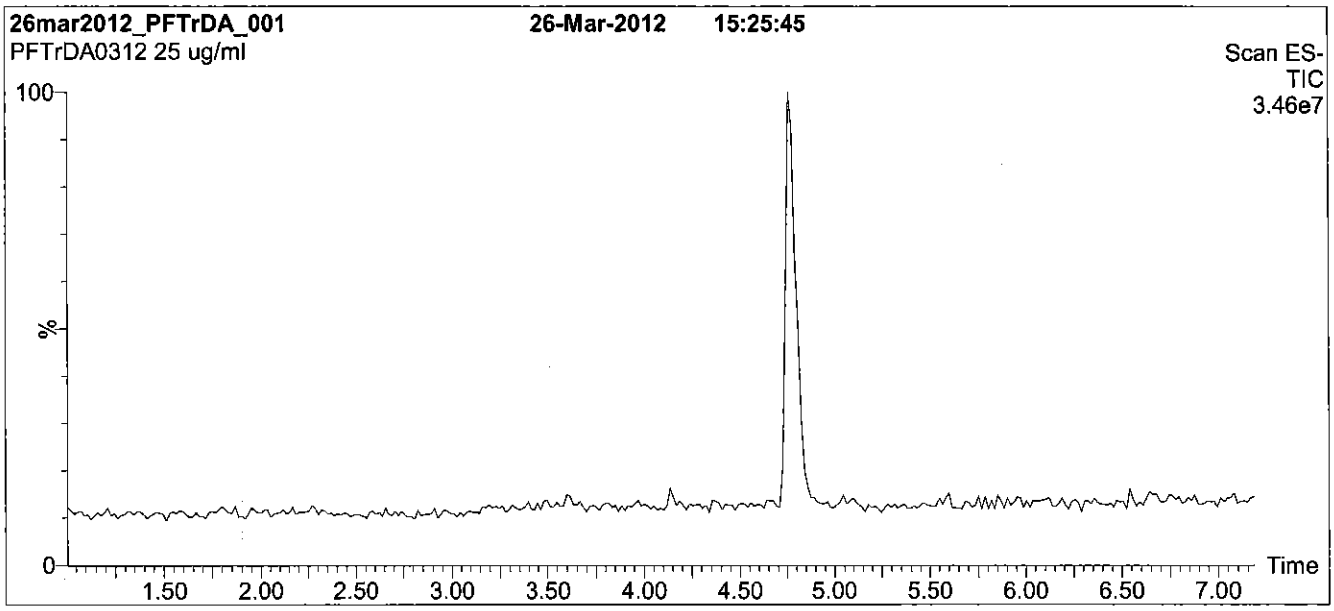
Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

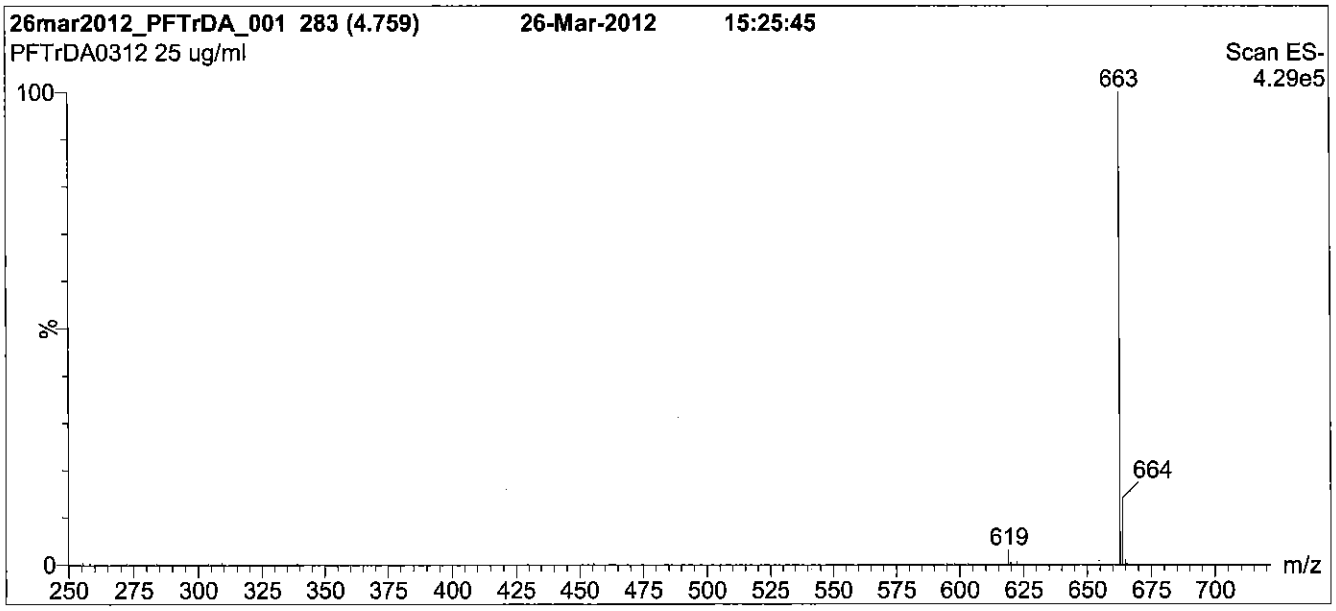
LIMITED WARRANTY:

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.

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: **PFTrDA; 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 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

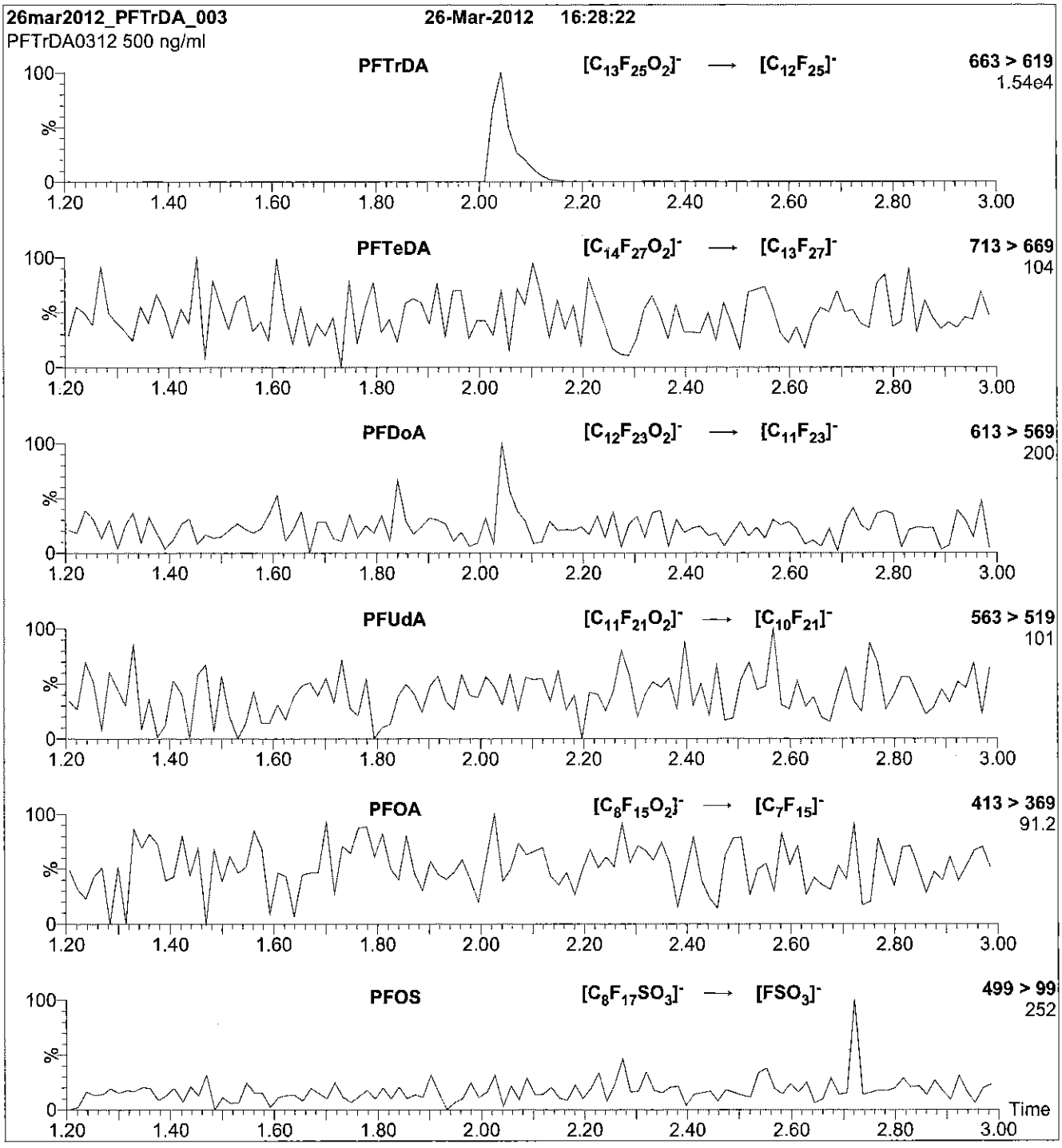
Flow: 300 µl/min

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) = 60
Desolvation Gas Flow (l/hr) = 650

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 15

Reagent

LCPFUdA_00002

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

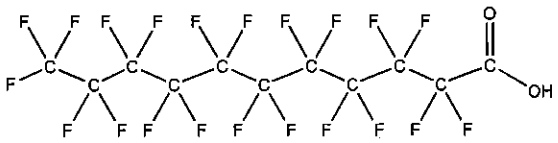
R: 12-14-12
LC PFUdA-00002

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA0312

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
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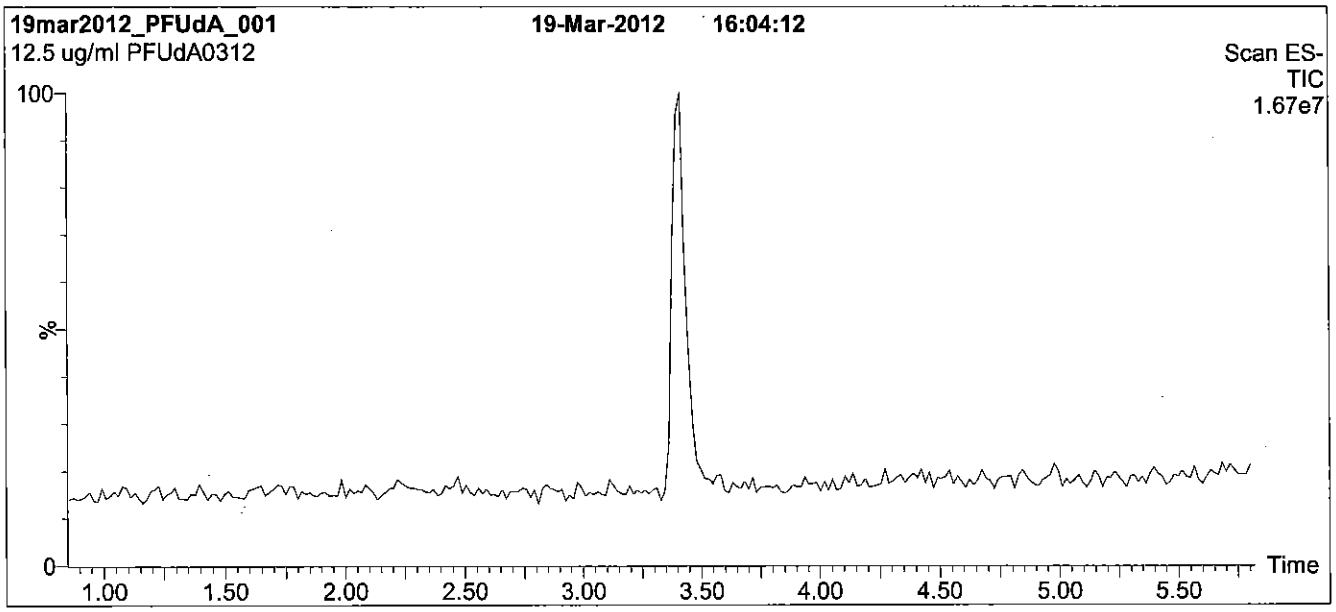
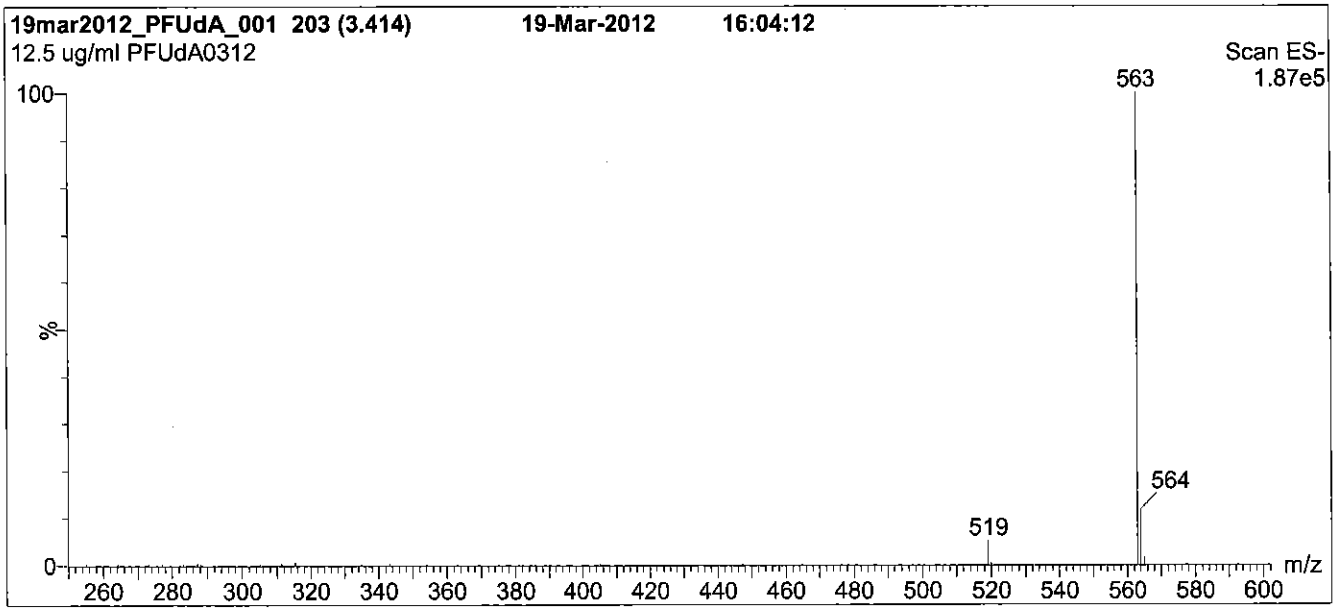
Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





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

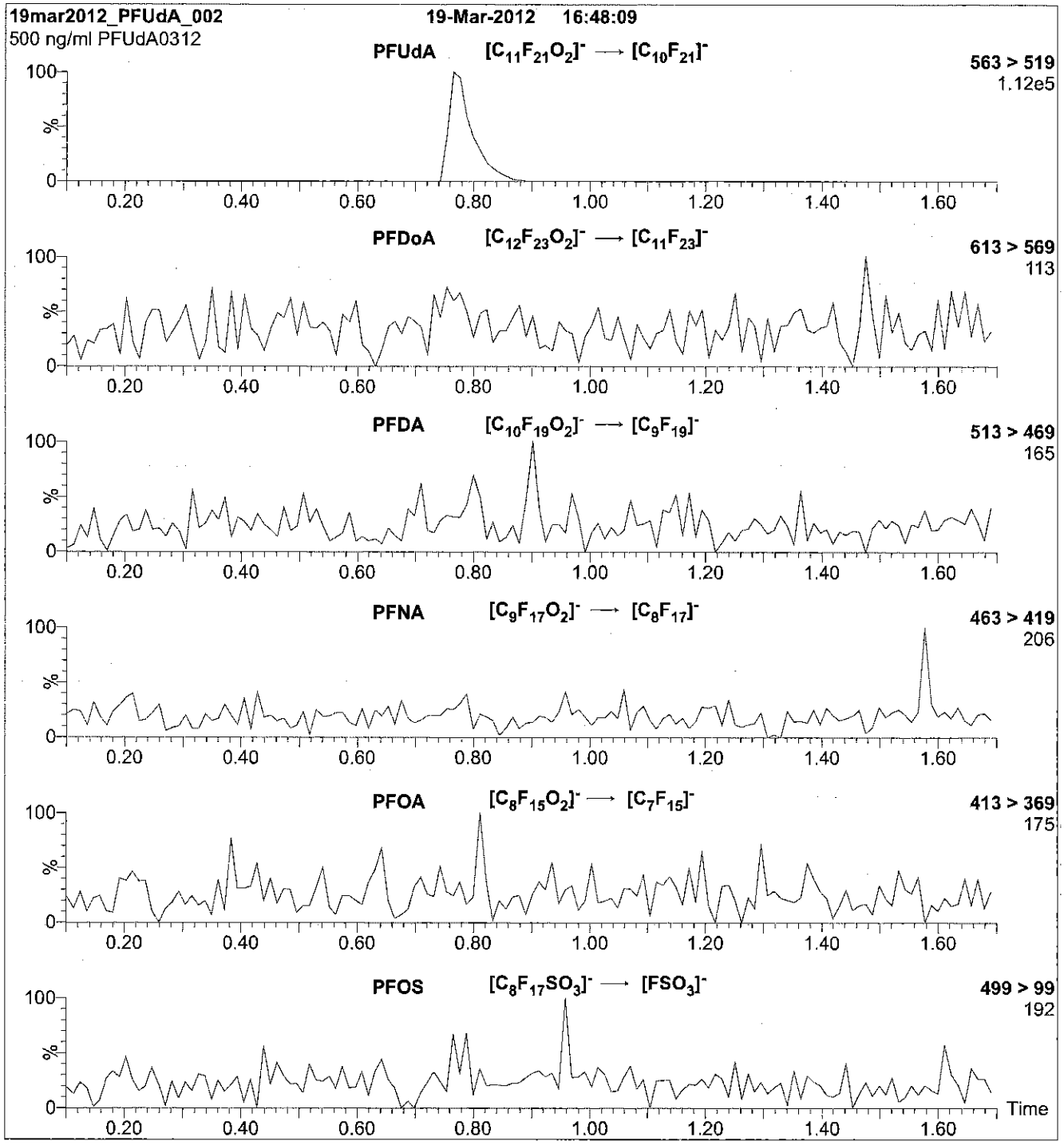
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFUdA)
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) = 3.24e-3
Collision Energy (eV) = 11

PFC_IDA

Perfluorinated Hydrocarbons

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Matrix: Water Level: Low

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

Client Sample ID	Lab Sample ID	PFOA #	PFOS #
WS22-MW01-0214	320-6160-1	107	121
WS22-MW01P-214	320-6160-2	102	117
WS22-EB01-021714	320-6160-3	118	124
	MB 320-36921/1-A	132	126
	LCS 320-36921/2-A	129	122
WS22-MW01-0214 MS	320-6160-1 MS	101	121
WS22-MW01-0214 MSD	320-6160-1 MSD	98	110

	QC LIMITS
PFOA = 13C4 PFOA	25-150
PFOS = 13C4 PFOS	25-150

Column to be used to flag recovery values

FORM II WS-LC-0025

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03MAR14A4C_016.d

Lab ID: LCS 320-36921/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.0	41.2	103	60-140	
Perfluorooctane Sulfonate (PFOS)	38.2	40.5	106	60-140	
13C4 PFOS	95.6	117	122	25-150	
13C4 PFOA	100	129	129	25-150	

Column to be used to flag recovery and RPD values

FORM III WS-LC-0025

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03MAR14A4C_018.d

Lab ID: 320-6160-1 MS Client ID: WS22-MW01-0214 MS

COMPOUND	SPIKE ADDED (ng/L)	SAMPLE CONCENTRATION (ng/L)	MS CONCENTRATION (ng/L)	MS % REC	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.2	67	110	108	60-140	
Perfluorooctane Sulfonate (PFOS)	38.5	18	55.9	99	60-140	
13C4 PFOS	96.2	110	117	121	25-150	
13C4 PFOA	101	110	102	101	25-150	

Column to be used to flag recovery and RPD values

FORM III WS-LC-0025

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 03MAR14A4C_019.d

Lab ID: 320-6160-1 MSD Client ID: WS22-MW01-0214 MSD

COMPOUND	SPIKE ADDED (ng/L)	MSD CONCENTRATION (ng/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.6	111	110	1	30	60-140	
Perfluorooctane Sulfonate (PFOS)	38.8	63.4	117	13	30	60-140	
13C4 PFOS	97.0	106	110			25-150	
13C4 PFOA	101	99.5	98			25-150	

Column to be used to flag recovery and RPD values

FORM III WS-LC-0025

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Lab File ID: 03MAR14A4C_015.d Lab Sample ID: MB 320-36921/1-A

Matrix: Water Date Extracted: 02/24/2014 07:45

Instrument ID: A4 Date Analyzed: 03/03/2014 14:09

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-36921/2-A	03MAR14A4C_016.d	03/03/2014 14:30
WS22-MW01-0214	320-6160-1	03MAR14A4C_017.d	03/03/2014 14:51
WS22-MW01-0214 MS	320-6160-1 MS	03MAR14A4C_018.d	03/03/2014 15:13
WS22-MW01-0214 MSD	320-6160-1 MSD	03MAR14A4C_019.d	03/03/2014 15:34
WS22-MW01P-214	320-6160-2	03MAR14A4C_020.d	03/03/2014 15:55
WS22-EB01-021714	320-6160-3	03MAR14A4C_021.d	03/03/2014 16:16

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-MW01-0214 Lab Sample ID: 320-6160-1

Matrix: Water Lab File ID: 03MAR14A4C_017.d

Analysis Method: WS-LC-0025 Date Collected: 02/17/2014 16:10

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 503.1(mL) Date Analyzed: 03/03/2014 14:51

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	67		2.0	1.5	0.74
1763-23-1	Perfluorooctane Sulfonate (PFOS)	18		2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	121		25-150
STL00990	13C4 PFOA	107		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_017.d
Lims ID: 320-6160-A-1-A Lab Sample ID: 320-6160-1
Client ID: WS22-MW01-0214
Sample Type: Client
Inject. Date: 03-Mar-2014 14:51:50 ALS Bottle#: 3 Worklist Smp#: 13
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-013 320-6160-A-1-A
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 15:15:20 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.7 > 168.6	5.852	5.883	-0.031	1.000	106791	NR			20.2	
4 Perfluoropentanoic acid										
262.9 > 218.7	6.951	6.999	-0.048	1.000	410708	NR			34.9	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.071	7.116	-0.045	1.000	260389	NR			24.9	
298.8 > 98.6	7.071	7.116	-0.045	1.000	148570		1.75(0.00-0.00)		56.4	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.203	8.251	-0.048	1.000	724908	NR			173	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.279	8.328	-0.049	1.000	69740	NR			11.1	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.434	9.474	-0.040	1.000	504136	NR			259	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.470	9.510	-0.040	1.000	328323	NR			75.4	
D 12 13C4 PFOA										
416.5 > 371.6	10.559	10.590	-0.031		2481305	53.4		107	3893	
13 Perfluorooctanoic acid										
412.8 > 368.8	10.559	10.591	-0.032	1.000	901398	33.6			203	
412.8 > 168.7	10.559	10.591	-0.032	1.000	426851		2.11(0.00-0.00)		293	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.559	10.598	-0.039	1.000	13043	0.8349			4.6	
D 16 13C4 PFOS										
502.4 > 79.7	11.518	11.547	-0.029		2394720	57.6		121	2238	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.527	11.547	-0.020	1.000	93446	9.01			26.9	
498.9 > 98.7	11.518	11.547	-0.029	0.999	50314		1.86(0.00-0.00)		47.9	
18 Perfluorononanoic acid										
462.5 > 418.6	11.545	11.570	-0.025	1.000	193576	NR			141	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.362	12.379	-0.017	1.000	2038	0.0568			3.1	
D 19 13C2 PFDA										
514.4 > 469.5	12.383	12.408	-0.025		5935	0.0656		0.0	15.0	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.393	12.410	-0.017	1.000	83886	NR			97.9	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.932	12.944	-0.012	1.000	5238	NR			6.9	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.084	13.091	-0.007	1.000	2770	0.0587			4.0	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.728	13.750	-0.022	1.000	2603	NR			4.0	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.364	15.372	-0.008	1.000	4483	NR			15.3	

Report Date: 03-Mar-2014 15:15:31 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_017.d

Injection Date: 03-Mar-2014 14:51:50 Instrument ID: A4

Lims ID: 320-6160-A-1-A Lab Sample ID: 320-6160-1

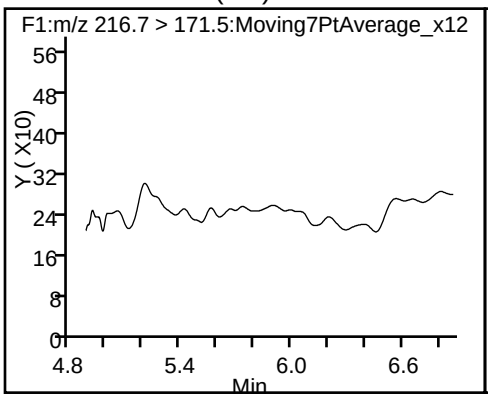
Client ID: WS22-MW01-0214

Operator ID: JRB ALS Bottle#: 3 Worklist Smp#: 13

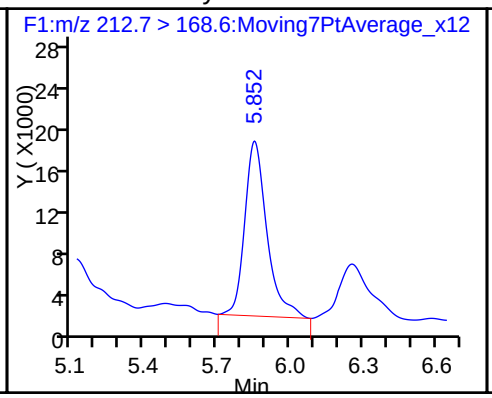
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

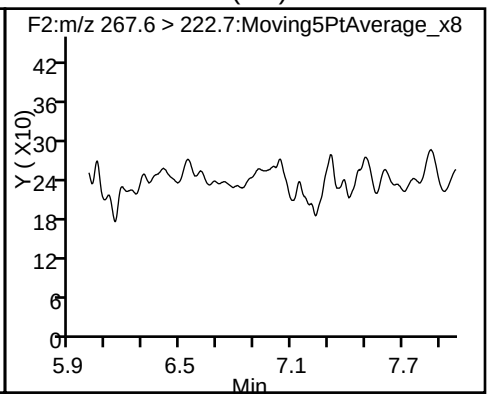
D 1 13C4 PFBA (ND)



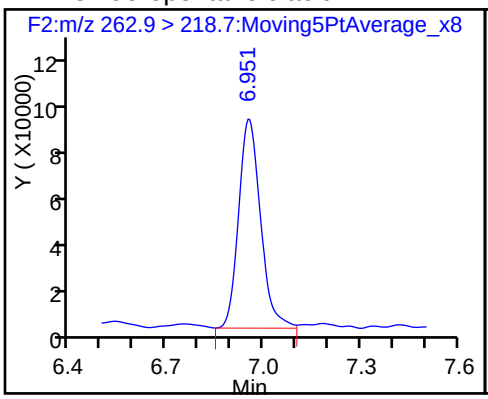
2 Perfluorobutyric acid



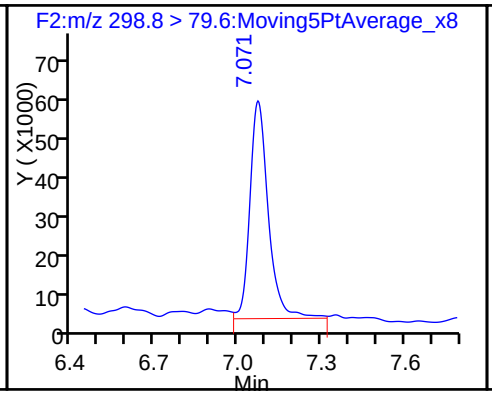
D 3 13C5-PFPeA (ND)



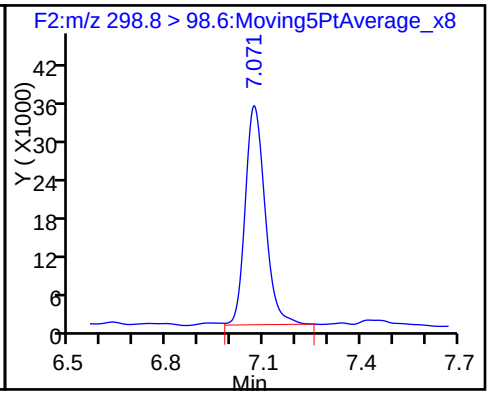
4 Perfluoropentanoic acid



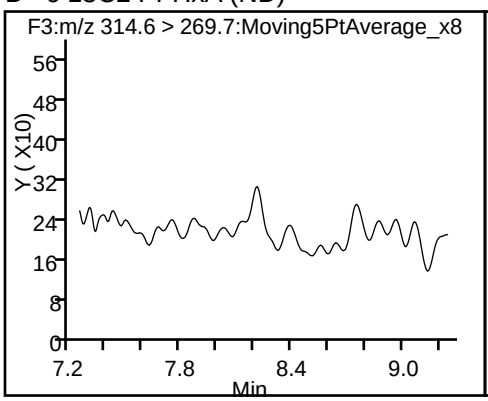
5 Perfluorobutane Sulfonate



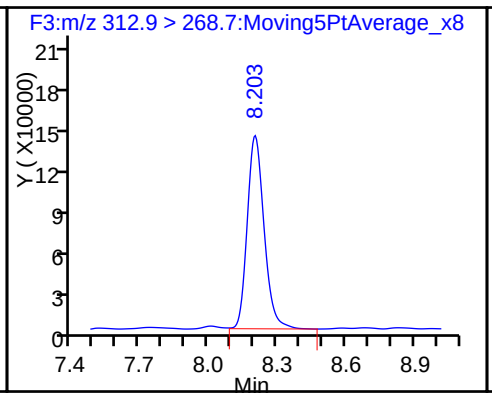
5 Perfluorobutane Sulfonate



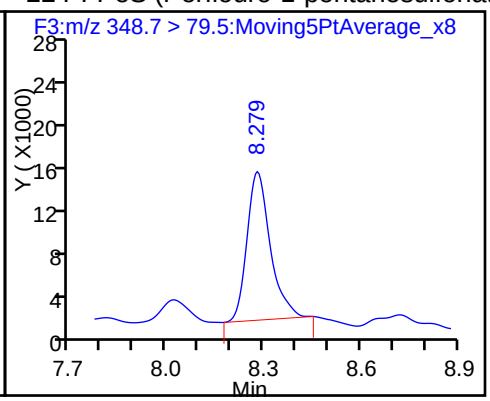
D 6 13C2 PFHxA (ND)



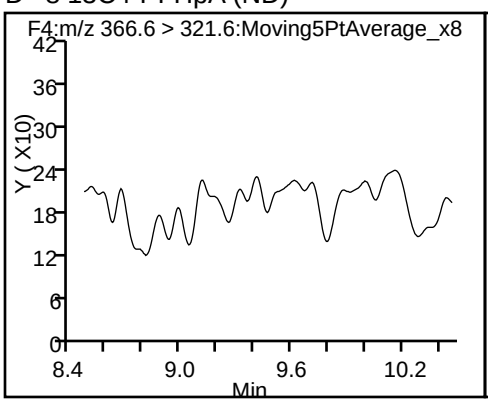
7 Perfluorohexanoic acid



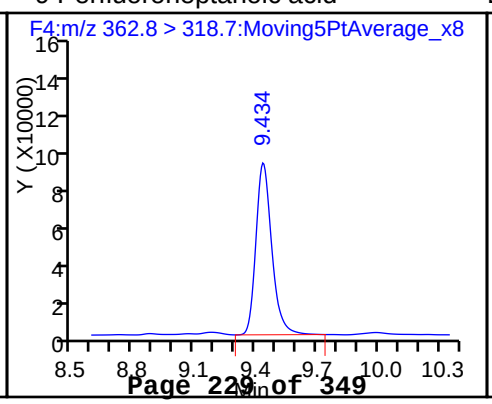
22 PFPeS (Perflouro-1-pentanesulfonat



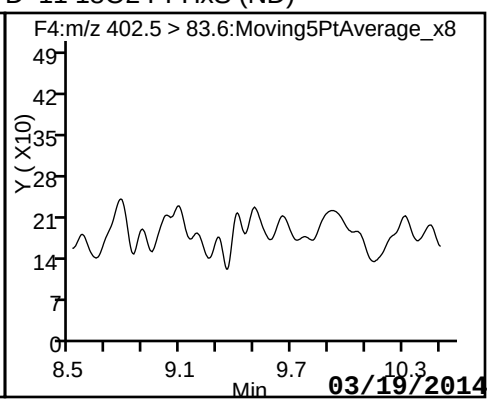
D 8 13C4-PFHpA (ND)



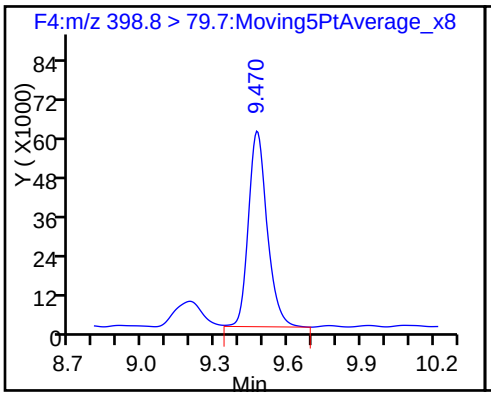
9 Perfluoroheptanoic acid



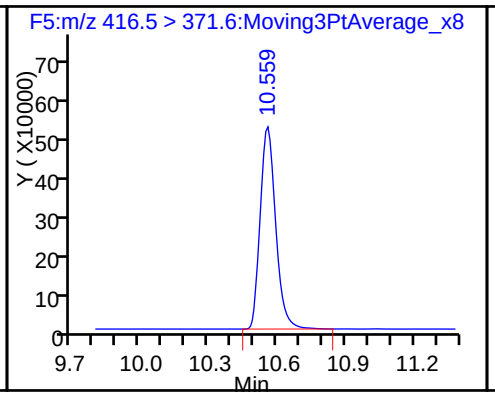
D 11 18O2 PFHxS (ND)



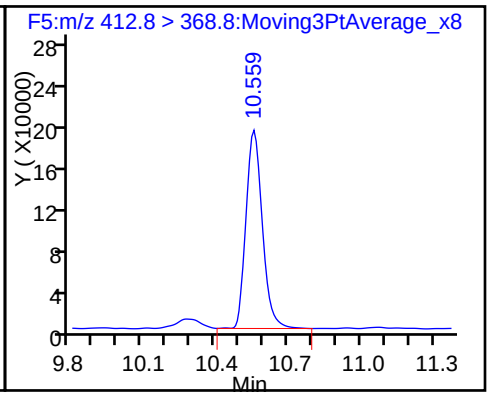
10 Perfluorohexane Sulfonate



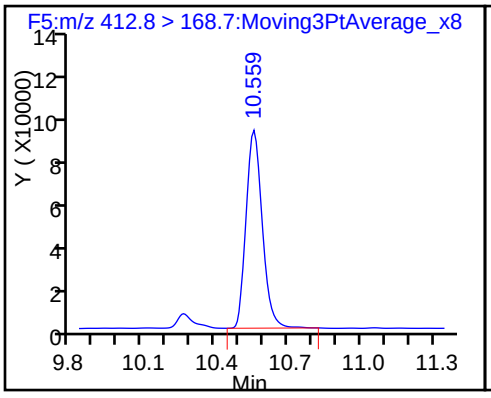
D 12 13C4 PFOA



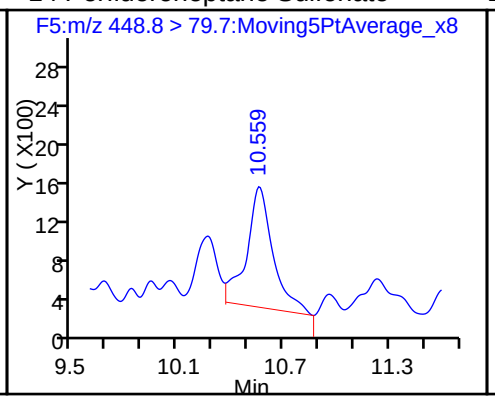
13 Perfluorooctanoic acid



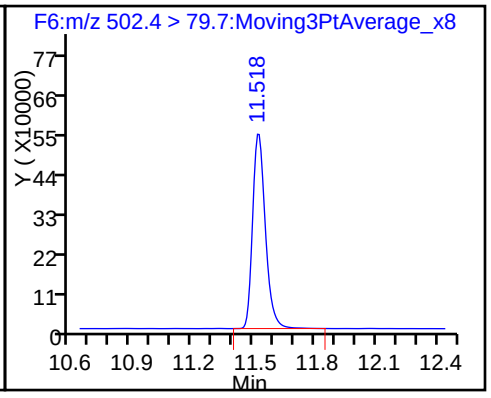
13 Perfluorooctanoic acid



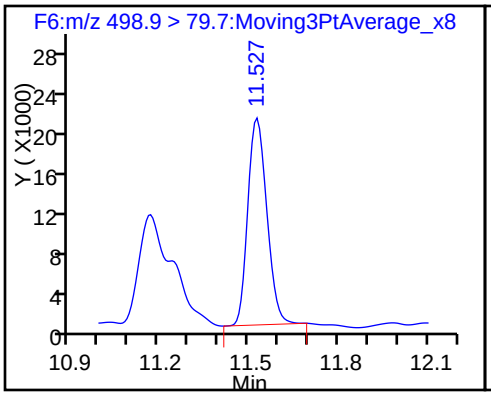
14 Perfluoroheptane Sulfonate



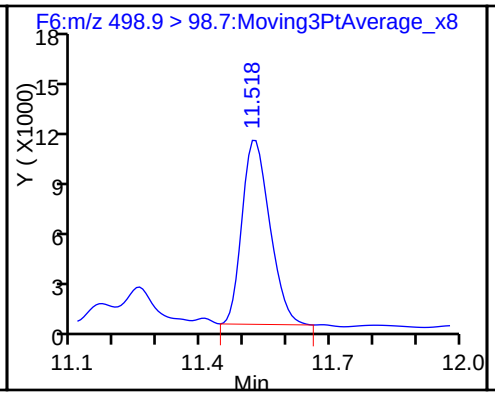
D 16 13C4 PFOS



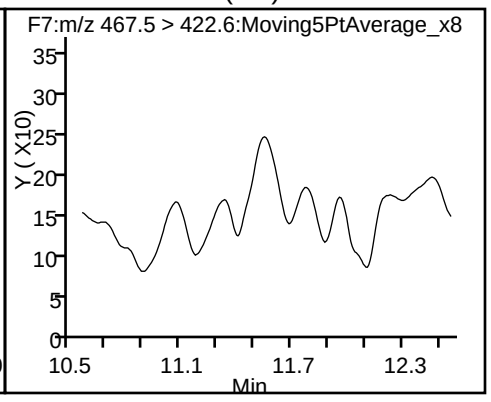
15 Perfluorooctanoic Sulfonate



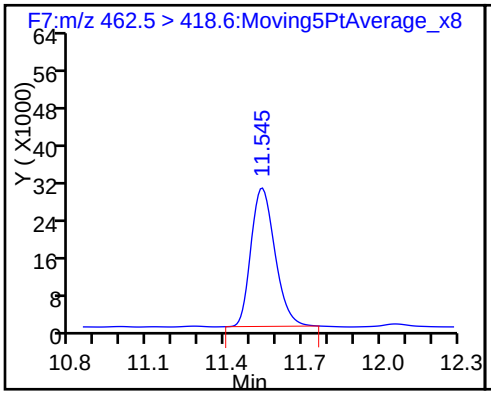
15 Perfluorooctanoic Sulfonate



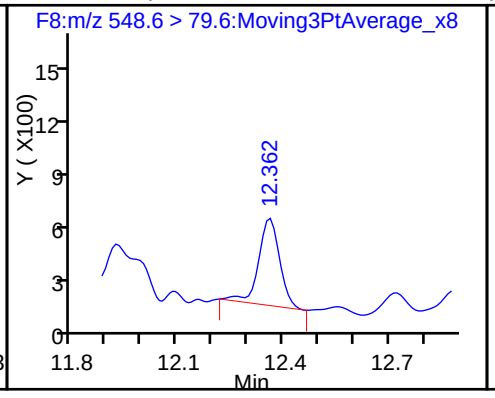
D 17 13C5 PFNA (ND)



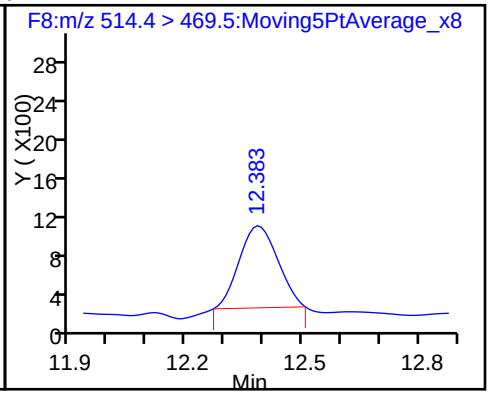
18 Perfluorononanoic acid



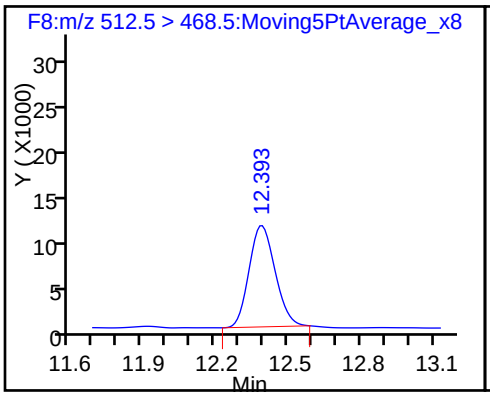
21 PFNS (Perflouro-1-nonanesulfonate)



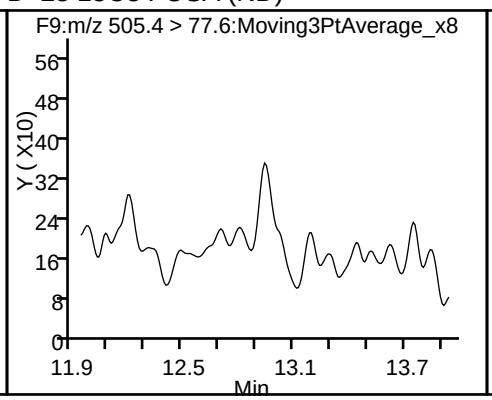
D 19 13C2 PFDA



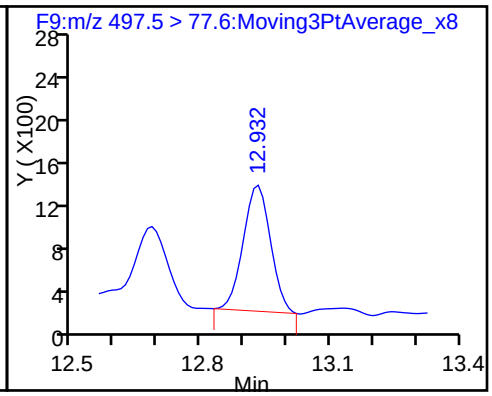
20 Perfluorodecanoic acid



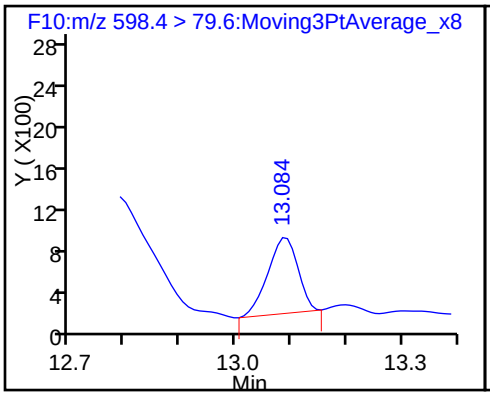
D 23 13C8 FOSA (ND)



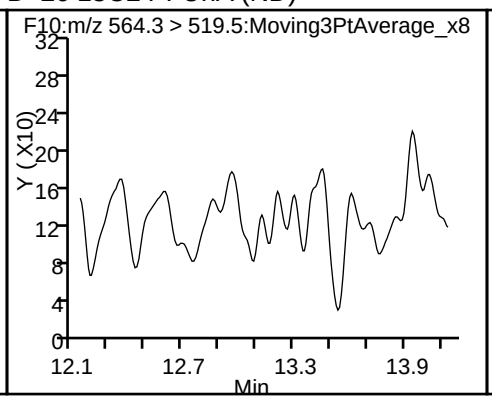
24 Perfluorooctane Sulfonamide



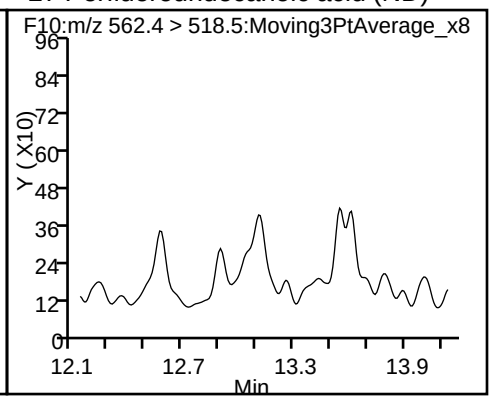
25 Perfluorodecane Sulfonate



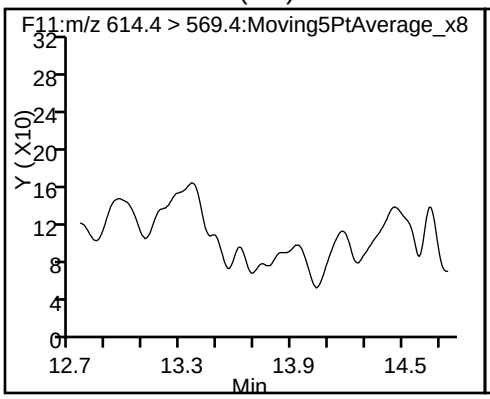
D 26 13C2 PFUnA (ND)



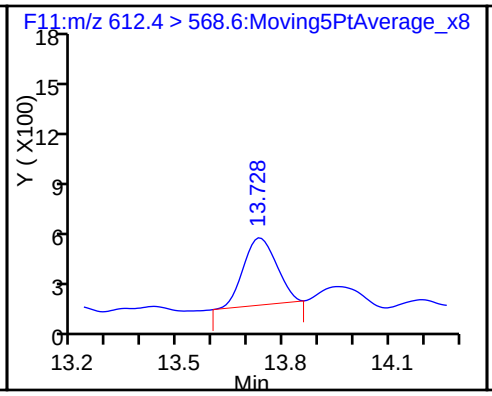
27 Perfluoroundecanoic acid (ND)



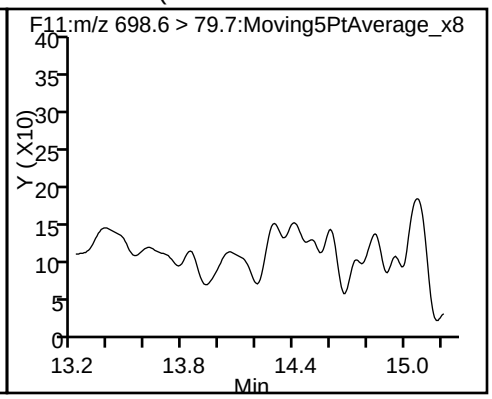
D 28 13C2 PFDoA (ND)



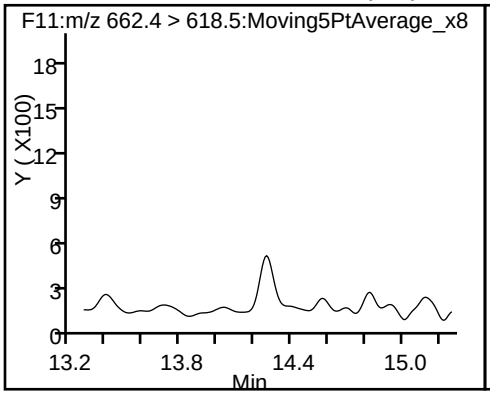
29 Perfluorododecanoic acid



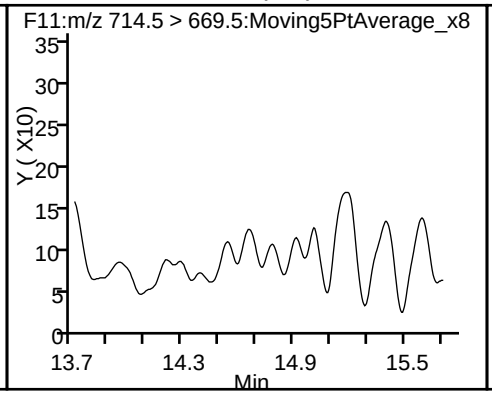
31 PFDoS (Perflouro-1-dodecanesulfona (ND)



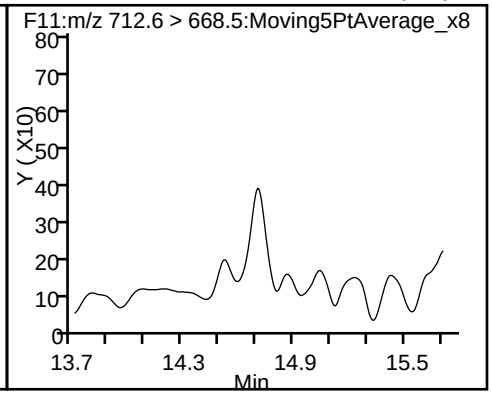
30 Perfluorotridecanoic acid (ND)



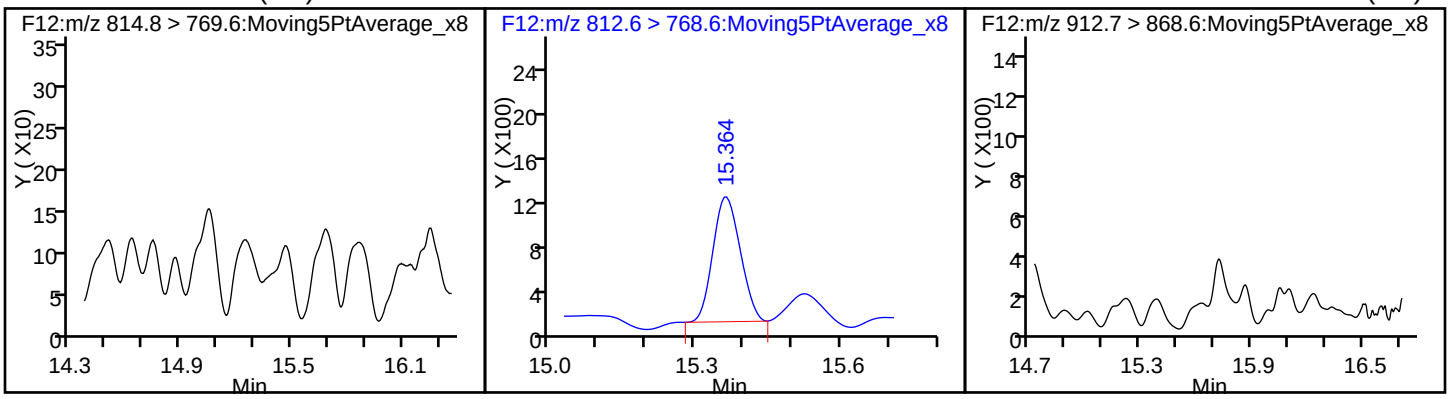
D 33 13C2-PFTeDA (ND)



32 Perfluorotetradecanoic acid (ND)



D 35 13C2-PFHxDA (ND) 34 Perfluorohexadecanoic acid 36 Perfluorooctandecanoic acid (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-MW01P-214 Lab Sample ID: 320-6160-2

Matrix: Water Lab File ID: 03MAR14A4C_020.d

Analysis Method: WS-LC-0025 Date Collected: 02/17/2014 16:15

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 510.2(mL) Date Analyzed: 03/03/2014 15:55

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	69		2.0	1.5	0.73
1763-23-1	Perfluorooctane Sulfonate (PFOS)	16		2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	117		25-150
STL00990	13C4 PFOA	102		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_020.d
Lims ID: 320-6160-A-2-A Lab Sample ID: 320-6160-2
Client ID: WS22-MW01P-214
Sample Type: Client
Inject. Date: 03-Mar-2014 15:55:30 ALS Bottle#: 6 Worklist Smp#: 16
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-016 320-6160-A-2-A
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 17:03:48 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C4 PFOA										
416.5 > 371.6	10.540	10.590	-0.050		2379451	51.2		102	4375	
13 Perfluorooctanoic acid										
412.8 > 368.8	10.540	10.591	-0.051	1.000	902353	35.0			245	
412.8 > 168.7	10.540	10.591	-0.051	1.000	379721		2.38(0.00-0.00)		255	
D 16 13C4 PFOS										
502.4 > 79.7	11.510	11.547	-0.037		2319844	55.8		117	2147	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.510	11.547	-0.037	1.000	79963	7.96			32.9	
498.9 > 98.7	11.510	11.547	-0.037	1.000	42042		1.90(0.00-0.00)		37.2	

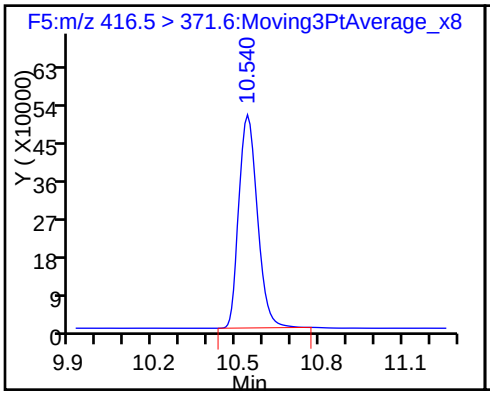
Report Date: 03-Mar-2014 17:03:49 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

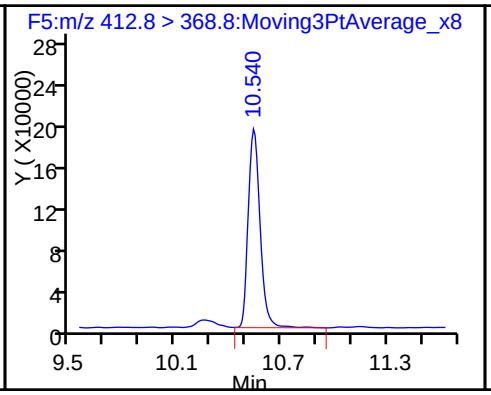
Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_020.d

Injection Date:	03-Mar-2014 15:55:30	Instrument ID:	A4		
Lims ID:	320-6160-A-2-A	Lab Sample ID:	320-6160-2		
Client ID:	WS22-MW01P-214				
Operator ID:	JRB	ALS Bottle#:	6	Worklist Smp#:	16
Injection Vol:	15.0 ul	Dil. Factor:	1.0000		
Method:	PFAC_A4	Limit Group:	LC PFC ICAL		

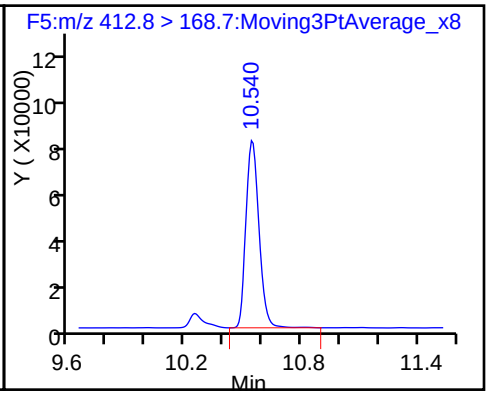
D 12 13C4 PFOA



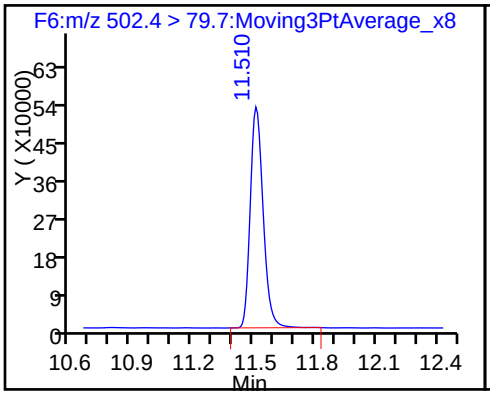
13 Perfluorooctanoic acid



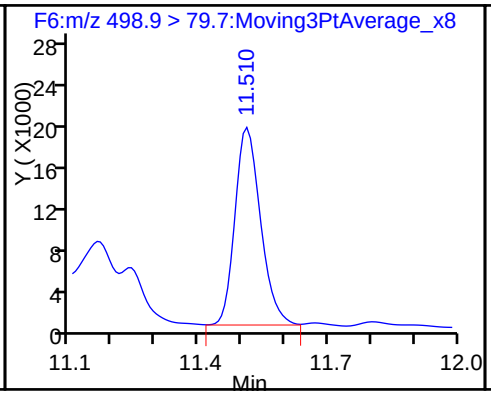
13 Perfluorooctanoic acid



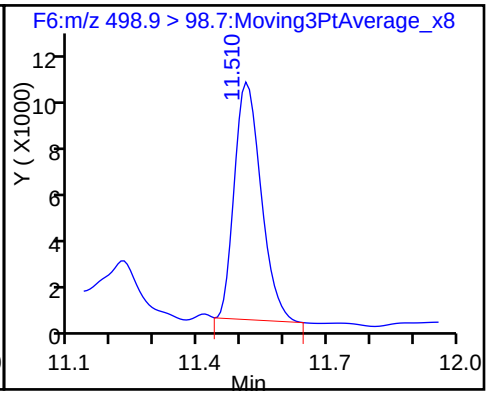
D 16 13C4 PFOS



15 Perfluorooctanoic Sulfonate



15 Perfluorooctanoic Sulfonate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-EB01-021714 Lab Sample ID: 320-6160-3

Matrix: Water Lab File ID: 03MAR14A4C_021.d

Analysis Method: WS-LC-0025 Date Collected: 02/17/2014 17:45

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 511.9(mL) Date Analyzed: 03/03/2014 16:16

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.5	U	2.0	1.5	0.73
1763-23-1	Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.5	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	124		25-150
STL00990	13C4 PFOA	118		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_021.d
Lims ID: 320-6160-A-3-A Lab Sample ID: 320-6160-3
Client ID: WS22-EB01-021714
Sample Type: Client
Inject. Date: 03-Mar-2014 16:16:43 ALS Bottle#: 7 Worklist Smp#: 17
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-017 320-6160-A-3-A
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 17:03:48 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C4 PFOA										
416.5 > 371.6	10.559	10.590	-0.031		2745082	59.1		118	3619	
D 16 13C4 PFOS										
502.4 > 79.7	11.526	11.547	-0.021		2460221	59.2		124	4477	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.652	11.547	0.105	1.000	337	0.0316			1.3	

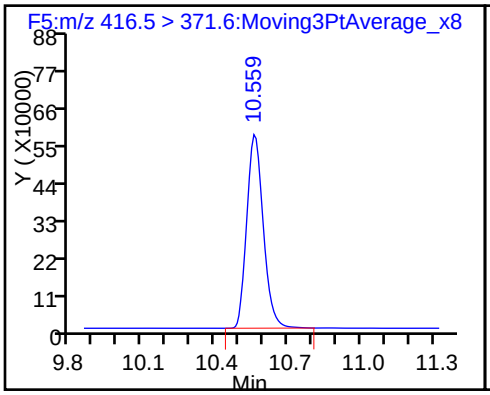
Report Date: 03-Mar-2014 17:03:50 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

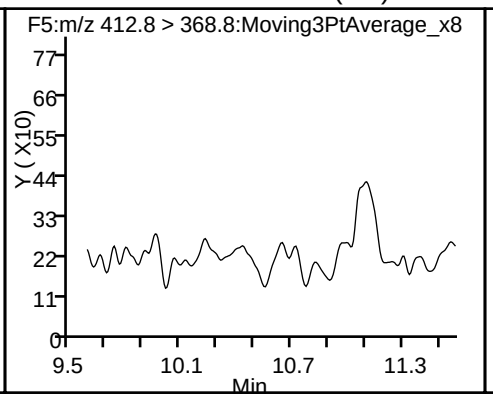
Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_021.d

Injection Date:	03-Mar-2014 16:16:43	Instrument ID:	A4		
Lims ID:	320-6160-A-3-A	Lab Sample ID:	320-6160-3		
Client ID:	WS22-EB01-021714				
Operator ID:	JRB	ALS Bottle#:	7	Worklist Smp#:	17
Injection Vol:	15.0 ul	Dil. Factor:	1.0000		
Method:	PFAC_A4	Limit Group:	LC PFC ICAL		

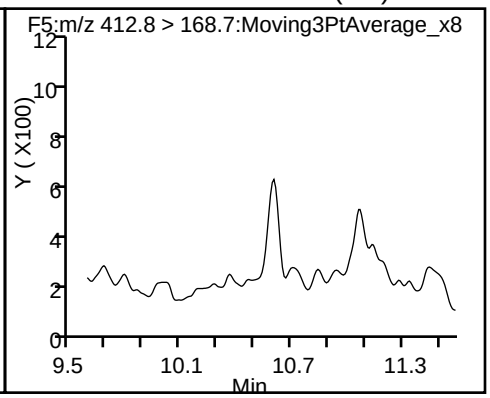
D 12 13C4 PFOA



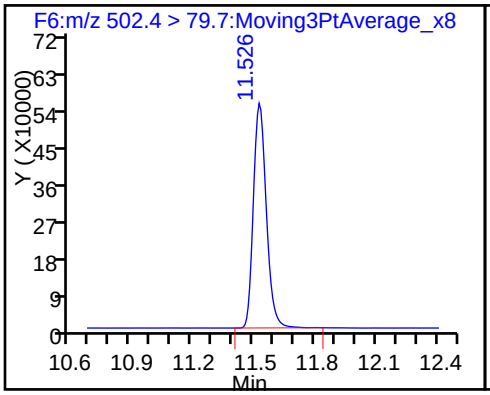
13 Perfluorooctanoic acid (ND)



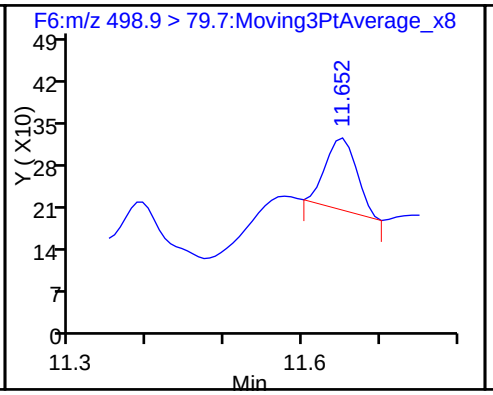
13 Perfluorooctanoic acid (ND)



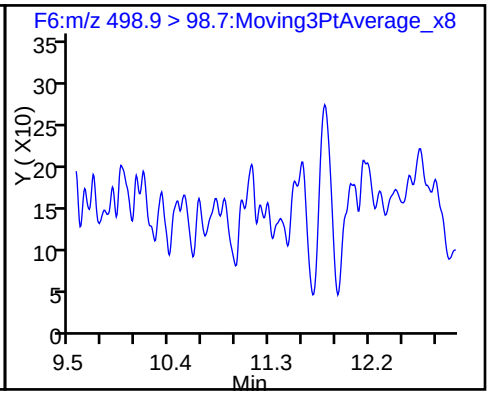
D 16 13C4 PFOS



15 Perfluorooctanoic Sulfonate



15 Perfluorooctanoic Sulfonate



FORM VI
LCMS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1 Analy Batch No.: 37466

SDG No.:

Instrument ID: A4 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2014 10:58 Calibration End Date: 03/03/2014 13:05 Calibration ID: 6483

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 320-37466/2	03MAR14A4C_006.d
Level 2	STD 320-37466/3	03MAR14A4C_007.d
Level 3	STD 320-37466/4	03MAR14A4C_008.d
Level 4	STD 320-37466/5	03MAR14A4C_009.d
Level 5	STD 320-37466/6	03MAR14A4C_010.d
Level 6	STD 320-37466/7	03MAR14A4C_011.d
Level 7	STD 320-37466/8	03MAR14A4C_012.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
13C4 PFBA	5.895	5.889	5.880	5.883	5.883	5.874	5.868				5.632 - 6.132	5.882
13C5 PFPeA	7.015	7.008	7.001	6.997	7.001	6.983	6.974				6.747 - 7.247	6.997
13C2 PFHxA	8.274	8.258	8.252	8.247	8.247	8.236	8.225				7.998 - 8.498	8.248
13C4-PFHpA	9.493	9.487	9.475	9.469	9.475	9.458	9.452				9.223 - 9.723	9.473
18O2 PFHxS	9.532	9.524	9.510	9.504	9.510	9.499	9.487				9.260 - 9.760	9.509
13C4 PFOA	10.614	10.604	10.596	10.586	10.586	10.577	10.568				10.340 - 10.840	10.590
13C4 PFOS	11.560	11.560	11.552	11.543	11.552	11.535	11.527				11.297 - 11.797	11.547
13C5 PFNA	11.578	11.578	11.570	11.561	11.569	11.553	11.553				11.316 - 11.816	11.566
13C2 PFDA	12.424	12.414	12.414	12.404	12.404	12.404	12.393				12.158 - 12.658	12.408
13C8 FOSA	12.953	12.953	12.943	12.942	12.942	12.932	12.932				12.692 - 13.192	12.942
13C2 PFUnA	13.145	13.146	13.146	13.137	13.137	13.136	13.129				12.890 - 13.390	13.139
13C2 PFDoA	13.756	13.758	13.749	13.749	13.749	13.747	13.740				13.500 - 14.000	13.750
13C2-PFTeDA	14.719	14.720	14.714	14.714	14.714	14.706	14.707				14.463 - 14.963	14.713
13C2-PFHxDA	15.374	15.375	15.371	15.370	15.370	15.369	15.365				15.121 - 15.621	15.371

FORM VI
LCMS INITIAL CALIBRATION DATA
EXTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1 Analy Batch No.: 37466

SDG No.:

Instrument ID: A4 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2014 10:58 Calibration End Date: 03/03/2014 13:05 Calibration ID: 6483

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 320-37466/2	03MAR14A4C_006.d
Level 2	STD 320-37466/3	03MAR14A4C_007.d
Level 3	STD 320-37466/4	03MAR14A4C_008.d
Level 4	STD 320-37466/5	03MAR14A4C_009.d
Level 5	STD 320-37466/6	03MAR14A4C_010.d
Level 6	STD 320-37466/7	03MAR14A4C_011.d
Level 7	STD 320-37466/8	03MAR14A4C_012.d

ANALYTE	CF				CURVE TYPE	COEFFICIENT			#	MIN CF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 5	LVL 2 LVL 6	LVL 3 LVL 7	LVL 4		B	M1	M2								
13C4 PFBA	29914 23739	28346 17487	27447 12597	26182	Ave		23673.2143				27.0		50.0			
13C5 PFPeA	38722 30688	35223 21850	35598 15784	33022	Ave		30126.6571				28.0		50.0			
13C2 PFHxA	52808 42874	54784 32177	49494 22604	47044	Ave		43112.1643				27.0		50.0			
13C4-PFHpA	46492 30141	41941 22742	40686 15548	36978	Ave		33503.9714				33.0		50.0			
18O2 PFHxS	54317 42992	50581 33242	52581 23996	47746	Ave		43636.5449				26.0		50.0			
13C4 PFOA	59038 44433	60463 29513	58618 22112	51192	Ave		46481.2629				33.0		50.0			
13C4 PFOS	53272 41625	48739 28646	50598 20327	47599	Ave		41543.5744				30.0		50.0			
13C5 PFNA	69777 54454	65477 41445	68531 28721	61622	Ave		55718.1571				28.0		50.0			
13C2 PFDA	124044 84941	115379 57735	111811 42784	96730	Ave		90489.0643				34.0		50.0			
13C8 FOSA	167288 152085	164533 126522	166700 98922	162023	Ave		148296.237				18.0		50.0			
13C2 PFUnA	145082 106031	147052 75561	132455 55232	120792	Ave		111743.557				31.0		50.0			
13C2 PFDoA	166321 127669	165107 92152	157646 70842	147399	Ave		132447.836				28.0		50.0			
13C2-PFTeDA	283794 236751	273559 173740	276996 131111	258163	Ave		233444.707				25.0		50.0			
13C2-PFHxDA	185342 202736	184686 161888	202028 124335	204155	Ave		180738.607				16.0		50.0			

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

FORM VI
LCMS INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1 Analy Batch No.: 37466

SDG No.:

Instrument ID: A4 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2014 10:58 Calibration End Date: 03/03/2014 13:05 Calibration ID: 6483

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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorobutanoic acid (PFBA)	26118 14843	21130 11373	21566	21080	19820	AveID		0.8280				6.5		35.0			
Perfluoropentanoic acid (PFPeA)	21888 14867	20717 11192	22325	20114	19888	AveID		0.6325				8.0		35.0			
Perfluorobutane Sulfonate (PFBS)	35339 26416	34561 18721	37772	37637	33892	AveID		0.7434				7.9		50.0			
Perfluorohexanoic acid (PFHxA)	22324 16057	23514 12527	23838	23488	21501	AveID		0.4839				9.4		35.0			
PFPeS (Perflouro-1-pentanesulfonate)	26761 26478	38586 18866	36932	37833	34478	AveID		0.7336				15.0		50.0			
Perfluoroheptanoic acid (PFHpA)	32144 18121	31137 13694	31234	28857	26113	AveID		0.7894				8.4		35.0			
Perfluorohexane Sulfonate (PFHxS)	23592 13181	20199 9817.1	19568	19182	17760	AveID		0.4038				4.7		35.0			
Perfluorooctanoic acid (PFOA)	24744 18536	32060 13691	27477	27981	25626	AveID		0.5412				14.0		35.0			
Perfluoro-1-heptanesulfonate (PFHpS)	14609 9315.0	16244 6438.9	16211	13157	14004	AveID		0.3118				8.3		50.0			
Perfluorooctane Sulfonate (PFOS)	10738 6815.2	6637.0 4842.8	10936	9650.6	9020.5	AveID		0.2071				17.0		35.0			
Perfluorononanoic acid (PFNA)	75654 47154	70526 34068	78075	75520	65920	AveID		1.1515				5.1		35.0			
PFNS (Perflouro-1-nonanesulfonate)	27073 22847	35898 14352	37393	34819	33033	AveID		0.7161				14.0		50.0			
Perfluorodecanoic acid (PFDA)	109670 56232	126366 41908	111651	95829	84159	AveID		0.9876				6.2		35.0			
Perfluorooctane Sulfonamide (FOSA)	138024 119949	146283 94045	151671	144341	139635	AveID		0.9045				4.7		35.0			
Perfluorodecane sulfonate (PFDS)	41919 29128	47352 20115	46703	43100	41589	AveID		0.9418				8.4		50.0			
Perfluoroundecanoic acid (PFUnA)	157390 81435	158883 57537	144673	129923	114311	AveID		1.0758				1.5		35.0			
Perfluorododecanoic acid (PFDoA)	154974 94392	151719 68386	144727	137601	129260	AveID		0.9578				4.6		35.0			
PFDoS (Perflouro-1-dodecanesulfonate)	42459 31784	36212 25647	37836	39129	37985	AveID		0.9134				22.0		50.0			
Perfluorotridecanoic Acid (PFTriA)	176170 116806	174519 82657	185093	168825	165800	AveID		1.1670				8.0		50.0			

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

FORM VI
LCMS INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1 Analy Batch No.: 37466

SDG No.:

Instrument ID: A4 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2014 10:58 Calibration End Date: 03/03/2014 13:05 Calibration ID: 6483

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 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorotetradecanoic acid (PFTeA)	116218 75321	120884 55172	117273	108289	101375	AveID		0.7571				5.4		50.0			
Perfluoro-n-hexadecanoic acid (PFHxDA)	335450 211479	283004 154335	266017	262807	270401	AveID		1.9704				12.0		50.0			
Perfluoro-n-octandecanoic acid (PFODA)	154446 170175	173825 127453	179936	195316	203323	AveID		1.3838				27.0		50.0			

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

FORM VI
LCMS INITIAL CALIBRATION DATA
EXTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1 Analy Batch No.: 37466

SDG No.:

Instrument ID: A4 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2014 10:58 Calibration End Date: 03/03/2014 13:05 Calibration ID: 6483

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 320-37466/2	03MAR14A4C_006.d
Level 2	STD 320-37466/3	03MAR14A4C_007.d
Level 3	STD 320-37466/4	03MAR14A4C_008.d
Level 4	STD 320-37466/5	03MAR14A4C_009.d
Level 5	STD 320-37466/6	03MAR14A4C_010.d
Level 6	STD 320-37466/7	03MAR14A4C_011.d
Level 7	STD 320-37466/8	03MAR14A4C_012.d

ANALYTE	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
		LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
13C4 PFBA	Ave	598279 349747	566915 251945	548940	523645	474779	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C5 PFPeA	Ave	774436 436996	704469 315676	711962	660430	613763	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C2 PFHxA	Ave	1056168 643547	1095670 452079	989887	940872	857480	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C4-PFHpA	Ave	929843 454835	838819 310960	813718	739553	602828	20.0 20.0	20.0 20.0	20.0	20.0	20.0
18O2 PFHxS	Ave	1027683 628947	956990 454011	994828	903353	813412	18.9 18.9	18.9 18.9	18.9	18.9	18.9
13C4 PFOA	Ave	2951904 1475662	3023135 1105623	2930880	2559609	2221629	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C4 PFOS	Ave	2546393 1369264	2329744 971620	2418569	2275222	1989668	47.8 47.8	47.8 47.8	47.8	47.8	47.8
13C5 PFNA	Ave	1395548 828904	1309536 574413	1370616	1232449	1089076	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C2 PFDA	Ave	2480872 1154707	2307580 855681	2236214	1934590	1698825	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C8 FOSA	Ave	8364412 6326115	8226653 4946089	8335008	8101154	7604252	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFUnA	Ave	2901635 1511217	2941035 1104642	2649097	2415843	2120629	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C2 PFDoA	Ave	3326413 1843032	3302146 1416842	3152920	2947971	2553373	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C2-PFTeDA	Ave	5675879 3474798	5471171 2622215	5539925	5163260	4735011	20.0 20.0	20.0 20.0	20.0	20.0	20.0
13C2-PFHxDA	Ave	3706840 3237766	3693726 2486709	4040551	4083097	4054716	20.0 20.0	20.0 20.0	20.0	20.0	20.0

Curve Type Legend:
Ave = Average

FORM VI
LCMS INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1 Analy Batch No.: 37466

SDG No.:

Instrument ID: A4 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2014 10:58 Calibration End Date: 03/03/2014 13:05 Calibration ID: 6483

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD 320-37466/2	03MAR14A4C_006.d
Level 2	STD 320-37466/3	03MAR14A4C_007.d
Level 3	STD 320-37466/4	03MAR14A4C_008.d
Level 4	STD 320-37466/5	03MAR14A4C_009.d
Level 5	STD 320-37466/6	03MAR14A4C_010.d
Level 6	STD 320-37466/7	03MAR14A4C_011.d
Level 7	STD 320-37466/8	03MAR14A4C_012.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluorobutanoic acid (PFBA)		AveID	13059 2968661	21130 5686610	107832	421609	990992	0.500 200	1.00 500	5.00	20.0	50.0
Perfluoropentanoic acid (PFPeA)		AveID	10944 2973422	20717 5595762	111623	402275	994390	0.500 200	1.00 500	5.00	20.0	50.0
Perfluorobutane Sulfonate (PFBS)		AveID	15620 4670298	30552 8274864	166951	665414	1498008	0.442 177	0.884 442	4.42	17.7	44.2
Perfluorohexanoic acid (PFHxA)		AveID	11162 3211347	23514 6263322	119188	469762	1075035	0.500 200	1.00 500	5.00	20.0	50.0
PFPeS (Perflouro-1-pentanesulfonate)		AveID	12551 4967263	36194 8848168	173213	709745	1617038	0.469 188	0.938 469	4.69	18.8	46.9
Perfluoroheptanoic acid (PFHpA)		AveID	16072 3624214	31137 6846917	156169	577135	1305650	0.500 200	1.00 500	5.00	20.0	50.0
Perfluorohexane Sulfonate (PFHxS)		AveID	11159 2493934	19108 4643490	92559	362927	840043	0.473 189	0.946 473	4.73	18.9	47.3
Perfluorooctanoic acid (PFOA)		AveID	12372 3707269	32060 6845387	137384	559614	1281302	0.500 200	1.00 500	5.00	20.0	50.0
Perfluoro-1-heptanesulfonate (PFHpS)		AveID	6954 1773567	15464 3064916	77163	250505	666575	0.476 190	0.952 476	4.76	19.0	47.6
Perfluorooctane Sulfonate (PFOS)		AveID	5133 1303060	6345 2314881	52273	184519	431179	0.478 191	0.956 478	4.78	19.1	47.8
Perfluorononanoic acid (PFNA)		AveID	37827 9430722	70526 17033800	390377	1510407	3295996	0.500 200	1.00 500	5.00	20.0	50.0
PFNS (Perflouro-1-nonanesulfonate)		AveID	12995 4386700	34462 6888880	179488	668519	1585561	0.480 192	0.960 480	4.80	19.2	48.0
Perfluorodecanoic acid (PFDA)		AveID	54835 11246308	126366 20954182	558257	1916583	4207964	0.500 200	1.00 500	5.00	20.0	50.0
Perfluorooctane Sulfonamide (FOSA)		AveID	69012 23989795	146283 47022404	758355	2886813	6981756	0.500 200	1.00 500	5.00	20.0	50.0
Perfluorodecane sulfonate (PFDS)		AveID	20205 5615889	45647 9695207	225109	830976	2004600	0.482 193	0.964 482	4.82	19.3	48.2

