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 J29198-1

Naval Air Station Meridian
Meridian, Mississippi

July 2019

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

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TestAmerica Job ID: 320-29198-1
Client Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

For:
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Definitions/Glossary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Qualifiers

LCMS

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: 320-29198-1

Laboratory: TestAmerica Sacramento

Narrative

CASE NARRATIVE

Client: CH2M Hill, Inc.

Project: Meridian 10006-7-105420 JM01 Navy Clean

Report Number: 320-29198-1

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.

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

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

RECEIPT

The samples were received on 06/17/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 C.

PFAS

The first level standard from the initial calibration curve is used to evaluate the tune criteria. The instrument mass windows are set at +/- 0.5amu; therefore, detection of the analyte serves as verification that the assigned mass is within +/- 0.5amu of the true value, which meets the DoD/DOE QSM tune criterion.

The laboratory control sample (LCS) for preparation batch 320-170613 and analytical batch 320-171596 recovered outside control limits for the following analytes: Perfluorooctanesulfonic acid (PFOS). These analytes were biased high in the LCS and were less than the Reporting LImit (RL) in the associated samples; therefore, the data have been reported.

Job ID: 320-29198-1 (Continued)

Laboratory: TestAmerica Sacramento (Continued)

Re-extraction of the following samples was performed outside of the analytical holding time for Perfluorooctanesulfonic acid (PFOS) due to high laboratory control sample (LCS) recovery for PFOS in the original extraction : MEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6) and MEAFF-TA4J-1992MW01-0617 (320-29198-8). Both the original results and the re-extraction results are reported for PFOS.

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

Organic Prep

Method(s) 3535: The following sample: MEAFF-T45C-2004MW01-0617 (320-29198-1) was decanted prior to preparation due to excess sediment.

Method(s) 3535: The following samples: MEAFF-T45C-03-2008MW01-0617 (320-29198-3), MEAFF-UNKN16MW01-0617 (320-29198-4), MEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6), MEAFF-TA4J-1992MW01-0617 (320-29198-8) and MEAFF-T45C-2005MW01-0617 (320-29198-9) were decanted and centrifuged prior to preparation due to excessive amount of sediment.

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-170613.

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-173923.

Method(s) 3535: The following samples: MEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6) and MEAFF-TA4J-1992MW01-0617 (320-29198-8) were decanted prior to preparation, due to the excessive amount of sediment in the sample bottles, the aqueous portion of these samples was decanted to new bottles prior to spiking and the extraction.

Method(s) 3535: The following samples were re-prepared outside of preparation holding time due to LCS out high and MB contaminationMEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6) and MEAFF-TA4J-1992MW01-0617 (320-29198-8).

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

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-T45C-2004MW01-0617 — Lab Sample ID: 320-29198-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	5.8	M	2.4	0.73	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10		3.9	1.2	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	0.89	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-EB05-0617 — Lab Sample ID: 320-29198-2

No Detections.

Client Sample ID: MEAFF-T45C-03-2008MW01-0617 — Lab Sample ID: 320-29198-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.0	J Q	4.0	1.3	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-UNKN16MW01-0617 — Lab Sample ID: 320-29198-4

No Detections.

Client Sample ID: MEAFF-TA4-UNKNMW01-0617 — Lab Sample ID: 320-29198-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	4.7	M	2.4	0.73	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.8	J Q	3.9	1.2	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.4	M	2.4	0.90	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	2.4	J H	2.9	0.91	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-UNKN17MW01-0617 — Lab Sample ID: 320-29198-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	5.2	M	2.4	0.72	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	38	Q	3.9	1.2	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	0.89	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	32	H	3.9	1.3	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-EB06-0617 — Lab Sample ID: 320-29198-7

No Detections.

Client Sample ID: MEAFF-TA4J-1992MW01-0617 — Lab Sample ID: 320-29198-8

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	240	M	2.5	0.74	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	180	Q	4.0	1.3	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	47		2.5	0.91	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	160	H	4.0	1.3	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-T45C-2005MW01-0617 — Lab Sample ID: 320-29198-9

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-EB07-0617 **Lab Sample ID: 320-29198-10**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MEAFF-T45C-2004MW01-0617

Lab Sample ID: 320-29198-1
Date Collected: 06/15/17 14:45
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**5.8**	**M**	2.4	0.73	ng/L		06/22/17 08:27	06/28/17 01:56	1
Perfluorooctanesulfonic acid (PFOS)	**10**		3.9	1.2	ng/L		06/22/17 08:27	06/28/17 01:56	1
Perfluorobutanesulfonic acid (PFBS)	**2.0**	**J**	2.4	0.89	ng/L		06/22/17 08:27	06/28/17 01:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*43*		*25 - 150*	*06/22/17 08:27*	*06/28/17 01:56*	*1*
13C4 PFOS	*92*		*25 - 150*	*06/22/17 08:27*	*06/28/17 01:56*	*1*
18O2 PFHxS	*95*		*25 - 150*	*06/22/17 08:27*	*06/28/17 01:56*	*1*

Client Sample ID: MEAFF-EB05-0617

Lab Sample ID: 320-29198-2
Date Collected: 06/16/17 07:40
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 02:46	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U Q	3.8	1.2	ng/L		06/23/17 08:10	06/29/17 02:46	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U M	2.4	0.88	ng/L		06/23/17 08:10	06/29/17 02:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*129*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:46*	*1*
13C4 PFOS	*104*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:46*	*1*
18O2 PFHxS	*106*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:46*	*1*

Client Sample ID: MEAFF-T45C-03-2008MW01-0617

Lab Sample ID: 320-29198-3
Date Collected: 06/16/17 09:55
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.5	0.75	ng/L		06/23/17 08:10	06/29/17 02:53	1
Perfluorooctanesulfonic acid (PFOS)	**2.0**	**J Q**	4.0	1.3	ng/L		06/23/17 08:10	06/29/17 02:53	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	0.92	ng/L		06/23/17 08:10	06/29/17 02:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*91*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:53*	*1*
13C4 PFOS	*107*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:53*	*1*
18O2 PFHxS	*109*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:53*	*1*

Client Sample ID: MEAFF-UNKN16MW01-0617

Lab Sample ID: 320-29198-4
Date Collected: 06/16/17 11:25
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 03:00	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.8	1.2	ng/L		06/23/17 08:10	06/29/17 03:00	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	0.88	ng/L		06/23/17 08:10	06/29/17 03:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*63*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:00*	*1*

Client Sample ID: MEAFF-UNKN16MW01-0617

Lab Sample ID: 320-29198-4
Matrix: Water
Date Collected: 06/16/17 11:25
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	103		25 - 150	06/23/17 08:10	06/29/17 03:00	1
18O2 PFHxS	107		25 - 150	06/23/17 08:10	06/29/17 03:00	1

Client Sample ID: MEAFF-TA4-UNKNMW01-0617

Lab Sample ID: 320-29198-5
Matrix: Water
Date Collected: 06/16/17 12:25
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	4.7	M	2.4	0.73	ng/L		06/23/17 08:10	06/29/17 03:07	1
Perfluorooctanesulfonic acid (PFOS)	3.8	J Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:07	1
Perfluorobutanesulfonic acid (PFBS)	2.4	M	2.4	0.90	ng/L		06/23/17 08:10	06/29/17 03:07	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	82		25 - 150	06/23/17 08:10	06/29/17 03:07	1
13C4 PFOS	94		25 - 150	06/23/17 08:10	06/29/17 03:07	1
18O2 PFHxS	90		25 - 150	06/23/17 08:10	06/29/17 03:07	1

Method: 537 (Modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	2.4	J H	2.9	0.91	ng/L		07/13/17 09:26	07/15/17 04:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	131		25 - 150	07/13/17 09:26	07/15/17 04:35	1

Client Sample ID: MEAFF-UNKN17MW01-0617

Lab Sample ID: 320-29198-6
Matrix: Water
Date Collected: 06/16/17 14:10
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	5.2	M	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 03:14	1
Perfluorooctanesulfonic acid (PFOS)	38	Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:14	1
Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	0.89	ng/L		06/23/17 08:10	06/29/17 03:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	59		25 - 150	06/23/17 08:10	06/29/17 03:14	1
13C4 PFOS	107		25 - 150	06/23/17 08:10	06/29/17 03:14	1
18O2 PFHxS	113		25 - 150	06/23/17 08:10	06/29/17 03:14	1

Method: 537 (Modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	32	H	3.9	1.3	ng/L		07/13/17 09:26	07/15/17 04:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	127		25 - 150	07/13/17 09:26	07/15/17 04:41	1

Client Sample ID: MEAFF-EB06-0617

Lab Sample ID: 320-29198-7
Date Collected: 06/16/17 14:55
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.4	0.73	ng/L		06/23/17 08:10	06/29/17 03:21	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:21	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.4	0.90	ng/L		06/23/17 08:10	06/29/17 03:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*140*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:21*	*1*
13C4 PFOS	*109*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:21*	*1*
18O2 PFHxS	*112*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:21*	*1*

Client Sample ID: MEAFF-TA4J-1992MW01-0617

Lab Sample ID: 320-29198-8
Date Collected: 06/16/17 15:30
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**240**	**M**	2.5	0.74	ng/L		06/23/17 08:10	06/29/17 03:28	1
Perfluorooctanesulfonic acid (PFOS)	**180**	**Q**	4.0	1.3	ng/L		06/23/17 08:10	06/29/17 03:28	1
Perfluorobutanesulfonic acid (PFBS)	**47**		2.5	0.91	ng/L		06/23/17 08:10	06/29/17 03:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*66*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:28*	*1*
13C4 PFOS	*89*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:28*	*1*
18O2 PFHxS	*83*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:28*	*1*

Method: 537 (Modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**160**	**H**	4.0	1.3	ng/L		07/13/17 09:26	07/15/17 04:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*118*		*25 - 150*	*07/13/17 09:26*	*07/15/17 04:48*	*1*

Client Sample ID: MEAFF-T45C-2005MW01-0617

Lab Sample ID: 320-29198-9
Date Collected: 06/16/17 17:00
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	0.73	ng/L		06/23/17 08:10	06/29/17 03:42	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:42	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	0.89	ng/L		06/23/17 08:10	06/29/17 03:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*86*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:42*	*1*
13C4 PFOS	*99*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:42*	*1*
18O2 PFHxS	*106*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:42*	*1*

Client Sample ID: MEAFF-EB07-0617
Date Collected: 06/16/17 16:45
Date Received: 06/17/17 09:15

Lab Sample ID: 320-29198-10
Matrix: Water

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 03:48	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U Q	3.8	1.2	ng/L		06/23/17 08:10	06/29/17 03:48	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U M	2.4	0.88	ng/L		06/23/17 08:10	06/29/17 03:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*137*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:48*	*1*
13C4 PFOS	*113*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:48*	*1*
18O2 PFHxS	*109*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:48*	*1*

Isotope Dilution Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	3C4 PFOA (25-150)	3C4 PFOS (25-150)	3O2 PFHx (25-150)						
320-29198-1	MEAFF-T45C-2004MW01-0617	43	92	95						
320-29198-2	MEAFF-EB05-0617	129	104	106						
320-29198-3	MEAFF-T45C-03-2008MW01-0617	91	107	109						
320-29198-4	MEAFF-UNKN16MW01-0617	63	103	107						
320-29198-5	MEAFF-TA4-UNKNMW01-0617	82	94	90						
320-29198-5 - RE	MEAFF-TA4-UNKNMW01-0617		131							
320-29198-6	MEAFF-UNKN17MW01-0617	59	107	113						
320-29198-6 - RE	MEAFF-UNKN17MW01-0617		127							
320-29198-7	MEAFF-EB06-0617	140	109	112						
320-29198-8	MEAFF-TA4J-1992MW01-0617	66	89	83						
320-29198-8 - RE	MEAFF-TA4J-1992MW01-0617		118							
320-29198-9	MEAFF-T45C-2005MW01-0617	86	99	106						
320-29198-10	MEAFF-EB07-0617	137	113	109						
LCS 320-170434/2-A	Lab Control Sample	88	101	107						
LCS 320-170613/2-A	Lab Control Sample	123	101	106						
LCS 320-173923/2-A	Lab Control Sample	125	122	124						
LCSD 320-170613/3-A	Lab Control Sample Dup	122	105	110						
LCSD 320-173923/3-A	Lab Control Sample Dup	131	128	130						
MB 320-170434/1-A	Method Blank	117	99	102						
MB 320-170613/1-A	Method Blank	122	100	103						
MB 320-173923/1-A	Method Blank	136	123	125						

Surrogate Legend

13C4 PFOA = 13C4 PFOA
13C4 PFOS = 13C4 PFOS
18O2 PFHxS = 18O2 PFHxS

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Lab Sample ID: MB 320-170434/1-A
Matrix: Water
Analysis Batch: 171405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170434

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.5	0.75	ng/L		06/22/17 08:27	06/28/17 11:29	1
Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	1.3	ng/L		06/22/17 08:27	06/28/17 11:29	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.5	0.92	ng/L		06/22/17 08:27	06/28/17 11:29	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*117*		*25 - 150*	*06/22/17 08:27*	*06/28/17 11:29*	*1*
13C4 PFOS	*99*		*25 - 150*	*06/22/17 08:27*	*06/28/17 11:29*	*1*
18O2 PFHxS	*102*		*25 - 150*	*06/22/17 08:27*	*06/28/17 11:29*	*1*

Lab Sample ID: LCS 320-170434/2-A
Matrix: Water
Analysis Batch: 170860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	40.0	39.5		ng/L		99	60 - 140
Perfluorooctanesulfonic acid (PFOS)	37.1	40.4		ng/L		109	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.4	42.8		ng/L		121	50 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFOA	*88*		*25 - 150*
13C4 PFOS	*101*		*25 - 150*
18O2 PFHxS	*107*		*25 - 150*

Lab Sample ID: MB 320-170613/1-A
Matrix: Water
Analysis Batch: 171596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170613

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.5	0.75	ng/L		06/23/17 08:10	06/29/17 02:26	1
Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	1.3	ng/L		06/23/17 08:10	06/29/17 02:26	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	0.92	ng/L		06/23/17 08:10	06/29/17 02:26	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*122*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:26*	*1*
13C4 PFOS	*100*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:26*	*1*
18O2 PFHxS	*103*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:26*	*1*

Lab Sample ID: LCS 320-170613/2-A
Matrix: Water
Analysis Batch: 171596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	40.0	41.8		ng/L		104	60 - 140
Perfluorooctanesulfonic acid (PFOS)	37.1	55.9	Q	ng/L		151	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.4	42.0		ng/L		119	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFOA	*123*		*25 - 150*
13C4 PFOS	*101*		*25 - 150*
18O2 PFHxS	*106*		*25 - 150*

Lab Sample ID: LCSD 320-170613/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 171596 — **Prep Batch: 170613**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)			40.0	41.0		ng/L		103	60 - 140	2	30
Perfluorooctanesulfonic acid (PFOS)			37.1	41.5		ng/L		112	60 - 140	29	30
Perfluorobutanesulfonic acid (PFBS)			35.4	43.3		ng/L		123	50 - 150	3	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFOA	*122*		*25 - 150*
13C4 PFOS	*105*		*25 - 150*
18O2 PFHxS	*110*		*25 - 150*

Lab Sample ID: MB 320-173923/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 174335 — **Prep Batch: 173923**

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U M	2.5	0.75	ng/L		07/13/17 09:26	07/15/17 03:05	1
Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	1.3	ng/L		07/13/17 09:26	07/15/17 03:05	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	0.92	ng/L		07/13/17 09:26	07/15/17 03:05	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	*136*		*25 - 150*	*07/13/17 09:26*	*07/15/17 03:05*	*1*
13C4 PFOS	*123*		*25 - 150*	*07/13/17 09:26*	*07/15/17 03:05*	*1*
18O2 PFHxS	*125*		*25 - 150*	*07/13/17 09:26*	*07/15/17 03:05*	*1*

Lab Sample ID: LCS 320-173923/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 174335 — **Prep Batch: 173923**

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)			40.0	39.1		ng/L		98	60 - 140
Perfluorooctanesulfonic acid (PFOS)			37.1	34.7		ng/L		93	60 - 140
Perfluorobutanesulfonic acid (PFBS)			35.4	35.6		ng/L		101	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFOA	*125*		*25 - 150*
13C4 PFOS	*122*		*25 - 150*
18O2 PFHxS	*124*		*25 - 150*

Lab Sample ID: LCSD 320-173923/3-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 174335 — **Prep Batch: 173923**

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)			40.0	38.5		ng/L		96	60 - 140	2	30

Method: 537 (Modified) - Perfluorinated Hydrocarbons (Continued)

Lab Sample ID: LCSD 320-173923/3-A
Matrix: Water
Analysis Batch: 174335

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 173923

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)			37.1	36.3		ng/L		98	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)			35.4	32.7		ng/L		93	50 - 150	8	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFOA	*131*		*25 - 150*
13C4 PFOS	*128*		*25 - 150*
18O2 PFHxS	*130*		*25 - 150*

LCMS

Prep Batch: 170434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-1	MEAFF-T45C-2004MW01-0617	Total/NA	Water	3535	
MB 320-170434/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-170434/2-A	Lab Control Sample	Total/NA	Water	3535	

Prep Batch: 170613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-2	MEAFF-EB05-0617	Total/NA	Water	3535	
320-29198-3	MEAFF-T45C-03-2008MW01-0617	Total/NA	Water	3535	
320-29198-4	MEAFF-UNKN16MW01-0617	Total/NA	Water	3535	
320-29198-5	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	3535	
320-29198-6	MEAFF-UNKN17MW01-0617	Total/NA	Water	3535	
320-29198-7	MEAFF-EB06-0617	Total/NA	Water	3535	
320-29198-8	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	3535	
320-29198-9	MEAFF-T45C-2005MW01-0617	Total/NA	Water	3535	
320-29198-10	MEAFF-EB07-0617	Total/NA	Water	3535	
MB 320-170613/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-170613/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-170613/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 170860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-170434/2-A	Lab Control Sample	Total/NA	Water	537 (Modified)	170434

Analysis Batch: 171325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-1	MEAFF-T45C-2004MW01-0617	Total/NA	Water	537 (Modified)	170434

Analysis Batch: 171405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-170434/1-A	Method Blank	Total/NA	Water	537 (Modified)	170434

Analysis Batch: 171596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-2	MEAFF-EB05-0617	Total/NA	Water	537 (Modified)	170613
320-29198-3	MEAFF-T45C-03-2008MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-4	MEAFF-UNKN16MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-5	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-6	MEAFF-UNKN17MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-7	MEAFF-EB06-0617	Total/NA	Water	537 (Modified)	170613
320-29198-8	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-9	MEAFF-T45C-2005MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-10	MEAFF-EB07-0617	Total/NA	Water	537 (Modified)	170613
MB 320-170613/1-A	Method Blank	Total/NA	Water	537 (Modified)	170613
LCS 320-170613/2-A	Lab Control Sample	Total/NA	Water	537 (Modified)	170613
LCSD 320-170613/3-A	Lab Control Sample Dup	Total/NA	Water	537 (Modified)	170613

Prep Batch: 173923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-5 - RE	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	3535	
320-29198-6 - RE	MEAFF-UNKN17MW01-0617	Total/NA	Water	3535	
320-29198-8 - RE	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	3535	

LCMS (Continued)

Prep Batch: 173923 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-173923/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-173923/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-173923/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 174335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-5 - RE	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	537 (Modified)	173923
320-29198-6 - RE	MEAFF-UNKN17MW01-0617	Total/NA	Water	537 (Modified)	173923
320-29198-8 - RE	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	537 (Modified)	173923
MB 320-173923/1-A	Method Blank	Total/NA	Water	537 (Modified)	173923
LCS 320-173923/2-A	Lab Control Sample	Total/NA	Water	537 (Modified)	173923
LCSD 320-173923/3-A	Lab Control Sample Dup	Total/NA	Water	537 (Modified)	173923

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-T45C-2004MW01-0617
Lab Sample ID: 320-29198-1
Date Collected: 06/15/17 14:45
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			257.2 mL	0.50 mL	170434	06/22/17 08:27	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171325	06/28/17 01:56	SBC	TAL SAC

Client Sample ID: MEAFF-EB05-0617
Lab Sample ID: 320-29198-2
Date Collected: 06/16/17 07:40
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			260.3 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 02:46	JRB	TAL SAC

Client Sample ID: MEAFF-T45C-03-2008MW01-0617
Lab Sample ID: 320-29198-3
Date Collected: 06/16/17 09:55
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			250 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 02:53	JRB	TAL SAC

Client Sample ID: MEAFF-UNKN16MW01-0617
Lab Sample ID: 320-29198-4
Date Collected: 06/16/17 11:25
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			260.9 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 03:00	JRB	TAL SAC

Client Sample ID: MEAFF-TA4-UNKNMW01-0617
Lab Sample ID: 320-29198-5
Date Collected: 06/16/17 12:25
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			256.1 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 03:07	JRB	TAL SAC
Total/NA	Prep	3535	RE		349 mL	0.50 mL	173923	07/13/17 09:26	NS1	TAL SAC
Total/NA	Analysis	537 (Modified)	RE	1			174335	07/15/17 04:35	JRB	TAL SAC

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-UNKN17MW01-0617

Lab Sample ID: 320-29198-6
Date Collected: 06/16/17 14:10
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			259.2 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 03:14	JRB	TAL SAC
Total/NA	Prep	3535	RE		253.7 mL	0.50 mL	173923	07/13/17 09:26	NS1	TAL SAC
Total/NA	Analysis	537 (Modified)	RE	1			174335	07/15/17 04:41	JRB	TAL SAC

Client Sample ID: MEAFF-EB06-0617

Lab Sample ID: 320-29198-7
Date Collected: 06/16/17 14:55
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			255.7 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 03:21	JRB	TAL SAC

Client Sample ID: MEAFF-TA4J-1992MW01-0617

Lab Sample ID: 320-29198-8
Date Collected: 06/16/17 15:30
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			252.6 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 03:28	JRB	TAL SAC
Total/NA	Prep	3535	RE		252 mL	0.50 mL	173923	07/13/17 09:26	NS1	TAL SAC
Total/NA	Analysis	537 (Modified)	RE	1			174335	07/15/17 04:48	JRB	TAL SAC

Client Sample ID: MEAFF-T45C-2005MW01-0617

Lab Sample ID: 320-29198-9
Date Collected: 06/16/17 17:00
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			257.1 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 03:42	JRB	TAL SAC

Client Sample ID: MEAFF-EB07-0617

Lab Sample ID: 320-29198-10
Date Collected: 06/16/17 16:45
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			260.4 mL	0.50 mL	170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1			171596	06/29/17 03:48	JRB	TAL SAC

Laboratory References:

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

Accreditation/Certification Summary

Client: CH2M Hill, Inc.
TestAmerica Job ID: 320-29198-1
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-17
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-17
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-29-18
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-17
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	10-31-17
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-29-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Method	Method Description	Protocol	Laboratory
537 (Modified)	Perfluorinated Hydrocarbons	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-29198-1	MEAFF-T45C-2004MW01-0617	Water	06/15/17 14:45	06/17/17 09:15
320-29198-2	MEAFF-EB05-0617	Water	06/16/17 07:40	06/17/17 09:15
320-29198-3	MEAFF-T45C-03-2008MW01-0617	Water	06/16/17 09:55	06/17/17 09:15
320-29198-4	MEAFF-UNKN16MW01-0617	Water	06/16/17 11:25	06/17/17 09:15
320-29198-5	MEAFF-TA4-UNKNMW01-0617	Water	06/16/17 12:25	06/17/17 09:15
320-29198-6	MEAFF-UNKN17MW01-0617	Water	06/16/17 14:10	06/17/17 09:15
320-29198-7	MEAFF-EB06-0617	Water	06/16/17 14:55	06/17/17 09:15
320-29198-8	MEAFF-TA4J-1992MW01-0617	Water	06/16/17 15:30	06/17/17 09:15
320-29198-9	MEAFF-T45C-2005MW01-0617	Water	06/16/17 17:00	06/17/17 09:15
320-29198-10	MEAFF-EB07-0617	Water	06/16/17 16:45	06/17/17 09:15

TestAmerica Sacramento
880 Riverside Parkway

West Sacramento, CA 95605-1500
phone 916.373.5600 fax 303.467.7248

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

7/26/2017

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

Client Contact	Project Manager: Bryan Burkingstock	Site Contact: Ryan Brown	Date: 6/16/17	COC No: 12
Company Name CH2M	Tel/Fax: 603-736-4111	Lab Contact: Jill Kellmann	Carrier: FedEx	1 of 1 COCs
6600 Peachtree Dunwoody Road, 400 Embassy Row, Suite 600	**Analysis Turnaround Time**			Sampler: J. McCann
Atlanta GA 30328	☒CALENDAR DAYS ☐WORKING DAYS			**For Lab Use Only:**
(678) 530-4060 Phone	TAT if different from Below 28 Days			Walk-in Client:
(770) 604-9153 Fax	☐ 2 weeks			Lab Sampling:
Project Name: Meridian 10006-7-105420 JM01 Navy CLEAN	☐ 1 week			
Site: NAS Meridian	☐ 2 days			Job / SDG No.:
P O # 10006-7-105420	☐ 1 day			

320-29198 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 537M (DOD)	Sample Specific Notes:
MEAFF-T45C-2004MW01-0617	6/15/17	1445	G	GW	2	N	N	X	
MEAFF-EB05-0617	6/16/17	0740			2				equipment blank
MEAFF-T45C-03-2008MW01-0617		0955							
MEAFF-UNKN16MW01-0617		1125							
MEAFF-TA4-UNKNMW01-0617		1225							
MEAFF-UNKN17MW01-0617		1410							
MEAFF-EB06-0617		1455							
MEAFF-TA4S-1992MW01-0617		1530							
MEAFF-T45C-2005MW01-0617		1700							
MEAFF-EB07-0617	↓	1645	↓	↓	↓	↓	↓	↓	

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

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

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

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

☐Return to Client ☐Disposal by Lab ☐Archive for _____ Months

Special Instructions/QC Requirements & Comments: Send results to Mike Zamboni - address on file

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 0.7	Corr'd: —	Therm ID No.: AK-1
Relinquished by: Justine McCann	Company: CH2M HILL	Date/Time: 6/16/17 1830	Received by:	Company: TMS	Date/Time: 6-17-17 915
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.8, dated 11/04/2015

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 320-29198-1

Login Number: 29198
List Number: 1
Creator: Nelson, Kym D

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Job Number: 320-29198-1

Job Description: Meridian 10006-7-105420 JM01 Navy Clean

For:
CH2M Hill, Inc.
2411 Dulles Corner Park
Suite 500
Herndon, VA 20171

Attention: Mr. Michael Zamboni

Approved for release.
David R Alltucker
Project Manager I
7/26/2017 12:31 PM

Designee for
Jill Kellmann, Manager of Project Management
880 Riverside Parkway, West Sacramento, CA, 95605
(916)374-4402
jill.kellmann@testamericainc.com
07/26/2017

TestAmerica Laboratories, Inc.
TestAmerica Sacramento 880 Riverside Parkway, West Sacramento, CA 95605
Tel (916) 373-5600 Fax (916) 372-1059 www.testamericainc.com

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Qualifiers

LCMS

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

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
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 (Radiochemistry)
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: Meridian 10006-7-105420 JM01 Navy Clean

Report Number: 320-29198-1

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.

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

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

RECEIPT

The samples were received on 06/17/2017; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 0.4 C.

PFAS

The first level standard from the initial calibration curve is used to evaluate the tune criteria. The instrument mass windows are set at +/- 0.5amu; therefore, detection of the analyte serves as verification that the assigned mass is within +/- 0.5amu of the true value, which meets the DoD/DOE QSM tune criterion.

The laboratory control sample (LCS) for preparation batch 320-170613 and analytical batch 320-171596 recovered outside control limits for the following analytes: Perfluorooctanesulfonic acid (PFOS). These analytes were biased high in the LCS and were less than the Reporting LImit (RL) in the associated samples; therefore, the data have been reported.

Re-extraction of the following samples was performed outside of the analytical holding time for Perfluorooctanesulfonic acid (PFOS) due to high laboratory control sample (LCS) recovery for PFOS in the original extraction : MEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6) and MEAFF-TA4J-1992MW01-0617 (320-29198-8). Both the original results and the re-extraction results are reported for PFOS.

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

Organic Prep

Method(s) 3535: The following sample: MEAFF-T45C-2004MW01-0617 (320-29198-1) was decanted prior to preparation due to excess sediment.

Method(s) 3535: The following samples: MEAFF-T45C-03-2008MW01-0617 (320-29198-3), MEAFF-UNKN16MW01-0617 (320-29198-4), MEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6), MEAFF-TA4J-1992MW01-0617

(320-29198-8) and MEAFF-T45C-2005MW01-0617 (320-29198-9) were decanted and centrifuged prior to preparation due to excessive amount of sediment.

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-170613.

Method(s) 3535: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 320-173923.

Method(s) 3535: The following samples: MEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6) and MEAFF-TA4J-1992MW01-0617 (320-29198-8) were decanted prior to preparation, due to the excessive amount of sediment in the sample bottles, the aqueous portion of these samples was decanted to new bottles prior to spiking and the extraction.

Method(s) 3535: The following samples were re-prepared outside of preparation holding time due to LCS out high and MB contaminationMEAFF-TA4-UNKNMW01-0617 (320-29198-5), MEAFF-UNKN17MW01-0617 (320-29198-6) and MEAFF-TA4J-1992MW01-0617 (320-29198-8).

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

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-T45C-2004MW01-0617 — Lab Sample ID: 320-29198-1

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	5.8	M	2.4	0.73	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	10		3.9	1.2	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	0.89	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-EB05-0617 — Lab Sample ID: 320-29198-2

No Detections.

Client Sample ID: MEAFF-T45C-03-2008MW01-0617 — Lab Sample ID: 320-29198-3

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanesulfonic acid (PFOS)	2.0	J Q	4.0	1.3	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-UNKN16MW01-0617 — Lab Sample ID: 320-29198-4

No Detections.

Client Sample ID: MEAFF-TA4-UNKNMW01-0617 — Lab Sample ID: 320-29198-5

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	4.7	M	2.4	0.73	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	3.8	J Q	3.9	1.2	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.4	M	2.4	0.90	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	2.4	J H	2.9	0.91	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-UNKN17MW01-0617 — Lab Sample ID: 320-29198-6

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	5.2	M	2.4	0.72	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	38	Q	3.9	1.2	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	0.89	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	32	H	3.9	1.3	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-EB06-0617 — Lab Sample ID: 320-29198-7

No Detections.

Client Sample ID: MEAFF-TA4J-1992MW01-0617 — Lab Sample ID: 320-29198-8

Analyte	Result	Qualifier	LOQ	DL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	240	M	2.5	0.74	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS)	180	Q	4.0	1.3	ng/L	1		537 (Modified)	Total/NA
Perfluorobutanesulfonic acid (PFBS)	47		2.5	0.91	ng/L	1		537 (Modified)	Total/NA
Perfluorooctanesulfonic acid (PFOS) - RE	160	H	4.0	1.3	ng/L	1		537 (Modified)	Total/NA

Client Sample ID: MEAFF-T45C-2005MW01-0617 — Lab Sample ID: 320-29198-9

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-EB07-0617 **Lab Sample ID: 320-29198-10**

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MEAFF-T45C-2004MW01-0617

Lab Sample ID: 320-29198-1

Date Collected: 06/15/17 14:45

Matrix: Water

Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**5.8**	**M**	2.4	0.73	ng/L		06/22/17 08:27	06/28/17 01:56	1
Perfluorooctanesulfonic acid (PFOS)	**10**		3.9	1.2	ng/L		06/22/17 08:27	06/28/17 01:56	1
Perfluorobutanesulfonic acid (PFBS)	**2.0**	**J**	2.4	0.89	ng/L		06/22/17 08:27	06/28/17 01:56	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*43*		*25 - 150*	*06/22/17 08:27*	*06/28/17 01:56*	*1*
13C4 PFOS	*92*		*25 - 150*	*06/22/17 08:27*	*06/28/17 01:56*	*1*
18O2 PFHxS	*95*		*25 - 150*	*06/22/17 08:27*	*06/28/17 01:56*	*1*

Client Sample ID: MEAFF-EB05-0617

Lab Sample ID: 320-29198-2

Date Collected: 06/16/17 07:40

Matrix: Water

Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 02:46	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U Q	3.8	1.2	ng/L		06/23/17 08:10	06/29/17 02:46	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U M	2.4	0.88	ng/L		06/23/17 08:10	06/29/17 02:46	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*129*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:46*	*1*
13C4 PFOS	*104*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:46*	*1*
18O2 PFHxS	*106*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:46*	*1*

Client Sample ID: MEAFF-T45C-03-2008MW01-0617

Lab Sample ID: 320-29198-3

Date Collected: 06/16/17 09:55

Matrix: Water

Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.5	0.75	ng/L		06/23/17 08:10	06/29/17 02:53	1
Perfluorooctanesulfonic acid (PFOS)	**2.0**	**J Q**	4.0	1.3	ng/L		06/23/17 08:10	06/29/17 02:53	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	0.92	ng/L		06/23/17 08:10	06/29/17 02:53	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*91*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:53*	*1*
13C4 PFOS	*107*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:53*	*1*
18O2 PFHxS	*109*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:53*	*1*

Client Sample ID: MEAFF-UNKN16MW01-0617

Lab Sample ID: 320-29198-4

Date Collected: 06/16/17 11:25

Matrix: Water

Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 03:00	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.8	1.2	ng/L		06/23/17 08:10	06/29/17 03:00	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	0.88	ng/L		06/23/17 08:10	06/29/17 03:00	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*63*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:00*	*1*

Client Sample ID: MEAFF-UNKN16MW01-0617 — Lab Sample ID: 320-29198-4

Date Collected: 06/16/17 11:25 — **Matrix: Water**
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	103		25 - 150	06/23/17 08:10	06/29/17 03:00	1
18O2 PFHxS	107		25 - 150	06/23/17 08:10	06/29/17 03:00	1

Client Sample ID: MEAFF-TA4-UNKNMW01-0617 — Lab Sample ID: 320-29198-5

Date Collected: 06/16/17 12:25 — **Matrix: Water**
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	4.7	M	2.4	0.73	ng/L		06/23/17 08:10	06/29/17 03:07	1
Perfluorooctanesulfonic acid (PFOS)	3.8	J Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:07	1
Perfluorobutanesulfonic acid (PFBS)	2.4	M	2.4	0.90	ng/L		06/23/17 08:10	06/29/17 03:07	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	82		25 - 150	06/23/17 08:10	06/29/17 03:07	1
13C4 PFOS	94		25 - 150	06/23/17 08:10	06/29/17 03:07	1
18O2 PFHxS	90		25 - 150	06/23/17 08:10	06/29/17 03:07	1

Method: 537 (Modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	2.4	J H	2.9	0.91	ng/L		07/13/17 09:26	07/15/17 04:35	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	131		25 - 150	07/13/17 09:26	07/15/17 04:35	1

Client Sample ID: MEAFF-UNKN17MW01-0617 — Lab Sample ID: 320-29198-6

Date Collected: 06/16/17 14:10 — **Matrix: Water**
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	5.2	M	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 03:14	1
Perfluorooctanesulfonic acid (PFOS)	38	Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:14	1
Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	0.89	ng/L		06/23/17 08:10	06/29/17 03:14	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	59		25 - 150	06/23/17 08:10	06/29/17 03:14	1
13C4 PFOS	107		25 - 150	06/23/17 08:10	06/29/17 03:14	1
18O2 PFHxS	113		25 - 150	06/23/17 08:10	06/29/17 03:14	1

Method: 537 (Modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	32	H	3.9	1.3	ng/L		07/13/17 09:26	07/15/17 04:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOS	127		25 - 150	07/13/17 09:26	07/15/17 04:41	1

Client Sample ID: MEAFF-EB06-0617 — Lab Sample ID: 320-29198-7

Date Collected: 06/16/17 14:55 **Matrix: Water**
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.4	0.73	ng/L		06/23/17 08:10	06/29/17 03:21	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:21	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.4	0.90	ng/L		06/23/17 08:10	06/29/17 03:21	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*140*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:21*	*1*
13C4 PFOS	*109*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:21*	*1*
18O2 PFHxS	*112*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:21*	*1*

Client Sample ID: MEAFF-TA4J-1992MW01-0617 — Lab Sample ID: 320-29198-8

Date Collected: 06/16/17 15:30 **Matrix: Water**
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**240**	**M**	2.5	0.74	ng/L		06/23/17 08:10	06/29/17 03:28	1
Perfluorooctanesulfonic acid (PFOS)	**180**	**Q**	4.0	1.3	ng/L		06/23/17 08:10	06/29/17 03:28	1
Perfluorobutanesulfonic acid (PFBS)	**47**		2.5	0.91	ng/L		06/23/17 08:10	06/29/17 03:28	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*66*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:28*	*1*
13C4 PFOS	*89*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:28*	*1*
18O2 PFHxS	*83*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:28*	*1*

Method: 537 (Modified) - Perfluorinated Hydrocarbons - RE

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanesulfonic acid (PFOS)	**160**	**H**	4.0	1.3	ng/L		07/13/17 09:26	07/15/17 04:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOS	*118*		*25 - 150*	*07/13/17 09:26*	*07/15/17 04:48*	*1*

Client Sample ID: MEAFF-T45C-2005MW01-0617 — Lab Sample ID: 320-29198-9

Date Collected: 06/16/17 17:00 **Matrix: Water**
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	0.73	ng/L		06/23/17 08:10	06/29/17 03:42	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.9	1.2	ng/L		06/23/17 08:10	06/29/17 03:42	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	0.89	ng/L		06/23/17 08:10	06/29/17 03:42	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*86*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:42*	*1*
13C4 PFOS	*99*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:42*	*1*
18O2 PFHxS	*106*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:42*	*1*

Client Sample ID: MEAFF-EB07-0617
Lab Sample ID: 320-29198-10
Date Collected: 06/16/17 16:45
Matrix: Water
Date Received: 06/17/17 09:15

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Analyte	Result	Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	1.9	U	2.4	0.72	ng/L		06/23/17 08:10	06/29/17 03:48	1
Perfluorooctanesulfonic acid (PFOS)	2.9	U Q	3.8	1.2	ng/L		06/23/17 08:10	06/29/17 03:48	1
Perfluorobutanesulfonic acid (PFBS)	1.9	U M	2.4	0.88	ng/L		06/23/17 08:10	06/29/17 03:48	1

Isotope Dilution	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*137*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:48*	*1*
13C4 PFOS	*113*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:48*	*1*
18O2 PFHxS	*109*		*25 - 150*	*06/23/17 08:10*	*06/29/17 03:48*	*1*

Default Detection Limits

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Prep: 3535

Analyte	LOQ	DL	Units	Method
Perfluorobutanesulfonic acid (PFBS)	2.5	0.92	ng/L	537 (Modified)
Perfluorooctanesulfonic acid (PFOS)	4.0	1.3	ng/L	537 (Modified)
Perfluorooctanoic acid (PFOA)	2.5	0.75	ng/L	537 (Modified)

Isotope Dilution Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Matrix: Water

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)								
Lab Sample ID	Client Sample ID	3C4 PFOA (25-150)	3C4 PFOS (25-150)	3O2 PFHx (25-150)						
320-29198-1	MEAFF-T45C-2004MW01-0617	43	92	95						
320-29198-2	MEAFF-EB05-0617	129	104	106						
320-29198-3	MEAFF-T45C-03-2008MW01-0	91	107	109						
320-29198-4	MEAFF-UNKN16MW01-0617	63	103	107						
320-29198-5	MEAFF-TA4-UNKNMW01-0617	82	94	90						
320-29198-5 - RE	MEAFF-TA4-UNKNMW01-0617		131							
320-29198-6	MEAFF-UNKN17MW01-0617	59	107	113						
320-29198-6 - RE	MEAFF-UNKN17MW01-0617		127							
320-29198-7	MEAFF-EB06-0617	140	109	112						
320-29198-8	MEAFF-TA4J-1992MW01-0617	66	89	83						
320-29198-8 - RE	MEAFF-TA4J-1992MW01-0617		118							
320-29198-9	MEAFF-T45C-2005MW01-0617	86	99	106						
320-29198-10	MEAFF-EB07-0617	137	113	109						
LCS 320-170434/2-A	Lab Control Sample	88	101	107						
LCS 320-170613/2-A	Lab Control Sample	123	101	106						
LCS 320-173923/2-A	Lab Control Sample	125	122	124						
LCSD 320-170613/3-A	Lab Control Sample Dup	122	105	110						
LCSD 320-173923/3-A	Lab Control Sample Dup	131	128	130						
MB 320-170434/1-A	Method Blank	117	99	102						
MB 320-170613/1-A	Method Blank	122	100	103						
MB 320-173923/1-A	Method Blank	136	123	125						

Surrogate Legend

13C4 PFOA = 13C4 PFOA
13C4 PFOS = 13C4 PFOS
18O2 PFHxS = 18O2 PFHxS

Method: 537 (Modified) - Perfluorinated Hydrocarbons

Lab Sample ID: MB 320-170434/1-A
Matrix: Water
Analysis Batch: 171405

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170434

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.5	0.75	ng/L		06/22/17 08:27	06/28/17 11:29	1
Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	1.3	ng/L		06/22/17 08:27	06/28/17 11:29	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.5	0.92	ng/L		06/22/17 08:27	06/28/17 11:29	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*117*		*25 - 150*	*06/22/17 08:27*	*06/28/17 11:29*	*1*
13C4 PFOS	*99*		*25 - 150*	*06/22/17 08:27*	*06/28/17 11:29*	*1*
18O2 PFHxS	*102*		*25 - 150*	*06/22/17 08:27*	*06/28/17 11:29*	*1*

Lab Sample ID: LCS 320-170434/2-A
Matrix: Water
Analysis Batch: 170860

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170434

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	40.0	39.5		ng/L		99	60 - 140
Perfluorooctanesulfonic acid (PFOS)	37.1	40.4		ng/L		109	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.4	42.8		ng/L		121	50 - 150

Isotope Dilution	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C4 PFOA	*88*		*25 - 150*
13C4 PFOS	*101*		*25 - 150*
18O2 PFHxS	*107*		*25 - 150*

Lab Sample ID: MB 320-170613/1-A
Matrix: Water
Analysis Batch: 171596

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 170613

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U	2.5	0.75	ng/L		06/23/17 08:10	06/29/17 02:26	1
Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	1.3	ng/L		06/23/17 08:10	06/29/17 02:26	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	0.92	ng/L		06/23/17 08:10	06/29/17 02:26	1

Isotope Dilution	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C4 PFOA	*122*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:26*	*1*
13C4 PFOS	*100*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:26*	*1*
18O2 PFHxS	*103*		*25 - 150*	*06/23/17 08:10*	*06/29/17 02:26*	*1*

Lab Sample ID: LCS 320-170613/2-A
Matrix: Water
Analysis Batch: 171596

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 170613

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)	40.0	41.8		ng/L		104	60 - 140
Perfluorooctanesulfonic acid (PFOS)	37.1	55.9	Q	ng/L		151	60 - 140
Perfluorobutanesulfonic acid (PFBS)	35.4	42.0		ng/L		119	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFOA	123		25 - 150
13C4 PFOS	101		25 - 150
18O2 PFHxS	106		25 - 150

Lab Sample ID: LCSD 320-170613/3-A
Matrix: Water
Analysis Batch: 171596

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 170613

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)			40.0	41.0		ng/L		103	60 - 140	2	30
Perfluorooctanesulfonic acid (PFOS)			37.1	41.5		ng/L		112	60 - 140	29	30
Perfluorobutanesulfonic acid (PFBS)			35.4	43.3		ng/L		123	50 - 150	3	30

Isotope Dilution	LCSD %Recovery	LCSD Qualifier	Limits
13C4 PFOA	122		25 - 150
13C4 PFOS	105		25 - 150
18O2 PFHxS	110		25 - 150

Lab Sample ID: MB 320-173923/1-A
Matrix: Water
Analysis Batch: 174335

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 173923

Analyte	MB Result	MB Qualifier	LOQ	DL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	2.0	U M	2.5	0.75	ng/L		07/13/17 09:26	07/15/17 03:05	1
Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	1.3	ng/L		07/13/17 09:26	07/15/17 03:05	1
Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	0.92	ng/L		07/13/17 09:26	07/15/17 03:05	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C4 PFOA	136		25 - 150	07/13/17 09:26	07/15/17 03:05	1
13C4 PFOS	123		25 - 150	07/13/17 09:26	07/15/17 03:05	1
18O2 PFHxS	125		25 - 150	07/13/17 09:26	07/15/17 03:05	1

Lab Sample ID: LCS 320-173923/2-A
Matrix: Water
Analysis Batch: 174335

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 173923

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctanoic acid (PFOA)			40.0	39.1		ng/L		98	60 - 140
Perfluorooctanesulfonic acid (PFOS)			37.1	34.7		ng/L		93	60 - 140
Perfluorobutanesulfonic acid (PFBS)			35.4	35.6		ng/L		101	50 - 150

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C4 PFOA	125		25 - 150
13C4 PFOS	122		25 - 150
18O2 PFHxS	124		25 - 150

Lab Sample ID: LCSD 320-173923/3-A
Matrix: Water
Analysis Batch: 174335

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 173923

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanoic acid (PFOA)			40.0	38.5		ng/L		96	60 - 140	2	30

Method: 537 (Modified) - Perfluorinated Hydrocarbons (Continued)

Lab Sample ID: LCSD 320-173923/3-A
Matrix: Water
Analysis Batch: 174335

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 173923

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctanesulfonic acid (PFOS)			37.1	36.3		ng/L		98	60 - 140	5	30
Perfluorobutanesulfonic acid (PFBS)			35.4	32.7		ng/L		93	50 - 150	8	30

Isotope Dilution	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
13C4 PFOA	*131*		*25 - 150*
13C4 PFOS	*128*		*25 - 150*
18O2 PFHxS	*130*		*25 - 150*

LCMS

Prep Batch: 170434

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-1	MEAFF-T45C-2004MW01-0617	Total/NA	Water	3535	
MB 320-170434/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-170434/2-A	Lab Control Sample	Total/NA	Water	3535	

Prep Batch: 170613

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-2	MEAFF-EB05-0617	Total/NA	Water	3535	
320-29198-3	MEAFF-T45C-03-2008MW01-0617	Total/NA	Water	3535	
320-29198-4	MEAFF-UNKN16MW01-0617	Total/NA	Water	3535	
320-29198-5	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	3535	
320-29198-6	MEAFF-UNKN17MW01-0617	Total/NA	Water	3535	
320-29198-7	MEAFF-EB06-0617	Total/NA	Water	3535	
320-29198-8	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	3535	
320-29198-9	MEAFF-T45C-2005MW01-0617	Total/NA	Water	3535	
320-29198-10	MEAFF-EB07-0617	Total/NA	Water	3535	
MB 320-170613/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-170613/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-170613/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 170860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 320-170434/2-A	Lab Control Sample	Total/NA	Water	537 (Modified)	170434

Analysis Batch: 171325

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-1	MEAFF-T45C-2004MW01-0617	Total/NA	Water	537 (Modified)	170434

Analysis Batch: 171405

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-170434/1-A	Method Blank	Total/NA	Water	537 (Modified)	170434

Analysis Batch: 171596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-2	MEAFF-EB05-0617	Total/NA	Water	537 (Modified)	170613
320-29198-3	MEAFF-T45C-03-2008MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-4	MEAFF-UNKN16MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-5	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-6	MEAFF-UNKN17MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-7	MEAFF-EB06-0617	Total/NA	Water	537 (Modified)	170613
320-29198-8	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-9	MEAFF-T45C-2005MW01-0617	Total/NA	Water	537 (Modified)	170613
320-29198-10	MEAFF-EB07-0617	Total/NA	Water	537 (Modified)	170613
MB 320-170613/1-A	Method Blank	Total/NA	Water	537 (Modified)	170613
LCS 320-170613/2-A	Lab Control Sample	Total/NA	Water	537 (Modified)	170613
LCSD 320-170613/3-A	Lab Control Sample Dup	Total/NA	Water	537 (Modified)	170613

Prep Batch: 173923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-5 - RE	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	3535	
320-29198-6 - RE	MEAFF-UNKN17MW01-0617	Total/NA	Water	3535	
320-29198-8 - RE	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	3535	

LCMS (Continued)

Prep Batch: 173923 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 320-173923/1-A	Method Blank	Total/NA	Water	3535	
LCS 320-173923/2-A	Lab Control Sample	Total/NA	Water	3535	
LCSD 320-173923/3-A	Lab Control Sample Dup	Total/NA	Water	3535	

Analysis Batch: 174335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-29198-5 - RE	MEAFF-TA4-UNKNMW01-0617	Total/NA	Water	537 (Modified)	173923
320-29198-6 - RE	MEAFF-UNKN17MW01-0617	Total/NA	Water	537 (Modified)	173923
320-29198-8 - RE	MEAFF-TA4J-1992MW01-0617	Total/NA	Water	537 (Modified)	173923
MB 320-173923/1-A	Method Blank	Total/NA	Water	537 (Modified)	173923
LCS 320-173923/2-A	Lab Control Sample	Total/NA	Water	537 (Modified)	173923
LCSD 320-173923/3-A	Lab Control Sample Dup	Total/NA	Water	537 (Modified)	173923

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-T45C-2004MW01-0617
Lab Sample ID: 320-29198-1
Date Collected: 06/15/17 14:45
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170434	06/22/17 08:27	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171325	06/28/17 01:56	SBC	TAL SAC

Client Sample ID: MEAFF-EB05-0617
Lab Sample ID: 320-29198-2
Date Collected: 06/16/17 07:40
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 02:46	JRB	TAL SAC

Client Sample ID: MEAFF-T45C-03-2008MW01-0617
Lab Sample ID: 320-29198-3
Date Collected: 06/16/17 09:55
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 02:53	JRB	TAL SAC

Client Sample ID: MEAFF-UNKN16MW01-0617
Lab Sample ID: 320-29198-4
Date Collected: 06/16/17 11:25
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 03:00	JRB	TAL SAC

Client Sample ID: MEAFF-TA4-UNKNMW01-0617
Lab Sample ID: 320-29198-5
Date Collected: 06/16/17 12:25
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 03:07	JRB	TAL SAC
Total/NA	Prep	3535	RE		173923	07/13/17 09:26	NS1	TAL SAC
Total/NA	Analysis	537 (Modified)	RE	1	174335	07/15/17 04:35	JRB	TAL SAC

Lab Chronicle

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Client Sample ID: MEAFF-UNKN17MW01-0617
Lab Sample ID: 320-29198-6
Date Collected: 06/16/17 14:10
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 03:14	JRB	TAL SAC
Total/NA	Prep	3535	RE		173923	07/13/17 09:26	NS1	TAL SAC
Total/NA	Analysis	537 (Modified)	RE	1	174335	07/15/17 04:41	JRB	TAL SAC

Client Sample ID: MEAFF-EB06-0617
Lab Sample ID: 320-29198-7
Date Collected: 06/16/17 14:55
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 03:21	JRB	TAL SAC

Client Sample ID: MEAFF-TA4J-1992MW01-0617
Lab Sample ID: 320-29198-8
Date Collected: 06/16/17 15:30
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 03:28	JRB	TAL SAC
Total/NA	Prep	3535	RE		173923	07/13/17 09:26	NS1	TAL SAC
Total/NA	Analysis	537 (Modified)	RE	1	174335	07/15/17 04:48	JRB	TAL SAC

Client Sample ID: MEAFF-T45C-2005MW01-0617
Lab Sample ID: 320-29198-9
Date Collected: 06/16/17 17:00
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 03:42	JRB	TAL SAC

Client Sample ID: MEAFF-EB07-0617
Lab Sample ID: 320-29198-10
Date Collected: 06/16/17 16:45
Matrix: Water
Date Received: 06/17/17 09:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			170613	06/23/17 08:10	J1S	TAL SAC
Total/NA	Analysis	537 (Modified)		1	171596	06/29/17 03:48	JRB	TAL SAC

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

Accreditation/Certification Summary

Client: CH2M Hill, Inc. TestAmerica Job ID: 320-29198-1
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

Laboratory: TestAmerica Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	UST-055	12-18-17
Arizona	State Program	9	AZ0708	08-11-17
Arkansas DEQ	State Program	6	88-0691	06-17-18
California	State Program	9	2897	01-31-18
Colorado	State Program	8	CA00044	08-31-17
Connecticut	State Program	1	PH-0691	06-30-19
Florida	NELAP	4	E87570	06-30-18
Georgia	State Program	4	N/A	01-29-18
Hawaii	State Program	9	N/A	01-29-18
Illinois	NELAP	5	200060	03-17-18
Kansas	NELAP	7	E-10375	10-31-17
L-A-B	DoD ELAP		L2468	01-20-18
Louisiana	NELAP	6	30612	06-30-18
Maine	State Program	1	CA0004	04-18-18
Michigan	State Program	5	9947	01-31-18
Nevada	State Program	9	CA00044	07-31-17
New Hampshire	NELAP	1	2997	04-18-18
New Jersey	NELAP	2	CA005	06-30-18
New York	NELAP	2	11666	04-01-18
Oregon	NELAP	10	4040	01-28-18
Pennsylvania	NELAP	3	68-01272	03-31-18
Texas	NELAP	6	T104704399	05-31-18
US Fish & Wildlife	Federal		LE148388-0	10-31-17
USDA	Federal		P330-11-00436	12-30-17
USEPA UCMR	Federal	1	CA00044	11-06-18
Utah	NELAP	8	CA00044	02-28-18
Virginia	NELAP	3	460278	03-14-18
Washington	State Program	10	C581	05-05-18
West Virginia (DW)	State Program	3	9930C	12-31-17
Wyoming	State Program	8	8TMS-L	01-29-17 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Method Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Method	Method Description	Protocol	Laboratory
537 (Modified)	Perfluorinated Hydrocarbons	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

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

Sample Summary

Client: CH2M Hill, Inc.
Project/Site: Meridian 10006-7-105420 JM01 Navy Clean

TestAmerica Job ID: 320-29198-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-29198-1	MEAFF-T45C-2004MW01-0617	Water	06/15/17 14:45	06/17/17 09:15
320-29198-2	MEAFF-EB05-0617	Water	06/16/17 07:40	06/17/17 09:15
320-29198-3	MEAFF-T45C-03-2008MW01-0617	Water	06/16/17 09:55	06/17/17 09:15
320-29198-4	MEAFF-UNKN16MW01-0617	Water	06/16/17 11:25	06/17/17 09:15
320-29198-5	MEAFF-TA4-UNKNMW01-0617	Water	06/16/17 12:25	06/17/17 09:15
320-29198-6	MEAFF-UNKN17MW01-0617	Water	06/16/17 14:10	06/17/17 09:15
320-29198-7	MEAFF-EB06-0617	Water	06/16/17 14:55	06/17/17 09:15
320-29198-8	MEAFF-TA4J-1992MW01-0617	Water	06/16/17 15:30	06/17/17 09:15
320-29198-9	MEAFF-T45C-2005MW01-0617	Water	06/16/17 17:00	06/17/17 09:15
320-29198-10	MEAFF-EB07-0617	Water	06/16/17 16:45	06/17/17 09:15

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 169970

Lab Sample ID: IC 320-169970/3 Client Sample ID:

Date Analyzed: 06/19/17 23:23 Lab File ID: 2017.06.19_PFCICAL_003.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	2.18	Assign Peak	phomsopha t	06/20/17 00:45
Perfluoropentanoic acid (PFPeA)	2.57	Assign Peak	phomsopha t	06/20/17 00:46
Perfluorohexanoic acid (PFHxA)	2.96	Assign Peak	phomsopha t	06/20/17 00:47
Perfluorohexanesulfonic acid (PFHxS)	3.38	Assign Peak	phomsopha t	06/20/17 00:46

Lab Sample ID: IC 320-169970/4 Client Sample ID:

Date Analyzed: 06/19/17 23:31 Lab File ID: 2017.06.19_PFCICAL_004.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	2.18	Assign Peak	phomsopha t	06/20/17 00:52
Perfluoropentanoic acid (PFPeA)	2.56	Assign Peak	phomsopha t	06/20/17 00:52
Perfluorobutanesulfonic acid (PFBS)	2.61	Assign Peak	phomsopha t	06/20/17 00:53
Perfluorohexanesulfonic acid (PFHxS)	3.38	Assign Peak	phomsopha t	06/20/17 00:53
6:2FTS	3.76	Assign Peak	phomsopha t	06/20/17 00:53

Lab Sample ID: IC 320-169970/5 Client Sample ID:

Date Analyzed: 06/19/17 23:38 Lab File ID: 2017.06.19_PFCICAL_005.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanesulfonic acid (PFBS)	2.61	Assign Peak	phomsopha t	06/20/17 00:51

537 (Modified)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 169970

Lab Sample ID: ICV 320-169970/12 Client Sample ID:

Date Analyzed: 06/20/17 00:32 Lab File ID: 2017.06.19_PFCICAL_012.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C4 PFOS	4.15	Assign Peak	phomsopha t	06/20/17 01:09

537 (Modified)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 171325

Lab Sample ID: 320-29198-1 Client Sample ID: MEAFF-T45C-2004MW01-0617

Date Analyzed: 06/28/17 01:56 Lab File ID: 2017.06.27_PFC_A_006.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	2.68	Isomers	chandrasenas	06/28/17 09:27

537 (Modified)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 171596

Lab Sample ID: MB 320-170613/1-A Client Sample ID:

Date Analyzed: 06/29/17 02:26 Lab File ID: 2017.06.28B_028.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanesulfonic acid (PFBS)	1.75	Baseline	barnettj	06/29/17 16:46

Lab Sample ID: 320-29198-2 Client Sample ID: MEAFF-EB05-0617

Date Analyzed: 06/29/17 02:46 Lab File ID: 2017.06.28B_031.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanesulfonic acid (PFBS)	1.75	Baseline	barnettj	06/29/17 16:50

Lab Sample ID: 320-29198-3 Client Sample ID: MEAFF-T45C-03-2008MW01-0617

Date Analyzed: 06/29/17 02:53 Lab File ID: 2017.06.28B_032.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanesulfonic acid (PFBS)	1.75	Baseline	barnettj	06/29/17 16:52

Lab Sample ID: 320-29198-4 Client Sample ID: MEAFF-UNKN16MW01-0617

Date Analyzed: 06/29/17 03:00 Lab File ID: 2017.06.28B_033.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	2.64	Isomers	barnettj	06/29/17 16:53
Perfluorooctanesulfonic acid (PFOS)	3.01	Missed Peak	barnettj	06/29/17 16:54

537 (Modified)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 171596

Lab Sample ID: 320-29198-5 Client Sample ID: MEAFF-TA4-UNKNMW01-0617

Date Analyzed: 06/29/17 03:07 Lab File ID: 2017.06.28B_034.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanesulfonic acid (PFBS)	1.75	Baseline	barnettj	06/29/17 16:56
Perfluorooctanoic acid (PFOA)	2.63	Isomers	barnettj	06/29/17 16:57

Lab Sample ID: 320-29198-6 Client Sample ID: MEAFF-UNKN17MW01-0617

Date Analyzed: 06/29/17 03:14 Lab File ID: 2017.06.28B_035.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	2.64	Isomers	barnettj	06/29/17 16:58

Lab Sample ID: 320-29198-7 Client Sample ID: MEAFF-EB06-0617

Date Analyzed: 06/29/17 03:21 Lab File ID: 2017.06.28B_036.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanesulfonic acid (PFOS)	2.89	Missed Peak	barnettj	06/29/17 16:59

Lab Sample ID: 320-29198-8 Client Sample ID: MEAFF-TA4J-1992MW01-0617

Date Analyzed: 06/29/17 03:28 Lab File ID: 2017.06.28B_037.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	2.65	Isomers	barnettj	06/29/17 17:00

537 (Modified)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 171596

Lab Sample ID: 320-29198-9 Client Sample ID: MEAFF-T45C-2005MW01-0617

Date Analyzed: 06/29/17 03:42 Lab File ID: 2017.06.28B_039.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorooctanoic acid (PFOA)	2.65	Isomers	barnettj	06/29/17 17:02
Perfluorooctanesulfonic acid (PFOS)	2.89	Missed Peak	barnettj	06/29/17 17:02

Lab Sample ID: 320-29198-10 Client Sample ID: MEAFF-EB07-0617

Date Analyzed: 06/29/17 03:48 Lab File ID: 2017.06.28B_040.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanesulfonic acid (PFBS)	1.75	Baseline	barnettj	06/29/17 17:03

537 (Modified)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 173619

Lab Sample ID: IC 320-173619/3 Client Sample ID:

Date Analyzed: 07/11/17 18:42 Lab File ID: 2017.07.11CURVE_003.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	1.54	Baseline	westendorfc	07/12/17 07:50
Perfluoroheptanoic acid (PFHpA)	2.34	Split Peak	westendorfc	07/12/17 07:50

Lab Sample ID: IC 320-173619/4 Client Sample ID:

Date Analyzed: 07/11/17 18:49 Lab File ID: 2017.07.11CURVE_004.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanoic acid (PFBA)	1.54	Baseline	westendorfc	07/12/17 07:51
Perfluorooctanesulfonic acid (PFOS)	3.08	Baseline	westendorfc	07/12/17 07:51

537 (Modified)

LCMS MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Analysis Batch Number: 174335

Lab Sample ID: MB 320-173923/1-A Client Sample ID:

Date Analyzed: 07/15/17 03:05 Lab File ID: 20170714D_001.d GC Column: GeminiC18 3x1 ID: 3(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Perfluorobutanesulfonic acid (PFBS)	1.75	Baseline	barnettj	07/17/17 13:56
Perfluorooctanoic acid (PFOA)	2.66	Baseline	barnettj	07/17/17 15:36

537 (Modified)

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LCM2-4:2FTSIC_00002	08/06/17	05/26/17	MeOH/H2O, Lot 09285	5000 uL	LCPFC-IS_00002	1000 uL	13C2-PFOA	50 ng/mL
.LCPFC-IS_00002	11/24/17	05/24/17	Methanol, Lot 090285	30000 uL	LCM2PFOA_00006	150 uL	13C2-PFOA	0.25 ug/mL
..LCM2PFOA_00006	02/12/21	Wellington Laboratories, Lot M2PFOA0216			(Purchased Reagent)		13C2-PFOA	50 ug/mL
LCMPFC2SU_00017	11/11/17	05/11/17	Methanol, Lot 104453	200 mL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	0.05 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	0.05 ug/mL
					LCd3-NMeFOSAA_00002	200 uL	d3-NMeFOSAA	0.05 ug/mL
					LCd5-NEtFOSAA_00002	200 uL	d5-NEtFOSAA	0.05 ug/mL
					LCM2-6:FTS_00002	200 uL	M2-6:2FTS	0.0475 ug/mL
					LCM2-8:2FTS_00002	200 uL	M2-8:2FTS	0.0479 ug/mL
.LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
.LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
.LCd3-NMeFOSAA_00002	01/20/21	WELLINGTON, Lot d3NMeFOSAA0116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
.LCd5-NEtFOSAA_00002	12/07/20	WELLINGTON, Lot d5NEtFOSAA1115			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
.LCM2-6:FTS_00002	01/08/21	WELLINGTON, Lot M262FTS0116			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
.LCM2-8:2FTS_00002	01/08/21	WELLINGTON, Lot M282FTS0116			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
LCMPFC2SU_00018	11/24/17	05/24/17	Methanol, Lot 104453	200 mL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	0.05 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	0.05 ug/mL
					LCd3-NMeFOSAA_00002	200 uL	d3-NMeFOSAA	0.05 ug/mL
					LCd5-NEtFOSAA_00002	200 uL	d5-NEtFOSAA	0.05 ug/mL
					LCM2-6:FTS_00002	200 uL	M2-6:2FTS	0.0475 ug/mL
					LCM2-8:2FTS_00002	200 uL	M2-8:2FTS	0.0479 ug/mL
.LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
.LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
.LCd3-NMeFOSAA_00002	01/20/21	WELLINGTON, Lot d3NMeFOSAA0116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
.LCd5-NEtFOSAA_00002	12/07/20	WELLINGTON, Lot d5NEtFOSAA1115			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
.LCM2-6:FTS_00002	01/08/21	WELLINGTON, Lot M262FTS0116			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
.LCM2-8:2FTS_00002	01/08/21	WELLINGTON, Lot M282FTS0116			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
LCMPFCSU_00074	12/12/17	06/12/17	Methanol, Lot Baker 141039	200 mL	LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	0.05 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	0.05 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	0.05 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	0.05 ug/mL
					LCM8FOSA_00013	200 uL	13C8 FOSA	0.05 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	0.05 ug/mL
					LCMPFBS_00003	200 uL	13C3-PFBS	0.0465 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	0.05 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	0.05 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	0.05 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.0473 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	0.05 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	0.05 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.0478 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	0.05 ug/mL
.LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
.LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
.LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
.LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
.LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
.LCMPFBS_00003	08/02/21	Wellington Laboratories, Lot M3PFBS0815			(Purchased Reagent)		13C3-PFBS	46.5 ug/mL
.LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
.LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
.LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
.LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
.LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
.LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
.LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
LCMPFCSU_00075	12/12/17	06/12/17	Methanol, Lot Baker 141039	200 mL	LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	0.05 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	0.05 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	0.05 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	0.05 ug/mL
					LCM8FOSA_00013	200 uL	13C8 FOSA	0.05 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	0.05 ug/mL
					LCMPFBS_00002	200 uL	13C3-PFBS	0.0465 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	0.05 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	0.05 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	0.05 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.0473 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	0.05 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	0.05 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.0478 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	0.05 ug/mL
.LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
.LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
.LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
.LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
.LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
.LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
.LCMPFBS_00002	08/02/21	Wellington Laboratories, Lot M3PFBS0815			(Purchased Reagent)		13C3-PFBS	46.5 ug/mL
.LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
.LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
.LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
.LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
.LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
.LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
.LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
LCMPFCSU_00078	12/26/17	06/26/17	Methanol, Lot Baker 141039	200 mL	LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	0.05 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	0.05 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	0.05 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	0.05 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCM8FOSA_00013	200 uL	13C8 FOSA	0.05 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	0.05 ug/mL
					LCMPFBS_00002	200 uL	13C3-PFBS	0.0465 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	0.05 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	0.05 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	0.05 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.0473 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	0.05 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	0.05 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.0478 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	0.05 ug/mL
.LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
.LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
.LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
.LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
.LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
.LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
.LCMPFBS_00002	08/02/21	Wellington Laboratories, Lot M3PFBS0815			(Purchased Reagent)		13C3-PFBS	46.5 ug/mL
.LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
.LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
.LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
.LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
.LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
.LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
.LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
LCPFC_FULL-L1_00004	09/02/17	06/01/17	MeOH/H2O, Lot 90285	5000 uL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFC2SP_00031	25 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.467 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.474 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.479 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	0.5 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.5 ng/mL
							MeFOSA	0.5 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.5 ng/mL
					LCPFCIS_00002	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00098	25 uL	Perfluorobutyric acid	0.5 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	0.442 ng/mL
							Perfluorodecanoic acid	0.5 ng/mL
							Perfluorododecanoic acid	0.5 ng/mL
							Perfluorodecane Sulfonic acid	0.482 ng/mL
							Perfluoroheptanoic acid	0.5 ng/mL
							Perfluoroheptanesulfonic Acid	0.476 ng/mL
							Perfluorohexanoic acid	0.5 ng/mL
							Perfluorohexadecanoic acid	0.5 ng/mL
							Perfluorohexanesulfonic acid	0.455 ng/mL
							Perfluorononanoic acid	0.5 ng/mL
							Perfluorooctanoic acid (PFOA)	0.5 ng/mL
							Perfluorooctadecanoic acid	0.5 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	0.464 ng/mL
							Perfluorooctane Sulfonamide	0.5 ng/mL
							Perfluoropentanoic acid	0.5 ng/mL
							Perfluorotetradecanoic acid	0.5 ng/mL
							Perfluorotridecanoic acid	0.5 ng/mL
							Perfluoroundecanoic acid	0.5 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00031	10/14/17	04/14/17	Methanol, Lot 104453	5000 uL	LCPFC2SP_00030	500 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.0934 ug/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.0948 ug/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.0958 ug/mL
							N-ethylperfluoro-1-octanesulfonamide	0.1 ug/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
							MeFOSA	0.1 ug/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
..LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
...LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
...LC6:2FTS_00002	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
...LC8:2FTS_00002	10/23/20	WELLINGTON, Lot 82FTS1015			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
...LCN-EtFOSA-M_00003	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
...LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
...LCN-MeFOSA-M_00002	05/24/21	WELLINGTON, Lot NMeFOSA0714M			(Purchased Reagent)		MeFOSA	50 ug/mL
...LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00002	10/17/17	04/17/17	Methanol, Lot 14139	2000 uL	LCM2PFOA_00005	200 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00098	09/02/17	06/01/17	Methanol, Lot 157237	10000 uL	LCPFCSP_00096	1000 uL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							Perfluorodecane Sulfonic acid	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptanesulfonic Acid	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexanesulfonic acid	0.091 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctadecanoic acid	0.1 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	0.0928 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFCSP_00096	09/02/17	05/24/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00009	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
...LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
...LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
...LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
...LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
...LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
...LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L1_00005	12/27/17	07/07/17	MeOH/H2O, Lot 90285	5000 uL	LCMPFC_ALL_SU_00001	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
							13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC_ALL_SP_00001	25 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.467 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.474 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.479 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	0.5 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.5 ng/mL
							MeFOSA	0.5 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.5 ng/mL
							Perfluorobutyric acid	0.5 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	0.442 ng/mL
							Perfluorodecanoic acid	0.5 ng/mL
							Perfluorododecanoic acid	0.5 ng/mL
							Perfluorodecane Sulfonic acid	0.482 ng/mL
							Perfluoroheptanoic acid	0.5 ng/mL
							Perfluoroheptanesulfonic Acid	0.476 ng/mL
							Perfluorohexanoic acid	0.5 ng/mL
							Perfluorohexadecanoic acid	0.5 ng/mL
							Perfluorohexanesulfonic acid	0.455 ng/mL
							Perfluorononanoic acid	0.5 ng/mL
							Perfluorooctanoic acid (PFOA)	0.5 ng/mL
							Perfluorooctadecanoic acid	0.5 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	0.464 ng/mL
							Perfluorooctane Sulfonamide	0.5 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluoropentanoic acid	0.5 ng/mL
							Perfluorotetradecanoic acid	0.5 ng/mL
							Perfluorotridecanoic acid	0.5 ng/mL
							Perfluoroundecanoic acid	0.5 ng/mL
					LCPFCIS_00003	50 uL	13C2-PFOA	50 ng/mL
.LCMPFC_ALL_SU_00001	12/29/17	06/29/17	Methanol, Lot Baker 141039	10000 uL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	200 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	200 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	200 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	200 uL	M2-8:2FTS	0.958 ug/mL
					LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00013	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	1 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
..LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.LCPFC_ALL_SP_00001	12/27/17	07/07/17	Methanol, Lot 157237	10000 uL	LCPFC2SP_00037	1000 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.0934 ug/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.0948 ug/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.0958 ug/mL
							N-ethylperfluoro-1-octanesulfonamide	0.1 ug/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
							MeFOSA	0.1 ug/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
					LCPFCSP_00103	1000 uL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							Perfluorodecane Sulfonic acid	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptanesulfonic Acid	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexanesulfonic acid	0.091 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctadecanoic acid	0.1 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	0.0928 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFC2SP_00037	01/07/18	07/07/17	Methanol, Lot 104453	10 mL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00004	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCN-MeFOSA-M_00003	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
...LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
...LC6:2FTS_00003	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
...LC8:2FTS_00003	08/22/21	WELLINGTON, Lot 82FTS0816			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
...LCN-EtFOSA-M_00004	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
...LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
...LCN-MeFOSA-M_00003	05/24/21	WELLINGTON, Lot NMeFOSA0516M			(Purchased Reagent)		MeFOSA	50 ug/mL
...LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCPFCSP_00103	12/27/17	06/27/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00010	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
...LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
...LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
...LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
...LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
...LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
...LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
.LCPFCIS_00003	12/30/17	06/30/17	Methanol, Lot 14139	5000 uL	LCM2PFOA_00005	500 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
LCPFC_FULL-L2_00003	08/13/17	04/16/17	MeOH/H2O, Lot 090285	5050 uL	LCMPFC2SU_00014	250 uL	d-N-EtFOSA-M	49.505 ng/mL
							d-N-MeFOSA-M	49.505 ng/mL
							d3-NMeFOSAA	49.505 ng/mL
							d5-NEtFOSAA	49.505 ng/mL
							M2-6:2FTS	47.0297 ng/mL
							M2-8:2FTS	47.4257 ng/mL
					LCMPFCSU_00057	250 uL	13C2-PFHxDA	49.505 ng/mL
							13C2-PFTeDA	49.505 ng/mL
							13C4-PFHpA	49.505 ng/mL
							13C5-PFPeA	49.505 ng/mL
							13C8 FOSA	49.505 ng/mL
							13C4 PFBA	49.505 ng/mL
							13C2 PFDA	49.505 ng/mL
							13C2 PFDoA	49.505 ng/mL
							13C2 PFHxA	49.505 ng/mL
							18O2 PFHxS	46.8317 ng/mL
							13C5 PFNA	49.505 ng/mL
							13C4 PFOA	49.505 ng/mL
							13C4 PFOS	47.3267 ng/mL
							13C2 PFUnA	49.505 ng/mL
					LCPFCSP_00084	50 uL	Perfluorobutanesulfonic acid (PFBS)	0.875248 ng/mL
							Perfluorooctanoic acid (PFOA)	0.990099 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	0.918812 ng/mL
.LCMPFC2SU_00014	08/13/17	02/13/17	Methanol, Lot 104453	50000 uL	LCd-NEtFOSA-M_00004	1000 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00003	1000 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00003	1000 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00003	1000 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00003	1000 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00003	1000 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00004	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00003	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCd3-NMeFOSAA_00003	05/31/21	WELLINGTON, Lot d3NMeFOSAA0516			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00003	08/02/21	WELLINGTON, Lot d5NEtFOSAA0716			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00003	01/08/21	WELLINGTON, Lot M262FTS0116			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00003	01/08/21	WELLINGTON, Lot M282FTS0116			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00057	10/04/17	04/04/17	Methanol, Lot Baker 141039	50000 uL	LCM2PFHxDA_00008	1000 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00007	1000 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00007	1000 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00008	1000 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00011	1000 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00008	1000 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00011	1000 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00008	1000 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00012	1000 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00008	1000 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00008	1000 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00012	1000 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00018	1000 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00009	1000 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00008	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00007	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00007	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00008	05/22/20	Wellington Laboratories, Lot M5PFPeA0515			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00011	12/22/17	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00008	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00011	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00008	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00012	04/08/21	Wellington Laboratories, Lot MPFHxA0416			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00008	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00008	04/13/19	Wellington Laboratories, Lot MPFNA0414			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00012	01/22/21	Wellington Laboratories, Lot MPFOA0116			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00018	08/03/21	Wellington Laboratories, Lot MPFOS0816			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00009	02/12/21	Wellington Laboratories, Lot MPFUdA0216			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00084	09/02/17	03/23/17	Methanol, Lot 141039	10000 uL	LCPFCSP_00083	2000 uL	Perfluorobutanesulfonic acid (PFBS)	0.0884 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	0.0928 ug/mL
..LCPFCSP_00083	09/02/17	03/23/17	Methanol, Lot 141039	10000 uL	LCPFBS_00005	100 uL	Perfluorobutanesulfonic acid (PFBS)	0.442 ug/mL
					LCPFOA_00006	100 uL	Perfluorooctanoic acid (PFOA)	0.5 ug/mL
					LCPFOS-br_00002	100 uL	Perfluorooctanesulfonic acid (PFOS)	0.464 ug/mL
...LCPFBS_00005	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
...LCPFOA_00006	11/06/20	Wellington Laboratories, Lot PFOA1115			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFOS-br_00002	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LCPFC_FULL-L2_00005	09/02/17	06/01/17	MeOH/H2O, Lot 090285	5 mL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00031	50 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	1 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	1 ng/mL
							MeFOSA	1 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	1 ng/mL
					LCPFCIS_00002	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00098	50 uL	Perfluorobutyric acid	1 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	0.884 ng/mL
							Perfluorodecanoic acid	1 ng/mL
							Perfluorododecanoic acid	1 ng/mL
							Perfluorodecane Sulfonic acid	0.964 ng/mL
							Perfluoroheptanoic acid	1 ng/mL
							Perfluoroheptanesulfonic Acid	0.952 ng/mL
							Perfluorohexanoic acid	1 ng/mL
							Perfluorohexadecanoic acid	1 ng/mL
							Perfluorohexanesulfonic acid	0.91 ng/mL
							Perfluorononanoic acid	1 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctanoic acid (PFOA)	1 ng/mL
							Perfluorooctadecanoic acid	1 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	0.928 ng/mL
							Perfluorooctane Sulfonamide	1 ng/mL
							Perfluoropentanoic acid	1 ng/mL
							Perfluorotetradecanoic acid	1 ng/mL
							Perfluorotridecanoic acid	1 ng/mL
							Perfluoroundecanoic acid	1 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

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SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00031	10/14/17	04/14/17	Methanol, Lot 104453	5000 uL	LCPFC2SP_00030	500 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.0934 ug/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.0948 ug/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.0958 ug/mL
							N-ethylperfluoro-1-octanesulfonamide	0.1 ug/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
							MeFOSA	0.1 ug/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
..LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
...LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
...LC6:2FTS_00002	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
...LC8:2FTS_00002	10/23/20	WELLINGTON, Lot 82FTS1015			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
...LCN-EtFOSA-M_00003	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
...LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
...LCN-MeFOSA-M_00002	05/24/21	WELLINGTON, Lot NMeFOSA0714M			(Purchased Reagent)		MeFOSA	50 ug/mL
...LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.LCPFCIS_00002	10/17/17	04/17/17	Methanol, Lot 14139	2000 uL	LCM2PFOA_00005	200 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00098	09/02/17	06/01/17	Methanol, Lot 157237	10000 uL	LCPFCSP_00096	1000 uL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							Perfluorodecane Sulfonic acid	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptanesulfonic Acid	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexanesulfonic acid	0.091 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctadecanoic acid	0.1 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	0.0928 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFCSP_00096	09/02/17	05/24/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00009	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
...LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
...LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
...LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
...LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
...LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
...LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L2_00006	12/27/17	07/07/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC_ALL_SU_00001	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
							13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC_ALL_SP_00001	50 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	1 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-ethyl perfluorooctane sulfonamidoacetic acid	1 ng/mL
							MeFOSA	1 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	1 ng/mL
							Perfluorobutyric acid	1 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	0.884 ng/mL
							Perfluorodecanoic acid	1 ng/mL
							Perfluorododecanoic acid	1 ng/mL
							Perfluorodecane Sulfonic acid	0.964 ng/mL
							Perfluoroheptanoic acid	1 ng/mL
							Perfluoroheptanesulfonic Acid	0.952 ng/mL
							Perfluorohexanoic acid	1 ng/mL
							Perfluorohexadecanoic acid	1 ng/mL
							Perfluorohexanesulfonic acid	0.91 ng/mL
							Perfluorononanoic acid	1 ng/mL
							Perfluorooctanoic acid (PFOA)	1 ng/mL
							Perfluorooctadecanoic acid	1 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	0.928 ng/mL
							Perfluorooctane Sulfonamide	1 ng/mL
							Perfluoropentanoic acid	1 ng/mL
							Perfluorotetradecanoic acid	1 ng/mL
							Perfluorotridecanoic acid	1 ng/mL
							Perfluoroundecanoic acid	1 ng/mL
					LCPFCIS_00003	50 uL	13C2-PFOA	50 ng/mL
.LCMPFC_ALL_SU_00001	12/29/17	06/29/17	Methanol, Lot Baker 141039	10000 uL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	200 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	200 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	200 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	200 uL	M2-8:2FTS	0.958 ug/mL
					LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00013	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
..LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC_ALL_SP_00001	12/27/17	07/07/17	Methanol, Lot 157237	10000 uL	LCPFC2SP_00037	1000 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.0934 ug/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.0948 ug/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.0958 ug/mL
							N-ethylperfluoro-1-octanesulfonamide	0.1 ug/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
							MeFOSA	0.1 ug/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
					LCPFCSP_00103	1000 uL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							Perfluorodecane Sulfonic acid	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptanesulfonic Acid	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexanesulfonic acid	0.091 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctadecanoic acid	0.1 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	0.0928 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFC2SP_00037	01/07/18	07/07/17	Methanol, Lot 104453	10 mL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00004	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00003	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
...LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
...LC6:2FTS_00003	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
...LC8:2FTS_00003	08/22/21	WELLINGTON, Lot 82FTS0816			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
...LCN-EtFOSA-M_00004	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
...LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
...LCN-MeFOSA-M_00003	05/24/21	WELLINGTON, Lot NMeFOSA0516M			(Purchased Reagent)		MeFOSA	50 ug/mL
...LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCPFCSP_00103	12/27/17	06/27/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00010	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
...LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
...LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
...LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
...LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
...LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
...LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
.LCPFCIS_00003	12/30/17	06/30/17	Methanol, Lot 14139	5000 uL	LCM2PFOA_00005	500 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
LCPFC_FULL-L3_00004	09/02/17	06/01/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00031	250 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	4.67 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	4.74 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	4.79 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	5 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	5 ng/mL
							MeFOSA	5 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	5 ng/mL
					LCPFCIS_00002	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00098	250 uL	Perfluorobutyric acid	5 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	4.42 ng/mL
							Perfluorodecanoic acid	5 ng/mL
							Perfluorododecanoic acid	5 ng/mL
							Perfluorodecane Sulfonic acid	4.82 ng/mL
							Perfluoroheptanoic acid	5 ng/mL
							Perfluoroheptanesulfonic Acid	4.76 ng/mL
							Perfluorohexanoic acid	5 ng/mL
							Perfluorohexadecanoic acid	5 ng/mL
							Perfluorohexanesulfonic acid	4.55 ng/mL
							Perfluorononanoic acid	5 ng/mL
							Perfluorooctanoic acid (PFOA)	5 ng/mL
							Perfluorooctadecanoic acid	5 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	4.64 ng/mL
							Perfluorooctane Sulfonamide	5 ng/mL
							Perfluoropentanoic acid	5 ng/mL
							Perfluorotetradecanoic acid	5 ng/mL
							Perfluorotridecanoic acid	5 ng/mL
							Perfluoroundecanoic acid	5 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00031	10/14/17	04/14/17	Methanol, Lot 104453	5000 uL	LCPFC2SP_00030	500 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.0934 ug/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.0948 ug/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.0958 ug/mL
							N-ethylperfluoro-1-octanesulfonamide	0.1 ug/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							MeFOSA	0.1 ug/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
..LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
...LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
...LC6:2FTS_00002	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
...LC8:2FTS_00002	10/23/20	WELLINGTON, Lot 82FTS1015			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
...LCN-EtFOSA-M_00003	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
...LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
...LCN-MeFOSA-M_00002	05/24/21	WELLINGTON, Lot NMeFOSA0714M			(Purchased Reagent)		MeFOSA	50 ug/mL
...LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00002	10/17/17	04/17/17	Methanol, Lot 14139	2000 uL	LCM2PFOA_00005	200 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00098	09/02/17	06/01/17	Methanol, Lot 157237	10000 uL	LCPFCSP_00096	1000 uL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							Perfluorodecane Sulfonic acid	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptanesulfonic Acid	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexanesulfonic acid	0.091 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctadecanoic acid	0.1 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	0.0928 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFCSP_00096	09/02/17	05/24/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00009	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
...LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
...LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
...LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
...LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
...LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
...LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L3_00005	12/27/17	07/07/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC_ALL_SU_00001	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
							13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC_ALL_SP_00001	250 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	4.67 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	4.74 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	4.79 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	5 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	5 ng/mL
							MeFOSA	5 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	5 ng/mL
							Perfluorobutyric acid	5 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	4.42 ng/mL
							Perfluorodecanoic acid	5 ng/mL
							Perfluorododecanoic acid	5 ng/mL
							Perfluorodecane Sulfonic acid	4.82 ng/mL
							Perfluoroheptanoic acid	5 ng/mL
							Perfluoroheptanesulfonic Acid	4.76 ng/mL
							Perfluorohexanoic acid	5 ng/mL
							Perfluorohexadecanoic acid	5 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorohexanesulfonic acid	4.55 ng/mL
							Perfluorononanoic acid	5 ng/mL
							Perfluorooctanoic acid (PFOA)	5 ng/mL
							Perfluorooctadecanoic acid	5 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	4.64 ng/mL
							Perfluorooctane Sulfonamide	5 ng/mL
							Perfluoropentanoic acid	5 ng/mL
							Perfluorotetradecanoic acid	5 ng/mL
							Perfluorotridecanoic acid	5 ng/mL
							Perfluoroundecanoic acid	5 ng/mL
					LCPFCIS_00003	50 uL	13C2-PFOA	50 ng/mL
.LCMPFC_ALL_SU_00001	12/29/17	06/29/17	Methanol, Lot Baker 141039	10000 uL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	200 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	200 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	200 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	200 uL	M2-8:2FTS	0.958 ug/mL
					LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00013	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	1 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
..LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC_ALL_SP_00001	12/27/17	07/07/17	Methanol, Lot 157237	10000 uL	LCPFC2SP_00037	1000 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.0934 ug/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.0948 ug/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.0958 ug/mL
							N-ethylperfluoro-1-octanesulfonamide	0.1 ug/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
							MeFOSA	0.1 ug/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.1 ug/mL
					LCPFCSP_00103	1000 uL	Perfluorobutyric acid	0.1 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.0884 ug/mL
							Perfluorodecanoic acid	0.1 ug/mL
							Perfluorododecanoic acid	0.1 ug/mL
							Perfluorodecane Sulfonic acid	0.0964 ug/mL
							Perfluoroheptanoic acid	0.1 ug/mL
							Perfluoroheptanesulfonic Acid	0.0952 ug/mL
							Perfluorohexanoic acid	0.1 ug/mL
							Perfluorohexadecanoic acid	0.1 ug/mL
							Perfluorohexanesulfonic acid	0.091 ug/mL
							Perfluorononanoic acid	0.1 ug/mL
							Perfluorooctanoic acid (PFOA)	0.1 ug/mL
							Perfluorooctadecanoic acid	0.1 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	0.0928 ug/mL
							Perfluorooctane Sulfonamide	0.1 ug/mL
							Perfluoropentanoic acid	0.1 ug/mL
							Perfluorotetradecanoic acid	0.1 ug/mL
							Perfluorotridecanoic acid	0.1 ug/mL
							Perfluoroundecanoic acid	0.1 ug/mL
..LCPFC2SP_00037	01/07/18	07/07/17	Methanol, Lot 104453	10 mL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LC8:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00004	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00003	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
...LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
...LC6:2FTS_00003	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
...LC8:2FTS_00003	08/22/21	WELLINGTON, Lot 82FTS0816			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
...LCN-EtFOSA-M_00004	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
...LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
...LCN-MeFOSA-M_00003	05/24/21	WELLINGTON, Lot NMeFOSA0516M			(Purchased Reagent)		MeFOSA	50 ug/mL
...LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCPFCSP_00103	12/27/17	06/27/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00010	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
...LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
...LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
...LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
...LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
...LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
...LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
...LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
...LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
...LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
...LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
...LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
...LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
...LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
...LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
...LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
...LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
...LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
...LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
.LCPFCIS_00003	12/30/17	06/30/17	Methanol, Lot 14139	5000 uL	LCM2PFOA_00005	500 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
LCPFC_FULL-L4_00003	08/13/17	04/16/17	MeOH/H2O, Lot 090285	5050 uL	LCMPFC2SU_00014	250 uL	d-N-EtFOSA-M	49.505 ng/mL
							d-N-MeFOSA-M	49.505 ng/mL
							d3-NMeFOSAA	49.505 ng/mL
							d5-NEtFOSAA	49.505 ng/mL
							M2-6:2FTS	47.0297 ng/mL
							M2-8:2FTS	47.4257 ng/mL
					LCMPFCSU_00057	250 uL	13C2-PFHxDA	49.505 ng/mL
							13C2-PFTeDA	49.505 ng/mL
							13C4-PFHpA	49.505 ng/mL
							13C5-PFPeA	49.505 ng/mL
							13C8 FOSA	49.505 ng/mL
							13C4 PFBA	49.505 ng/mL
							13C2 PFDA	49.505 ng/mL
							13C2 PFDoA	49.505 ng/mL
							13C2 PFHxA	49.505 ng/mL
							18O2 PFHxS	46.8317 ng/mL
							13C5 PFNA	49.505 ng/mL
							13C4 PFOA	49.505 ng/mL
							13C4 PFOS	47.3267 ng/mL
							13C2 PFUnA	49.505 ng/mL
					LCPFCSP_00086	200 uL	Perfluorobutanesulfonic acid (PFBS)	17.505 ng/mL
							Perfluorooctanoic acid (PFOA)	19.802 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	18.3762 ng/mL
.LCMPFC2SU_00014	08/13/17	02/13/17	Methanol, Lot 104453	50000 uL	LCd-NEtFOSA-M_00004	1000 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00003	1000 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00003	1000 uL	d3-NMeFOSAA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCd5-NEtFOSAA_00003	1000 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00003	1000 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00003	1000 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00004	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00003	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00003	05/31/21	WELLINGTON, Lot d3NMeFOSAA0516			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00003	08/02/21	WELLINGTON, Lot d5NEtFOSAA0716			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00003	01/08/21	WELLINGTON, Lot M262FTS0116			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00003	01/08/21	WELLINGTON, Lot M282FTS0116			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00057	10/04/17	04/04/17	Methanol, Lot Baker 141039	50000 uL	LCM2PFHxDA_00008	1000 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00007	1000 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00007	1000 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00008	1000 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00011	1000 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00008	1000 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00011	1000 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00008	1000 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00012	1000 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00008	1000 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00008	1000 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00012	1000 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00018	1000 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00009	1000 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00008	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00007	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00007	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00008	05/22/20	Wellington Laboratories, Lot M5PFPeA0515			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00011	12/22/17	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00008	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00011	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00008	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00012	04/08/21	Wellington Laboratories, Lot MPFHxA0416			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00008	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00008	04/13/19	Wellington Laboratories, Lot MPFNA0414			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00012	01/22/21	Wellington Laboratories, Lot MPFOA0116			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00018	08/03/21	Wellington Laboratories, Lot MPFOS0816			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00009	02/12/21	Wellington Laboratories, Lot MPFUdA0216			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00086	09/02/17	04/05/17	Methanol, Lot 141039	10000 uL	LCPFBS_00005	100 uL	Perfluorobutanesulfonic acid (PFBS)	0.442 ug/mL
					LCPFOA_00007	100 uL	Perfluorooctanoic acid (PFOA)	0.5 ug/mL
					LCPFOS-br_00002	100 uL	Perfluorooctanesulfonic acid (PFOS)	0.464 ug/mL
..LCPFBS_00005	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFOS-br_00002	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LCPFC_FULL-L4_00005	09/02/17	05/30/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00030	100 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	18.68 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	18.96 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	19.16 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	20 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	20 ng/mL
							MeFOSA	20 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	20 ng/mL
					LCPFCIS_00002	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00096	100 uL	Perfluorobutyric acid	20 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	17.68 ng/mL
							Perfluorodecanoic acid	20 ng/mL
							Perfluorododecanoic acid	20 ng/mL
							Perfluorodecane Sulfonic acid	19.28 ng/mL
							Perfluoroheptanoic acid	20 ng/mL
							Perfluoroheptanesulfonic Acid	19.04 ng/mL
							Perfluorohexanoic acid	20 ng/mL
							Perfluorohexadecanoic acid	20 ng/mL
							Perfluorohexanesulfonic acid	18.2 ng/mL
							Perfluorononanoic acid	20 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctanoic acid (PFOA)	20 ng/mL
							Perfluorooctadecanoic acid	20 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	18.56 ng/mL
							Perfluorooctane Sulfonamide	20 ng/mL
							Perfluoropentanoic acid	20 ng/mL
							Perfluorotetradecanoic acid	20 ng/mL
							Perfluorotridecanoic acid	20 ng/mL
							Perfluoroundecanoic acid	20 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
..LC6:2FTS_00002	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00002	10/23/20	WELLINGTON, Lot 82FTS1015			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00003	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00002	05/24/21	WELLINGTON, Lot NMeFOSA0714M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00002	10/17/17	04/17/17	Methanol, Lot 14139	2000 uL	LCM2PFOA_00005	200 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00096	09/02/17	05/24/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00009	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L4_00008	12/27/17	07/07/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC_ALL_SU_00001	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
							13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFC2SP_00037	100 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	18.68 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	18.96 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	19.16 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	20 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	20 ng/mL
							MeFOSA	20 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	20 ng/mL
					LCPFCIS_00003	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00103	100 uL	Perfluorobutyric acid	20 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	17.68 ng/mL
							Perfluorodecanoic acid	20 ng/mL
							Perfluorododecanoic acid	20 ng/mL
							Perfluorodecane Sulfonic acid	19.28 ng/mL
							Perfluoroheptanoic acid	20 ng/mL
							Perfluoroheptanesulfonic Acid	19.04 ng/mL
							Perfluorohexanoic acid	20 ng/mL
							Perfluorohexadecanoic acid	20 ng/mL
							Perfluorohexanesulfonic acid	18.2 ng/mL
							Perfluorononanoic acid	20 ng/mL
							Perfluorooctanoic acid (PFOA)	20 ng/mL
							Perfluorooctadecanoic acid	20 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	18.56 ng/mL
							Perfluorooctane Sulfonamide	20 ng/mL
							Perfluoropentanoic acid	20 ng/mL
							Perfluorotetradecanoic acid	20 ng/mL
							Perfluorotridecanoic acid	20 ng/mL
							Perfluoroundecanoic acid	20 ng/mL
.LCMPFC_ALL_SU_00001	12/29/17	06/29/17	Methanol, Lot Baker 141039	10000 uL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	200 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	200 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	200 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	200 uL	M2-8:2FTS	0.958 ug/mL
					LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCM8FOSA_00013	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	1 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
..LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00037	01/07/18	07/07/17	Methanol, Lot 104453	10 mL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00004	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00003	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LC6:2FTS_00003	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00003	08/22/21	WELLINGTON, Lot 82FTS0816			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00004	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00003	05/24/21	WELLINGTON, Lot NMeFOSA0516M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00003	12/30/17	06/30/17	Methanol, Lot 14139	5000 uL	LCM2PFOA_00005	500 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00103	12/27/17	06/27/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00010	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L5_00004	08/13/17	05/06/17	MeOH/H2O, Lot 090285	5050 uL	LCMPFC2SU_00014	250 uL	d-N-EtFOSA-M	49.505 ng/mL
							d-N-MeFOSA-M	49.505 ng/mL
							d3-NMeFOSAA	49.505 ng/mL
							d5-NEtFOSAA	49.505 ng/mL
							M2-6:2FTS	47.0297 ng/mL
							M2-8:2FTS	47.4257 ng/mL
					LCMPFCSU_00057	250 uL	13C2-PFHxDA	49.505 ng/mL
							13C2-PFTeDA	49.505 ng/mL
							13C4-PFHpA	49.505 ng/mL
							13C5-PFPeA	49.505 ng/mL
							13C8 FOSA	49.505 ng/mL
							13C4 PFBA	49.505 ng/mL
							13C2 PFDA	49.505 ng/mL
							13C2 PFDoA	49.505 ng/mL
							13C2 PFHxA	49.505 ng/mL
							18O2 PFHxS	46.8317 ng/mL
							13C5 PFNA	49.505 ng/mL
							13C4 PFOA	49.505 ng/mL
							13C4 PFOS	47.3267 ng/mL
							13C2 PFUnA	49.505 ng/mL
					LCPFCSP_00086	500 uL	Perfluorobutanesulfonic acid (PFBS)	43.7624 ng/mL
							Perfluorooctanoic acid (PFOA)	49.505 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	45.9406 ng/mL
.LCMPFC2SU_00014	08/13/17	02/13/17	Methanol, Lot 104453	50000 uL	LCd-NEtFOSA-M_00004	1000 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00003	1000 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00003	1000 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00003	1000 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00003	1000 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00003	1000 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00004	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00003	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00003	05/31/21	WELLINGTON, Lot d3NMeFOSAA0516			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00003	08/02/21	WELLINGTON, Lot d5NEtFOSAA0716			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00003	01/08/21	WELLINGTON, Lot M262FTS0116			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00003	01/08/21	WELLINGTON, Lot M282FTS0116			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00057	10/04/17	04/04/17	Methanol, Lot Baker 141039	50000 uL	LCM2PFHxDA_00008	1000 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00007	1000 uL	13C2-PFTeDA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCM4PFHPA_00007	1000 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00008	1000 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00011	1000 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00008	1000 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00011	1000 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00008	1000 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00012	1000 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00008	1000 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00008	1000 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00012	1000 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00018	1000 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00009	1000 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00008	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00007	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00007	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00008	05/22/20	Wellington Laboratories, Lot M5PFPeA0515			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00011	12/22/17	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00008	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00011	08/19/20	Wellington Laboratories, Lot MPFDA0815			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00008	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00012	04/08/21	Wellington Laboratories, Lot MPFHxA0416			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00008	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00008	04/13/19	Wellington Laboratories, Lot MPFNA0414			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00012	01/22/21	Wellington Laboratories, Lot MPFOA0116			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00018	08/03/21	Wellington Laboratories, Lot MPFOS0816			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00009	02/12/21	Wellington Laboratories, Lot MPFUdA0216			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFCSP_00086	09/02/17	04/05/17	Methanol, Lot 141039	10000 uL	LCPFBS_00005	100 uL	Perfluorobutanesulfonic acid (PFBS)	0.442 ug/mL
					LCPFOA_00007	100 uL	Perfluorooctanoic acid (PFOA)	0.5 ug/mL
					LCPFOS-br_00002	100 uL	Perfluorooctanesulfonic acid (PFOS)	0.464 ug/mL
..LCPFBS_00005	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFOS-br_00002	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
LCPFC_FULL-L5_00005	09/02/17	05/30/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00030	250 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	50 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	50 ng/mL
							MeFOSA	50 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	50 ng/mL
					LCPFCIS_00002	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00096	250 uL	Perfluorobutyric acid	50 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	44.2 ng/mL
							Perfluorodecanoic acid	50 ng/mL
							Perfluorododecanoic acid	50 ng/mL
							Perfluorodecane Sulfonic acid	48.2 ng/mL
							Perfluoroheptanoic acid	50 ng/mL
							Perfluoroheptanesulfonic Acid	47.6 ng/mL
							Perfluorohexanoic acid	50 ng/mL
							Perfluorohexadecanoic acid	50 ng/mL
							Perfluorohexanesulfonic acid	45.5 ng/mL
							Perfluorononanoic acid	50 ng/mL
							Perfluorooctanoic acid (PFOA)	50 ng/mL
							Perfluorooctadecanoic acid	50 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	46.4 ng/mL
							Perfluorooctane Sulfonamide	50 ng/mL
							Perfluoropentanoic acid	50 ng/mL
							Perfluorotetradecanoic acid	50 ng/mL
							Perfluorotridecanoic acid	50 ng/mL
							Perfluoroundecanoic acid	50 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
..LC6:2FTS_00002	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00002	10/23/20	WELLINGTON, Lot 82FTS1015			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00003	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00002	05/24/21	WELLINGTON, Lot NMeFOSA0714M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00002	10/17/17	04/17/17	Methanol, Lot 14139	2000 uL	LCM2PFOA_00005	200 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00096	09/02/17	05/24/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00009	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L5_00008	12/27/17	07/07/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC_ALL_SU_00001	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
							13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00037	250 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							N-ethyl perfluorooctane sulfonamidoacetic acid	50 ng/mL
							MeFOSA	50 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	50 ng/mL
					LCPFCIS_00003	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00103	250 uL	Perfluorobutyric acid	50 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	44.2 ng/mL
							Perfluorodecanoic acid	50 ng/mL
							Perfluorododecanoic acid	50 ng/mL
							Perfluorodecane Sulfonic acid	48.2 ng/mL
							Perfluoroheptanoic acid	50 ng/mL
							Perfluoroheptanesulfonic Acid	47.6 ng/mL
							Perfluorohexanoic acid	50 ng/mL
							Perfluorohexadecanoic acid	50 ng/mL
							Perfluorohexanesulfonic acid	45.5 ng/mL
							Perfluorononanoic acid	50 ng/mL
							Perfluorooctanoic acid (PFOA)	50 ng/mL
							Perfluorooctadecanoic acid	50 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	46.4 ng/mL
							Perfluorooctane Sulfonamide	50 ng/mL
							Perfluoropentanoic acid	50 ng/mL
							Perfluorotetradecanoic acid	50 ng/mL
							Perfluorotridecanoic acid	50 ng/mL
							Perfluoroundecanoic acid	50 ng/mL
.LCMPFC_ALL_SU_00001	12/29/17	06/29/17	Methanol, Lot Baker 141039	10000 uL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	200 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	200 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	200 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	200 uL	M2-8:2FTS	0.958 ug/mL
					LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00013	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
..LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00037	01/07/18	07/07/17	Methanol, Lot 104453	10 mL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00004	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00003	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
..LC6:2FTS_00003	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00003	08/22/21	WELLINGTON, Lot 82FTS0816			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00004	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCN-MeFOSA-M_00003	05/24/21	WELLINGTON, Lot NMeFOSA0516M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00003	12/30/17	06/30/17	Methanol, Lot 14139	5000 uL	LCM2PFOA_00005	500 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00103	12/27/17	06/27/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00010	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L6_00005	09/02/17	05/30/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00030	500 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	93.4 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	94.8 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	95.8 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	100 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	100 ng/mL
							MeFOSA	100 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	100 ng/mL
					LCPFCIS_00002	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00096	500 uL	Perfluorobutyric acid	100 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	88.4 ng/mL
							Perfluorodecanoic acid	100 ng/mL
							Perfluorododecanoic acid	100 ng/mL
							Perfluorodecane Sulfonic acid	96.4 ng/mL
							Perfluoroheptanoic acid	100 ng/mL
							Perfluoroheptanesulfonic Acid	95.2 ng/mL
							Perfluorohexanoic acid	100 ng/mL
							Perfluorohexadecanoic acid	100 ng/mL
							Perfluorohexanesulfonic acid	91 ng/mL
							Perfluorononanoic acid	100 ng/mL
							Perfluorooctanoic acid (PFOA)	100 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctadecanoic acid	100 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	92.8 ng/mL
							Perfluorooctane Sulfonamide	100 ng/mL
							Perfluoropentanoic acid	100 ng/mL
							Perfluorotetradecanoic acid	100 ng/mL
							Perfluorotridecanoic acid	100 ng/mL
							Perfluoroundecanoic acid	100 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
..LC6:2FTS_00002	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00002	10/23/20	WELLINGTON, Lot 82FTS1015			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00003	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00002	05/24/21	WELLINGTON, Lot NMeFOSA0714M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00002	10/17/17	04/17/17	Methanol, Lot 14139	2000 uL	LCM2PFOA_00005	200 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00096	09/02/17	05/24/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00009	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L6_00006	12/27/17	07/07/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC_ALL_SU_00001	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
							13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFC2SP_00037	500 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	93.4 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	94.8 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	95.8 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	100 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	100 ng/mL
							MeFOSA	100 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	100 ng/mL
					LCPFCIS_00003	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00103	500 uL	Perfluorobutyric acid	100 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	88.4 ng/mL
							Perfluorodecanoic acid	100 ng/mL
							Perfluorododecanoic acid	100 ng/mL
							Perfluorodecane Sulfonic acid	96.4 ng/mL
							Perfluoroheptanoic acid	100 ng/mL
							Perfluoroheptanesulfonic Acid	95.2 ng/mL
							Perfluorohexanoic acid	100 ng/mL
							Perfluorohexadecanoic acid	100 ng/mL
							Perfluorohexanesulfonic acid	91 ng/mL
							Perfluorononanoic acid	100 ng/mL
							Perfluorooctanoic acid (PFOA)	100 ng/mL
							Perfluorooctadecanoic acid	100 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	92.8 ng/mL
							Perfluorooctane Sulfonamide	100 ng/mL
							Perfluoropentanoic acid	100 ng/mL
							Perfluorotetradecanoic acid	100 ng/mL
							Perfluorotridecanoic acid	100 ng/mL
							Perfluoroundecanoic acid	100 ng/mL
.LCMPFC_ALL_SU_00001	12/29/17	06/29/17	Methanol, Lot Baker 141039	10000 uL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	200 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	200 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	200 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	200 uL	M2-8:2FTS	0.958 ug/mL
					LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCM8FOSA_00013	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	1 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
..LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00037	01/07/18	07/07/17	Methanol, Lot 104453	10 mL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00004	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00003	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LC6:2FTS_00003	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00003	08/22/21	WELLINGTON, Lot 82FTS0816			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00004	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00003	05/24/21	WELLINGTON, Lot NMeFOSA0516M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00003	12/30/17	06/30/17	Methanol, Lot 14139	5000 uL	LCM2PFOA_00005	500 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00103	12/27/17	06/27/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00010	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L7_00003	09/02/17	05/30/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00030	1000 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	186.8 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	189.6 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	191.6 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	200 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	200 ng/mL
							MeFOSA	200 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	200 ng/mL
					LCPFCIS_00002	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00096	1000 uL	Perfluorobutyric acid	200 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	176.8 ng/mL
							Perfluorodecanoic acid	200 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorododecanoic acid	200 ng/mL
							Perfluorodecane Sulfonic acid	192.8 ng/mL
							Perfluoroheptanoic acid	200 ng/mL
							Perfluoroheptanesulfonic Acid	190.4 ng/mL
							Perfluorohexanoic acid	200 ng/mL
							Perfluorohexadecanoic acid	200 ng/mL
							Perfluorohexanesulfonic acid	182 ng/mL
							Perfluorononanoic acid	200 ng/mL
							Perfluorooctanoic acid (PFOA)	200 ng/mL
							Perfluorooctadecanoic acid	200 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	185.6 ng/mL
							Perfluorooctane Sulfonamide	200 ng/mL
							Perfluoropentanoic acid	200 ng/mL
							Perfluorotetradecanoic acid	200 ng/mL
							Perfluorotridecanoic acid	200 ng/mL
							Perfluoroundecanoic acid	200 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
..LC6:2FTS_00002	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00002	10/23/20	WELLINGTON, Lot 82FTS1015			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00003	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00002	05/24/21	WELLINGTON, Lot NMeFOSA0714M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00002	10/17/17	04/17/17	Methanol, Lot 14139	2000 uL	LCM2PFOA_00005	200 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00096	09/02/17	05/24/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00009	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC_FULL-L7_00004	12/27/17	07/07/17	MeOH/H2O, Lot 090285	5000 uL	LCMPFC_ALL_SU_00001	250 uL	d-N-EtFOSA-M	50 ng/mL
							d-N-MeFOSA-M	50 ng/mL
							d3-NMeFOSAA	50 ng/mL
							d5-NEtFOSAA	50 ng/mL
							M2-6:2FTS	47.5 ng/mL
							M2-8:2FTS	47.9 ng/mL
							13C2-PFHxDA	50 ng/mL
							13C2-PFTeDA	50 ng/mL
							13C4-PFHpA	50 ng/mL
							13C5-PFPeA	50 ng/mL
							13C8 FOSA	50 ng/mL
							13C4 PFBA	50 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							13C2 PFDA	50 ng/mL
							13C2 PFDoA	50 ng/mL
							13C2 PFHxA	50 ng/mL
							18O2 PFHxS	47.3 ng/mL
							13C5 PFNA	50 ng/mL
							13C4 PFOA	50 ng/mL
							13C4 PFOS	47.8 ng/mL
							13C2 PFUnA	50 ng/mL
					LCPFC2SP_00037	1000 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	186.8 ng/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	189.6 ng/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	191.6 ng/mL
							N-ethylperfluoro-1-octanesulfonamide	200 ng/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	200 ng/mL
							MeFOSA	200 ng/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	200 ng/mL
					LCPFCIS_00003	50 uL	13C2-PFOA	50 ng/mL
					LCPFCSP_00103	1000 uL	Perfluorobutyric acid	200 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	176.8 ng/mL
							Perfluorodecanoic acid	200 ng/mL
							Perfluorododecanoic acid	200 ng/mL
							Perfluorodecane Sulfonic acid	192.8 ng/mL
							Perfluoroheptanoic acid	200 ng/mL
							Perfluoroheptanesulfonic Acid	190.4 ng/mL
							Perfluorohexanoic acid	200 ng/mL
							Perfluorohexadecanoic acid	200 ng/mL
							Perfluorohexanesulfonic acid	182 ng/mL
							Perfluorononanoic acid	200 ng/mL
							Perfluorooctanoic acid (PFOA)	200 ng/mL
							Perfluorooctadecanoic acid	200 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	185.6 ng/mL
							Perfluorooctane Sulfonamide	200 ng/mL
							Perfluoropentanoic acid	200 ng/mL
							Perfluorotetradecanoic acid	200 ng/mL
							Perfluorotridecanoic acid	200 ng/mL
							Perfluoroundecanoic acid	200 ng/mL
.LCMPFC_ALL_SU_00001	12/29/17	06/29/17	Methanol, Lot Baker 141039	10000 uL	LCd-NEtFOSA-M_00005	200 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	200 uL	d-N-MeFOSA-M	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCd3-NMeFOSAA_00004	200 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	200 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	200 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	200 uL	M2-8:2FTS	0.958 ug/mL
					LCM2PFHxDA_00010	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00009	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00009	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00010	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00013	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00010	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00015	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00010	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00016	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00010	200 uL	18O2 PFHxS	0.946 ug/mL
					LCMPFNA_00010	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00014	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00022	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00011	200 uL	13C2 PFUnA	1 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
..LCM2PFHxDA_00010	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00009	12/07/20	Wellington Laboratories, Lot M2PFTeDA0217			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00009	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00010	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00013	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00010	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00015	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00010	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00016	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00010	02/17/22	Wellington Laboratories, Lot MPFHxS0217			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00010	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00014	04/12/22	Wellington Laboratories, Lot MPFOA0417			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00022	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00011	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFC2SP_00037	01/07/18	07/07/17	Methanol, Lot 104453	10 mL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00003	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCN-EtFOSA-M_00004	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00003	200 uL	MeFOSA	1 ug/mL
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21	WELLINGTON, Lot 42FTS1216			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
..LC6:2FTS_00003	06/25/21	WELLINGTON, Lot 62FTS0616			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00003	08/22/21	WELLINGTON, Lot 82FTS0816			(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00004	05/24/21	WELLINGTON, Lot NEtFOSA0516M			(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21	WELLINGTON, Lot NEtFOSAA0116			(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00003	05/24/21	WELLINGTON, Lot NMeFOSA0516M			(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21	WELLINGTON, Lot NMeFOSAA0116			(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCPFCIS_00003	12/30/17	06/30/17	Methanol, Lot 14139	5000 uL	LCM2PFOA_00005	500 uL	13C2-PFOA	5 ug/mL
..LCM2PFOA_00005	06/19/18	Wellington Laboratories, Lot M2PFOA0613			(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCPFCSP_00103	12/27/17	06/27/17	Methanol, Lot 090285	10000 uL	LCPFBA_00006	200 uL	Perfluorobutyric acid	1 ug/mL
					LCPFBS_00006	200 uL	Perfluorobutanesulfonic acid (PFBS)	0.884 ug/mL
					LCPFDA_00006	200 uL	Perfluorodecanoic acid	1 ug/mL
					LCPFDoA_00006	200 uL	Perfluorododecanoic acid	1 ug/mL
					LCPFDS_00005	200 uL	Perfluorodecane Sulfonic acid	0.964 ug/mL
					LCPFHpA_00006	200 uL	Perfluoroheptanoic acid	1 ug/mL
					LCPFHpS_00010	200 uL	Perfluoroheptanesulfonic Acid	0.952 ug/mL
					LCPFHxA_00005	200 uL	Perfluorohexanoic acid	1 ug/mL
					LCPFHxDA_00007	200 uL	Perfluorohexadecanoic acid	1 ug/mL
					LCPFHxS-br_00003	200 uL	Perfluorohexanesulfonic acid	0.91 ug/mL
					LCPFNA_00007	200 uL	Perfluorononanoic acid	1 ug/mL
					LCPFOA_00007	200 uL	Perfluorooctanoic acid (PFOA)	1 ug/mL
					LCPFODA_00007	200 uL	Perfluorooctadecanoic acid	1 ug/mL
					LCPFOS-br_00003	200 uL	Perfluorooctanesulfonic acid (PFOS)	0.928 ug/mL
					LCPFOSA_00010	200 uL	Perfluorooctane Sulfonamide	1 ug/mL
					LCPFPeA_00006	200 uL	Perfluoropentanoic acid	1 ug/mL
					LCPFTeDA_00005	200 uL	Perfluorotetradecanoic acid	1 ug/mL
					LCPFTrDA_00005	200 uL	Perfluorotridecanoic acid	1 ug/mL
					LCPFUdA_00006	200 uL	Perfluoroundecanoic acid	1 ug/mL
..LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
..LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
..LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
..LCPFDS_00005	07/02/20	Wellington Laboratories, Lot LPFDS0615			(Purchased Reagent)		Perfluorodecane Sulfonic acid	48.2 ug/mL
..LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
..LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptanesulfonic Acid	47.6 ug/mL
..LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
..LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
..LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexanesulfonic acid	45.5 ug/mL
..LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
..LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
..LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
..LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
..LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
..LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
..LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
..LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
..LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFC2SP_00032	10/14/17	04/21/17	Methanol, Lot 104453	200 mL	LCPFC2SP_00030	4 mL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.01868 ug/mL
							Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.01896 ug/mL
							Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.01916 ug/mL
							N-ethylperfluoro-1-octanesulfonamide	0.02 ug/mL
							N-ethyl perfluorooctane sulfonamidoacetic acid	0.02 ug/mL
							MeFOSA	0.02 ug/mL
							N-methyl perfluorooctane sulfonamidoacetic acid	0.02 ug/mL
.LCPFC2SP_00030	10/14/17	04/14/17	Methanol, Lot 104453	10000 uL	LC4:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.934 ug/mL
					LC6:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.948 ug/mL
					LC8:2FTS_00002	200 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.958 ug/mL
					LCN-EtFOSA-M_00003	200 uL	N-ethylperfluoro-1-octanesulfonamide	1 ug/mL
					LCN-EtFOSAA_00002	200 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
					LCN-MeFOSA-M_00002	200 uL	MeFOSA	1 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCN-MeFOSAA_00003	200 uL	N-methyl perfluorooctane sulfonamidoacetic acid	1 ug/mL
..LC4:2FTS_00002	12/12/21		WELLINGTON, Lot 42FTS1216		(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
..LC6:2FTS_00002	06/25/21		WELLINGTON, Lot 62FTS0616		(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
..LC8:2FTS_00002	10/23/20		WELLINGTON, Lot 82FTS1015		(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
..LCN-EtFOSA-M_00003	05/24/21		WELLINGTON, Lot NEtFOSA0516M		(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
..LCN-EtFOSAA_00002	01/20/21		WELLINGTON, Lot NEtFOSAA0116		(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
..LCN-MeFOSA-M_00002	05/24/21		WELLINGTON, Lot NMeFOSA0714M		(Purchased Reagent)		MeFOSA	50 ug/mL
..LCN-MeFOSAA_00003	01/20/21		WELLINGTON, Lot NMeFOSAA0116		(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
LCPFC2SP_00033	12/02/17	06/02/17	Methanol, Lot 104453	250 mL	LC4:2FTS_00002	100 uL	Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	0.01868 ug/mL
					LC6:2FTS_00002	100 uL	Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	0.01896 ug/mL
					LC8:2FTS_00002	100 uL	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	0.01916 ug/mL
					LCN-EtFOSA-M_00003	100 uL	N-ethylperfluoro-1-octanesulfonamide	0.02 ug/mL
					LCN-EtFOSAA_00002	100 uL	N-ethyl perfluorooctane sulfonamidoacetic acid	0.02 ug/mL
					LCN-MeFOSA-M_00002	100 uL	MeFOSA	0.02 ug/mL
					LCN-MeFOSAA_00003	100 uL	N-methyl perfluorooctane sulfonamidoacetic acid	0.02 ug/mL
.LC4:2FTS_00002	12/12/21		WELLINGTON, Lot 42FTS1216		(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorohexane sulfonate (4:2)	46.7 ug/mL
.LC6:2FTS_00002	06/25/21		WELLINGTON, Lot 62FTS0616		(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorooctane sulfonate (6:2)	47.4 ug/mL
.LC8:2FTS_00002	10/23/20		WELLINGTON, Lot 82FTS1015		(Purchased Reagent)		Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2)	47.9 ug/mL
.LCN-EtFOSA-M_00003	05/24/21		WELLINGTON, Lot NEtFOSA0516M		(Purchased Reagent)		N-ethylperfluoro-1-octanesulfonamide	50 ug/mL
.LCN-EtFOSAA_00002	01/20/21		WELLINGTON, Lot NEtFOSAA0116		(Purchased Reagent)		N-ethyl perfluorooctane sulfonamidoacetic acid	50 ug/mL
.LCN-MeFOSA-M_00002	05/24/21		WELLINGTON, Lot NMeFOSA0714M		(Purchased Reagent)		MeFOSA	50 ug/mL
.LCN-MeFOSAA_00003	01/20/21		WELLINGTON, Lot NMeFOSAA0116		(Purchased Reagent)		N-methyl perfluorooctane sulfonamidoacetic acid	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LCPFCIC_FULL_00003	09/02/17	05/30/17	MeOH/H2O, Lot 09285	5050 uL	LCMPFC2SU_00019	250 uL	d-N-EtFOSA-M	49.505 ng/mL
							d-N-MeFOSA-M	49.505 ng/mL
							d3-NMeFOSAA	49.505 ng/mL
							d5-NEtFOSAA	49.505 ng/mL
							M2-6:2FTS	47.0297 ng/mL
							M2-8:2FTS	47.4257 ng/mL
					LCMPFCSU_00069	250 uL	13C2-PFHxDA	49.505 ng/mL
							13C2-PFTeDA	49.505 ng/mL
							13C4-PFHpA	49.505 ng/mL
							13C5-PFPeA	49.505 ng/mL
							13C8 FOSA	49.505 ng/mL
							13C4 PFBA	49.505 ng/mL
							13C2 PFDA	49.505 ng/mL
							13C2 PFDoA	49.505 ng/mL
							13C2 PFHxA	49.505 ng/mL
							18O2 PFHxS	46.8317 ng/mL
							13C5 PFNA	49.505 ng/mL
							13C4 PFOA	49.505 ng/mL
							13C4 PFOS	47.3267 ng/mL
							13C2 PFUnA	49.505 ng/mL
					LCPFACMXB_00007	125 uL	Perfluorobutanesulfonic acid (PFBS)	43.8119 ng/mL
							Perfluorooctanesulfonic acid (PFOS)	47.2772 ng/mL
							Perfluorooctanoic acid (PFOA)	49.505 ng/mL
.LCMPFC2SU_00019	11/30/17	05/30/17	Methanol, Lot 104453	5000 uL	LCd-NEtFOSA-M_00005	100 uL	d-N-EtFOSA-M	1 ug/mL
					LCd-NMeFOSA-M_00004	100 uL	d-N-MeFOSA-M	1 ug/mL
					LCd3-NMeFOSAA_00004	100 uL	d3-NMeFOSAA	1 ug/mL
					LCd5-NEtFOSAA_00004	100 uL	d5-NEtFOSAA	1 ug/mL
					LCM2-6:FTS_00004	100 uL	M2-6:2FTS	0.95 ug/mL
					LCM2-8:2FTS_00004	100 uL	M2-8:2FTS	0.958 ug/mL
..LCd-NEtFOSA-M_00005	06/10/21	WELLINGTON, Lot dNEtFOSA0616M			(Purchased Reagent)		d-N-EtFOSA-M	50 ug/mL
..LCd-NMeFOSA-M_00004	06/10/21	WELLINGTON, Lot dNMeFOSA0616M			(Purchased Reagent)		d-N-MeFOSA-M	50 ug/mL
..LCd3-NMeFOSAA_00004	11/22/21	WELLINGTON, Lot d3NMeFOSAA1116			(Purchased Reagent)		d3-NMeFOSAA	50 ug/mL
..LCd5-NEtFOSAA_00004	11/22/21	WELLINGTON, Lot d5NEtFOSAA1116			(Purchased Reagent)		d5-NEtFOSAA	50 ug/mL
..LCM2-6:FTS_00004	02/17/22	WELLINGTON, Lot M262FTS0217			(Purchased Reagent)		M2-6:2FTS	47.5 ug/mL
..LCM2-8:2FTS_00004	08/22/21	WELLINGTON, Lot M282FTS0816			(Purchased Reagent)		M2-8:2FTS	47.9 ug/mL
.LCMPFCSU_00069	11/24/17	05/24/17	Methanol, Lot Baker 141039	10000 uL	LCM2PFHxDA_00009	200 uL	13C2-PFHxDA	1 ug/mL
					LCM2PFTeDA_00008	200 uL	13C2-PFTeDA	1 ug/mL
					LCM4PFHPA_00008	200 uL	13C4-PFHpA	1 ug/mL
					LCM5PFPEA_00009	200 uL	13C5-PFPeA	1 ug/mL
					LCM8FOSA_00012	200 uL	13C8 FOSA	1 ug/mL
					LCMPFBA_00009	200 uL	13C4 PFBA	1 ug/mL
					LCMPFDA_00013	200 uL	13C2 PFDA	1 ug/mL
					LCMPFDoA_00009	200 uL	13C2 PFDoA	1 ug/mL
					LCMPFHxA_00014	200 uL	13C2 PFHxA	1 ug/mL
					LCMPFHxS_00009	200 uL	18O2 PFHxS	0.946 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCMPFNA_00009	200 uL	13C5 PFNA	1 ug/mL
					LCMPFOA_00013	200 uL	13C4 PFOA	1 ug/mL
					LCMPFOS_00020	200 uL	13C4 PFOS	0.956 ug/mL
					LCMPFUdA_00010	200 uL	13C2 PFUnA	1 ug/mL
..LCM2PFHxDA_00009	01/07/21	Wellington Laboratories, Lot M2PFHxDA1112			(Purchased Reagent)		13C2-PFHxDA	50 ug/mL
..LCM2PFTeDA_00008	12/07/20	Wellington Laboratories, Lot M2PFTeDA1115			(Purchased Reagent)		13C2-PFTeDA	50 ug/mL
..LCM4PFHPA_00008	05/27/21	Wellington Laboratories, Lot M4PFHpA0516			(Purchased Reagent)		13C4-PFHpA	50 ug/mL
..LCM5PFPEA_00009	11/22/21	Wellington Laboratories, Lot M5PFPeA1116			(Purchased Reagent)		13C5-PFPeA	50 ug/mL
..LCM8FOSA_00012	12/22/20	Wellington Laboratories, Lot M8FOSA1215I			(Purchased Reagent)		13C8 FOSA	50 ug/mL
..LCMPFBA_00009	05/24/21	Wellington Laboratories, Lot MPFBA0516			(Purchased Reagent)		13C4 PFBA	50 ug/mL
..LCMPFDA_00013	09/30/21	Wellington Laboratories, Lot MPFDA0916			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFDoA_00009	04/08/21	Wellington Laboratories, Lot MPFDoA0416			(Purchased Reagent)		13C2 PFDoA	50 ug/mL
..LCMPFHxA_00014	11/22/21	Wellington Laboratories, Lot MPFHxA1116			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
..LCMPFHxS_00009	10/23/20	Wellington Laboratories, Lot MPFHxS1015			(Purchased Reagent)		18O2 PFHxS	47.3 ug/mL
..LCMPFNA_00009	09/30/21	Wellington Laboratories, Lot MPFNA0916			(Purchased Reagent)		13C5 PFNA	50 ug/mL
..LCMPFOA_00013	10/18/21	Wellington Laboratories, Lot MPFOA1016			(Purchased Reagent)		13C4 PFOA	50 ug/mL
..LCMPFOS_00020	12/12/21	Wellington Laboratories, Lot MPFOS1216			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
..LCMPFUdA_00010	11/22/21	Wellington Laboratories, Lot MPFUdA1116			(Purchased Reagent)		13C2 PFUnA	50 ug/mL
.LCPFACMXB_00007	11/06/20	Wellington Laboratories, Lot PFACMXB1115			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1.77 ug/mL
							Perfluorooctanesulfonic acid (PFOS)	1.91 ug/mL
							Perfluorooctanoic acid (PFOA)	2 ug/mL
LCPFCSP_00095	09/02/17	05/19/17	Methanol, Lot 090285	250 mL	LCPFBA_00005	100 uL	Perfluorobutyric acid	0.02 ug/mL
					LCPFBS_00005	100 uL	Perfluorobutane Sulfonate	0.01768 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.01768 ug/mL
					LCPFDA_00006	100 uL	Perfluorodecanoic acid	0.02 ug/mL
					LCPFDoA_00006	100 uL	Perfluorododecanoic acid	0.02 ug/mL
					LCPFDS_00006	100 uL	Perfluorodecane Sulfonate	0.01928 ug/mL
							Perfluorodecane Sulfonic acid	0.01928 ug/mL
					LCPFHpA_00006	100 uL	Perfluoroheptanoic acid	0.02 ug/mL
					LCPFHpS_00009	100 uL	Perfluoroheptane Sulfonate	0.01904 ug/mL
							Perfluoroheptanesulfonic Acid	0.01904 ug/mL
					LCPFHxA_00005	100 uL	Perfluorohexanoic acid	0.02 ug/mL
					LCPFHxDA_00006	100 uL	Perfluorohexadecanoic acid	0.02 ug/mL
					LCPFHxS-br_00002	100 uL	Perfluorohexane Sulfonate	0.0182 ug/mL
							Perfluorohexanesulfonic acid	0.0182 ug/mL
					LCPFNA_00006	100 uL	Perfluorononanoic acid	0.02 ug/mL
					LCPFOA_00007	100 uL	Perfluorooctanoic acid (PFOA)	0.02 ug/mL
					LCPFODA_00006	100 uL	Perfluorooctadecanoic acid	0.02 ug/mL
					LCPFOS-br_00002	100 uL	Perfluorooctanesulfonic acid (PFOS)	0.01856 ug/mL
					LCPFOSA_00009	100 uL	Perfluorooctane Sulfonamide	0.02 ug/mL
					LCPFPeA_00006	100 uL	Perfluoropentanoic acid	0.02 ug/mL
					LCPFTeDA_00005	100 uL	Perfluorotetradecanoic acid	0.02 ug/mL
					LCPFTrDA_00005	100 uL	Perfluorotridecanoic acid	0.02 ug/mL
					LCPFUdA_00005	100 uL	Perfluoroundecanoic acid	0.02 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.LCPFBA_00005	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
.LCPFBS_00005	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
.LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
.LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
.LCPFDS_00006	05/24/21	Wellington Laboratories, Lot LPFDS0516			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
							Perfluorodecane Sulfonic acid	48.2 ug/mL
.LCPFHpA_00006	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
.LCPFHpS_00009	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
							Perfluoroheptanesulfonic Acid	47.6 ug/mL
.LCPFHxA_00005	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
.LCPFHxDA_00006	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
.LCPFHxS-br_00002	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexane Sulfonate	45.5 ug/mL
							Perfluorohexanesulfonic acid	45.5 ug/mL
.LCPFNA_00006	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
.LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
.LCPFODA_00006	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
.LCPFOS-br_00002	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
.LCPFOSA_00009	09/02/17	Wellington Laboratories, Lot FOSA0815I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
.LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
.LCPFTeDA_00005	12/09/20	Wellington Laboratories, Lot PFTeDA1215			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
.LCPFTrDA_00005	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
.LCPFUdA_00005	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL
LCPFCSP_00100	12/20/17	06/20/17	Methanol, Lot 090285	250 mL	LCPFBA_00006	100 uL	Perfluorobutyric acid	0.02 ug/mL
					LCPFBS_00006	100 uL	Perfluorobutane Sulfonate	0.01768 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	0.01768 ug/mL
					LCPFDA_00006	100 uL	Perfluorodecanoic acid	0.02 ug/mL
					LCPFDoA_00006	100 uL	Perfluorododecanoic acid	0.02 ug/mL
					LCPFDS_00007	100 uL	Perfluorodecane Sulfonate	0.01928 ug/mL
							Perfluorodecane Sulfonic acid	0.01928 ug/mL
					LCPFHpA_00007	100 uL	Perfluoroheptanoic acid	0.02 ug/mL
					LCPFHpS_00010	100 uL	Perfluoroheptane Sulfonate	0.01904 ug/mL
							Perfluoroheptanesulfonic Acid	0.01904 ug/mL
					LCPFHxA_00006	100 uL	Perfluorohexanoic acid	0.02 ug/mL
					LCPFHxDA_00007	100 uL	Perfluorohexadecanoic acid	0.02 ug/mL
					LCPFHxS-br_00003	100 uL	Perfluorohexane Sulfonate	0.0182 ug/mL
							Perfluorohexanesulfonic acid	0.0182 ug/mL
					LCPFNA_00007	100 uL	Perfluorononanoic acid	0.02 ug/mL
					LCPFOA_00007	100 uL	Perfluorooctanoic acid (PFOA)	0.02 ug/mL
					LCPFODA_00007	100 uL	Perfluorooctadecanoic acid	0.02 ug/mL
					LCPFOS-br_00003	100 uL	Perfluorooctanesulfonic acid (PFOS)	0.01856 ug/mL
					LCPFOSA_00010	100 uL	Perfluorooctane Sulfonamide	0.02 ug/mL
					LCPFPeA_00006	100 uL	Perfluoropentanoic acid	0.02 ug/mL
					LCPFTeDA_00007	100 uL	Perfluorotetradecanoic acid	0.02 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LCPFTrDA_00007	100 uL	Perfluorotridecanoic acid	0.02 ug/mL
					LCPFUdA_00006	100 uL	Perfluoroundecanoic acid	0.02 ug/mL
.LCPFBA_00006	05/27/21	Wellington Laboratories, Lot PFBA0516			(Purchased Reagent)		Perfluorobutyric acid	50 ug/mL
.LCPFBS_00006	03/15/21	Wellington Laboratories, Lot LPFBS0316			(Purchased Reagent)		Perfluorobutane Sulfonate	44.2 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	44.2 ug/mL
.LCPFDA_00006	05/31/21	Wellington Laboratories, Lot PFDA0516			(Purchased Reagent)		Perfluorodecanoic acid	50 ug/mL
.LCPFDoA_00006	05/31/21	Wellington Laboratories, Lot PFDoA0516			(Purchased Reagent)		Perfluorododecanoic acid	50 ug/mL
.LCPFDS_00007	05/24/21	Wellington Laboratories, Lot LPFDS0516			(Purchased Reagent)		Perfluorodecane Sulfonate	48.2 ug/mL
							Perfluorodecane Sulfonic acid	48.2 ug/mL
.LCPFHpA_00007	01/22/21	Wellington Laboratories, Lot PFHpA0116			(Purchased Reagent)		Perfluoroheptanoic acid	50 ug/mL
.LCPFHpS_00010	11/06/20	Wellington Laboratories, Lot LPFHpS1115			(Purchased Reagent)		Perfluoroheptane Sulfonate	47.6 ug/mL
							Perfluoroheptanesulfonic Acid	47.6 ug/mL
.LCPFHxA_00006	12/22/20	Wellington Laboratories, Lot PFHxA1215			(Purchased Reagent)		Perfluorohexanoic acid	50 ug/mL
.LCPFHxDA_00007	05/25/21	Wellington Laboratories, Lot PFHxDA0516			(Purchased Reagent)		Perfluorohexadecanoic acid	50 ug/mL
.LCPFHxS-br_00003	07/03/20	Wellington Laboratories, Lot brPFHxSK0615			(Purchased Reagent)		Perfluorohexane Sulfonate	45.5 ug/mL
							Perfluorohexanesulfonic acid	45.5 ug/mL
.LCPFNA_00007	10/23/20	Wellington Laboratories, Lot PFNA1015			(Purchased Reagent)		Perfluorononanoic acid	50 ug/mL
.LCPFOA_00007	08/02/21	Wellington Laboratories, Lot PFOA0716			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	50 ug/mL
.LCPFODA_00007	04/29/21	Wellington Laboratories, Lot PFODA0416			(Purchased Reagent)		Perfluorooctadecanoic acid	50 ug/mL
.LCPFOS-br_00003	10/14/20	Wellington Laboratories, Lot brPFOSK1015			(Purchased Reagent)		Perfluorooctanesulfonic acid (PFOS)	46.4 ug/mL
.LCPFOSA_00010	09/30/21	Wellington Laboratories, Lot FOSA0916I			(Purchased Reagent)		Perfluorooctane Sulfonamide	50 ug/mL
.LCPFPeA_00006	05/31/21	Wellington Laboratories, Lot PFPeA0516			(Purchased Reagent)		Perfluoropentanoic acid	50 ug/mL
.LCPFTeDA_00007	09/30/21	Wellington Laboratories, Lot PFTeDA0916			(Purchased Reagent)		Perfluorotetradecanoic acid	50 ug/mL
.LCPFTrDA_00007	02/12/21	Wellington Laboratories, Lot PFTrDA0216			(Purchased Reagent)		Perfluorotridecanoic acid	50 ug/mL
.LCPFUdA_00006	08/19/20	Wellington Laboratories, Lot PFUdA0815			(Purchased Reagent)		Perfluoroundecanoic acid	50 ug/mL

Reagent

LC4:2FTS_00002

R: SBC 3/31/17

896827
ID: LC4:2FTS_00002
Exp: 12/12/21 Prpd:
4:2FTS

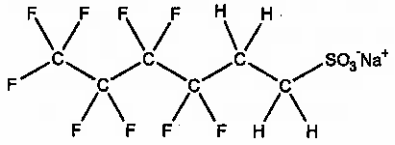
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 4:2FTS **LOT NUMBER:** 42FTS1216

COMPOUND: Sodium 1H,1H,2H,2H-perfluorohexane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_6H_4F_9SO_3Na$		**MOLECULAR WEIGHT:**	350.13
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	46.7 ± 2.3 µg/ml	(4:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	12/12/2016			
EXPIRY DATE: (mm/dd/yyyy)	12/12/2021			
RECOMMENDED STORAGE:	Refrigerate ampoule			

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:** 12/21/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

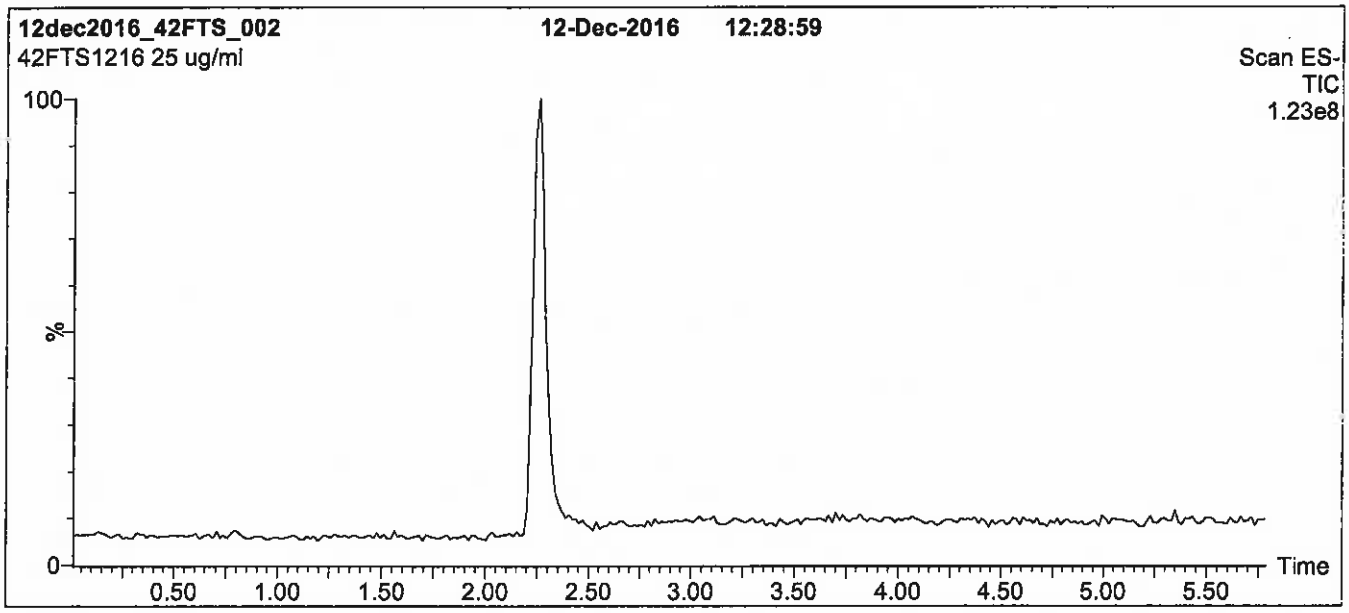
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

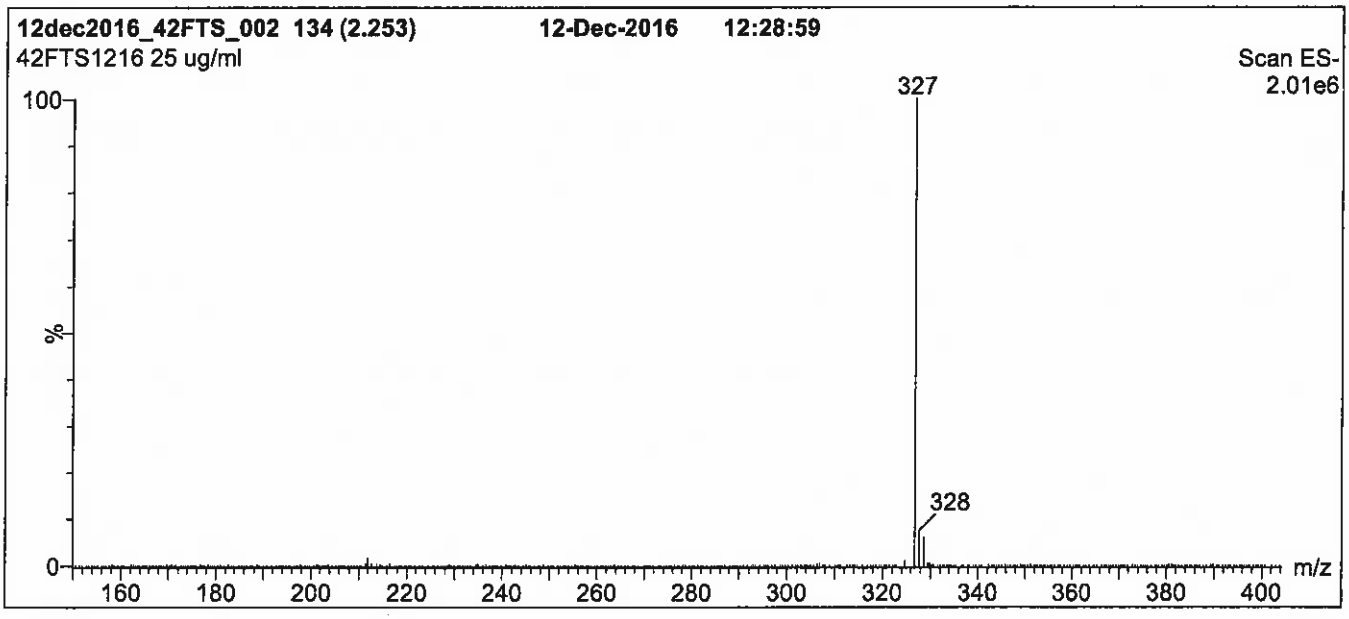
QUALITY MANAGEMENT:

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

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: **4:2FTS; 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 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

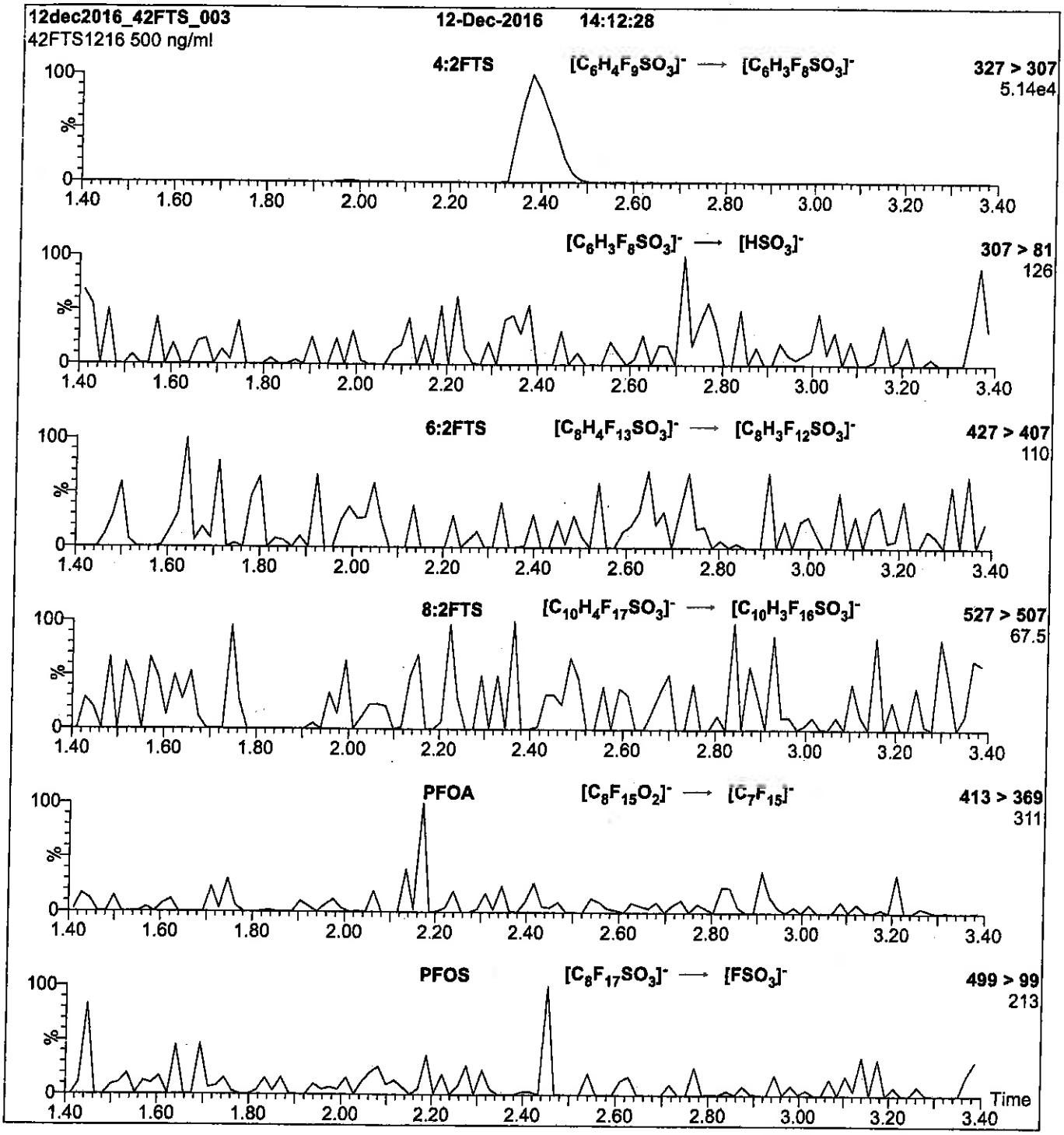
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **4:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 4:2FTS)

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) = 25

Reagent

LC6:2FTS_00002

R: 8/23/16 SBC

715544
ID: LC6:2FTS_00002
Exp: 06/25/21 Prpd: SBC
6:2FTS

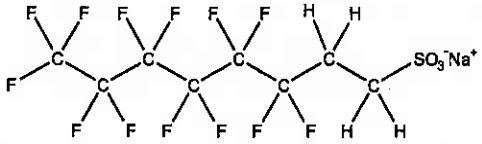
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0616

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_8H_4F_{13}SO_3Na$		**MOLECULAR WEIGHT:**	450.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.4 ± 2.4 µg/ml	(6:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	06/25/2016			
EXPIRY DATE: (mm/dd/yyyy)	06/25/2021			
RECOMMENDED STORAGE:	Refrigerate ampoule			

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:** 06/29/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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

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

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

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

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

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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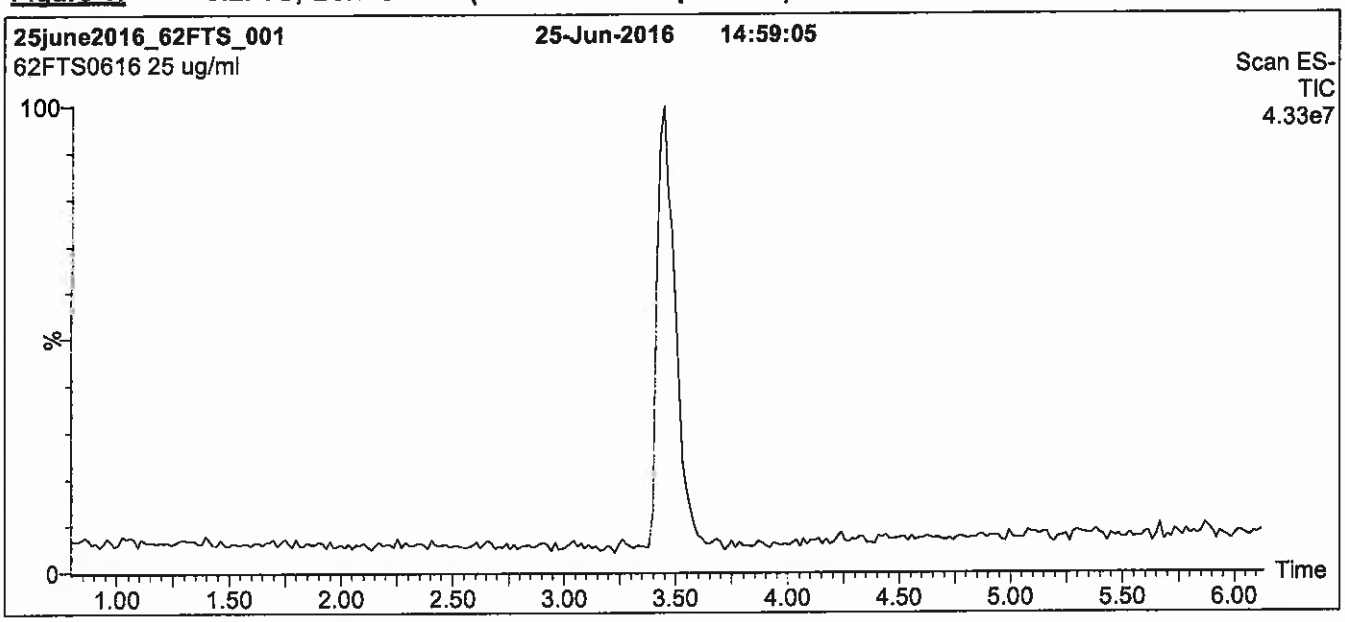
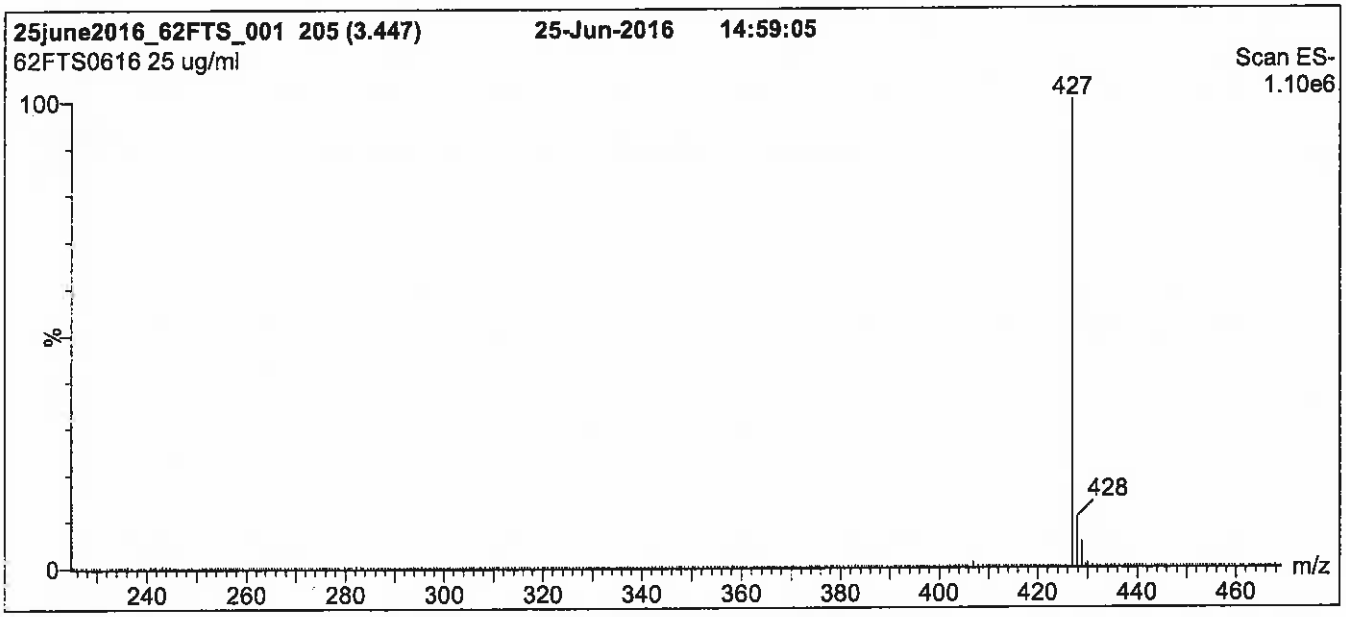
Figure 1: **6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





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

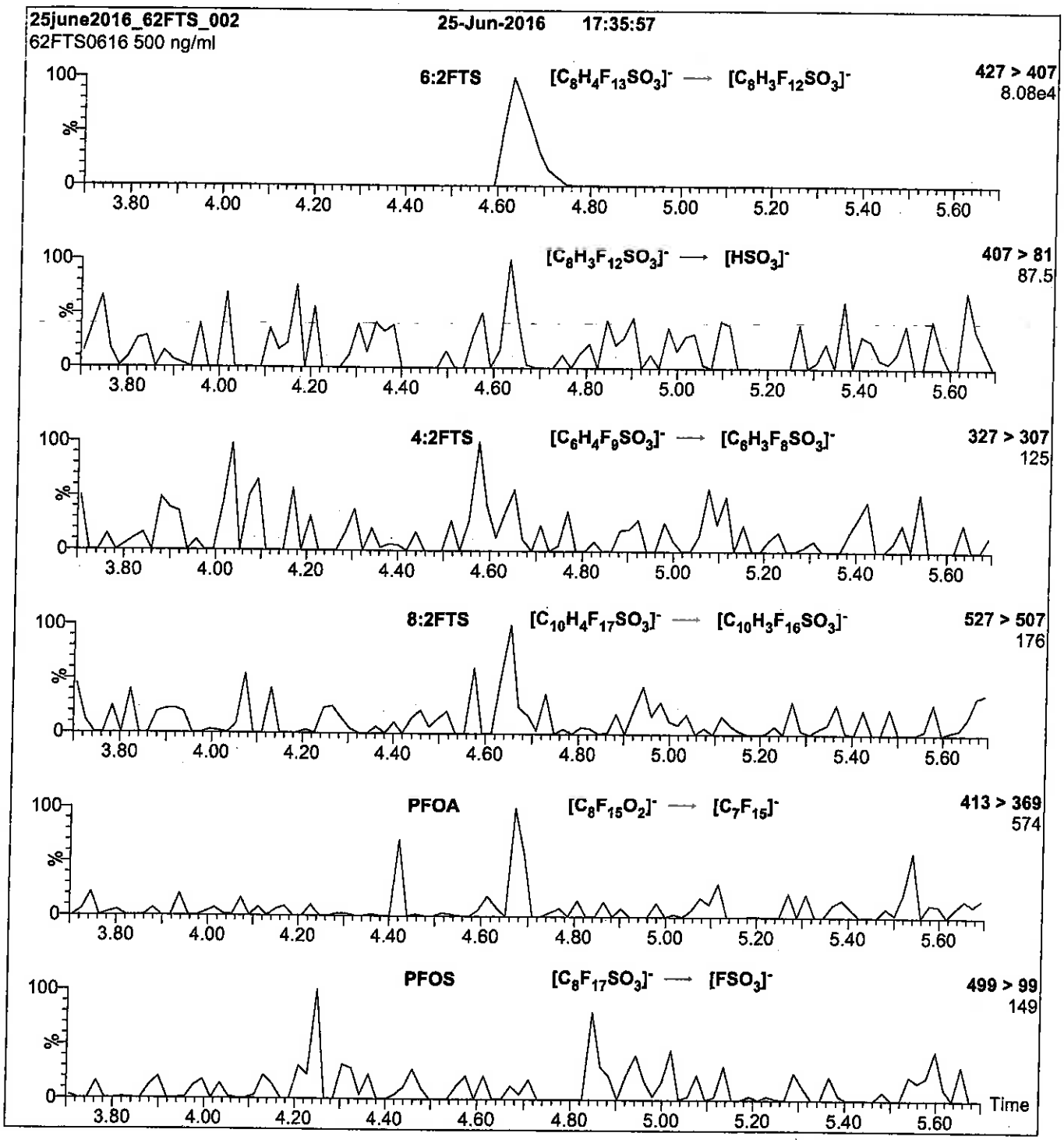
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 6:2FTS)

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) = 25

Reagent

LC6:2FTS_00003

P: 12/29/16 SRV

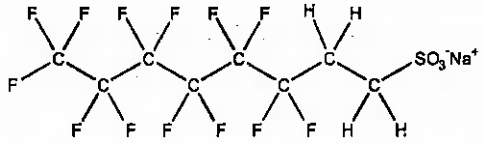
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0616

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_8H_4F_{13}SO_3Na$		**MOLECULAR WEIGHT:**	450.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.4 ± 2.4 µg/ml	(6:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	06/25/2016			
EXPIRY DATE: (mm/dd/yyyy)	06/25/2021			
RECOMMENDED STORAGE:	Refrigerate ampoule			

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:** 06/29/2016 (mm/dd/yyyy)

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

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CALA

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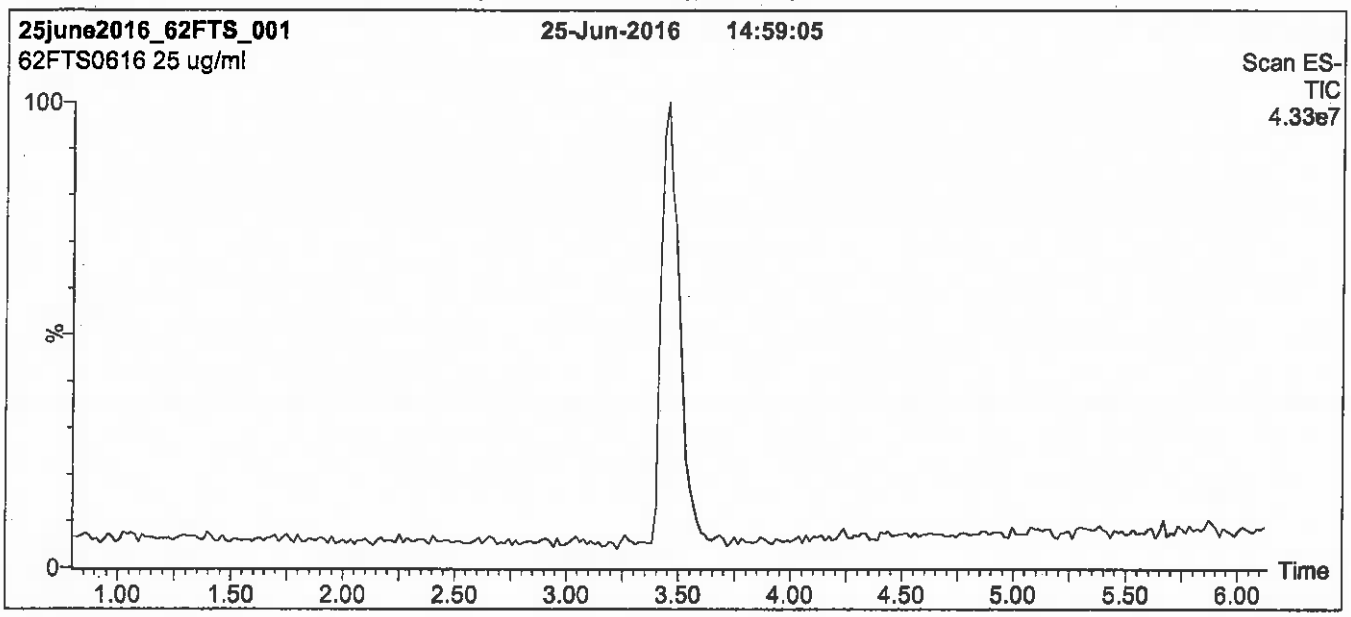
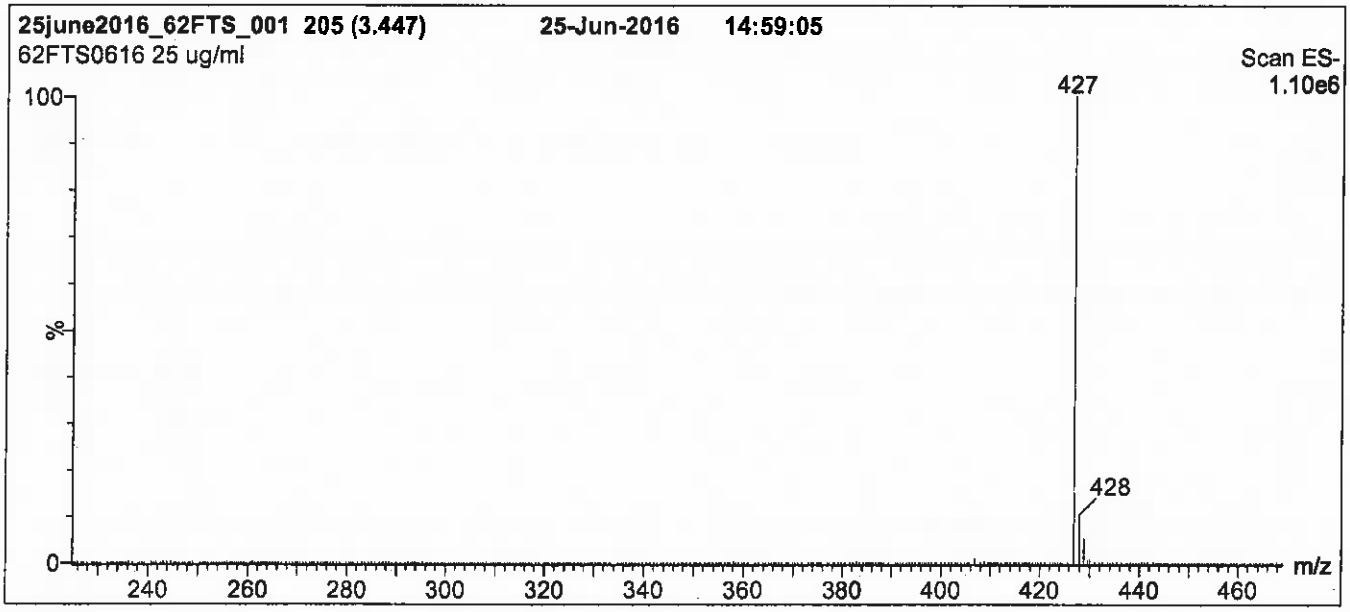




Conditions for Figure 1:

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

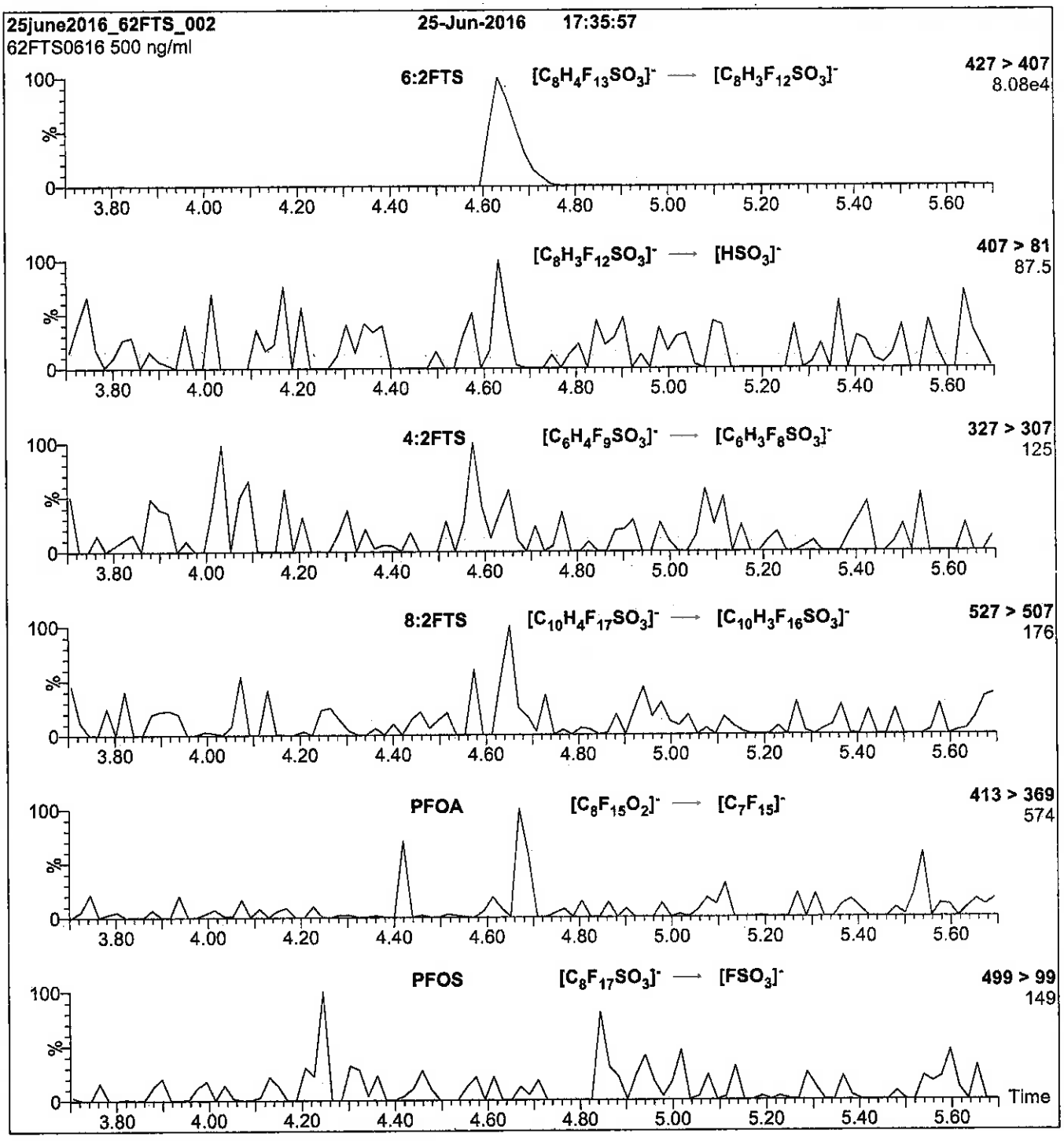
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 6:2FTS)

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) = 25

Reagent

LC8:2FTS_00002

R: 8/23/16 SBC

715545
ID: LC8:2FTS_00002
Exp: 10/23/20 Prpd: SBC
8:2FTS

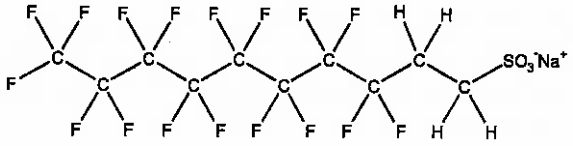
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS1015

COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{10}H_4F_{17}SO_3Na$		**MOLECULAR WEIGHT:**	550.16
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml	(8:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	10/23/2015			
EXPIRY DATE: (mm/dd/yyyy)	10/23/2020			
RECOMMENDED STORAGE:	Refrigerate ampoule			

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:** 10/27/2015 (mm/dd/yyyy)

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

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CALA

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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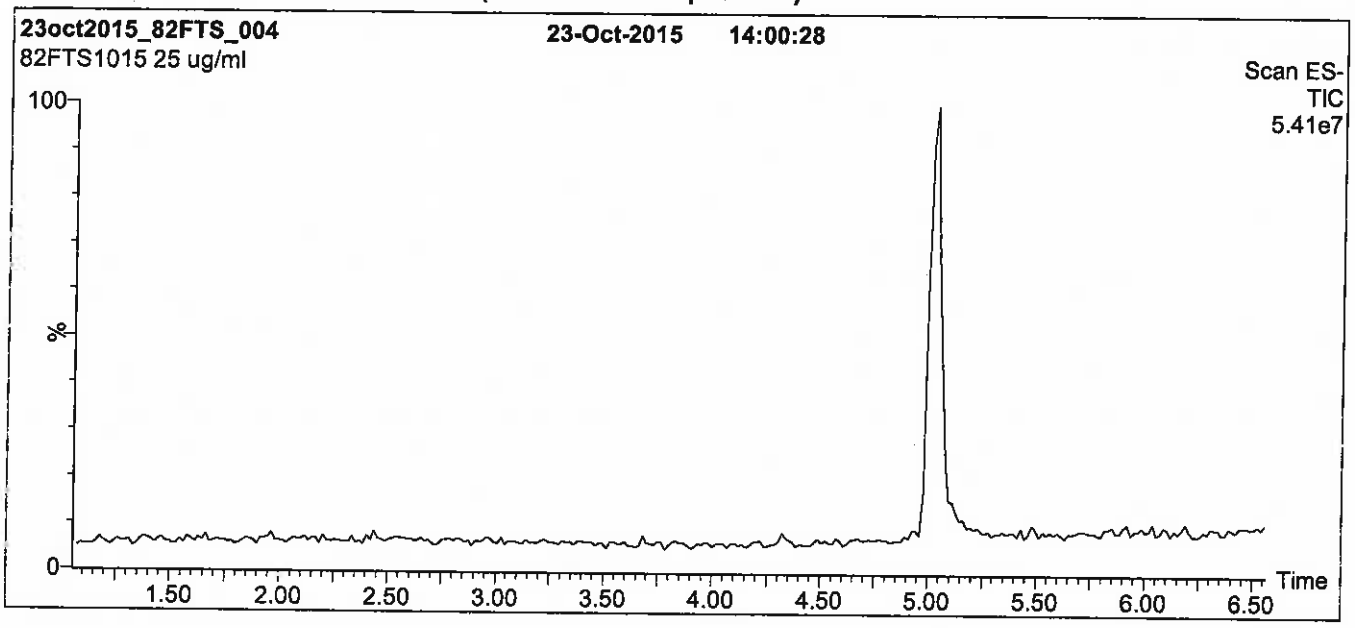
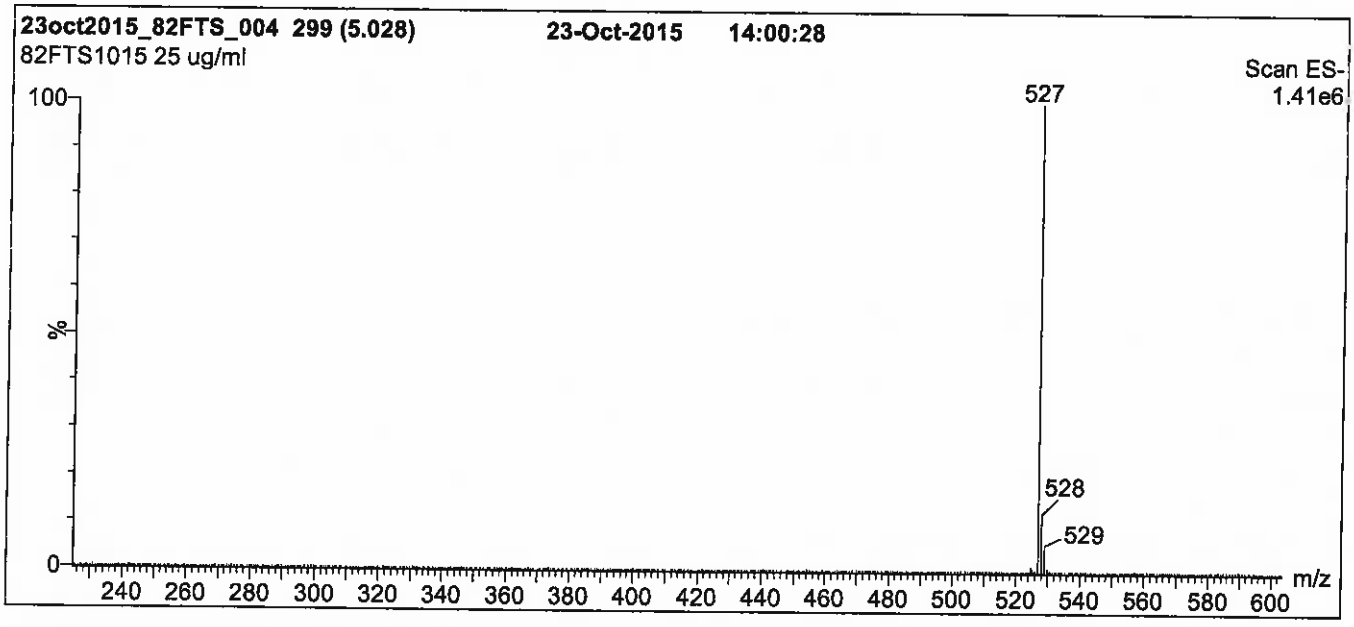
Figure 1: **8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





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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.
Return to Initial conditions in 0.5 min.
Time: 10 min

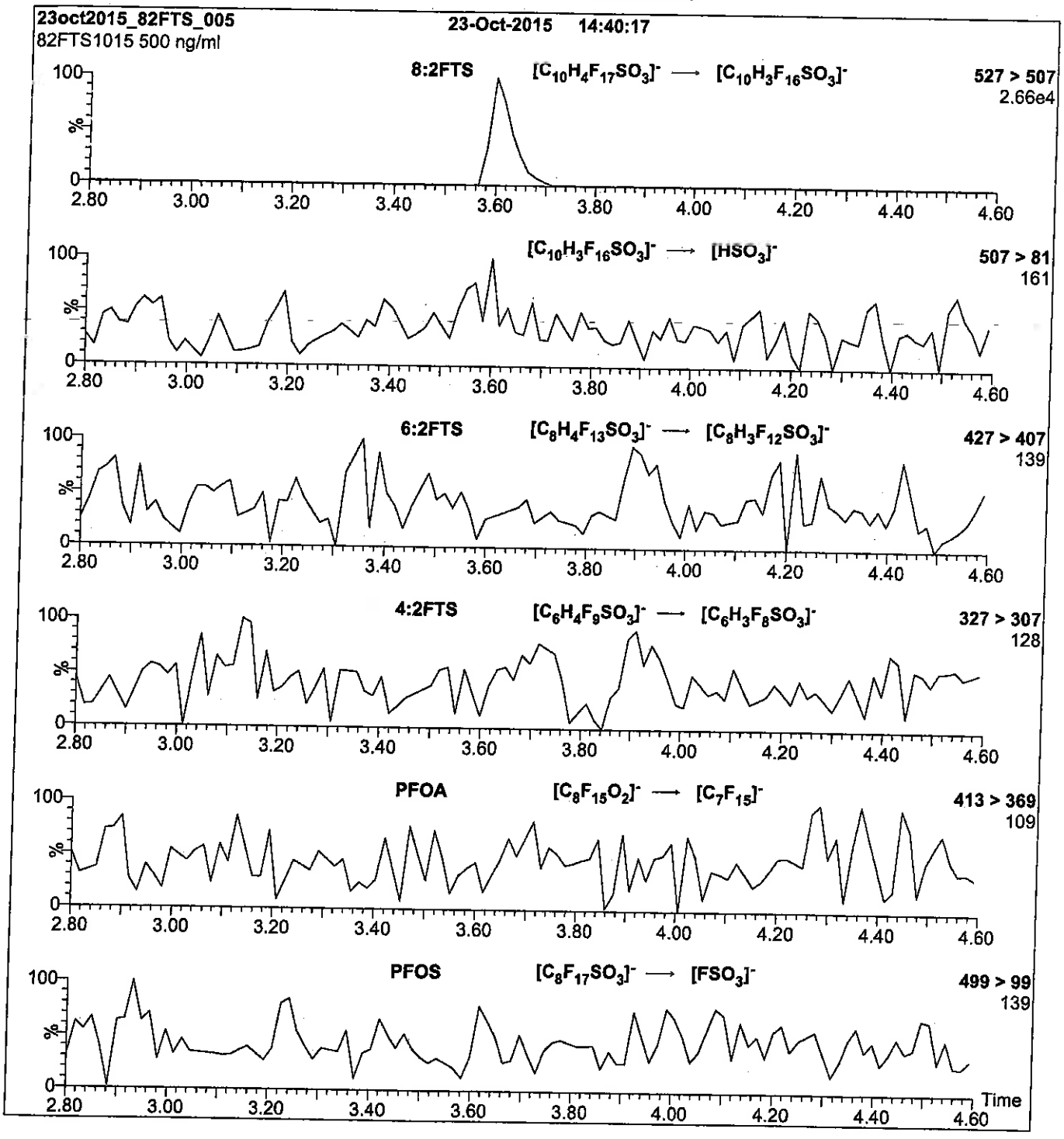
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 8:2FTS)

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

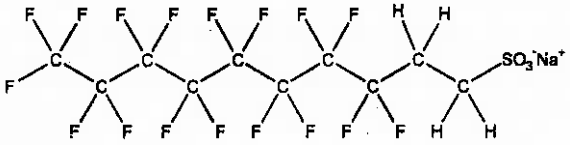
LC8:2FTS_00003

P: 12/29/16

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	8:2FTS	**LOT NUMBER:**	82FTS0816
COMPOUND:	Sodium 1H,1H,2H,2H-perfluorodecane sulfonate		
STRUCTURE:		**CAS #:**	Not available



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LAST TESTED: (mm/dd/yyyy)	08/22/2016		
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CALA

ANAB ACCREDITED

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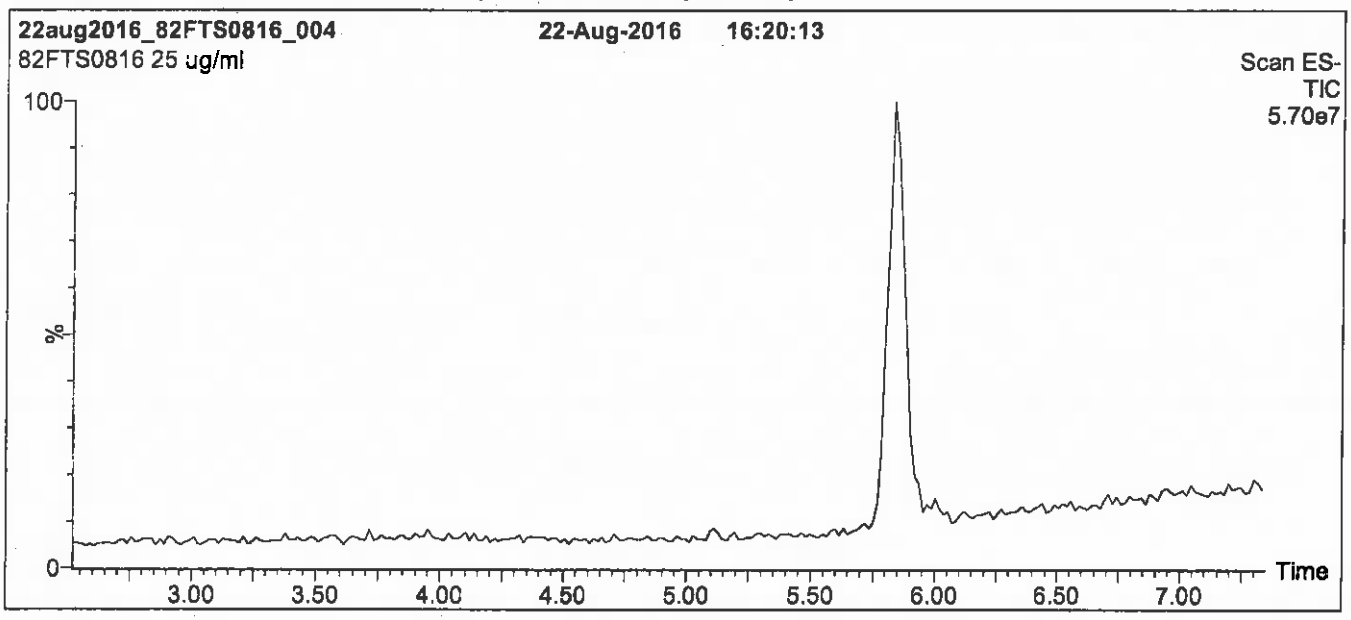
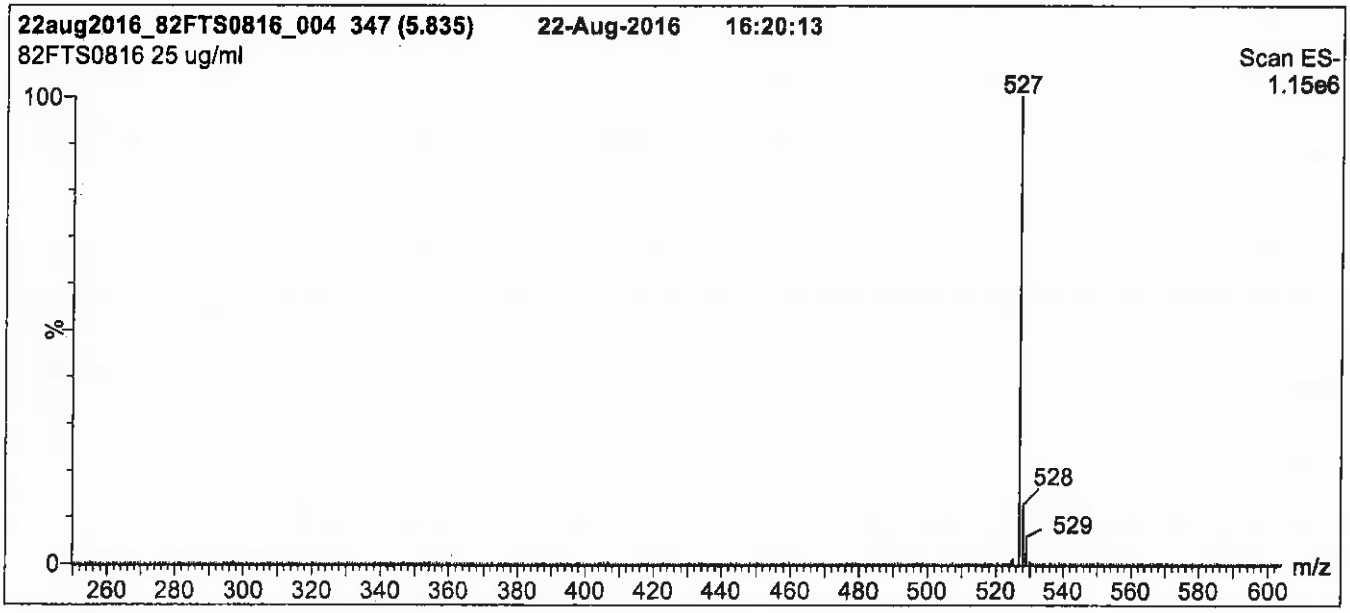
Figure 1: **8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

Column: Agilent Zorbax Bonus-RP
1.8 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 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

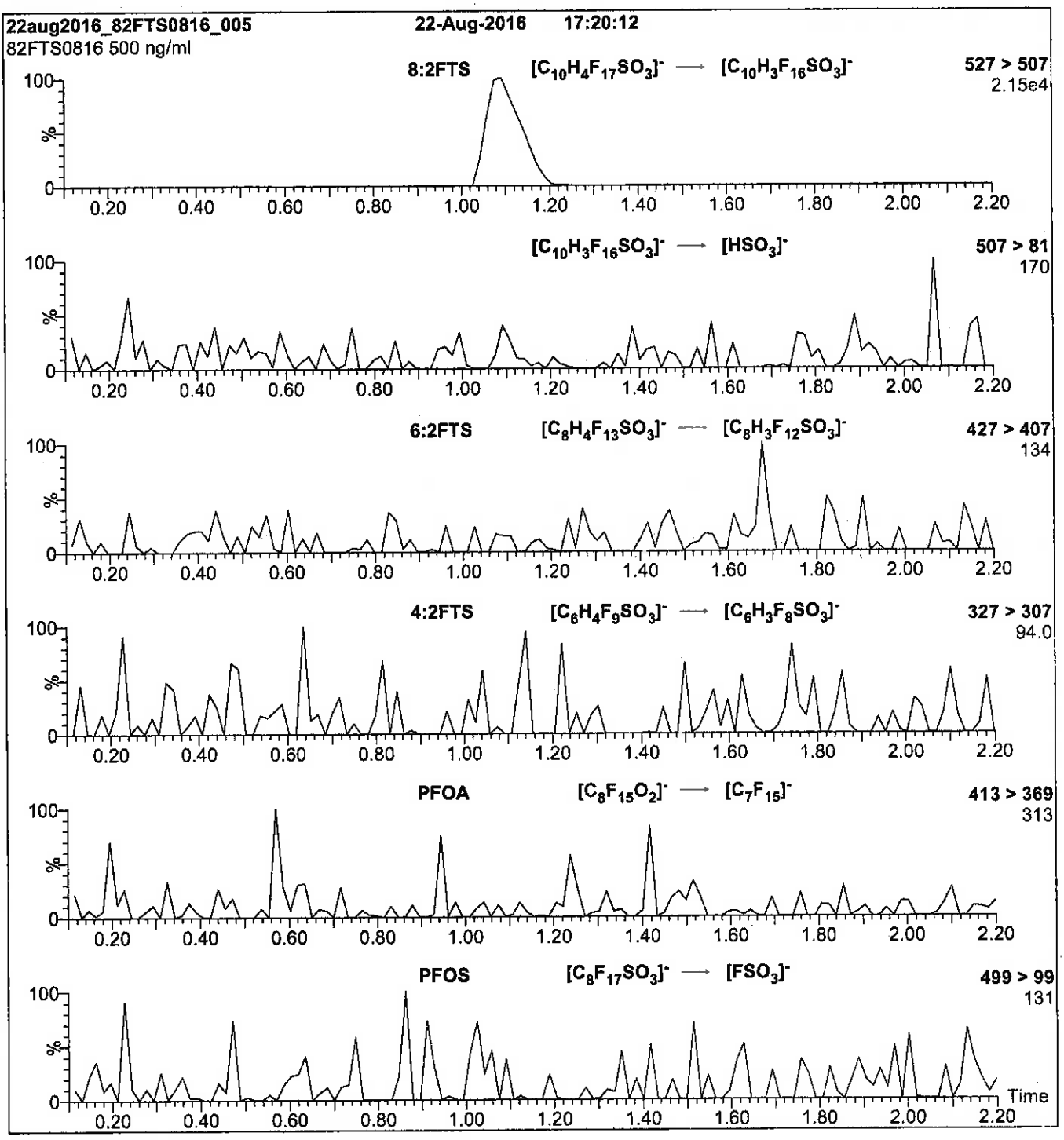
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250- 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 8:2FTS)

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) = 30

Reagent

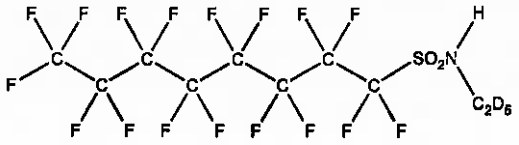
LCd-NEtFOSA-M_00005

D: 3/20/17

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	d-N-EtFOSA-M	**LOT NUMBER:**	dNEtFOSA0616M
COMPOUND:	N-ethyl-d_5-perfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_{10}D_5HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	532.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	06/10/2016		
EXPIRY DATE: (mm/dd/yyyy)	06/10/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of N-methyl-d_3-perfluoro-1-octanesulfonamide (d-N-MeFOSA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 07/14/2016 (mm/dd/yyyy)

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

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

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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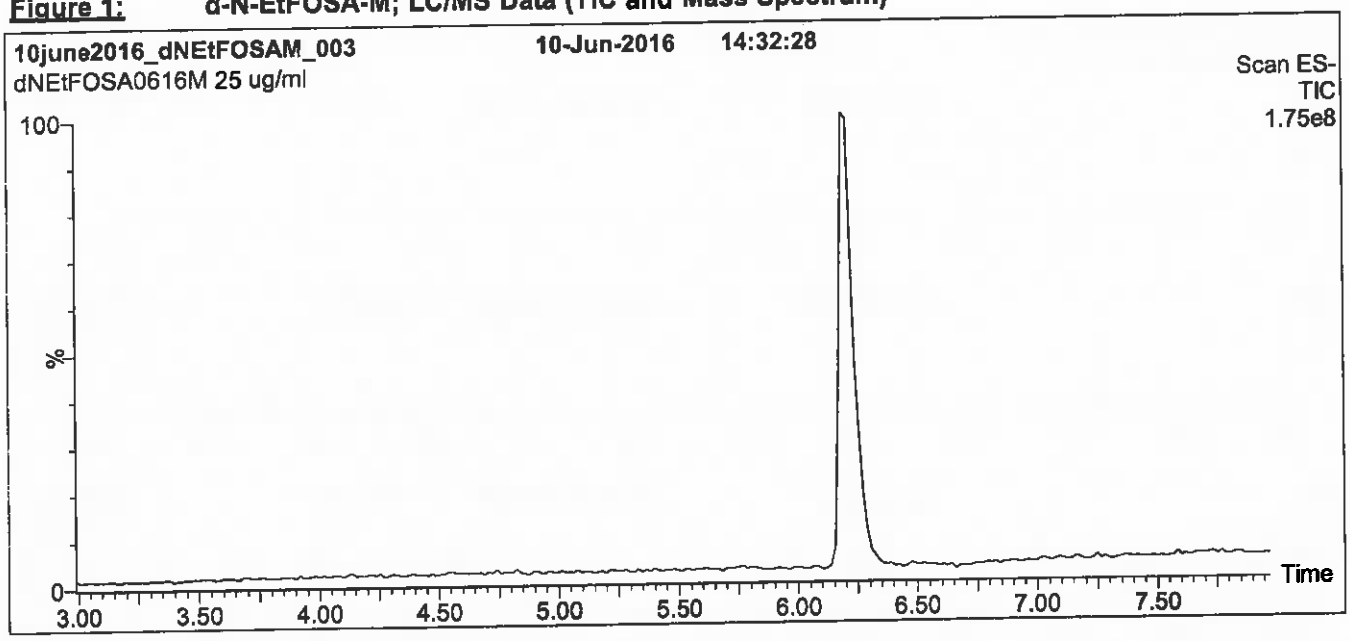
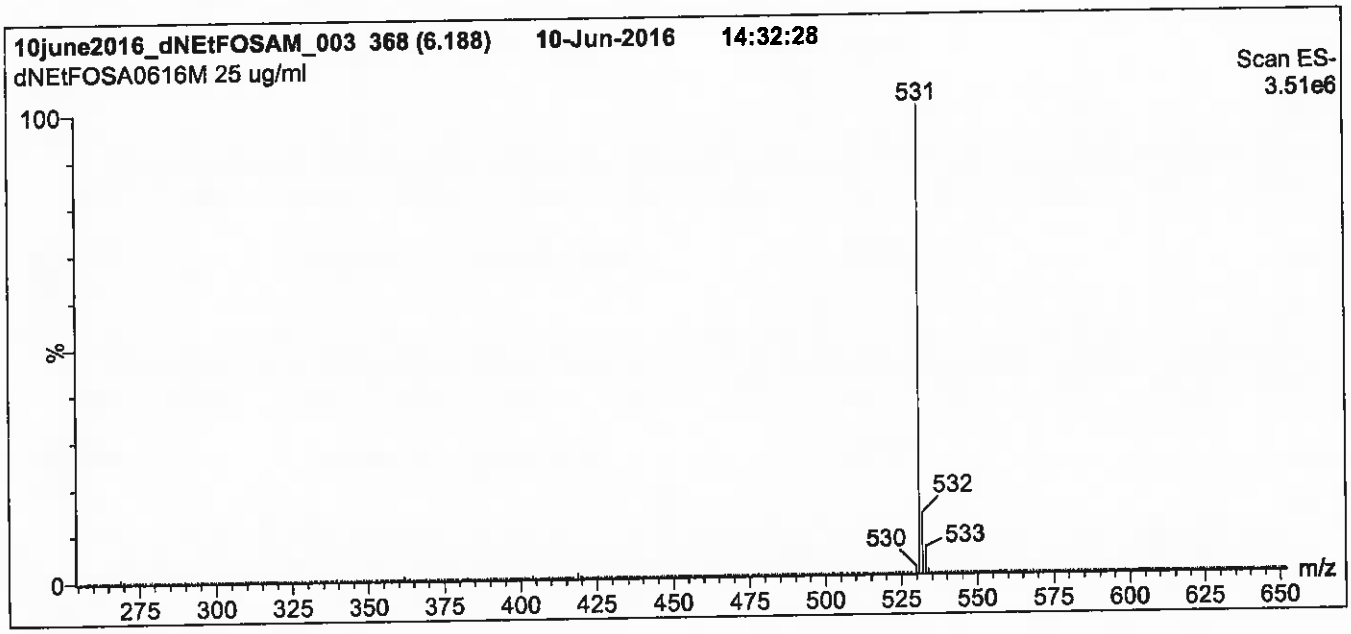
Figure 1: **d-N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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% H_2O / 60% (80:20 MeOH:ACN)
(both with 10mM 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

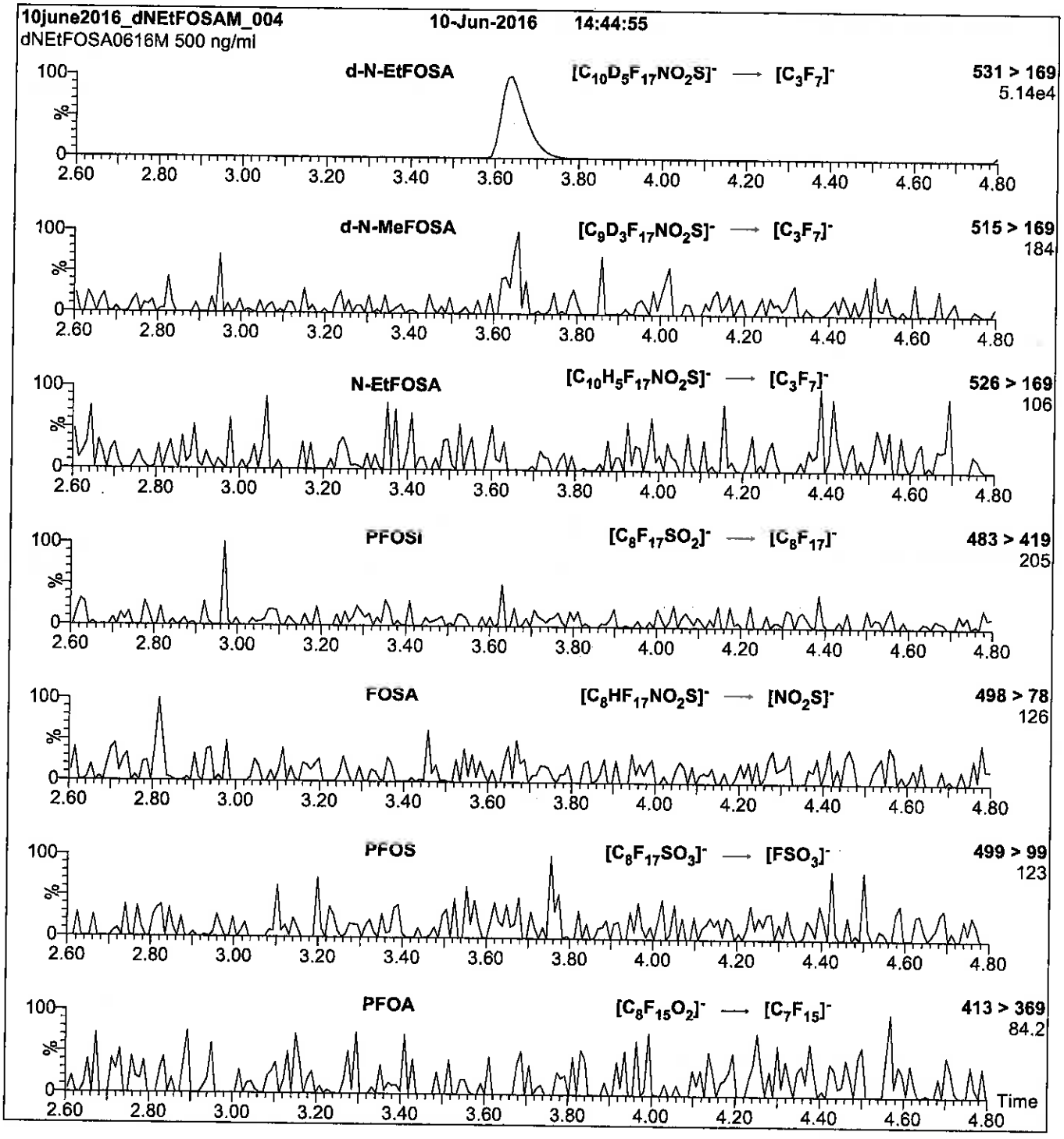
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **d-N-EtFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml d-N-EtFOSA-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) = 3.39e-3
Collision Energy (eV) = 25

Reagent

LCd-NMeFOSA-M_00003

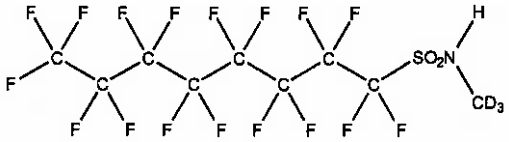
R: 9/9/16 SBC

728303
ID: LCd-NMeFOSA-M_00003
Exp: 06/10/21 Prpd: SBC
d-N-MeFOSA-M

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	d-N-MeFOSA-M	**LOT NUMBER:**	dNMeFOSA0616M
COMPOUND:	N-methyl-d_3-perfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_9D_3HF_{17}NO_2S$	**MOLECULAR WEIGHT:**	516.19
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	06/10/2016		
EXPIRY DATE: (mm/dd/yyyy)	06/10/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/16/2016 (mm/dd/yyyy)

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

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CALA

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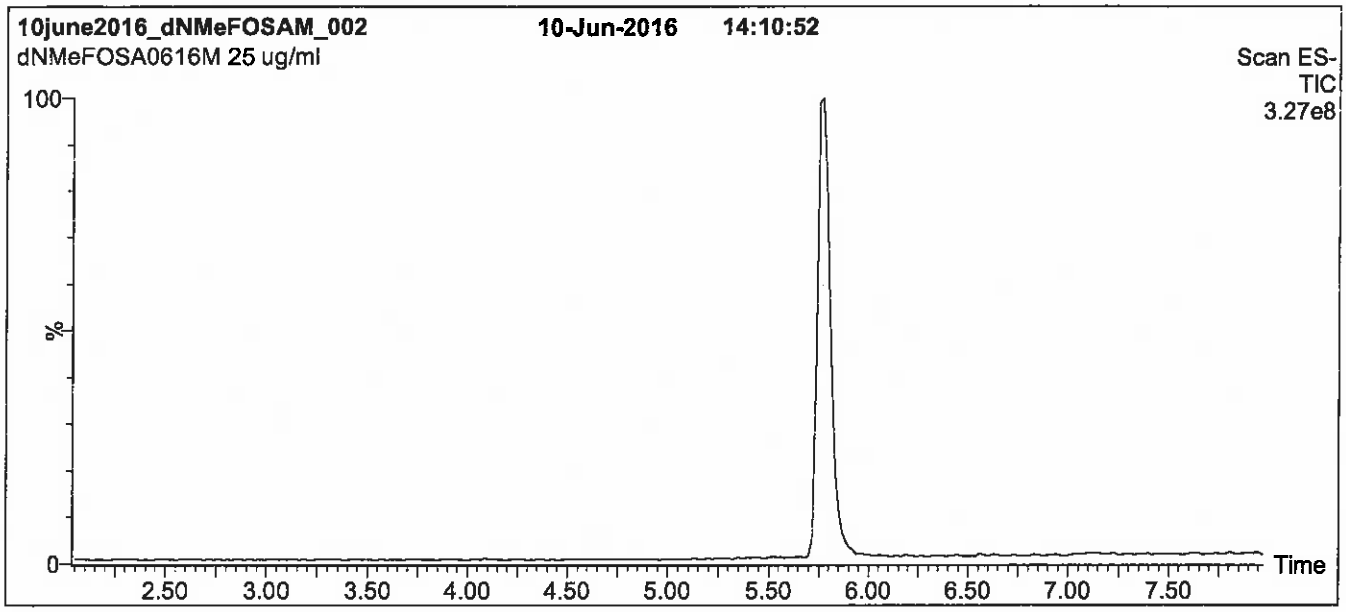
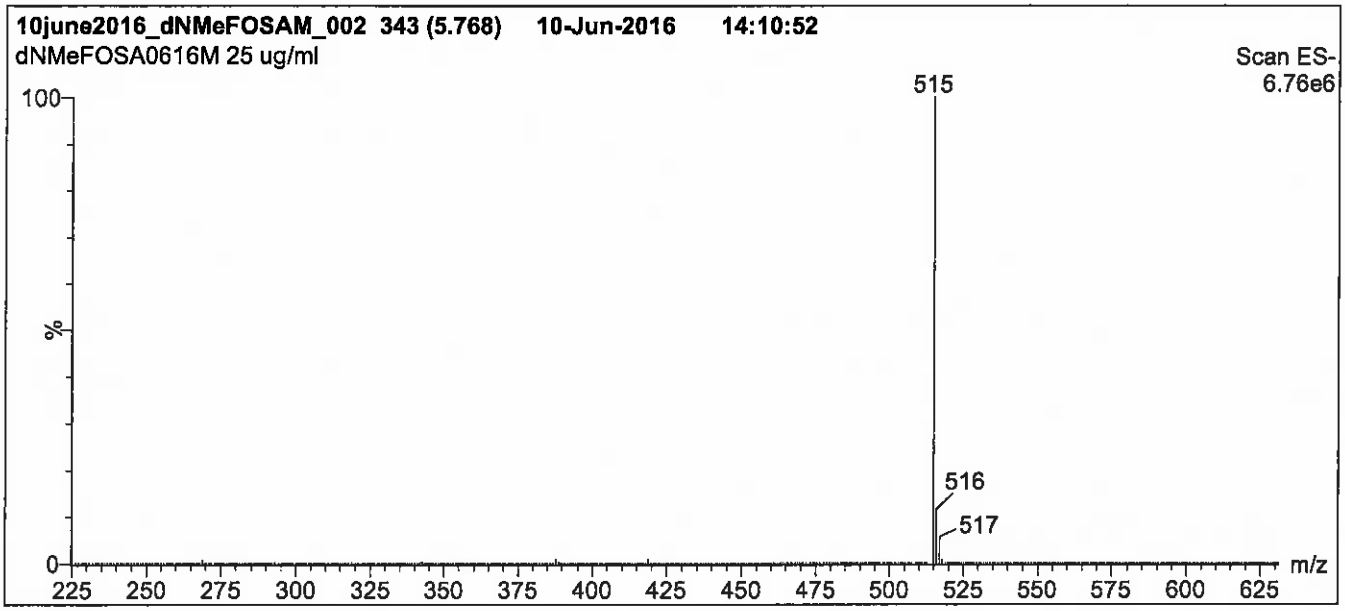
Figure 1: **d-N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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% H_2O / 60% (80:20 MeOH:ACN)
(both with 10mM 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

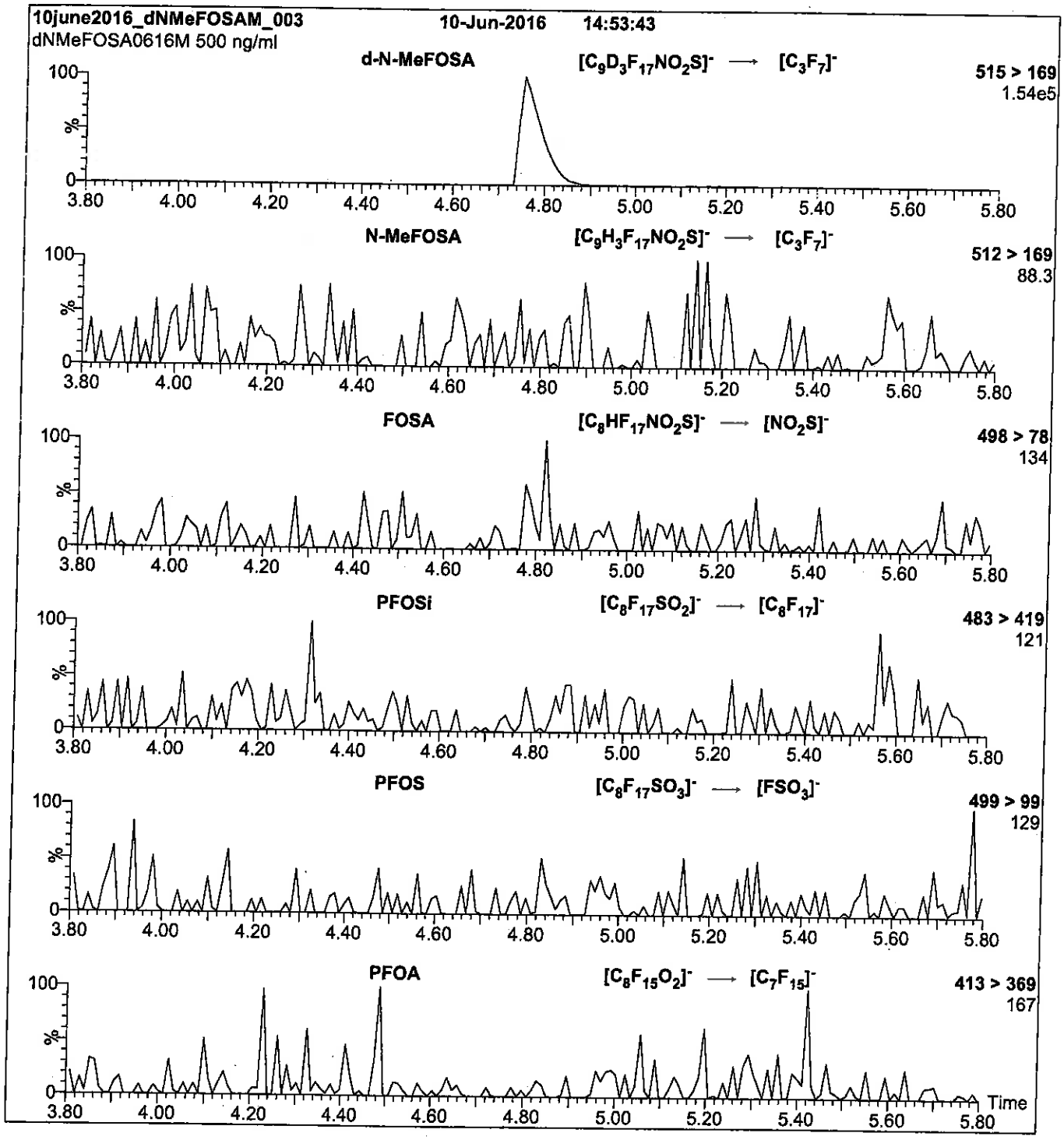
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **d-N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml d-N-MeFOSA-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) = 3.39e-3
Collision Energy (eV) = 25

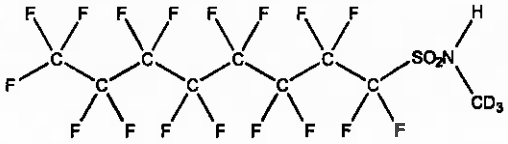
Reagent

LCd-NMeFOSA-M_00004

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	d-N-MeFOSA-M	**LOT NUMBER:**	dNMeFOSA0616M
COMPOUND:	N-methyl-d_3-perfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	Not available



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CALA

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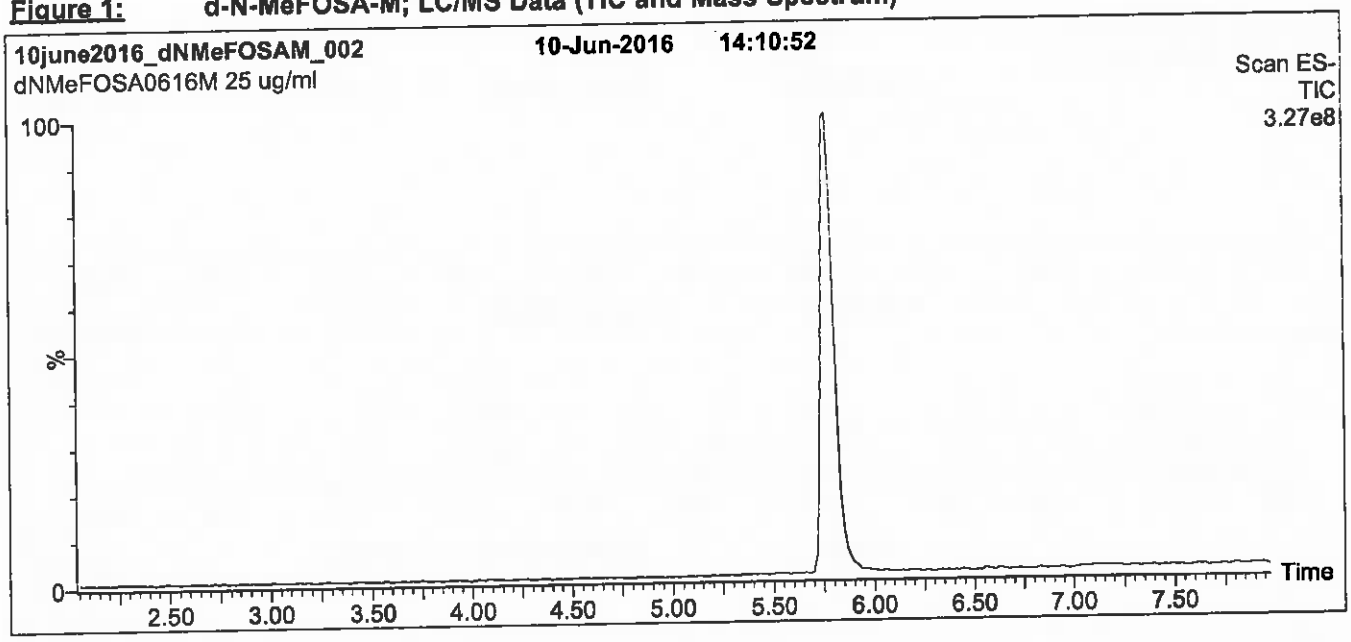
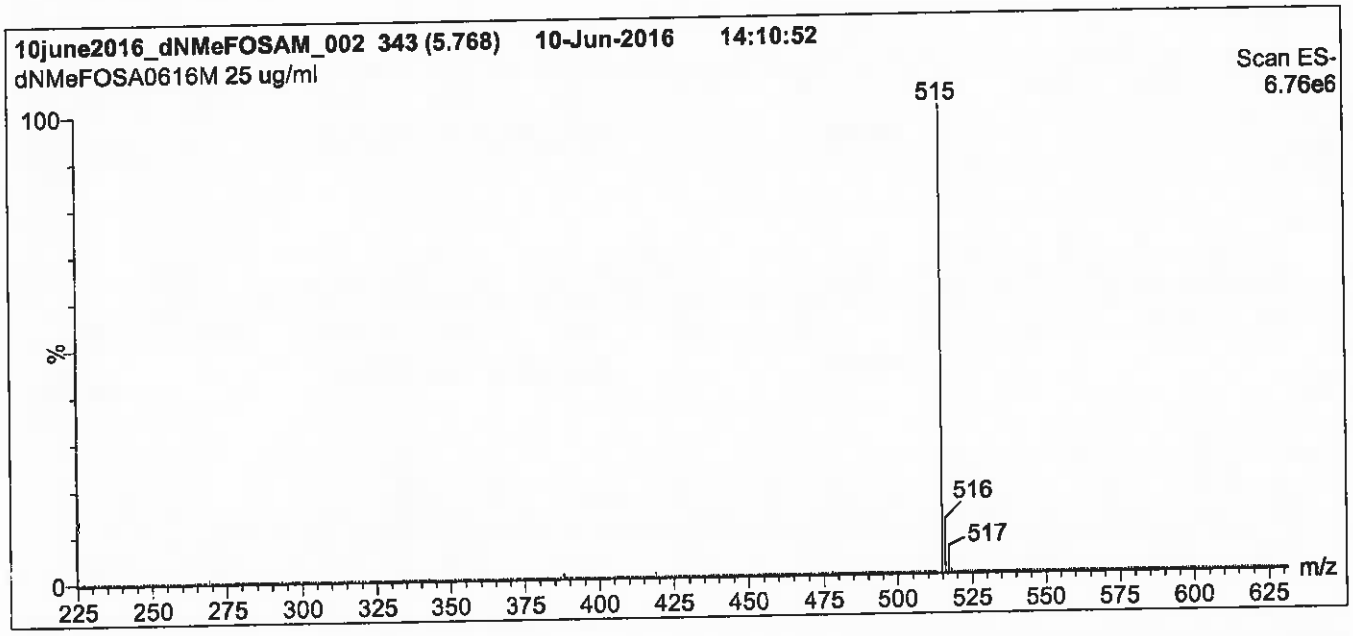
Figure 1: **d-N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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% H_2O / 60% (80:20 MeOH:ACN)
(both with 10mM 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

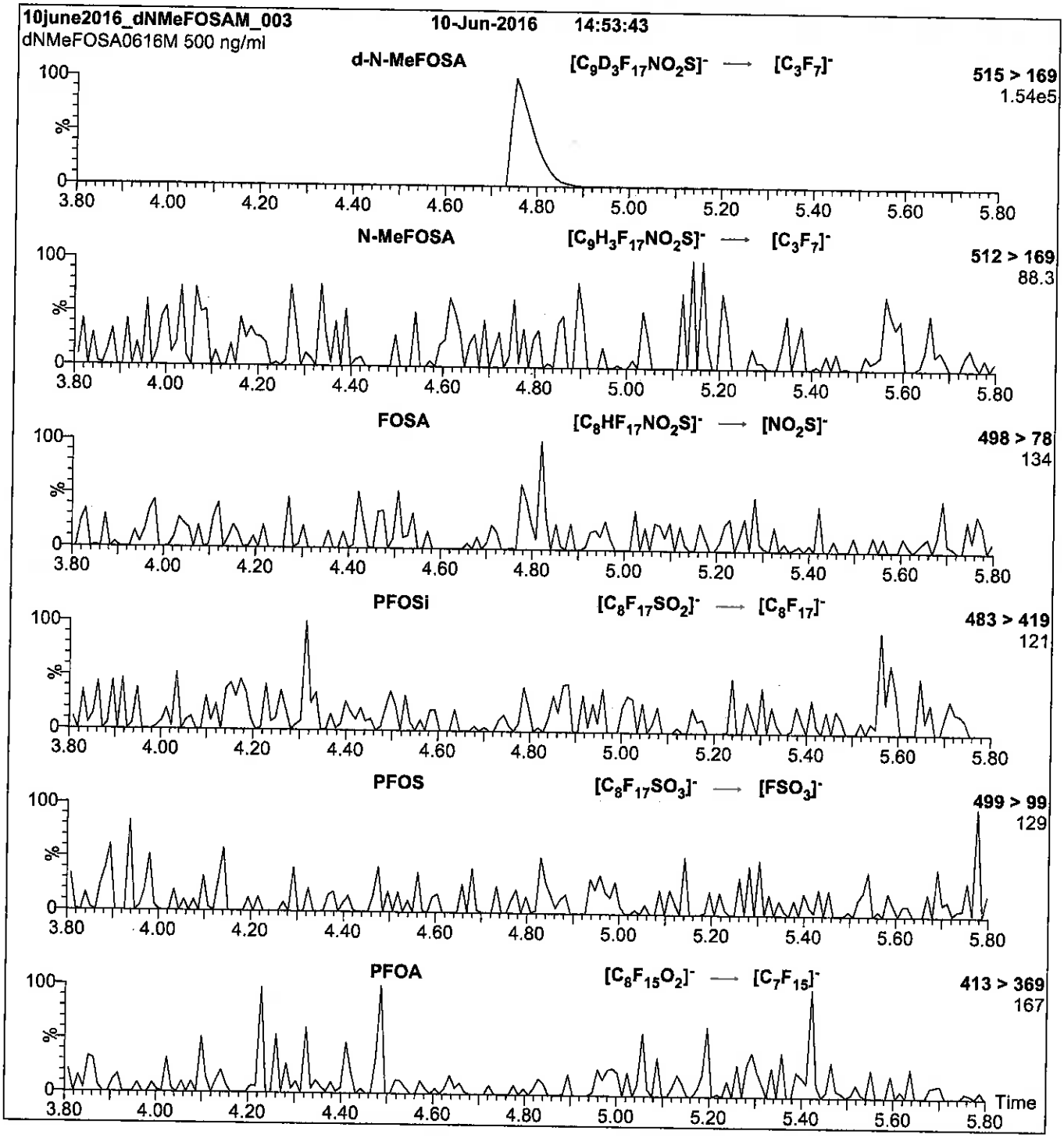
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **d-N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml d-N-MeFOSA-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) = 3.39e-3
Collision Energy (eV) = 25

Reagent

LCd3-NMeFOSAA_00002

R: 7/6/16 CBW

671572
ID: LCd3-NMeFOSAA_00002
Exp: 01/20/21 Prpd: CBW
d3-N-MeFOSAA

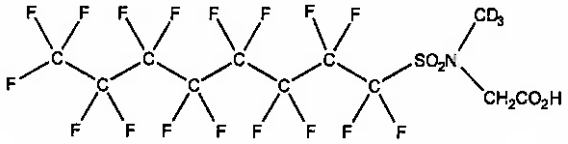
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA0116

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	01/20/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/20/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/25/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

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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, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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

CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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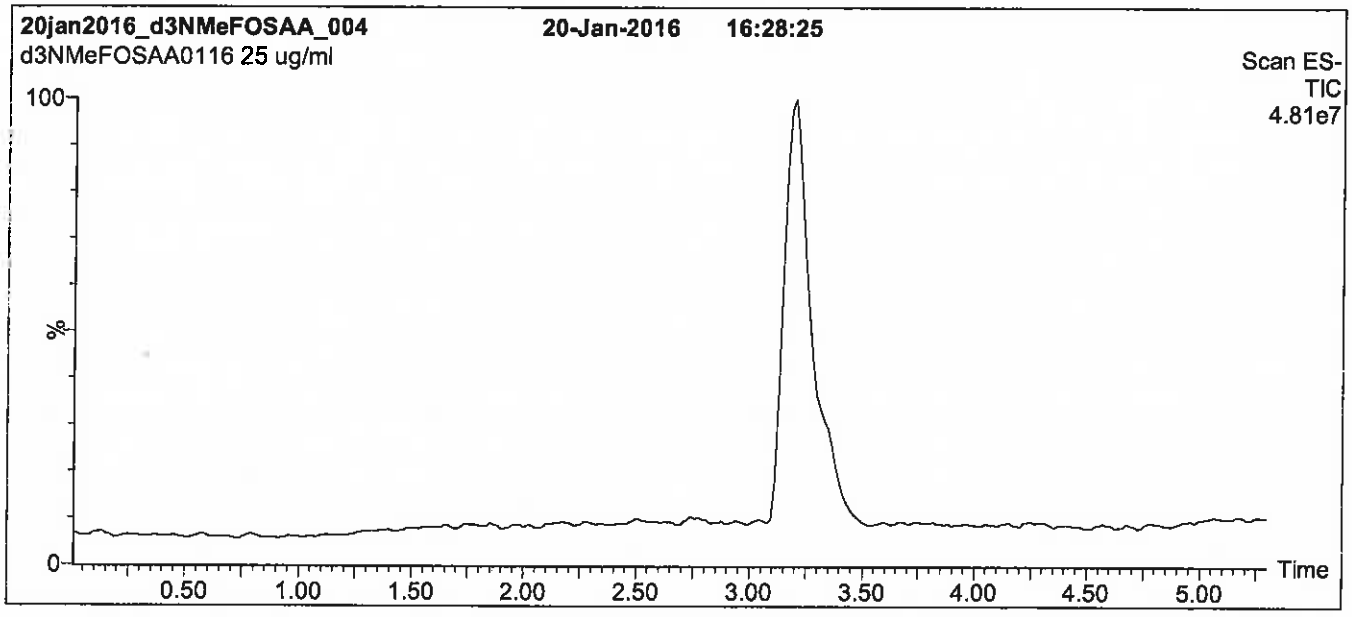
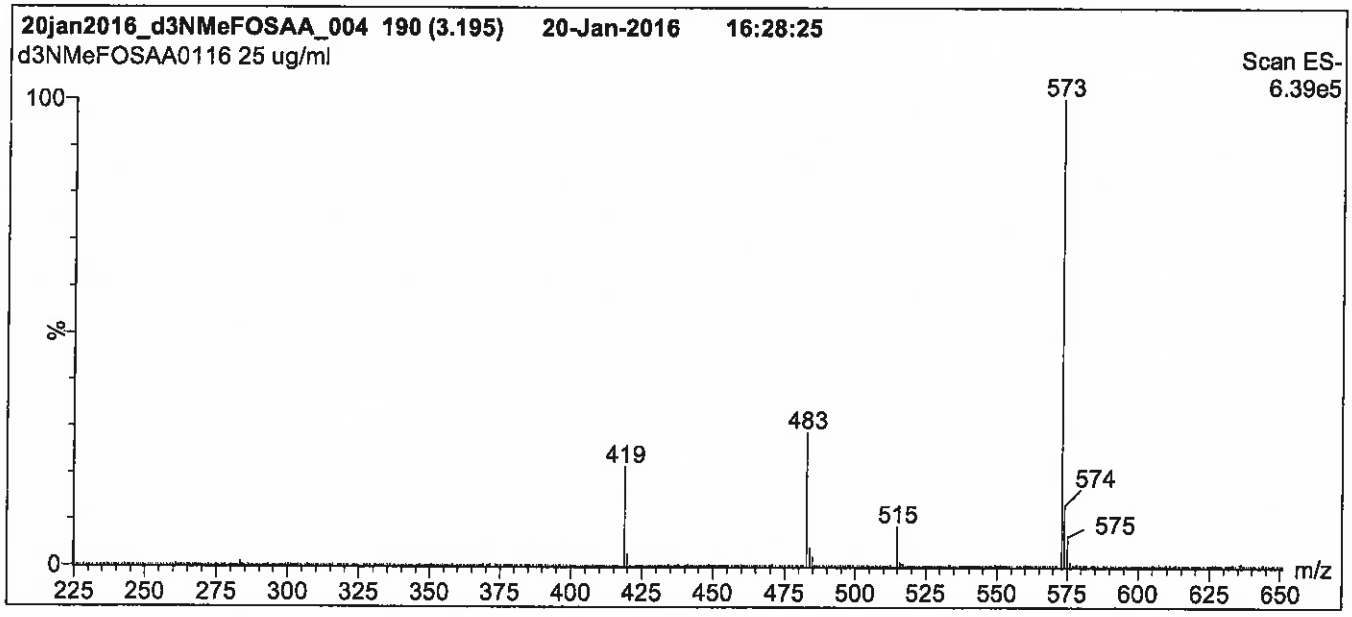




Conditions for Figure 1:

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: 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

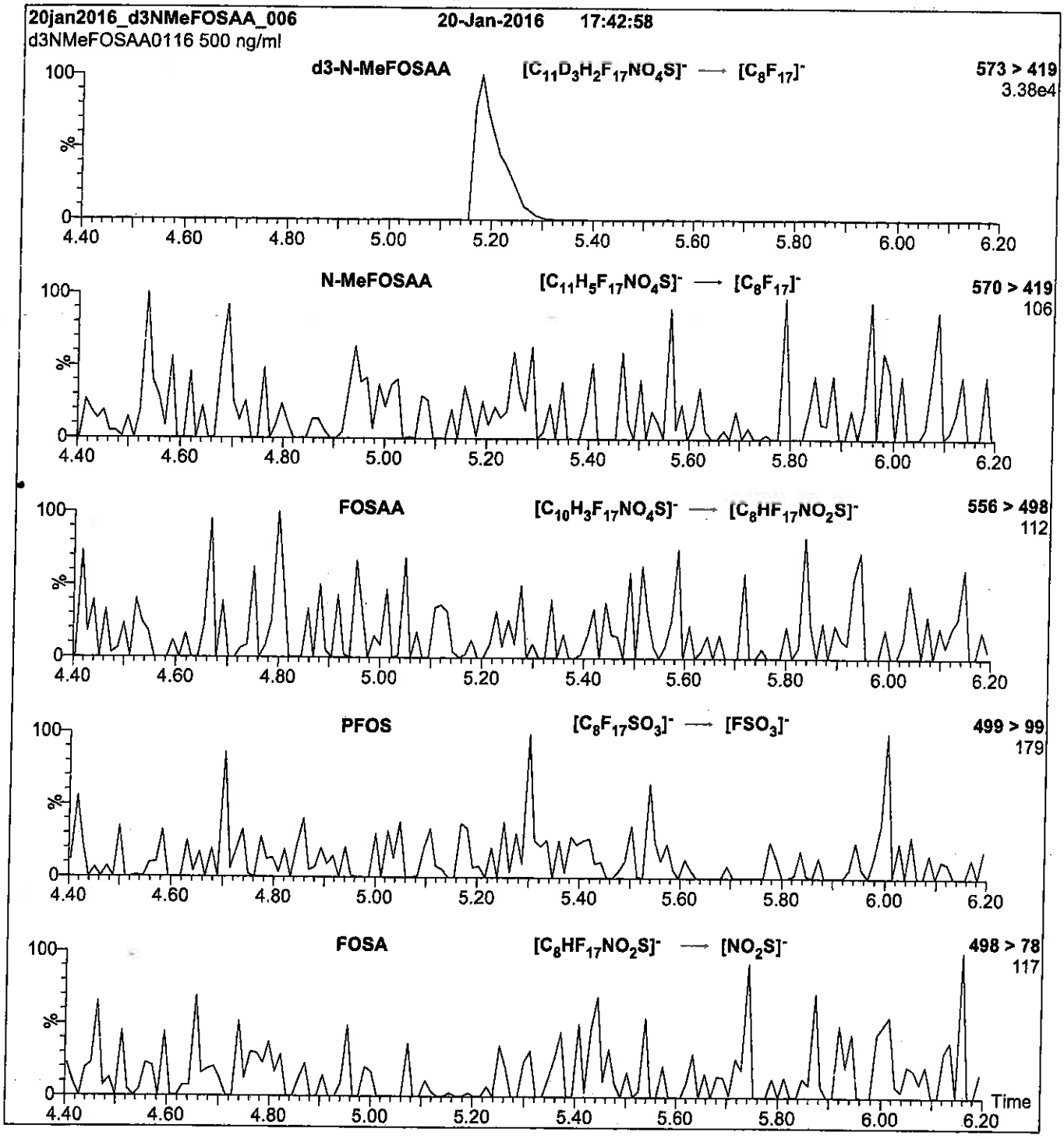
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d3-N-MeFOSAA)

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) = 25

Reagent

LCd3-NMeFOSAA_00003

R: 9/9/16 SBC

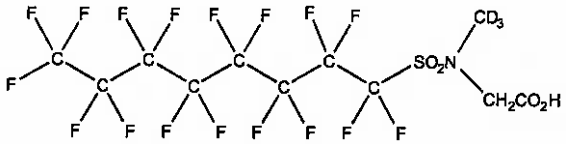
7283C0
ID: LCd3-NMeFOSAA_00003
Exp: 05/31/21 Prpd: SBC
d3-N-MeFOSAA

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA0516
COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 the conversion of the acetic acid moiety to the methyl ester.
- Contains ~ 1% of branched isomer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/01/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

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SYNTHESIS / CHARACTERIZATION:

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

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA

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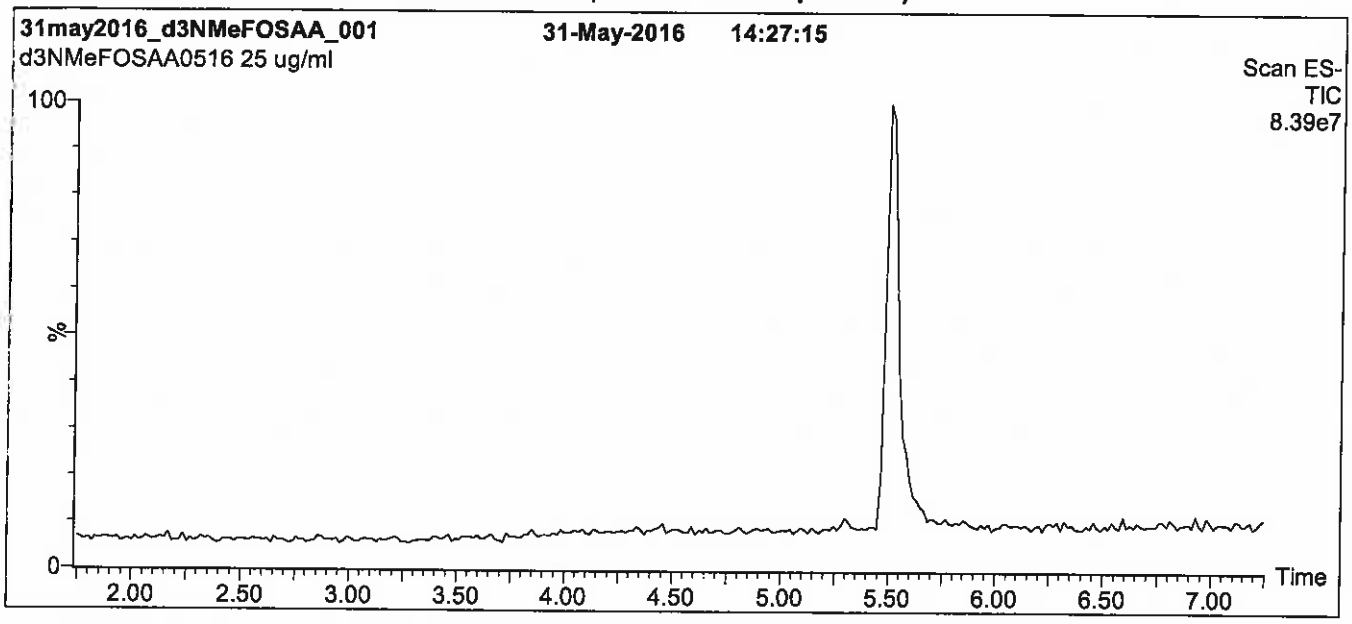
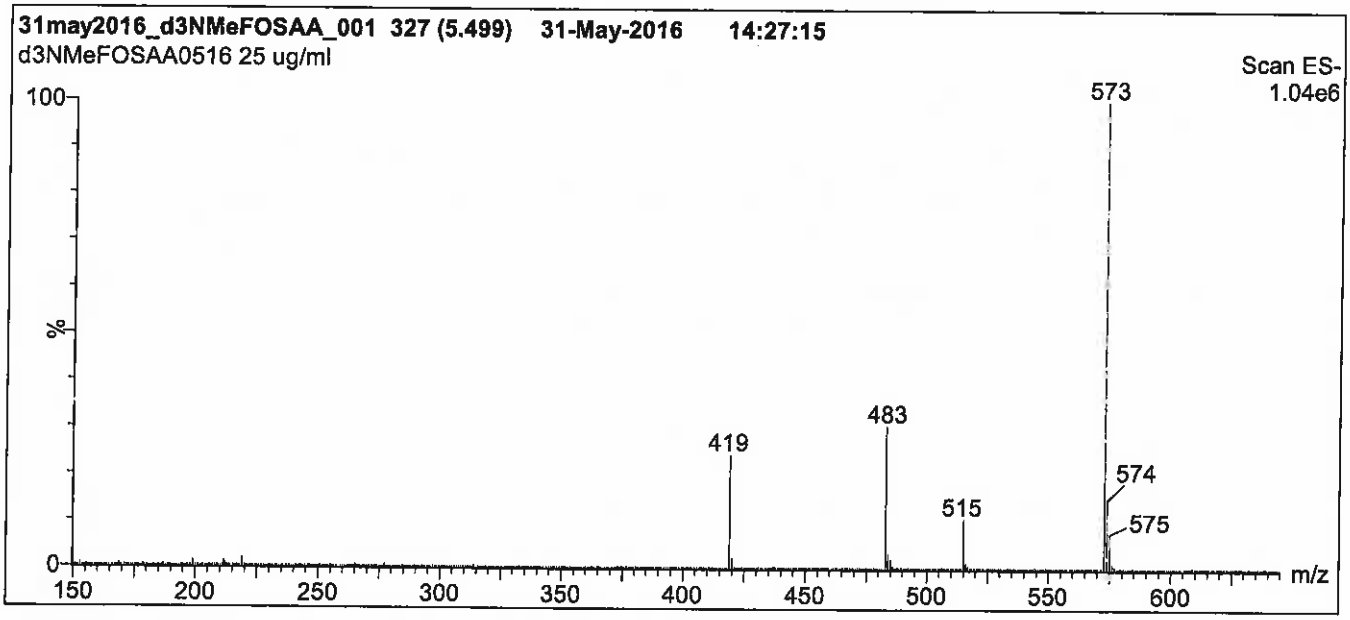
Figure 1: **d3-N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





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

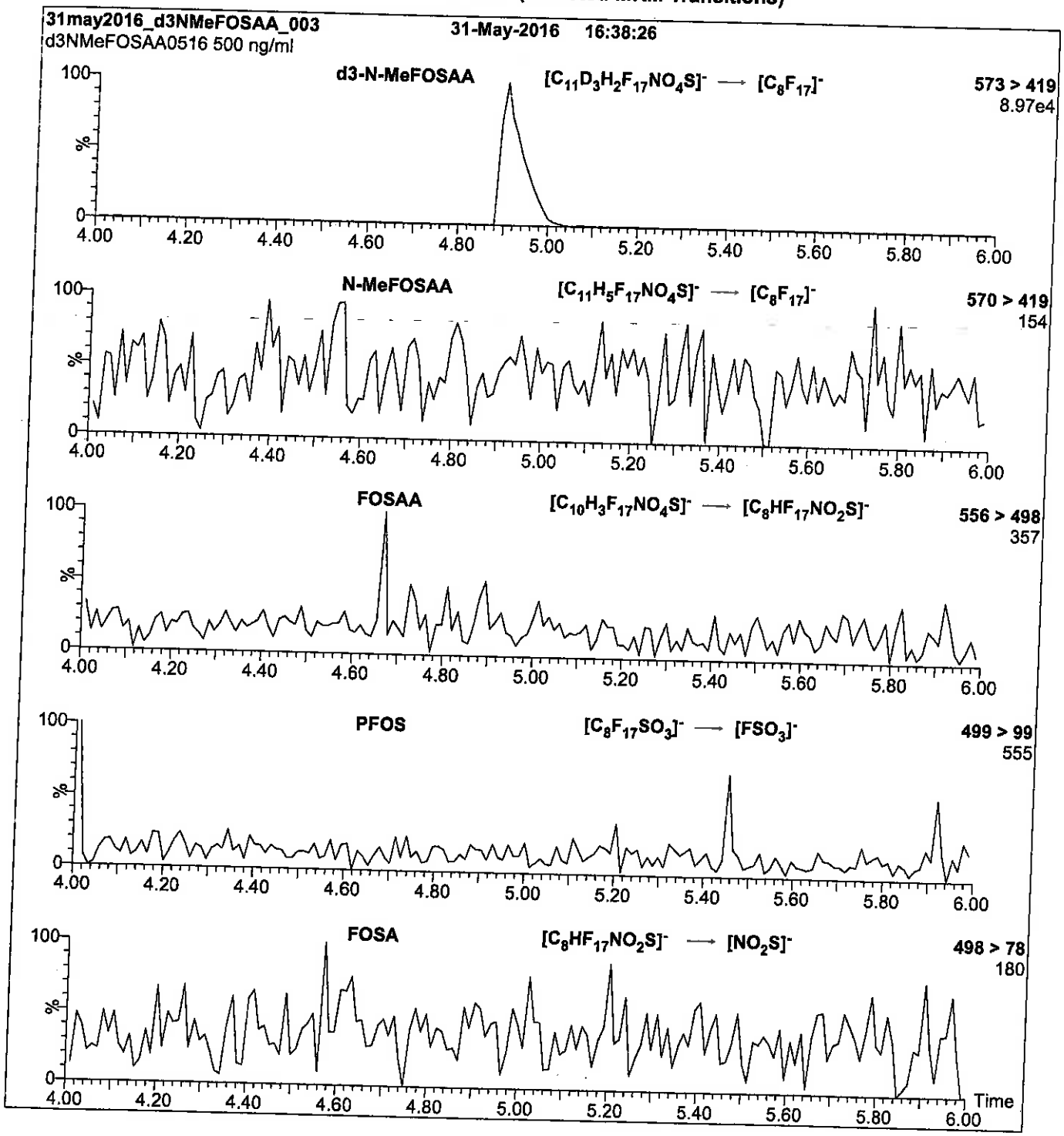
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml d3-N-MeFOSAA)
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) = 25

Reagent

LCd3-NMeFOSAA_00004

S: 3/20/17 SRV

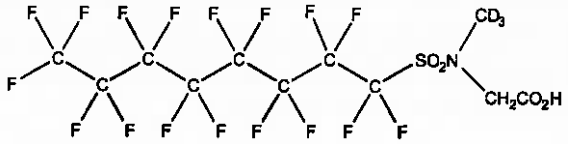
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA1116

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA: $C_{11}D_3H_3F_{17}NO_4S$ **MOLECULAR WEIGHT:** 574.23

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol, Water (<1%)

CHEMICAL PURITY: >98% **ISOTOPIC PURITY:** ≥98% $^2H_3$

LAST TESTED: (mm/dd/yyyy) 11/22/2016

EXPIRY DATE: (mm/dd/yyyy) 11/22/2021

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

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ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

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

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CALA

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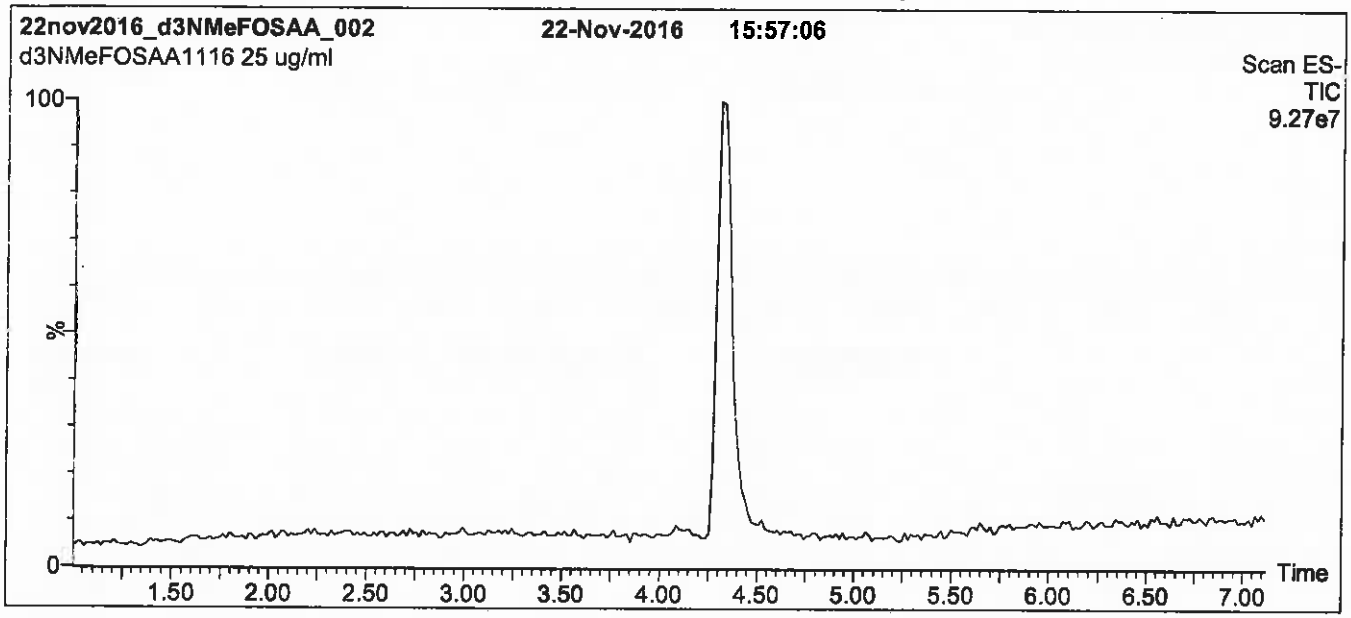
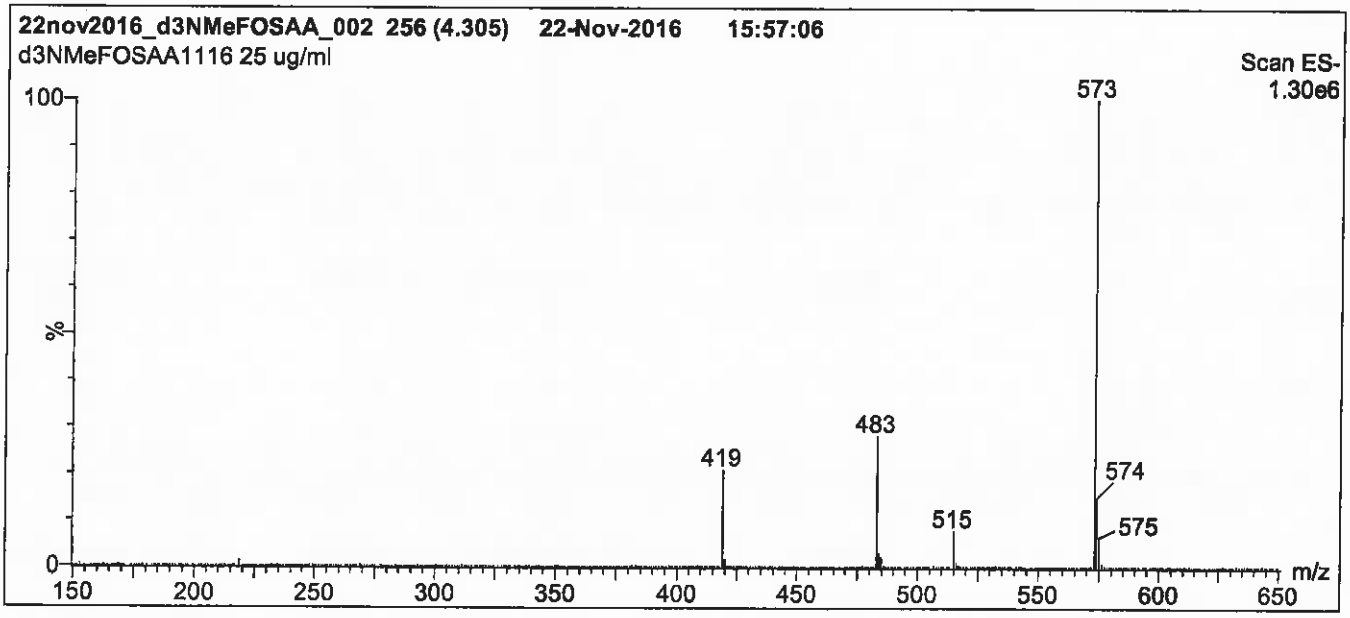




Conditions for Figure 1:

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: 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

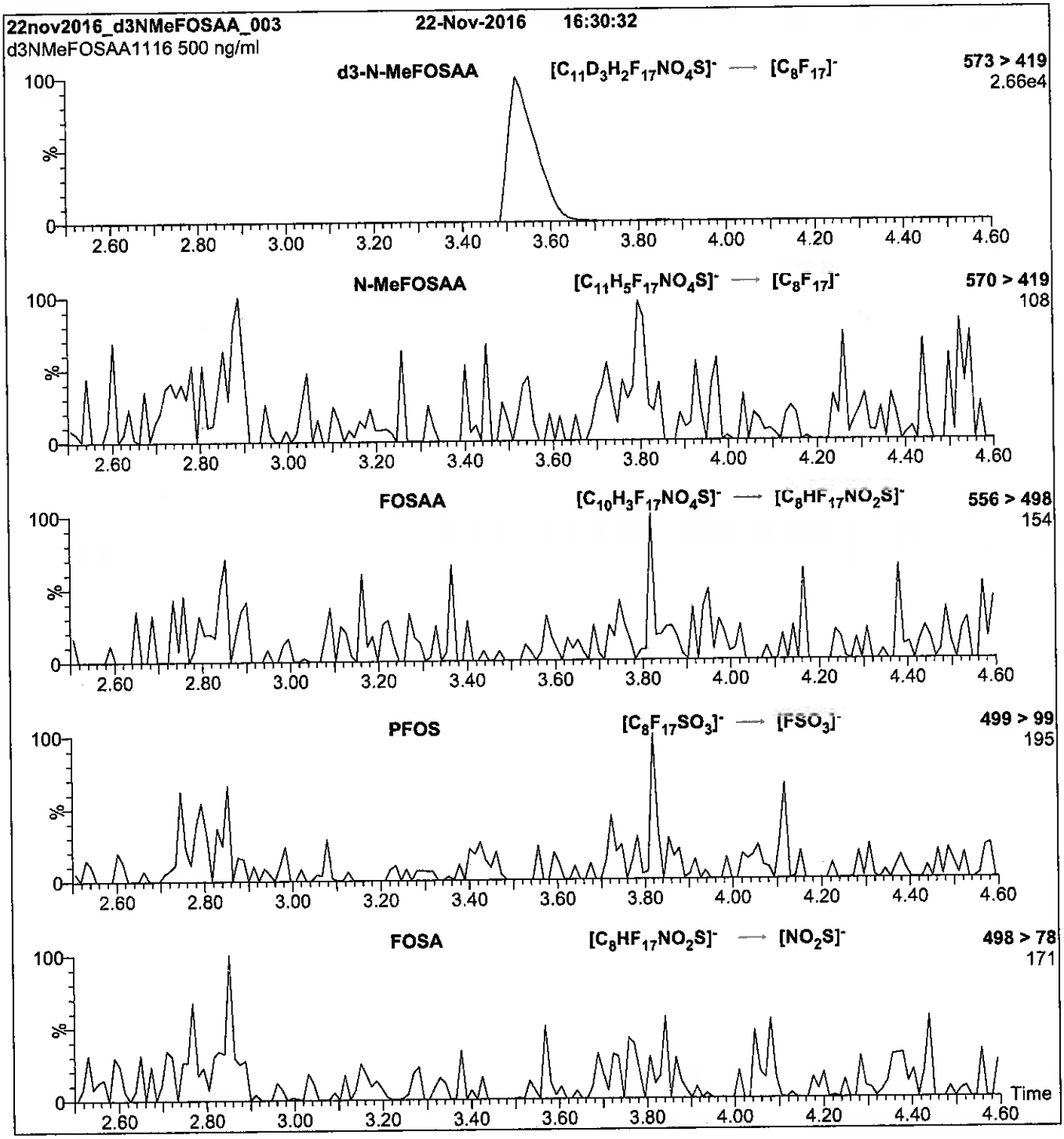
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d3-N-MeFOSAA)

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) = 20

Reagent

LCd5-NEtFOSAA_00002

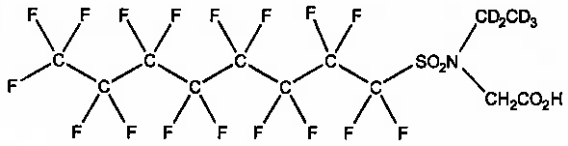
R: 7/6/16 CBW

671603
ID: LCd5-NEtFOSAA_00002
Exp: 12/07/20 Prpd: CBW
d5-N-EtFOSAA

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	d5-N-EtFOSAA	**LOT NUMBER:**	d5NEtFOSAA1115
COMPOUND:	N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.27
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_6$
LAST TESTED: (mm/dd/yyyy)	12/07/2015		
EXPIRY DATE: (mm/dd/yyyy)	12/07/2020		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2015 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

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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, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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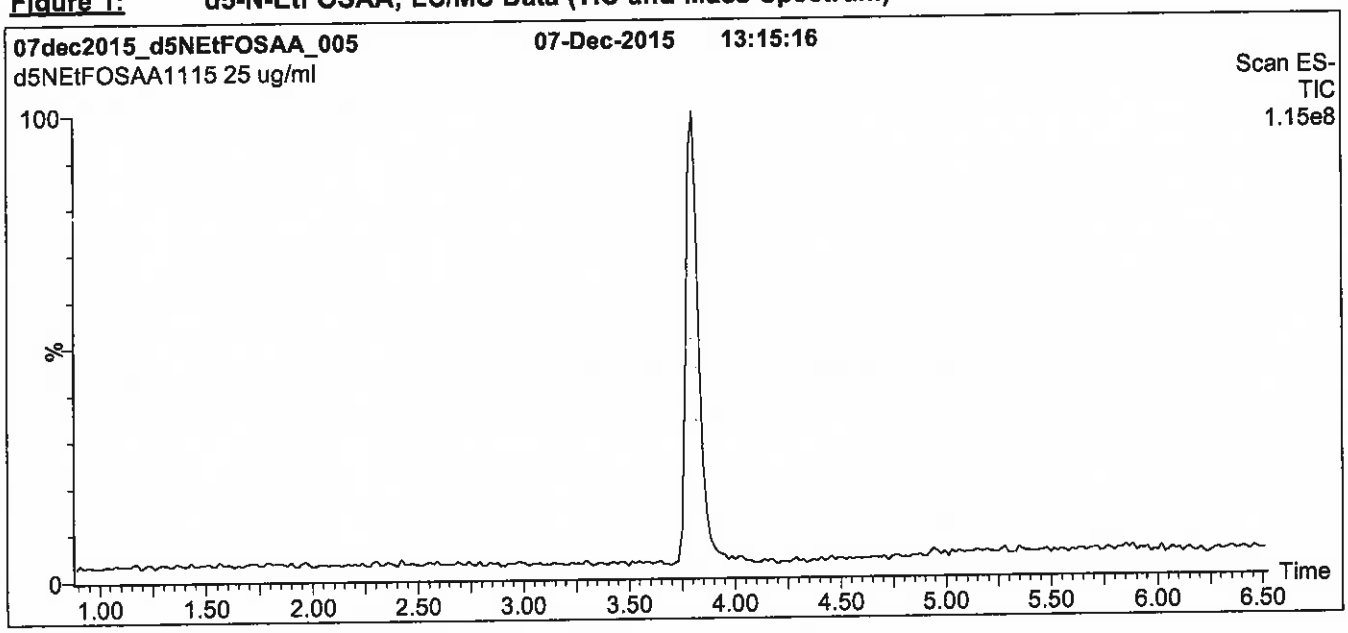
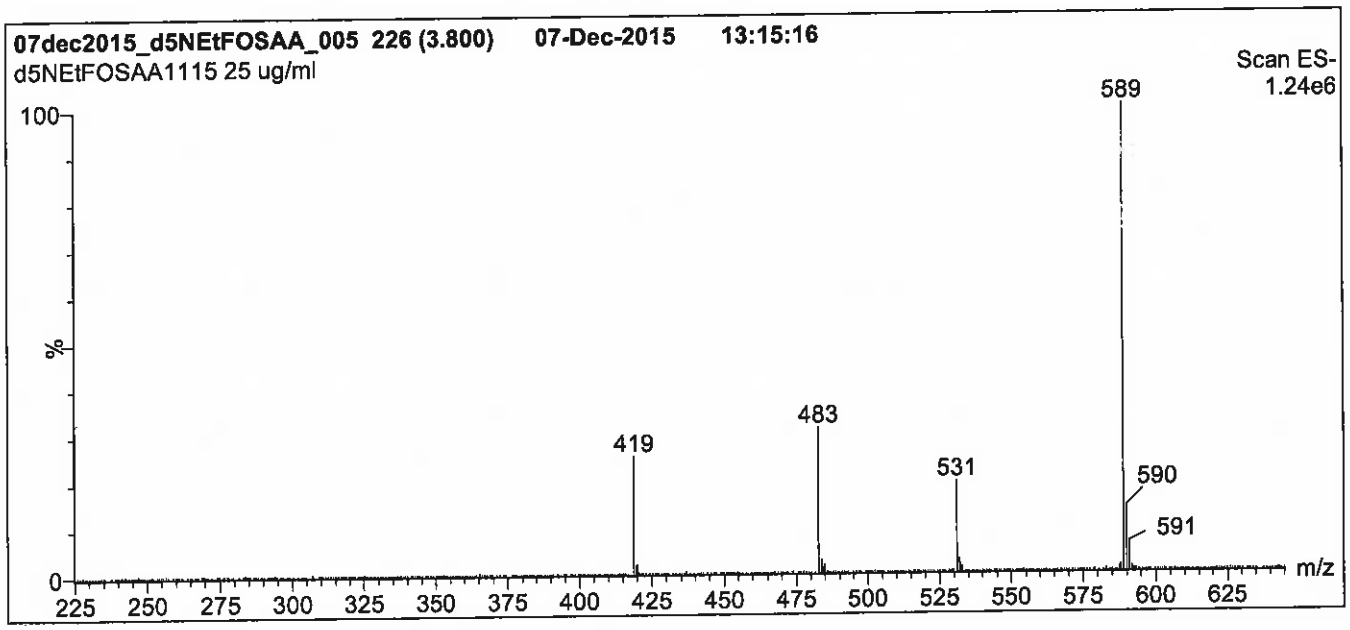
Figure 1: **d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





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

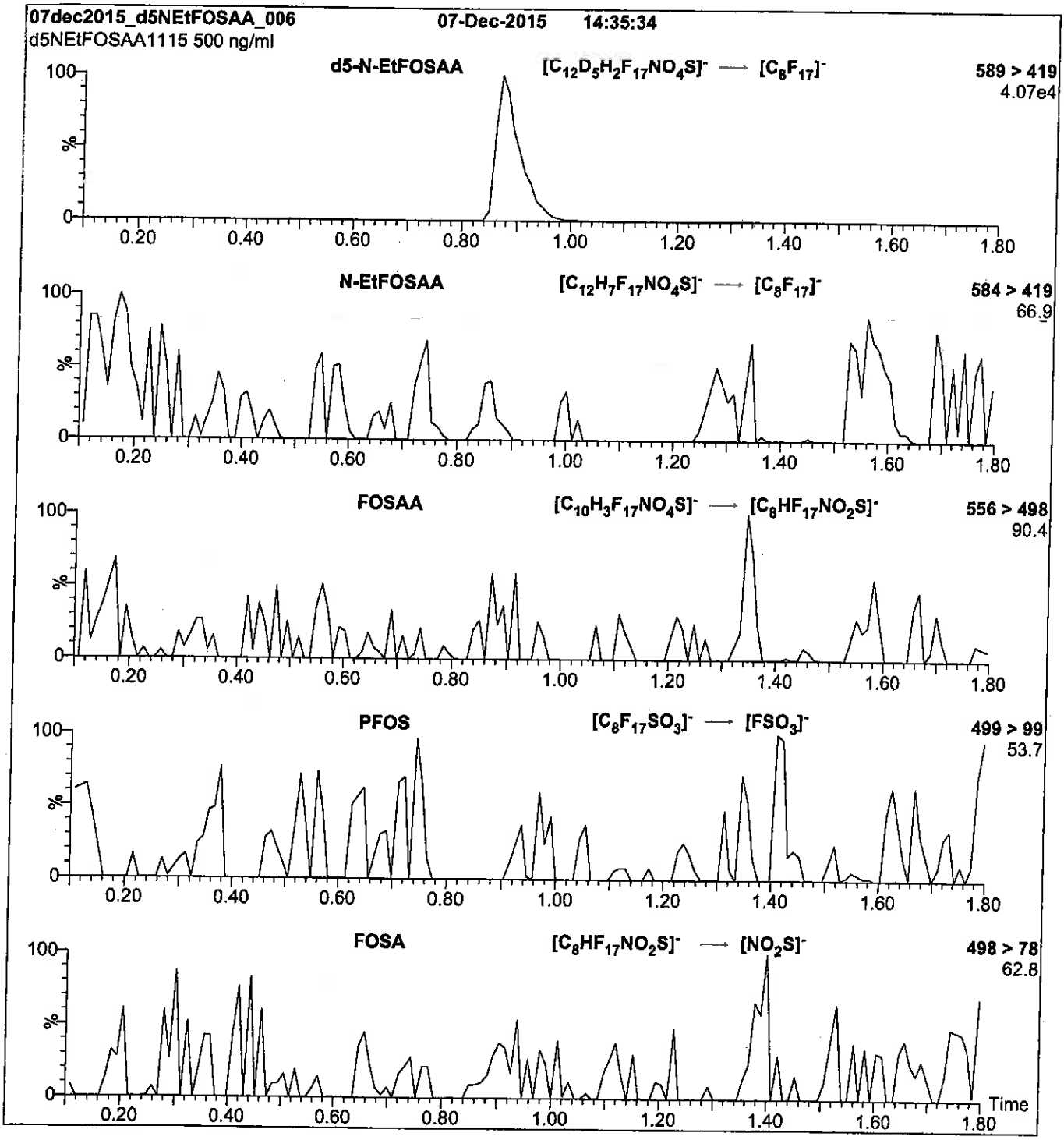
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d5-N-EtFOSAA)

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) = 25

Reagent

LCd5-NEtFOSAA_00003

R: 9/9/16 SBC

728301
ID: LCd5-NEtFOSAA_00003
Exp: 08/02/21 Prpd: SBC
d5-N-EtFOSAA

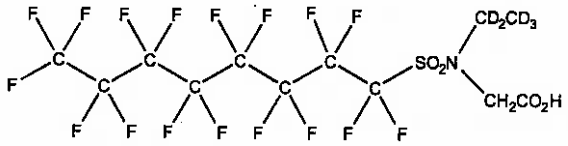
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA0716

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.26
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	08/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/02/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 08/09/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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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, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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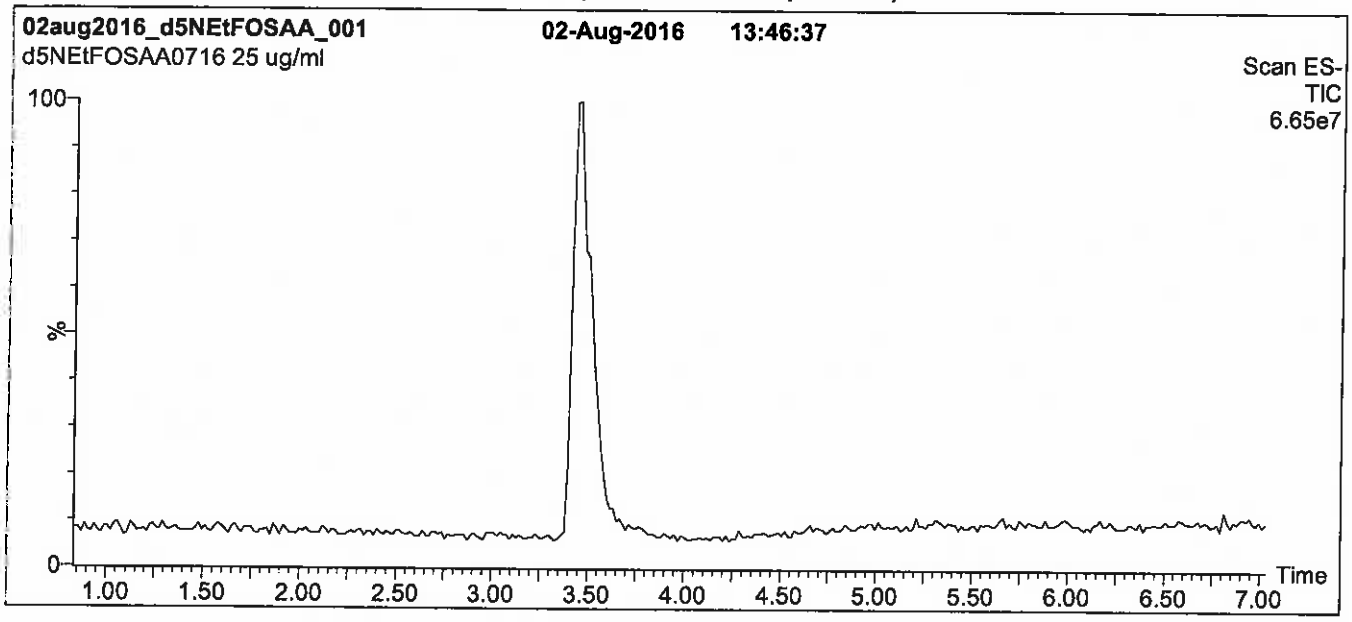
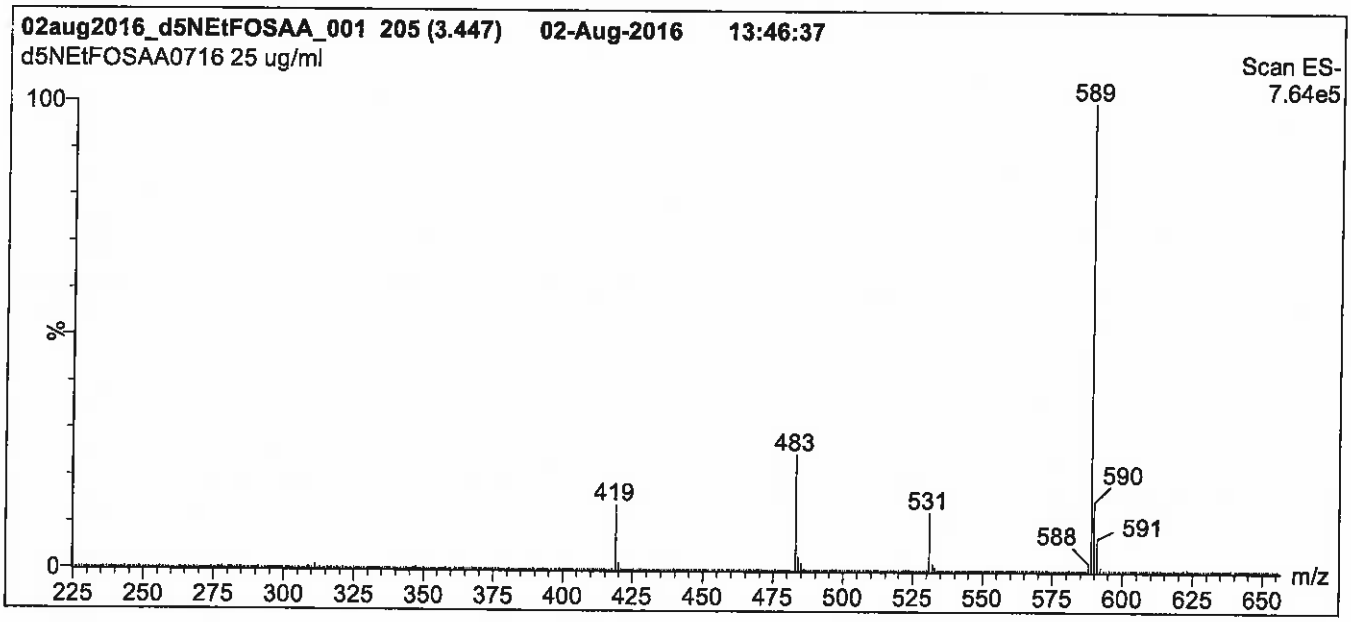
Figure 1: d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)





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

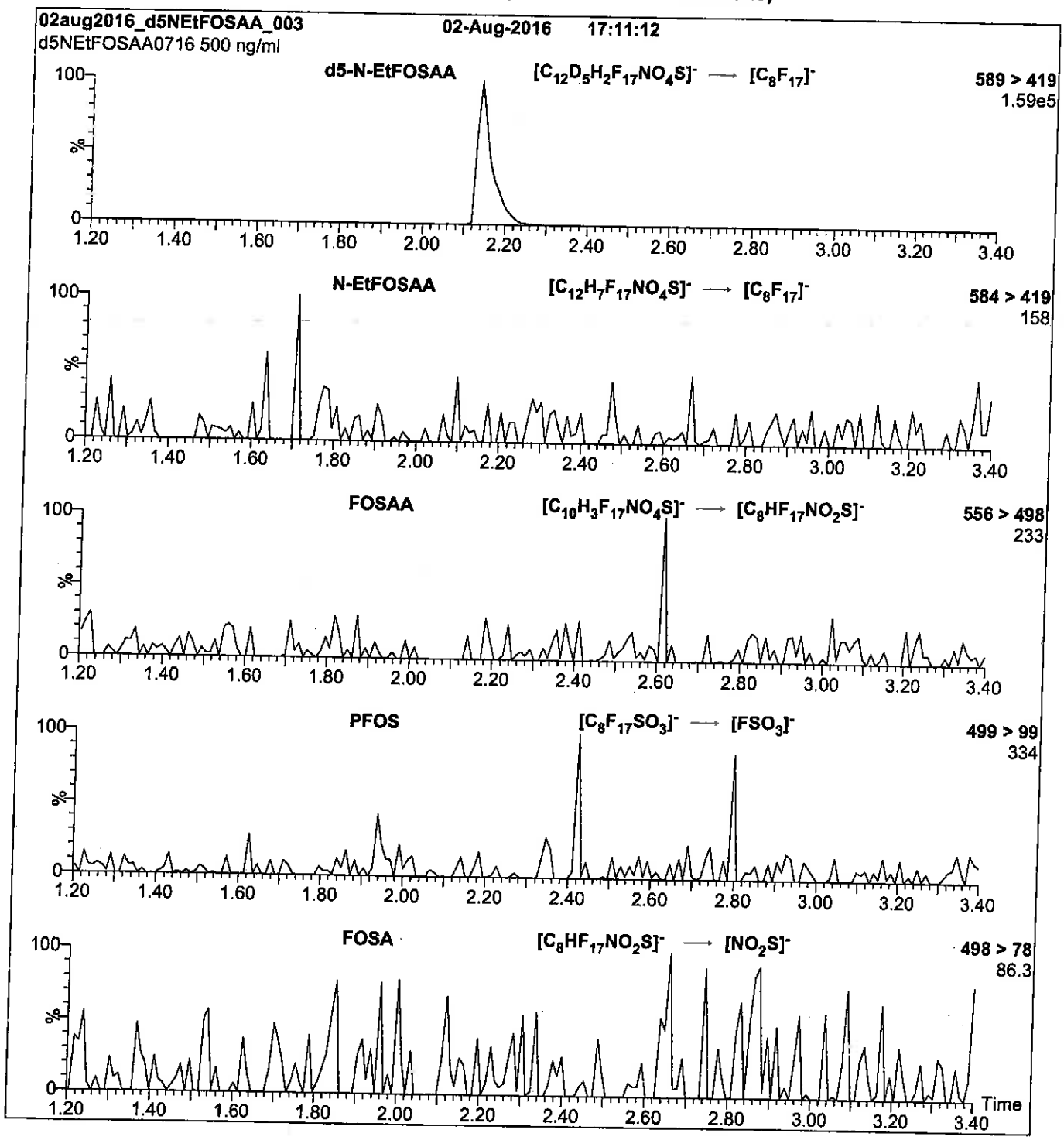
Flow: 350 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml d5-N-EtFOSAA)
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) = 25

Reagent

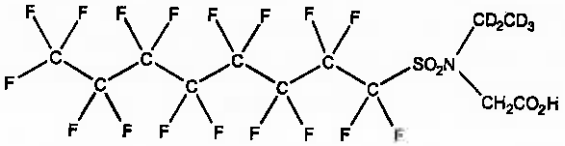
LCd5-NEtFOSAA_00004

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA
LOT NUMBER: d5NEtFOSAA1116
COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.26
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/01/2016 (mm/dd/yyyy)

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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CALA

ANAB ACCREDITED

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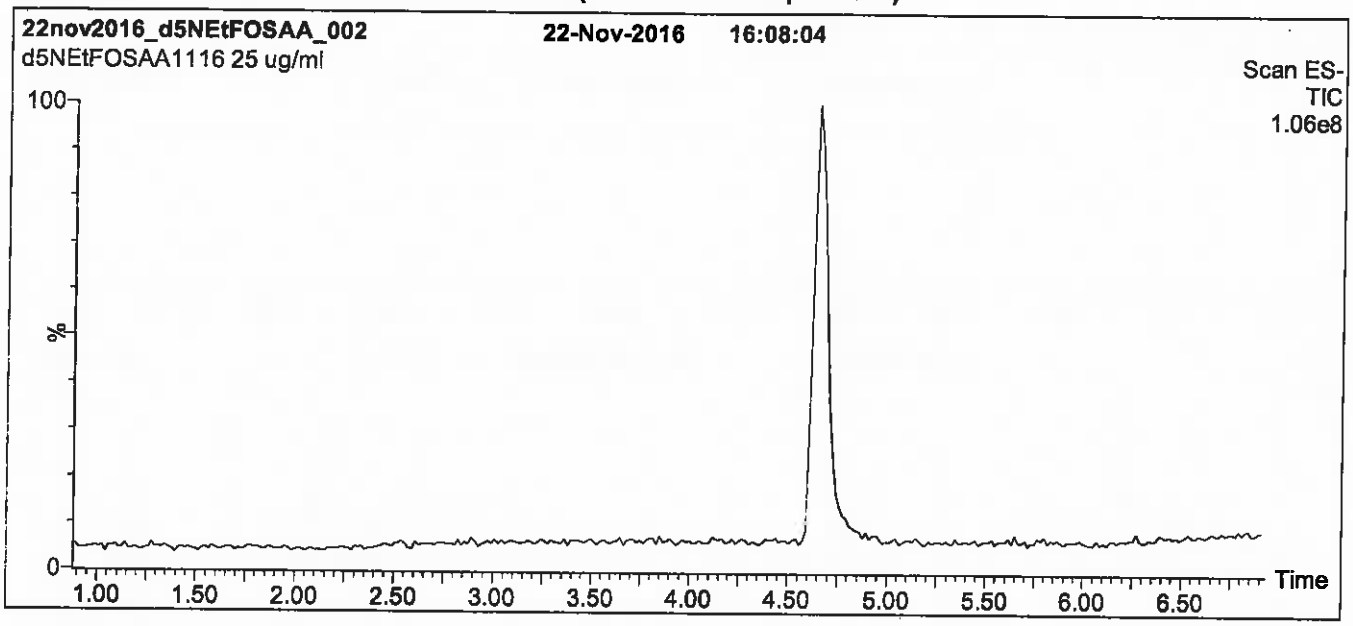
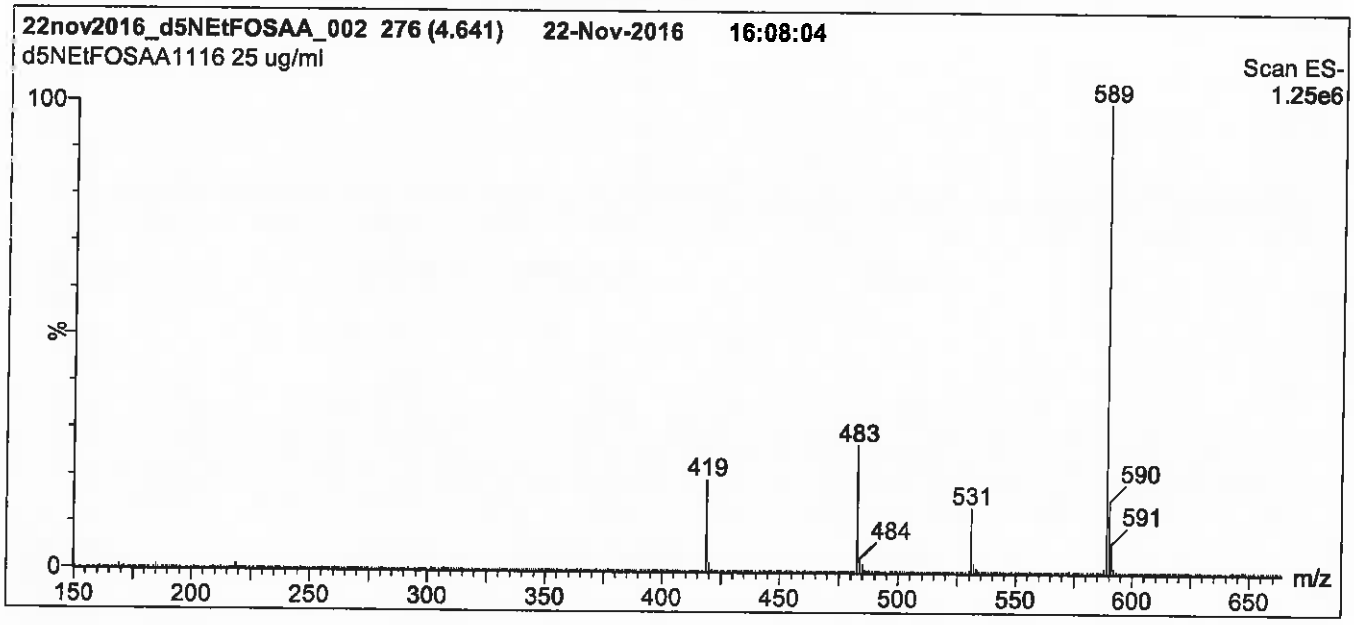
Figure 1: **d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