FORM VI
LCMS INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1 Analy Batch No.: 37466

SDG No.:

Instrument ID: A4 GC Column: Acquity ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 03/03/2014 10:58 Calibration End Date: 03/03/2014 13:05 Calibration ID: 6483

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Perfluoroundecanoic acid (PFUnA)		AveID	78695 16287005	158883 28768482	723367	2598462	5715546	0.500 200	1.00 500	5.00	20.0	50.0
Perfluorododecanoic acid (PFDoA)		AveID	77487 18878450	151719 34193204	723633	2752014	6463007	0.500 200	1.00 500	5.00	20.0	50.0
PFDoS (Perflouro-1-dodecanesulfonate)		AveID	20550 6153444	35053 12413326	183125	757535	1838478	0.484 194	0.968 484	4.84	19.4	48.4
Perfluorotridecanoic Acid (PFTriA)		AveID	88085 23361276	174519 41328380	925463	3376509	8290010	0.500 200	1.00 500	5.00	20.0	50.0
Perfluorotetradecanoic acid (PFTeA)		AveID	58109 15064255	120884 27585862	586367	2165787	5068733	0.500 200	1.00 500	5.00	20.0	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)		AveID	167725 42295879	283004 77167658	1330085	5256134	13520038	0.500 200	1.00 500	5.00	20.0	50.0
Perfluoro-n-octandecanoic acid (PFODA)		AveID	77223 34034988	173825 63726719	899678	3906325	10166136	0.500 200	1.00 500	5.00	20.0	50.0

Curve Type Legend:
AveID = Average isotope dilution

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_006.d
Lims ID: Std L1 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Mar-2014 10:58:33 ALS Bottle#: 3 Worklist Smp#: 2
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-002 LCPFC-L1_00003 PFC 0.50/50ng/mL
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:57:30 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.895	5.882	0.013		598279	25.3		126	1635	
2 Perfluorobutyric acid										
212.7 > 168.6	5.895	5.883	0.012	1.000	13059	0.5272		105	26.6	
D 3 13C5-PFPeA										
267.6 > 222.7	7.015	6.997	0.018		774436	25.7		129	1961	
4 Perfluoropentanoic acid										
262.9 > 218.7	7.019	6.999	0.020	1.000	10944	0.4469		89.4	33.2	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.134	7.116	0.018	1.000	15620	0.3868		87.5	39.9	
298.8 > 98.6	7.130	7.116	0.014	1.000	8652		1.81(0.00-0.00)	87.5	35.9	
D 6 13C2 PFHxA										
314.6 > 269.7	8.274	8.248	0.026		1056168	24.5		122	2484	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.285	8.251	0.034	1.000	11162	0.4368		87.4	21.9	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.345	8.328	0.017	0.875	12551	0.3150		67.2	49.3	
D 8 13C4-PFHpA										
366.6 > 321.6	9.493	9.473	0.020		929843	27.8		139	2245	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.499	9.474	0.025	1.000	16072	0.4379		87.6	22.5	
D 11 18O2 PFHxS										
402.5 > 83.6	9.532	9.510	0.022		1027683	23.6		124	1858	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.524	9.510	0.014	1.000	11159	0.5088		108	25.9	
D 12 13C4 PFOA										
416.5 > 371.6	10.614	10.590	0.024		2951904	63.5		127	3714	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.623	10.591	0.032	1.000	12372	0.3872		77.4	16.1	
412.8 > 168.7	10.623	10.591	0.032	1.000	4312		2.87(0.00-0.00)	77.4	7.6	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.623	10.598	0.025	1.000	6954	0.4186		88.0	13.0	
D 16 13C4 PFOS										
502.4 > 79.7	11.560	11.547	0.013		2546393	61.3		128	6342	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.560	11.547	0.013	1.000	5133	0.4653		97.3	13.8	
D 17 13C5 PFNA										
467.5 > 422.6	11.578	11.566	0.012		1395548	25.0		125	2220	
18 Perfluorononanoic acid										
462.5 > 418.6	11.586	11.570	0.016	1.000	37827	0.4708		94.2	78.0	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.393	12.379	0.014	1.000	12995	0.3407		71.0	24.9	
D 19 13C2 PFDA										
514.4 > 469.5	12.424	12.408	0.016		2480872	27.4		137	3190	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.424	12.410	0.014	1.000	54835	0.4476		89.5	113	
D 23 13C8 FOSA										
505.4 > 77.6	12.953	12.942	0.011		8364412	56.4		113	9828	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.953	12.944	0.009	1.000	69012	0.4561		91.2	111	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.101	13.091	0.010	1.000	20205	0.4027		83.6	45.0	
D 26 13C2 PFUnA										
564.3 > 519.5	13.145	13.140	0.005		2901635	26.0		130	5306	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.145	13.140	0.005	1.000	78695	0.5042		101	134	
D 28 13C2 PFDoA										
614.4 > 569.4	13.756	13.750	0.006		3326413	25.1		126	4624	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.756	13.750	0.006	1.000	77487	0.4864		97.3	94.4	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.227	14.216	0.011	1.000	20550	0.4223		87.3	45.6	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.281	14.270	0.011	1.000	88085	0.4538		90.8	108	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.719	14.713	0.006		5675879	24.3		122	7859	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.719	14.713	0.006	1.000	58109	0.4615		92.3	95.7	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.374	15.371	0.003		3706840	20.5		103	5759	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.379	15.372	0.007	1.000	167725	0.5118		102	433	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.721	15.718	0.003	1.000	77223	0.3355		67.1	194	

Report Date: 03-Mar-2014 13:57:30 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_006.d

Injection Date: 03-Mar-2014 10:58:33 Instrument ID: A4

Lims ID: Std L1 Lab Sample ID:

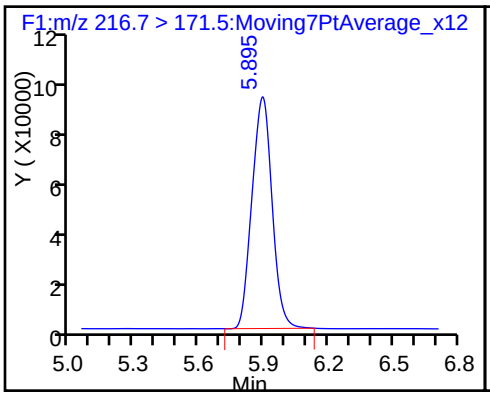
Client ID:

Operator ID: JRB ALS Bottle#: 3 Worklist Smp#: 2

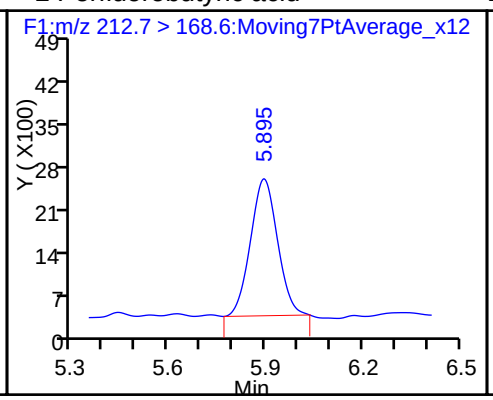
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

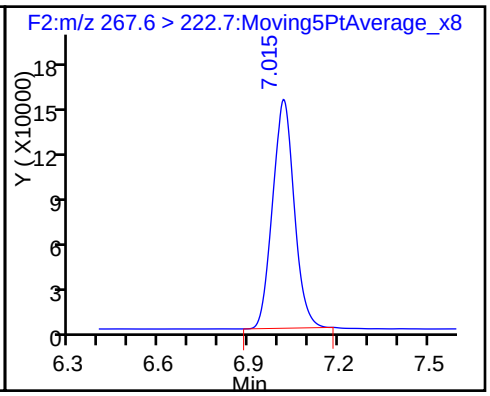
D 1 13C4 PFBA



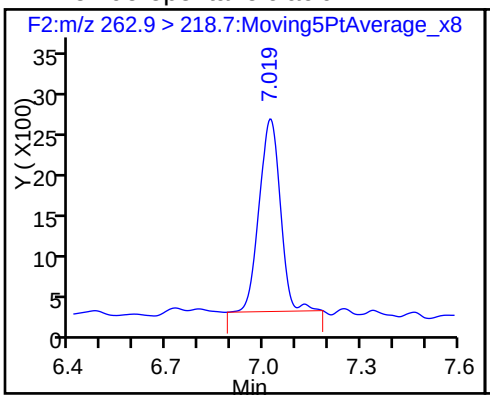
2 Perfluorobutyric acid



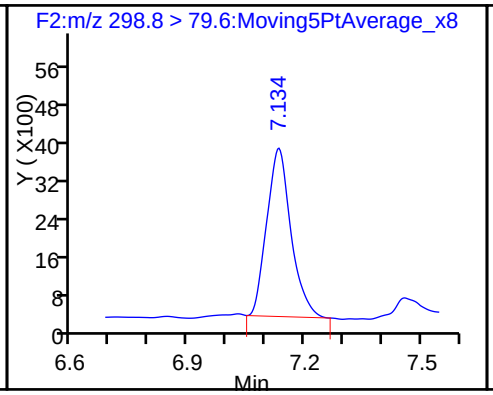
D 3 13C5-PFPeA



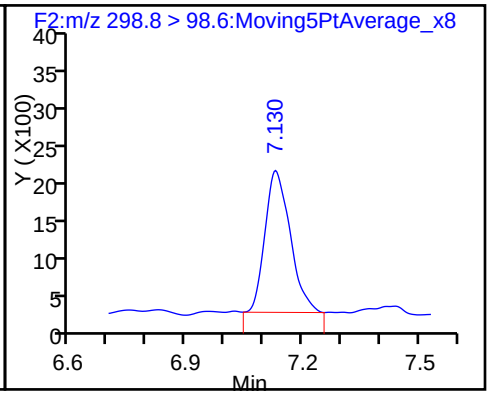
4 Perfluoropentanoic acid



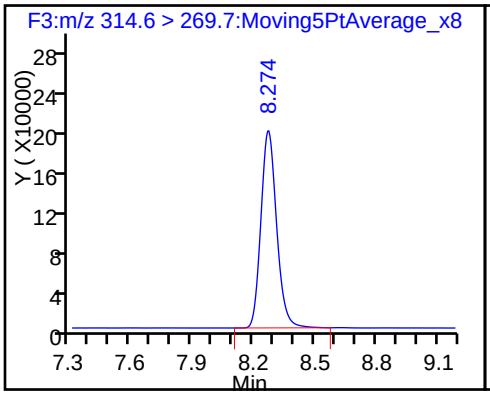
5 Perfluorobutane Sulfonate



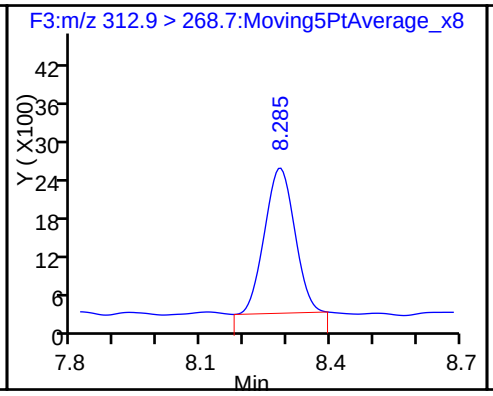
5 Perfluorobutane Sulfonate



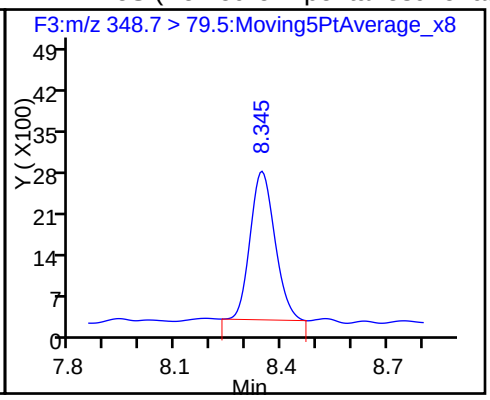
D 6 13C2 PFHxA



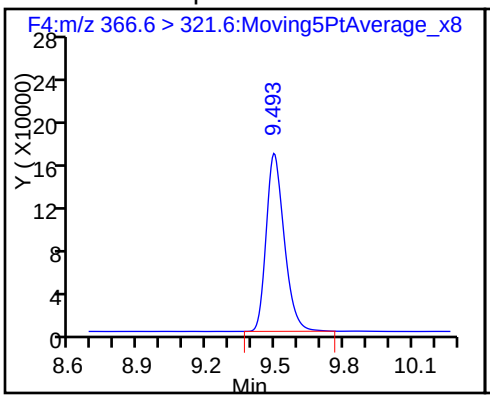
7 Perfluorohexanoic acid



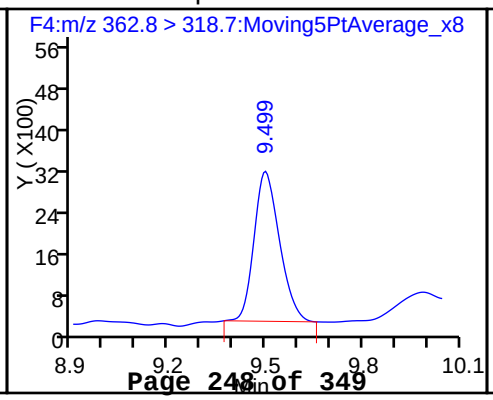
22 PFPeS (Perflouro-1-pentanesulfonat



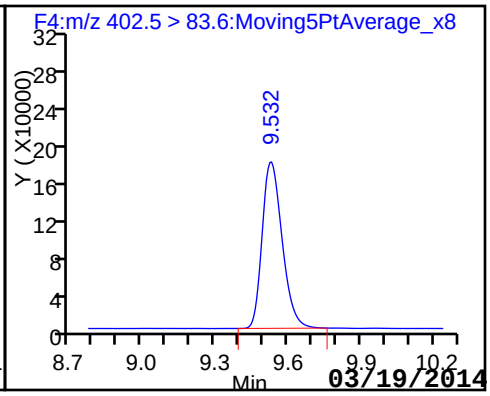
D 8 13C4-PFHpA



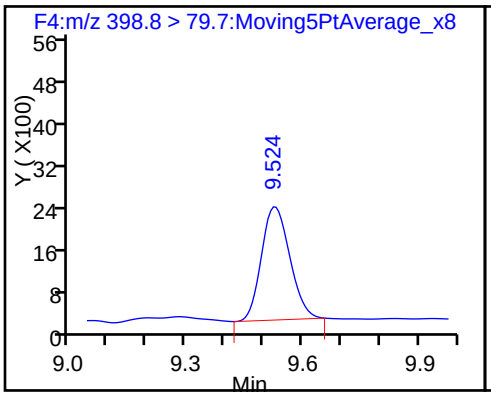
9 Perfluoroheptanoic acid



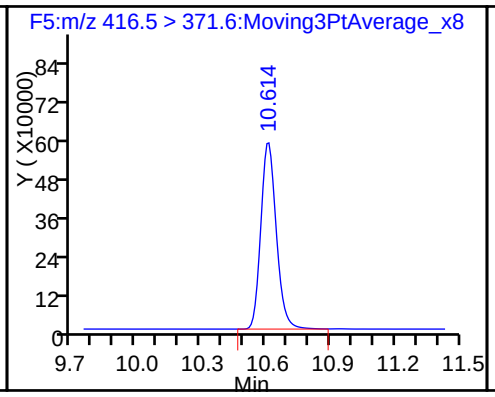
D 11 18O2 PFHxS



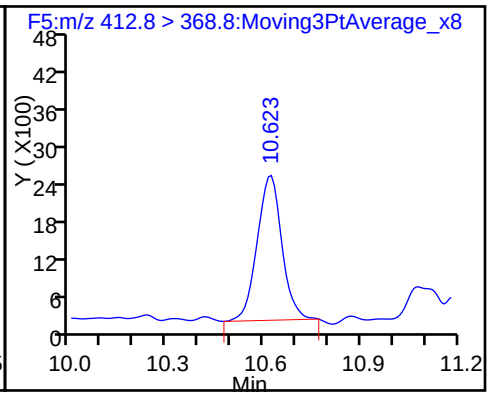
10 Perfluorohexane Sulfonate



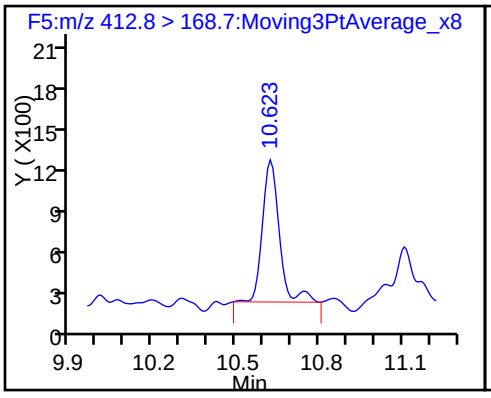
D 12 13C4 PFOA



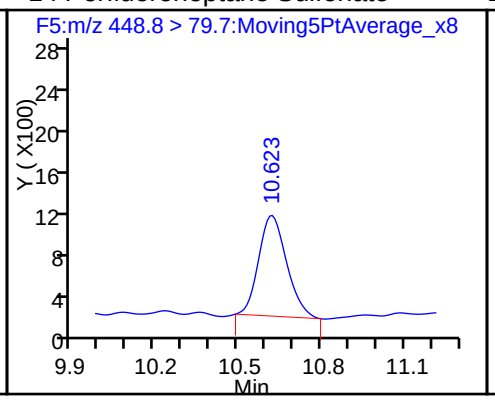
13 Perfluorooctanoic acid



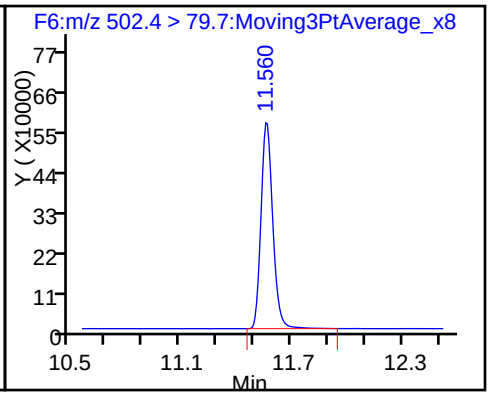
13 Perfluorooctanoic acid



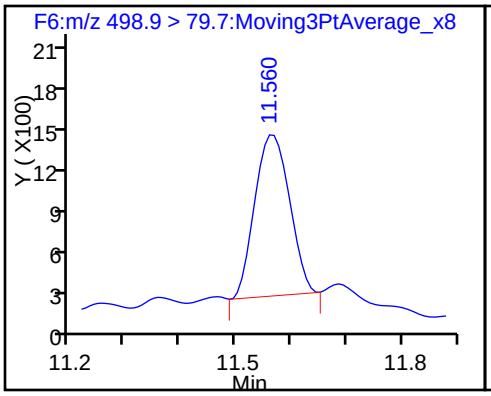
14 Perfluoroheptane Sulfonate



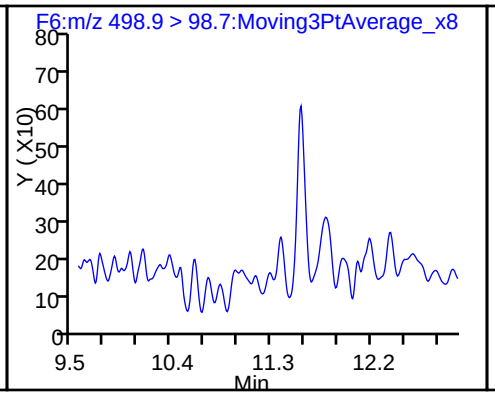
D 16 13C4 PFOS



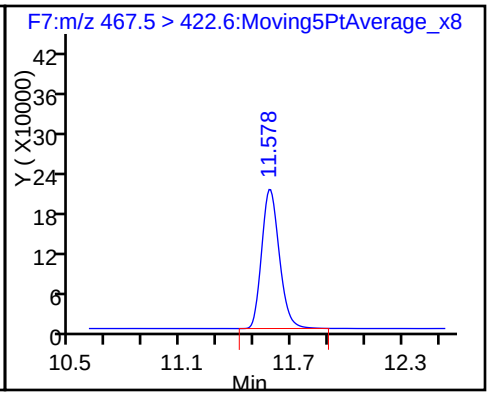
15 Perfluorooctanoic Sulfonate



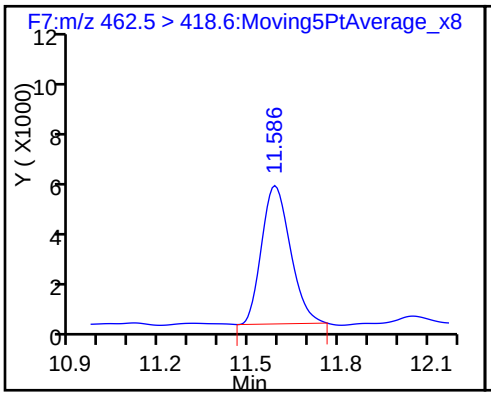
15 Perfluorooctanoic Sulfonate



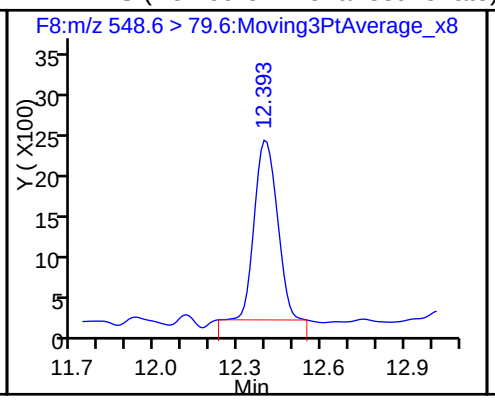
D 17 13C5 PFNA



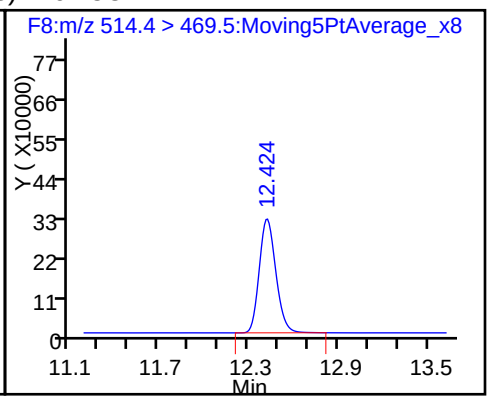
18 Perfluorononanoic acid



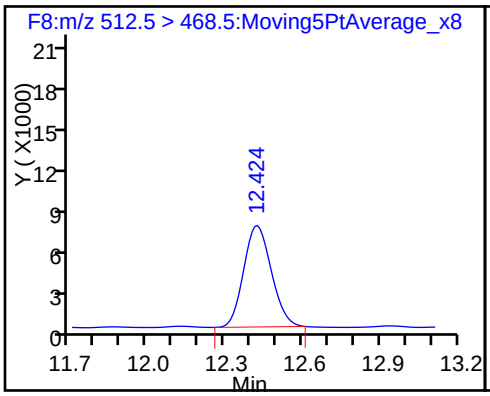
21 PFNS (Perflouro-1-nonanesulfonate)



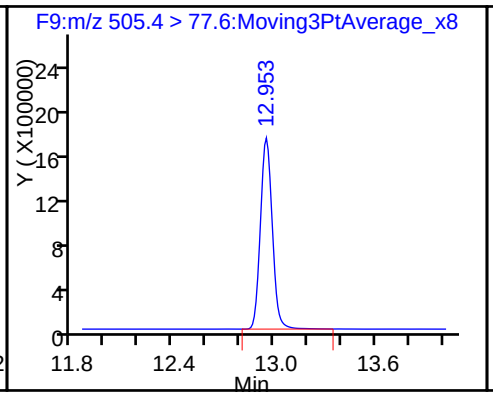
D 19 13C2 PFDA



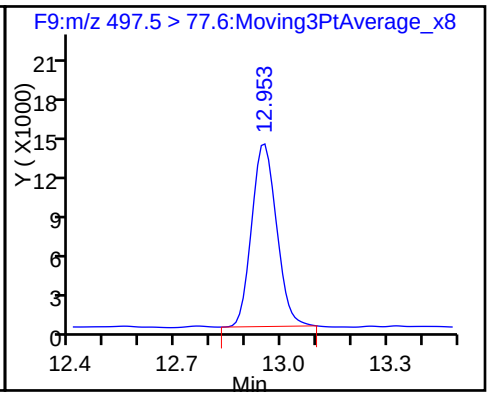
20 Perfluorodecanoic acid



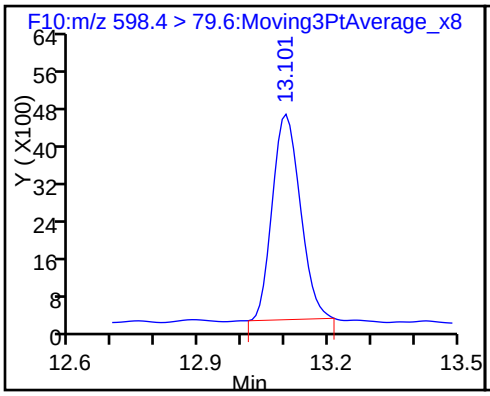
D 23 13C8 FOSA



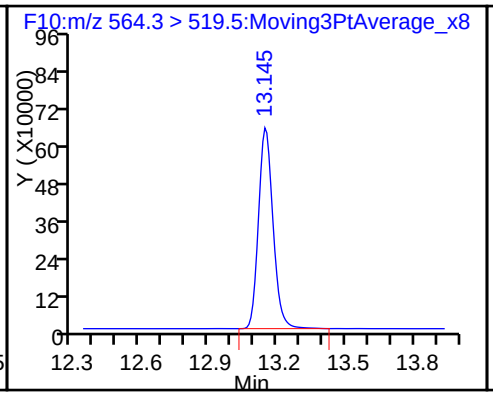
24 Perfluorooctane Sulfonamide



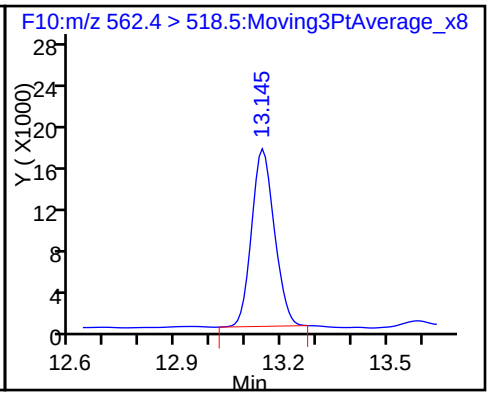
25 Perfluorodecane Sulfonate



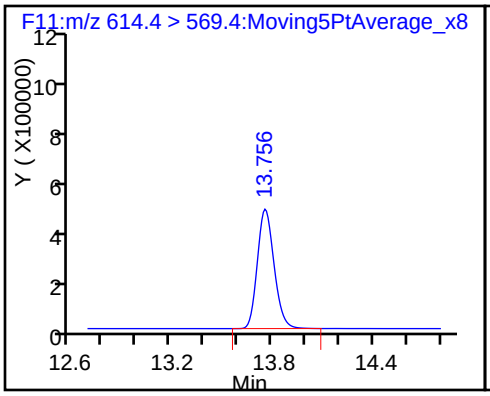
D 26 13C2 PFUnA



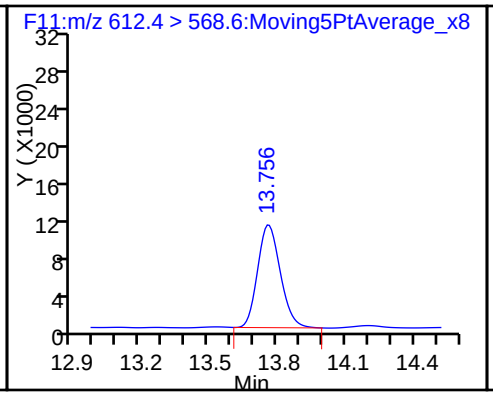
27 Perfluoroundecanoic acid



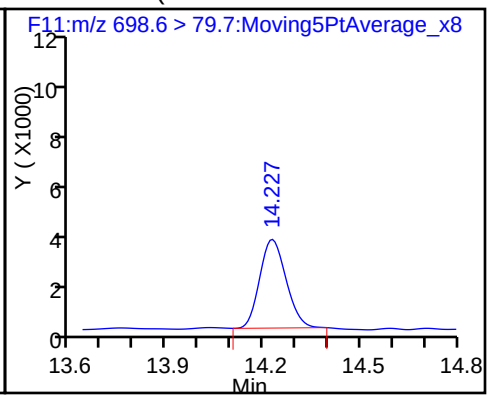
D 28 13C2 PFDoA



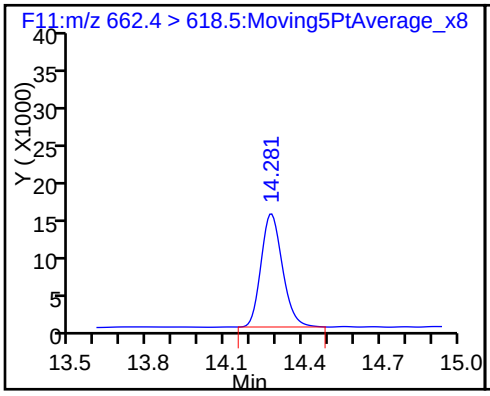
29 Perfluorododecanoic acid



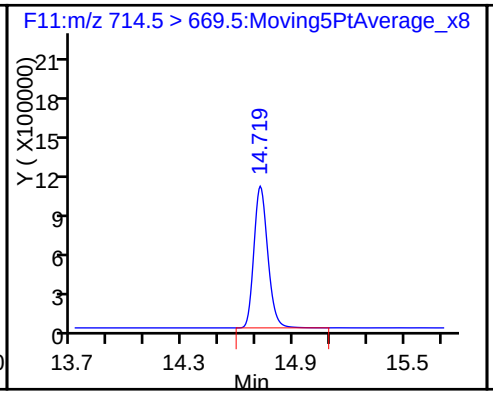
31 PFDoS (Perflouro-1-dodecanesulfona



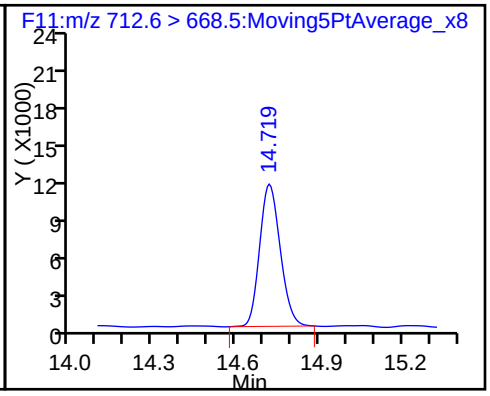
30 Perfluorotridecanoic acid



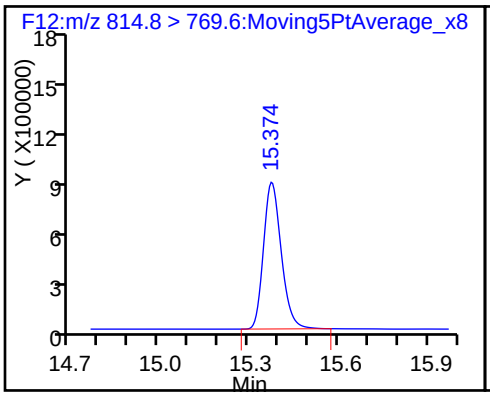
D 33 13C2-PFTeDA



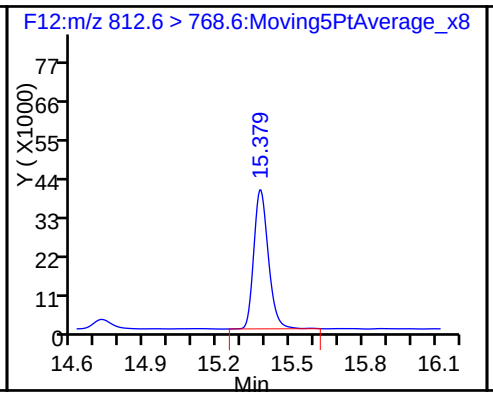
32 Perfluorotetradecanoic acid



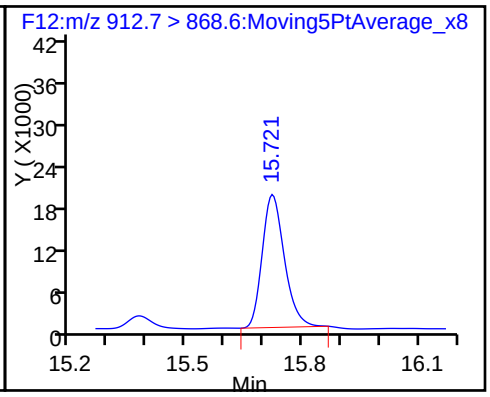
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_007.d
Lims ID: Std L2 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Mar-2014 11:19:44 ALS Bottle#: 4 Worklist Smp#: 3
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-003 LCPFC-L2_00003 PFC 1.00/50ng/mL
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:57:31 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.889	5.882	0.007		566915	23.9		120	1301	
2 Perfluorobutyric acid										
212.7 > 168.6	5.892	5.883	0.009	1.000	21130	0.9003		90.0	61.9	
D 3 13C5-PFPeA										
267.6 > 222.7	7.008	6.997	0.011		704469	23.4		117	2507	
4 Perfluoropentanoic acid										
262.9 > 218.7	7.008	6.999	0.009	1.000	20717	0.9300		93.0	48.1	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.127	7.116	0.011	1.000	30552	0.8125		91.9	115	
298.8 > 98.6	7.130	7.116	0.014	1.000	17324		1.76(0.00-0.00)	91.9	37.5	
D 6 13C2 PFHxA										
314.6 > 269.7	8.258	8.248	0.010		1095670	25.4		127	2725	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.263	8.251	0.012	1.000	23514	0.8869		88.7	38.3	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.345	8.328	0.017	0.876	36194	0.9755		104	58.6	
D 8 13C4-PFHpA										
366.6 > 321.6	9.487	9.473	0.014		838819	25.0		125	1507	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.487	9.474	0.013	1.000	31137	0.9405		94.0	47.4	
D 11 18O2 PFHxS										
402.5 > 83.6	9.524	9.510	0.014		956990	21.9		116	2032	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.531	9.510	0.021	1.000	19108	0.9356		98.9	33.1	
D 12 13C4 PFOA										
416.5 > 371.6	10.604	10.590	0.014		3023135	65.0		130	4051	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.595	10.591	0.004	1.000	32060	0.9797		98.0	43.0	
412.8 > 168.7	10.604	10.591	0.013	1.001	14105		2.27(0.00-0.00)	98.0	21.7	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.614	10.598	0.016	1.000	15464	1.02		107	24.6	
D 16 13C4 PFOS										
502.4 > 79.7	11.560	11.547	0.013		2329744	56.1		117	5416	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.560	11.547	0.013	1.000	6345	0.6287		65.8	15.5	
498.9 > 98.7	11.577	11.547	0.030	1.001	4061		1.56(0.00-0.00)	65.8	9.4	
D 17 13C5 PFNA										
467.5 > 422.6	11.578	11.566	0.012		1309536	23.5		118	2534	
18 Perfluorononanoic acid										
462.5 > 418.6	11.578	11.570	0.008	1.000	70526	0.9354		93.5	148	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.393	12.379	0.014	1.000	34462	0.9874		103	70.9	
D 19 13C2 PFDA										
514.4 > 469.5	12.414	12.408	0.006		2307580	25.5		128	2948	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.414	12.410	0.004	1.000	126366	1.11		111	200	
D 23 13C8 FOSA										
505.4 > 77.6	12.953	12.942	0.011		8226653	55.5		111	6351	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.953	12.944	0.009	1.000	146283	0.9829		98.3	252	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.102	13.091	0.011	1.000	45647	0.99		103	94.9	
D 26 13C2 PFUnA										
564.3 > 519.5	13.146	13.140	0.006		2941035	26.3		132	4787	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.146	13.140	0.006	1.000	158883	1.00		100	324	
D 28 13C2 PFDoA										
614.4 > 569.4	13.758	13.750	0.008		3302146	24.9		125	5026	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.758	13.750	0.008	1.000	151719	0.9594		95.9	166	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.220	14.216	0.004	1.000	35053	0.7874		81.3	73.7	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.274	14.270	0.004	1.000	174519	0.9058		90.6	211	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.720	14.713	0.007		5471171	23.4		117	6981	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.720	14.713	0.007	1.000	120884	0.9671		96.7	222	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.375	15.371	0.004		3693726	20.4		102	7376	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.375	15.372	0.003	1.000	283004	0.8699		87.0	805	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.722	15.718	0.004	1.000	173825	0.7608		76.1	550	

Report Date: 03-Mar-2014 13:57:31 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_007.d

Injection Date: 03-Mar-2014 11:19:44 Instrument ID: A4

Lims ID: Std L2 Lab Sample ID:

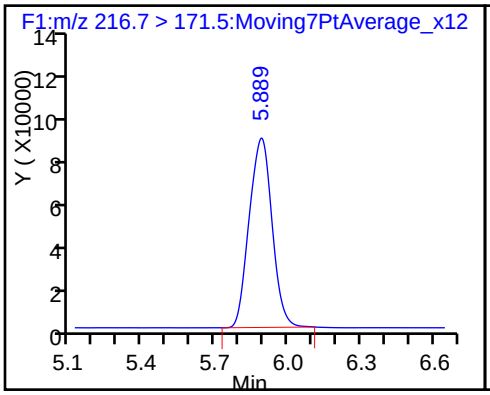
Client ID:

Operator ID: JRB ALS Bottle#: 4 Worklist Smp#: 3

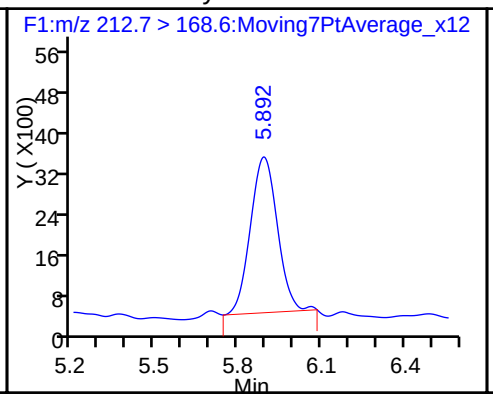
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

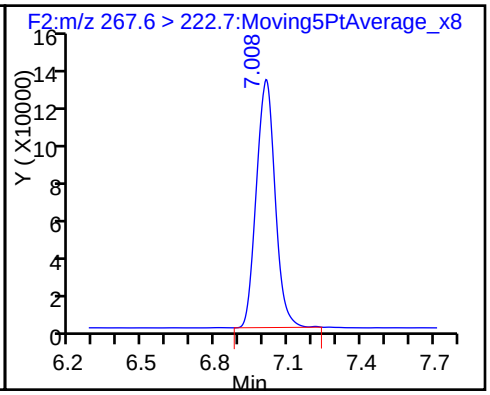
D 1 13C4 PFBA



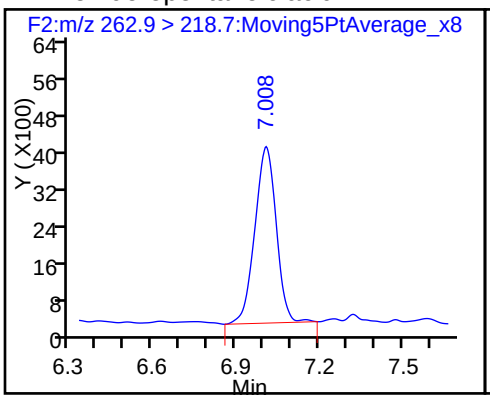
2 Perfluorobutyric acid



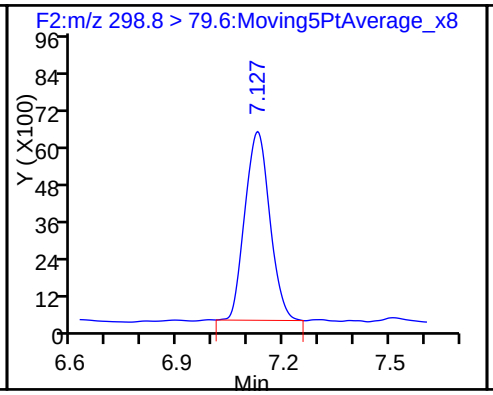
D 3 13C5-PFPeA



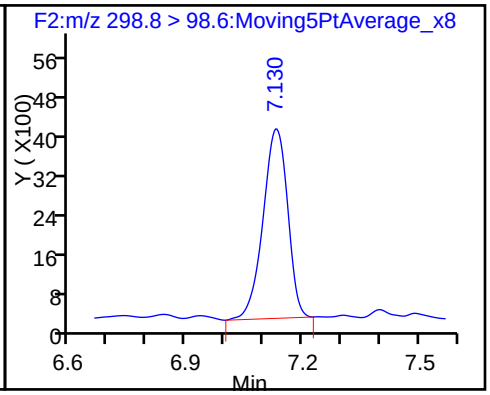
4 Perfluoropentanoic acid



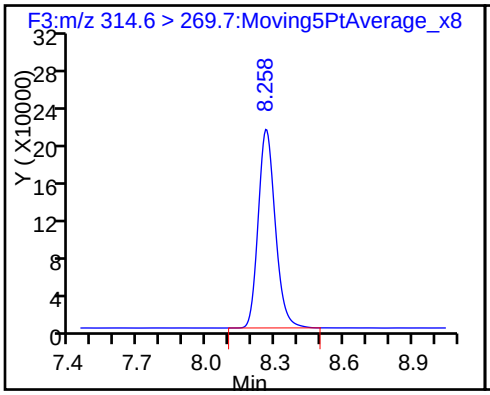
5 Perfluorobutane Sulfonate



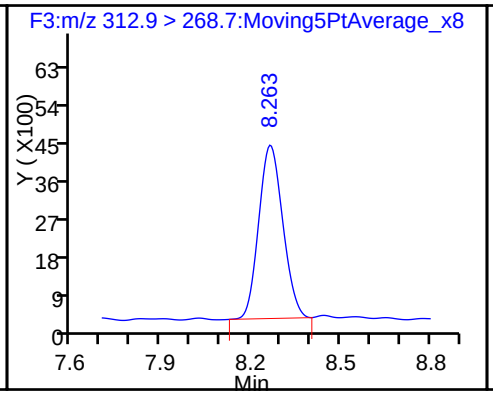
5 Perfluorobutane Sulfonate



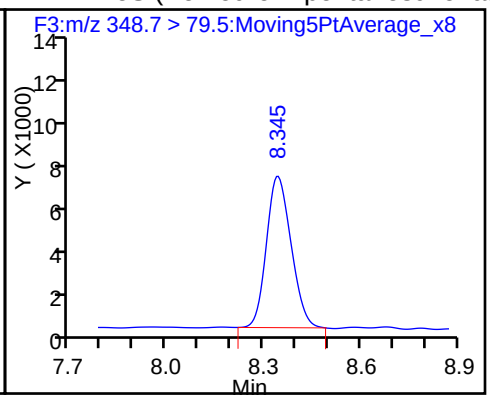
D 6 13C2 PFHxA



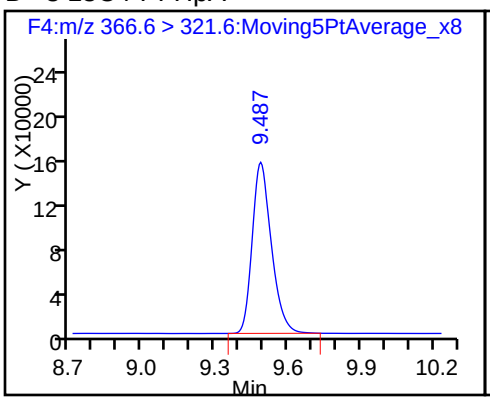
7 Perfluorohexanoic acid



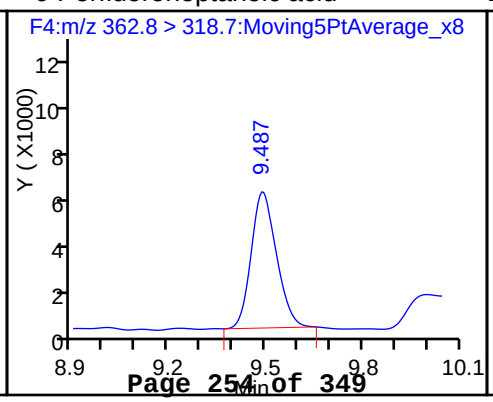
22 PFPeS (Perflouro-1-pentanesulfonat



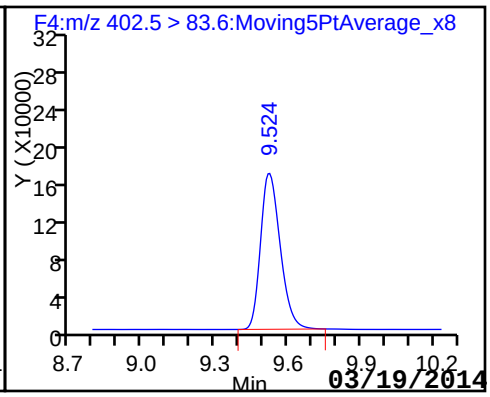
D 8 13C4-PFHpA



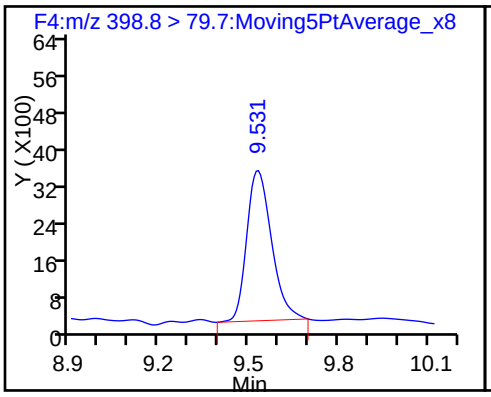
9 Perfluoroheptanoic acid



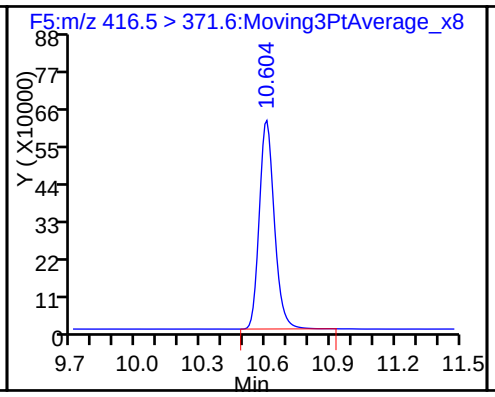
D 11 18O2 PFHxS



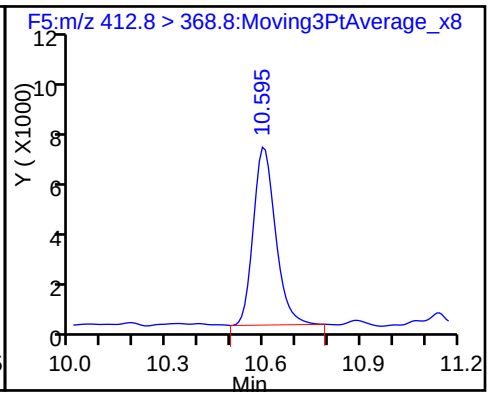
10 Perfluorohexane Sulfonate



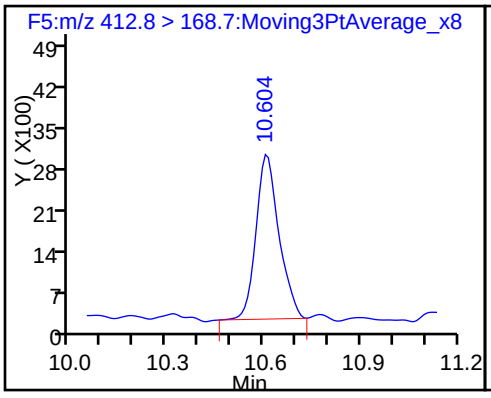
D 12 13C4 PFOA



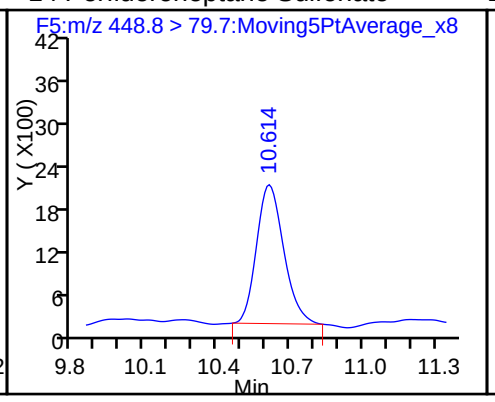
13 Perfluorooctanoic acid



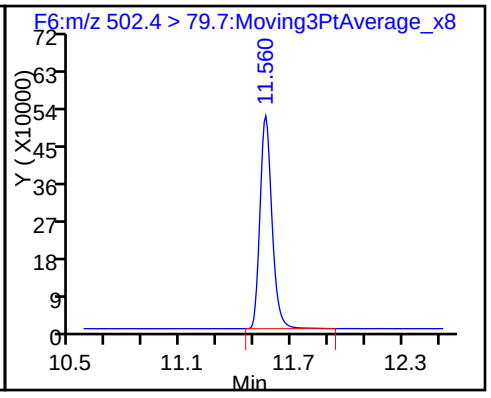
13 Perfluorooctanoic acid



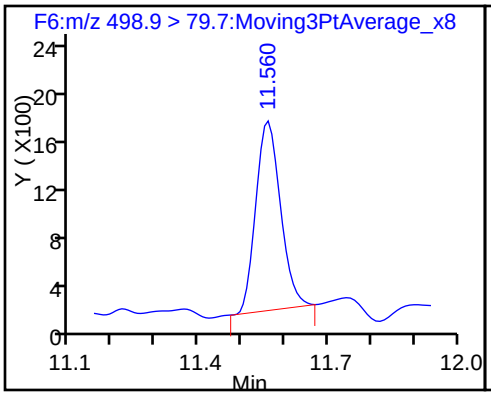
14 Perfluoroheptane Sulfonate



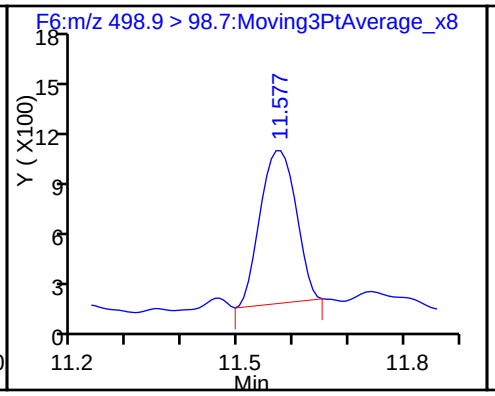
D 16 13C4 PFOS



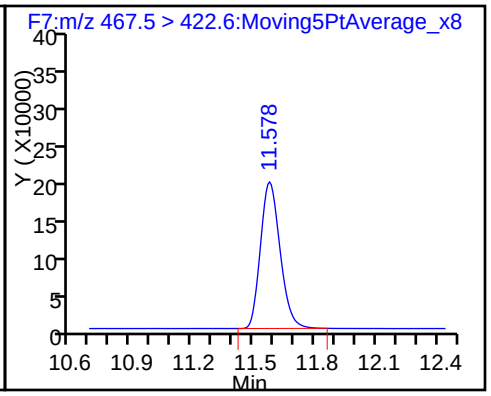
15 Perfluorooctanoic Sulfonate



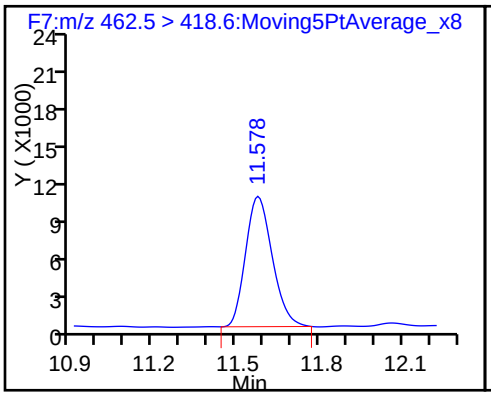
15 Perfluorooctanoic Sulfonate



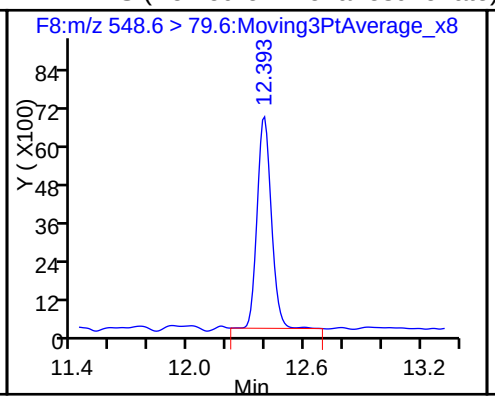
D 17 13C5 PFNA



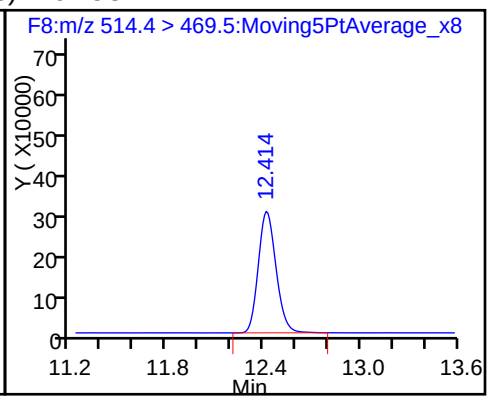
18 Perfluorononanoic acid



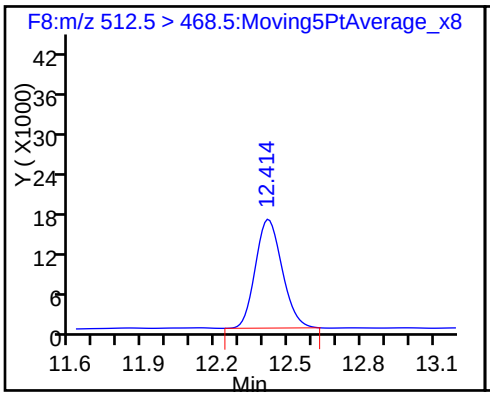
21 PFNS (Perflouro-1-nonanesulfonate)



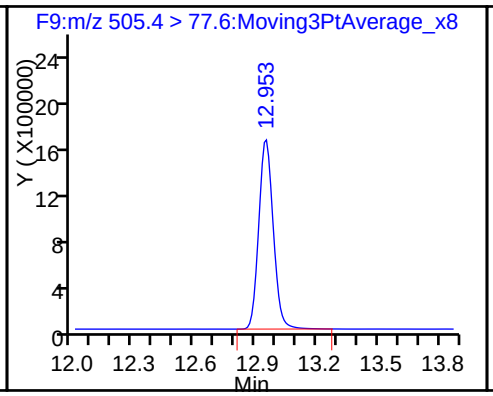
D 19 13C2 PFDA



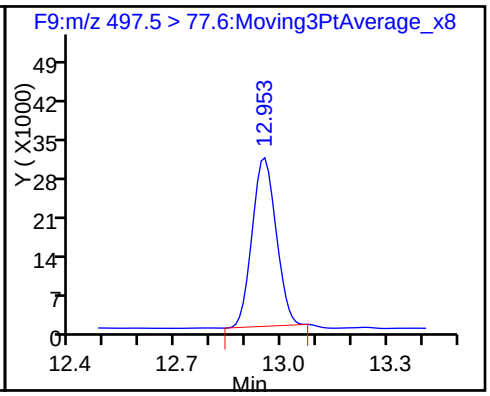
20 Perfluorodecanoic acid



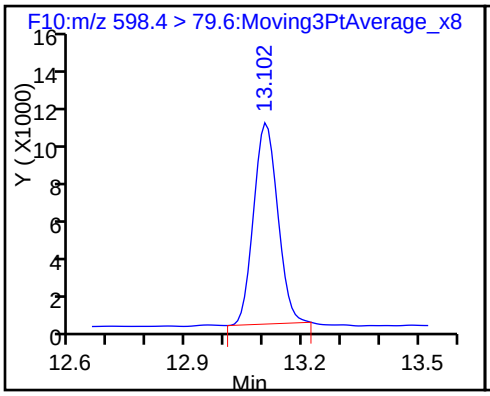
D 23 13C8 FOSA



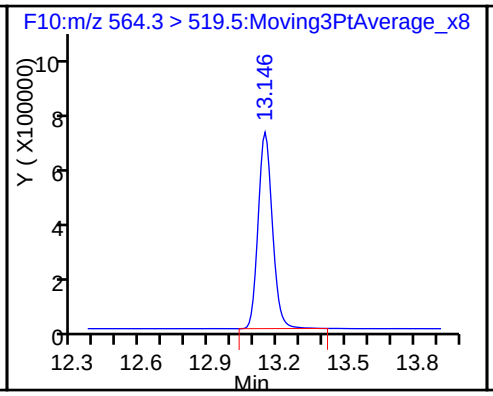
24 Perfluorooctane Sulfonamide



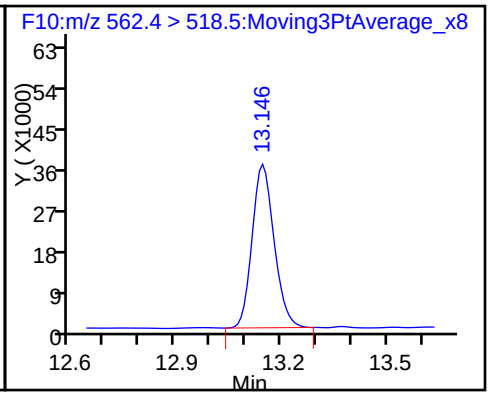
25 Perfluorodecane Sulfonate



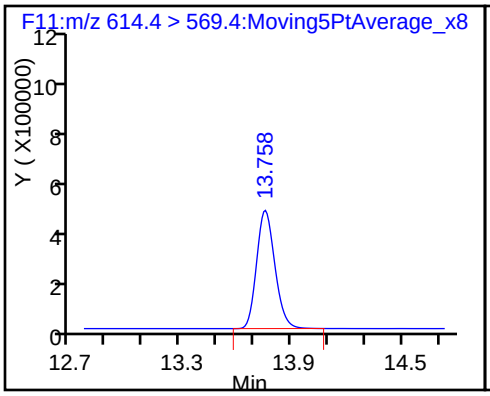
D 26 13C2 PFUnA



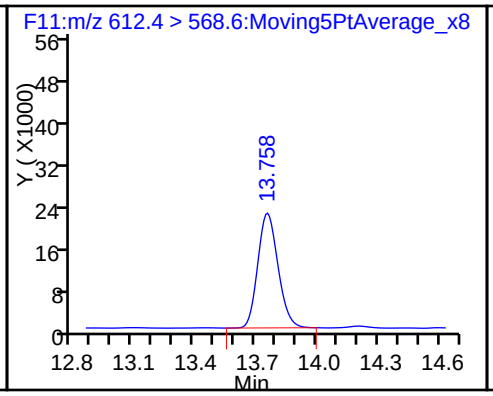
27 Perfluoroundecanoic acid



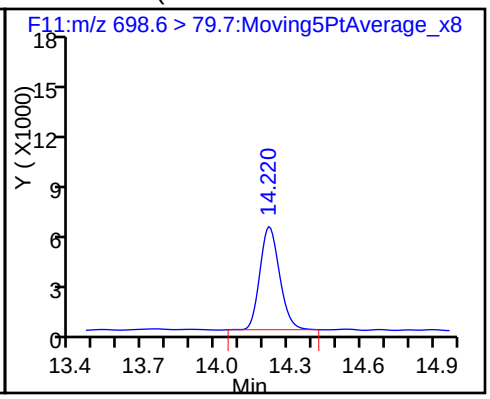
D 28 13C2 PFDoA



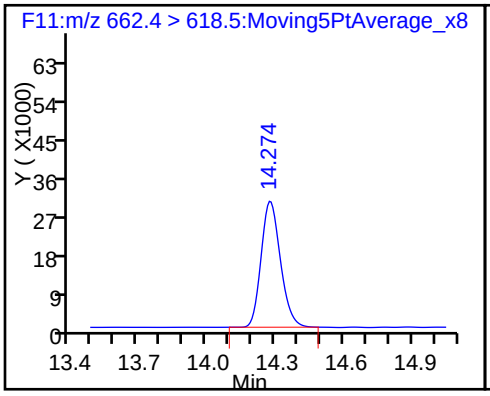
29 Perfluorododecanoic acid



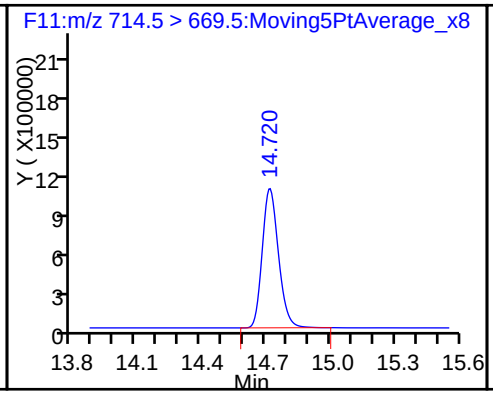
31 PFDoS (Perflouro-1-dodecanesulfona



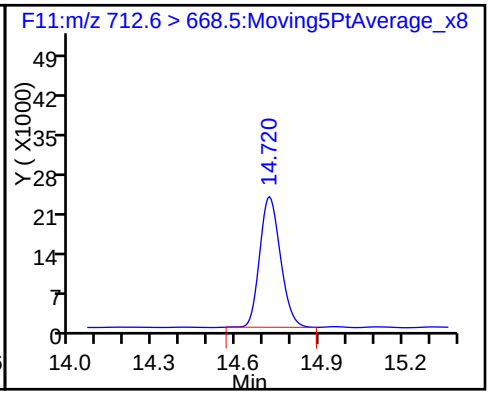
30 Perfluorotridecanoic acid



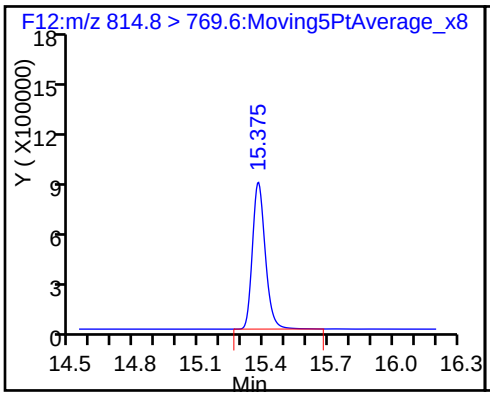
D 33 13C2-PFTeDA



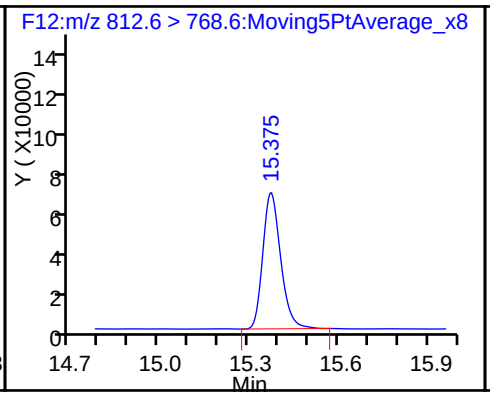
32 Perfluorotetradecanoic acid



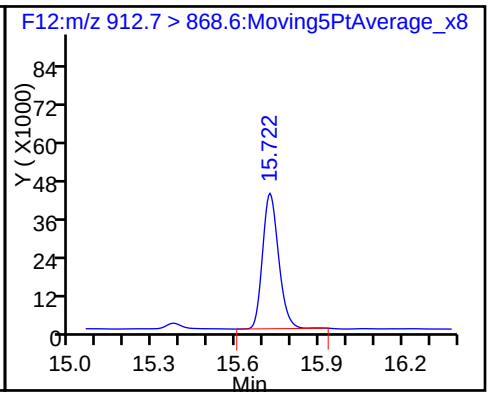
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_008.d
Lims ID: Std L3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Mar-2014 11:40:58 ALS Bottle#: 5 Worklist Smp#: 4
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-004 LCPFC-L3_00003 PFC 5.0/50ng/mL
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:57:32 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.880	5.882	-0.002		548940	23.2		116	1811	
2 Perfluorobutyric acid										
212.7 > 168.6	5.883	5.883	0.0	1.000	107832	4.74		94.9	328	
D 3 13C5-PFPeA										
267.6 > 222.7	7.001	6.997	0.004		711962	23.6		118	1952	
4 Perfluoropentanoic acid										
262.9 > 218.7	7.001	6.999	0.002	1.000	111623	4.96		99.2	227	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.120	7.116	0.004	1.000	166951	4.27		96.6	439	
298.8 > 98.6	7.116	7.116	0.0	1.000	115621		1.44(0.00-0.00)	96.6	281	
D 6 13C2 PFHxA										
314.6 > 269.7	8.252	8.248	0.004		989887	23.0		115	2126	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.252	8.251	0.001	1.000	119188	4.98		99.5	279	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.334	8.328	0.006	0.876	173213	4.49		95.7	531	
D 8 13C4-PFHpA										
366.6 > 321.6	9.475	9.473	0.002		813718	24.3		121	2338	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.475	9.474	0.001	1.000	156169	4.86		97.2	215	
D 11 18O2 PFHxS										
402.5 > 83.6	9.510	9.510	0.0		994828	22.8		120	1442	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.510	9.510	0.0	1.000	92559	4.36		92.2	223	
D 12 13C4 PFOA										
416.5 > 371.6	10.596	10.590	0.006		2930880	63.1		126	4234	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.596	10.591	0.005	1.000	137384	4.33		86.6	160	
412.8 > 168.7	10.596	10.591	0.005	1.000	65499		2.10(0.00-0.00)	86.6	92.4	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.596	10.598	-0.002	1.000	77163	4.89		103	141	
D 16 13C4 PFOS										
502.4 > 79.7	11.552	11.547	0.005		2418569	58.2		122	5229	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.552	11.547	0.005	1.000	52273	4.99		104	78.8	
498.9 > 98.7	11.552	11.547	0.005	1.000	26176		2.00(0.00-0.00)	104	47.1	
D 17 13C5 PFNA										
467.5 > 422.6	11.570	11.566	0.004		1370616	24.6		123	3551	
18 Perfluorononanoic acid										
462.5 > 418.6	11.570	11.570	0.0	1.000	390377	4.95		98.9	521	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.383	12.379	0.004	1.000	179488	4.95		103	388	
D 19 13C2 PFDA										
514.4 > 469.5	12.414	12.408	0.006		2236214	24.7		124	4101	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.414	12.410	0.004	1.000	558257	5.06		101	893	
D 23 13C8 FOSA										
505.4 > 77.6	12.943	12.942	0.001		8335008	56.2		112	7256	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.943	12.944	-0.001	1.000	758355	5.03		101	1042	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.094	13.091	0.003	1.000	225109	4.72		98.0	499	
D 26 13C2 PFUnA										
564.3 > 519.5	13.146	13.140	0.006		2649097	23.7		119	3626	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.146	13.140	0.006	1.000	723367	5.08		102	1645	
D 28 13C2 PFDoA										
614.4 > 569.4	13.749	13.750	-0.001		3152920	23.8		119	4213	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.749	13.750	-0.001	1.000	723633	4.79		95.9	776	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.220	14.216	0.004	1.000	183125	3.96		81.9	347	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.274	14.270	0.004	1.000	925463	5.03		101	1105	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.714	14.713	0.001		5539925	23.7		119	11180	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.714	14.713	0.001	1.000	586367	4.91		98.3	820	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.371	15.371	0.0		4040551	22.4		112	9182	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.371	15.372	-0.001	1.000	1330085	4.28		85.6	2645	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.717	15.718	-0.001	1.000	899678	4.12		82.5	2285	

Report Date: 03-Mar-2014 13:57:33 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_008.d

Injection Date: 03-Mar-2014 11:40:58 Instrument ID: A4

Lims ID: Std L3 Lab Sample ID:

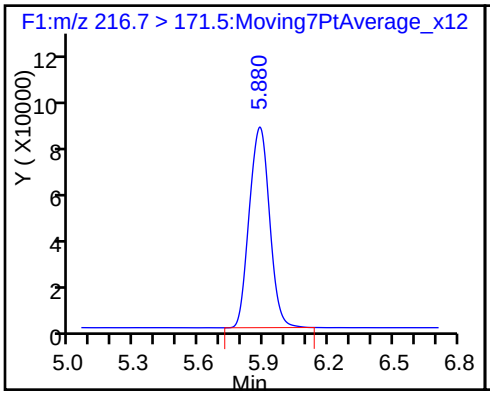
Client ID:

Operator ID: JRB ALS Bottle#: 5 Worklist Smp#: 4

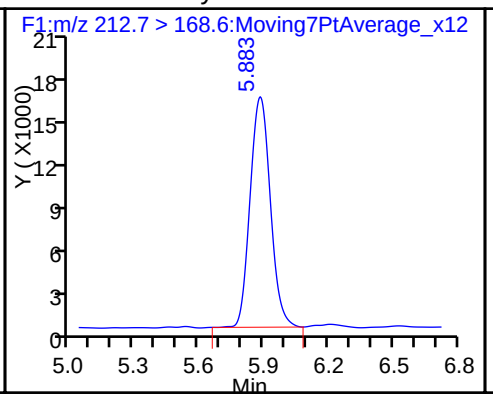
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

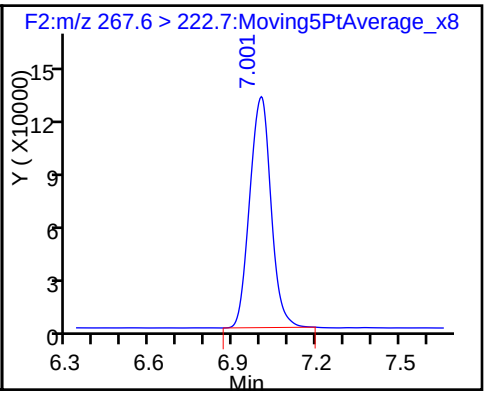
D 1 13C4 PFBA



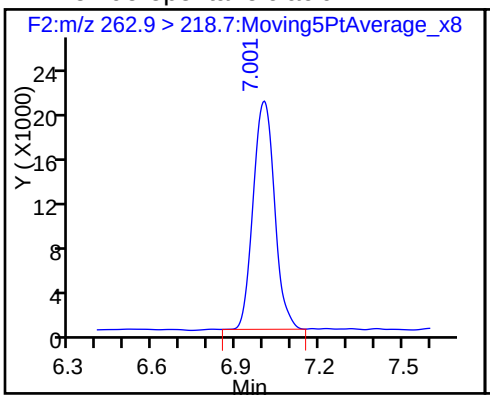
2 Perfluorobutyric acid



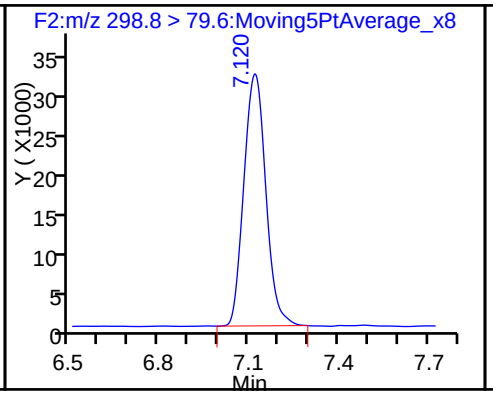
D 3 13C5-PFPeA



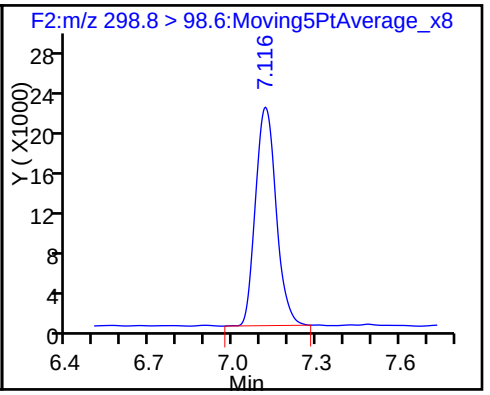
4 Perfluoropentanoic acid



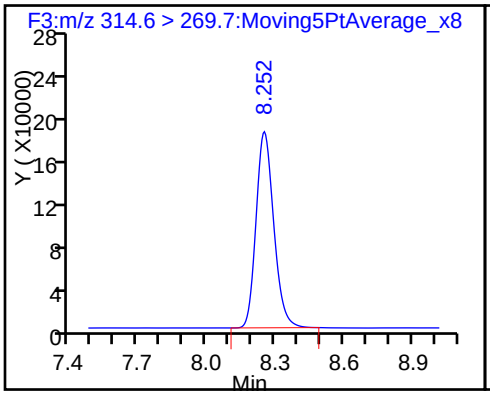
5 Perfluorobutane Sulfonate



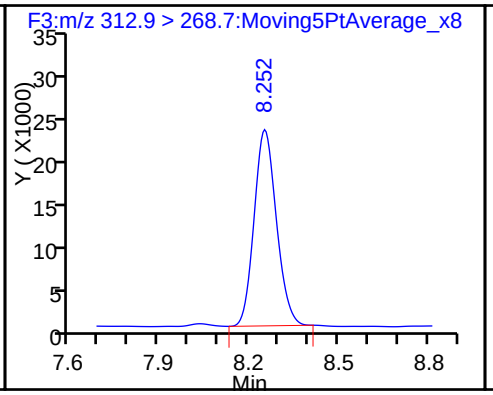
5 Perfluorobutane Sulfonate



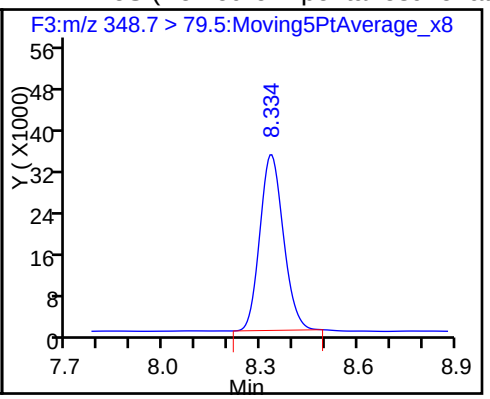
D 6 13C2 PFHxA



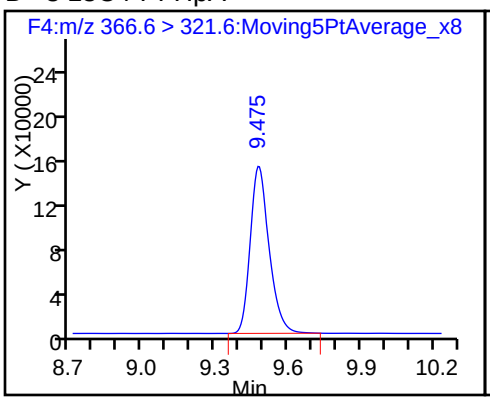
7 Perfluorohexanoic acid



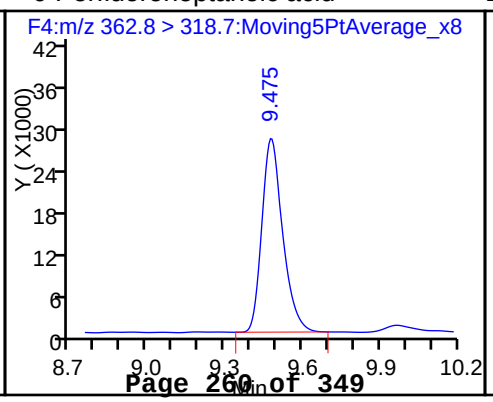
22 PFPeS (Perflouro-1-pentanesulfonat



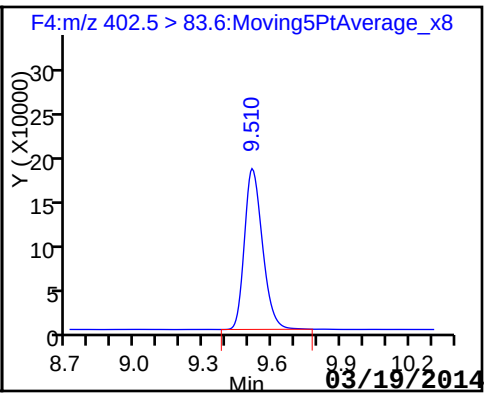
D 8 13C4-PFHpA



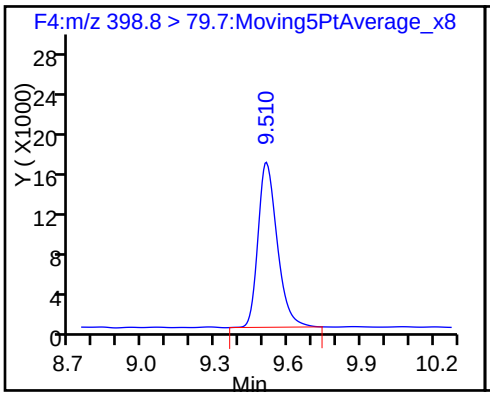
9 Perfluoroheptanoic acid



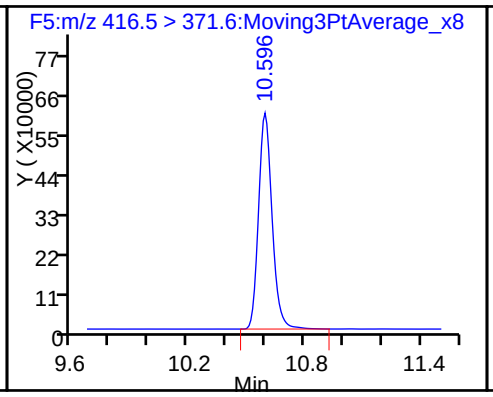
D 11 18O2 PFHxS



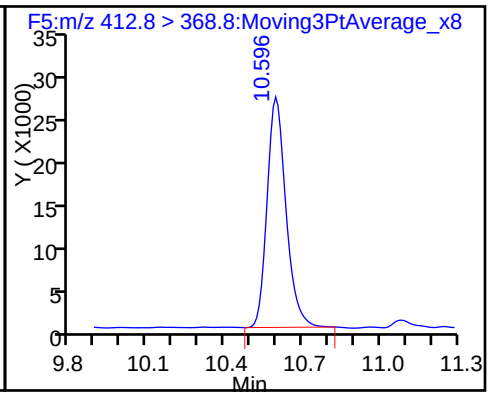
10 Perfluorohexane Sulfonate



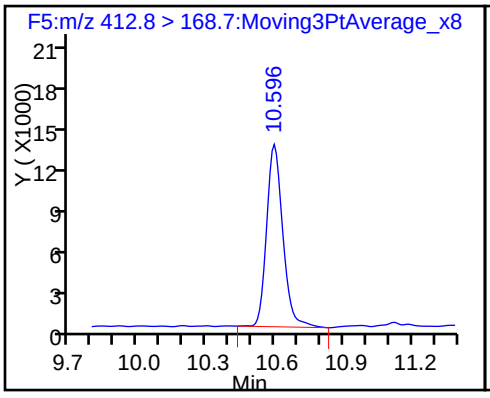
D 12 13C4 PFOA



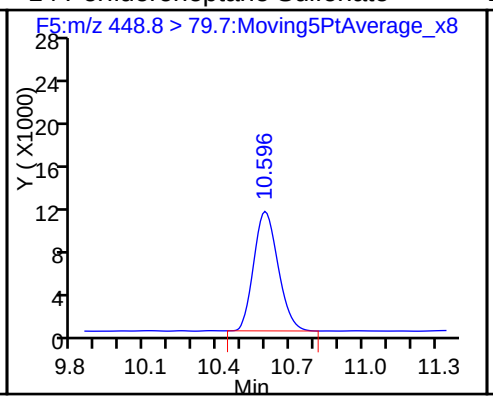
13 Perfluorooctanoic acid



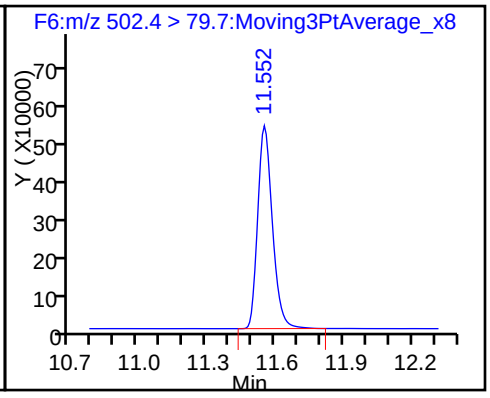
13 Perfluorooctanoic acid



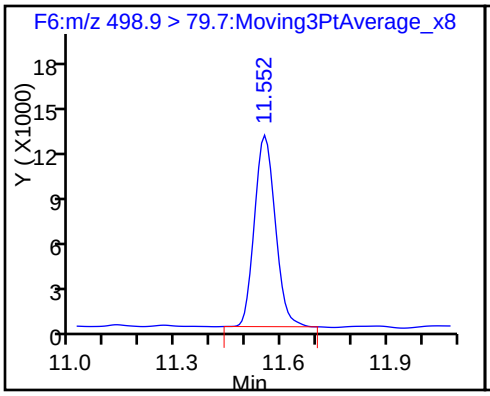
14 Perfluoroheptane Sulfonate



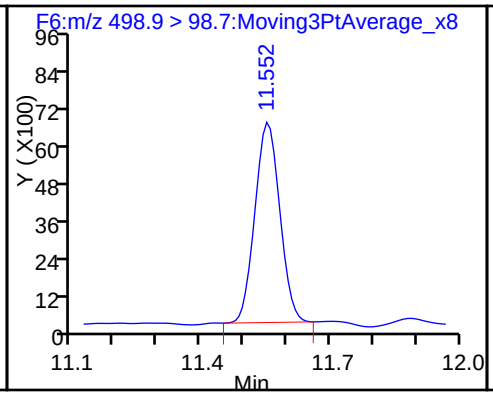
D 16 13C4 PFOS



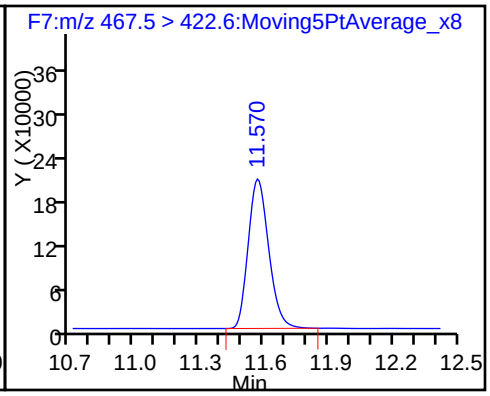
15 Perfluorooctanoic Sulfonate



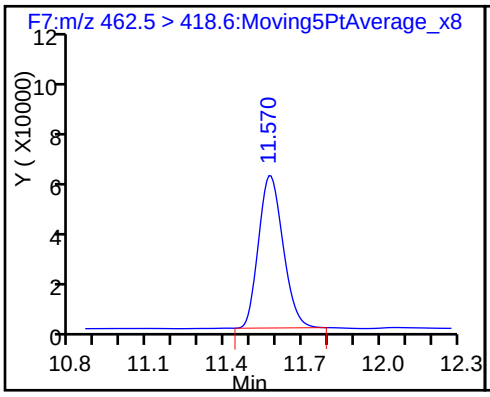
15 Perfluorooctanoic Sulfonate



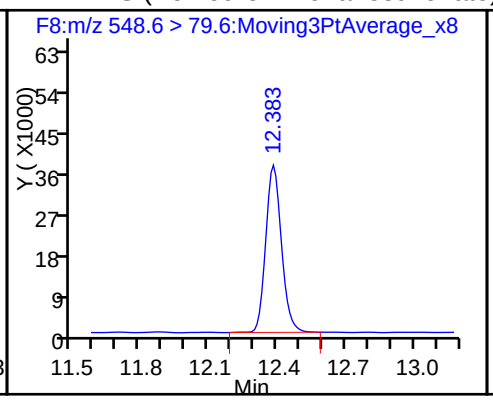
D 17 13C5 PFNA



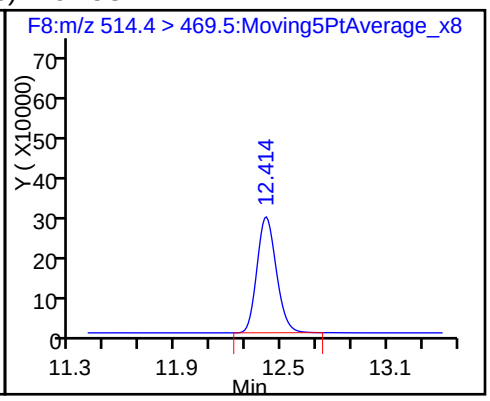
18 Perfluorononanoic acid



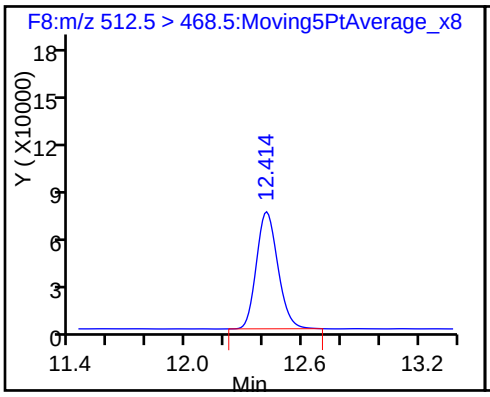
21 PFNS (Perflouro-1-nonanesulfonate)



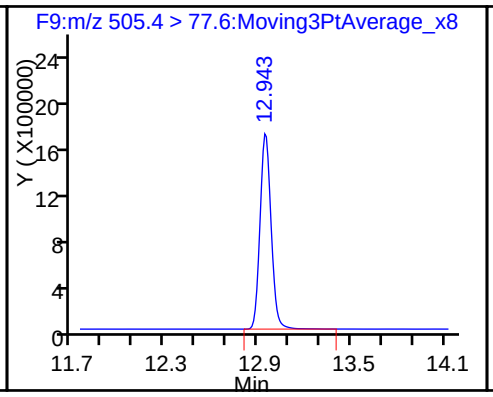
D 19 13C2 PFDA



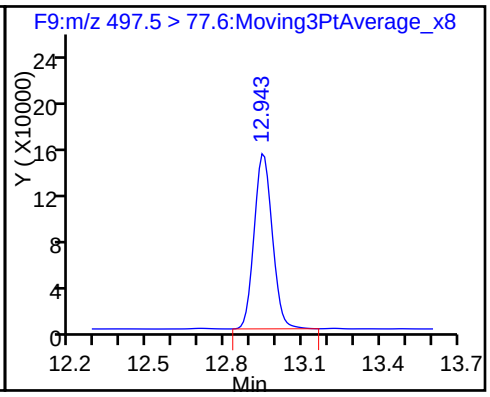
20 Perfluorodecanoic acid



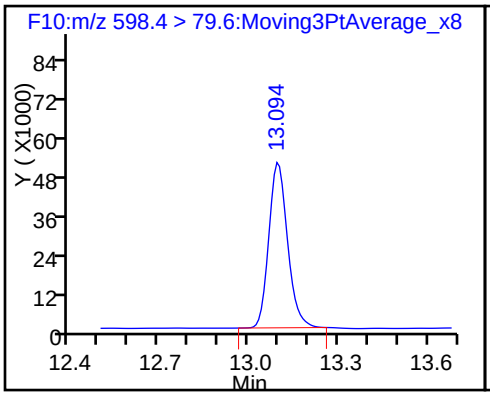
D 23 13C8 FOSA



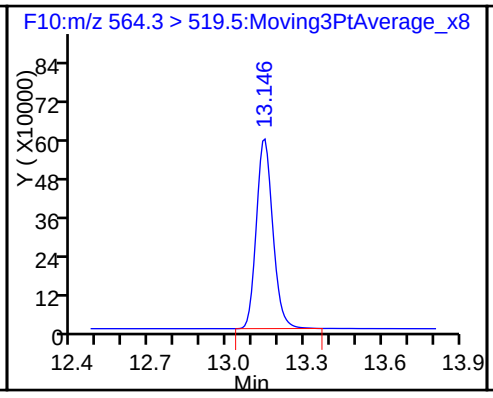
24 Perfluorooctane Sulfonamide



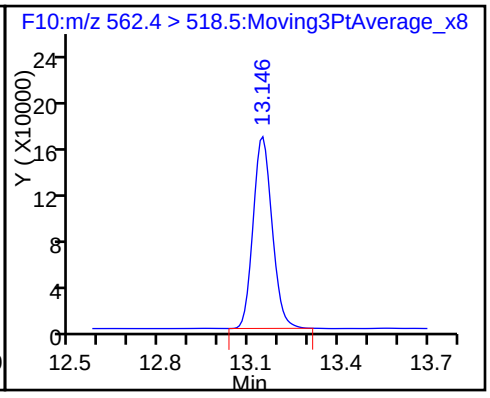
25 Perfluorodecane Sulfonate



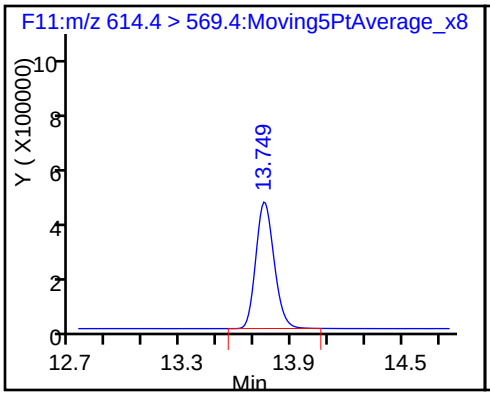
D 26 13C2 PFUnA



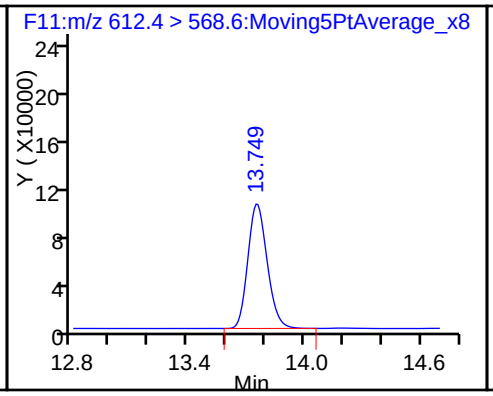
27 Perfluoroundecanoic acid



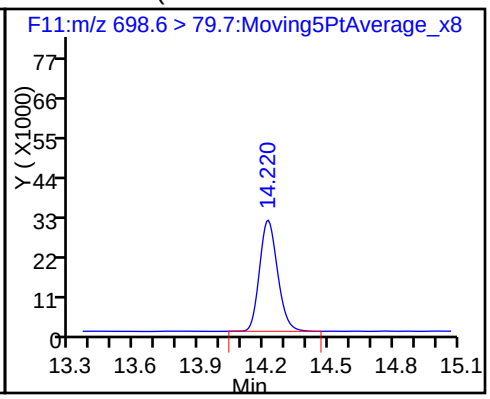
D 28 13C2 PFDoA



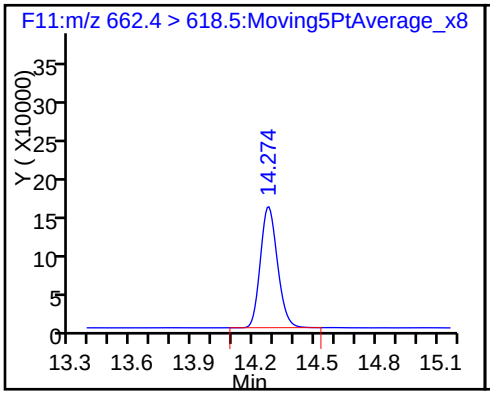
29 Perfluorododecanoic acid



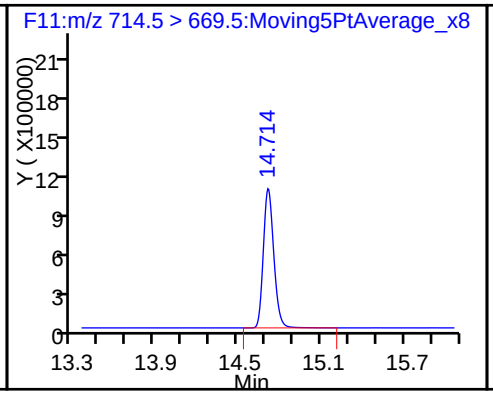
31 PFDoS (Perflouro-1-dodecanesulfona



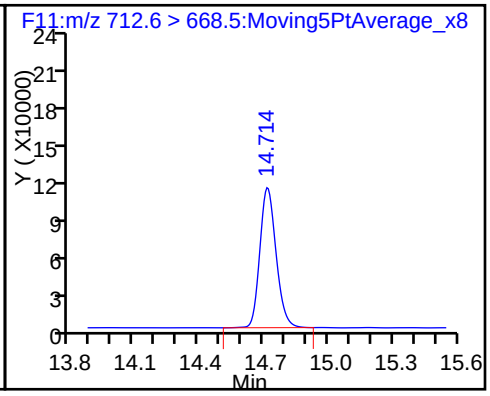
30 Perfluorotridecanoic acid



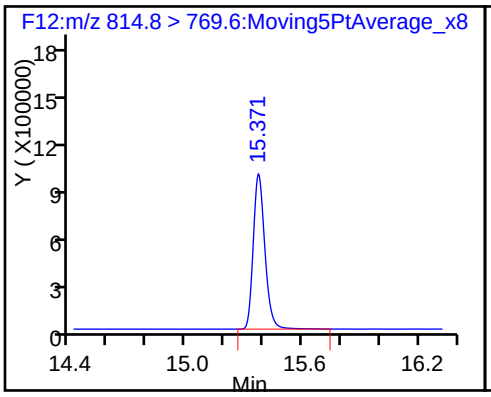
D 33 13C2-PFTeDA



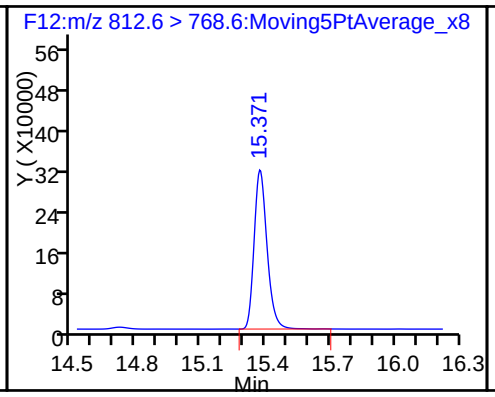
32 Perfluorotetradecanoic acid



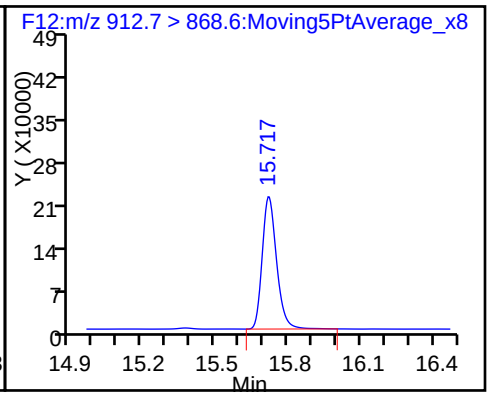
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_009.d
Lims ID: Std L4 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Mar-2014 12:02:11 ALS Bottle#: 6 Worklist Smp#: 5
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-005 LCPFC-L4_00003 PFC 20/50ng/mL
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:57:34 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.883	5.882	0.001		523645	22.1		111	1714	
2 Perfluorobutyric acid										
212.7 > 168.6	5.883	5.883	0.0	1.000	421609	19.4		97.2	1076	
D 3 13C5-PFPeA										
267.6 > 222.7	6.997	6.997	0.0		660430	21.9		110	2444	
4 Perfluoropentanoic acid										
262.9 > 218.7	7.001	6.999	0.002	1.000	402275	19.3		96.3	933	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.113	7.116	-0.003	1.000	665414	18.7		106	1386	
298.8 > 98.6	7.113	7.116	-0.003	1.000	417077		1.60(0.00-0.00)	106	1079	
D 6 13C2 PFHxA										
314.6 > 269.7	8.247	8.248	-0.001		940872	21.8		109	1898	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.247	8.251	-0.004	1.000	469762	20.6		103	869	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.323	8.328	-0.005	0.876	709745	20.3		108	1472	
D 8 13C4-PFHpA										
366.6 > 321.6	9.469	9.473	-0.004		739553	22.1		110	1351	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.469	9.474	-0.005	1.000	577135	19.8		98.9	810	
D 11 18O2 PFHxS										
402.5 > 83.6	9.504	9.510	-0.006		903353	20.7		109	1337	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.504	9.510	-0.006	1.000	362927	18.8		99.5	682	
D 12 13C4 PFOA										
416.5 > 371.6	10.586	10.590	-0.004		2559609	55.1		110	3873	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.586	10.591	-0.005	1.000	559614	20.2		101	718	
412.8 > 168.7	10.586	10.591	-0.005	1.000	281269		1.99(0.00-0.00)	101	427	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.595	10.598	-0.003	1.000	250505	16.9		88.6	418	
D 16 13C4 PFOS										
502.4 > 79.7	11.543	11.547	-0.004		2275222	54.8		115	3839	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.543	11.547	-0.004	1.000	184519	18.7		97.9	145	
498.9 > 98.7	11.552	11.547	0.005	1.001	101499		1.82(0.00-0.00)	97.9	264	
D 17 13C5 PFNA										
467.5 > 422.6	11.561	11.566	-0.005		1232449	22.1		111	2301	
18 Perfluorononanoic acid										
462.5 > 418.6	11.569	11.570	-0.001	1.000	1510407	21.3		106	1693	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.373	12.379	-0.006	1.000	668519	19.6		102	1208	
D 19 13C2 PFDA										
514.4 > 469.5	12.404	12.408	-0.004		1934590	21.4		107	3878	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.414	12.410	0.004	1.000	1916583	20.1		100	3569	
D 23 13C8 FOSA										
505.4 > 77.6	12.942	12.942	0.0		8101154	54.6		109	4854	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.942	12.944	-0.002	1.000	2886813	19.7		98.5	2221	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.094	13.091	0.003	1.000	830976	18.5		96.1	1746	
D 26 13C2 PFUnA										
564.3 > 519.5	13.137	13.140	-0.003		2415843	21.6		108	4273	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.137	13.140	-0.003	1.000	2598462	20.0		100.0	3285	
D 28 13C2 PFDoA										
614.4 > 569.4	13.749	13.750	-0.001		2947971	22.3		111	3527	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.749	13.750	-0.001	1.000	2752014	19.5		97.5	2979	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.213	14.216	-0.003	1.000	757535	17.4		90.0	1571	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.266	14.270	-0.004	1.000	3376509	19.6		98.2	4396	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.714	14.713	0.001		5163260	22.1		111	7558	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.714	14.713	0.001	1.000	2165787	19.4		97.0	2713	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.370	15.371	-0.001		4083097	22.6		113	8897	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.370	15.372	-0.002	1.000	5256134	18.1		90.5	6684	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.717	15.718	-0.001	1.000	3906325	19.2		95.8	6270	

Report Date: 03-Mar-2014 13:57:34 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_009.d

Injection Date: 03-Mar-2014 12:02:11 Instrument ID: A4

Lims ID: Std L4 Lab Sample ID:

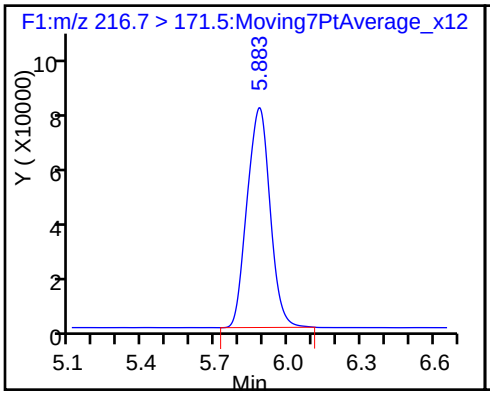
Client ID:

Operator ID: JRB ALS Bottle#: 6 Worklist Smp#: 5

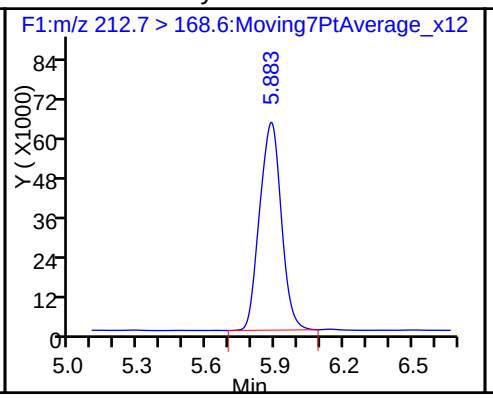
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

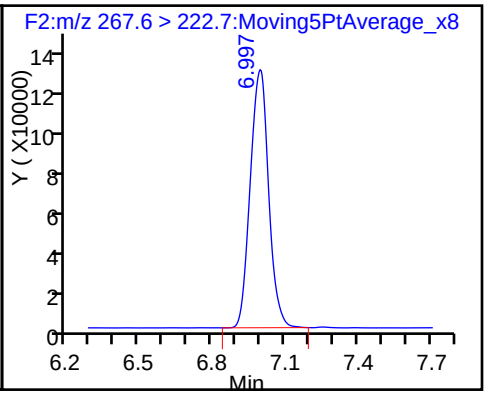
D 1 13C4 PFBA



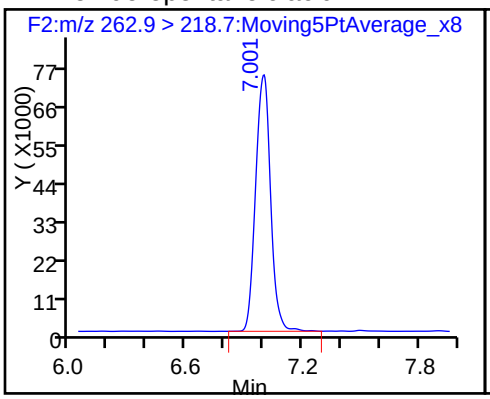
2 Perfluorobutyric acid



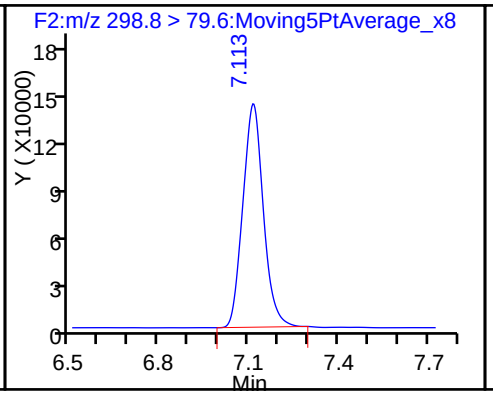
D 3 13C5-PFPeA



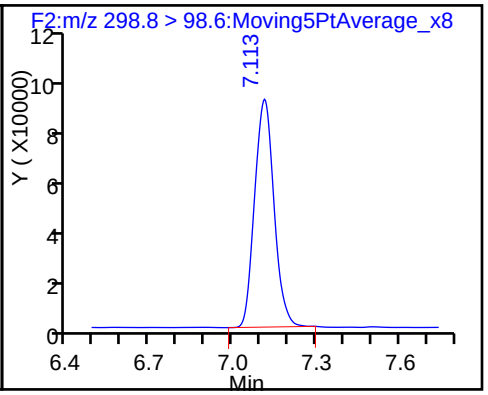
4 Perfluoropentanoic acid



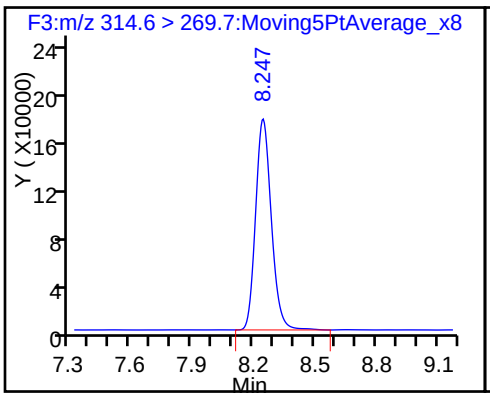
5 Perfluorobutane Sulfonate



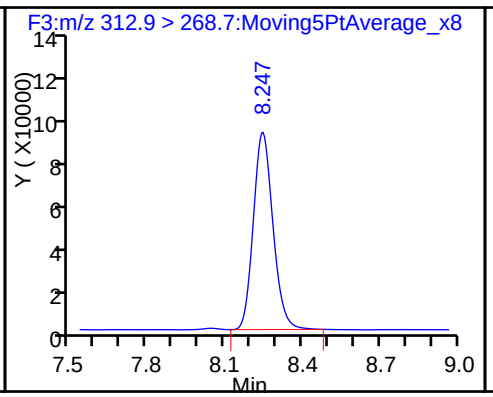
5 Perfluorobutane Sulfonate



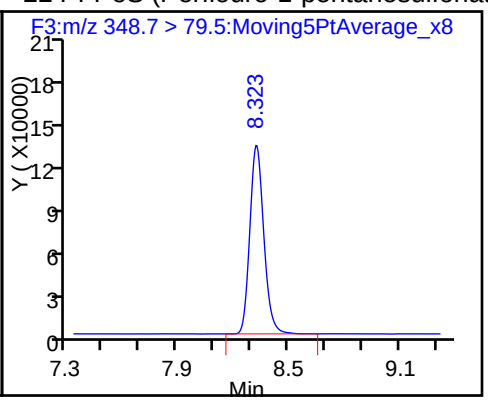
D 6 13C2 PFHxA



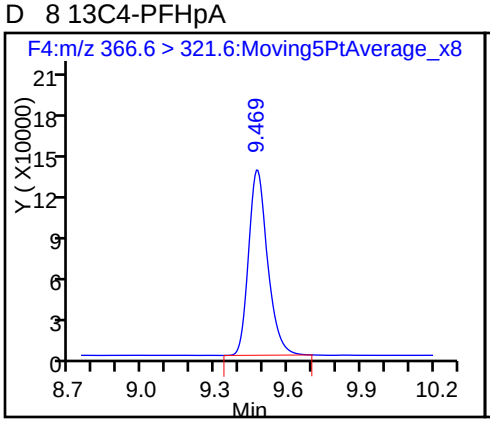
7 Perfluorohexanoic acid



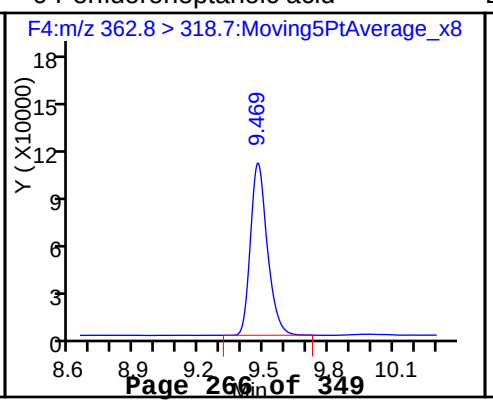
22 PFPeS (Perflouro-1-pentanesulfonat



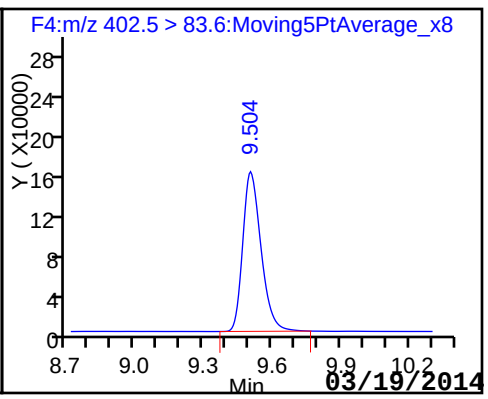
D 8 13C4-PFHpA



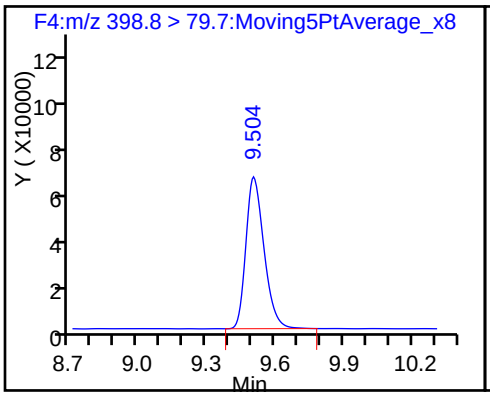
9 Perfluoroheptanoic acid



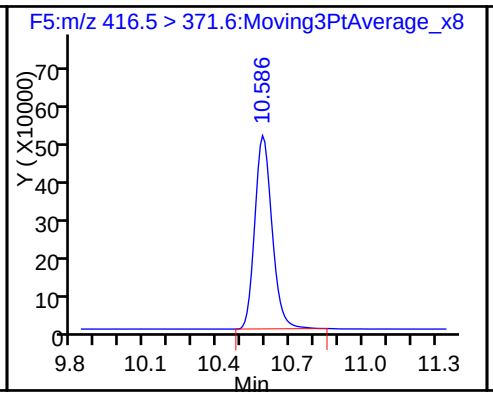
D 11 18O2 PFHxS



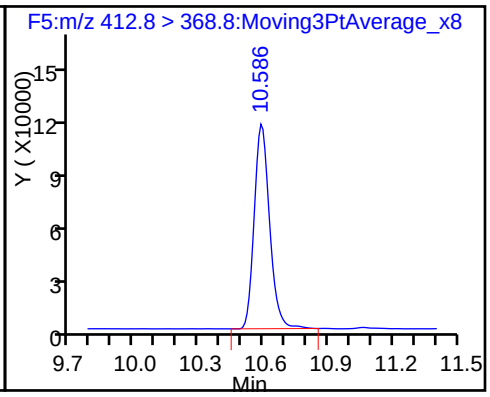
10 Perfluorohexane Sulfonate



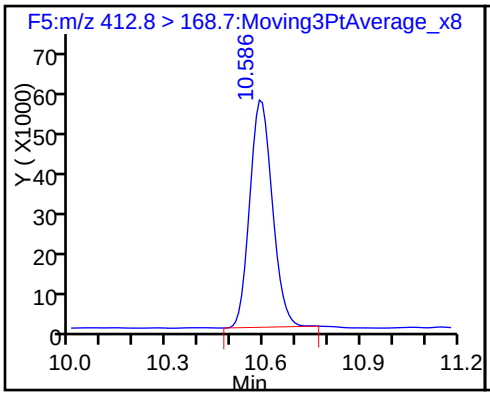
D 12 13C4 PFOA



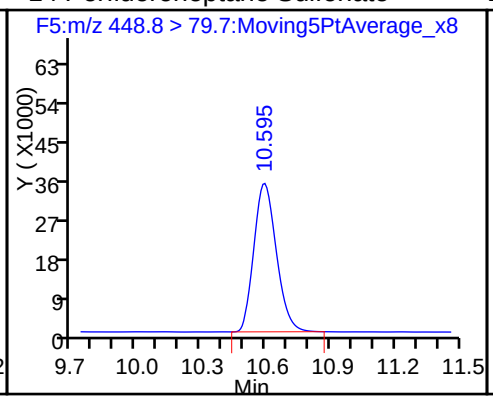
13 Perfluorooctanoic acid



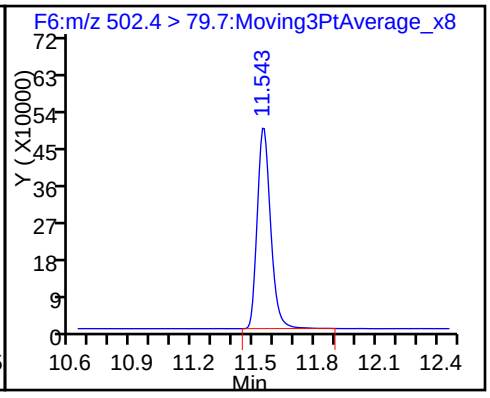
13 Perfluorooctanoic acid



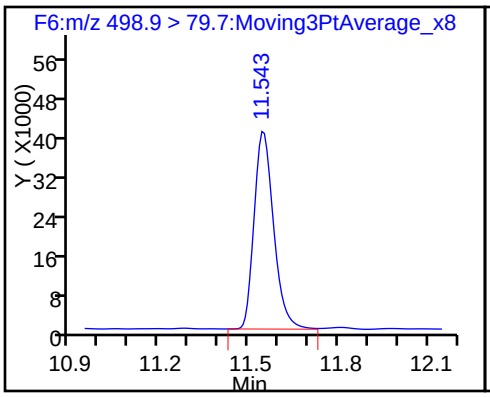
14 Perfluoroheptane Sulfonate



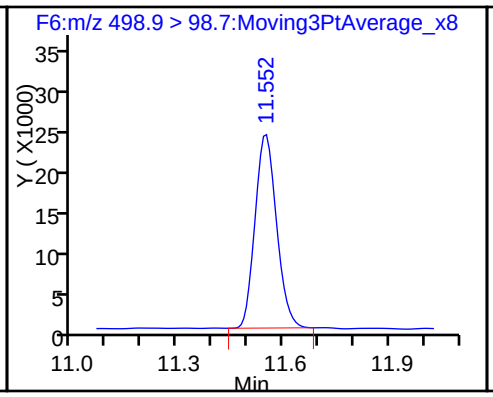
D 16 13C4 PFOS



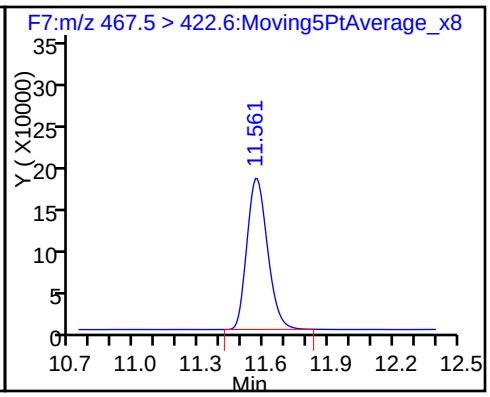
15 Perfluorooctanoic Sulfonate



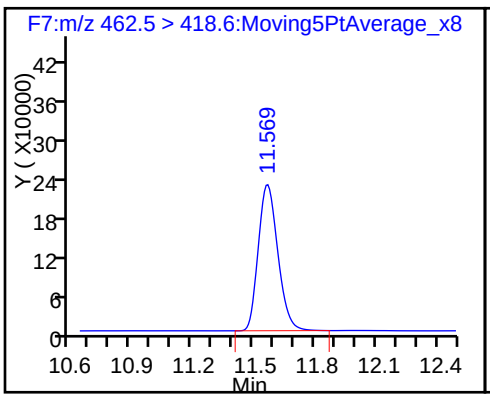
15 Perfluorooctanoic Sulfonate



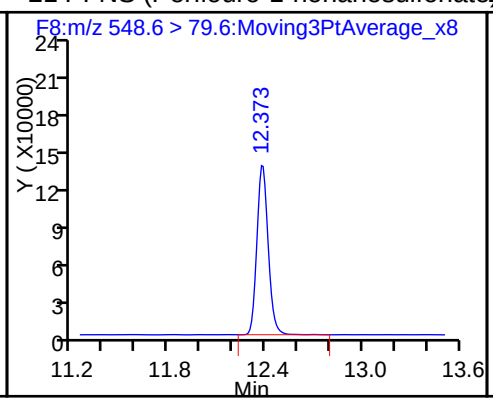
D 17 13C5 PFNA



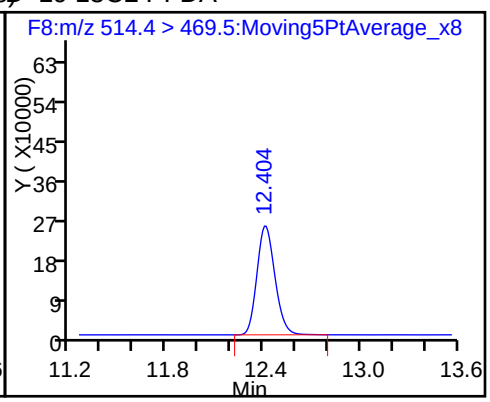
18 Perfluorononanoic acid



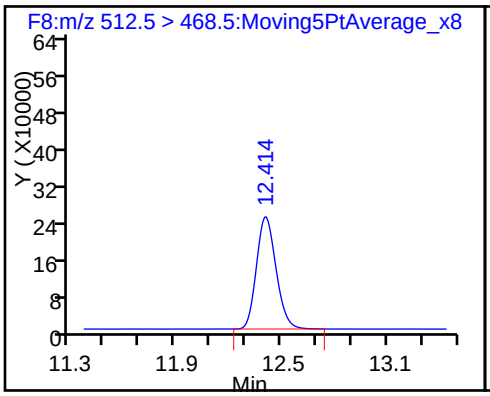
21 PFNS (Perflouro-1-nonanesulfonate)



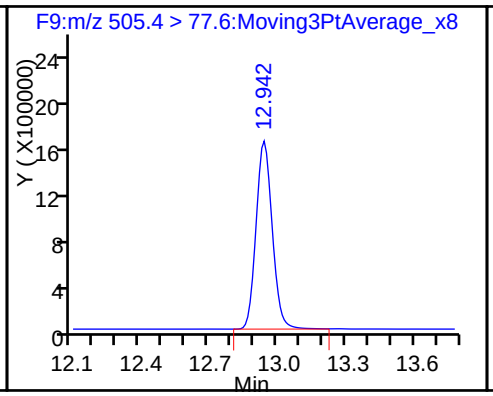
D 19 13C2 PFDA



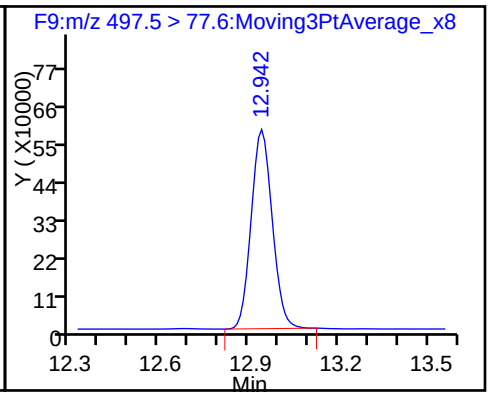
20 Perfluorodecanoic acid



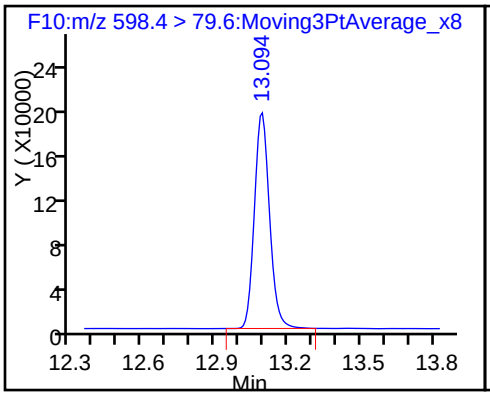
D 23 13C8 FOSA



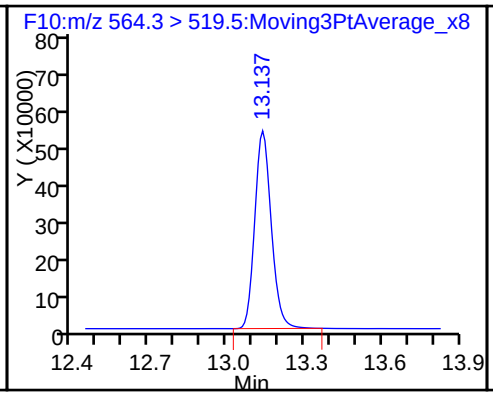
24 Perfluorooctane Sulfonamide



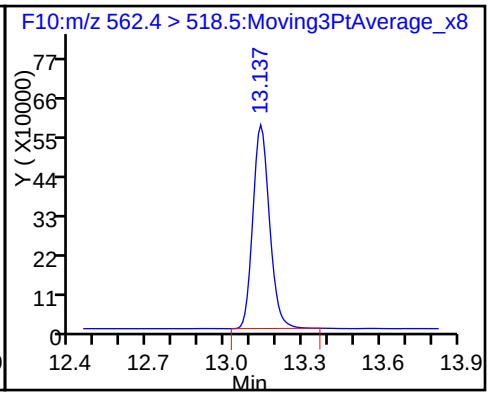
25 Perfluorodecane Sulfonate



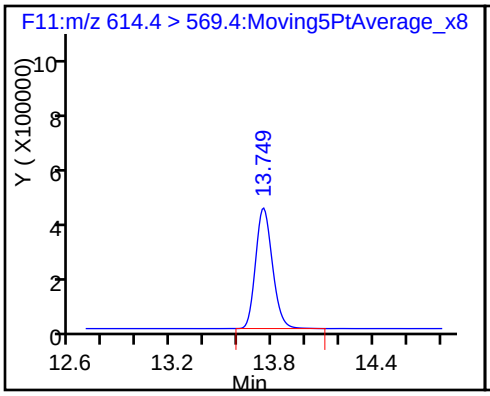
D 26 13C2 PFUnA



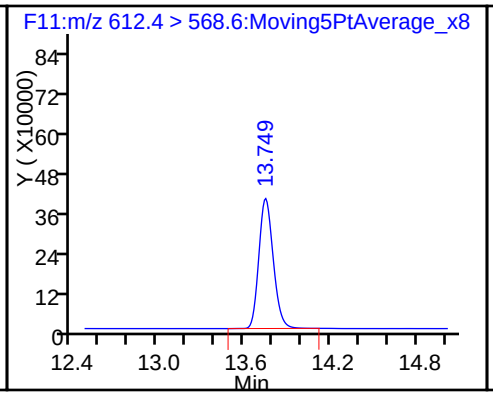
27 Perfluoroundecanoic acid



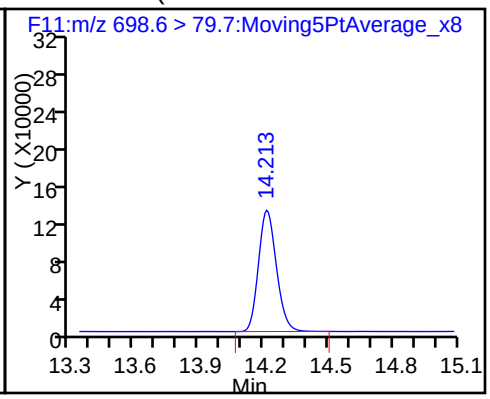
D 28 13C2 PFDoA



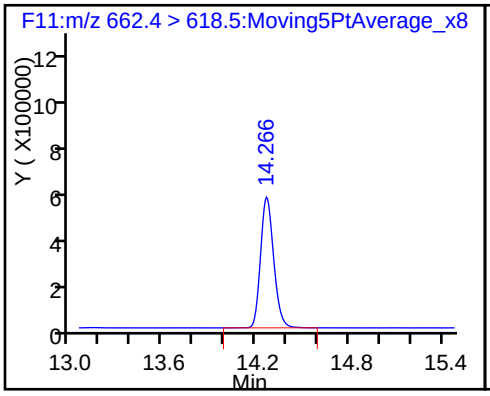
29 Perfluorododecanoic acid



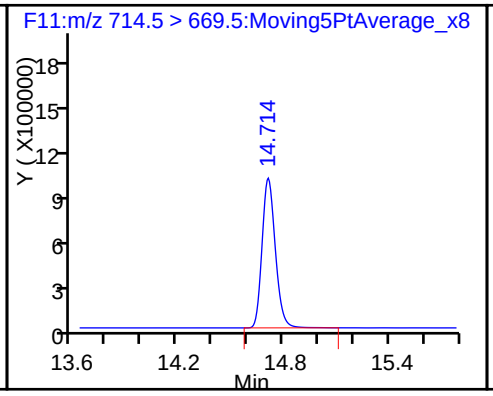
31 PFDoS (Perflouro-1-dodecanesulfona



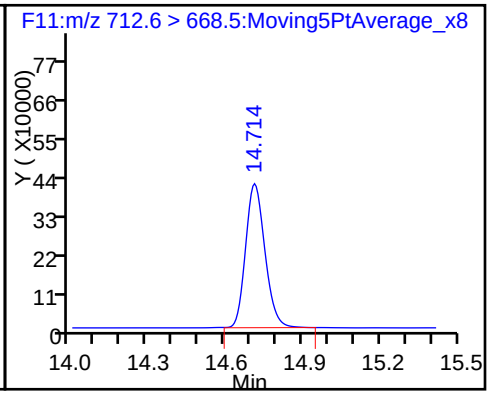
30 Perfluorotridecanoic acid



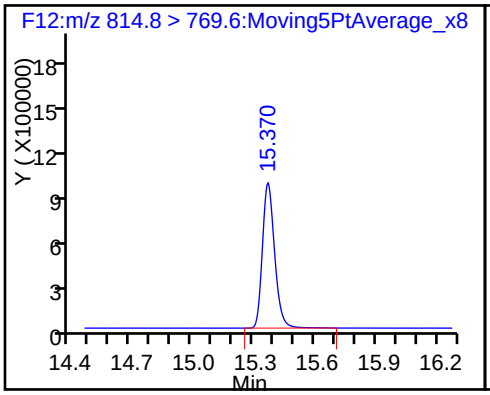
D 33 13C2-PFTeDA



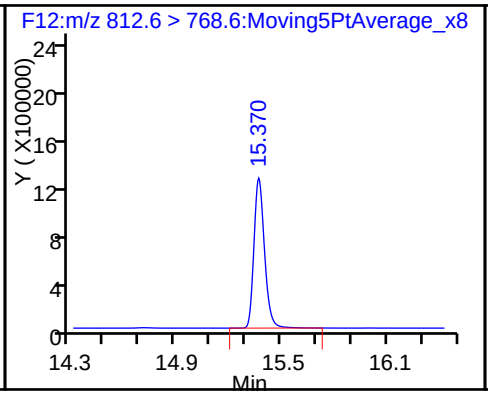
32 Perfluorotetradecanoic acid



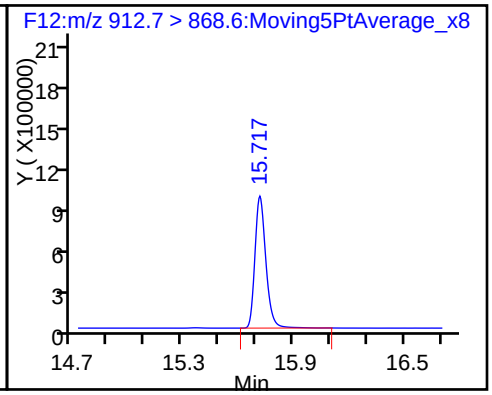
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_010.d
Lims ID: Std L5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 03-Mar-2014 12:23:23 ALS Bottle#: 7 Worklist Smp#: 6
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-006 LCPFC-L5_00004 PFC 50/50ng/mL
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:57:35 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.883	5.882	0.001		474779	20.1		100	1215	
2 Perfluorobutyric acid										
212.7 > 168.6	5.886	5.883	0.003	1.000	990992	50.4		101	1904	
D 3 13C5-PFPeA										
267.6 > 222.7	7.001	6.997	0.004		613763	20.4		102	2073	
4 Perfluoropentanoic acid										
262.9 > 218.7	7.001	6.999	0.002	1.000	994390	51.2		102	2585	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.116	7.116	0.0	1.000	1498008	46.9		106	2494	
298.8 > 98.6	7.116	7.116	0.0	1.000	959310		1.56(0.00-0.00)	106	2239	
D 6 13C2 PFHxA										
314.6 > 269.7	8.247	8.248	-0.001		857480	19.9		99.4	2219	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.252	8.251	0.001	1.000	1075035	51.8		104	1386	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.328	8.328	0.0	0.876	1617038	51.3		109	3799	
D 8 13C4-PFHpA										
366.6 > 321.6	9.475	9.473	0.002		602828	18.0		90.0	1327	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.475	9.474	0.001	1.000	1305650	54.9		110	1432	
D 11 18O2 PFHxS										
402.5 > 83.6	9.510	9.510	0.0		813412	18.6		98.5	1737	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.510	9.510	0.0	1.000	840043	48.4		102	1211	
D 12 13C4 PFOA										
416.5 > 371.6	10.586	10.590	-0.004		2221629	47.8		95.6	3042	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.595	10.591	0.004	1.000	1281302	53.3		107	1476	
412.8 > 168.7	10.595	10.591	0.004	1.000	603315		2.12(0.00-0.00)	107	1025	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.595	10.598	-0.003	1.000	666575	51.4		108	1129	
D 16 13C4 PFOS										
502.4 > 79.7	11.552	11.547	0.005		1989668	47.9		100	4607	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.552	11.547	0.005	1.000	431179	50.0		105	181	
498.9 > 98.7	11.552	11.547	0.005	1.000	269055		1.60(0.00-0.00)	105	489	
D 17 13C5 PFNA										
467.5 > 422.6	11.569	11.566	0.003		1089076	19.5		97.7	2432	
18 Perfluorononanoic acid										
462.5 > 418.6	11.569	11.570	-0.001	1.000	3295996	52.6		105	4928	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.373	12.379	-0.006	1.000	1585561	53.2		111	3136	
D 19 13C2 PFDA										
514.4 > 469.5	12.404	12.408	-0.004		1698825	18.8		93.9	1906	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.404	12.410	-0.006	1.000	4207964	50.2		100	3425	
D 23 13C8 FOSA										
505.4 > 77.6	12.942	12.942	0.0		7604252	51.3		103	5000	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.942	12.944	-0.002	1.000	6981756	50.8		102	4323	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.085	13.091	-0.006	1.000	2004600	51.1		106	3098	
D 26 13C2 PFUnA										
564.3 > 519.5	13.137	13.140	-0.003		2120629	19.0		94.9	3159	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.137	13.140	-0.003	1.000	5715546	50.1		100	4281	
D 28 13C2 PFDoA										
614.4 > 569.4	13.749	13.750	-0.001		2553373	19.3		96.4	2916	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.749	13.750	-0.001	1.000	6463007	52.9		106	5578	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.213	14.216	-0.003	1.000	1838478	48.4		99.9	3318	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.266	14.270	-0.004	1.000	8290010	55.6		111	7720	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.714	14.713	0.001		4735011	20.3		101	7811	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.714	14.713	0.001	1.000	5068733	52.4		105	5524	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.370	15.371	-0.001		4054716	22.4		112	7834	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.370	15.372	-0.002	1.000	13520038	53.7		107	10883	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.717	15.718	-0.001	1.000	10166136	57.5		115	8193	

Report Date: 03-Mar-2014 13:57:35 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_010.d

Injection Date: 03-Mar-2014 12:23:23 Instrument ID: A4

Lims ID: Std L5 Lab Sample ID:

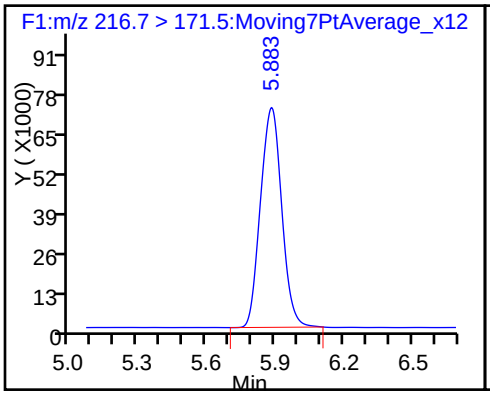
Client ID:

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

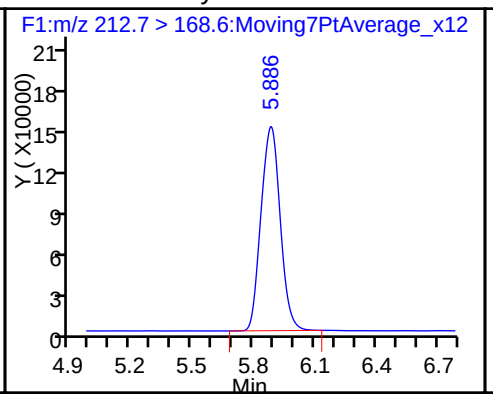
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

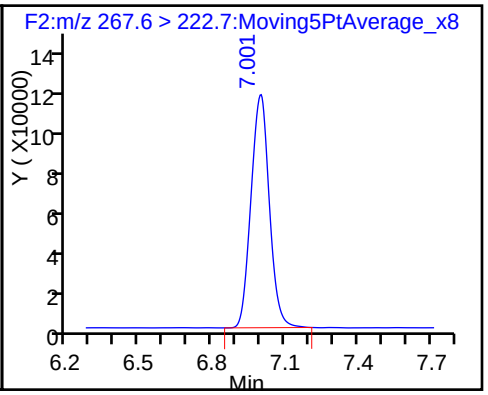
D 1 13C4 PFBA



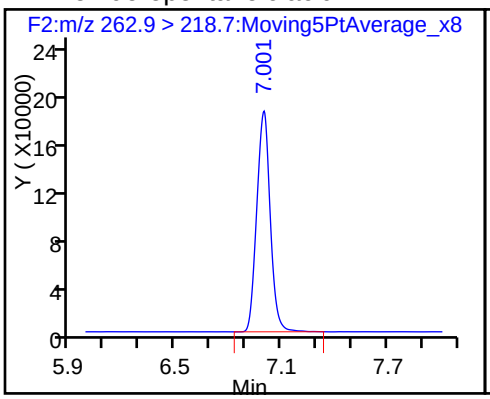
2 Perfluorobutyric acid



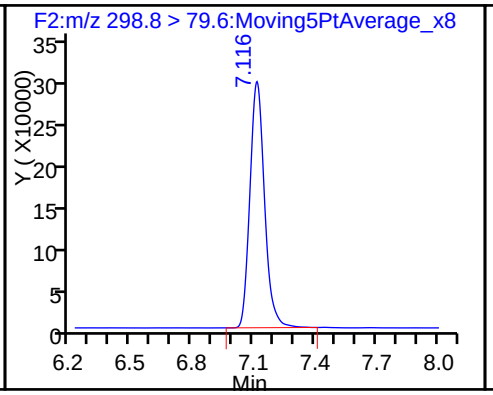
D 3 13C5-PFPeA



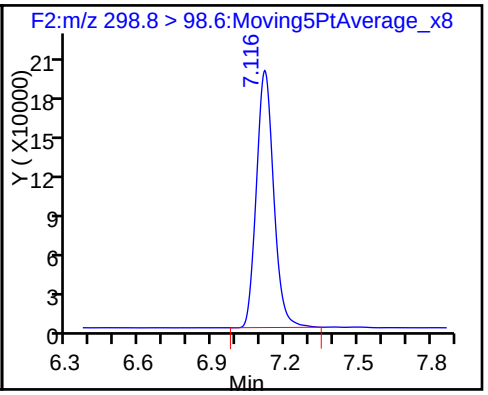
4 Perfluoropentanoic acid



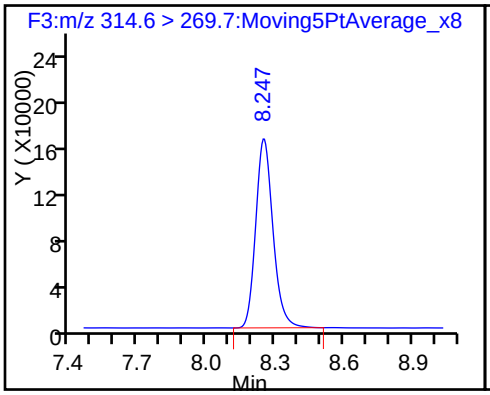
5 Perfluorobutane Sulfonate



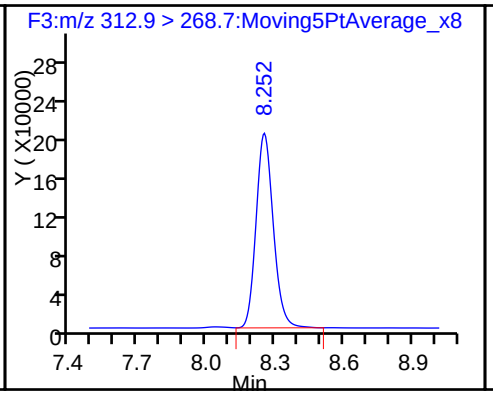
5 Perfluorobutane Sulfonate



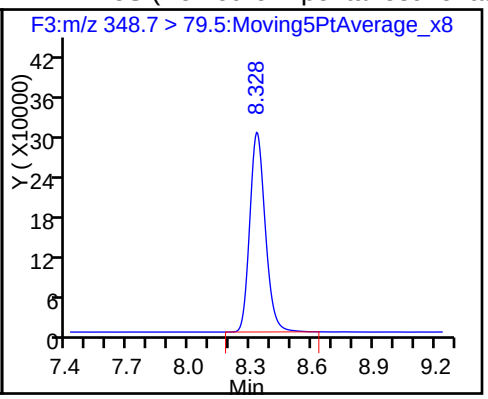
D 6 13C2 PFHxA



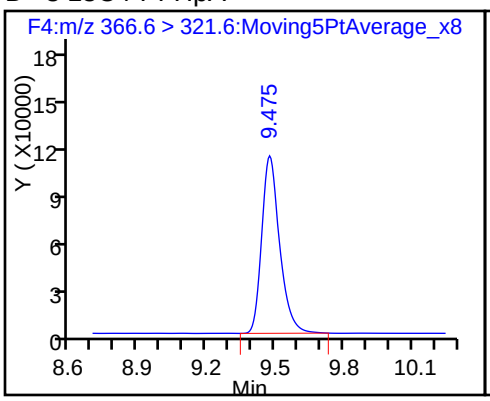
7 Perfluorohexanoic acid



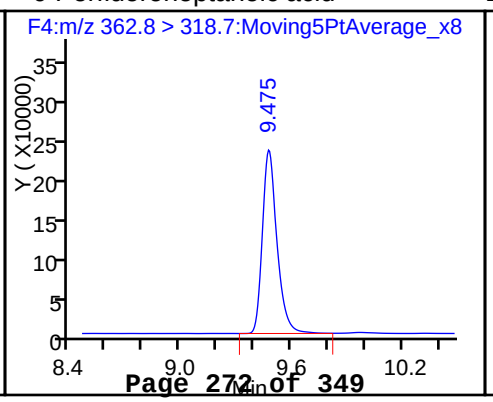
22 PFPeS (Perflouro-1-pentanesulfonat



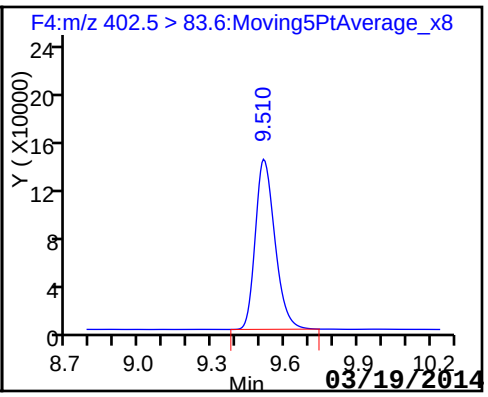
D 8 13C4-PFHpA



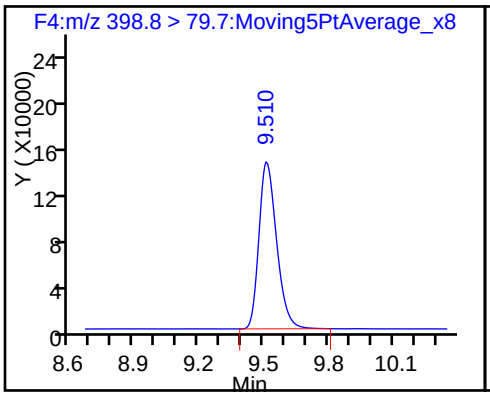
9 Perfluoroheptanoic acid



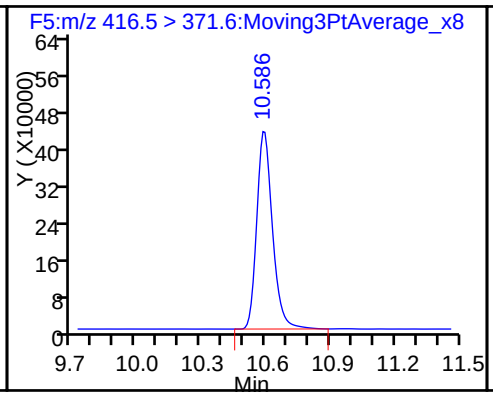
D 11 18O2 PFHxS



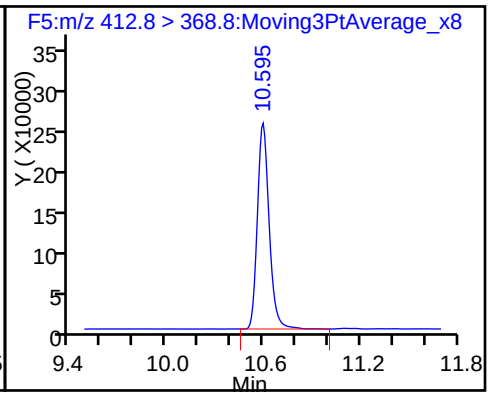
10 Perfluorohexane Sulfonate



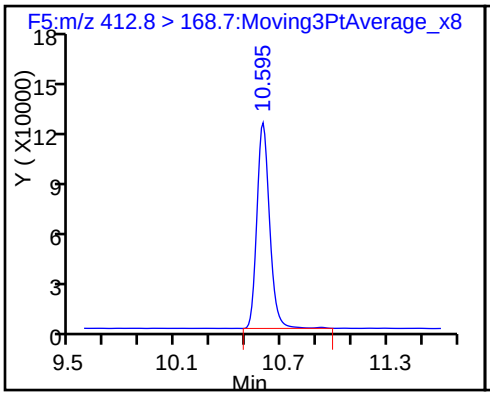
D 12 13C4 PFOA



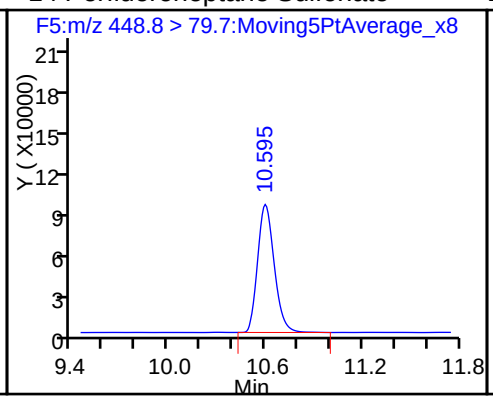
13 Perfluorooctanoic acid



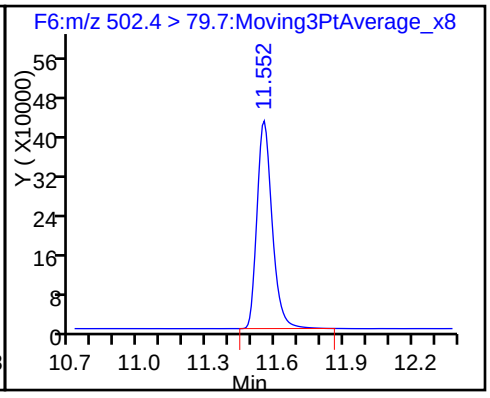
13 Perfluorooctanoic acid



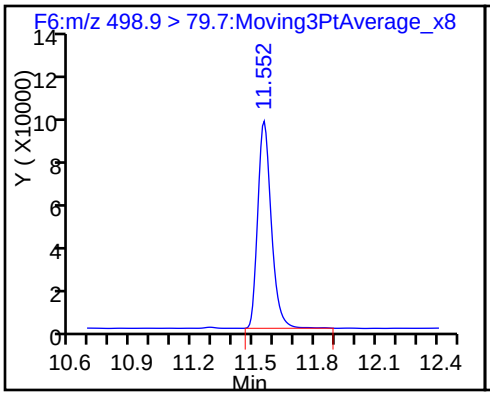
14 Perfluoroheptane Sulfonate



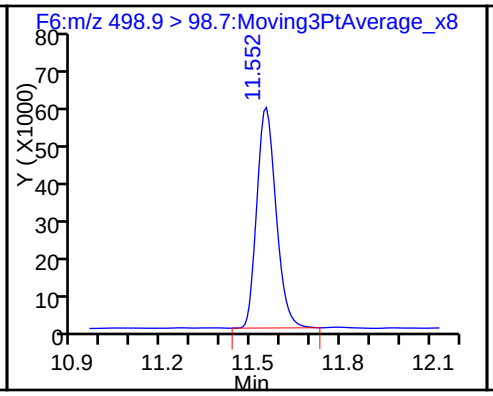
D 16 13C4 PFOS



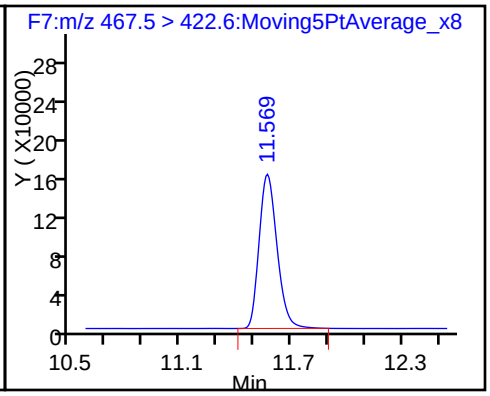
15 Perfluorooctanoic Sulfonate



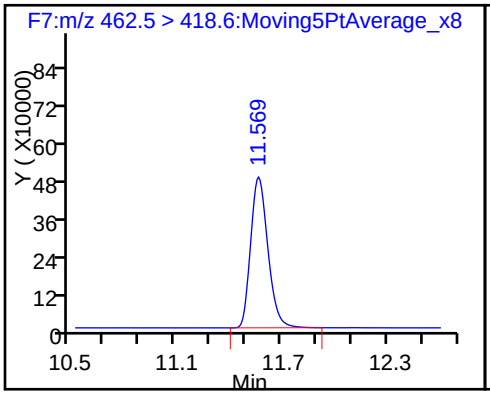
15 Perfluorooctanoic Sulfonate



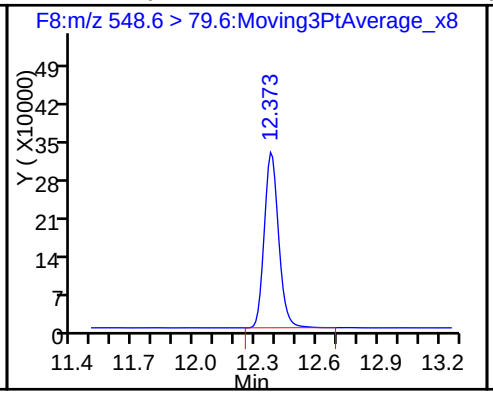
D 17 13C5 PFNA



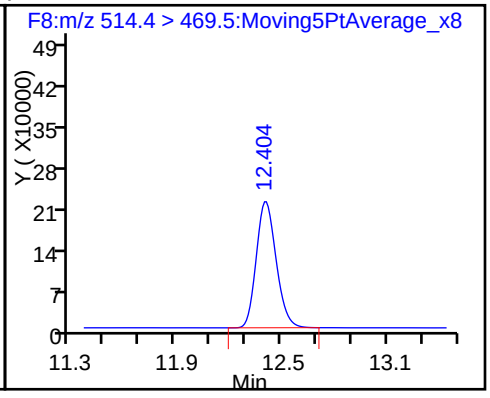
18 Perfluorononanoic acid



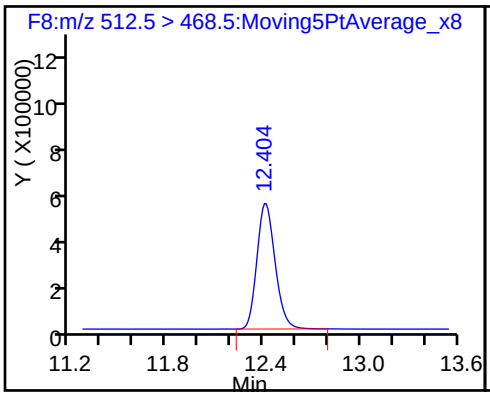
21 PFNS (Perflouro-1-nonanesulfonate)



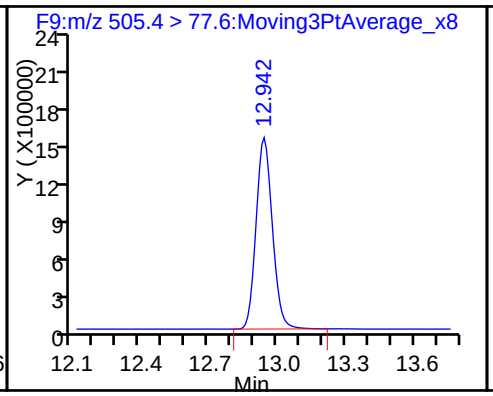
D 19 13C2 PFDA



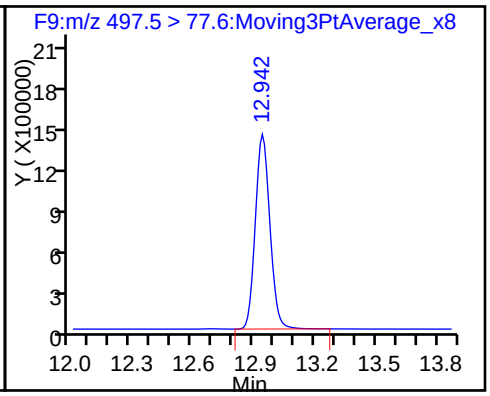
20 Perfluorodecanoic acid



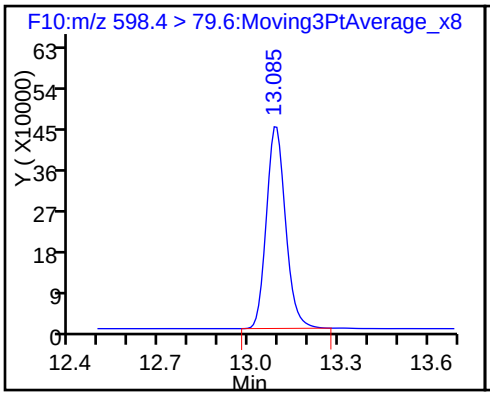
D 23 13C8 FOSA



24 Perfluorooctane Sulfonamide



25 Perfluorodecane Sulfonate



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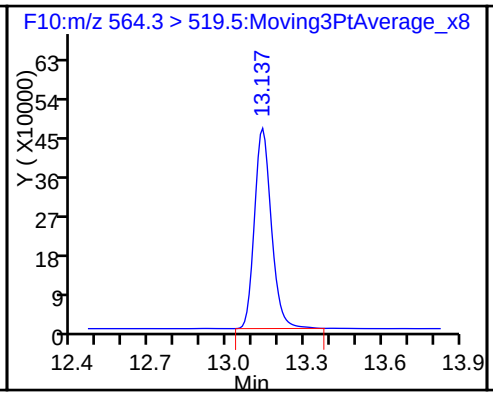
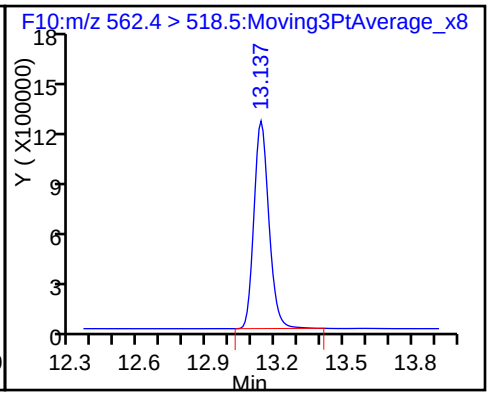


27 Perfluoroundecanoic acid



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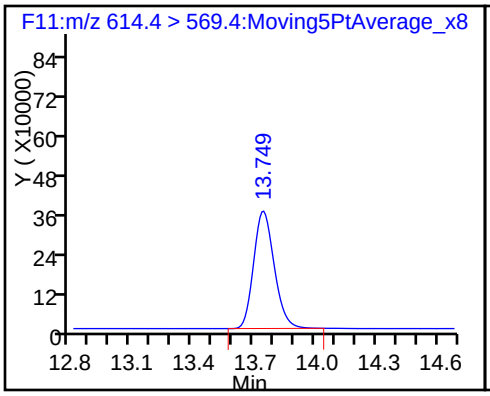
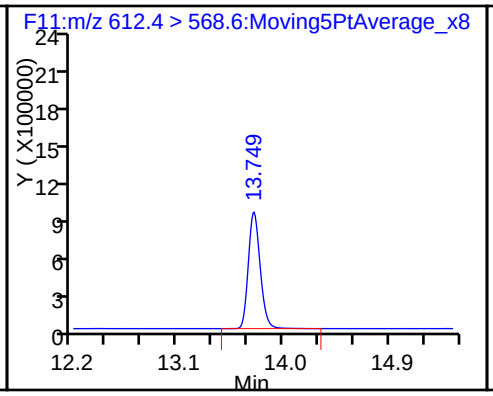
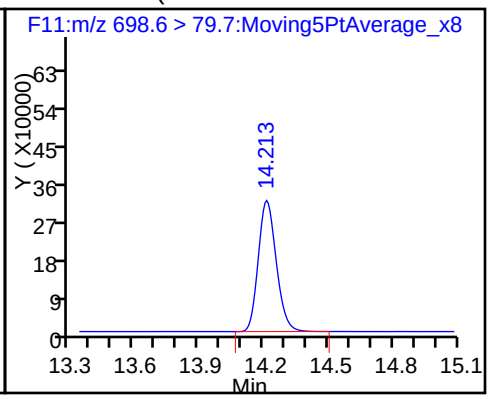