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

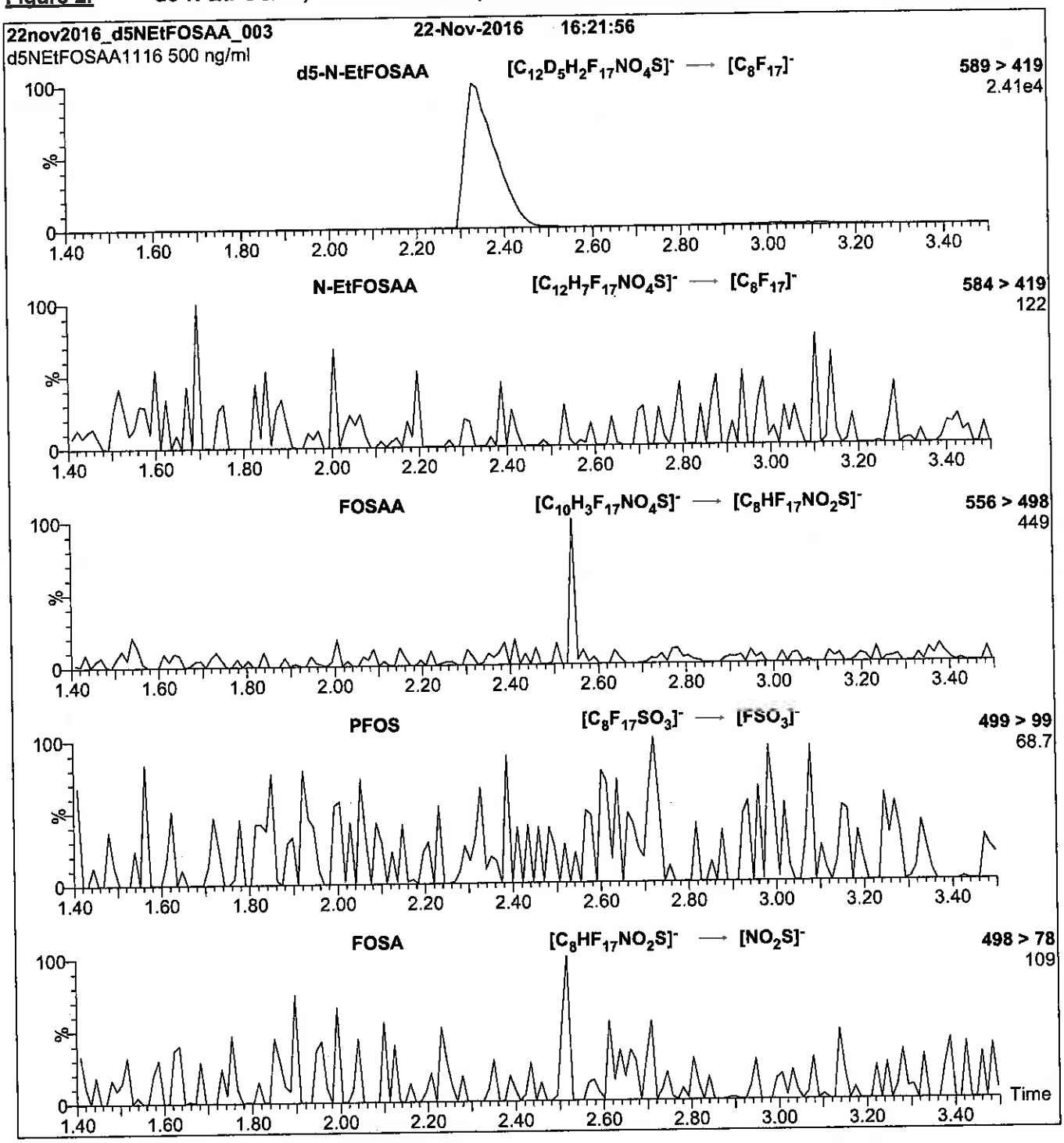
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d5-N-EtFOSAA)

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) = 20

Reagent

LCM2-6:FTS_00002

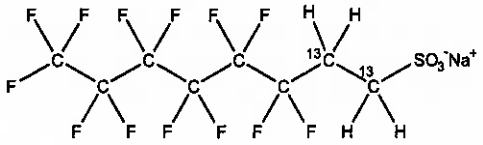
R: 7/6/16 CBW

671575
ID: LCM2-6:FTS_00002
Exp: 01/08/21 Prpd: CBW
M2-6:2FTS

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2-6:2FTS	**LOT NUMBER:**	M262FTS0116
COMPOUND:	Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.5 ± 2.4 µg/ml (M2-6:2FTS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	01/08/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/08/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

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Certified By: B.G. Chittim **Date:** 01/11/2016 (mm/dd/yyyy)

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

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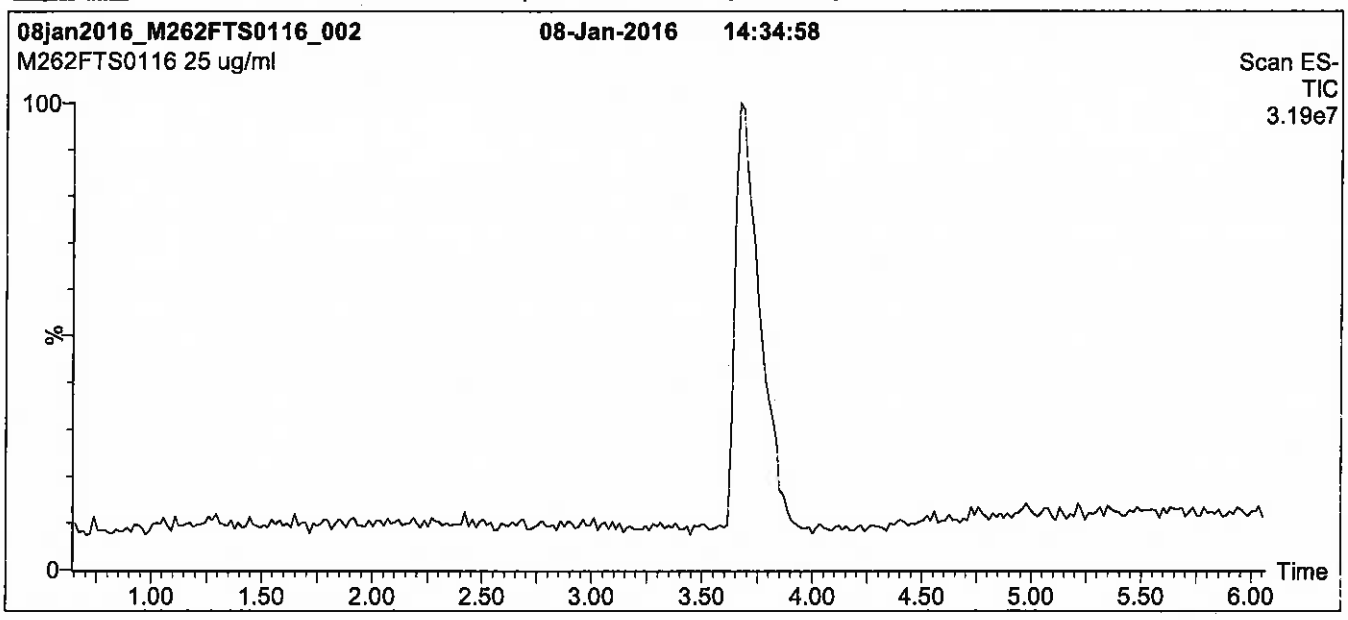

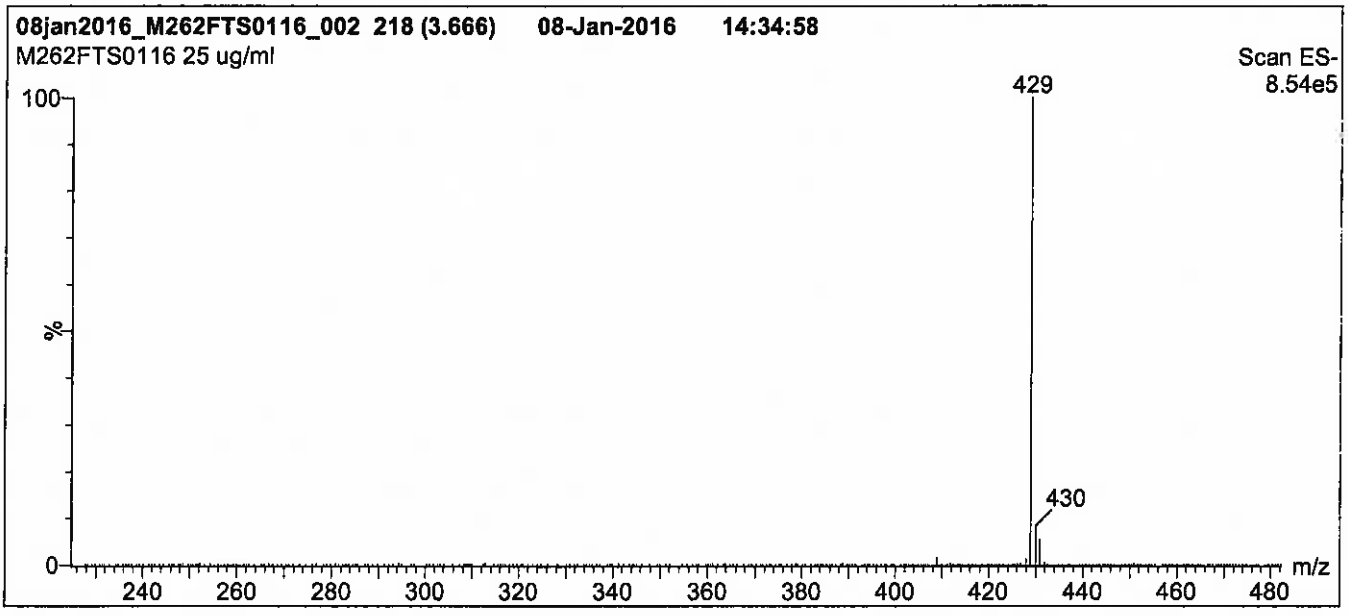

Conditions for Figure 1:

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) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
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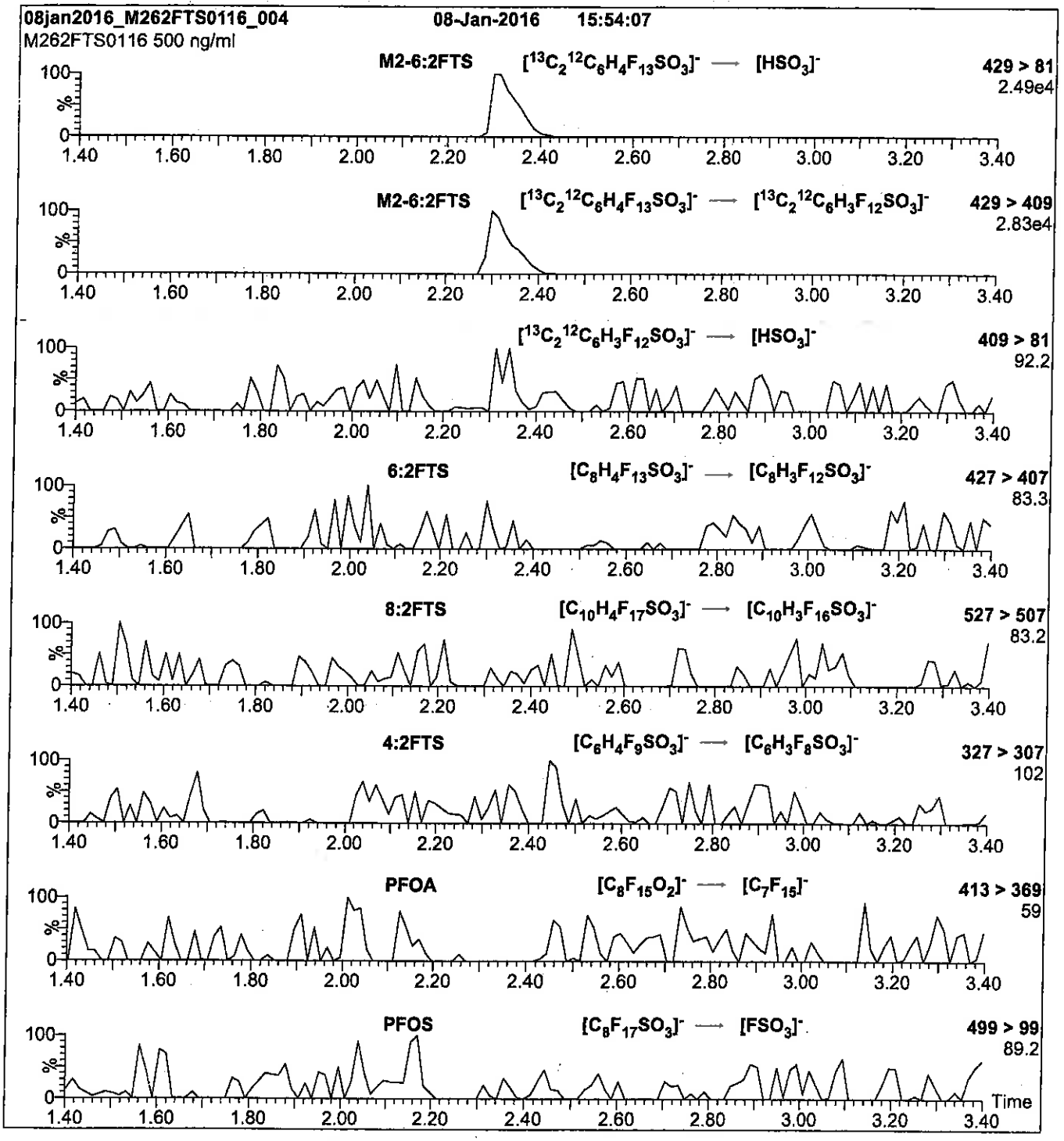
Figure 2: **M2-6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-6:2FTS)

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) = 25

Reagent

LCM2-6:FTS_00003

R: 9/9/16 SBC

728304
ID: LCM2-6:FTS_00003
Exp: 01/08/21 Prpd: SBC
M2-6:2FTS

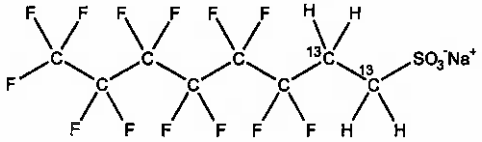
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0116

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



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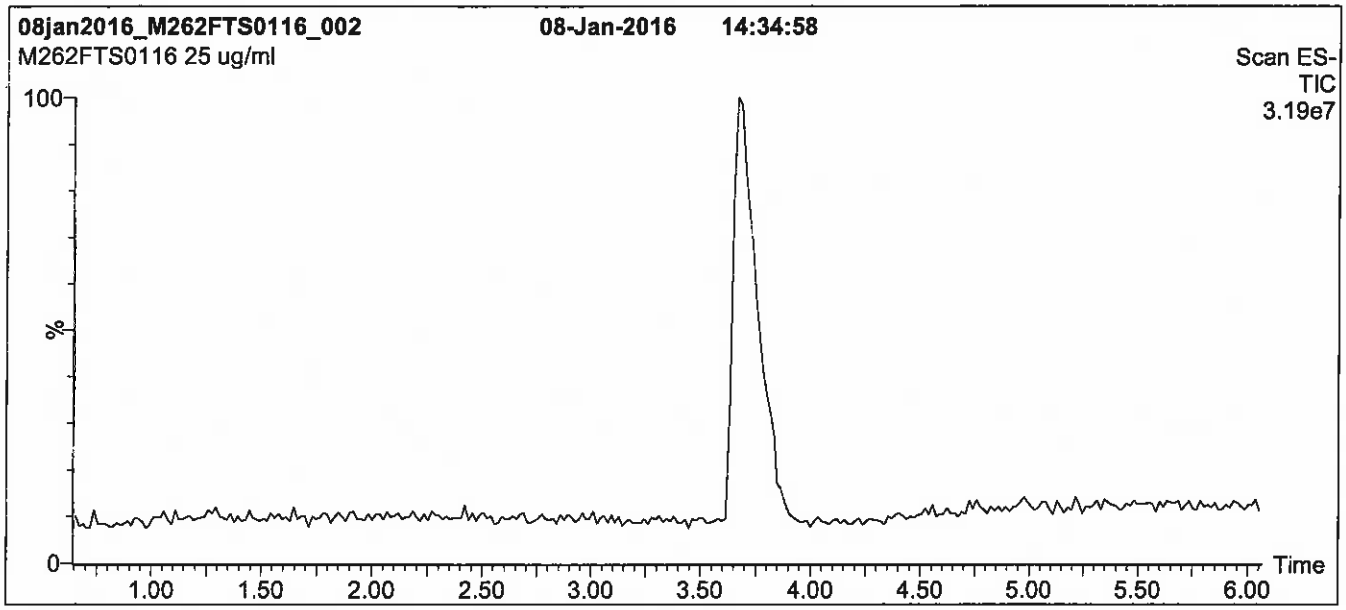

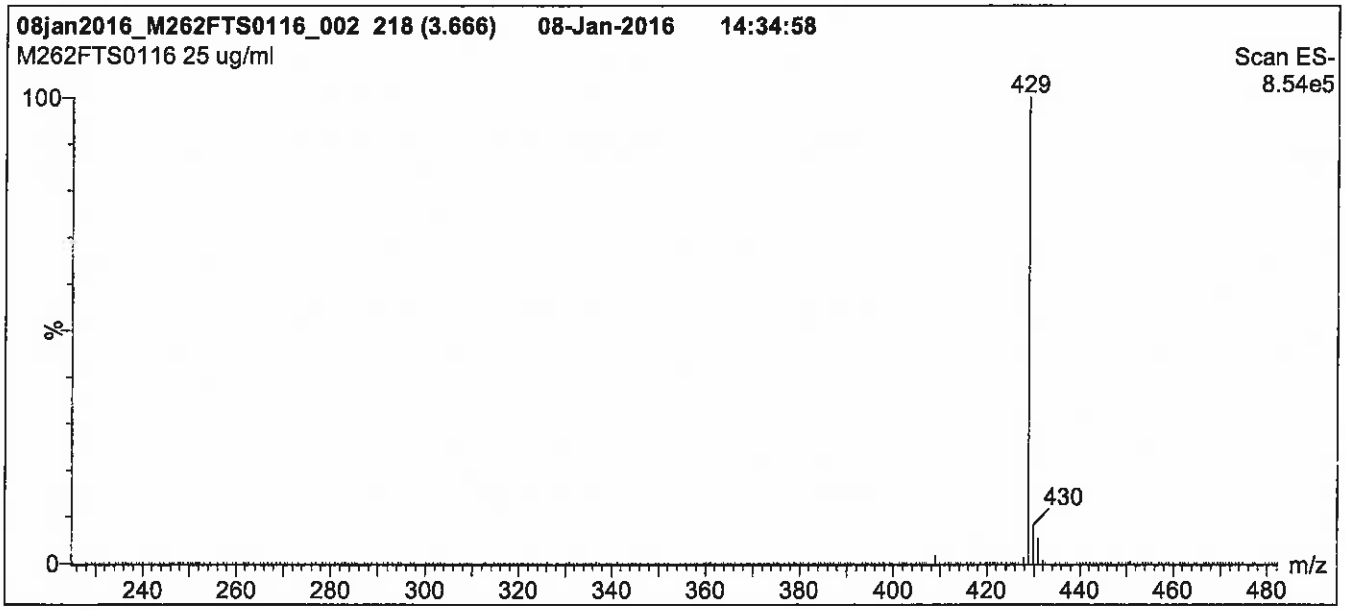

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LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

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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
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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

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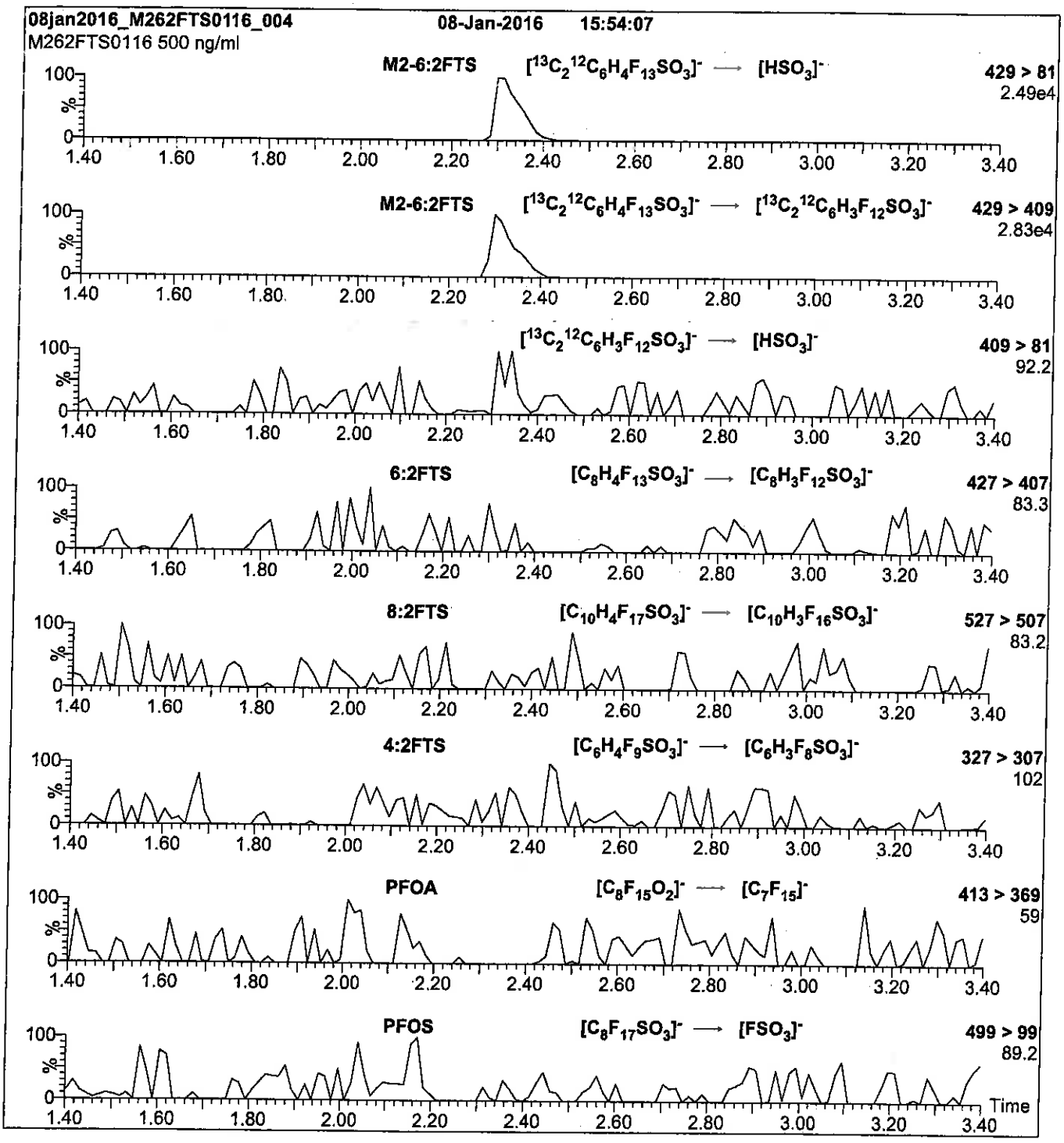

Conditions for Figure 2:

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(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

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

Reagent

LCM2-6:FTS_00004

P: 3/20/17 SRV

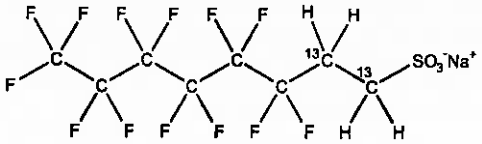
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0217

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



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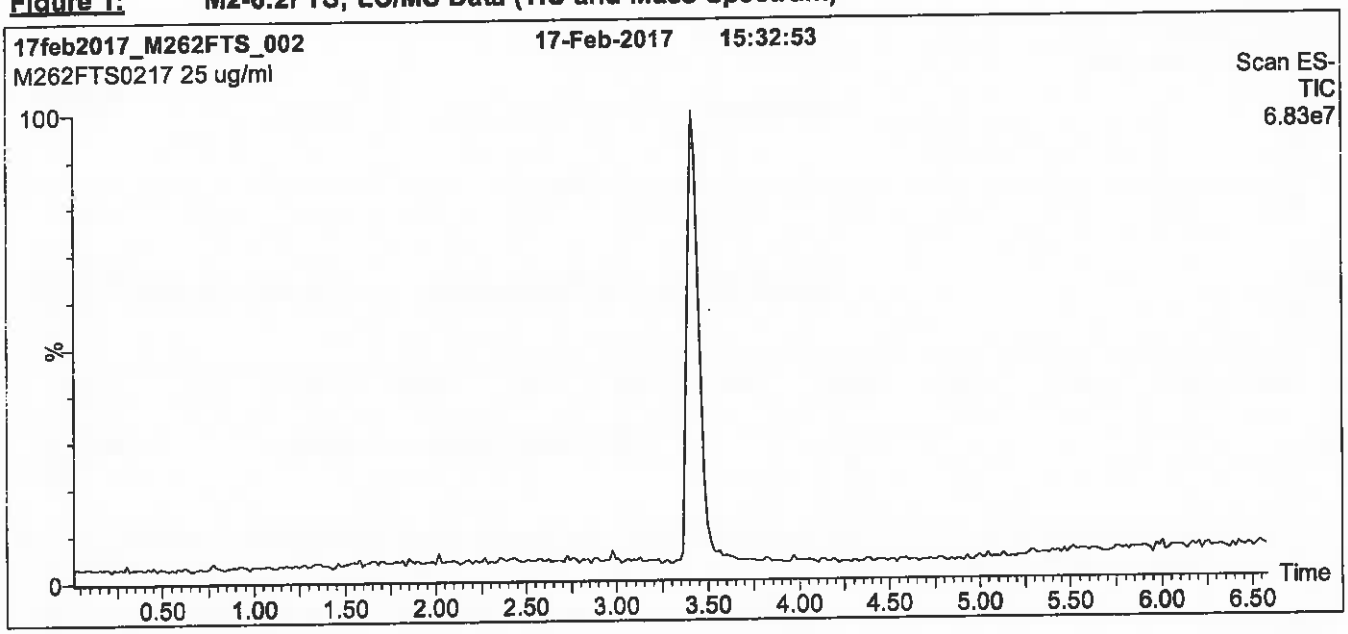

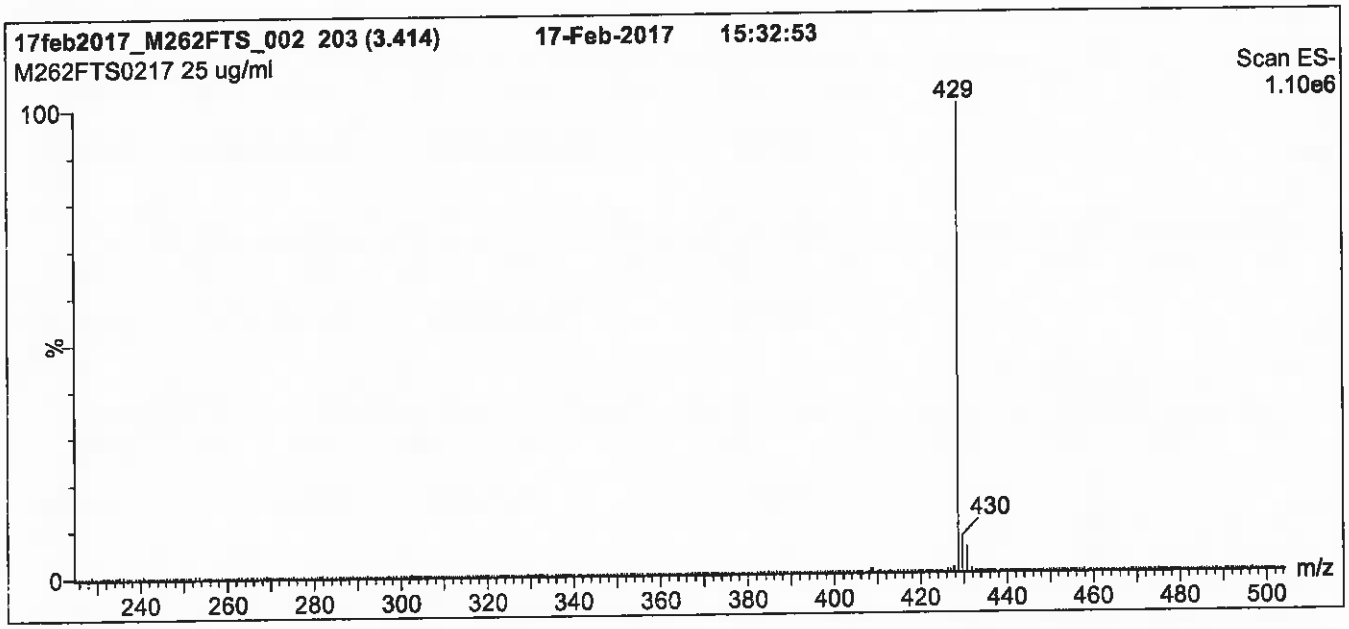

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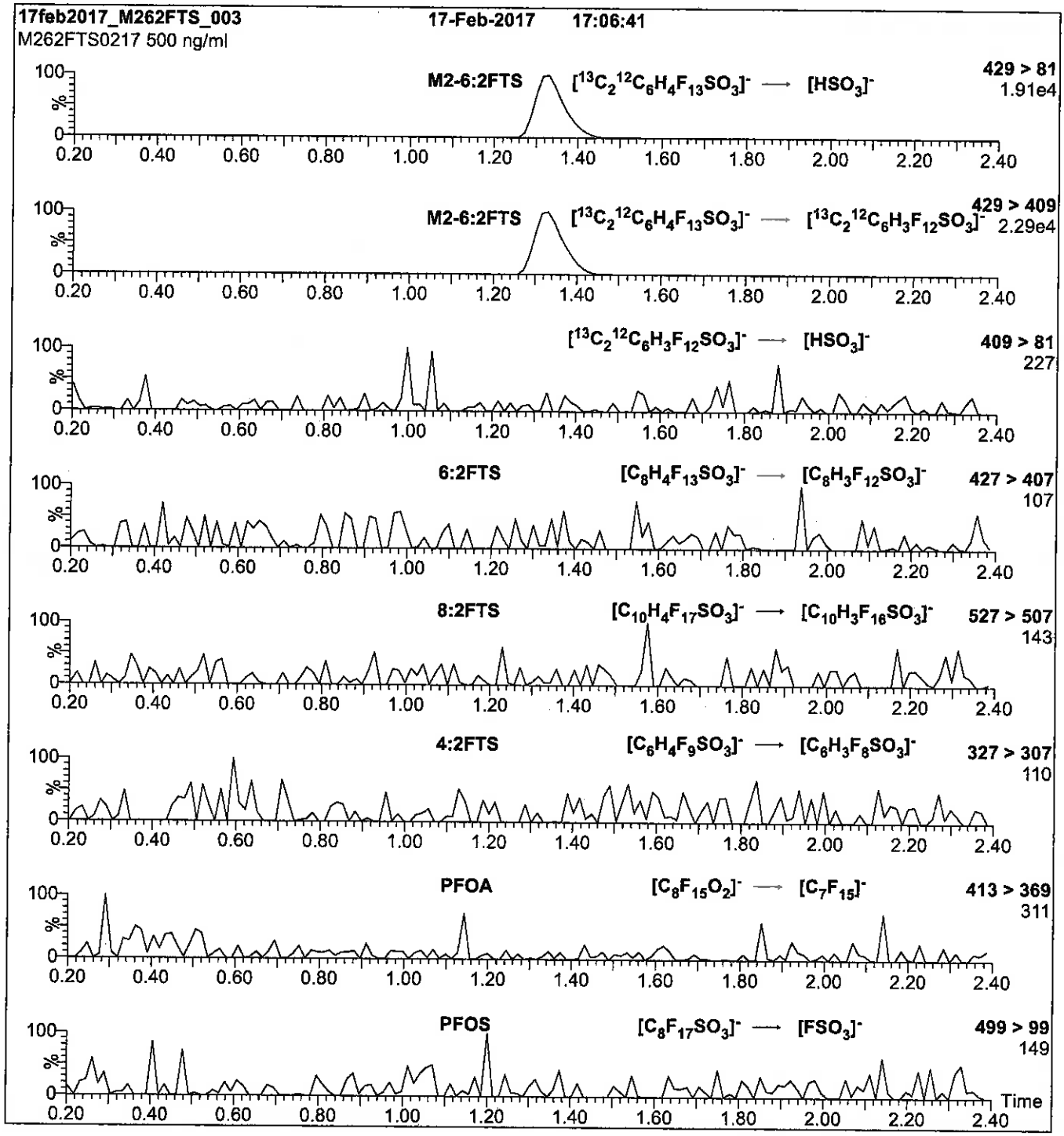

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(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 25

Reagent

LCM2-8:2FTS_00002

R: 7/6/16 cw

671602
ID: LCM2-8:2FTS_00002
Exp: 01/08/21 Prpd: CBW
M2-8:2FTS

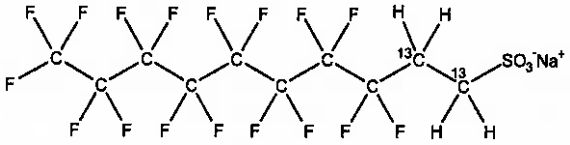
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0116

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	01/08/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/08/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/18/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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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.

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

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EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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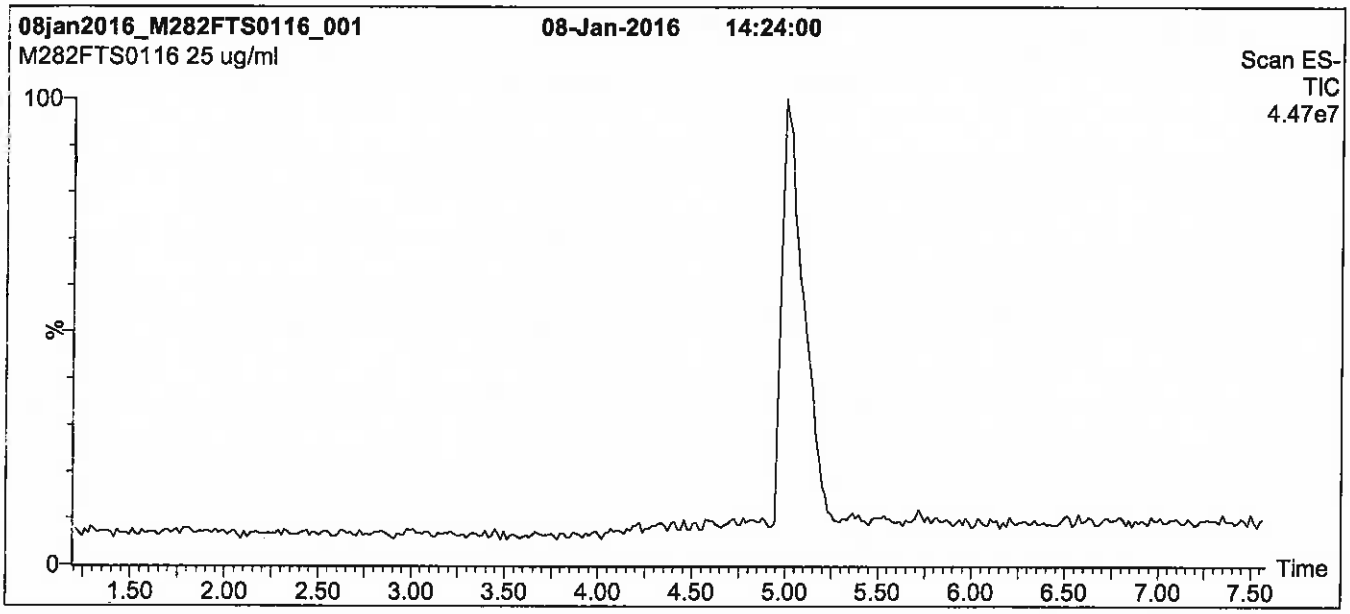
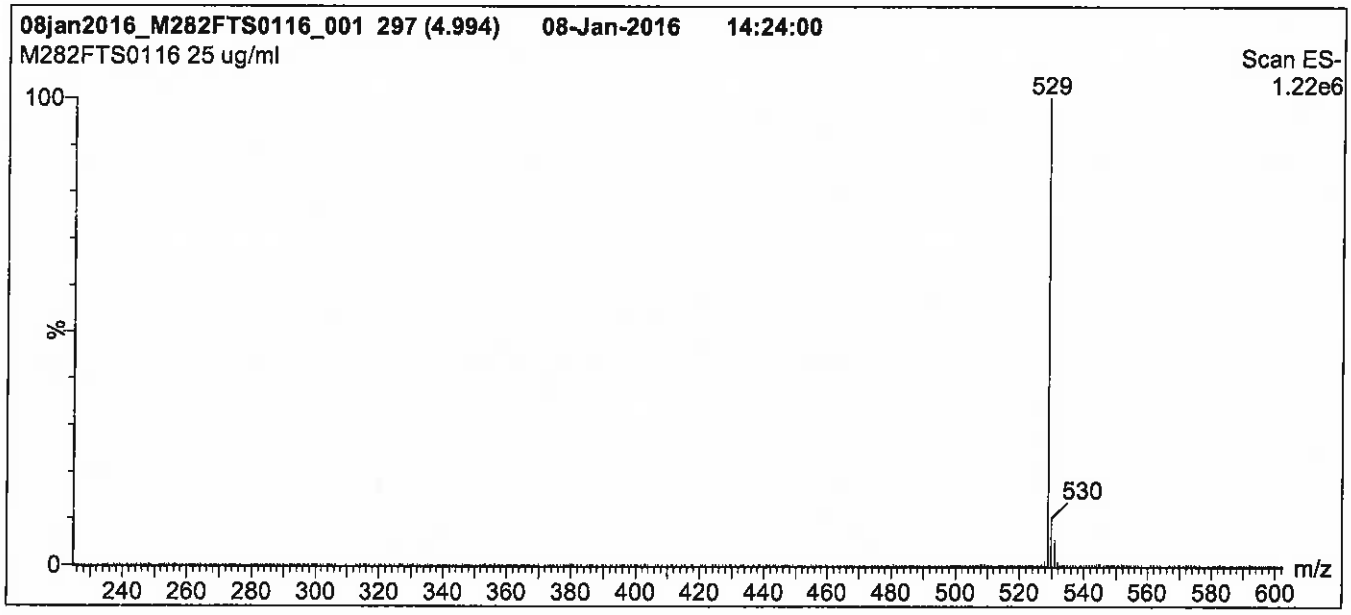
Figure 1: **M2-8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





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

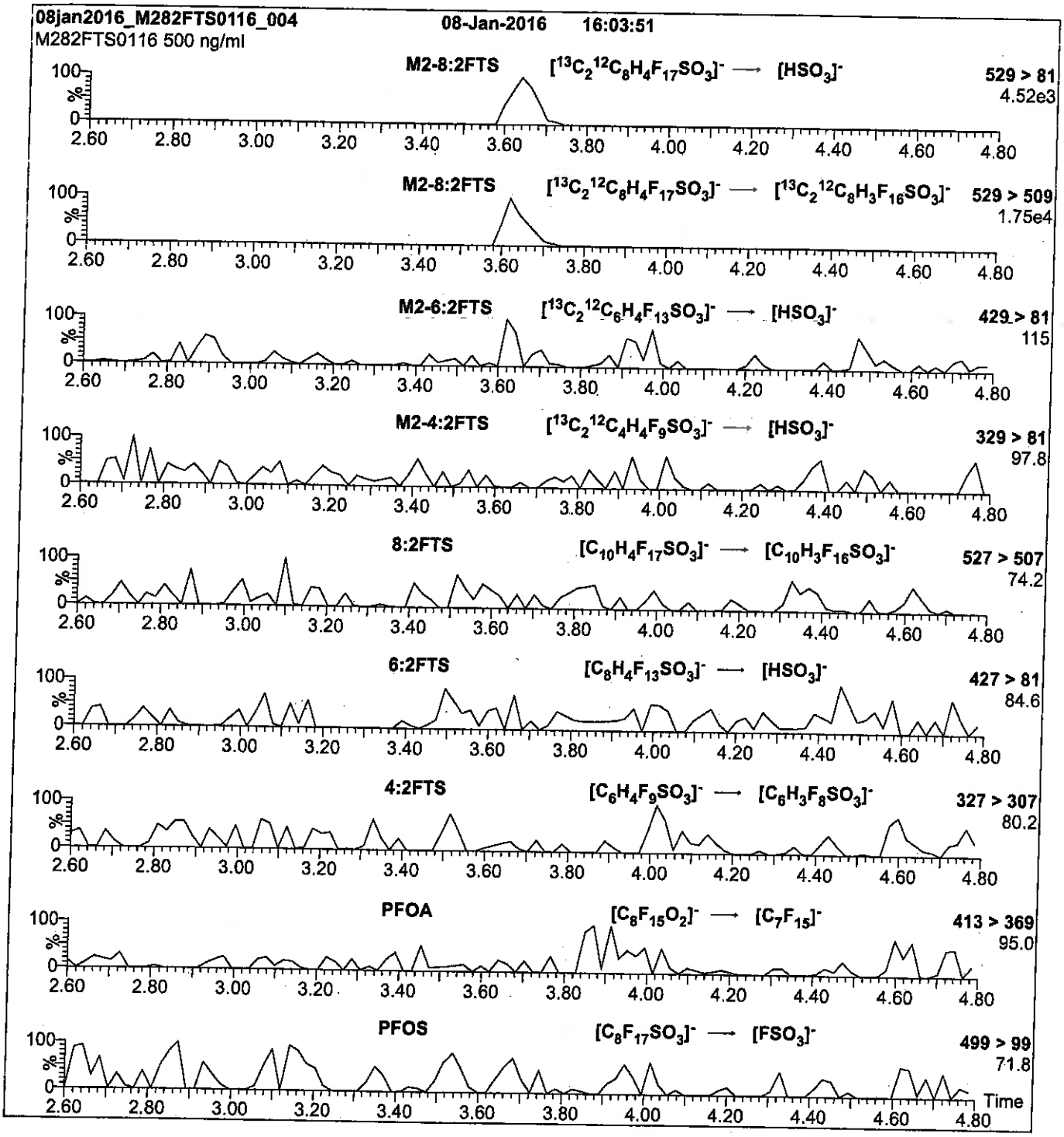
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2-8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2-8:2FTS)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 30

Reagent

LCM2-8:2FTS_00004

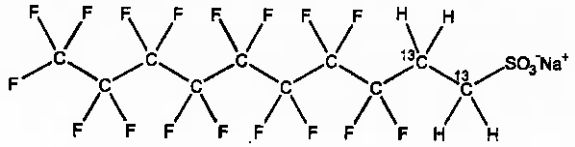
r: 3/20/17 SEV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS
LOT NUMBER: M282FTS0816
COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	08/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/22/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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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FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 09/02/2016 (mm/dd/yyyy)

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

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CALA

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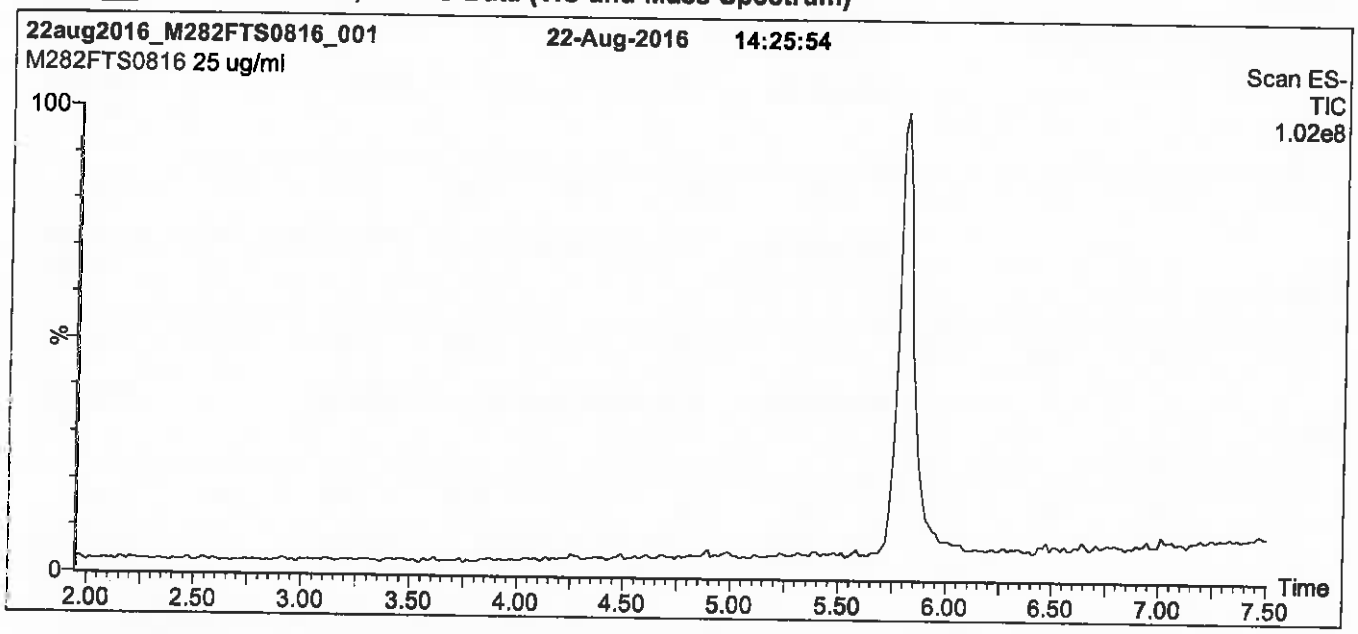
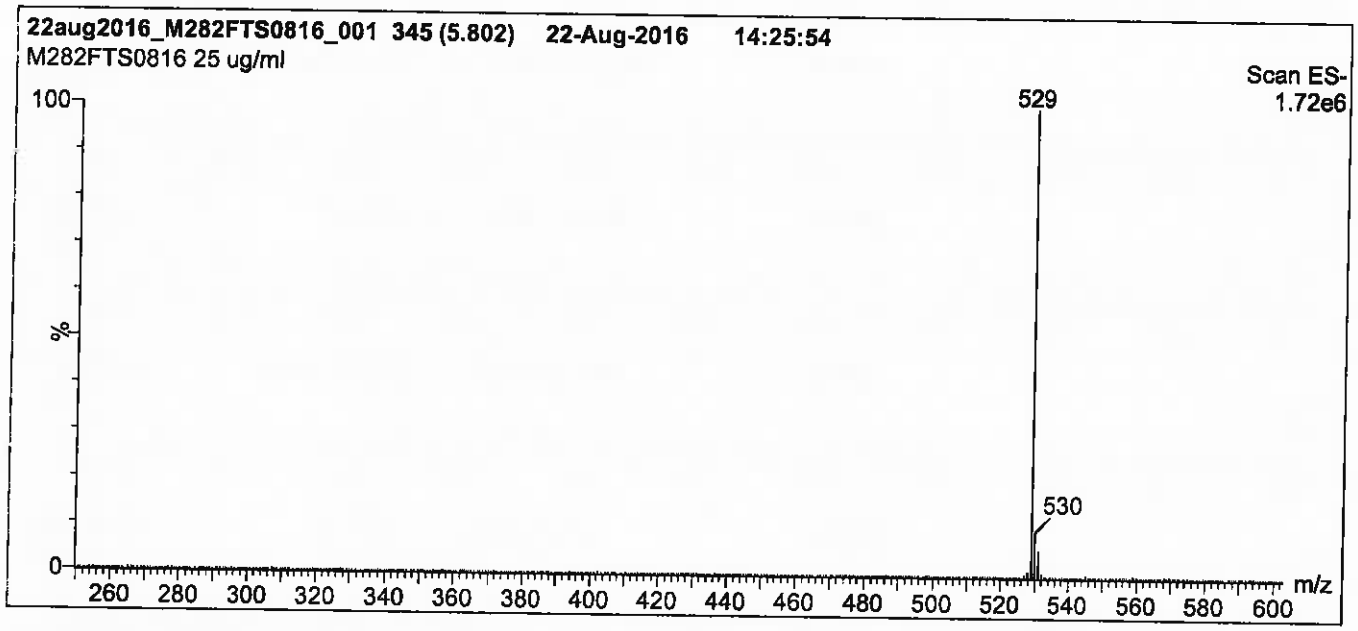
Figure 1: **M2-8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

Column: Agilent Zorbax Bonus-RP
1.8 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 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

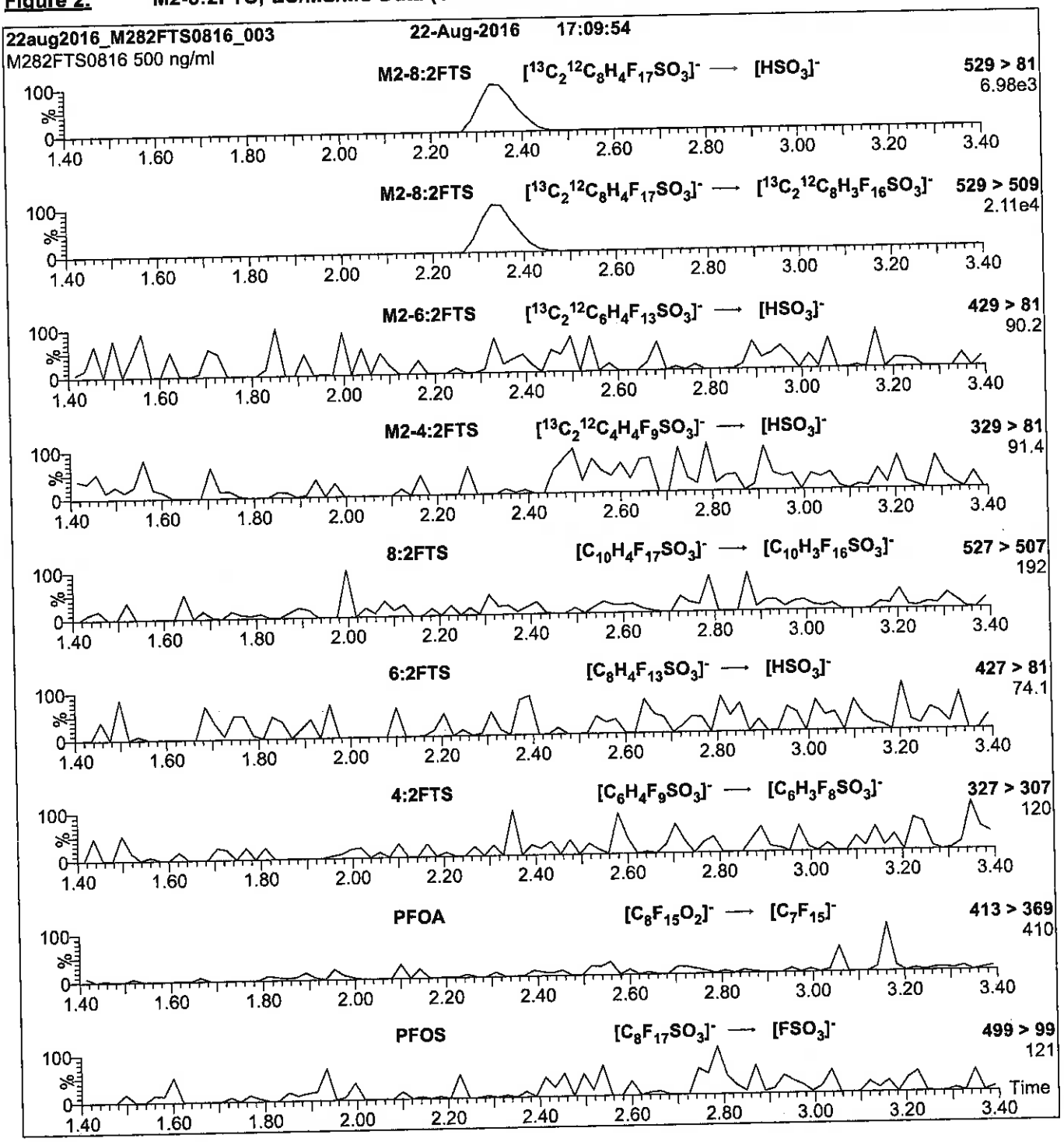
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2-8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-8:2FTS)

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) = 30

Reagent

LCM2PFHxDA_00008

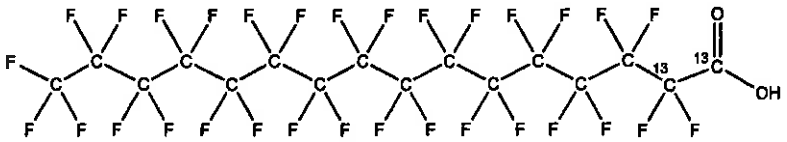
R: SBC 9/22/16

739512
ID: LCM2PFHxDA_00008
Exp: 01/07/21 Prpd: SBC
13C2-PFHxDA at 50ug/mL

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

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)	01/07/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/07/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 01/11/2016 (mm/dd/yyyy)

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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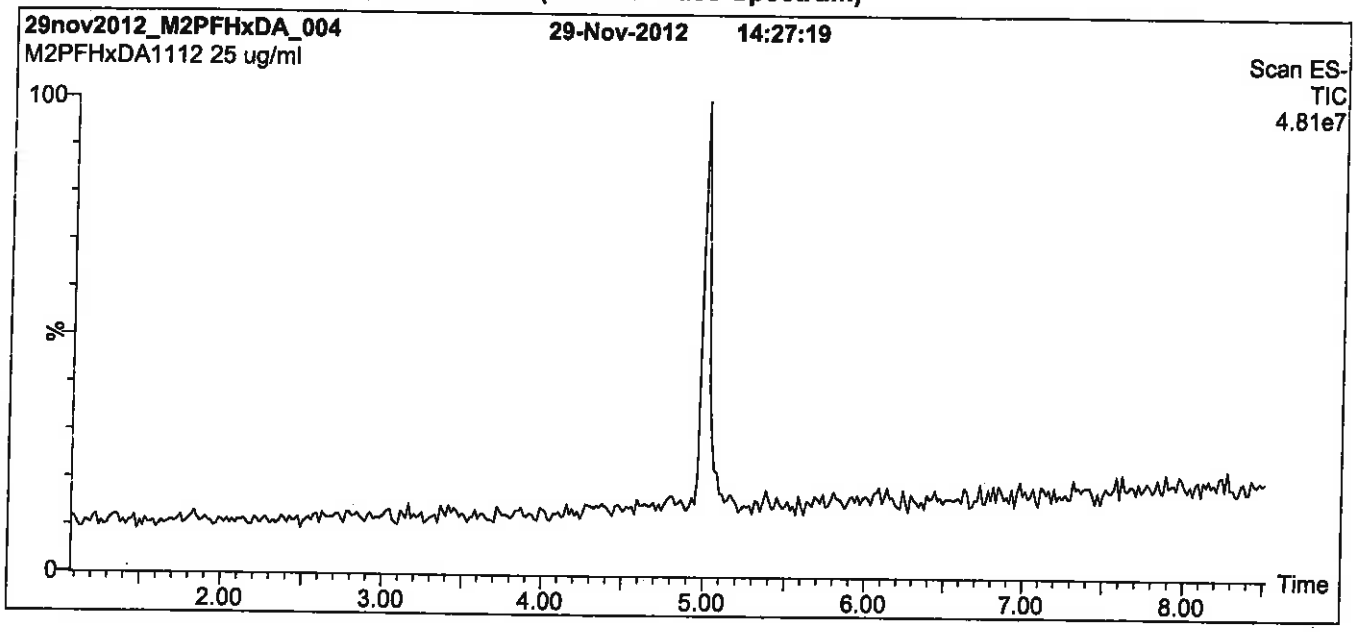
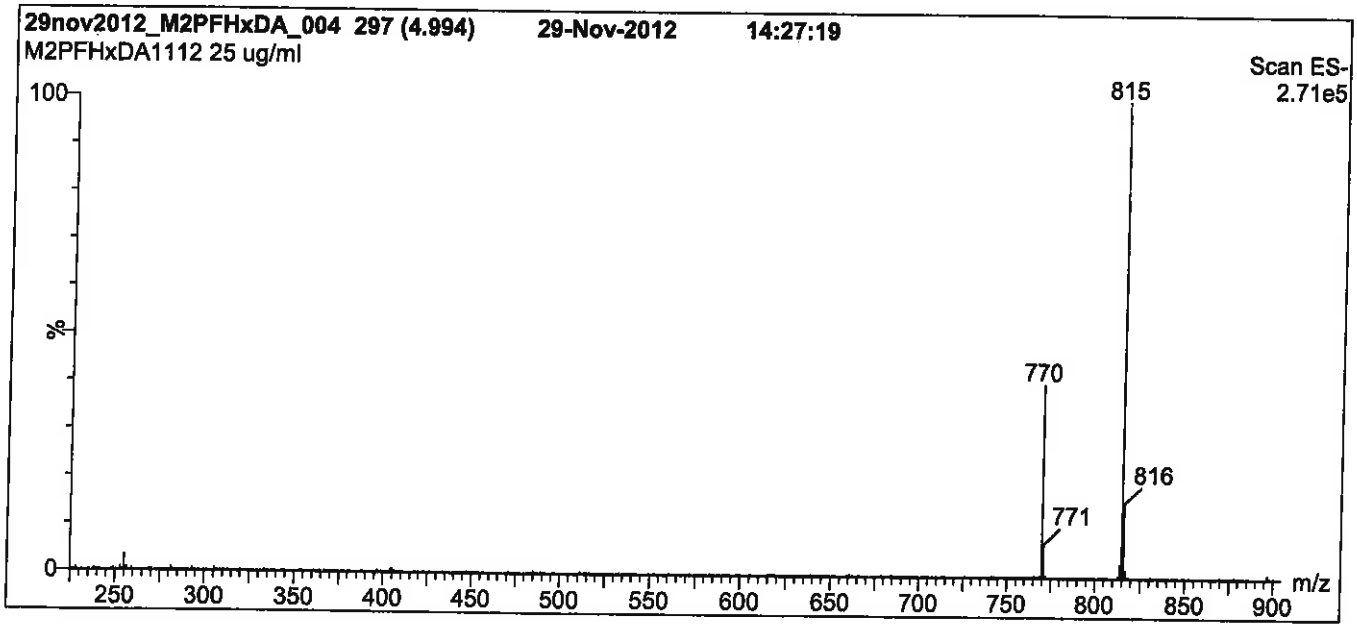
Figure 1: **M2PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





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

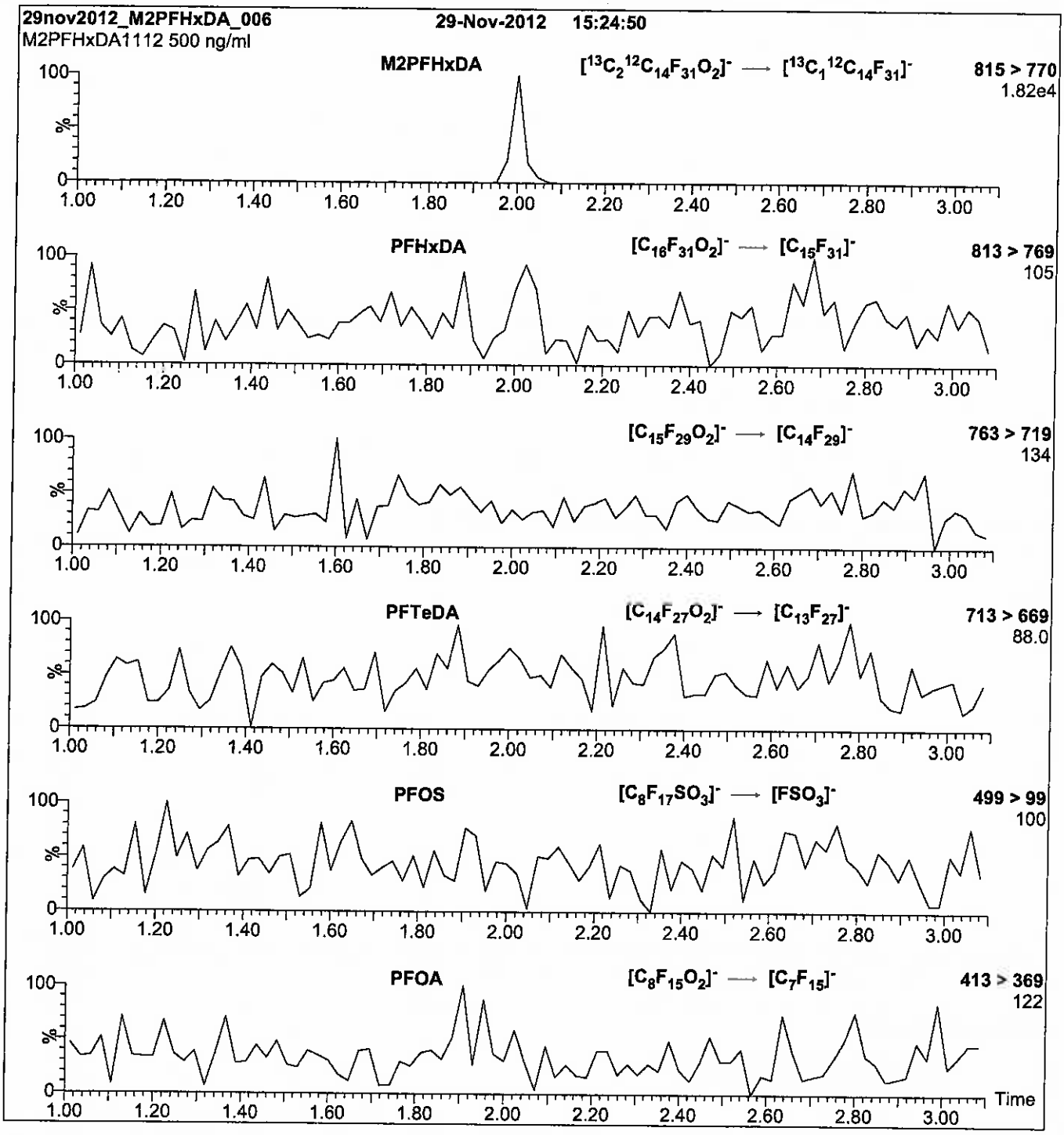
Flow: 300 µl/min

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

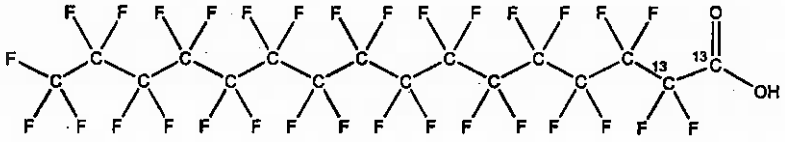
LCM2PFHxDA_00009

rr: 3/9/17 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

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)	01/07/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/07/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 01/11/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

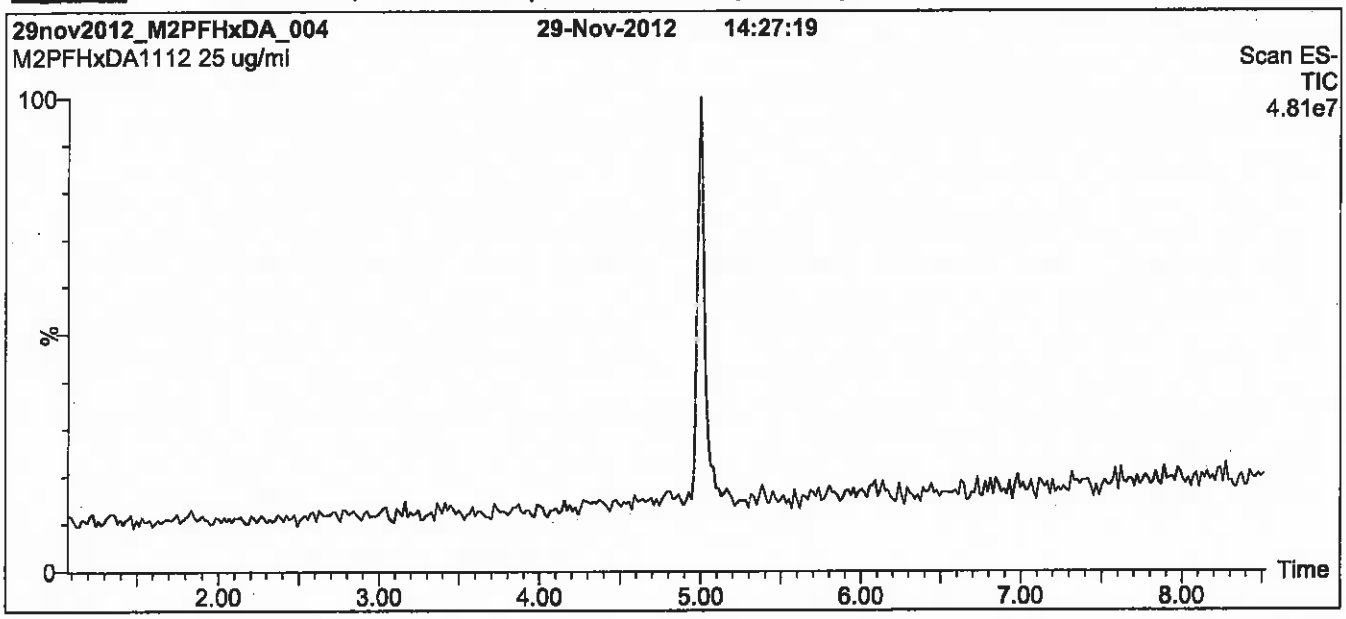
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

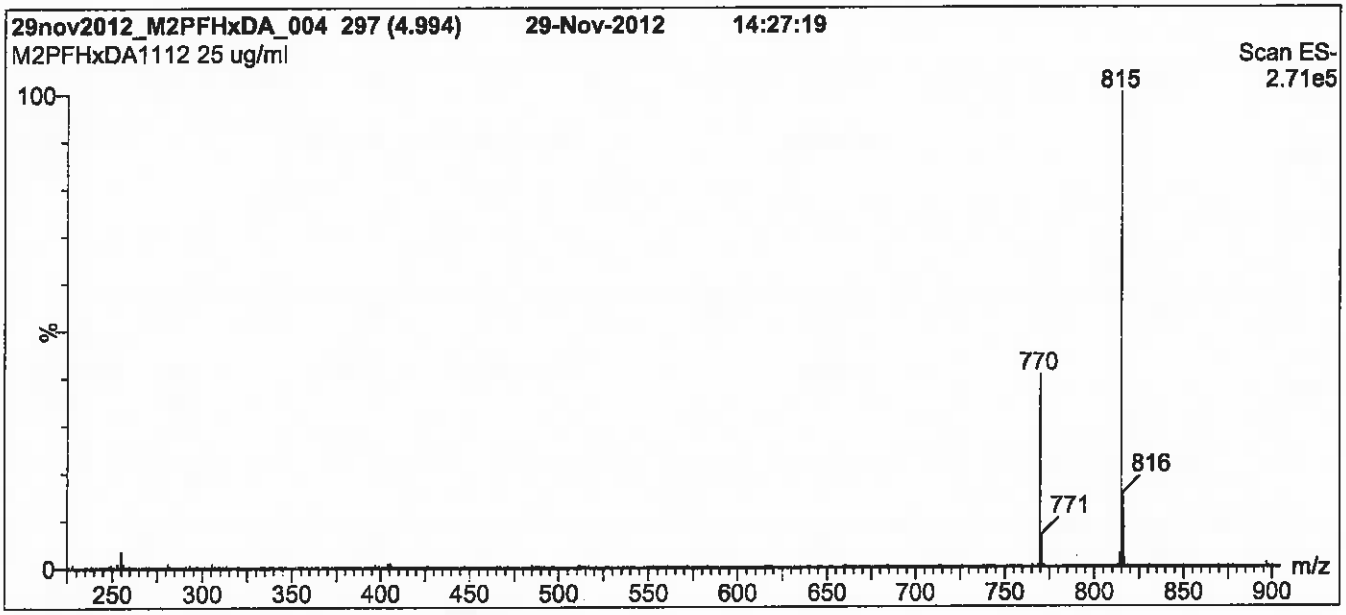
CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

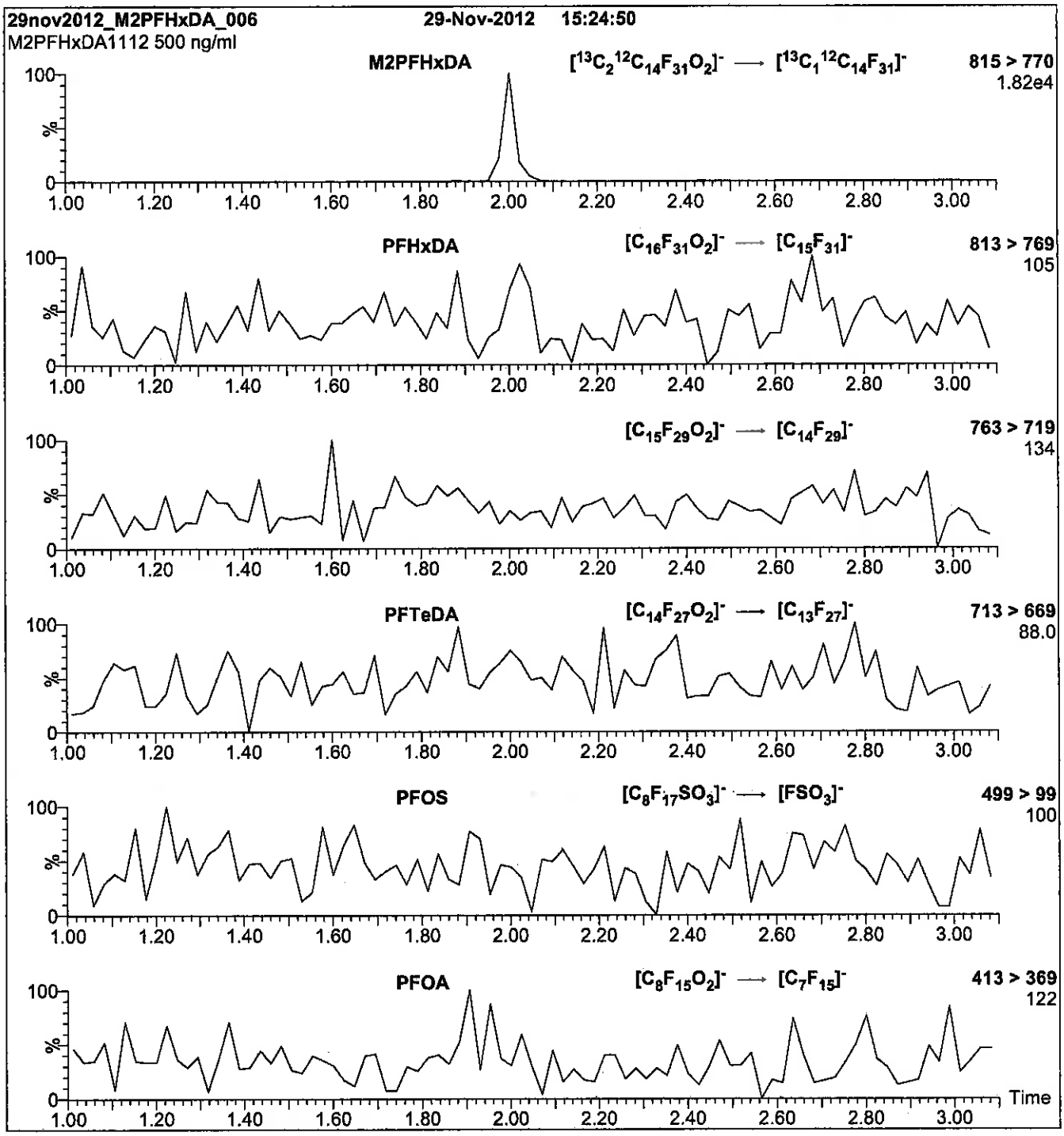
Flow: 300 µl/min

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

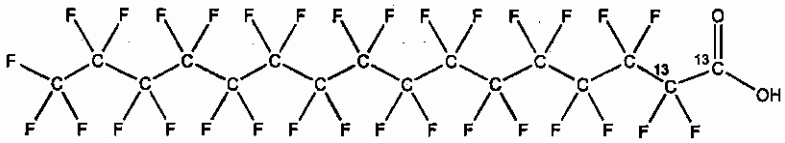
LCM2PFHxDA_00010

n: 5/3/17 SW

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

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)	01/07/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/07/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 01/11/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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HOMOGENEITY:

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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 of our products.

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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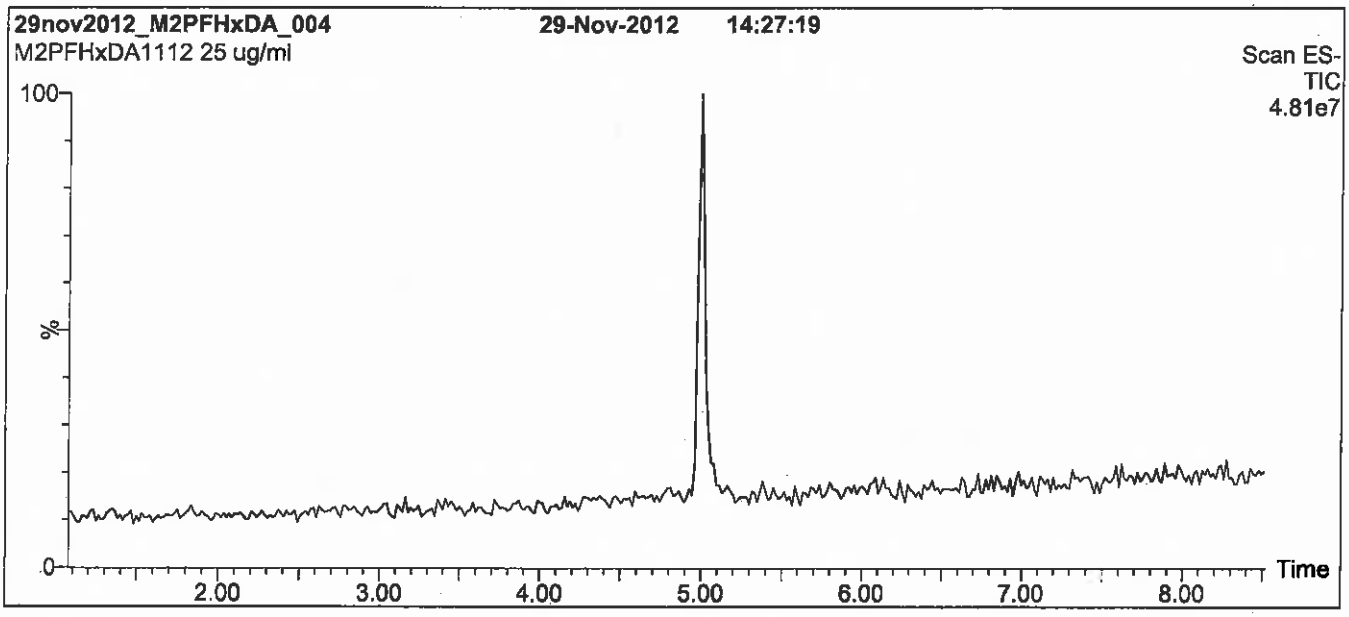
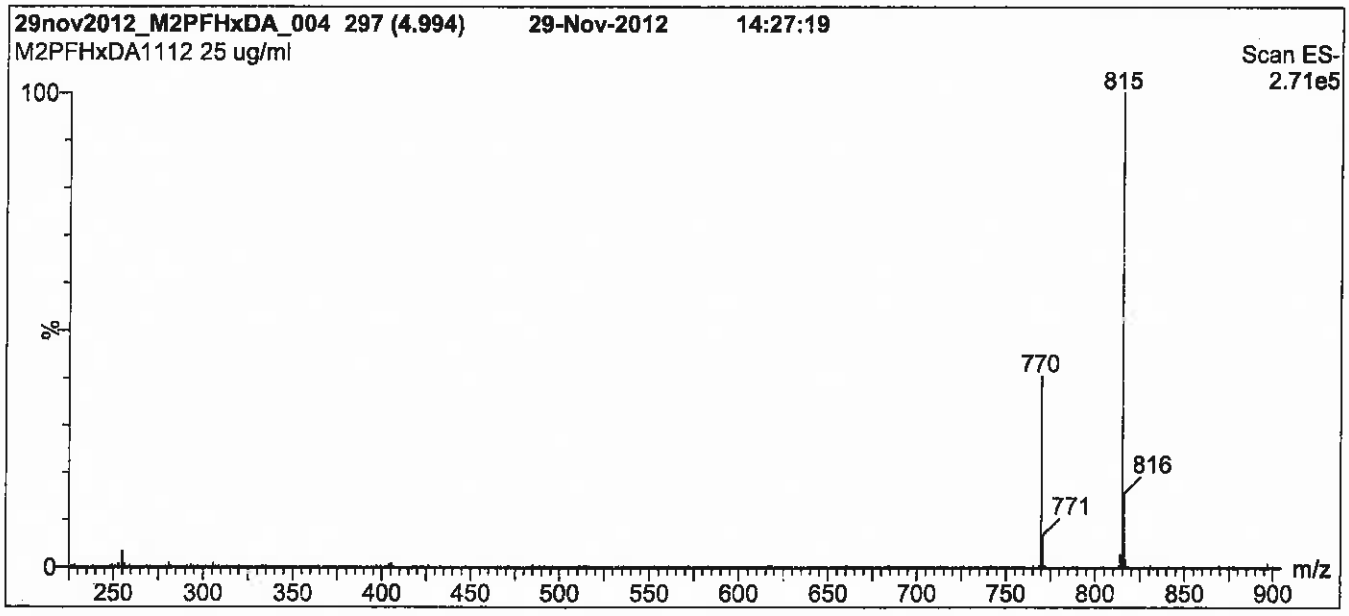
CALA

ANAB ACCREDITED

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

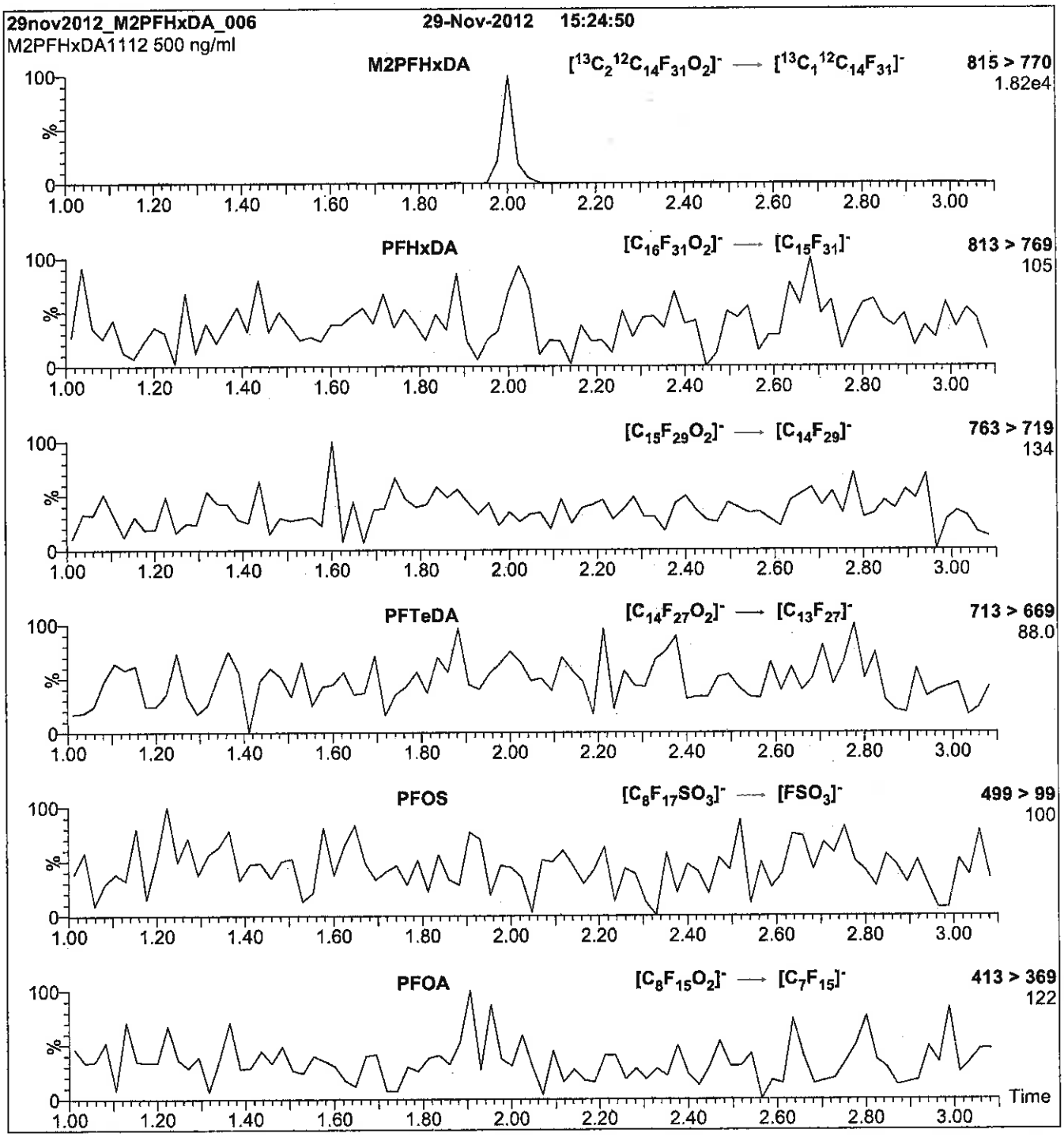
Flow: 300 µl/min

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

LCM2PFOA_00005

Rec'd. 2/10/15 SV

WELLINGTON LABORATORIES

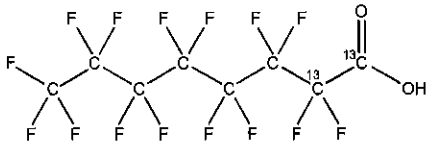
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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

LOT NUMBER: M2PFOA0613

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6HF_{15}O_2$	**MOLECULAR WEIGHT:**	416.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99%^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	06/19/2013		
EXPIRY DATE: (mm/dd/yyyy)	06/19/2018		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 07/16/2013 (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:

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

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration 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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QUALITY MANAGEMENT:

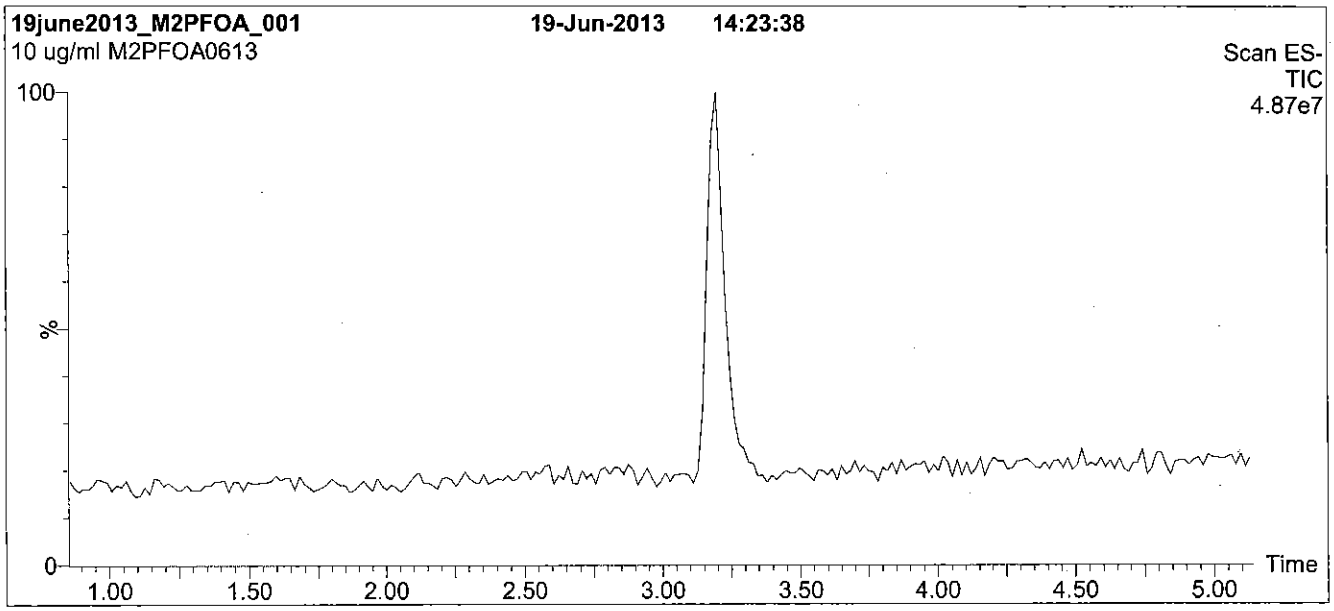
This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

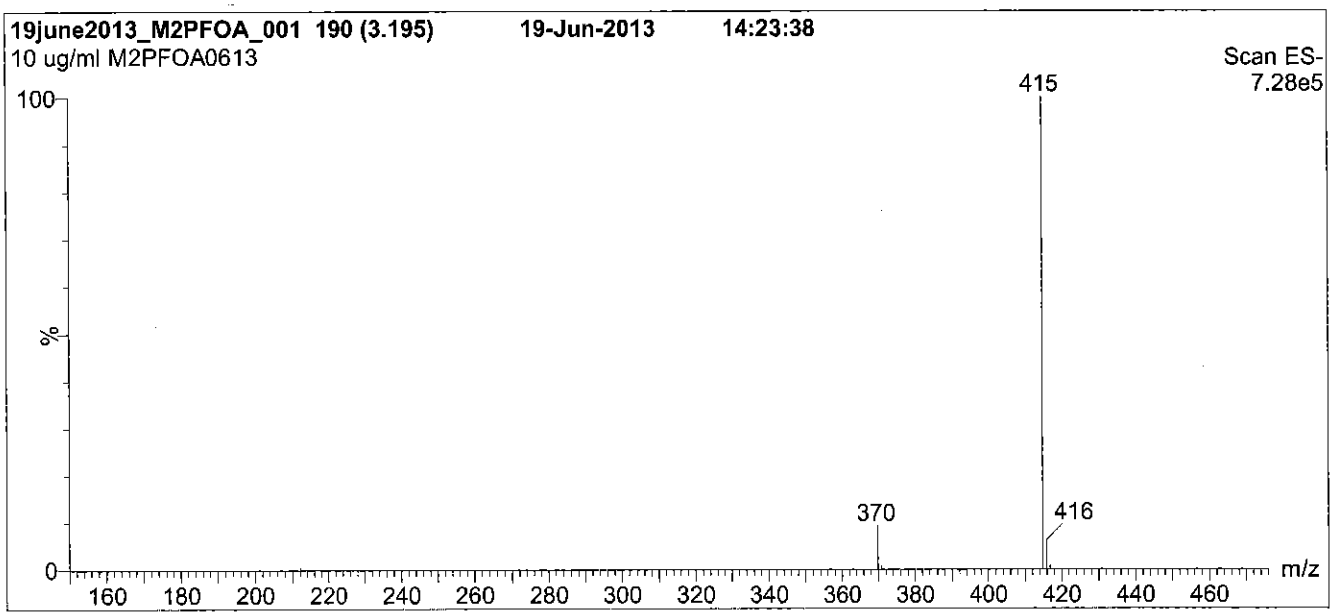
CALA Testing Accreditation No. A1226

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER

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

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





Conditions for Figure 1:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 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 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

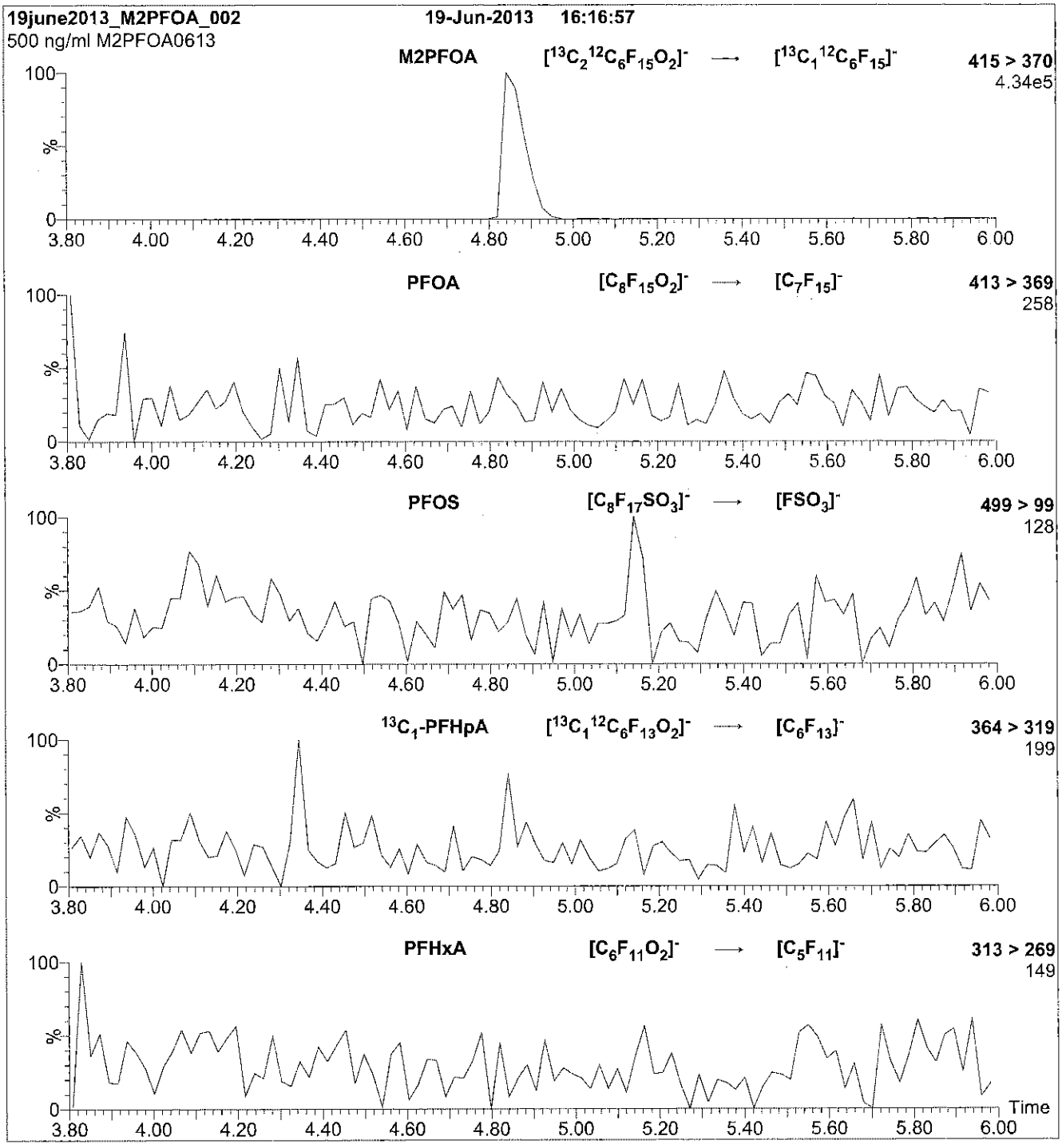
Flow: 300 µl/min

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

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



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2PFOA)
Mobile phase:	Isocratic 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) = 11

Reagent

LCM2PFOA_00006

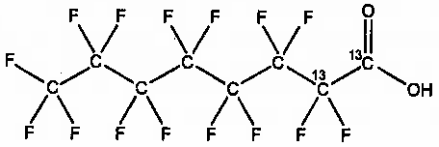
R: SBC 12/21/16

814260
ID: LCM2PFOA_00006
Exp: 02/12/21 Prpd: SBC
13C2-PFOA Stock 50ug/mL

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M2PFOA	**LOT NUMBER:**	M2PFOA0216
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6HF_{15}O_2$	**MOLECULAR WEIGHT:**	416.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	02/12/2016		
EXPIRY DATE: (mm/dd/yyyy)	02/12/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
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Certified By: B.G. Chittim **Date:** 02/24/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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

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

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

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

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

TRACEABILITY:

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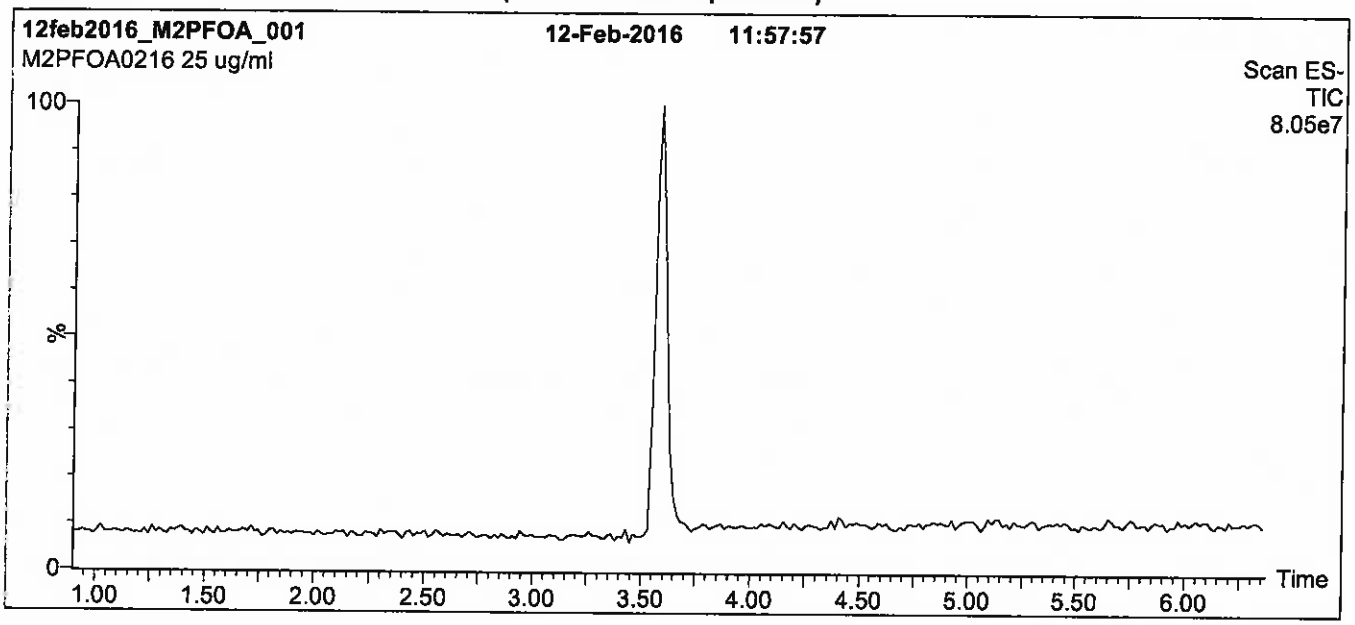
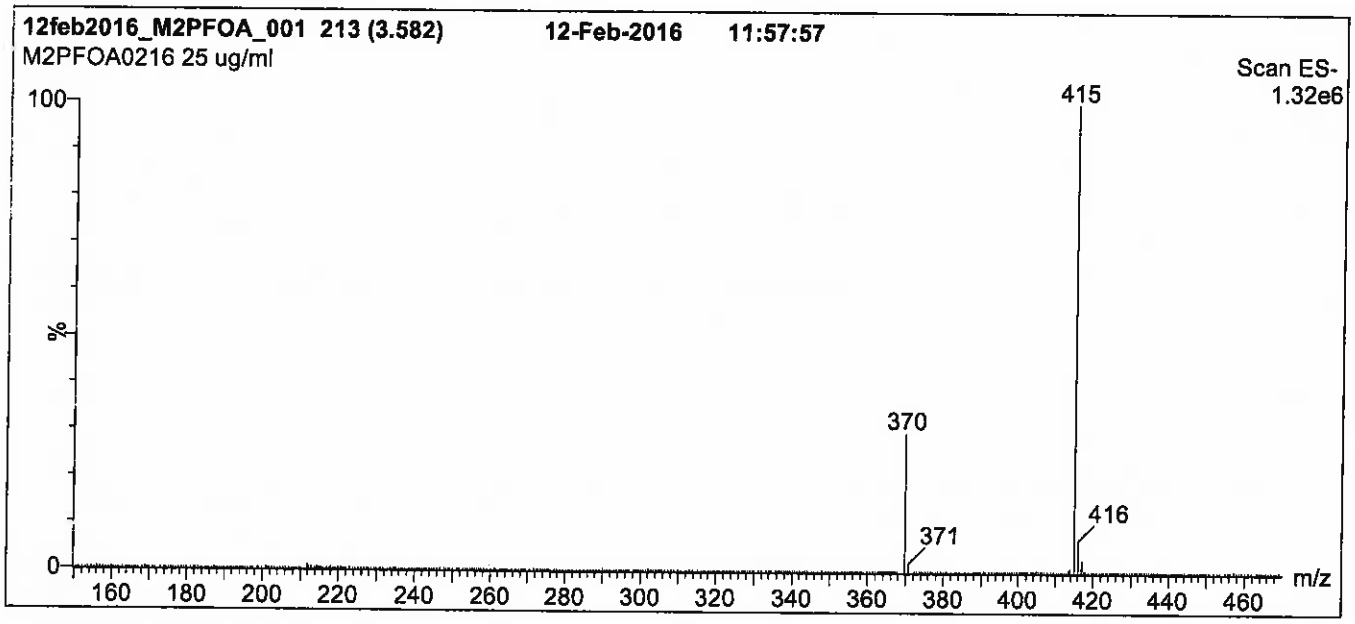
Figure 1: **M2PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

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

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

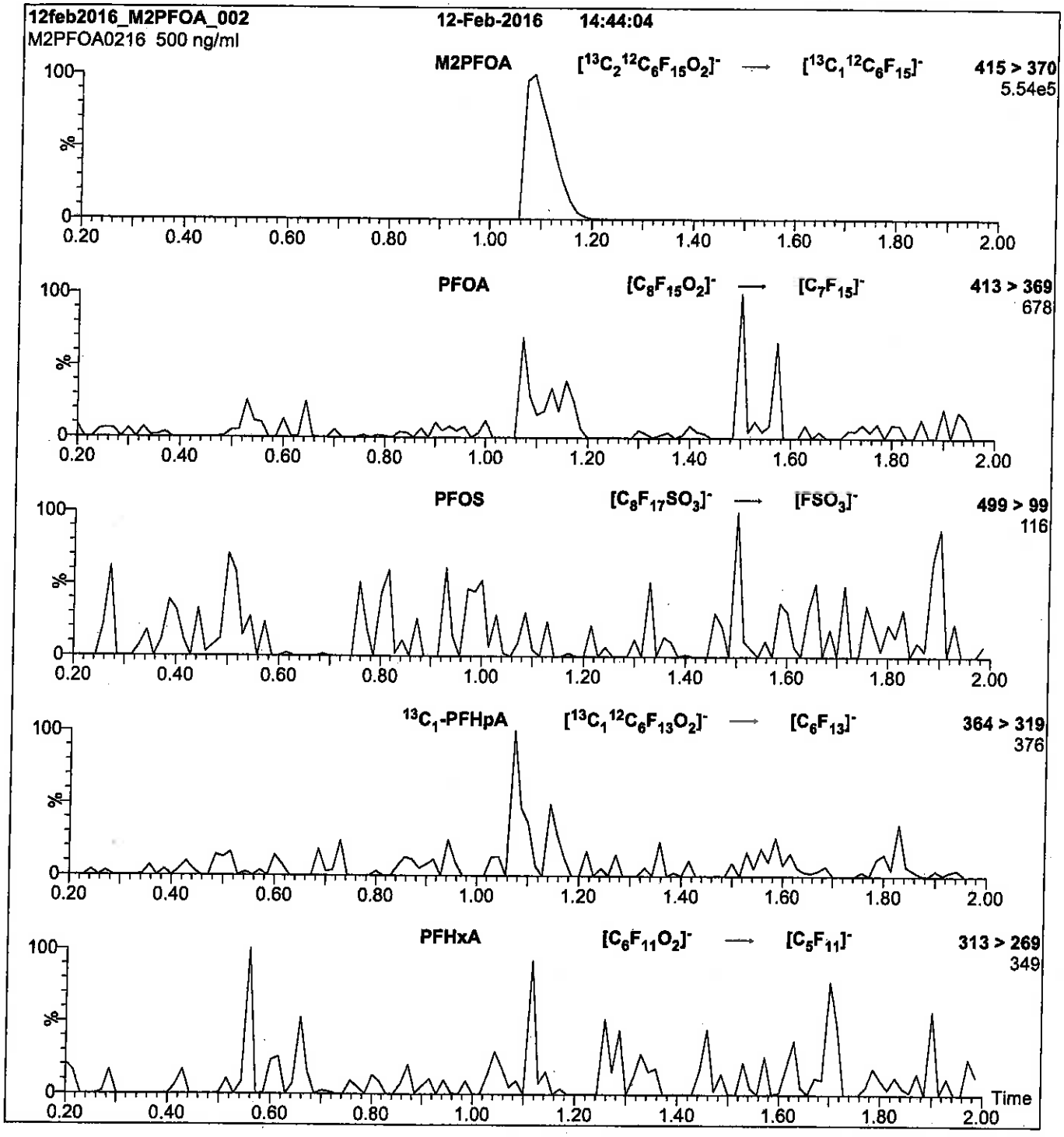
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 80% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

Reagent

LCM2PFTeDA_00007

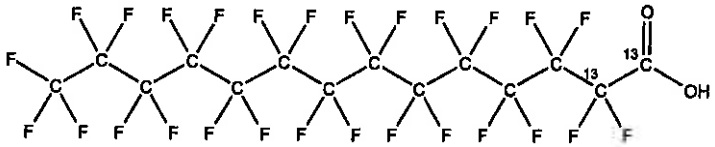
Scanned 10/14/16 R: SBC 9/22/16

738563
ID: LCM2PFTeDA_00007
Exp: 12/07/20 Prpd: SBC
13C2-PFTeDA at 50ug/mL

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFTeDA	**LOT NUMBER:**	M2PFTeDA1115
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)	12/07/2015		
EXPIRY DATE: (mm/dd/yyyy)	12/07/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

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Certified By: B.G. Chittim **Date:** 12/08/2015 (mm/dd/yyyy)

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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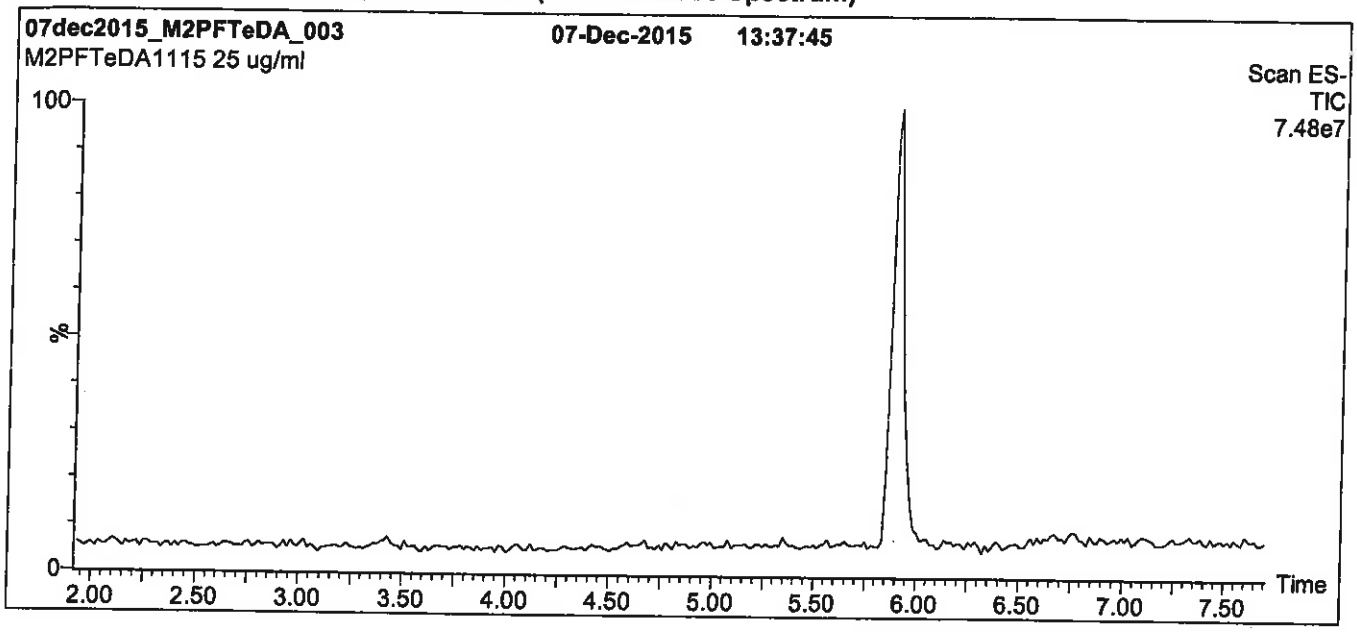

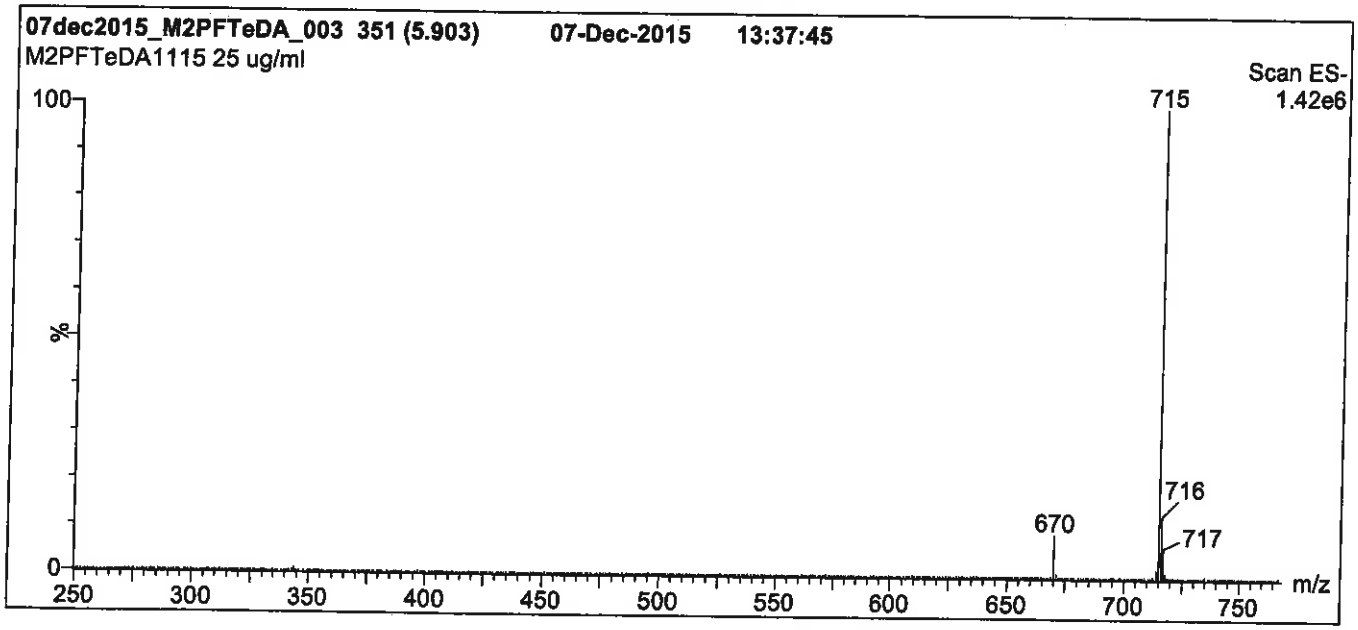

Conditions for Figure 1:

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: 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 (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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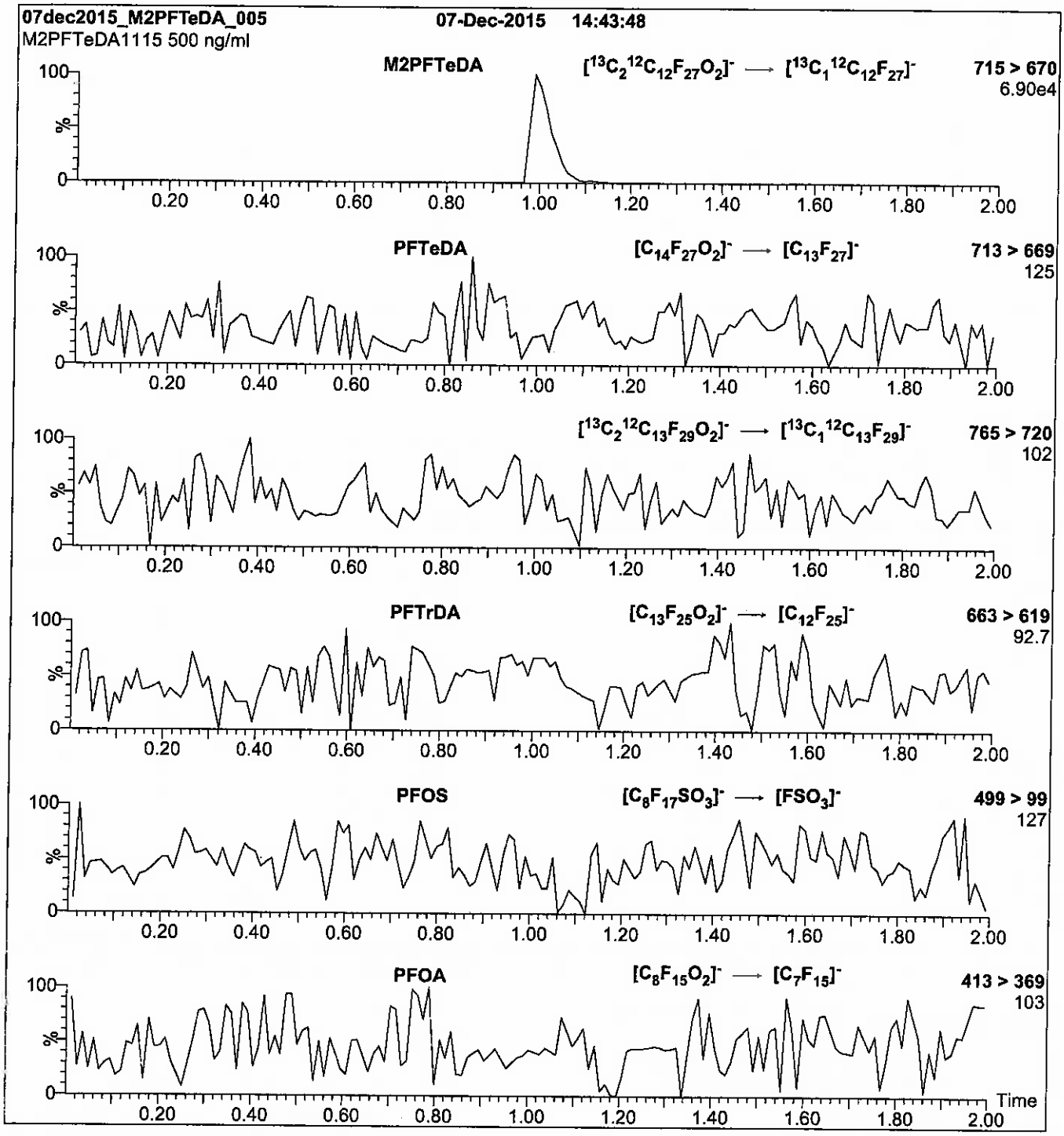


Conditions for Figure 2:

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) = 3.28e-3
Collision Energy (eV) = 14

Reagent

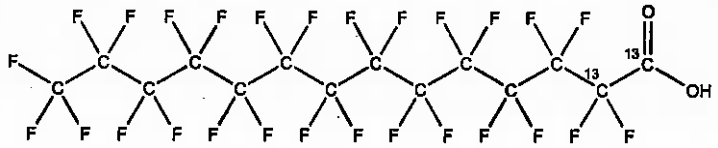
LCM2PFTeDA_00008

r: 3/5/17 SCV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFTeDA	**LOT NUMBER:**	M2PFTeDA1115
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-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	12/07/2015		
EXPIRY DATE: (mm/dd/yyyy)	12/07/2020		
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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:** 12/08/2015 (mm/dd/yyyy)

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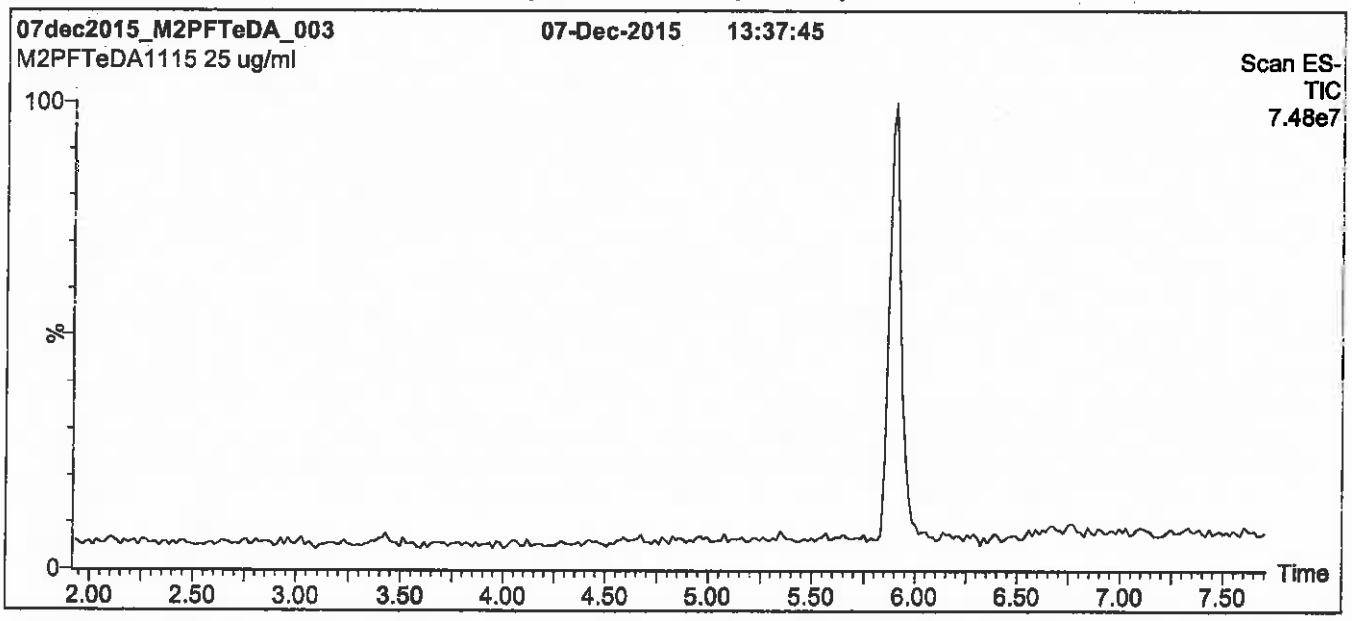

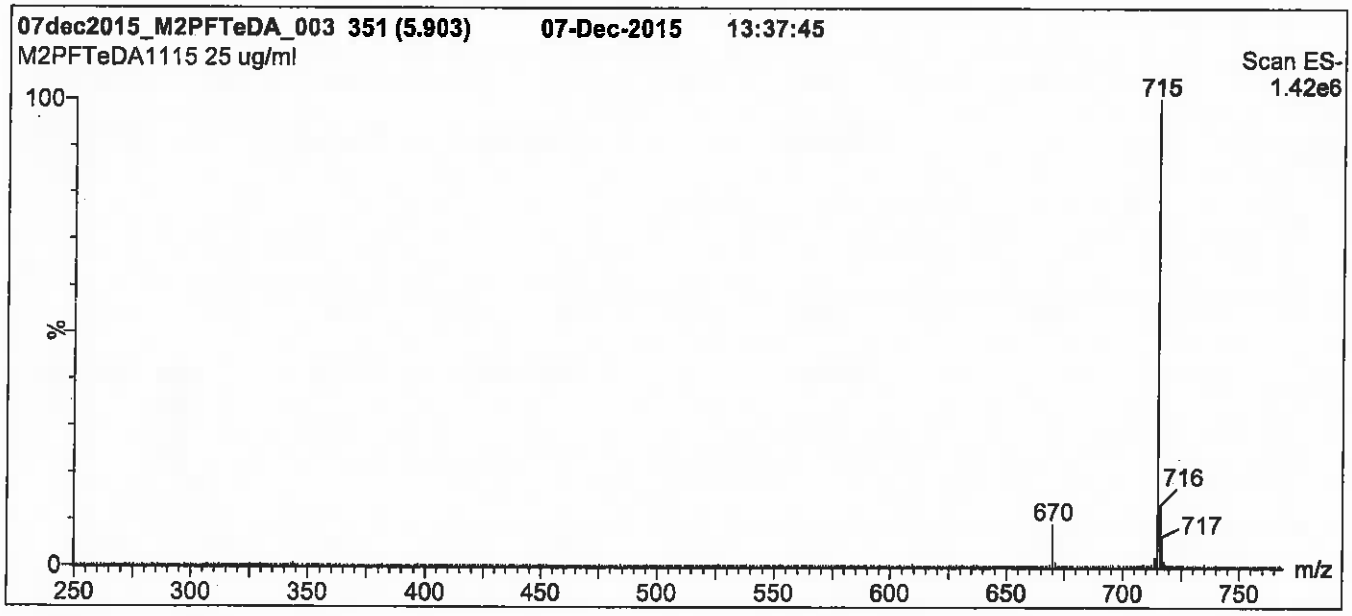

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MS: **Micromass Quattro *micro* API MS**

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

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Start: 65% (80:20 MeOH:ACN) / 35% H_2O
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before returning to initial conditions in 0.5 min.
Time: 10 min

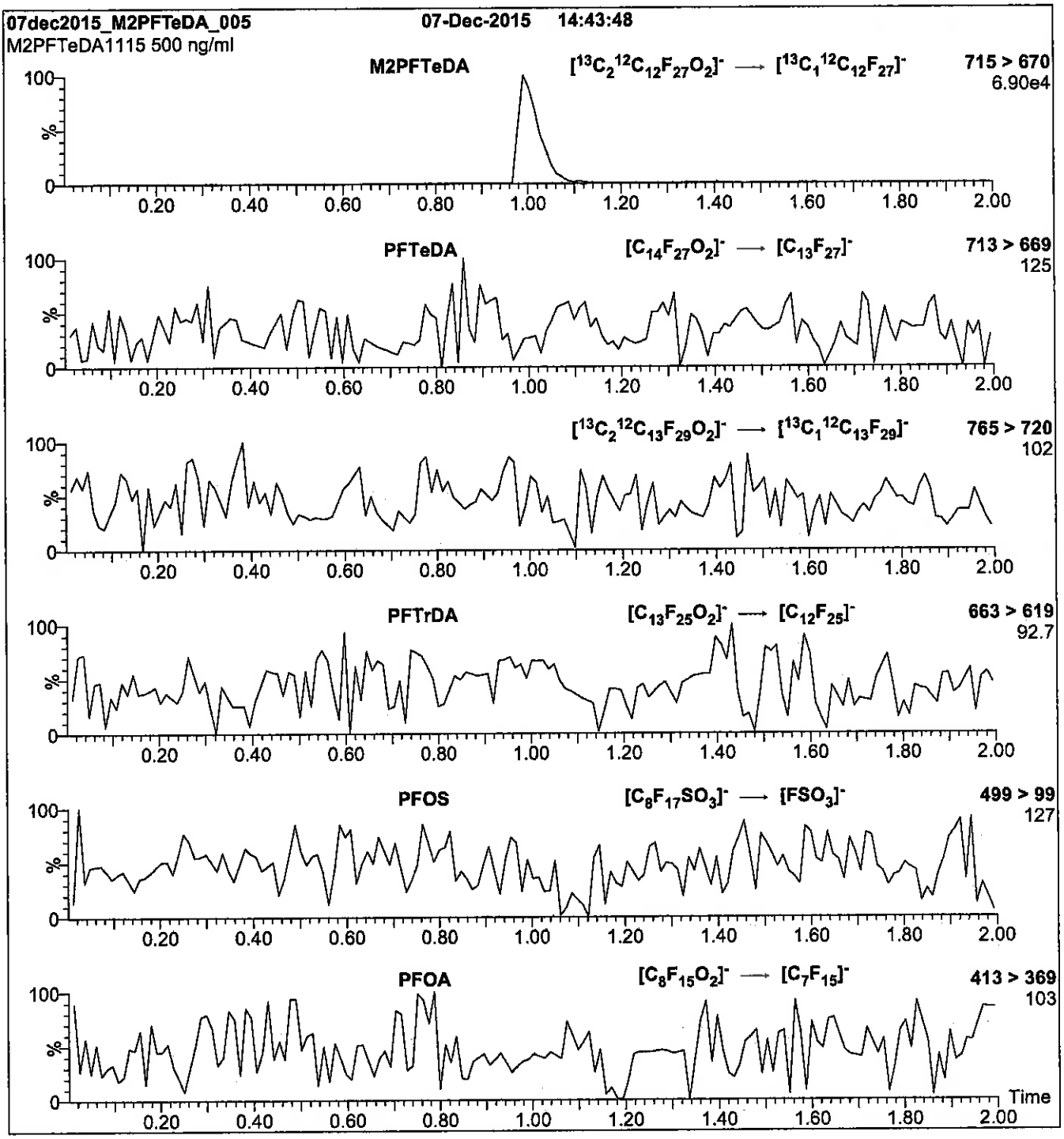
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
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) = 3.28e-3
Collision Energy (eV) = 14

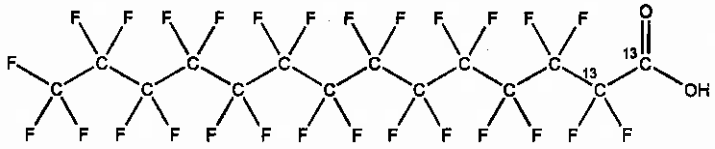
Reagent

LCM2PFTeDA_00009

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFTeDA	**LOT NUMBER:**	M2PFTeDA0217
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid		
STRUCTURE:		**CAS #:**	Not available



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EXPIRY DATE: (mm/dd/yyyy)	03/01/2022		
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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

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

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

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

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CALA

ANAB ACCREDITED

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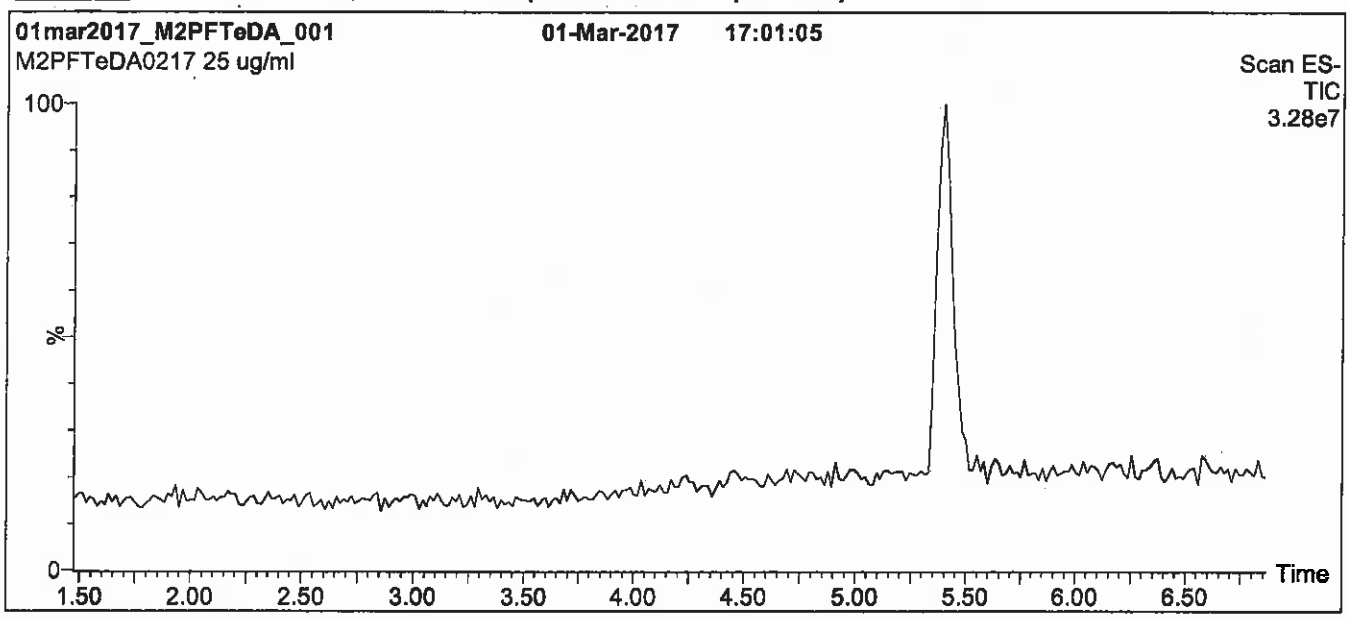
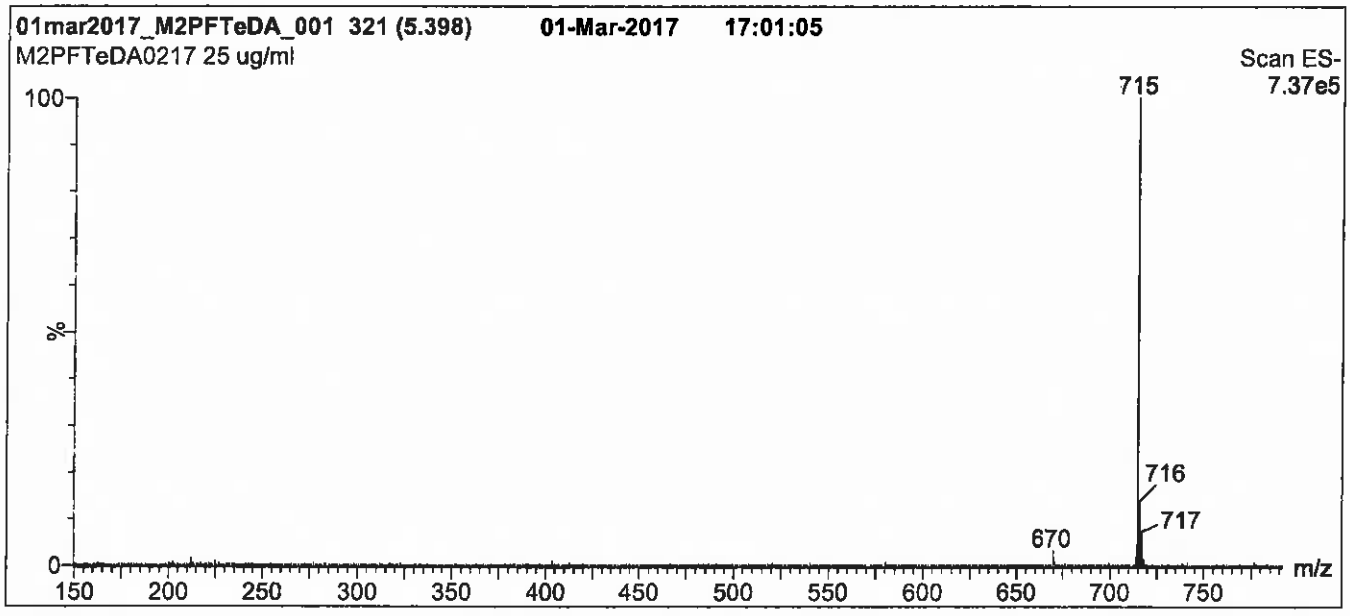
Figure 1: **M2PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





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

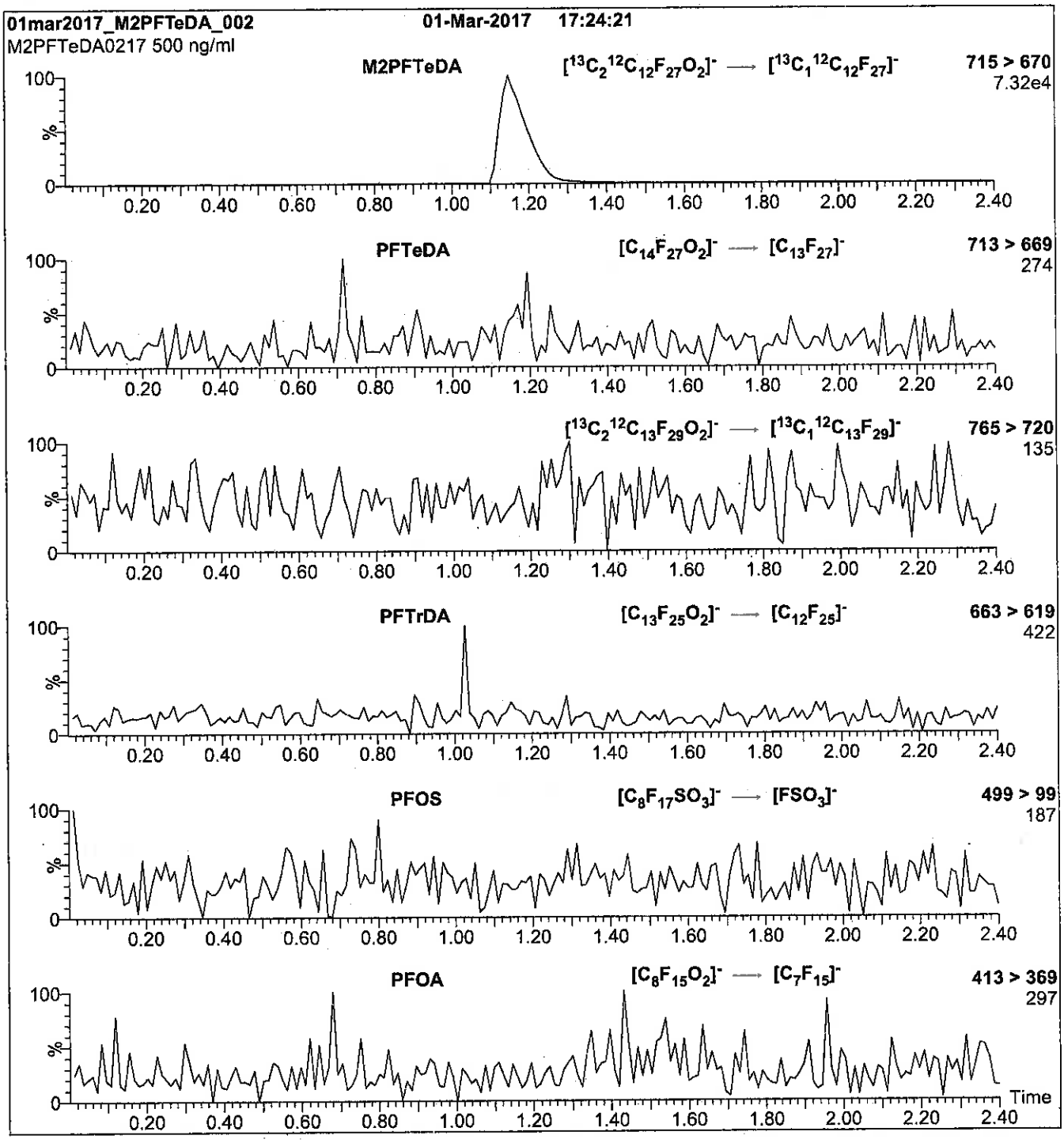
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
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) = 3.46e-3
Collision Energy (eV) = 14

Reagent

LCM4PFHPA_00007

R: SBC 9/22/16

739567
ID: LCM4PFHPA_00007
Exp: 05/27/21 Prpd: SBC
13C4-Perfluoroheptanoic a

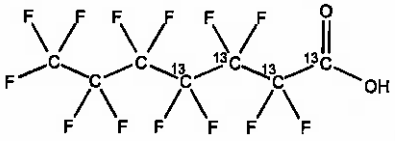
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS

DOCUMENTATION

Scanned 10/14/16 SBC

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0516
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid		
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)	05/27/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/27/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 07/05/2016 (mm/dd/yyyy)

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

INTENDED USE:

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CALA Testing

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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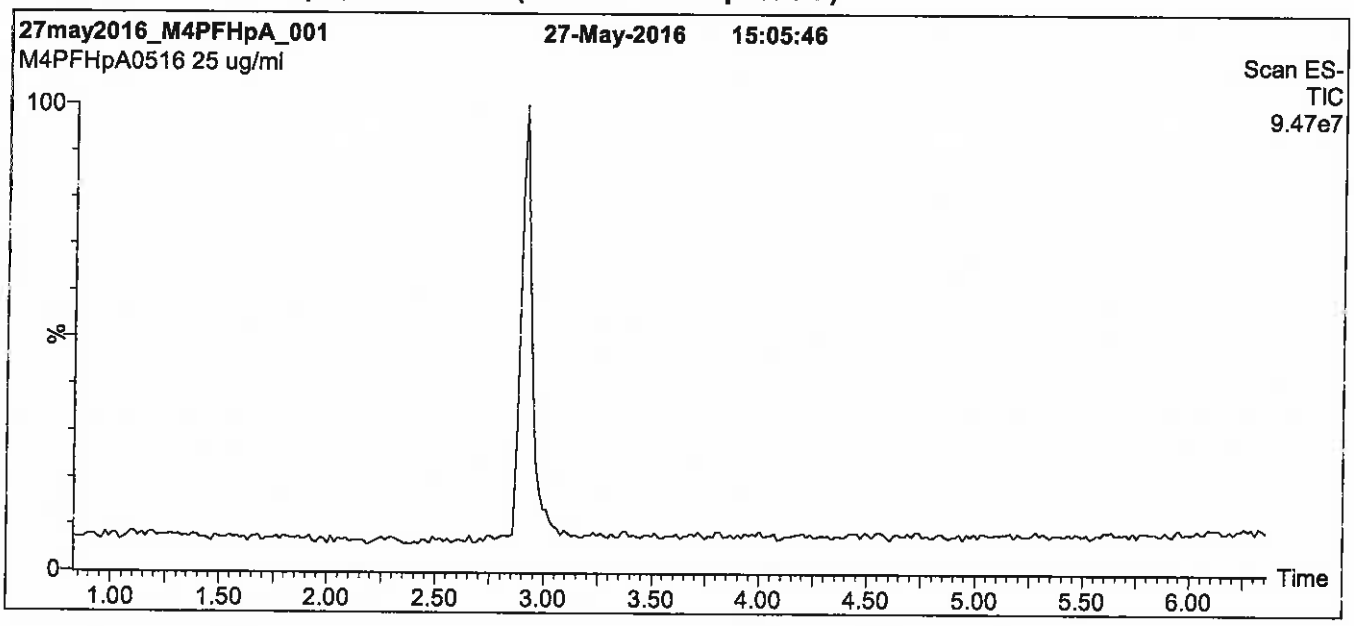

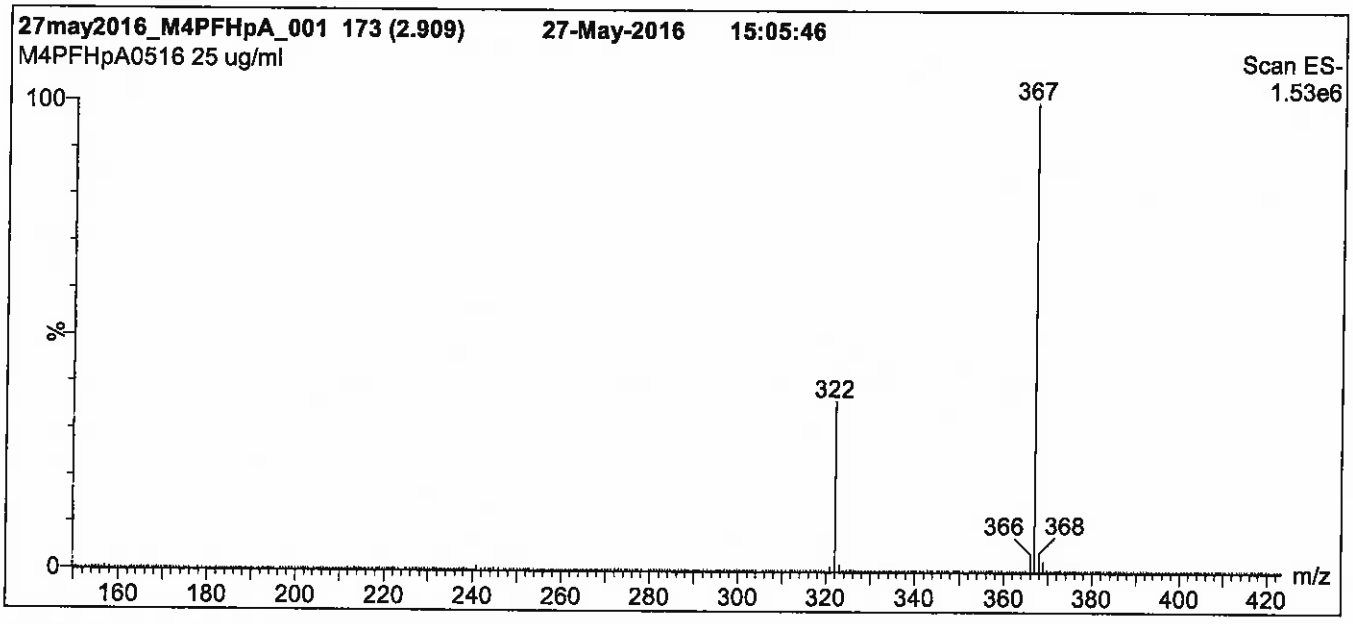

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LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