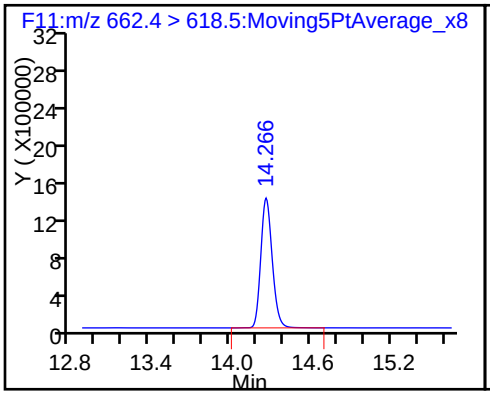
29 Perfluorododecanoic acid



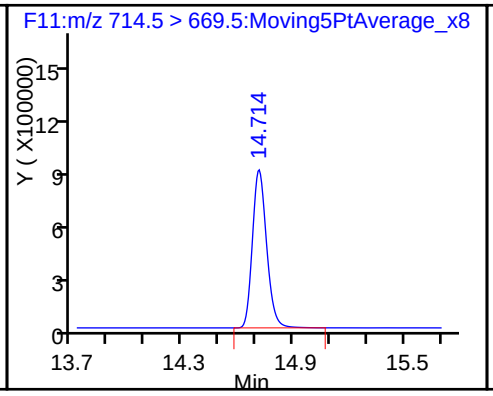
31 PFDoS (Perflouro-1-dodecanesulfona



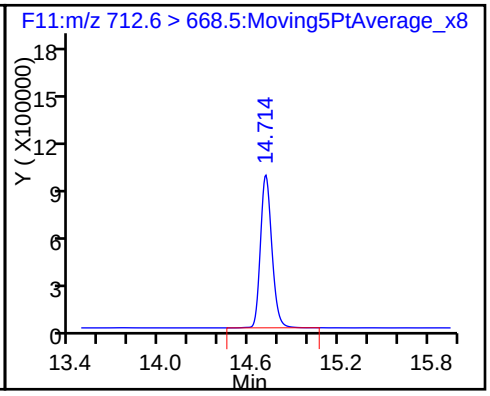
30 Perfluorotridecanoic acid



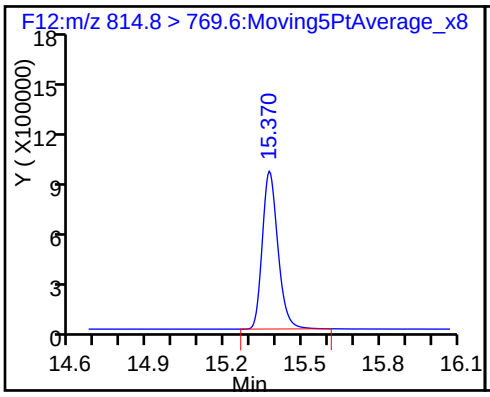
D 33 13C2-PFTeDA



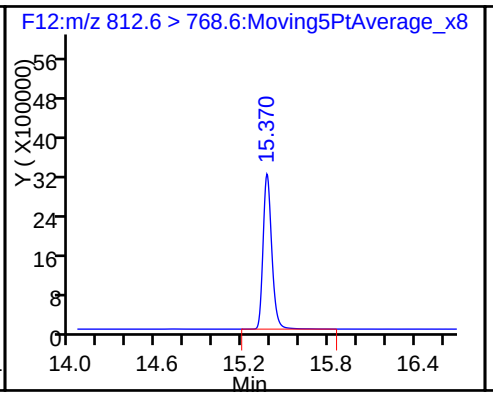
32 Perfluorotetradecanoic acid



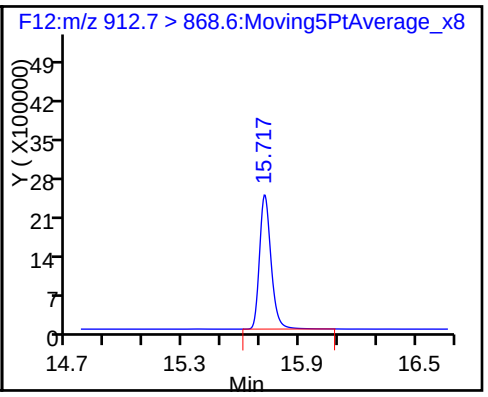
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_011.d
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Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Mar-2014 12:44:36 ALS Bottle#: 8 Worklist Smp#: 7
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-007 LCPFC-L6_00003PFC 200/50ng/mL
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:57:36 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.874	5.882	-0.008		349747	14.8		73.9	1096	
2 Perfluorobutyric acid										
212.7 > 168.6	5.874	5.883	-0.009	1.000	2968661	205.0		103	5521	
D 3 13C5-PFPeA										
267.6 > 222.7	6.983	6.997	-0.014		436996	14.5		72.5	818	
4 Perfluoropentanoic acid										
262.9 > 218.7	6.987	6.999	-0.012	1.000	2973422	215.2		108	6155	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.106	7.116	-0.010	1.000	4670298	189.0		107	7249	
298.8 > 98.6	7.106	7.116	-0.010	1.000	3007073		1.55(0.00-0.00)	107	5585	
D 6 13C2 PFHxA										
314.6 > 269.7	8.236	8.248	-0.012		643547	14.9		74.6	1194	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.236	8.251	-0.015	1.000	3211347	206.2		103	1942	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.317	8.328	-0.011	0.876	4967263	203.7		109	8325	
D 8 13C4-PFHpA										
366.6 > 321.6	9.458	9.473	-0.015		454835	13.6		67.9	676	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.458	9.474	-0.016	1.000	3624214	201.9		101	3733	
D 11 18O2 PFHxS										
402.5 > 83.6	9.499	9.510	-0.011		628947	14.4		76.2	909	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.499	9.510	-0.011	1.000	2493934	185.8		98.2	5186	
D 12 13C4 PFOA										
416.5 > 371.6	10.577	10.590	-0.013		1475662	31.7		63.5	2142	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.577	10.591	-0.014	1.000	3707269	232.1		116	3231	
412.8 > 168.7	10.577	10.591	-0.014	1.000	1706572		2.17(0.00-0.00)	116	1501	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.586	10.598	-0.012	1.000	1773567	198.6		104	2573	
D 16 13C4 PFOS										
502.4 > 79.7	11.535	11.547	-0.012		1369264	33.0		69.0	2157	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.535	11.547	-0.012	1.000	1303060	219.7		115	152	
498.9 > 98.7	11.535	11.547	-0.012	1.000	761745		1.71(0.00-0.00)	115	1566	
D 17 13C5 PFNA										
467.5 > 422.6	11.553	11.566	-0.013		828904	14.9		74.4	1437	
18 Perfluorononanoic acid										
462.5 > 418.6	11.561	11.570	-0.009	1.000	9430722	197.6		98.8	6176	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.373	12.379	-0.006	1.000	4386700	213.9		111	6043	
D 19 13C2 PFDA										
514.4 > 469.5	12.404	12.408	-0.004		1154707	12.8		63.8	1659	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.404	12.410	-0.006	1.000	11246308	197.2		98.6	6379	
D 23 13C8 FOSA										
505.4 > 77.6	12.932	12.942	-0.010		6326115	42.7		85.3	3456	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.943	12.944	-0.001	1.000	23989795	209.6		105	4492	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.084	13.091	-0.007	1.000	5615889	208.2		108	7185	
D 26 13C2 PFUnA										
564.3 > 519.5	13.136	13.140	-0.004		1511217	13.5		67.6	2086	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.136	13.140	-0.004	1.000	16287005	200.4		100	9637	
D 28 13C2 PFDoA										
614.4 > 569.4	13.747	13.750	-0.003		1843032	13.9		69.6	1923	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.747	13.750	-0.003	1.000	18878450	213.9		107	9873	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.211	14.216	-0.005	1.000	6153444	235.2		121	6781	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.265	14.270	-0.005	1.000	23361276	217.2		109	12023	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.706	14.713	-0.007		3474798	14.9		74.4	5058	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.706	14.713	-0.007	1.000	15064255	215.9		108	10302	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.369	15.371	-0.002		3237766	17.9		89.6	6118	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.369	15.372	-0.003	1.000	42295879	232.9		116	9445	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.716	15.718	-0.002	1.000	34034988	266.9		133	8142	

Report Date: 03-Mar-2014 13:57:36 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_011.d

Injection Date: 03-Mar-2014 12:44:36 Instrument ID: A4

Lims ID: Std L6 Lab Sample ID:

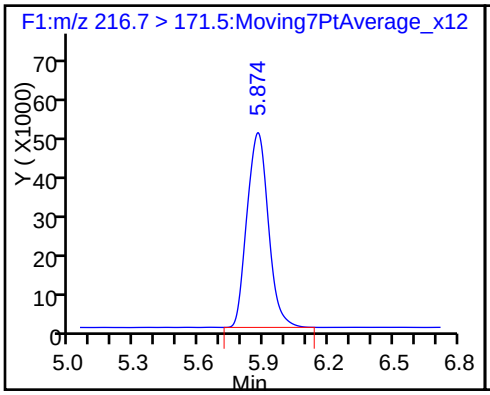
Client ID:

Operator ID: JRB ALS Bottle#: 8 Worklist Smp#: 7

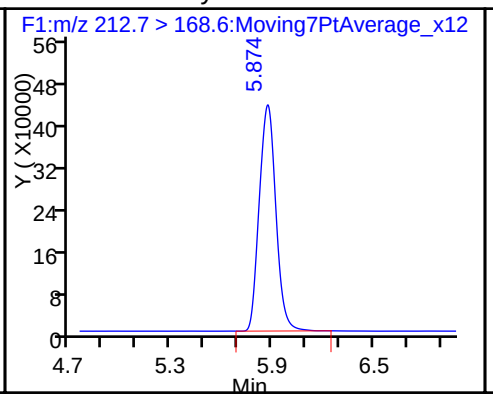
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

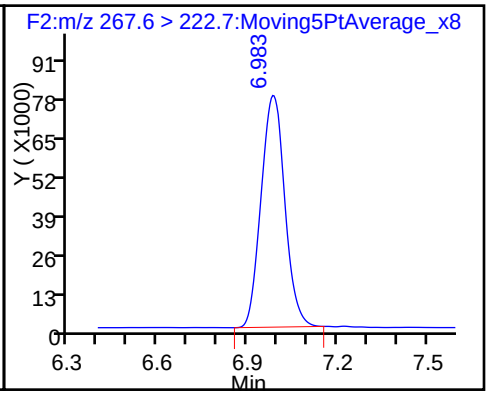
D 1 13C4 PFBA



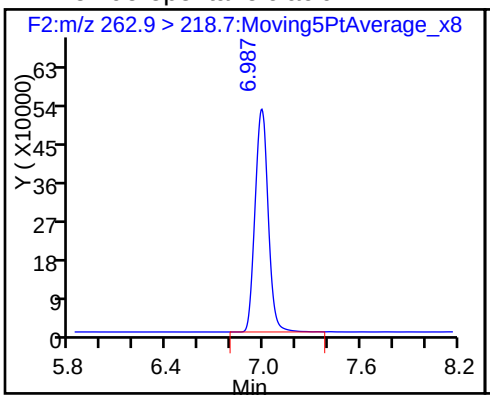
2 Perfluorobutyric acid



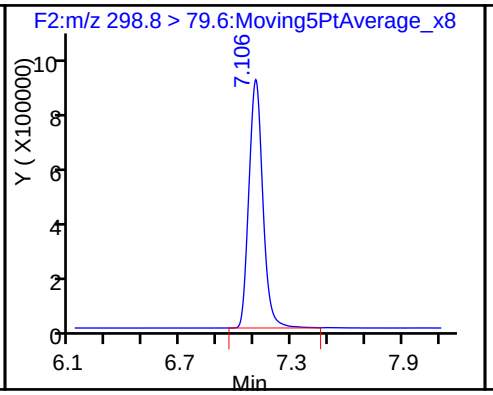
D 3 13C5-PFPeA



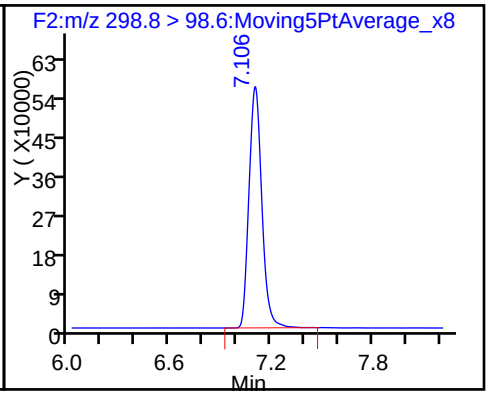
4 Perfluoropentanoic acid



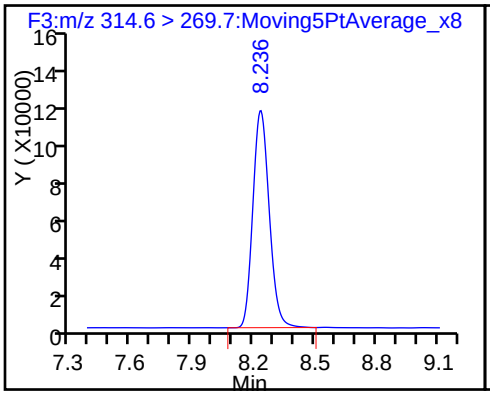
5 Perfluorobutane Sulfonate



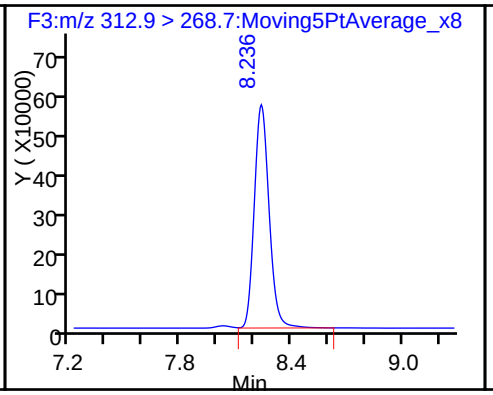
5 Perfluorobutane Sulfonate



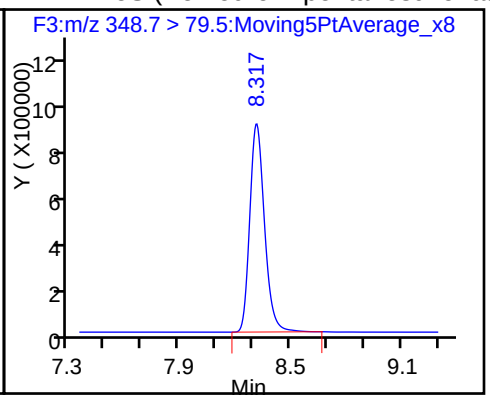
D 6 13C2 PFHxA



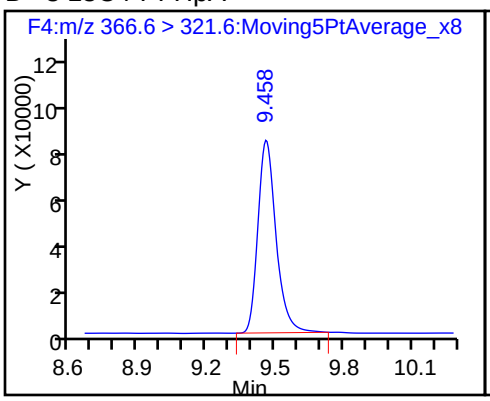
7 Perfluorohexanoic acid



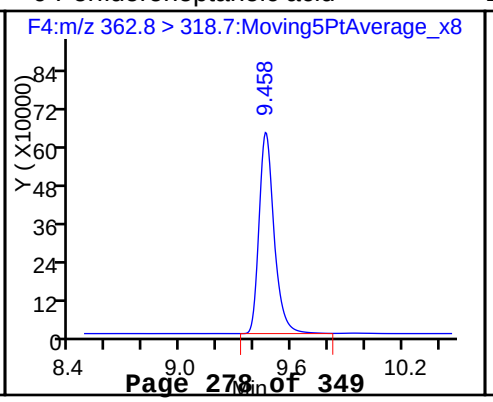
22 PFPeS (Perflouro-1-pentanesulfonat



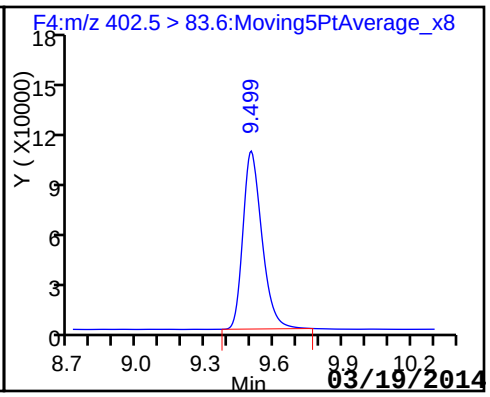
D 8 13C4-PFHpA



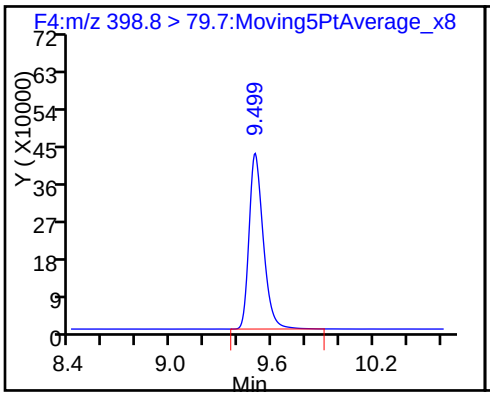
9 Perfluoroheptanoic acid



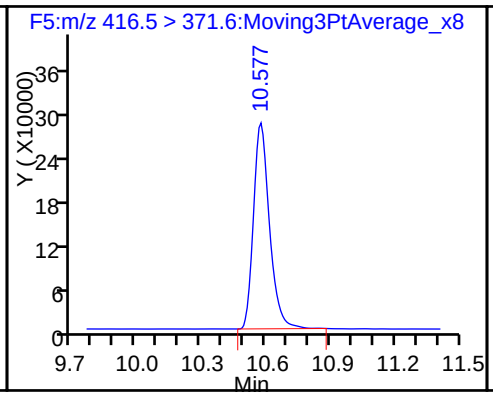
D 11 18O2 PFHxS



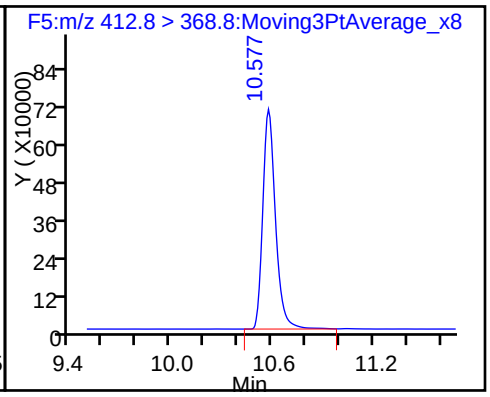
10 Perfluorohexane Sulfonate



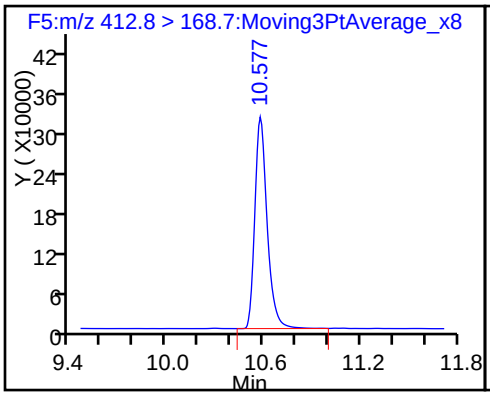
D 12 13C4 PFOA



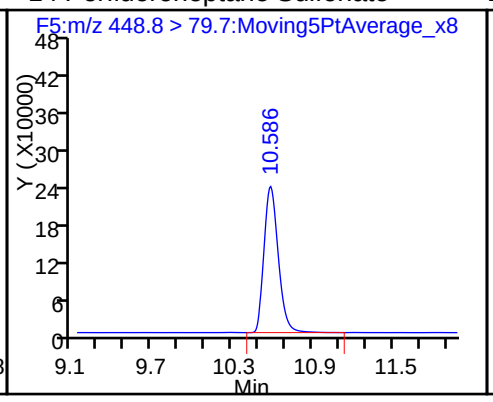
13 Perfluorooctanoic acid



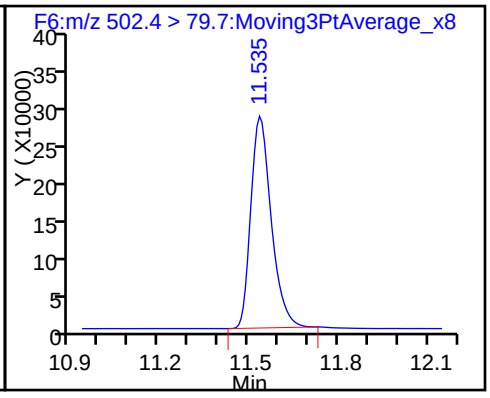
13 Perfluorooctanoic acid



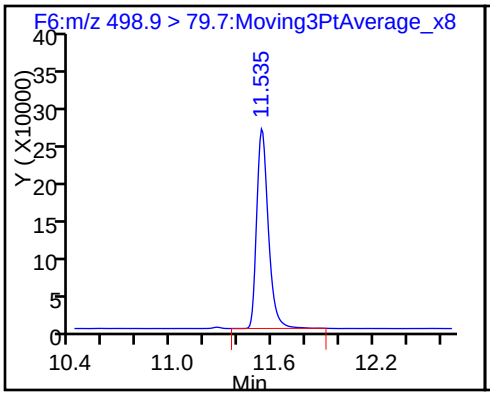
14 Perfluoroheptane Sulfonate



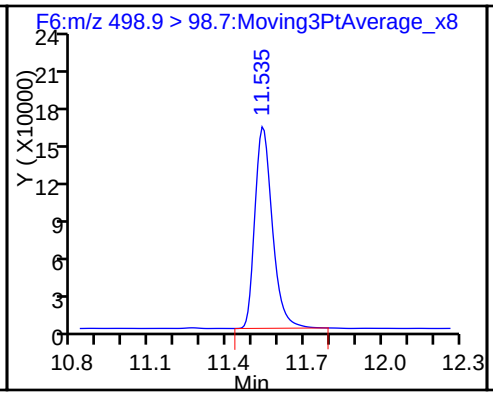
D 16 13C4 PFOS



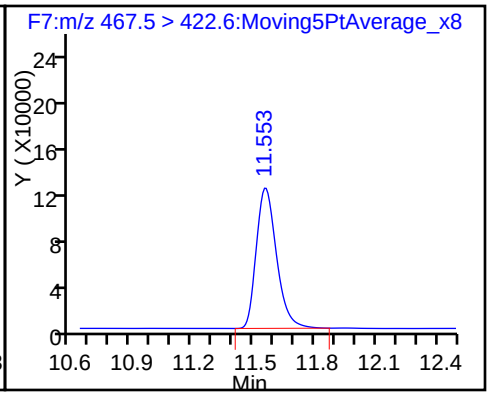
15 Perfluorooctanoic Sulfonate



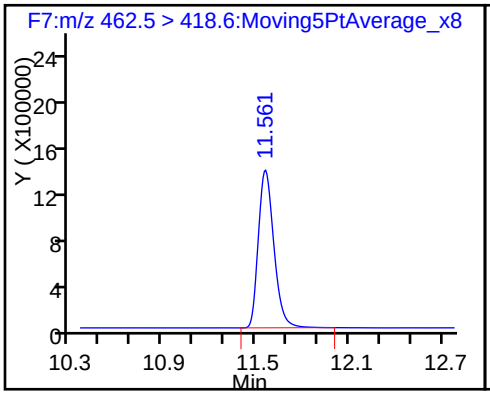
15 Perfluorooctanoic Sulfonate



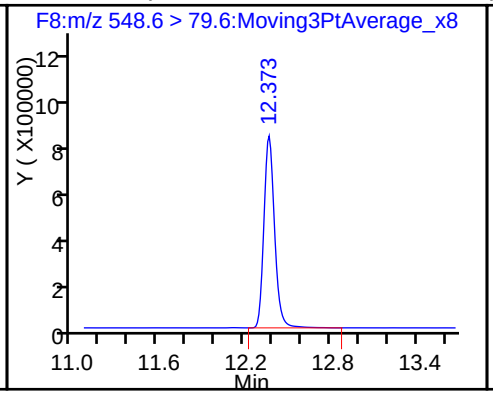
D 17 13C5 PFNA



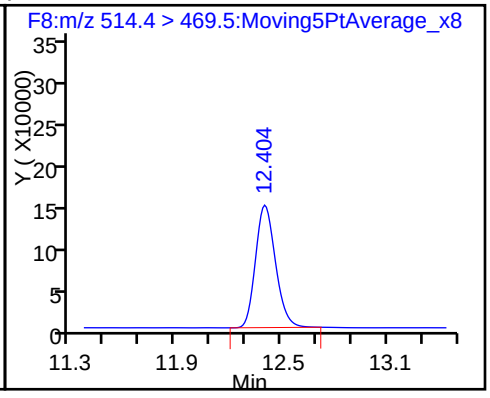
18 Perfluorononanoic acid



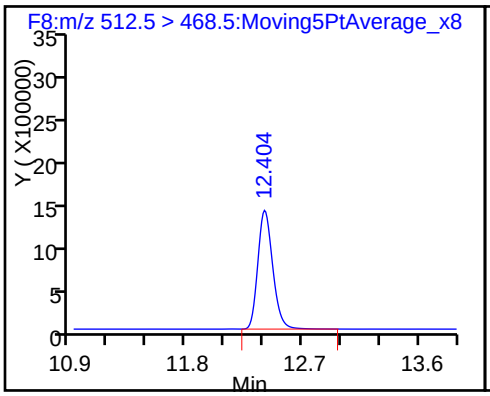
21 PFNS (Perflouro-1-nonanesulfonate)



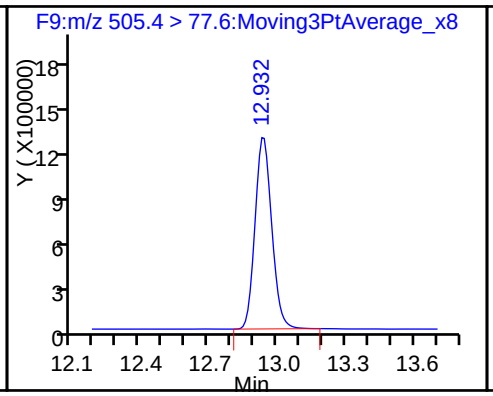
D 19 13C2 PFDA



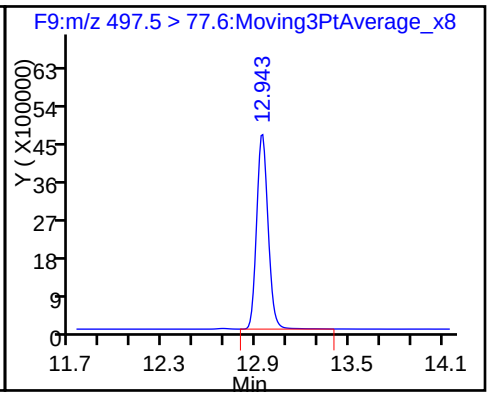
20 Perfluorodecanoic acid



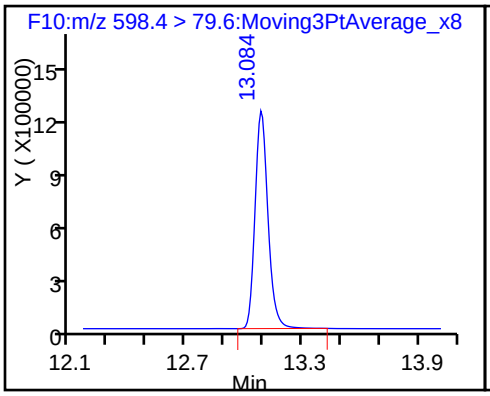
D 23 13C8 FOSA



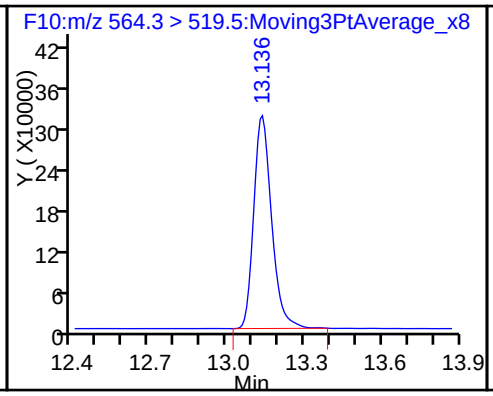
24 Perfluorooctane Sulfonamide



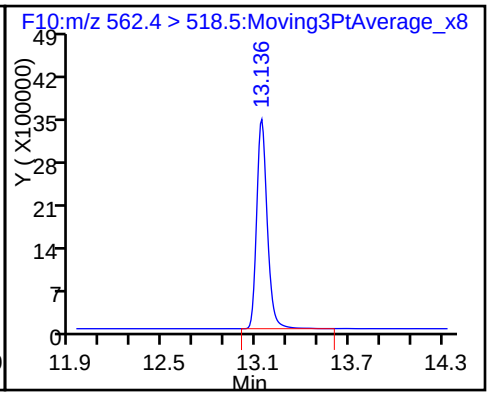
25 Perfluorodecane Sulfonate



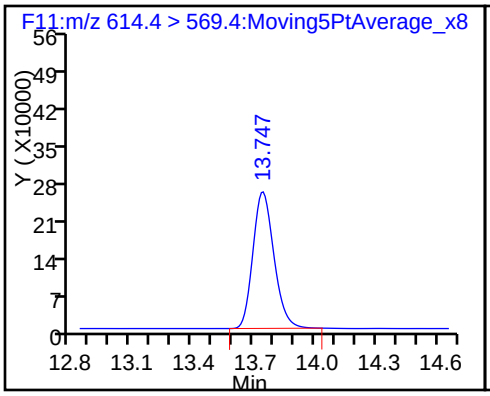
D 26 13C2 PFUnA



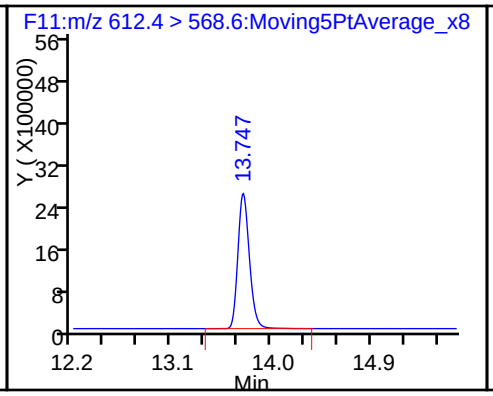
27 Perfluoroundecanoic acid



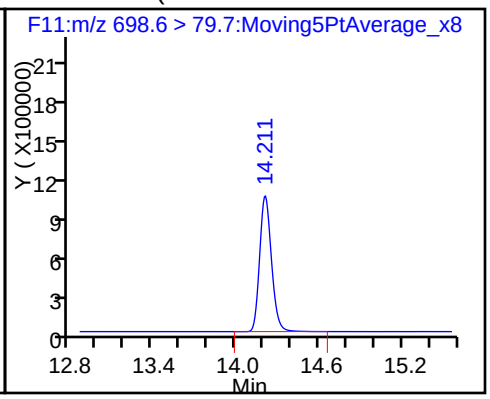
D 28 13C2 PFDoA



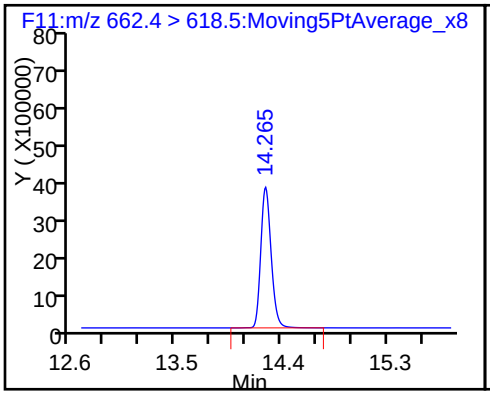
29 Perfluorododecanoic acid



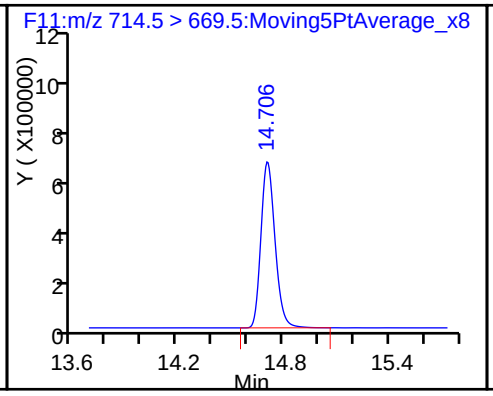
31 PFDoS (Perflouro-1-dodecanesulfona



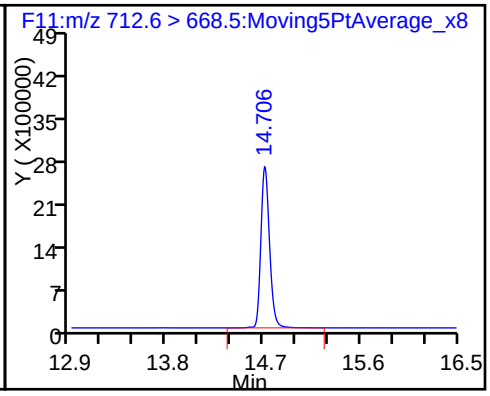
30 Perfluorotridecanoic acid



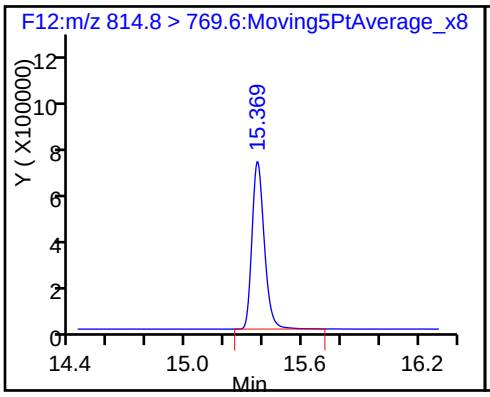
D 33 13C2-PFTeDA



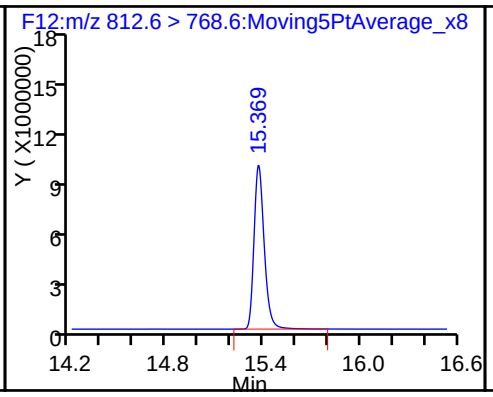
32 Perfluorotetradecanoic acid



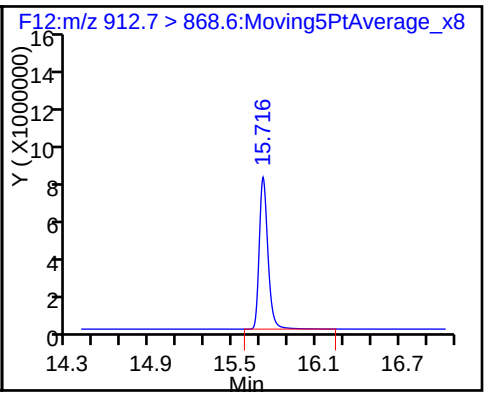
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d
Lims ID: Std L7 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 03-Mar-2014 13:05:49 ALS Bottle#: 9 Worklist Smp#: 8
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-008 LCPFC-L7_00003 PFC 500/50ng/mL
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:57:37 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.868	5.882	-0.014		251945	10.6		53.2	412	
2 Perfluorobutyric acid										
212.7 > 168.6	5.871	5.883	-0.012	1.000	5686610	545.2		109	10464	
D 3 13C5-PFPeA										
267.6 > 222.7	6.974	6.997	-0.023		315676	10.5		52.4	669	
4 Perfluoropentanoic acid										
262.9 > 218.7	6.974	6.999	-0.025	1.000	5595762	560.6		112	8287	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.099	7.116	-0.017	1.000	8274864	463.9		105	14893	
298.8 > 98.6	7.099	7.116	-0.017	1.000	5222119		1.58(0.00-0.00)	105	8826	
D 6 13C2 PFHxA										
314.6 > 269.7	8.225	8.248	-0.023		452079	10.5		52.4	719	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.225	8.251	-0.026	1.000	6263322	572.6		115	1774	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.307	8.328	-0.021	0.876	8848168	502.6		107	9882	
D 8 13C4-PFHpA										
366.6 > 321.6	9.452	9.473	-0.021		310960	9.28		46.4	530	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.452	9.474	-0.022	1.000	6846917	557.9		112	6557	
D 11 18O2 PFHxS										
402.5 > 83.6	9.487	9.510	-0.023		454011	10.4		55.0	636	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.493	9.510	-0.017	1.000	4643490	479.3		101	6508	
D 12 13C4 PFOA										
416.5 > 371.6	10.568	10.590	-0.022		1105623	23.8		47.6	1659	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.568	10.591	-0.023	1.000	6845387	572.0		114	4865	
412.8 > 168.7	10.568	10.591	-0.023	1.000	3249637		2.11(0.00-0.00)	114	3290	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.577	10.598	-0.021	1.000	3064916	483.6		102	4225	
D 16 13C4 PFOS										
502.4 > 79.7	11.527	11.547	-0.020		971620	23.4		48.9	1627	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.527	11.547	-0.020	1.000	2314881	550.0		115	123	
498.9 > 98.7	11.527	11.547	-0.020	1.000	1329348		1.74(0.00-0.00)	115	1741	
D 17 13C5 PFNA										
467.5 > 422.6	11.553	11.566	-0.013		574413	10.3		51.5	1153	
18 Perfluorononanoic acid										
462.5 > 418.6	11.553	11.570	-0.017	1.000	17033800	515.0		103	14093	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.362	12.379	-0.017	1.000	6888880	473.3		98.6	5449	
D 19 13C2 PFDA										
514.4 > 469.5	12.393	12.408	-0.015		855681	9.46		47.3	1092	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.393	12.410	-0.017	1.000	20954182	495.9		99.2	6418	
D 23 13C8 FOSA										
505.4 > 77.6	12.932	12.942	-0.010		4946089	33.4		66.7	2562	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.932	12.944	-0.012	1.000	47022404	525.5		105	3550	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.076	13.091	-0.015	1.000	9695207	506.5		105	9874	
D 26 13C2 PFUnA										
564.3 > 519.5	13.129	13.140	-0.011		1104642	9.89		49.4	1629	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.129	13.140	-0.011	1.000	28768482	484.2		96.8	10551	
D 28 13C2 PFDoA										
614.4 > 569.4	13.740	13.750	-0.010		1416842	10.7		53.5	1200	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.740	13.750	-0.010	1.000	34193204	504.0		101	5739	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.205	14.216	-0.011	1.000	12413326	668.6		138	12208	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.266	14.270	-0.004	1.000	41328380	499.9		100.0	8405	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.707	14.713	-0.006		2622215	11.2		56.2	3222	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.707	14.713	-0.006	1.000	27585862	514.3		103	7167	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.365	15.371	-0.006		2486709	13.8		68.8	4779	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.365	15.372	-0.007	1.000	77167658	552.8		111	7030	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.717	15.718	-0.001	1.000	63726719	650.1		130	6953	

Report Date: 03-Mar-2014 13:57:37 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Injection Date: 03-Mar-2014 13:05:49 Instrument ID: A4

Lims ID: Std L7 Lab Sample ID:

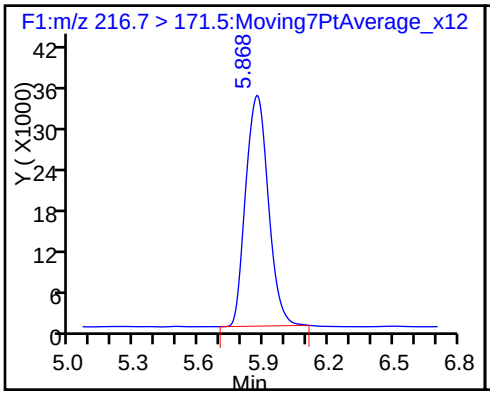
Client ID:

Operator ID: JRB ALS Bottle#: 9 Worklist Smp#: 8

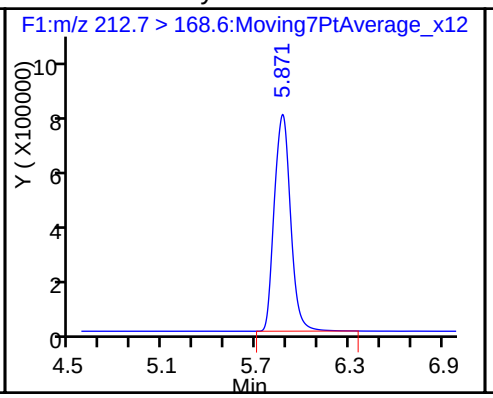
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

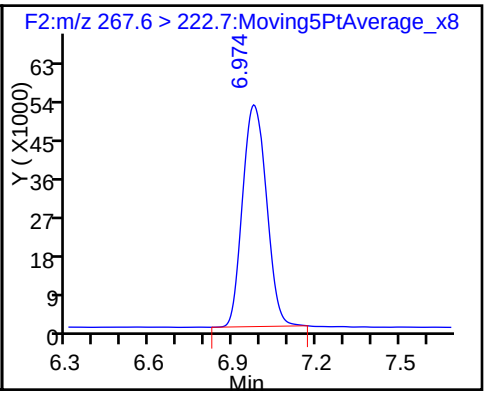
D 1 13C4 PFBA



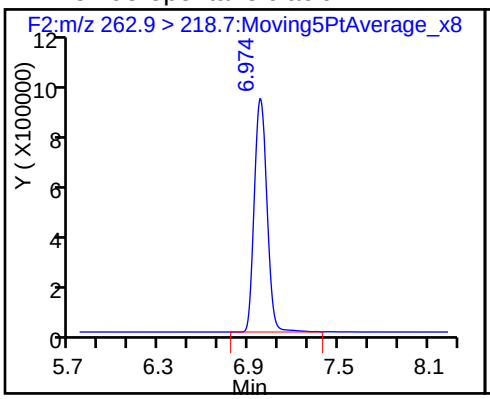
2 Perfluorobutyric acid



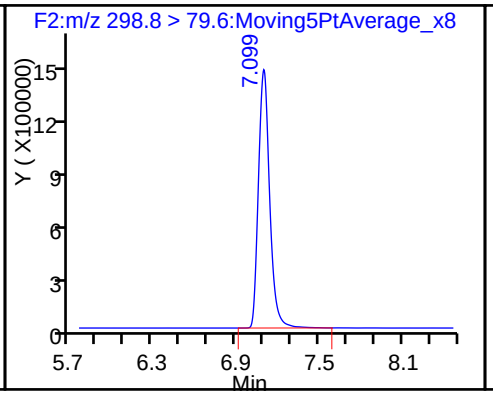
D 3 13C5-PFPeA



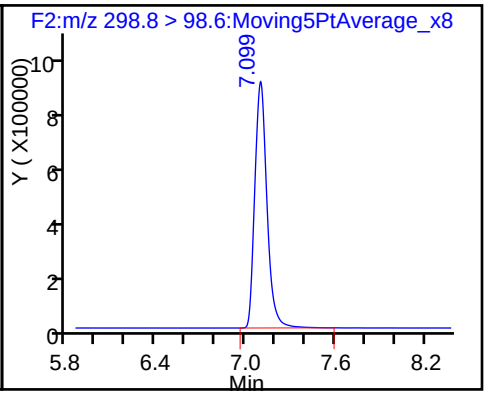
4 Perfluoropentanoic acid



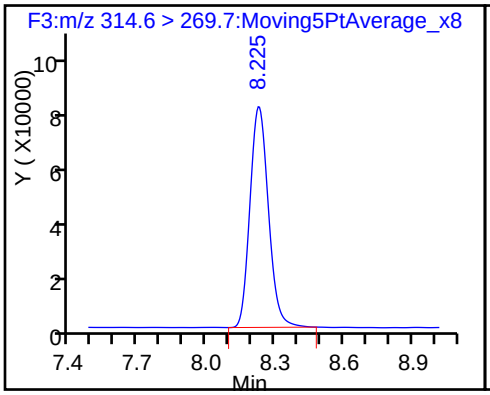
5 Perfluorobutane Sulfonate



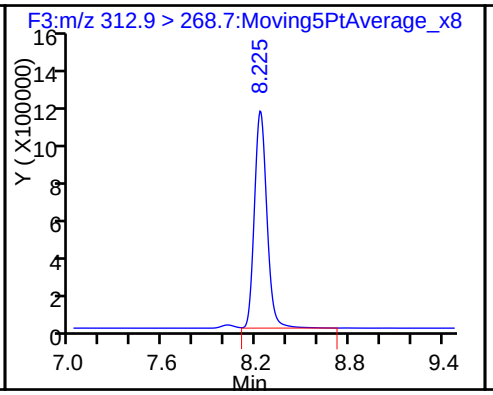
5 Perfluorobutane Sulfonate



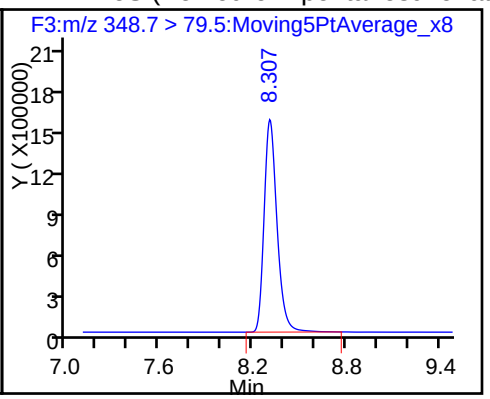
D 6 13C2 PFHxA



7 Perfluorohexanoic acid



22 PFPeS (Perflouro-1-pentanesulfonat



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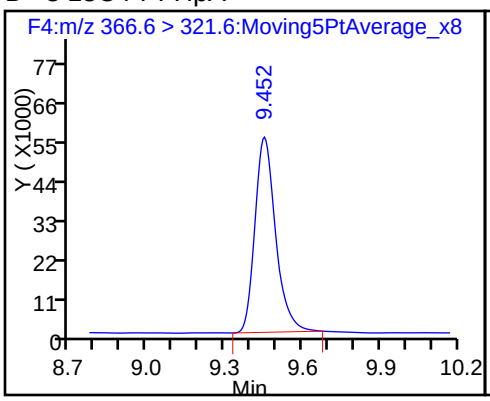
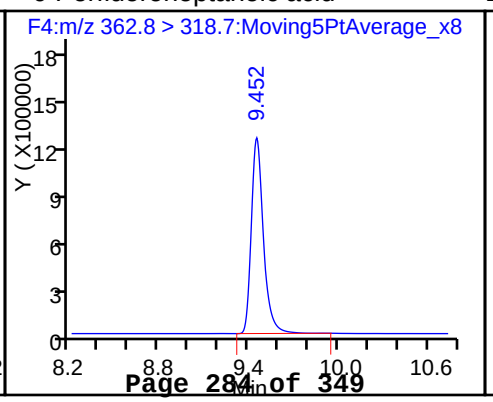
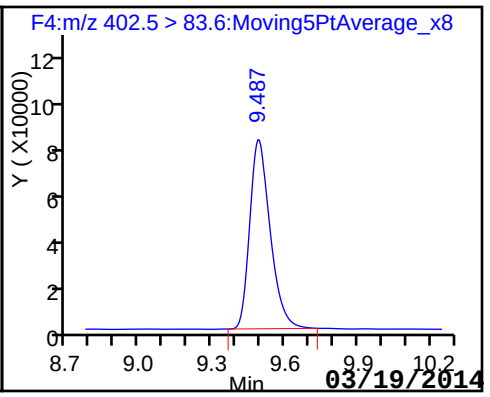


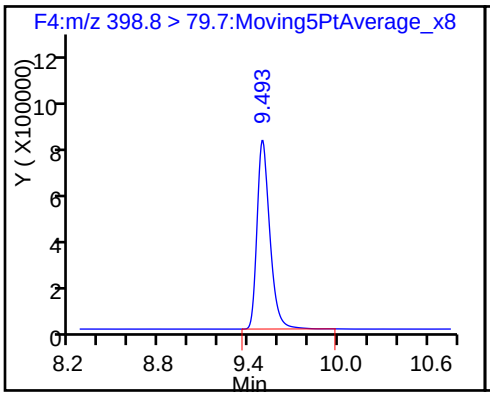
9 Perfluoroheptanoic acid



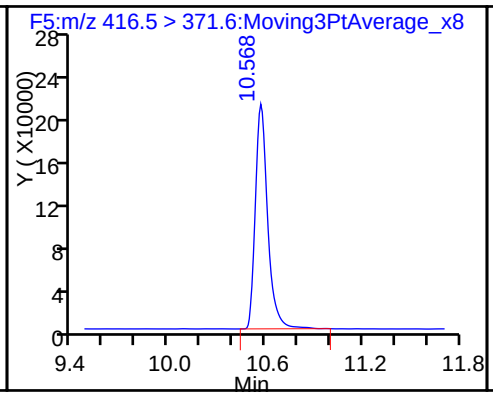
D 11 18O2 PFHxS



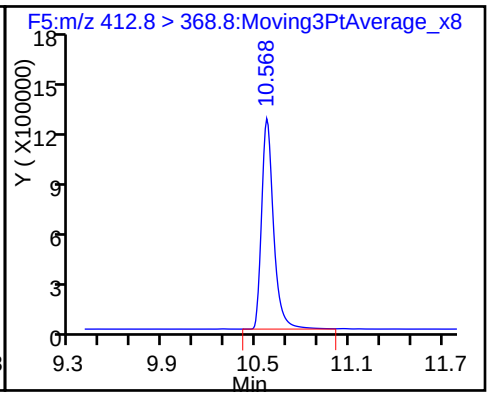
10 Perfluorohexane Sulfonate



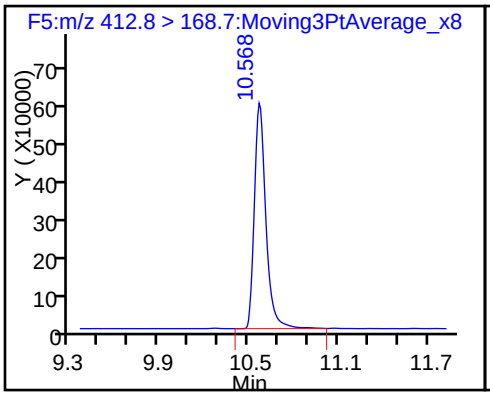
D 12 13C4 PFOA



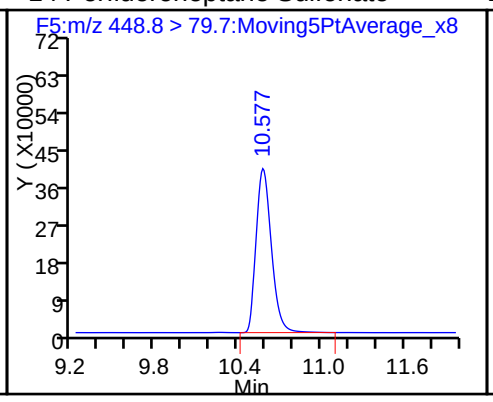
13 Perfluorooctanoic acid



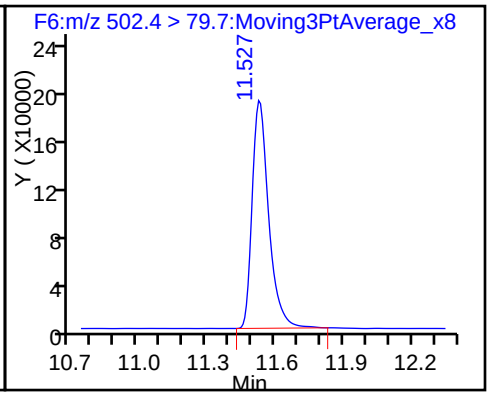
13 Perfluorooctanoic acid



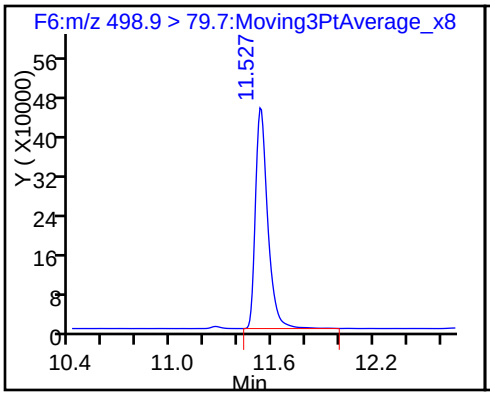
14 Perfluoroheptane Sulfonate



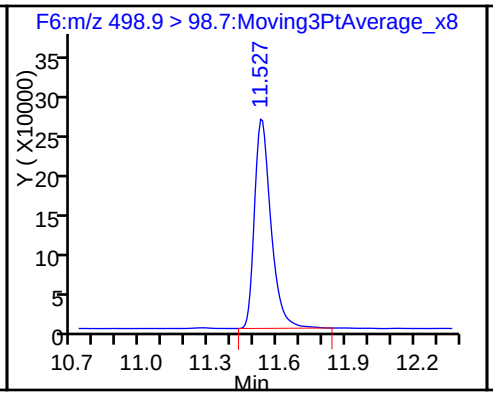
D 16 13C4 PFOS



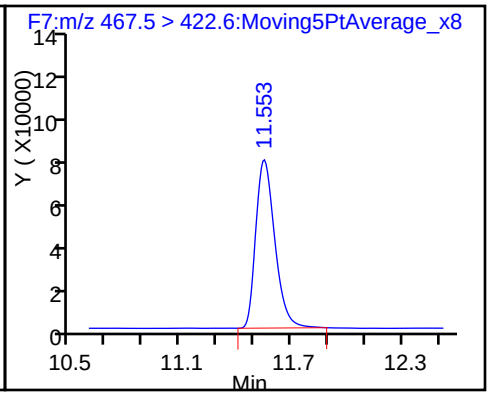
15 Perfluorooctanoic Sulfonate



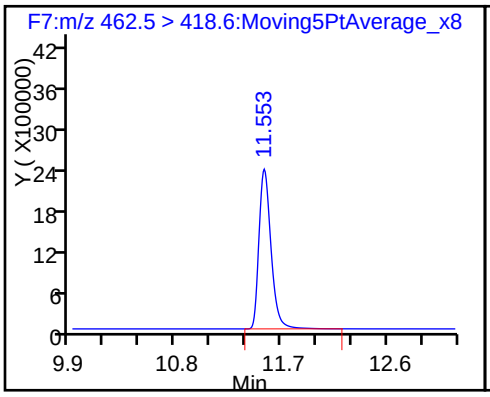
15 Perfluorooctanoic Sulfonate



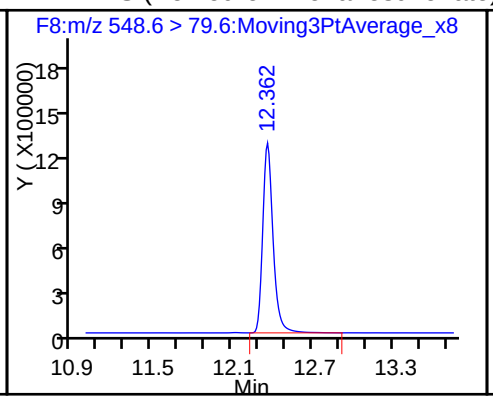
D 17 13C5 PFNA



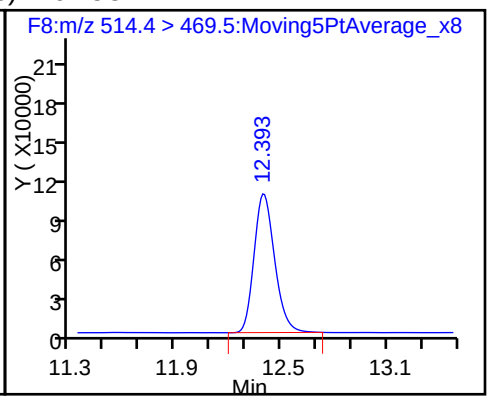
18 Perfluorononanoic acid



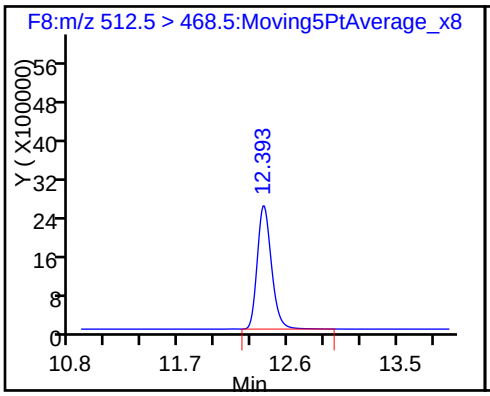
21 PFNS (Perflouro-1-nonanesulfonate)



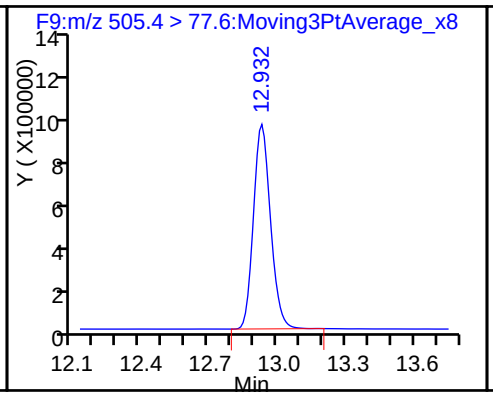
D 19 13C2 PFDA



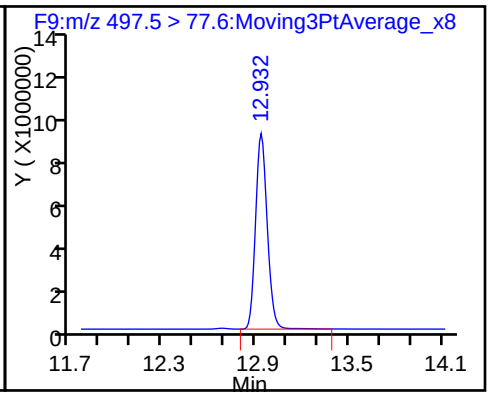
20 Perfluorodecanoic acid



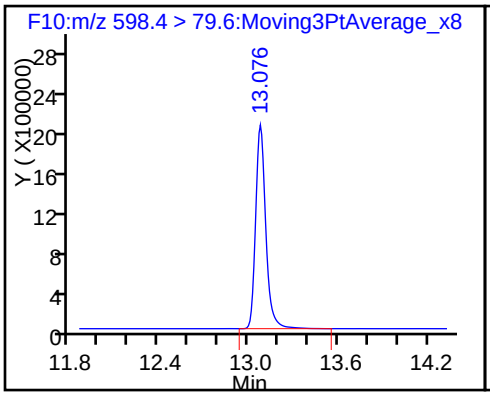
D 23 13C8 FOSA



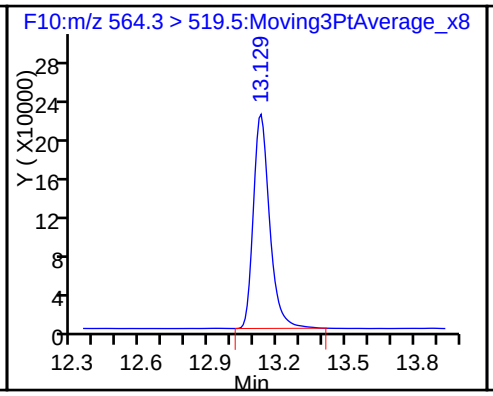
24 Perfluorooctane Sulfonamide



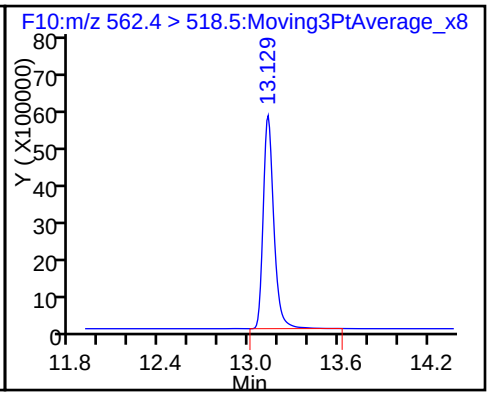
25 Perfluorodecane Sulfonate



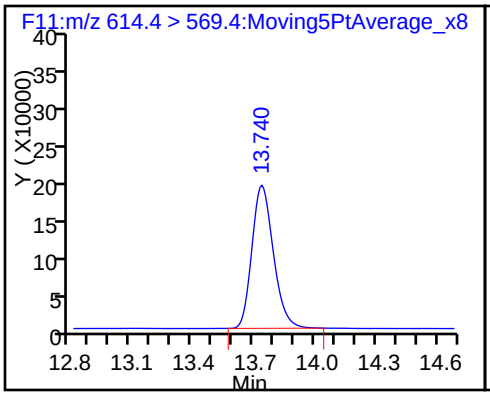
D 26 13C2 PFUnA



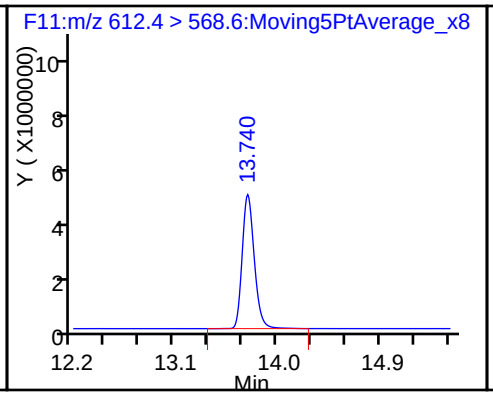
27 Perfluoroundecanoic acid



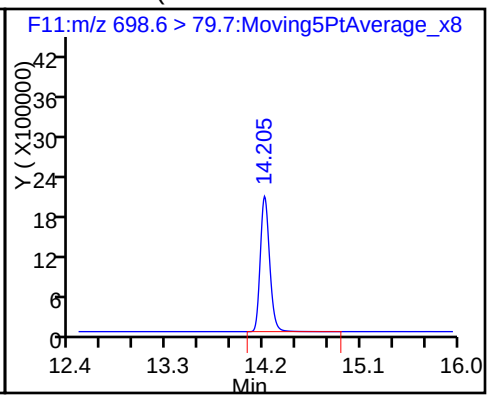
D 28 13C2 PFDoA



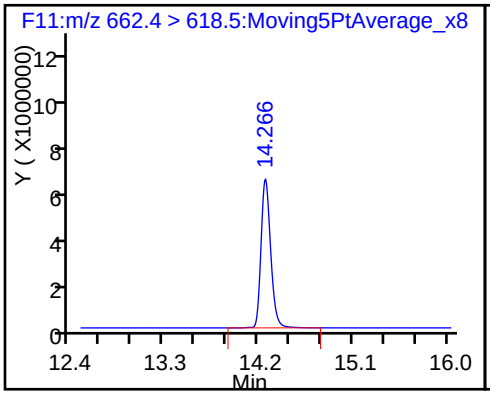
29 Perfluorododecanoic acid



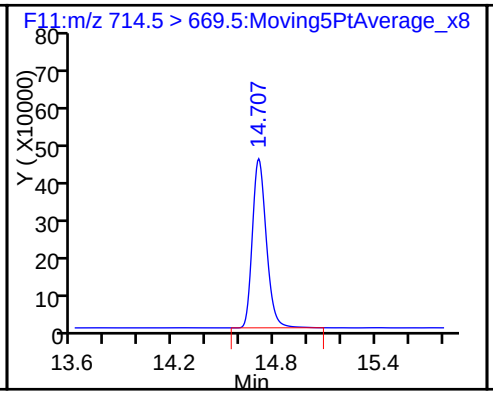
31 PFDoS (Perflouro-1-dodecanesulfona



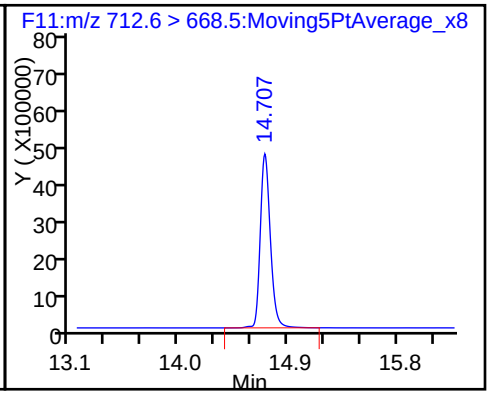
30 Perfluorotridecanoic acid



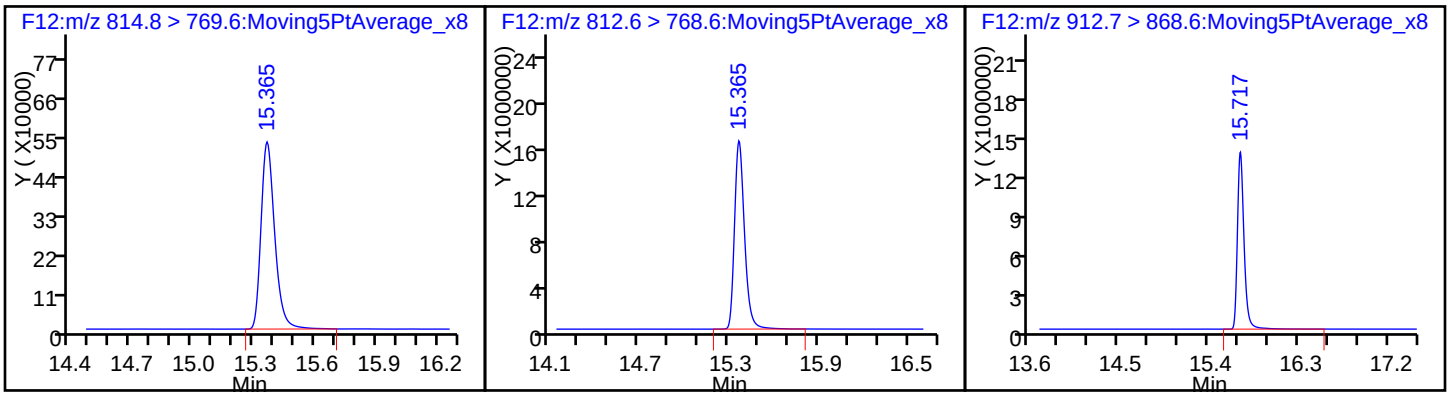
D 33 13C2-PFTeDA



32 Perfluorotetradecanoic acid



D 35 13C2-PFHxDA | 34 Perfluorohexadecanoic acid | 36 Perfluorooctandecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Lab Sample ID: ICV 320-37466/9 Calibration Date: 03/03/2014 13:27

Instrument ID: A4 Calib Start Date: 03/03/2014 10:58

GC Column: Acquity ID: 2.10(mm) Calib End Date: 03/03/2014 13:05

Lab File ID: 03MAR14A4C_013.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorooctanoic acid (PFOA)	AveID	0.5412	0.7118		65.8	50.0	31.5	40.0
Perfluorooctane Sulfonate (PFOS)	AveID	0.2071	0.2576		59.4	47.8	24.4	40.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_013.d
Lims ID: ICV Lab Sample ID: ICV 320-37466/9-A
Client ID:
Sample Type: ICV
Inject. Date: 03-Mar-2014 13:27:01 ALS Bottle#: 10 Worklist Smp#: 9
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-009 ICV
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist:

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 13:58:55 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

First Level Reviewer: barnettj Date: 03-Mar-2014 13:57:27

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.874	5.882	-0.008		470365	19.9		99.3	1072	
2 Perfluorobutyric acid										
212.7 > 168.6	5.874	5.883	-0.009	1.000	1103747	56.7			1767	
D 3 13C5-PFPeA										
267.6 > 222.7	6.992	6.997	-0.005		608965	20.2		101	1064	
4 Perfluoropentanoic acid										
262.9 > 218.7	6.987	6.999	-0.012	1.000	1181319	61.3			2434	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.106	7.116	-0.010	1.000	1620938	49.9			3821	
298.8 > 98.6	7.106	7.116	-0.010	1.000	1069885		1.52(0.00-0.00)		2222	
D 6 13C2 PFHxA										
314.6 > 269.7	8.236	8.248	-0.012		885351	20.5		103	1553	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.236	8.251	-0.015	1.000	1372595	64.1			1711	
D 8 13C4-PFHpA										
366.6 > 321.6	9.464	9.473	-0.009		591484	17.7		88.3	1821	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.464	9.474	-0.010	1.000	1480017	63.4			2168	
D 11 18O2 PFHxS										
402.5 > 83.6	9.499	9.510	-0.011		826419	18.9		100	1758	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.499	9.510	-0.011	1.000	1007613	57.1			1866	
D 12 13C4 PFOA										
416.5 > 371.6	10.577	10.590	-0.013		2098885	45.2		90.3	2687	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.577	10.591	-0.014	1.000	1493872	65.8			1620	
412.8 > 168.7	10.577	10.591	-0.014	1.000	676368		2.21(0.00-0.00)		1391	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.586	10.598	-0.012	1.000	662060	51.0			919	
D 16 13C4 PFOS										
502.4 > 79.7	11.535	11.547	-0.012		1989712	47.9		100	3632	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.543	11.547	-0.004	1.000	512064	59.4			191	
498.9 > 98.7	11.543	11.547	-0.004	1.000	291537		1.76(0.00-0.00)		708	
D 17 13C5 PFNA										
467.5 > 422.6	11.561	11.566	-0.005		1054837	18.9		94.7	1825	
18 Perfluorononanoic acid										
462.5 > 418.6	11.561	11.570	-0.009	1.000	3769306	62.1			4059	
D 19 13C2 PFDA										
514.4 > 469.5	12.404	12.408	-0.004		1844416	20.4		102	2334	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.404	12.410	-0.006	1.000	5308724	58.3			9386	
D 23 13C8 FOSA										
505.4 > 77.6	12.932	12.942	-0.010		7770173	52.4		105	5258	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.932	12.944	-0.012	1.000	7495628	53.3			2535	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.085	13.091	-0.006	1.000	2151579	54.9			3700	
D 26 13C2 PFUnA										
564.3 > 519.5	13.129	13.140	-0.011		2133083	19.1		95.4	3350	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.129	13.140	-0.011	1.000	6480977	56.5			6284	
D 28 13C2 PFDoA										
614.4 > 569.4	13.740	13.750	-0.010		2498451	18.9		94.3	3593	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.740	13.750	-0.010	1.000	7309866	61.1			7559	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.259	14.270	-0.011	1.000	9555944	65.6			8387	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.701	14.713	-0.012		4770505	20.4		102	7891	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.701	14.713	-0.012	1.000	5795646	61.3			5719	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.366	15.371	-0.005		4069996	22.5		113	10264	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.366	15.372	-0.006	1.000	15143898	61.5			8828	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.712	15.718	-0.006	1.000	11744992	67.9			5744	

Report Date: 03-Mar-2014 13:58:55 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_013.d

Injection Date: 03-Mar-2014 13:27:01 Instrument ID: A4

Lims ID: ICV Lab Sample ID: ICV 320-37466/9-A

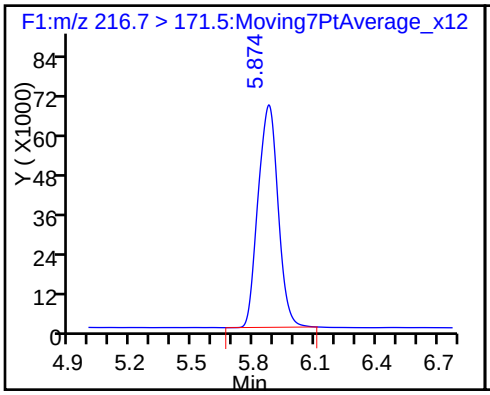
Client ID:

Operator ID: JRB ALS Bottle#: 10 Worklist Smp#: 9

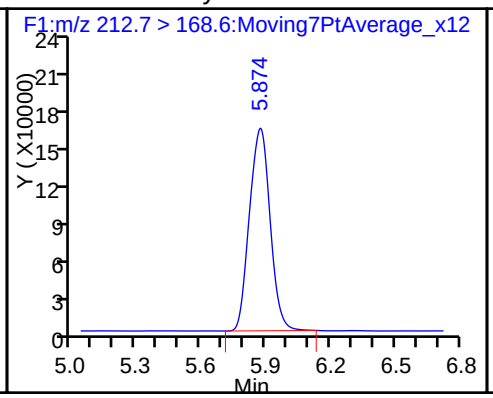
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

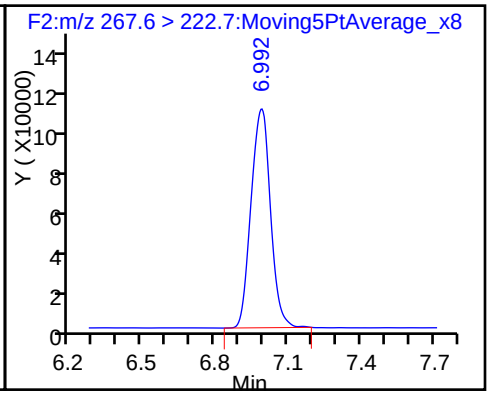
D 1 13C4 PFBA



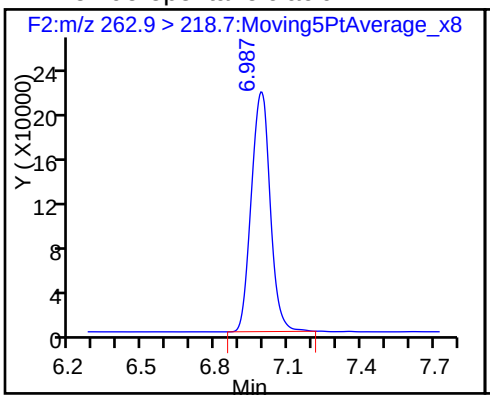
2 Perfluorobutyric acid



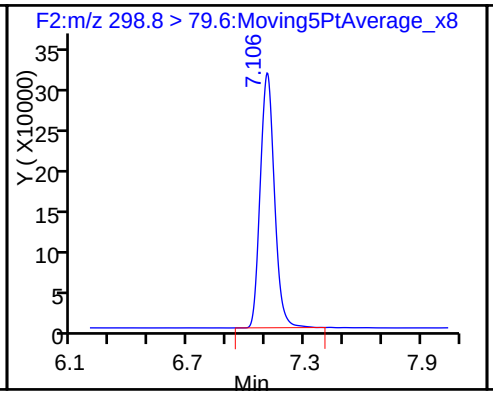
D 3 13C5-PFPeA



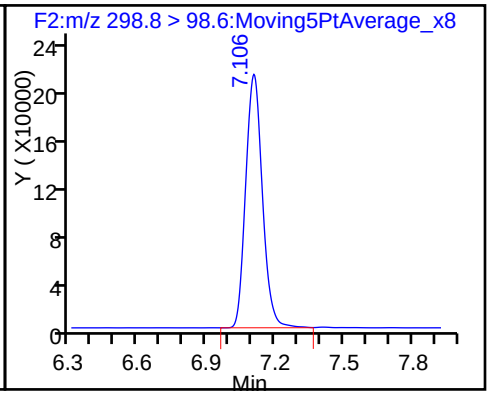
4 Perfluoropentanoic acid



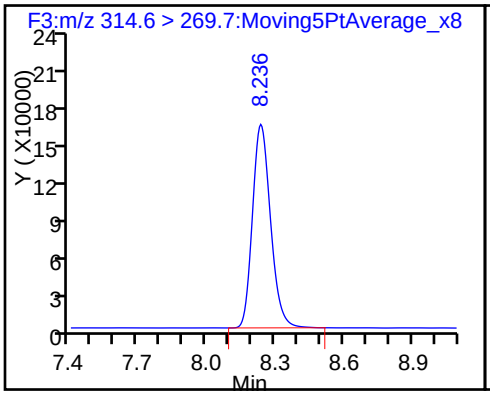
5 Perfluorobutane Sulfonate



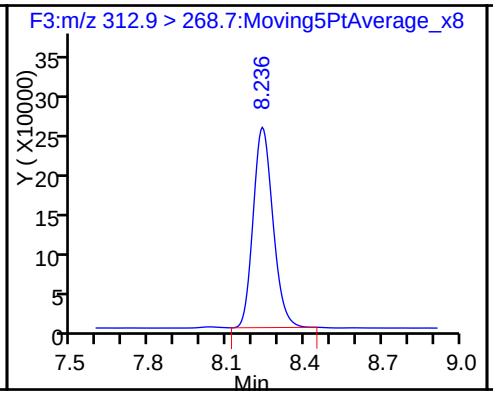
5 Perfluorobutane Sulfonate



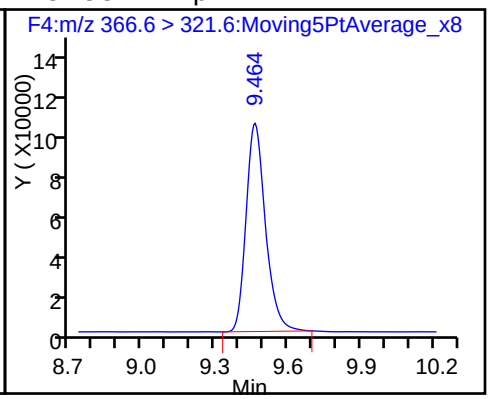
D 6 13C2 PFHxA



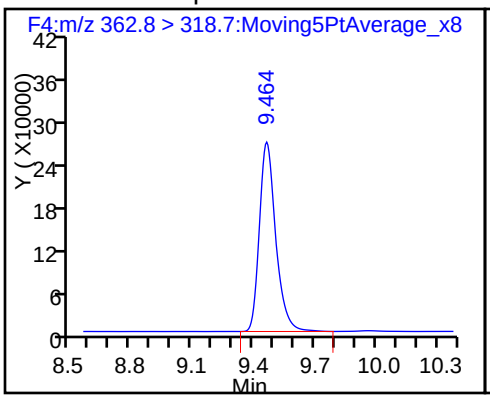
7 Perfluorohexanoic acid



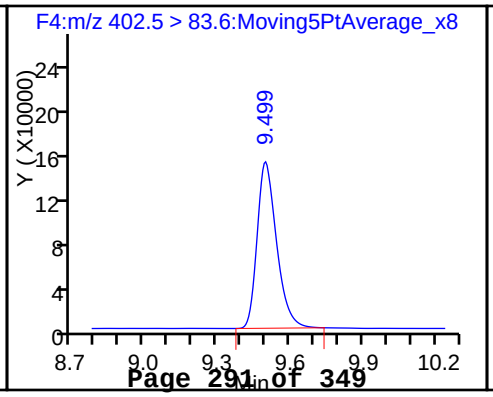
D 8 13C4-PFHpA



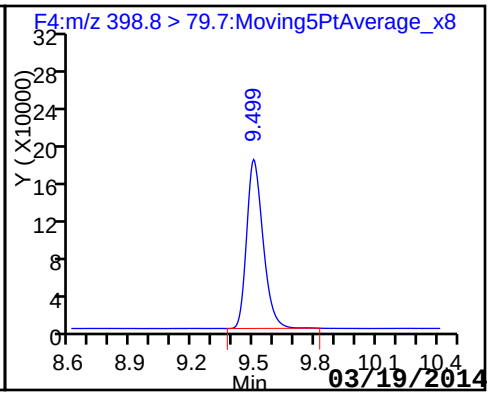
9 Perfluoroheptanoic acid



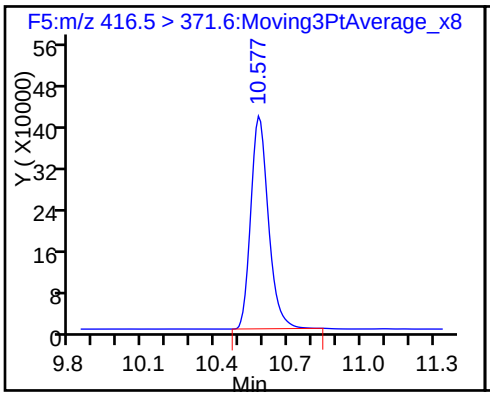
D 11 18O2 PFHxS



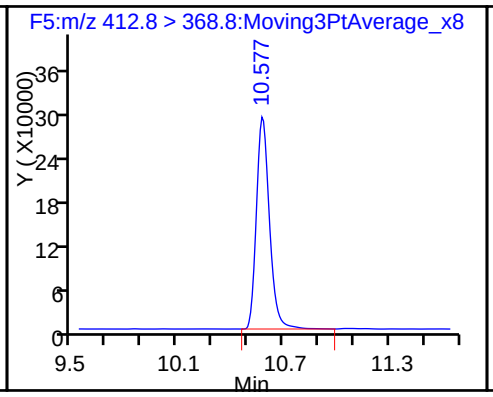
10 Perfluorohexane Sulfonate



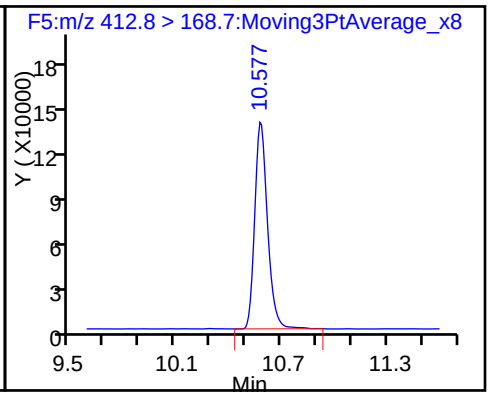
D 12 13C4 PFOA



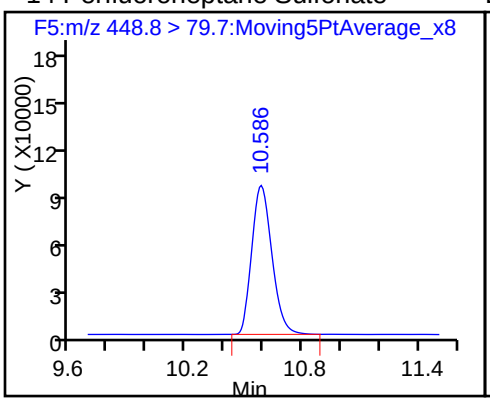
13 Perfluorooctanoic acid



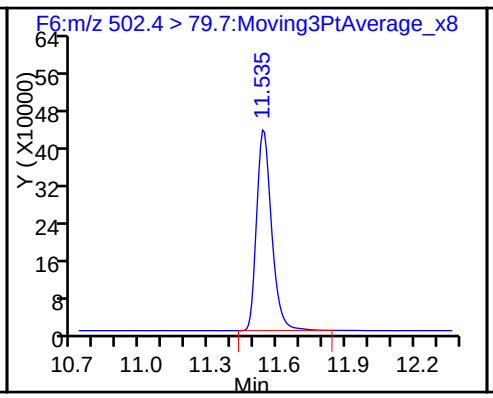
13 Perfluorooctanoic acid



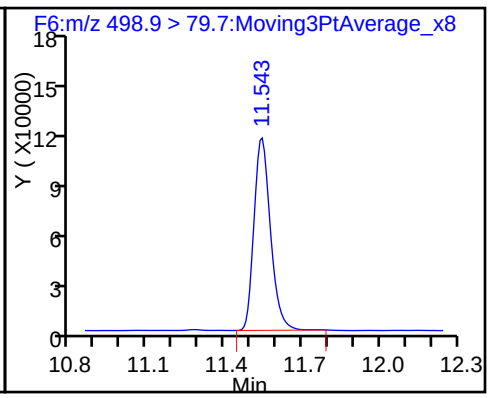
14 Perfluoroheptane Sulfonate



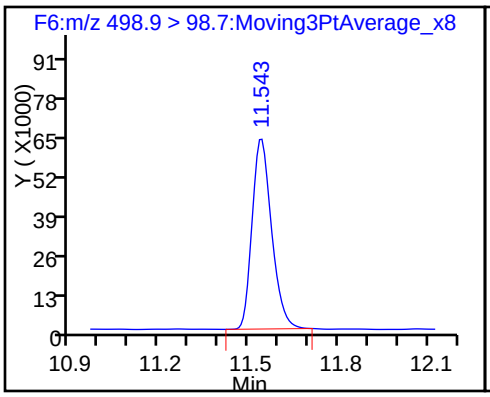
D 16 13C4 PFOS



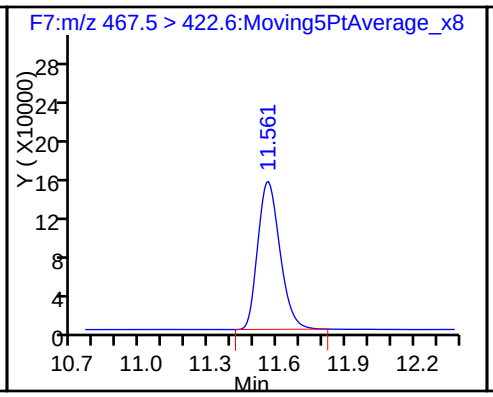
15 Perfluorooctanoic Sulfonate



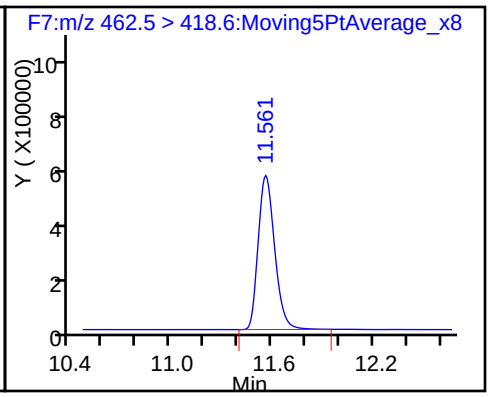
15 Perfluorooctanoic Sulfonate



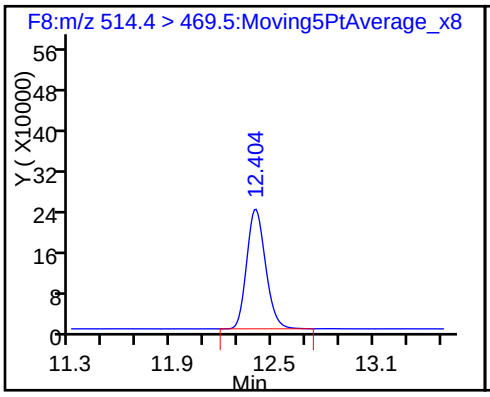
D 17 13C5 PFNA



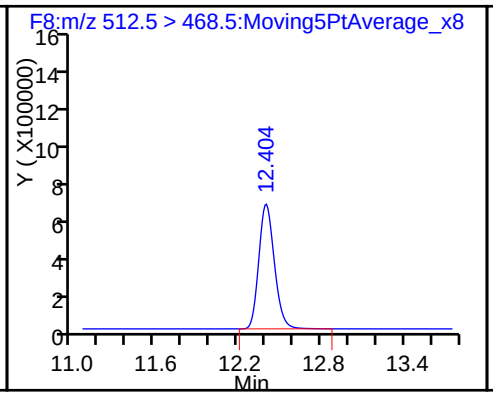
18 Perfluorononanoic acid



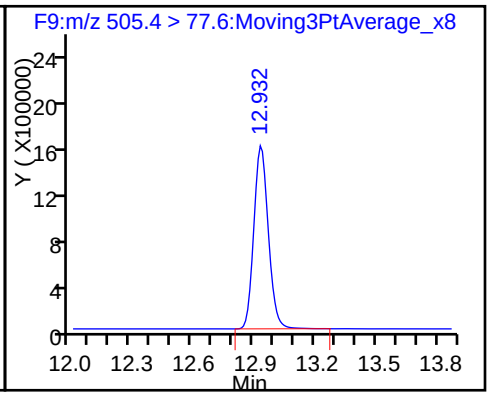
D 19 13C2 PFDA



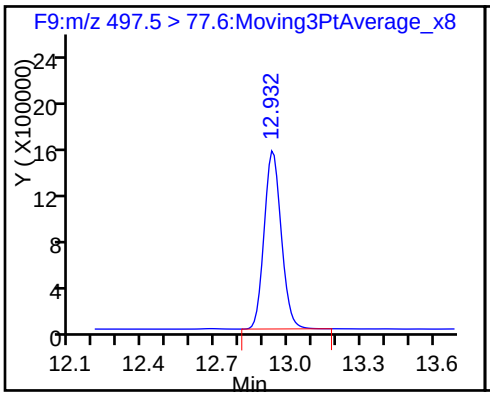
20 Perfluorodecanoic acid



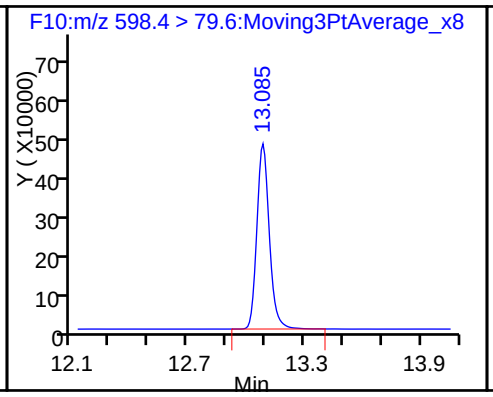
D 23 13C8 FOSA



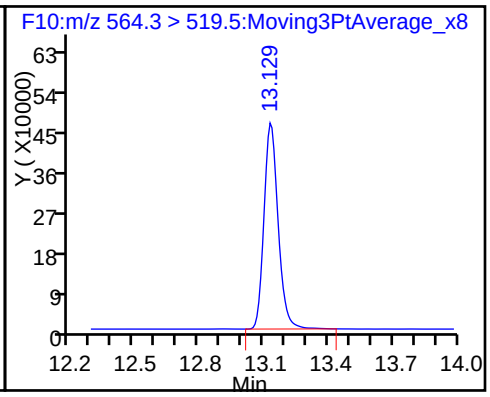
24 Perfluorooctane Sulfonamide



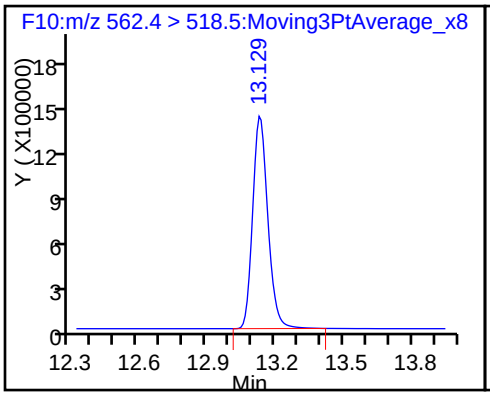
25 Perfluorodecane Sulfonate



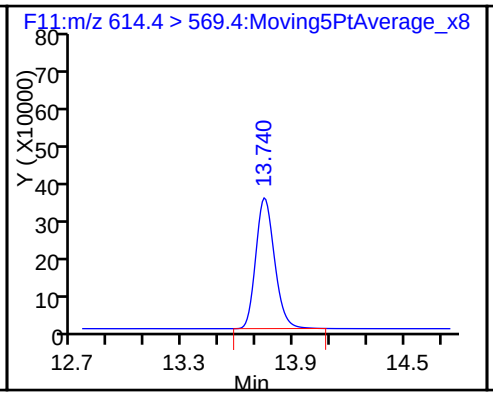
D 26 13C2 PFUnA



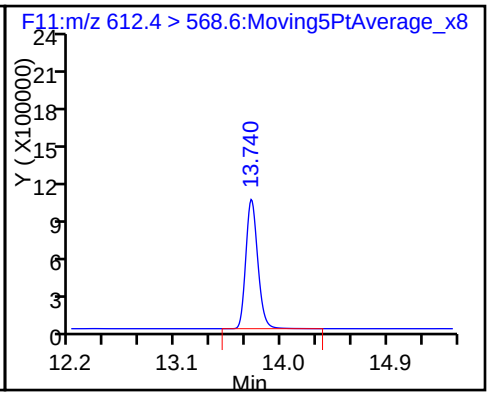
27 Perfluoroundecanoic acid



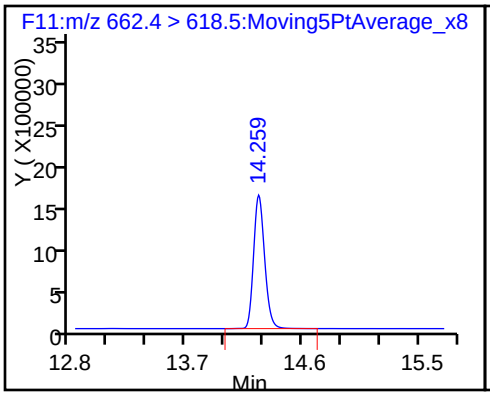
D 28 13C2 PFDoA



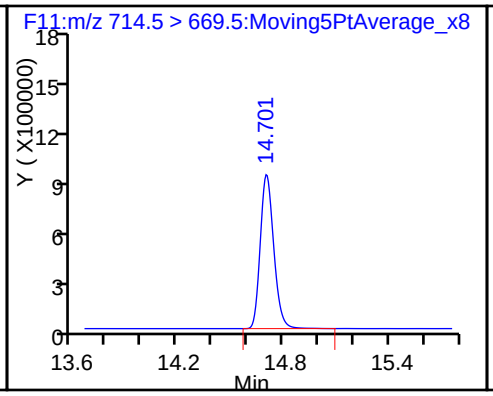
29 Perfluorododecanoic acid



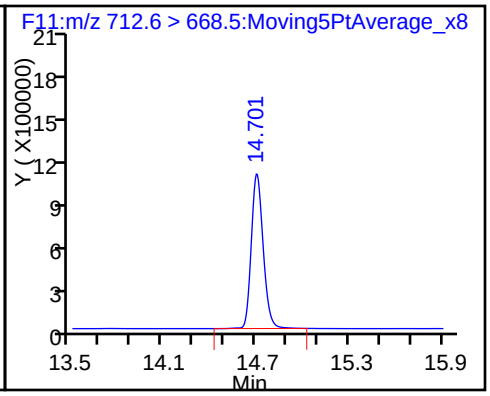
30 Perfluorotridecanoic acid



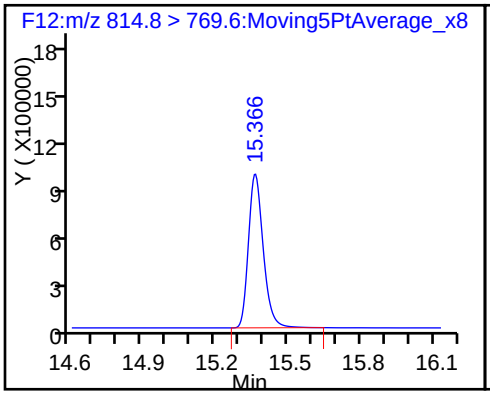
D 33 13C2-PFTeDA



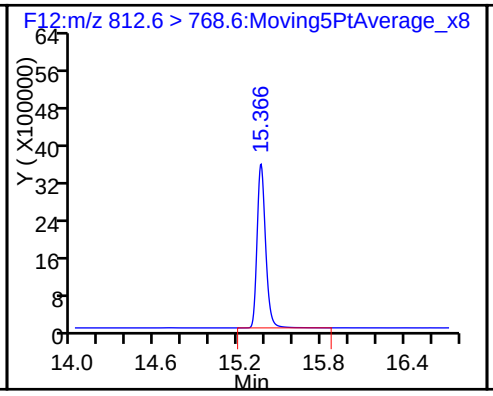
32 Perfluorotetradecanoic acid



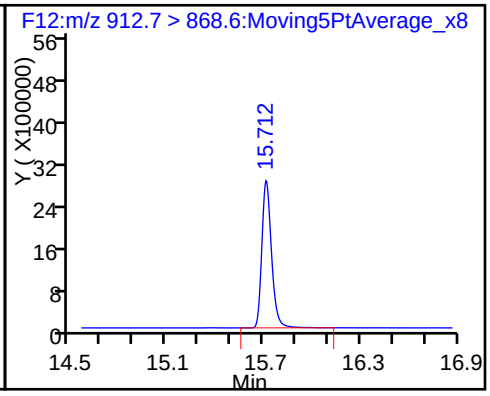
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Lab Sample ID: CCV 320-37466/18 Calibration Date: 03/03/2014 16:37

Instrument ID: A4 Calib Start Date: 03/03/2014 10:58

GC Column: Acquity ID: 2.10(mm) Calib End Date: 03/03/2014 13:05

Lab File ID: 03MAR14A4C_022.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorooctanoic acid (PFOA)	AveID	0.5412	0.6154		56.9	50.0	13.7	40.0
Perfluorooctane Sulfonate (PFOS)	AveID	0.2071	0.2282		52.7	47.8	10.2	40.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_022.d
Lims ID: CCV L5 Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 03-Mar-2014 16:37:58 ALS Bottle#: 11 Worklist Smp#: 18
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-018 CCV L5
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-PFAC_A4*sub5

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 17:03:51 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.859	5.882	-0.023		395118	16.7		83.5	836	
2 Perfluorobutyric acid										
212.7 > 168.6	5.859	5.883	-0.024	1.000	783979	47.9			1273	
D 3 13C5-PFPeA										
267.6 > 222.7	6.960	6.997	-0.037		453778	15.1		75.3	1432	
4 Perfluoropentanoic acid										
262.9 > 218.7	6.960	6.999	-0.039	1.000	777750	54.2			2355	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.081	7.116	-0.035	1.000	1335292	44.3			2809	
298.8 > 98.6	7.078	7.116	-0.038	1.000	872081		1.53(0.00-0.00)		2715	
D 6 13C2 PFHxA										
314.6 > 269.7	8.209	8.248	-0.039		697650	16.2		80.9	2087	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.209	8.251	-0.042	1.000	920715	54.5			1573	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.285	8.328	-0.043	0.875	1398620	47.0			2246	
D 8 13C4-PFHpA										
366.6 > 321.6	9.434	9.473	-0.039		492624	14.7		73.5	980	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.434	9.474	-0.040	1.000	1059146	54.5			1838	
D 11 18O2 PFHxS										
402.5 > 83.6	9.469	9.510	-0.041		766894	17.6		92.9	1500	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.469	9.510	-0.041	1.000	687150	42.0			1325	
D 12 13C4 PFOA										
416.5 > 371.6	10.559	10.590	-0.031		1787811	38.5		76.9	2338	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Perfluorooctanoic acid										
412.8 > 368.8	10.559	10.591	-0.032	1.000	1100213	56.9			1538	
412.8 > 168.7	10.559	10.591	-0.032	1.000	491404		2.24(0.00-0.00)		627	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.559	10.598	-0.039	1.000	590602	51.4			1027	
D 16 13C4 PFOS										
502.4 > 79.7	11.518	11.547	-0.029		1761990	42.4		88.7	3372	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.518	11.547	-0.029	1.000	402087	52.7			172	
498.9 > 98.7	11.518	11.547	-0.029	1.000	232125		1.73(0.00-0.00)		470	
D 17 13C5 PFNA										
467.5 > 422.6	11.536	11.566	-0.030		914061	16.4		82.0	1602	
18 Perfluorononanoic acid										
462.5 > 418.6	11.544	11.570	-0.026	1.000	2725295	51.8			2992	
21 PFNS (Perflouro-1-nonanesulfonate)										
548.6 > 79.6	12.352	12.379	-0.027	1.000	1455402	55.1			2418	
D 19 13C2 PFDA										
514.4 > 469.5	12.383	12.408	-0.025		1398246	15.5		77.3	2386	
20 Perfluorodecanoic acid										
512.5 > 468.5	12.383	12.410	-0.027	1.000	3457566	50.1			4409	
D 23 13C8 FOSA										
505.4 > 77.6	12.922	12.942	-0.020		6503194	43.9		87.7	5085	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.922	12.944	-0.022	1.000	6166406	52.4			4036	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.067	13.091	-0.024	1.000	1814136	52.3			2805	
D 26 13C2 PFUnA										
564.3 > 519.5	13.120	13.140	-0.020		1781468	15.9		79.7	2999	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.120	13.140	-0.020	1.000	4892357	51.1			4298	
D 28 13C2 PFDoA										
614.4 > 569.4	13.731	13.750	-0.019		2181128	16.5		82.3	3952	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.731	13.750	-0.019	1.000	5348845	51.2			4808	
31 PFDoS (Perflouro-1-dodecanesulfona										
698.6 > 79.7	14.197	14.216	-0.019	1.000	1670072	49.6			2845	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.251	14.270	-0.019	1.000	7008131	55.1			7469	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.694	14.713	-0.019		4108168	17.6		88.0	7410	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.700	14.713	-0.013	1.000	4371790	52.9			6539	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.360	15.371	-0.011		3161692	17.5		87.5	8053	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.360	15.372	-0.012	1.000	10105424	47.0			9901	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.707	15.718	-0.011	1.000	6282707	41.6			7034	

Report Date: 03-Mar-2014 17:03:51 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_022.d

Injection Date: 03-Mar-2014 16:37:58 Instrument ID: A4

Lims ID: CCV L5 Lab Sample ID:

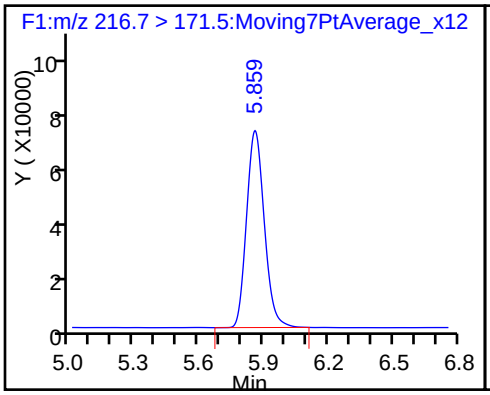
Client ID:

Operator ID: JRB ALS Bottle#: 11 Worklist Smp#: 18

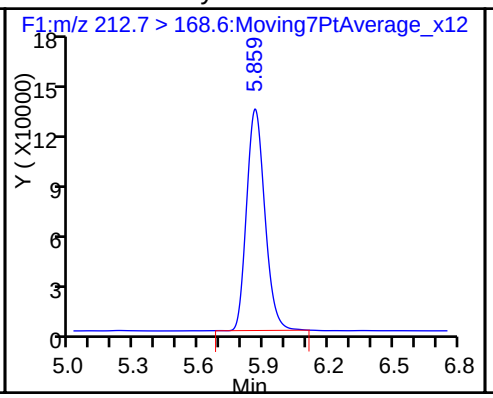
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

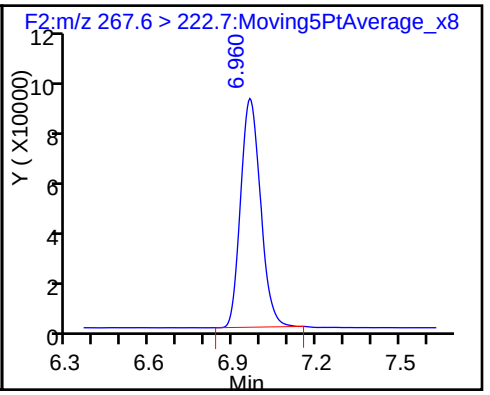
D 1 13C4 PFBA



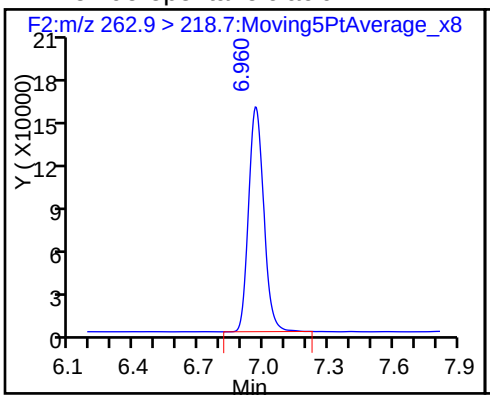
2 Perfluorobutyric acid



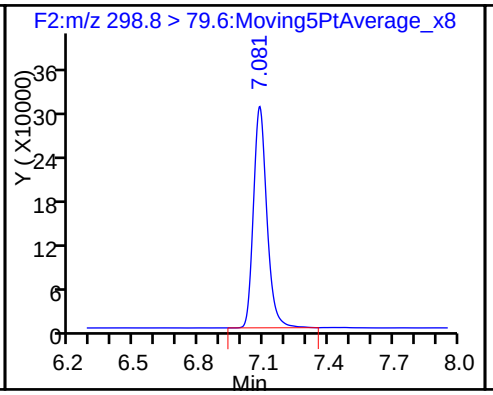
D 3 13C5-PFPeA



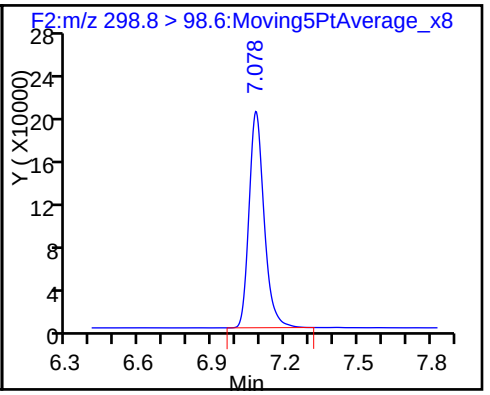
4 Perfluoropentanoic acid



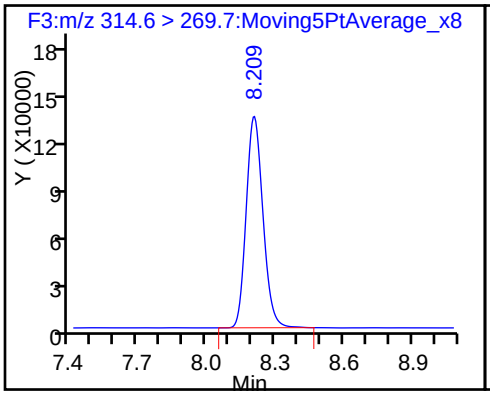
5 Perfluorobutane Sulfonate



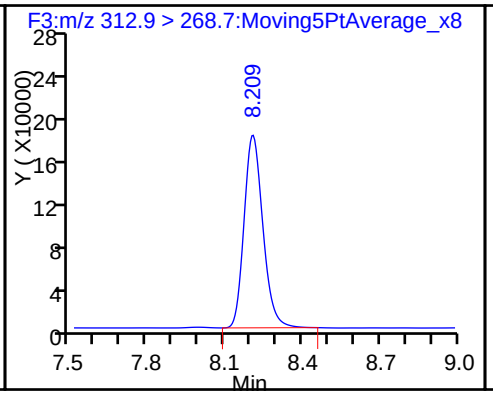
5 Perfluorobutane Sulfonate



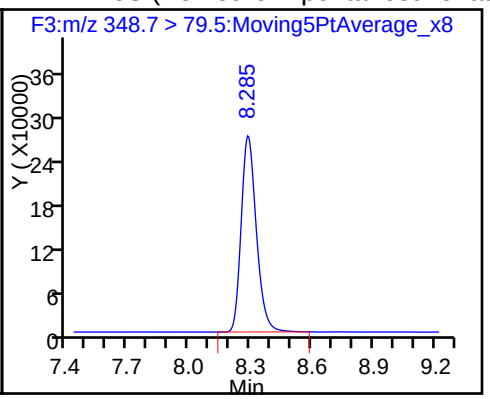
D 6 13C2 PFHxA



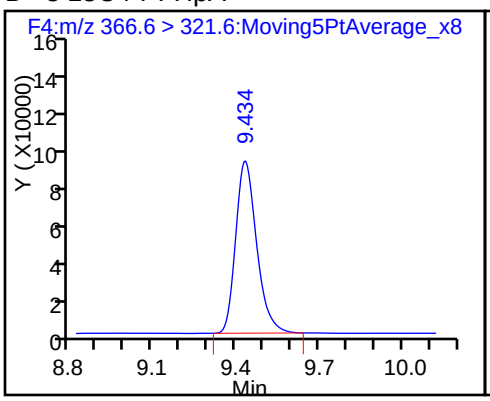
7 Perfluorohexanoic acid



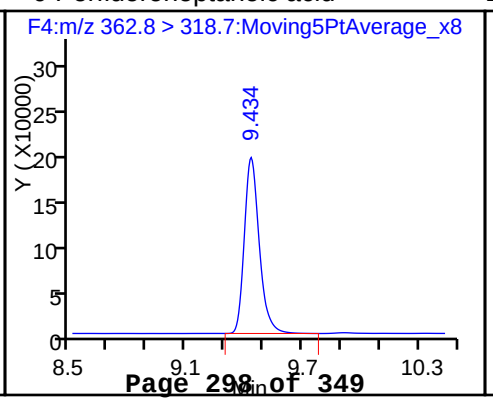
22 PFPeS (Perflouro-1-pentanesulfonat



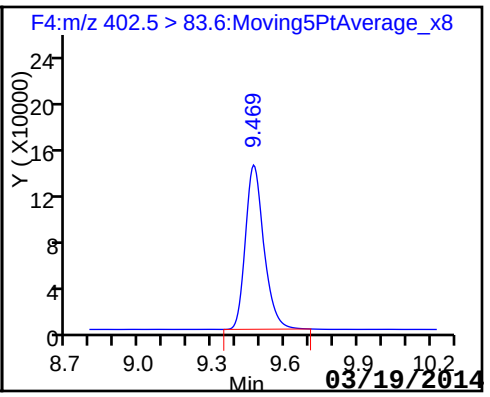
D 8 13C4-PFHpA



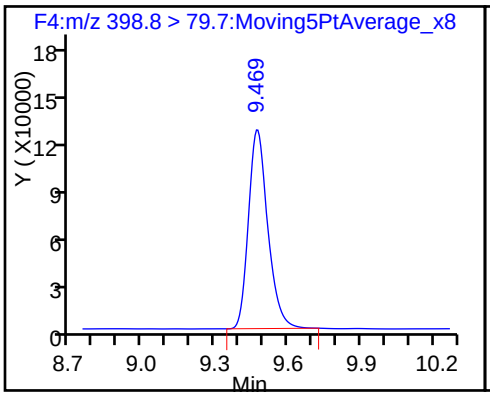
9 Perfluoroheptanoic acid



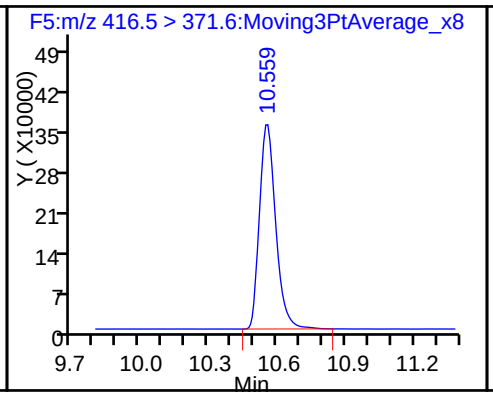
D 11 18O2 PFHxS



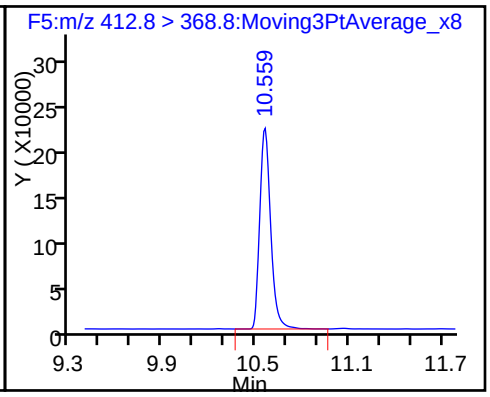
10 Perfluorohexane Sulfonate



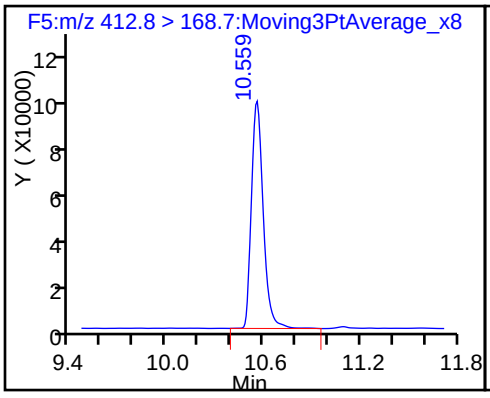
D 12 13C4 PFOA



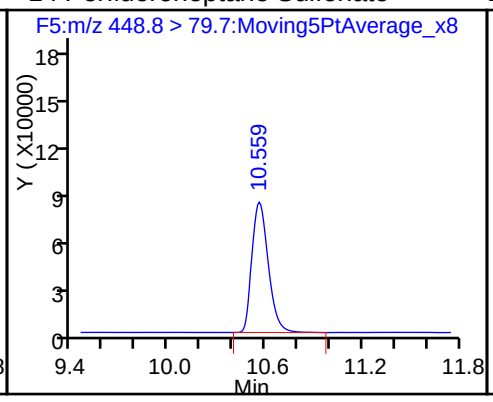
13 Perfluorooctanoic acid



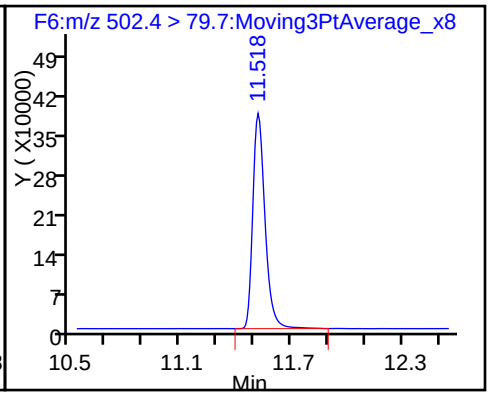
13 Perfluorooctanoic acid



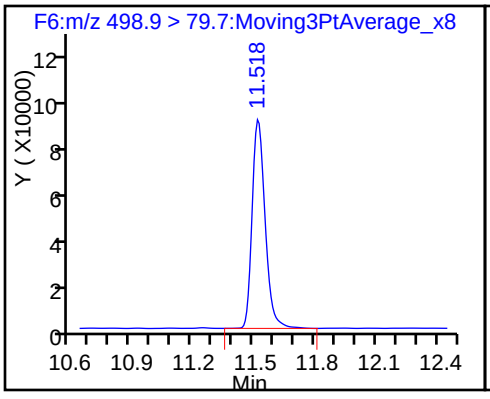
14 Perfluoroheptane Sulfonate



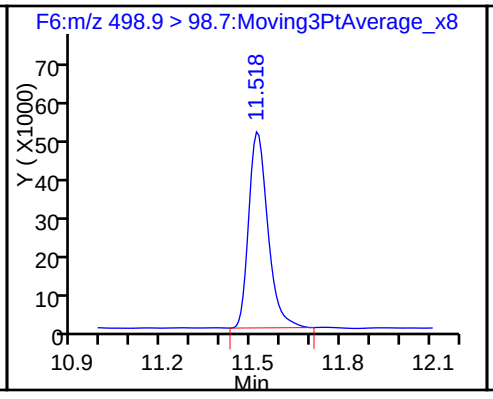
D 16 13C4 PFOS



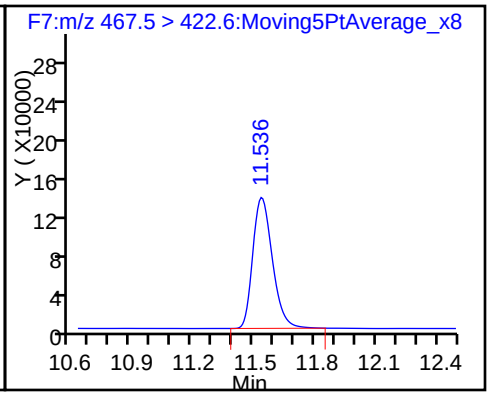
15 Perfluorooctanoic Sulfonate



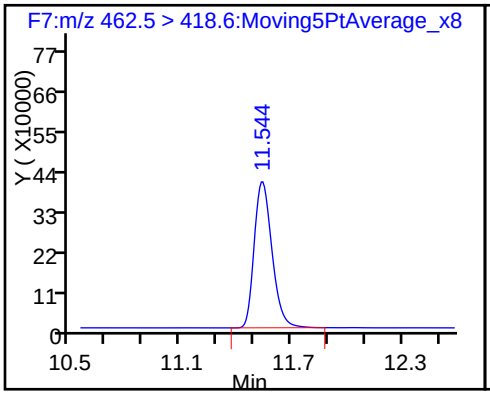
15 Perfluorooctanoic Sulfonate



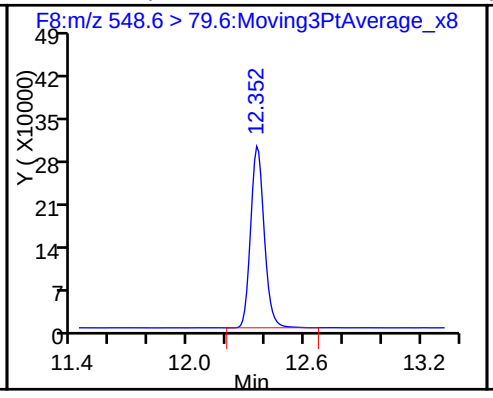
D 17 13C5 PFNA



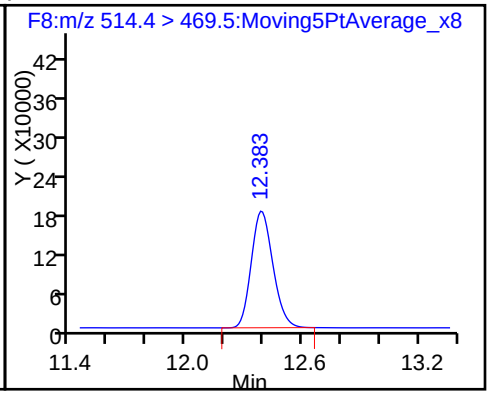
18 Perfluorononanoic acid



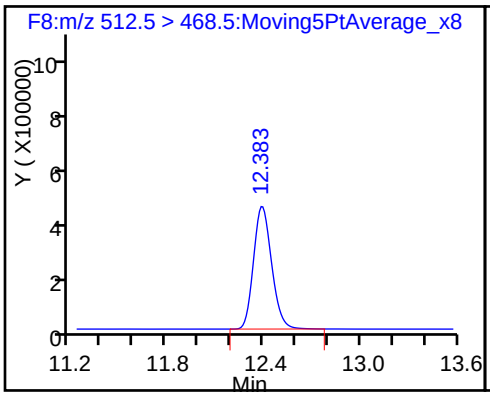
21 PFNS (Perflouro-1-nonanesulfonate)



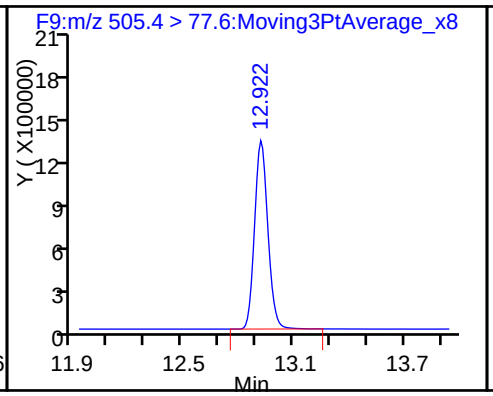
D 19 13C2 PFDA



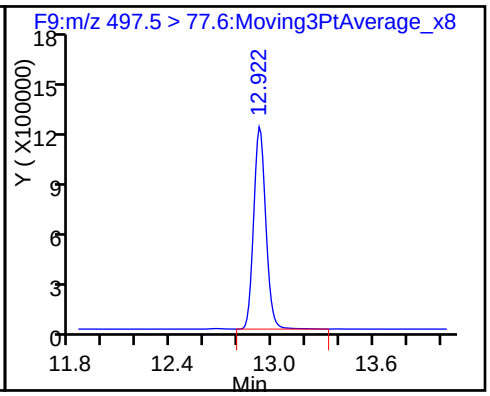
20 Perfluorodecanoic acid



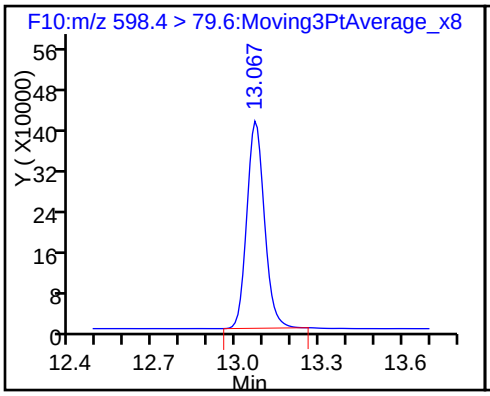
D 23 13C8 FOSA



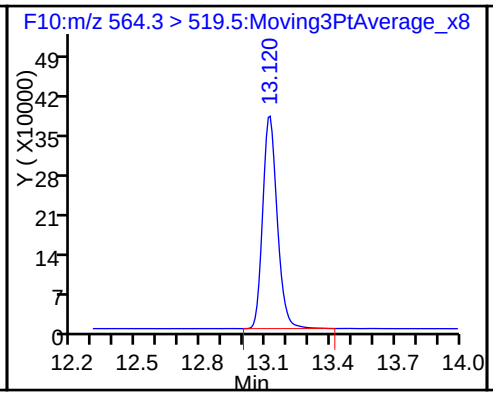
24 Perfluorooctane Sulfonamide



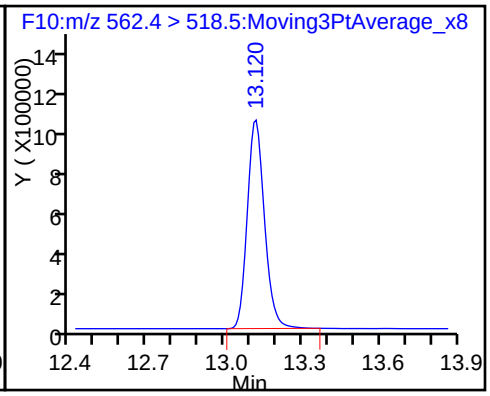
25 Perfluorodecane Sulfonate



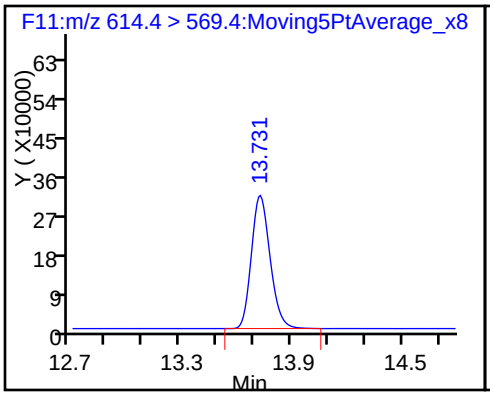
D 26 13C2 PFUnA



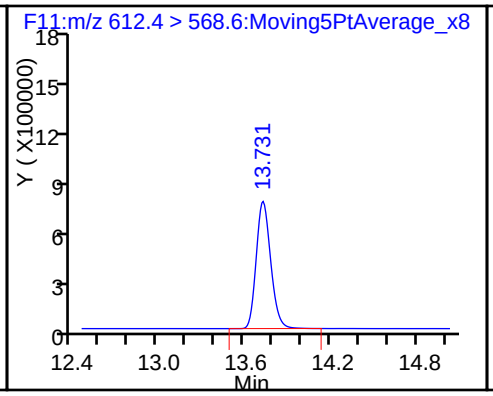
27 Perfluoroundecanoic acid



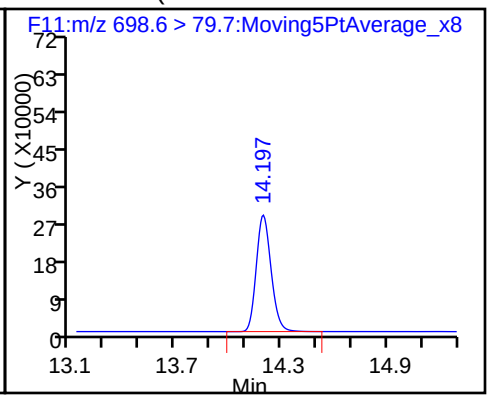
D 28 13C2 PFDoA



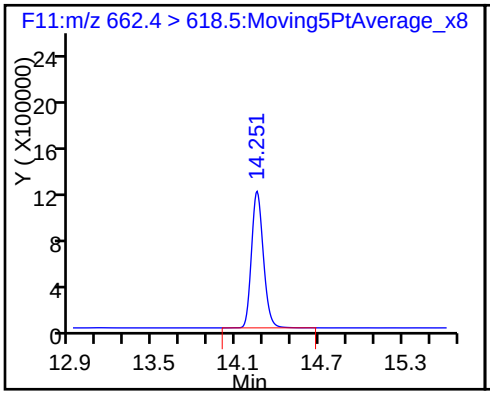
29 Perfluorododecanoic acid



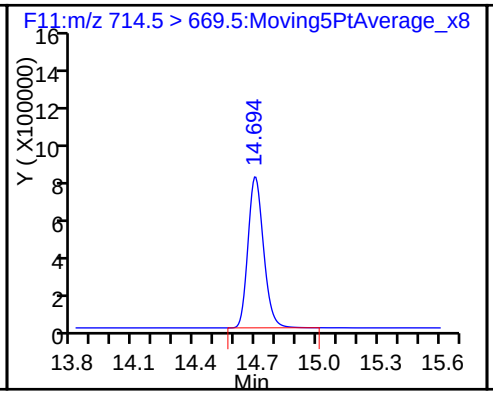
31 PFDoS (Perflouro-1-dodecanesulfona



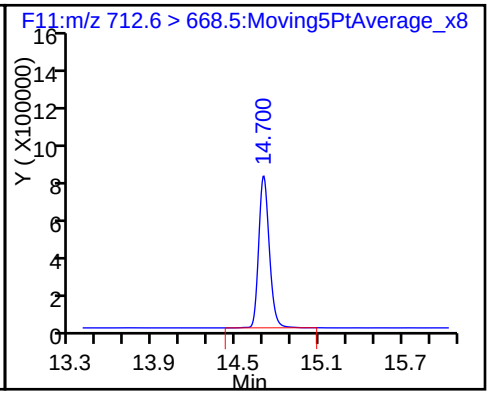
30 Perfluorotridecanoic acid



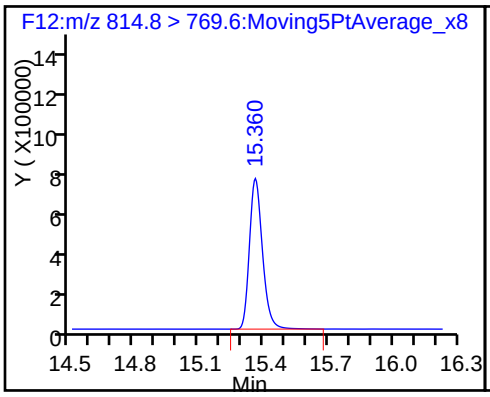
D 33 13C2-PFTeDA



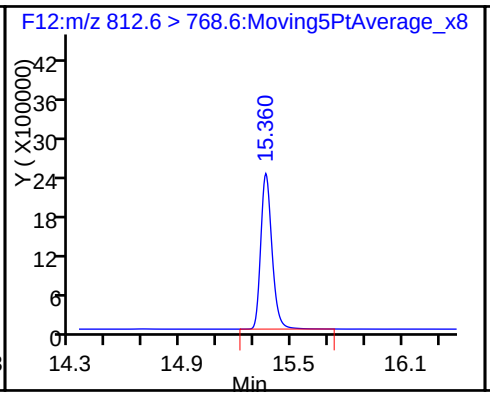
32 Perfluorotetradecanoic acid



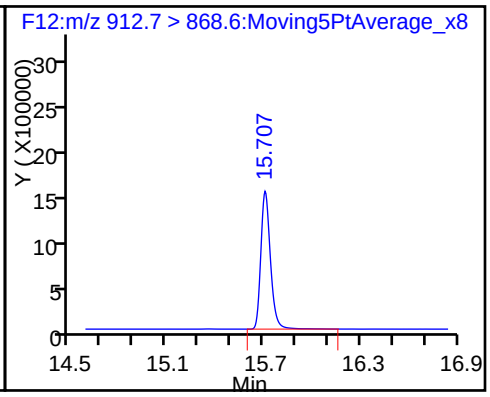
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 320-36921/1-A

Matrix: Water Lab File ID: 03MAR14A4C_015.d

Analysis Method: WS-LC-0025 Date Collected:

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 500(mL) Date Analyzed: 03/03/2014 14:09

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.5	U	2.0	1.5	0.75
1763-23-1	Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	126		25-150
STL00990	13C4 PFOA	132		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_015.d
Lims ID: MB 320-36921/1-A Lab Sample ID: MB 320-36921/1-A
Client ID:
Sample Type: MB
Inject. Date: 03-Mar-2014 14:09:26 ALS Bottle#: 1 Worklist Smp#: 11
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-011 MB 320-36921/1-A
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 15:15:20 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.109	7.116	-0.007	1.000	2370	NR			5.2	
298.8 > 98.6	7.099	7.116	-0.017	0.999	1485		1.60(0.00-0.00)		5.4	
D 12 13C4 PFOA										
416.5 > 371.6	10.577	10.590	-0.013		3076324	66.2		132	3930	
13 Perfluorooctanoic acid										
412.8 > 368.8	10.577	10.591	-0.014	1.000	3970	0.1192			4.2	
D 16 13C4 PFOS										
502.4 > 79.7	11.535	11.547	-0.012		2502059	60.2		126	4934	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.535	11.547	-0.012	1.000	232	0.0214			0.6	
D 19 13C2 PFDA										
514.4 > 469.5	12.404	12.408	-0.004		7111	0.0786		0.0	13.8	
D 23 13C8 FOSA										
505.4 > 77.6	12.973	12.942	0.031		3886	0.0262		0.0	6.3	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.266	14.270	-0.004	1.000	4757	NR			8.6	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.714	14.713	0.001		4620	0.0198		0.0	11.8	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.370	15.372	-0.002	1.000	6095	NR			19.2	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.717	15.718	-0.001	1.000	4324	NR			14.1	

Report Date: 03-Mar-2014 15:15:30 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_015.d

Injection Date: 03-Mar-2014 14:09:26 Instrument ID: A4

Lims ID: MB 320-36921/1-A Lab Sample ID: MB 320-36921/1-A

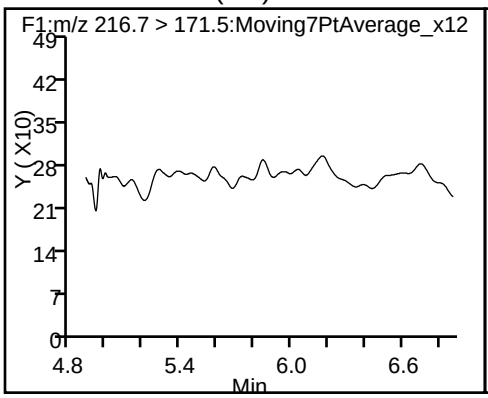
Client ID:

Operator ID: JRB ALS Bottle#: 1 Worklist Smp#: 11

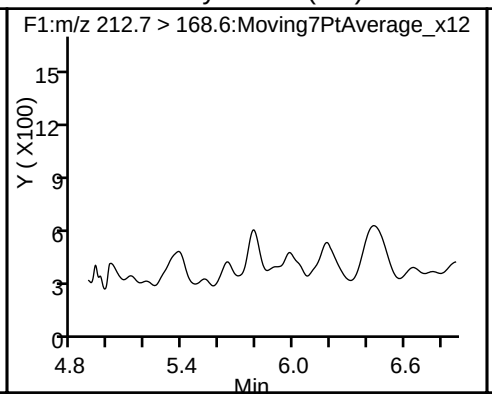
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

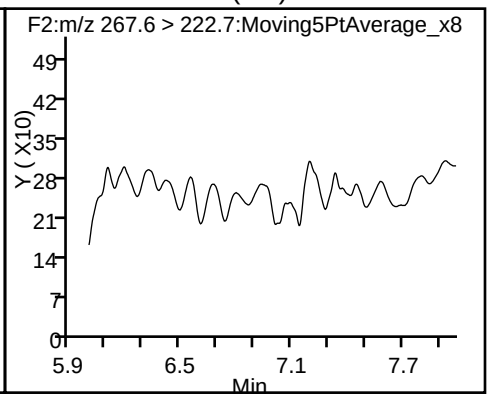
D 1 13C4 PFBA (ND)



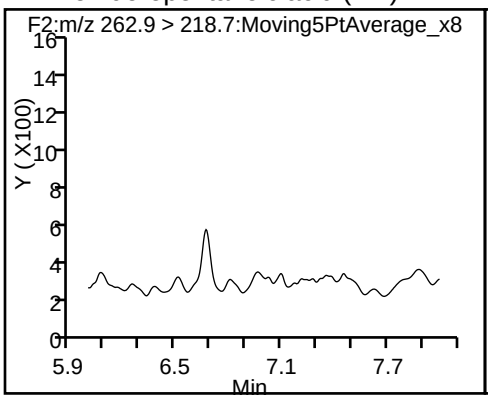
2 Perfluorobutyric acid (ND)



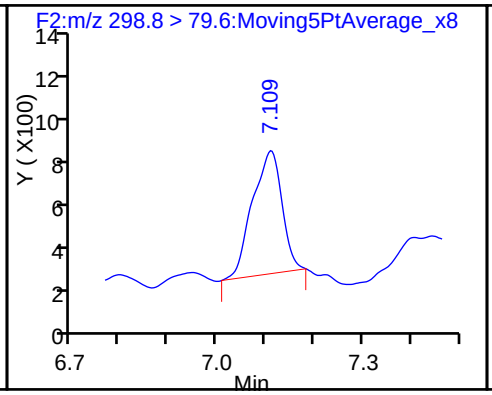
D 3 13C5-PFPeA (ND)



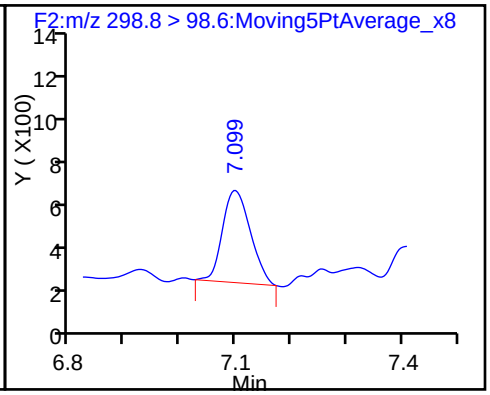
4 Perfluoropentanoic acid (ND)



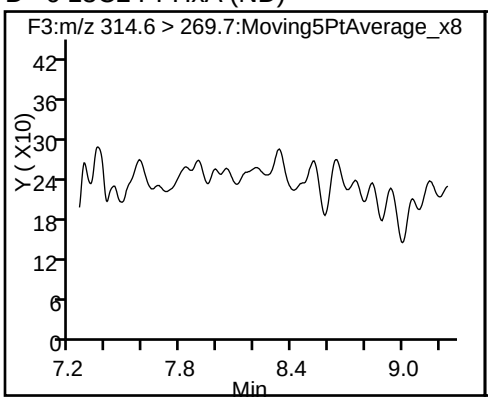
5 Perfluorobutane Sulfonate



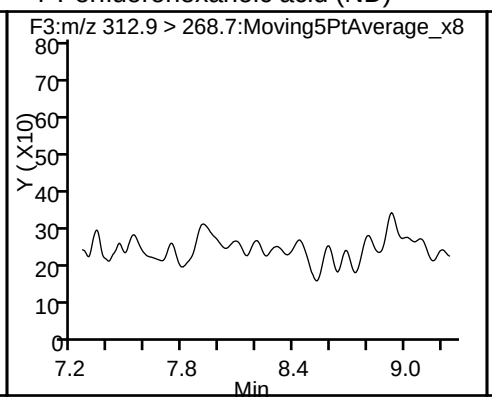
5 Perfluorobutane Sulfonate



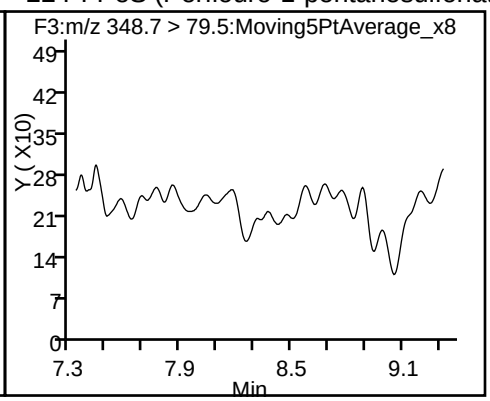
D 6 13C2 PFHxA (ND)



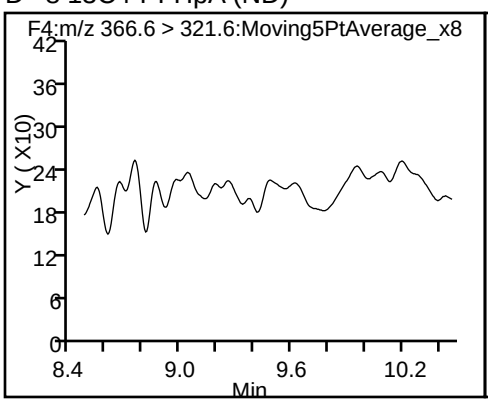
7 Perfluorohexanoic acid (ND)



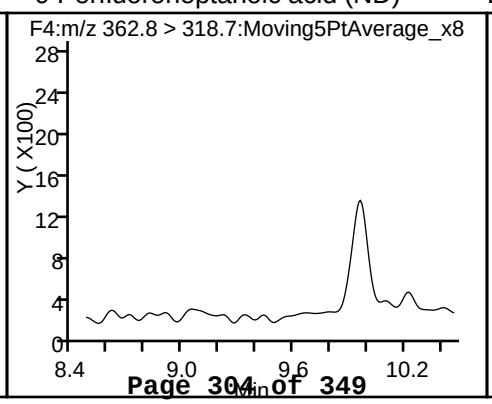
22 PFPeS (Perflouro-1-pentanesulfonat (ND)



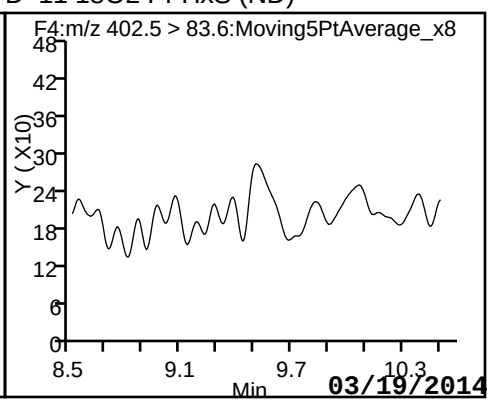
D 8 13C4-PFHpA (ND)



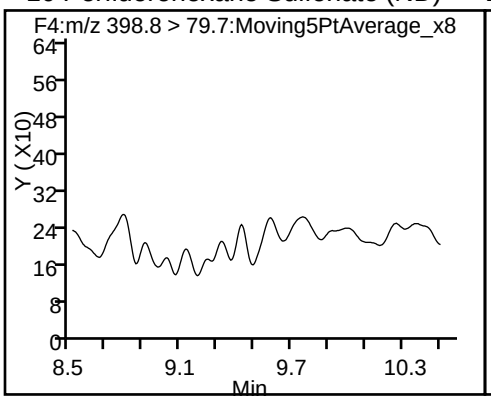
9 Perfluoroheptanoic acid (ND)



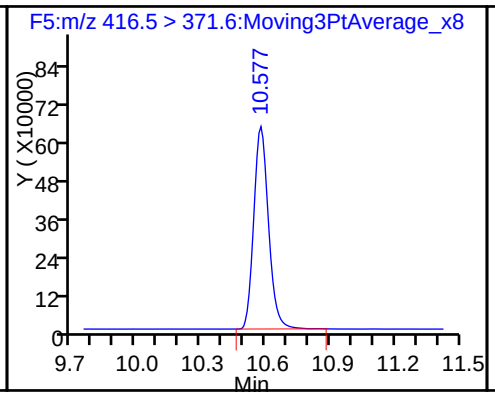
D 11 18O2 PFHxS (ND)



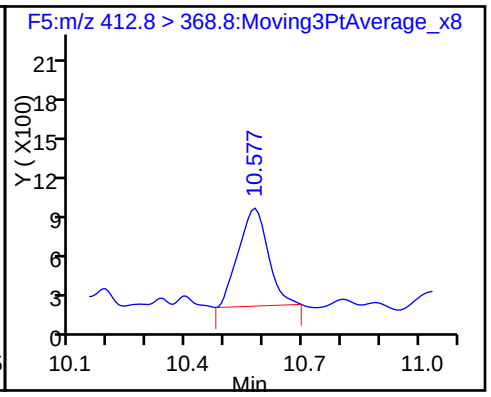
10 Perfluorohexane Sulfonate (ND)



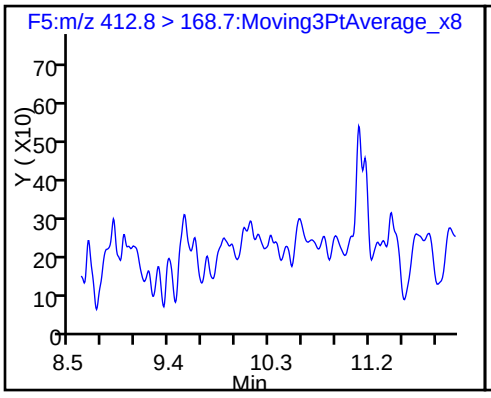
D 12 13C4 PFOA



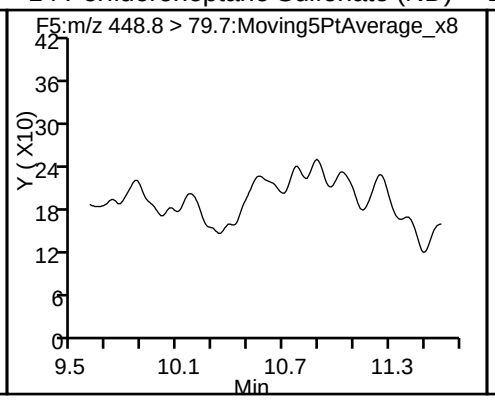
13 Perfluorooctanoic acid



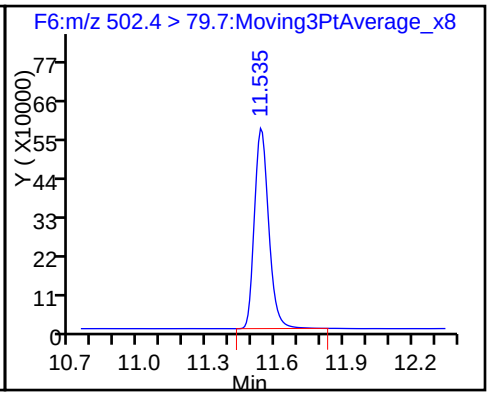
13 Perfluorooctanoic acid



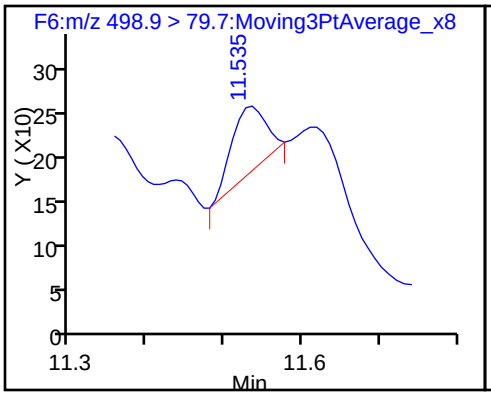
14 Perfluoroheptane Sulfonate (ND)



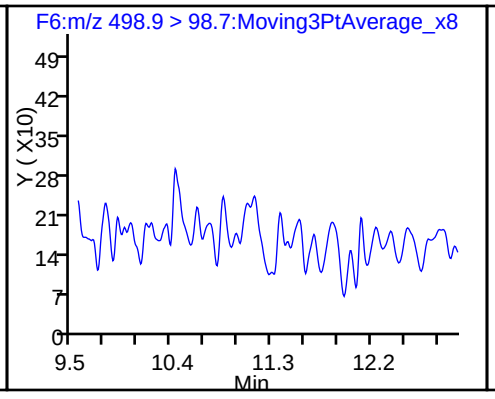
D 16 13C4 PFOS



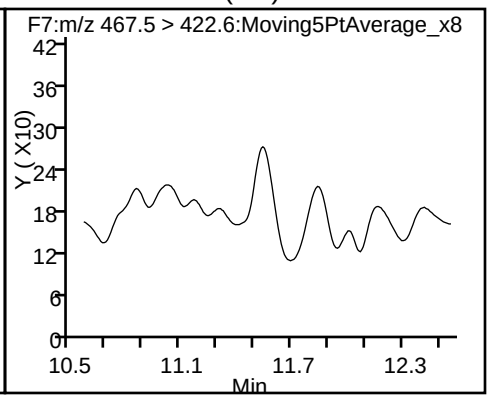
15 Perfluorooctanoic Sulfonate



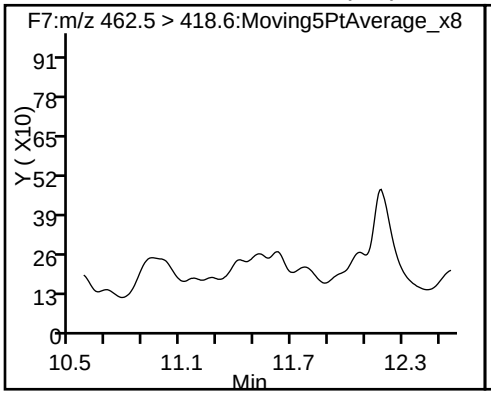
15 Perfluorooctanoic Sulfonate



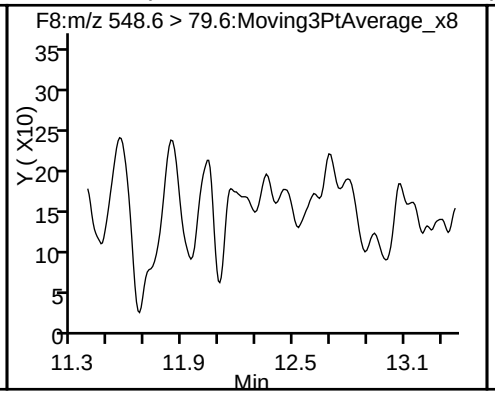
D 17 13C5 PFNA (ND)



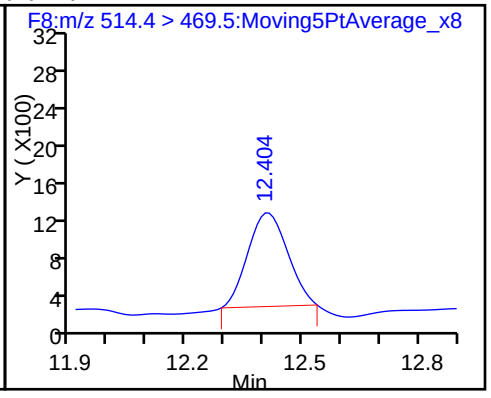
18 Perfluorononanoic acid (ND)



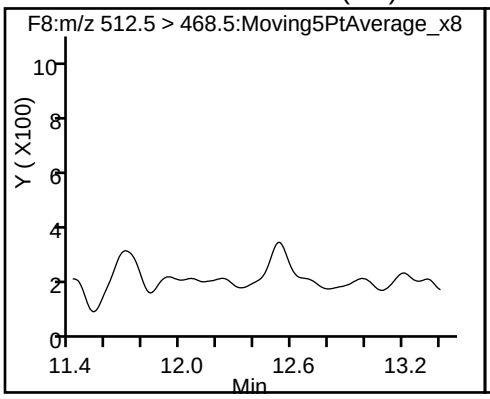
21 PFNS (Perflouro-1-nonanesulfonate) (ND)



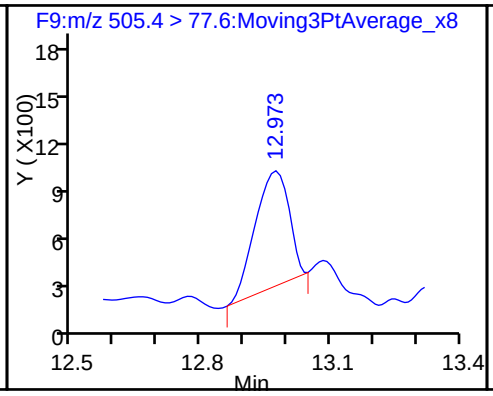
D 19 13C2 PFDA



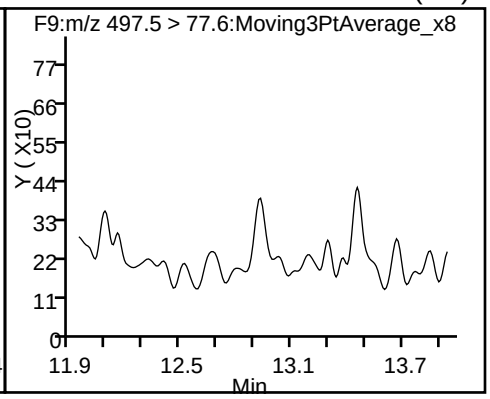
20 Perfluorodecanoic acid (ND)



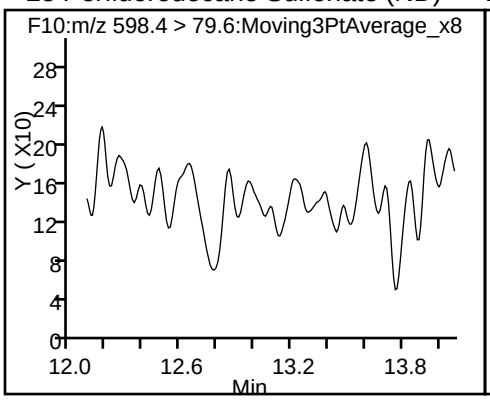
D 23 13C8 FOSA



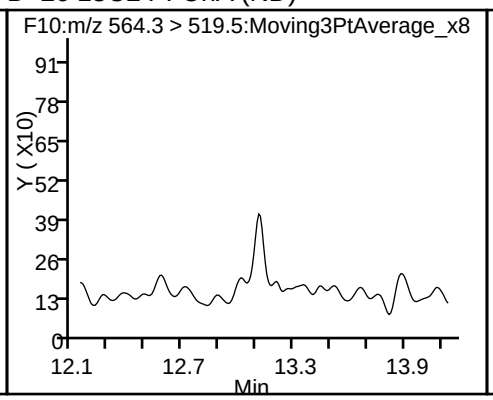
24 Perfluorooctane Sulfonamide (ND)



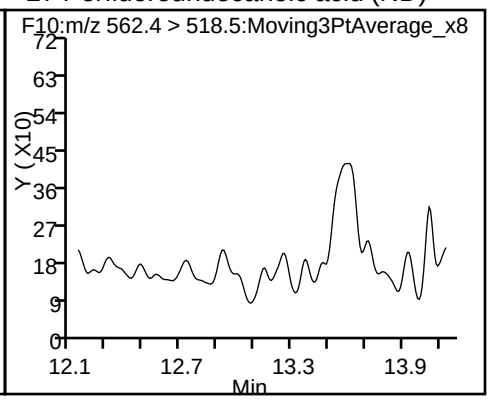
25 Perfluorodecane Sulfonate (ND)



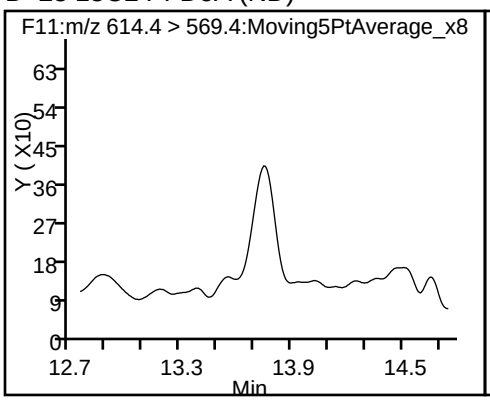
D 26 13C2 PFUnA (ND)



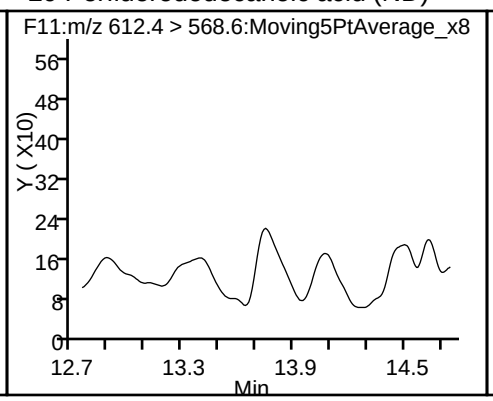
27 Perfluoroundecanoic acid (ND)