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

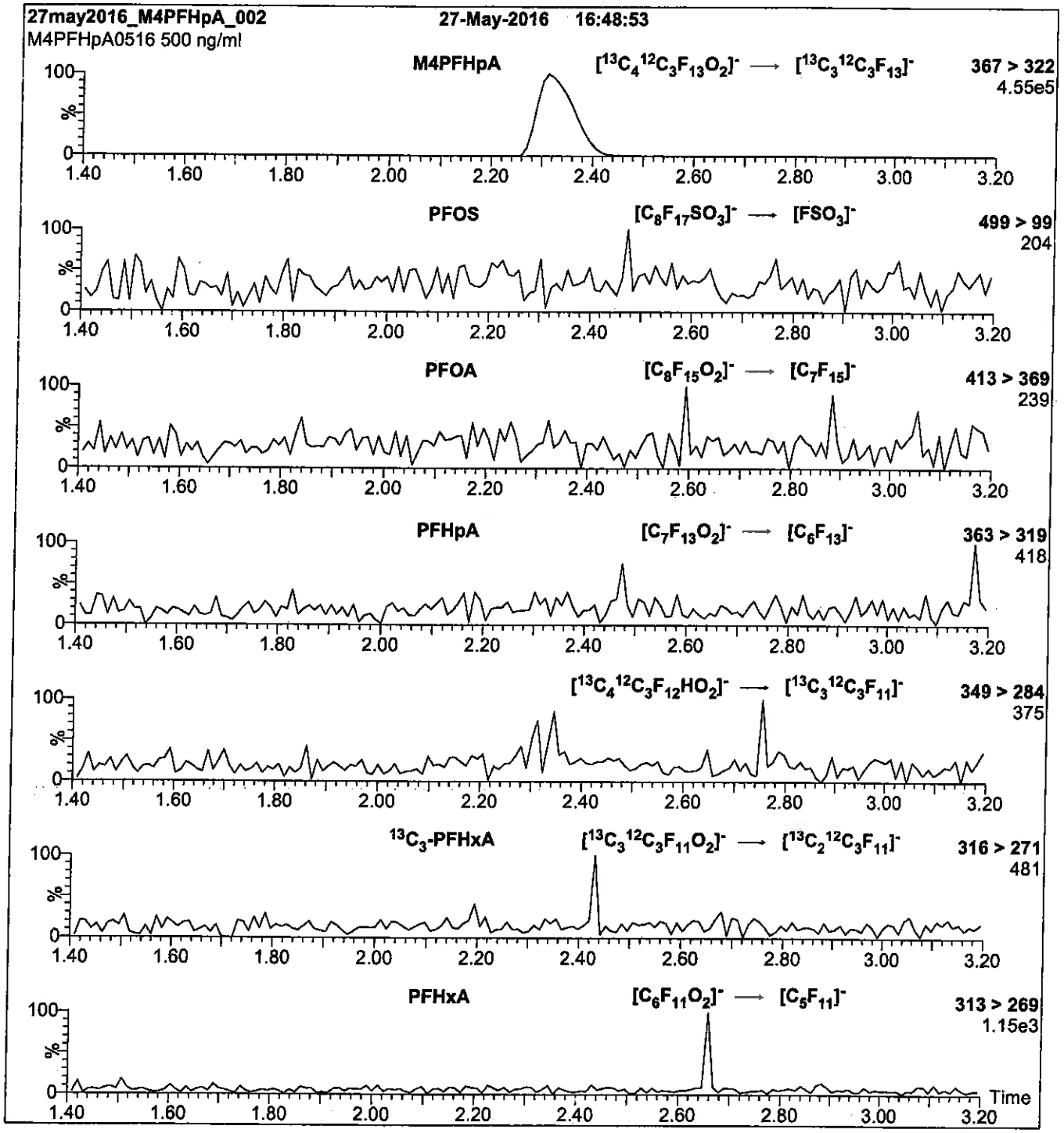
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 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 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

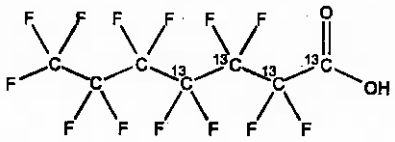
LCM4PFHPA_00008

P: 3/9/17 SN

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0516
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid		
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)	05/27/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/27/2021		
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ADDITIONAL INFORMATION:

- See page 2 for further details.
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Certified By: B.G. Chittim **Date:** 07/05/2016 (mm/dd/yyyy)

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CALA

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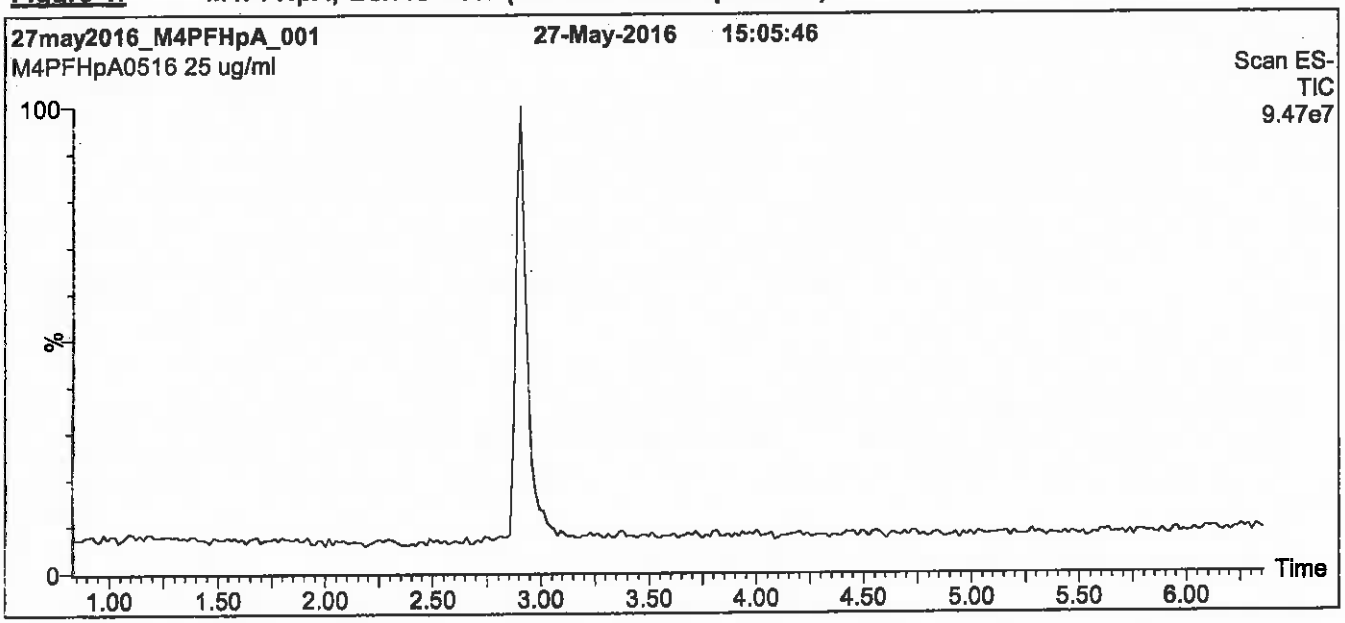

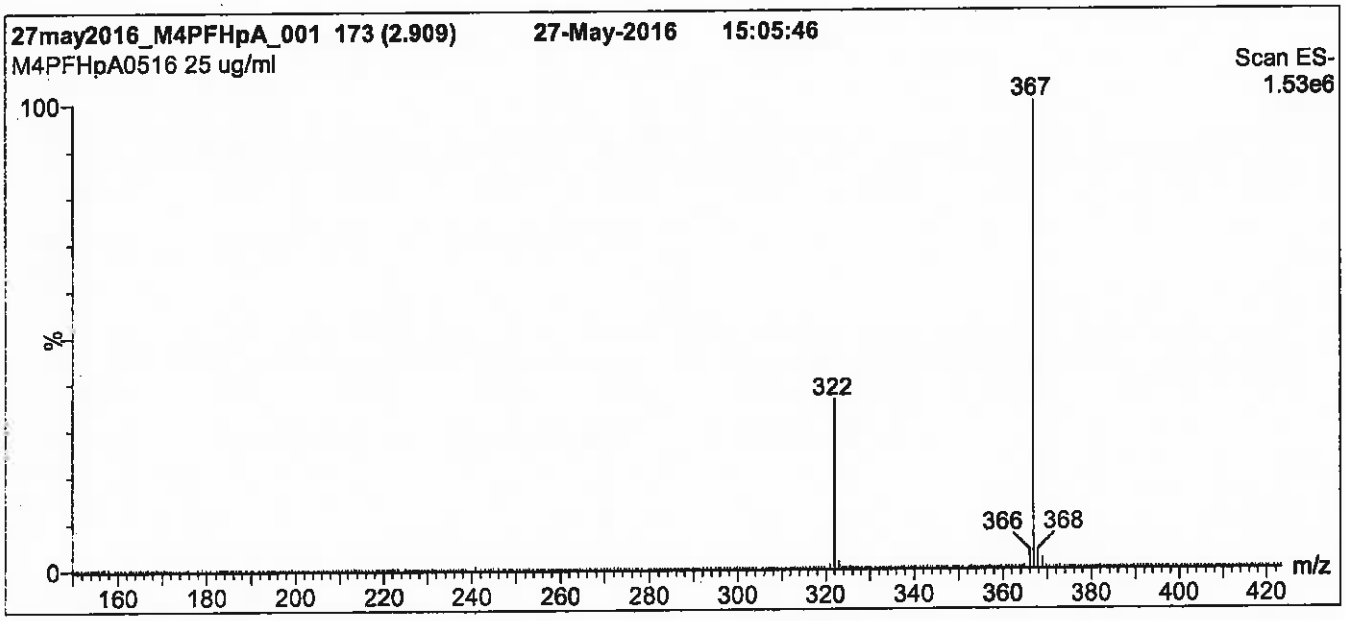

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Time: 10 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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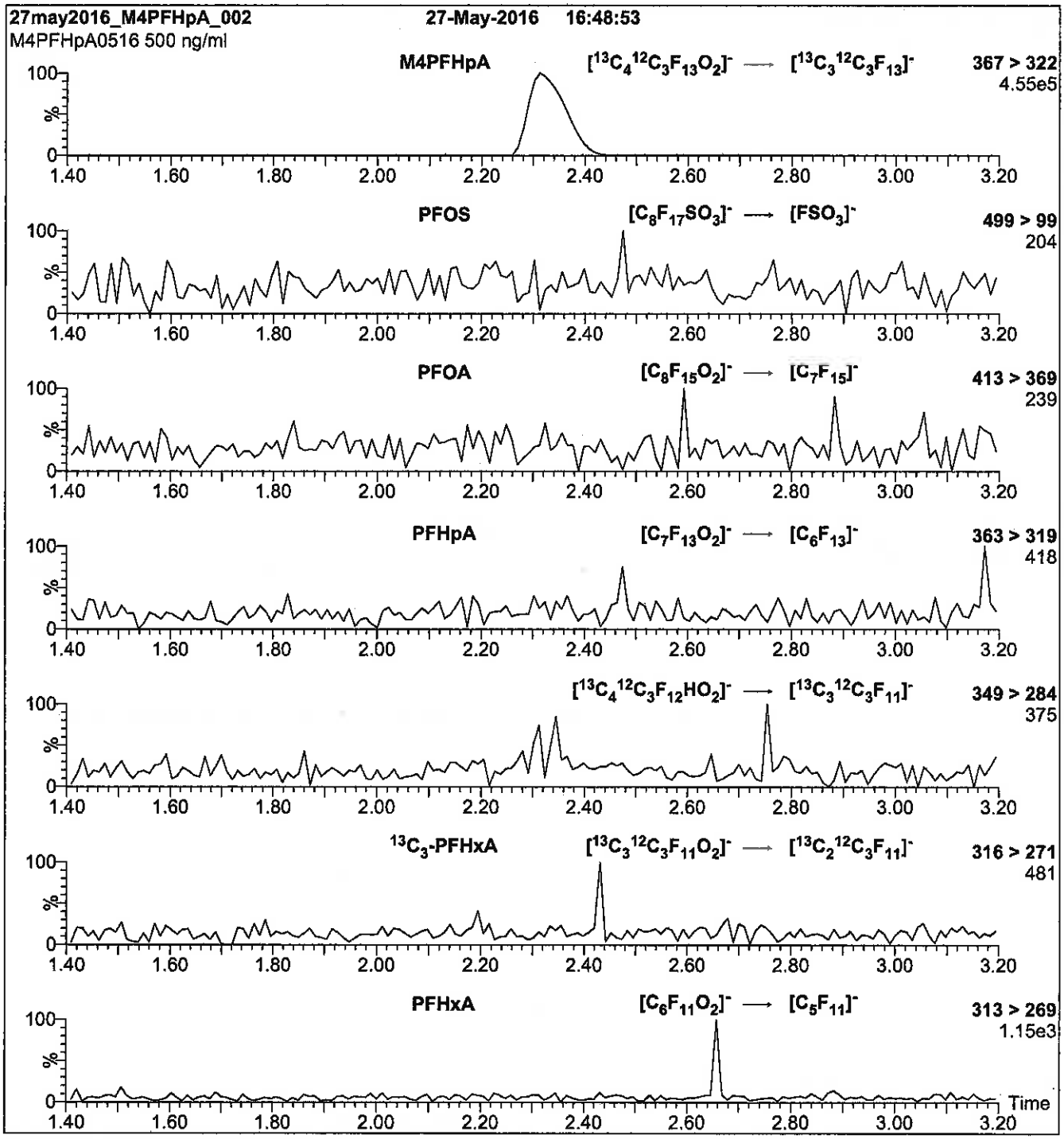


Conditions for Figure 2:

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

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

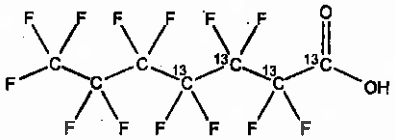
LCM4PFHPA_00009

r: 5/3/17 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0516
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid		
STRUCTURE:		**CAS #:**	Not available



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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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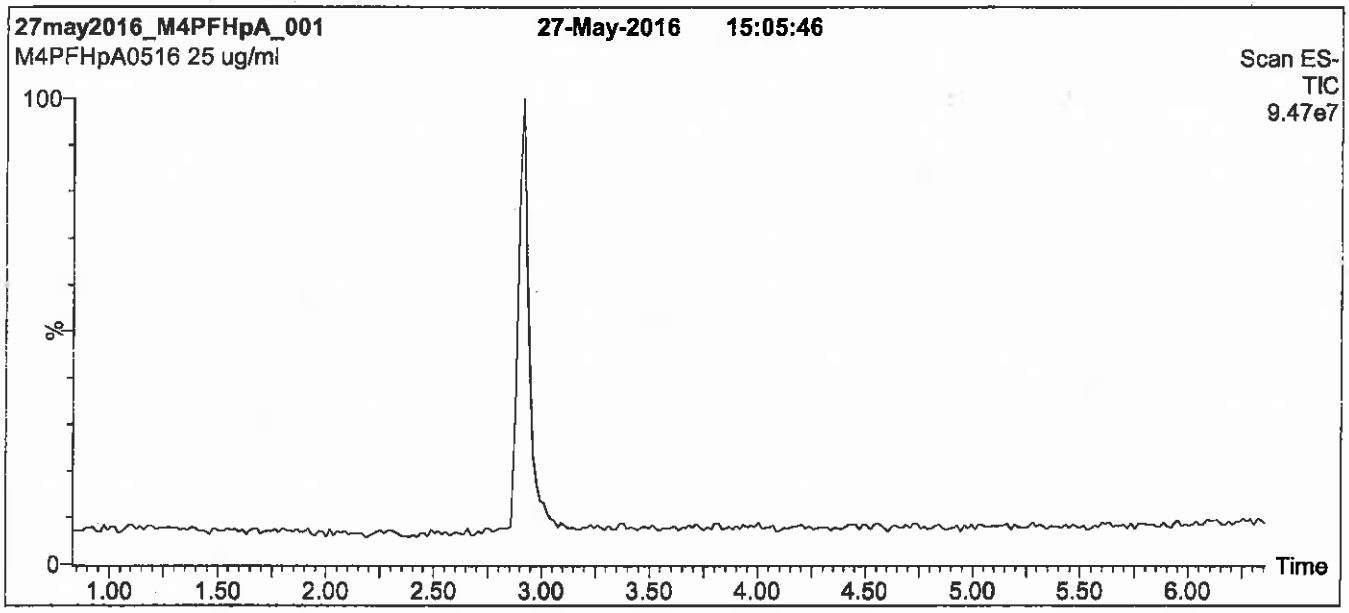
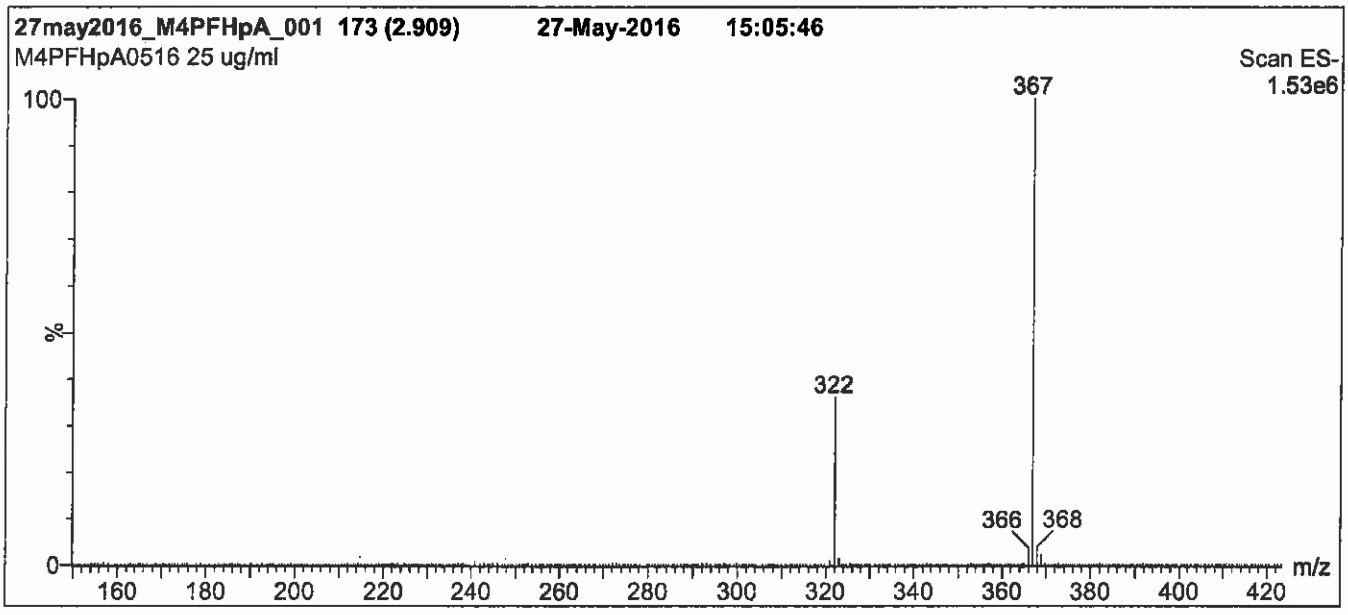
Figure 1: **M4PFHpA; LC/MS Data (TIC and Mass Spectrum)**





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

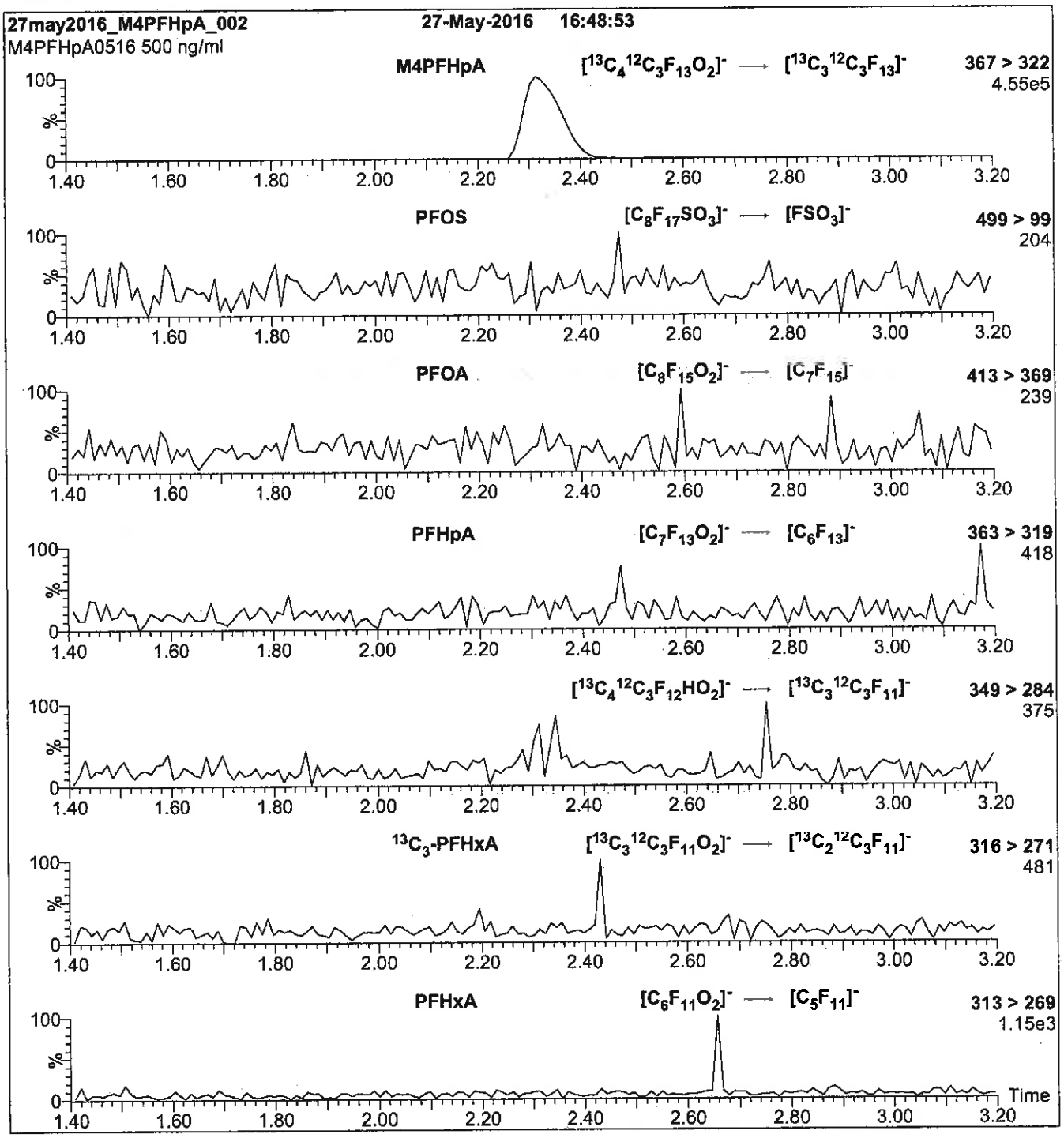
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 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 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

LCM5PFPEA_00008

R: SBC 9/22/16

739590
ID: LCM5PFPEA_00008
Exp: 05/22/20 Prpd: SBC
13C5-Perfluoropentanoic a

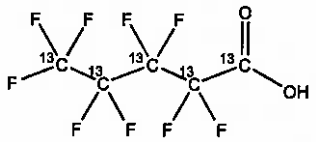
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS

DOCUMENTATION

Scanned 10/14/16 SR

PRODUCT CODE:	M5PFPeA	**LOT NUMBER:**	M5PFPeA0515
COMPOUND:	Perfluoro-n-[$^{13}C_5$]pentanoic acid		
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)	05/22/2015		
EXPIRY DATE: (mm/dd/yyyy)	05/22/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 05/25/2015 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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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, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

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CALA

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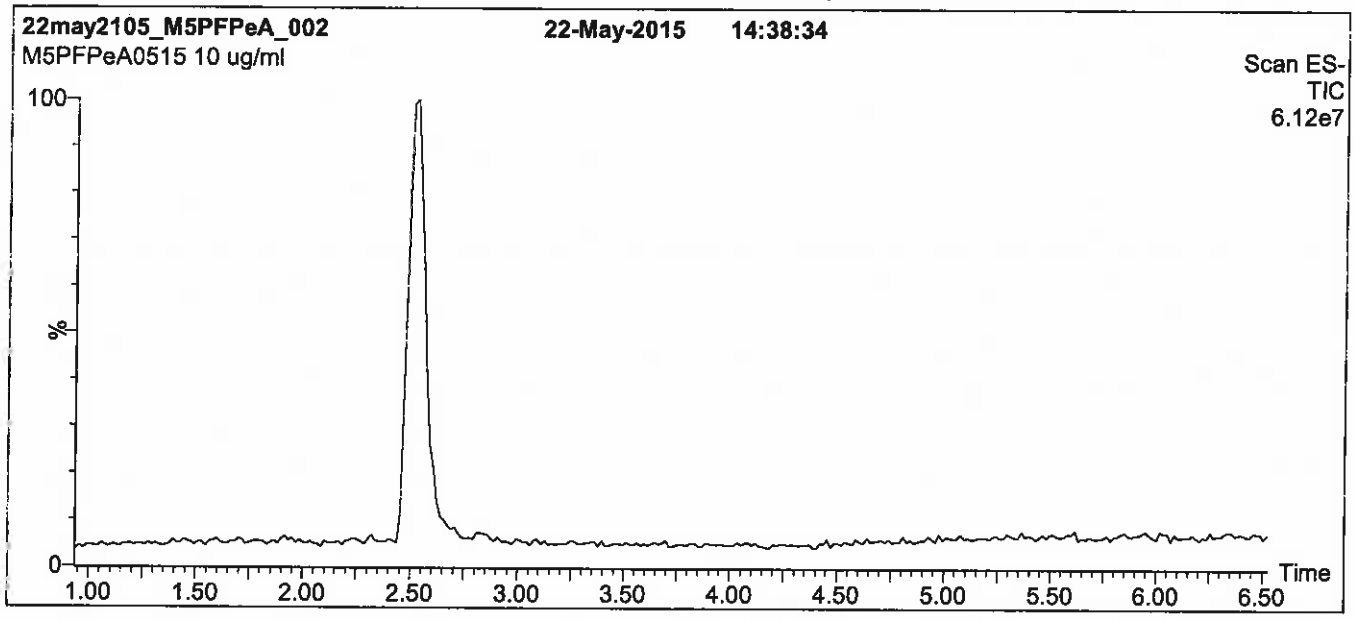
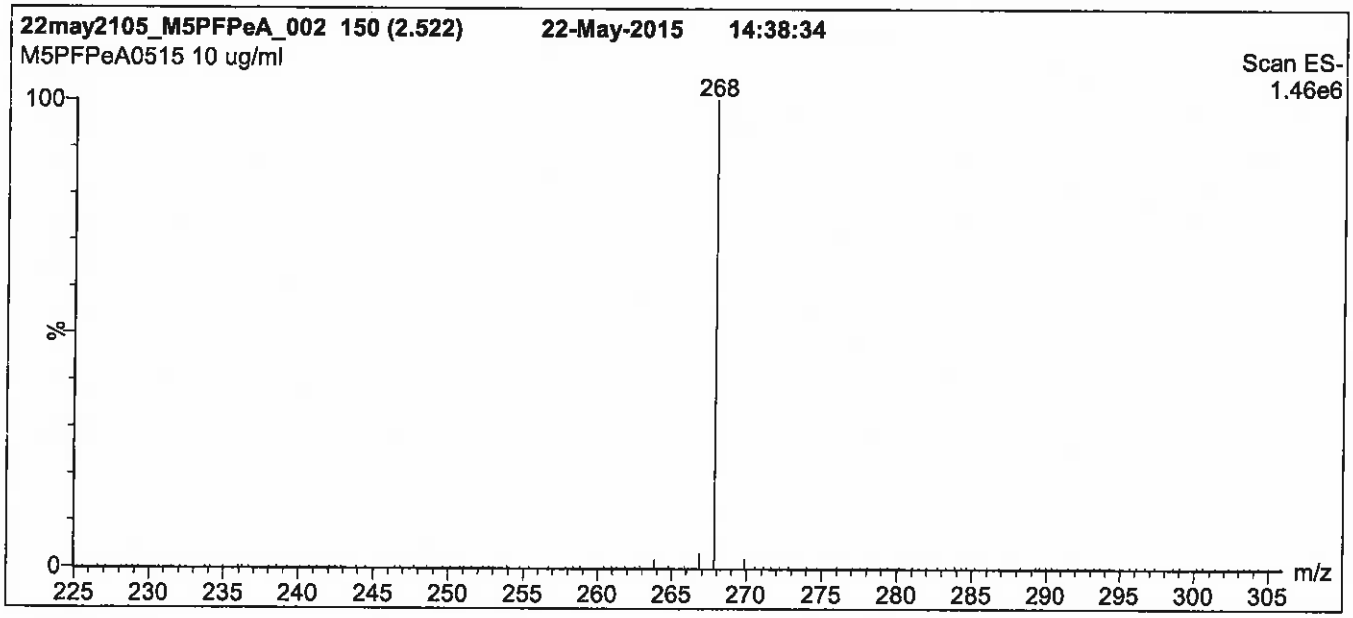




Conditions for Figure 1:

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

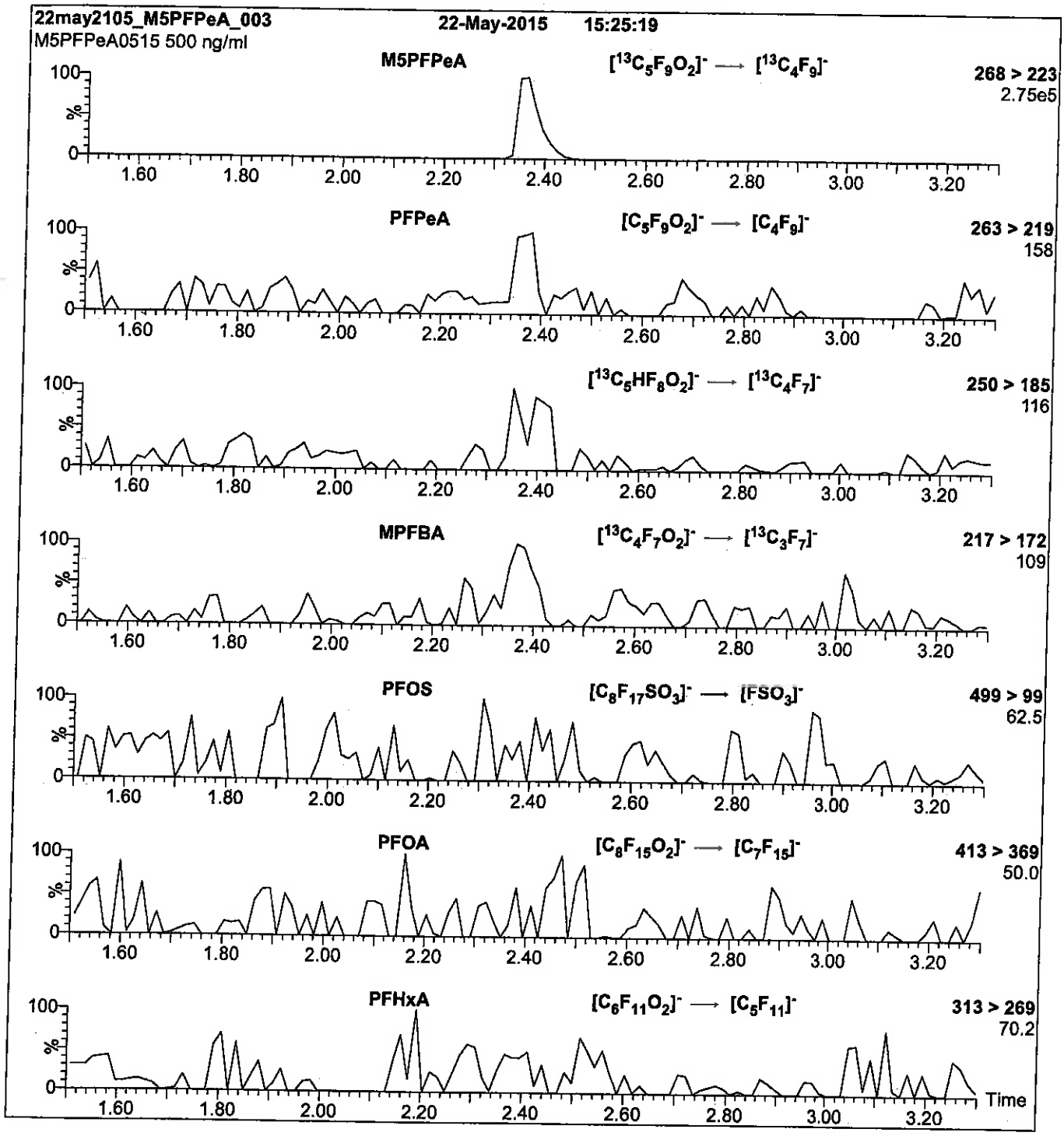
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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) = 3.35e-3
Collision Energy (eV) = 9

Reagent

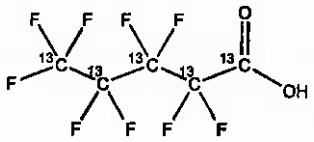
LCM5PFPEA_00009

Pr: 3/9/17 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M5PFPeA	**LOT NUMBER:**	M5PFPeA1116
COMPOUND:	Perfluoro-n-[$^{13}C_5$]pentanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_6HF_9O_2$	**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)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
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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.

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Certified By: B.G. Chittim **Date:** 12/09/2016 (mm/dd/yyyy)

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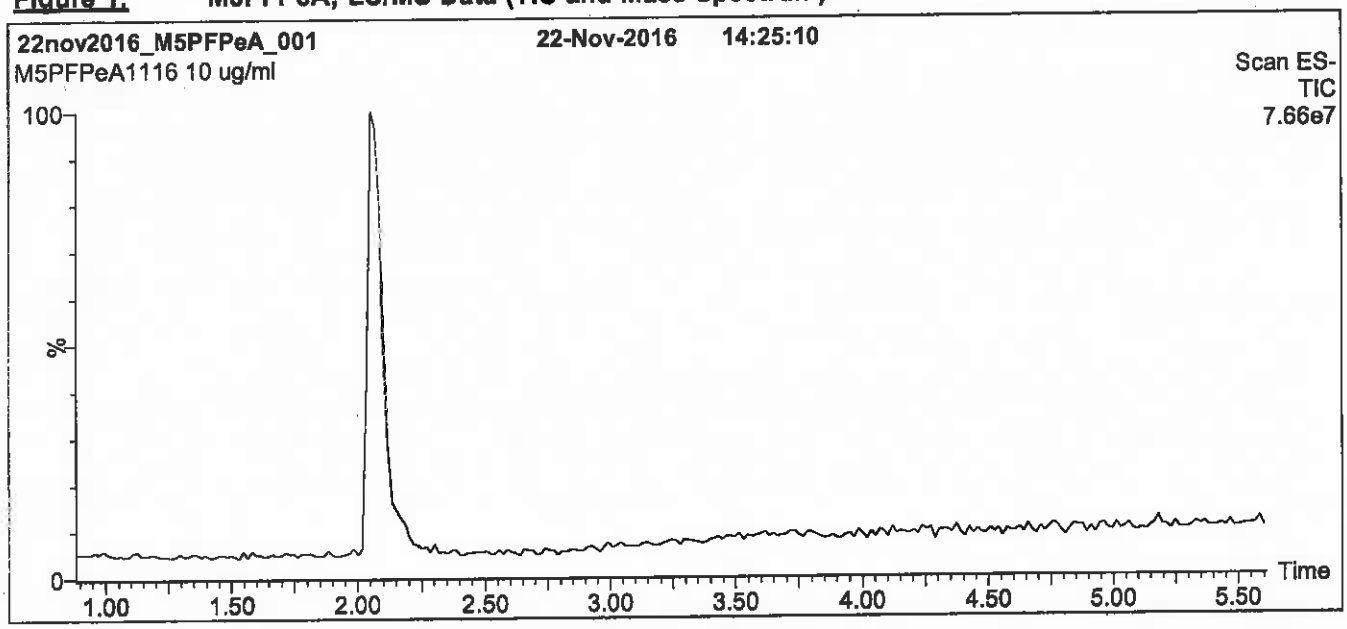
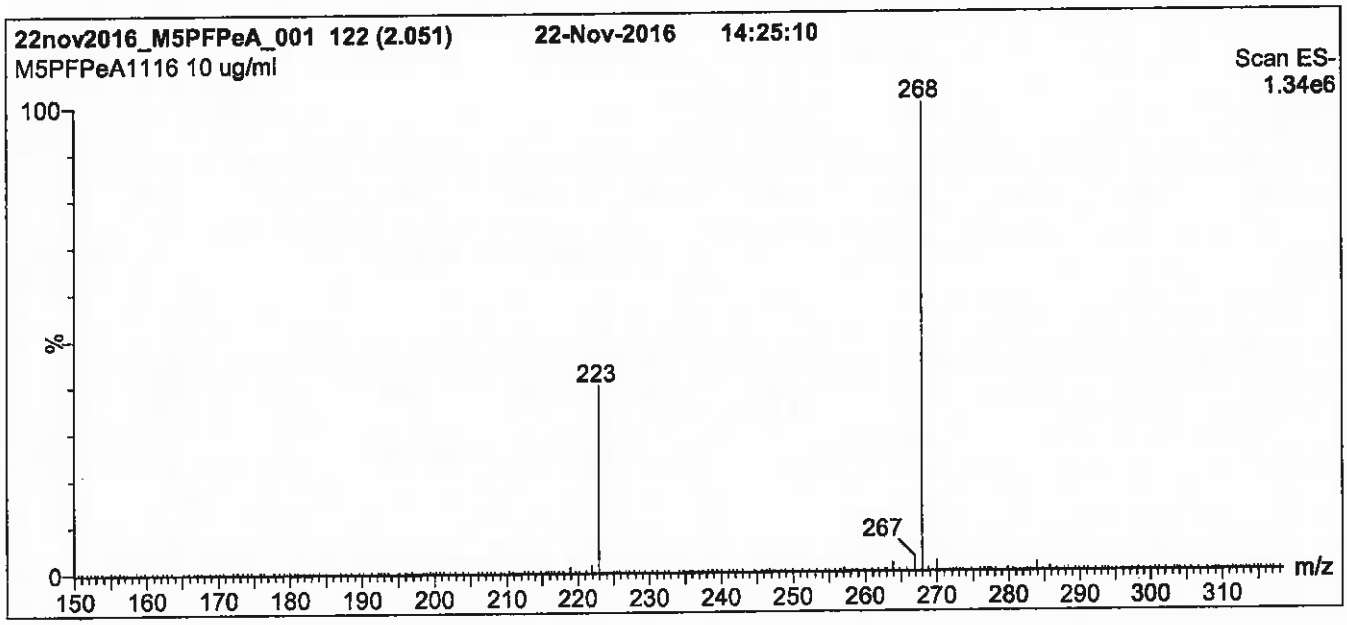




Conditions for Figure 1:

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

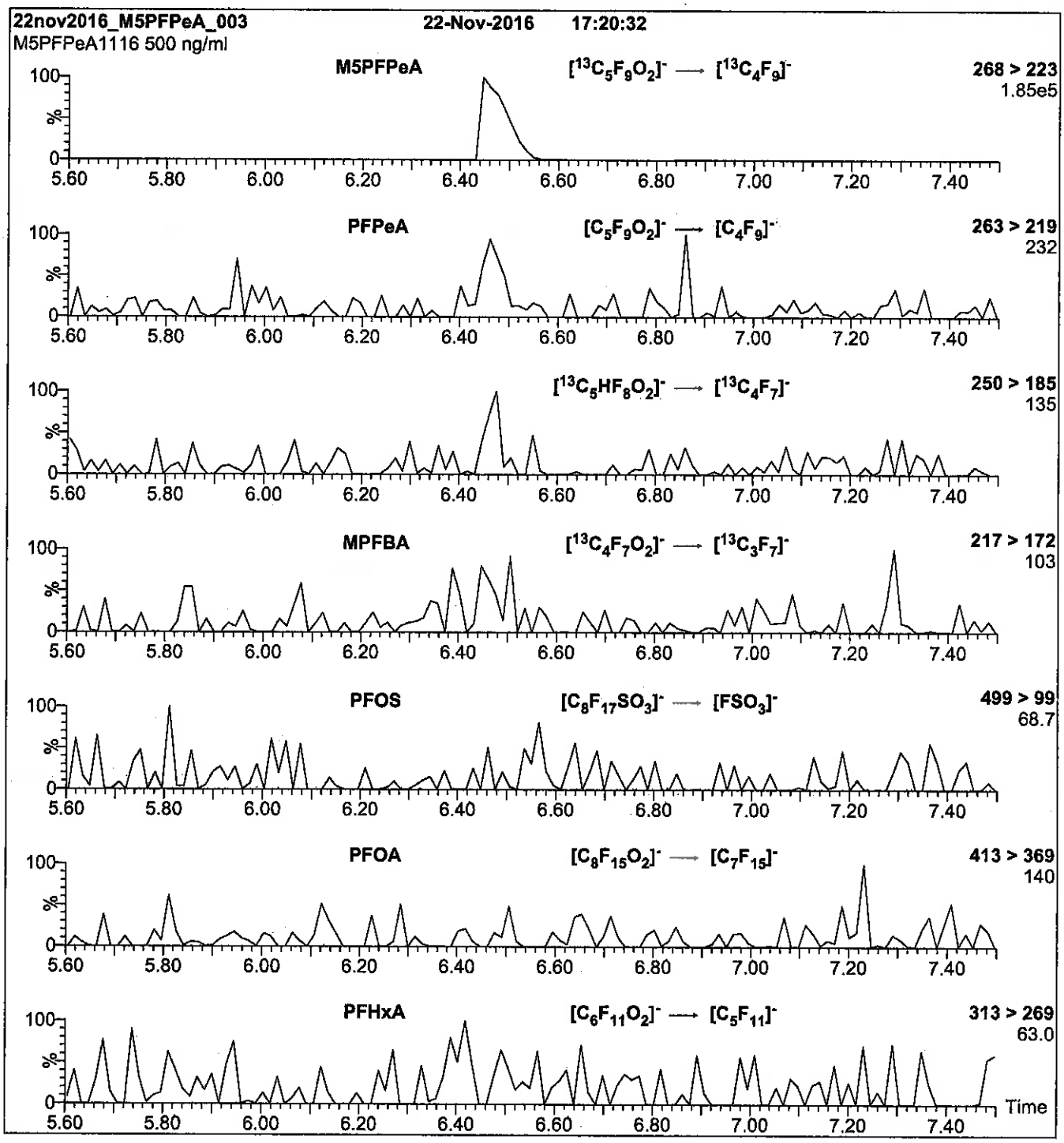
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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) = 3.46e-3
Collision Energy (eV) = 9

Reagent

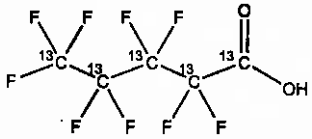
LCM5PFPEA_00010

r: 5/3/19 SV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M5PFPeA	**LOT NUMBER:**	M5PFPeA1116
COMPOUND:	Perfluoro-n-[$^{13}C_5$]pentanoic acid		
STRUCTURE:		**CAS #:**	Not available



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LAST TESTED: (mm/dd/yyyy)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
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ANAB ACCREDITED

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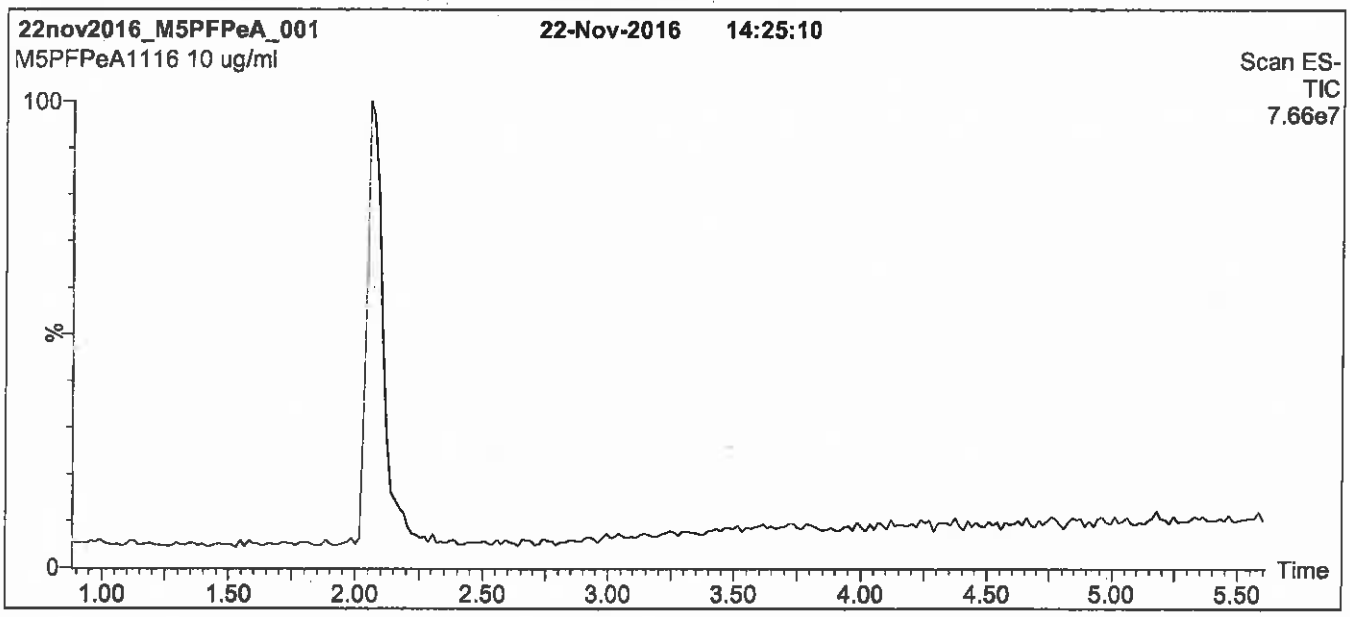
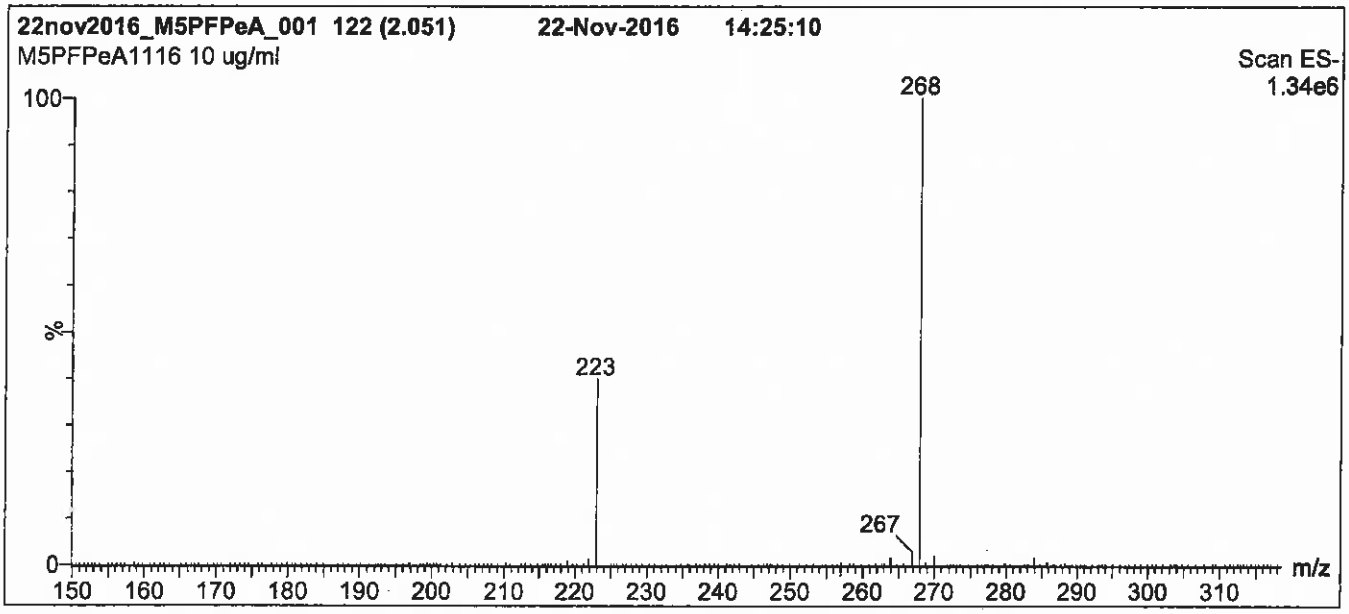




Conditions for Figure 1:

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

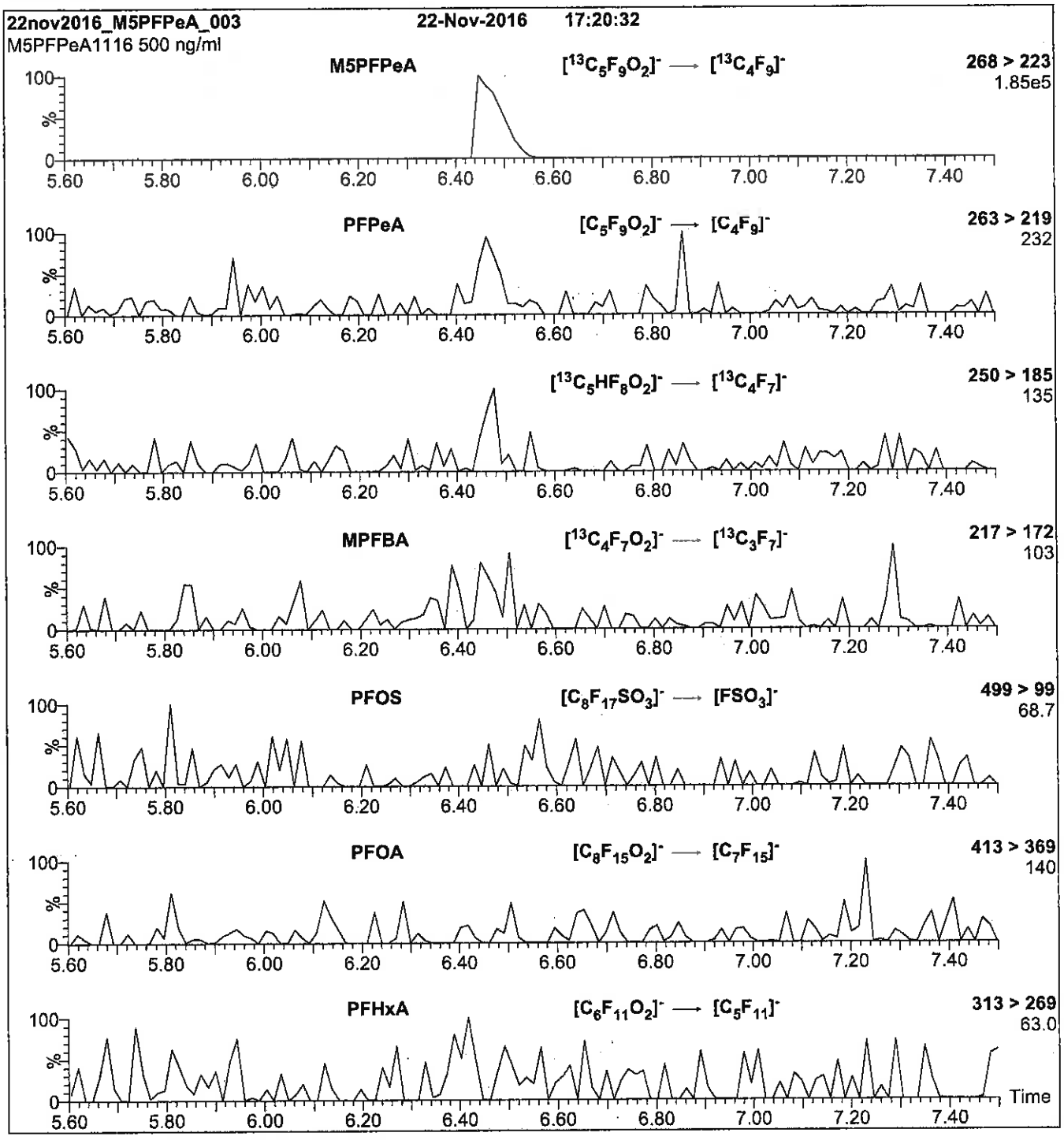
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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) = 3.46e-3
Collision Energy (eV) = 9

Reagent

LCM8FOSA_00011

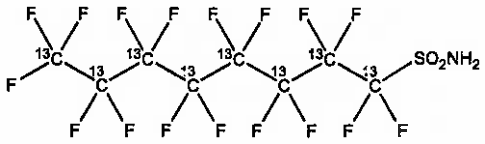
R: SBC 9/22/16
Issued 10/14/16 SBC

739615
ID: LCM8FOSA_00011
Exp: 12/22/17 Prpd: SBC
13C8-Perfluorooctanesulfo

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8FOSA-I	**LOT NUMBER:**	M8FOSA1215I
COMPOUND:	Perfluoro-1-[$^{13}C_8$]octanesulfonamide		
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):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	12/22/2015		
EXPIRY DATE: (mm/dd/yyyy)	12/22/2017		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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:** 01/14/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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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, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

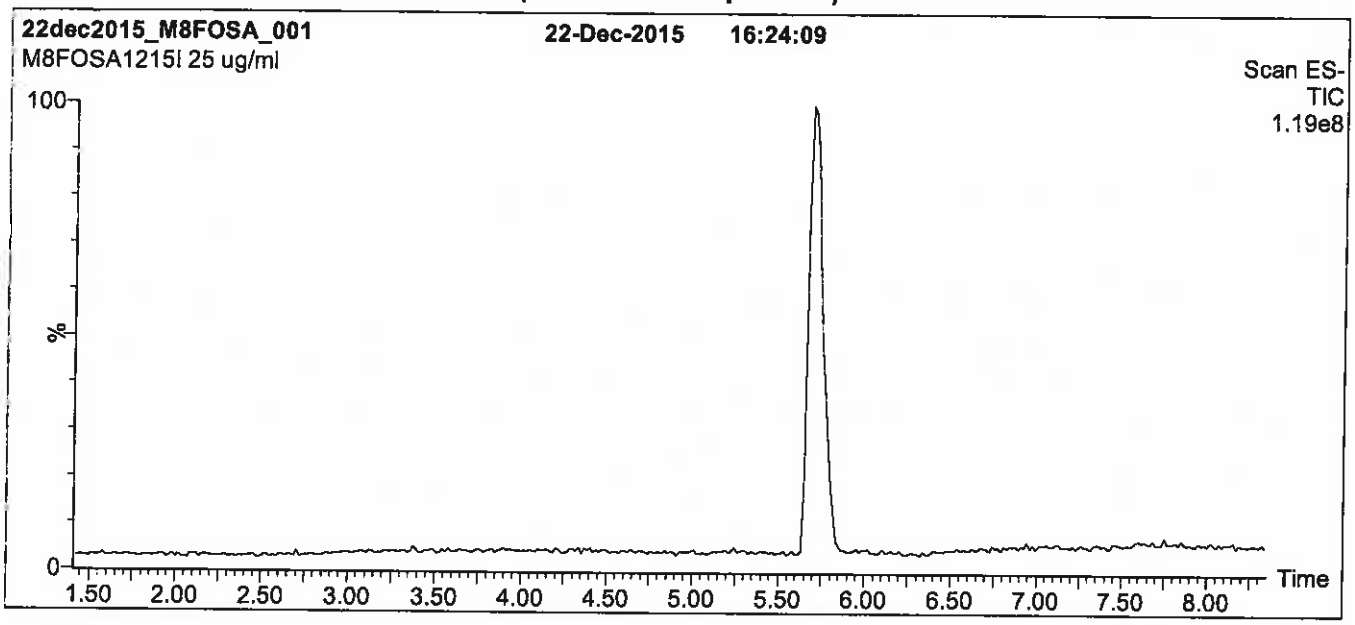
At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

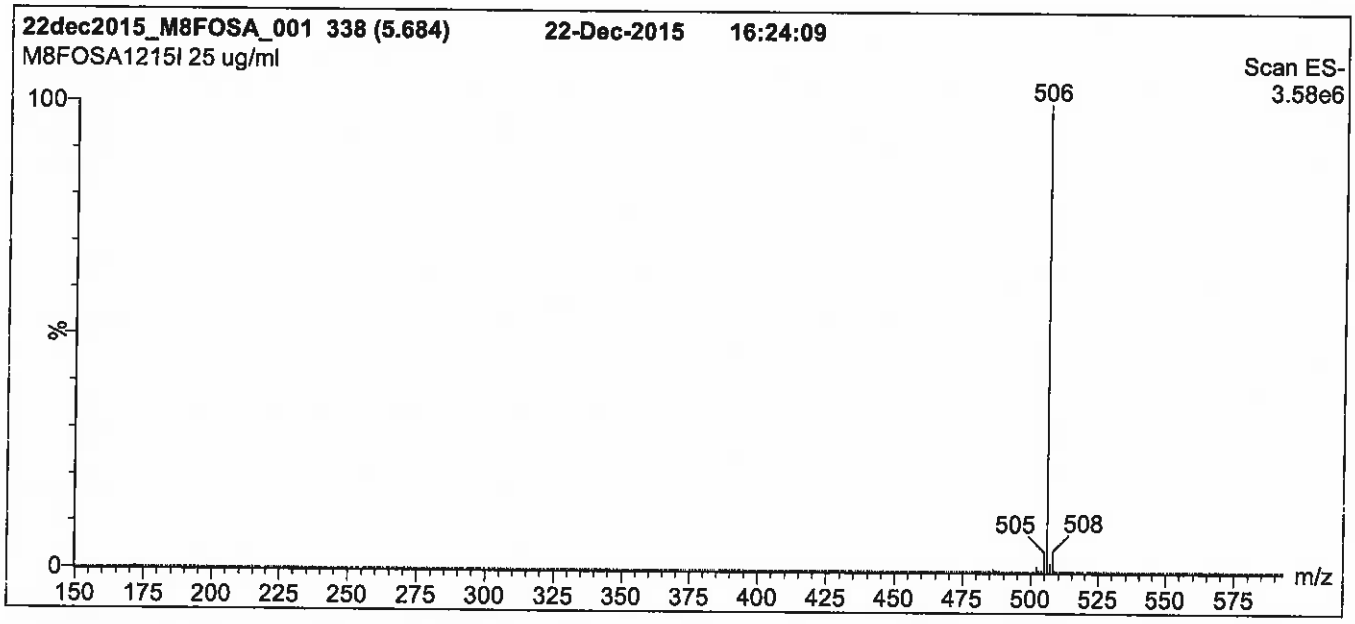
QUALITY MANAGEMENT:

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

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-I; 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

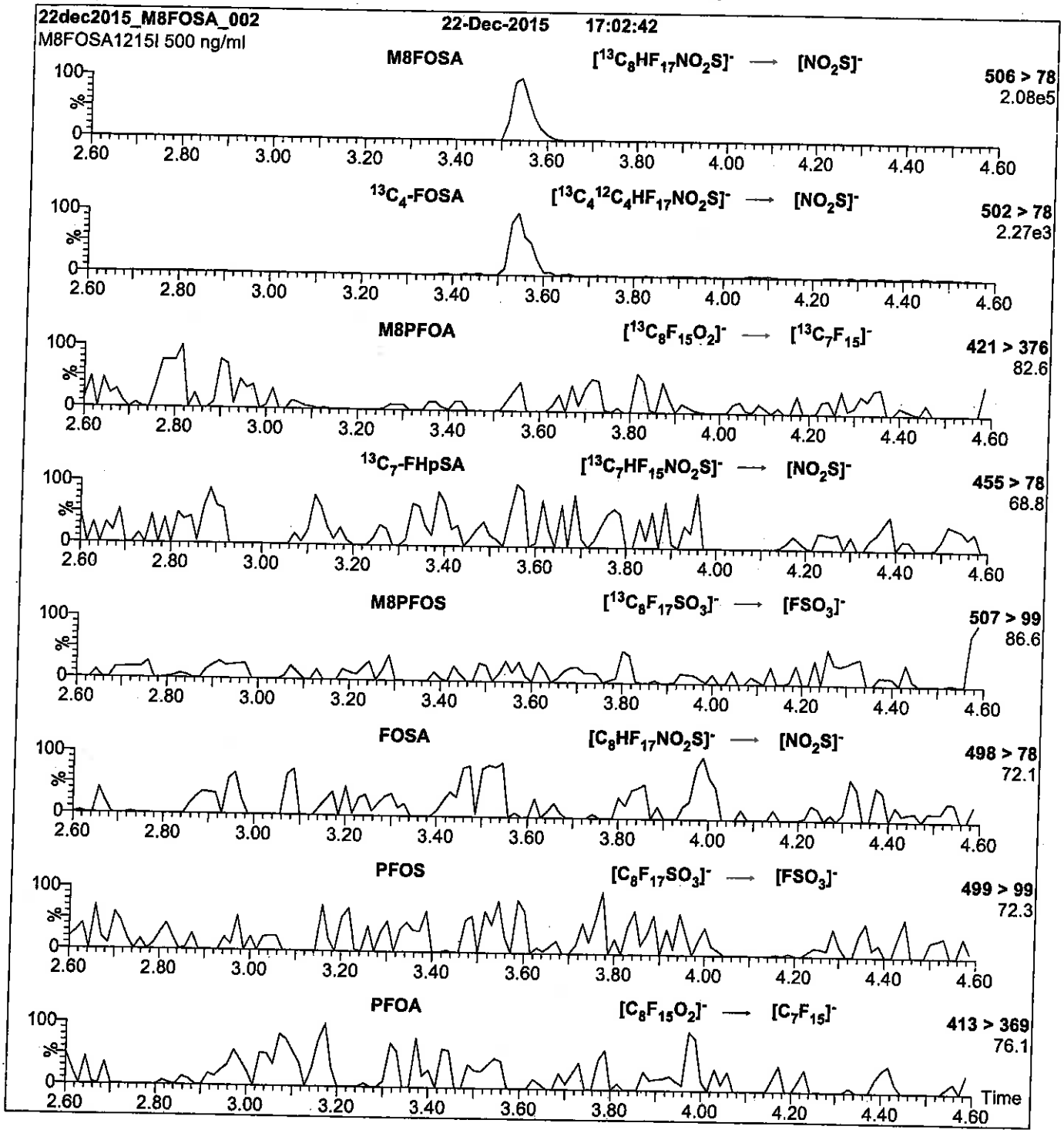
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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



Conditions for Figure 2:

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

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) = 30

Reagent

LCM8FOSA_00012

R: 3/9/17 SKV

WELLINGTON LABORATORIES

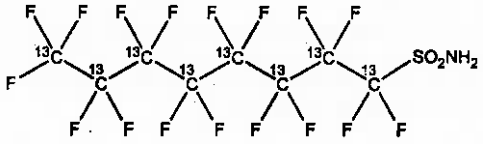
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA1215I

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):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	12/22/2015		
EXPIRY DATE: (mm/dd/yyyy)	12/22/2020		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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:** 12/13/2016 (mm/dd/yyyy)

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

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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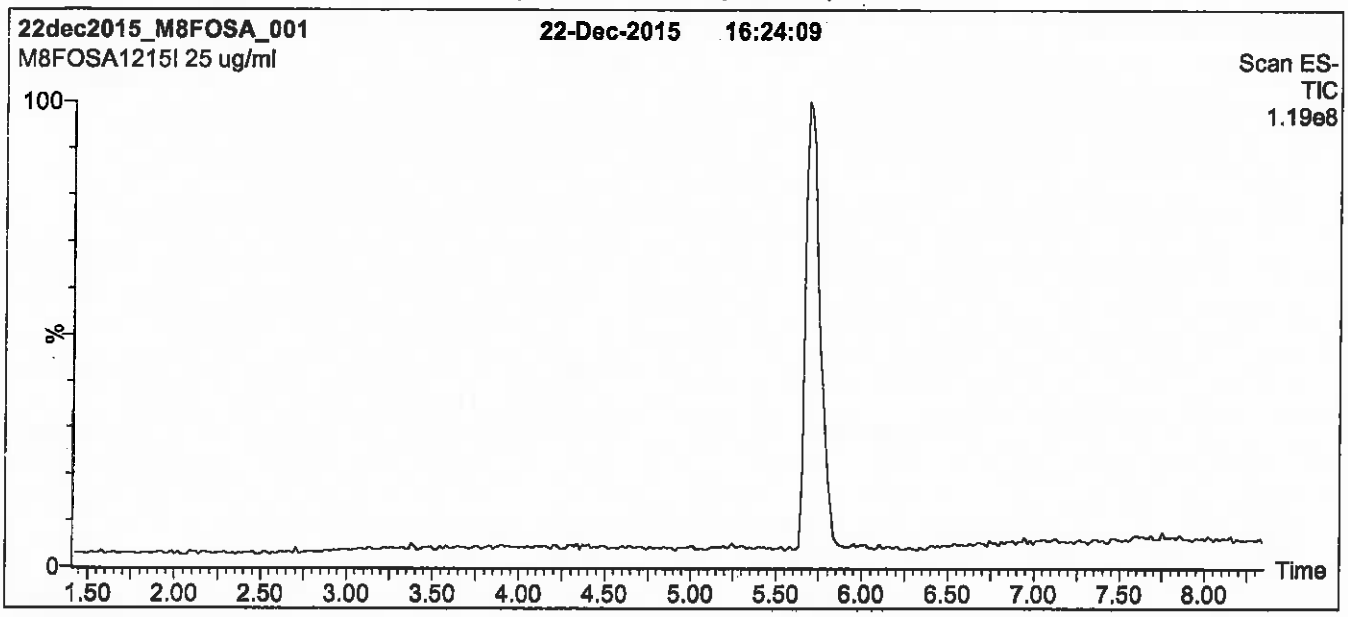
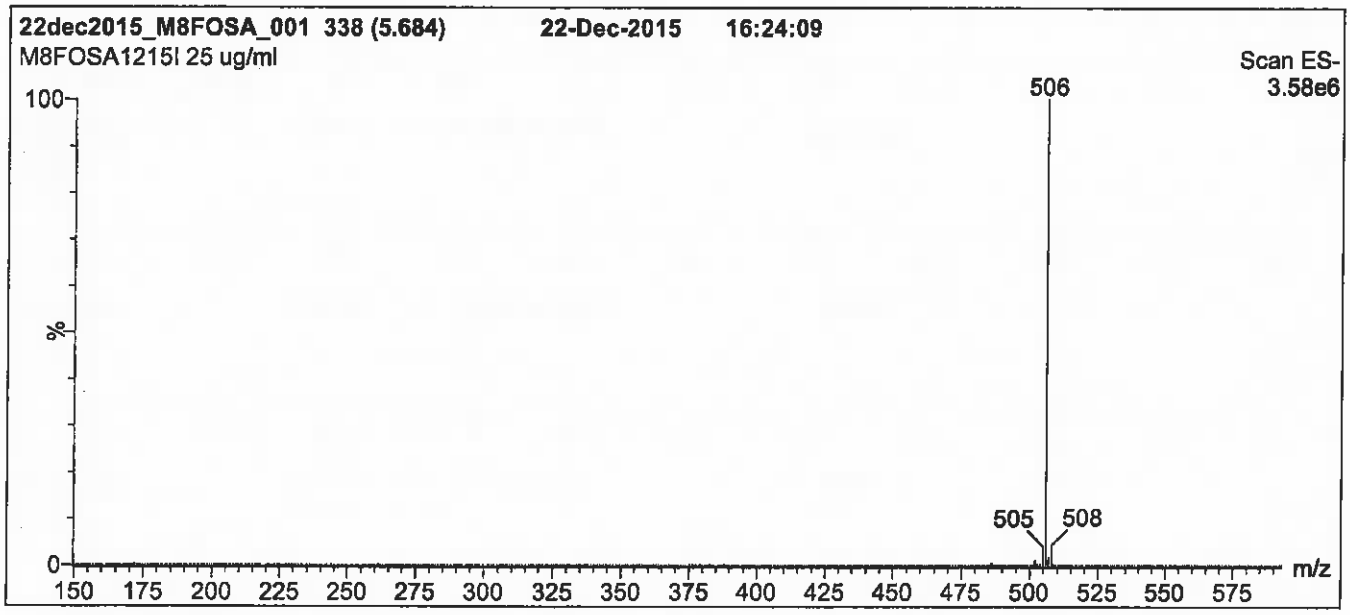




Conditions for Figure 1:

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

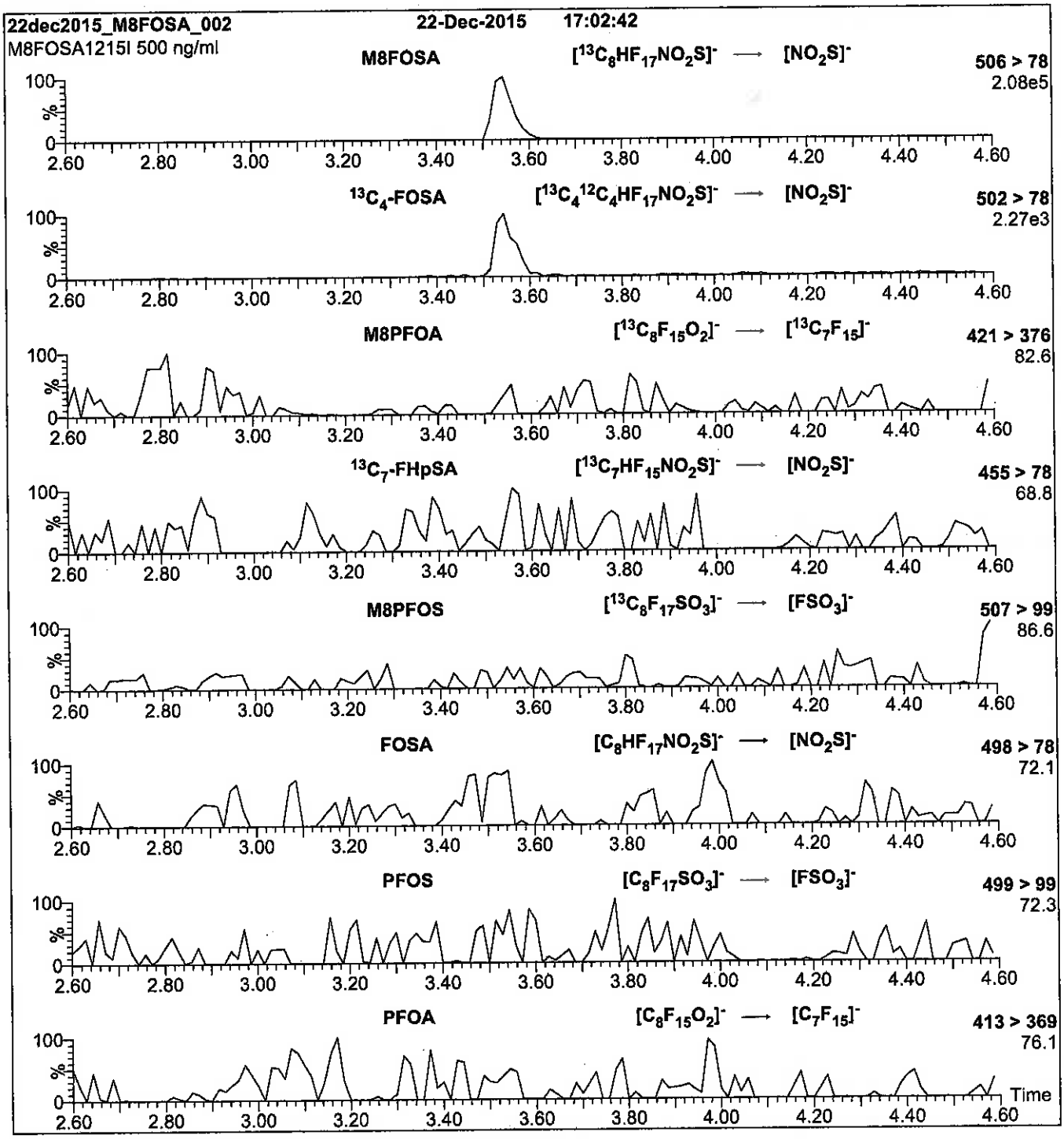
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 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-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

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

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) = 30

Reagent

LCM8FOSA_00013

r: 5/3/17 SKV

WELLINGTON LABORATORIES

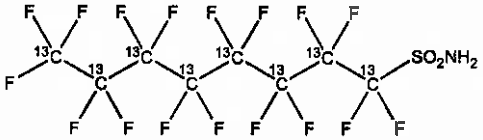
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA1215I

STRUCTURE:

CAS #: Not available



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CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	12/22/2015		
EXPIRY DATE: (mm/dd/yyyy)	12/22/2020		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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

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CALA

ANAB ACCREDITED

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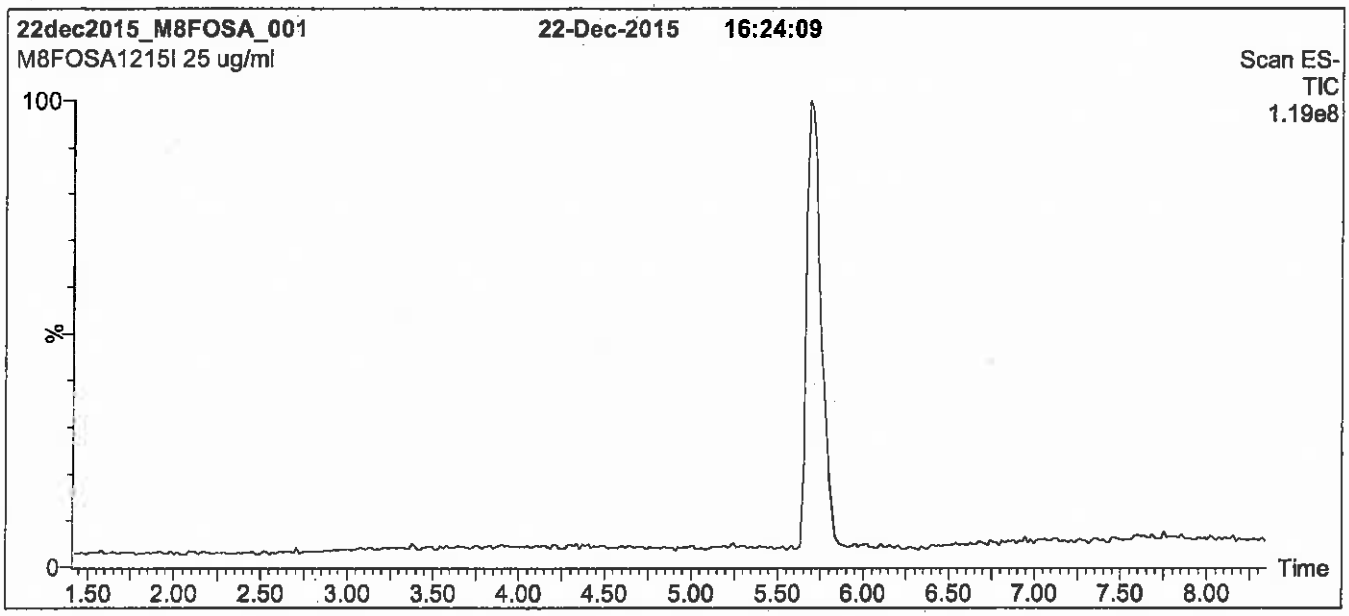

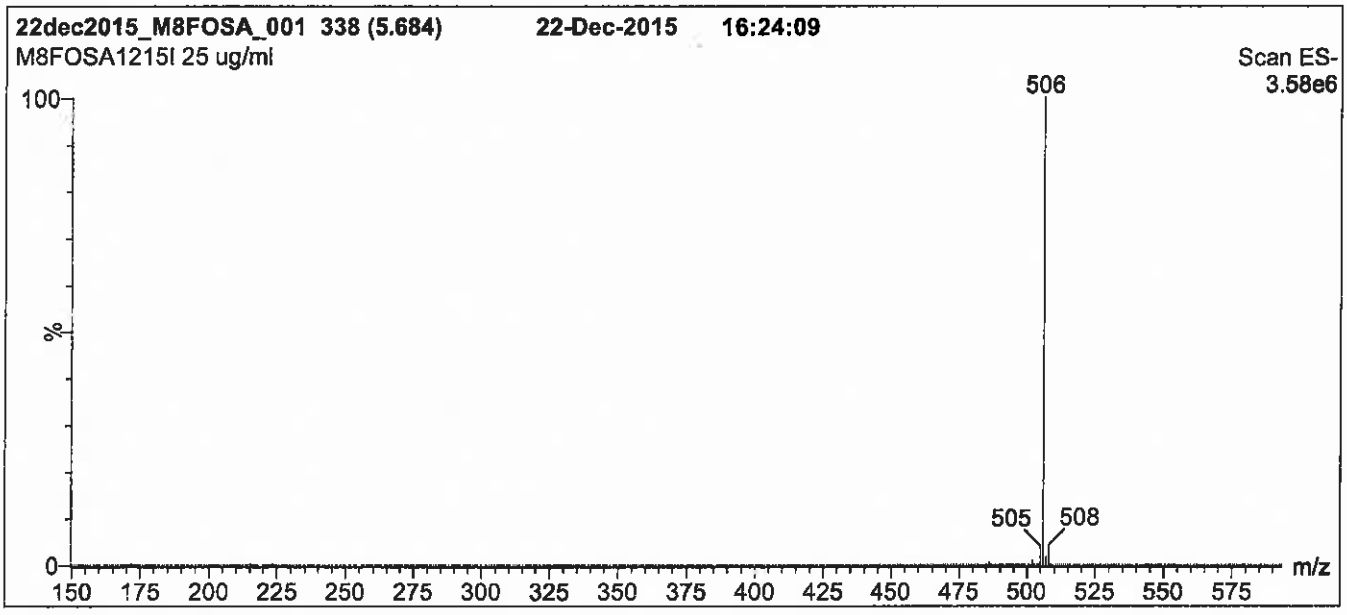

Conditions for Figure 1:

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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: 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

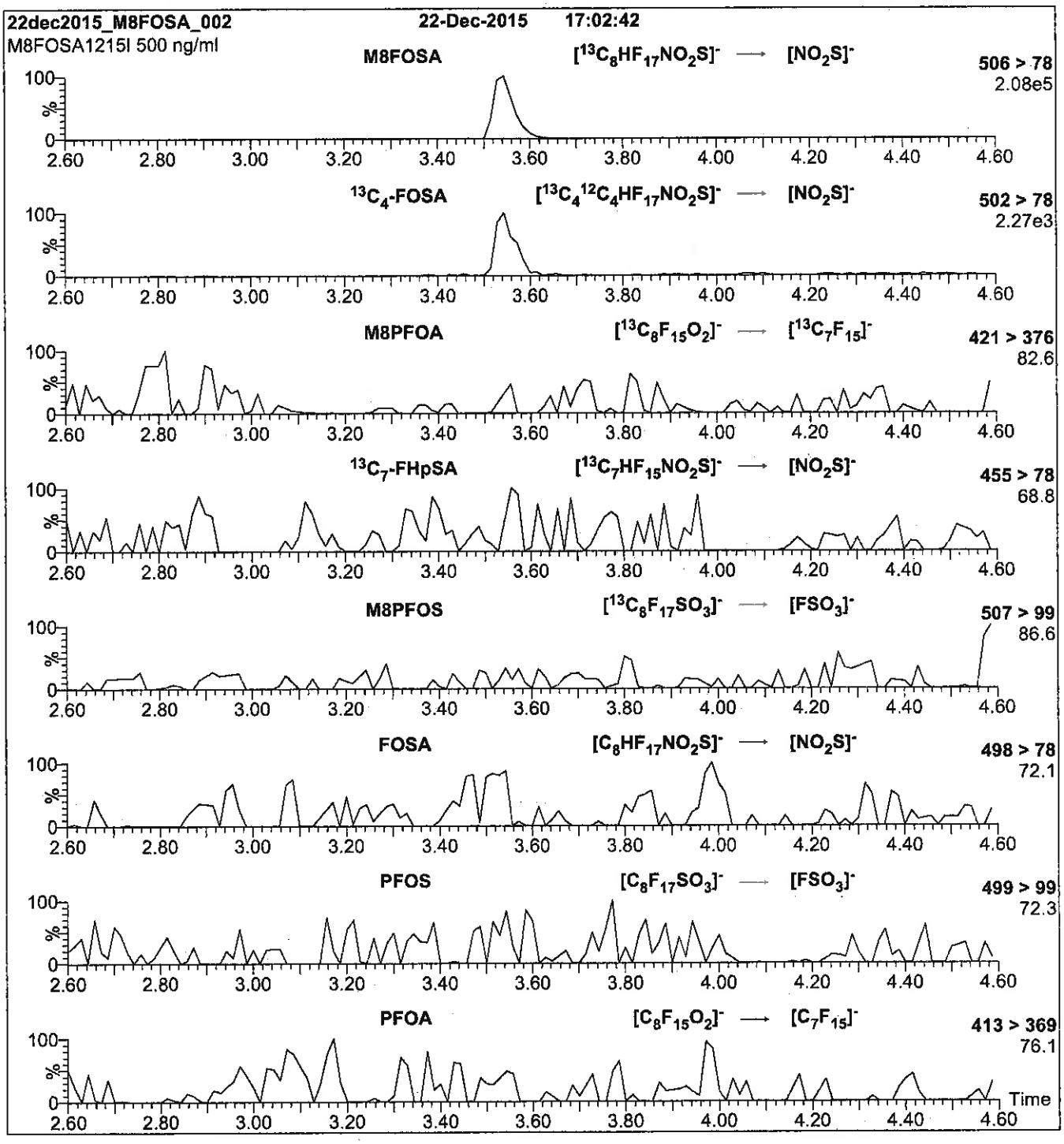
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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



Conditions for Figure 2:

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

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) = 30

Reagent

LCMPFBA_00008

R: SBC 9/22/16

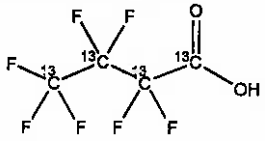
739593
ID: LCMPFBA_00008
Exp: 05/24/21 Prpd: SBC
13C4-Perfluorobutanoic ac

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

Scanned 10/14/16 SR

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA0516
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid		
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)	05/24/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 05/30/2016 (mm/dd/yyyy)

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

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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 of our products.

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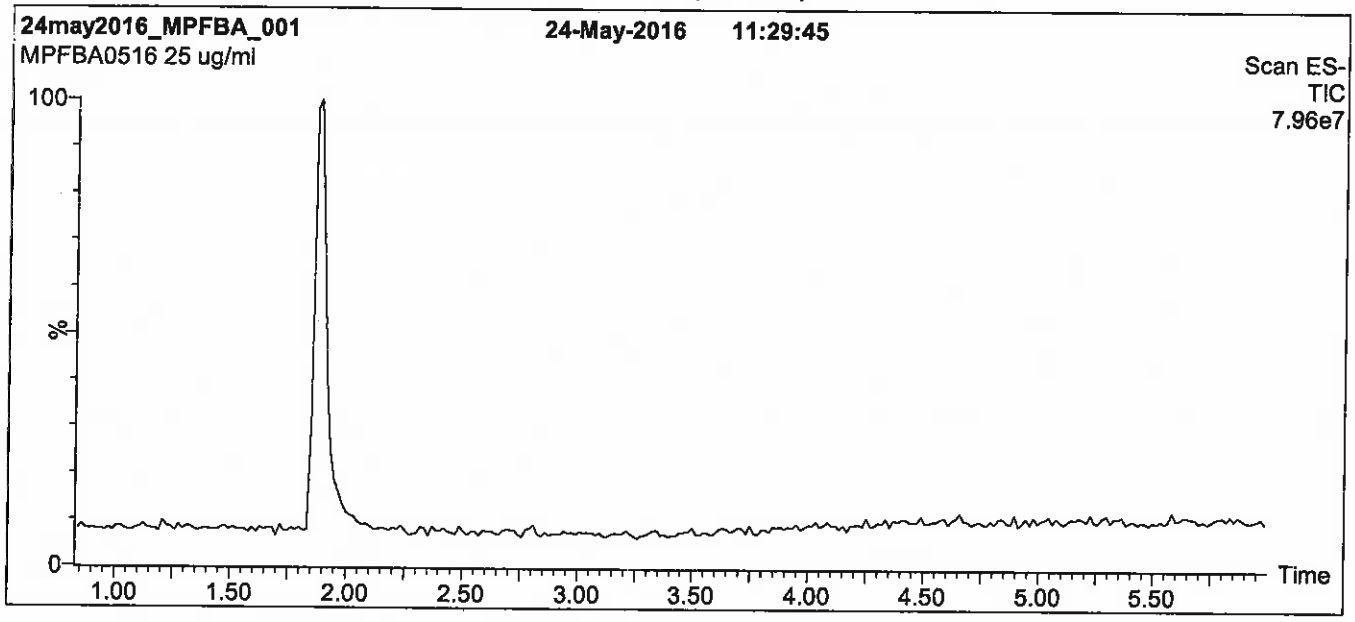
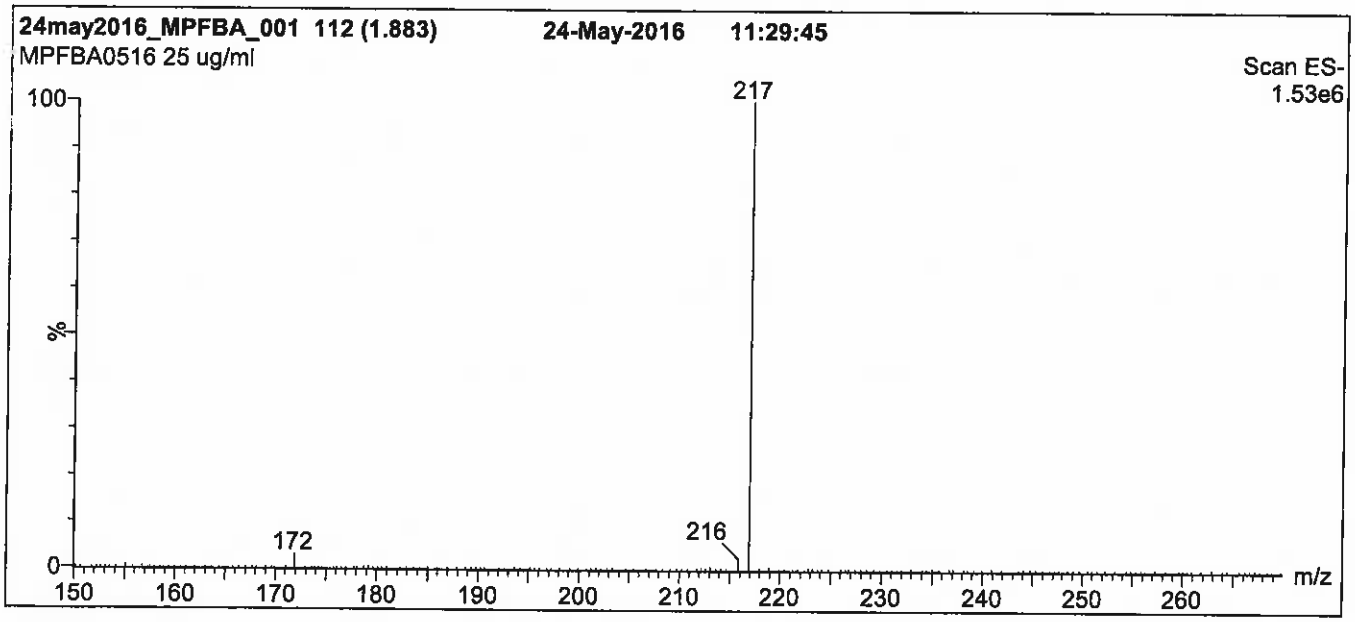
Figure 1: **MPFBA; LC/MS Data (TIC and Mass Spectrum)**





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: 30% (80:20 MeOH:ACN) / 70% 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

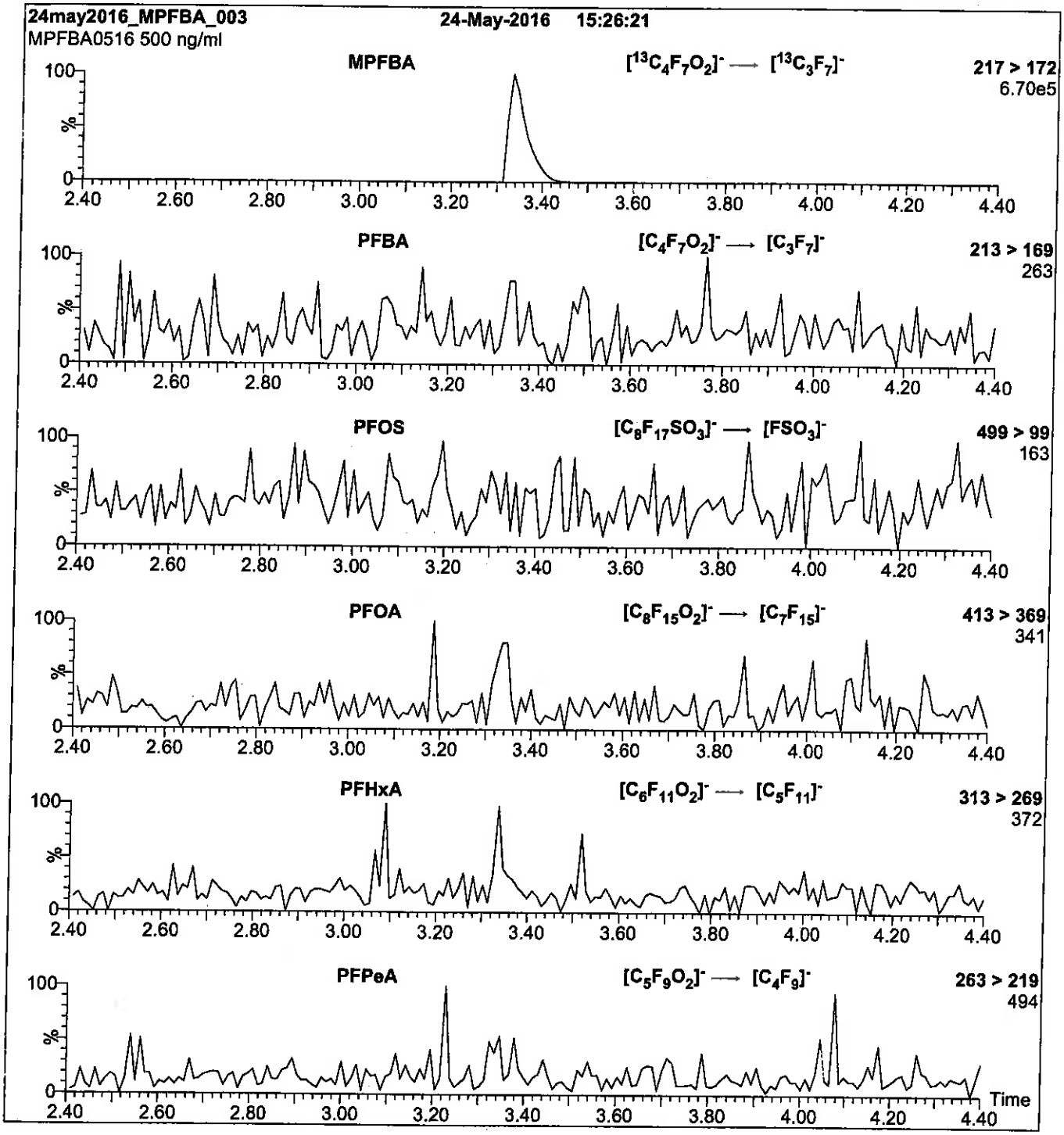
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
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 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 10

Reagent

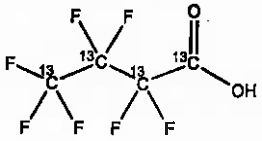
LCMPFBA_00009

P:3/9/17SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA0516
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid		
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)	05/24/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

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ADDITIONAL INFORMATION:

- See page 2 for further details.
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Certified By: _____ **Date:** 05/30/2016 (mm/dd/yyyy)
B.G. Chittim

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ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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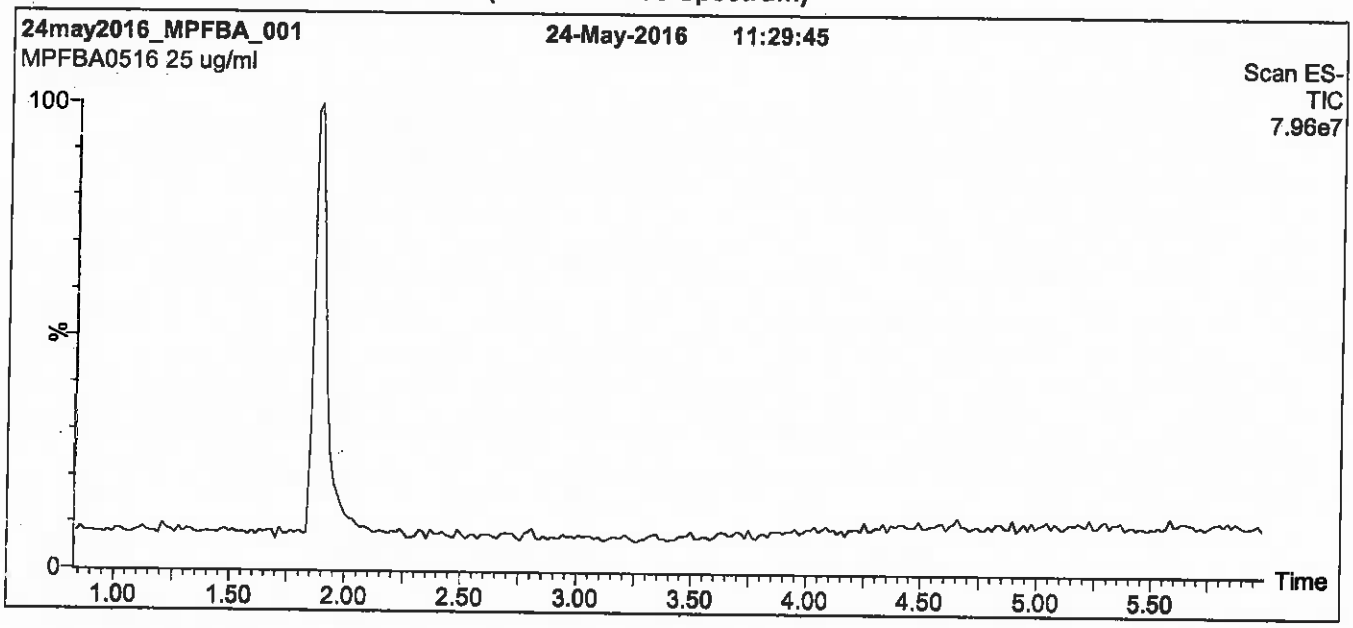
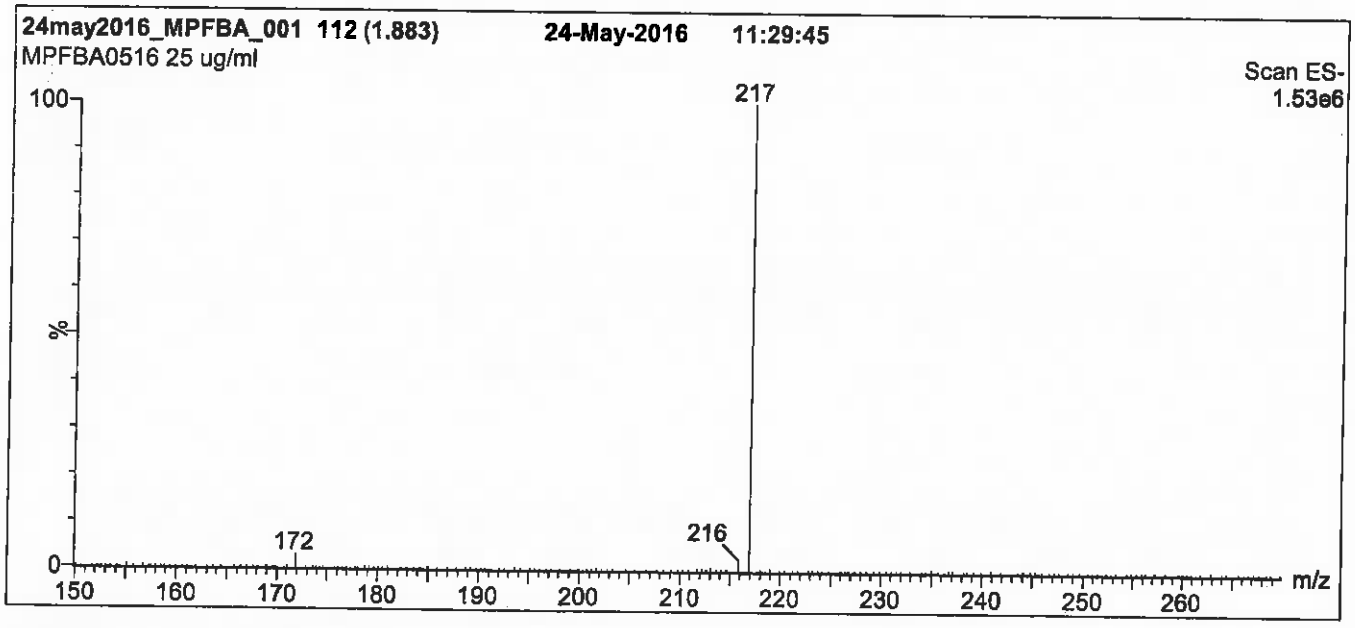




Conditions for Figure 1:

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: 30% (80:20 MeOH:ACN) / 70% 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

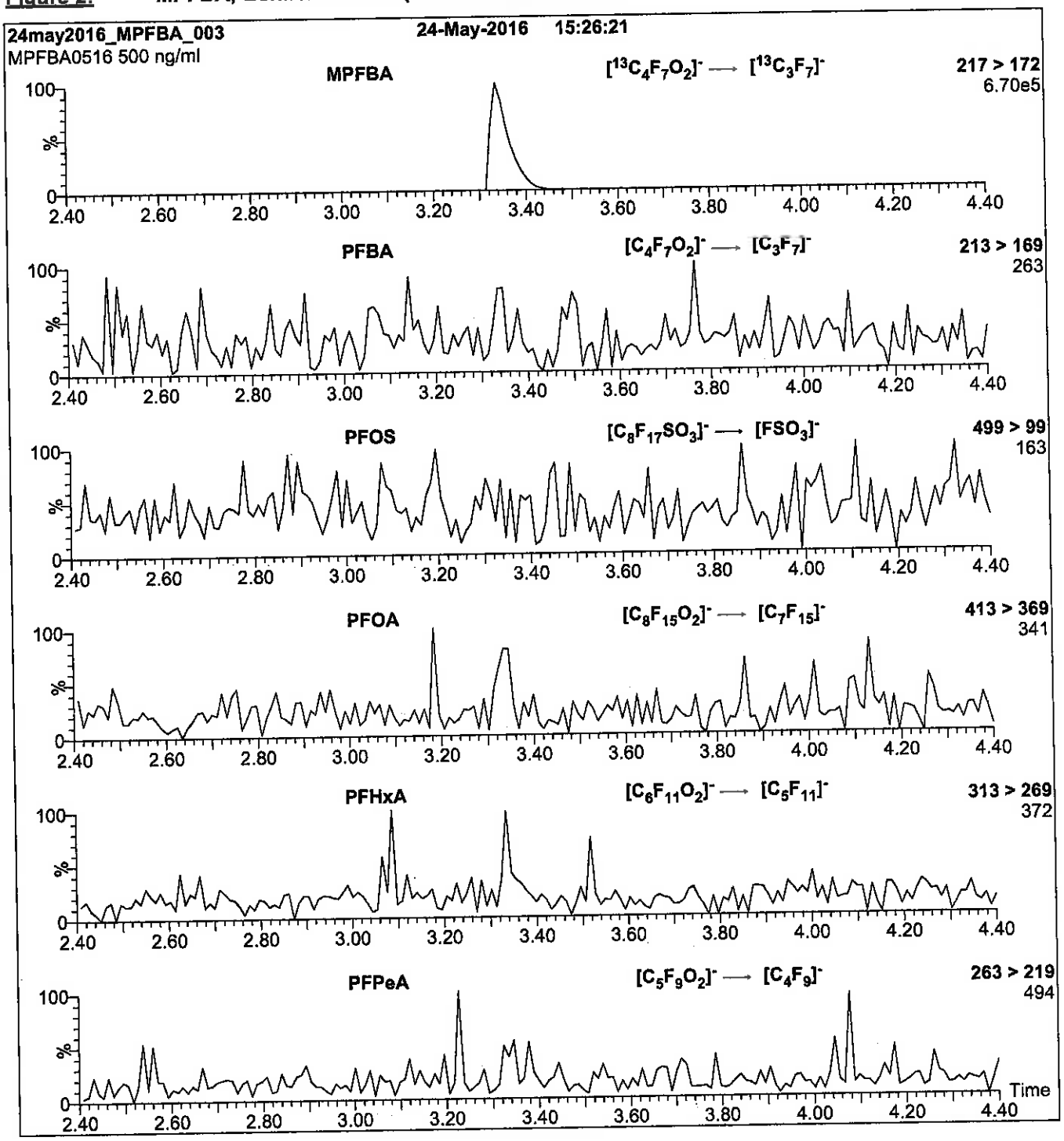
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
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 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 10

Reagent

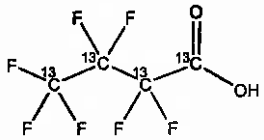
LCMPFBA_00010

r: 5/3/17 SRV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA0516
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid		
STRUCTURE:		**CAS #:**	Not available



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CALA

ANAB ACCREDITED

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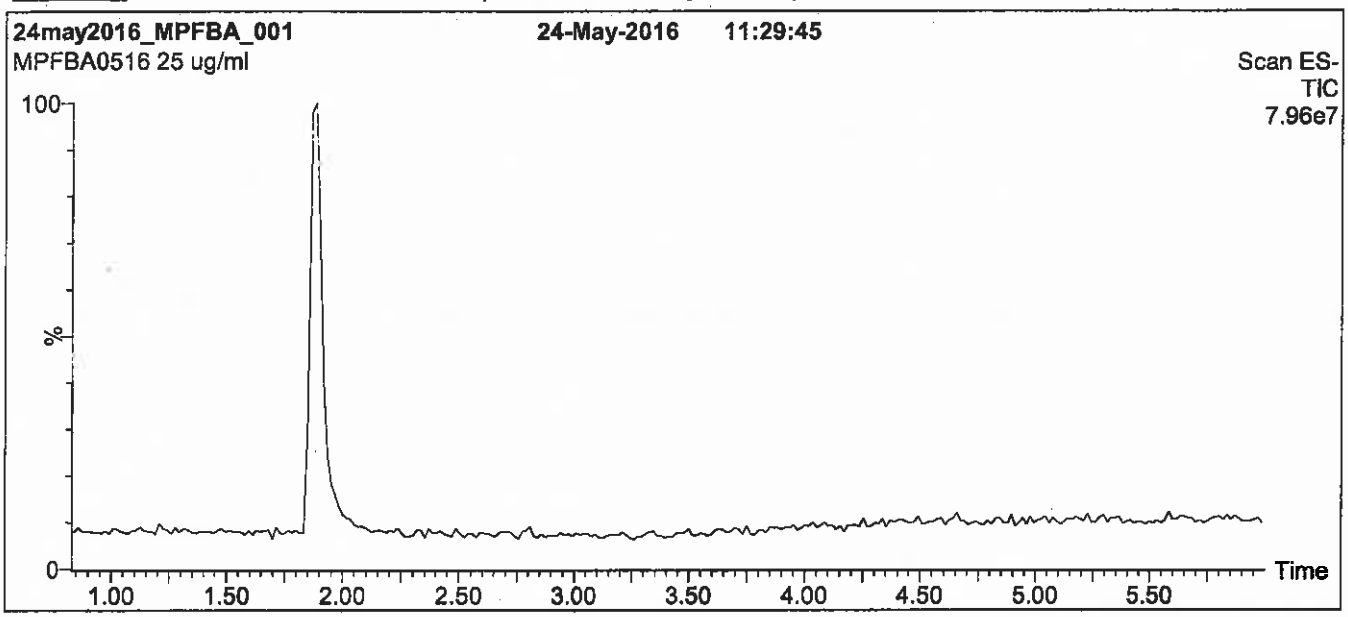
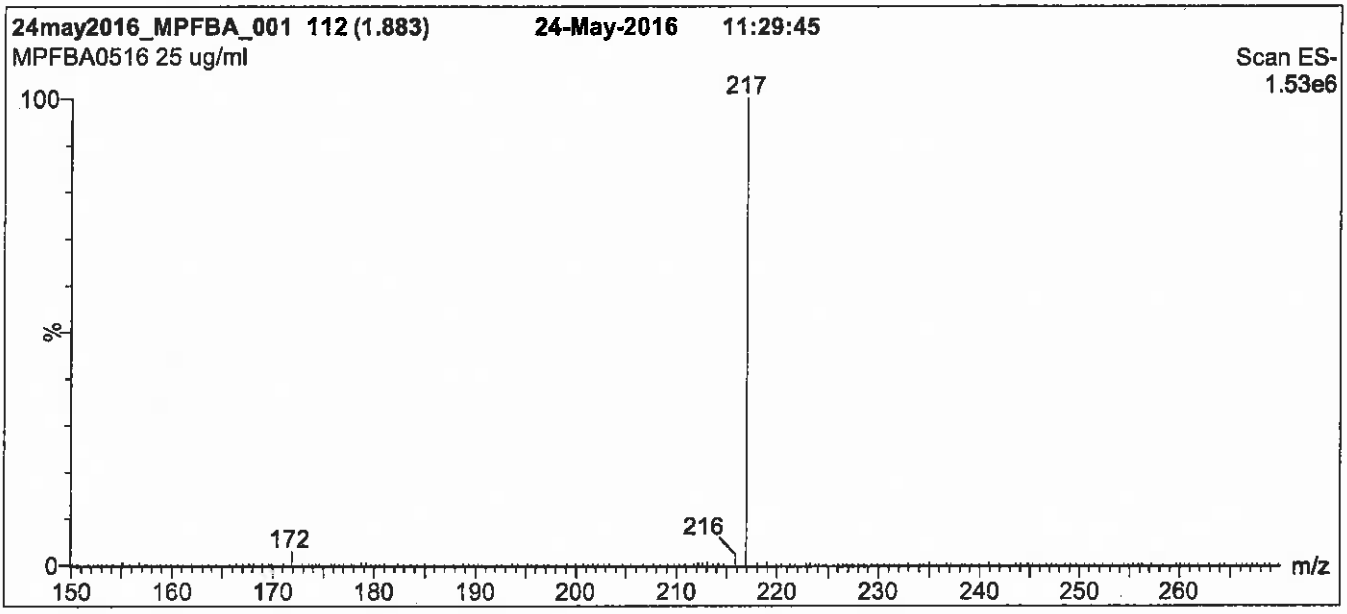




Conditions for Figure 1:

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: 30% (80:20 MeOH:ACN) / 70% 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

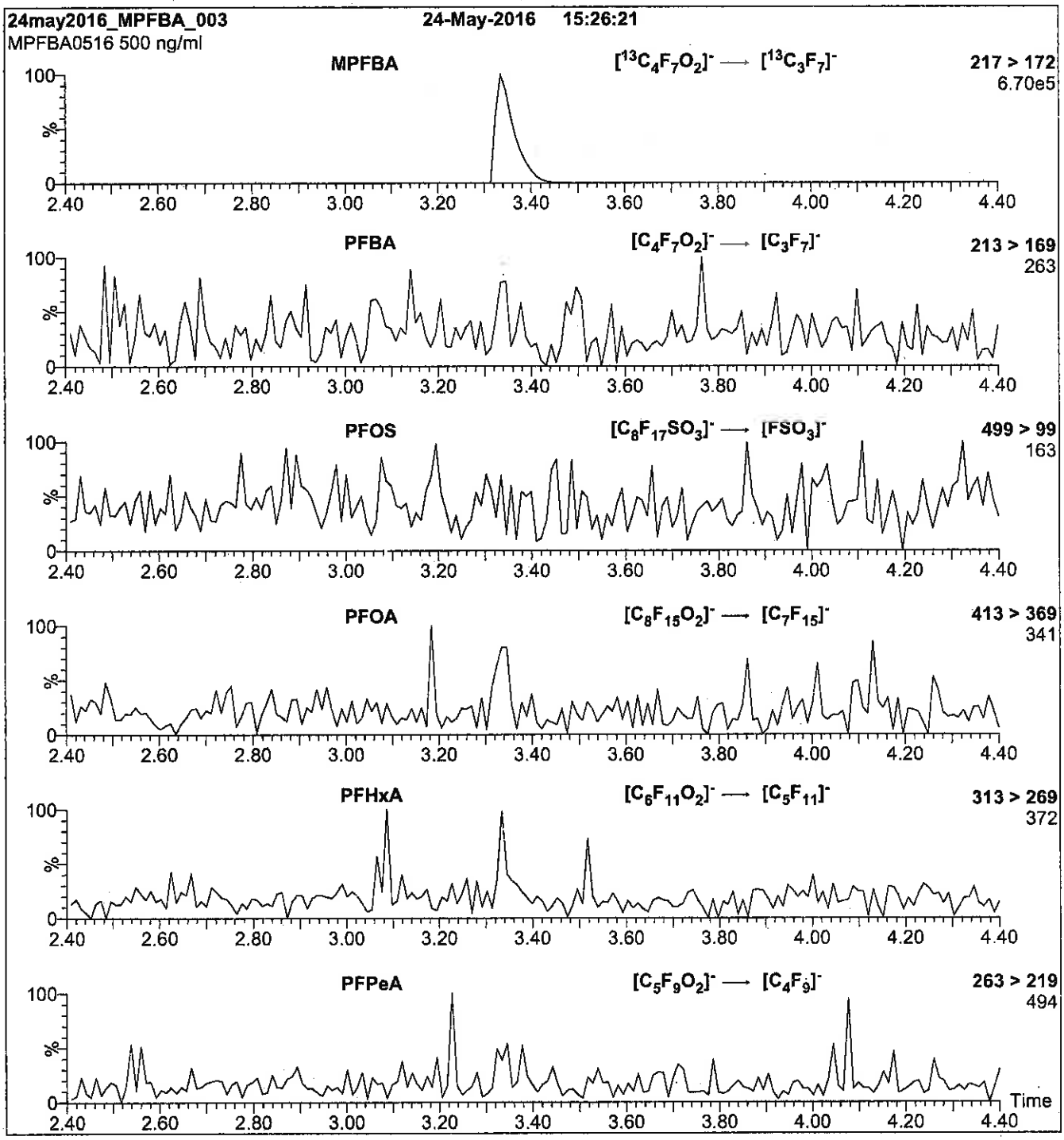
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
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 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 10

Reagent

LCMPFBS_00002

Scanned 10/14/16 SBC R: SBC 9/22/16

739640
ID: LCMPFBS_00002
Exp: 08/02/21 Prpd: SBC
13C3-Perfluorobutanesulfo

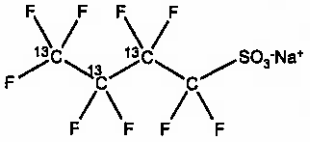
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS0815

COMPOUND: Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.5 ± 2.3 µg/ml (M3PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	08/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/02/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

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ADDITIONAL INFORMATION:

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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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 of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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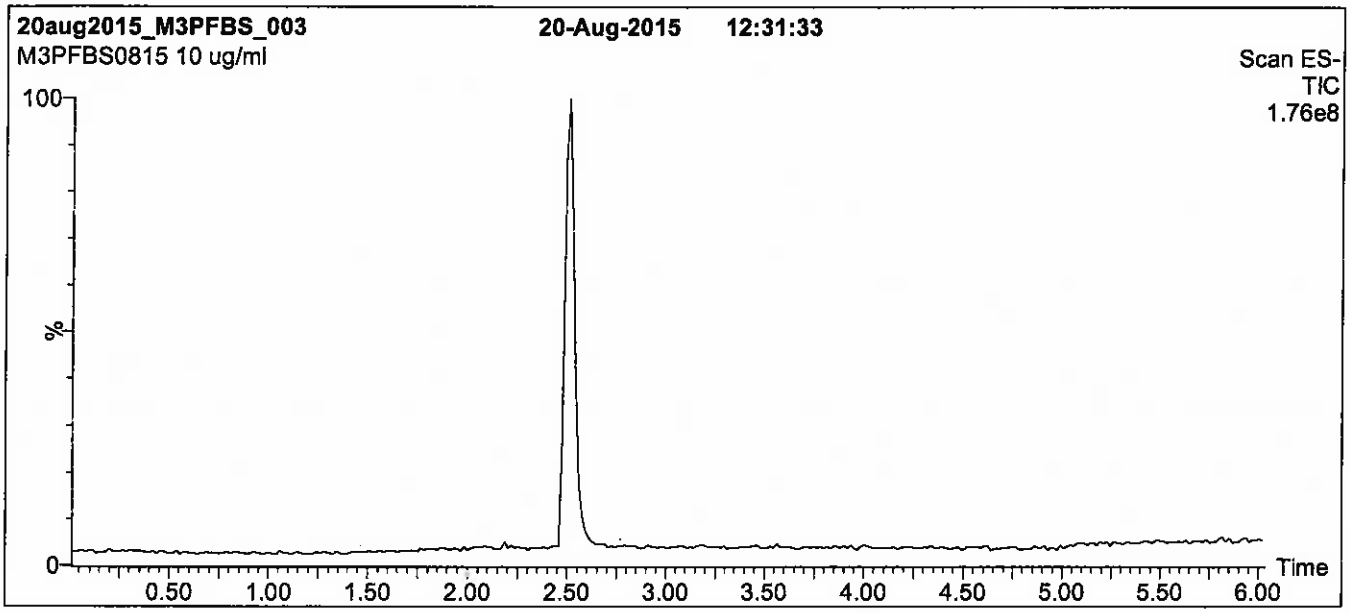
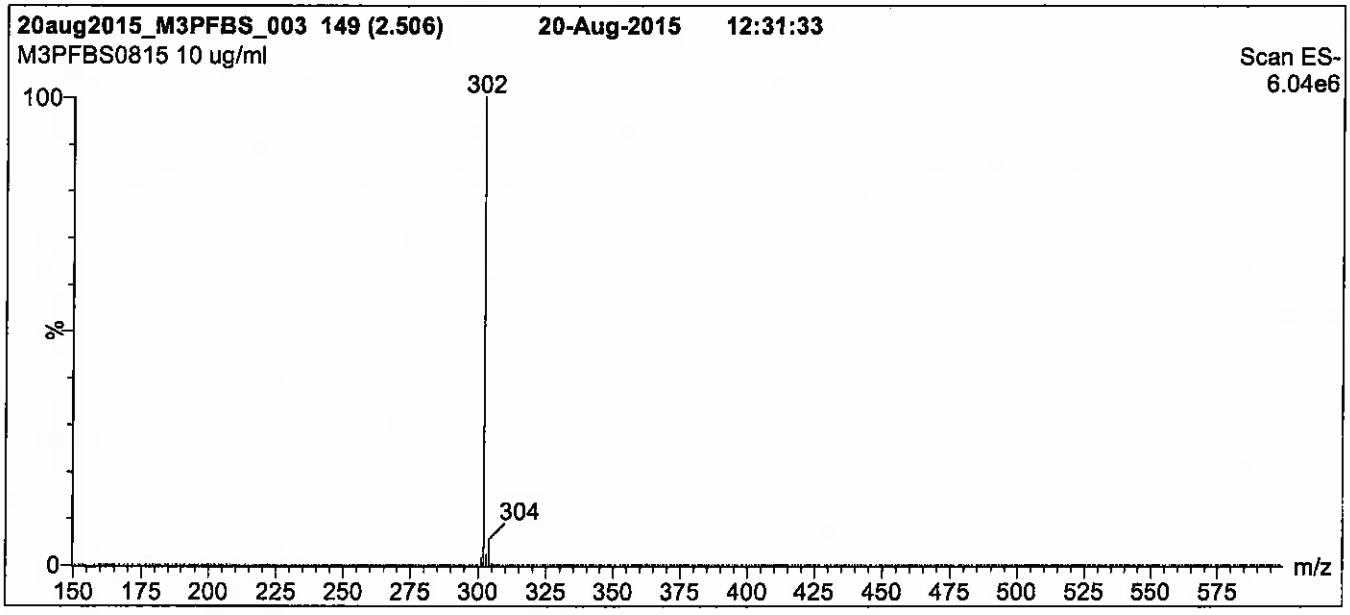
Figure 1: **M3PFBS; LC/MS Data (TIC and Mass Spectrum)**





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

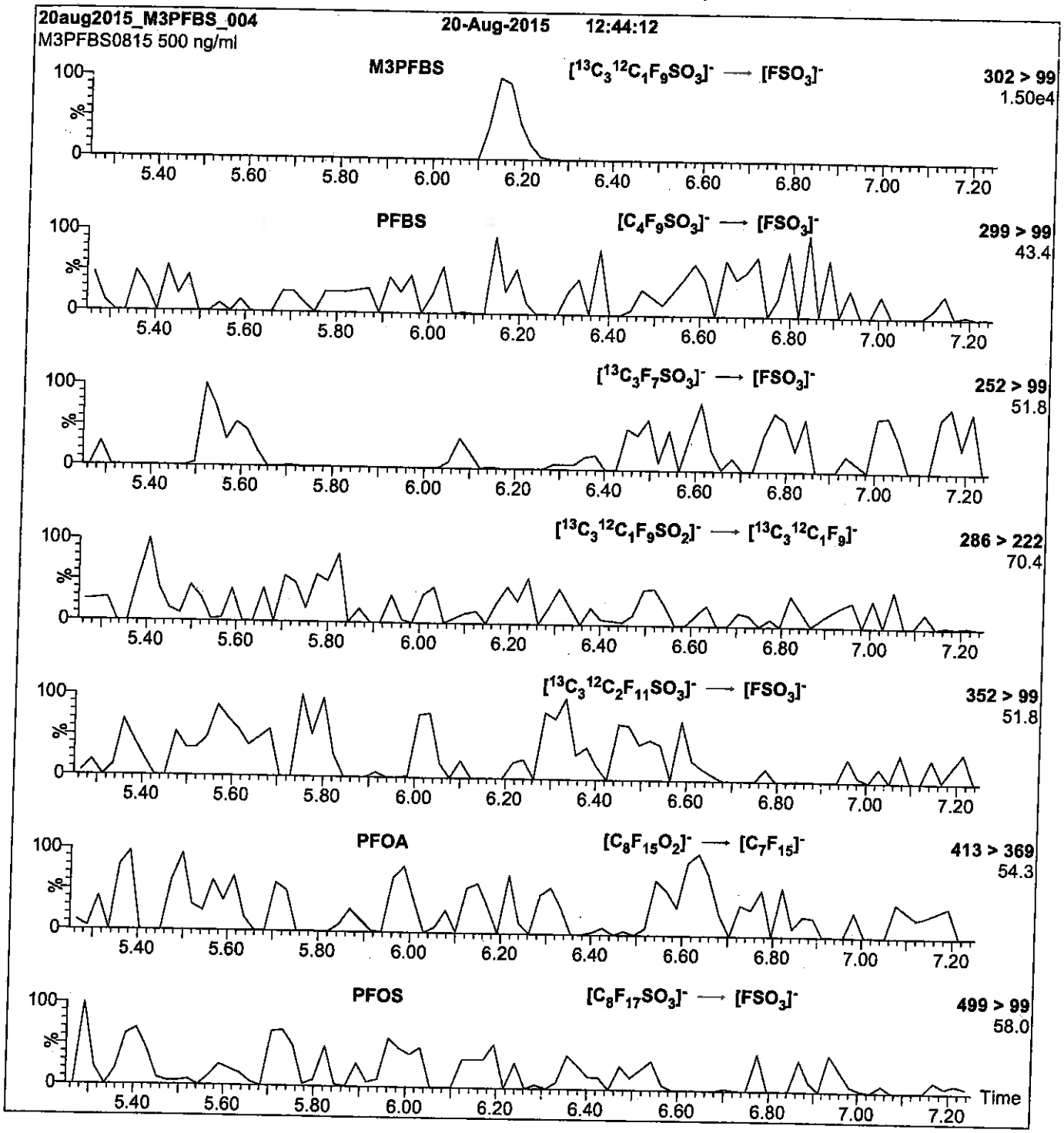
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 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: **M3PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFBS)

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) = 25

Reagent

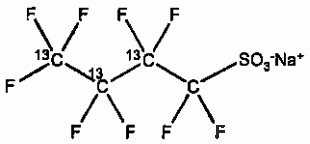
LCMPFBS_00003

r. 5/3/17 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M3PFBS	**LOT NUMBER:**	M3PFBS0815
COMPOUND:	Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.5 ± 2.3 µg/ml (M3PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	08/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/02/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

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

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CALA

ANAB ACCREDITED

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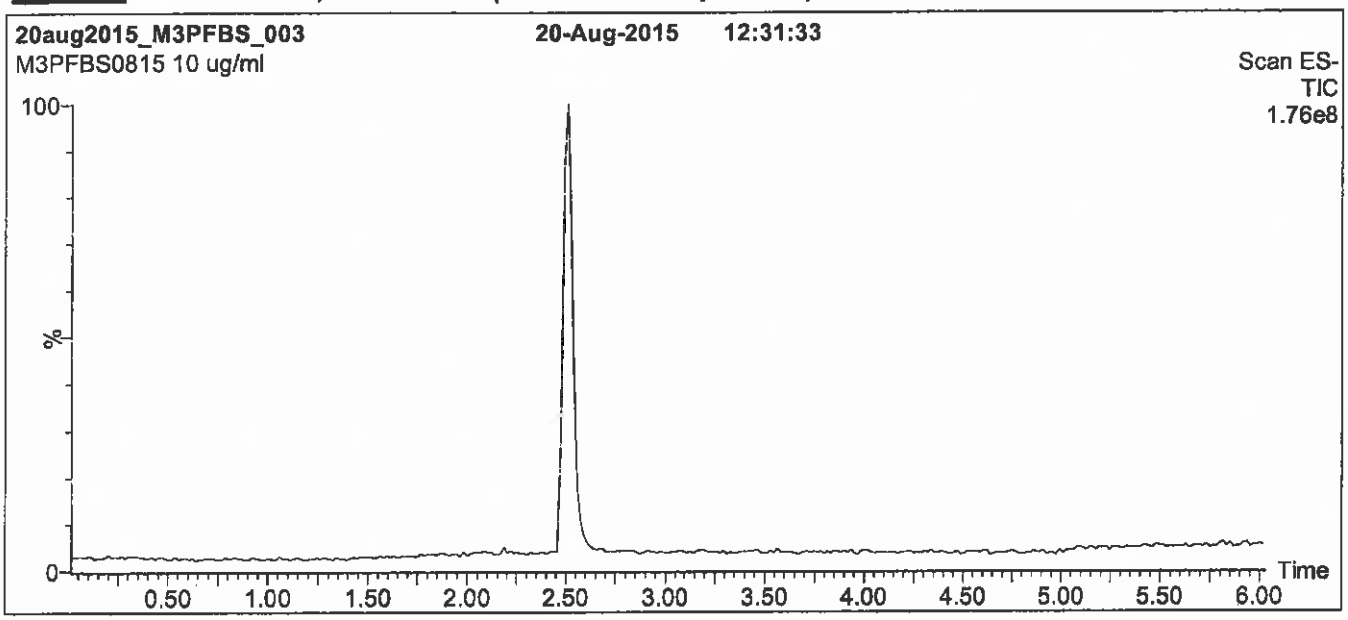
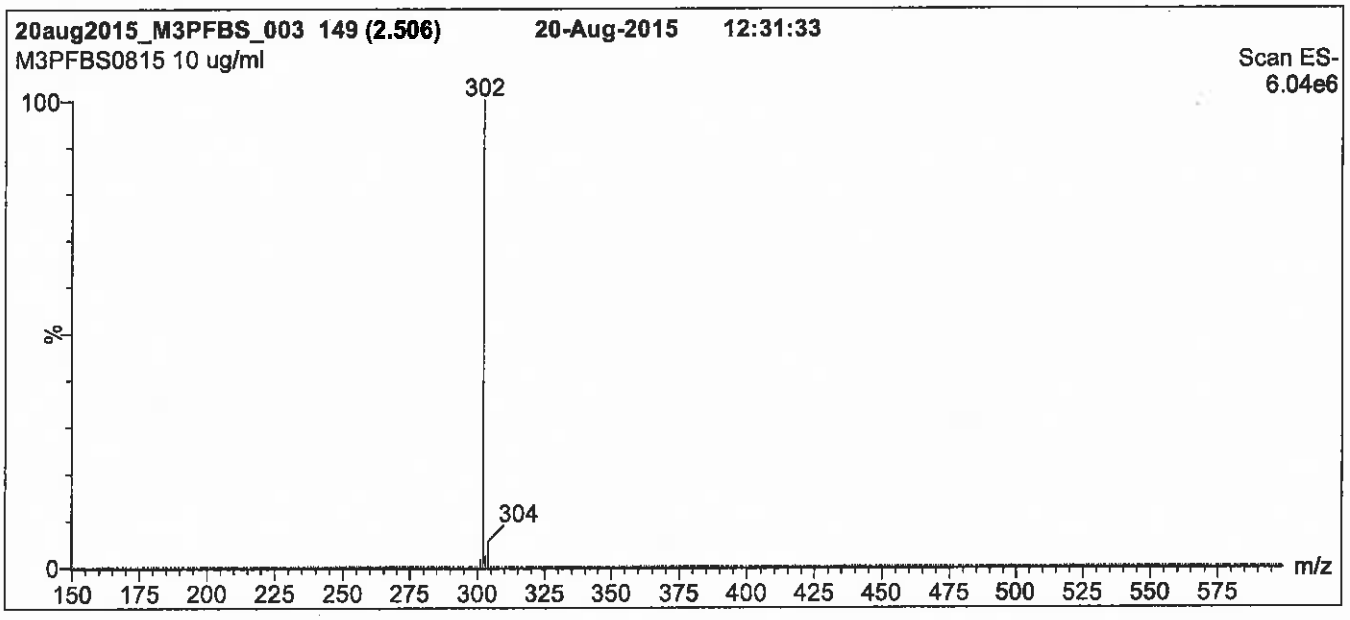




Conditions for Figure 1:

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

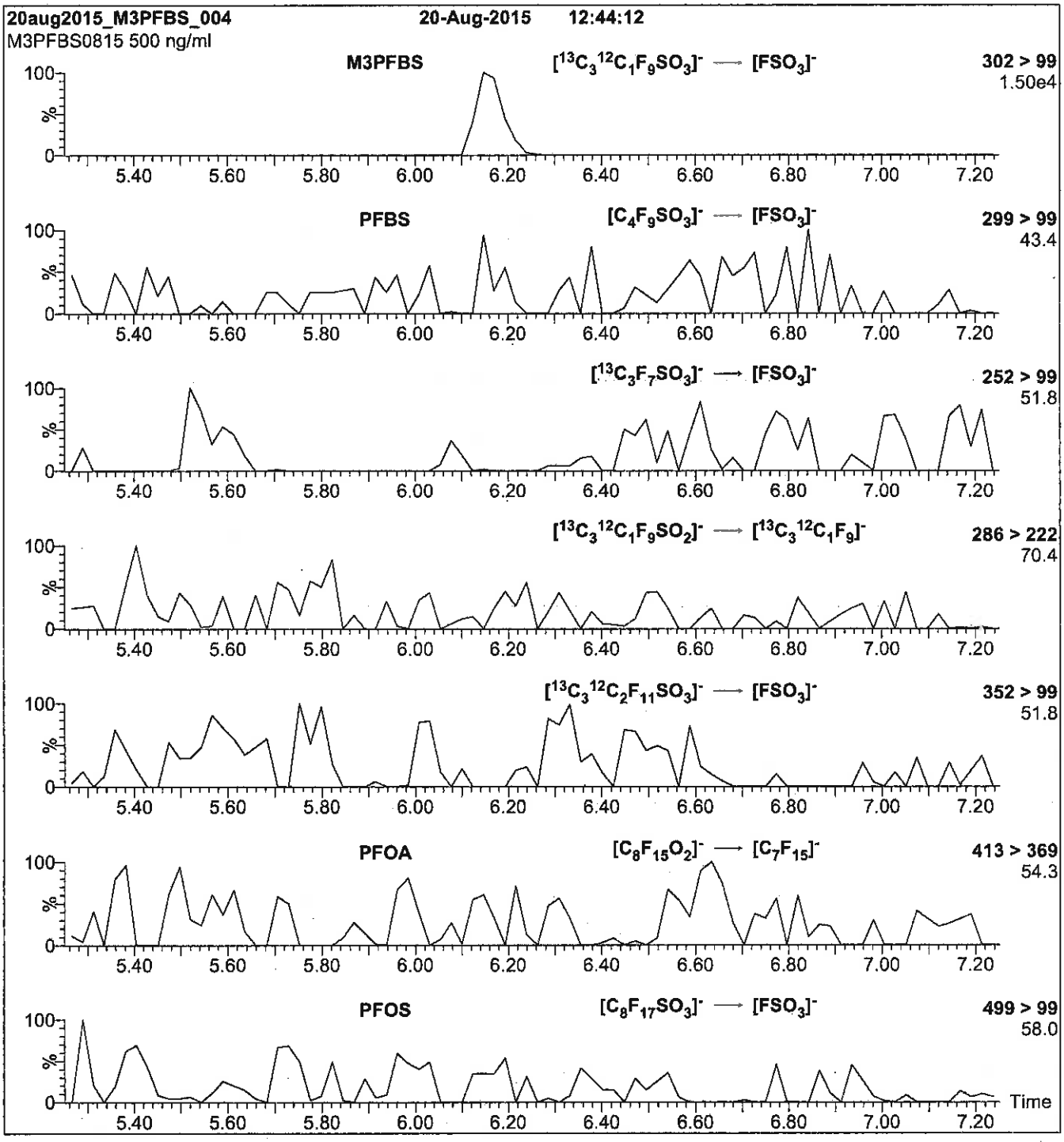
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 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: **M3PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFBS)

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) = 25

Reagent

LCMPFDA_00011

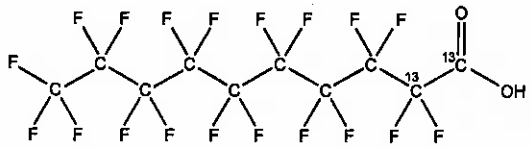
Scanned 10/14/16 R: SBC 9/22/16

739609
ID: LCMPFDA_00011
Exp: 08/19/20 Prpd: SBC
13C2-Perfluorodecanoic a

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFDA	**LOT NUMBER:**	MPFDA0815
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid		
STRUCTURE:		**CAS #:**	Not available



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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

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

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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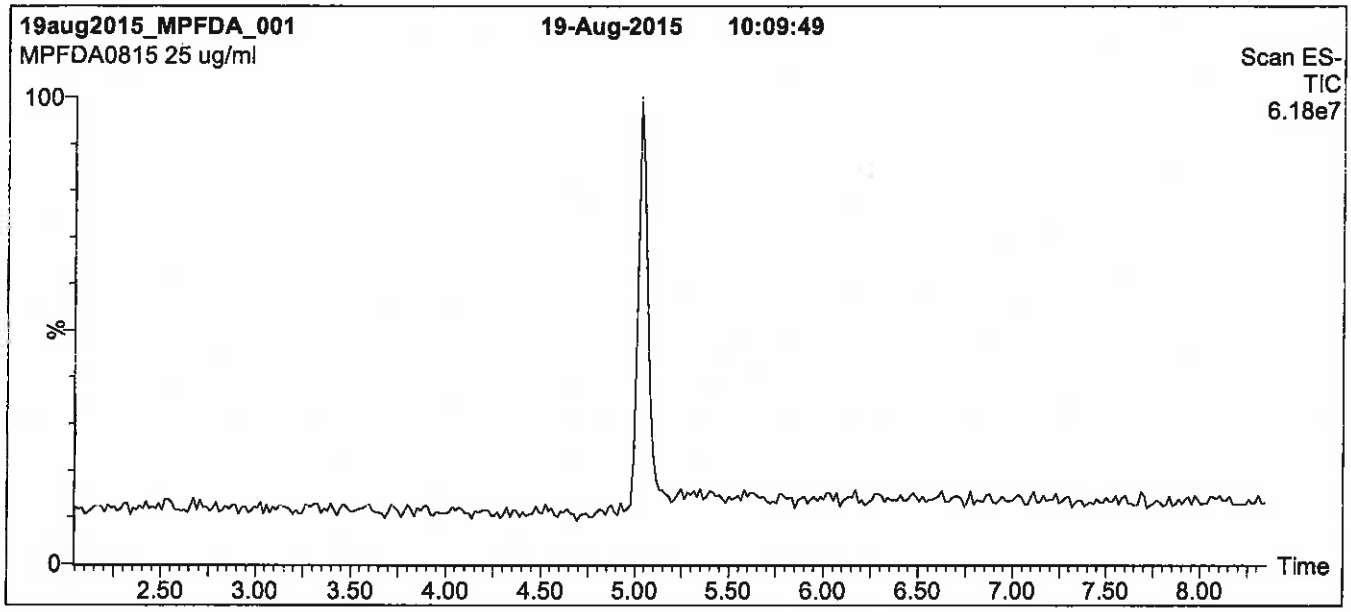
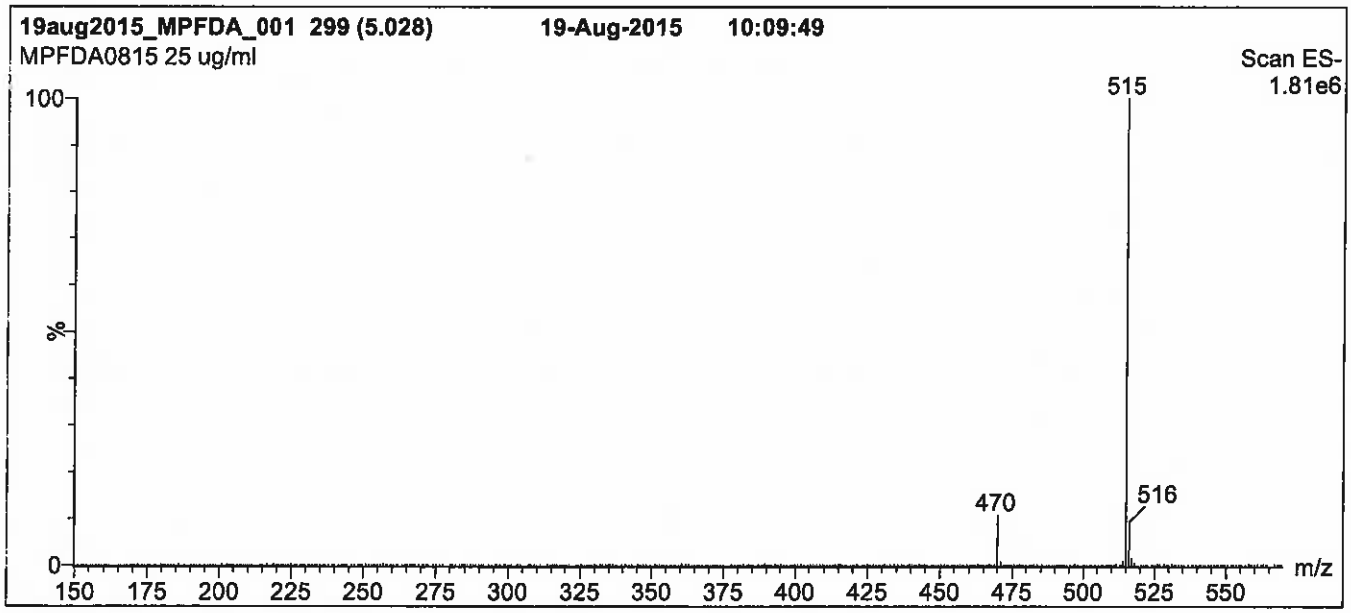
Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





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

Chromatographic Conditions

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

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

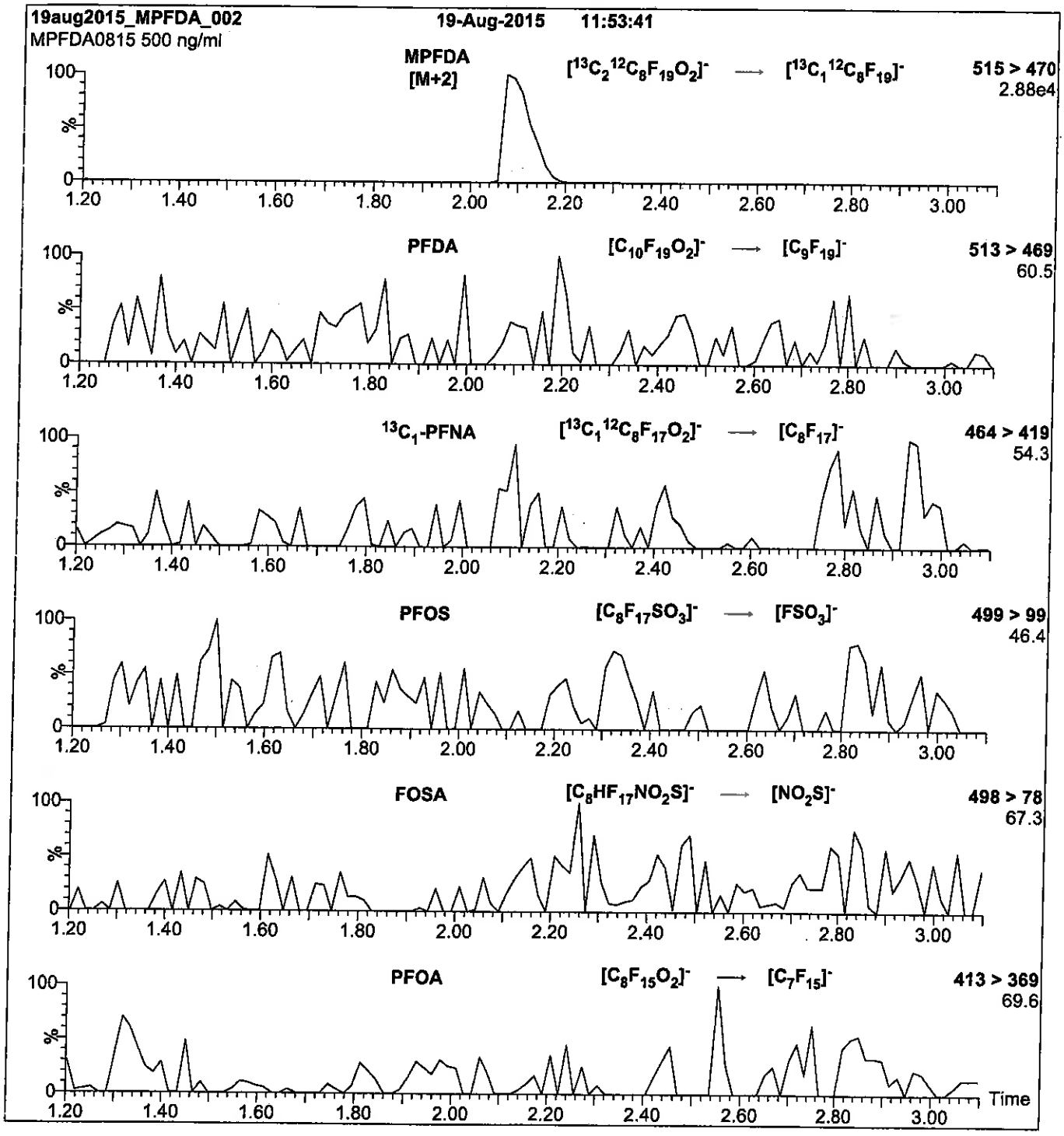
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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



Conditions for Figure 2:

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

MS Parameters

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

Reagent

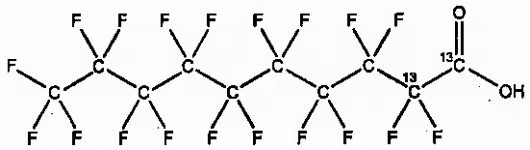
LCMPFDA_00013

P:3/9/17 SKJ

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFDA	**LOT NUMBER:**	MPFDA0916
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid		
STRUCTURE:		**CAS #:**	Not available



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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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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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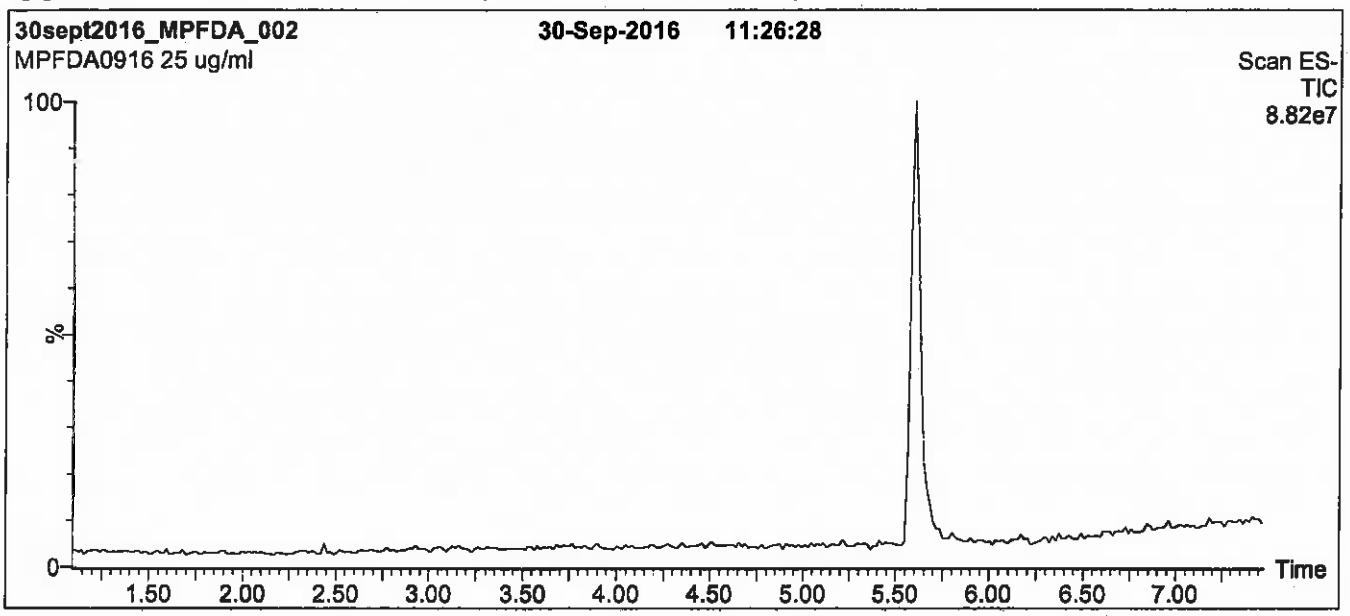
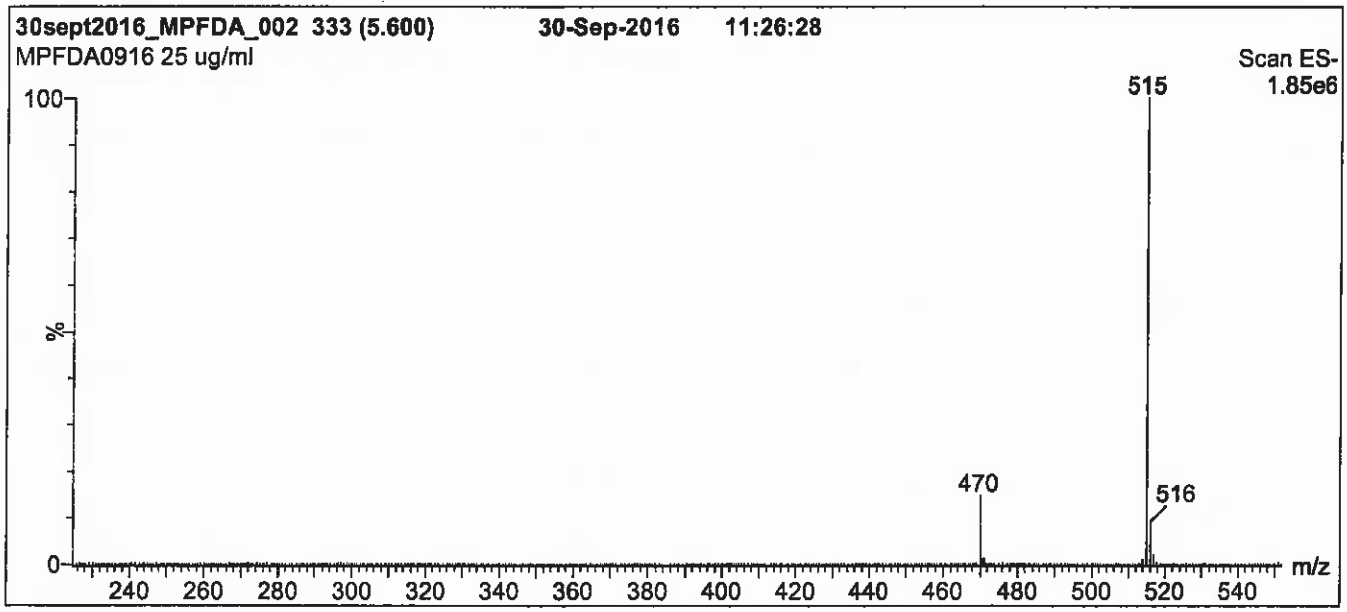
Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

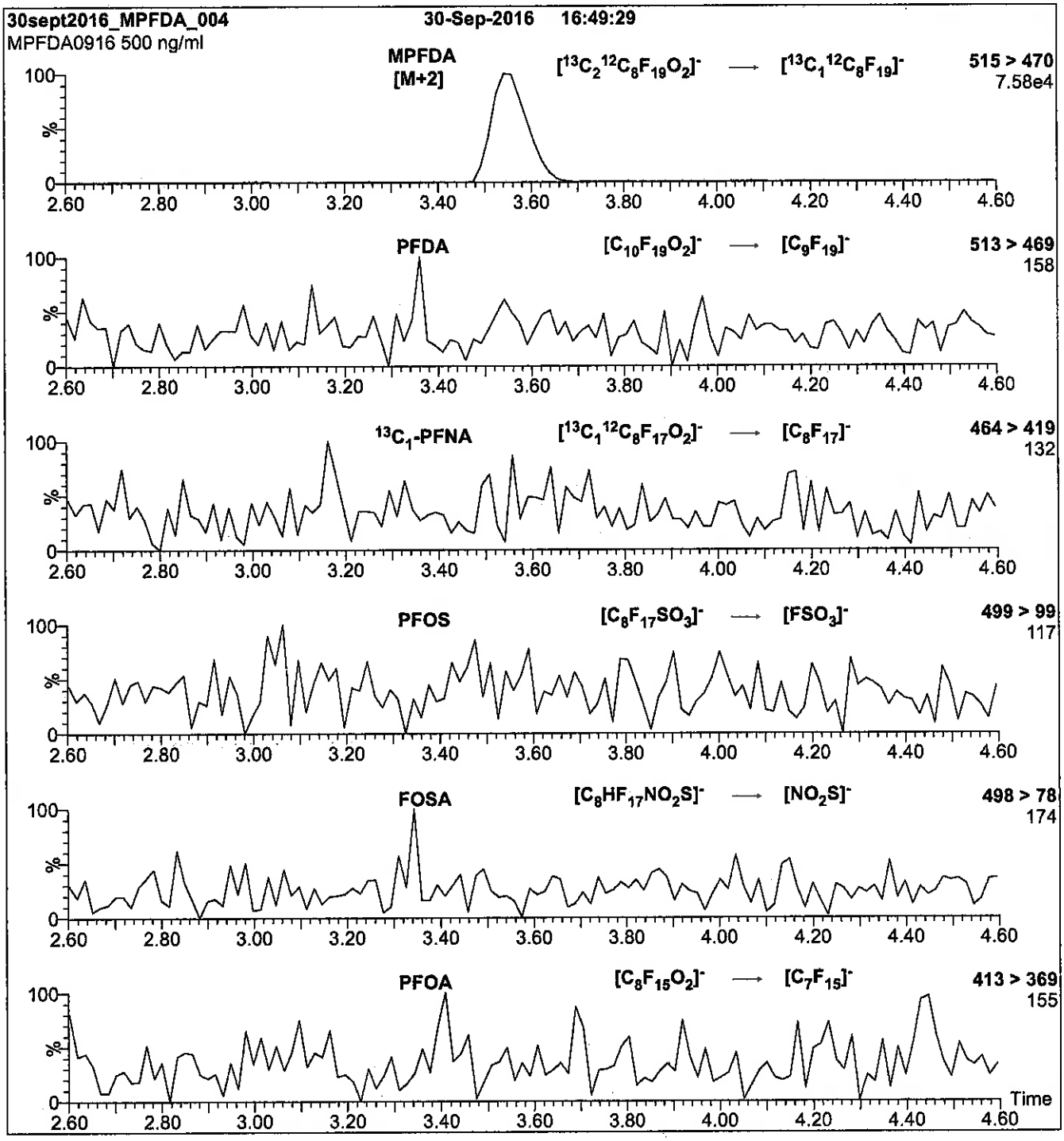
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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) = 3.31e-3
Collision Energy (eV) = 13

Reagent

LCMPFDA_00015

P: 5/3/17-SKV
S: 5/8/17-SKV

WELLINGTON LABORATORIES

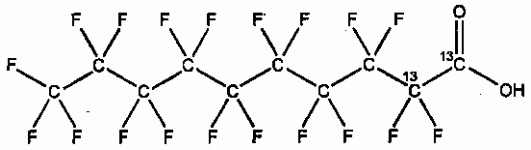
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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

LOT NUMBER: MPFDA0916

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8HF_{19}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 516.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/30/2016
EXPIRY DATE: (mm/dd/yyyy) 09/30/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/07/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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ANAB ACCREDITED

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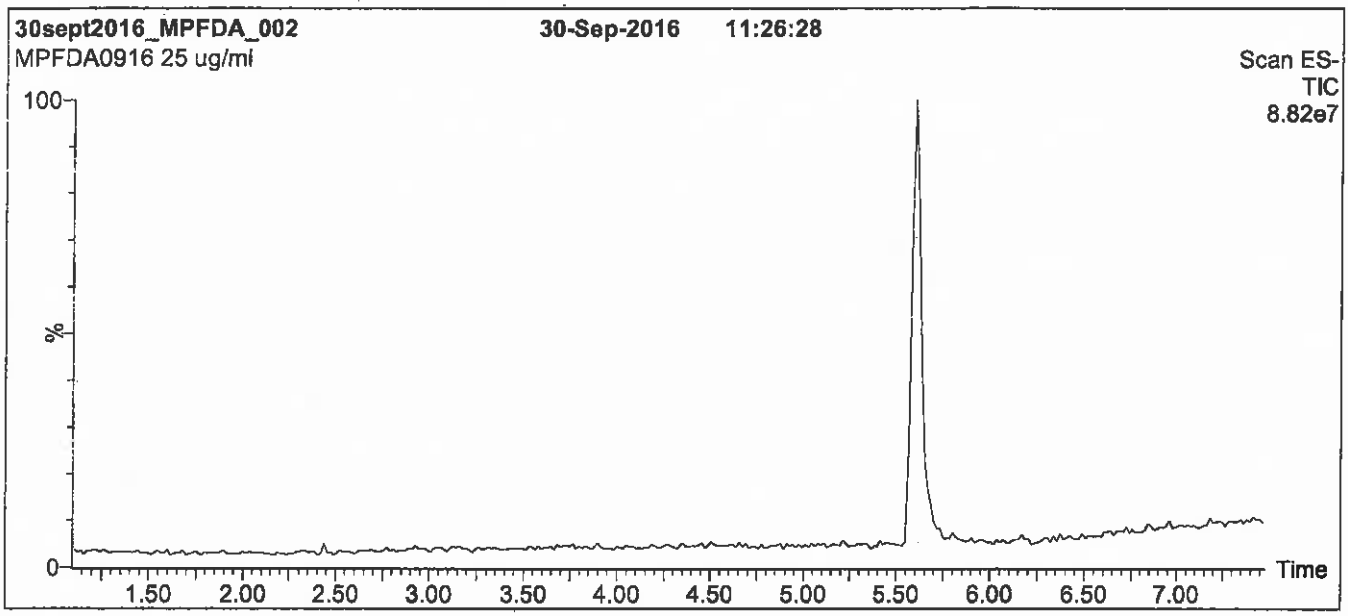
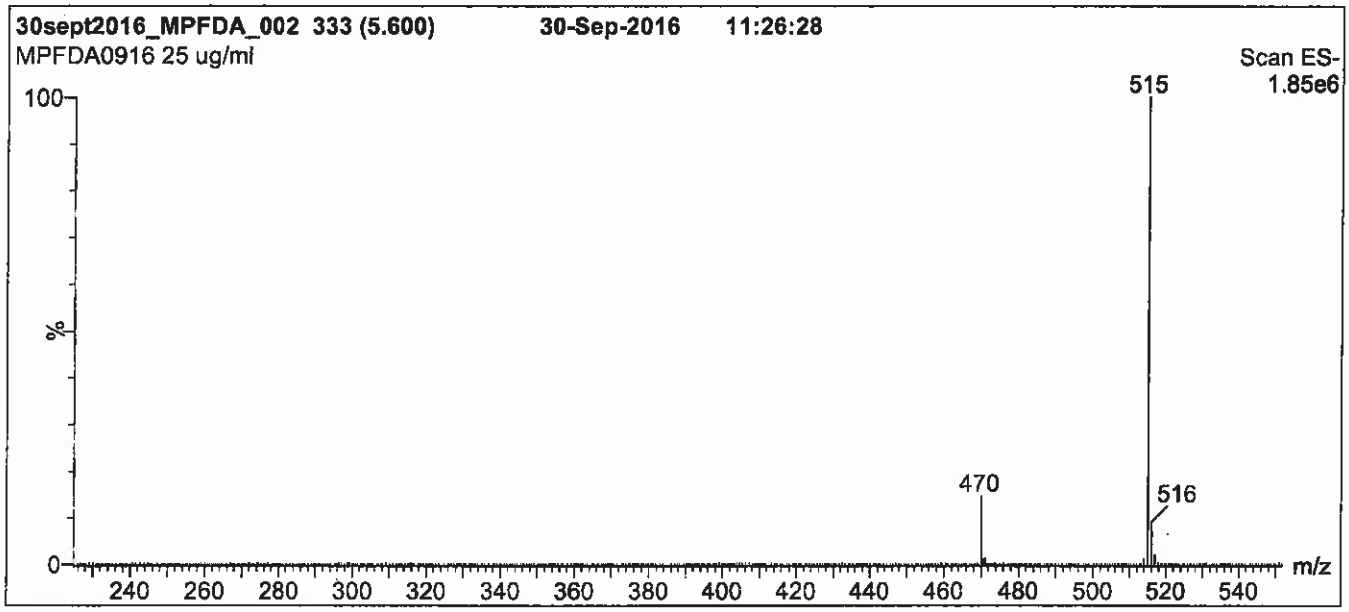




Conditions for Figure 1:

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

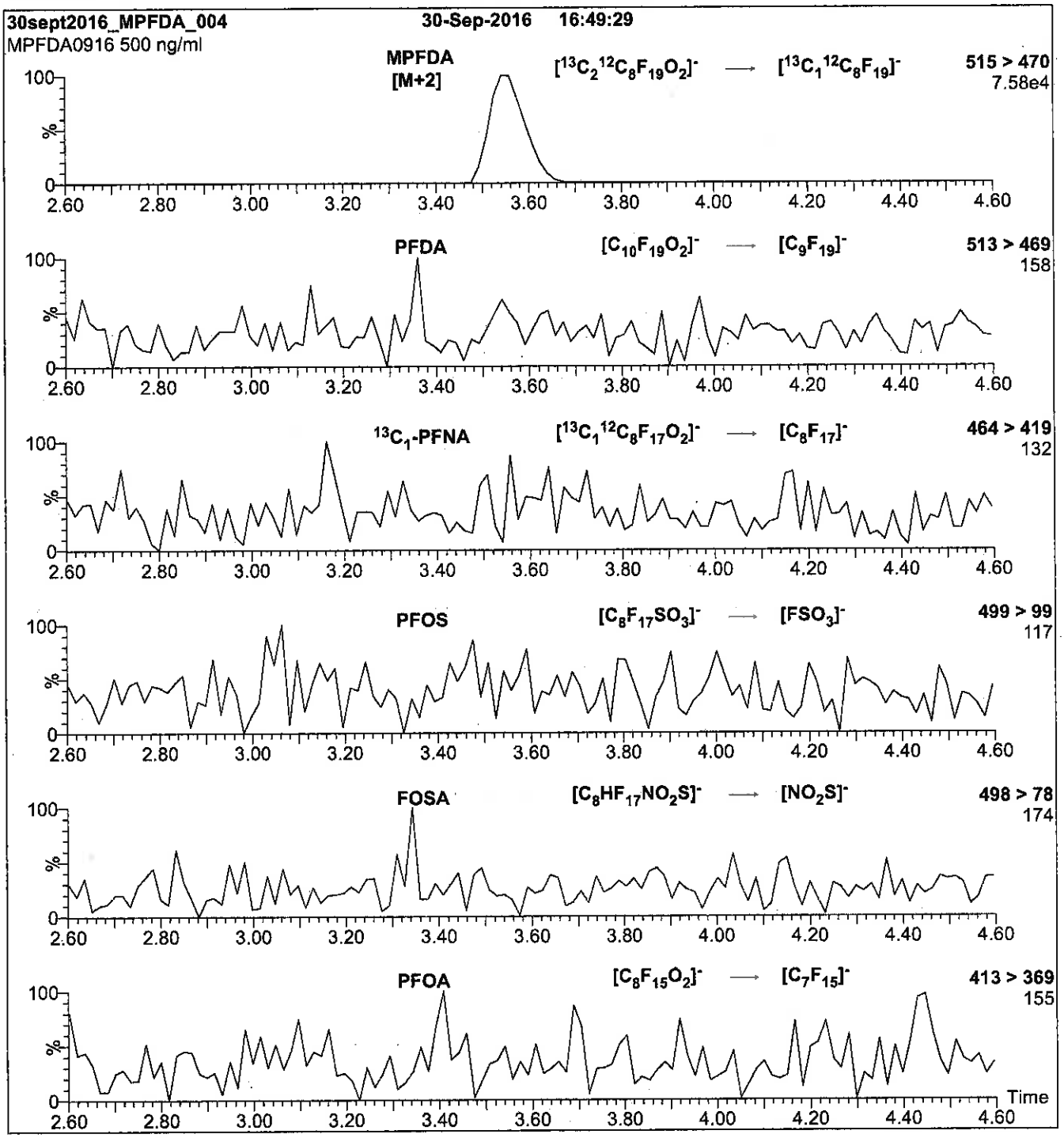
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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) = 3.31e-3
Collision Energy (eV) = 13

Reagent

LCMPFDoA_00008

R: SBC 9/22/16

739598
ID: LCMPFDoA_00008
Exp: 04/08/21 Prpd: SBC
13C2-Perfluorododecanoic

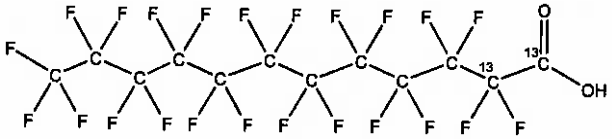
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

Scanned 10/14/16 SR

PRODUCT CODE: MPFDoA
LOT NUMBER: MPFDoA0416
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 ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	04/08/2016		
EXPIRY DATE: (mm/dd/yyyy)	04/08/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 04/15/2016 (mm/dd/yyyy)

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

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CALA

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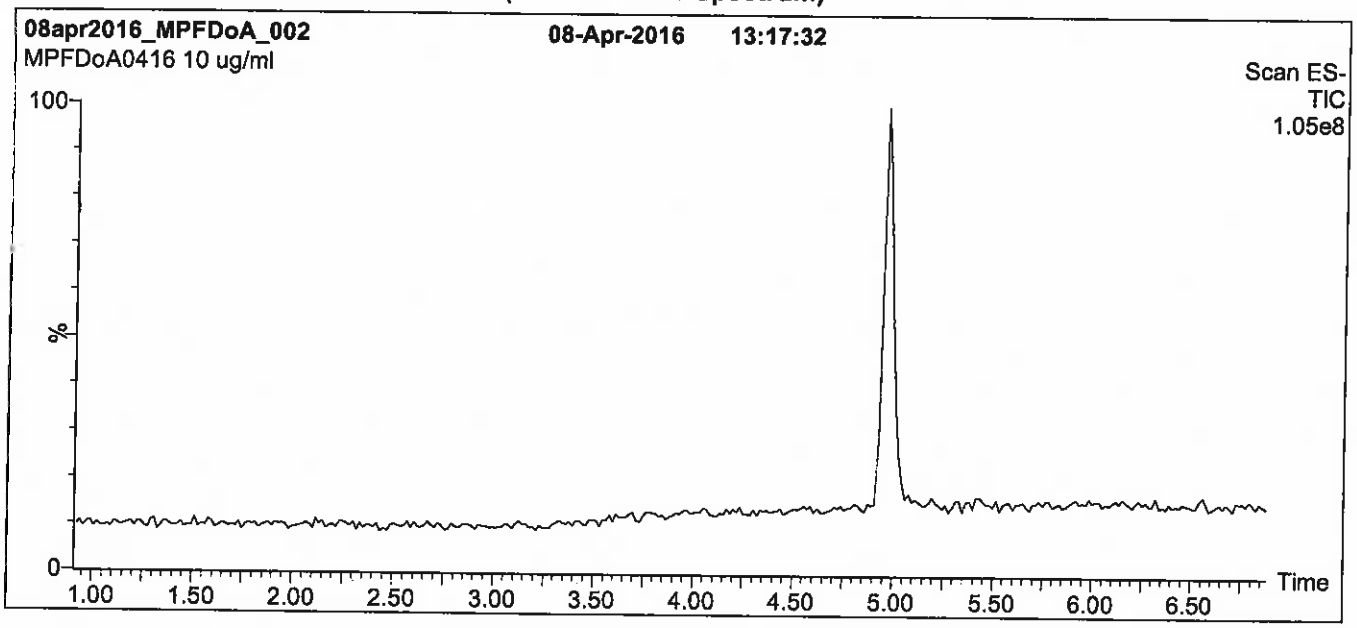

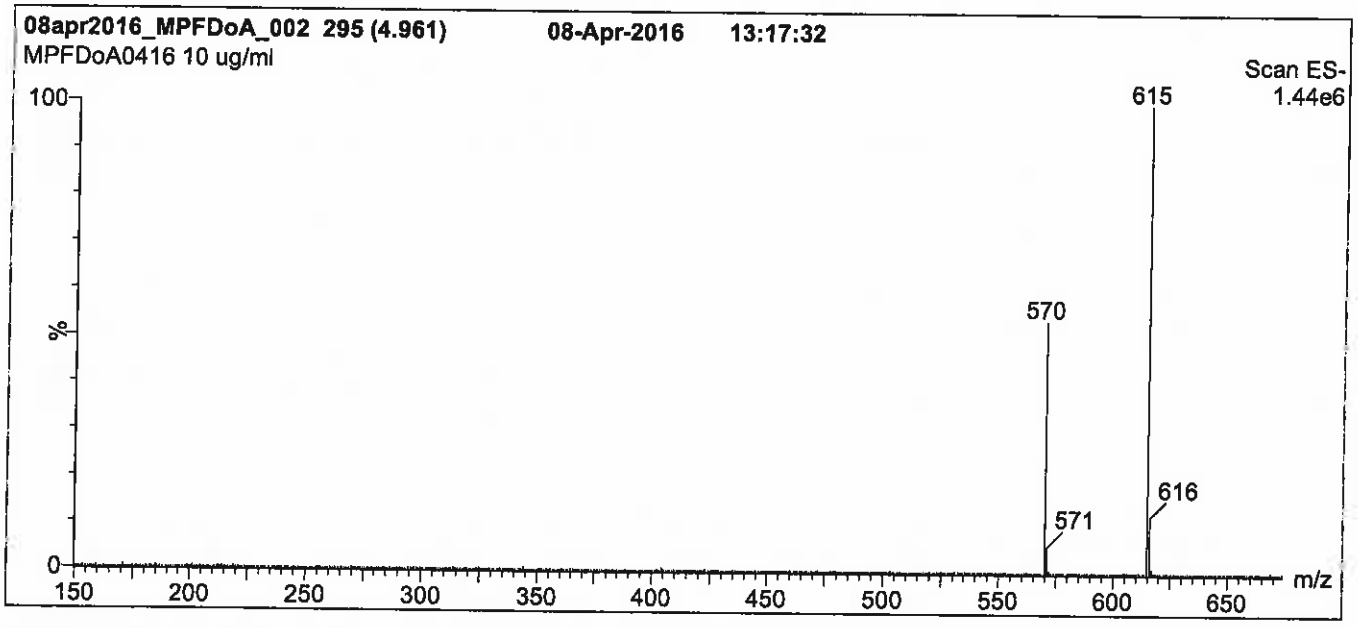

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LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

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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

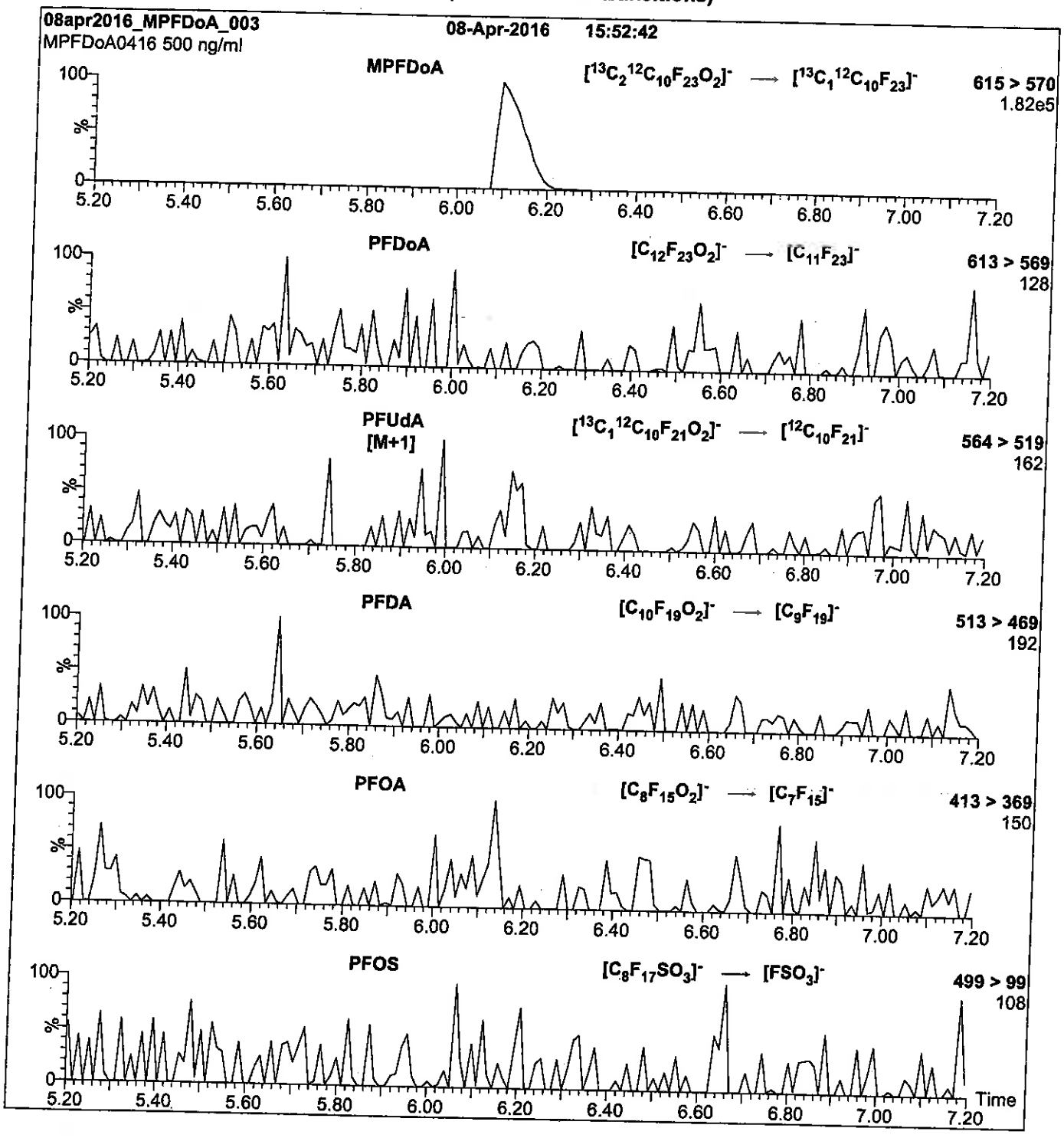
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **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 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 13

Reagent

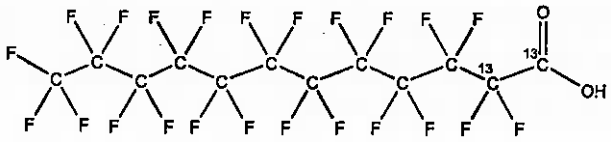
LCMPFDoA_00009

r: 3/9/17 SRV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFDoA	**LOT NUMBER:**	MPFDoA0416
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid		
STRUCTURE:		**CAS #:**	Not available



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EXPIRY DATE: (mm/dd/yyyy)	04/08/2021		
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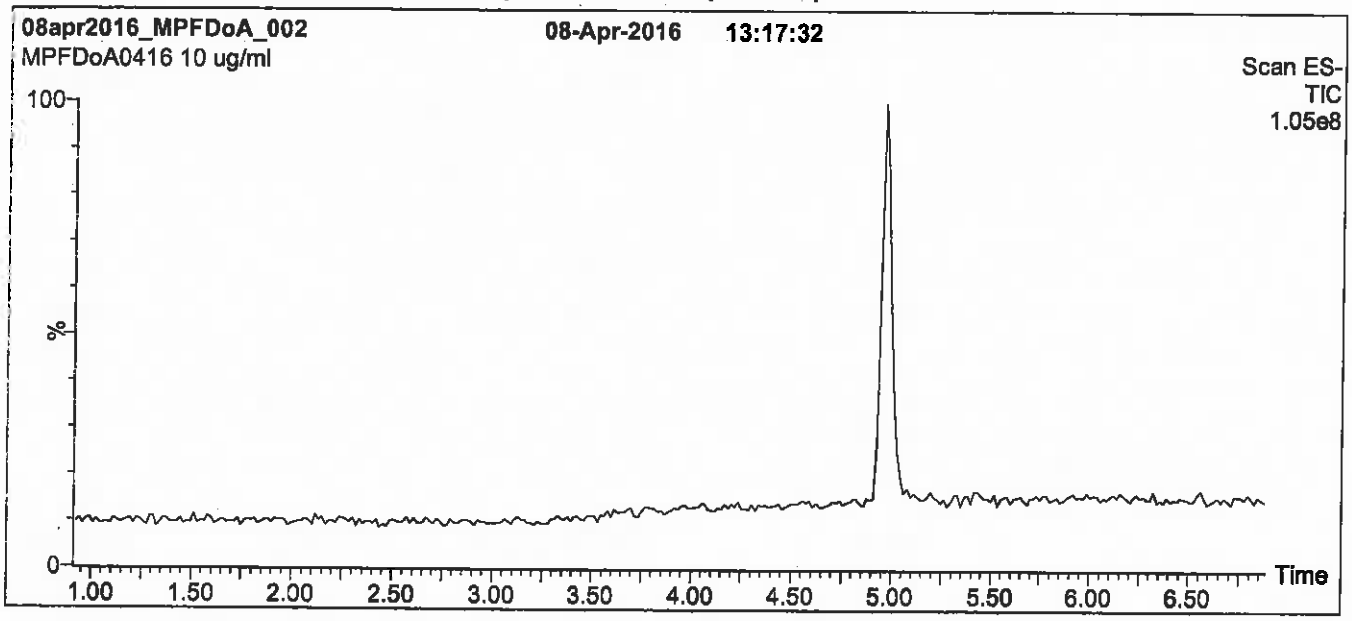
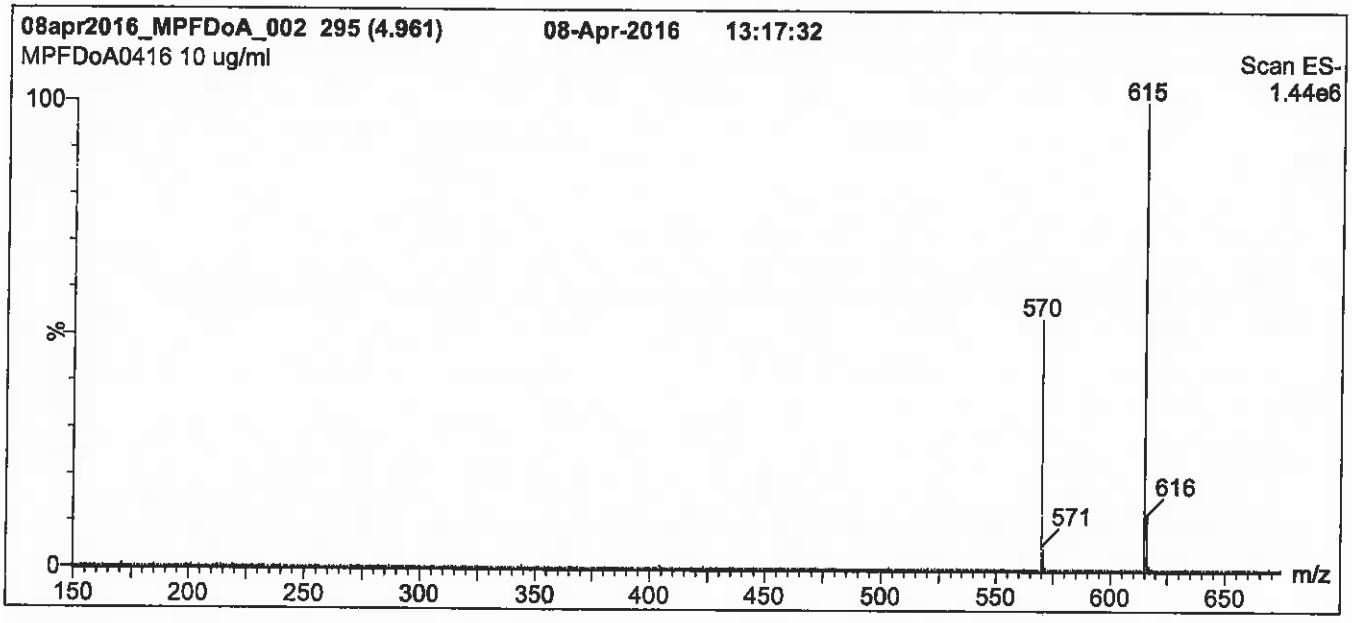
Figure 1: **MPFDoA; LC/MS Data (TIC and Mass Spectrum)**





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

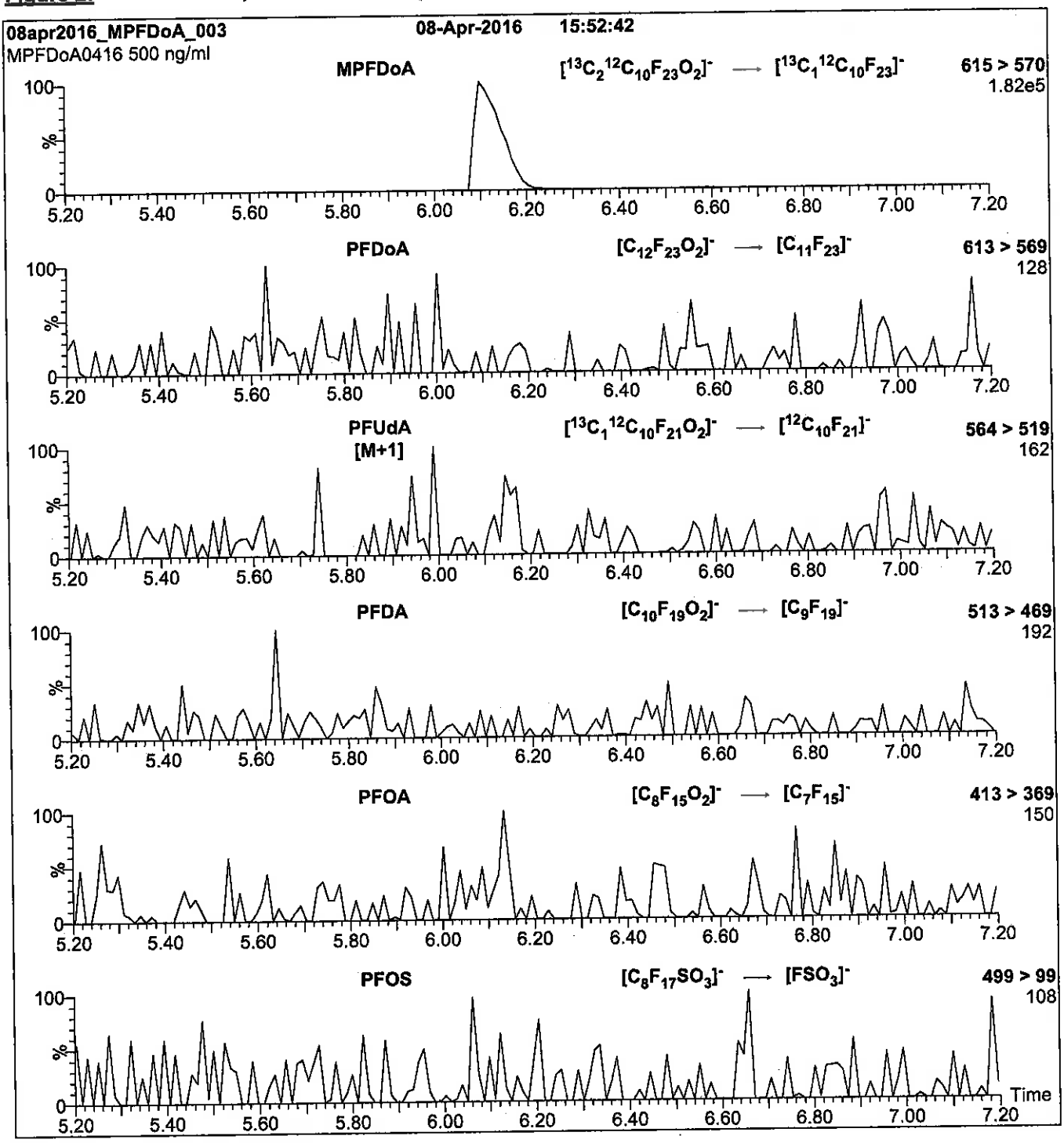
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **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 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 13

Reagent

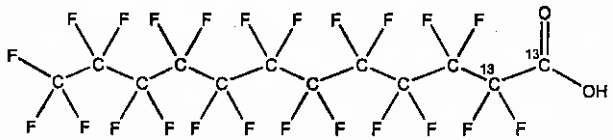
LCMPFDoA_00010

r: 5/3/19 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFDoA	**LOT NUMBER:**	MPFDoA0416
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 ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	04/08/2016		
EXPIRY DATE: (mm/dd/yyyy)	04/08/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 04/15/2016 (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

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. Safety Data Sheets (SDSs) are available upon request.

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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, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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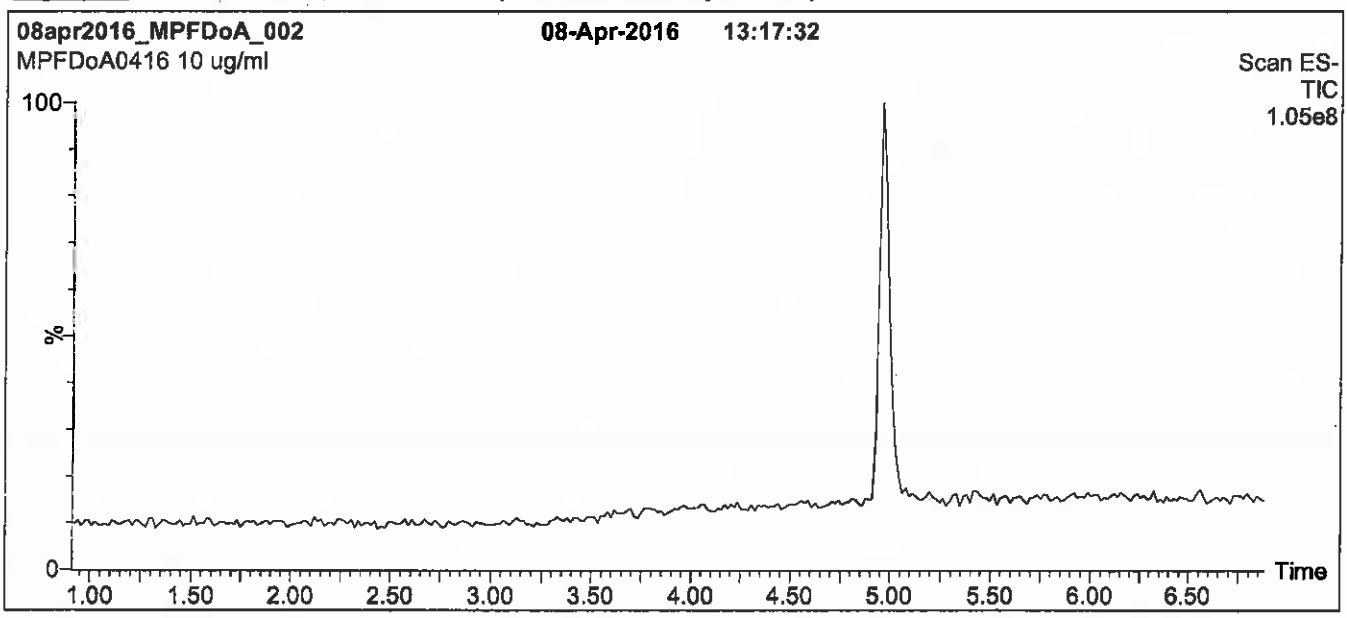
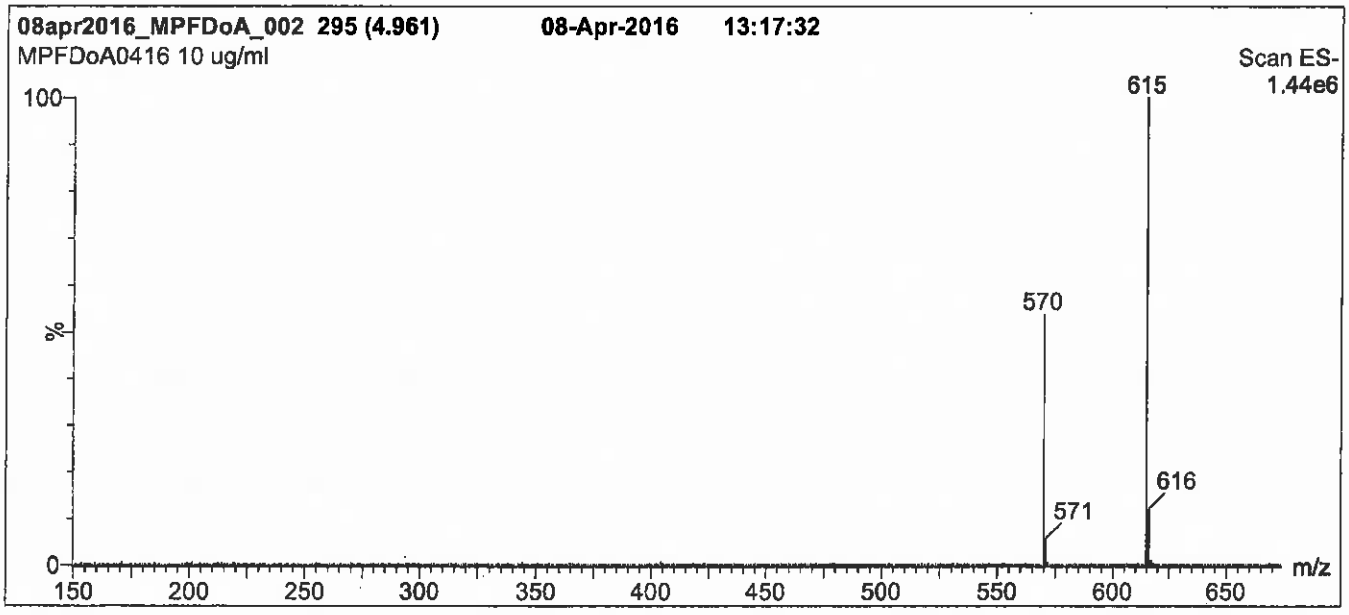




Conditions for Figure 1:

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: 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

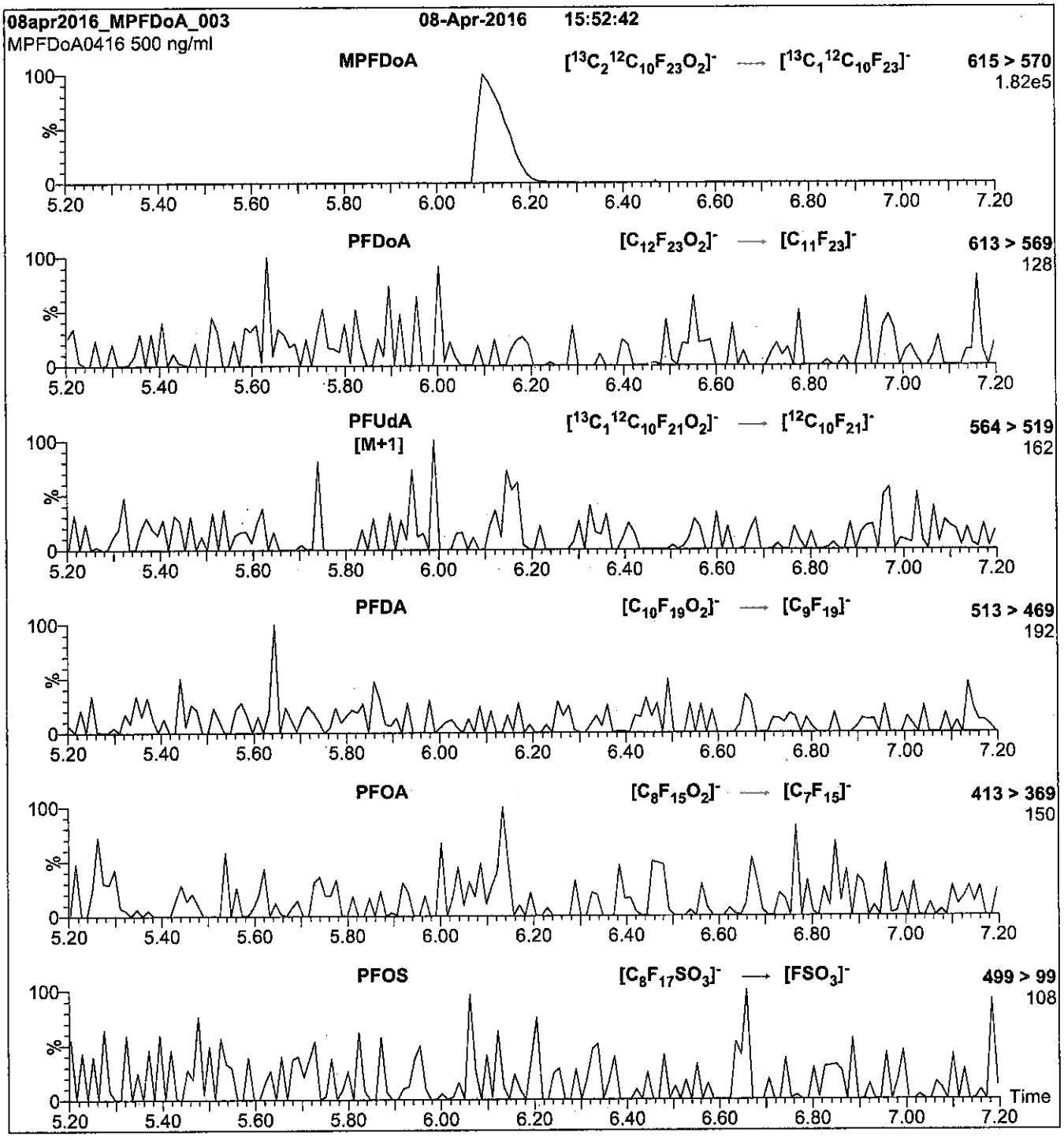
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **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 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 13

Reagent

LCMPFHxA_00012

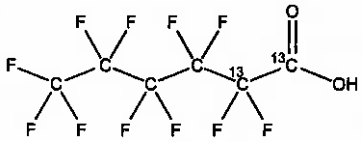
Scanned 10/14/16 JR R: SBC 9/22/16

739612
ID: LCMPFHxA_00012
Exp: 04/08/21 Prpd: SBC
13C2-Perfluorohexanoic ac

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFHxA	**LOT NUMBER:**	MPFHxA0416
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)	04/08/2016		
EXPIRY DATE: (mm/dd/yyyy)	04/08/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 04/29/2016 (mm/dd/yyyy)

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

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CALA

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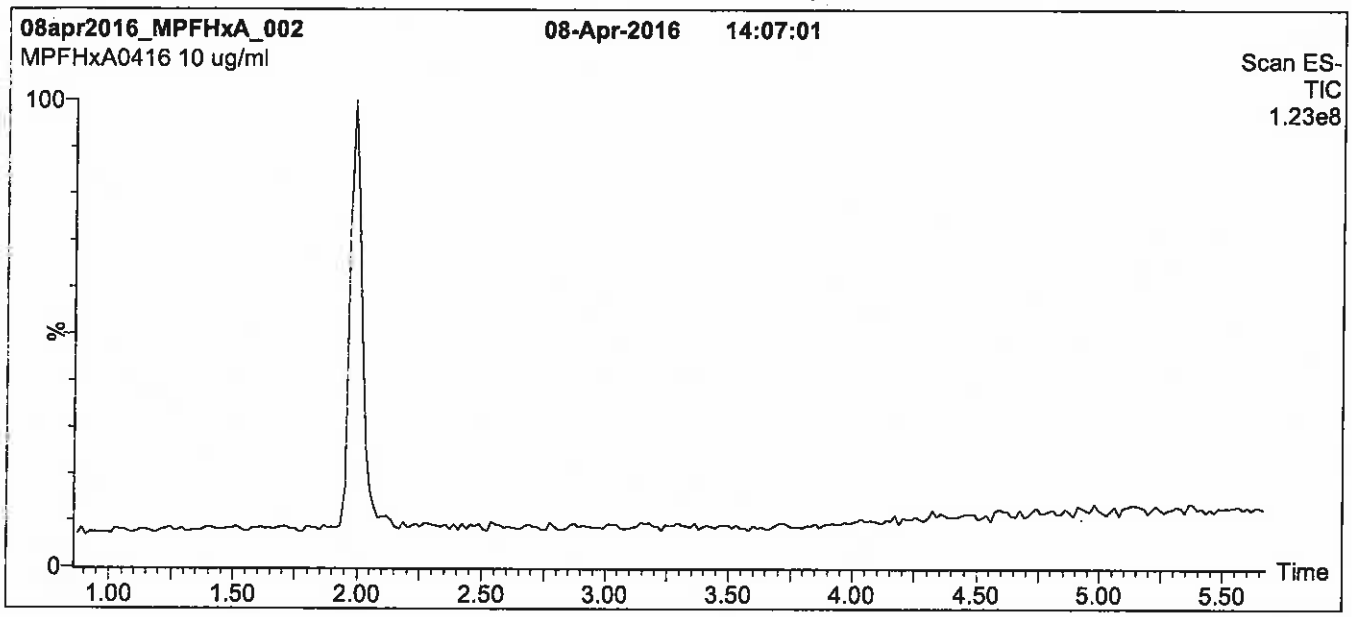

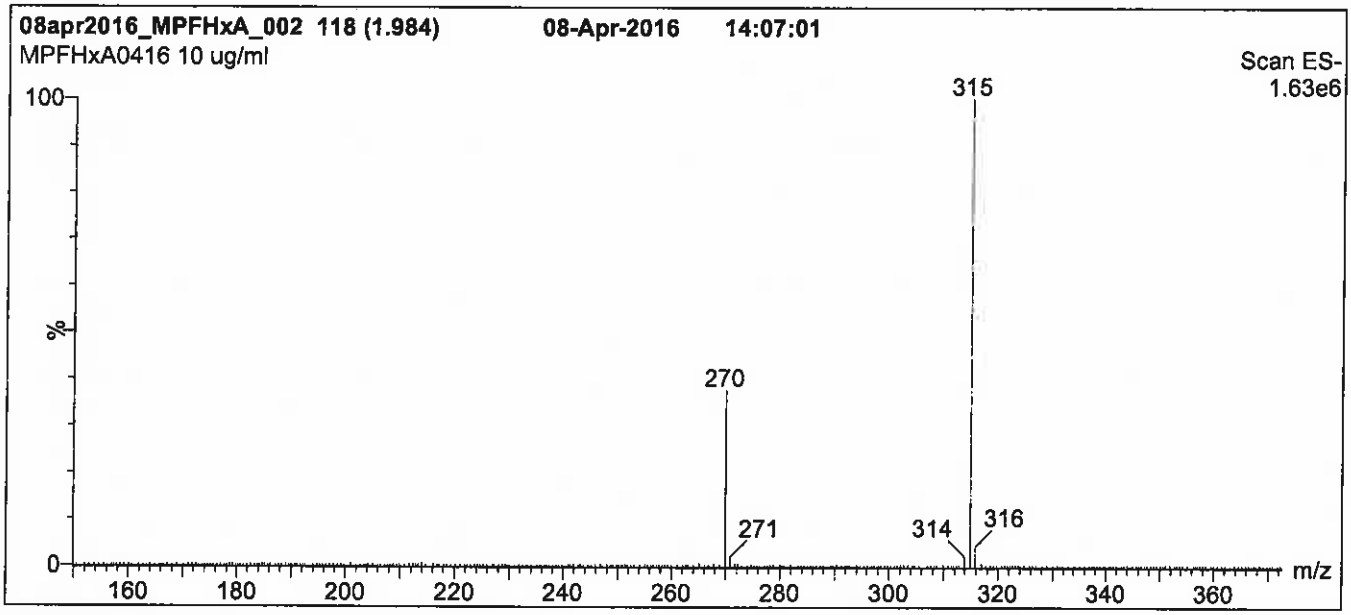

Conditions for Figure 1:

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

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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 7.5 min and hold for 1.5 min before returning to initial conditions over 0.5 min.
Time: 10 min

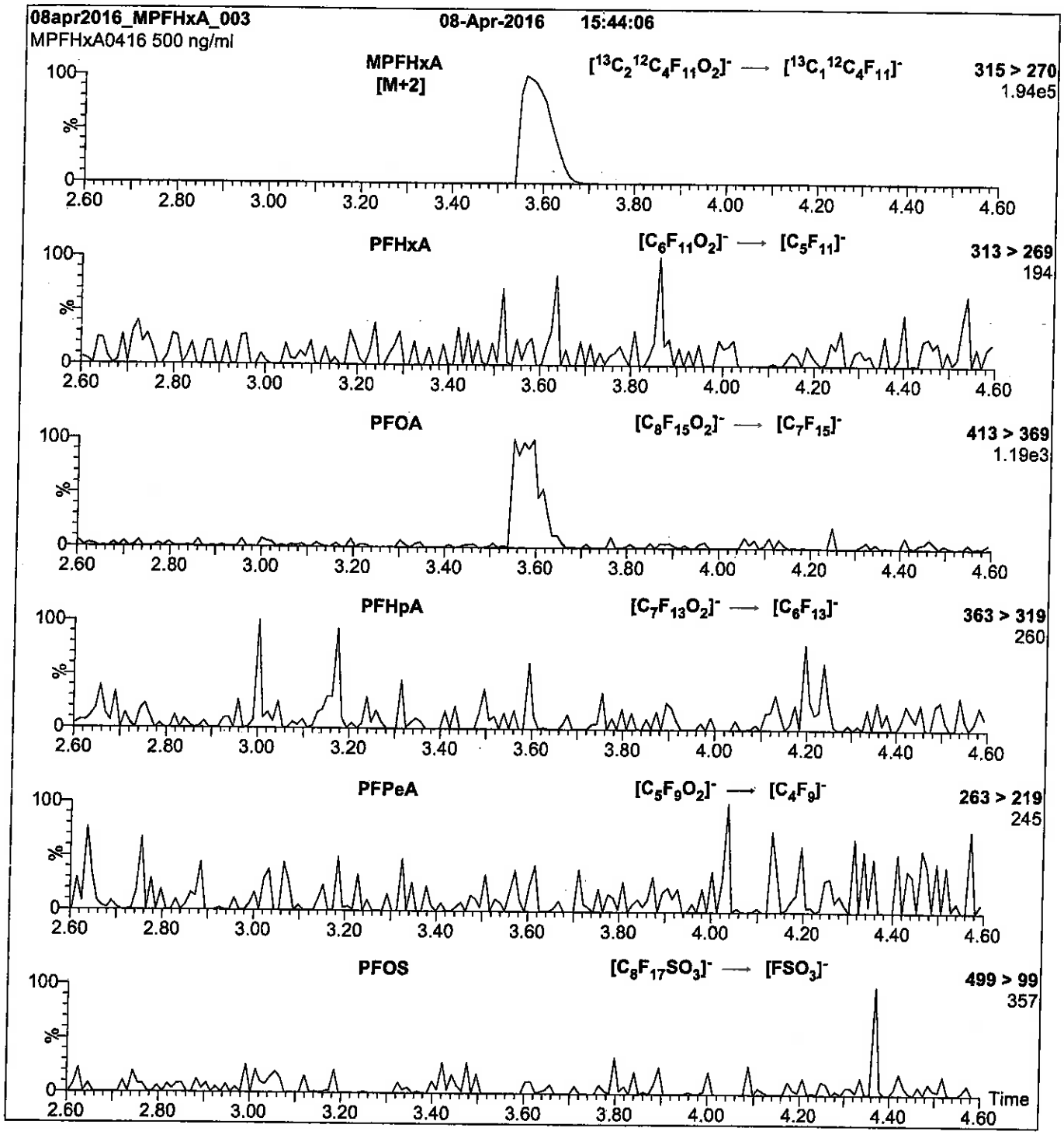
Flow: 300 µl/min

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: **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) = 3.39e-3
Collision Energy (eV) = 10

Reagent

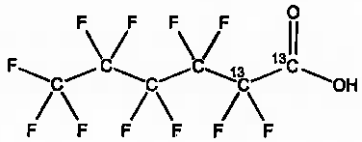
LCMPFHxA_00014

R: 3/9/17 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFHxA	**LOT NUMBER:**	MPFHxA1116
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid		
STRUCTURE:		**CAS #:**	Not available



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CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	11/22/2016		
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Certified By: B.G. Chittim **Date:** 12/13/2016 (mm/dd/yyyy)

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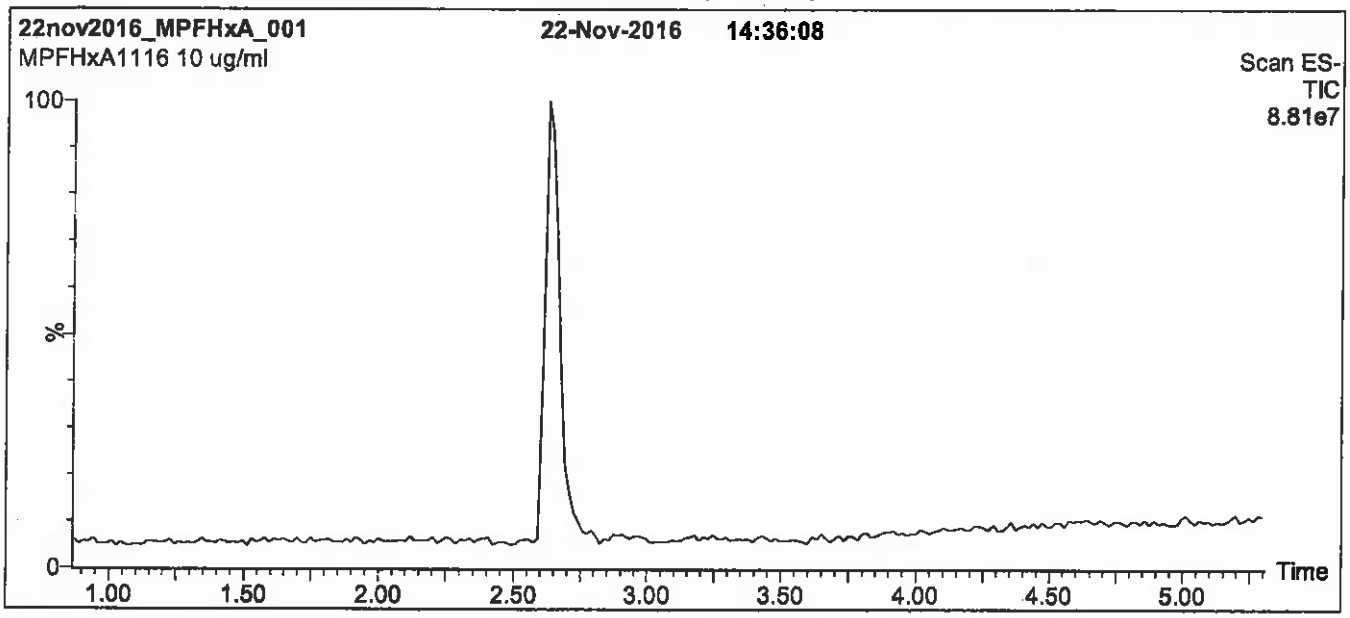

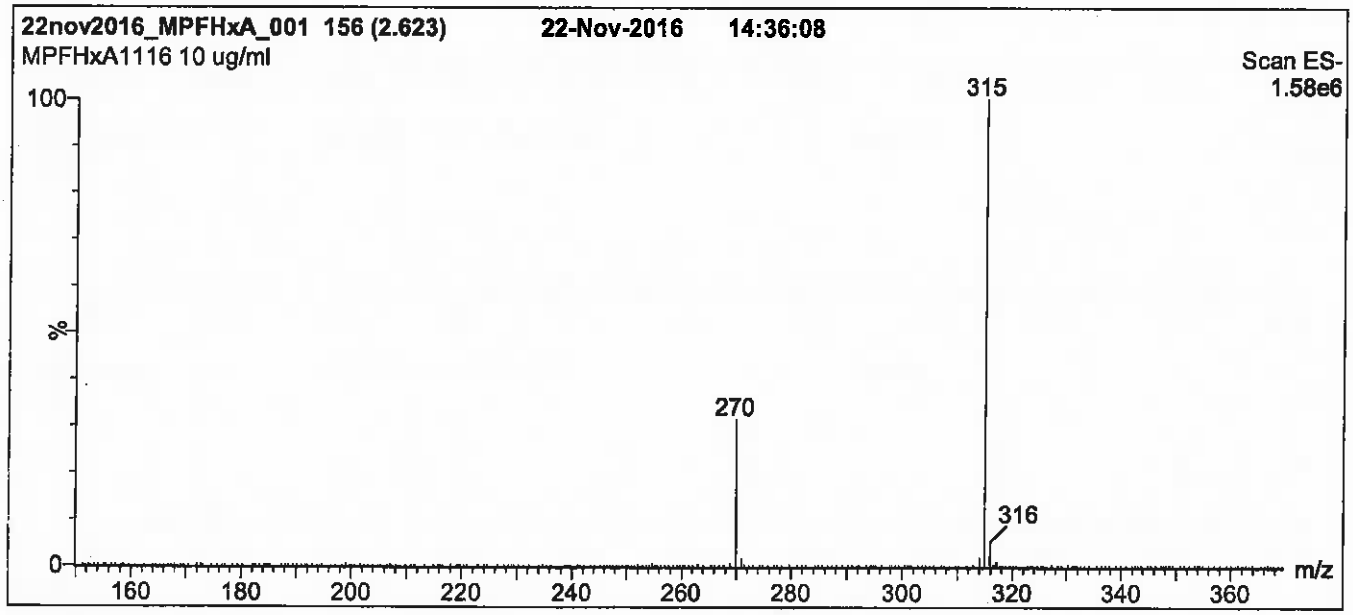

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MS: **Micromass Quattro *micro* API MS**

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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

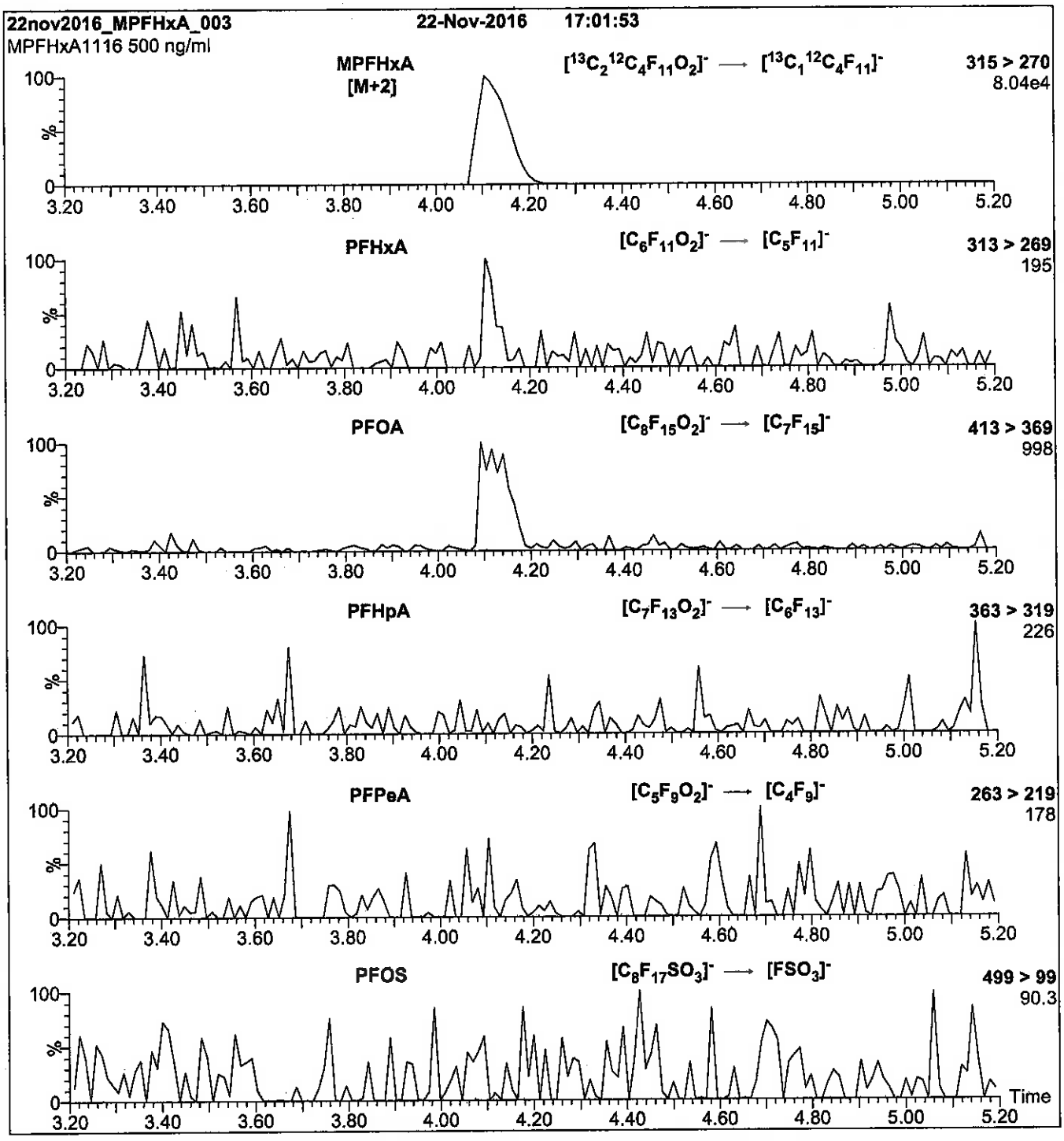
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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: **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) = 3.46e-3
Collision Energy (eV) = 10

Reagent

LCMPFHxA_00016

r: 5/3/17 SKV
S: 5/8/17 SKV

WELLINGTON LABORATORIES

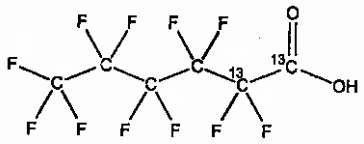
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

LOT NUMBER: MPFHxA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_4HF_{11}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 316.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/22/2016
EXPIRY DATE: (mm/dd/yyyy) 11/22/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)

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:** 12/13/2016 (mm/dd/yyyy)

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

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

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EXPIRY DATE / PERIOD OF VALIDITY:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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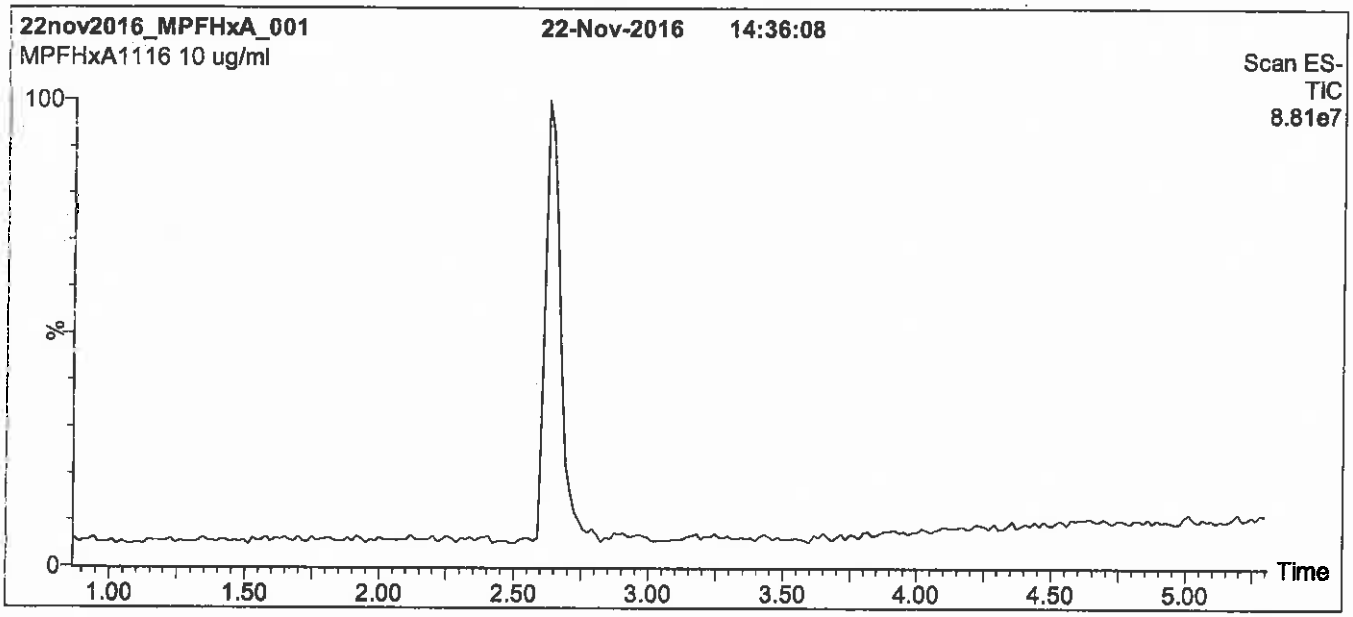
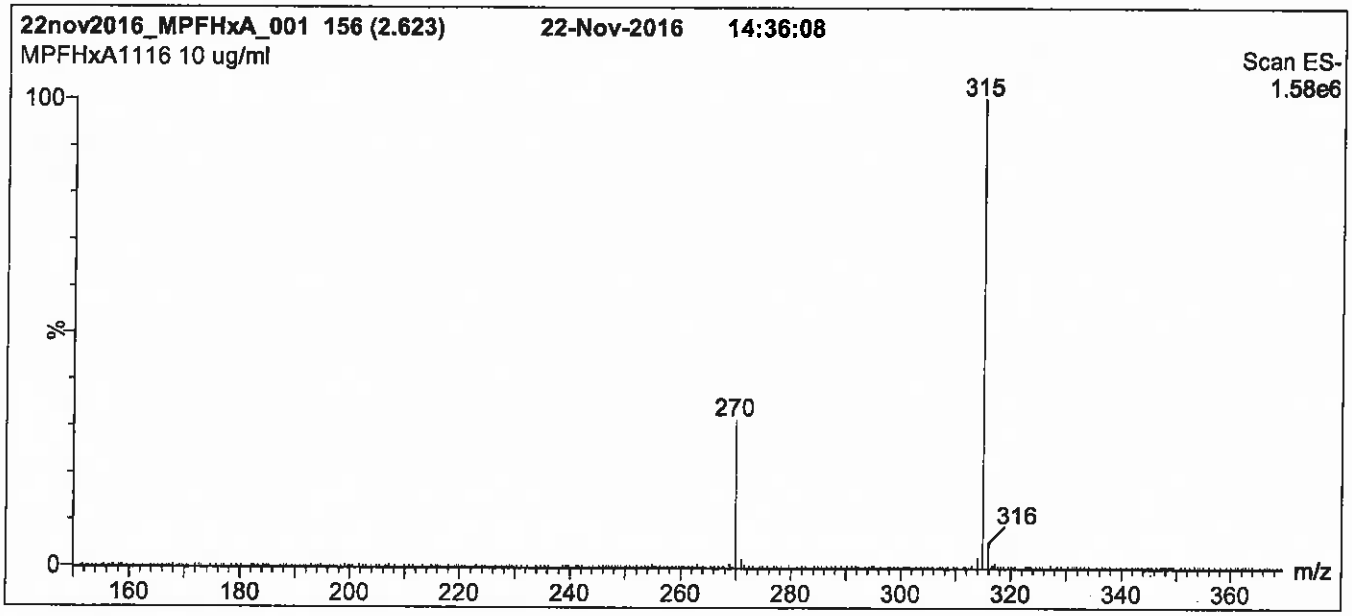
Figure 1: **MPFHxA; LC/MS Data (TIC and Mass Spectrum)**





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 (150 - 850 amu)

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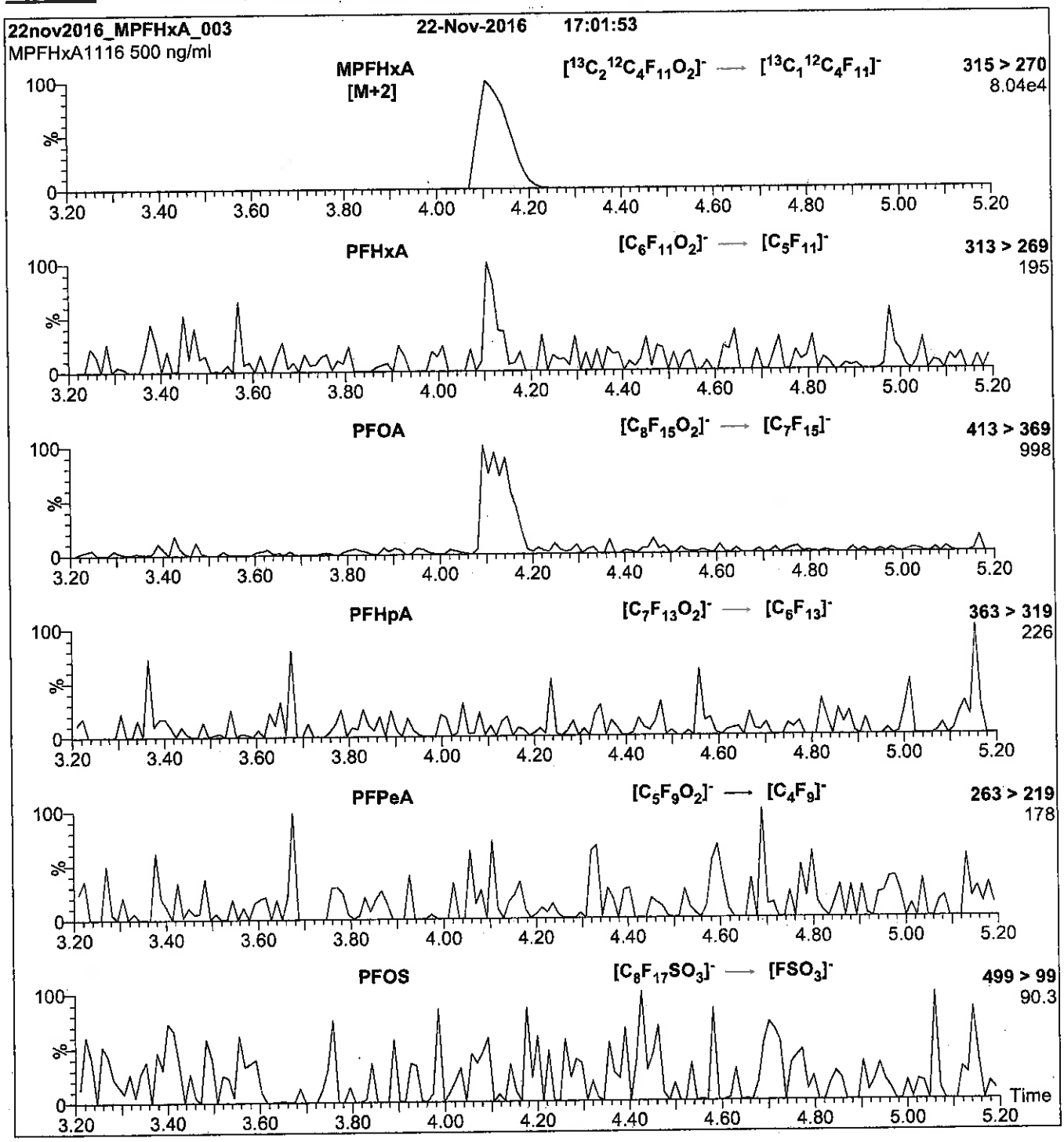
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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) = 3.46e-3
Collision Energy (eV) = 10

Reagent

LCMPFHxS_00008

R: SBC 9/22/16

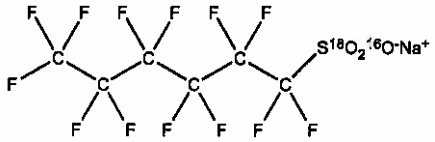
739601
ID: LCMPFHxS_00008
Exp: 10/23/20 Prpd: SBC
18O2-Perfluorohexanesulfo

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

Scanned 10/14/16 SR

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS1015
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
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)	10/23/2015		
EXPIRY DATE: (mm/dd/yyyy)	10/23/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- 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.
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/28/2015 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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TRACEABILITY:

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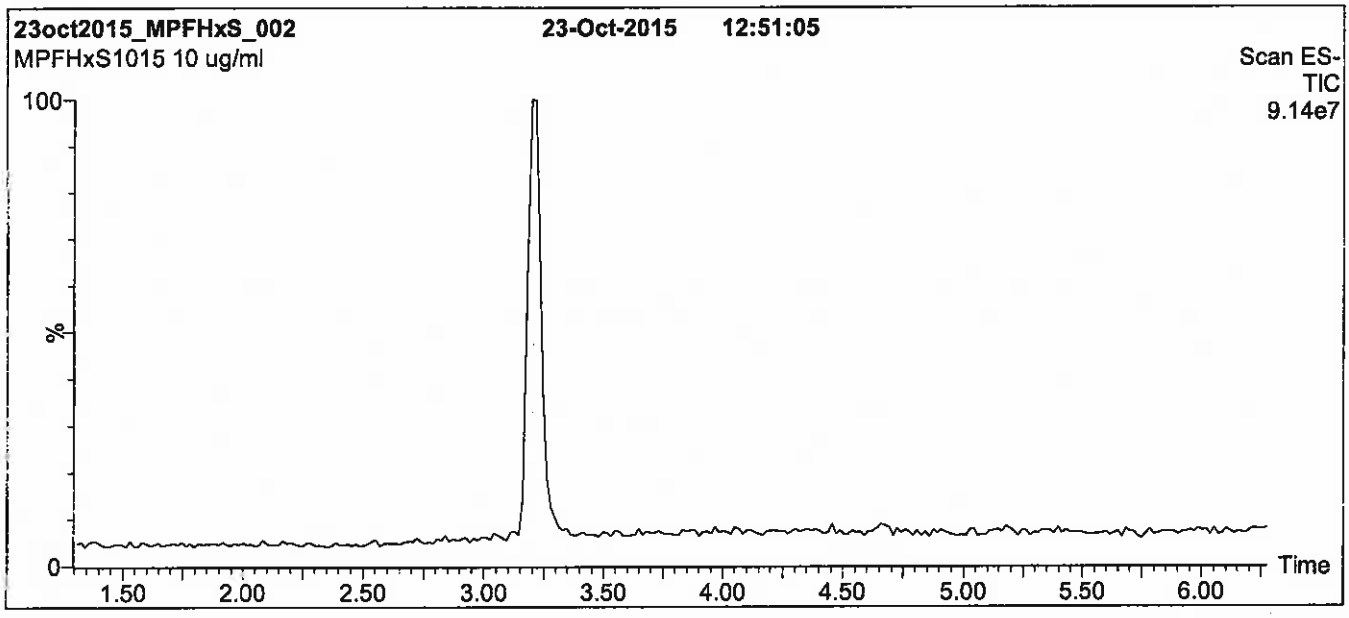

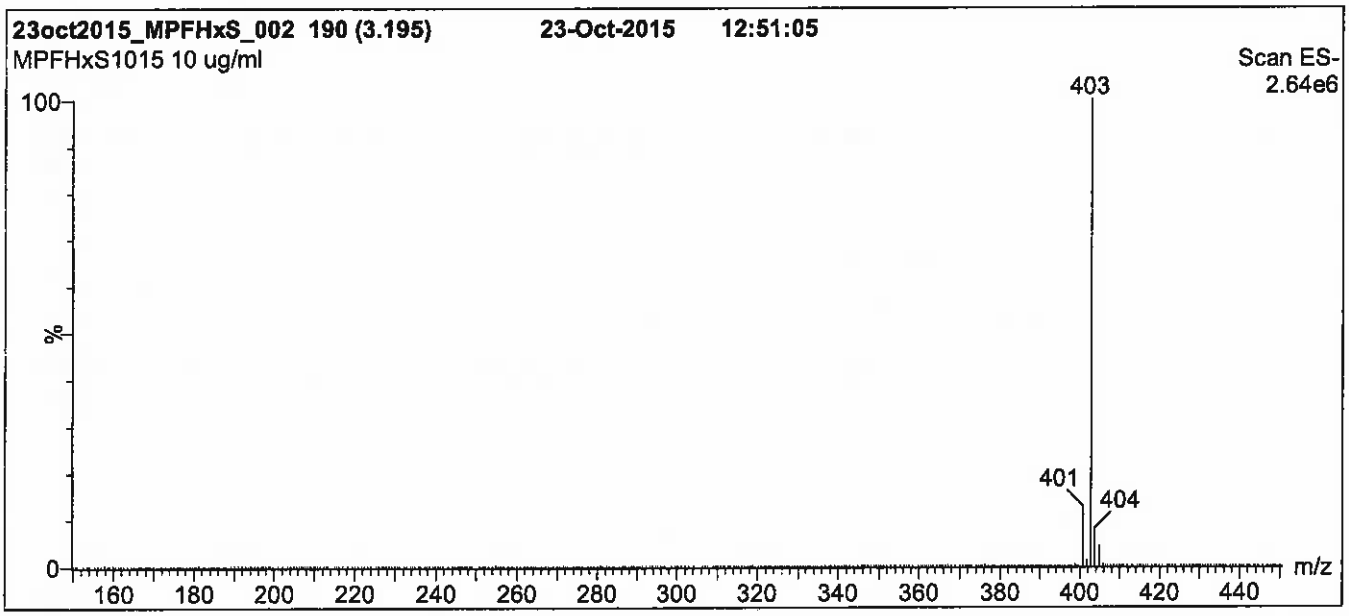

Conditions for Figure 1:

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 (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

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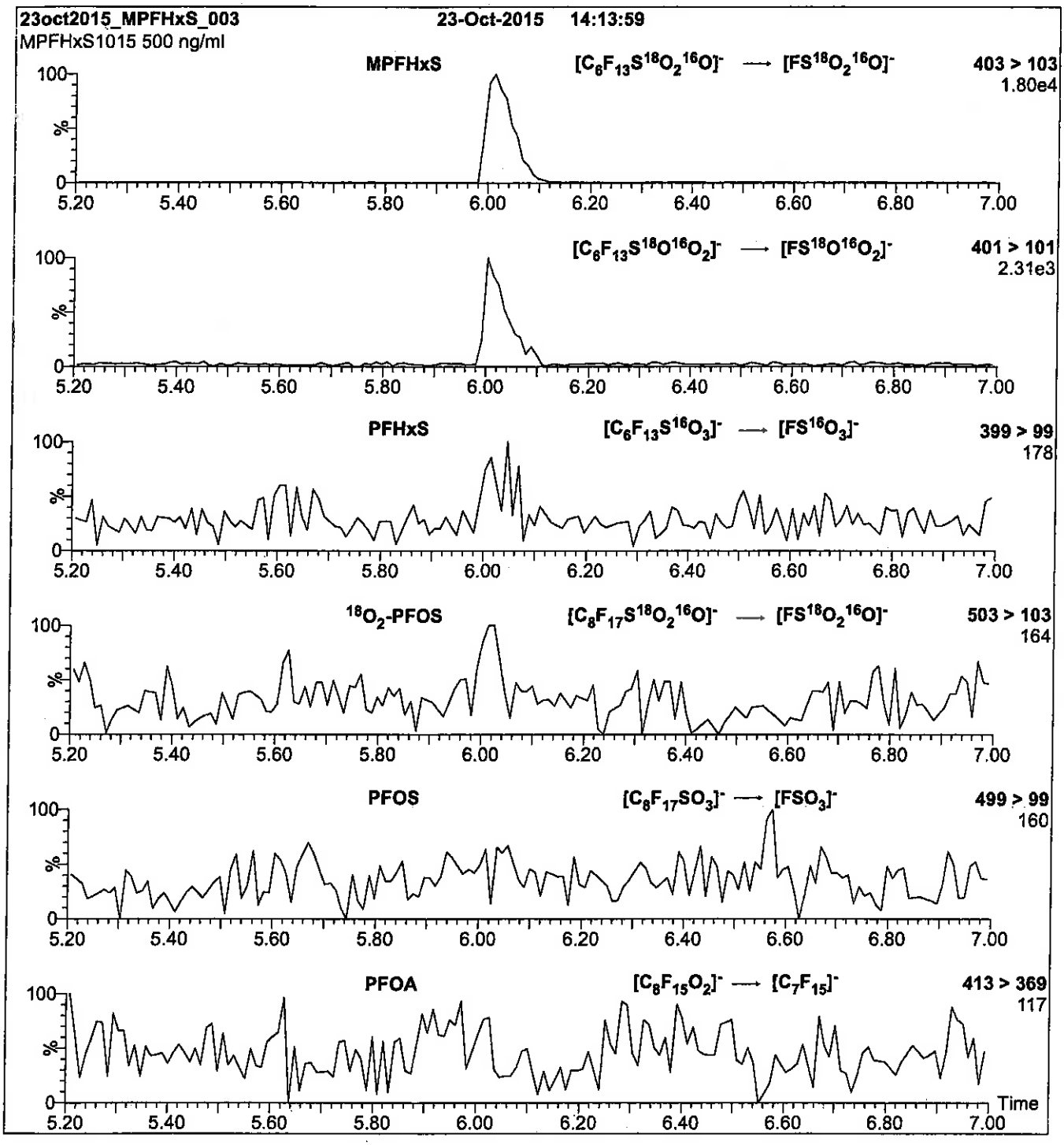

Conditions for Figure 2:

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

Reagent

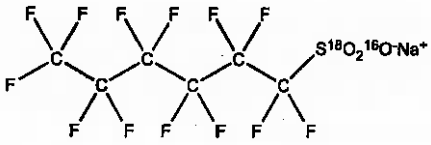
LCMPFHxS_00009

r: 3/9/17 SRW

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS1015
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
STRUCTURE:		**CAS #:**	Not available



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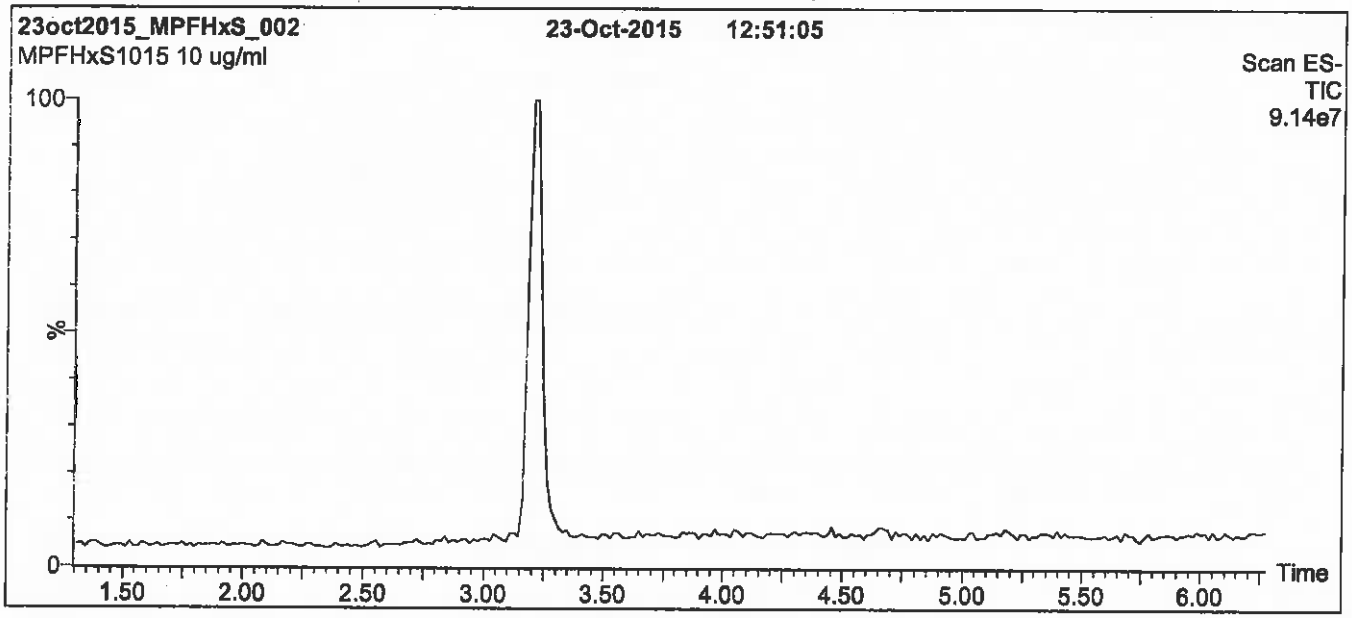

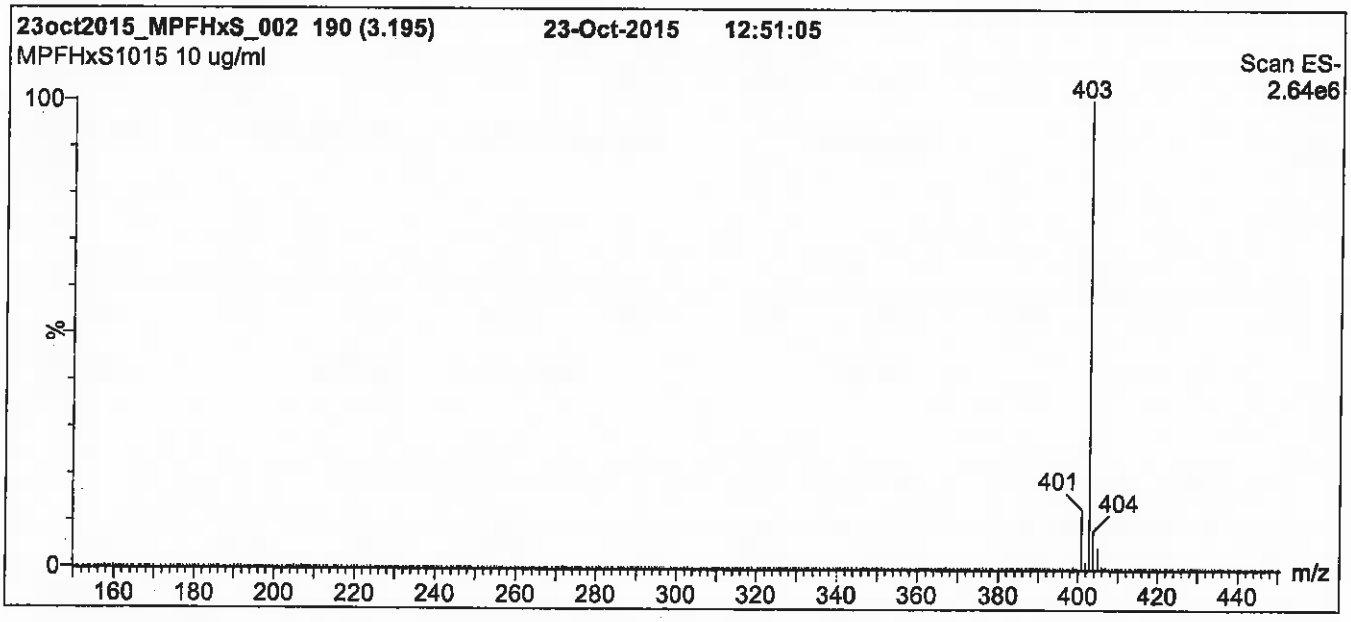

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before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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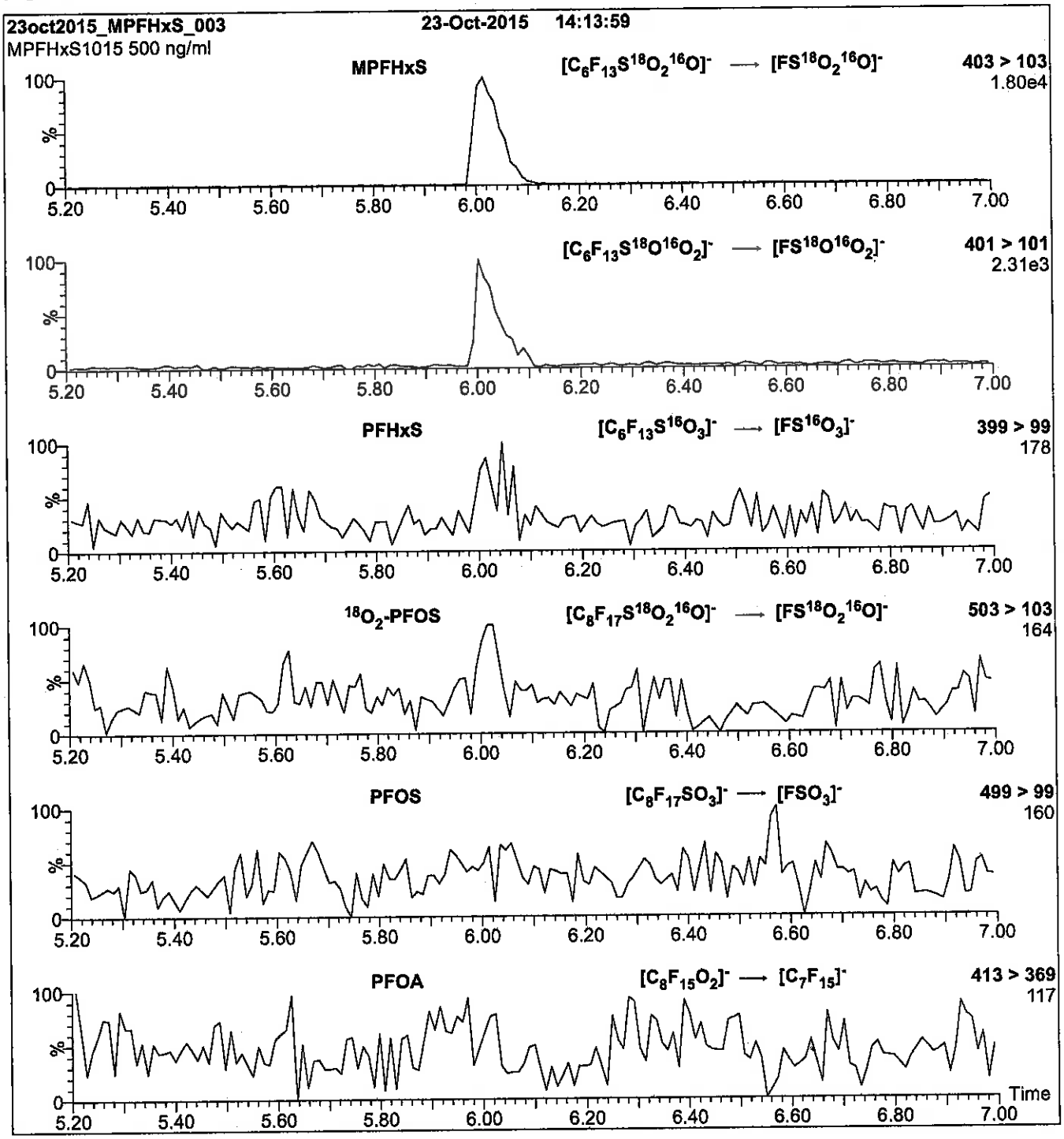
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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

Reagent

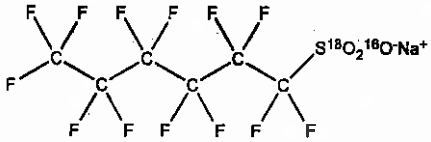
LCMPFHxS_00010

r: 5/3/17 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS0217
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_8F_{13}S^{18}O_2{}^{16}ONa$	**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)	02/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022		
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 ($C_8F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_8F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 1.0% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/02/2017 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA

ANAB

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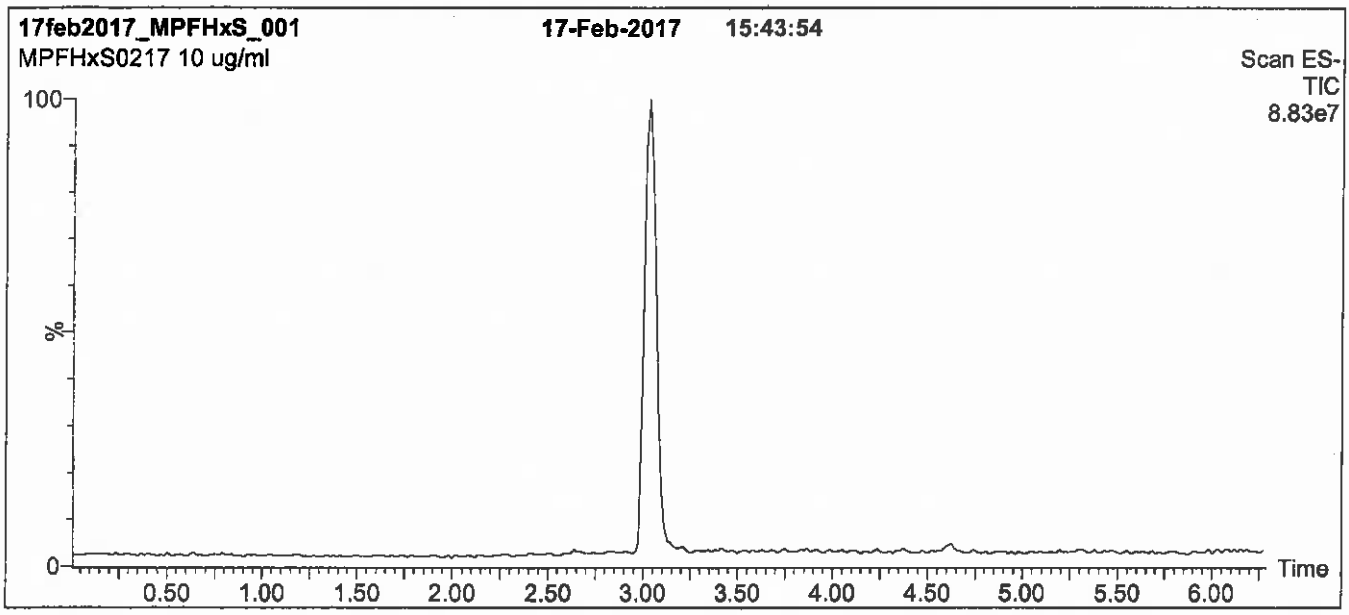
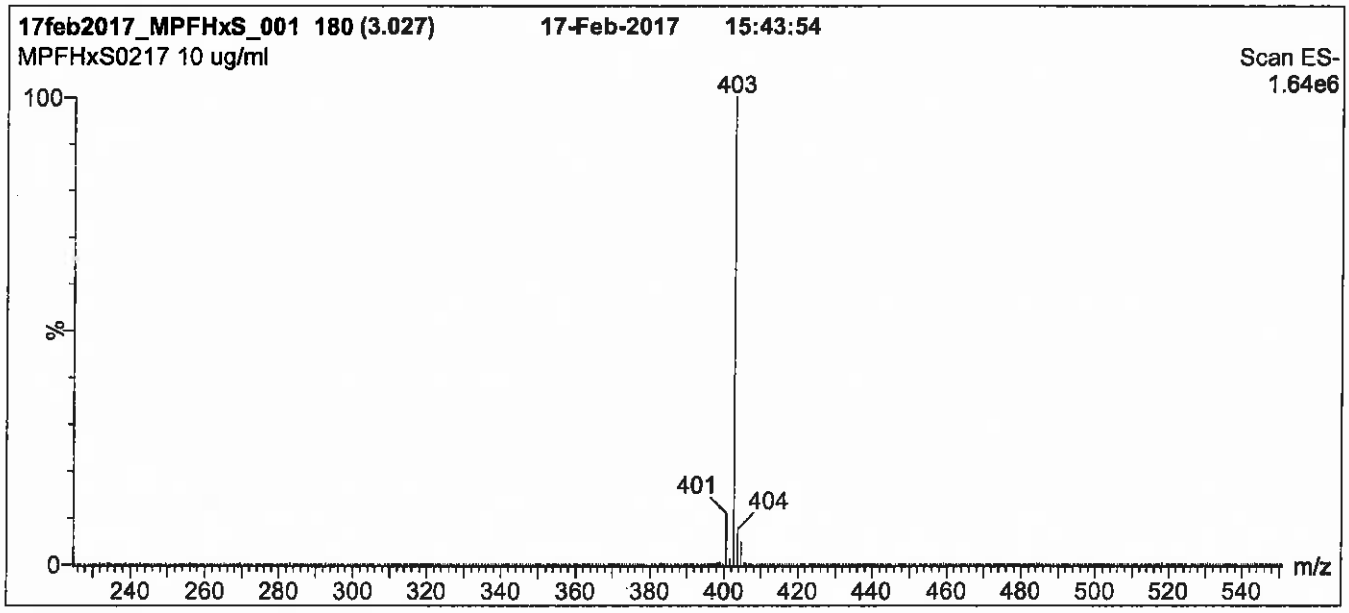
Figure 1: **MPFHxS; LC/MS Data (TIC and Mass Spectrum)**





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 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

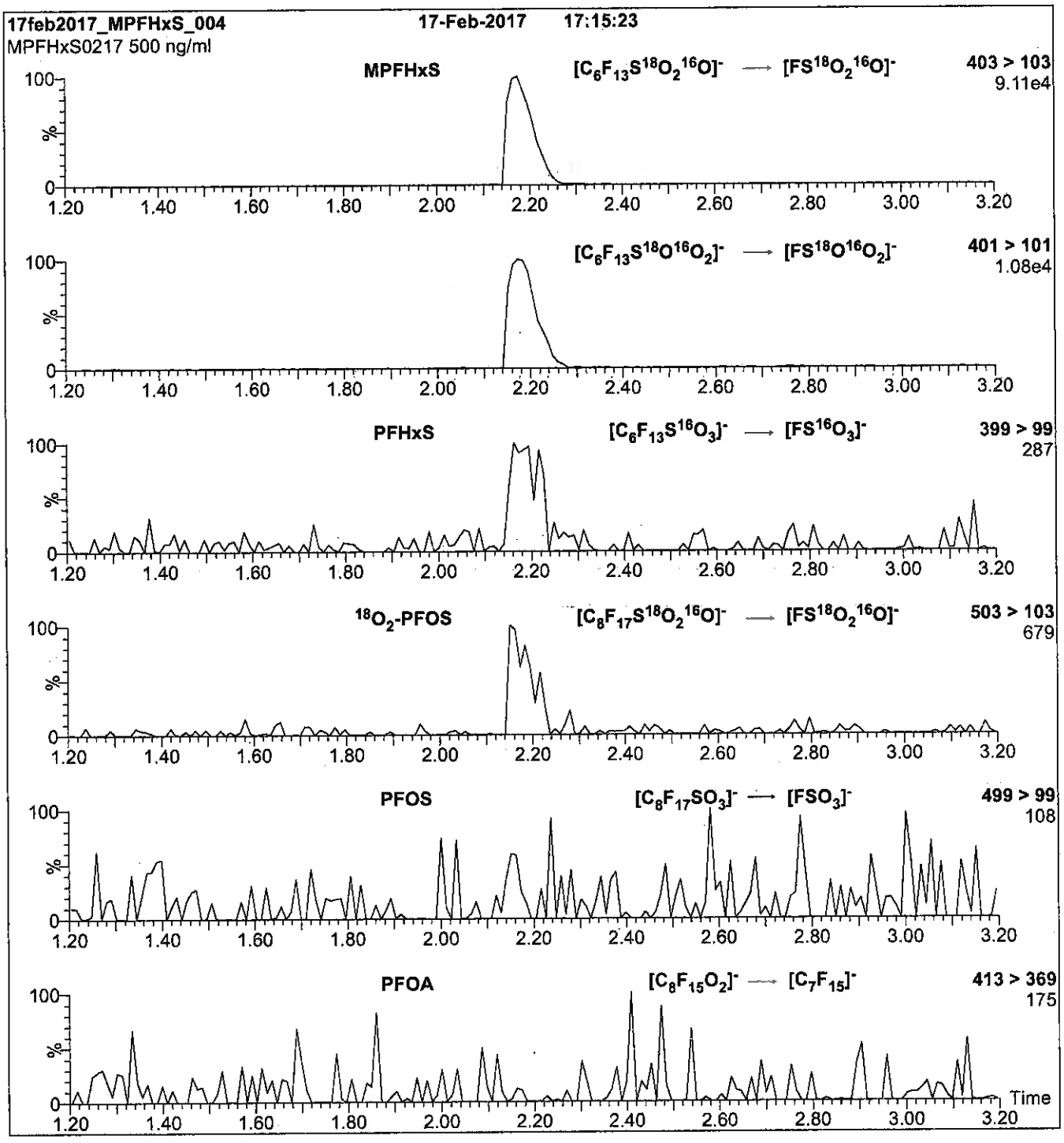
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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: **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) = 3.43e-3
Collision Energy (eV) = 30

Reagent

LCMPFNA_00008

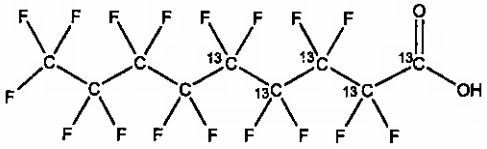
Scanned 10/14/16 R: SBC 9/22/16

739637
ID: LCMPFNA_00008
Exp: 04/13/19 Prpd: SBC
13C5-Perfluorononanoic aci

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFNA	**LOT NUMBER:**	MPFNA0414
COMPOUND:	Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid		
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)	04/13/2014		
EXPIRY DATE: (mm/dd/yyyy)	04/13/2019		
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:** 04/01/2015 (mm/dd/yyyy)

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

INTENDED USE:

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SYNTHESIS / CHARACTERIZATION:

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TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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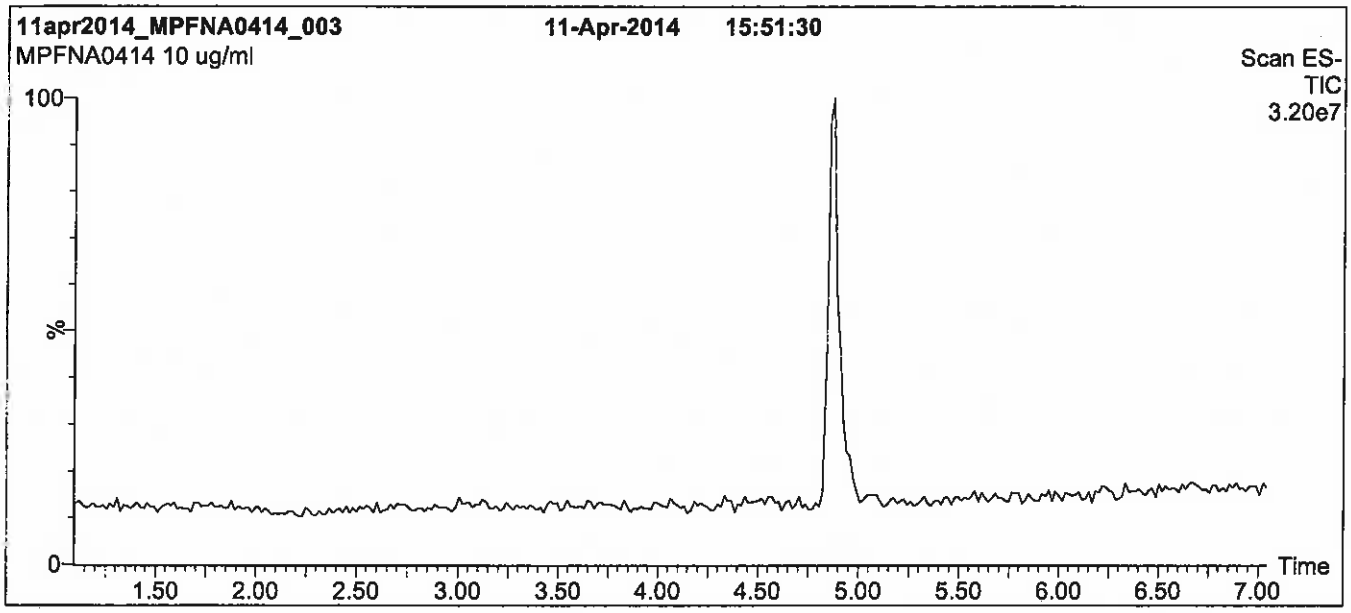
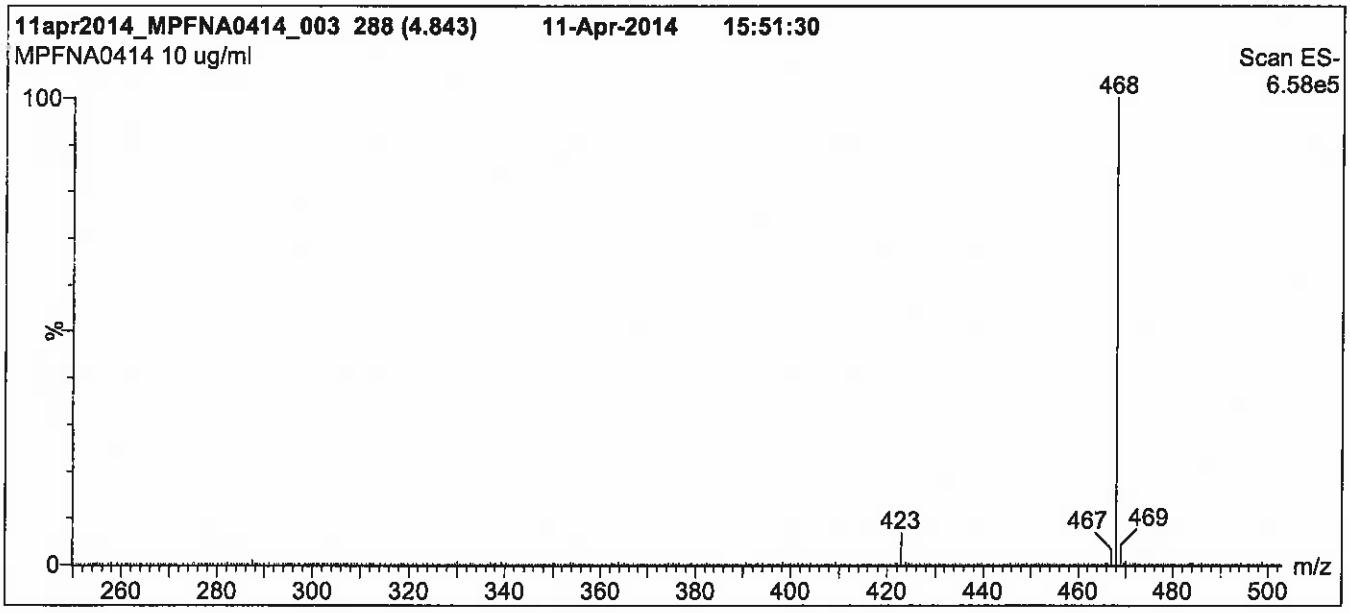
Figure 1: **MPFNA; LC/MS Data (TIC and Mass Spectrum)**





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: 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

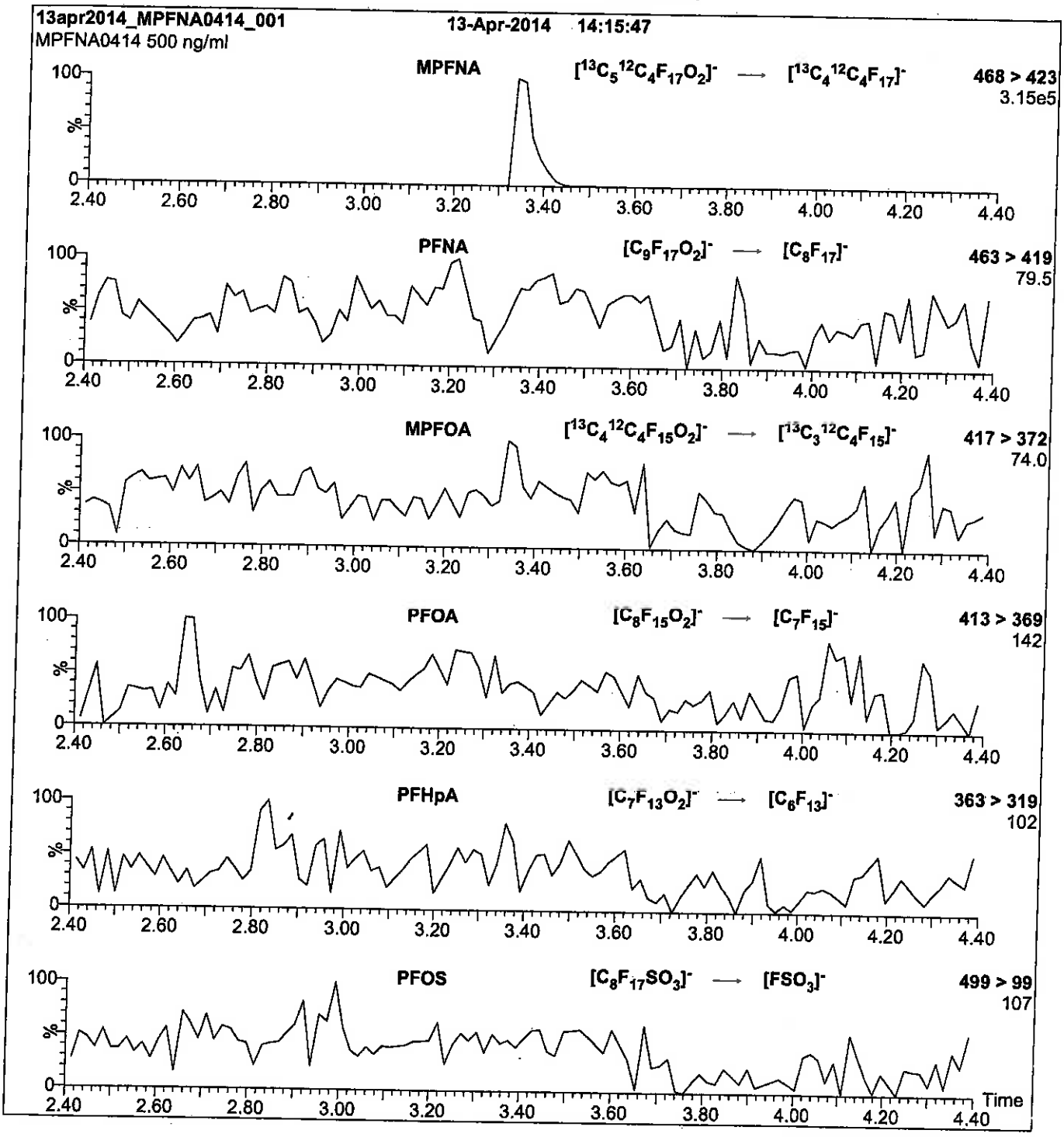
Flow: 300 µl/min

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) = 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) = 3.28e-3
Collision Energy (eV) = 11

Reagent

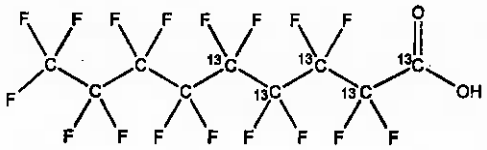
LCMPFNA_00009

R: 3/9/17 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFNA	**LOT NUMBER:**	MPFNA0916
COMPOUND:	Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid		
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)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 10/11/2016 (mm/dd/yyyy)

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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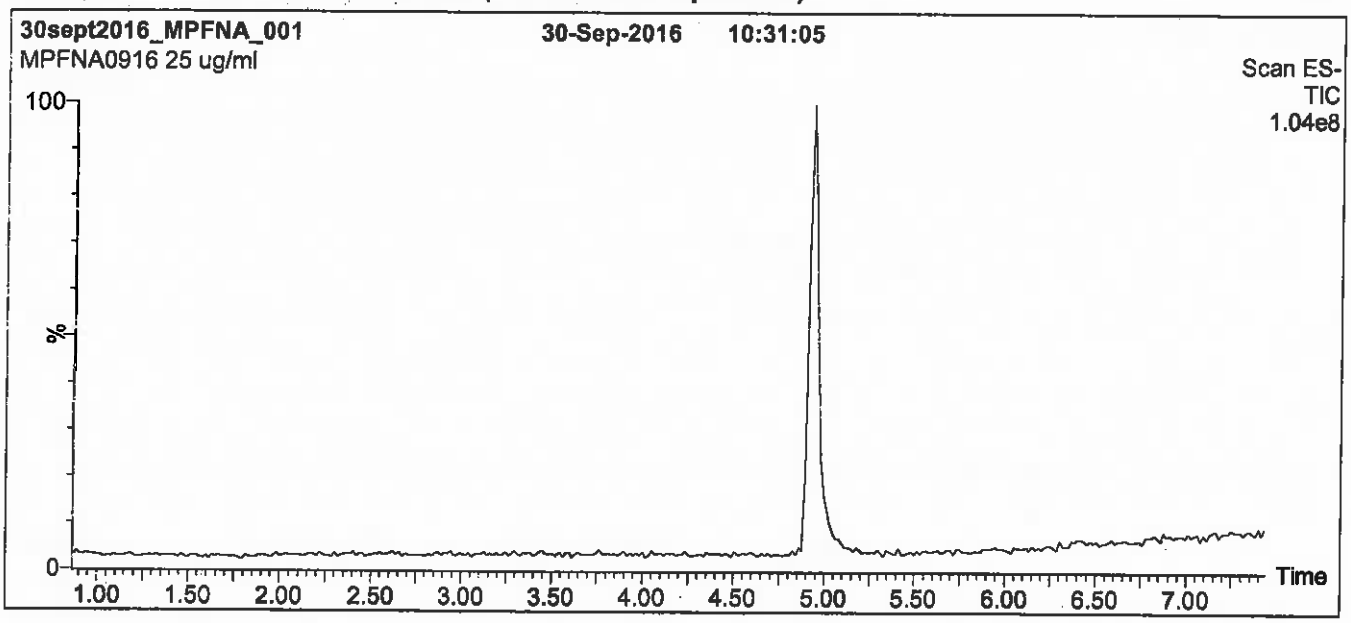

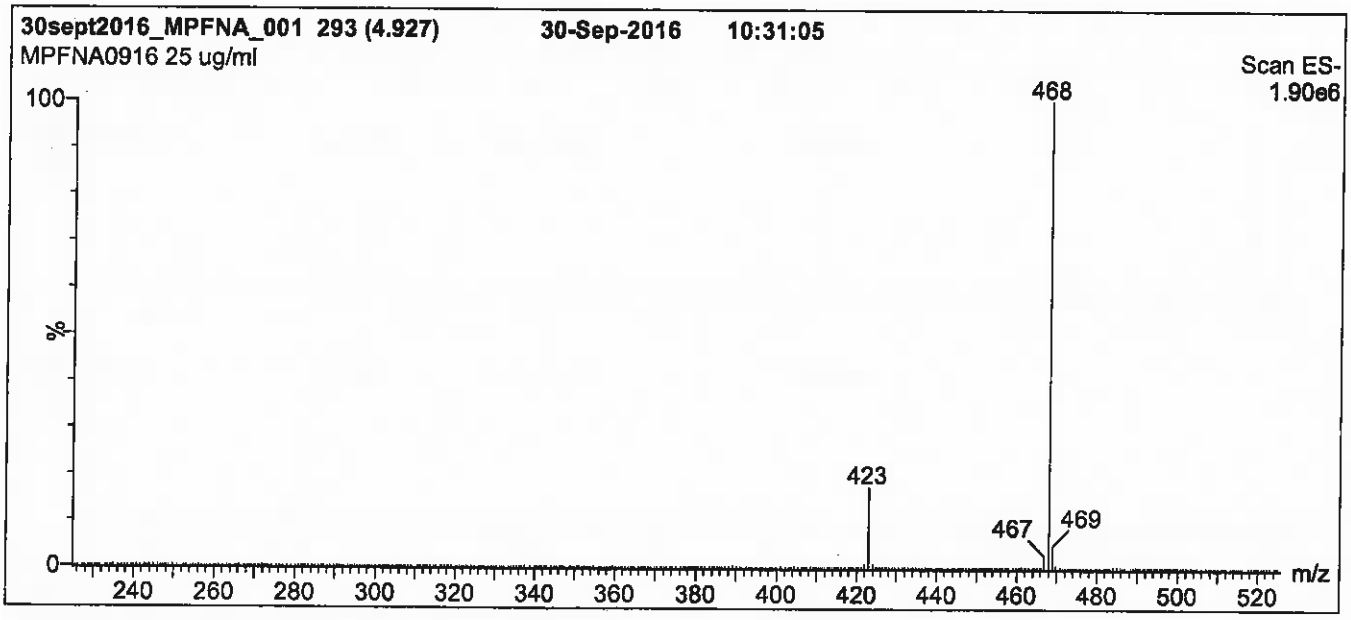

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MS: **Micromass Quattro *micro* API MS**

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

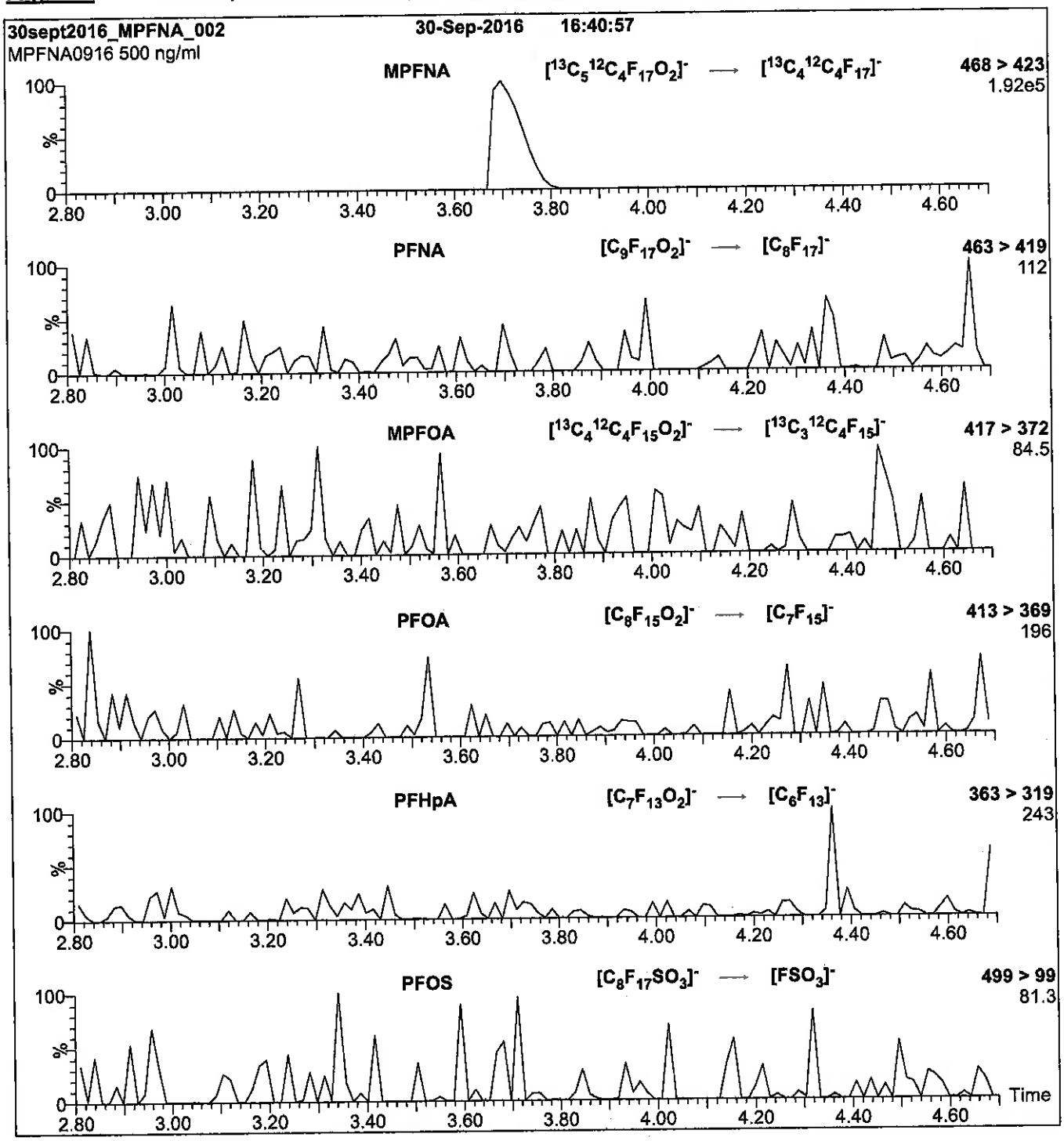
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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) = 3.39e-3
Collision Energy (eV) = 11

Reagent

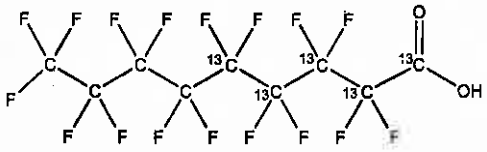
LCMPFNA_00010

r: 5/5/17 SCV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFNA	**LOT NUMBER:**	MPFNA0916
COMPOUND:	Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid		
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)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 10/11/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

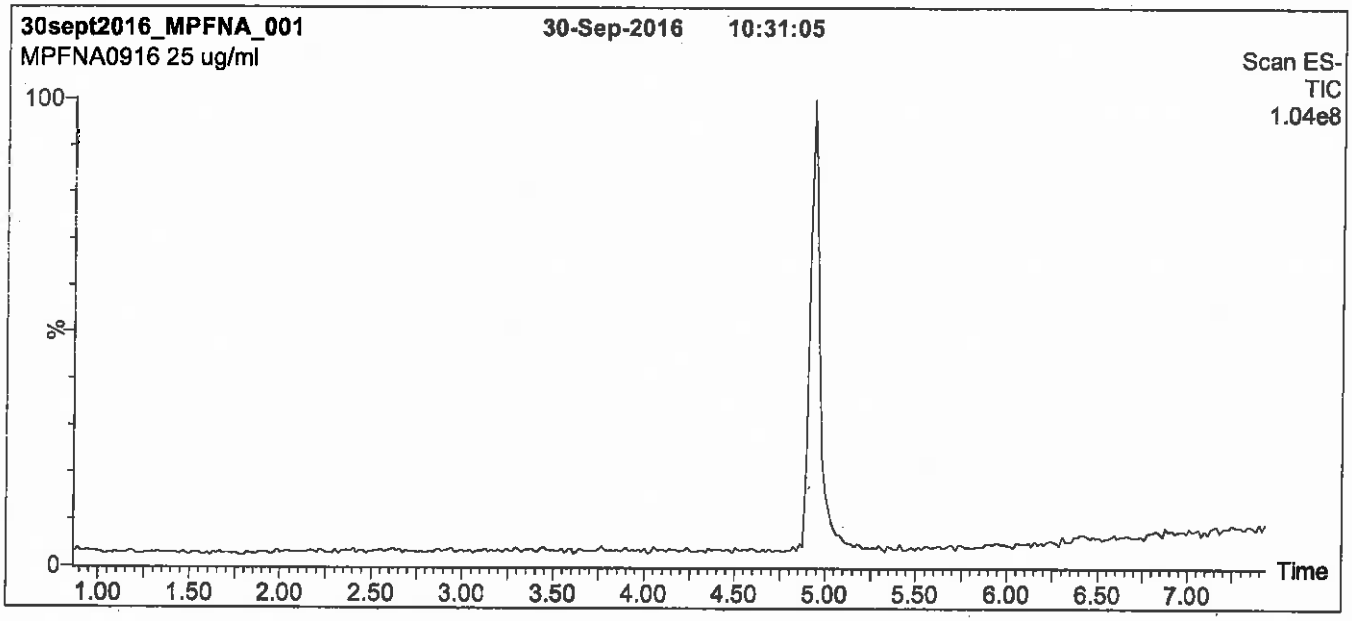
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