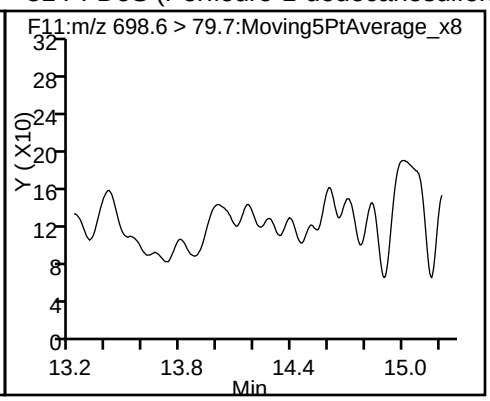
D 28 13C2 PFDoA (ND)



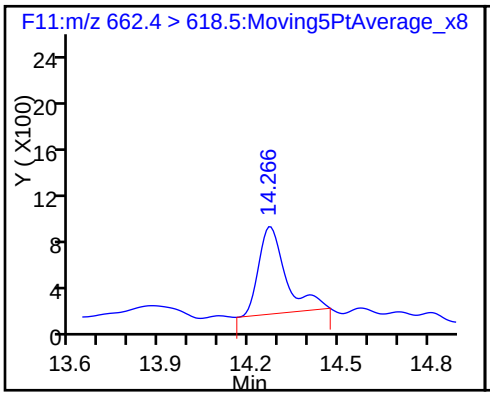
29 Perfluorododecanoic acid (ND)



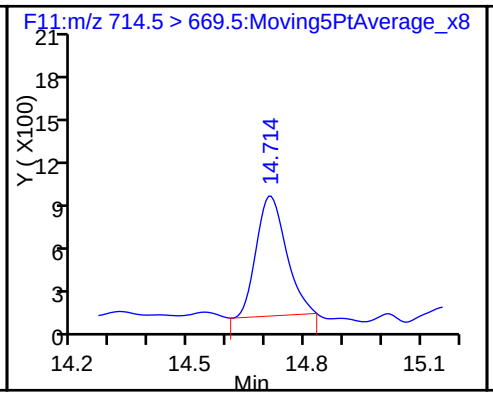
31 PFDoS (Perflouro-1-dodecanesulfona (ND)



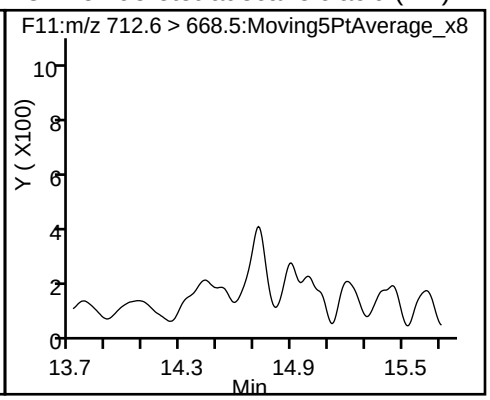
30 Perfluorotridecanoic acid



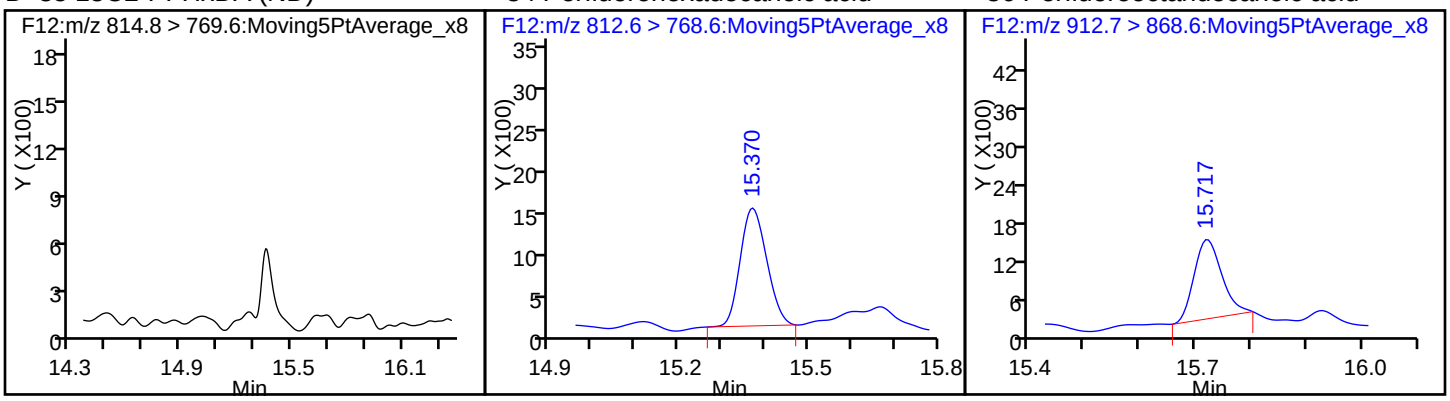
D 33 13C2-PFTeDA



32 Perfluorotetradecanoic acid (ND)



D 35 13C2-PFHxDA (ND) 34 Perfluorohexadecanoic acid 36 Perfluorooctandecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: Lab Sample ID: CCB 320-37466/10

Matrix: Water Lab File ID: 03MAR14A4C_014.d

Analysis Method: WS-LC-0025 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/03/2014 13:48

Con. Extract Vol.: Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.5	U	2.0	1.5	0.75
1763-23-1	Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	125		25-150
STL00990	13C4 PFOA	130		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_014.d
Lims ID: CCB Lab Sample ID: CCB 320-37466/10-A
Client ID:
Sample Type: CCB
Inject. Date: 03-Mar-2014 13:48:12 ALS Bottle#: 12 Worklist Smp#: 10
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-010 CCB
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 15:15:20 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.868	5.882	-0.014		588083	24.8		124	1543	
D 3 13C5-PFPeA										
267.6 > 222.7	6.978	6.997	-0.019		752480	25.0		125	2706	
D 6 13C2 PFHxA										
314.6 > 269.7	8.225	8.248	-0.023		1051071	24.4		122	2206	
D 8 13C4-PFHpA										
366.6 > 321.6	9.452	9.473	-0.021		815978	24.4		122	1679	
D 11 18O2 PFHxS										
402.5 > 83.6	9.487	9.510	-0.023		1069584	24.5		130	2511	
D 12 13C4 PFOA										
416.5 > 371.6	10.568	10.590	-0.022		3024480	65.1		130	3969	
13 Perfluorooctanoic acid										
412.8 > 368.8	10.559	10.591	-0.032	1.000	1106	0.0338			2.4	
D 16 13C4 PFOS										
502.4 > 79.7	11.535	11.547	-0.012		2477667	59.6		125	4146	
D 17 13C5 PFNA										
467.5 > 422.6	11.553	11.566	-0.013		1448567	26.0		130	2875	
D 19 13C2 PFDA										
514.4 > 469.5	12.393	12.408	-0.015		2401932	26.5		133	4013	
D 23 13C8 FOSA										
505.4 > 77.6	12.932	12.942	-0.010		8861379	59.8		120	6847	
D 26 13C2 PFUnA										
564.3 > 519.5	13.128	13.140	-0.012		2997841	26.8		134	5587	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.128	13.140	-0.012	1.000	11790	0.0731			28.9	
D 28 13C2 PFDoA										
614.4 > 569.4	13.738	13.750	-0.012		3374689	25.5		127	4364	
29 Perfluorododecanoic acid										
612.4 > 568.6	13.756	13.750	0.006	1.000	4423	0.0274			3.9	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.273	14.270	0.003	1.000	6965	0.0354			7.8	
D 33 13C2-PFTeDA										
714.5 > 669.5	14.706	14.713	-0.007		5752750	24.6		123	8779	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.706	14.713	-0.007	1.000	10873	0.0851			16.3	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.364	15.371	-0.007		4415236	24.4		122	6098	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.364	15.372	-0.008	1.000	62510	0.1880			139	
36 Perfluorooctandecanoic acid										
912.7 > 868.6	15.721	15.718	0.003	1.000	20956	0.0898			31.3	

Report Date: 03-Mar-2014 15:15:29 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_014.d

Injection Date: 03-Mar-2014 13:48:12 Instrument ID: A4

Lims ID: CCB Lab Sample ID: CCB 320-37466/10-A

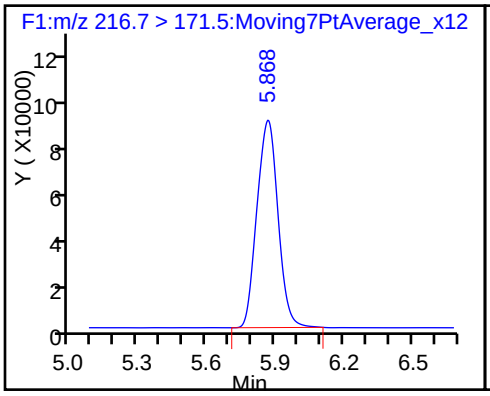
Client ID:

Operator ID: JRB ALS Bottle#: 12 Worklist Smp#: 10

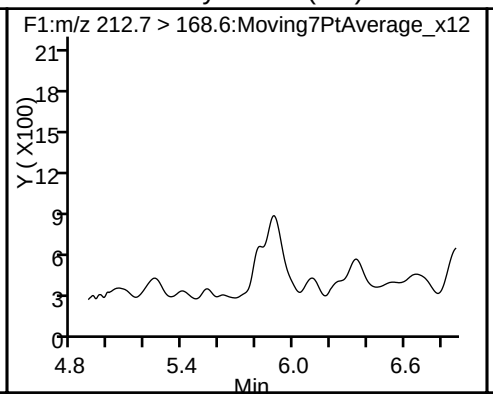
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

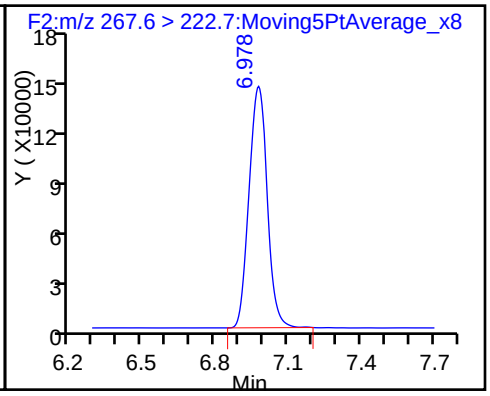
D 1 13C4 PFBA



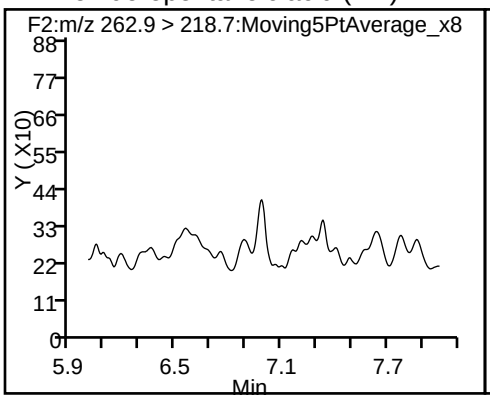
2 Perfluorobutyric acid (ND)



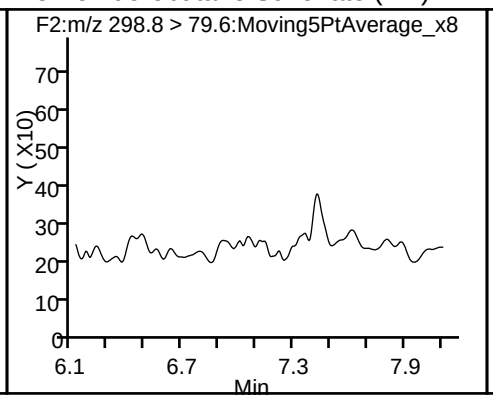
D 3 13C5-PFPeA



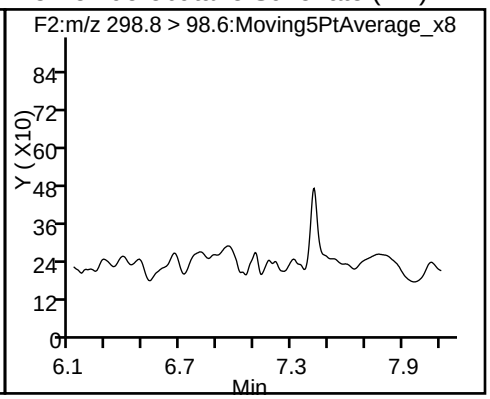
4 Perfluoropentanoic acid (ND)



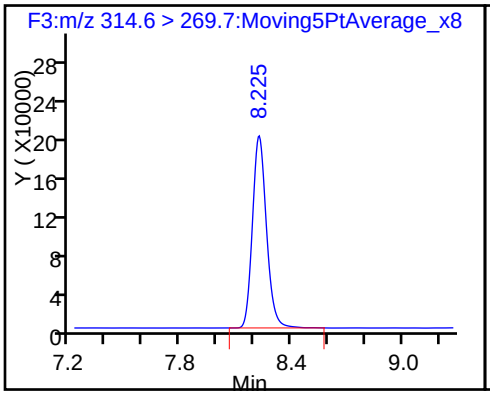
5 Perfluorobutane Sulfonate (ND)



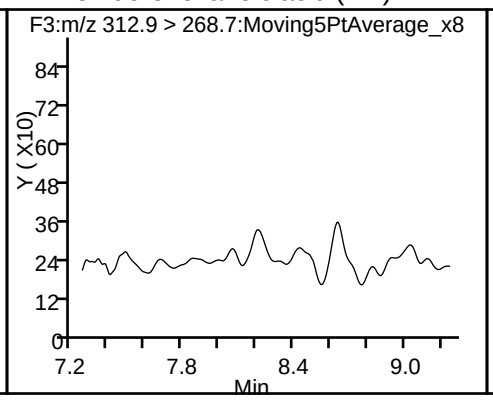
5 Perfluorobutane Sulfonate (ND)



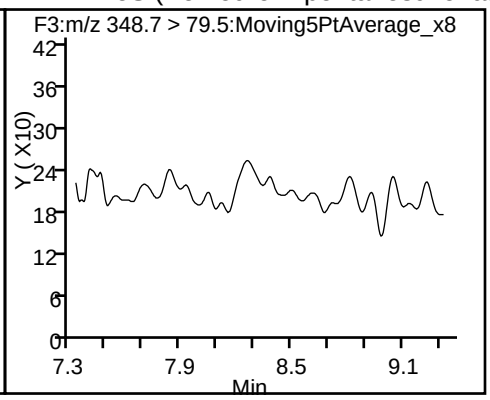
D 6 13C2 PFHxA



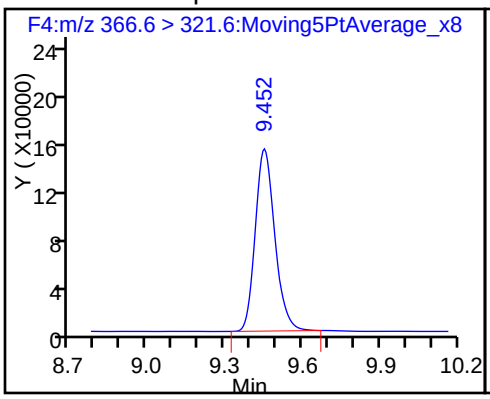
7 Perfluorohexanoic acid (ND)



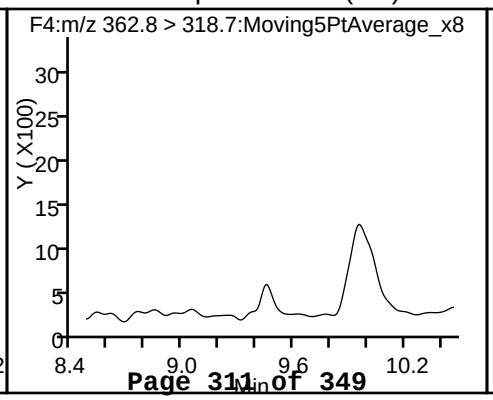
22 PFPeS (Perflouro-1-pentanesulfonat (ND)



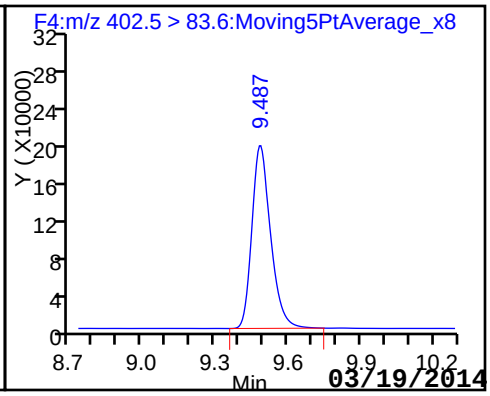
D 8 13C4-PFHpA



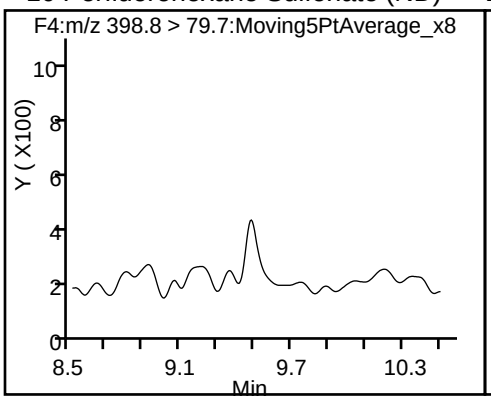
9 Perfluoroheptanoic acid (ND)



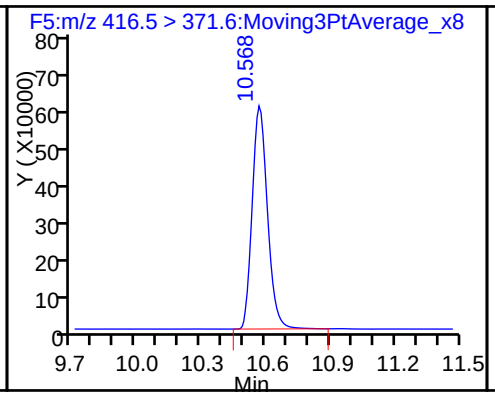
D 11 18O2 PFHxS



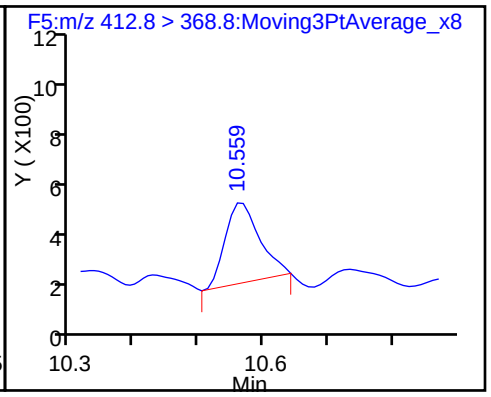
10 Perfluorohexane Sulfonate (ND)



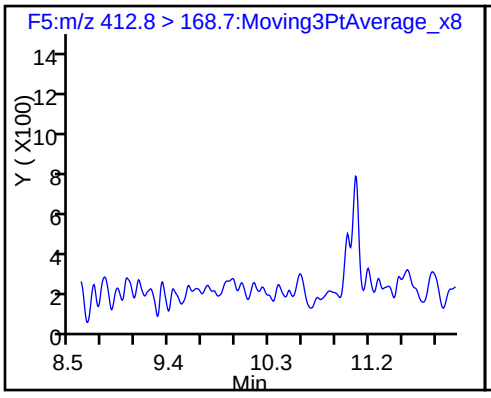
D 12 13C4 PFOA



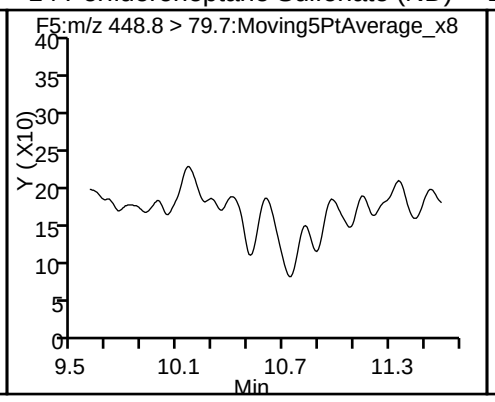
13 Perfluorooctanoic acid



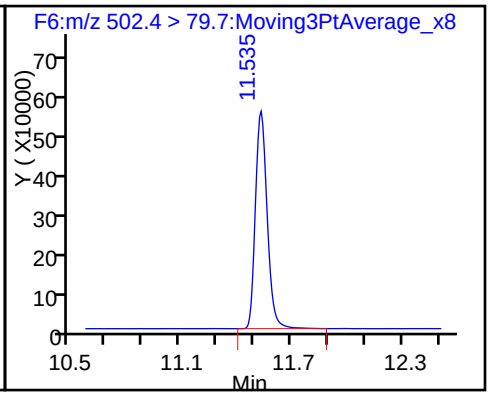
13 Perfluorooctanoic acid



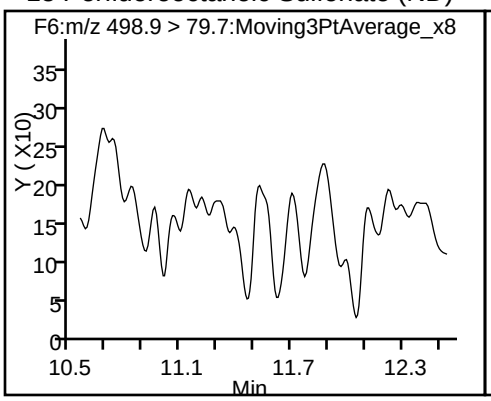
14 Perfluoroheptane Sulfonate (ND)



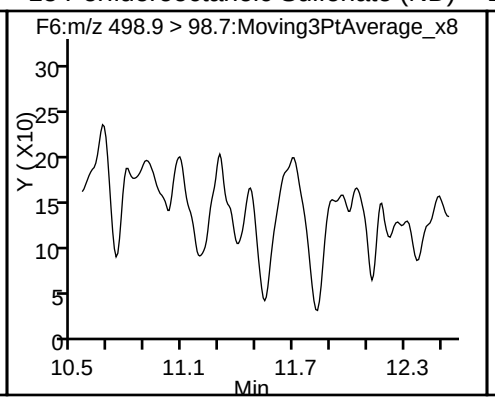
D 16 13C4 PFOS



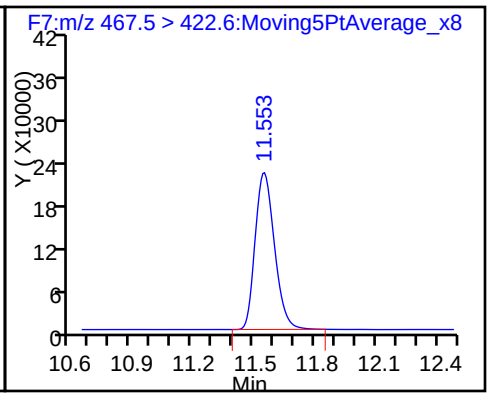
15 Perfluorooctanoic Sulfonate (ND)



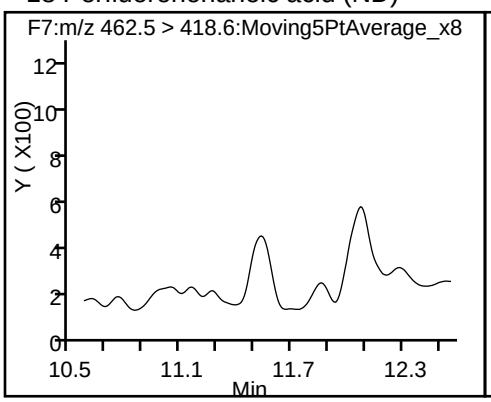
15 Perfluorooctanoic Sulfonate (ND)



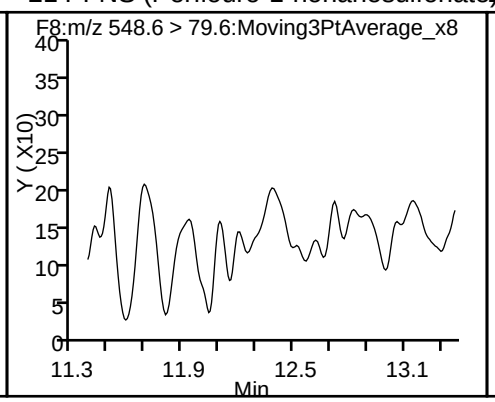
D 17 13C5 PFNA



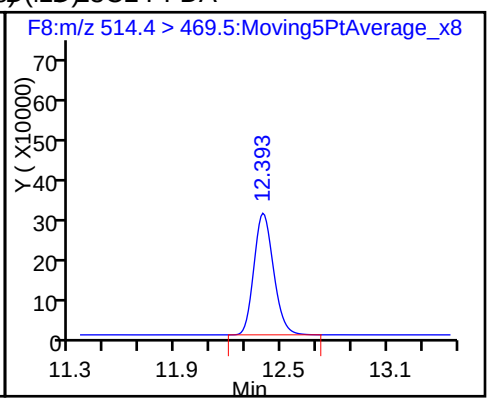
18 Perfluorononanoic acid (ND)



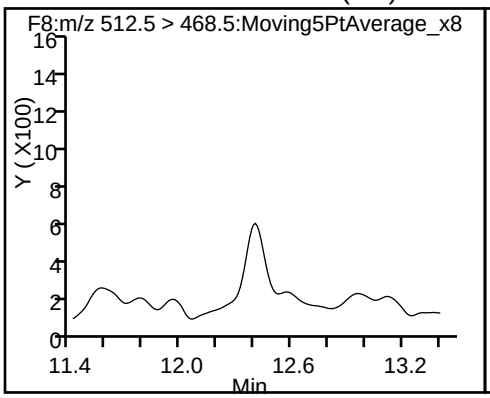
21 PFNS (Perflouro-1-nonanesulfonate) (ND)



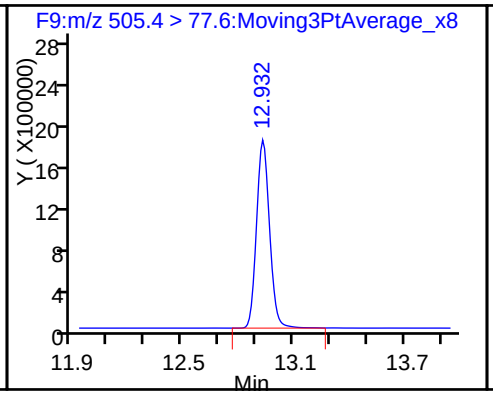
D 19 13C2 PFDA



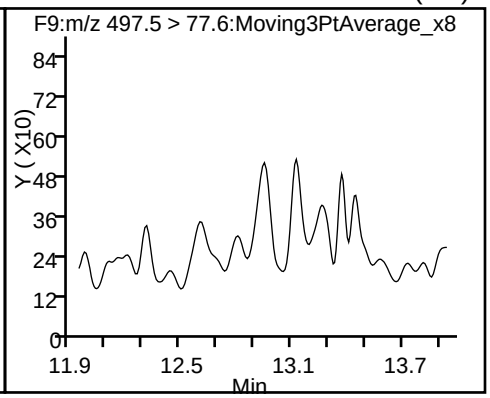
20 Perfluorodecanoic acid (ND)



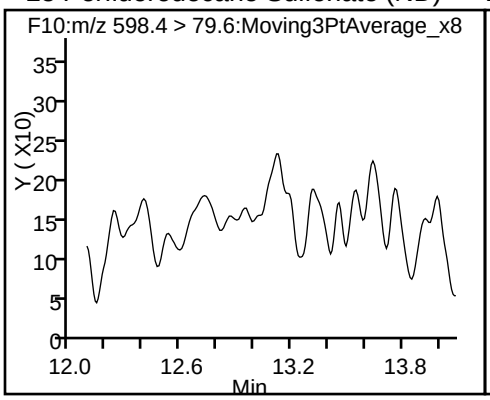
D 23 13C8 FOSA



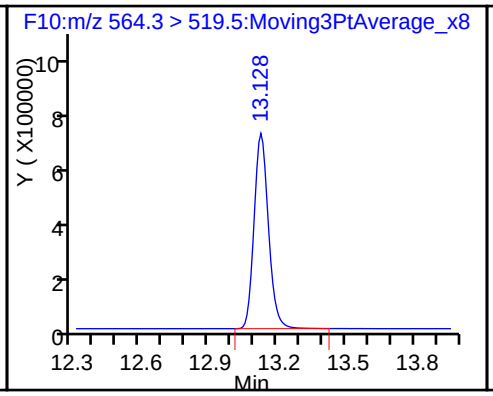
24 Perfluorooctane Sulfonamide (ND)



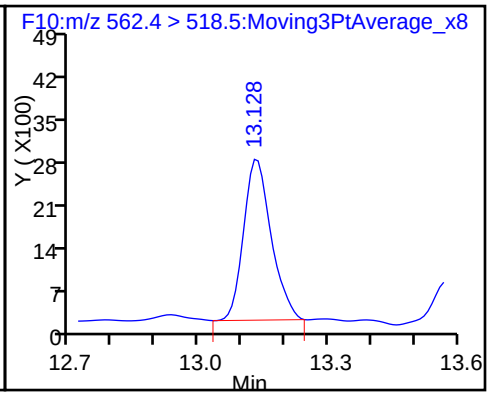
25 Perfluorodecane Sulfonate (ND)



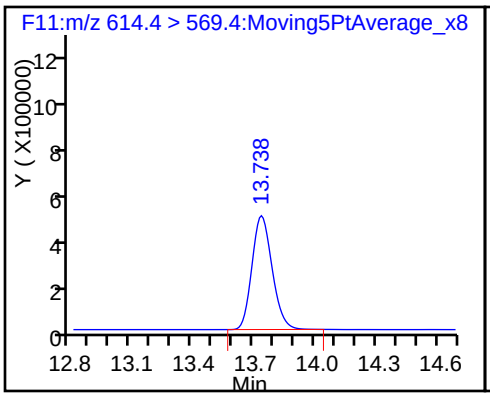
D 26 13C2 PFUnA



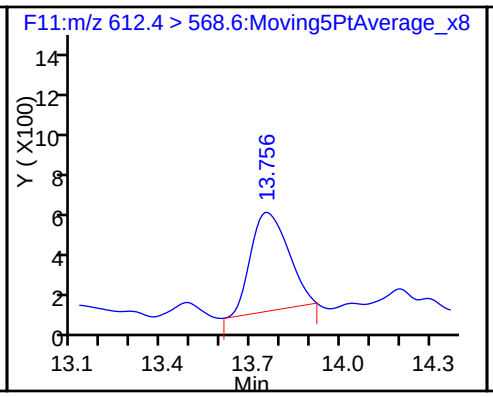
27 Perfluoroundecanoic acid



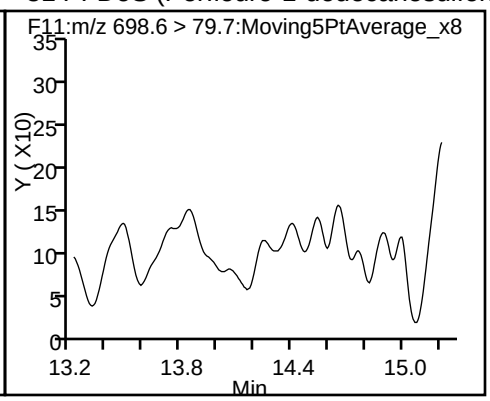
D 28 13C2 PFDoA



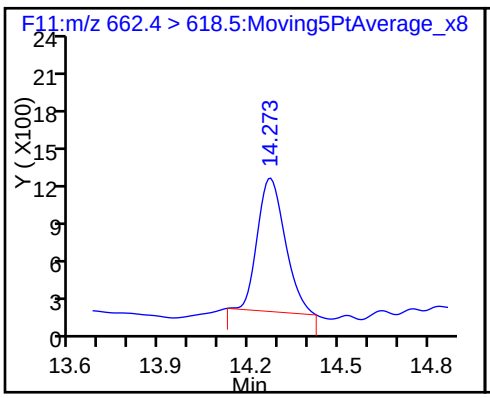
29 Perfluorododecanoic acid



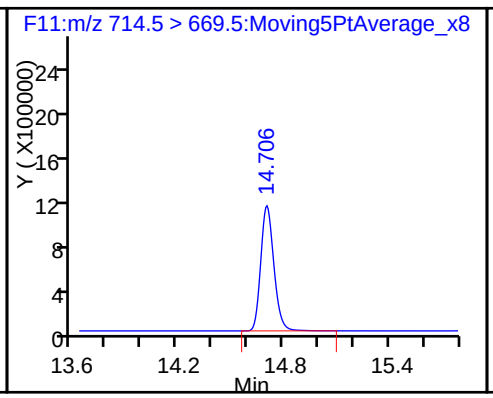
31 PFDoS (Perflouro-1-dodecanesulfona (ND)



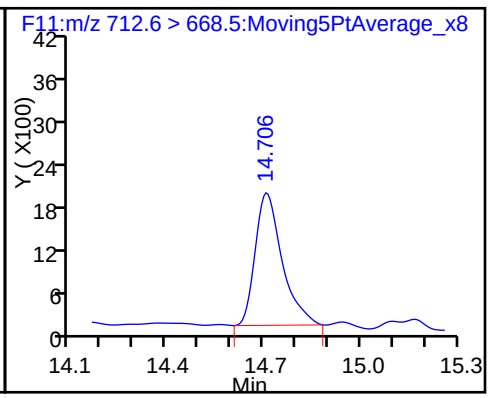
30 Perfluorotridecanoic acid



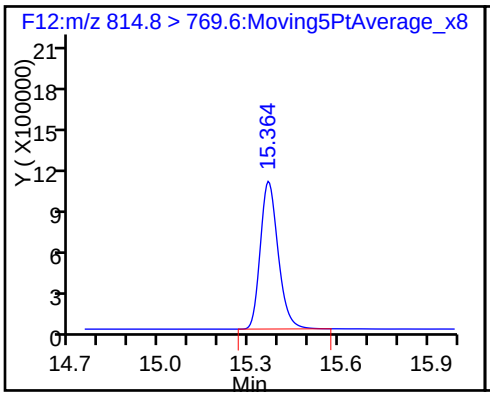
D 33 13C2-PFTeDA



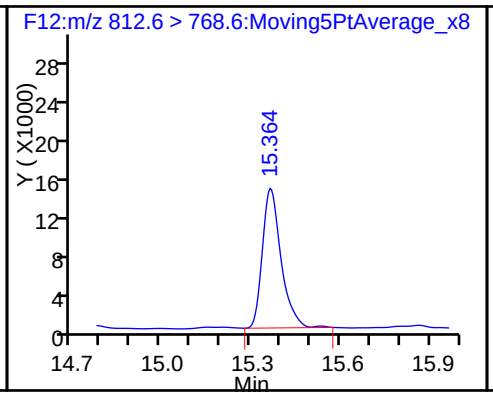
32 Perfluorotetradecanoic acid



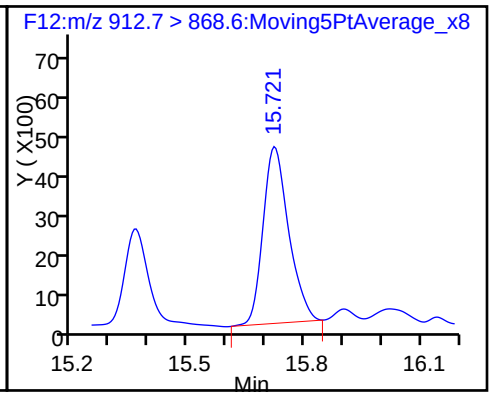
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: Lab Sample ID: ICB 320-37466/1

Matrix: Water Lab File ID: 03MAR14A4C_005.d

Analysis Method: WS-LC-0025 Date Collected:

Extraction Method: Date Extracted:

Sample wt/vol: 1(mL) Date Analyzed: 03/03/2014 10:37

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

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.5	U	2.0	1.5	0.75
1763-23-1	Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	118		25-150
STL00990	13C4 PFOA	139		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_005.d
Lims ID: ICB
Client ID:
Sample Type: ICB
Inject. Date: 03-Mar-2014 10:37:21 ALS Bottle#: 2 Worklist Smp#: 1
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-001 ICB
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 18-Mar-2014 07:58:13 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK036

First Level Reviewer: barnettj Date: 03-Mar-2014 13:58:54

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
216.7 > 171.5	5.895	5.882	0.013		630460	26.6		133	1820	
D 3 13C5-PFPeA										
267.6 > 222.7	7.022	6.997	0.025		831778	27.6		138	2636	
D 6 13C2 PFHxA										
314.6 > 269.7	8.274	8.248	0.026		1196102	27.7		139	3334	
D 8 13C4-PFHpA										
366.6 > 321.6	9.499	9.473	0.026		952862	28.4		142	2315	
D 11 18O2 PFHxS										
402.5 > 83.6	9.538	9.510	0.028		1075470	24.6		130	1832	
D 12 13C4 PFOA										
416.5 > 371.6	10.614	10.590	0.024		3231314	69.5		139	3931	
D 16 13C4 PFOS										
502.4 > 79.7	11.569	11.547	0.022		2335717	56.2		118	4887	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.510	11.547	-0.037	1.000	863	0.0853			1.5	
D 17 13C5 PFNA										
467.5 > 422.6	11.586	11.566	0.020		1464533	26.3		131	2612	
D 19 13C2 PFDA										
514.4 > 469.5	12.424	12.408	0.016		2405471	26.6		133	3020	
D 23 13C8 FOSA										
505.4 > 77.6	12.953	12.942	0.011		8468318	57.1		114	5103	
D 26 13C2 PFUnA										
564.3 > 519.5	13.154	13.140	0.014		3013163	27.0		135	4596	
27 Perfluoroundecanoic acid										
562.4 > 518.5	13.154	13.140	0.014	1.000	2844	0.0175			6.5	
D 28 13C2 PFDoA										
614.4 > 569.4	13.756	13.750	0.006		3518129	26.6		133	4119	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 33 13C2-PFTeDA										
714.5 > 669.5	14.719	14.713	0.006		5757915	24.7		123	9623	
32 Perfluorotetradecanoic acid										
712.6 > 668.5	14.719	14.713	0.006	1.000	6955	0.0522			9.9	
D 35 13C2-PFHxDA										
814.8 > 769.6	15.374	15.371	0.003		3772516	20.9		104	7855	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.374	15.372	0.002	1.000	48979	0.1413			119	

Report Date: 18-Mar-2014 07:58:19 Chrom Revision: 2.2 12-Mar-2014 11:19:24

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_005.d

Injection Date: 03-Mar-2014 10:37:21 Instrument ID: A4

Lims ID: ICB

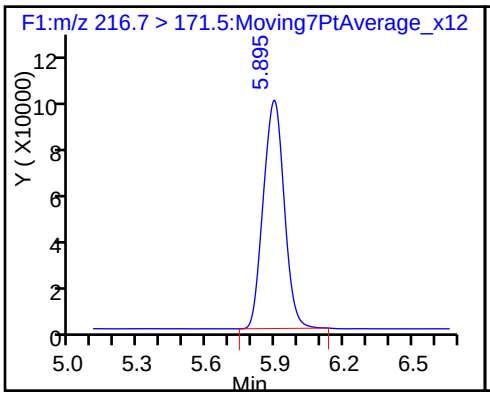
Client ID:

Operator ID: JRB ALS Bottle#: 2 Worklist Smp#: 1

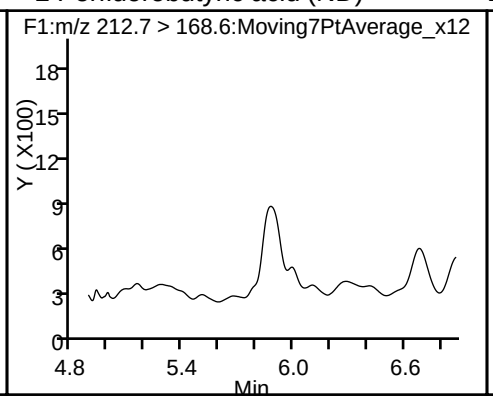
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

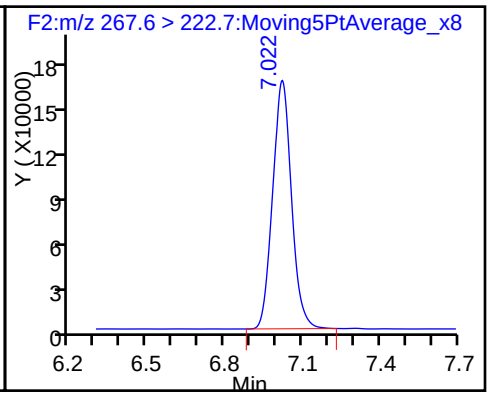
D 1 13C4 PFBA



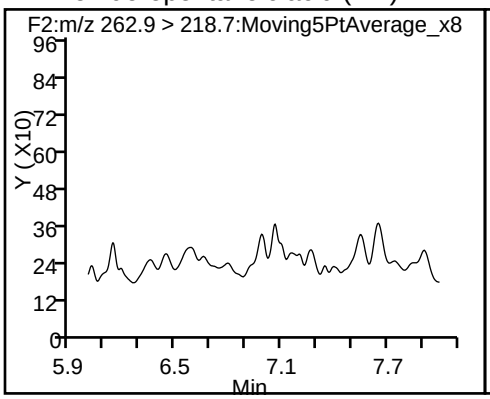
2 Perfluorobutyric acid (ND)



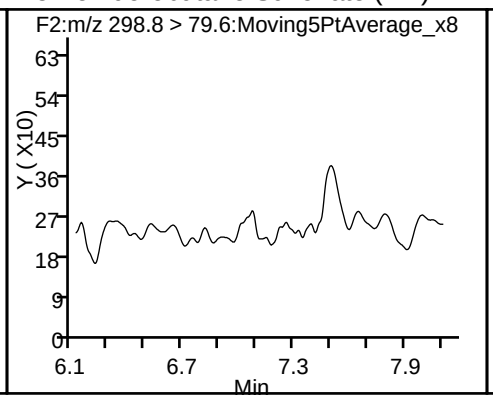
D 3 13C5-PFPeA



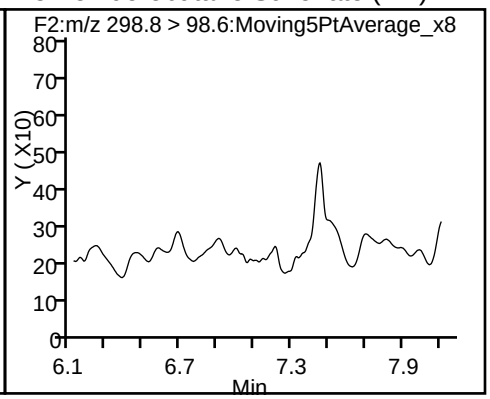
4 Perfluoropentanoic acid (ND)



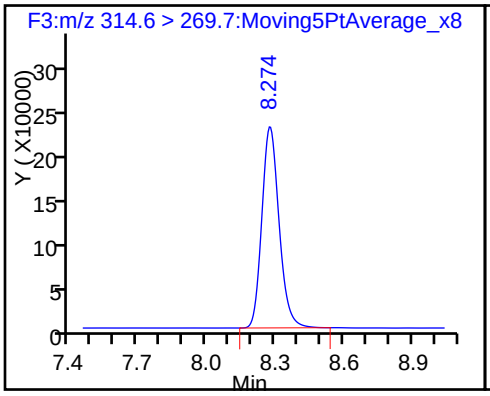
5 Perfluorobutane Sulfonate (ND)



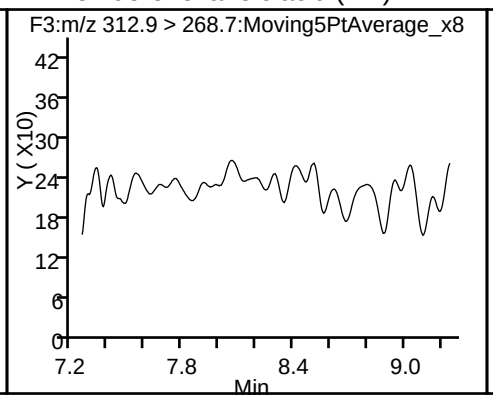
5 Perfluorobutane Sulfonate (ND)



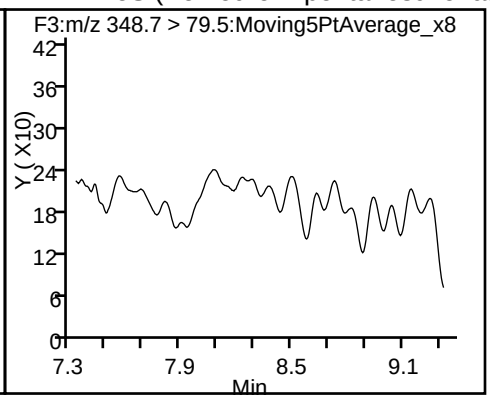
D 6 13C2 PFHxA



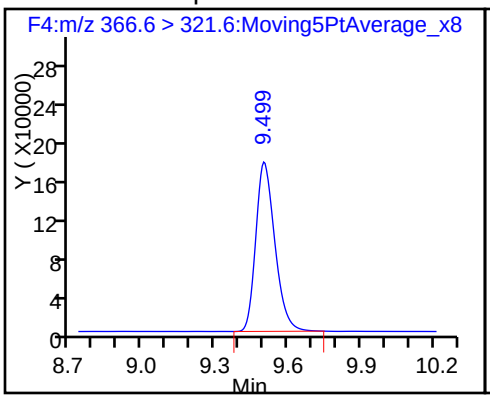
7 Perfluorohexanoic acid (ND)



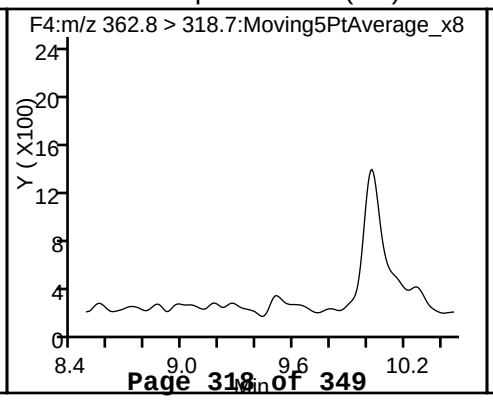
22 PFPeS (Perflouro-1-pentanesulfonat (ND)



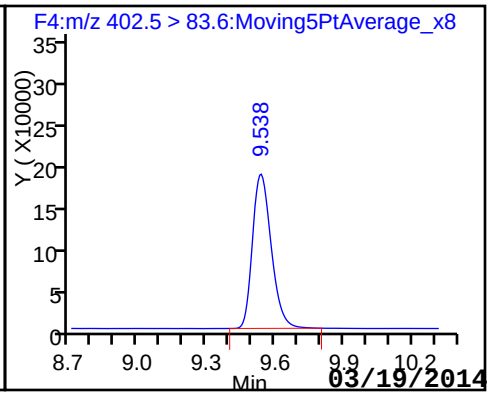
D 8 13C4-PFHpA



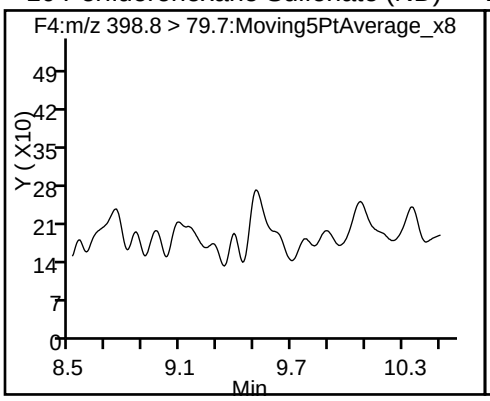
9 Perfluoroheptanoic acid (ND)



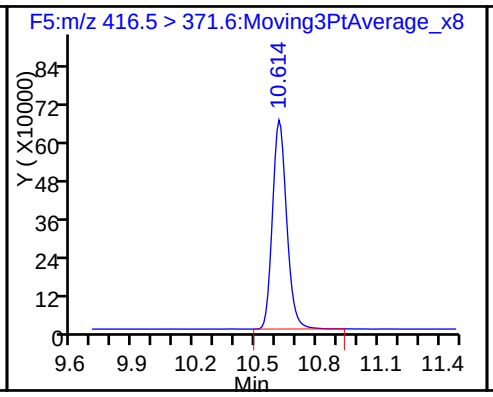
D 11 18O2 PFHxS



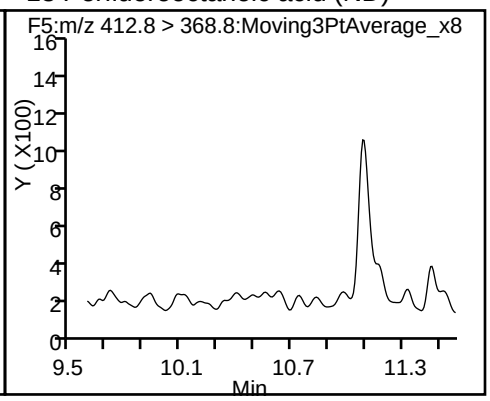
10 Perfluorohexane Sulfonate (ND)



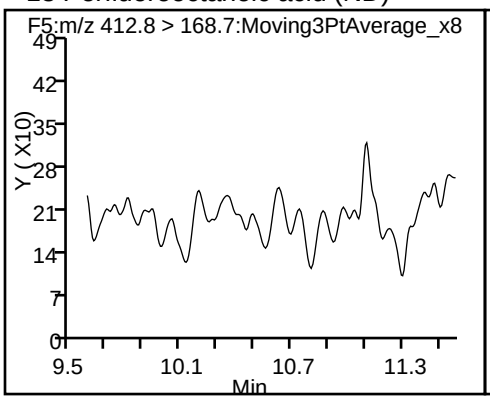
D 12 13C4 PFOA



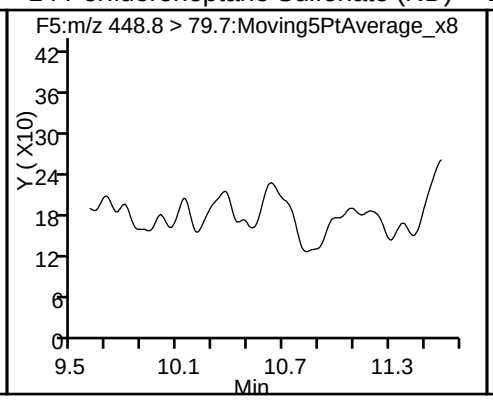
13 Perfluorooctanoic acid (ND)



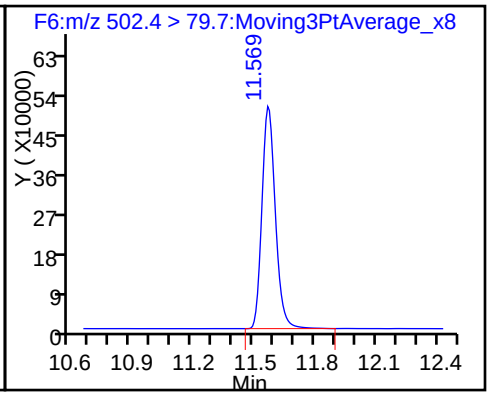
13 Perfluorooctanoic acid (ND)



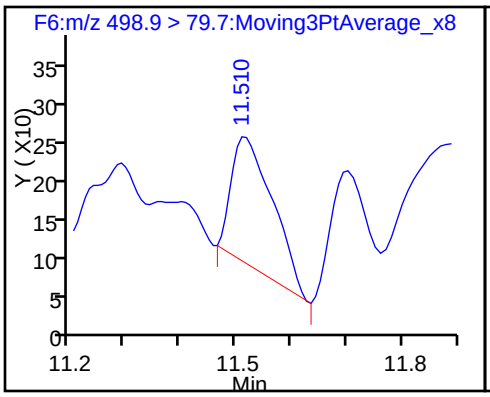
14 Perfluoroheptane Sulfonate (ND)



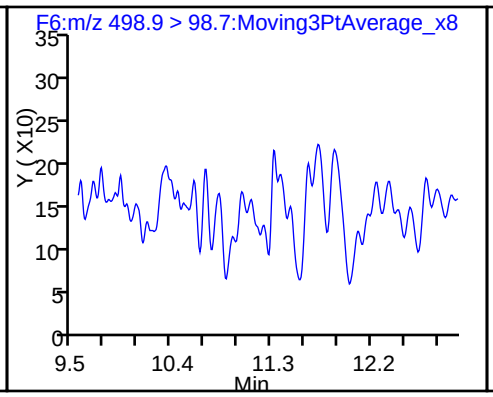
D 16 13C4 PFOS



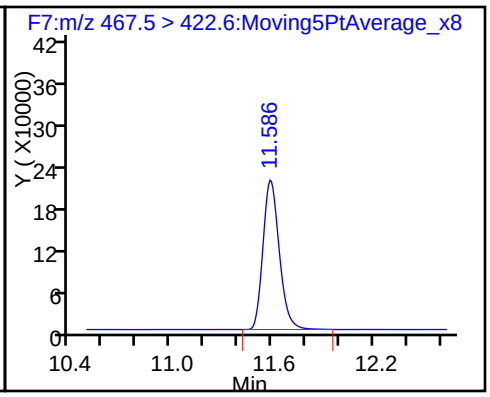
15 Perfluorooctanoic Sulfonate



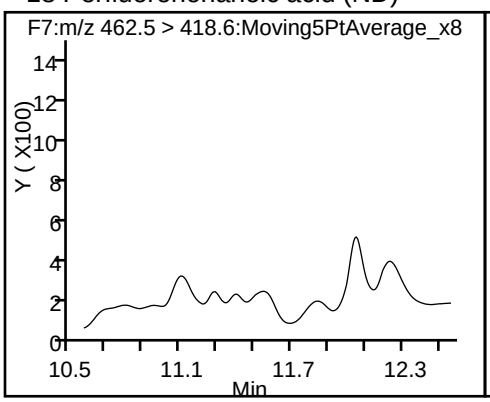
15 Perfluorooctanoic Sulfonate



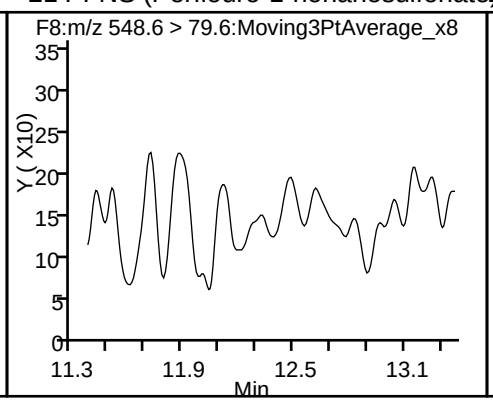
D 17 13C5 PFNA



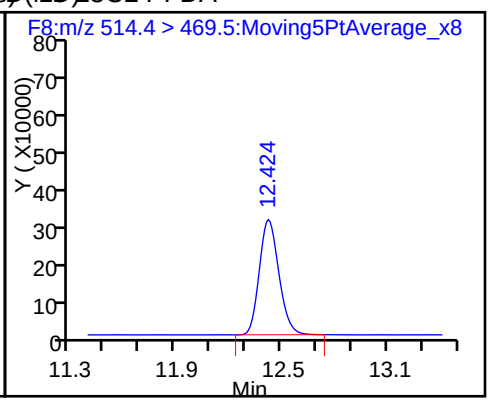
18 Perfluorononanoic acid (ND)



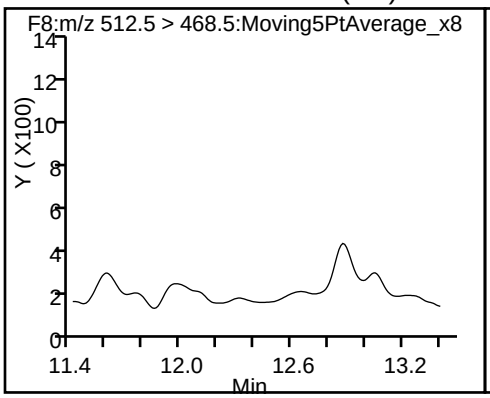
21 PFNS (Perflouro-1-nonanesulfonate) (ND)



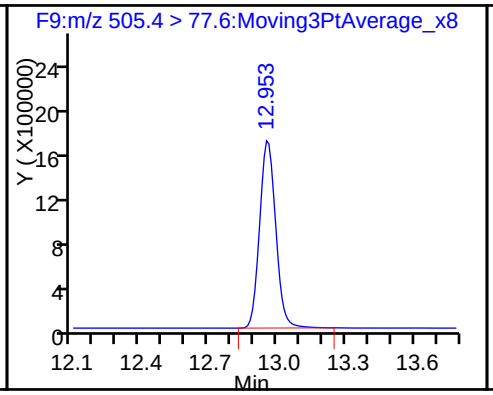
D 19 13C2 PFDA



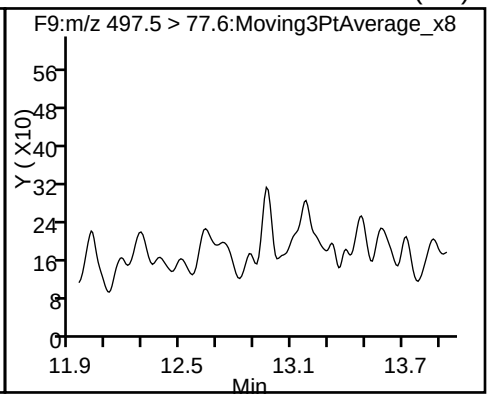
20 Perfluorodecanoic acid (ND)



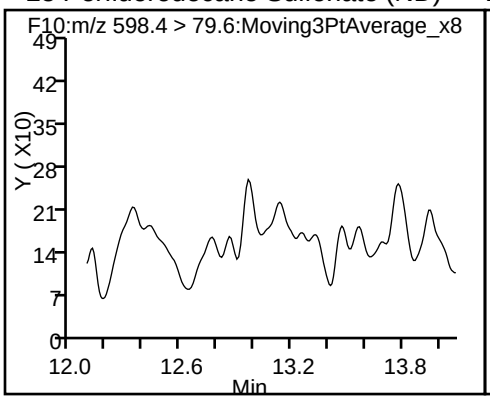
D 23 13C8 FOSA



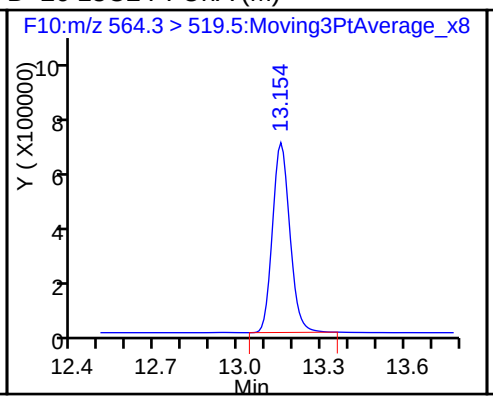
24 Perfluorooctane Sulfonamide (ND)



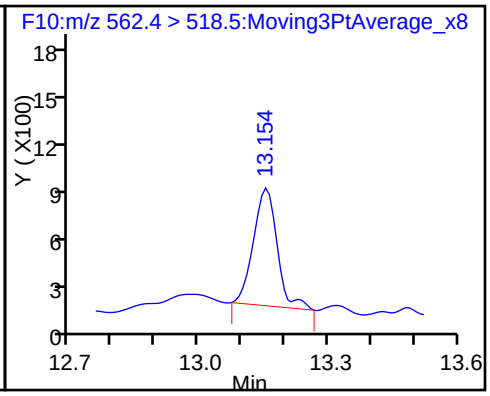
25 Perfluorodecane Sulfonate (ND)



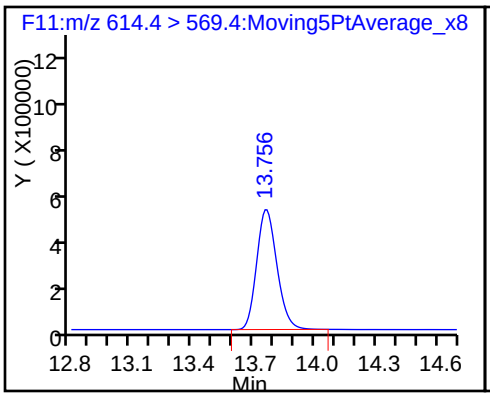
D 26 13C2 PFUnA (M)



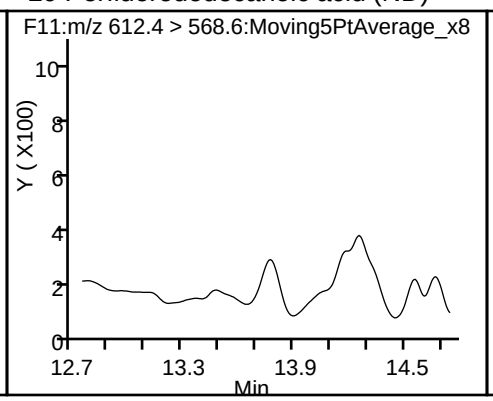
27 Perfluoroundecanoic acid



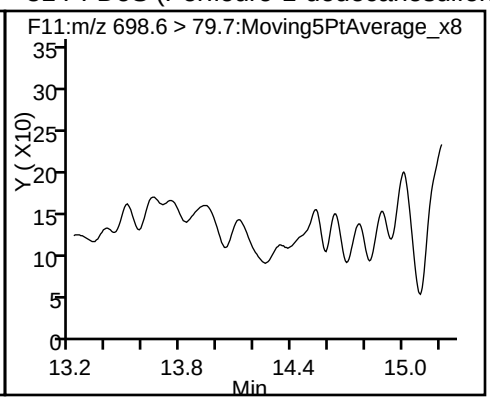
D 28 13C2 PFDoA



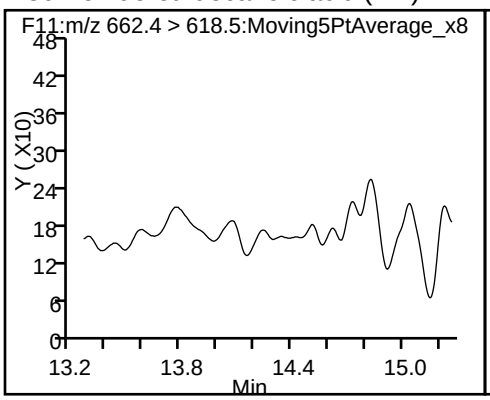
29 Perfluorododecanoic acid (ND)



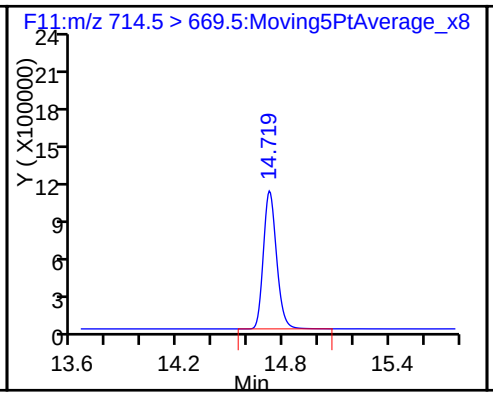
31 PFDoS (Perflouro-1-dodecanesulfona (ND)



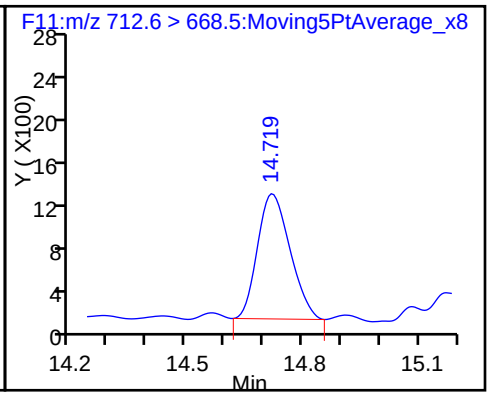
30 Perfluorotridecanoic acid (ND)



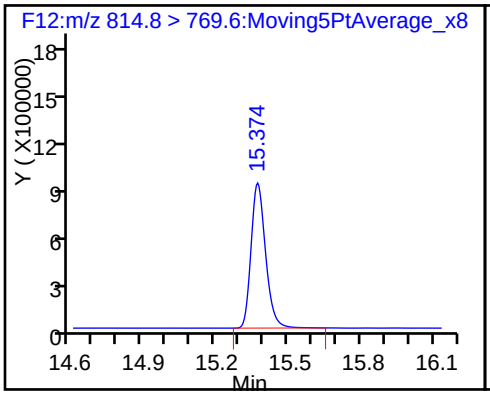
D 33 13C2-PFTeDA



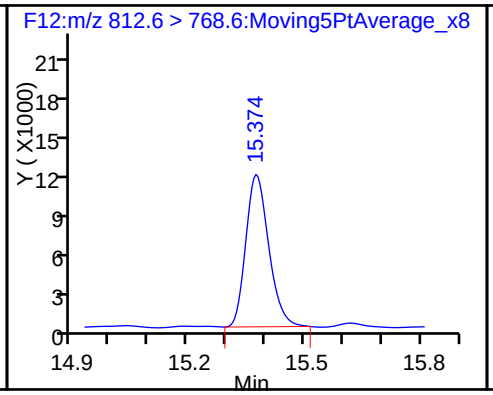
32 Perfluorotetradecanoic acid



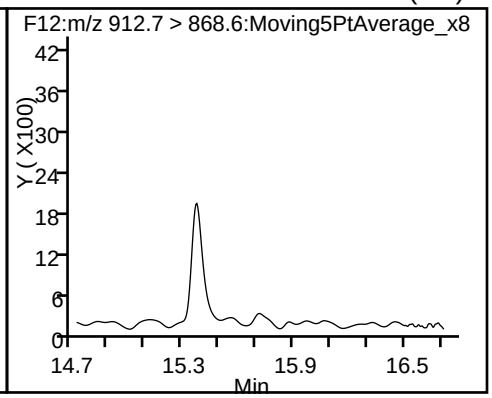
D 35 13C2-PFHxDA



34 Perfluorohexadecanoic acid



36 Perfluorooctandecanoic acid (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 320-36921/2-A

Matrix: Water Lab File ID: 03MAR14A4C_016.d

Analysis Method: WS-LC-0025 Date Collected:

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 500(mL) Date Analyzed: 03/03/2014 14:30

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	41.2		2.0	1.5	0.75
1763-23-1	Perfluorooctane Sulfonate (PFOS)	40.5		2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	122		25-150
STL00990	13C4 PFOA	129		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_016.d
Lims ID: LCS 320-36921/2-A Lab Sample ID: LCS 320-36921/2-A
Client ID:
Sample Type: LCS
Inject. Date: 03-Mar-2014 14:30:39 ALS Bottle#: 2 Worklist Smp#: 12
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-012 LCS 320-36921/2-A
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 15:15:20 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 13C4 PFOA										
416.5 > 371.6	10.559	10.590	-0.031		2988210	64.3		129	4344	
13 Perfluorooctanoic acid										
412.8 > 368.8	10.559	10.591	-0.032	1.000	665968	20.6		103	743	
412.8 > 168.7	10.559	10.591	-0.032	1.000	323975		2.06(0.00-0.00)		456	
D 16 13C4 PFOS										
502.4 > 79.7	11.527	11.547	-0.020		2428121	58.4		122	6989	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.527	11.547	-0.020	1.000	212816	20.2		106	534	
498.9 > 98.7	11.527	11.547	-0.020	1.000	98731		2.16(0.00-0.00)		232	

Report Date: 03-Mar-2014 15:15:31 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_016.d

Injection Date: 03-Mar-2014 14:30:39 Instrument ID: A4

Lims ID: LCS 320-36921/2-A Lab Sample ID: LCS 320-36921/2-A

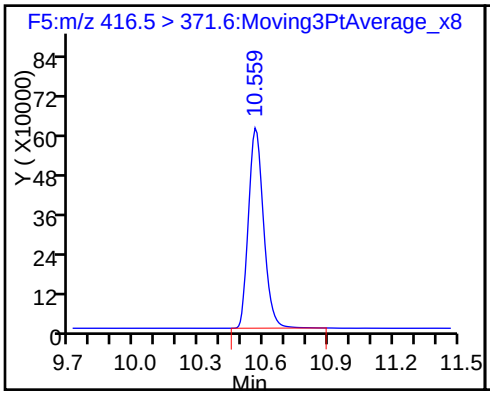
Client ID:

Operator ID: JRB ALS Bottle#: 2 Worklist Smp#: 12

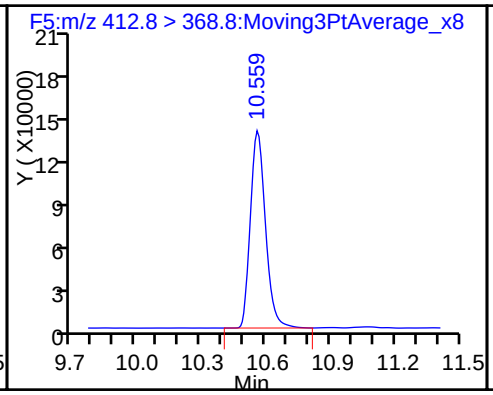
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

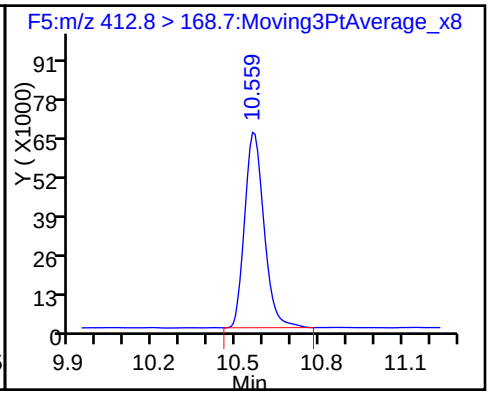
D 12 13C4 PFOA



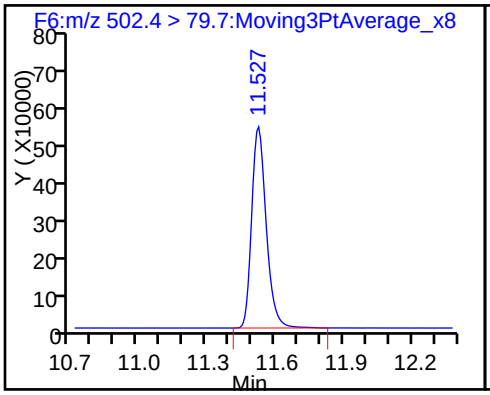
13 Perfluorooctanoic acid



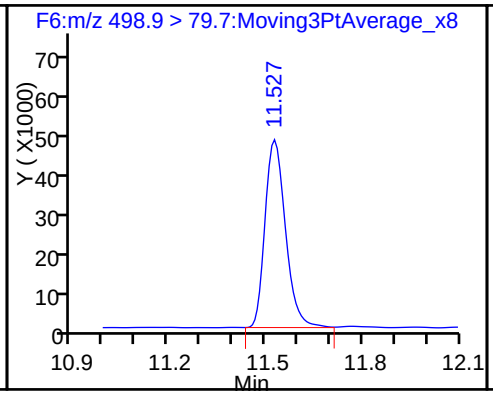
13 Perfluorooctanoic acid



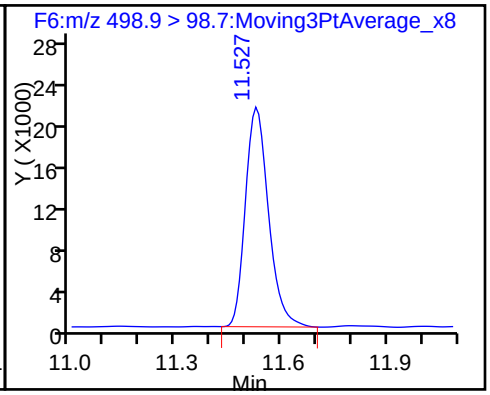
D 16 13C4 PFOS



15 Perfluorooctanoic Sulfonate



15 Perfluorooctanoic Sulfonate



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-MW01-0214 MS Lab Sample ID: 320-6160-1 MS

Matrix: Water Lab File ID: 03MAR14A4C_018.d

Analysis Method: WS-LC-0025 Date Collected: 02/17/2014 16:10

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 496.9(mL) Date Analyzed: 03/03/2014 15:13

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	110		2.0	1.5	0.75
1763-23-1	Perfluorooctane Sulfonate (PFOS)	55.9		2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	121		25-150
STL00990	13C4 PFOA	101		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_018.d
Lims ID: 320-6160-A-1-B MS Lab Sample ID: 320-6160-1
Client ID: WS22-MW01-0214
Sample Type: MS
Inject. Date: 03-Mar-2014 15:13:03 ALS Bottle#: 4 Worklist Smp#: 14
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-014 320-6160-A-1-B MS
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 16:02:58 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.7 > 168.6	5.849	5.883	-0.034	1.000	102108	NR		0.0	20.8	
4 Perfluoropentanoic acid										
262.9 > 218.7	6.941	6.999	-0.058	1.000	376279	NR		0.0	36.5	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.061	7.116	-0.055	1.000	259958	NR		0.0	25.6	
298.8 > 98.6	7.064	7.116	-0.052	1.000	144720		1.80(0.00-0.00)		72.5	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.192	8.251	-0.059	1.000	674594	NR		0.0	206	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.274	8.328	-0.054	1.000	61264	NR		0.0	10.3	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.422	9.474	-0.052	1.000	465010	NR		0.0	200	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.457	9.510	-0.053	1.000	297577	NR		0.0	58.5	
D 12 13C4 PFOA										
416.5 > 371.6	10.549	10.590	-0.041		2350318	50.6		101	3788	
13 Perfluorooctanoic acid										
412.8 > 368.8	10.549	10.591	-0.042	1.000	1394066	54.8		274	313	
412.8 > 168.7	10.549	10.591	-0.042	1.000	622855		2.24(0.00-0.00)		371	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.559	10.598	-0.039	1.000	5844	0.3715		0.0	3.0	
D 16 13C4 PFOS										
502.4 > 79.7	11.518	11.547	-0.029		2411488	58.0		121	2170	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.518	11.547	-0.029	1.000	290003	27.8		145	92.4	
498.9 > 98.7	11.518	11.547	-0.029	1.000	166756		1.74(0.00-0.00)		158	
18 Perfluorononanoic acid										
462.5 > 418.6	11.536	11.570	-0.034	1.000	170316	NR		0.0	148	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
20 Perfluorodecanoic acid										
512.5 > 468.5	12.383	12.410	-0.027	1.000	81385	NR		0.0	106	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.932	12.944	-0.012	1.000	2959	NR		0.0	3.7	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.067	13.091	-0.024	1.000	4806	0.1012		0.0	7.3	
30 Perfluorotridecanoic acid										
662.4 > 618.5	14.258	14.270	-0.012	1.000	2097	NR		0.0	4.0	
34 Perfluorohexadecanoic acid										
812.6 > 768.6	15.370	15.372	-0.002	1.000	542	NR		0.0	3.0	

Report Date: 03-Mar-2014 16:03:45 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_018.d

Injection Date: 03-Mar-2014 15:13:03 Instrument ID: A4

Lims ID: 320-6160-A-1-B MS Lab Sample ID: 320-6160-1

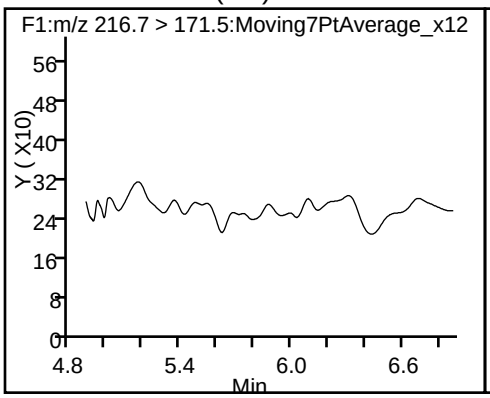
Client ID: WS22-MW01-0214

Operator ID: JRB ALS Bottle#: 4 Worklist Smp#: 14

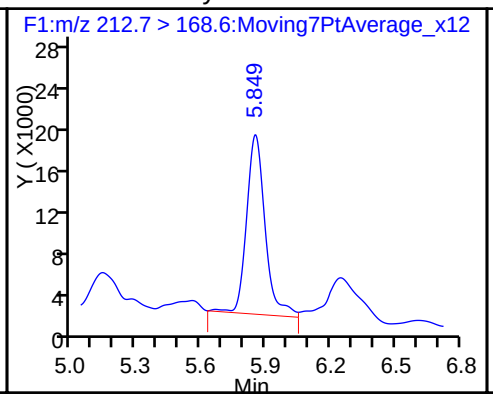
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