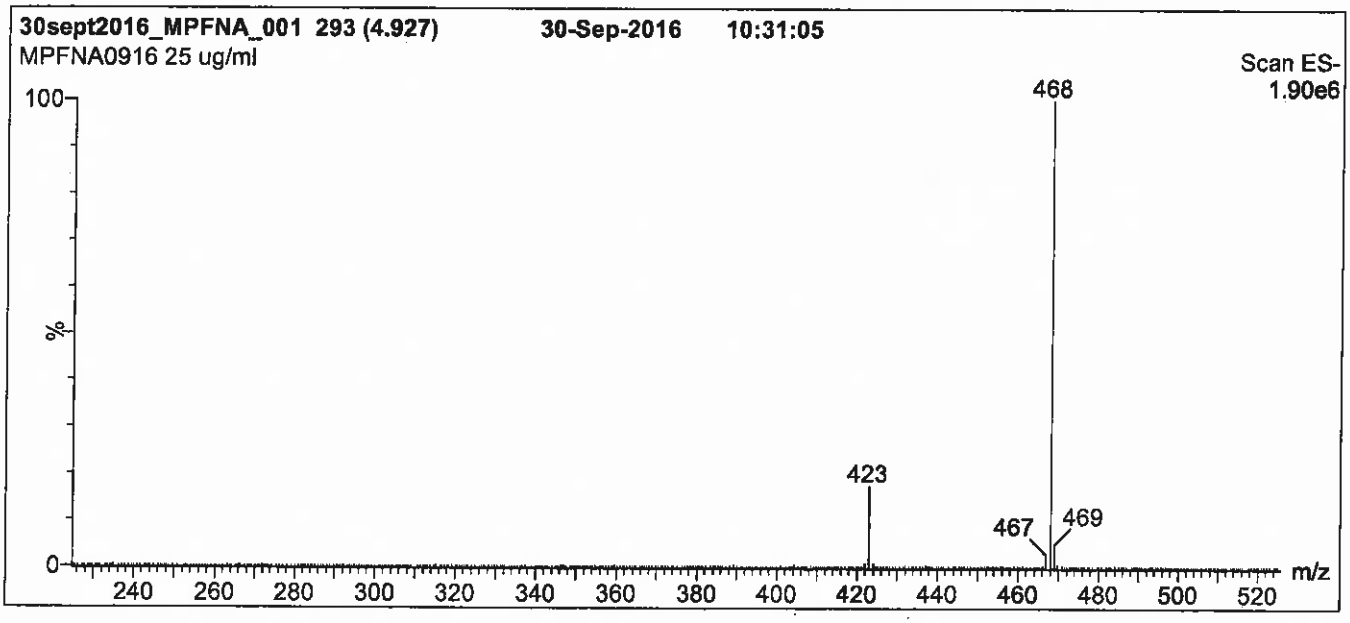
CALA

ANAB ACCREDITED

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

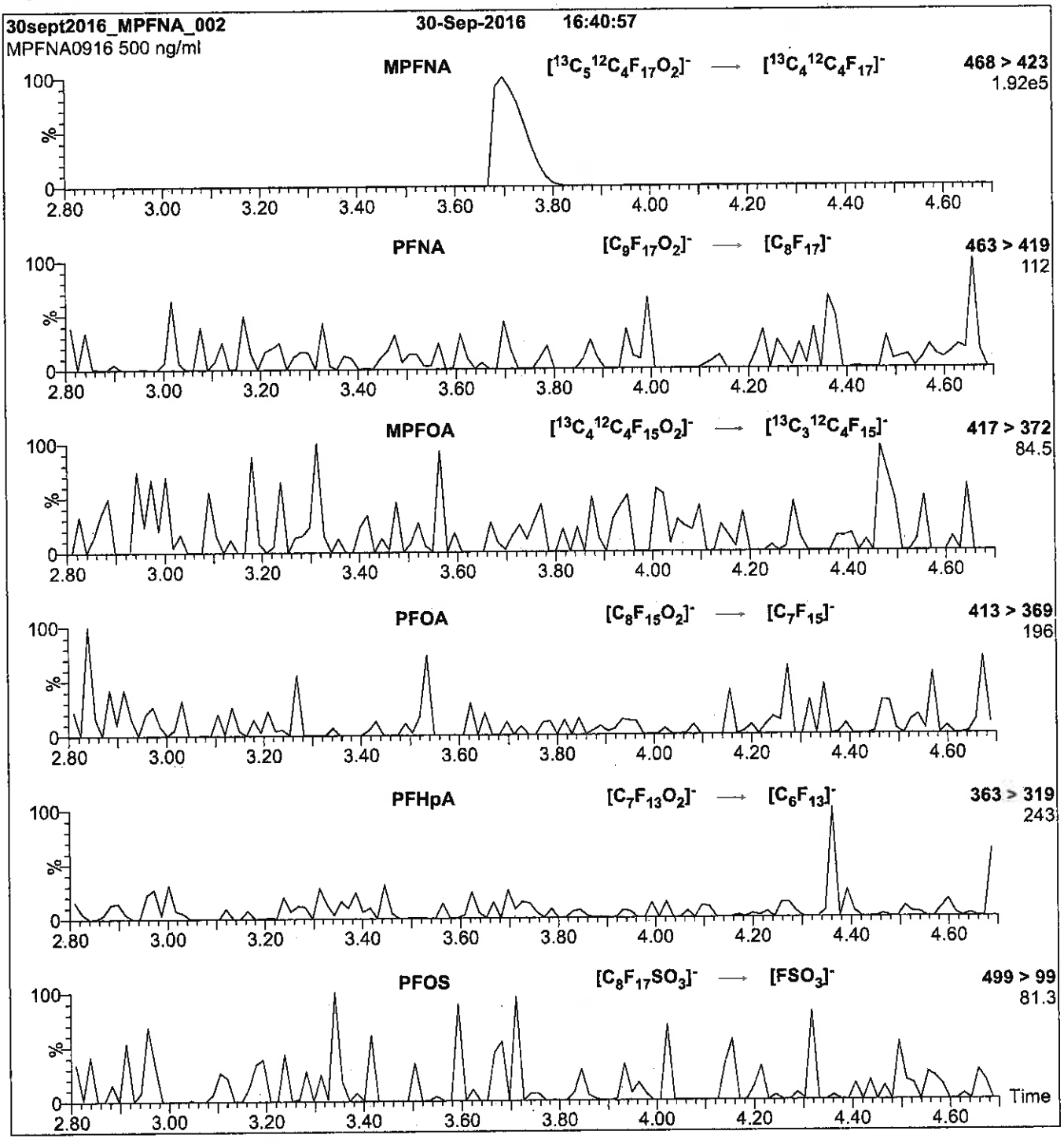
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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) = 3.39e-3
Collision Energy (eV) = 11

Reagent

LCMPFOA_00012

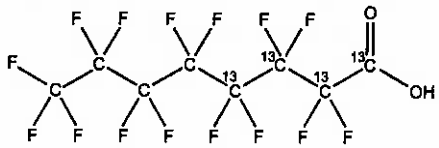
R: SBC 9/22/16

738683
ID: LCMPFOA_00012
Exp: 01/22/21 Prpd: SBC
13C4-Perfluorooctanoic ac

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFOA	**LOT NUMBER:**	MPFOA0116
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)	01/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 02/01/2016 (mm/dd/yyyy)

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

Form#:27, Issued 2004-11-10
Revision#:3, Revised 2015-03-24

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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, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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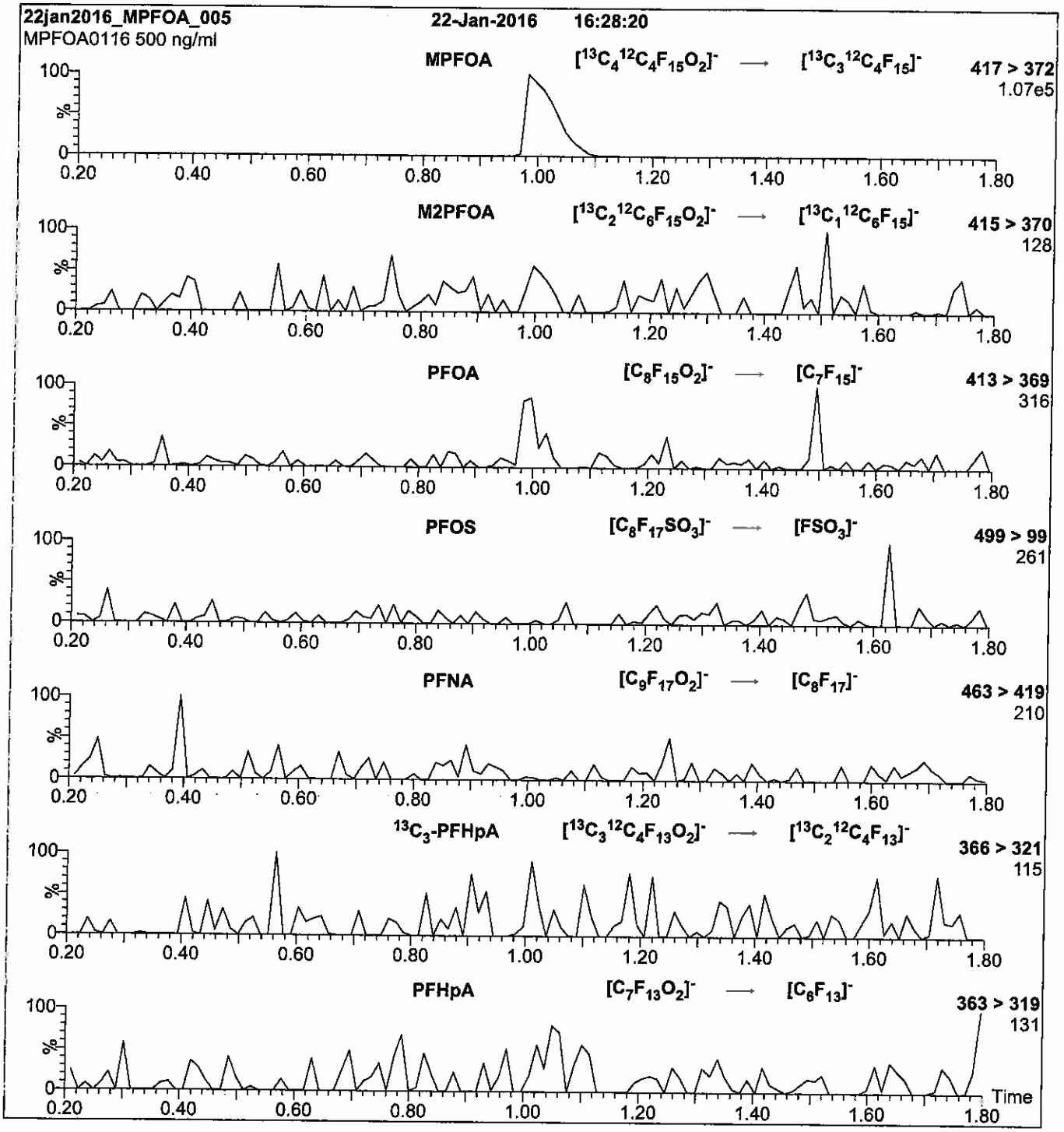
Figure 2: **MPFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

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

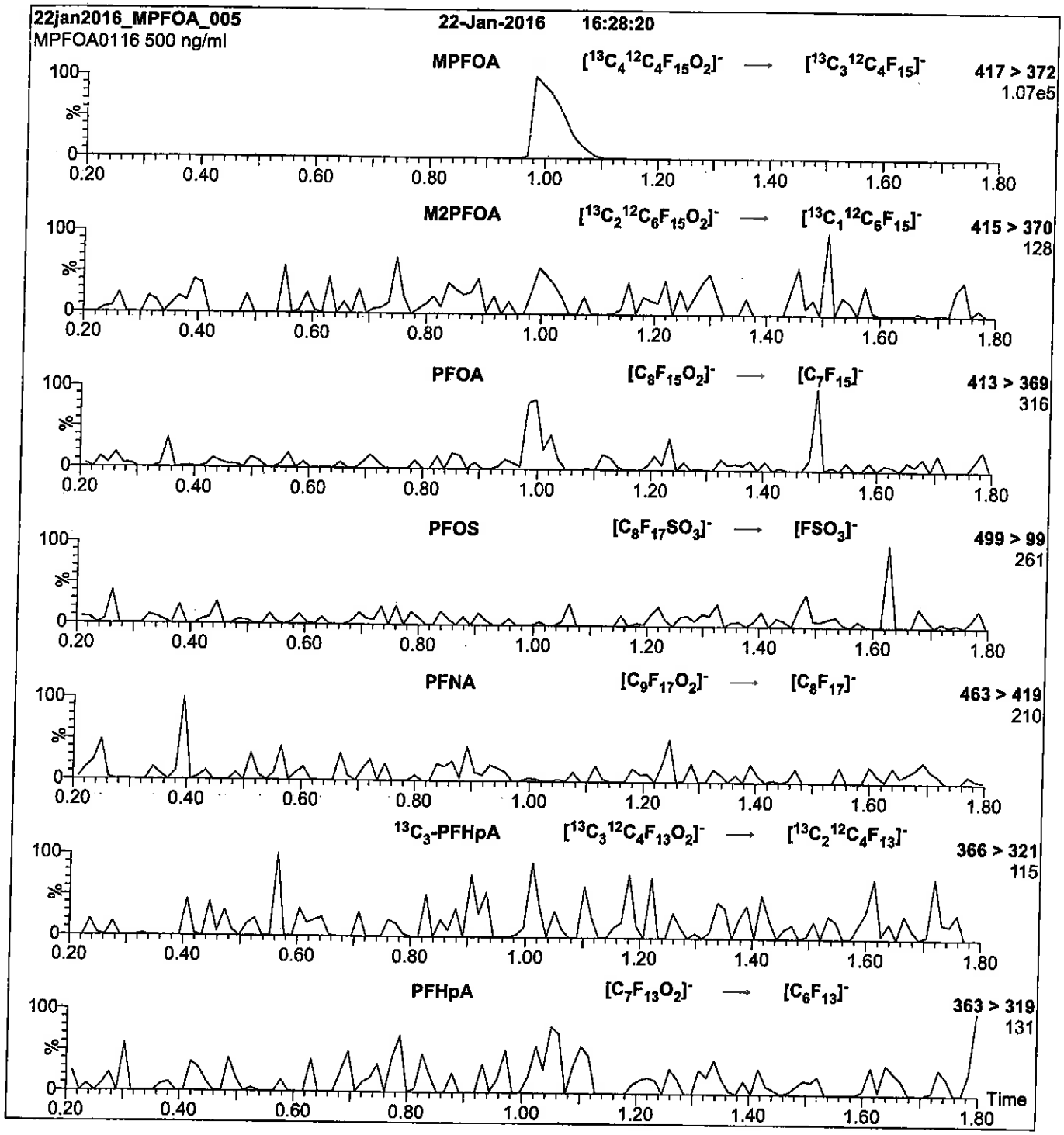
Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.58e-3
Collision Energy (eV) = 10

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



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Injection:	Direct loop injection 10 µl (500 ng/ml MPFOA)
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Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.58e-3
Collision Energy (eV) = 10

Reagent

LCMPFOA_00013

r: 3/9/17 SRV

WELLINGTON LABORATORIES

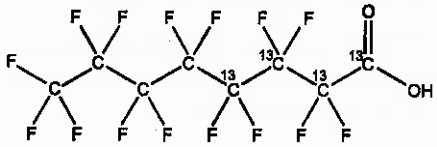
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

LOT NUMBER: MPFOA1016

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)	10/18/2016		
EXPIRY DATE: (mm/dd/yyyy)	10/18/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 10/19/2016 (mm/dd/yyyy)

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

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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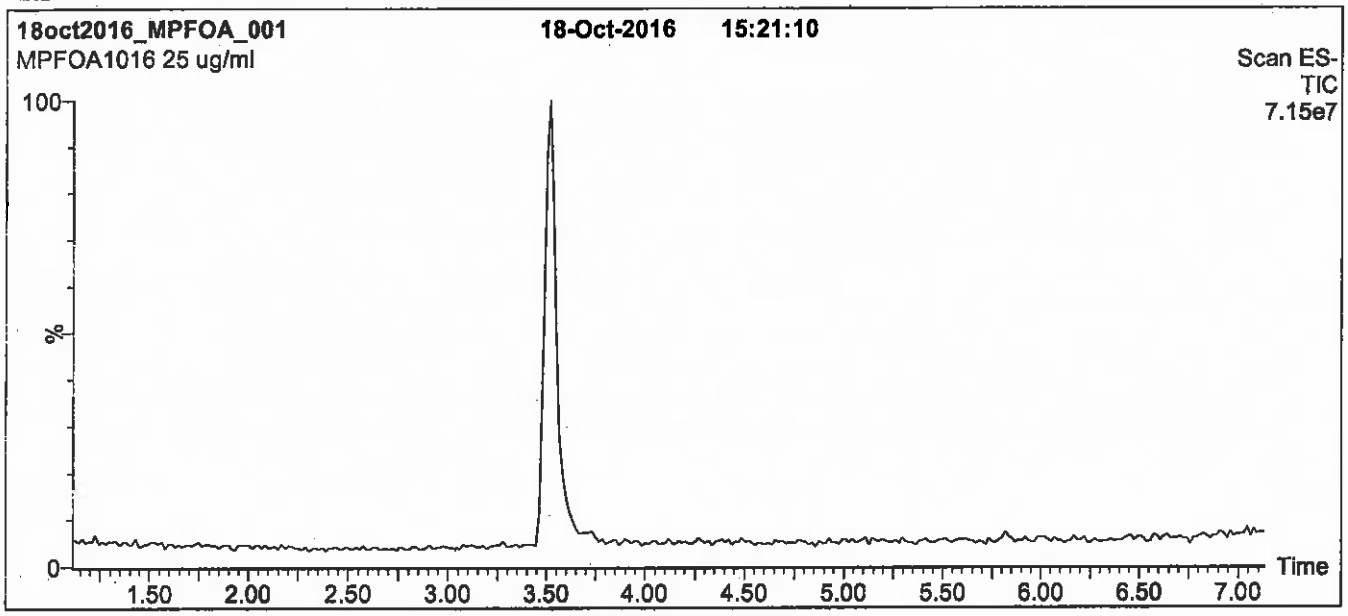
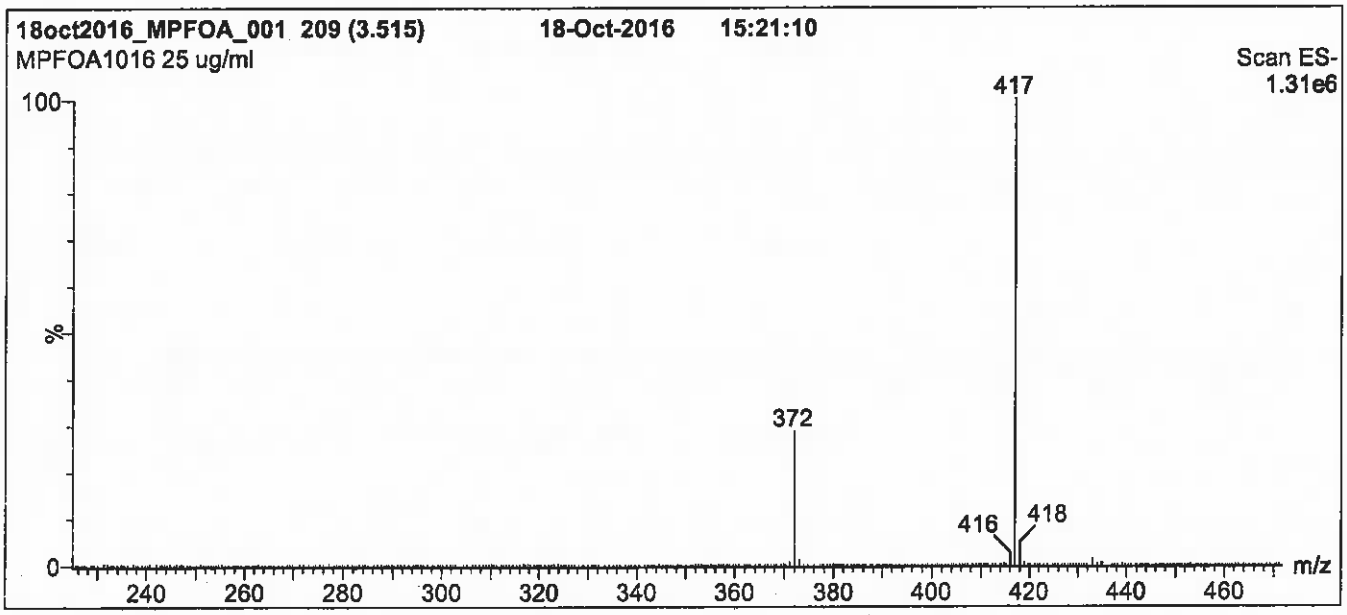
Figure 1: **MPFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

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

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

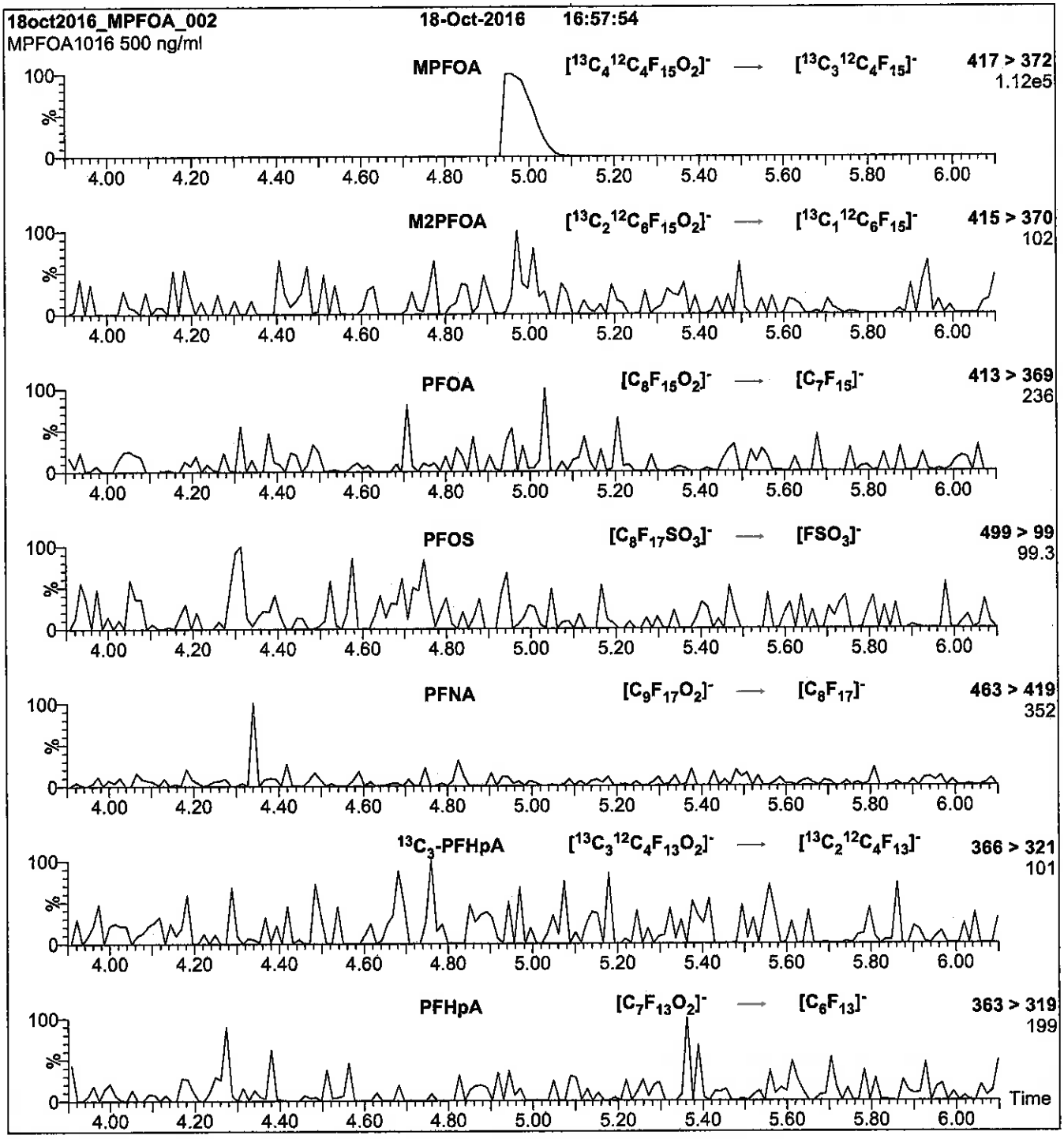
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
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) = 3.35e-3
Collision Energy (eV) = 10

Reagent

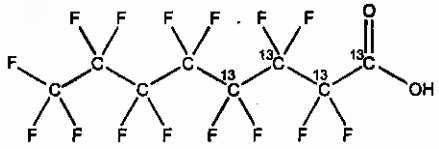
LCMPFOA_00014

V: 5/3/17

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFOA	**LOT NUMBER:**	MPFOA0417
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)	04/12/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/12/2022		
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:** 04/28/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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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UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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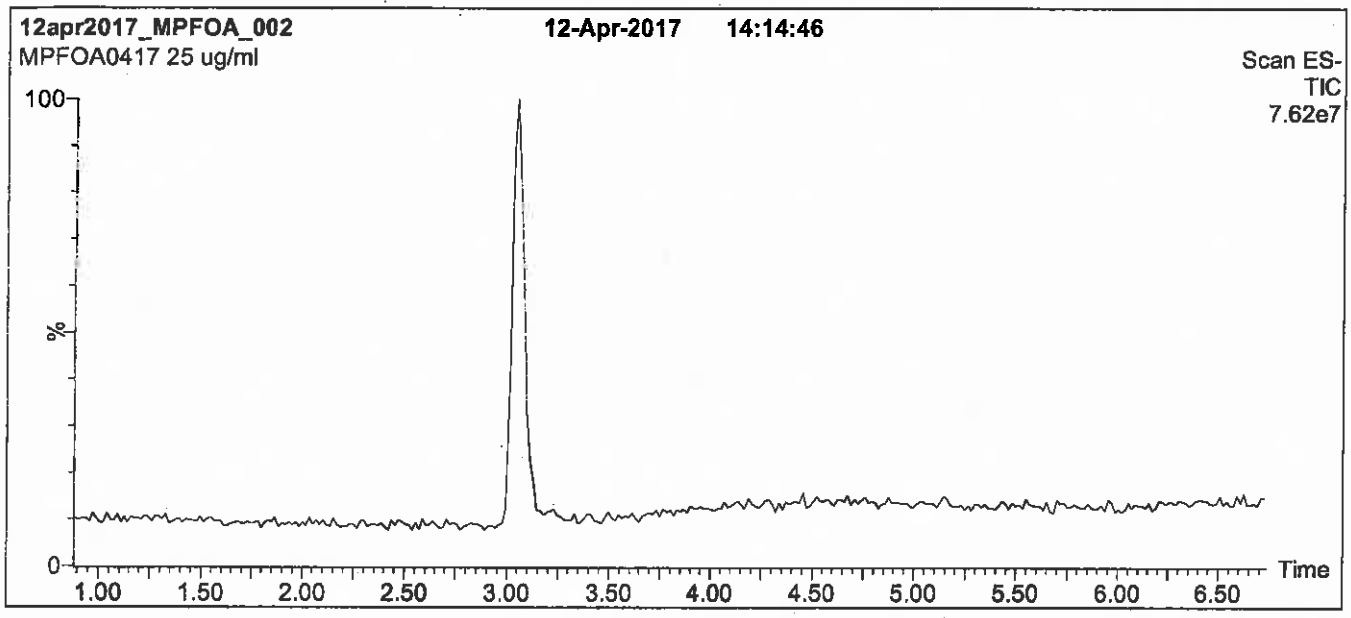
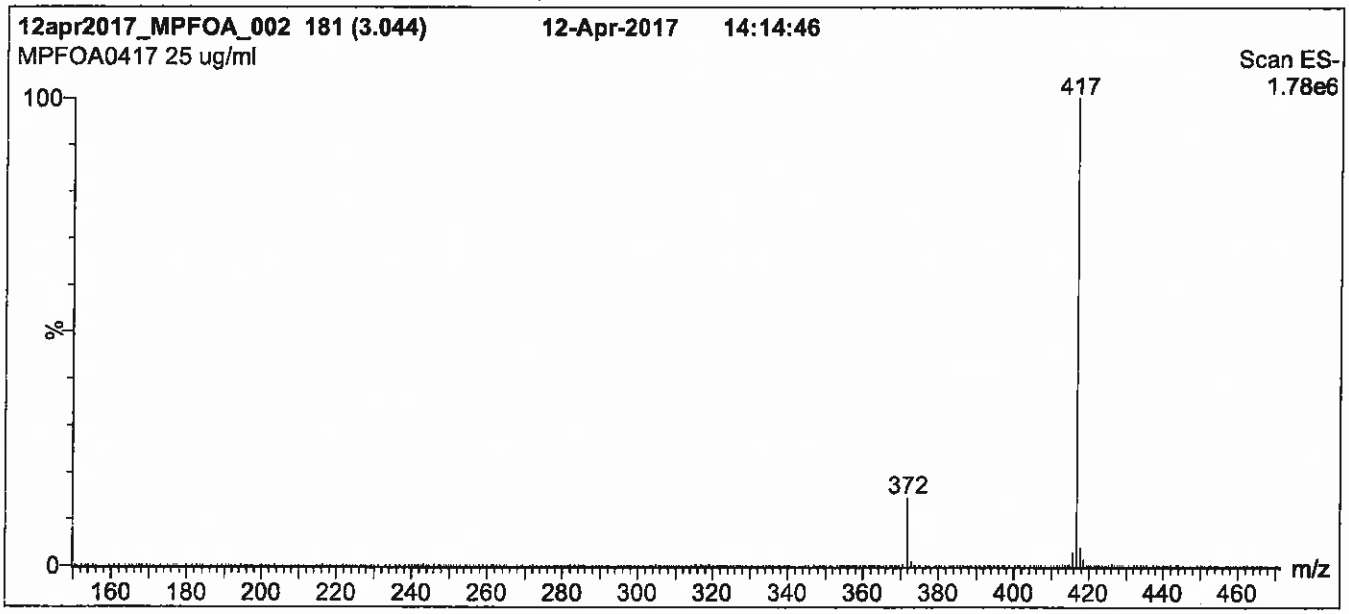
CALA

ANAB ACCREDITED

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: **MPFOA; 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 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

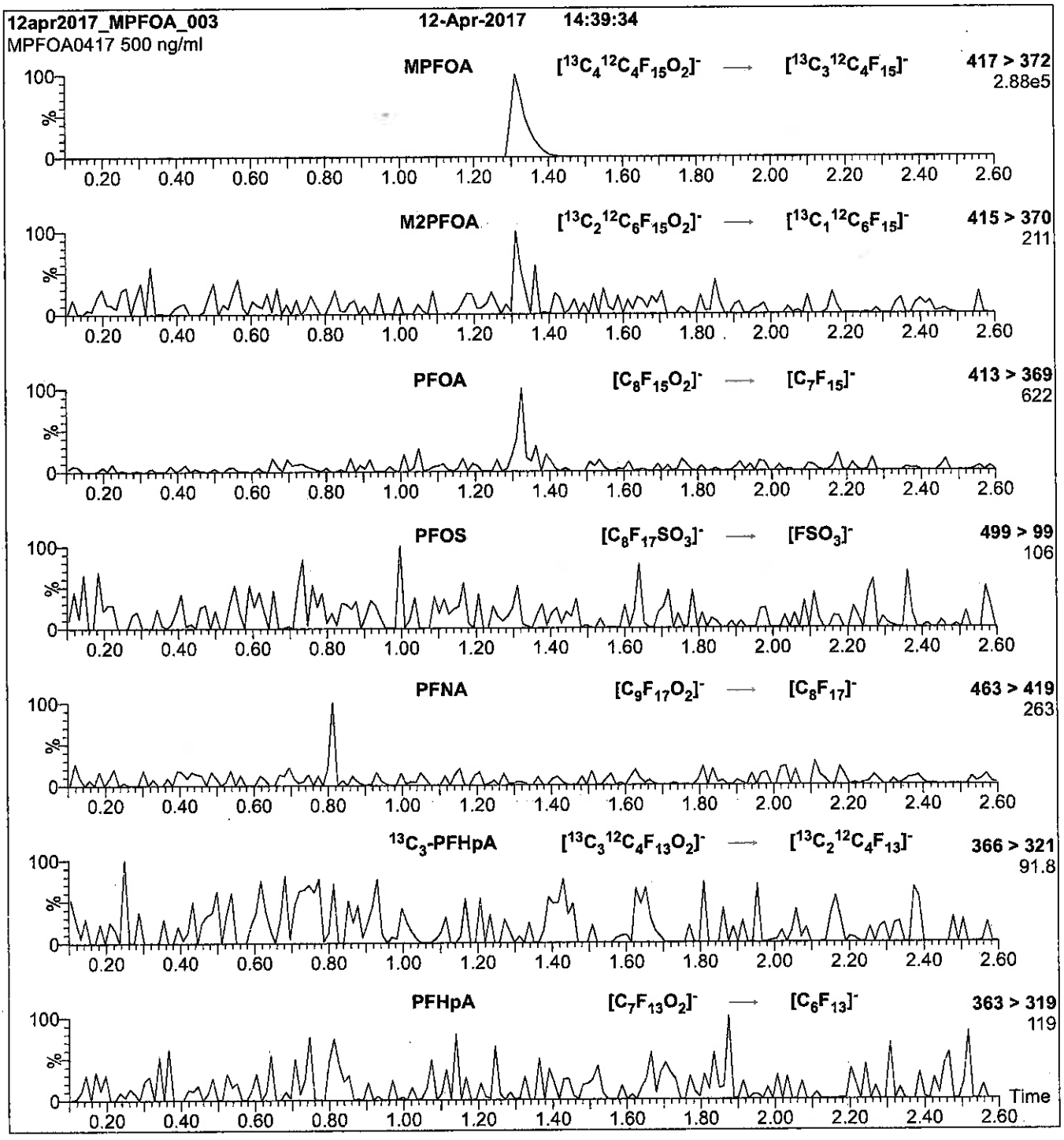
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
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) = 3.46e-3
Collision Energy (eV) = 10

Reagent

LCMPFOS_00018

R: SBC 9/22/16

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

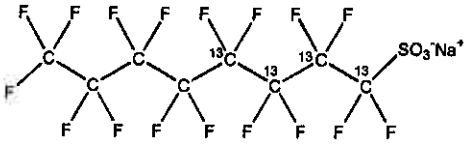
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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

STRUCTURE: **CAS #:** Not available



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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

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

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CALA

ANAB ACCREDITED

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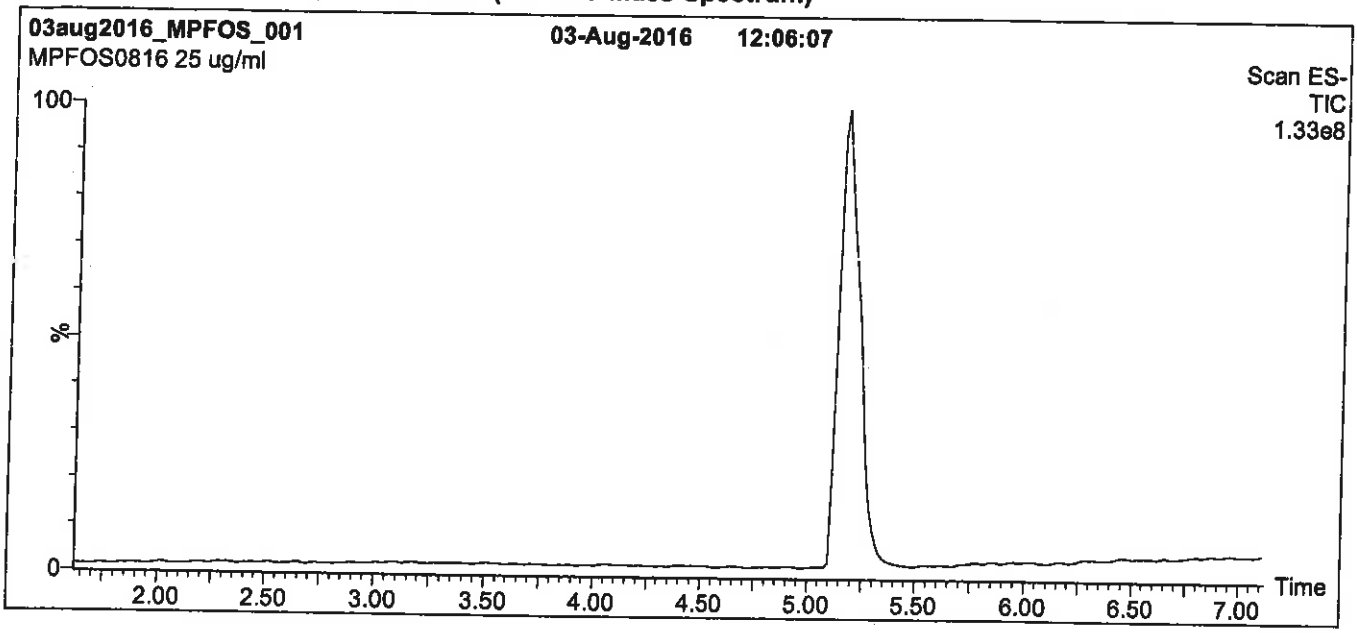
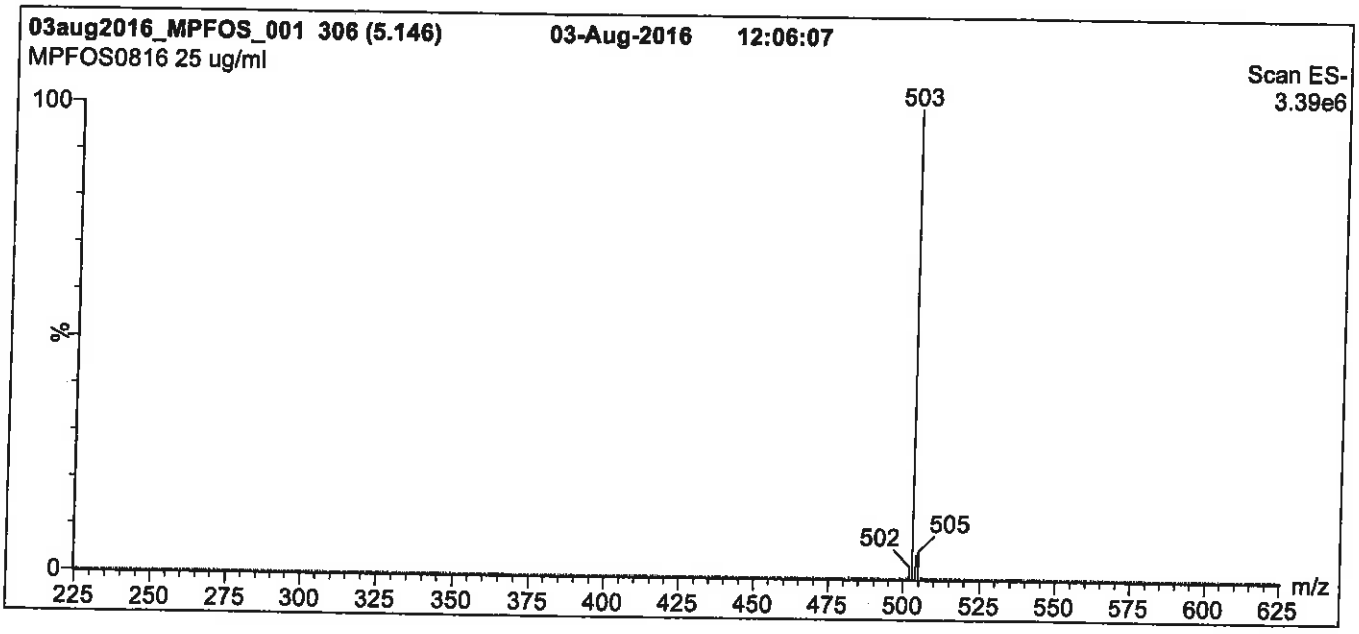




Conditions for Figure 1:

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: 45% (80:20 MeOH:ACN) / 55% 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

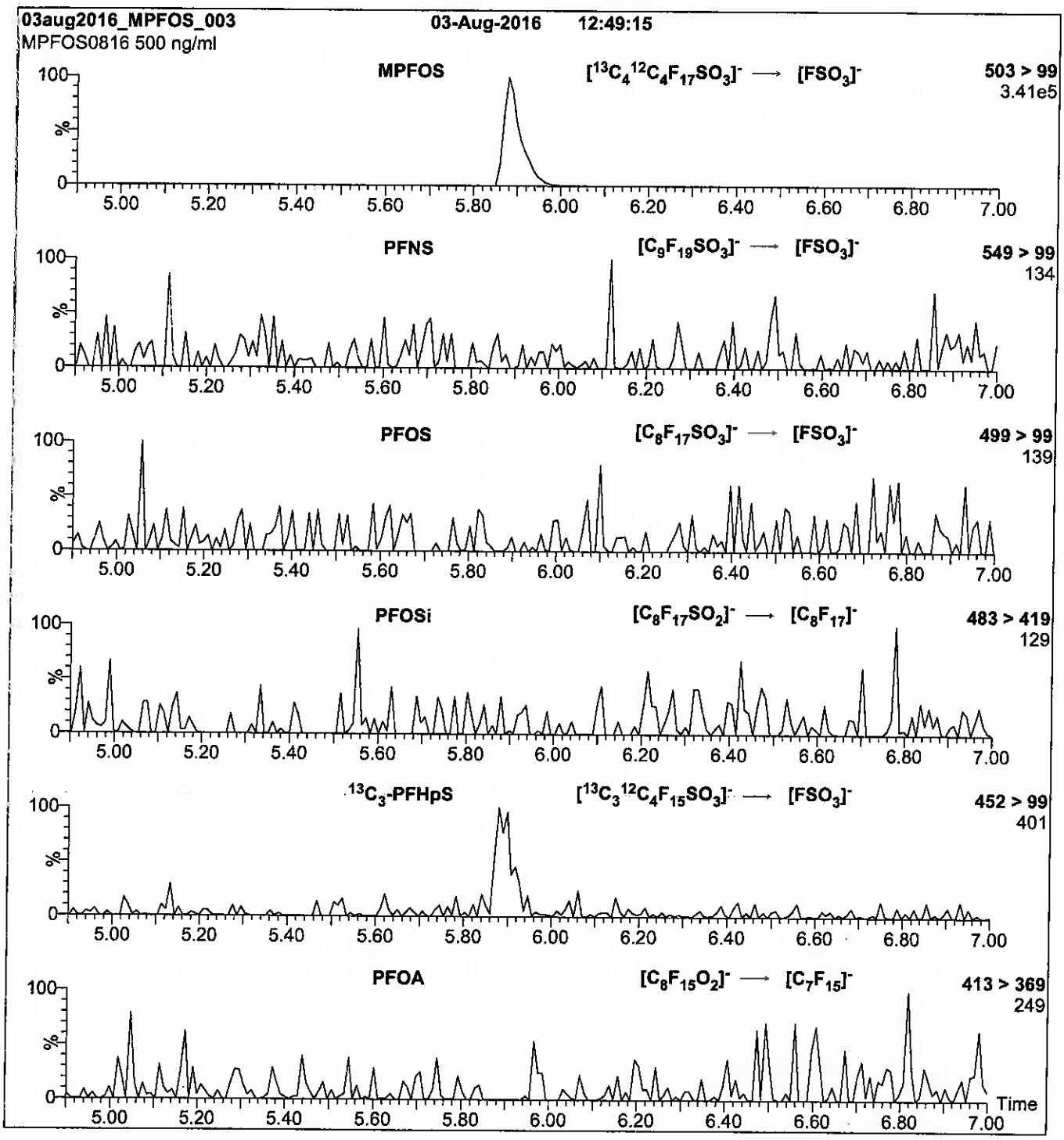
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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

Flow: 300 µl/min

MS Parameters

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

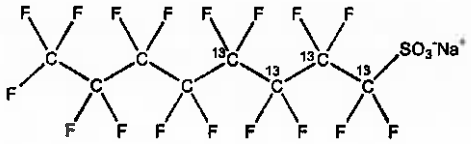
Reagent

LCMPFOS_00020

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFOS	**LOT NUMBER:**	MPFOS1216
COMPOUND:	Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate		
STRUCTURE:		**CAS #:**	Not available



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

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/14/2016 (mm/dd/yyyy)

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

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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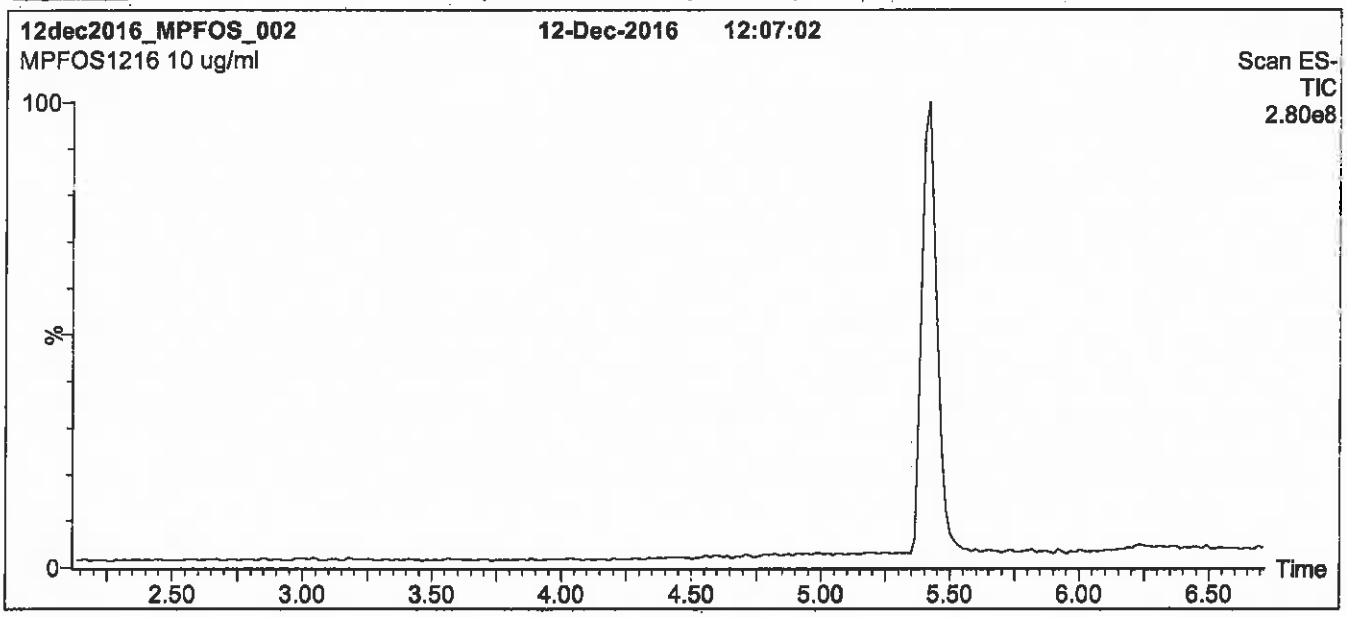
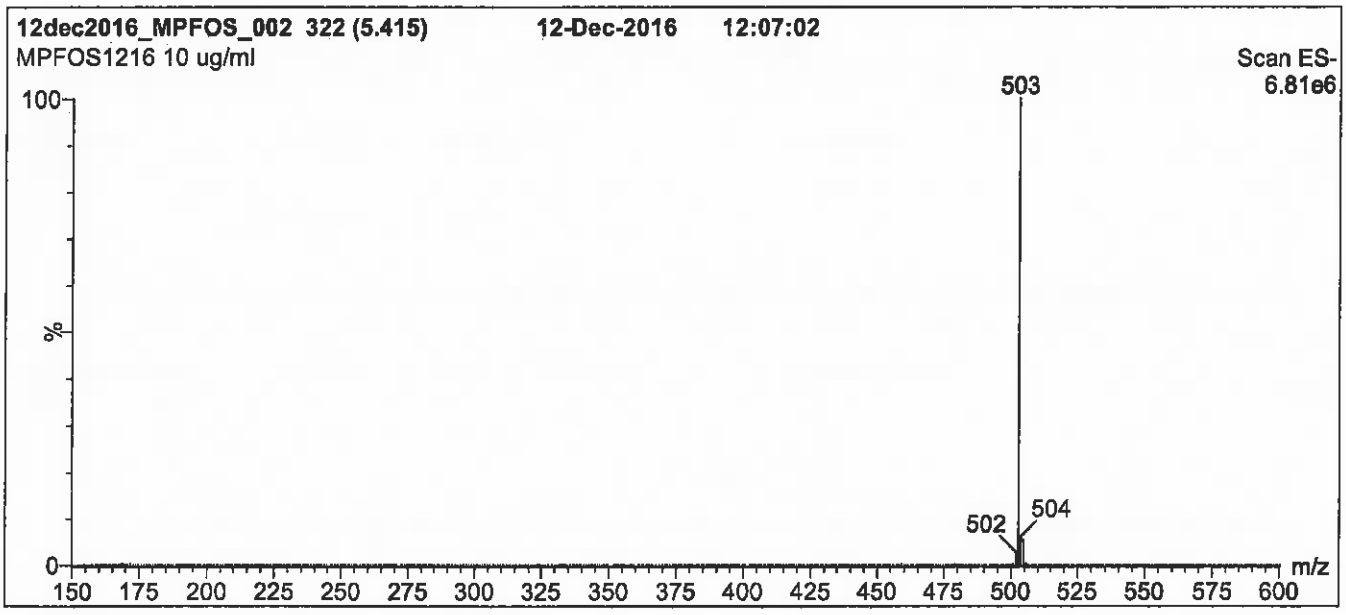




Conditions for Figure 1:

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 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

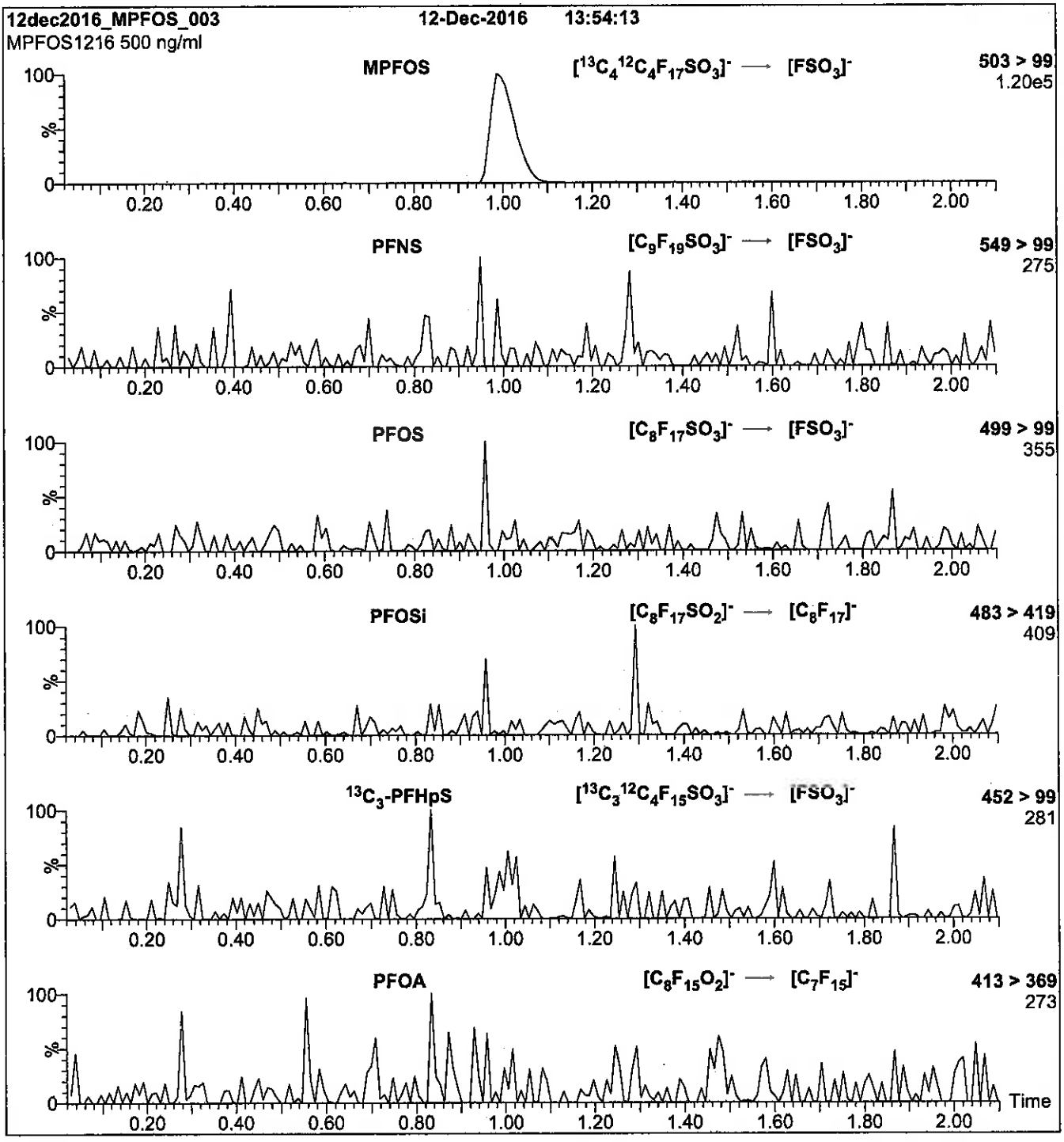
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 40

Reagent

LCMPFOS_00022

P: 5B|17SR

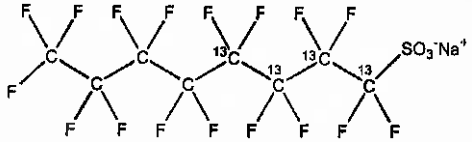
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS1216

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

STRUCTURE: **CAS #:** Not available



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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 of our products.

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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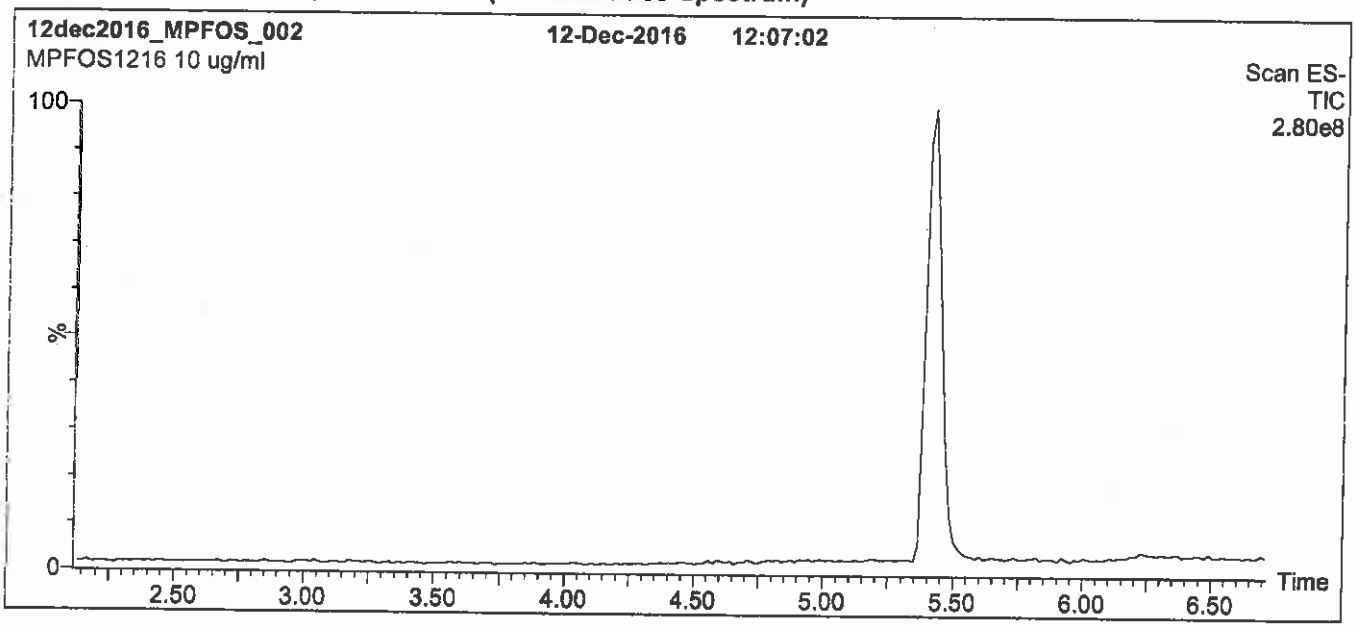
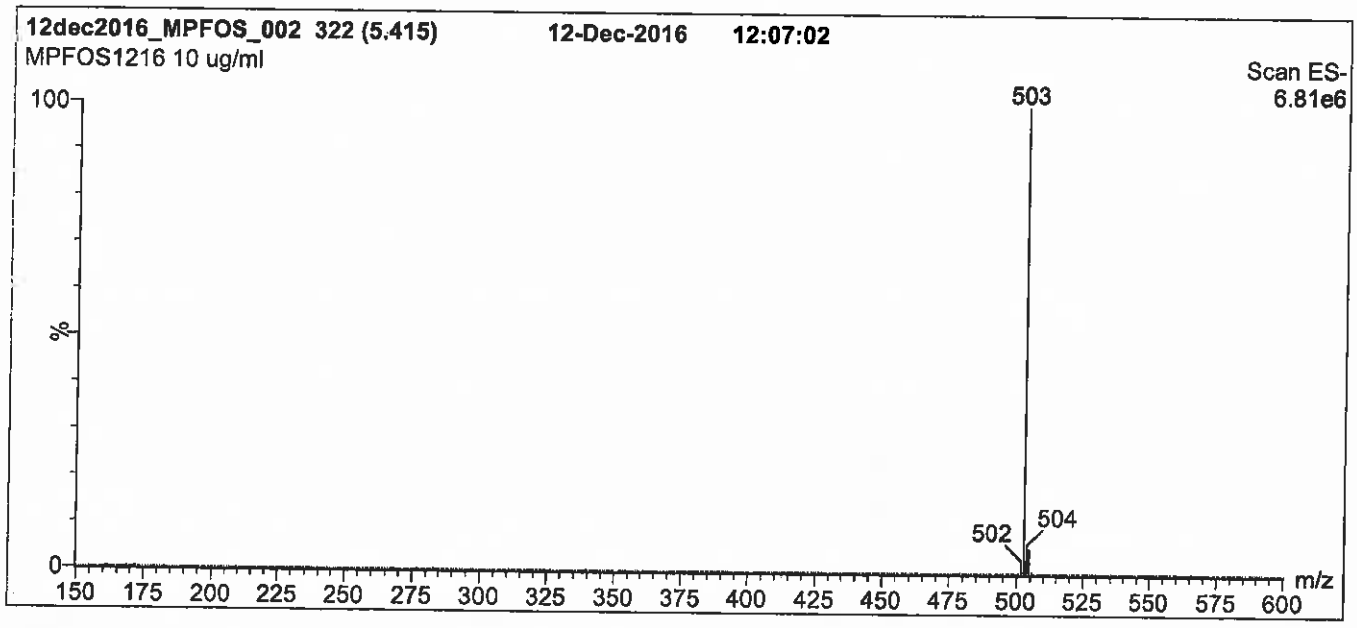
Figure 1: **MPFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

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

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

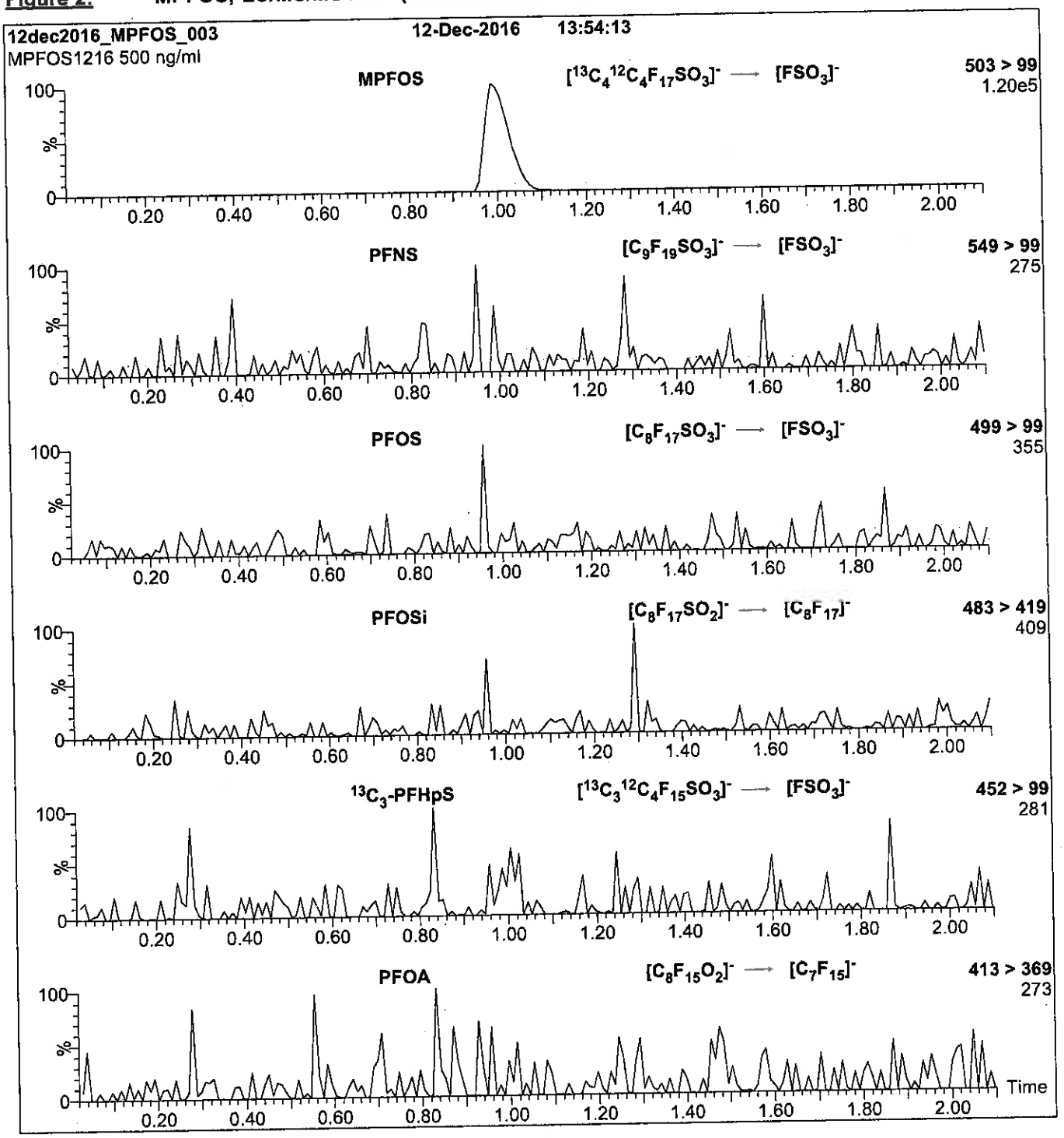
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 40

Reagent

LCMPFUdA_00009

R: SBC 9/22/16

739604
ID: LCMPFUdA_00009
Exp: 02/12/21 Prpd: SBC
13C2-Perfluoroundecanoic

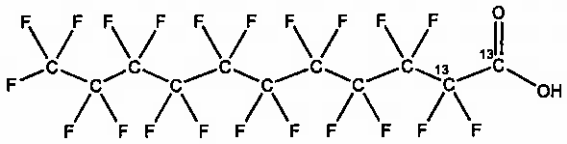
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

Scanned 10/14/16 SBC

PRODUCT CODE: MPFUdA
LOT NUMBER: MPFUdA0216
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)	02/12/2016		
EXPIRY DATE: (mm/dd/yyyy)	02/12/2021		
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)

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:** 02/24/2016 (mm/dd/yyyy)

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

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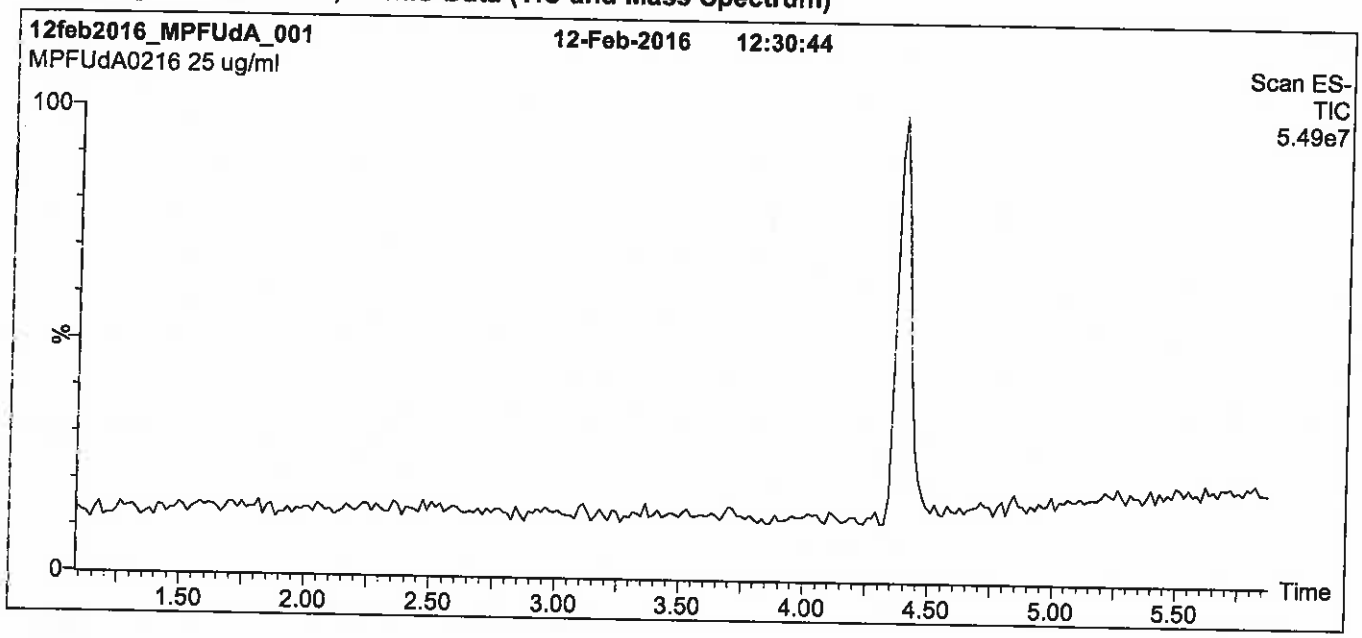

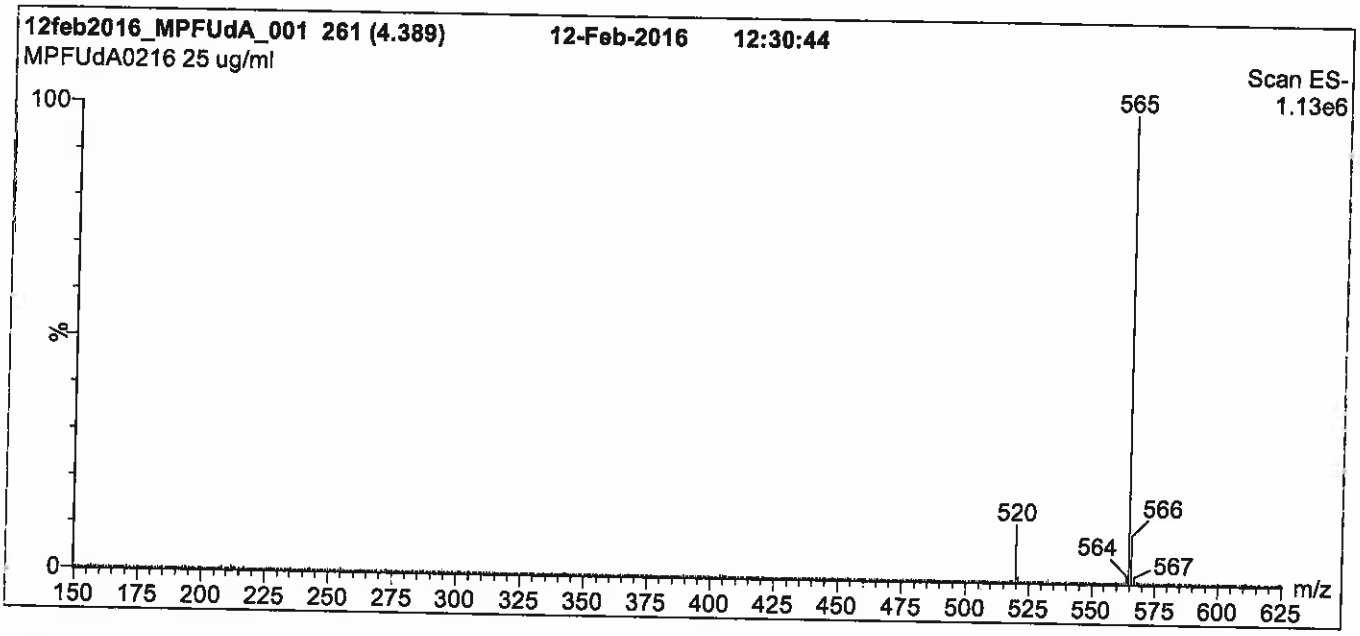

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Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

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

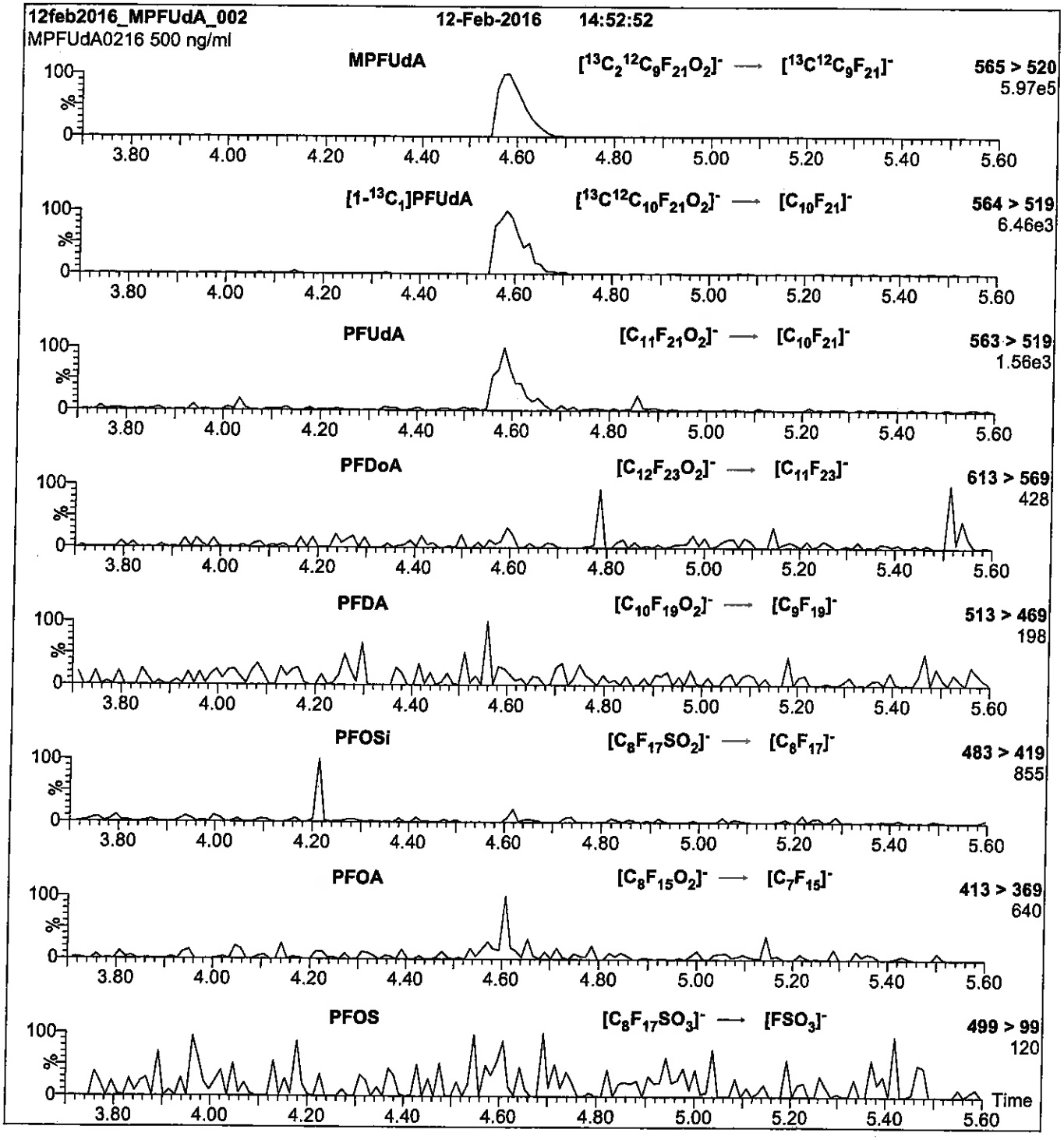
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

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

Reagent

LCMPFUdA_00010

R:3/9/17 SM

WELLINGTON LABORATORIES

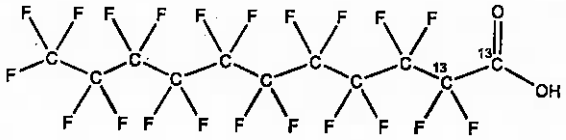
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

LOT NUMBER: MPFUdA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_9HF_{21}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 566.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/22/2016
EXPIRY DATE: (mm/dd/yyyy) 11/22/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
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ADDITIONAL INFORMATION:

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Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

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

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CALA

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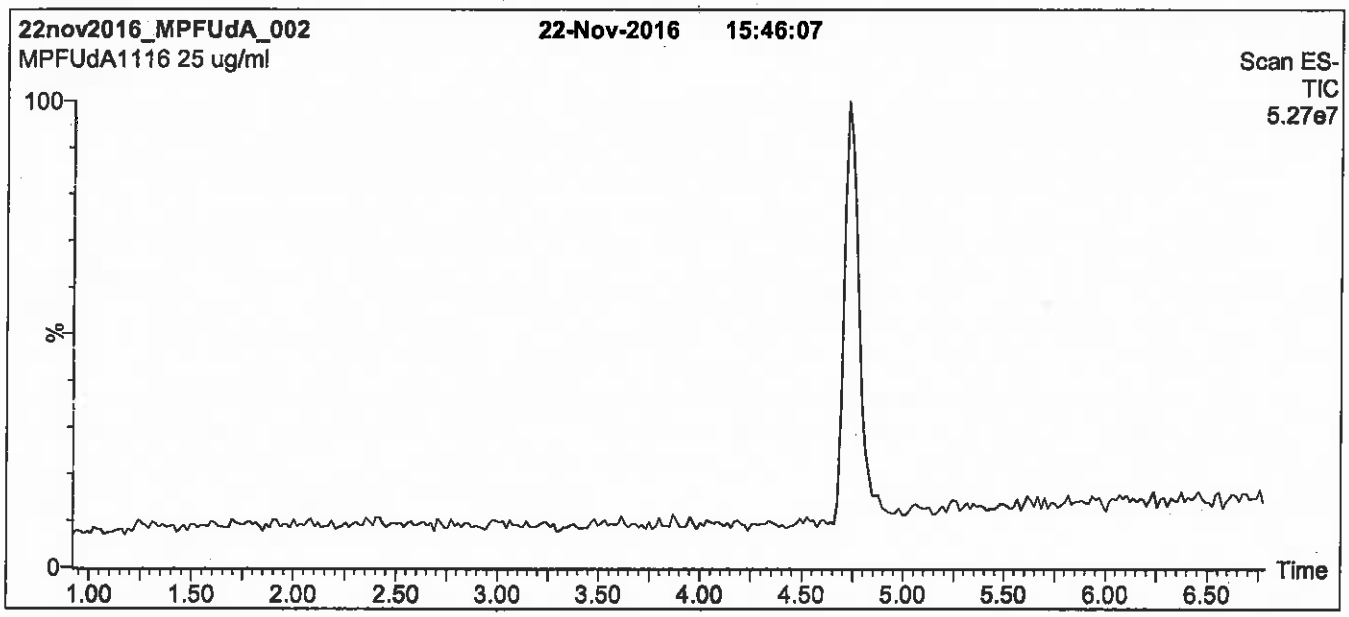

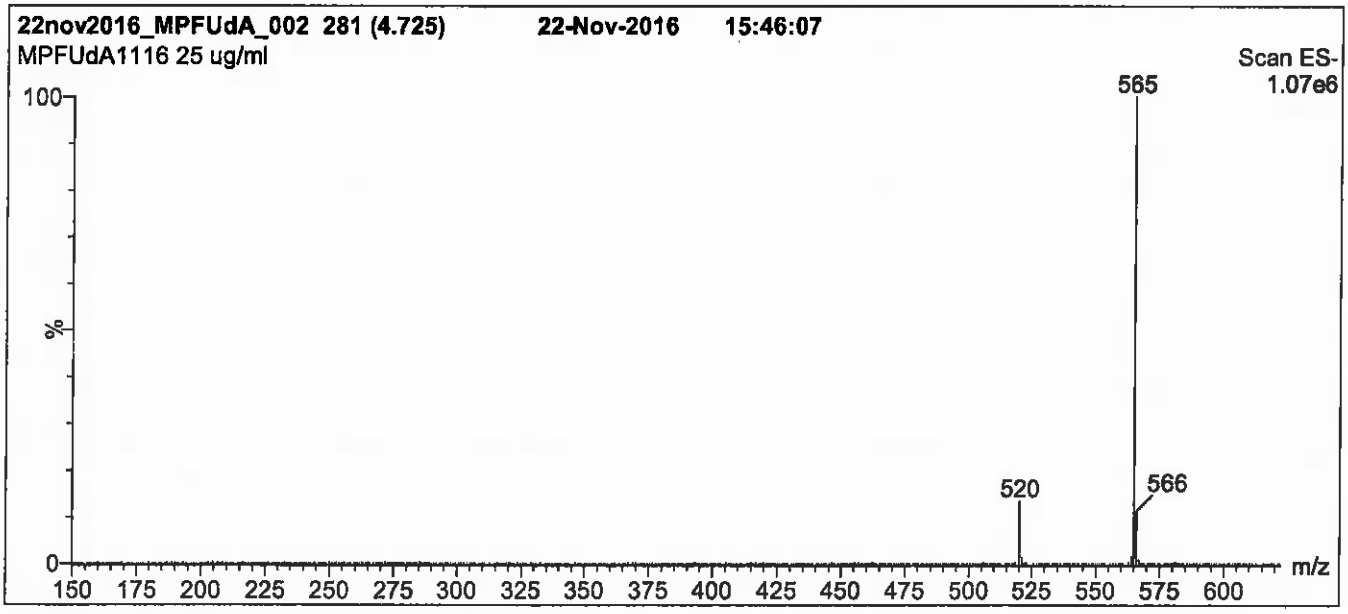

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MS: Micromass Quattro *micro* API MS

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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

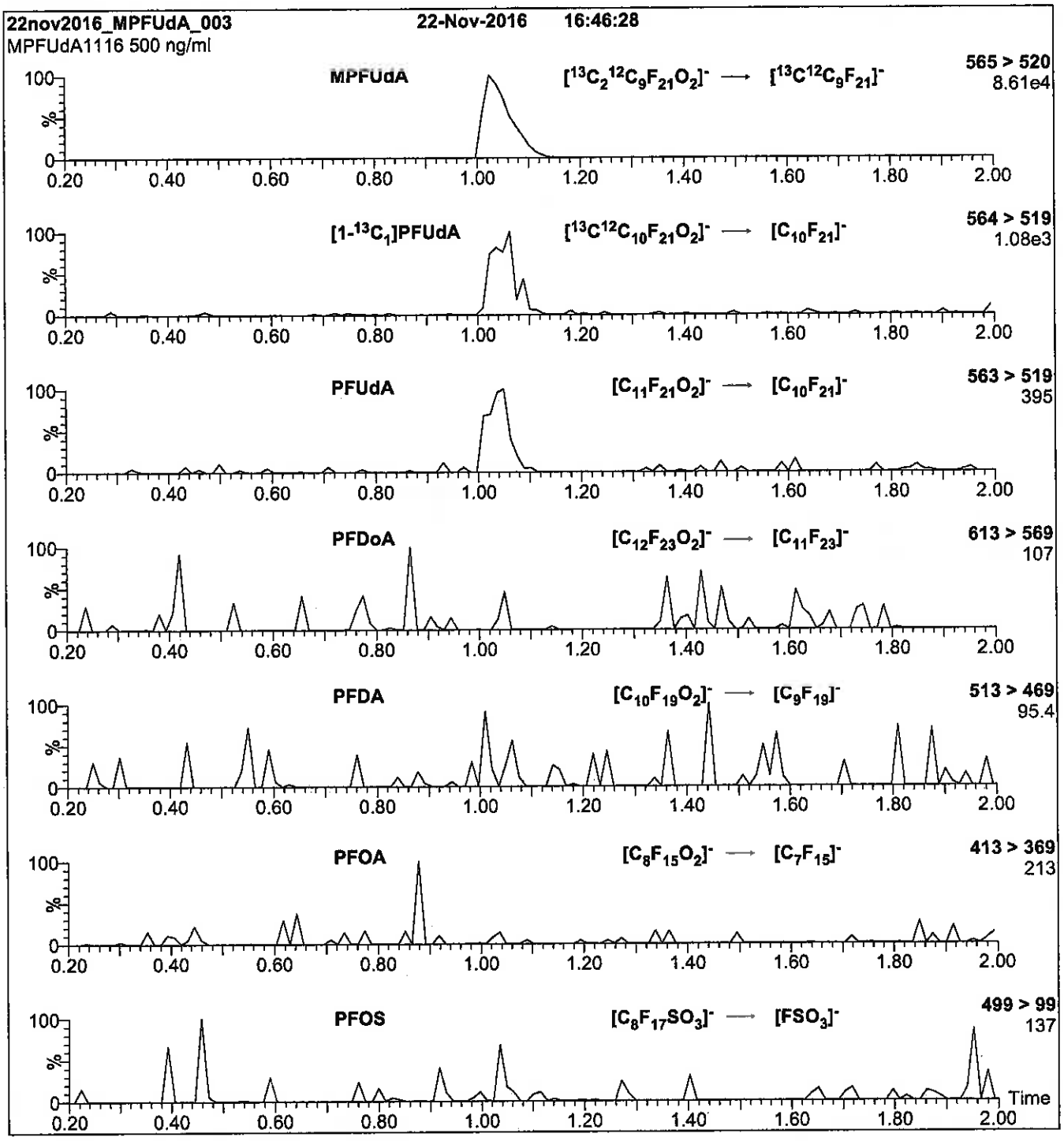
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 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) = 3.46e-3
Collision Energy (eV) = 11

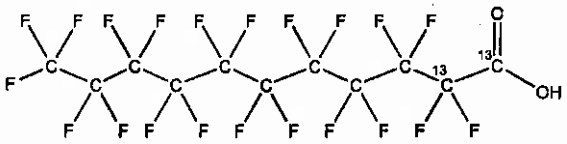
Reagent

LCMPFUdA_00011

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFUdA	**LOT NUMBER:**	MPFUdA1116
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)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED

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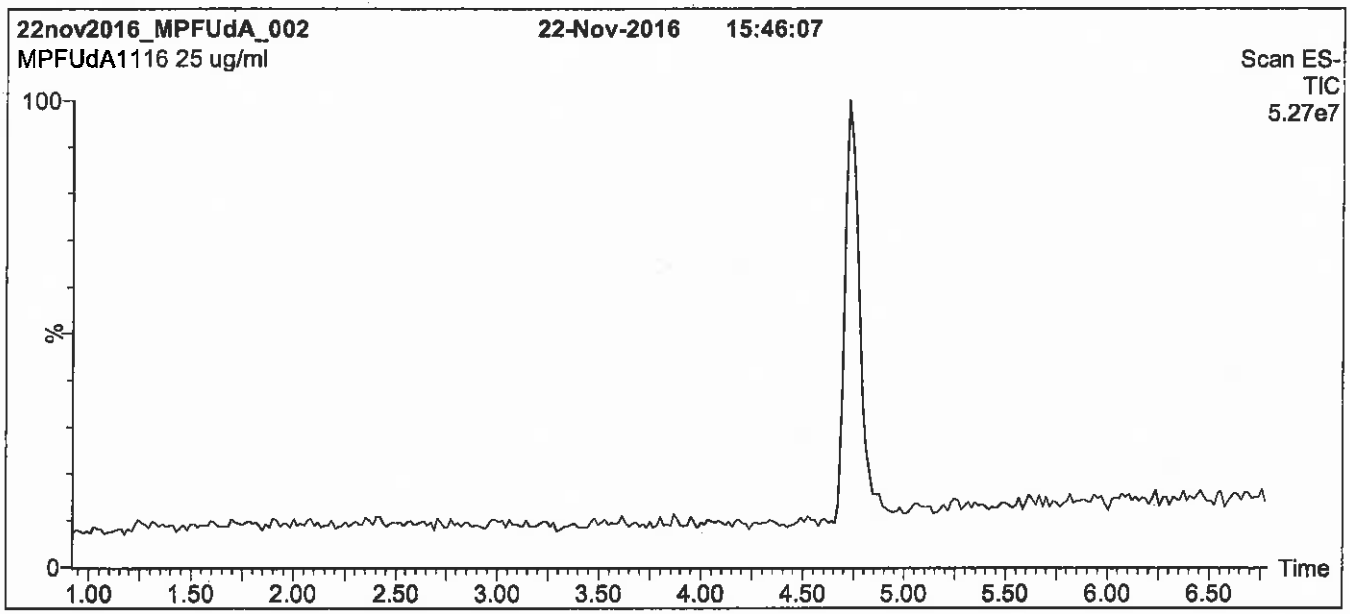
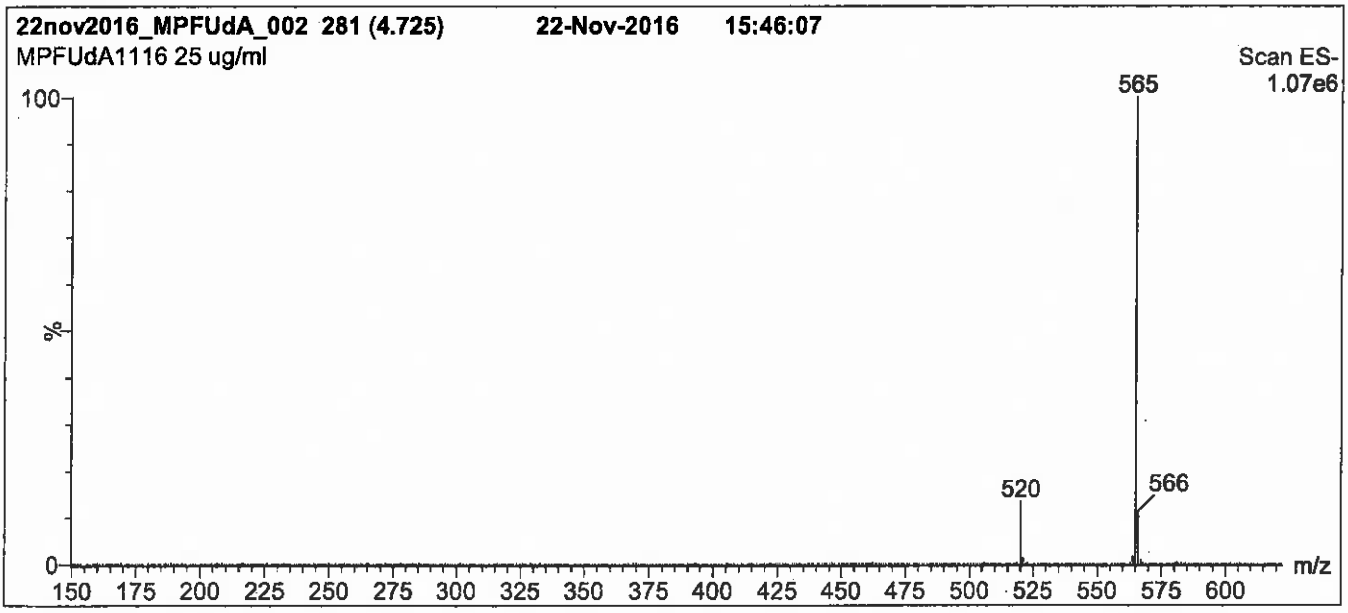
Figure 1: **MPFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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

Chromatographic Conditions

Column: 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

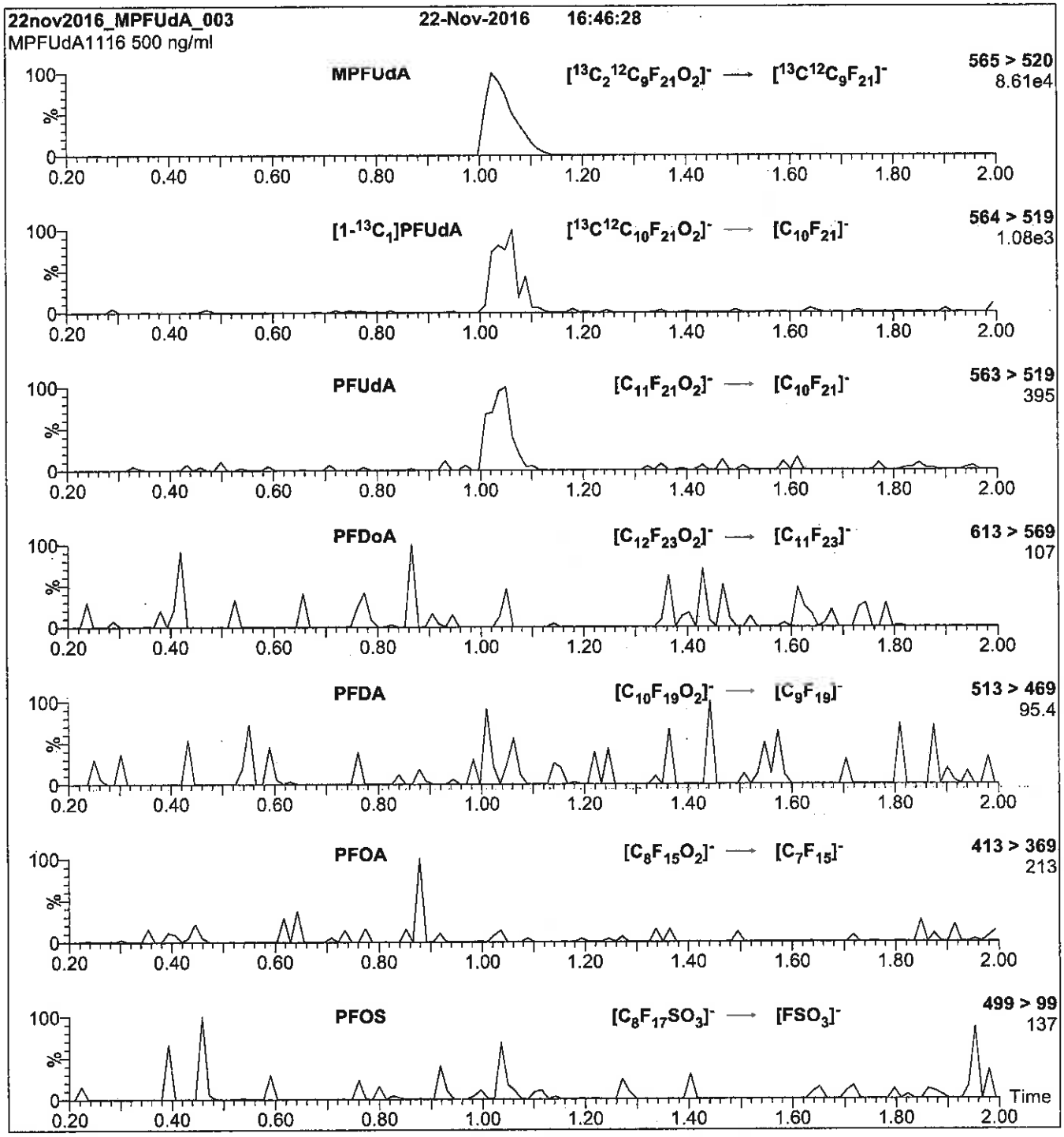
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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) = 3.46e-3
Collision Energy (eV) = 11

Reagent

LCN-EtFOSA-M_00003

R: 8/23/16 SBC

715563
ID: LCN-EtFOSA-M_00003
Exp: 05/24/21 Prpd: SBC
N-EtFOSA-M

WELLINGTON LABORATORIES

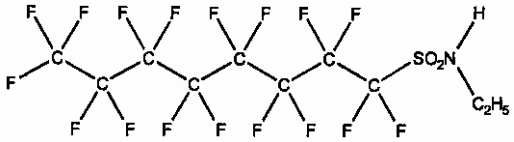
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0516M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:	$C_{10}H_8F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/24/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: B.G. Chittim **Date:** 05/27/2016 (mm/dd/yyyy)

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

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

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CALA Testing

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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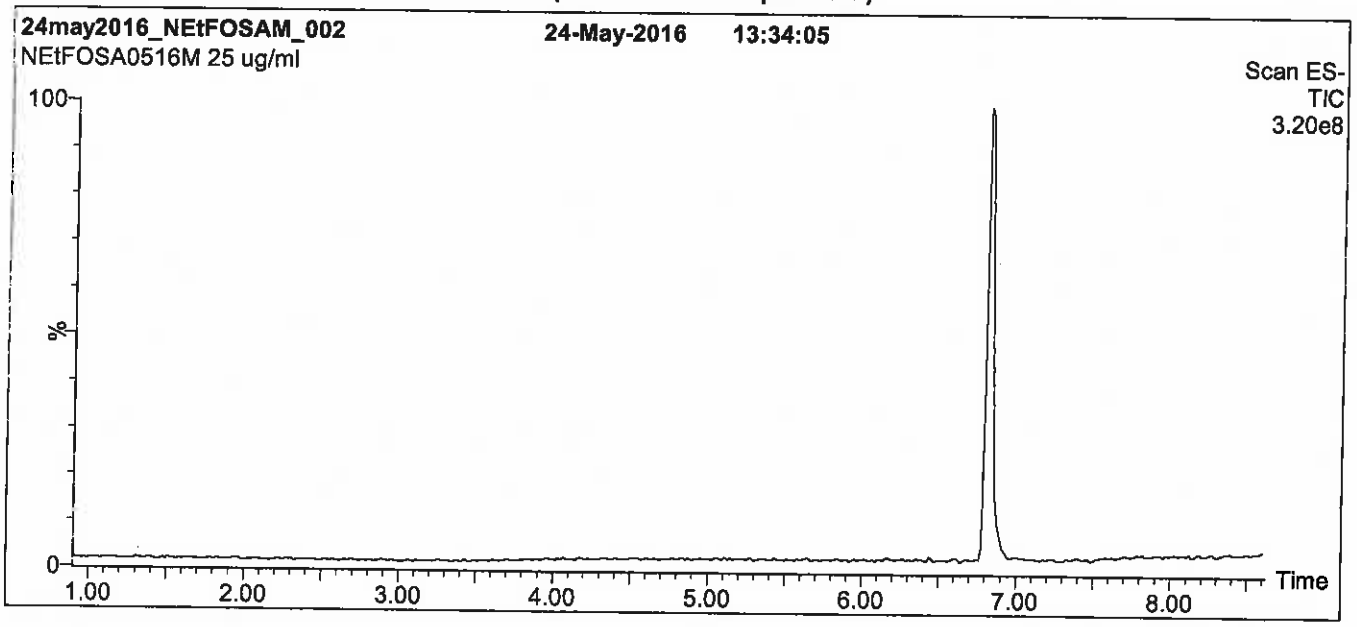

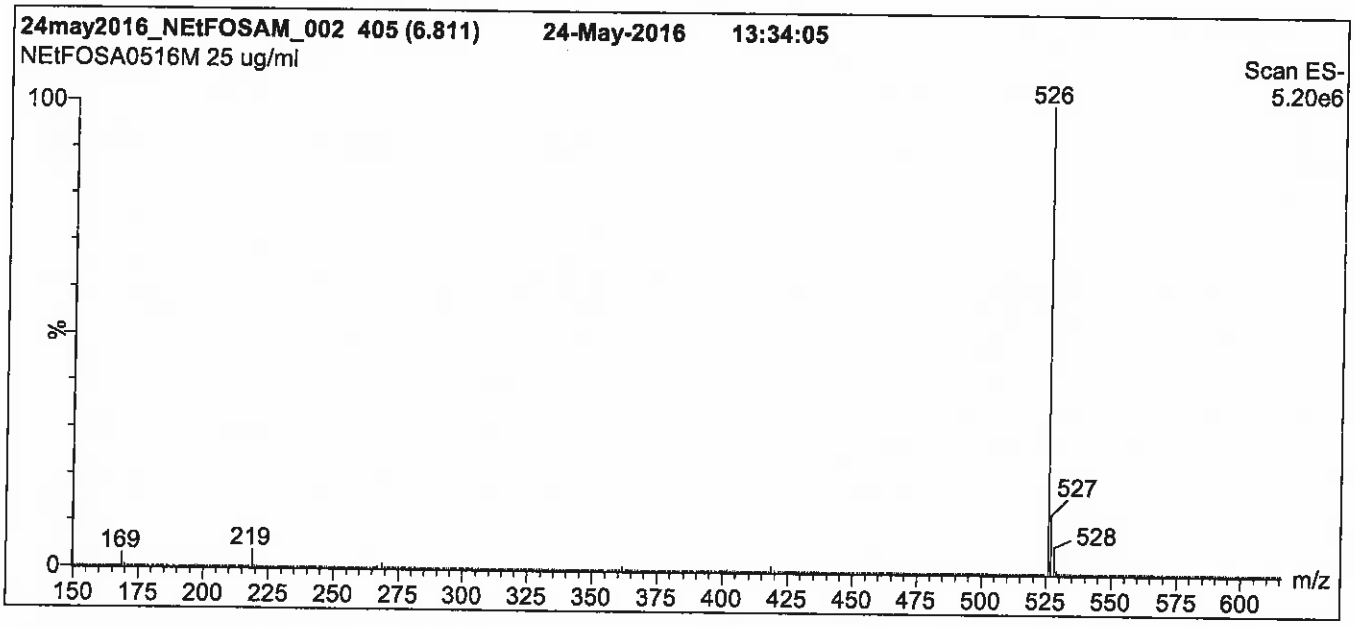

Conditions for Figure 1:

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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: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
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

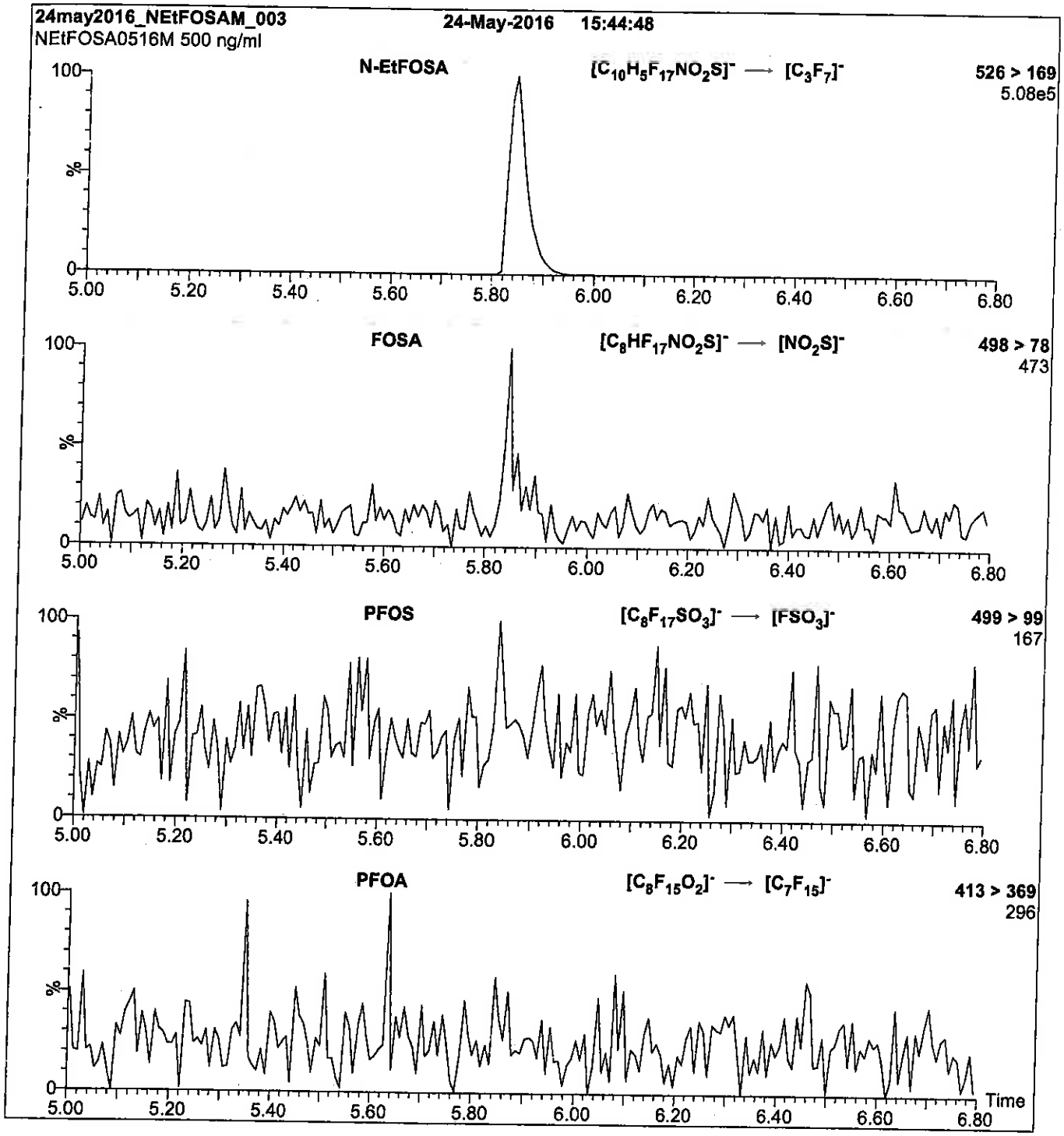
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml N-EtFOSA-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) = 3.54e-3
Collision Energy (eV) = 30

Reagent

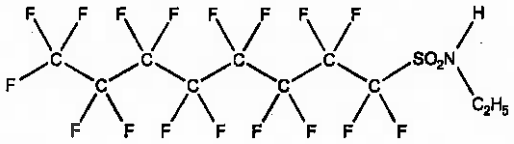
LCN-EtFOSA-M_00004

R: 12/20/16 SK✓

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-EtFOSA-M	**LOT NUMBER:**	NEtFOSA0516M
COMPOUND:	N-ethylperfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	4151-50-2



MOLECULAR FORMULA:	$C_{10}H_5F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/24/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: B.G. Chittim **Date:** 05/27/2016 (mm/dd/yyyy)

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CALA

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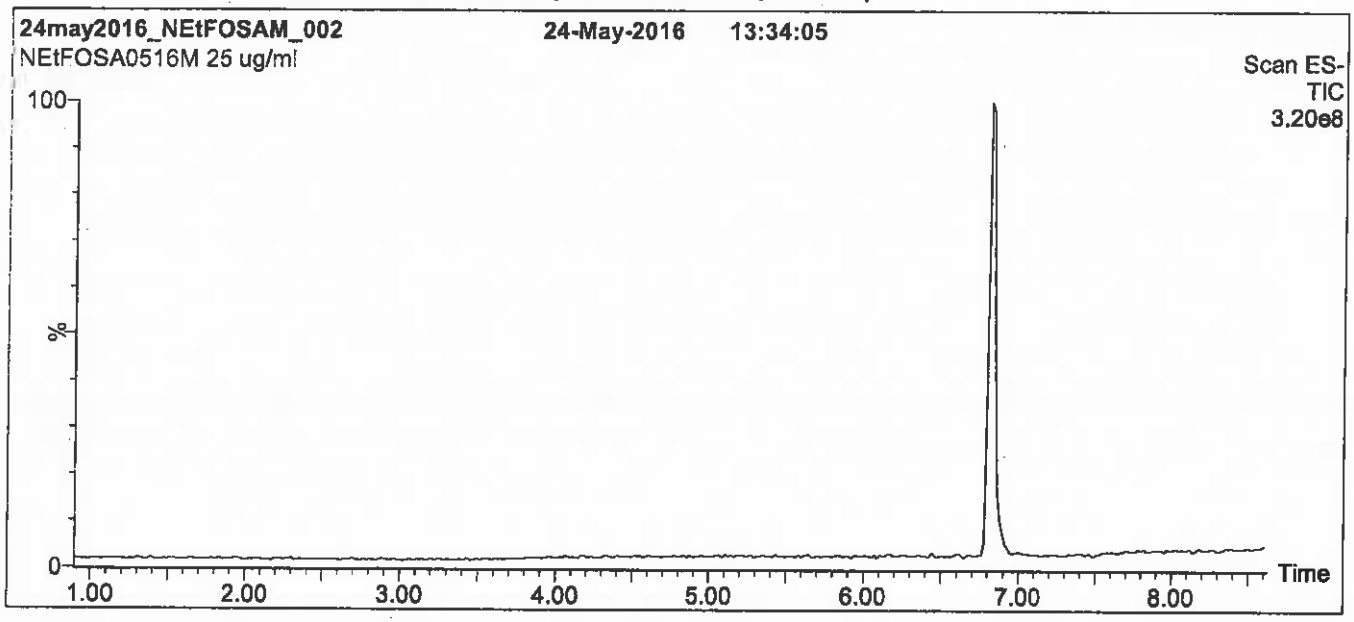
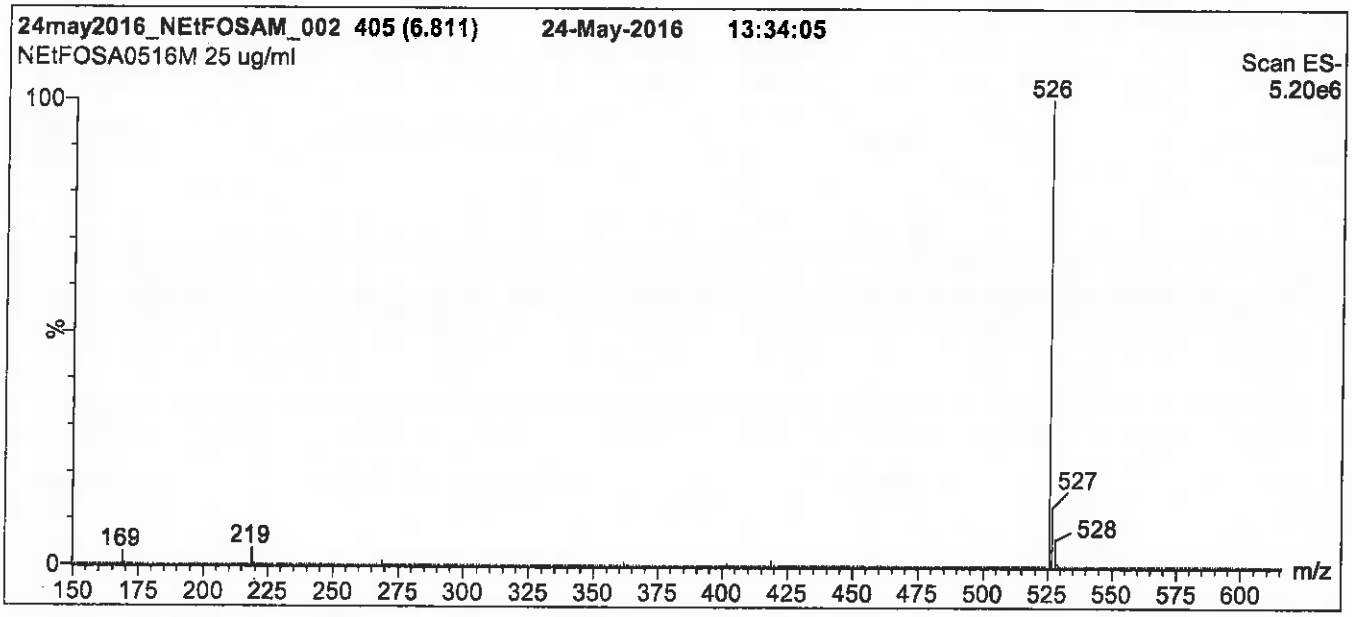
Figure 1: **N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
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

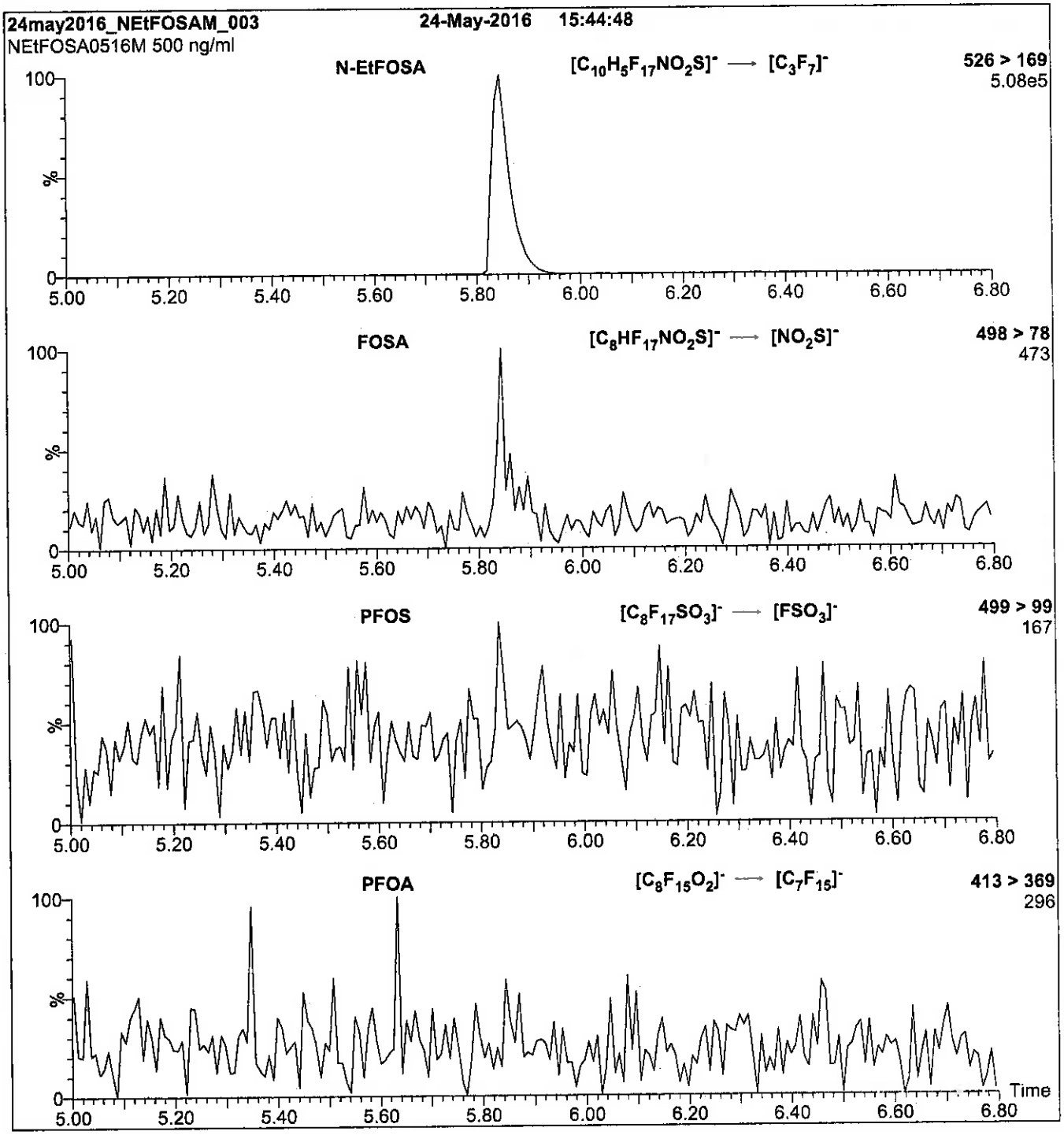
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSA-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) = 3.54e-3
Collision Energy (eV) = 30

Reagent

LCN-EtFOSAA_00002

R: 8/23/16 SBC

715561
ID: LCN-EtFOSAA_00002
Exp: 01/20/21 Prpd: SBC
N-EtFOSAA

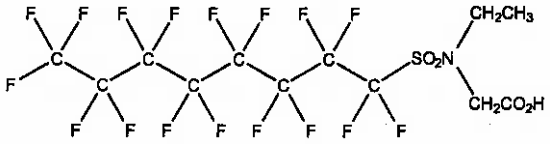
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSAA **LOT NUMBER:** NEtFOSAA0116

COMPOUND: N-ethylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2991-50-6



MOLECULAR FORMULA: $C_{12}H_8F_{17}NO_4S$ **MOLECULAR WEIGHT:** 585.23

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/20/2016

EXPIRY DATE: (mm/dd/yyyy) 01/20/2021

RECOMMENDED STORAGE: Refrigerate ampoule

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 the conversion of the acetic acid moiety to the methyl ester.

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Certified By: B.G. Chittim **Date:** 01/21/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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CALA

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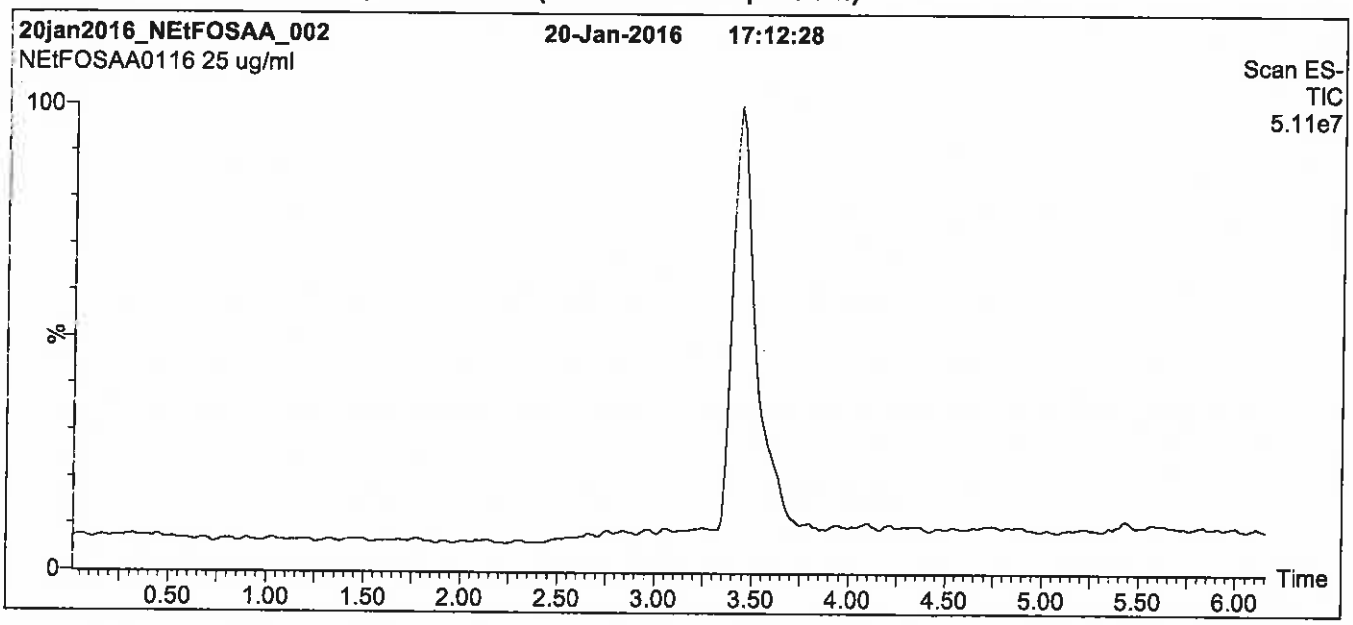

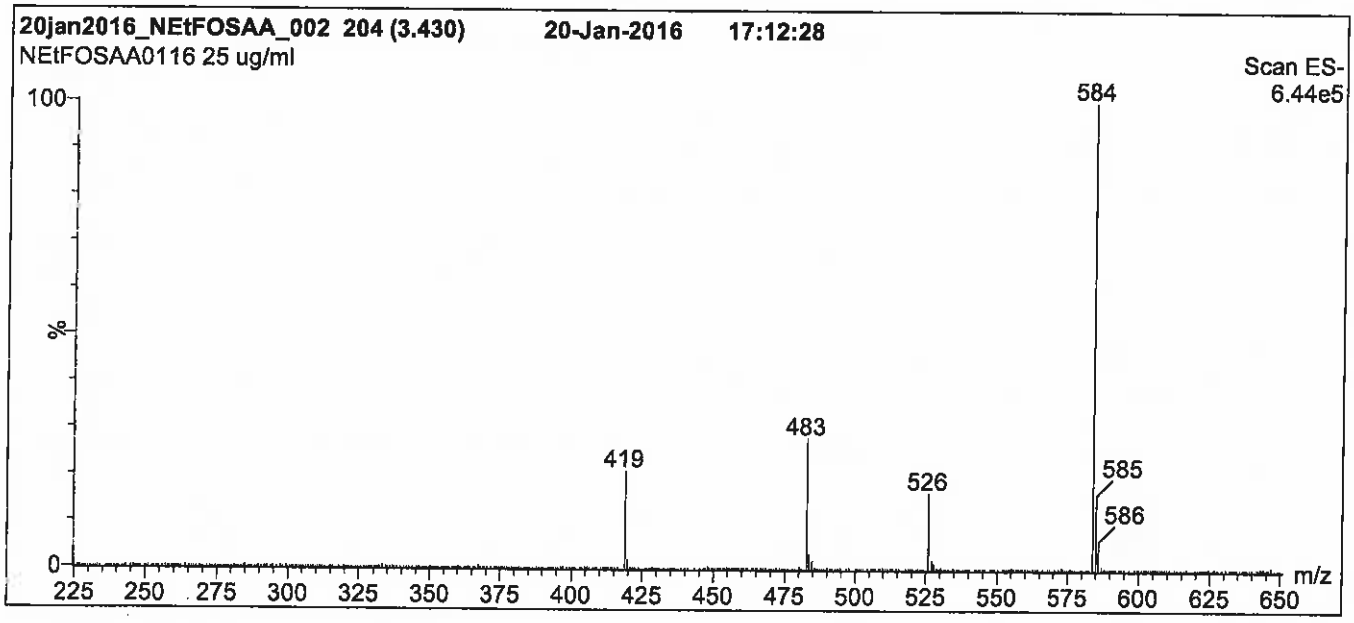

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Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

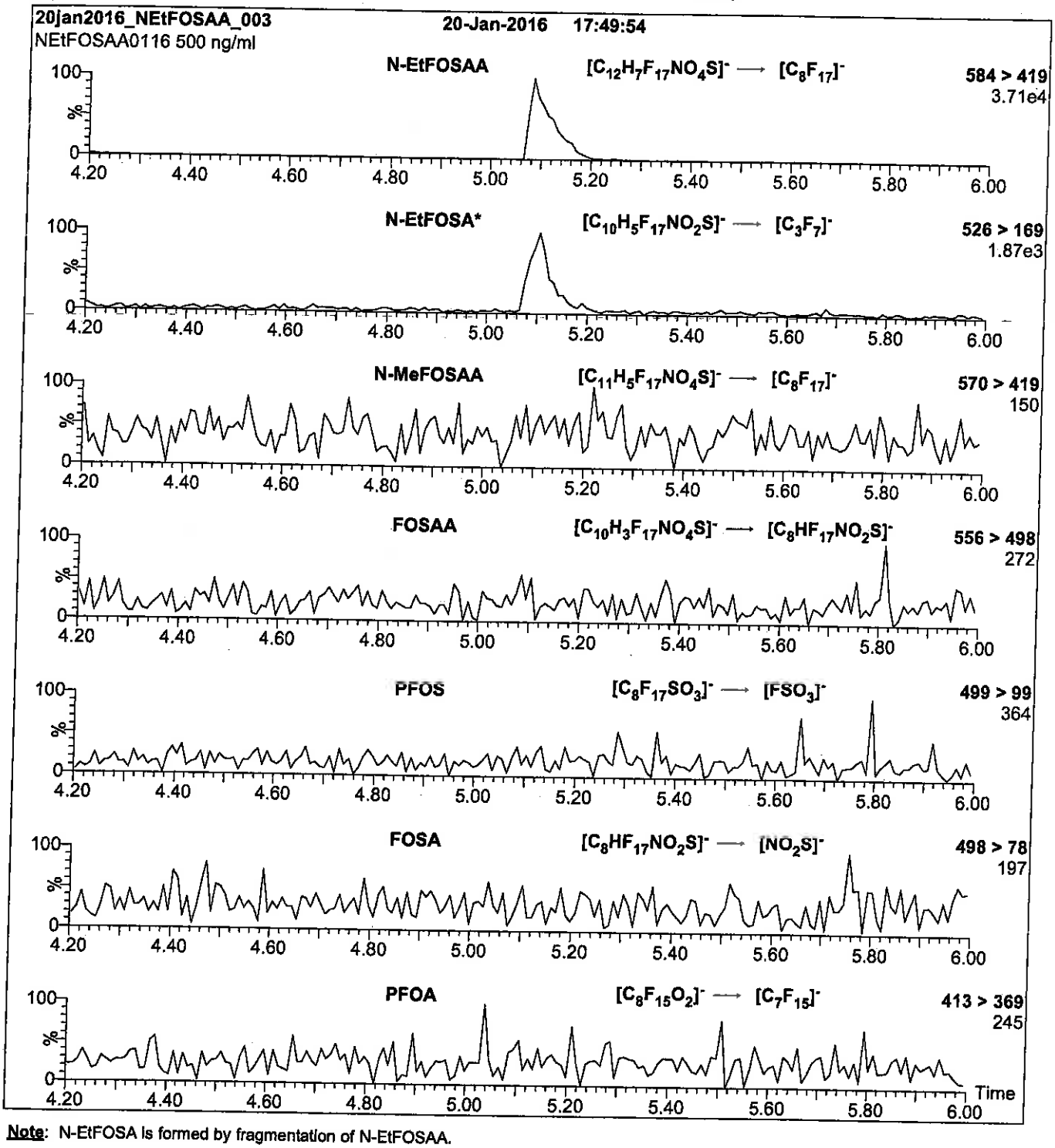
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Note: N-EtFOSA is formed by fragmentation of N-EtFOSAA.

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSAA)

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) = 25

Reagent

LCN-MeFOSA-M_00002

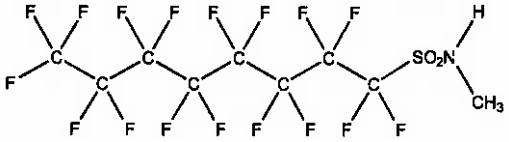
R: 8/23/16 SBC

715564
ID: LCN-MeFOSA-M_00002
Exp: 05/24/21 Prpd: SBC
N-MeFOSA-M

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	N-MeFOSA-M	**LOT NUMBER:**	NMeFOSA0516M
COMPOUND:	N-methylperfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	31506-32-8



MOLECULAR FORMULA:	$C_8H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/24/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: B.G. Chittim **Date:** 05/26/2016 (mm/dd/yyyy)

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

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

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

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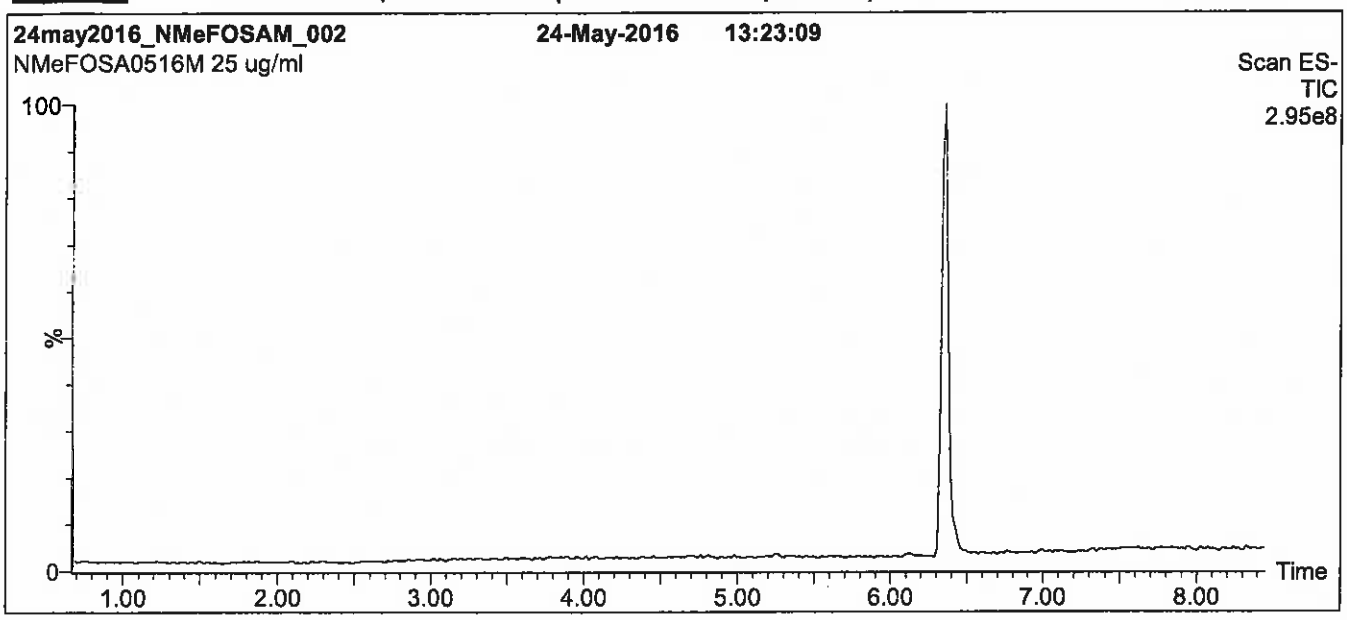
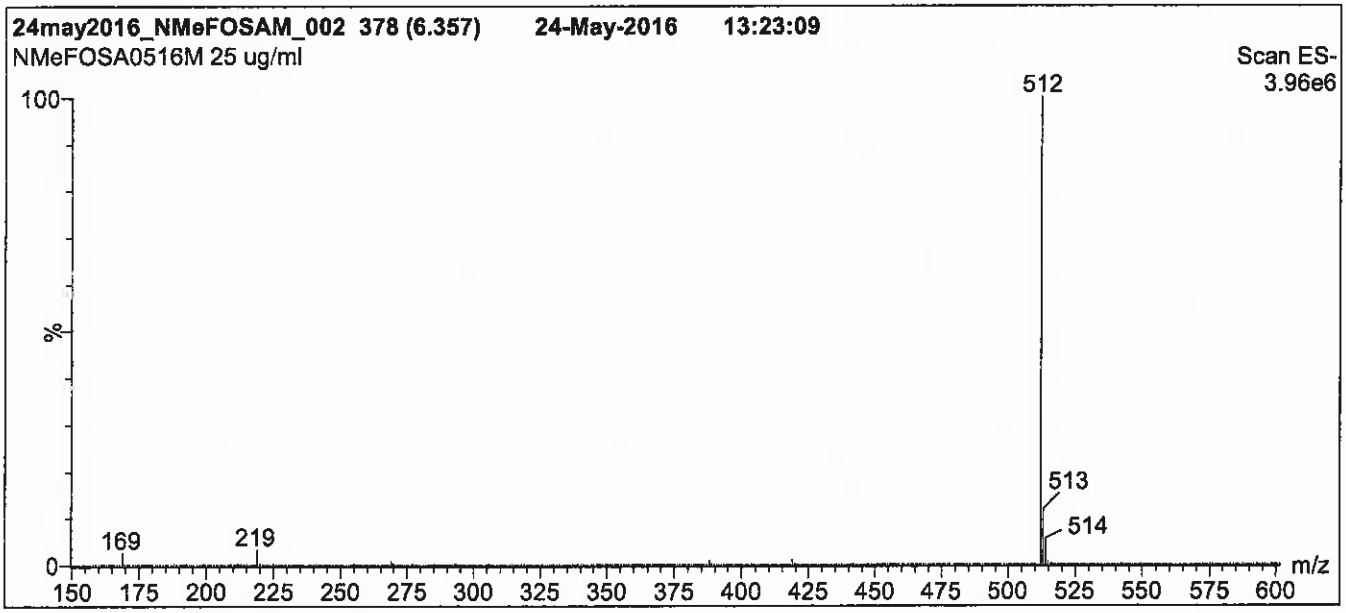
Figure 1: **N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
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

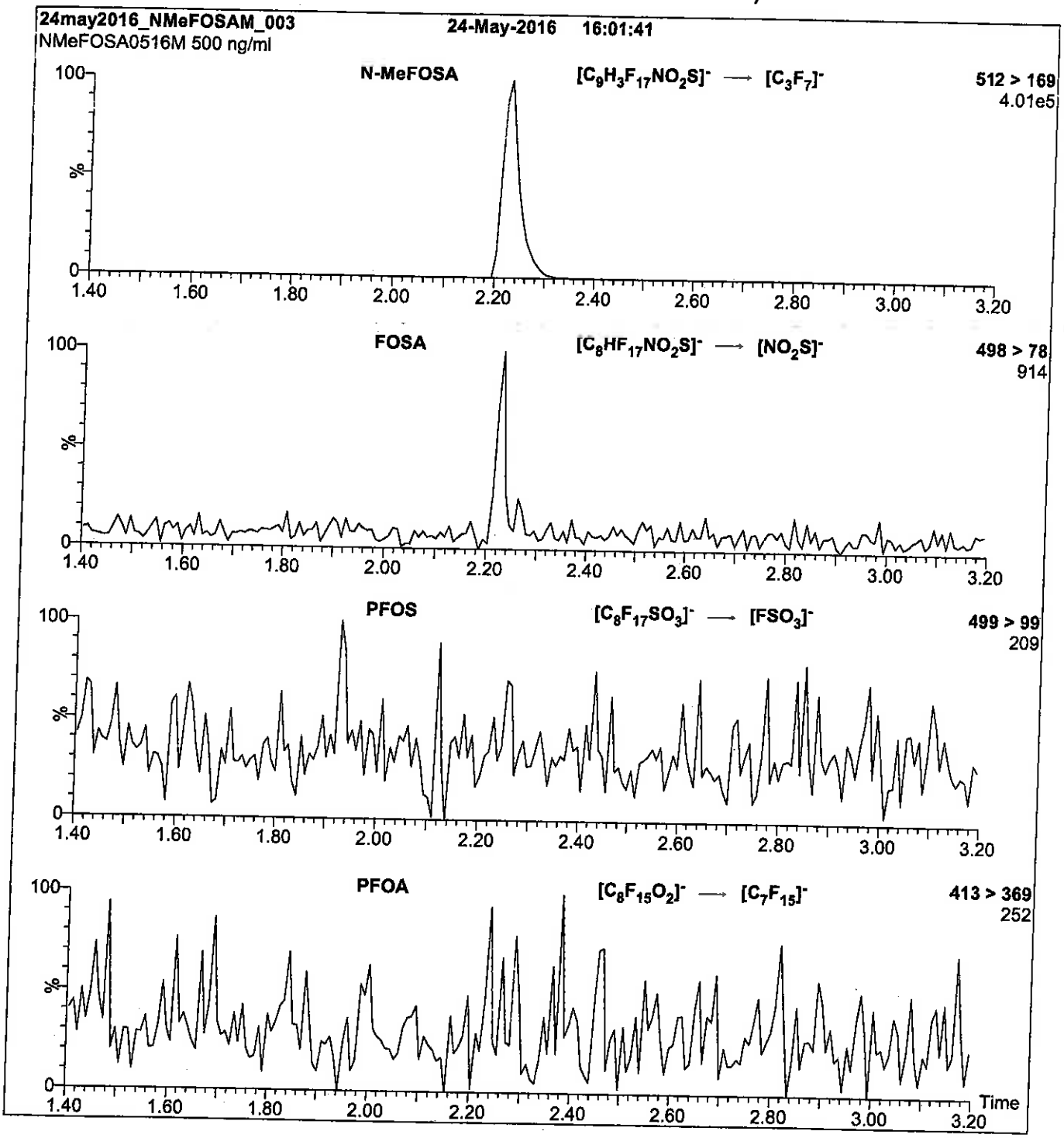
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml N-MeFOSA-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) = 3.54e-3
Collision Energy (eV) = 30

Reagent

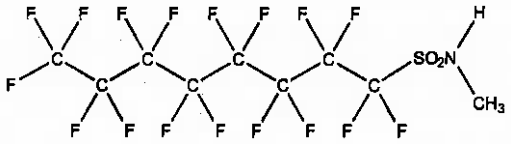
LCN-MeFOSA-M_00003

Pr 12/20/16 SRV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-MeFOSA-M	**LOT NUMBER:**	NMeFOSA0516M
COMPOUND:	N-methylperfluoro-1-octanesulfonamide		
STRUCTURE:		**CAS #:**	31506-32-8



MOLECULAR FORMULA:	$C_9H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/24/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

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Figure 1: LC/MS Data (TIC and Mass Spectrum)
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- See page 2 for further details.