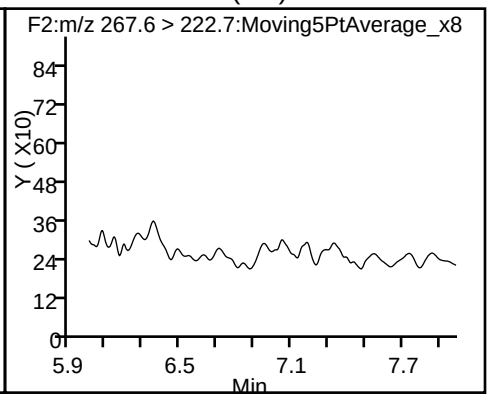
D 1 13C4 PFBA (ND)



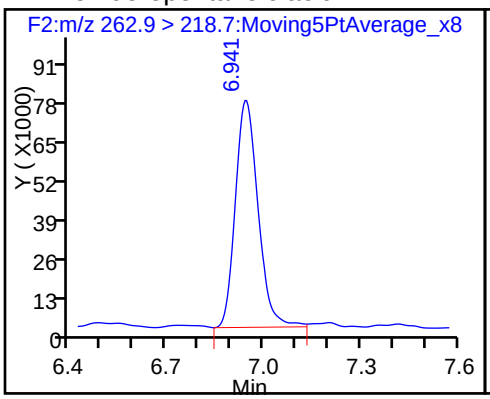
2 Perfluorobutyric acid



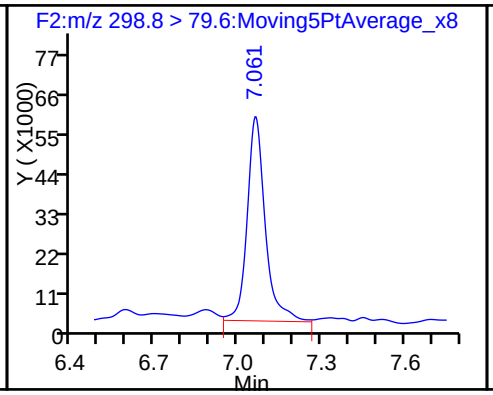
D 3 13C5-PFPeA (ND)



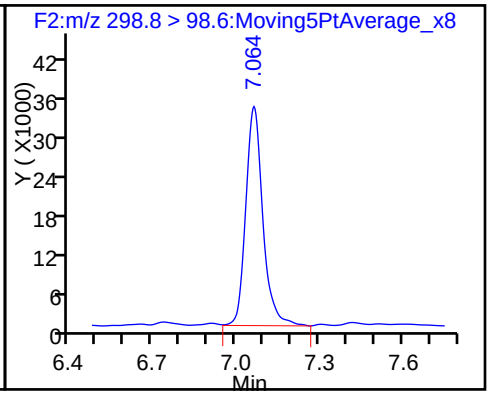
4 Perfluoropentanoic acid



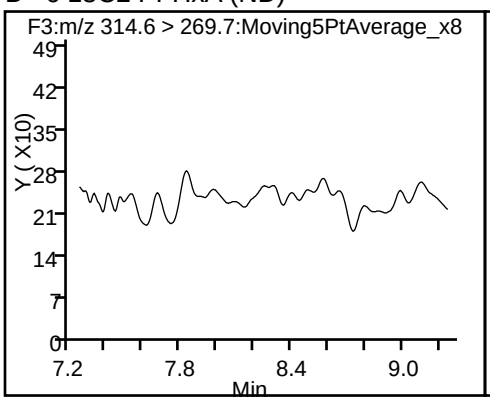
5 Perfluorobutane Sulfonate



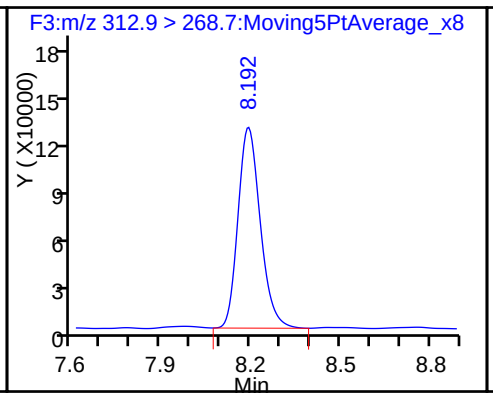
5 Perfluorobutane Sulfonate



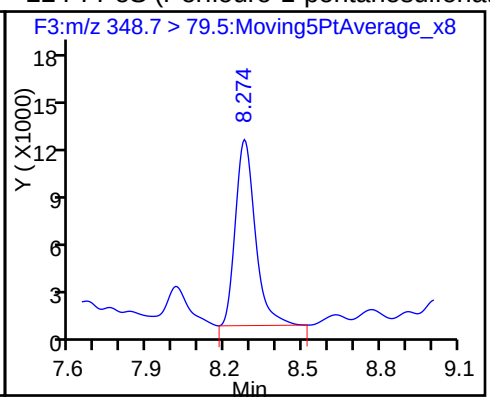
D 6 13C2 PFHxA (ND)



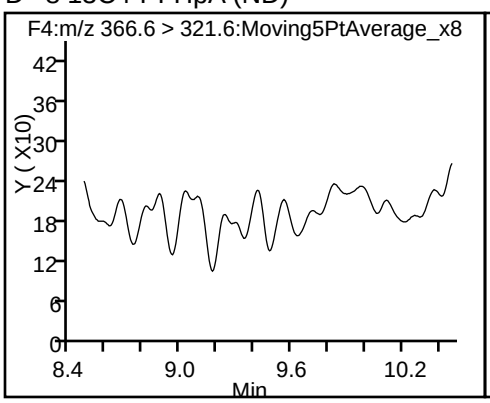
7 Perfluorohexanoic acid



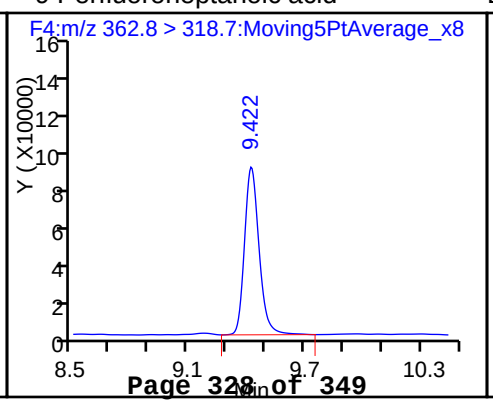
22 PFPeS (Perflouro-1-pentanesulfonat



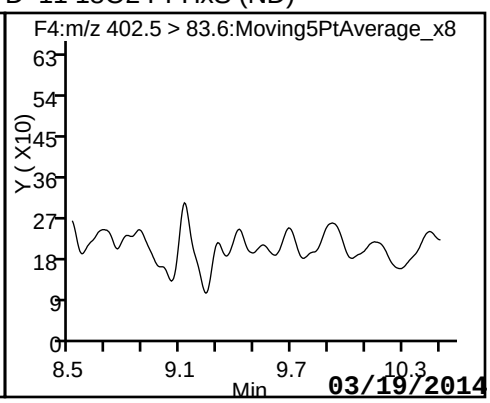
D 8 13C4-PFHpA (ND)



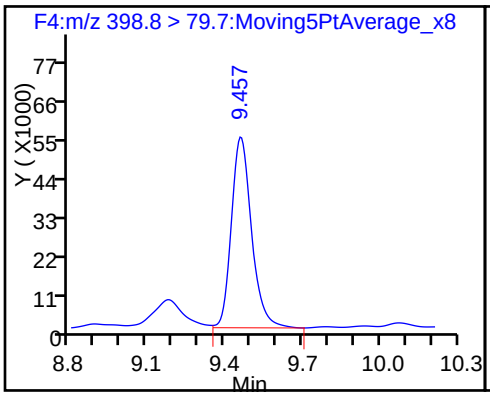
9 Perfluoroheptanoic acid



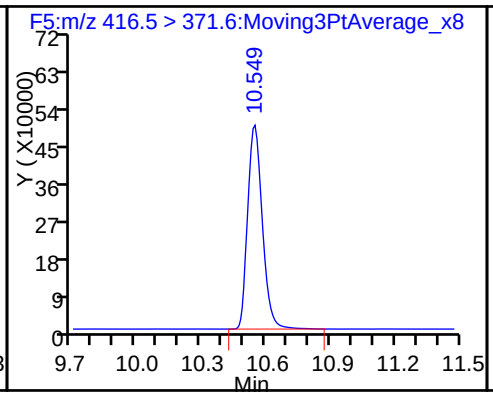
D 11 18O2 PFHxS (ND)



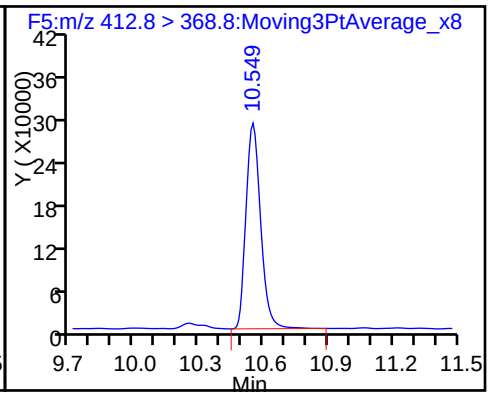
10 Perfluorohexane Sulfonate



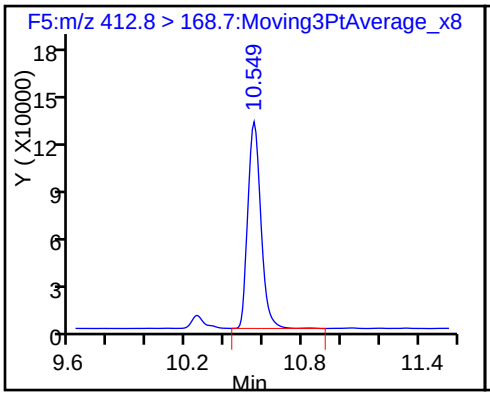
D 12 13C4 PFOA



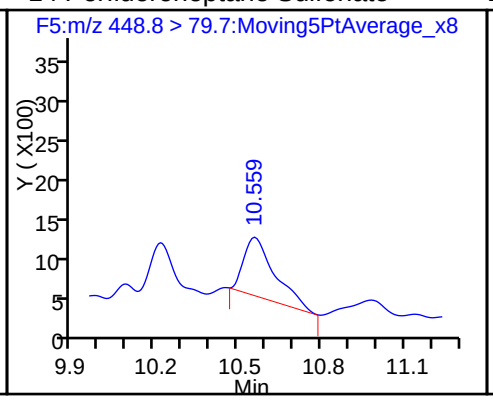
13 Perfluorooctanoic acid



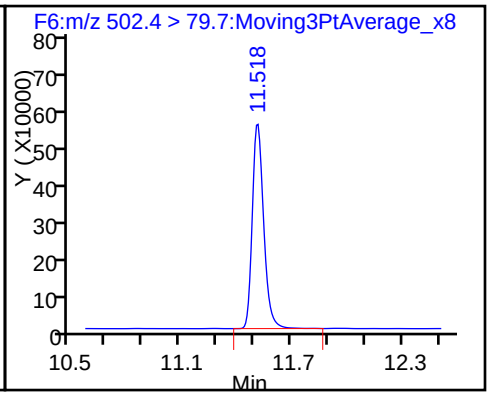
13 Perfluorooctanoic acid



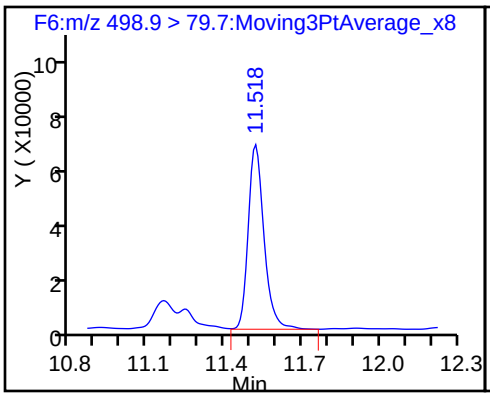
14 Perfluoroheptane Sulfonate



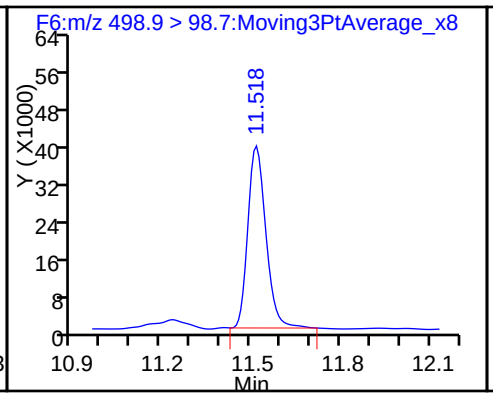
D 16 13C4 PFOS



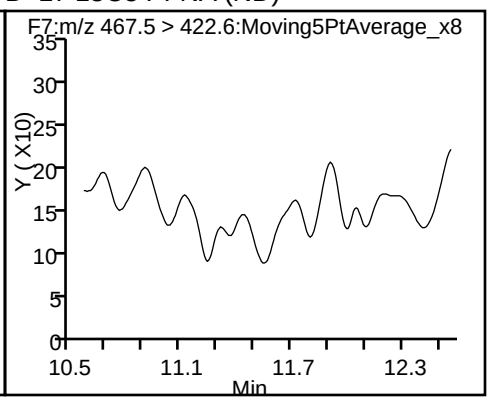
15 Perfluorooctanoic Sulfonate



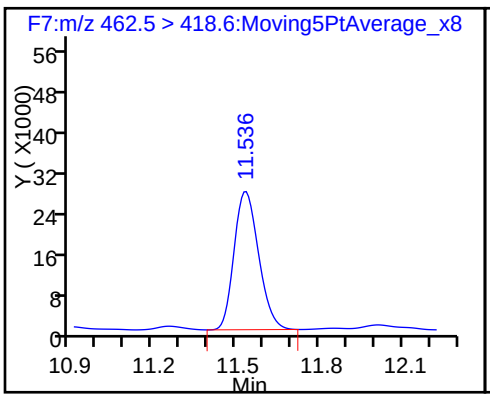
15 Perfluorooctanoic Sulfonate



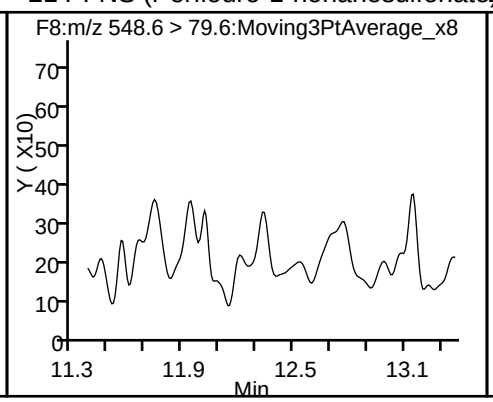
D 17 13C5 PFNA (ND)



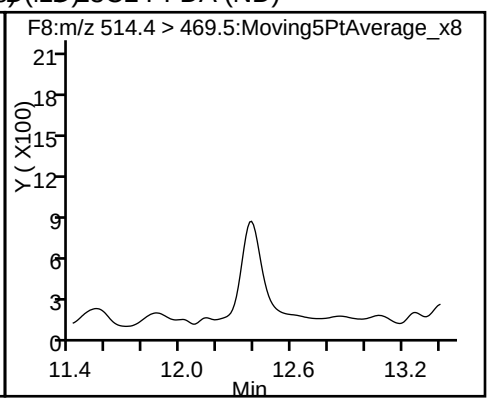
18 Perfluorononanoic acid



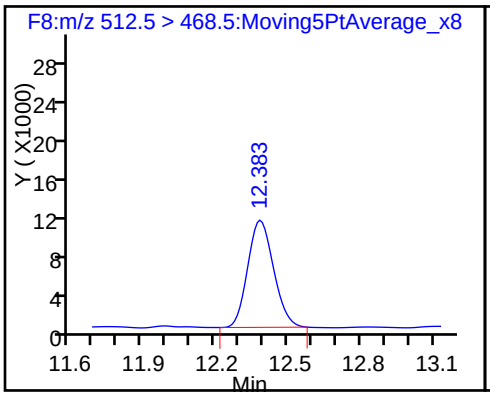
21 PFNS (Perflouro-1-nonanesulfonate) (ND)



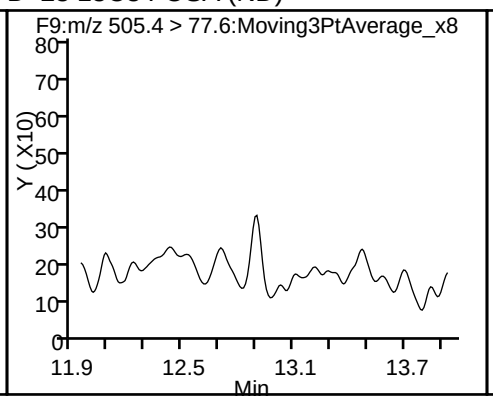
D 19 13C2 PFDA (ND)



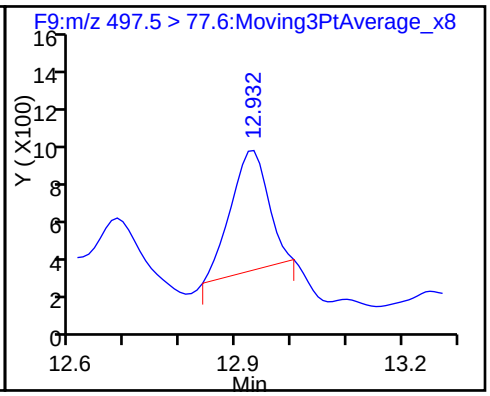
20 Perfluorodecanoic acid



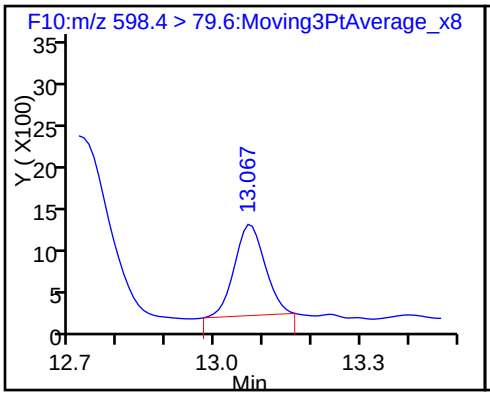
D 23 13C8 FOSA (ND)



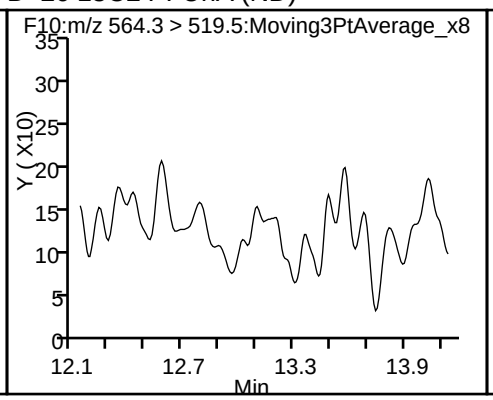
24 Perfluorooctane Sulfonamide



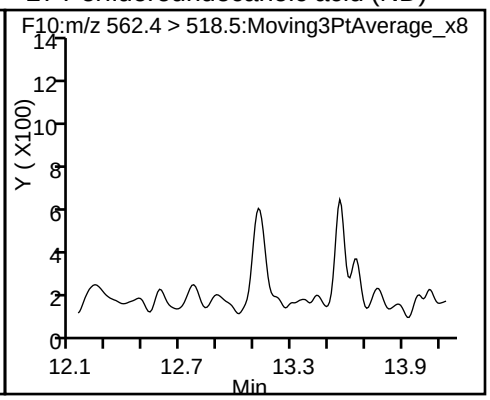
25 Perfluorodecane Sulfonate



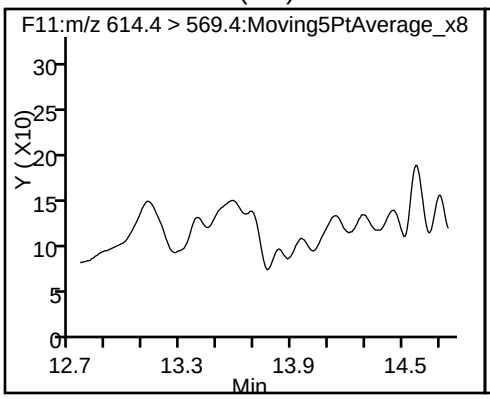
D 26 13C2 PFUnA (ND)



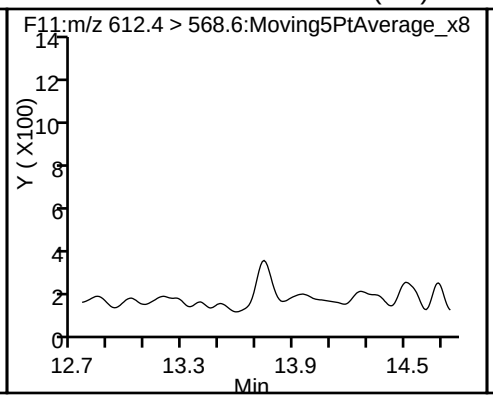
27 Perfluoroundecanoic acid (ND)



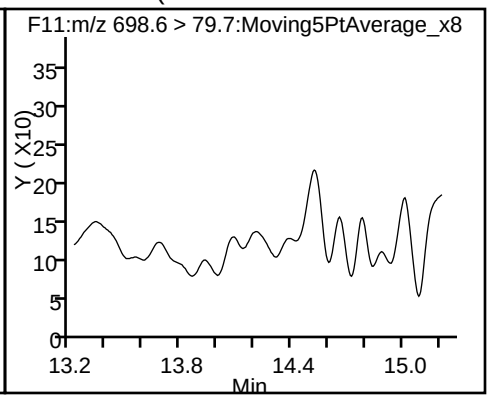
D 28 13C2 PFDoA (ND)



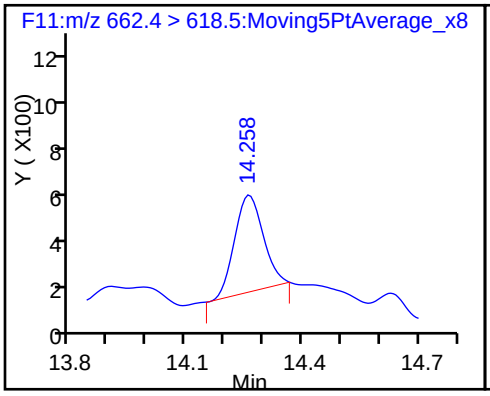
29 Perfluorododecanoic acid (ND)



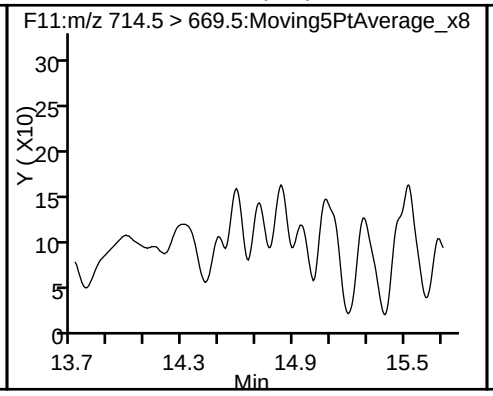
31 PFDoS (Perflouro-1-dodecanesulfona (ND)



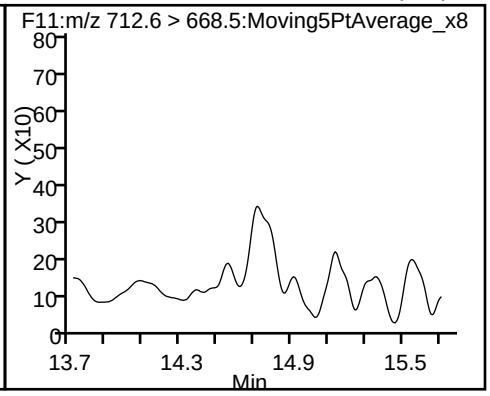
30 Perfluorotridecanoic acid



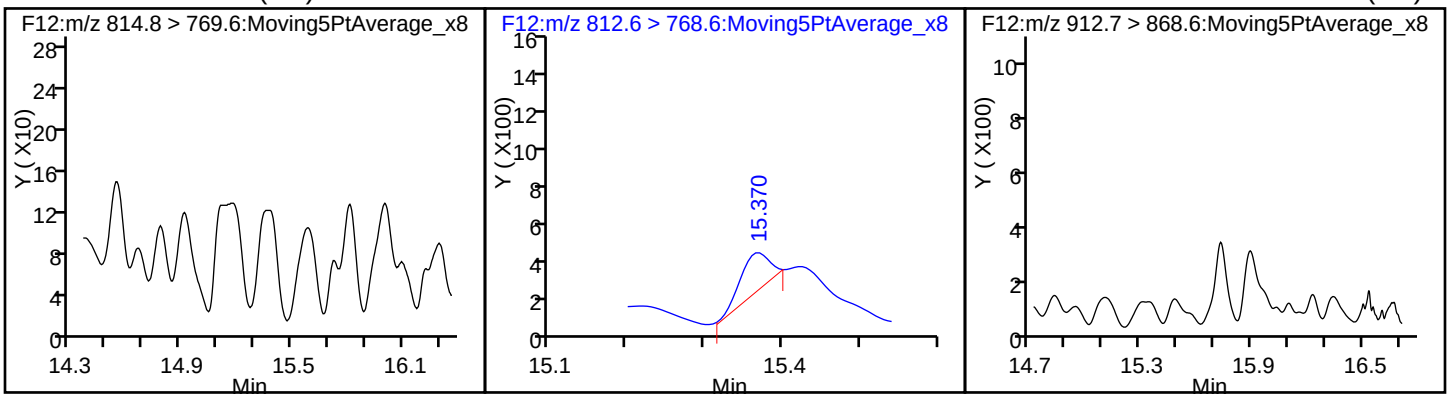
D 33 13C2-PFTeDA (ND)



32 Perfluorotetradecanoic acid (ND)



D 35 13C2-PFHxDA (ND) 34 Perfluorohexadecanoic acid 36 Perfluorooctandecanoic acid (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-MW01-0214 MSD Lab Sample ID: 320-6160-1 MSD

Matrix: Water Lab File ID: 03MAR14A4C_019.d

Analysis Method: WS-LC-0025 Date Collected: 02/17/2014 16:10

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 492.8(mL) Date Analyzed: 03/03/2014 15:34

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	111		2.0	1.5	0.76
1763-23-1	Perfluorooctane Sulfonate (PFOS)	63.4		2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	110		25-150
STL00990	13C4 PFOA	98		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_019.d
Lims ID: 320-6160-A-1-C MSD Lab Sample ID: 320-6160-1
Client ID: WS22-MW01-0214
Sample Type: MSD
Inject. Date: 03-Mar-2014 15:34:17 ALS Bottle#: 5 Worklist Smp#: 15
Injection Vol: 15.0 ul Dil. Factor: 1.0000
Sample Info: 320-0010856-015 320-6160-A-1-C MSD
Misc. Info.: AcquityBEH 1.7u C18, 150x3.0mm, T=50C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20140303-10856.b\PFAC_A4.m
Limit Group: LC PFC ICAL
Last Update: 03-Mar-2014 16:02:58 Calib Date: 03-Mar-2014 13:05:49
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_012.d

Column 1 : Acquity BEH C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK003

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.7 > 168.6	5.859	5.883	-0.024	1.000	87589	NR		0.0	18.2	
4 Perfluoropentanoic acid										
262.9 > 218.7	6.951	6.999	-0.048	1.000	365181	NR		0.0	35.8	
5 Perfluorobutane Sulfonate										
298.8 > 79.6	7.071	7.116	-0.045	1.000	239168	NR		0.0	23.5	
298.8 > 98.6	7.067	7.116	-0.049	0.999	135136		1.77(0.00-0.00)		58.2	
7 Perfluorohexanoic acid										
312.9 > 268.7	8.198	8.251	-0.053	1.000	653562	NR		0.0	179	
22 PFPeS (Perflouro-1-pentanesulfonat										
348.7 > 79.5	8.279	8.328	-0.049	1.000	58986	NR		0.0	12.9	
9 Perfluoroheptanoic acid										
362.8 > 318.7	9.434	9.474	-0.040	1.000	391481	NR		0.0	217	
10 Perfluorohexane Sulfonate										
398.8 > 79.7	9.469	9.510	-0.041	1.000	271974	NR		0.0	57.5	
D 12 13C4 PFOA										
416.5 > 371.6	10.558	10.590	-0.032		2279367	49.0		98.1	3274	
13 Perfluorooctanoic acid										
412.8 > 368.8	10.558	10.591	-0.033	1.000	1354312	54.9		274	324	
412.8 > 168.7	10.558	10.591	-0.033	1.000	616667		2.20(0.00-0.00)		382	
14 Perfluoroheptane Sulfonate										
448.8 > 79.7	10.558	10.598	-0.040	1.000	7794	0.5481		0.0	3.7	
D 16 13C4 PFOS										
502.4 > 79.7	11.526	11.547	-0.021		2179971	52.5		110	2135	
15 Perfluorooctanoic Sulfonate										
498.9 > 79.7	11.526	11.547	-0.021	1.000	295257	31.3		164	90.4	
498.9 > 98.7	11.526	11.547	-0.021	1.000	161607		1.83(0.00-0.00)		170	
18 Perfluorononanoic acid										
462.5 > 418.6	11.544	11.570	-0.026	1.000	163846	NR		0.0	127	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
20 Perfluorodecanoic acid										
512.5 > 468.5	12.383	12.410	-0.027	1.000	73142	NR		0.0	107	
24 Perfluorooctane Sulfonamide										
497.5 > 77.6	12.932	12.944	-0.012	1.000	3900	NR		0.0	7.2	
25 Perfluorodecane Sulfonate										
598.4 > 79.6	13.076	13.091	-0.015	1.000	3518	0.0819		0.0	6.9	

Report Date: 03-Mar-2014 16:03:46 Chrom Revision: 2.1 15-Jan-2014 14:06:26

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20140303-10856.b\03MAR14A4C_019.d

Injection Date: 03-Mar-2014 15:34:17 Instrument ID: A4

Lims ID: 320-6160-A-1-C MSD Lab Sample ID: 320-6160-1

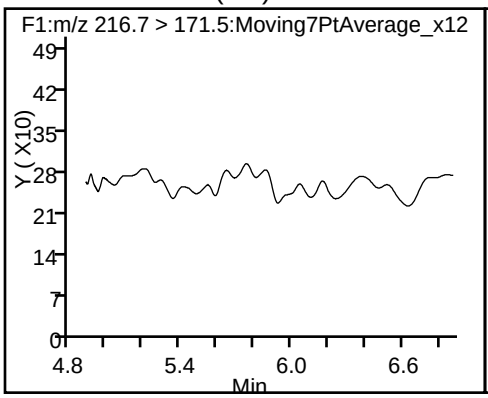
Client ID: WS22-MW01-0214

Operator ID: JRB ALS Bottle#: 5 Worklist Smp#: 15

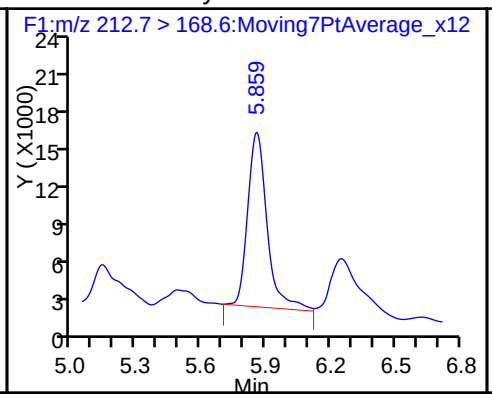
Injection Vol: 15.0 ul Dil. Factor: 1.0000

Method: PFAC_A4 Limit Group: LC PFC ICAL

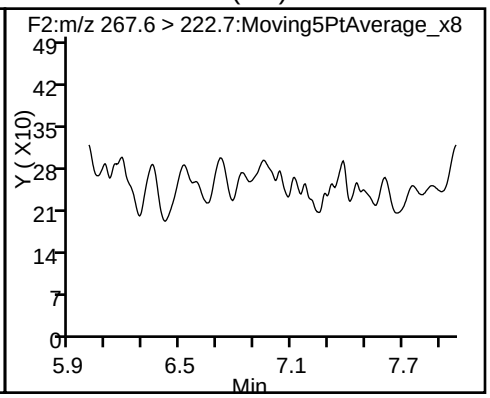
D 1 13C4 PFBA (ND)



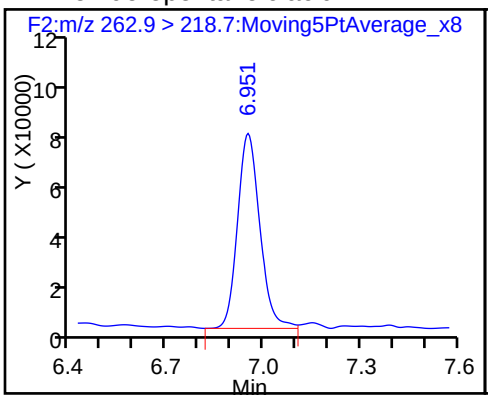
2 Perfluorobutyric acid



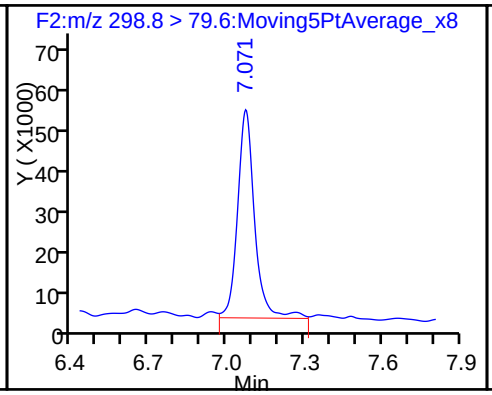
D 3 13C5-PFPeA (ND)



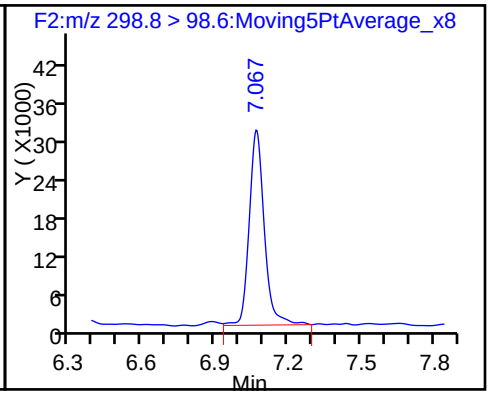
4 Perfluoropentanoic acid



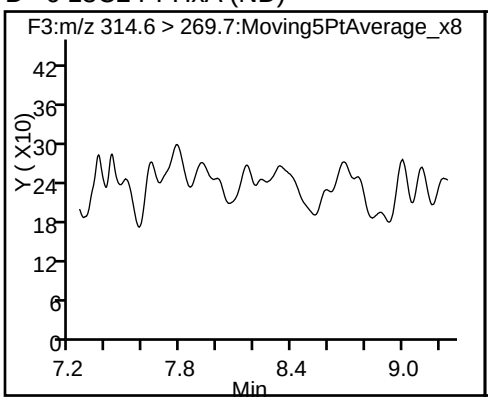
5 Perfluorobutane Sulfonate



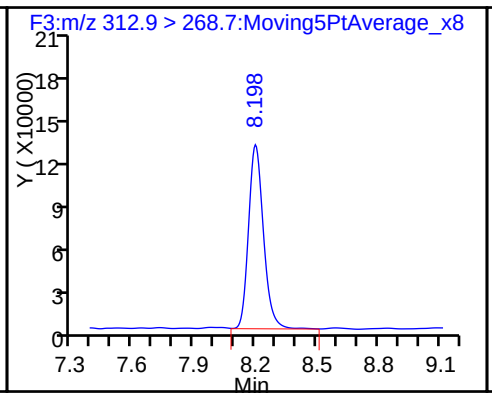
5 Perfluorobutane Sulfonate



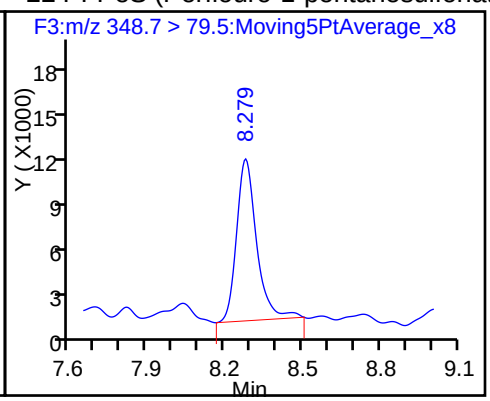
D 6 13C2 PFHxA (ND)



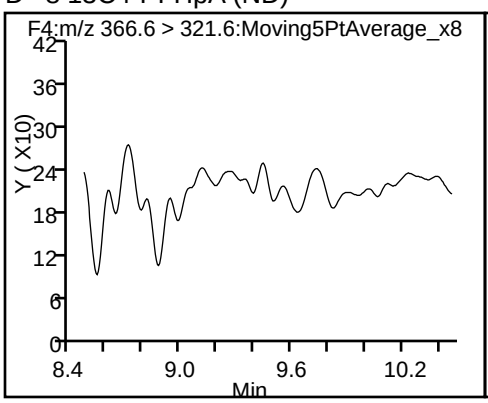
7 Perfluorohexanoic acid



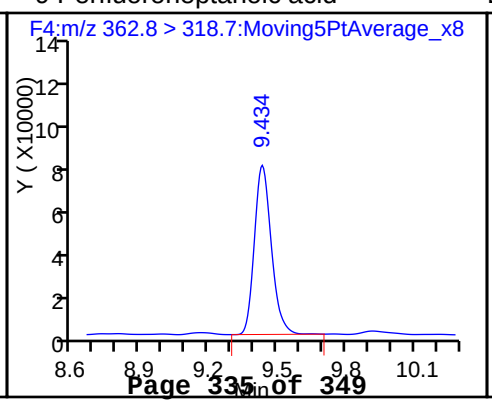
22 PFPeS (Perflouro-1-pentanesulfonat



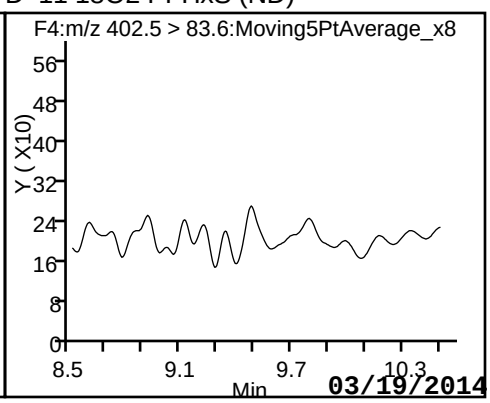
D 8 13C4-PFHpA (ND)



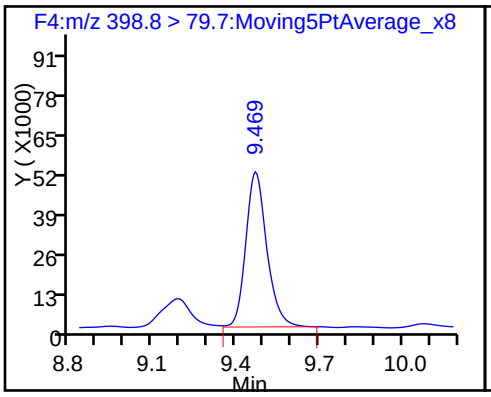
9 Perfluoroheptanoic acid



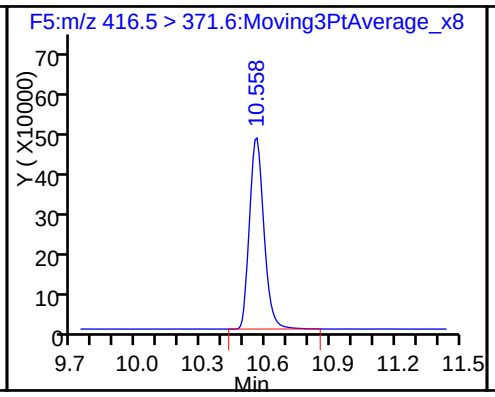
D 11 18O2 PFHxS (ND)



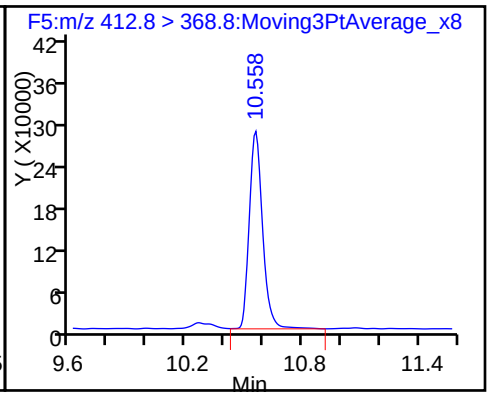
10 Perfluorohexane Sulfonate



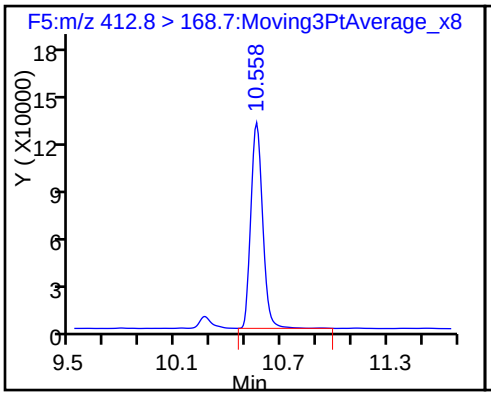
D 12 13C4 PFOA



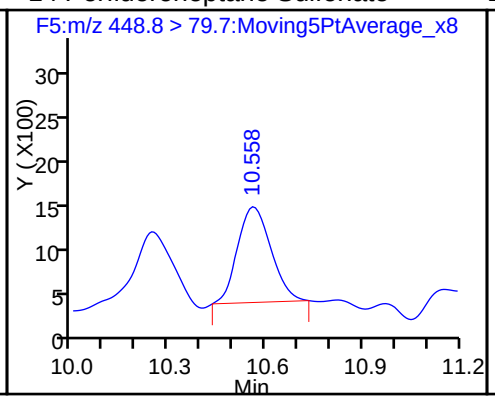
13 Perfluorooctanoic acid



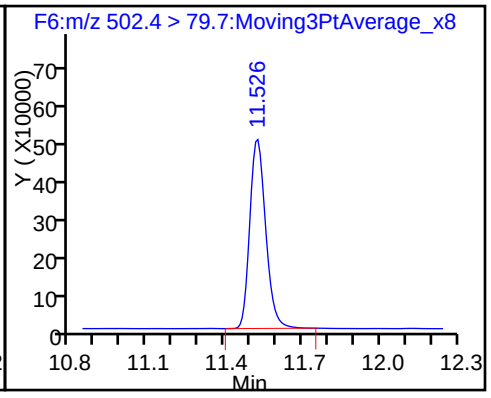
13 Perfluorooctanoic acid



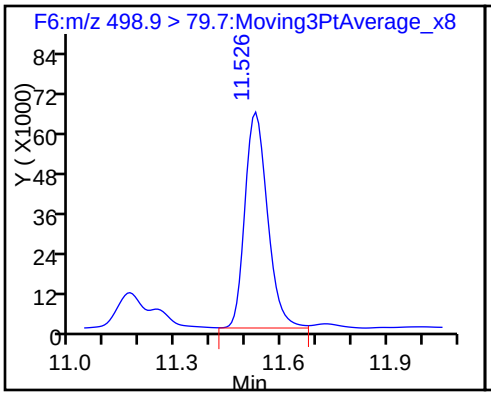
14 Perfluoroheptane Sulfonate



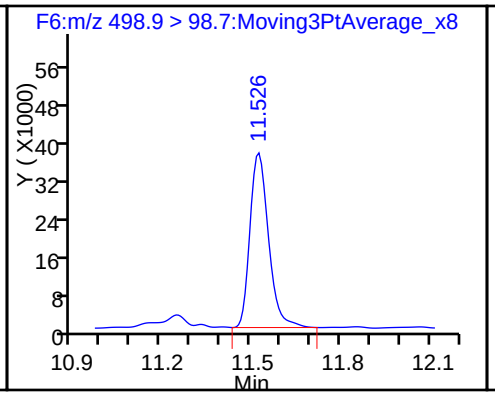
D 16 13C4 PFOS



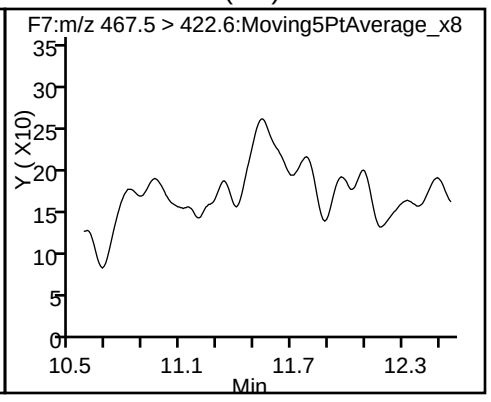
15 Perfluorooctanoic Sulfonate



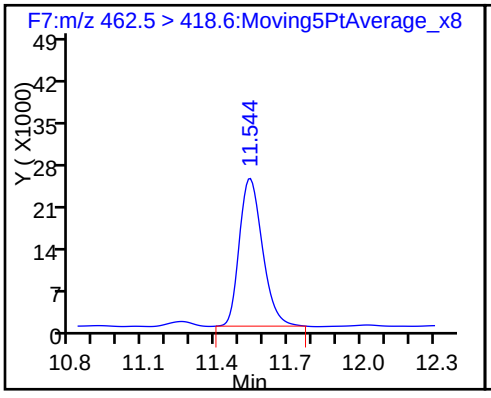
15 Perfluorooctanoic Sulfonate



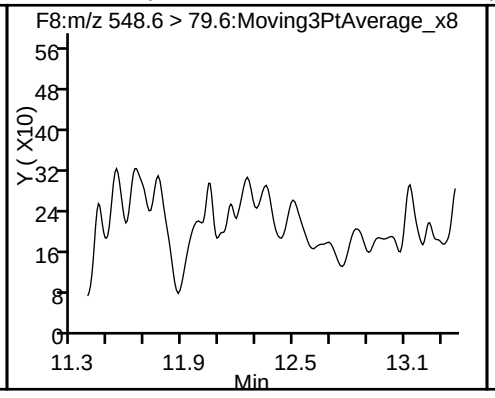
D 17 13C5 PFNA (ND)



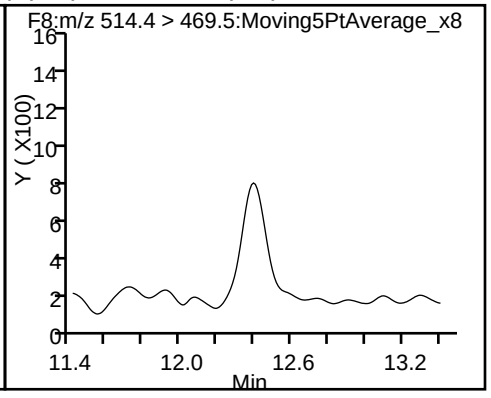
18 Perfluorononanoic acid



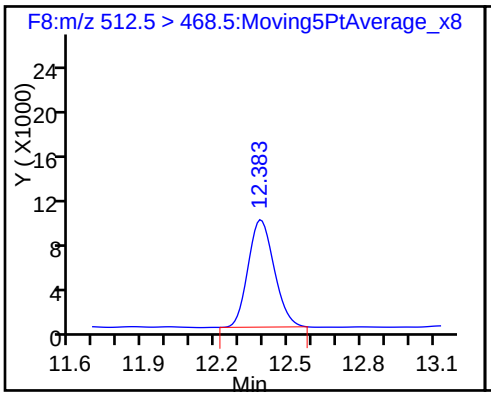
21 PFNS (Perflouro-1-nonanesulfonate) (ND)



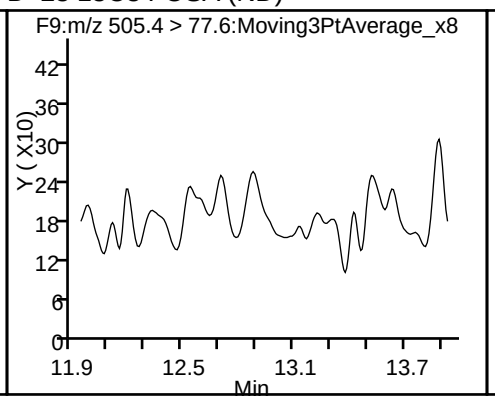
D 19 13C2 PFDA (ND)



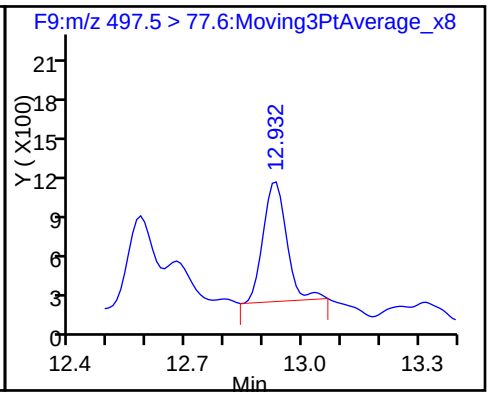
20 Perfluorodecanoic acid



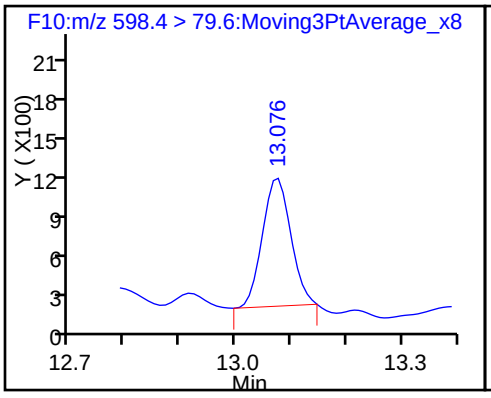
D 23 13C8 FOSA (ND)



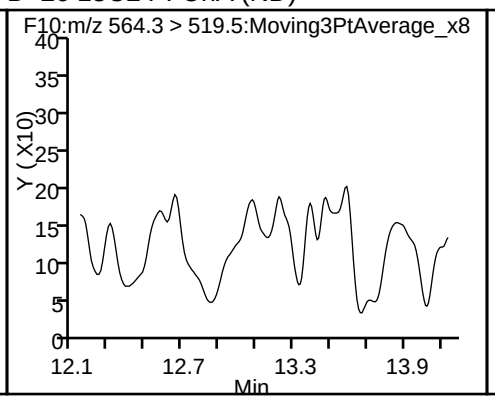
24 Perfluorooctane Sulfonamide



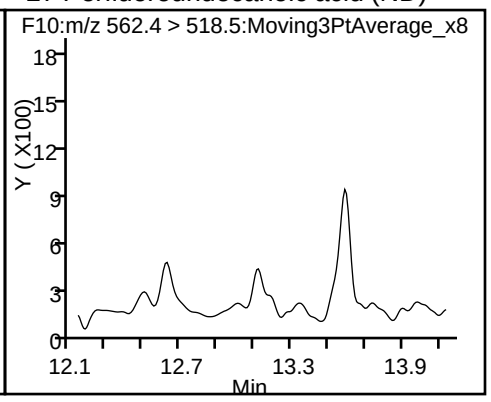
25 Perfluorodecane Sulfonate



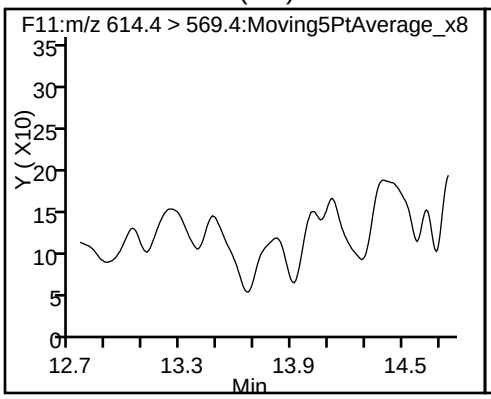
D 26 13C2 PFUnA (ND)



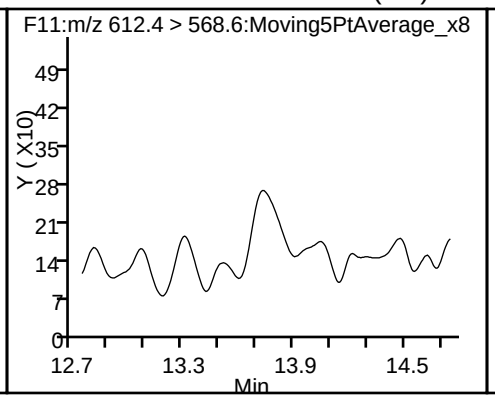
27 Perfluoroundecanoic acid (ND)



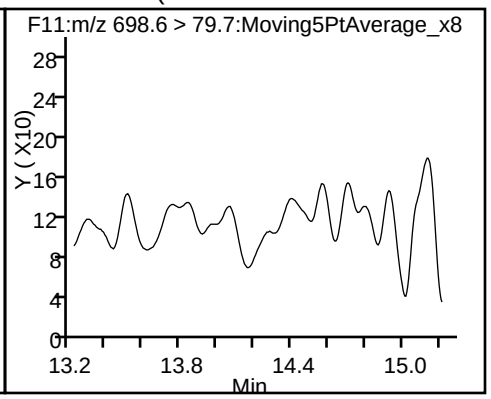
D 28 13C2 PFDoA (ND)



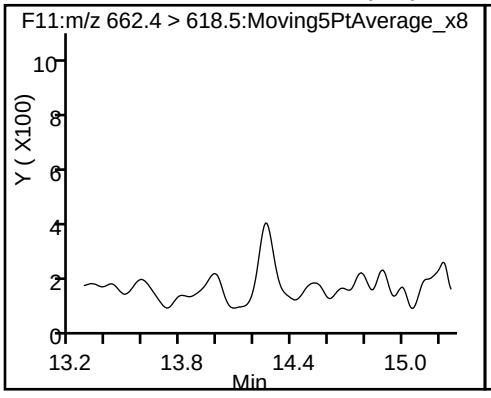
29 Perfluorododecanoic acid (ND)



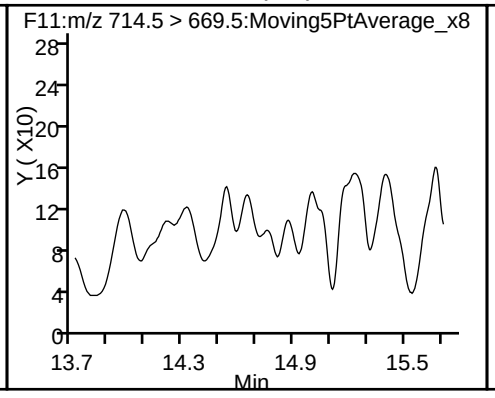
31 PFDoS (Perflouro-1-dodecanesulfona (ND)



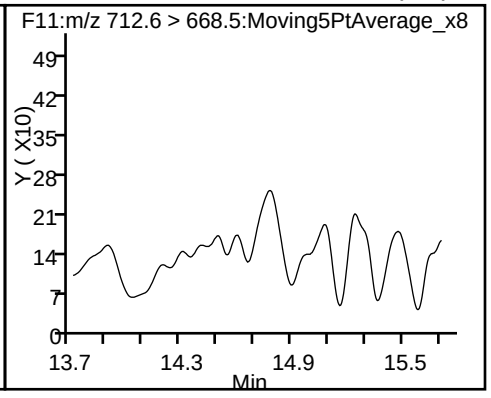
30 Perfluorotridecanoic acid (ND)



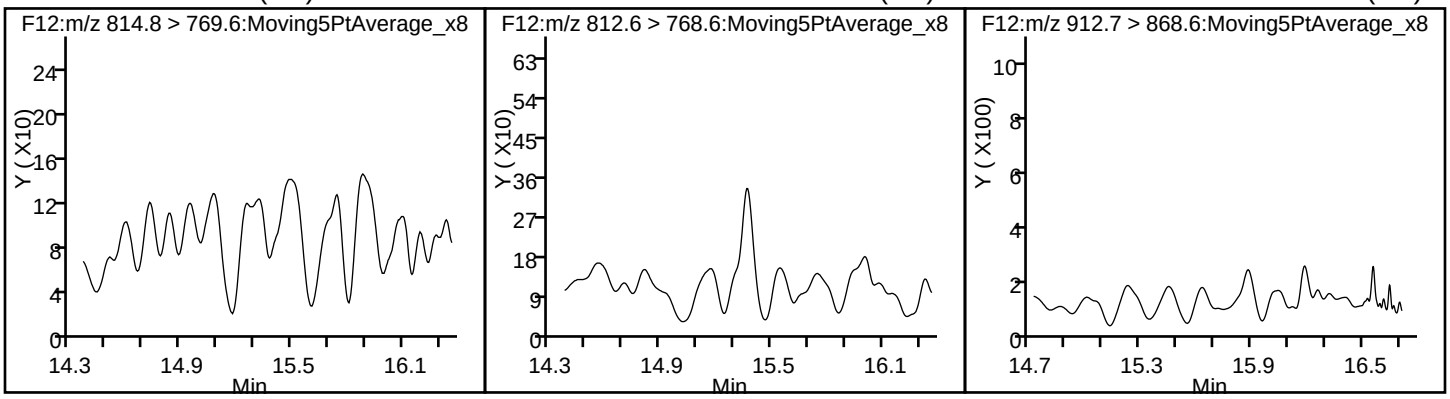
D 33 13C2-PFTeDA (ND)



32 Perfluorotetradecanoic acid (ND)



D 35 13C2-PFHxDA (ND) 34 Perfluorohexadecanoic acid (ND) 36 Perfluorooctandecanoic acid (ND)



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Instrument ID: A4 Start Date: 03/03/2014 10:37

Analysis Batch Number: 37466 End Date: 03/03/2014 16:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-37466/1		03/03/2014 10:37	1	03MAR14A4C_005.d	Acquity 2.1(mm)
STD 320-37466/2 IC		03/03/2014 10:58	1	03MAR14A4C_006.d	Acquity 2.1(mm)
STD 320-37466/3 IC		03/03/2014 11:19	1	03MAR14A4C_007.d	Acquity 2.1(mm)
STD 320-37466/4 IC		03/03/2014 11:40	1	03MAR14A4C_008.d	Acquity 2.1(mm)
STD 320-37466/5 IC		03/03/2014 12:02	1	03MAR14A4C_009.d	Acquity 2.1(mm)
STD 320-37466/6 IC		03/03/2014 12:23	1	03MAR14A4C_010.d	Acquity 2.1(mm)
STD 320-37466/7 IC		03/03/2014 12:44	1	03MAR14A4C_011.d	Acquity 2.1(mm)
STD 320-37466/8 IC		03/03/2014 13:05	1	03MAR14A4C_012.d	Acquity 2.1(mm)
ICV 320-37466/9		03/03/2014 13:27	1	03MAR14A4C_013.d	Acquity 2.1(mm)
CCB 320-37466/10		03/03/2014 13:48	1	03MAR14A4C_014.d	Acquity 2.1(mm)
MB 320-36921/1-A		03/03/2014 14:09	1	03MAR14A4C_015.d	Acquity 2.1(mm)
LCS 320-36921/2-A		03/03/2014 14:30	1	03MAR14A4C_016.d	Acquity 2.1(mm)
320-6160-1	WS22-MW01-0214	03/03/2014 14:51	1	03MAR14A4C_017.d	Acquity 2.1(mm)
320-6160-1 MS	WS22-MW01-0214 MS	03/03/2014 15:13	1	03MAR14A4C_018.d	Acquity 2.1(mm)
320-6160-1 MSD	WS22-MW01-0214 MSD	03/03/2014 15:34	1	03MAR14A4C_019.d	Acquity 2.1(mm)
320-6160-2	WS22-MW01P-214	03/03/2014 15:55	1	03MAR14A4C_020.d	Acquity 2.1(mm)
320-6160-3	WS22-EB01-021714	03/03/2014 16:16	1	03MAR14A4C_021.d	Acquity 2.1(mm)
CCV 320-37466/18		03/03/2014 16:37	1	03MAR14A4C_022.d	Acquity 2.1(mm)

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Batch Number: 36921 Batch Start Date: 02/24/14 07:45 Batch Analyst: Arauz, Horacio

Batch Method: 3535 Batch End Date: 02/27/14 18:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFOASU 00002	LCPFOASP 00003
MB 320-36921/1		3535, WS-LC-0025				500 mL	1.00 mL	50 uL	
LCS 320-36921/2		3535, WS-LC-0025				500 mL	1.00 mL	50 uL	20 uL
320-6160-A-1	WS22-MW01-0214	3535, WS-LC-0025	T	545.13 g	42.01 g	503.1 mL	1.00 mL	50 uL	
320-6160-A-1 MS	WS22-MW01-0214	3535, WS-LC-0025	T	539.33 g	42.42 g	496.9 mL	1.00 mL	50 uL	20 uL
320-6160-A-1 MSD	WS22-MW01-0214	3535, WS-LC-0025	T	534.98 g	42.15 g	492.8 mL	1.00 mL	50 uL	20 uL
320-6160-A-2	WS22-MW01P-214	3535, WS-LC-0025	T	553.23 g	43.06 g	510.2 mL	1.00 mL	50 uL	
320-6160-A-3	WS22-EB01-021714	3535, WS-LC-0025	T	553.40 g	41.55 g	511.9 mL	1.00 mL	50 uL	

Batch Notes	
Balance ID	QA-070
Batch Comment	J.T.BAKER MeOH 0000042259 / J.T.BAKER HEXANE 0000036784
H2O Lot used	2-19-14
Pipette ID	EC15219
Analyst who added reagent	HJA
SU Reagent Drop	HJA
SU Reagent Drop Witness	LRH
Solvent Lot #	4515-055C / 4515-055B
Solvent Name	0.3% Ammonium Hydroxide-MeOH / 0.1N Sodium Hydrox.-H2O
SOP Number	WS-LC-0025
SPE Cartridge Type	Wax cartridge 500mg
Solid Phase Extraction Disk Lot Number	Waters 002133182A

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.

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West Sacramento

HPLC/LCMS Data Review Checklist

Job Number(s): 320-6160 Work List ID(s): 10956

Extraction Batch: 36921 Analysis Batch(es): 37466

Delivery Rank 4 Due Date: 3/13/14

A. Calibration/Instrument Run QC	1st Level	2nd Level	N/A
1. ICAL locked in Chrom and TALS? ICAL Batch#	✓	✓	
2. ICAL, CCV Frequency & Criteria met.	✓	✓	
• $RF_{average}$ criteria appropriate for the method.	✓	✓	
• Linear Regression criteria appropriate if required ($r \geq 0.995$).	NA		
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).	NA		
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?	NA		
• All curve points show calculated concentrations.	✓	✓	
3. Peaks correctly ID'd by data system.	✓	✓	
5. Tune check frequency & criteria met and Tune check report attached.	NA	na	
B. QA/QC			
1. Are all QC samples properly linked in TALS?	✓	✓	
2. Method blank, LCS/LCSD and MS/SD frequencies met.	✓	✓	
3. LCS/LCSD and MB data are within control limits. If not, NCM is present.	✓	✓	
4. Are MS/MSD recoveries and RPD within control limits?	✓	✓	
5. Holding Times were met for prep and analytical.	✓	✓	
6. IS/Surrogate recoveries meet criteria or properly noted.	✓	✓	
C. Sample Analysis			
1. Was correct analysis performed and were project instructions followed?	✓	✓	
2. If required, are compounds within RT windows?	✓	✓	
3. If required, are positive hits confirmed and >40% RPD flagged?	NA		✓
4. Manual Integrations reviewed and appropriate.	NA		✓
5. All analytes correctly reported. (Primary, secondary, acceptable status)	✓	✓	
6. Correct reporting limits used. (based on client request, prep factors, and dilutions)	✓	✓	
D. Documentation			
1. Are all non-conformances documented/attached? NCM#	NA		✓
2. Do results make sense (e.g. dilutions, etc.)?	✓	✓	
3. Have all flags been reviewed for appropriateness?	✓	✓	
4. For level 3 and 4 reports, have forms and raw data been reviewed?		✓	
5. Was QC Checker run for this job?	✓	✓	

**Upon completion of this checklist, the reviewer must scan and attach the checklist to the TALS job.*

1st Level (Analyst): JRB Date: 3/3/14

2nd Level Reviewer: SM Date: 3/18/14

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-36921 Analyst: Arauz, Horacio Batch Open: 2/24/2014 7:45:32AM

Method Code: 320-3535_IVWT-320 Batch End: 2/27/2014 6:45:00PM

Solid-Phase Extraction (SPE)

	Input Sample Lab ID (Analytical Method)	SDG	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~320-36921/1 N/A	N/A		500 mL 1.00 mL				N/A	N/A	N/A		MB 320-36921/1-A
2	LCS~320-36921/2 N/A	N/A		500 mL 1.00 mL				N/A	N/A	N/A		LCS 320-36921/2-A
3	320-6160-A-1 (PFC_IDA)	N/A	545.13 g 42.01 g	503.1 mL 1.00 mL				3/13/14	17_Days	4		320-6160-A-1-A
4	320-6160-A-1~MS (PFC_IDA)	N/A	539.33 g 42.42 g	496.9 mL 1.00 mL				3/13/14	17_Days	4		320-6160-A-1-B MS
5	320-6160-A-1~MSD (PFC_IDA)	N/A	534.98 g 42.15 g	492.8 mL 1.00 mL				3/13/14	17_Days	4		320-6160-A-1-C MSD
6	320-6160-A-2 (PFC_IDA)	N/A	553.23 g 43.06 g	510.2 mL 1.00 mL				3/13/14	17_Days	4		320-6160-A-2-A
7	320-6160-A-3 (PFC_IDA)	N/A	553.40 g 41.55 g	511.9 mL 1.00 mL				3/13/14	17_Days	4		320-6160-A-3-A

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-36921 Analyst: Arauz, Horacio Batch Open: 2/24/2014 7:45:32AM

Method Code: 320-3535_IVWT-320 Batch End: 2/27/2014 6:45:00PM

Batch Notes

First Start time	
First End time	
Balance ID	QA-070
SPE Cartridge Type	Wax cartridge 500mg
Solid Phase Extraction Disk Lot Number	Waters 002133182A
H2O Lot used	2-19-14
Pipette ID	EC15219
Solvent Name	0.3% Ammonium Hydroxide-MeOH / 0.1N Sodium Hydrox.-H2O
Solvent Lot #	4515-055C / 4515-055B
Analyst who added reagent	HJA
SU Reagent Drop	HJA
SU Reagent Drop Witness	LRH
Acid Name	
Acid Lot	
Reagent ID	
Reagent Lot Number	
NaCL Lot #	
SOP Number	WS-LC-0025
Batch Comment	J.T.BAKER MeOH 0000042259 / J.T.BAKER HEXANE 0000036784

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-36921 Analyst: Arauz, Horacio Batch Open: 2/24/2014 7:45:32AM

Method Code: 320-3535_IVWT-320 Batch End: 2/27/2014 6:45:00PM

Comments

320-6160-A-1	Method Comments:	QSM4
320-6160-A-1~MS	Method Comments:	QSM4
320-6160-A-1~MSD	Method Comments:	QSM4
320-6160-A-2	Method Comments:	QSM4
320-6160-A-3	Method Comments:	QSM4

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-36921
Analyst: Arauz, Horacio
Batch Open: 2/24/2014 7:45:32AM

Method Code: 320-3535_IVWT-320
Batch End: 2/27/14 6:45PM

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-36921/1	LCMPFOASU_00002	50 uL	1.00 mL	HJA 2-24-14	LRH 2/24/14
LCS 320-36921/2	LCMPFOASU_00002	50 uL	1.00 mL		
LCS 320-36921/2	LCPFOASP_00003	20 uL	1.00 mL		
320-6160-A-1	LCMPFOASU_00002	50 uL	1.00 mL		
320-6160-A-1 MS	LCMPFOASU_00002	50 uL	1.00 mL		
320-6160-A-1 MS	LCPFOASP_00003	20 uL	1.00 mL		
320-6160-A-1 MSD	LCMPFOASU_00002	50 uL	1.00 mL		
320-6160-A-1 MSD	LCPFOASP_00003	20 uL	1.00 mL		
320-6160-A-2	LCMPFOASU_00002	50 uL	1.00 mL		
320-6160-A-3	LCMPFOASU_00002	50 uL	1.00 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-36921 Analyst: Arauz, Horacio Batch Open: 2/24/2014 7:45:32AM

Method Code: 320-3535_IVWT-320 Batch End: 2/27/2014 6:45:00PM

Other Reagents:

Reagent	Amount/Units	Lot#:

Shipping and Receiving Documents

Chain of Custody Record

Temperature on Receipt 1.9°C

Drinking Water? Yes ☐ No ☒

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TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
CH2M HILL	Sandy Brown	02-17-14	267725
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page** 1 of 1
15010 Conference Center Dr. Suite 200	703-376-5301		
City / **State** / **Zip Code**	**Site Contact**	**Lab Contact**	**Analysis (Attach list if more space is needed)**
Chantilly / VA / 20151	Mike Zamboni	Jill Kellmann	PFOA/PFOS
Project Name and Location (State)	**Carrier/Waybill Number**		
Navy CLEAN 8012 CTO-JU22			
Contract/Purchase Order/Quote No			
non-P.O.			