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Certified By: B.G. Chittim **Date:** 05/26/2016 (mm/dd/yyyy)

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CALA

ANAB ACCREDITED

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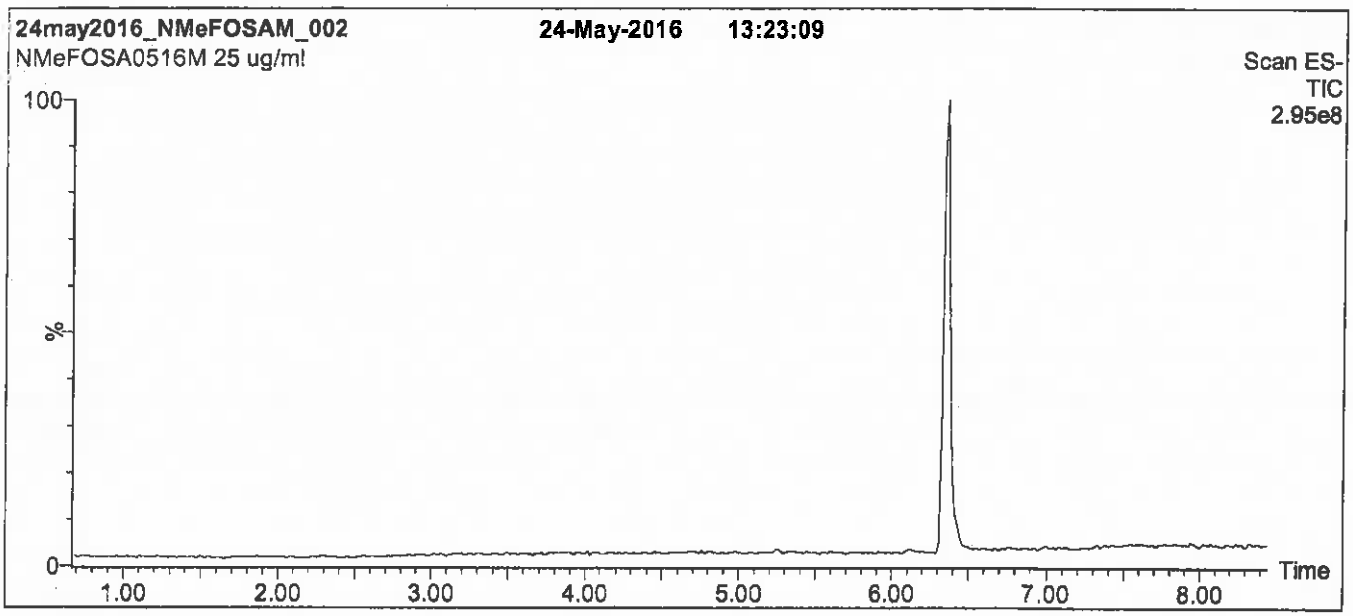
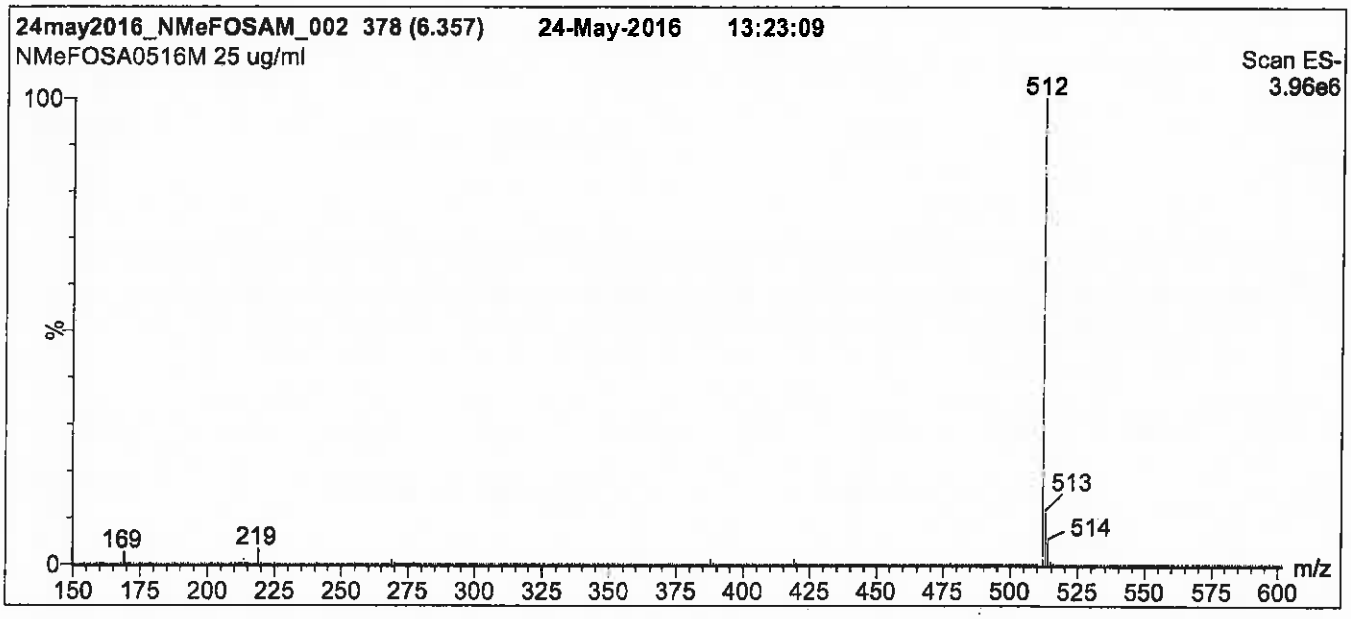




Conditions for Figure 1:

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: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
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

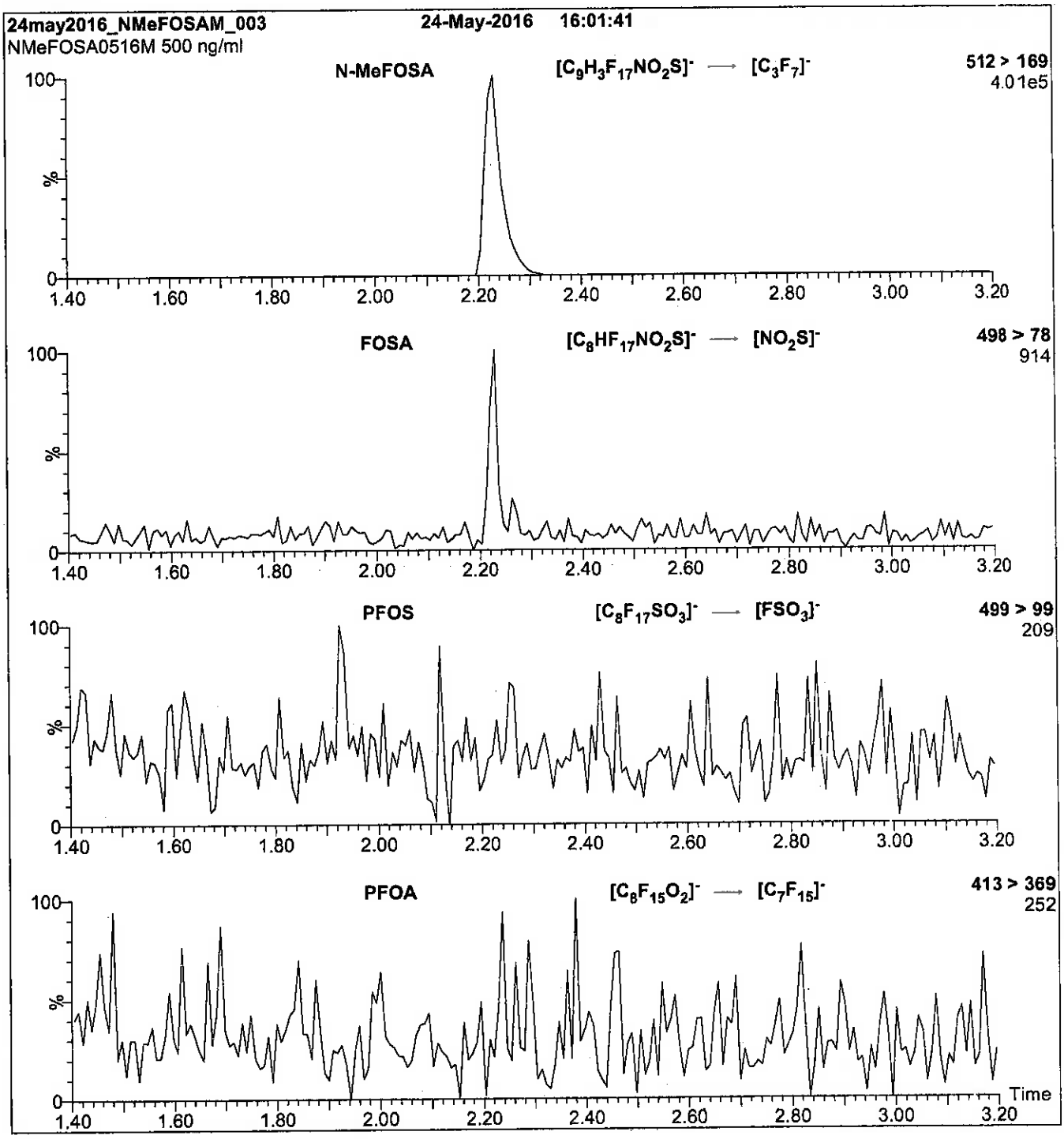
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

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

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



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSA-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) = 3.54e-3
Collision Energy (eV) = 30

Reagent

LCN-MeFOSAA_00003

R: 8/23/16 SBC

715562
ID: LCN-MeFOSAA_00003
Exp: 01/20/21 Prpd: SBC
N-MeFOSAA

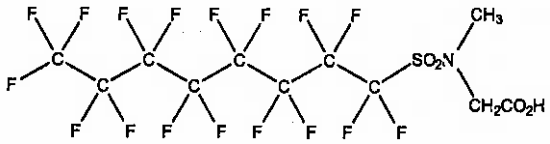
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSAA **LOT NUMBER:** NMeFOSAA0116

COMPOUND: N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2355-31-9



MOLECULAR FORMULA: $C_{11}H_6F_{17}NO_4S$ **MOLECULAR WEIGHT:** 571.21

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol, Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/20/2016

EXPIRY DATE: (mm/dd/yyyy) 01/20/2021

RECOMMENDED STORAGE: Refrigerate ampoule

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 the conversion of the acetic acid moiety to the methyl ester.

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Certified By: B.G. Chittim **Date:** 01/21/2016 (mm/dd/yyyy)

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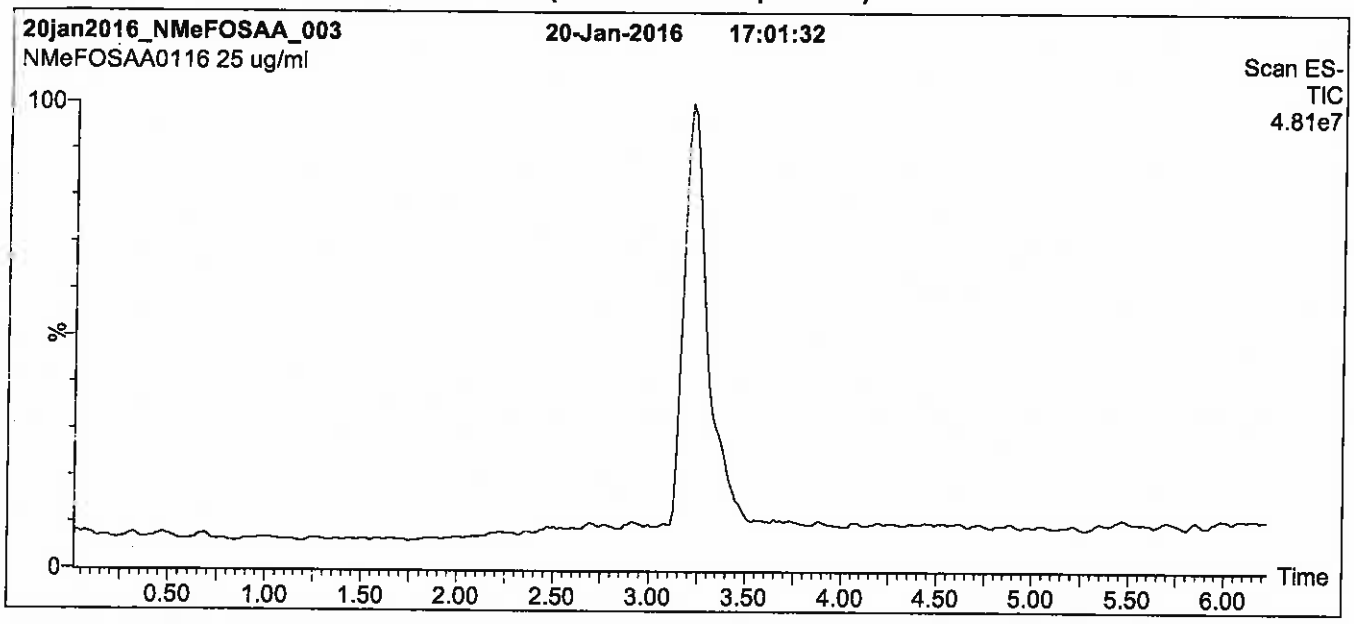

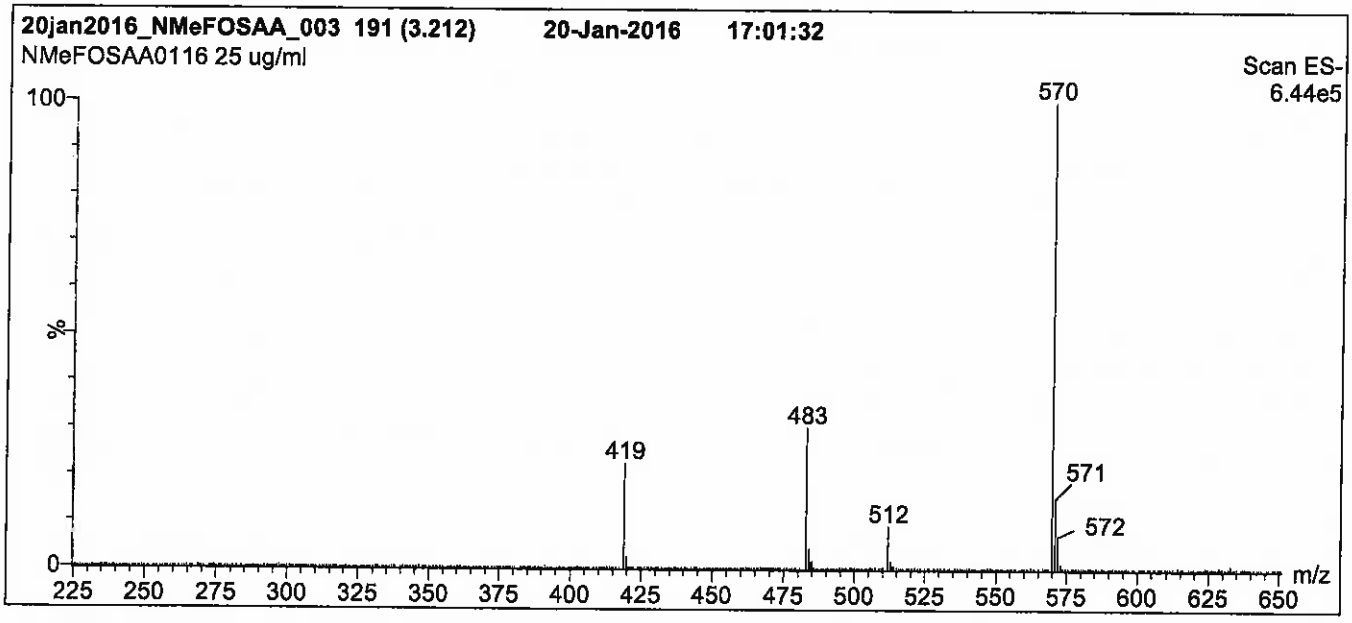

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LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

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

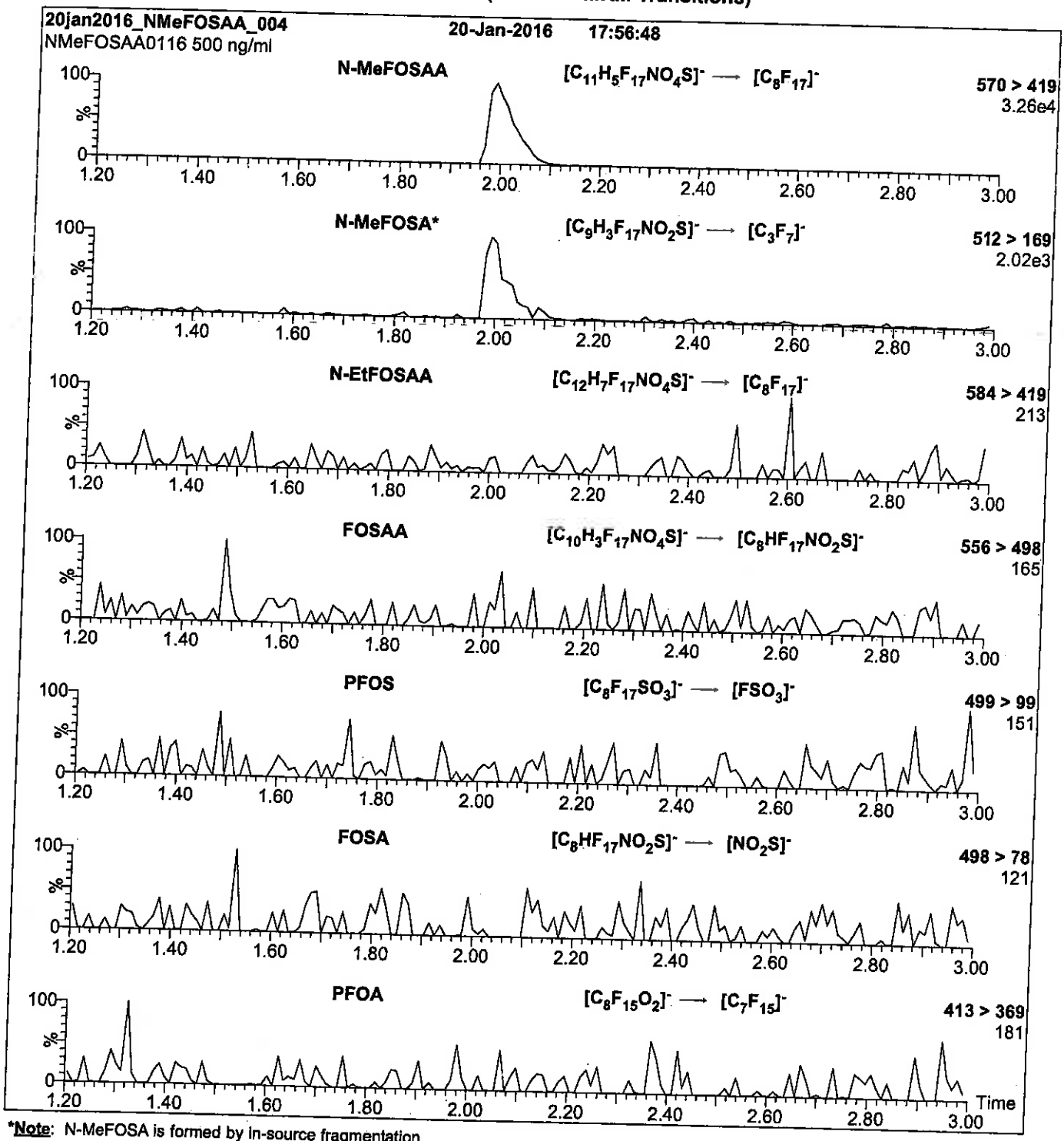
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



***Note**: N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSAA)

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) = 25

Reagent

LCPFACMXB_00007

P: 12/30/15 CW

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PFAC-MXB

Solution/Mixture of Native Perfluoroalkylcarboxylic Acids and Native Perfluoroalkylsulfonates

PRODUCT CODE:	PFAC-MXB
LOT NUMBER:	PFACMXB1115
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	11/04/2015
LAST TESTED: (mm/dd/yyyy)	11/06/2015
EXPIRY DATE: (mm/dd/yyyy)	11/06/2020
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 acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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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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,...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 of our products.

TRACEABILITY:

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CALA Testing

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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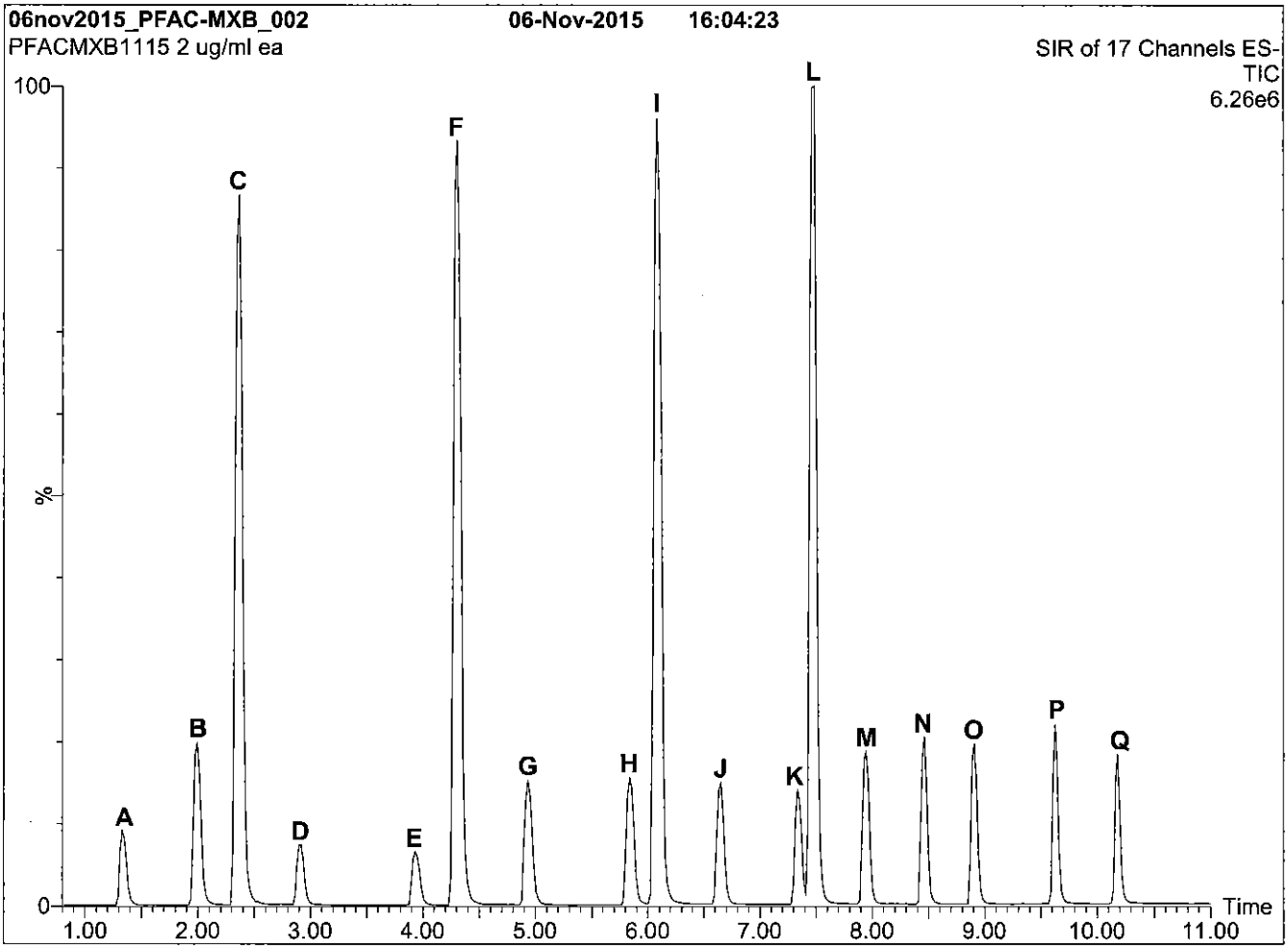
Table A: **PFAC-MXB; Components and Concentrations (ng/ml, ± 5% in Methanol / Water (<1%))**

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	D
Perfluoro-n-heptanoic acid	PFHpA	2000	E
Perfluoro-n-octanoic acid	PFOA	2000	G
Perfluoro-n-nonanoic acid	PFNA	2000	H
Perfluoro-n-decanoic acid	PFDA	2000	J
Perfluoro-n-undecanoic acid	PFUdA	2000	K
Perfluoro-n-dodecanoic acid	PFDoA	2000	M
Perfluoro-n-tridecanoic acid	PFTrDA	2000	N
Perfluoro-n-tetradecanoic acid	PFTeDA	2000	O
Perfluoro-n-hexadecanoic acid	PFHxDA	2000	P
Perfluoro-n-octadecanoic acid	PFODA	2000	Q

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

Certified By: B.G. Chittim **Date:** 11/11/2015 (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: 55% H_2O / 45% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 10 min and hold for 1 min
before returning to initial conditions in 0.5 min.

Time: 12 min

Flow: 300 µl/min

MS Parameters

Experiment: SIR of 17 Channels

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = variable (10-70)
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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

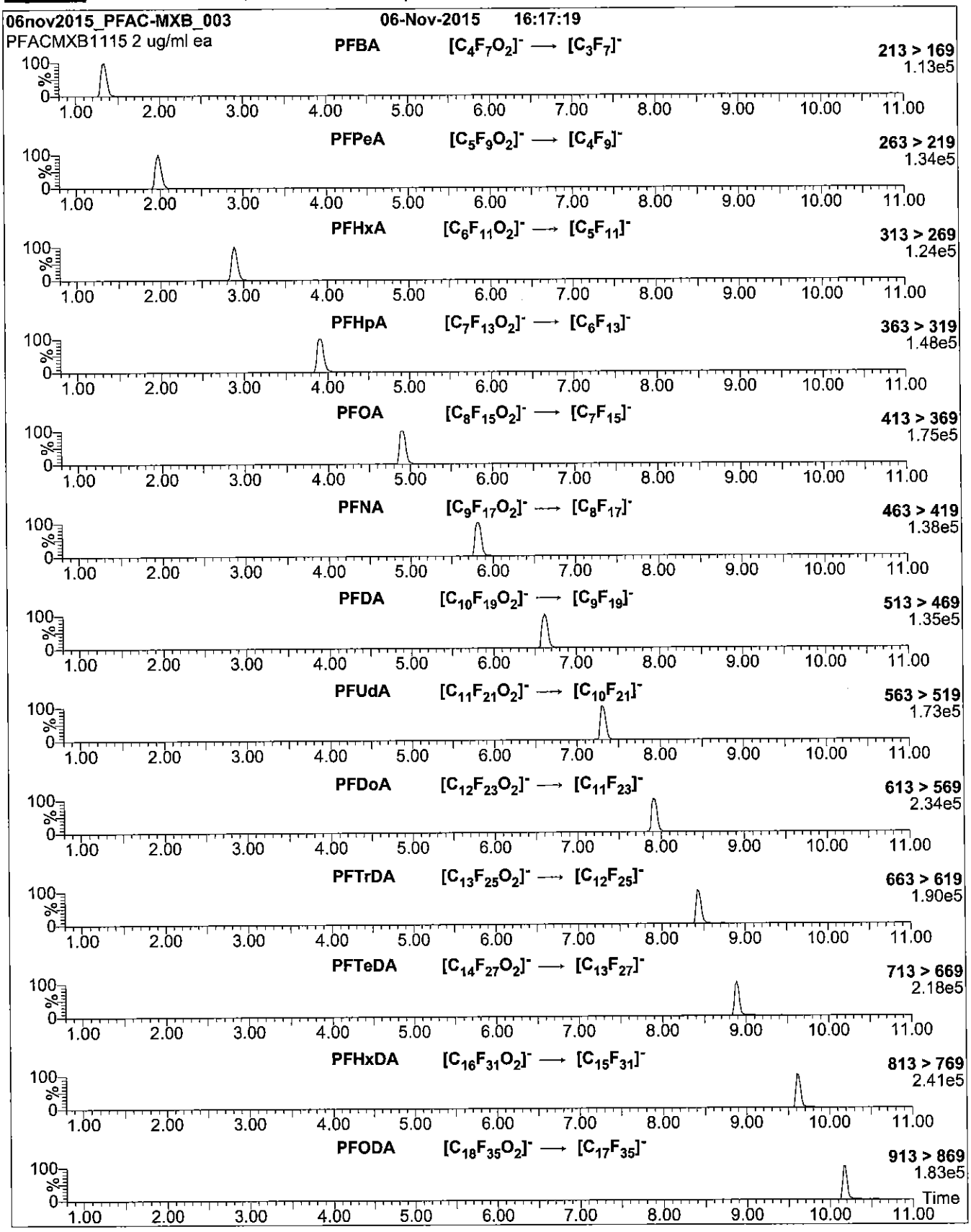
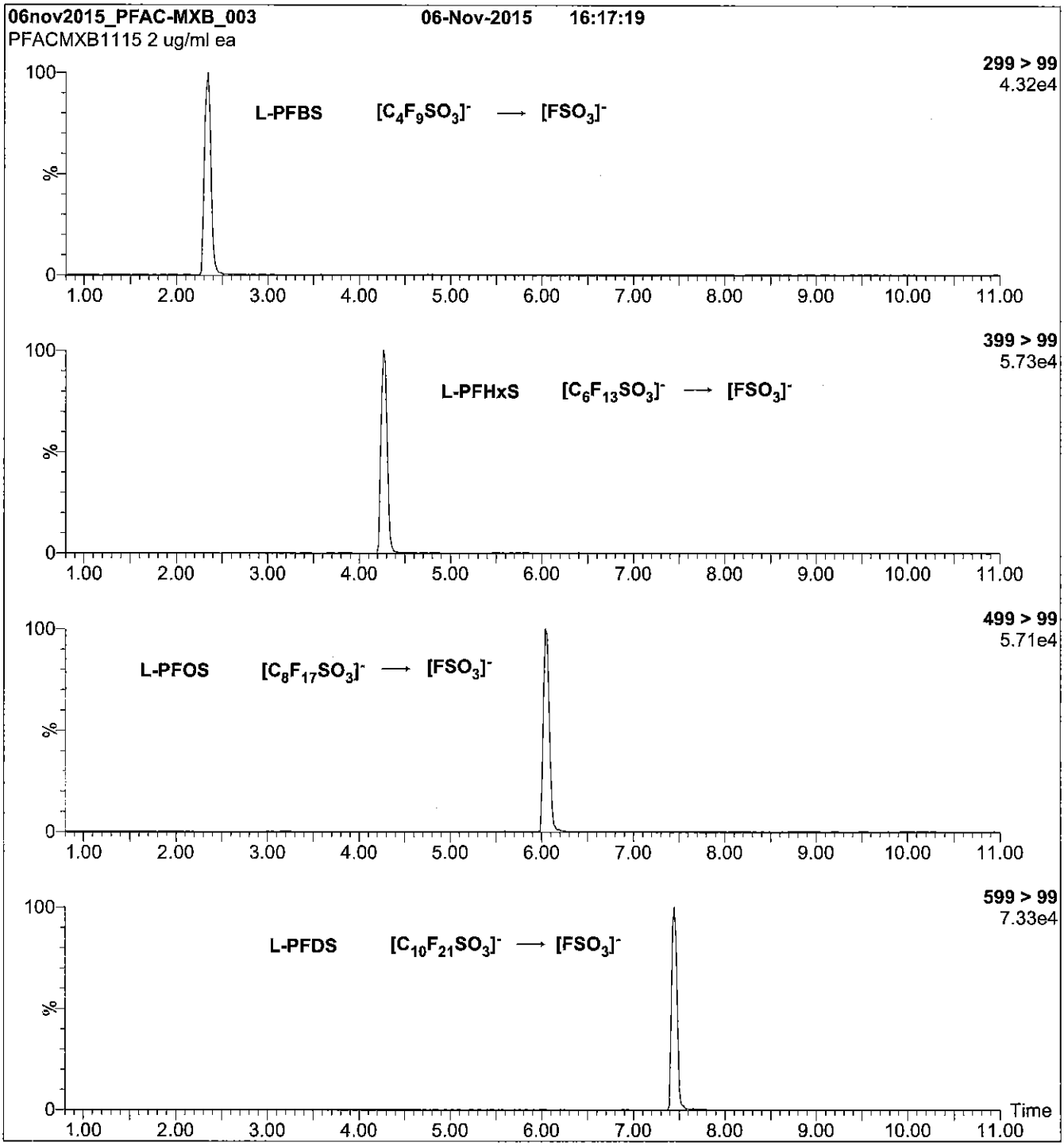


Figure 3: **PFAC-MXB; LC/MS/MS Data (Selected MRM Transitions)**



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) = 3.24e-3
Collision Energy (eV) = 8-50 (variable)

Reagent

LCPFBA_00005

Scanned 10/16/14

R: SBC 9/13/16

730531
ID: LCPFBA_00005
Exp: 05/27/21 Prpd: SBC
PF-n-butanoic acid

730532
ID: LCPFBA_00006
Exp: 05/27/21 Prpd: SBC
PF-n-butanoic acid

WELLINGTON LABORATORIES

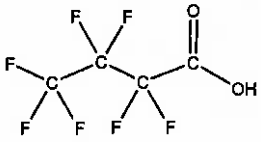
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0516

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/27/2016
EXPIRY DATE: (mm/dd/yyyy) 05/27/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 05/31/2016 (mm/dd/yyyy)

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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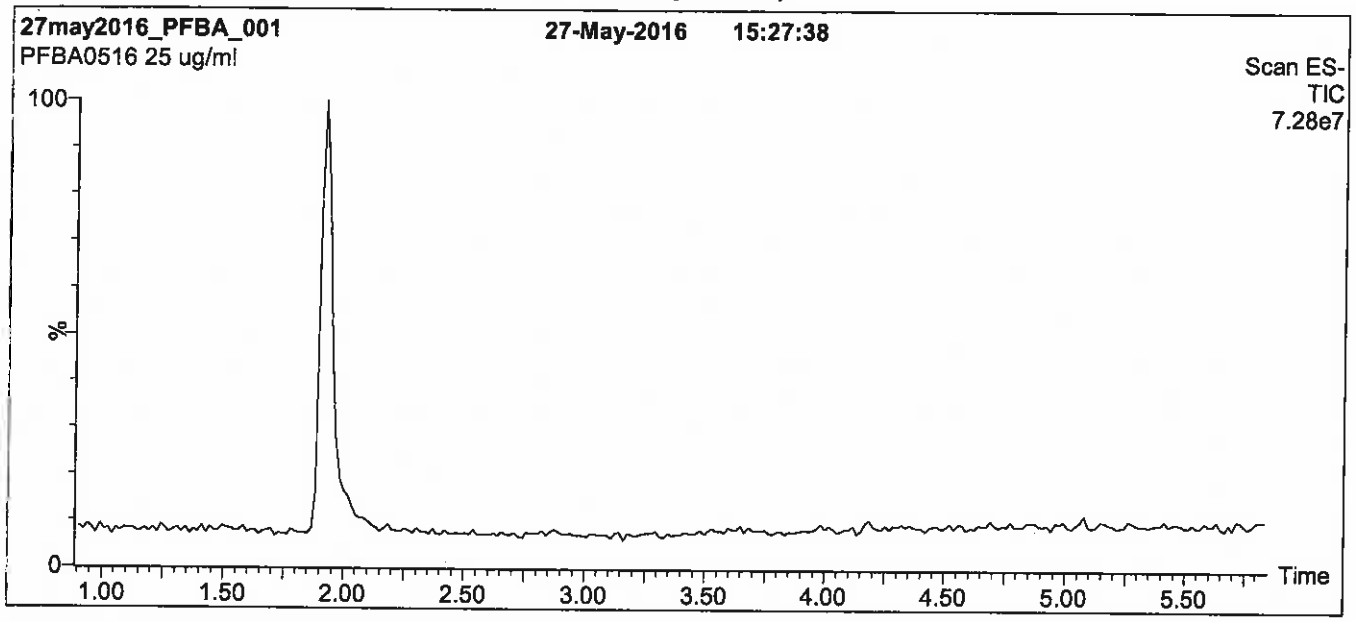
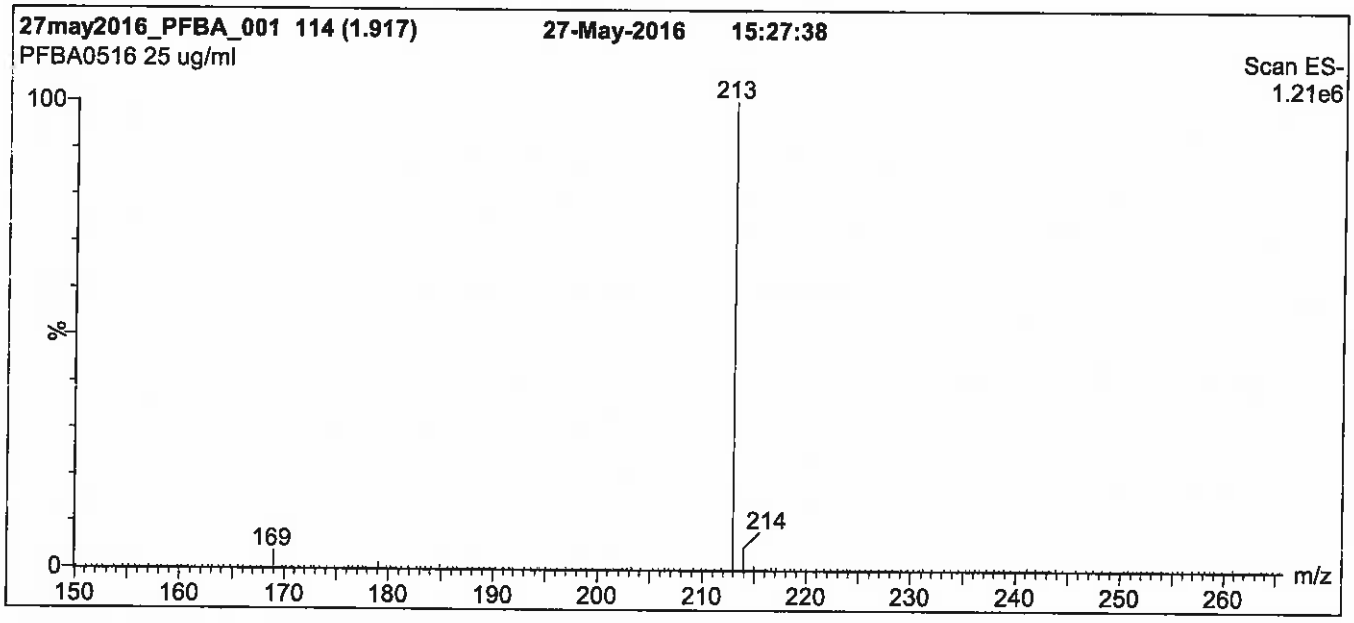
Figure 1: **PFBA; LC/MS Data (TIC and Mass Spectrum)**





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 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

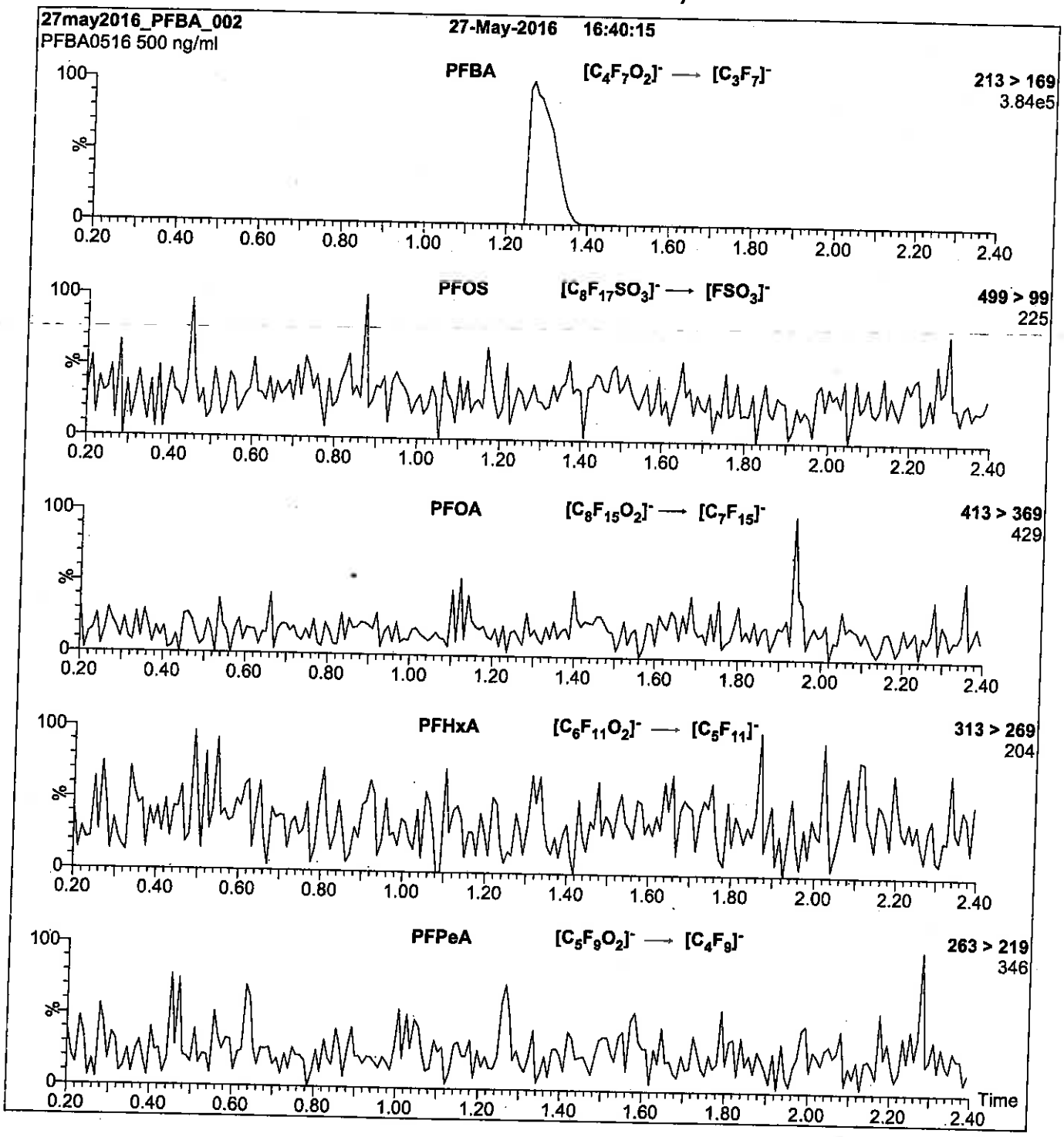
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
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 buffer)

Flow: 300 µl/min

MS Parameters

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

Reagent

LCPFBA_00006

Scanned 10/16/14

R: SBC 9/13/16

730531
ID: LCPFBA_00005
Exp: 05/27/21 Prpd: SBC
PF-n-butanoic acid

730532
ID: LCPFBA_00006
Exp: 05/27/21 Prpd: SBC
PF-n-butanoic acid

WELLINGTON LABORATORIES

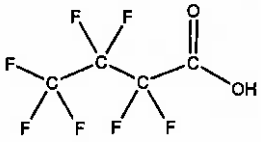
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0516

STRUCTURE:

CAS #: 375-22-4



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CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/27/2016
EXPIRY DATE: (mm/dd/yyyy) 05/27/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

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

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- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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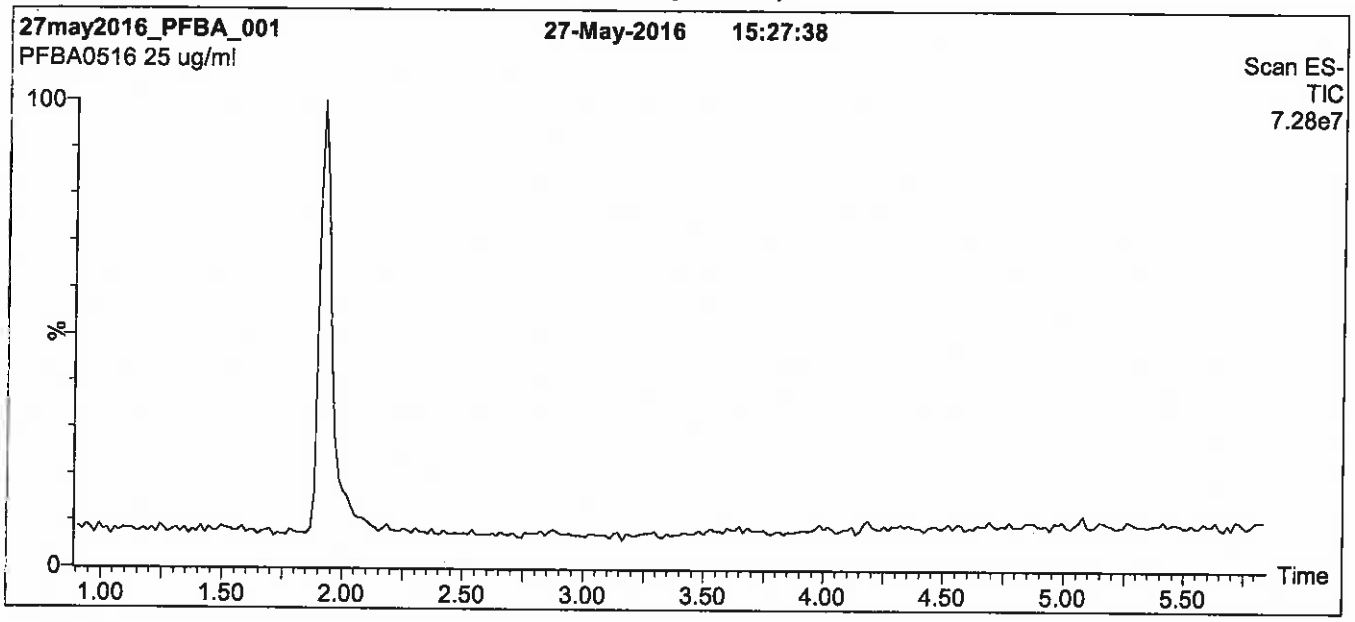
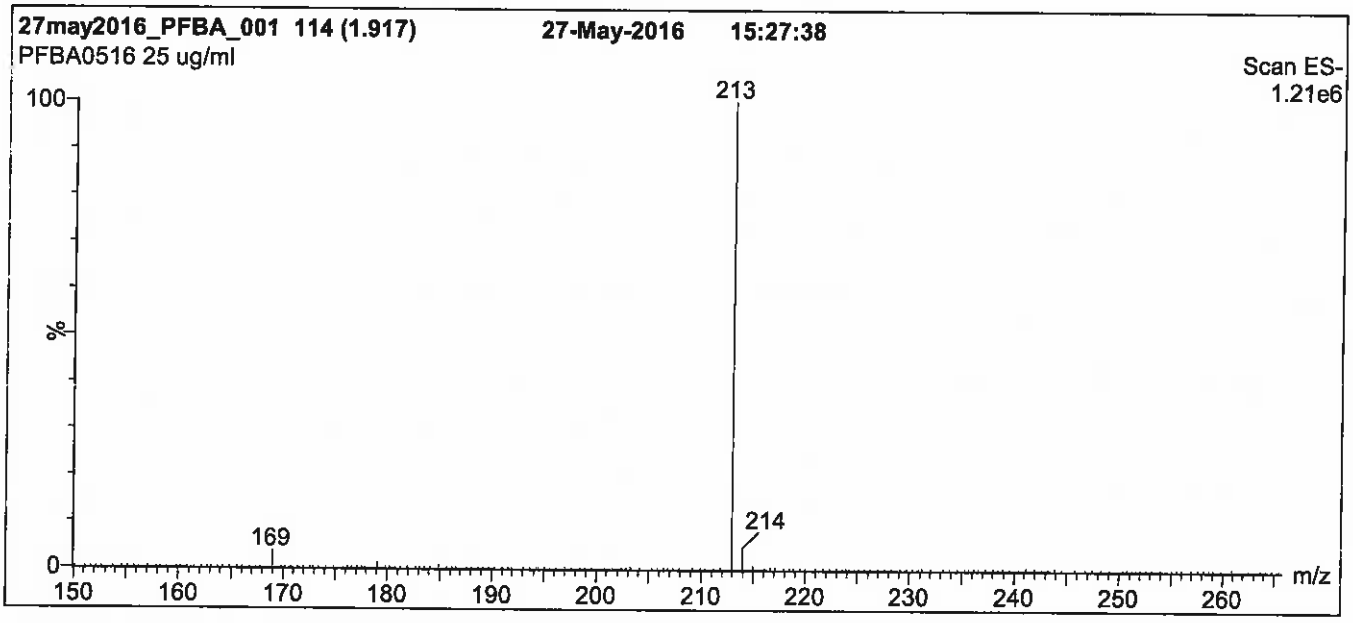
Figure 1: **PFBA; LC/MS Data (TIC and Mass Spectrum)**





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 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

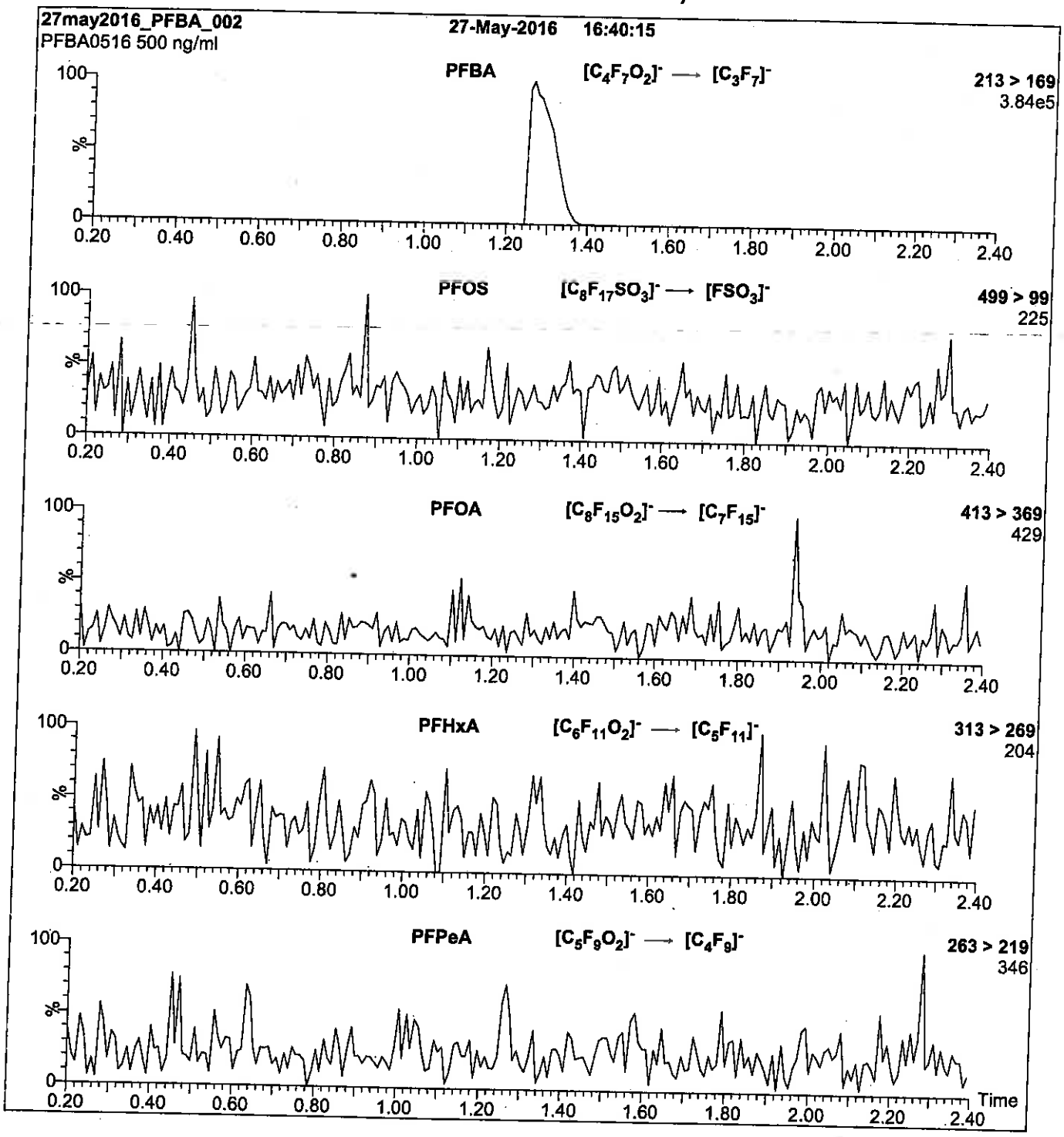
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
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 buffer)
Flow:	300 µl/min

MS Parameters

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

Reagent

LCPFBS_00005

R: 9/9/16 SBC

728306
ID: LCM2-8:2FTS_00003
Exp: 01/08/21 Prpd: SBC
M2-8:2FTS

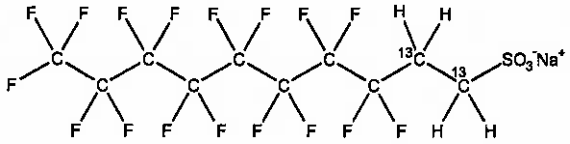
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0116

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	01/08/2016		($1,2\text{-}^{13}C_2$)
EXPIRY DATE: (mm/dd/yyyy)	01/08/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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 native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/18/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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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 of our products.

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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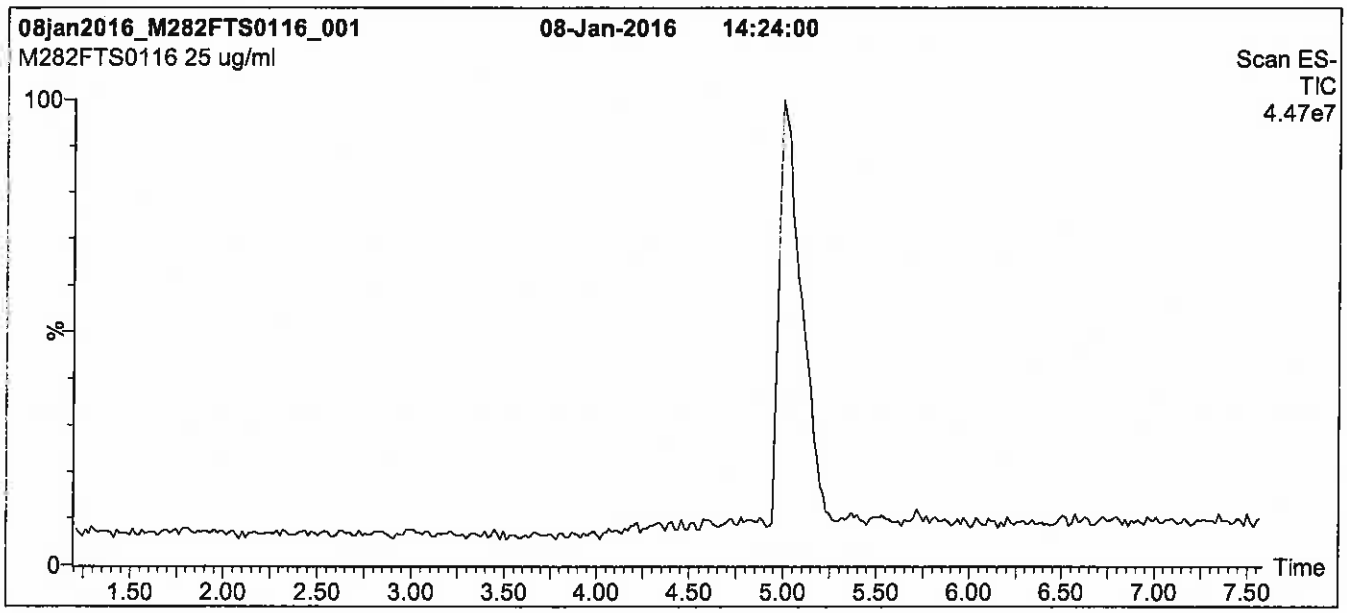
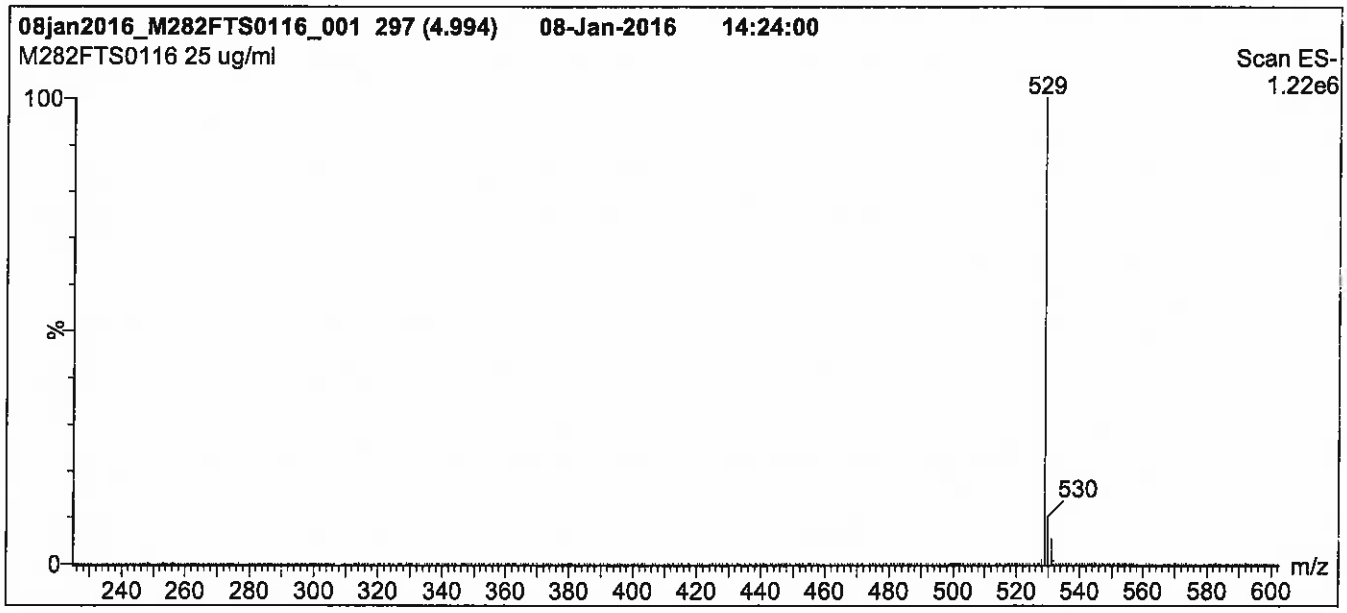
Figure 1: **M2-8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





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

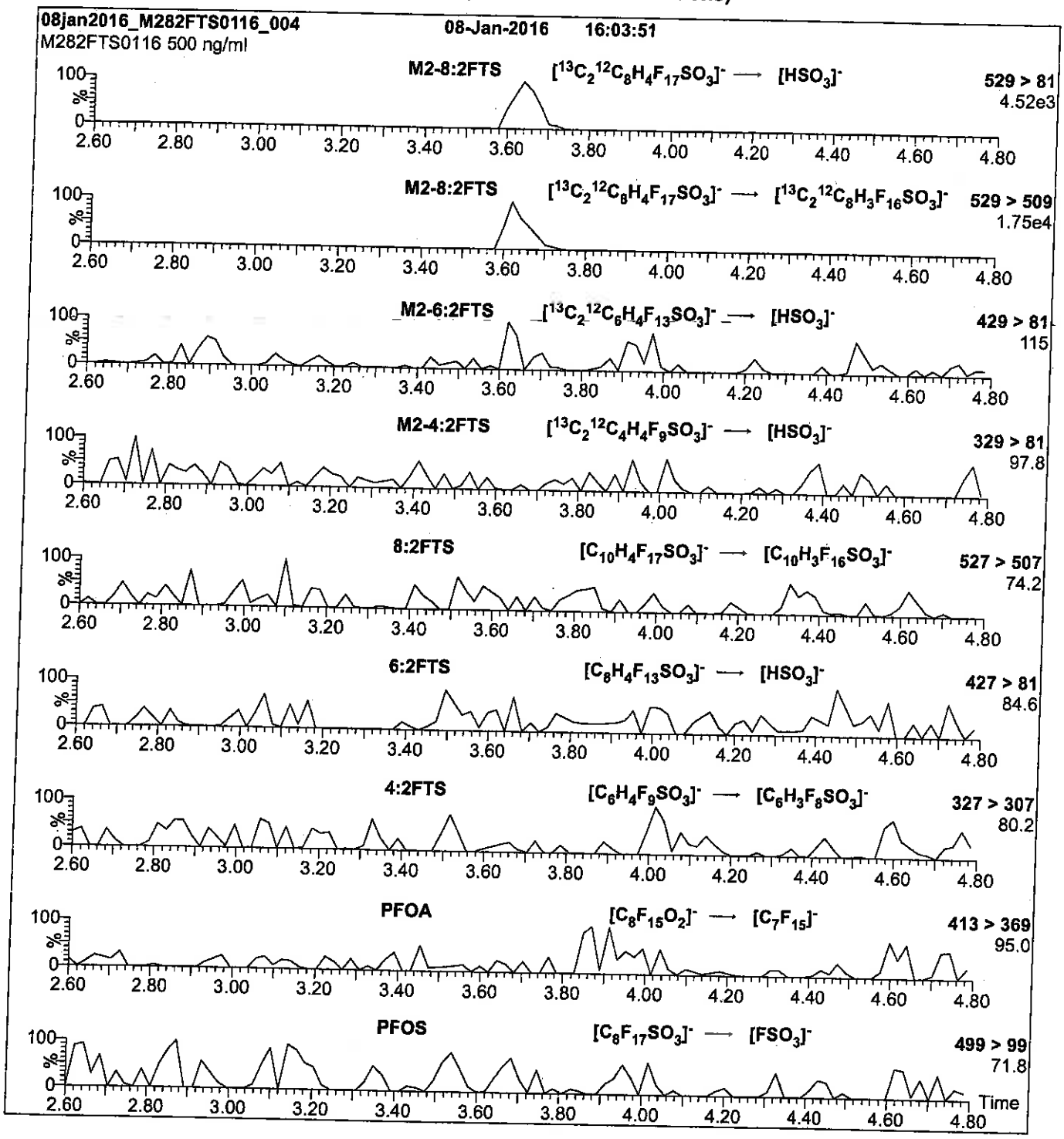
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2-8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-8:2FTS)

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

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 30

R: SBC 9/13/16

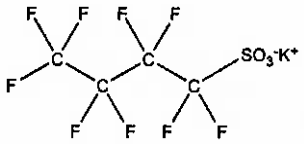
730511
ID: LCPFBS_00005
Exp: 03/15/21 Prpd: SBC
PF-1-butanesulfonate K sa

730512
ID: LCPFBS_00006
Exp: 03/15/21 Prpd: SBC
PF-1-butanesulfonate K sa

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFBS	**LOT NUMBER:**	LPFBS0316
COMPOUND:	Potassium perfluoro-1-butanesulfonate		
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)	03/15/2016		
EXPIRY DATE: (mm/dd/yyyy)	03/15/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/21/2016 (mm/dd/yyyy)

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

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EXPIRY DATE / PERIOD OF VALIDITY:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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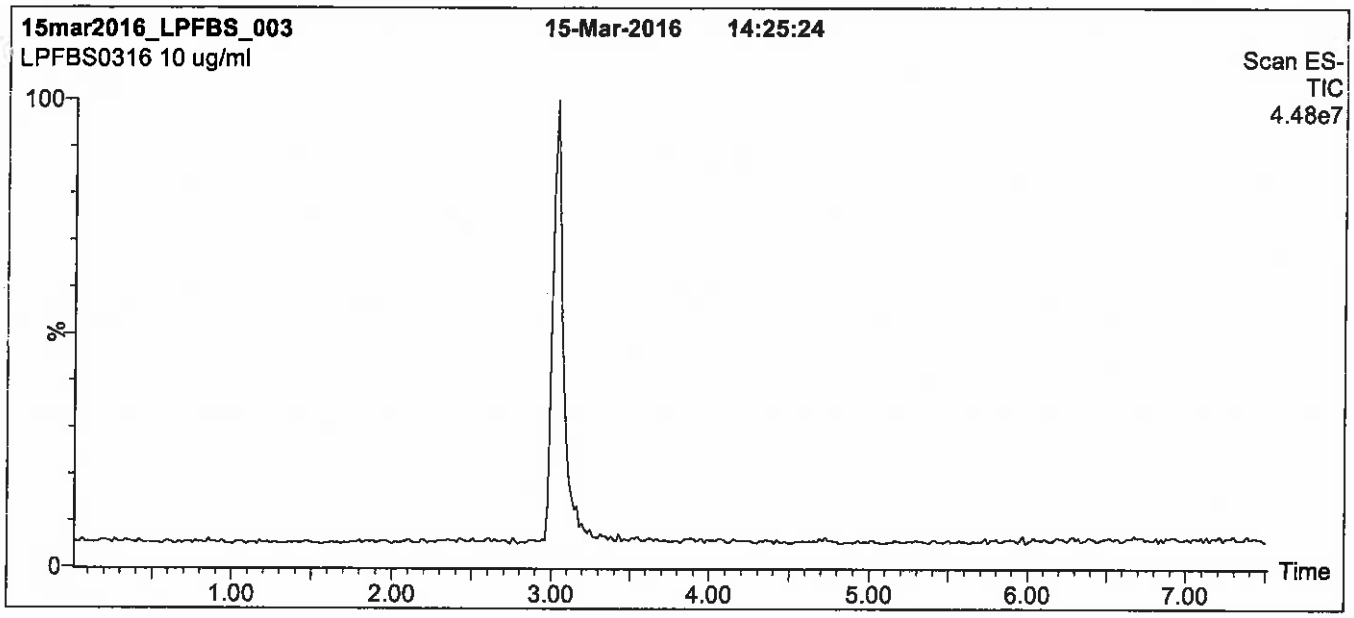
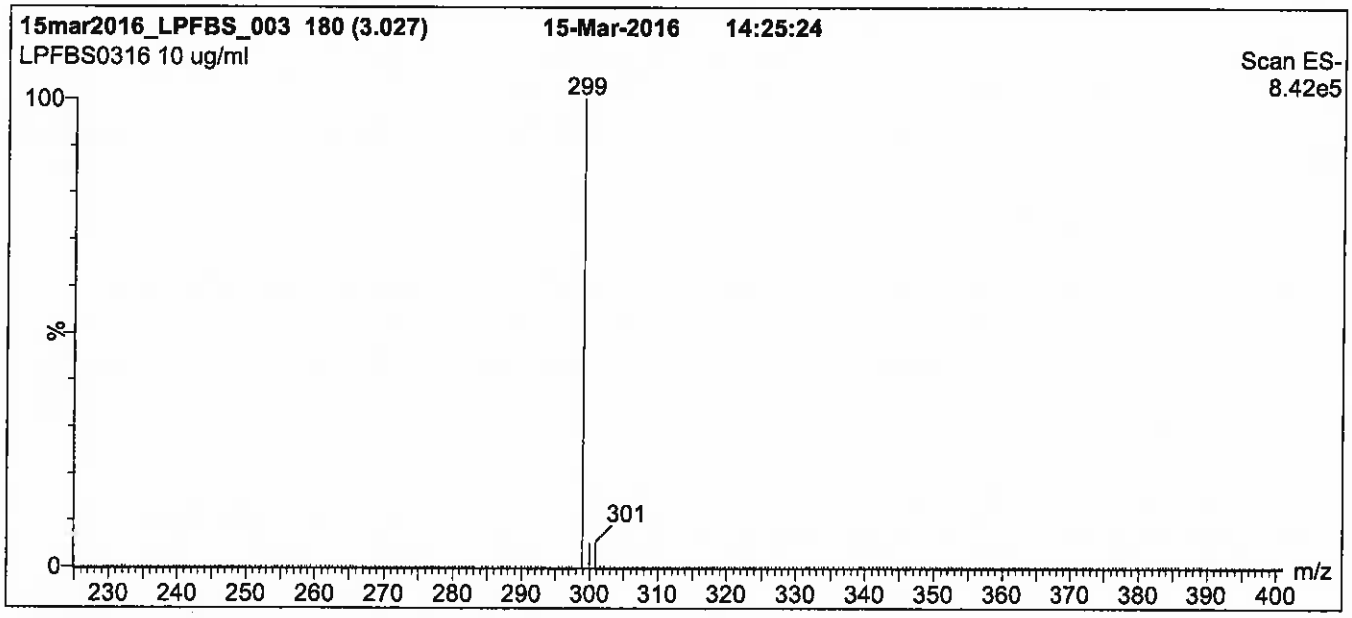
Figure 1: **L-PFBS; LC/MS Data (TIC and Mass Spectrum)**





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

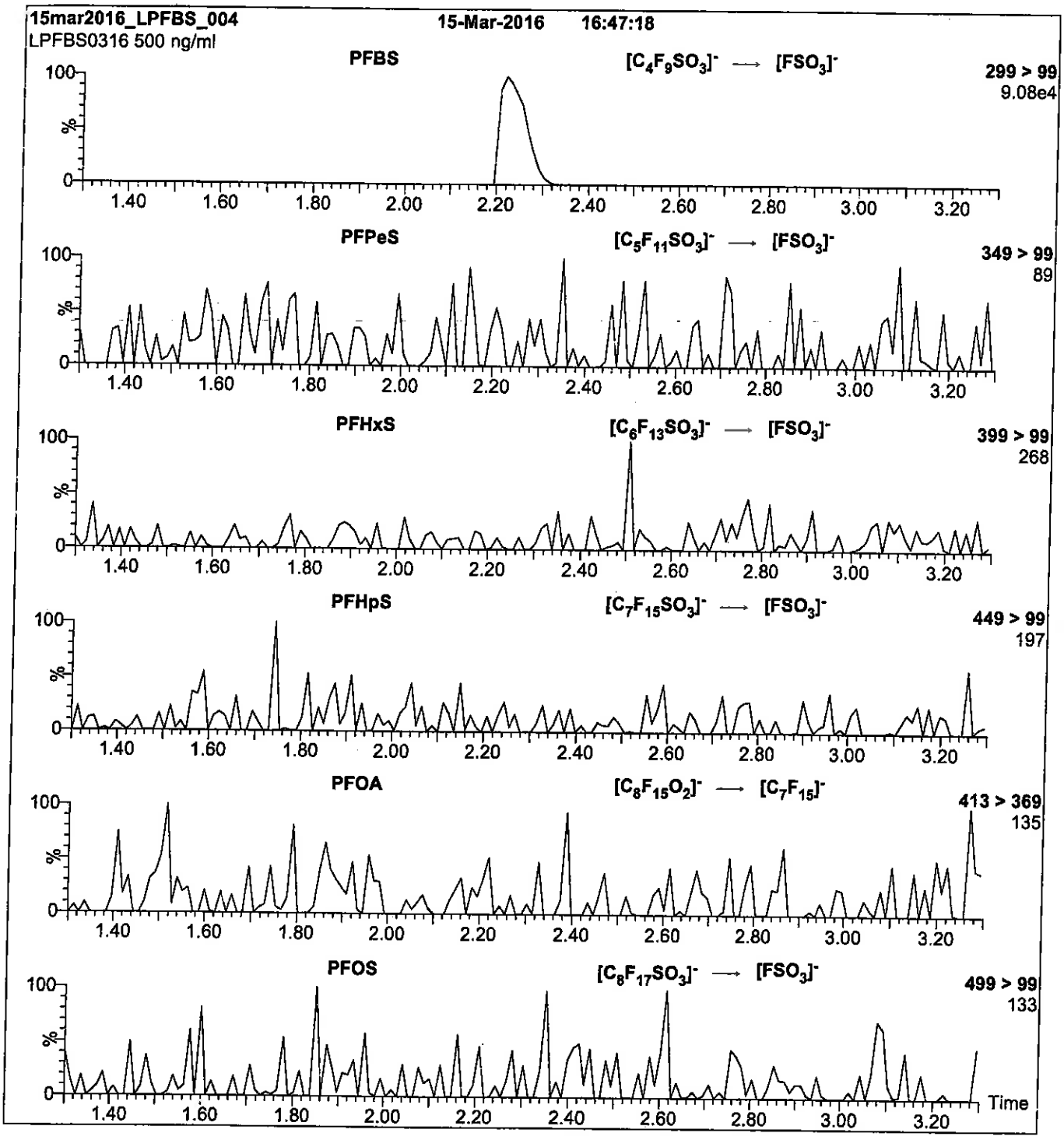
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 25

Reagent

LCPFBS_00006

R: SBC 9/13/16

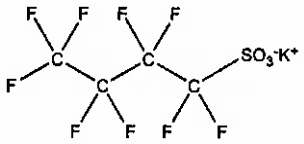
730511
ID: LCPFBS_00005
Exp: 03/15/21 Prpd: SBC
PF-1-butanesulfonate K sa

730512
ID: LCPFBS_00006
Exp: 03/15/21 Prpd: SBC
PF-1-butanesulfonate K sa

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFBS	**LOT NUMBER:**	LPFBS0316
COMPOUND:	Potassium perfluoro-1-butanesulfonate		
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)	03/15/2016		
EXPIRY DATE: (mm/dd/yyyy)	03/15/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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Certified By: B.G. Chittim **Date:** 03/21/2016 (mm/dd/yyyy)

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CALA Testing Accreditation No. A1226

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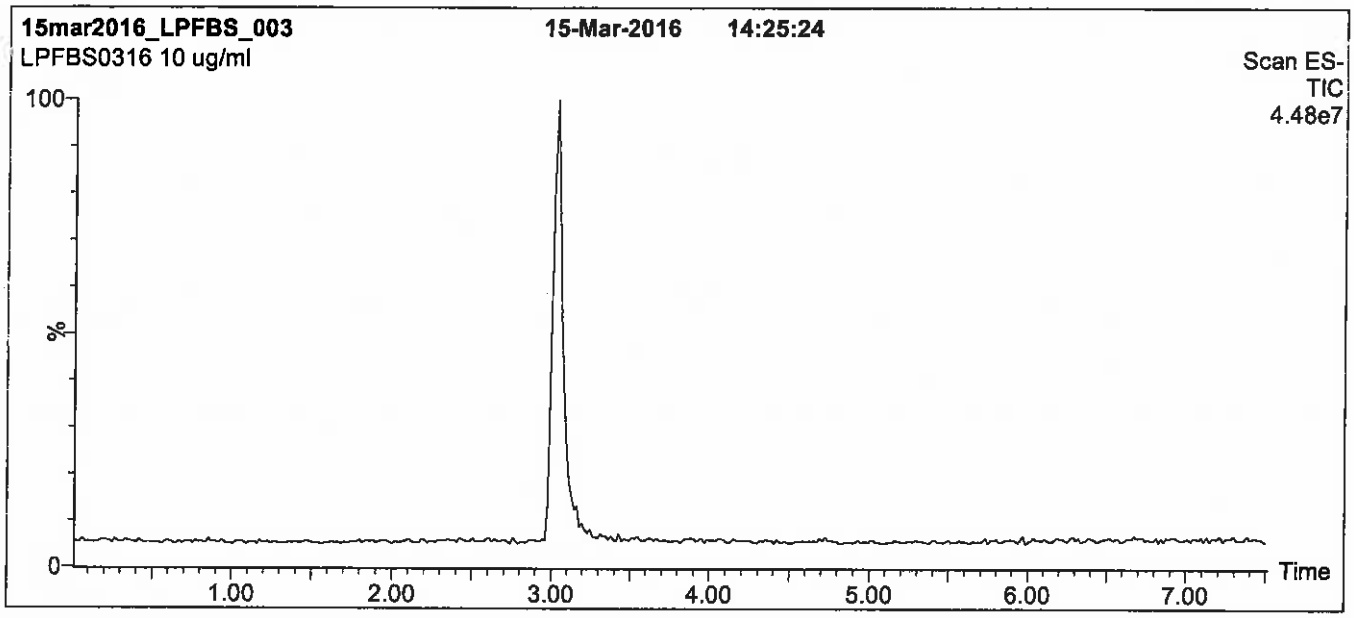
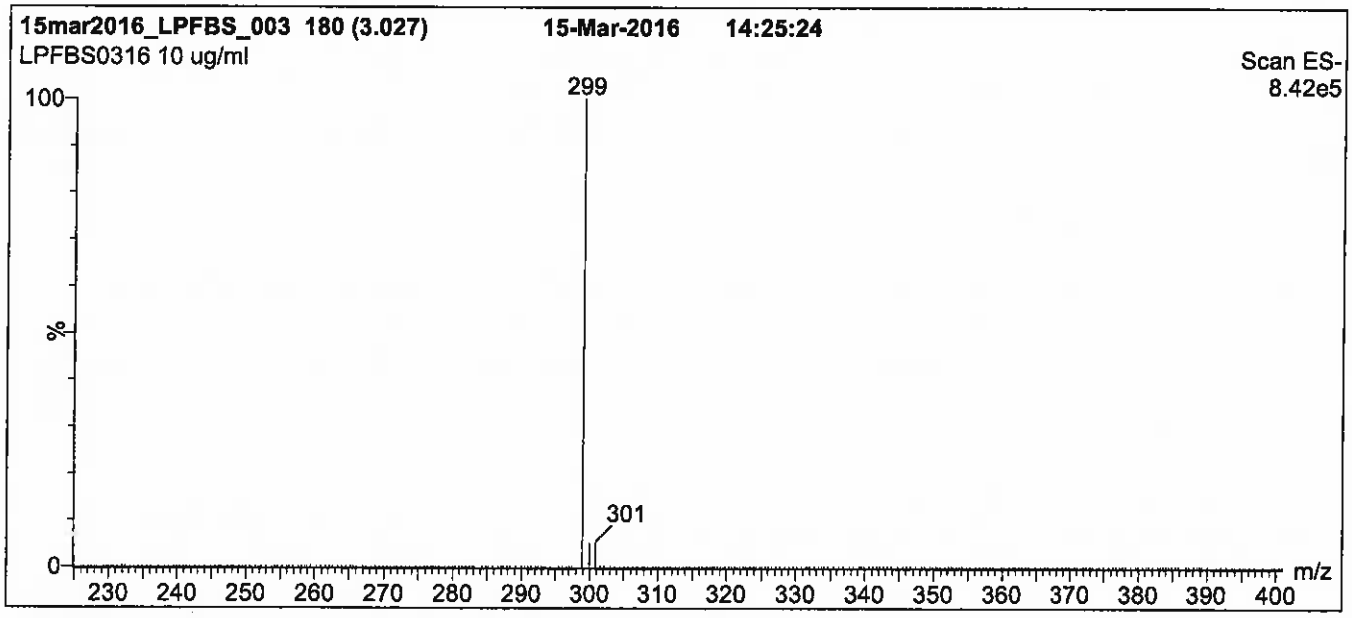




Conditions for Figure 1:

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

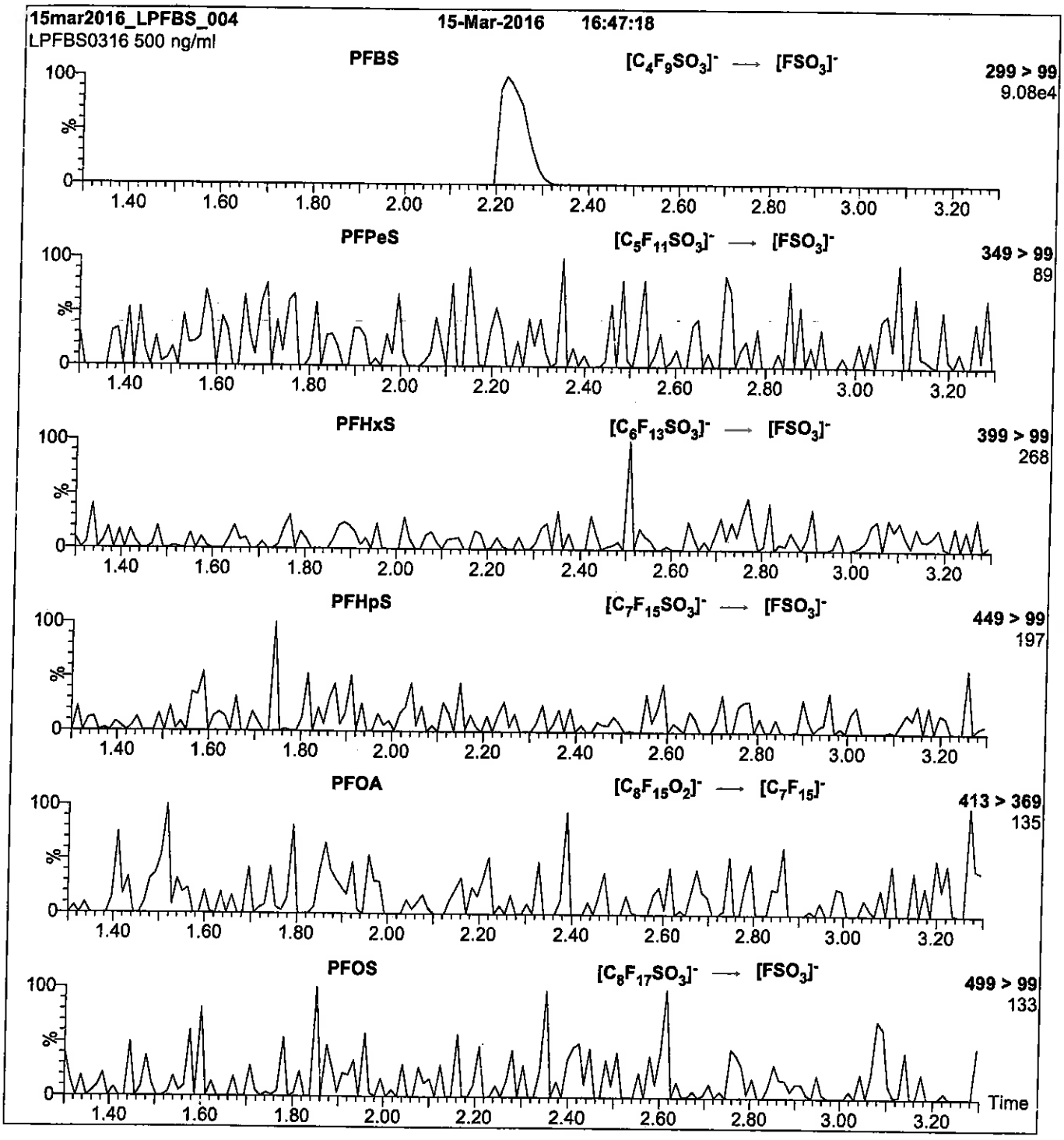
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 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 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 25

Reagent

LCPFDA_00006

R: SBC 9/13/16
scanned 10/4/16 SR

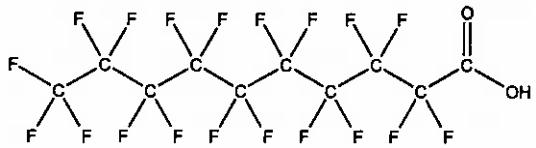
730620
ID: LCPFDA_00006
Exp: 05/31/21 Prpd: SBC
PF-n-decanoic acid

730621
ID: LCPFDA_00007
Exp: 05/31/21 Prpd: SBC
PF-n-decanoic acid

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFDA	**LOT NUMBER:**	PFDA0516
COMPOUND:	Perfluoro-n-decanoic acid		
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)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of Perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/13/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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

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

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

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

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

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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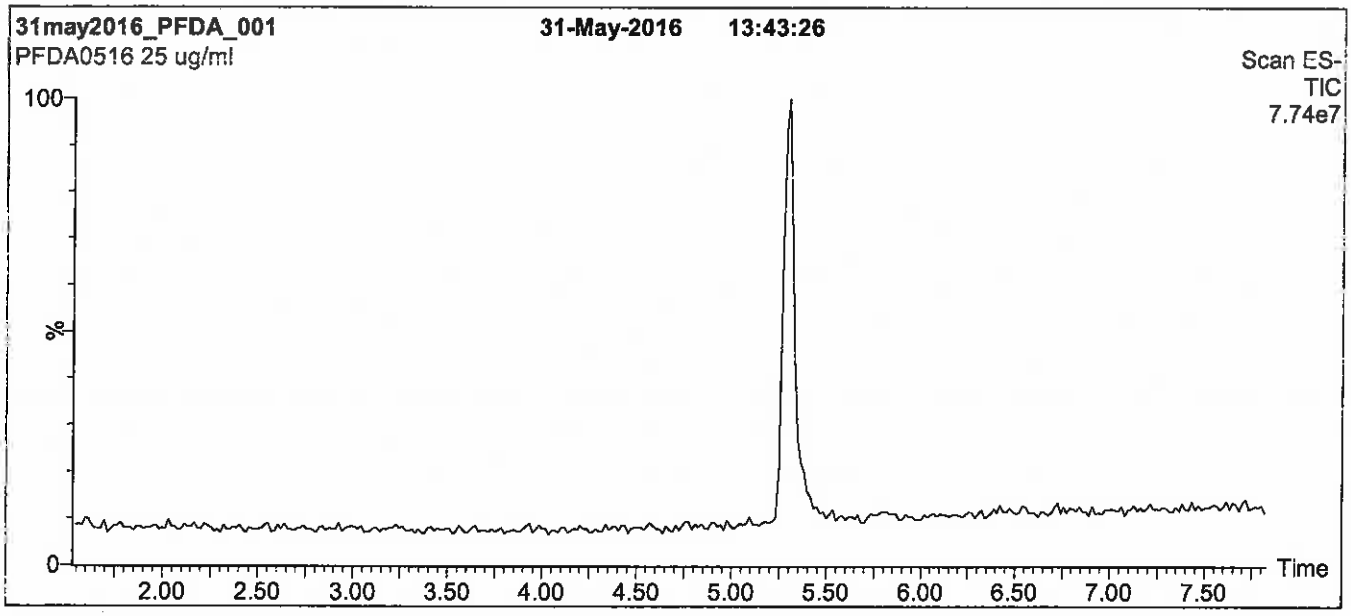
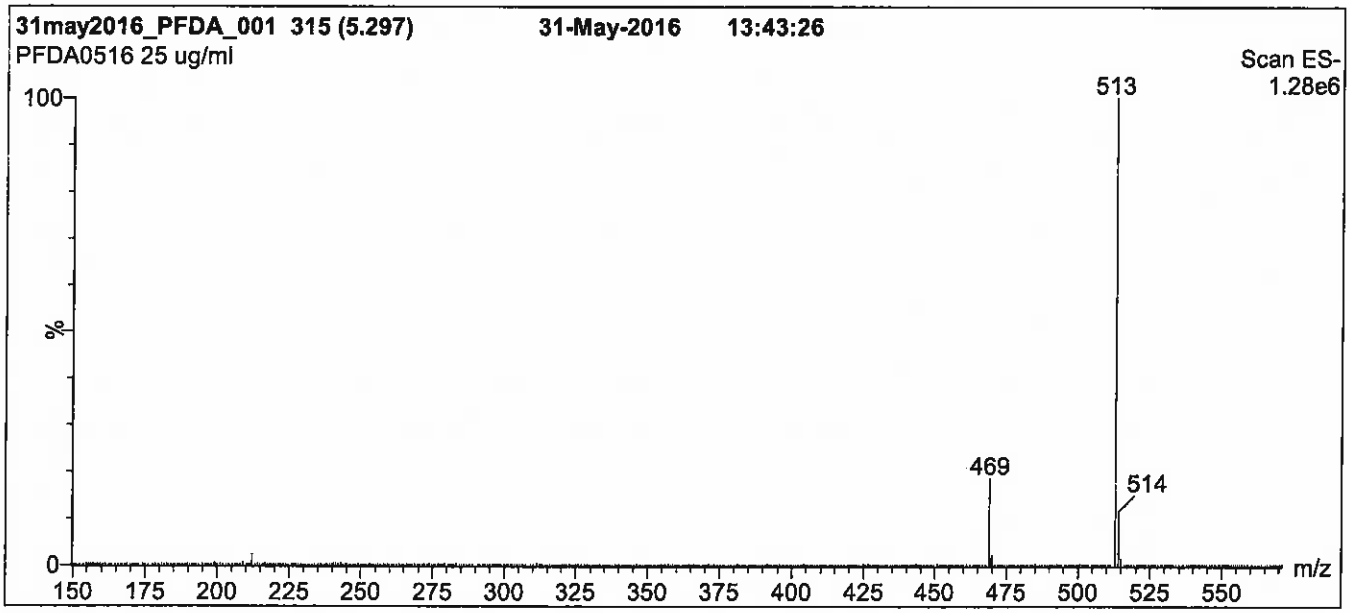
Figure 1: **PFDA; LC/MS Data (TIC and Mass Spectrum)**





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

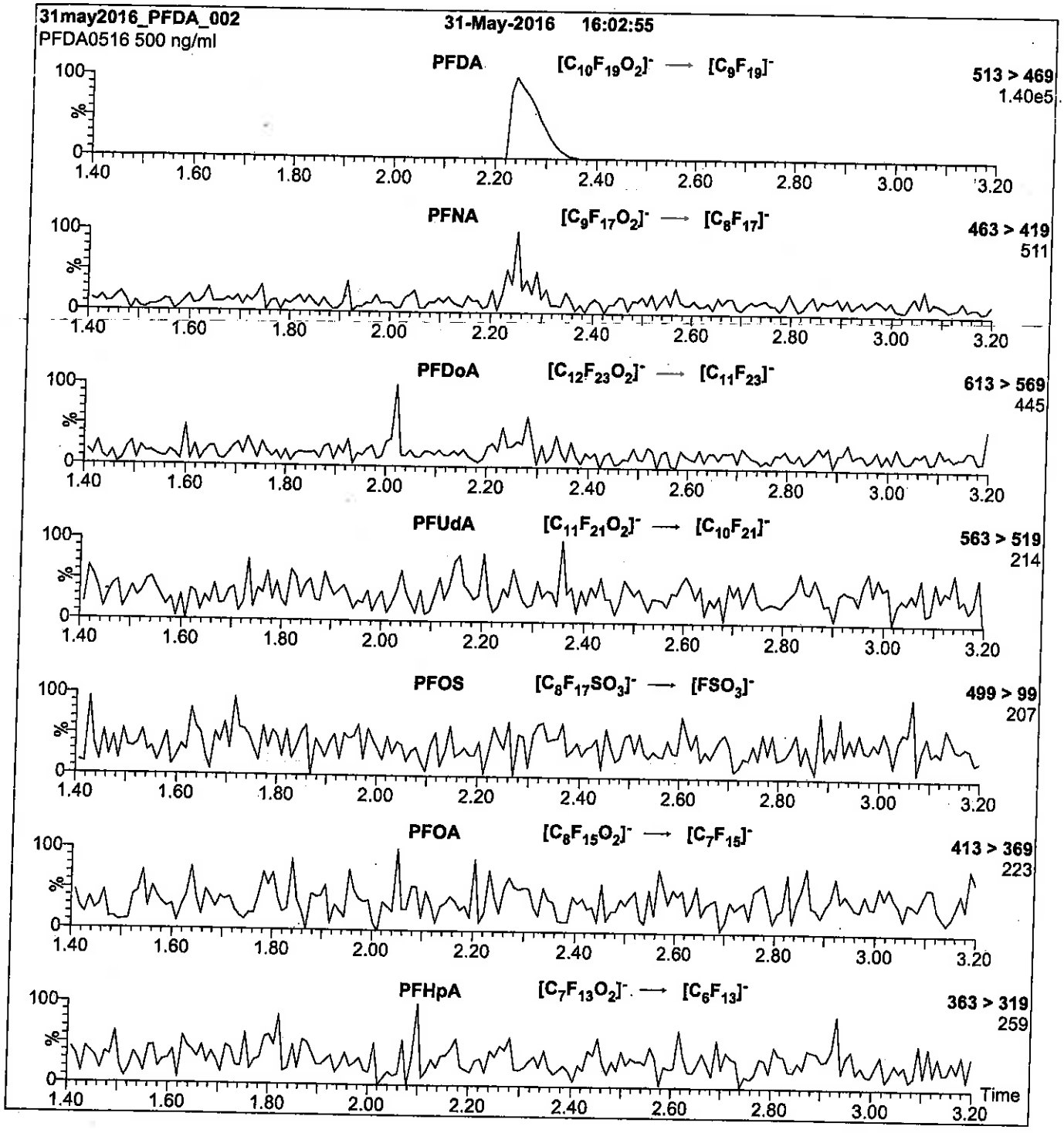
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 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 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) = 13

Reagent

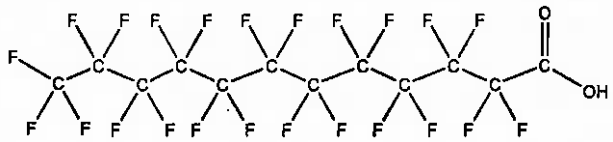
LCPFDoA_00006

r: 12/21/16 SPV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFDoA	**LOT NUMBER:**	PFDoA0516
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)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 06/02/2016 (mm/dd/yyyy)

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

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CALA

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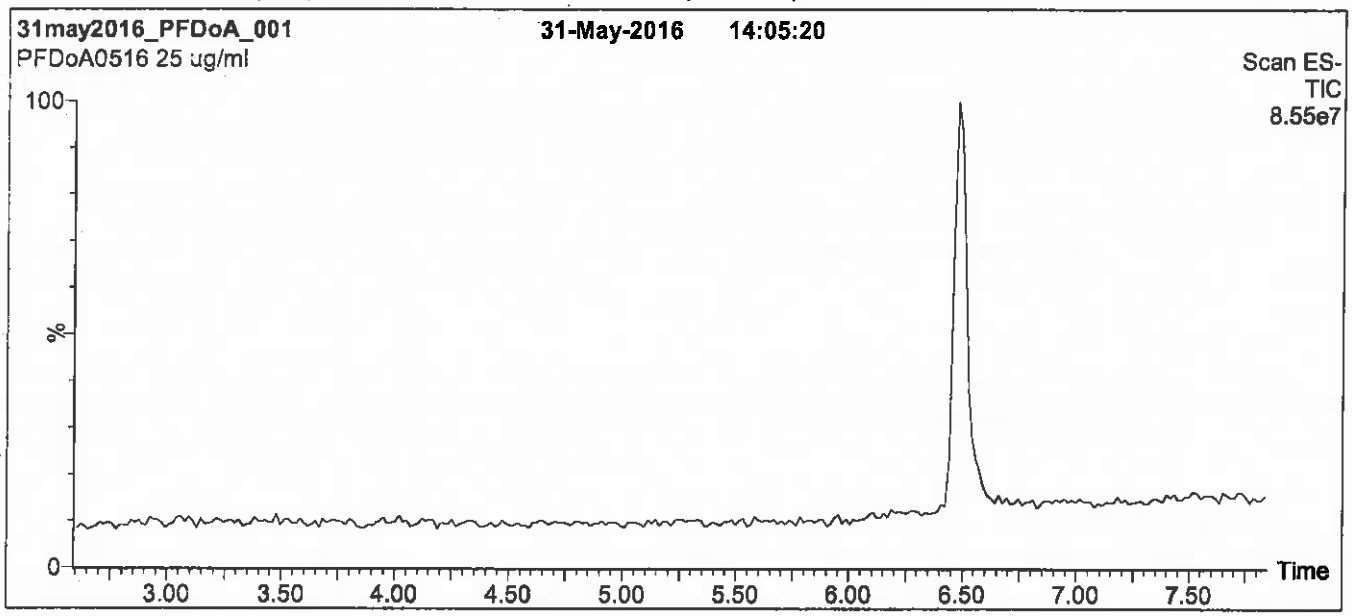
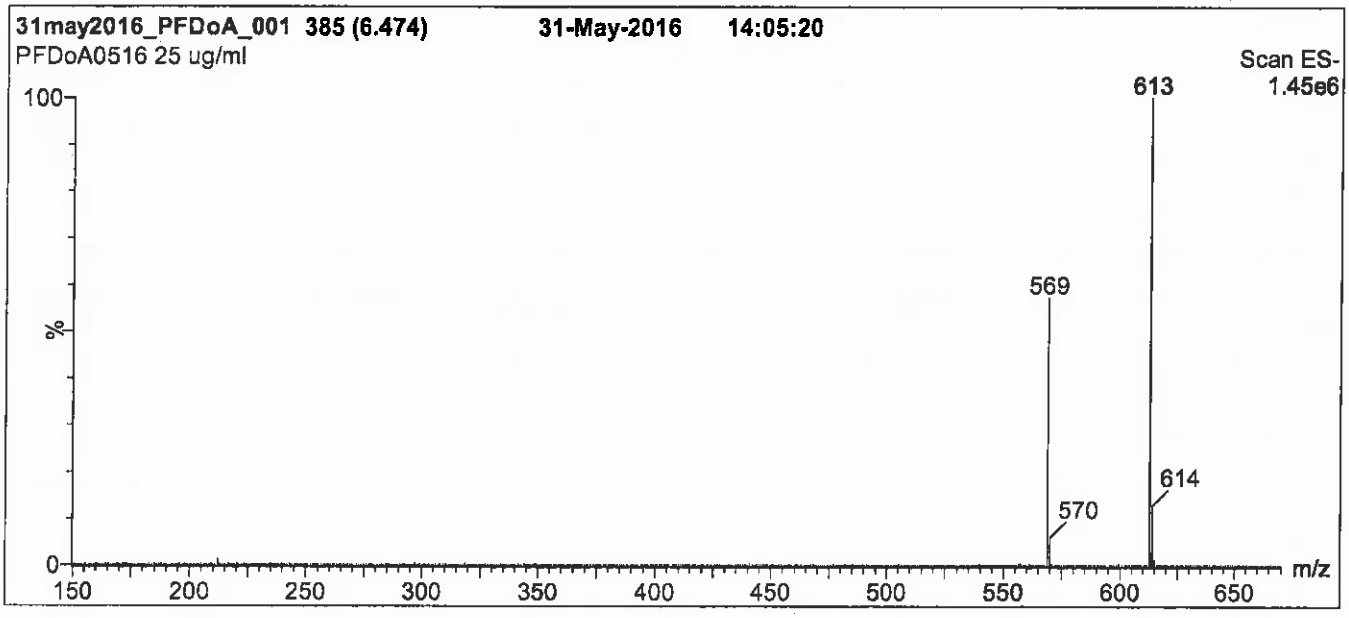




Conditions for Figure 1:

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

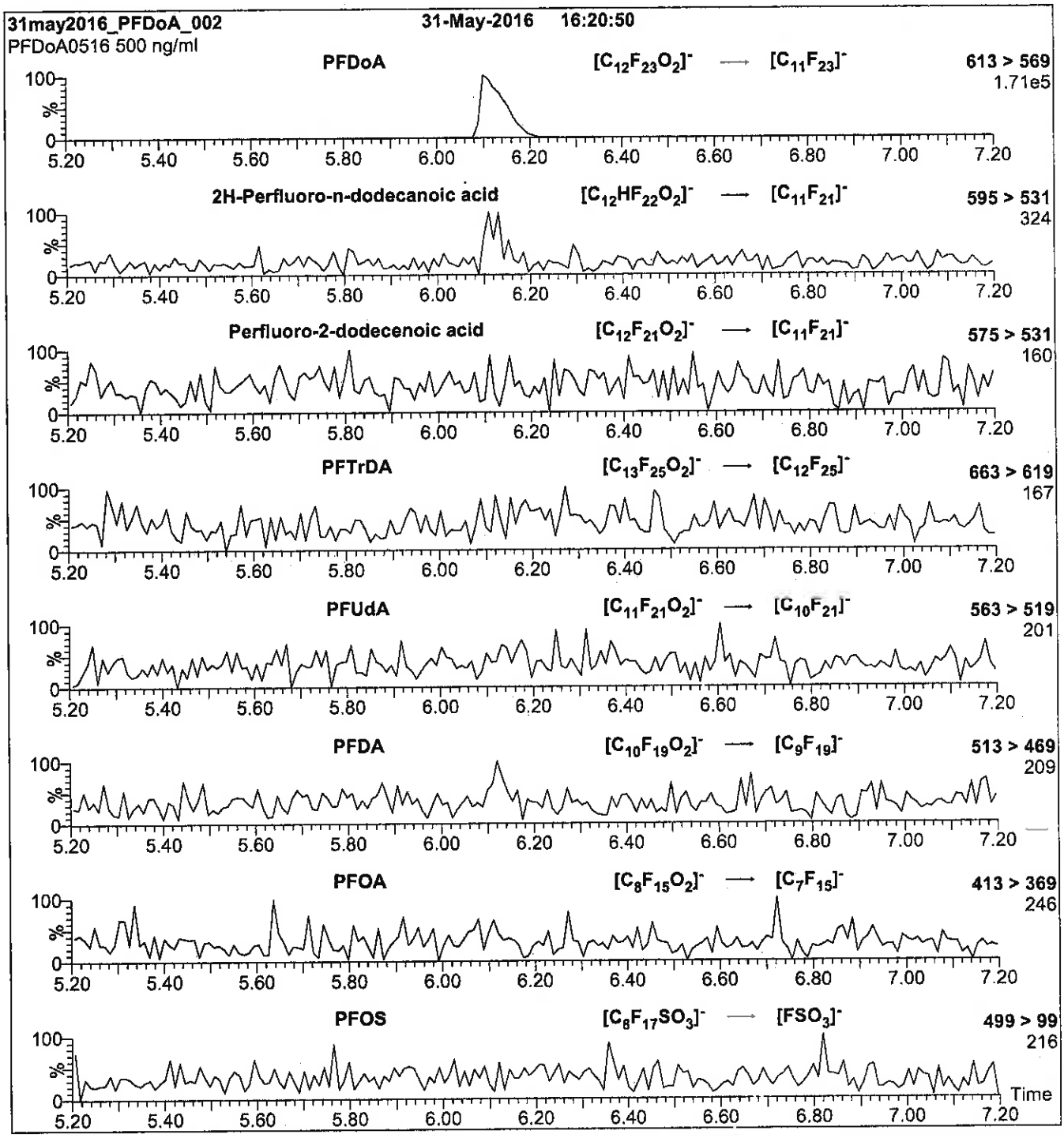
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 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 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) = 13

Reagent

LCPFDS_00005

Rec. 3/29/16 JRB

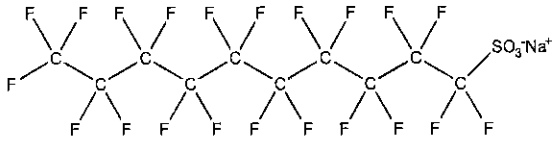
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFDS
LOT NUMBER: LPFDS0615
COMPOUND: Sodium perfluoro-1-decanesulfonate

STRUCTURE:

CAS #: 2806-15-7



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)	07/02/2015
EXPIRY DATE: (mm/dd/yyyy)	07/02/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2015 (mm/dd/yyyy)

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

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CALA

ANAB ACCREDITED

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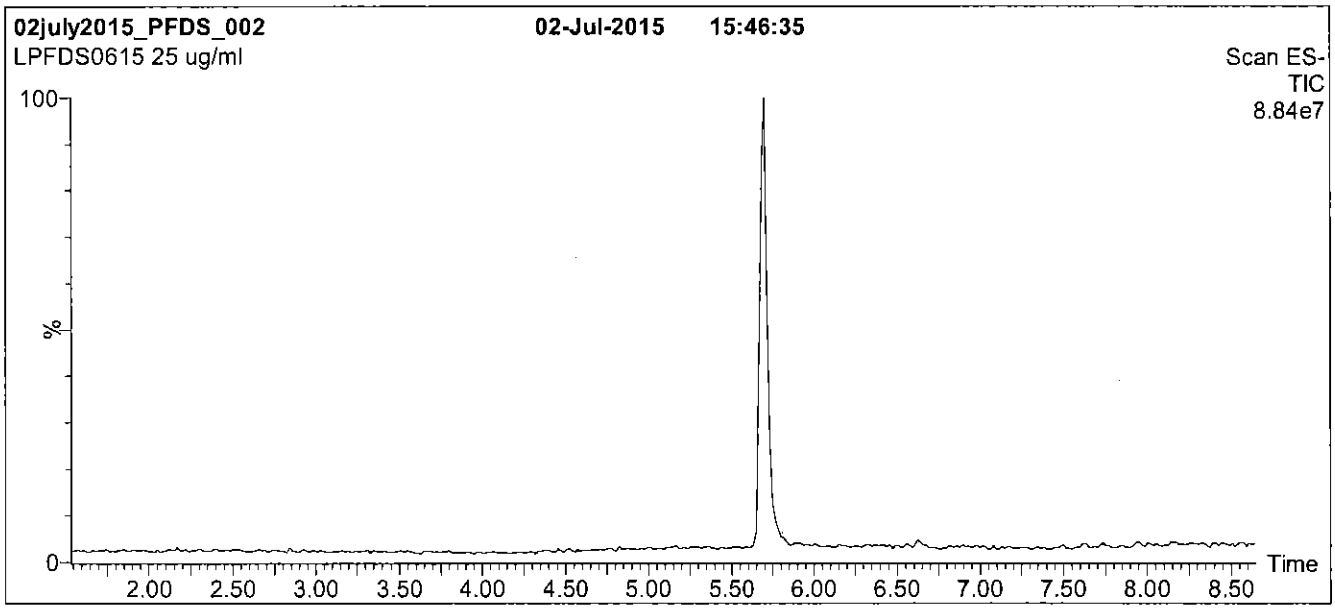
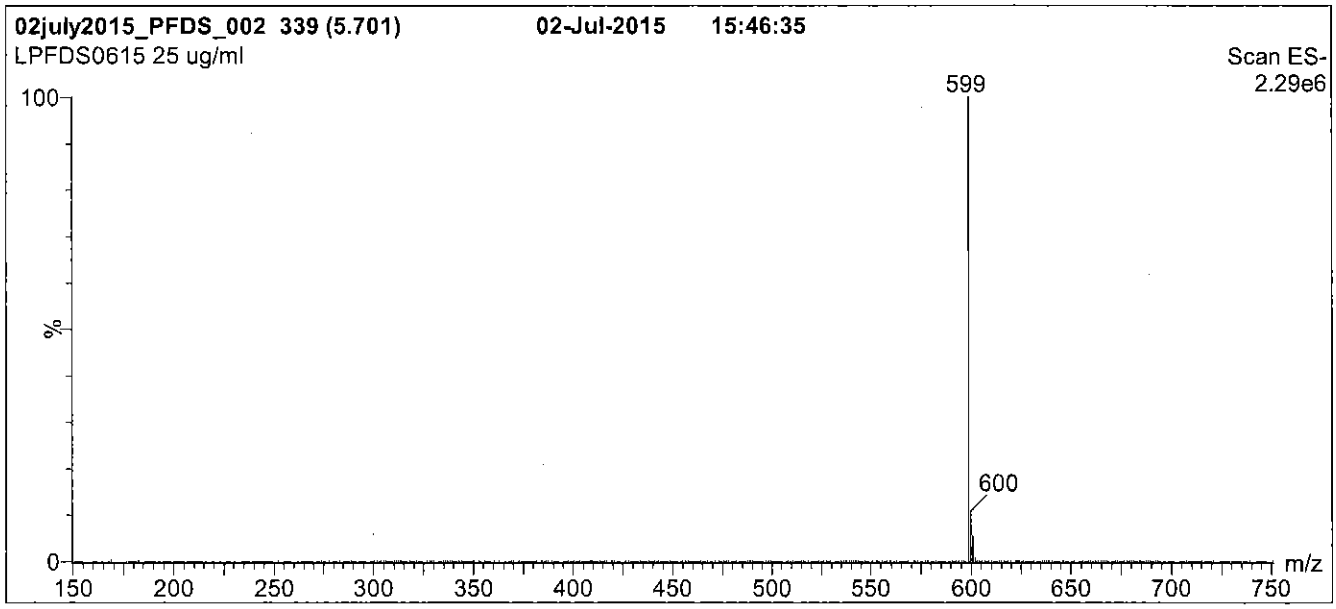
Figure 1: **L-PFDS; LC/MS Data (TIC and Mass Spectrum)**





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

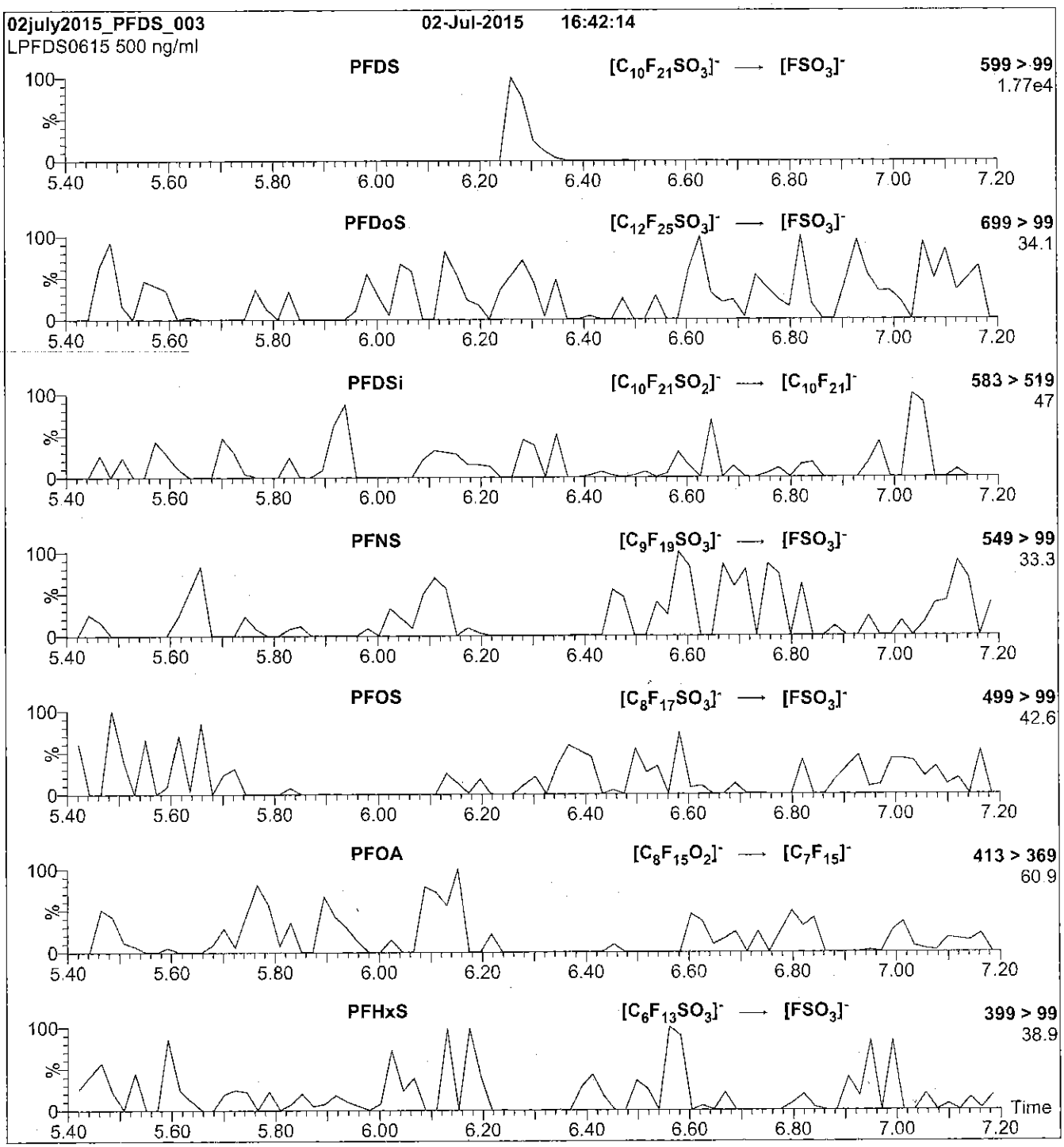
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 70.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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 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) = 50

Reagent

LCPFDS_00007

Scanned 10/14/16 SC R: SBC 9/13/16

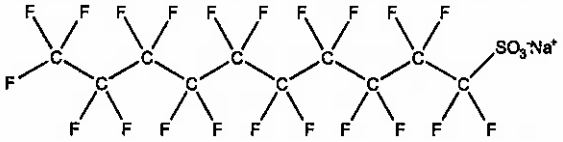
730549
ID: LCPFDS_00006
Exp: 05/24/21 Prpd: SBC
PF-1-decanesulfonate sodi

730550
ID: LCPFDS_00007
Exp: 05/24/21 Prpd: SBC
PF-1-decanesulfonate sodi

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	L-PFDS	**LOT NUMBER:**	LPFDS0516
COMPOUND:	Sodium perfluoro-1-decanesulfonate		
STRUCTURE:		**CAS #:**	2806-15-7



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LAST TESTED: (mm/dd/yyyy)	05/24/2016		
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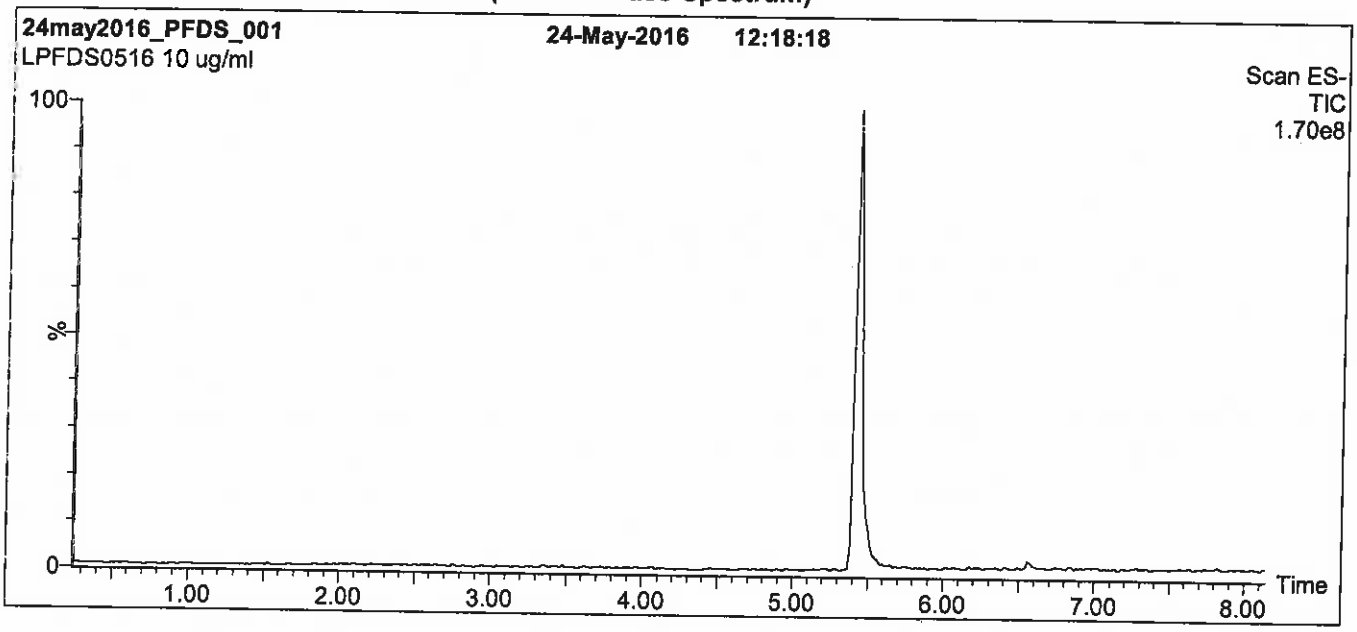
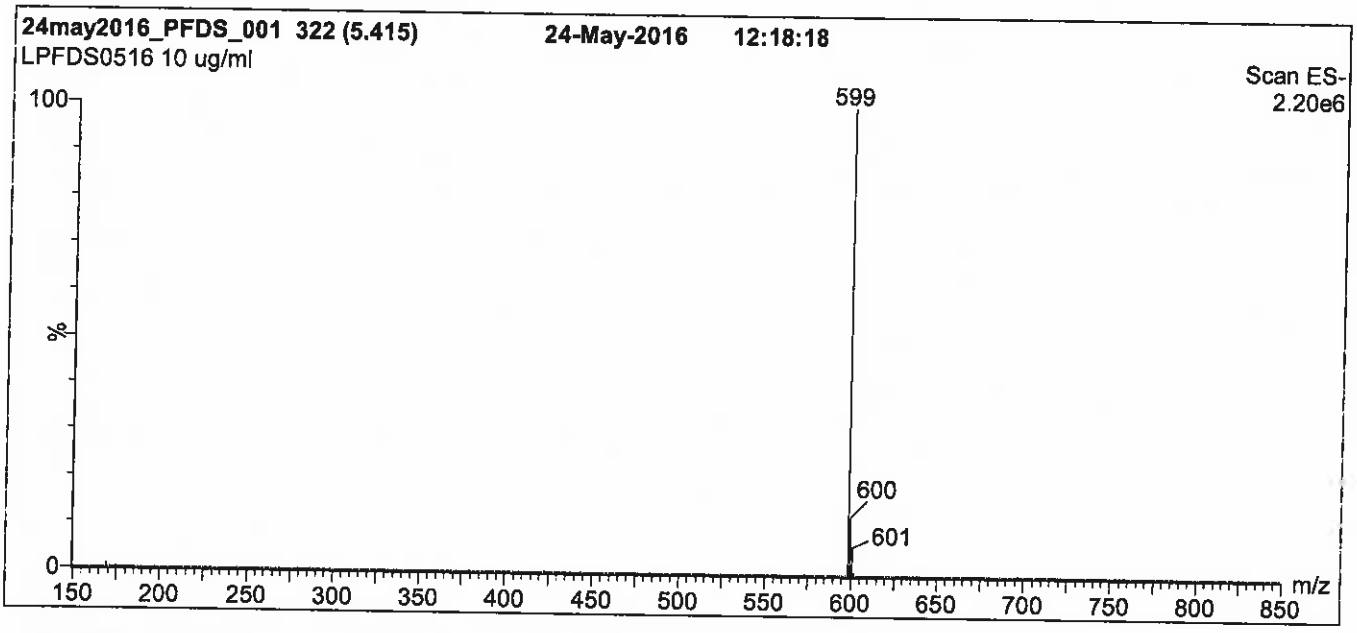
Figure 1: **L-PFDS; LC/MS Data (TIC and Mass Spectrum)**





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

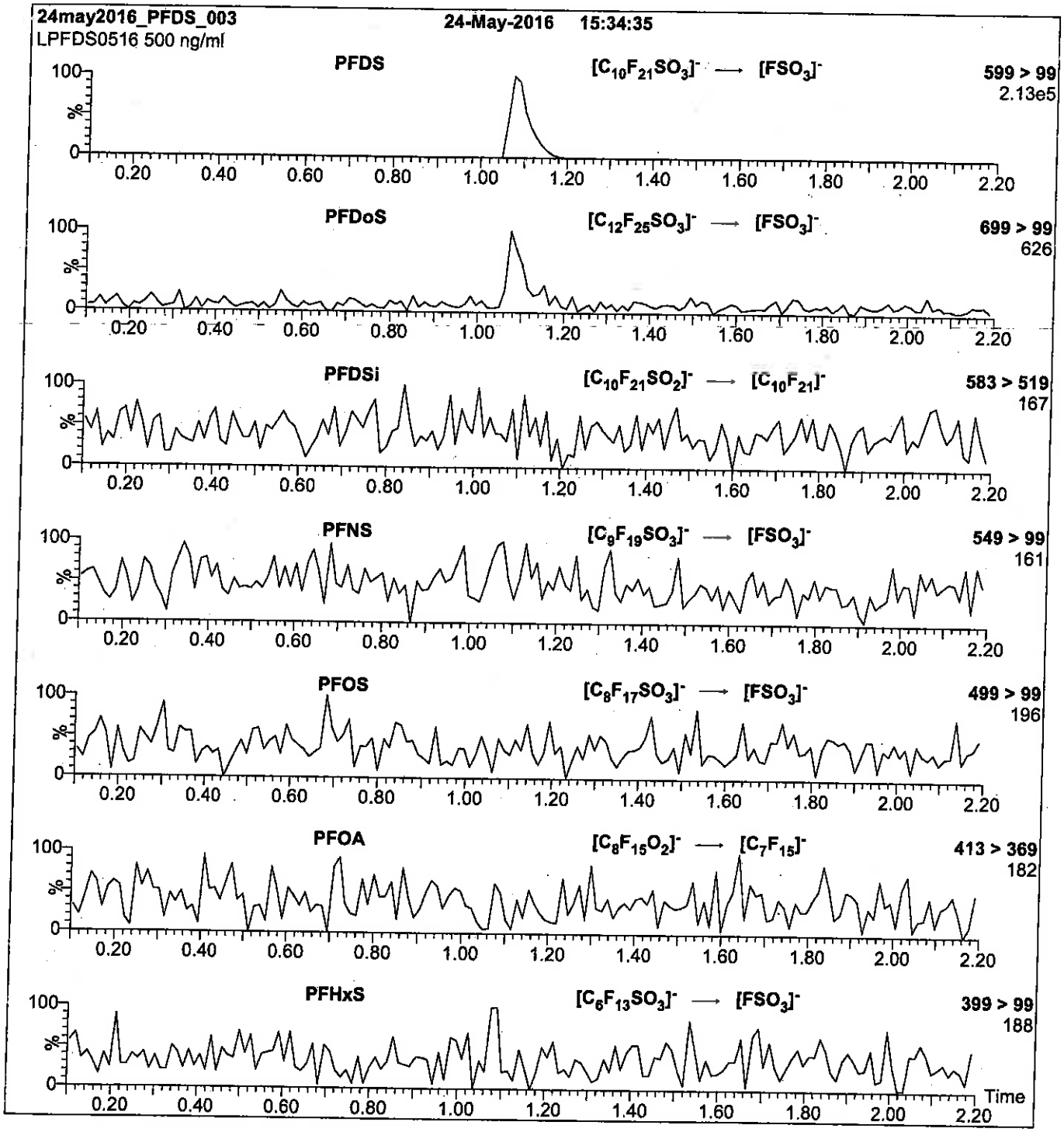
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 70.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.70e-3
Collision Energy (eV) = 50

Reagent

LCPFHpA_00006

Scanned 10/14/16 SM R: SBC 9/13/16

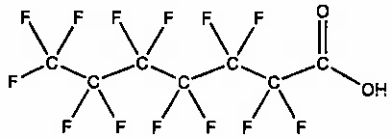
730517
ID: LCPFHpA_00006
Exp: 01/22/21 Prpd: SBC
PF-n-heptanoic acid

730518
ID: LCPFHpA_00007
Exp: 01/22/21 Prpd: SBC
PF-n-heptanoic acid

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFHpA	**LOT NUMBER:**	PFHpA0116
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)	01/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 02/02/2016 (mm/dd/yyyy)

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

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CALA

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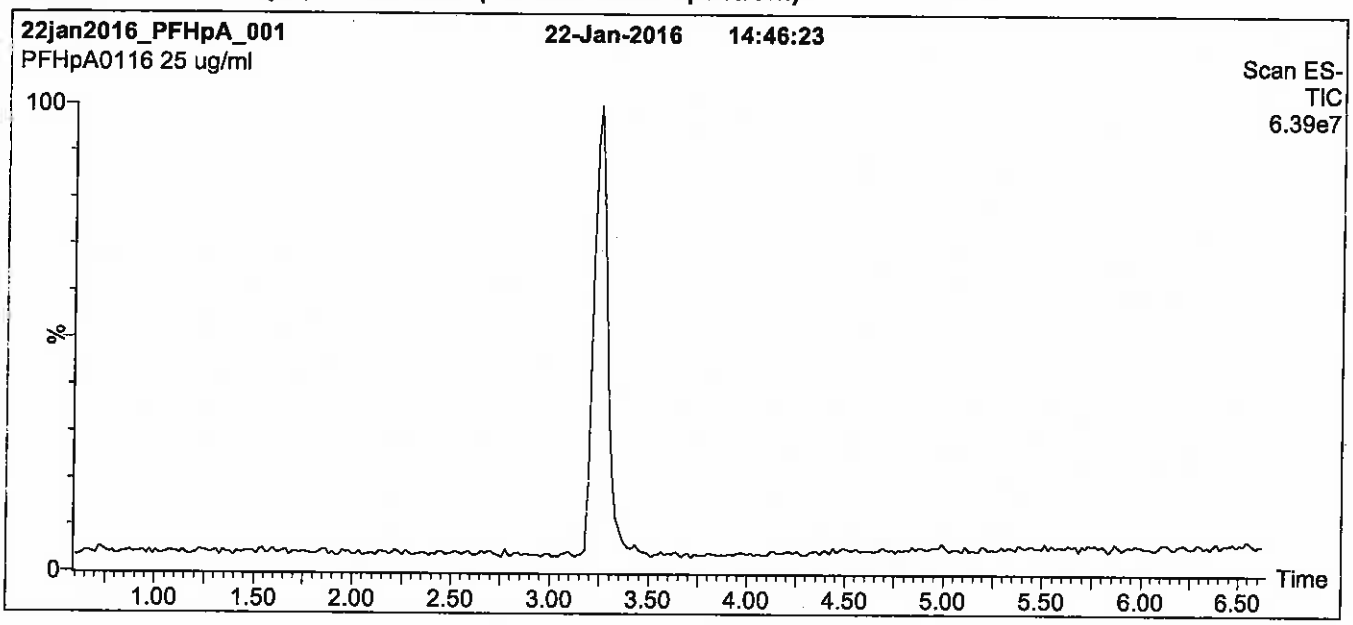
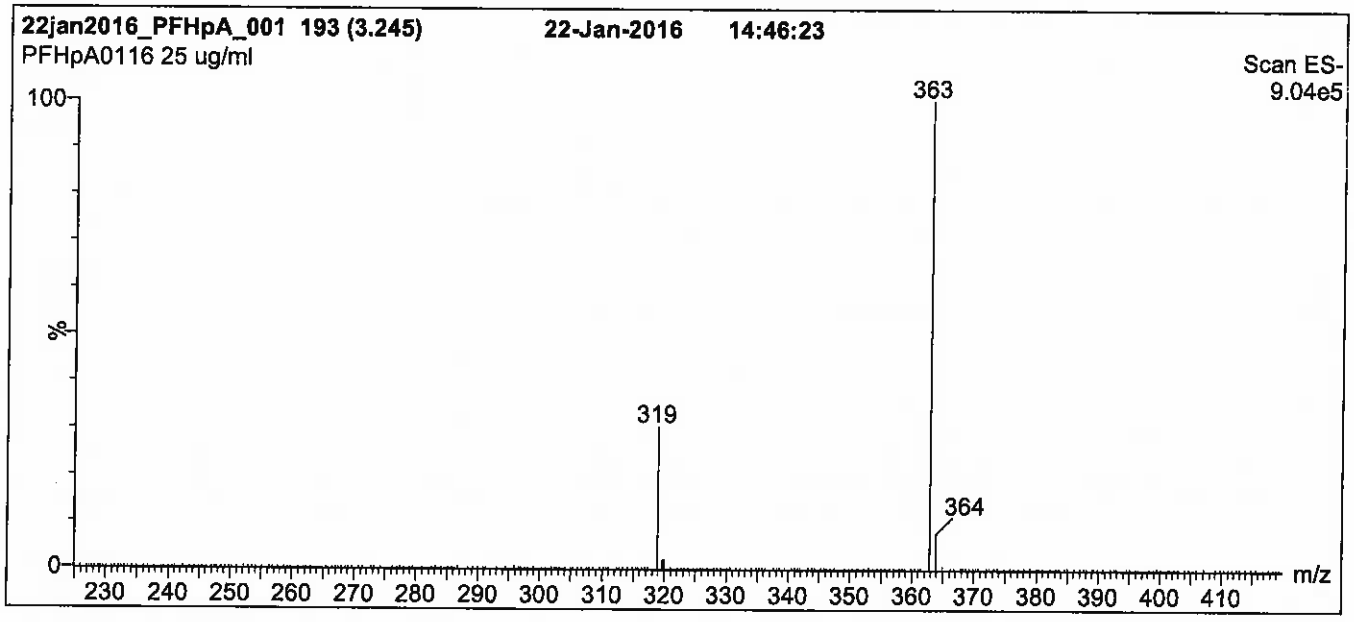




Conditions for Figure 1:

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

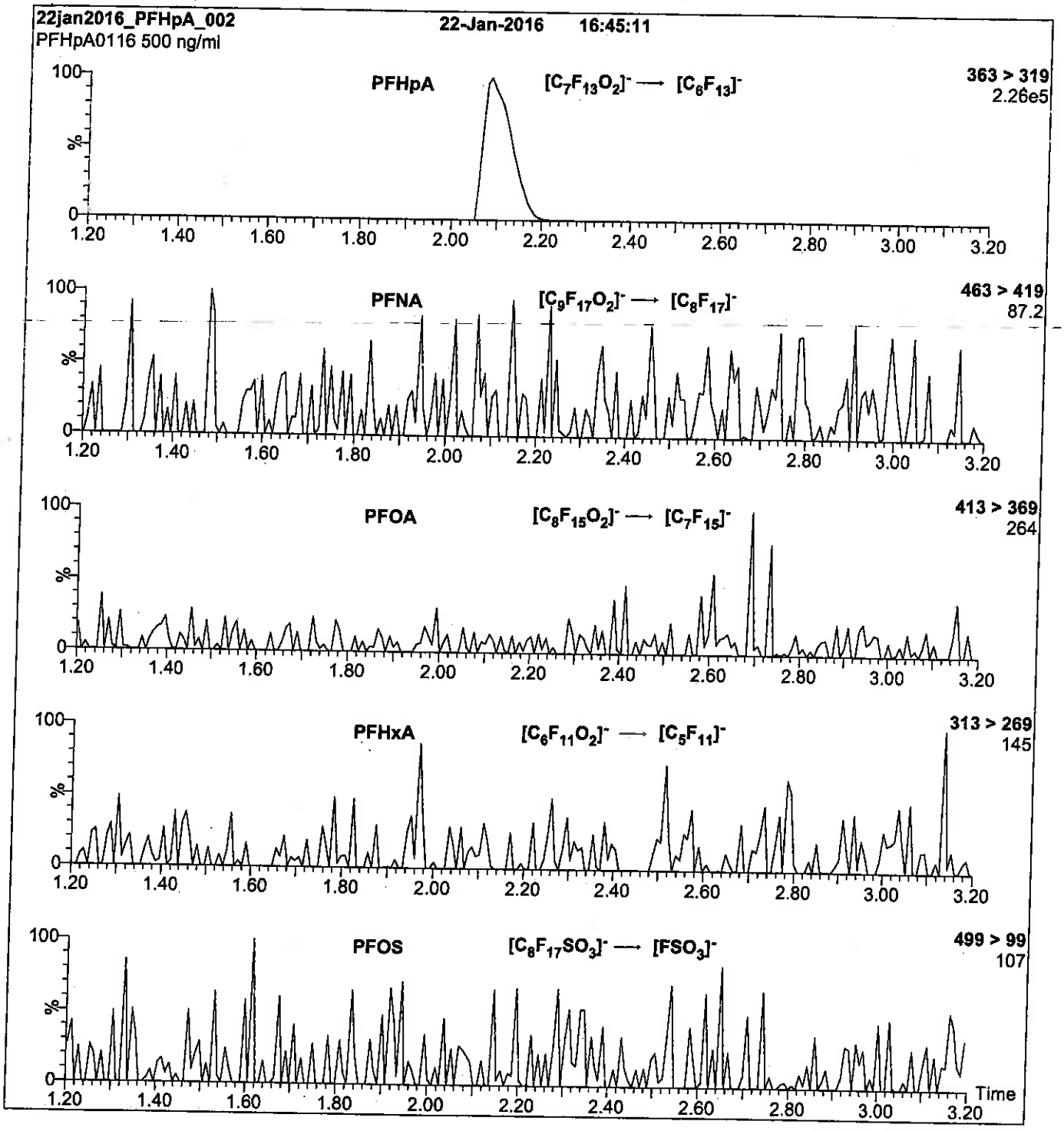
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 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) = 3.50e-3
Collision Energy (eV) = 11

Reagent

LCPFHpA_00007

Scanned 10/14/16 SM R: SBC 9/13/16

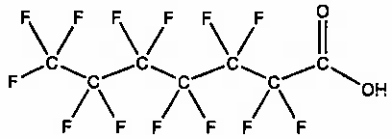
730517
ID: LCPFHpA_00006
Exp: 01/22/21 Prpd: SBC
PF-n-heptanoic acid

730518
ID: LCPFHpA_00007
Exp: 01/22/21 Prpd: SBC
PF-n-heptanoic acid

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFHpA	**LOT NUMBER:**	PFHpA0116
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)	01/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/22/2021		
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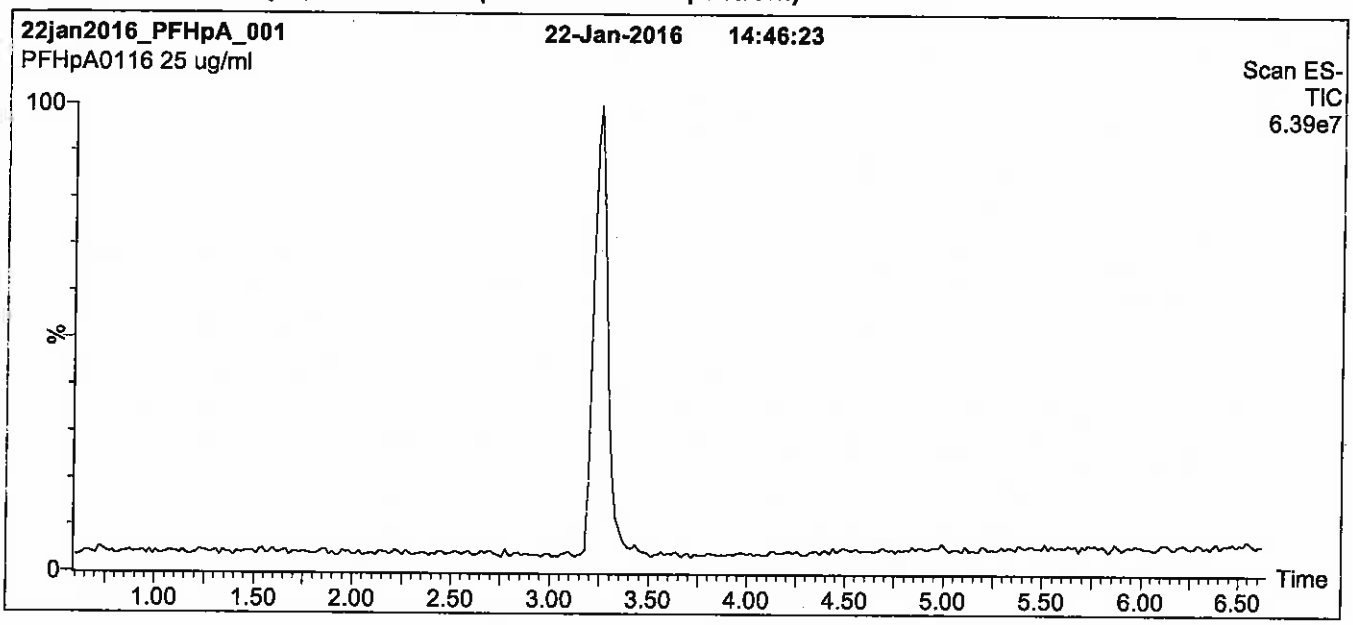

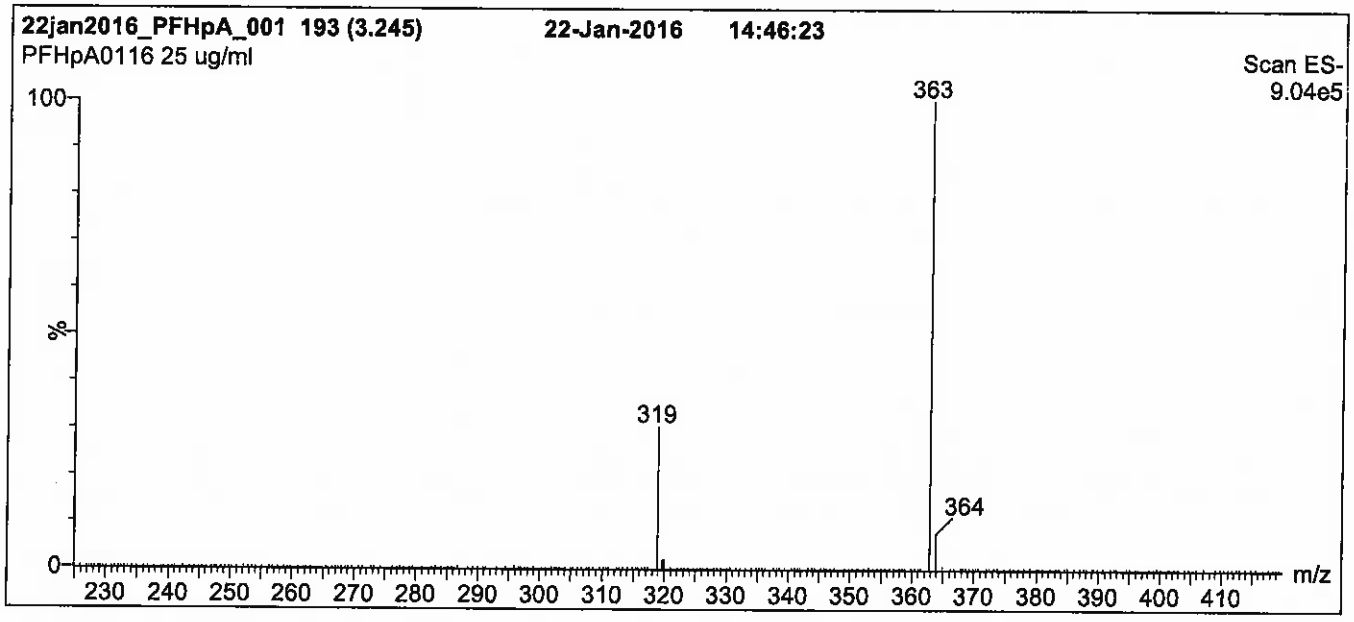

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2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