320-6160 Chain of Custody

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	#	PFOA/PFOS	
WS22-MW01-0214	02-17-14	1610		X			X						2	X	
WS22-MW01P-0214		1615		X			X						2	X	
WS22-MW01-0214-MS		1610		X			X						2	X	Run QA/QC
WS22-MW01-0214-SD		1610		X			X						2	X	Run QA/QC
~~WS22-EB01-021714~~		1745		X			X						2	X	

02/17/14

Page 348 of 349

Possible Hazard Identification	Sample Disposal
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown	☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required	QC Requirements (Specify)
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard	TB 3.8°C

	Date	Time		Date	Time
1. Relinquished By	02/17/14	2000	1. Received By	2/18/14	900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

~~PN: 474535.FI.FK.22~~ PN: 474535.FI.WS.22

03/19/2014

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 320-6160-1

Login Number: 6160

List Source: TestAmerica Sacramento

List Number: 1

Creator: Hytrek, Cheryl

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	
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.	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 | Date/Time_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_Qual | QC_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 |
|---|---|---

| Contract_ID | DO_CTO_Number | Phase | Installation_ID | Sample_Name | CH2M_Code | Analysis_Group | Analytical_Method | PRC_Code | Lab_Code | Lab_Code | Lab_Name | Leachate_Method | Sample_Basis | Extraction_Method | Result_Type | Lab_QC_Type | Sample_Medium | QC_Level | Date/Time_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_Qual | QC_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 |
|---|---|---

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	Date/Time_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_Qual	QC_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
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		MANGANESE	7439-96-5	593	593	UG_L			PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		MANGANESE	7439-96-5	585	585	UG_L			PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		NICKEL	7440-02-0	7.45	7.45	UG_L			PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		NICKEL	7440-02-0	7.20	7.20	UG_L			PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		POTASSIUM	7440-09-7	12300	12300	UG_L			PR	TRG							4.2	10.0	20.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		POTASSIUM	7440-09-7	12500	12500	UG_L			PR	TRG							4.2	10.0	20.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG							4.2	0.150	0.300	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG							4.2	0.150	0.300	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		SODIUM	7440-23-5	653000	653000	UG_L			PR	TRG							4.2	25.0	50.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		SODIUM	7440-23-5	647000	647000	UG_L			PR	TRG							4.2	25.0	50.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		VANADIUM	7440-62-2	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		VANADIUM	7440-62-2	0.266	0.266	UG_L	J	J	PR	TRG							4.2	0.133	0.266	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	20:28:00	8096-06	1	1	0		ZINC	7440-66-6	5.04	5.04	UG_L	J	J	PR	TRG							4.2	5.00	10.0	20.0	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:15	02/18/2014			20140227	10:05:00	20140303	19:29:00	8096-06	1	1	0		ZINC	7440-66-6	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	20.0	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		ALUMINUM	7429-90-5	20.0	20.0	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		ALUMINUM	7429-90-5	20.0	20.0	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		ANTIMONY	7440-36-0	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		ANTIMONY	7440-36-0	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		ARSENIC	7440-38-2	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		ARSENIC	7440-38-2	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		BARIUM	7440-39-3	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		BARIUM	7440-39-3	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		BERYLLIUM	7440-41-7	0.100	0.100	UG_L	U	U	PR	TRG							4.2	0.0500	0.100	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		BERYLLIUM	7440-41-7	0.100	0.100	UG_L	U	U	PR	TRG							4.2	0.0500	0.100	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		CALCIUM	7440-70-2	28.5	28.5	UG_L	J	J	PR	TRG							4.2	13.0	25.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		CALCIUM	7440-70-2	25.5	25.5	UG_L	J	J	PR	TRG							4.2	13.0	25.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		COBALT	7440-48-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		COBALT	7440-48-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		COPPER	7440-50-8	0.644	0.644	UG_L	J	J	PR	TRG							4.2	0.250	0.500	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		COPPER	7440-50-8	1.26	1.26	UG_L	J	J	PR	TRG							4.2	0.250	0.500	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		IRON	7439-89-6	32.0	32.0	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		IRON	7439-89-6	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		LEAD	7439-92-1	0.0892	0.0892	UG_L	J	J	PR	TRG							4.2	0.0500	0.100	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		LEAD	7439-92-1	0.0603	0.0603	UG_L	J	J	PR	TRG							4.2	0.0500	0.100	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		MAGNESIUM	7439-95-4	5.20	5.20	UG_L	J	J	PR	TRG							4.2	5.00	10.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		MAGNESIUM	7439-95-4	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		MANGANESE	7439-96-5	0.197	0.197	UG_L	J	J	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		MANGANESE	7439-96-5	0.272	0.272	UG_L	J	J	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		NICKEL	7440-02-0	0.117	0.117	UG_L	J	J	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		NICKEL	7440-02-0	0.119	0.119	UG_L	J	J	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		POTASSIUM	7440-09-7	20.0	20.0	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		POTASSIUM	7440-09-7	20.0	20.0	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG							4.2	0.150	0.300	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG							4.2	0.150	0.300	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		SODIUM	7440-23-5	1410	1410	UG_L	J	J	PR	TRG							4.2	25.0	50.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		SODIUM	7440-23-5	112	112	UG_L	J	J	PR	TRG							4.2	25.0	50.0	100	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	19:33:00	8096-07	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	148096	F6C03353		
NL2470110B012	JU08		WASHINGTON_NAVY_YARD	WSZ2-EBG1-021714	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/17/2014 17:45	02/18/2014			20140227	10:05:00	20140303	20:33:00	8096-07	1	1	0		VANADIUM	7440-

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PAC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	Date/Time_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_Qual	QC_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
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	W	4	02/13/2014 11:15	02/18/2014					20140219	02:20:00	8096-01	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214DUP	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	REP	LR	W	4	02/13/2014 11:15	02/18/2014					20140219	02:52:00	8096-01D	1	2	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214DUP	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	REP	LR	W	4	02/13/2014 11:15	02/18/2014					20140219	05:01:00	8096-01D	1	2	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MS	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	MS	MS	W	4	02/17/2014 11:15	02/18/2014					20140219	05:33:00	8096-01M	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	75	75	PCT	*	*	PR	TRG		MSA	120	80					4.2				148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MS	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	MS	MS	W	4	02/17/2014 11:15	02/18/2014					20140219	03:56:00	8096-01M	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	72	72	PCT	*	*	PR	TRG		MSA	120	80					4.2				148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW04-0214	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	W	4	02/18/2014 14:30	02/19/2014					20140219	07:10:00	8096-02	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW04-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	W	4	02/17/2014 12:45	02/18/2014					20140219	06:05:00	8096-02	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW03-0214	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	W	4	02/17/2014 14:15	02/18/2014					20140219	08:14:00	8096-03	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW03-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	W	4	02/17/2014 14:15	02/18/2014					20140219	07:42:00	8096-03	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW01-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	W	4	02/17/2014 16:10	02/18/2014					20140219	08:47:00	8096-04	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW01-0214	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	W	4	02/17/2014 16:10	02/18/2014					20140219	09:19:00	8096-04	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW10P-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	W	4	02/17/2014 16:35	02/18/2014					20140219	10:03:00	8096-05	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW10P-0214	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	W	4	02/17/2014 16:35	02/18/2014					20140219	10:56:00	8096-05	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	W	4	02/17/2014 17:15	02/18/2014					20140219	11:28:00	8096-06	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	W	4	02/17/2014 17:15	02/18/2014					20140219	12:00:00	8096-06	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-EBG1-021714	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	W	4	02/17/2014 17:45	02/18/2014					20140219	13:36:00	8096-07	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-EBG1-021714	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	W	4	02/17/2014 17:45	02/18/2014					20140219	12:32:00	8096-07	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	LBS	W	4	02/19/2014 00:43	02/19/2014					20140219	00:43:00	HCB008W8	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	MBLK1W	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	LBS	W	4	02/19/2014 00:43	02/19/2014					20140219	00:43:00	HCB008W8	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	BSD	W	4	02/19/2014 01:47	02/19/2014					20140219	01:47:00	HCB008WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	100	100	PCT			PR	TRG		LSA	120	80					4.2				148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	BSD	W	4	02/19/2014 01:47	02/19/2014					20140219	01:47:00	HCB008WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	100	100	PCT			PR	TRG		LSA	120	80					4.2				148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	GRAB	BS	W	4	02/19/2014 01:15	02/19/2014					20140219	01:15:00	HCB008WL	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	99	99	PCT			PR	TRG		LSA	120	80					4.2				148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	FLT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	GRAB	BS	W	4	02/19/2014 01:15	02/19/2014					20140219	01:15:00	HCB008WL	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	99	99	PCT			PR	TRG		LSA	120	80					4.2				148096	0819-01		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 11:15	02/18/2014	20140303	12:30:00	20140303	16:30:00	8096-01	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	SW7470	GRAB	REG	W	4	02/17/2014 11:15	02/18/2014	20140303	12:30:00	20140303	16:30:00	8096-01	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 11:15	02/18/2014	20140303	12:30:00	20140303	16:13:00	8096-01	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MS	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	MS	MS	W	4	02/17/2014 11:15	02/18/2014	20140303	12:30:00	20140303	16:17:00	8096-01M	1	1	0		MERCURY	7439-97-6	108	108	PCT			PR	TRG		MSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MS	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	SW7470	MS	MS	W	4	02/17/2014 11:15	02/18/2014	20140303	12:30:00	20140303	16:43:00	8096-01M	1	1	0		MERCURY	7439-97-6	116	116	PCT			PR	TRG		MSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MSD	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	MSD	MSD	W	4	02/17/2014 11:15	02/18/2014	20140303	12:30:00	20140303	16:45:00	8096-01S	1	1	0		MERCURY	7439-97-6	115	115	PCT			PR	TRG		MSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MSD	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	MSD	MSD	W	4	02/17/2014 11:15	02/18/2014	20140303	12:30:00	20140303	16:37:00	8096-01S	1	1	0		MERCURY	7439-97-6	109	109	PCT			PR	TRG		MSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW04-0214	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	REG	W	4	02/17/2014 12:45	02/18/2014	20140303	12:30:00	20140303	16:47:00	8096-02	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW04-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 12:45	02/18/2014	20140303	12:30:00	20140303	16:21:00	8096-02	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW03-0214	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	REG	W	4	02/17/2014 14:15	02/18/2014	20140303	12:30:00	20140303	16:54:00	8096-03	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW03-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 14:15	02/18/2014	20140303	12:30:00	20140303	16:23:00	8096-03	1	1	0		MERCURY	7439-97-6	0.0760	0.0760	UG_L	J	J	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW01-0214	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	REG	W	4	02/17/2014 16:10	02/18/2014	20140303	12:30:00	20140303	16:56:00	8096-04	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW01-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 16:10	02/18/2014	20140303	12:30:00	20140303	16:29:00	8096-04	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW10P-0214	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	REG	W	4	02/17/2014 16:35	02/18/2014	20140303	12:30:00	20140303	16:58:00	8096-05	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW10P-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 16:35	02/18/2014	20140303	12:30:00	20140303	16:33:00	8096-05	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	REG	W	4	02/17/2014 17:15	02/18/2014	20140303	12:30:00	20140303	17:00:00	8096-06	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 17:15	02/18/2014	20140303	12:30:00	20140303	16:33:00	8096-06	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-EBG1-021714	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	REG	W	4	02/17/2014 17:45	02/18/2014	20140303	12:30:00	20140303	16:35:00	8096-07	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-EBG1-021714	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	REG	W	4	02/17/2014 17:45	02/18/2014	20140303	12:30:00	20140303	17:02:00	8096-07	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	MBLK1W	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	LBS	W	4	03/03/2014 12:30	03/03/2014	20140303	12:30:00	20140303	16:06:00	HGC001W8	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	LBS	W	4	03/03/2014 12:30	03/03/2014	20140303	12:30:00	20140303	16:00:00	HGC001W8	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	BSD	W	4	03/03/2014 12:30	03/03/2014	20140303	12:30:00	20140303	16:10:00	HGC001WC	1	1	0		MERCURY	7439-97-6	110	110	PCT			PR	TRG		LSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	BSD	W	4	03/03/2014 12:30	03/03/2014	20140303	12:30:00	20140303	16:10:00	HGC001WC	1	1	0		MERCURY	7439-97-6	110	110	PCT			PR	TRG		LSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	GRAB	BS	W	4	03/03/2014 12:30	03/03/2014	20140303	12:30:00	20140303	16:08:00	HGC001WL	1	1	0		MERCURY	7439-97-6	108	108	PCT			PR	TRG		LSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	FLT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	GRAB	BS	W	4	03/03/2014 12:30	03/03/2014	20140303	12:30:00	20140303	16:08:00	HGC001WL	1	1	0		MERCURY	7439-97-6	108	108	PCT			PR	TRG		LSA	120	80					4.2				148096	MATC001		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	REG	W	4	02/17/2014 11:15	02/18/2014	20140226	14:39:00	20140226	18:30:00	8096-01	1	1	0		CYANIDE	57-12-5	5	5	UG_L	U	U	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MS	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	MS	MS	W	4	02/17/2014 11:15	02/18/2014	20140226	14:39:00	20140226	18:30:00	8096-01M	1	1	0		CYANIDE	57-12-5	108	108	PCT			PR	TRG		MSA	115	85					4.2				148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW02-0214MSD	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	MSD	MSD	W	4	02/17/2014 11:15	02/18/2014	20140226	14:39:00	20140226	18:30:00	8096-01S	1	1	0		CYANIDE	57-12-5	106	106	PCT			PR	TRG		MSA	115	85					4.2				148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW04-0214	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	REG	W	4	02/17/2014 12:45	02/18/2014	20140226	14:39:00	20140226	18:30:00	8096-02	1	1	0		CYANIDE	57-12-5	8.14	8.14	UG_L	J	J	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW03-0214	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	REG	W	4	02/17/2014 14:15	02/18/2014	20140226	14:39:00	20140226	18:31:00	8096-03	1	1	0		CYANIDE	57-12-5	4.04	4.04	UG_L	J	J	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW01-0214	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	REG	W	4	02/17/2014 16:10	02/18/2014	20140226	14:39:00	20140226	18:32:00	8096-04	1	1	0		CYANIDE	57-12-5	5	5	UG_L	U	U	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-MW10P-0214	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	REG	W	4	02/17/2014 16:35	02/18/2014	20140226	14:39:00	20140226	18:32:00	8096-05	1	1	0		CYANIDE	57-12-5	5	5	UG_L	U	U	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WAG-MW15S-0214	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	REG	W	4	02/17/2014 17:15	02/18/2014	20140226	14:39:00	20140226	18:32:00	8096-06	1	1	0		CYANIDE	57-12-5	5	5	UG_L	U	U	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS22-EBG1-021714	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	REG	W	4	02/17/2014 17:45	02/18/2014	20140226	14:39:00	20140226	18:32:00	8096-07	1	1	0		CYANIDE	57-12-5	5	5	UG_L	U	U	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	LBS	W	4	02/26/2014 14:39	02/26/2014	20140226	14:39:00	20140226	18:29:00	CNB012W8	1	1	0		CYANIDE	57-12-5	5	5	UG_L	U	U	PR	TRG									4.2	2.5	5	10	148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	NONE	METAL	9014	INO	EMAX	EMAX LABORATORIES		WET	METHOD	GRAB	BSD	W	4	02/26/2014 14:39	02/26/2014	20140226	14:39:00	20140226	18:29:00	CNB012WC	1	1	0		CYANIDE	57-12-5	104	104	PCT			PR	TRG		LSA	115	85					4.2				148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	LC01W	FLT	FMETAL	9014	INO	EMAX	EMAX LABORATORIES		FF	METHOD	GRAB	BSD	W	4	02/26/2014 14:39	02/26/2014	20140226	14:39:00	20140226	18:29:00	CNB012WC	1	1	0		CYANIDE	57-12-5	105	105	PCT			PR	TRG		LSA	115	85					4.2				148096	CNB012W		
N6247010801	JU08		WASHINGTON_NAVY_YARD	WS24-MW07-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	GRAB	REG	W	4	02/18/2014 12:05	02/19/2014	20140221	10:10:00	20140306	13:42:00	8105-01	1	1

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_Qual	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
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		ARSENIC	7440-38-2	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		ARSENIC	7440-38-2	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		BARIUM	7440-39-3	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		BARIUM	7440-39-3	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		BERYLLIUM	7440-41-7	0.100	0.100	UG_L	U	U	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		BERYLLIUM	7440-41-7	0.100	0.100	UG_L	U	U	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		CALCIUM	7440-70-2	44.1	44.1	UG_L	J	J	PR	TRG									4.2	13.0	25.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		CALCIUM	7440-70-2	44.6	44.6	UG_L	J	J	PR	TRG									4.2	13.0	25.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		COBALT	7440-48-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		COBALT	7440-48-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		COPPER	7440-50-8	0.953	0.953	UG_L	J	J	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		COPPER	7440-50-8	0.379	0.379	UG_L	J	J	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		IRON	7439-89-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		IRON	7439-89-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		LEAD	7439-92-1	0.100	0.100	UG_L	U	U	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		LEAD	7439-92-1	0.0770	0.0770	UG_L	J	J	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		MAGNESIUM	7439-95-4	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		MAGNESIUM	7439-95-4	5.16	5.16	UG_L	J	J	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		MANGANESE	7439-96-5	0.149	0.149	UG_L	J	J	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		MANGANESE	7439-96-5	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		NICKEL	7440-02-0	0.523	0.523	UG_L	J	J	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		NICKEL	7440-02-0	0.114	0.114	UG_L	J	J	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		POTASSIUM	7440-09-7	13.6	13.6	UG_L	J	J	PR	TRG									4.2	10.0	20.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		POTASSIUM	7440-09-7	20.0	20.0	UG_L	U	U	PR	TRG									4.2	10.0	20.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG									4.2	0.150	0.300	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG									4.2	0.150	0.300	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		SODIUM	7440-23-5	255	255	UG_L			PR	TRG									4.2	25.0	50.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		SODIUM	7440-23-5	82.8	82.8	UG_L	J	J	PR	TRG									4.2	25.0	50.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		VANADIUM	7440-62-2	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		VANADIUM	7440-62-2	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	14:17:00	B105-04	1	1	0		ZINC	7440-66-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	20.0	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140221	10:10:00	20140306	13:38:00	B105-04	1	1	0		ZINC	7440-66-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	20.0	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ALUMINUM	7429-90-5	20.0	20.0	UG_L	U	U	PR	TRG									4.2	10.0	20.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ALUMINUM	7429-90-5	20.0	20.0	UG_L	U	U	PR	TRG									4.2	10.0	20.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ANTIMONY	7440-36-0	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ANTIMONY	7440-36-0	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ARSENIC	7440-38-2	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ARSENIC	7440-38-2	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		BARIUM	7440-39-3	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		BARIUM	7440-39-3	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		BERYLLIUM	7440-41-7	0.100	0.100	UG_L	U	U	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		BERYLLIUM	7440-41-7	0.100	0.100	UG_L	U	U	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		CALCIUM	7440-70-2	19.0	19.0	UG_L	J	J	PR	TRG									4.2	13.0	25.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		CALCIUM	7440-70-2	19.0	19.0	UG_L	J	J	PR	TRG									4.2	13.0	25.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		COBALT	7440-48-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		COBALT	7440-48-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		COPPER	7440-50-8	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		COPPER	7440-50-8	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		IRON	7439-89-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		IRON	7439-89-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		LEAD	7439-92-1	0.100	0.100	UG_L	U	U	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		LEAD	7439-92-1	0.100	0.100	UG_L	U	U	PR	TRG									4.2	0.0500	0.100	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		MAGNESIUM	7439-95-4	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		MAGNESIUM	7439-95-4	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		MANGANESE	7439-96-5	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		MANGANESE	7439-96-5	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		NICKEL	7440-02-0	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		NICKEL	7440-02-0	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		POTASSIUM	7440-09-7	20.0	20.0	UG_L	U	U	PR	TRG									4.2	10.0	20.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		POTASSIUM	7440-09-7	20.0	20.0	UG_L	U	U	PR	TRG									4.2	10.0	20.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG									4.2	0.150	0.300	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG									4.2	0.150	0.300	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		SODIUM	7440-23-5	50.0	50.0	UG_L	U	U	PR	TRG									4.2	25.0	50.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		SODIUM	7440-23-5	50.0	50.0	UG_L	U	U	PR	TRG									4.2	25.0	50.0	100	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG									4.2	0.100	0.200	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		VANADIUM	7440-62-2	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		VANADIUM	7440-62-2	0.500	0.500	UG_L	U	U	PR	TRG									4.2	0.250	0.500	1.00	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ZINC	7440-66-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	20.0	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032WB	1	1	0		ZINC	7440-66-6	10.0	10.0	UG_L	U	U	PR	TRG									4.2	5.00	10.0	20.0	14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ALUMINUM	7429-90-5	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ALUMINUM	7429-90-5	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ANTIMONY	7440-36-0	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ANTIMONY	7440-36-0	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ARSENIC	7440-38-2	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ARSENIC	7440-38-2	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		BARIUM	7440-39-3	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		BARIUM	7440-39-3	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		BERYLLIUM	7440-41-7	91	91	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		BERYLLIUM	7440-41-7	91	91	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		CADMIUM	7440-43-9	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		CADMIUM	7440-43-9	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		CALCIUM	7440-70-2	91	91	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		CALCIUM	7440-70-2	91	91	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		CHROMIUM	7440-47-3	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		CHROMIUM	7440-47-3	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		COBALT	7440-48-4	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		COBALT	7440-48-4	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		COPPER	7440-50-8	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		COPPER	7440-50-8	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		IRON	7439-89-6	89	89	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		IRON	7439-89-6	89	89	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		LEAD	7439-92-1	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		LEAD	7439-92-1	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		MAGNESIUM	7439-95-4	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		MAGNESIUM	7439-95-4	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		MANGANESE	7439-96-5	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		MANGANESE	7439-96-5	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		NICKEL	7440-02-0	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		NICKEL	7440-02-0	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		POTASSIUM	7440-09-7	90	90	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		POTASSIUM	7440-09-7	90	90	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		SELENIUM	7782-49-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		SELENIUM	7782-49-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		SILVER	7440-22-4	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		SILVER	7440-22-4	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		SODIUM	7440-23-5	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		SODIUM	7440-23-5	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		THALLIUM	7440-28-0	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		THALLIUM	7440-28-0	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		VANADIUM	7440-62-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		VANADIUM	7440-62-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ZINC	7440-66-6	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:21:00	IMB032WC	1	1	0		ZINC	7440-66-6	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ALUMINUM	7429-90-5	90	90	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ALUMINUM	7429-90-5	90	90	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ANTIMONY	7440-36-0	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ANTIMONY	7440-36-0	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ARSENIC	7440-38-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ARSENIC	7440-38-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		BARIUM	7440-39-3	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		BARIUM	7440-39-3	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		BERYLLIUM	7440-41-7	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		BERYLLIUM	7440-41-7	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		CADMIUM	7440-43-9	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		CADMIUM	7440-43-9	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		CALCIUM	7440-70-2	92	92	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		CALCIUM	7440-70-2	92	92	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		CHROMIUM	7440-47-3	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		CHROMIUM	7440-47-3	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		COBALT	7440-48-4	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		COBALT	7440-48-4	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		COPPER	7440-50-8	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		COPPER	7440-50-8	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		IRON	7439-89-6	89	89	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		IRON	7439-89-6	89	89	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		LEAD	7439-92-1	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		LEAD	7439-92-1	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		MAGNESIUM	7439-95-4	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		MAGNESIUM	7439-95-4	88	88	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		MANGANESE	7439-96-5	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		MANGANESE	7439-96-5	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		NICKEL	7440-02-0	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		NICKEL	7440-02-0	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		POTASSIUM	7440-09-7	90	90	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		POTASSIUM	7440-09-7	90	90	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		SELENIUM	7782-49-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		SELENIUM	7782-49-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		SILVER	7440-22-4	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		SILVER	7440-22-4	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		SODIUM	7440-23-5	91	91	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		SODIUM	7440-23-5	91	91	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		THALLIUM	7440-28-0	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		THALLIUM	7440-28-0	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		VANADIUM	7440-62-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		VANADIUM	7440-62-2	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ZINC	7440-66-6	104	104	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	02/21/2014 10:10	02/21/2014			20140221	10:10:00	20140306	13:17:00	IMB032WL	1	1	0		ZINC	7440-66-6	104	104	PCT			PR	TRG		LSA	120	80					4.2				14B105	F6C04026		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW07-0214	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/18/2014 12:05	02/19/2014					20140220	21:42:00	B105-01	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW07-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/18/2014 12:05	02/19/2014					20140220	21:09:00	B105-01	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW02-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/18/2014 14:30	02/19/2014					20140220	22:46:00	B105-02	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW02-0214	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/18/2014 14:30	02/19/2014					20140220	23:18:00	B105-02	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW03-0214	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/18/2014 16:00	02/19/2014					20140221	00:23:00	B105-03	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.200	0.200	UG_L			PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW03-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/18/2014 16:00	02/19/2014					20140220	23:51:00	B105-03	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.184	0.184	UG_L			PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/18/2014 17:40	02/19/2014					20140221	02:00:00	B105-04	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/18/2014 17:40	02/19/2014					20140221	00:55:00	B105-04	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	LB1	W	4	02/20/2014 19:33						20140220	19:33:00	HCB011WB	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	LB1	W	4	02/20/2014 19:33						20140220	19:33:00	HCB011WB	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	BSD	W	4	02/20/2014 20:37						20140220	20:37:00	HCB011WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	BSD	W	4	02/20/2014 20:37						20140220	20:37:00	HCB011WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	BS	W	4	02/20/2014 20:05						20140220	20:05:00	HCB011WL	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	BS	W	4	02/20/2014 20:05						20140220	20:05:00	HCB011WL	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B105	DB21-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW07-0214	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 12:05	02/19/2014			20140303	12:45:00	20140303	17:48:00	B105-01	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW07-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	REG	W	4	02/18/2014 12:05	02/19/2014			20140303	12:45:00	20140303	17:30:00	B105-01	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW07-0214MS	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	MS	W	4	02/18/2014 12:05	02/19/2014			20140303	12:45:00	20140303	17:34:00	B105-01M	1	1	0		MERCURY	7439-97-6	114	114	PCT			PR	TRG		MSA	120	80					4.2				14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW07-0214MSD	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	MSD	W	4	02/18/2014 12:05	02/19/2014			20140303	12:45:00	20140303	17:36:00	B105-01S	1	1	0		MERCURY	7439-97-6	113	113	PCT			PR	TRG		MSA	120	80					4.2				14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW02-0214	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 14:30	02/19/2014			20140303	12:45:00	20140303	17:50:00	B105-02	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW02-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	REG	W	4	02/18/2014 14:30	02/19/2014			20140303	12:45:00	20140303	17:38:00	B105-02	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW03-0214	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 16:00	02/19/2014			20140303	12:45:00	20140303	17:52:00	B105-03	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW03-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	REG	W	4	02/18/2014 16:00	02/19/2014			20140303	12:45:00	20140303	17:44:00	B105-03	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B105	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-EB01-021814	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 17:40	02/19/2014			20140303	12:45:00	20140303	17:54:00	B105-04	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B105	M47C001		

| Contract_ID | DO_CTO_Number | Phase | Installation_ID | Sample_Name | CH2M_Code | Analysis_Group | Analytical_Method | PRC_Code | Lab_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_Qual | QC_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 |
|---|---|---

| Contract_ID | DO_CTO_Number | Phase | Installation_ID | Sample_Name | CH2M_Code | Analysis_Group | Analytical_Method | PRC_Code | Lab_Code | Lab_Code_Name | Leachate_Method | Sample_Basis | Extraction_Method | Result_Type | Lab_QC_Type | Sample_Medium | QC_Level | Date/Time_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_Qual | QC_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 |
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| 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_Qual | QC_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 |
|---|---|---

| Contract_ID | DD_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 | Date/Time_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_Qual | QC_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 |
|---|---|---

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	Date/Time_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_Qual	QC_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
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		COPPER	7440-50-8	89	89	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		COPPER	7440-50-8	84	84	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		IRON	7439-89-6	87	87	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		IRON	7439-89-6	84	84	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		LEAD	7439-92-1	95	95	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		LEAD	7439-92-1	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		MAGNESIUM	7439-95-4	88	88	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		MAGNESIUM	7439-95-4	90	90	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		MANGANESE	7439-96-5	91	91	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		MANGANESE	7439-96-5	97	97	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		NICKEL	7440-02-0	88	88	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		NICKEL	7440-02-0	86	86	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		POTASSIUM	7440-09-7	90	90	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		POTASSIUM	7440-09-7	87	87	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		SELENIUM	7782-49-2	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		SELENIUM	7782-49-2	93	93	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		SILVER	7440-22-4	93	93	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		SILVER	7440-22-4	93	93	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		SODIUM	7440-23-5	50	50	PCT	*	*	PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		SODIUM	7440-23-5	0	0	PCT	*	*	PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		THALLIUM	7440-28-0	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		THALLIUM	7440-28-0	90	90	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		VANADIUM	7440-62-2	97	97	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		VANADIUM	7440-62-2	97	97	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06M	1	1	0		ZINC	7440-66-6	95	95	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MS	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:08:00	B113-06M	1	1	0		ZINC	7440-66-6	96	96	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:21:00	B122-06S	1	1	0		ALUMINUM	7429-90-5	92	92	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		ALUMINUM	7429-90-5	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		ANTIMONY	7440-36-0	99	99	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		ARSENIC	7440-38-2	98	98	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		ARSENIC	7440-38-2	98	98	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		BARIUM	7440-39-3	95	95	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		BARIUM	7440-39-3	96	96	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		BERYLLIUM	7440-41-7	95	95	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		BERYLLIUM	7440-41-7	95	95	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		CADMIUM	7440-43-9	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		CADMIUM	7440-43-9	91	91	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		CALCIUM	7440-70-2	97	97	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		CALCIUM	7440-70-2	83	83	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		CHROMIUM	7440-47-3	93	93	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		CHROMIUM	7440-47-3	89	89	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		COBALT	7440-48-4	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		COBALT	7440-48-4	92	92	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		COPPER	7440-50-8	84	84	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		COPPER	7440-50-8	84	84	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		IRON	7439-89-6	87	87	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		IRON	7439-89-6	84	84	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		LEAD	7439-92-1	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		LEAD	7439-92-1	91	91	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		MAGNESIUM	7439-95-4	88	88	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		MAGNESIUM	7439-95-4	94	94	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		MANGANESE	7439-96-5	76	76	PCT	*	*	PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		MANGANESE	7439-96-5	113	113	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		NICKEL	7440-02-0	89	89	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		NICKEL	7440-02-0	85	85	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		POTASSIUM	7440-09-7	97	97	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		POTASSIUM	7440-09-7	85	85	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		SELENIUM	7782-49-2	93	93	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		SELENIUM	7782-49-2	90	90	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	14:25:00	B122-06S	1	1	0		SILVER	7440-22-4	93	93	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY_YARD	WSA14-NAV04-0214MSD	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	10:10:00	20140306	15:12:00	B112-06S	1	1	0		SILVER	7440-22-4	91	91	PCT			PR	TRG		MSA	120	80				4.2				1480122A	FIC04026		
NL247008101000	JL150		WASHINGTON_NAVY

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	QA_QC_Type	Sample_Medium	QC_Level	Date/Time_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_Qual	QC_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	LOQ	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 12:55	02/20/2014			20140221	10:10:00	20140306	15:37:00	8112-09	1	1	0		SODIUM	7440-23-5	108000	108000	UG_L	U	U	PR	TRG		LSA	120	80			4.2	25.0	50.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 12:55	02/20/2014			20140221	10:10:00	20140306	15:04:00	8112-09	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 12:55	02/20/2014			20140221	10:10:00	20140306	15:37:00	8112-09	1	1	0		THALLIUM	7440-28-0	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 12:55	02/20/2014			20140221	10:10:00	20140306	15:04:00	8112-09	1	1	0		VANADIUM	7440-62-2	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 12:55	02/20/2014			20140221	10:10:00	20140306	15:37:00	8112-09	1	1	0		VANADIUM	7440-62-2	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	REG	W	4	02/18/2014 12:55	02/20/2014			20140221	10:10:00	20140306	15:37:00	8112-09	1	1	0		ZINC	7440-66-6	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	20.0	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/18/2014 12:55	02/20/2014			20140221	10:10:00	20140306	15:04:00	8112-09	1	1	0		ZINC	7440-66-6	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	20.0	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		ALUMINUM	7429-90-5	20.0	20.0	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		ANTIMONY	7440-36-0	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		ARSENIC	7440-38-2	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		BARIUM	7440-39-3	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		BERYLLIUM	7440-41-7	0.100	0.100	UG_L	U	U	PR	TRG							4.2	0.0500	0.100	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		CADMIUM	7440-43-9	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		CALCIUM	7440-70-2	19.0	19.0	UG_L	J	J	PR	TRG							4.2	13.0	25.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		CALCIUM	7440-70-2	19.0	19.0	UG_L	J	J	PR	TRG							4.2	13.0	25.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		CHROMIUM	7440-47-3	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		COBALT	7440-48-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		COPPER	7440-50-8	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		COPPER	7440-50-8	0.500	0.500	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		IRON	7439-89-6	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		IRON	7439-89-6	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		LEAD	7439-92-1	0.100	0.100	UG_L	U	U	PR	TRG							4.2	0.0500	0.100	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		LEAD	7439-92-1	0.100	0.100	UG_L	U	U	PR	TRG							4.2	0.0500	0.100	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		MAGNESIUM	7439-95-4	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		MAGNESIUM	7439-95-4	10.0	10.0	UG_L	U	U	PR	TRG							4.2	5.00	10.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		MANGANESE	7439-96-5	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		MANGANESE	7439-96-5	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		NICKEL	7440-02-0	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		POTASSIUM	7440-09-7	20.0	20.0	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		SELENIUM	7782-49-2	0.300	0.300	UG_L	U	U	PR	TRG							4.2	0.150	0.300	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		SILVER	7440-22-4	0.200	0.200	UG_L	U	U	PR	TRG							4.2	0.100	0.200	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		SODIUM	7440-23-5	91	91	UG_L	U	U	PR	TRG							4.2	25.0	50.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		SODIUM	7440-23-5	91	91	UG_L	U	U	PR	TRG							4.2	25.0	50.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		THALLIUM	7440-28-0	97	97	UG_L	U	U	PR	TRG							4.2	13.0	25.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		THALLIUM	7440-28-0	97	97	UG_L	U	U	PR	TRG							4.2	13.0	25.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		VANADIUM	7440-62-2	96	96	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		VANADIUM	7440-62-2	96	96	UG_L	U	U	PR	TRG							4.2	0.250	0.500	1.00	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		ZINC	7440-66-6	104	104	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LBS	W	4	02/21/2014 10:30	02/21/2014			20140221	10:10:00	20140306	13:12:00	IMB032W8	1	1	0		ZINC	7440-66-6	104	104	UG_L	U	U	PR	TRG							4.2	10.0	20.0	100	1480112A	FIC04026		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW04-0214	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/19/2014 10:35	02/20/2014			20140221	02:32:00	8112-D6	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW04-0214	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/19/2014 10:35	02/20/2014			20140221	04:05:00	8112-D6	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW04-0214MS	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	03:05:00	8112-D6MM	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	102	102	PCT			PR	TRG		MSA	120	80			4.2				1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW04-0214MS	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	MS	W	4	02/19/2014 10:35	02/20/2014			20140221	05:14:00	8112-D6MM	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	102	102	PCT			PR	TRG		MSA	120	80			4.2				1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW04-0214MSD	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	03:37:00	8112-D6S	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	100	100	PCT			PR	TRG		MSA	120	80			4.2				1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW04-0214MSD	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	MSD	W	4	02/19/2014 10:35	02/20/2014			20140221	05:46:00	8112-D6S	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	102	102	PCT			PR	TRG		MSA	120	80			4.2				1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW01-0214	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/19/2014 11:20	02/20/2014			20140221	06:18:00	8112-D7	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA14-MW01-0214	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/19/2014 11:20	02/20/2014			20140221	04:50:00	8112-D7	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/19/2014 12:50	02/20/2014			20140221	07:22:00	8112-D8	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/19/2014 12:50	02/20/2014			20140221	08:21:00	8112-D8	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0310	0.0310	UG_L	J	J	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/19/2014 12:50	02/20/2014			20140221	08:21:00	8112-D8	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/19/2014 12:55	02/20/2014			20140221	09:31:00	8112-D9	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0320	0.0320	UG_L	J	J	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/19/2014 12:55	02/20/2014			20140221	11:45:00	8112-D9	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	WSA09-MW01P-0214	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/19/2014 12:55	02/20/2014			20140221	08:59:00	8112-D9	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	LBS	W	4	02/19/2014 19:33	02/20/2014			20140220	19:33:00	HCB019W8	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	MBLK19F	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	LBS	W	4	02/20/2014 19:33	02/20/2014			20140220	19:33:00	HCB019W8	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG							4.2	0.0170	0.0250	0.0500	1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	LCD19W	NONE	METAL	7199	IND	EMAX	EMAX LABORATORIES		WET	NONE	000	BSD	W	4	02/20/2014 20:37	02/20/2014			20140220	20:37:00	HCB019WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	97	97	PCT			PR	TRG		LSA	120	80			4.2				1480112A	8B21-01		
NL24700801000	JU50		WASHINGTON_NAVY_YARD	LCD19W	FLT	FMETAL	7199	IND	EMAX	EMAX LABORATORIES		FF	NONE	000	BSD	W	4	02/20/2014 20:37	02/20/2014			20140220	20:37:00	HCB019WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	97	97	PCT			P

| Contract_ID | DO_CTO_Number | Phase | Installation_ID | Sample_Name | CH2M_Code | Analysis_Group | Analytical_Method | PRC_Code | Lab_Code | Lab_Code_Name | Leachate_Method | Sample_Basis | Extraction_Method | Result_Type | Lab_QC_Type | Sample_Medium | QC_Level | Date/Time_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_Qual | QC_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 |
|---|---|---

| Contract_ID | DD_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 | Date/Time_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_Qual | QC_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 |
|---|---|---

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_Qual	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
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		ARSENIC	7440-38-2	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		ARSENIC	7440-38-2	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		BARIUM	7440-39-3	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		BARIUM	7440-39-3	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		BERYLLIUM	7440-41-7	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		BERYLLIUM	7440-41-7	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		CADMIUM	7440-43-9	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		CADMIUM	7440-43-9	97	97	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		CALCIUM	7440-70-2	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		CALCIUM	7440-70-2	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		CHROMIUM	7440-47-3	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		CHROMIUM	7440-47-3	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		COBALT	7440-48-4	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		COBALT	7440-48-4	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		COPPER	7440-50-8	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		COPPER	7440-50-8	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		IRON	7439-89-6	92	92	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		IRON	7439-89-6	92	92	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		LEAD	7439-92-1	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		LEAD	7439-92-1	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		MAGNESIUM	7439-95-4	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		MAGNESIUM	7439-95-4	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		MANGANESE	7439-96-5	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		MANGANESE	7439-96-5	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		NICKEL	7440-02-0	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
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N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		POTASSIUM	7440-09-7	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		POTASSIUM	7440-09-7	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		SELENIUM	7782-49-2	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		SELENIUM	7782-49-2	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		SILVER	7440-22-4	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		SILVER	7440-22-4	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		SODIUM	7440-23-5	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		SODIUM	7440-23-5	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		THALLIUM	7440-28-0	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		THALLIUM	7440-28-0	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
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N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		ZINC	7440-66-6	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:05:00	IMC003WC	1	1	0		ZINC	7440-66-6	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ALUMINUM	7429-90-5	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ALUMINUM	7429-90-5	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ANTIMONY	7440-36-0	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ANTIMONY	7440-36-0	96	96	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ARSENIC	7440-38-2	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ARSENIC	7440-38-2	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		BARIUM	7440-39-3	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		BARIUM	7440-39-3	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		BERYLLIUM	7440-41-7	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		BERYLLIUM	7440-41-7	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		CADMIUM	7440-43-9	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		CADMIUM	7440-43-9	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		CALCIUM	7440-70-2	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		CALCIUM	7440-70-2	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		CHROMIUM	7440-47-3	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		CHROMIUM	7440-47-3	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		COBALT	7440-48-4	104	104	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		COBALT	7440-48-4	104	104	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		COPPER	7440-50-8	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		COPPER	7440-50-8	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		IRON	7439-89-6	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		IRON	7439-89-6	93	93	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		LEAD	7439-92-1	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		LEAD	7439-92-1	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		MAGNESIUM	7439-95-4	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		MAGNESIUM	7439-95-4	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		MANGANESE	7439-96-5	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		MANGANESE	7439-96-5	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		NICKEL	7440-02-0	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		NICKEL	7440-02-0	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		POTASSIUM	7440-09-7	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		POTASSIUM	7440-09-7	95	95	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		SELENIUM	7782-49-2	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		SELENIUM	7782-49-2	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		SILVER	7440-22-4	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		SILVER	7440-22-4	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		SODIUM	7440-23-5	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		SODIUM	7440-23-5	94	94	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		THALLIUM	7440-28-0	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		THALLIUM	7440-28-0	98	98	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		VANADIUM	7440-62-2	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		VANADIUM	7440-62-2	99	99	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	6020A	MET	EMAX	EMAX LABORATORIES		WET	TOTAL	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ZINC	7440-66-6	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	6020A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/04/2014 10:15	03/04/2014			20140304	10:15:00	20140311	17:00:00	IMC003WL	1	1	0		ZINC	7440-66-6	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	98C04022		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/20/2014 08:45	02/22/2014					20140224	22:40:00	B128-01	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.141	0.141	UG_L			PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/20/2014 08:45	02/22/2014					20140224	21:51:00	B128-01	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.133	0.133	UG_L			PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/21/2014 09:45	02/22/2014					20140224	20:15:00	B128-04	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/21/2014 09:45	02/22/2014					20140224	20:47:00	B128-04	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	REG	W	4	02/21/2014 11:30	02/22/2014					20140224	23:28:00	B128-07	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.117	0.117	UG_L			PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	REG	W	4	02/21/2014 11:30	02/22/2014					20140225	00:01:00	B128-07	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.109	0.109	UG_L			PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	LB1	W	4	02/24/2014 18:38						20140224	18:38:00	HCB014WB	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	LB1	W	4	02/24/2014 18:38						20140224	18:38:00	HCB014WB	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	0.0250	0.0250	UG_L	U	U	PR	TRG									4.2	0.0170	0.0250	0.0500	14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	BSD	W	4	02/24/2014 19:43						20140224	19:43:00	HCB014WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	BSD	W	4	02/24/2014 19:43						20140224	19:43:00	HCB014WC	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	100	100	PCT			PR	TRG		LSA	120	80					4.2				14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	7199	INO	EMAX	EMAX LABORATORIES		FF	NONE	000	BS	W	4	02/24/2014 19:11						20140224	19:11:00	HCB014WL	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	7199	INO	EMAX	EMAX LABORATORIES		WET	NONE	000	BS	W	4	02/24/2014 19:11						20140224	19:11:00	HCB014WL	1	1	0		CHROMIUM (HEXAVALENT)	18540-29-9	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	DB25-01		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140303	12:30:00	20140303	17:04:00	B128-01	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140303	12:30:00	20140303	17:11:00	B128-01	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140303	12:30:00	20140303	17:06:00	B128-04	1	1	0		MERCURY	7439-97-6	0.0540	0.0540	UG_L			PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140303	12:30:00	20140303	17:13:00	B128-04	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140303	12:30:00	20140303	17:19:00	B128-07	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140303	12:30:00	20140303	17:09:00	B128-07	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	LB1	W	4	03/03/2014 12:30				20140303	12:30:00	20140303	16:06:00	HGC001WB	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	LB1	W	4	03/03/2014 12:30				20140303	12:30:00	20140303	16:06:00	HGC001WB	1	1	0		MERCURY	7439-97-6	0.1	0.1	UG_L	U	U	PR	TRG									4.2	0.054	0.1	0.5	14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BSD	W	4	03/03/2014 12:30				20140303	12:30:00	20140303	16:10:00	HGC001WC	1	1	0		MERCURY	7439-97-6	110	110	PCT			PR	TRG		LSA	120	80					4.2				14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	BSD	W	4	03/03/2014 12:30				20140303	12:30:00	20140303	16:10:00	HGC001WC	1	1	0		MERCURY	7439-97-6	110	110	PCT			PR	TRG		LSA	120	80					4.2				14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	METAL	7470A	MET	EMAX	EMAX LABORATORIES		WET	SW7470	000	BS	W	4	03/03/2014 12:30				20140303	12:30:00	20140303	16:08:00	HGC001WL	1	1	0		MERCURY	7439-97-6	108	108	PCT			PR	TRG		LSA	120	80					4.2				14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	FILT	FMETAL	7470A	MET	EMAX	EMAX LABORATORIES		FF	FLT	000	BS	W	4	03/03/2014 12:30				20140303	12:30:00	20140303	16:08:00	HGC001WL	1	1	0		MERCURY	7439-97-6	108	108	PCT			PR	TRG		LSA	120	80					4.2				14B128	M47C001		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		1,1-DICHLOROETHENE	75-35-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	94.3	94.3	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	89.3	89.3	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		BENZENE	71-43-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		CARBON TETRACHLORIDE	56-23-5	28	28	UG_L			PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		CHLOROMETHANE	74-87-3	0.30	0.30	UG_L	U	U	PR	TRG									4.2	0.15	0.30	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	99.1	99.1	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		ETHYLBENZENE	100-41-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		M- AND P-XYLENE	M&PXYLENE	0.40	0.40	UG_L	U	U	PR	TRG									4.2	0.21	0.40	2.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.13	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		O-XYLENE	95-47-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		TOLUENE	108-88-3	0.36	0.36	UG_L	J	J	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		TOLUENE-D8	2037-26-5	96.3	96.3	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		TRICHLOROETHENE	79-01-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW06-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/20/2014 08:45	02/22/2014			20140224	13:45:00	20140224	13:45:00	B128-01	1	1	0		VINYL CHLORIDE	75-01-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.12	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		1,1-DICHLOROETHENE	75-35-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	94.7	94.7	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	91.1	91.1	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		BENZENE	71-43-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		CARBON TETRACHLORIDE	56-23-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		CHLOROMETHANE	74-87-3	0.30	0.30	UG_L	U	U	PR	TRG									4.2	0.15	0.30	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	1.4	1.4	UG_L			PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	98.7	98.7	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		ETHYLBENZENE	100-41-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		M- AND P-XYLENE	M&PXYLENE	0.40	0.40	UG_L	U	U	PR	TRG									4.2	0.21	0.40	2.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.13	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		O-XYLENE	95-47-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		TOLUENE	108-88-3	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		TOLUENE-D8	2037-26-5	95.7	95.7	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	0.12	0.12	UG_L	J	J	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		TRICHLOROETHENE	79-01-6	2.6	2.6	UG_L			PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:23:00	20140224	14:23:00	B128-04	1	1	0		VINYL CHLORIDE	75-01-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.12	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		1,1-DICHLOROETHENE	75-35-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	83.8	83.8	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	95.9	95.9	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		BENZENE	71-43-2	0.30	0.30	UG_L	J	J	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		CARBON TETRACHLORIDE	56-23-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		CHLOROMETHANE	74-87-3	0.30	0.30	UG_L	U	U	PR	TRG									4.2	0.15	0.30	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	93.1	93.1	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		ETHYLBENZENE	100-41-4	0.18	0.18	UG_L	J	J	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		M- AND P-XYLENE	M&PXYLENE	0.72	0.72	UG_L	J	J	PR	TRG									4.2	0.21	0.40	2.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.13	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		O-XYLENE	95-47-6	0.29	0.29	UG_L	J	J	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		TOLUENE	108-88-3	1.6	1.6	UG_L			PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		TOLUENE-D8	2037-26-5	94.9	94.9	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		TRICHLOROETHENE	79-01-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	12:31:00	20140224	12:31:00	B128-05	1	1	0		VINYL CHLORIDE	75-01-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.12	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		1,1-DICHLOROETHENE	75-35-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	93.1	93.1	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	91.9	91.9	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		BENZENE	71-43-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		CARBON TETRACHLORIDE	56-23-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		CHLOROMETHANE	74-87-3	0.30	0.30	UG_L	U	U	PR	TRG									4.2	0.15	0.30	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	96.8	96.8	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		ETHYLBENZENE	100-41-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		M- AND P-XYLENE	M&PXYLENE	0.40	0.40	UG_L	U	U	PR	TRG									4.2	0.21	0.40	2.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.13	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		O-XYLENE	95-47-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		TOLUENE	108-88-3	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		TOLUENE-D8	2037-26-5	87.1	87.1	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		TRICHLOROETHENE	79-01-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-TB01-022114	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 14:00	02/22/2014			20140224	13:08:00	20140224	13:08:00	B128-06	1	1	0		VINYL CHLORIDE	75-01-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.12	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		1,1-DICHLOROETHENE	75-35-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	98.5	98.5	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	87.9	87.9	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		BENZENE	71-43-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		CARBON TETRACHLORIDE	56-23-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		CHLOROMETHANE	74-87-3	0.30	0.30	UG_L	U	U	PR	TRG									4.2	0.15	0.30	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	98.9	98.9	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		ETHYLBENZENE	100-41-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		M- AND P-XYLENE	M&PXYLENE	0.40	0.40	UG_L	U	U	PR	TRG									4.2	0.21	0.40	2.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.13	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		O-XYLENE	95-47-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		TOLUENE	108-88-3	0.13	0.13	UG_L	J	J	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		TOLUENE-D8	2037-26-5	91.3	91.3	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		TRICHLOROETHENE	79-01-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW08-0214	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	REG	W	4	02/21/2014 11:30	02/22/2014			20140224	15:01:00	20140224	15:01:00	B128-07	1	1	0		VINYL CHLORIDE	75-01-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.12	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		1,1-DICHLOROETHENE	75-35-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	93.1	93.1	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		

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_Qual	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
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	90.8	90.8	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		BENZENE	71-43-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		CARBON TETRACHLORIDE	56-23-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		CHLOROMETHANE	74-87-3	0.30	0.30	UG_L	U	U	PR	TRG									4.2	0.15	0.30	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	96.4	96.4	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		ETHYLBENZENE	100-41-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		M- AND P-XYLENE	M&PXYLENE	0.40	0.40	UG_L	U	U	PR	TRG									4.2	0.21	0.40	2.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.13	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		O-XYLENE	95-47-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		TOLUENE	108-88-3	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		TOLUENE-D8	2037-26-5	95.8	95.8	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		TRICHLOROETHENE	79-01-6	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.10	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	LB1	W	4	02/24/2014 10:36	02/24/2014			20140224	10:36:00	20140224	10:36:00	VO94B13B	1	1	0		VINYL CHLORIDE	75-01-4	0.20	0.20	UG_L	U	U	PR	TRG									4.2	0.12	0.20	1.0	14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		1,1-DICHLOROETHENE	75-35-4	94	94	PCT			PR	TRG		LSA	130	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	98	98	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	90	90	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		BENZENE	71-43-2	104	104	PCT			PR	TRG		LSA	120	80					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		CARBON TETRACHLORIDE	56-23-5	104	104	PCT			PR	TRG		LSA	140	65					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		CHLOROMETHANE	74-87-3	92	92	PCT			PR	TRG		LSA	125	40					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	101	101	PCT			PR	TRG		LSA	125	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	99	99	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		ETHYLBENZENE	100-41-4	107	107	PCT			PR	TRG		LSA	125	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		M- AND P-XYLENE	M&PXYLENE	109	109	PCT			PR	TRG		LSA	130	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	102	102	PCT			PR	TRG		LSA	125	65					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		O-XYLENE	95-47-6	102	102	PCT			PR	TRG		LSA	120	80					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		TOLUENE	108-88-3	104	104	PCT			PR	TRG		LSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		TOLUENE-D8	2037-26-5	88	88	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	93	93	PCT			PR	TRG		LSA	140	60					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		TRICHLOROETHENE	79-01-6	110	110	PCT			PR	TRG		LSA	125	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BSD	W	4	02/24/2014 09:16	02/24/2014			20140224	09:16:00	20140224	09:16:00	VO94B13C	1	1	0		VINYL CHLORIDE	75-01-4	99	99	PCT			PR	TRG		LSA	145	50					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		1,1-DICHLOROETHENE	75-35-4	101	101	PCT			PR	TRG		LSA	130	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		1,2-DICHLOROETHANE-D4	17060-07-0	94	94	PCT			PR	SURR		SLSA	120	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		4-BROMOFLUOROBENZENE	460-00-4	86	86	PCT			PR	SURR		SLSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		BENZENE	71-43-2	101	101	PCT			PR	TRG		LSA	120	80					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		CARBON TETRACHLORIDE	56-23-5	104	104	PCT			PR	TRG		LSA	140	65					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		CHLOROMETHANE	74-87-3	97	97	PCT			PR	TRG		LSA	125	40					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		CIS-1,2-DICHLOROETHENE	156-59-2	102	102	PCT			PR	TRG		LSA	125	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		DIBROMOFLUOROMETHANE	1868-53-7	98	98	PCT			PR	SURR		SLSA	115	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		ETHYLBENZENE	100-41-4	106	106	PCT			PR	TRG		LSA	125	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		M- AND P-XYLENE	M&PXYLENE	107	107	PCT			PR	TRG		LSA	130	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		METHYL-TERT-BUTYL ETHER (MTBE)	1634-04-4	99	99	PCT			PR	TRG		LSA	125	65					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		O-XYLENE	95-47-6	105	105	PCT			PR	TRG		LSA	120	80					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		TOLUENE	108-88-3	101	101	PCT			PR	TRG		LSA	120	75					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		TOLUENE-D8	2037-26-5	87	87	PCT			PR	SURR		SLSA	120	85					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		TRANS-1,2-DICHLOROETHENE	156-60-5	97	97	PCT			PR	TRG		LSA	140	60					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		TRICHLOROETHENE	79-01-6	114	114	PCT			PR	TRG		LSA	125	70					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONE	VOA	8260B	VOA	EMAX	EMAX LABORATORIES		WET	SW5030B	000	BS	W	4	02/24/2014 08:38	02/24/2014			20140224	08:38:00	20140224	08:38:00	VO94B13L	1	1	0		VINYL CHLORIDE	75-01-4	106	106	PCT			PR	TRG		LSA	145	50					4.2				14B128	RKD007		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD3W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	20:43:00	A9B038WC	1	1	0		ACETOPHENONE	98-86-2	80	80	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD3W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	20:43:00	A9B038WC	1	1	0		ATRAZINE	1912-24-9	96	96	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS3W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	20:23:00	A9B038WL	1	1	0		ACETOPHENONE	98-86-2	79	79	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS3W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	20:23:00	A9B038WL	1	1	0		ATRAZINE	1912-24-9	98	98	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		2,2'-OXYBIS(1-CHLOROPROPANE)	108-60-1	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		2,3,4,6-TETRACHLOROPHENOL	58-90-2	6.2	6.2	UG_L	U	U	PR	TRG									4.2	4.5	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		2,4,6-TRIBROMOPHENOL	118-79-6	80.1	80.1	PCT			PR	SURR		SLSA	125	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		2,4-DIMETHYLPHENOL	105-67-9	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.3	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		2-FLUOROBIPHENYL	321-60-8	59.7	59.7	PCT			PR	SURR		SLSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		2-FLUOROPHENOL	367-12-4	58.3	58.3	PCT			PR	SURR		SLSA	110	20					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		3,3'-DICHLOROBENZIDINE	91-94-1	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		4-METHYLPHENOL	106-44-5	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		ACENAPHTHENE	83-32-9	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		ACENAPHTHYLENE	208-96-8	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		ACETOPHENONE	98-86-2	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		ATRAZINE	1912-24-9	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		BENZALDEHYDE	100-52-7	12	12	UG_L	U	U	PR	TRG									4.2	6.2	12	25	14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		BENZO(G,H,I)PERYLENE	191-24-2	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		CAPROLACTAM	105-60-2	12	12	UG_L	U	U	PR	TRG									4.2	6.2	12	25	14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		CARBAZOLE	86-74-8	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		DIBENZOFURAN	132-64-9	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		DIETHYLPHTHALATE	84-66-2	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		DI-N-BUTYLPHTHALATE	84-74-2	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		DI-N-OCTYLPHTHALATE	117-84-0	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		FLUORANTHENE	206-44-0	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		ISOPHORONE	78-59-1	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		NITROBENZENE-D5	4165-60-0	69.3	69.3	PCT			PR	SURR		SLSA	110	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		N-NITROSODIPHENYLAMINE	86-30-6	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		PHENANTHRENE	85-01-8	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		PHENOL	108-95-2	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		PHENOL-D5	4165-62-2	66.9	66.9	PCT			PR	SURR		SLSA	115	10					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		PYRENE	129-00-0	6.2	6.2	UG_L	U	U	PR	TRG									4.2	3.1	6.2	12	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		TERPHENYL-D14	1718-51-0	98.5	98.5	PCT			PR	SURR		SLSA	135	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		2,2'-OXYBIS(1-CHLOROPROPANE)	108-60-1	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		2,3,4,6-TETRACHLOROPHENOL	58-90-2	5.3	5.3	UG_L	U	U	PR	TRG									4.2	3.8	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		2,4,6-TRIBROMOPHENOL	118-79-6	96.0	96.0	PCT			PR	SURR		SLSA	125	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		2,4-DIMETHYLPHENOL	105-67-9	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.8	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		2-FLUOROBIPHENYL	321-60-8	72.7	72.7	PCT			PR	SURR		SLSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		2-FLUOROPHENOL	367-12-4	59.3	59.3	PCT			PR	SURR		SLSA	110	20					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		3,3'-DICHLOROBENZIDINE	91-94-1	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		4-METHYLPHENOL	106-44-5	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		ACENAPHTHENE	83-32-9	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		ACENAPHTHYLENE	208-96-8	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		ACETOPHENONE	98-86-2	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		ATRAZINE	1912-24-9	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		BENZALDEHYDE	100-52-7	11	11	UG_L	U	U	PR	TRG									4.2	5.3	11	21	14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		BENZO(G,H,I)PERYLENE	191-24-2	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		CAPROLACTAM	105-60-2	11	11	UG_L	U	U	PR	TRG									4.2	5.3	11	21	14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		CARBAZOLE	86-74-8	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		DIBENZOFURAN	132-64-9	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		DIETHYLPHTHALATE	84-66-2	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		DI-N-BUTYLPHTHALATE	84-74-2	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		DI-N-OCTYLPHTHALATE	117-84-0	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		FLUORANTHENE	206-44-0	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		ISOPHORONE	78-59-1	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		NITROBENZENE-D5	4165-60-0	81.2	81.2	PCT			PR	SURR		SLSA	110	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		N-NITROSODIPHENYLAMINE	86-30-6	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		PHENANTHRENE	85-01-8	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		PHENOL	108-95-2	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		PHENOL-D5	4165-62-2	76.7	76.7	PCT			PR	SURR		SLSA	115	10					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		PYRENE	129-00-0	5.3	5.3	UG_L	U	U	PR	TRG									4.2	2.6	5.3	11	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WAG-EB01-022114	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 11:50	02/22/2014			20140224	14:30:00	20140226	23:55:00	B128-05	1.06	1	0		TERPHENYL-D14	1718-51-0	103	103	PCT			PR	SURR		SLSA	135	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD2W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	20:04:00	S1B038WC	1	1	0		BENZALDEHYDE	100-52-7	78	78	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD2W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	20:04:00	S1B038WC	1	1	0		CAPROLACTAM	105-60-2	69	69	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS2W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:45:00	S1B038WL	1	1	0		BENZALDEHYDE	100-52-7	75	75	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS2W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:45:00	S1B038WL	1	1	0		CAPROLACTAM	105-60-2	69	69	PCT			PR	TRG		LSA	150	10					4.2				14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		2,2'-OXYBIS(1-CHLOROPROPANE)	108-60-1	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		2,3,4,6-TETRACHLOROPHENOL	58-90-2	5.0	5.0	UG_L	U	U	PR	TRG									4.2	3.6	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		2,4,6-TRIBROMOPHENOL	118-79-6	82.8	82.8	PCT			PR	SURR		SLSA	125	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		2,4-DIMETHYLPHENOL	105-67-9	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.6	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		2-FLUOROBIPHENYL	321-60-8	69.5	69.5	PCT			PR	SURR		SLSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		2-FLUOROPHENOL	367-12-4	63.5	63.5	PCT			PR	SURR		SLSA	110	20					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		3,3'-DICHLOROBENZIDINE	91-94-1	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		4-METHYLPHENOL	106-44-5	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		ACENAPHTHENE	83-32-9	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		ACENAPHTHYLENE	208-96-8	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		ACETOPHENONE	98-86-2	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		ATRAZINE	1912-24-9	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH050		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		BENZALDEHYDE	100-52-7	10	10	UG_L	U	U	PR	TRG									4.2	5.0	10	20	14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		BENZO(G,H,I)PERYLENE	191-24-2	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		CAPROLACTAM	105-60-2	10	10	UG_L	U	U	PR	TRG									4.2	5.0	10	20	14B128	RAH043		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		CARBAZOLE	86-74-8	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		DIBENZOFURAN	132-64-9	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		DIETHYLPHTHALATE	84-66-2	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		DI-N-BUTYLPHTHALATE	84-74-2	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		DI-N-OCTYLPHTHALATE	117-84-0	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		FLUORANTHENE	206-44-0	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		ISOPHORONE	78-59-1	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		NITROBENZENE-D5	4165-60-0	79.1	79.1	PCT			PR	SURR		SLSA	110	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		N-NITROSODIPHENYLAMINE	86-30-6	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		PHENANTHRENE	85-01-8	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		PHENOL	108-95-2	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		PHENOL-D5	4165-62-2	73.2	73.2	PCT			PR	SURR		SLSA	115	10					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		PYRENE	129-00-0	5.0	5.0	UG_L	U	U	PR	TRG									4.2	2.5	5.0	10	14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	MBLK1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	LB1	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	21:02:00	SVB038WB	1	1	0		TERPHENYL-D14	1718-51-0	115	115	PCT			PR	SURR		SLSA	135	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		2,2'-OXYBIS(1-CHLOROPROPANE)	108-60-1	65	65	PCT			PR	TRG		LSA	130	25					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		2,3,4,6-TETRACHLOROPHENOL	58-90-2	96	96	PCT			PR	TRG		LSA	150	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		2,4,6-TRIBROMOPHENOL	118-79-6	92	92	PCT			PR	SURR		SLSA	125	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		2,4-DIMETHYLPHENOL	105-67-9	82	82	PCT			PR	TRG		LSA	110	30					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		2-FLUOROBIPHENYL	321-60-8	76	76	PCT			PR	SURR		SLSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		2-FLUOROPHENOL	367-12-4	70	70	PCT			PR	SURR		SLSA	110	20					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		3,3'-DICHLOROBENZIDINE	91-94-1	108	108	PCT			PR	TRG		LSA	110	20					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		4-METHYLPHENOL	106-44-5	81	81	PCT			PR	TRG		LSA	110	30					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		ACENAPHTHENE	83-32-9	83	83	PCT			PR	TRG		LSA	110	45					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		ACENAPHTHYLENE	208-96-8	84	84	PCT			PR	TRG		LSA	105	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		BENZO(G,H,I)PERYLENE	191-24-2	98	98	PCT			PR	TRG		LSA	125	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		CARBAZOLE	86-74-8	94	94	PCT			PR	TRG		LSA	115	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		DIBENZOFURAN	132-64-9	84	84	PCT			PR	TRG		LSA	105	55					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		DIETHYLPHTHALATE	84-66-2	100	100	PCT			PR	TRG		LSA	120	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		DI-N-BUTYLPHTHALATE	84-74-2	91	91	PCT			PR	TRG		LSA	115	55					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		DI-N-OCTYLPHTHALATE	117-84-0	110	110	PCT			PR	TRG		LSA	135	35					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		FLUORANTHENE	206-44-0	93	93	PCT			PR	TRG		LSA	115	55					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		ISOPHORONE	78-59-1	81	81	PCT			PR	TRG		LSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		NITROBENZENE-D5	4165-60-0	83	83	PCT			PR	SURR		SLSA	110	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		N-NITROSODIPHENYLAMINE	86-30-6	99	99	PCT			PR	TRG		LSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		PHENANTHRENE	85-01-8	92	92	PCT			PR	TRG		LSA	115	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		PHENOL	108-95-2	76	76	PCT			PR	TRG		LSA	115	0					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		PHENOL-D5	4165-62-2	79	79	PCT			PR	SURR		SLSA	115	10					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		PYRENE	129-00-0	101	101	PCT			PR	TRG		LSA	130	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCD1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BSD	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:26:00	SVB038WC	1	1	0		TERPHENYL-D14	1718-51-0	117	117	PCT			PR	SURR		SLSA	135	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		2,2'-OXYBIS(1-CHLOROPROPANE)	108-60-1	63	63	PCT			PR	TRG		LSA	130	25					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		2,3,4,6-TETRACHLOROPHENOL	58-90-2	97	97	PCT			PR	TRG		LSA	150	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		2,4,6-TRIBROMOPHENOL	118-79-6	90	90	PCT			PR	SURR		SLSA	125	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		2,4-DIMETHYLPHENOL	105-67-9	72	72	PCT			PR	TRG		LSA	110	30					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		2-FLUOROBIPHENYL	321-60-8	71	71	PCT			PR	SURR		SLSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		2-FLUOROPHENOL	367-12-4	63	63	PCT			PR	SURR		SLSA	110	20					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		3,3'-DICHLOROBENZIDINE	91-94-1	108	108	PCT			PR	TRG		LSA	110	20					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		4-METHYLPHENOL	106-44-5	76	76	PCT			PR	TRG		LSA	110	30					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		ACENAPHTHENE	83-32-9	82	82	PCT			PR	TRG		LSA	110	45					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		ACENAPHTHYLENE	208-96-8	83	83	PCT			PR	TRG		LSA	105	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		BENZO(G,H,I)PERYLENE	191-24-2	96	96	PCT			PR	TRG		LSA	125	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		CARBAZOLE	86-74-8	98	98	PCT			PR	TRG		LSA	115	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		DIBENZOFURAN	132-64-9	85	85	PCT			PR	TRG		LSA	105	55					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		DIETHYLPHTHALATE	84-66-2	89	89	PCT			PR	TRG		LSA	120	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		DI-N-BUTYLPHTHALATE	84-74-2	91	91	PCT			PR	TRG		LSA	115	55					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		DI-N-OCTYLPHTHALATE	117-84-0	109	109	PCT			PR	TRG		LSA	135	35					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		FLUORANTHENE	206-44-0	95	95	PCT			PR	TRG		LSA	115	55					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		ISOPHORONE	78-59-1	78	78	PCT			PR	TRG		LSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		NITROBENZENE-D5	4165-60-0	79	79	PCT			PR	SURR		SLSA	110	40					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		N-NITROSODIPHENYLAMINE	86-30-6	97	97	PCT			PR	TRG		LSA	110	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		PHENANTHRENE	85-01-8	91	91	PCT			PR	TRG		LSA	115	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		PHENOL	108-95-2	70	70	PCT			PR	TRG		LSA	115	0					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		PHENOL-D5	4165-62-2	72	72	PCT			PR	SURR		SLSA	115	10					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		PYRENE	129-00-0	91	91	PCT			PR	TRG		LSA	130	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	LCS1W	NONS	SVOA	8270D	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	BS	W	4	02/24/2014 14:30	02/24/2014			20140224	14:30:00	20140226	19:06:00	SVB038WL	1	1	0		TERPHENYL-D14	1718-51-0	102	102	PCT			PR	SURR		SLSA	135	50					4.2				14B128	RAH029		
N6247008D1000	JU50		WASHINGTON_NAVY_YARD	WS24-MW05-0214	NONS	SVOA	8270D_SIM	SVOA	EMAX	EMAX LABORATORIES		WET	SW3520C	000	REG	W	4	02/21/2014 09:45	02/22/2014			20140224	14:30:00	20140226	23:36:00	B128-04	1.25	1	0		1,1-BIPHENYL	92-52-4	0.12	0.12	UG_L	U	U	PR	TRG									4.2	0.063	0.12	2.5	14B128	RAH029		

| 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 | Date/Time_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_Qual | QC_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 |
|---|---|---

DataQual
Environmental Services, LLC

CH2M HILL
15010 Conference Center Drive
Chantilly, Virginia 20151

May 12, 2014
SDG # 320-6160-1, Test America-Sacramento.
Washington Navy Yard, CTO-JU50 Site 22 Groundwater

Dear Mr. Zamboni,

The following Data Validation report is provided as requested for the parameters noted in the table below for SDG # 320-6160-1. The data validation was performed in accordance with the Lab Method WS-LC-0025 for Perfluorinated Hydrocarbons. Also used in the validation of these samples were the Region III Modifications to the National Functional Guidelines for Organic Data Review, 9/94 (as referred by the Region III document Innovative Approaches to Data Validation, 6/95, for Level M3/IM-2 review), as applicable, as well as the project SAP and good professional judgment.

Sample ID	Lab ID	Matrix	PFOA and PFOS
WS22-MW01-0214	320-6160-1	water	X
WS22-MW01P-0214	320-6160-2	water	X
WS22-EB01-021714	320-6160-3	water	X
WS22-MW01-0214 MS	320-6160-1MS	water	X
WS22-MW01-0214 MSD	320-6160-1MSD	water	X

The following quality control samples were provided with this SDG: sample WS22-EB01-021714- equipment blank.

All areas of concern are discussed in the body of the report and a summary of data qualification is provided. The samples were evaluated based on the following criteria:

- Data Completeness *
- Technical Holding Times *
- Initial/Continuing Calibrations *
- Blanks *
- Internal Standards *
- Laboratory Control Samples *
- Matrix Spike Recoveries *
- Matrix Duplicate RPDs *
- Field Duplicates *
- Identification/Quantitation *
- Reporting Limits *

*- indicates that no qualifications were required based on this criteria

Overall Evaluation of Data/Potential Usability Issues

Specific details regarding qualification of the data are addressed in the Specific Evaluation section of this narrative. If an issue is not addressed there were no actions required based on unmet quality criteria. When more than one qualifier is associated with a compound/analyte the validator has chosen the qualifier that best indicates possible bias in the results and flagged the data accordingly. However, information regarding all quality control issues is provided in the body of the report and on the qualification summary page.

Major Problems

No issues requiring rejection of the analytical data were found in the validation of this SDG.

Minor Problems

If issues requiring qualification of the analytical data were found in the validation of this SDG a summary of these issues for each fraction is presented in the following paragraphs. Any results qualified as estimated J/UJ or biased high, K or biased low, L/UL, should be considered usable but estimated.

PFC

No qualifications to the data were required.

Specific Evaluation of Data

Data Completeness

The data package was received complete and intact. Resubmissions were not required.

Technical Holding Times

According to chain of custody records, sampling was performed on 2/17/14 and samples were received at the laboratory 2/18/14. All sample preparation and analysis was performed within Region III and/or method holding time requirements.

A summary of qualifications required is provided on the following page. Please do not hesitate to contact DataQual ES with any questions regarding this validation report.

Sincerely,

Laura Maschhoff
President

Summary of Data Qualifications

PFC

Sample ID	Compound	Results	Q Flag	Q code
no qualifications				

Glossary of Qualification Flags and Abbreviations

Qualification Flags (Q-Flags)

U	not detected above the reported sample quantitation limit
J	estimated value
UJ	reported quantitation limit is qualified as estimated
R	result is rejected; the presence or absence of the analyte cannot be verified
D	result value is based on dilution analysis result
NJ	analyte has been tentatively identified, estimated value
L	analyte present, biased low
UL	not detected, quantitation limit is probably higher
K	analyte present, biased high
Q	estimated dioxin/furan concentration
I	interferences present which may cause the results to be biased high

Method Blank Qualification Flags (Q-Flags)

NA	The sample result for the blank contaminant is greater than the sample RL and is greater than 5X the blank value. The sample result for the blank contaminant is not qualified with any blank qualifiers.
B	The sample result for the blank contaminant is less than or greater than the sample RL and is less than 5X the blank value. The sample result for the blank contaminant is qualified as B at the compound value reported.

General Abbreviations

IDL	Instrument Detection Limit
MDL	Method Detection Limit
RL	Reporting Limit
LOD	Level of Detection
LOQ	Level of Quantitation
Q Code	Qualifier Code
Q Flag	Qualifier Flag
+	positive result
-	non-detect result

QUALIFIER CODE REFERENCE

Qualifier	Description
TN	Tune
BSL	Blank Spike/LCS - Low Recovery
BSH	Blank Spike/LCS - High Recovery
BD	Blank Spike/Blank Spike Duplicate (LCS/LCSD) Precision
BRL	Below Reporting Limit
EMPC	Estimated Possible Maximum Concentration
ISL	Internal Standard - Low Recovery
ISH	Internal Standard - High Recovery
MSL	Matrix Spike and/or Matrix Spike Duplicate - Low Recovery
MSH	Matrix Spike and/or Matrix Spike Duplicate - High Recovery
MI	Matrix interference obscuring the raw data
MDP	Matrix Spike/Matrix Spike Duplicate Precision
2S	Second Source - Bad reproducibility between tandem detectors
SSL	Spiked Surrogate - Low Recovery
SSH	Spiked Surrogate - High Recovery
SD	Serial Dilution Reproducibility
ICL	Initial Calibration - Low Relative Response Factors (RRF)
ICH	Initial Calibration - High Relative Response Factors (RRF)
ICB	Initial Calibration - Bad Linearity or Curve Function
CCL	Continuing Calibration - Low Recovery or %Difference
CCH	Continuing Calibration - High Recovery or %Difference
LD	Lab Duplicate Reproducibility
HT	Holding Time
PD	Pesticide Degradation
2C	Second Column - Poor Dual Column Reproducibility
LR	Concentration Exceeds Linear Range
BL	Blank Contamination- MBL, EBL, FBL, TBL, CCBL
RE	Redundant Result - due to Re-analysis or Re-extraction
DL	Redundant Result - due to Dilution
FD	Field Duplicate
OT	Other - explained in data validation report
%Sol	High percent moisture

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-MW01-0214 Lab Sample ID: 320-6160-1

Matrix: Water Lab File ID: 03MAR14A4C_017.d

Analysis Method: WS-LC-0025 Date Collected: 02/17/2014 16:10

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 503.1(mL) Date Analyzed: 03/03/2014 14:51

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	67		2.0	1.5	0.74
1763-23-1	Perfluorooctane Sulfonate (PFOS)	18		2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	121		25-150
STL00990	13C4 PFOA	107		25-150

051214

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-MW01P-214 | Lab Sample ID: 320-6160-2

Matrix: Water | Lab File ID: 03MAR14A4C_020.d

Analysis Method: WS-LC-0025 | Date Collected: 02/17/2014 16:15

Extraction Method: 3535 | Date Extracted: 02/24/2014 07:45

Sample wt/vol: 510.2(mL) | Date Analyzed: 03/03/2014 15:55

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 1

Injection Volume: 15(uL) | GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	69		2.0	1.5	0.73
1763-23-1	Perfluorooctane Sulfonate (PFOS)	16		2.0	1.5	1.3

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	117		25-150
STL00990	13C4 PFOA	102		25-150

MM
03/2/14

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Client Sample ID: WS22-EB01-021714 Lab Sample ID: 320-6160-3

Matrix: Water Lab File ID: 03MAR14A4C_021.d

Analysis Method: WS-LC-0025 Date Collected: 02/17/2014 17:45

Extraction Method: 3535 Date Extracted: 02/24/2014 07:45

Sample wt/vol: 511.9(mL) Date Analyzed: 03/03/2014 16:16

Con. Extract Vol.: 1.00(mL) Dilution Factor: 1

Injection Volume: 15(uL) GC Column: Acquity ID: 2.1(mm)

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

Analysis Batch No.: 37466 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.5	U	2.0	1.5	0.73
1763-23-1	Perfluorooctane Sulfonate (PFOS)	1.5	U	2.0	1.5	1.2

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	124		25-150
STL00990	13C4 PFOA	118		25-150

MM 05/2/14

Data Completeness

The data package was received complete and intact. Resubmissions were not required. (Test America SOP# WS-LC-0025 Rev 1.2 with Region III modifications)

Laboratory: Test America-Sacramento

Holding Times

Sampling Date: 2/17/14
Received Date: 2/18/14
Prep Date: 2/24/14
Analysis Dates: 3/3/14
Cooler Temp: 3.8°C

All holding time requirements were met.

Calibrations

No qualifications were required for the initial, ICV and continuing calibrations.

Internal Standards (Isotope Dilutions)

All criteria were met.

Blank Summary

Blank qualification guidelines:

- No action is taken if a compound is found in the blank but not in the sample.
- Sample weight, volume or dilution factor must be taken into consideration when applying the 5X or 10X criteria (for methylene chloride, acetone and 2-butanone).
- Apply the same data validation guidelines to any associated field QC blanks and all associated samples.
- Qualification/Action codes:

No Action - The sample result is greater than the CRQL and greater than five times (5X) or ten times (10x) the blank value.
B - The sample result is less than five times (5X) or ten times (10x) the blank value.

No contamination was exhibited in the method blank. Associated QC blanks: WS22-EB01-021714-equipment blank (no positive results).

Blank Contamination and Qualification Summaries

Blank ID	Compound	Concentration	Reporting Limit (LOD)

Associated samples and required qualifications are noted in the following table.

Sample ID	Compound	Q Flag	Qual Code
no qualifications			

Laboratory Control Sample

All criteria were met.

Matrix Spike/Spike Duplicate Samples

An MS/MSD was submitted for sample WS22-MW01-0214-all criteria were met.

Field Duplicate Sample

A field duplicate was submitted for sample WS22-MW01-0214-no qualifications required, see attached sheet.

Specific Comments:

All sample results were reported within the calibration range of the instruments.

Detection limits were acceptable. Raw data and calculations were verified. We have limited the supporting documentation, found with these worksheets, to those forms that indicate qualifications were required.

WS22-MW01-0214
PFOA: 67 ng/L

$$\frac{(901398)(50)}{(2481305)(0.5412)} = 33.56 \text{ ng/ml}$$

prep factor = $1/503.1 = 0.001987$

$(33.56)(1)(0.001987)(1000 \text{ ml/L}) = 66.7 \text{ ng/L}$

Validator Signature: _____ **Date:** 5/12/14

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-6160-1

SDG No.:

Instrument ID: A4 Start Date: 03/03/2014 10:37

Analysis Batch Number: 37466 End Date: 03/03/2014 16:37

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ICB 320-37466/1		03/03/2014 10:37	1	03MAR14A4C_005.d	Acquity 2.1(mm)
STD 320-37466/2 IC		03/03/2014 10:58	1	03MAR14A4C_006.d	Acquity 2.1(mm)
STD 320-37466/3 IC		03/03/2014 11:19	1	03MAR14A4C_007.d	Acquity 2.1(mm)
STD 320-37466/4 IC		03/03/2014 11:40	1	03MAR14A4C_008.d	Acquity 2.1(mm)
STD 320-37466/5 IC		03/03/2014 12:02	1	03MAR14A4C_009.d	Acquity 2.1(mm)
STD 320-37466/6 IC		03/03/2014 12:23	1	03MAR14A4C_010.d	Acquity 2.1(mm)
STD 320-37466/7 IC		03/03/2014 12:44	1	03MAR14A4C_011.d	Acquity 2.1(mm)
STD 320-37466/8 IC		03/03/2014 13:05	1	03MAR14A4C_012.d	Acquity 2.1(mm)
ICV 320-37466/9		03/03/2014 13:27	1	03MAR14A4C_013.d	Acquity 2.1(mm)
CCB 320-37466/10		03/03/2014 13:48	1	03MAR14A4C_014.d	Acquity 2.1(mm)
MB 320-36921/1-A		03/03/2014 14:09	1	03MAR14A4C_015.d	Acquity 2.1(mm)
LCS 320-36921/2-A		03/03/2014 14:30	1	03MAR14A4C_016.d	Acquity 2.1(mm)
320-6160-1	WS22-MW01-0214	03/03/2014 14:51	1	03MAR14A4C_017.d	Acquity 2.1(mm)
320-6160-1 MS	WS22-MW01-0214 MS	03/03/2014 15:13	1	03MAR14A4C_018.d	Acquity 2.1(mm)
320-6160-1 MSD	WS22-MW01-0214 MSD	03/03/2014 15:34	1	03MAR14A4C_019.d	Acquity 2.1(mm)
320-6160-2	WS22-MW01P-214	03/03/2014 15:55	1	03MAR14A4C_020.d	Acquity 2.1(mm)
320-6160-3	WS22-EB01-021714	03/03/2014 16:16	1	03MAR14A4C_021.d	Acquity 2.1(mm)
CCV 320-37466/18		03/03/2014 16:37	1	03MAR14A4C_022.d	Acquity 2.1(mm)

DataQual **PFC**

FIELD DUPLICATE SAMPLE SUMMARY

Sample ID: WS22-MW01-0214
Duplicate Sample ID: WS22-MW01P-0214

Water: RPD>30%
Soil: RPD>30%

Compound	Sample Conc.	Dup. Sample Conc.	%RPD
PFOA	67	69	3
PFOS	18	16	12
			#DIV/0!
			#DIV/0!
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COMMENTS: No qualifications

* one of the results below the LOD
if both results are below the LOD the results are not compared

CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: CTU-JU22 Washington Navy Yard

Report Number: 320-6160-1

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 West 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 West 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.

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

RECEIPT

The samples were received on 02/18/2014; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.8 C.

PFOA/PFOS

No difficulties were encountered during the PFOA/PFOS analysis.

All quality control parameters were within the acceptance limits.

Chain of Custody Record

Temperature on Receipt 1.9°C

Drinking Water? Yes ☐ No ☒

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client	Project Manager	Date	Chain of Custody Number
CH2M HILL	Sandy Brown	02-17-14	267725
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
15010 Conference Center Dr. Suite 200	703-376-5301		
City / State / Zip Code	**Site Contact**	**Lab Contact**	
Chantilly / VA / 20151	Mike Zamboni	Jill Kellmann	
Project Name and Location (State)	**Carrier/Waybill Number**		
Navy CLEAN 8012 CTO-JU22			
Contract/Purchase Order/Quote No			
non-P.O.			

320-6160 Chain of Custody

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	#	PFOA/PFOS	Analysis (Attach list if more space is needed)
WS22-MW01-0214	02-17-14	1610		X			X						2	X	
WS22-MW01P-0214	↓	1615		X			X						2	X	
WS22-MW01-0214-MS		1610		X			X						2	X	Run QA/QC
WS22-MW01-0214-SD	↓	1610		X			X						2	X	Run QA/QC
~~WS22-EB01-021714~~	↓	1745		X			X						2	X	

02/17/14

Page 348 of 349

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify)

TB 3.8°C

	Date	Time		Date	Time
1. Relinquished By	02/17/14	2000	1. Received By	2/18/14	900
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

~~PN: 474535.FI.FK.22~~ PN: 474535.FI.WS.22

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

03/19/2014

015

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 320-6160-1

Login Number: 6160
List Number: 1
Creator: Hytrek, Cheryl

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	
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.	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	

LOCATION_NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIX_DESC	COLLECT_DATE
		WASHINGTON_NAVY_YARD			320-6160-1			Perfluoroalkyl Compounds	WS22-EB01-021714	WQ	Water for QC samples	17-Feb-14
WS22-MW01	SITE 00022	WASHINGTON_NAVY_YARD	WLM	Monitoring well	320-6160-1	1312980	440307.2	Perfluoroalkyl Compounds	WS22-MW01P-0214	WG	Ground water	17-Feb-14
		WASHINGTON_NAVY_YARD			320-6160-1			Perfluoroalkyl Compounds	WS22-EB01-021714	WQ	Water for QC samples	17-Feb-14
WS22-MW01	SITE 00022	WASHINGTON_NAVY_YARD	WLM	Monitoring well	320-6160-1	1312980	440307.2	Perfluoroalkyl Compounds	WS22-MW01P-0214	WG	Ground water	17-Feb-14
WS22-MW01	SITE 00022	WASHINGTON_NAVY_YARD	WLM	Monitoring well	320-6160-1	1312980	440307.2	Perfluoroalkyl Compounds	WS22-MW01-0214	WG	Ground water	17-Feb-14
WS22-MW01	SITE 00022	WASHINGTON_NAVY_YARD	WLM	Monitoring well	320-6160-1	1312980	440307.2	Perfluoroalkyl Compounds	WS22-MW01-0214	WG	Ground water	17-Feb-14