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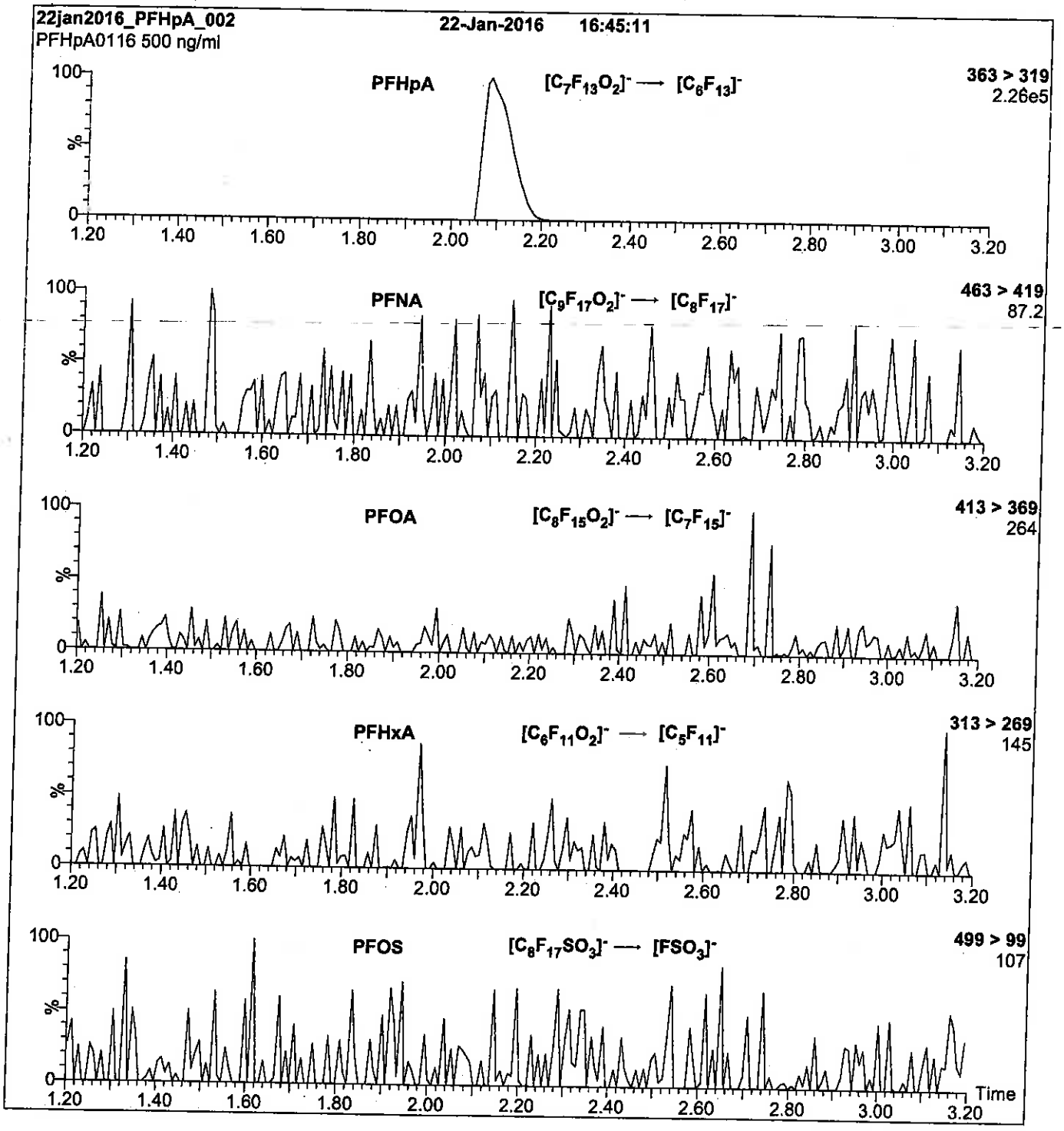
Experiment: Full Scan (225 - 850 amu)

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: **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) = 3.50e-3
Collision Energy (eV) = 11

Reagent

LCPFHpS_00009

Scanned 10/14/16 SR R: SBC 9/13/16

730635
ID: LCPFHpS_00009
Exp: 11/06/20 Prpd: SBC
PFHpS at 47.6ug/mL

730639
ID: LCPFHpS_00010
Exp: 11/06/20 Prpd: SBC
PFHpS at 47.6ug/mL

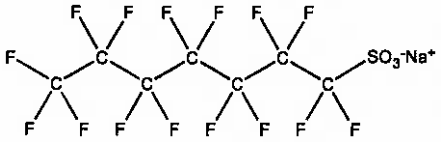
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFHpS
COMPOUND: Sodium perfluoro-1-heptanesulfonate
LOT NUMBER: LPFHpS1115

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$	**MOLECULAR WEIGHT:**	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.6 ± 2.4 µg/ml (PFHpS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/06/2015		
EXPIRY DATE: (mm/dd/yyyy)	11/06/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.1% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.2% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 11/09/2015 (mm/dd/yyyy)

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CALA

ANAB ACCREDITED

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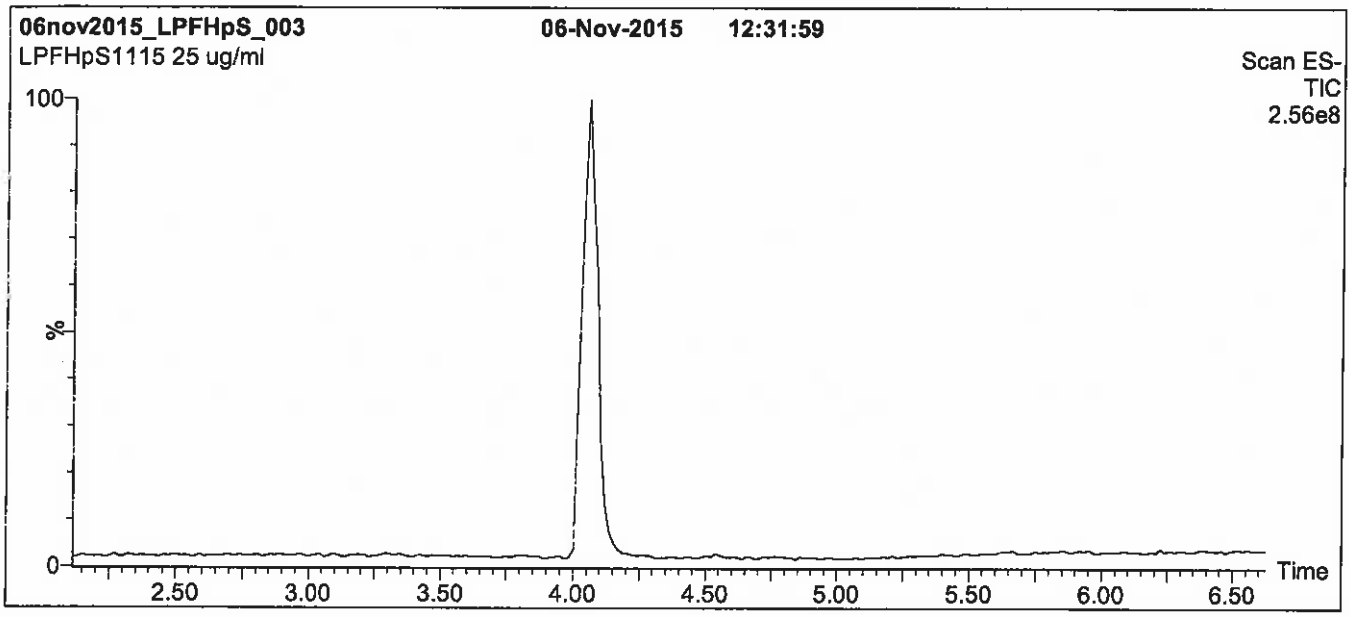
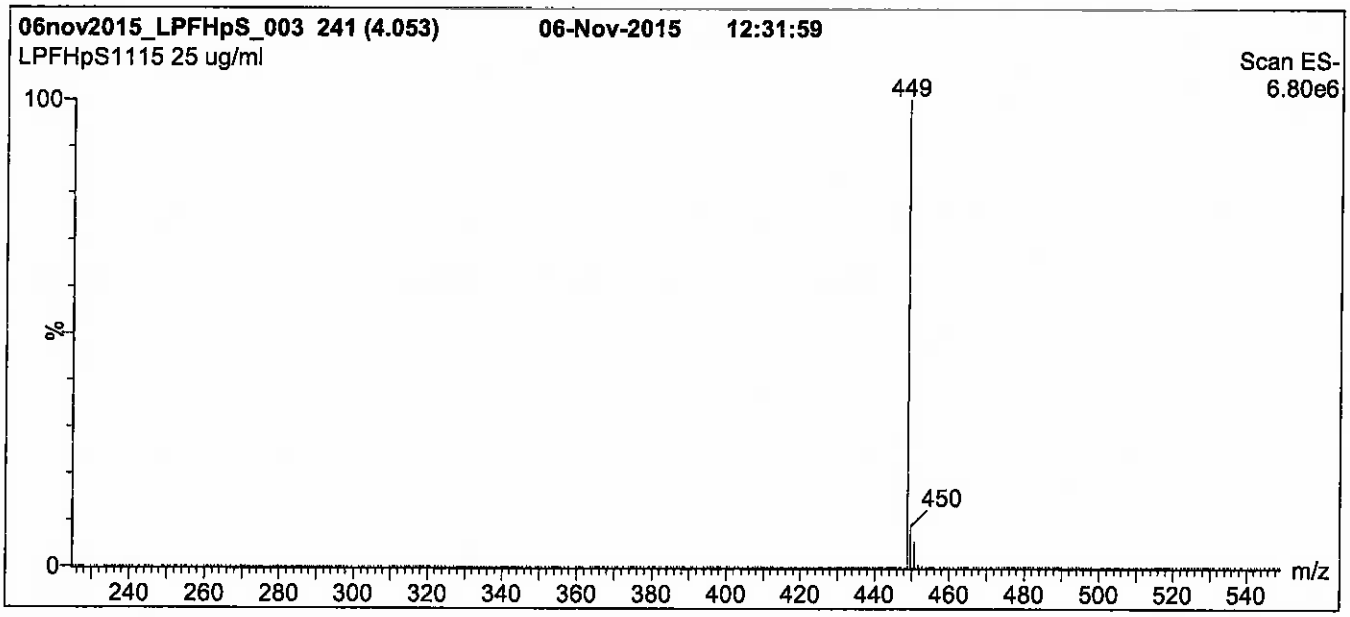
Figure 1: **L-PFHpS; LC/MS Data (TIC and Mass Spectrum)**





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

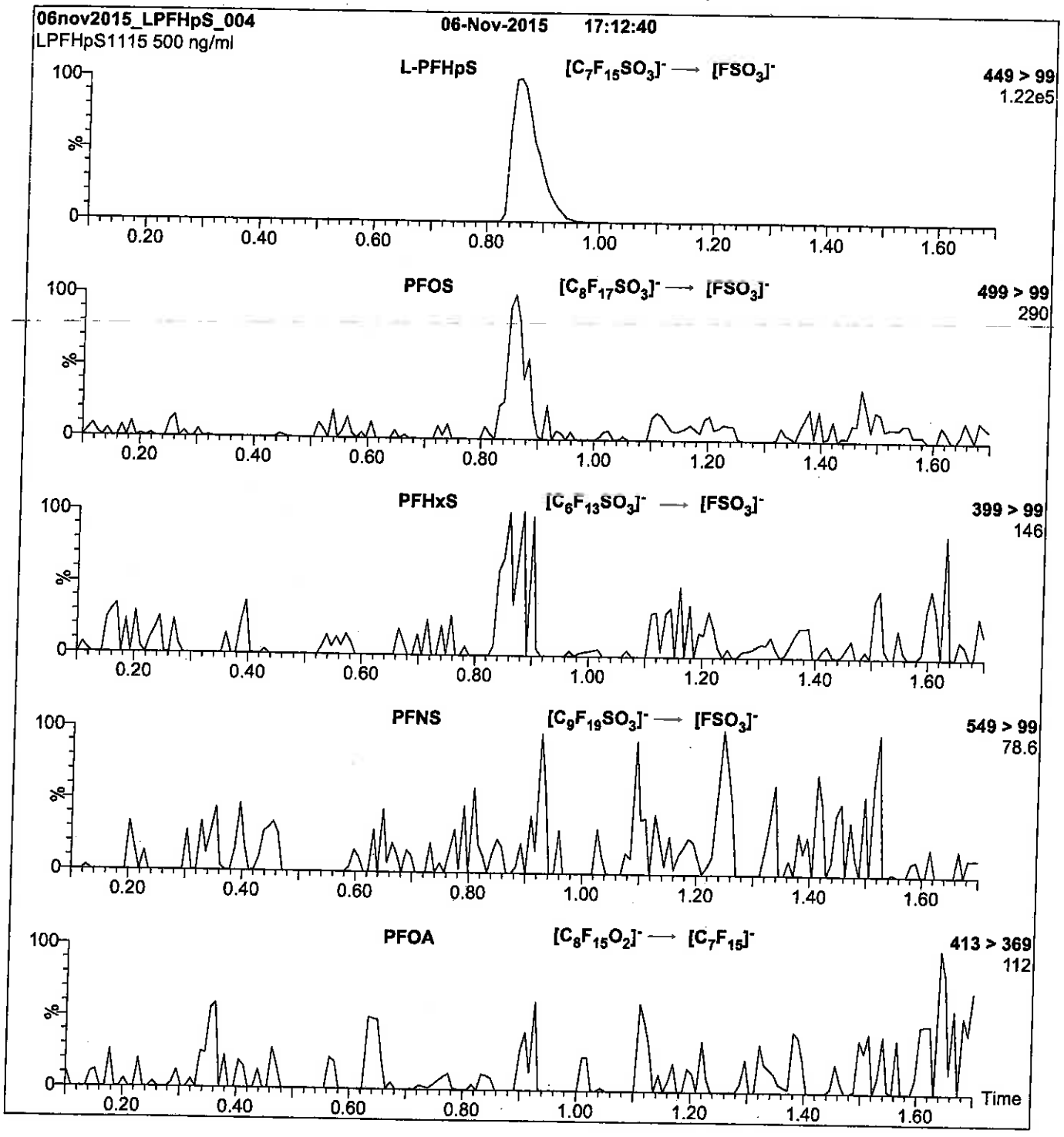
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 35

Reagent

LCPFHpS_00010

Scanned 10/14/16 SR R: SBC 9/13/16

730635
ID: LCPFHpS_00009
Exp: 11/06/20 Prpd: SBC
PFHpS at 47.6ug/mL

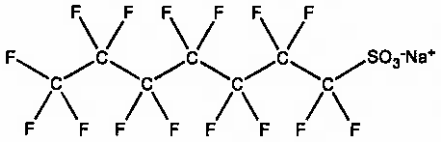
730639
ID: LCPFHpS_00010
Exp: 11/06/20 Prpd: SBC
PFHpS at 47.6ug/mL

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFHpS
COMPOUND: Sodium perfluoro-1-heptanesulfonate
LOT NUMBER: LPFHpS1115

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$	**MOLECULAR WEIGHT:**	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.6 ± 2.4 µg/ml (PFHpS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/06/2015		
EXPIRY DATE: (mm/dd/yyyy)	11/06/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.1% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.2% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 11/09/2015 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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HOMOGENEITY:

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

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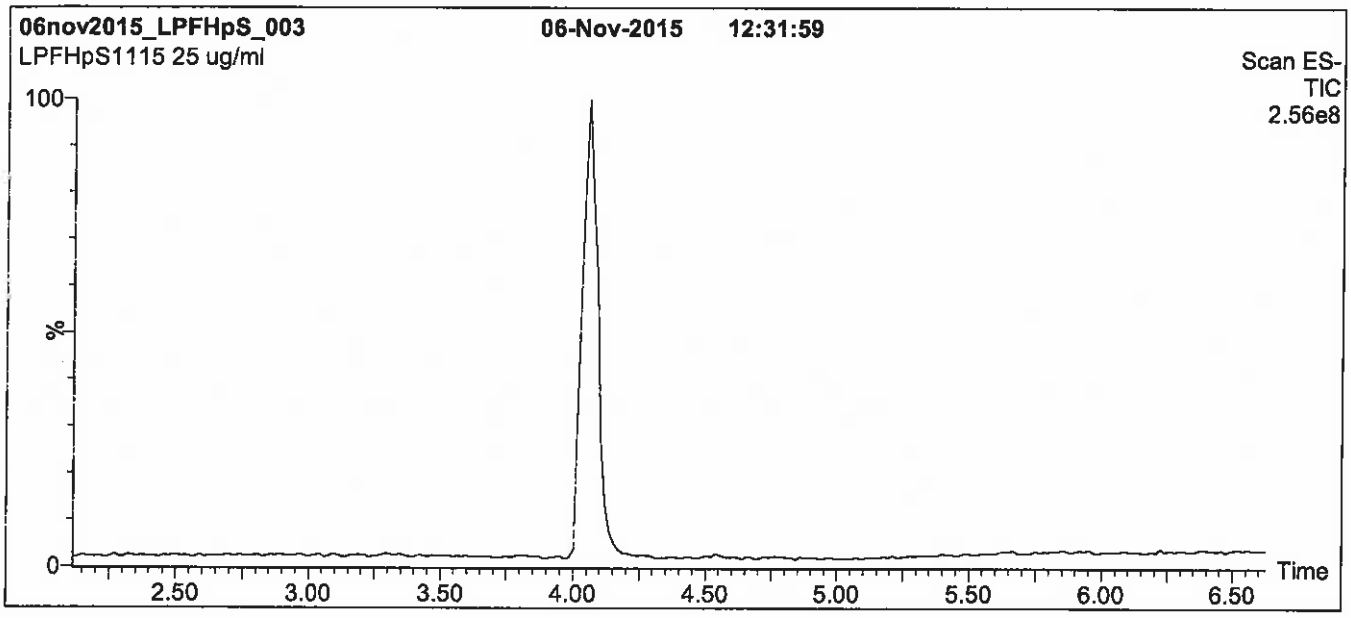

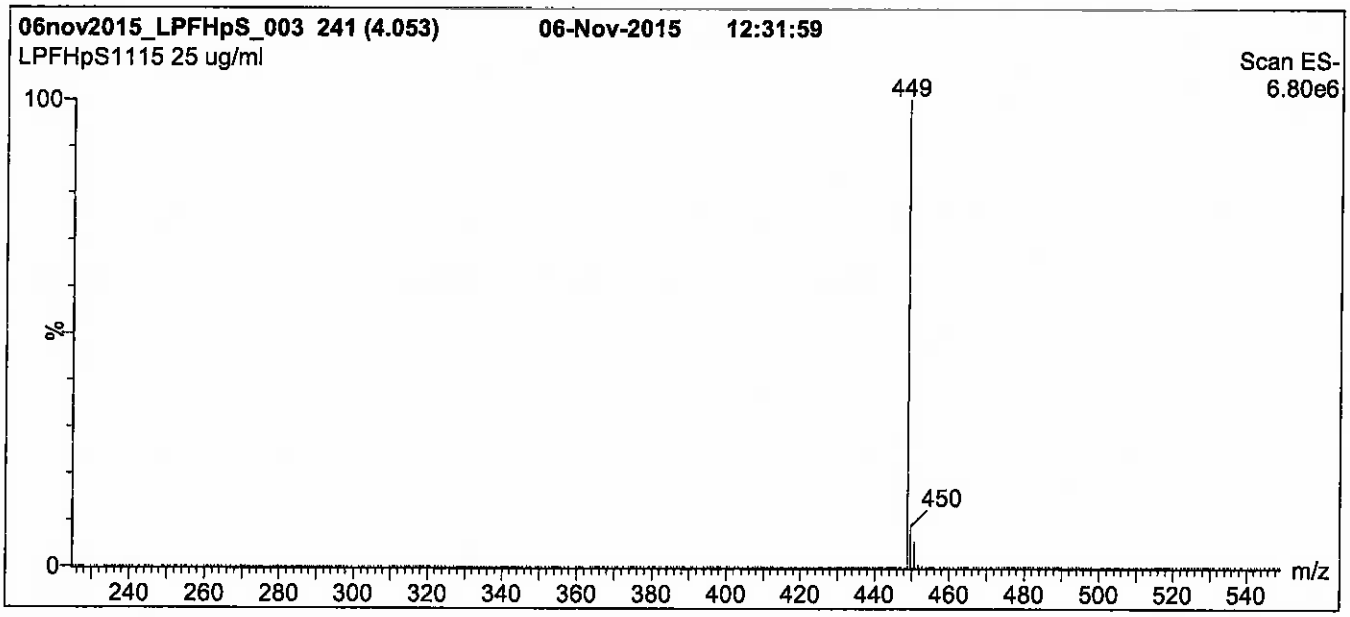

Conditions for Figure 1:

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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

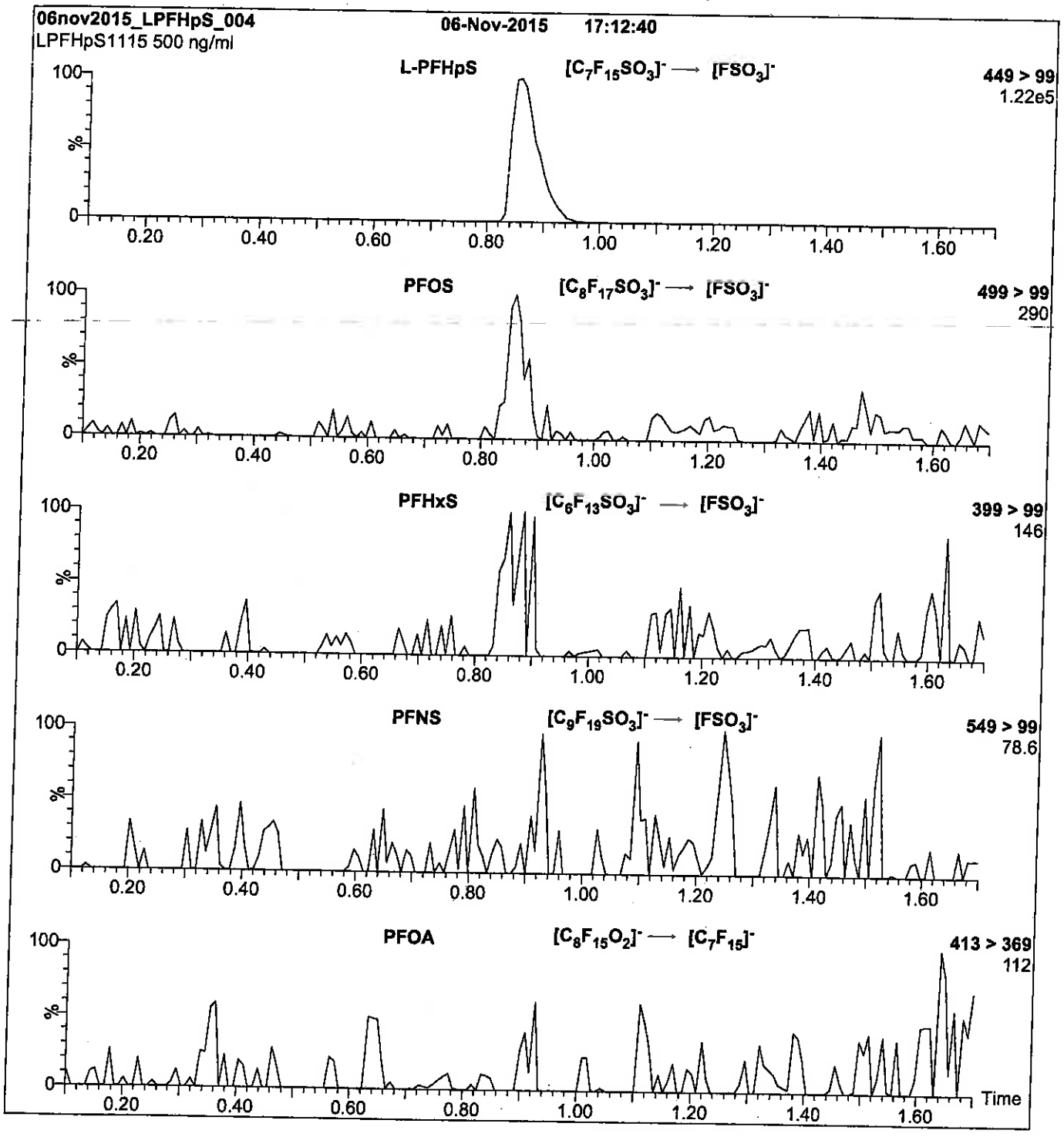
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 35

Reagent

LCPFHxA_00005

R: SBC 9/13/16

730551
ID: LCPFHxA_00005
Exp: 12/22/20 Prpd: SBC
PF-n-hexanoic acid

730552
ID: LCPFHxA_00006
Exp: 12/22/20 Prpd: SBC
PF-n-hexanoic acid

WELLINGTON LABORATORIES

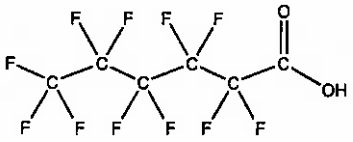
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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

LOT NUMBER: PFHxA1215

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) 12/22/2015
EXPIRY DATE: (mm/dd/yyyy) 12/22/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of Perfluoro-n-pentanoic acid (PFPeA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/23/2015 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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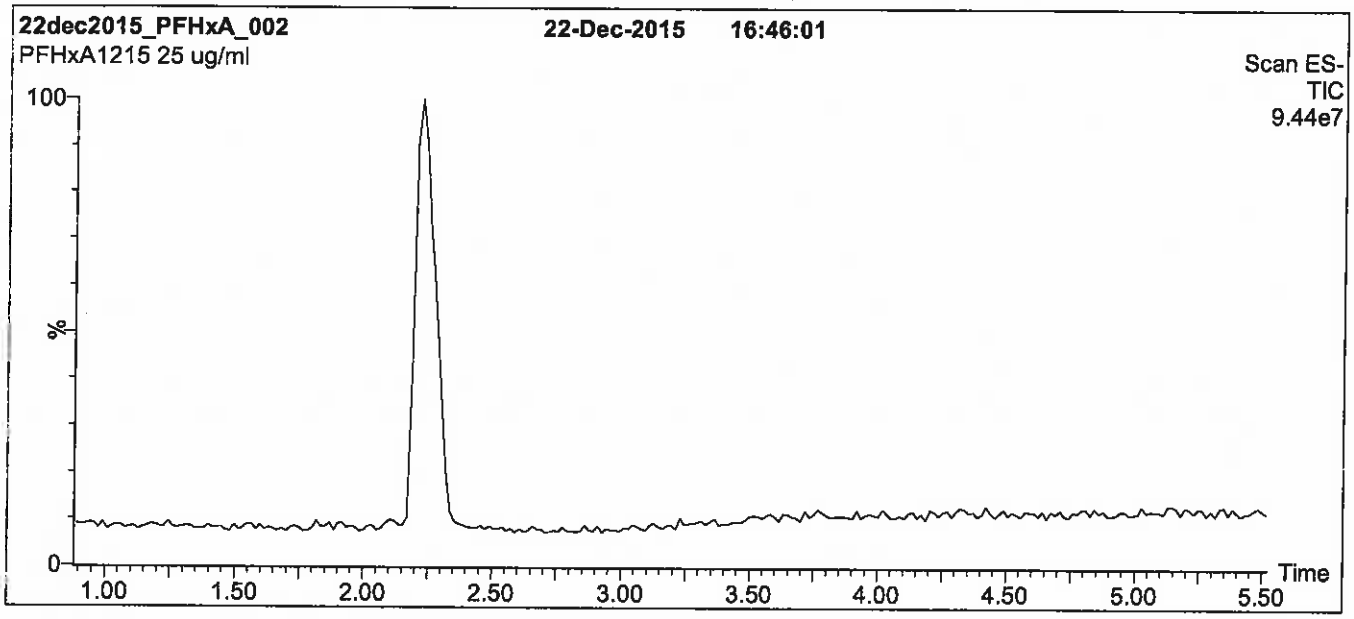
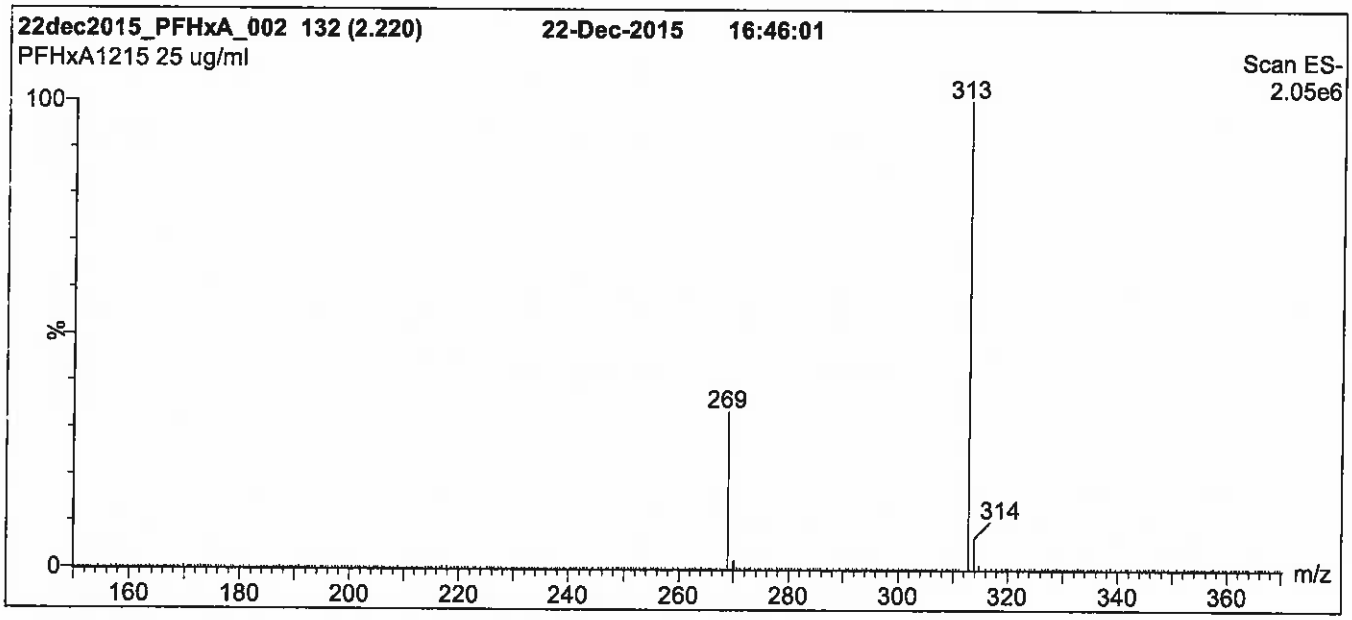
Figure 1: **PFHxA; LC/MS Data (TIC and Mass Spectrum)**





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

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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

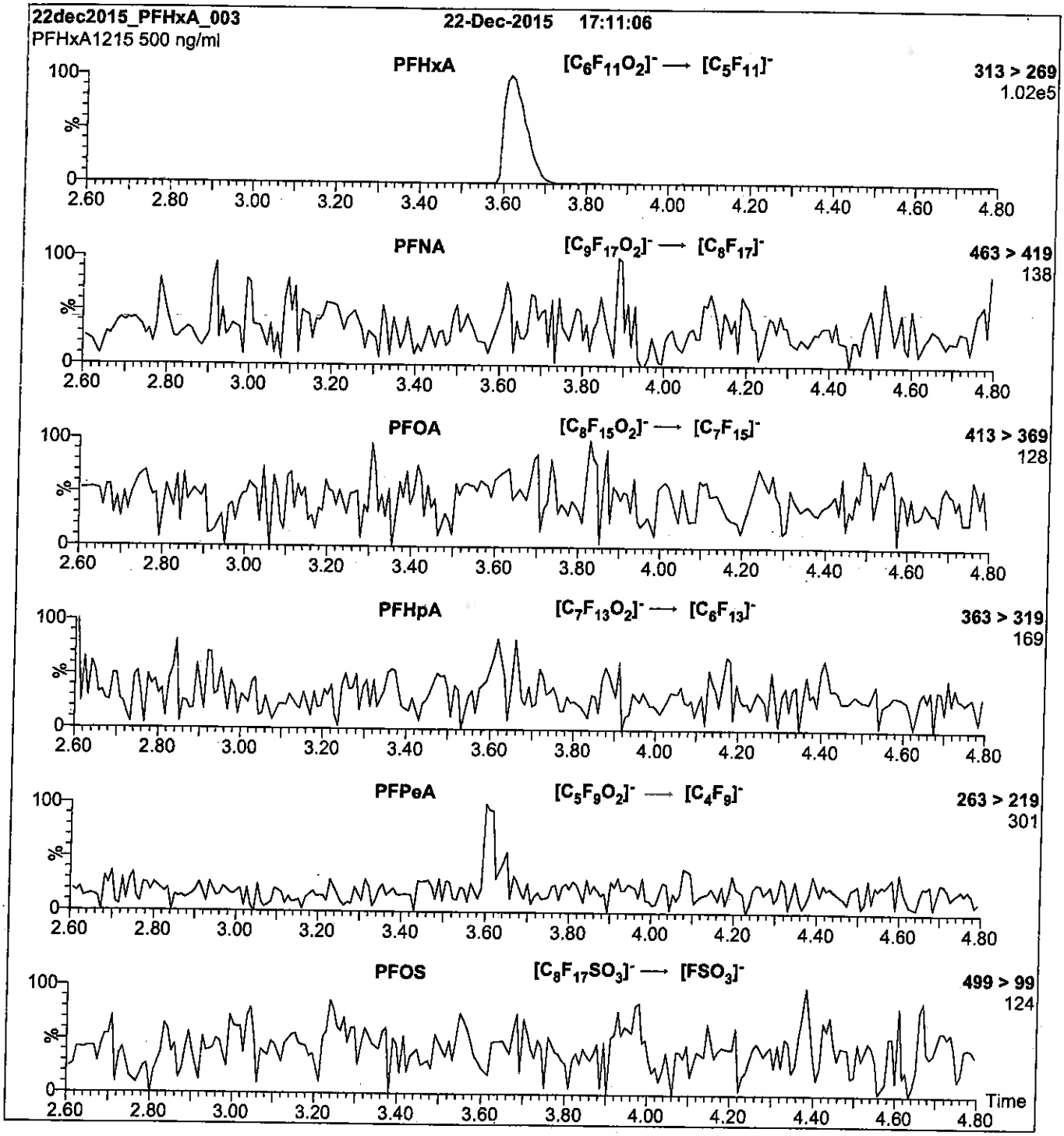
Flow: 300 µl/min

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

Reagent

LCPFHxA_00006

R: SBC 9/13/16

730551
ID: LCPFHxA_00005
Exp: 12/22/20 Prpd: SBC
PF-n-hexanoic acid

730552
ID: LCPFHxA_00006
Exp: 12/22/20 Prpd: SBC
PF-n-hexanoic acid

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

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

LOT NUMBER: PFHxA1215

STRUCTURE:

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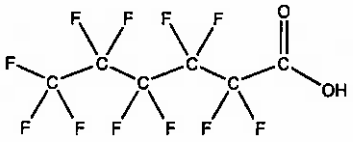

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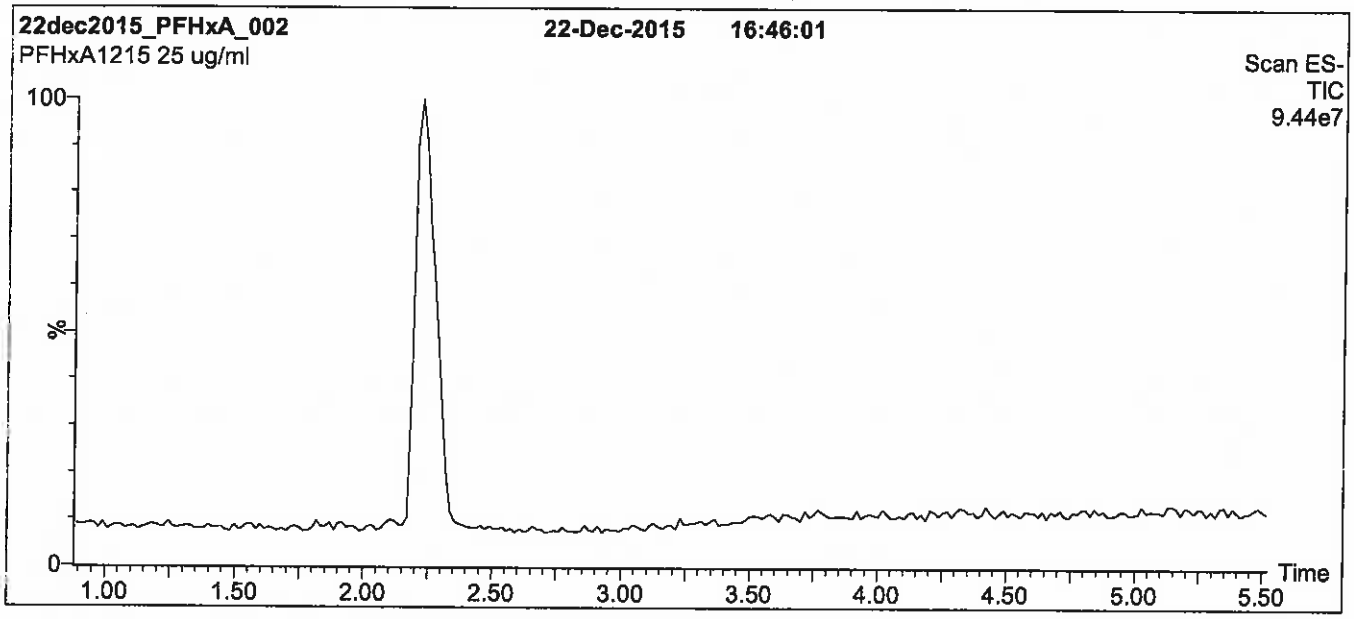
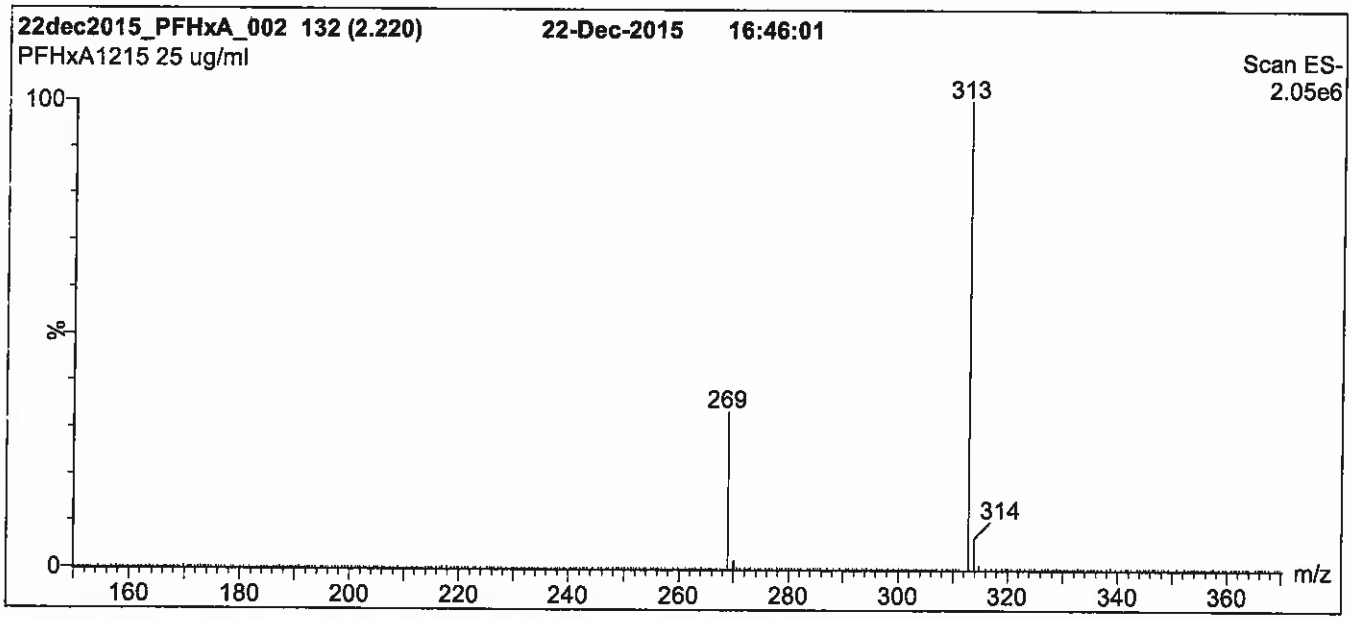




Conditions for Figure 1:

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

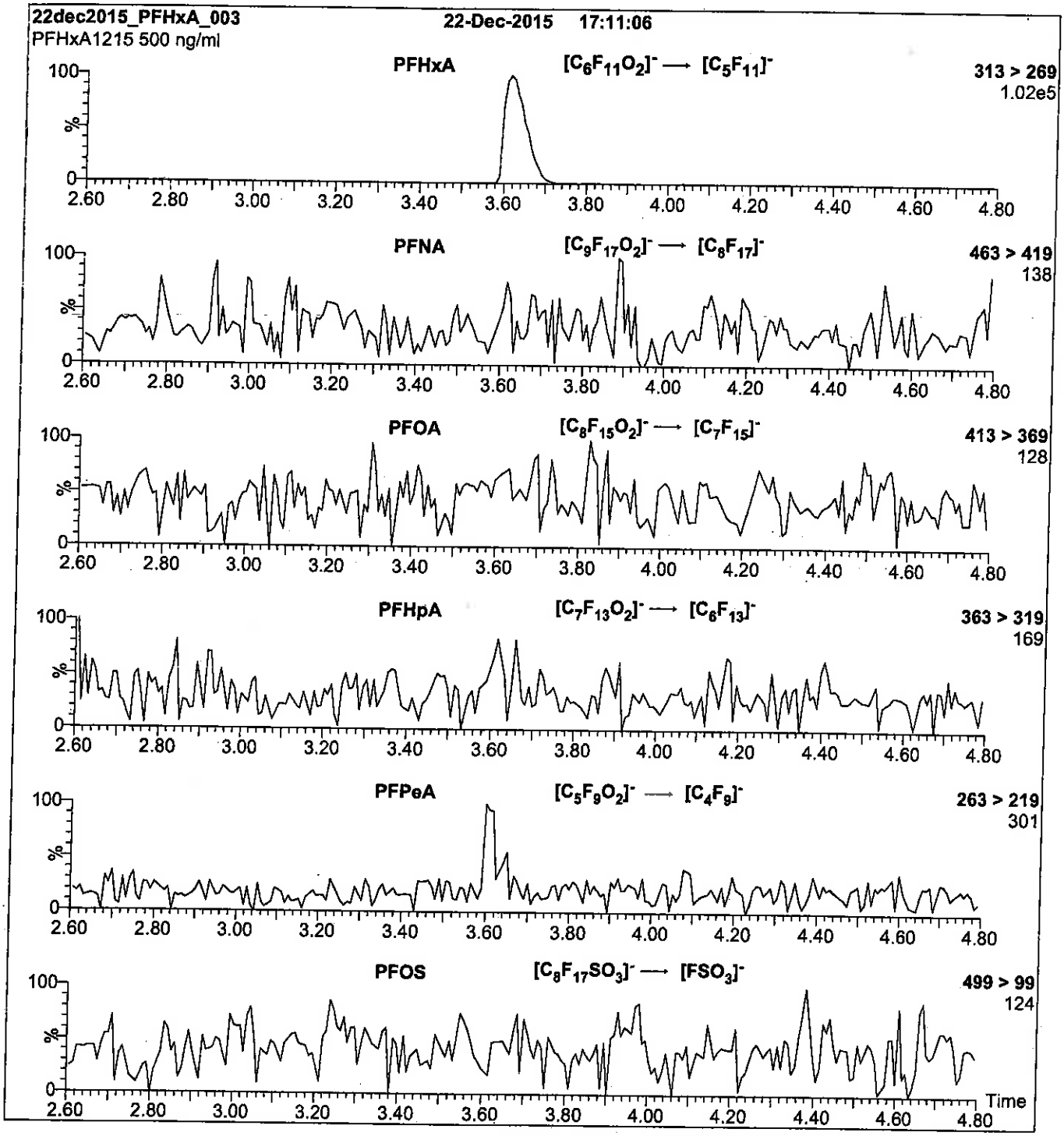
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (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) = 3.43e-3
Collision Energy (eV) = 10

Reagent

LCPFHxDA_00006

R: SBC 9/13/16
Scanned 10/14/16 SK

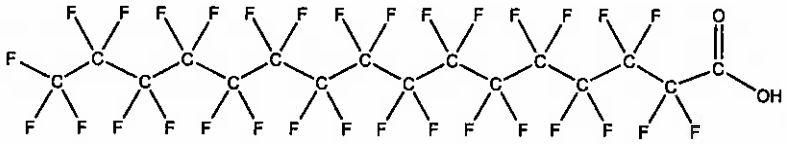
730630
ID: LCPFHxDA_00006
Exp: 05/25/21 Prpd: SBC
PFHxDA stock 50ug/mL

730631
ID: LCPFHxDA_00007
Exp: 05/25/21 Prpd: SBC
PFHxDA stock 50ug/mL

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFHxDA	**LOT NUMBER:**	PFHxDA0516
COMPOUND:	Perfluoro-n-hexadecanoic acid		
STRUCTURE:		**CAS #:**	67905-19-5



MOLECULAR FORMULA:	$C_{16}HF_{31}O_2$	**MOLECULAR WEIGHT:**	814.13
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/25/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/25/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.4% of PFODA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 05/27/2016 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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UNCERTAINTY:

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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.

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

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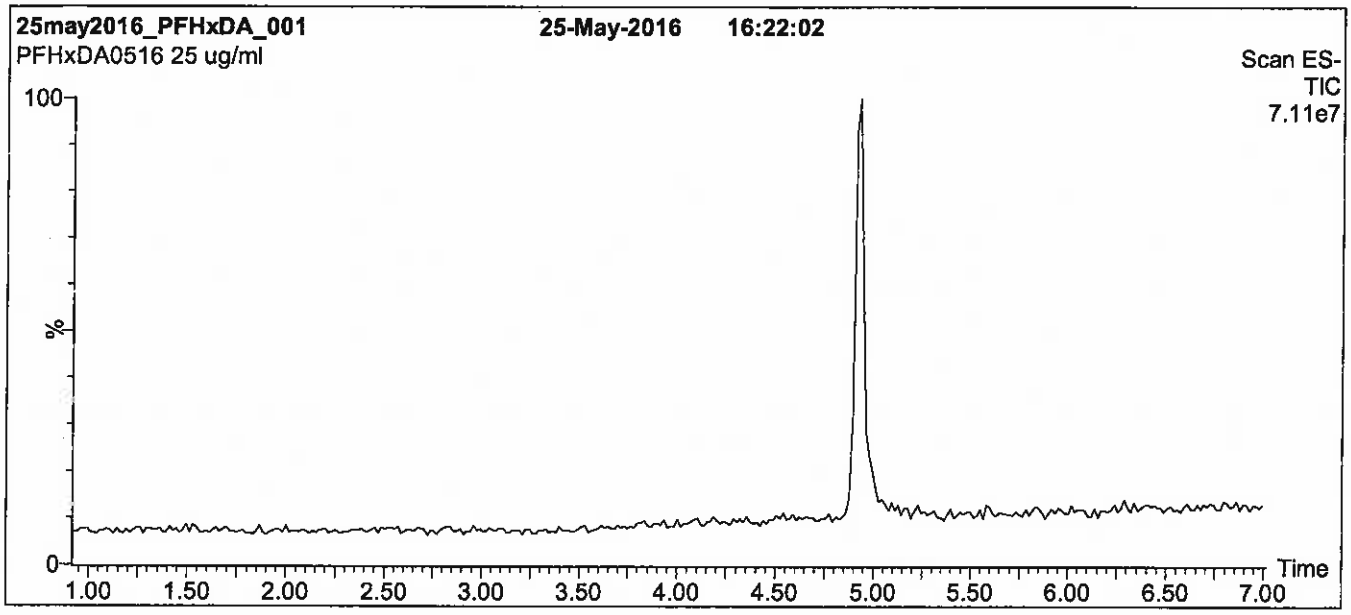
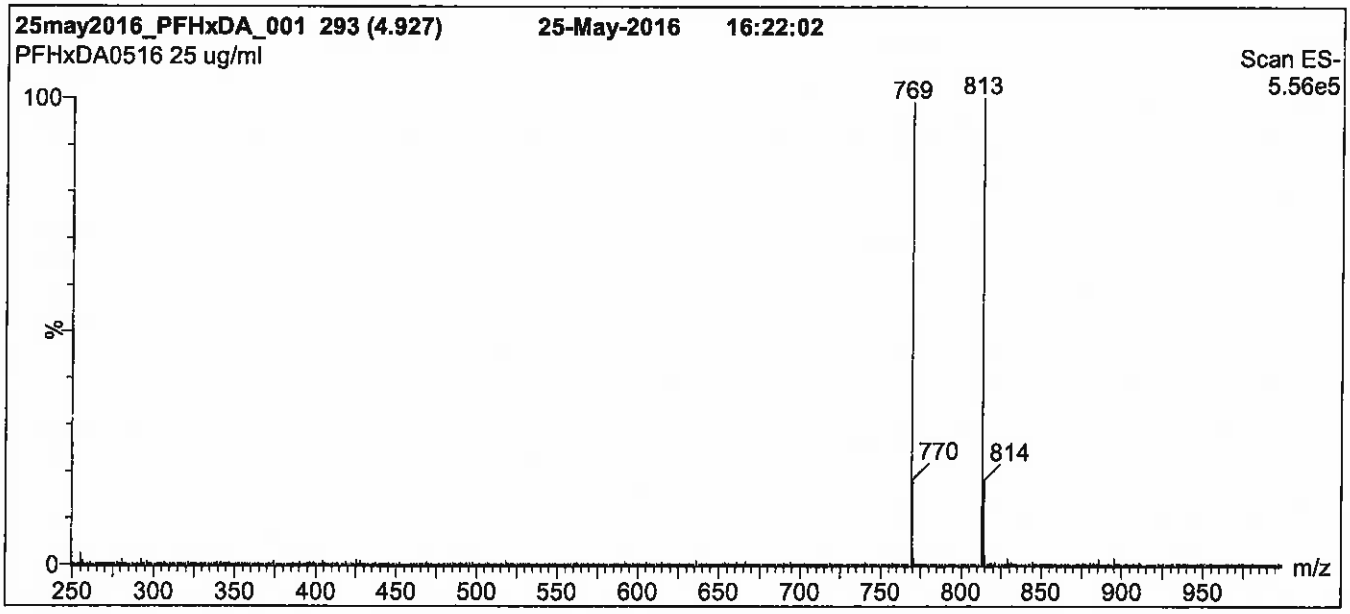
Figure 1: **PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





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 95% organic over 6 min and hold for 2.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

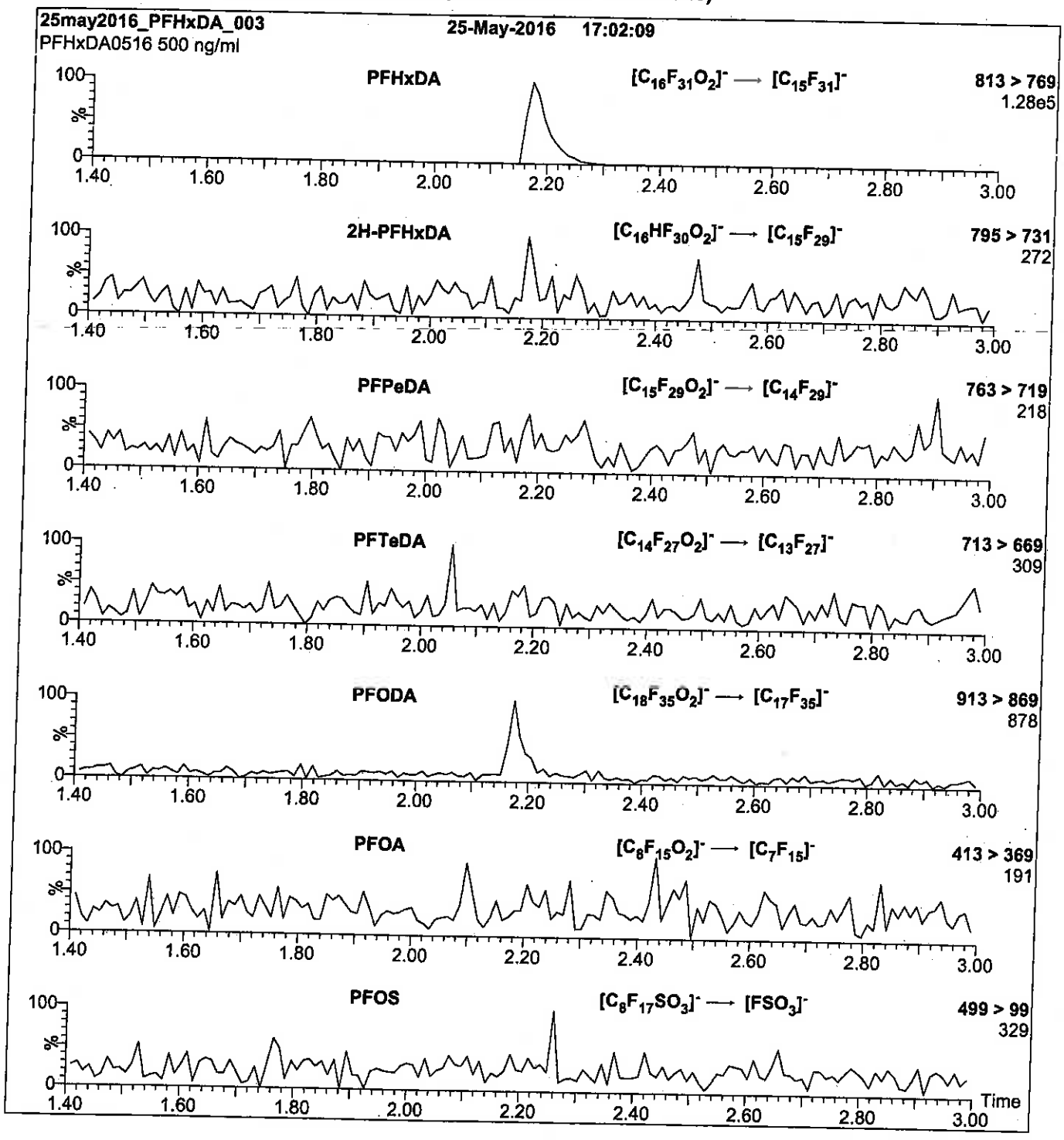
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 15

Reagent

LCPFHxDA_00007

R: SBC 9/13/16
Scanned 10/14/16 SK

730630
ID: LCPFHxDA_00006
Exp: 05/25/21 Prpd: SBC
PFHxDA stock 50ug/mL

730631
ID: LCPFHxDA_00007
Exp: 05/25/21 Prpd: SBC
PFHxDA stock 50ug/mL

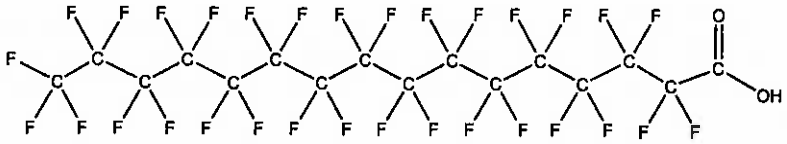
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxDA
LOT NUMBER: PFHxDA0516
COMPOUND: Perfluoro-n-hexadecanoic acid

STRUCTURE:

CAS #: 67905-19-5



MOLECULAR FORMULA: $C_{16}HF_{31}O_2$
MOLECULAR WEIGHT: 814.13
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/25/2016
EXPIRY DATE: (mm/dd/yyyy) 05/25/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

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

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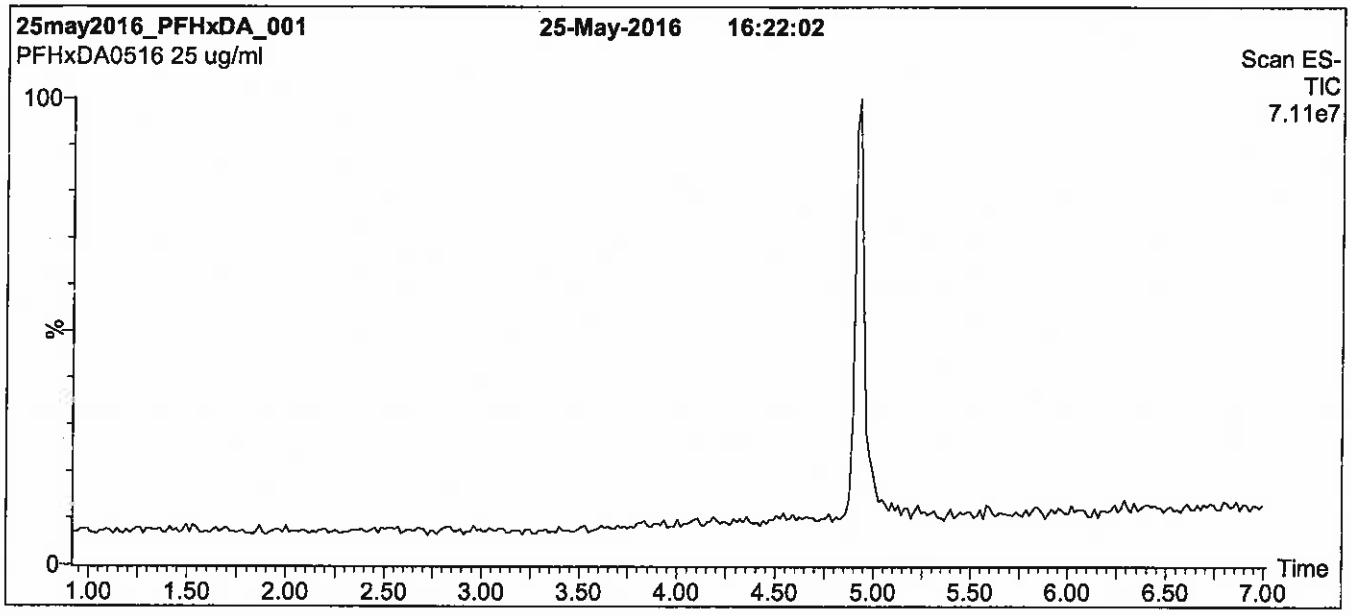
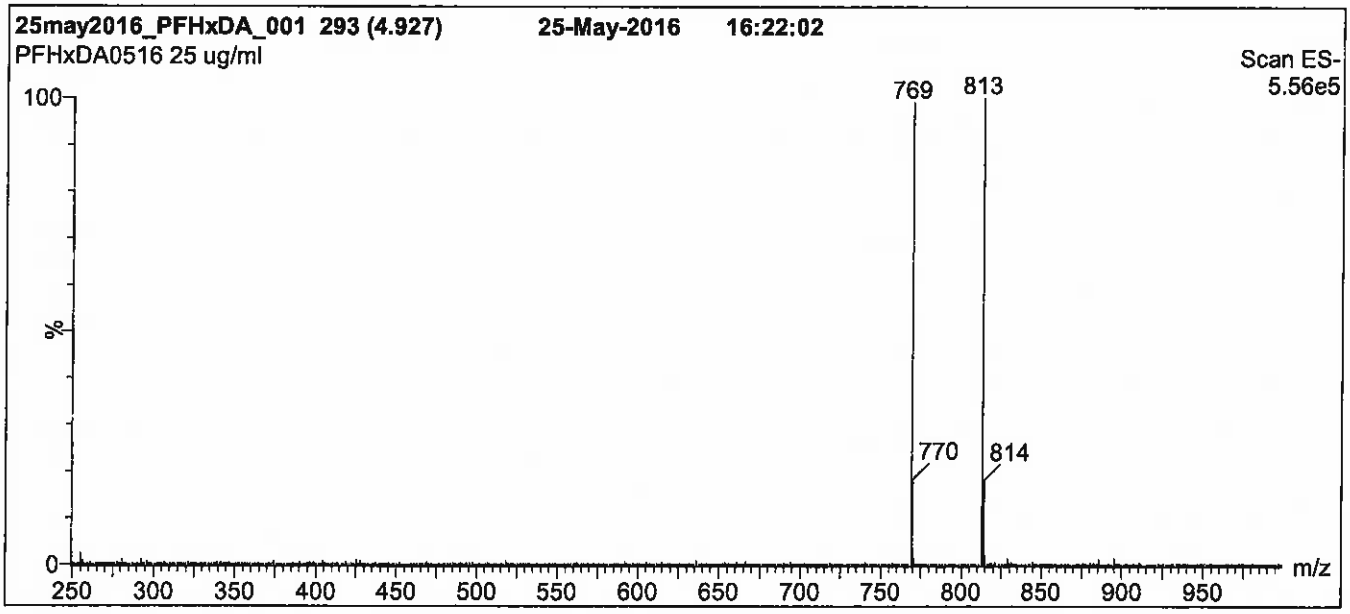




Conditions for Figure 1:

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: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 6 min and hold for 2.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

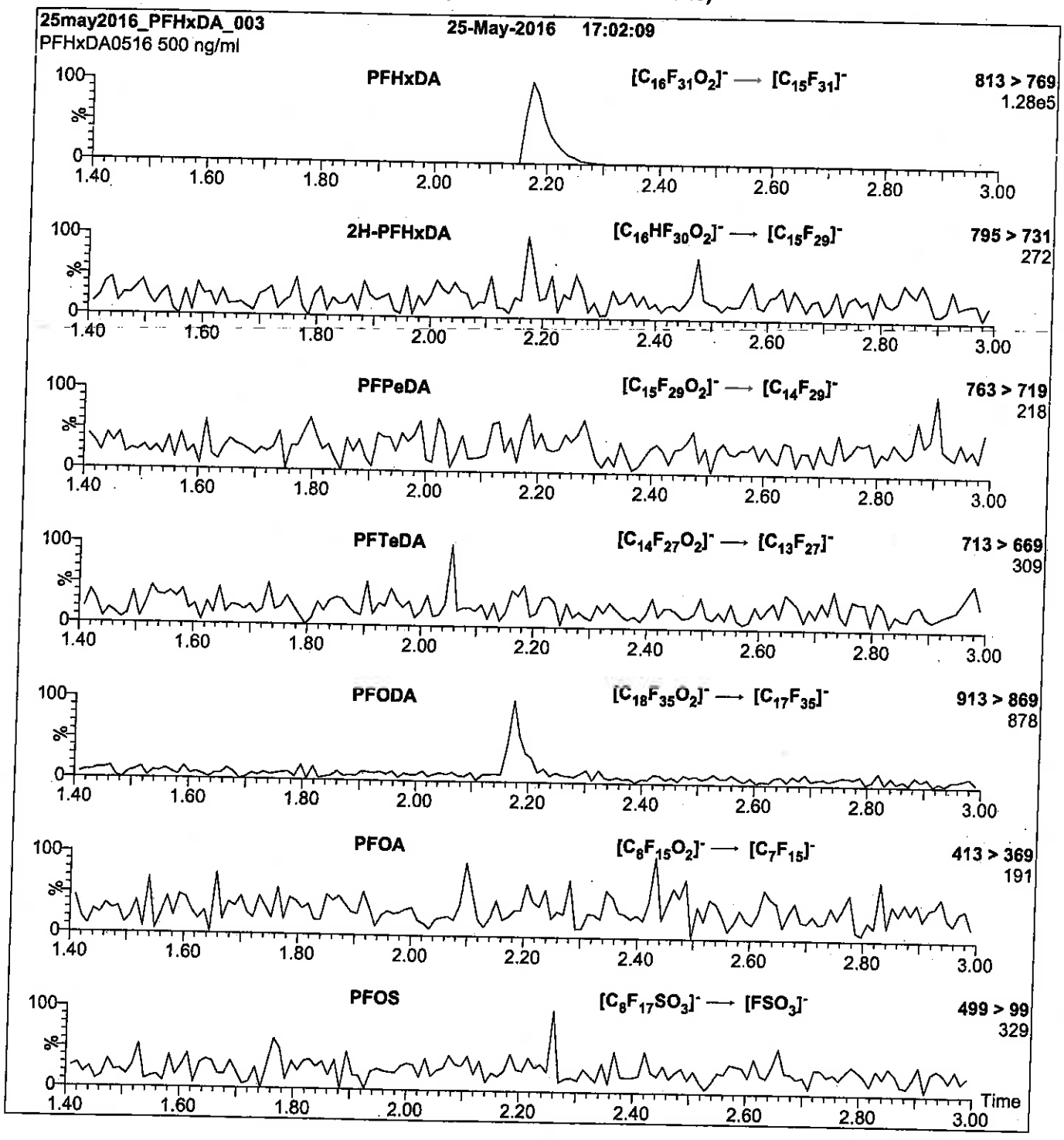
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

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) = 15

Reagent

LCPFHxS-br_00002

SBC
R: 9/13/16

730513
ID: LCPFHxS-br_00002
Exp: 07/03/20 Prpd: SBC
Potassium Perfluorohexane

730514
ID: LCPFHxS-br_00003
Exp: 07/03/20 Prpd: SBC
Potassium Perfluorohexane

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0615
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	06/29/2015
LAST TESTED: (mm/dd/yyyy)	07/03/2015
EXPIRY DATE: (mm/dd/yyyy)	07/03/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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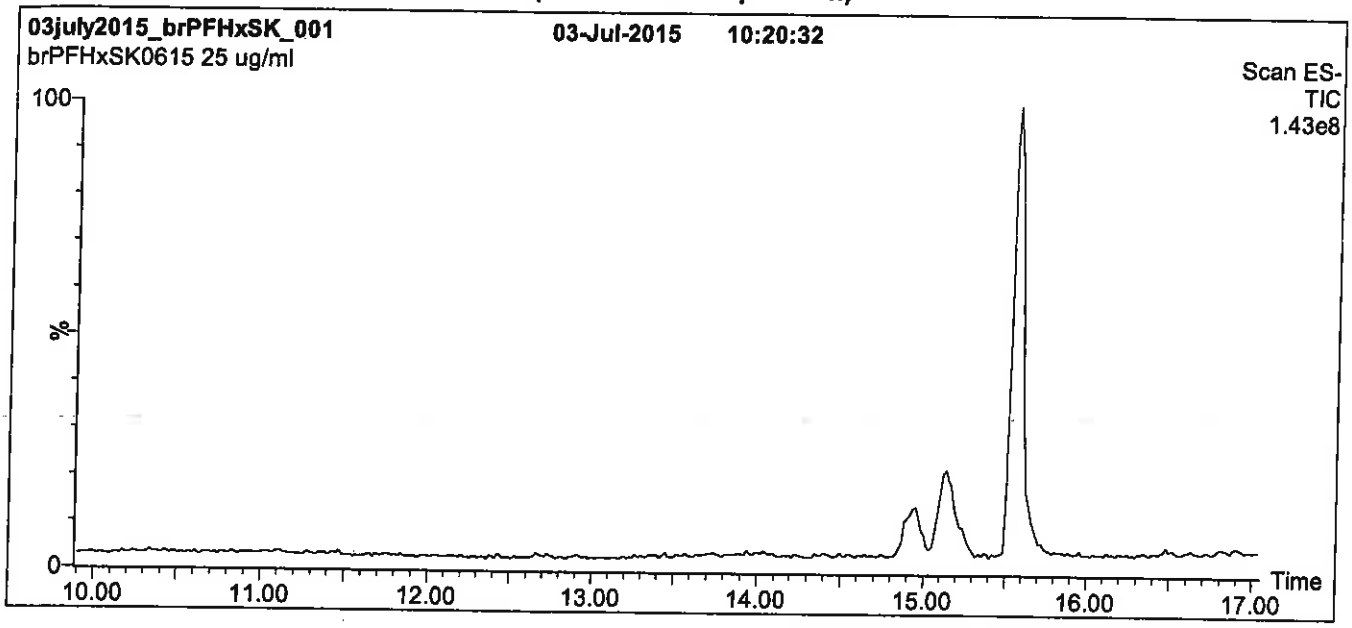
Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

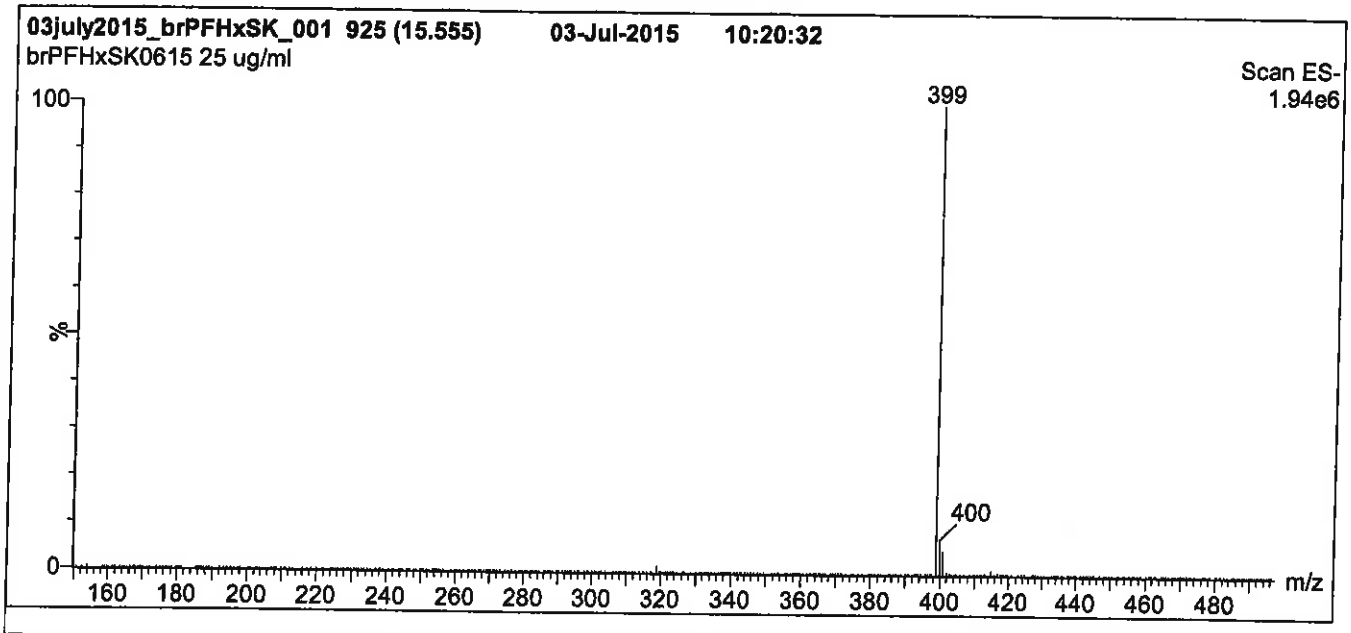
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 07/15/2015 (mm/dd/yyyy)

Figure 1: **br-PFHxSK; 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: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

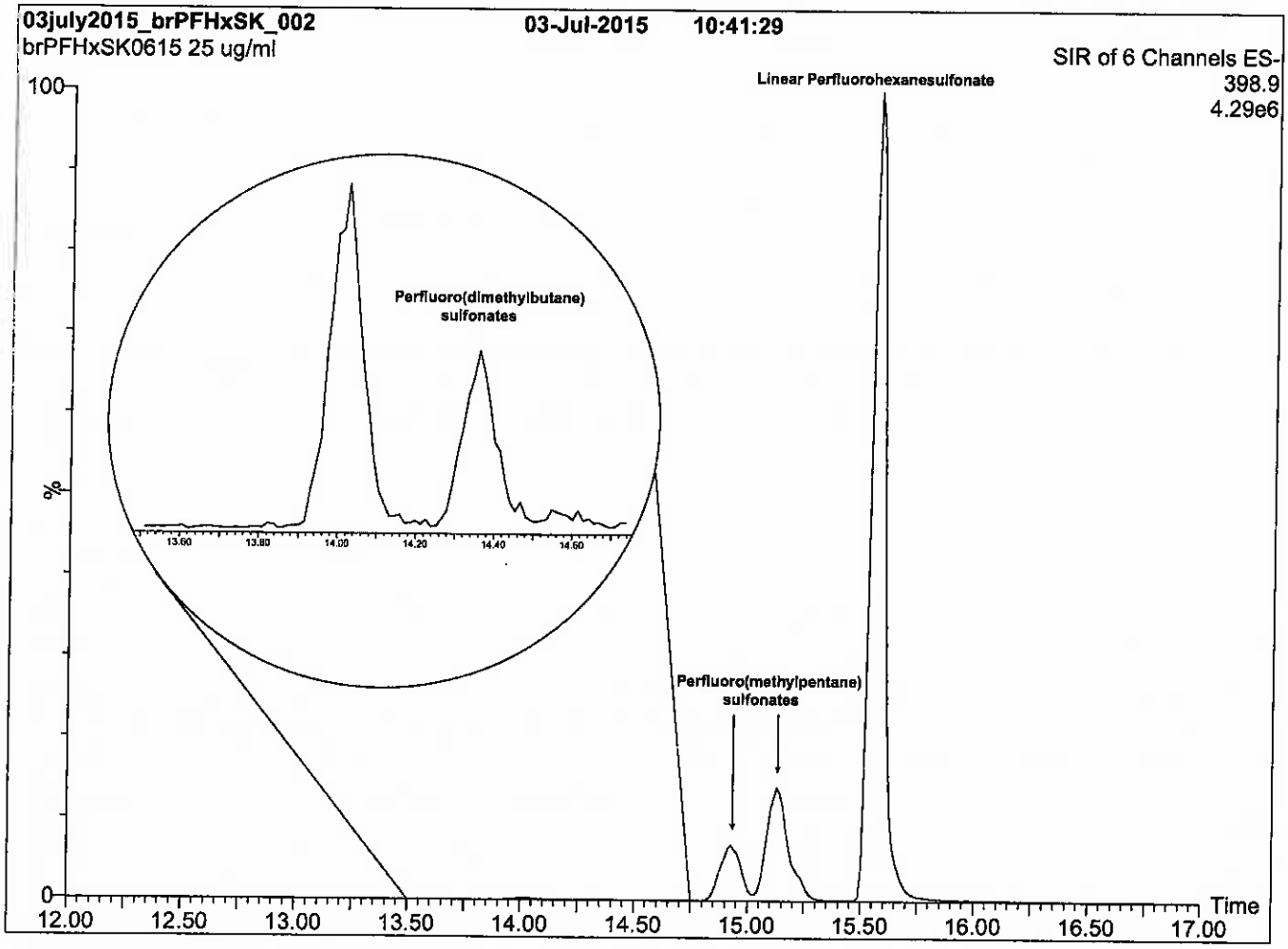
Flow: 300 µl/min

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: **br-PFHxSK; LC/MS Data**



Conditions for Figure 2:

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: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

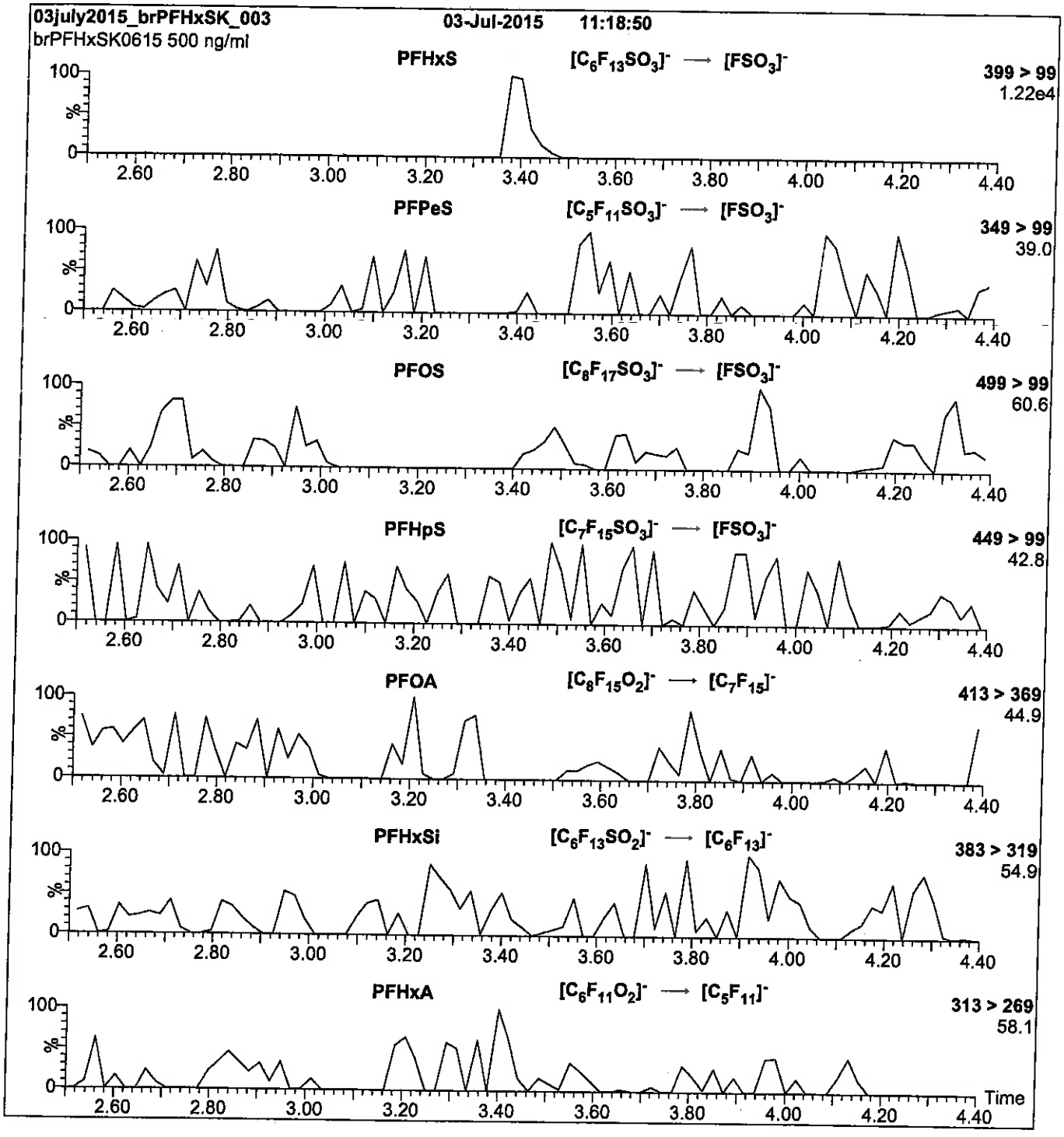
Flow: 300 µl/min

MS Parameters

Experiment: SIR (6 channels)

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 3: **br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml br-PFHxSK)

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) = 30

Reagent

LCPFHxS-br_00003

SBC
R: 9/13/16

730513
ID: LCPFHxS-br_00002
Exp: 07/03/20 Prpd: SBC
Potassium Perfluorohexane

730514
ID: LCPFHxS-br_00003
Exp: 07/03/20 Prpd: SBC
Potassium Perfluorohexane

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0615
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	06/29/2015
LAST TESTED: (mm/dd/yyyy)	07/03/2015
EXPIRY DATE: (mm/dd/yyyy)	07/03/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

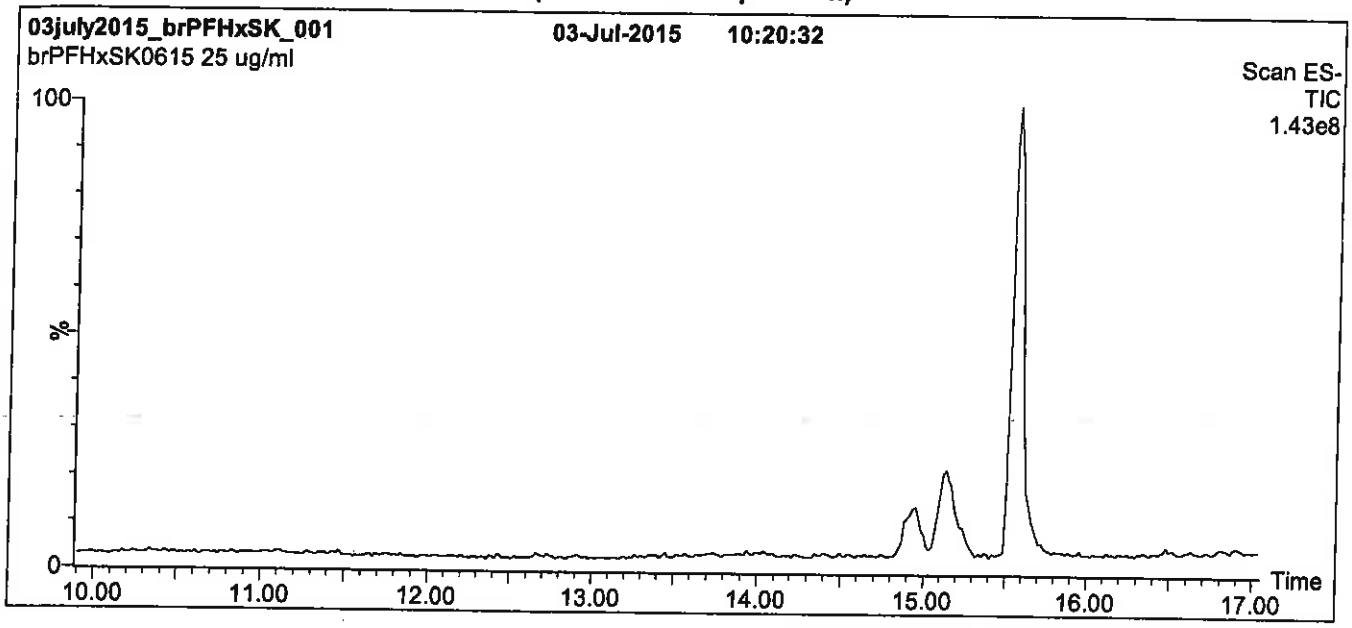
Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

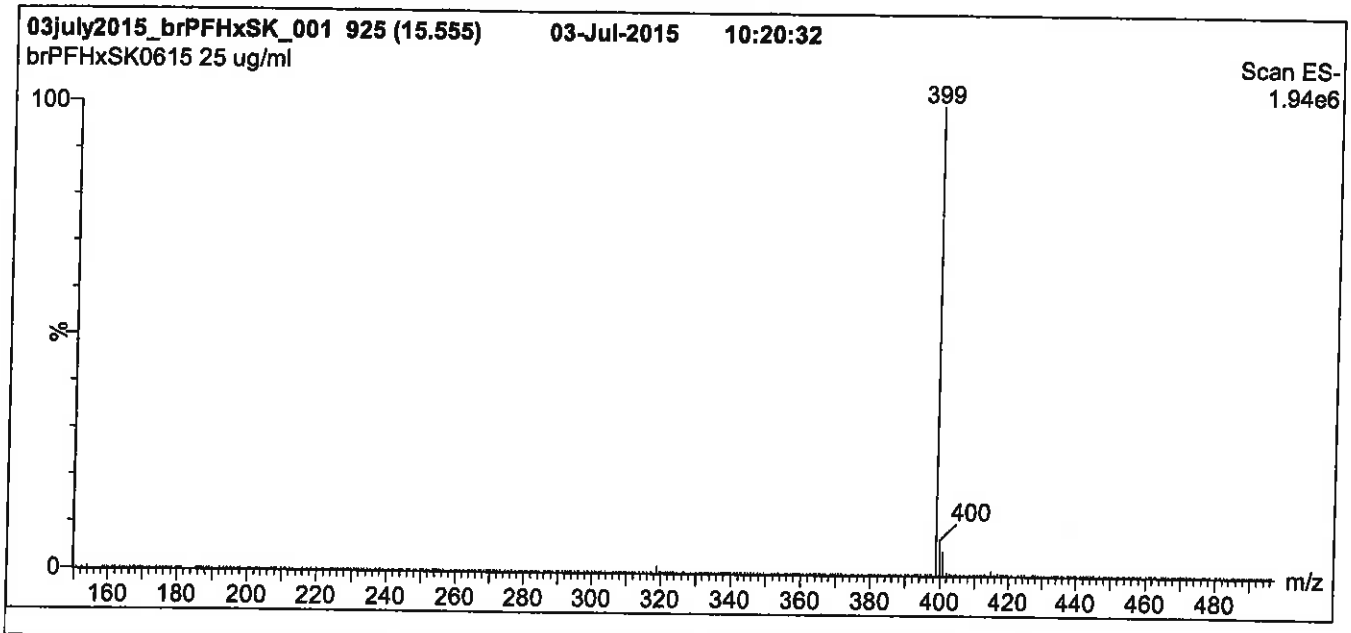
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 07/15/2015 (mm/dd/yyyy)

Figure 1: **br-PFHxSK; 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: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

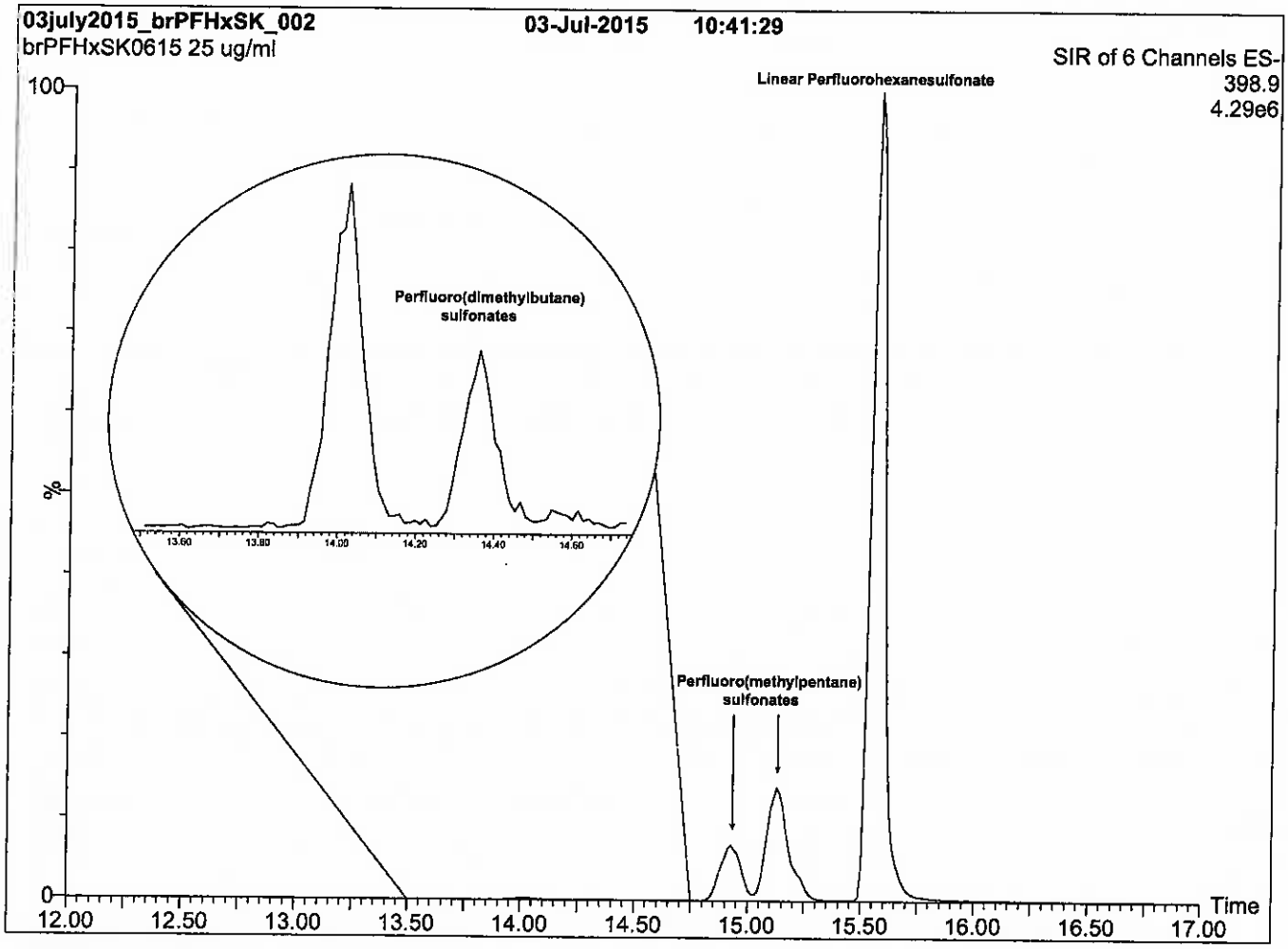
Flow: 300 µl/min

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: **br-PFHxSK; LC/MS Data**



Conditions for Figure 2:

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: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

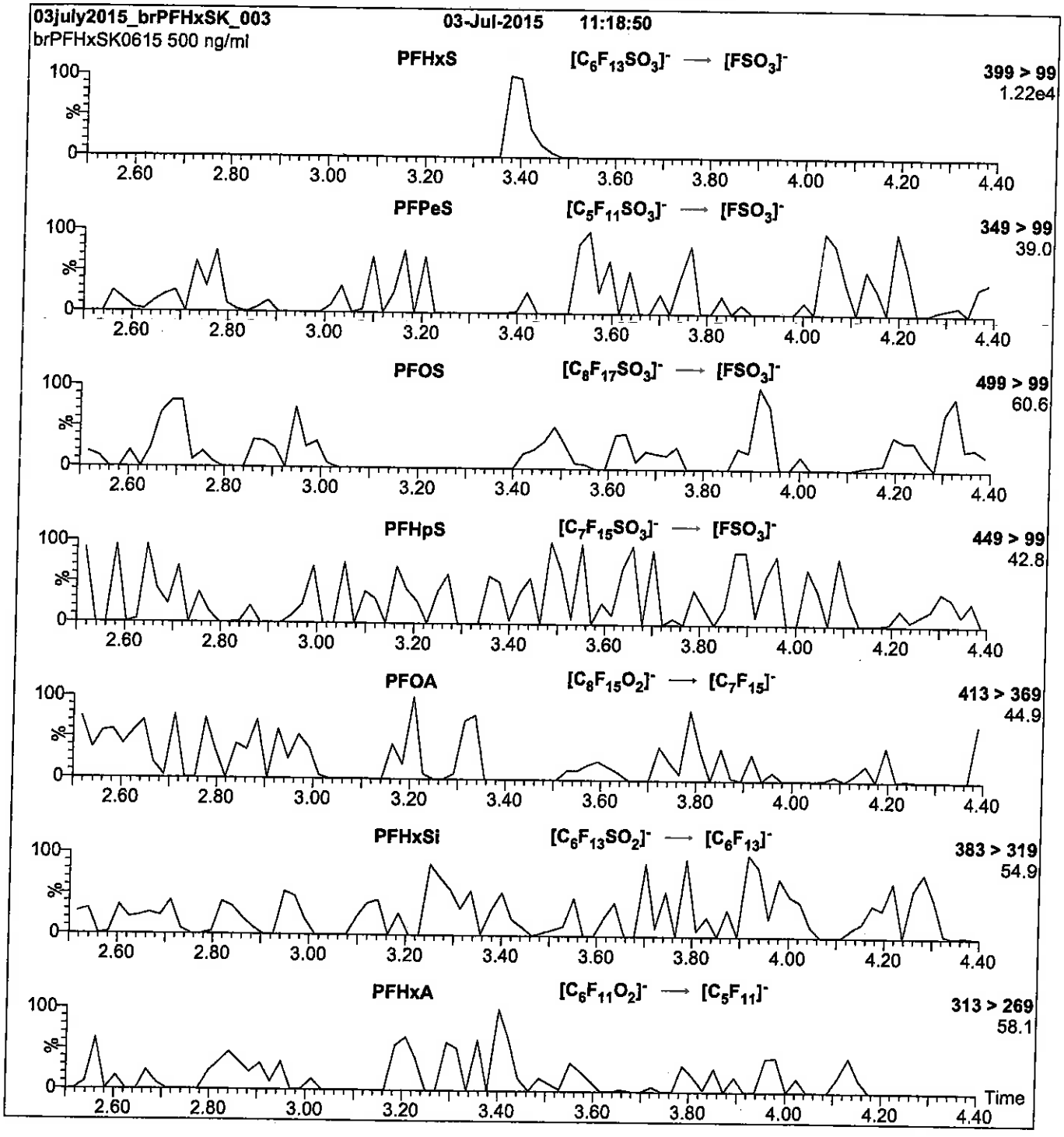
Flow: 300 µl/min

MS Parameters

Experiment: SIR (6 channels)

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 3: **br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml br-PFHxSK)

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) = 30

Reagent

LCPFNA_00006

R: SBC 9/13/16
Scanned 10/14/16

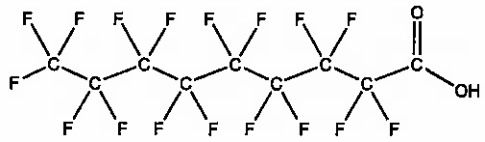
730559
ID: LCPFNA_00006
Exp: 10/23/20 Prpd: SBC
PF-n-nonanoic acid

730560
ID: LCPFNA_00007
Exp: 10/23/20 Prpd: SBC
PF-n-nonanoic acid

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFNA	**LOT NUMBER:**	PFNA1015
COMPOUND:	Perfluoro-n-nonanoic acid		
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)	10/23/2015		
EXPIRY DATE: (mm/dd/yyyy)	10/23/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-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:** 10/30/2015 (mm/dd/yyyy)

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

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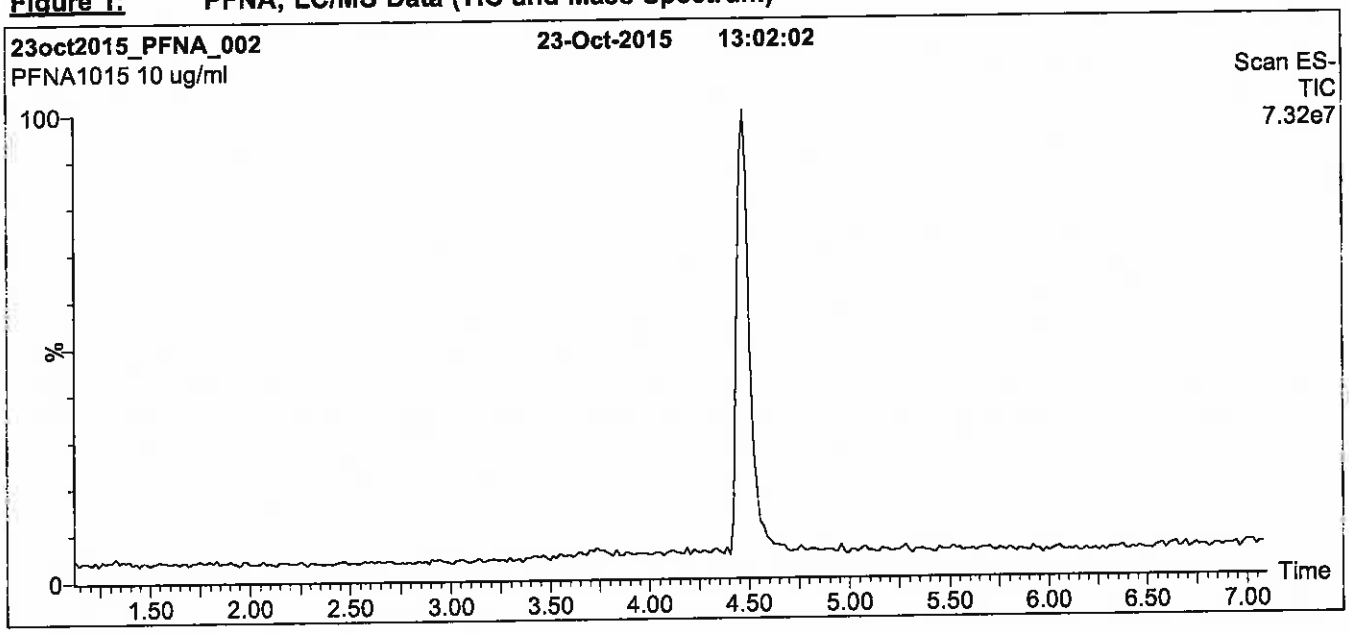
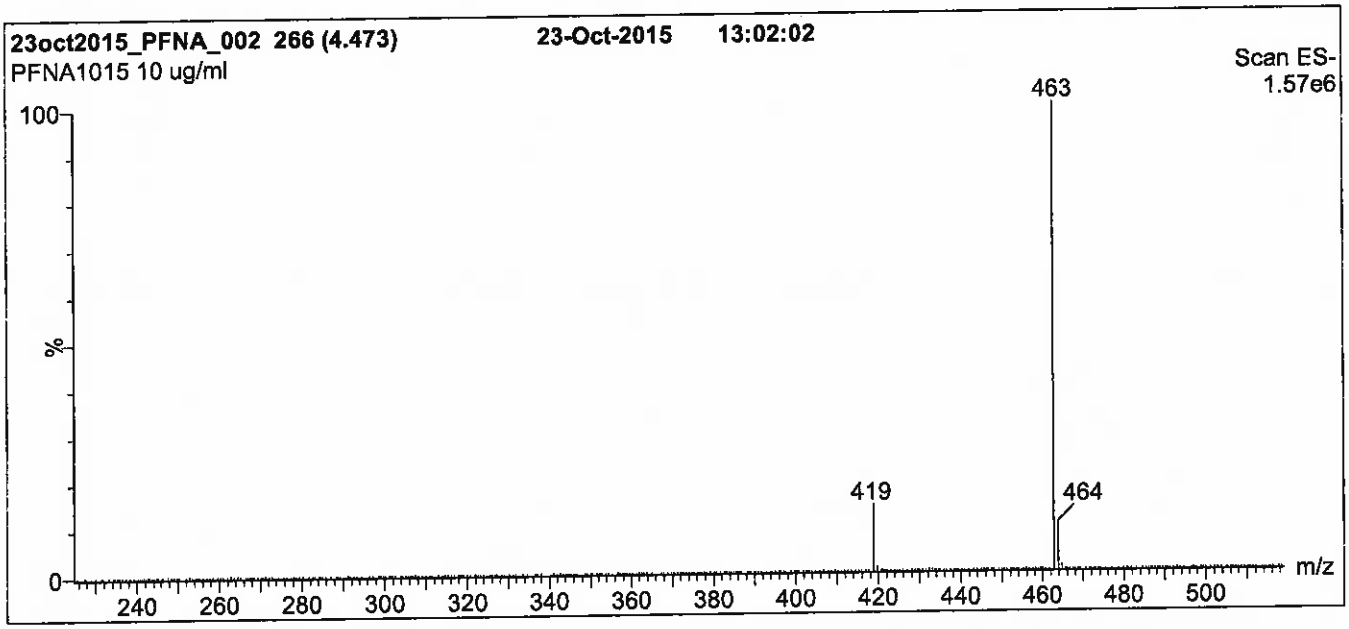
Figure 1: **PFNA; LC/MS Data (TIC and Mass Spectrum)**





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: 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

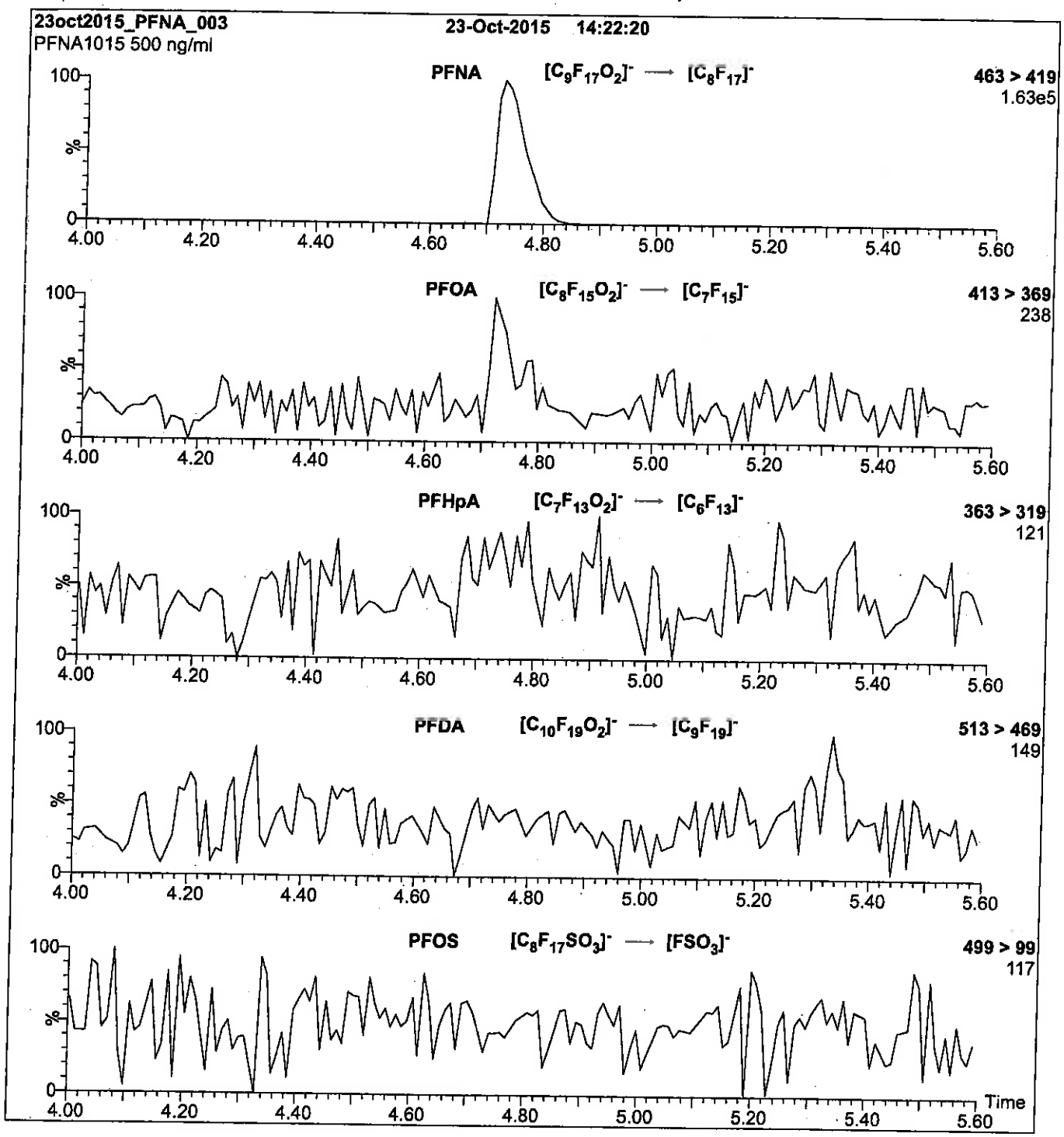
Flow: 300 µl/min

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: **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) = 3.28e-3
Collision Energy (eV) = 11

Reagent

LCPFNA_00007

R: SBC 9/13/16
Scanned 10/14/16

730559
ID: LCPFNA_00006
Exp: 10/23/20 Prpd: SBC
PF-n-nonanoic acid

730560
ID: LCPFNA_00007
Exp: 10/23/20 Prpd: SBC
PF-n-nonanoic acid

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

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STRUCTURE:		**CAS #:**	375-95-1

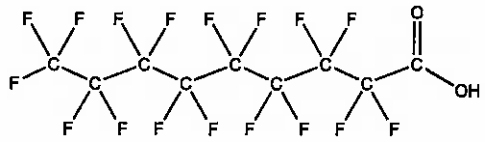

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Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

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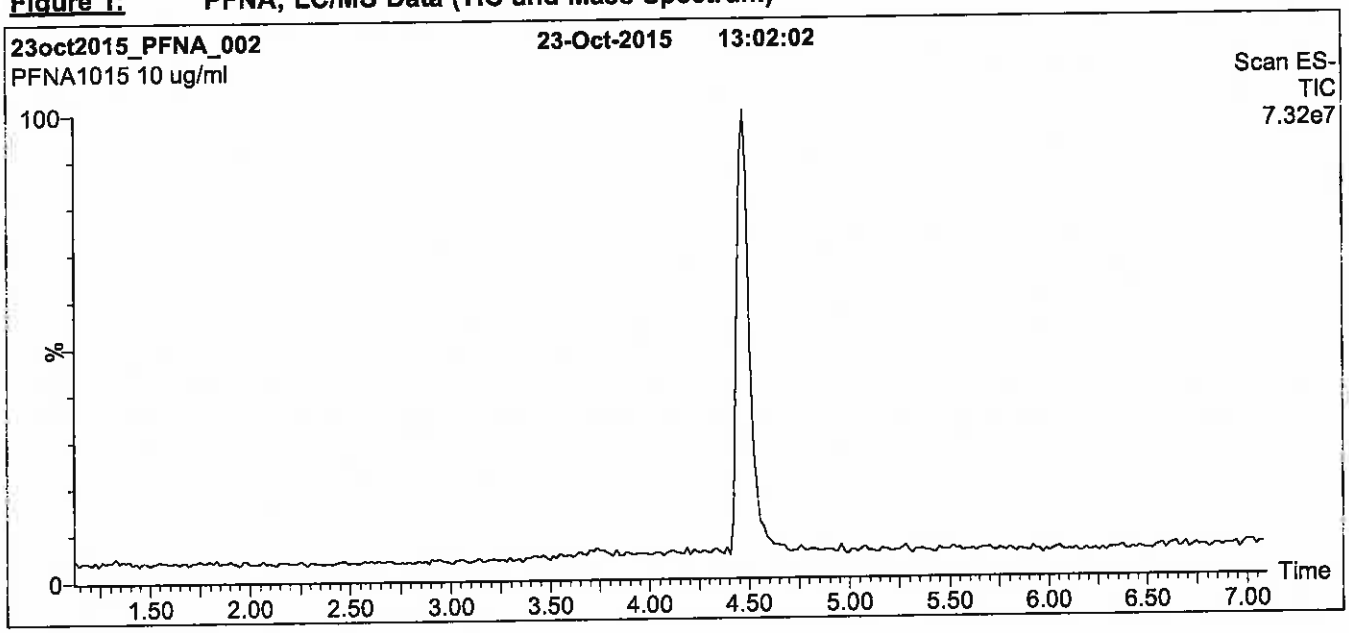
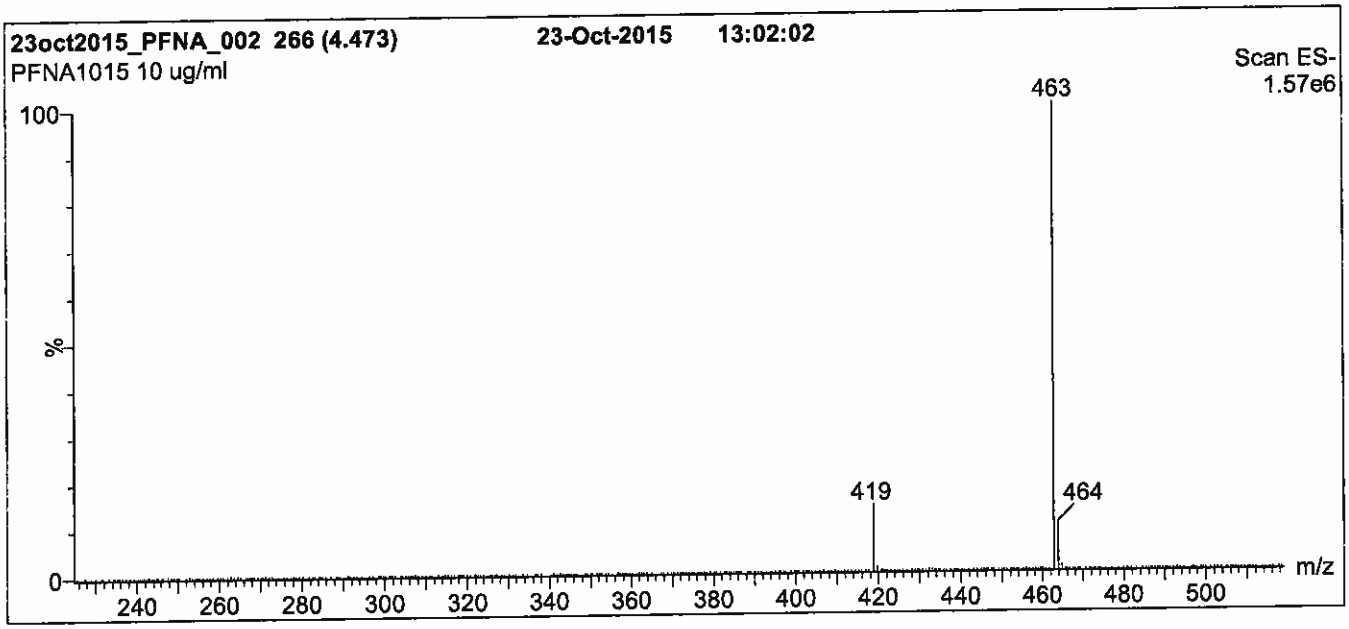
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **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: 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

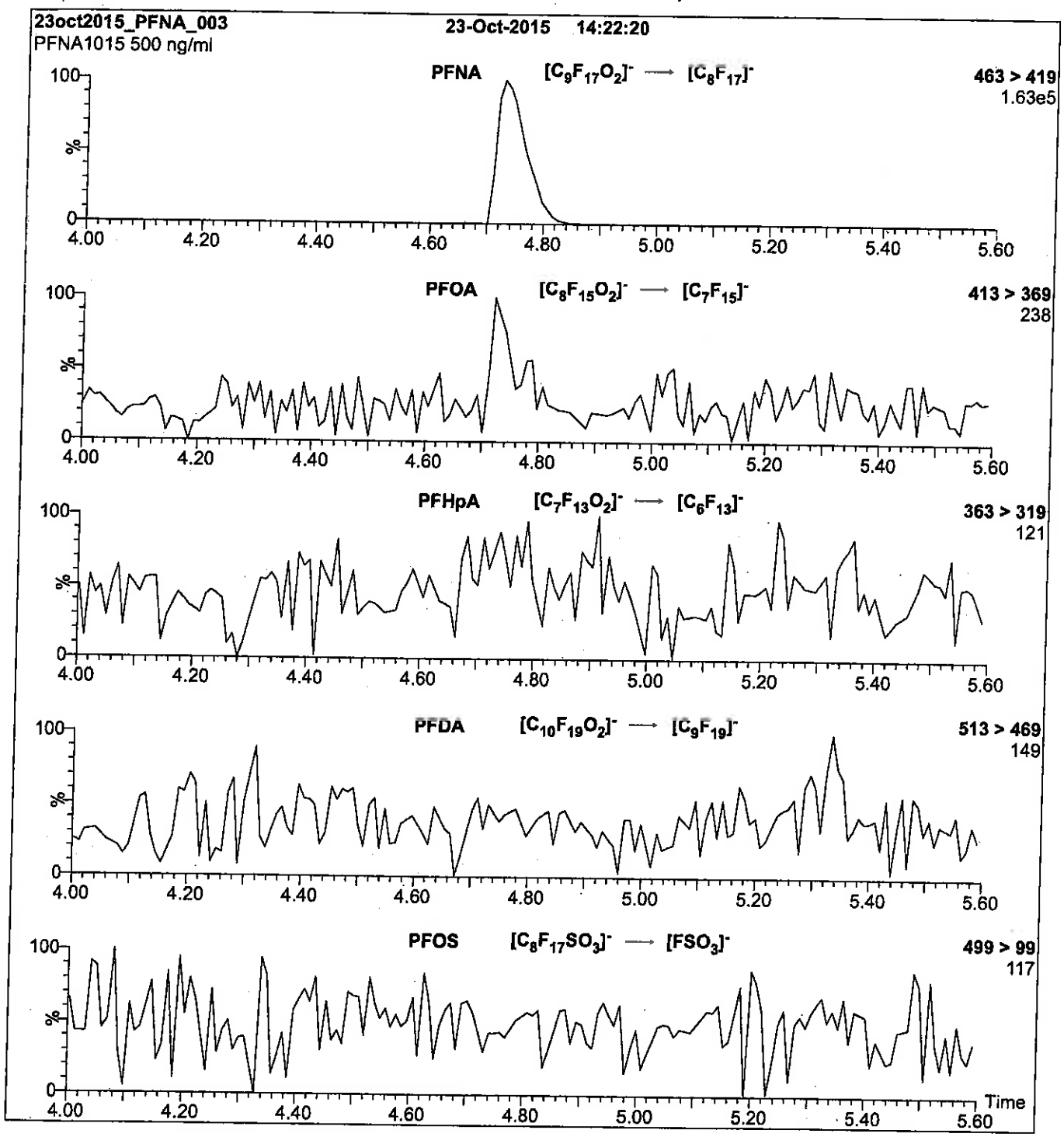
Flow: 300 µl/min

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: **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) = 3.28e-3
Collision Energy (eV) = 11

Reagent

LCPFOA_00006

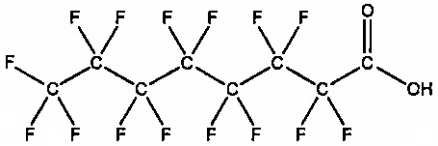
R-7/6/16 CBW

671577
ID: LCPFOA_00006
Exp: 11/06/20 Prpd: CBW
PF-n-octanoic acid

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFOA	**LOT NUMBER:**	PFOA1115
COMPOUND:	Perfluoro-n-octanoic acid		
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)	11/06/2015		
EXPIRY DATE: (mm/dd/yyyy)	11/06/2020		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 11/11/2015 (mm/dd/yyyy)

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

INTENDED USE:

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HAZARDS:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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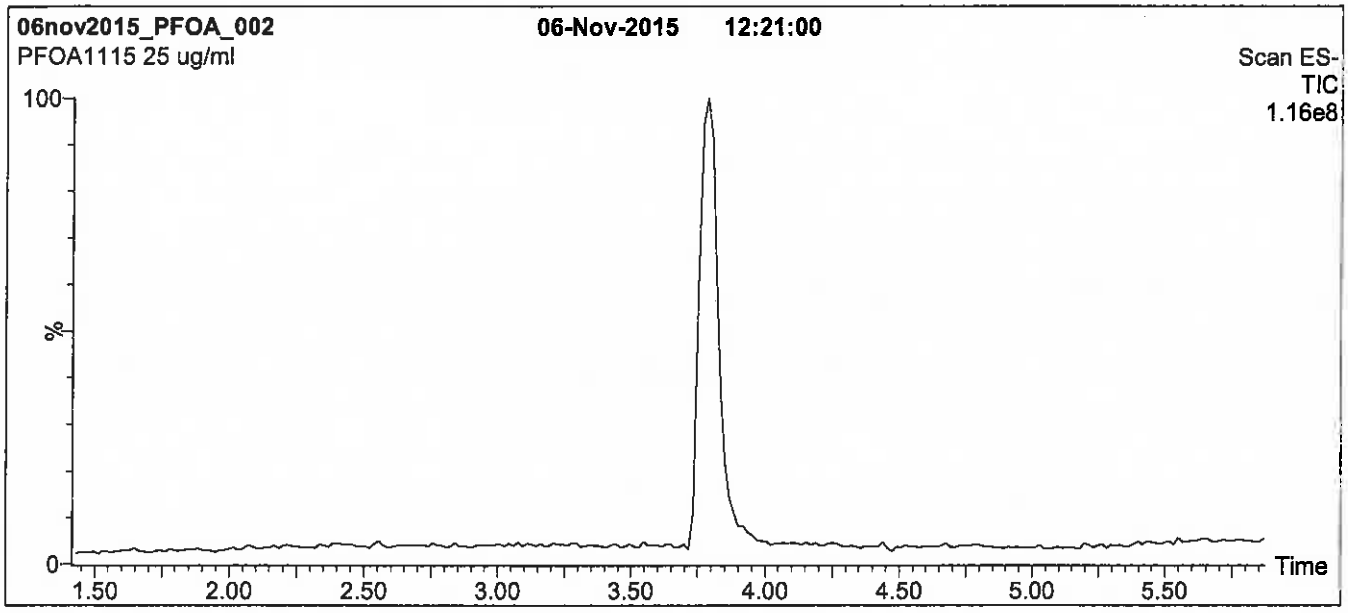
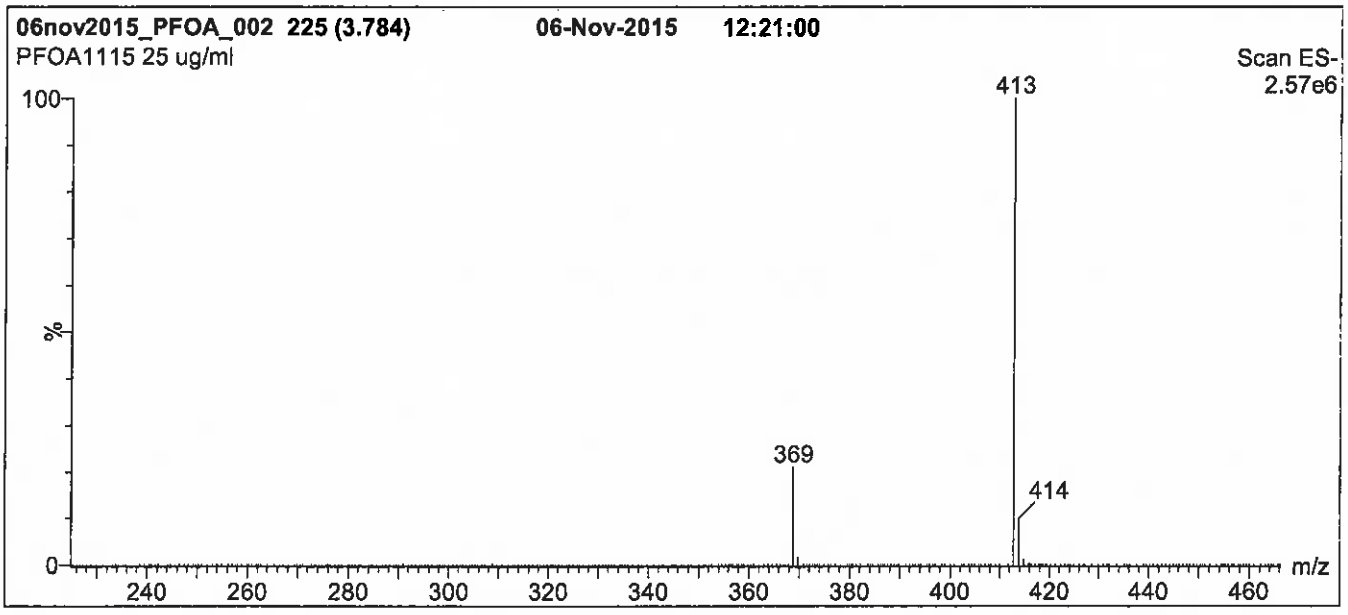
Figure 1: **PFOA; LC/MS Data (TIC and Mass Spectrum)**





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: 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

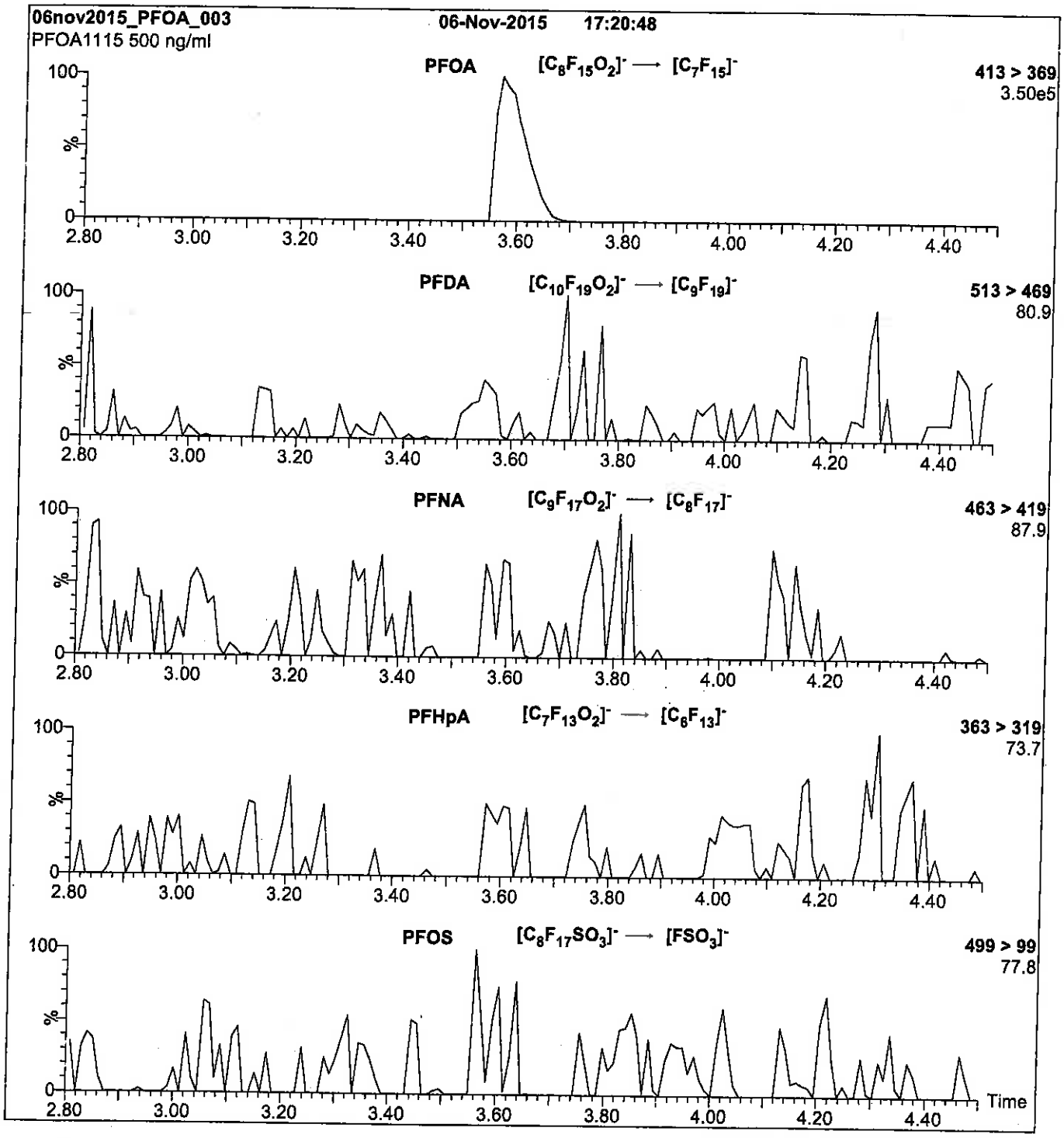
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
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 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 10

Reagent

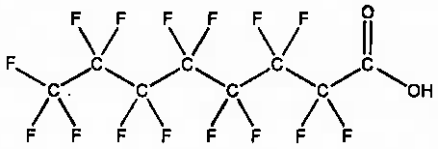
LCPFOA_00007

r: 12/21/16 SPV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFOA	**LOT NUMBER:**	PFOA0716
COMPOUND:	Perfluoro-n-octanoic acid		
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)	08/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/02/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

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Figure 1: LC/MS Data (TIC and Mass Spectrum)
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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:** 08/05/2016 (mm/dd/yyyy)

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

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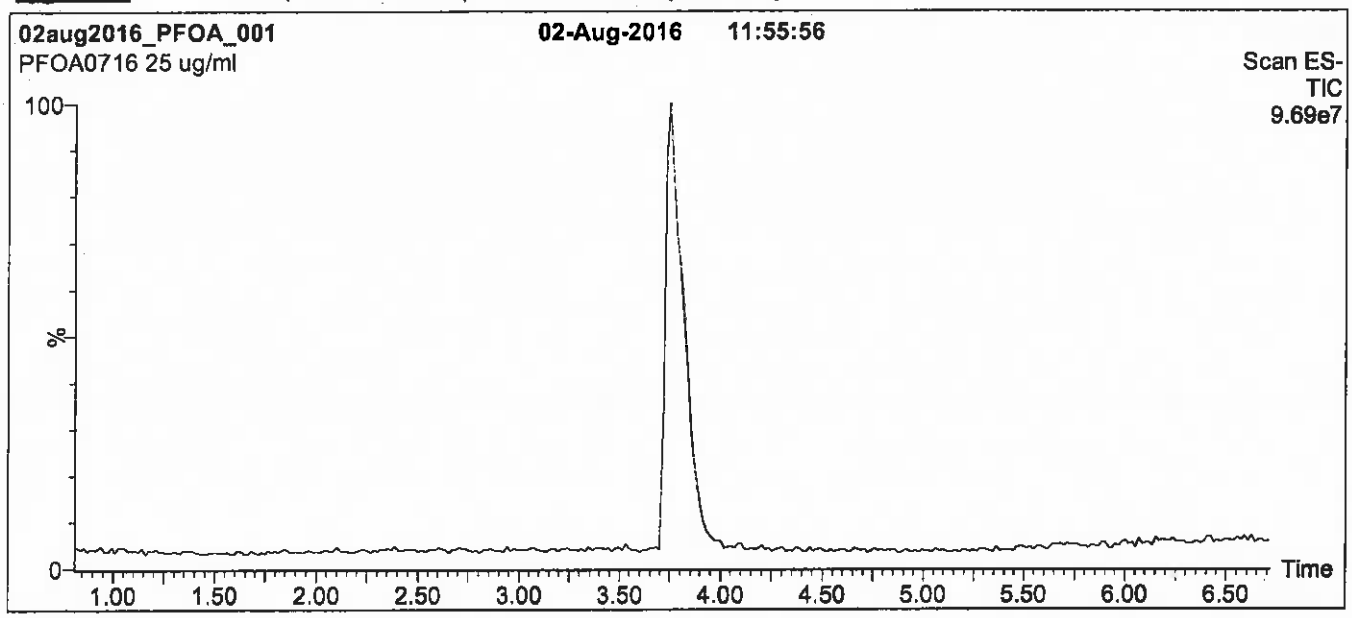

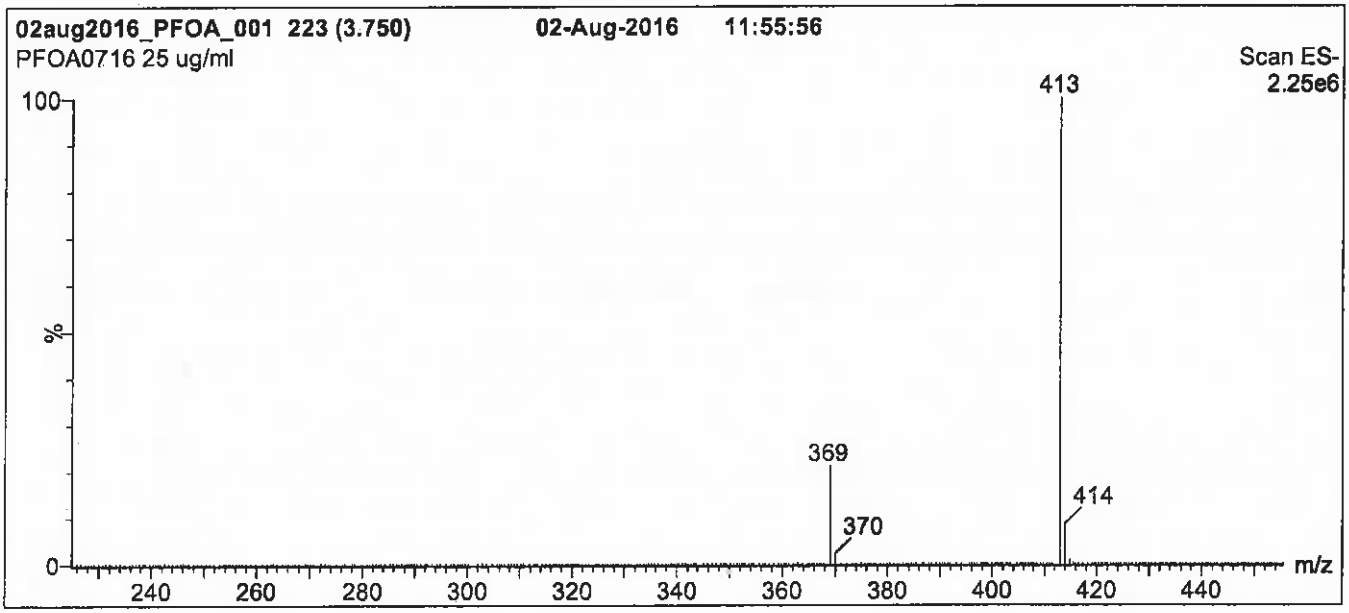

Conditions for Figure 1:

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

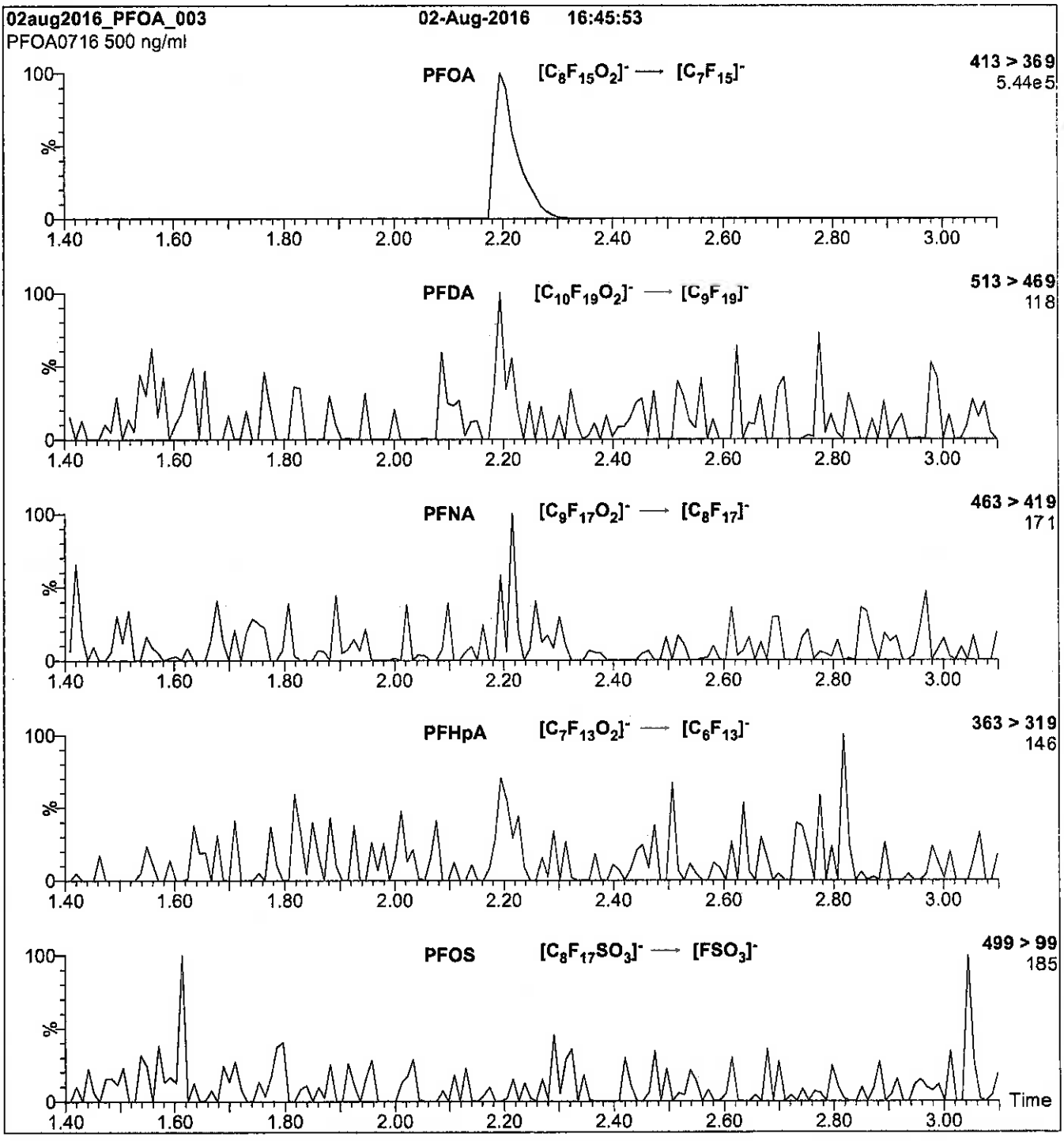
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

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

LCPFODA_00006

Scanned 10/14/16

R: SBC 9/13/16

730632
ID: LCPFODA_00006
Exp: 04/29/21 Prpd: SBC
PFODA stock 50ug/mL

730633
ID: LCPFODA_00007
Exp: 04/29/21 Prpd: SBC
PFODA stock 50ug/mL

WELLINGTON LABORATORIES

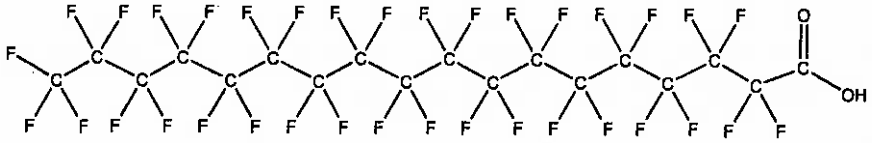
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFODA
COMPOUND: Perfluoro-n-octadecanoic acid

LOT NUMBER: PFODA0416

STRUCTURE:

CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 914.14
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/29/2016
EXPIRY DATE: (mm/dd/yyyy) 04/29/2021
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)

ADDITIONAL INFORMATION:

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Certified By: B.G. Chittim **Date:** 05/20/2016 (mm/dd/yyyy)

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CALA Testing A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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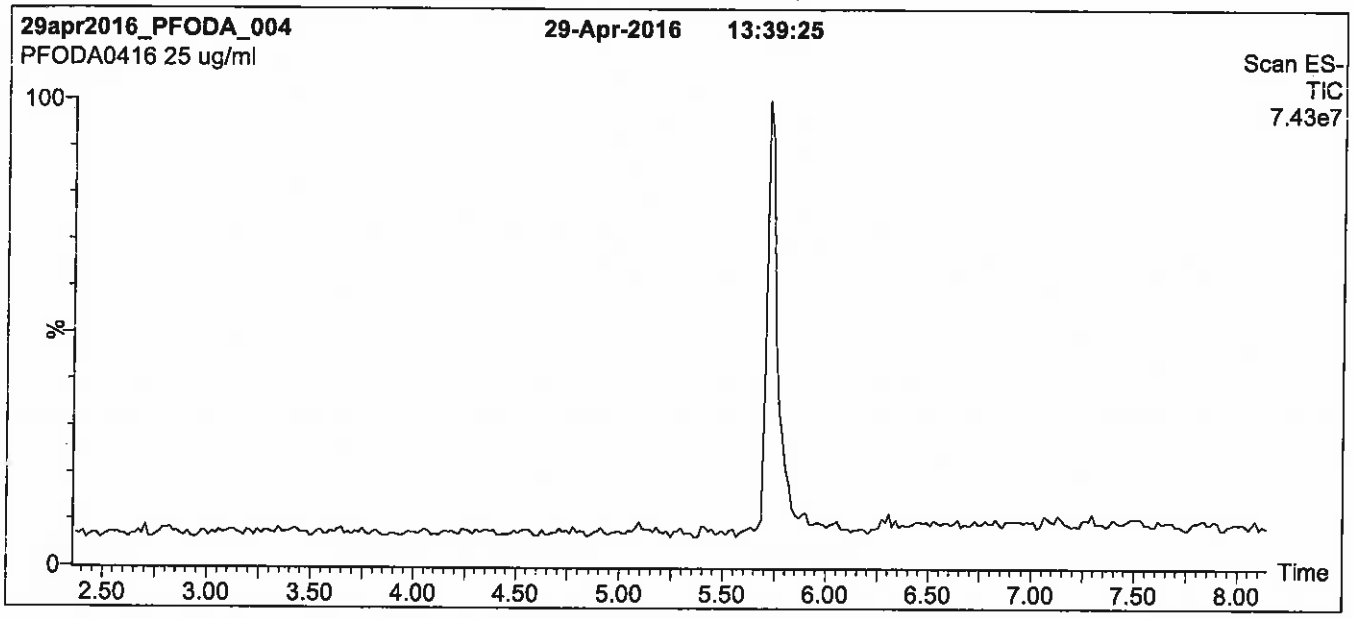
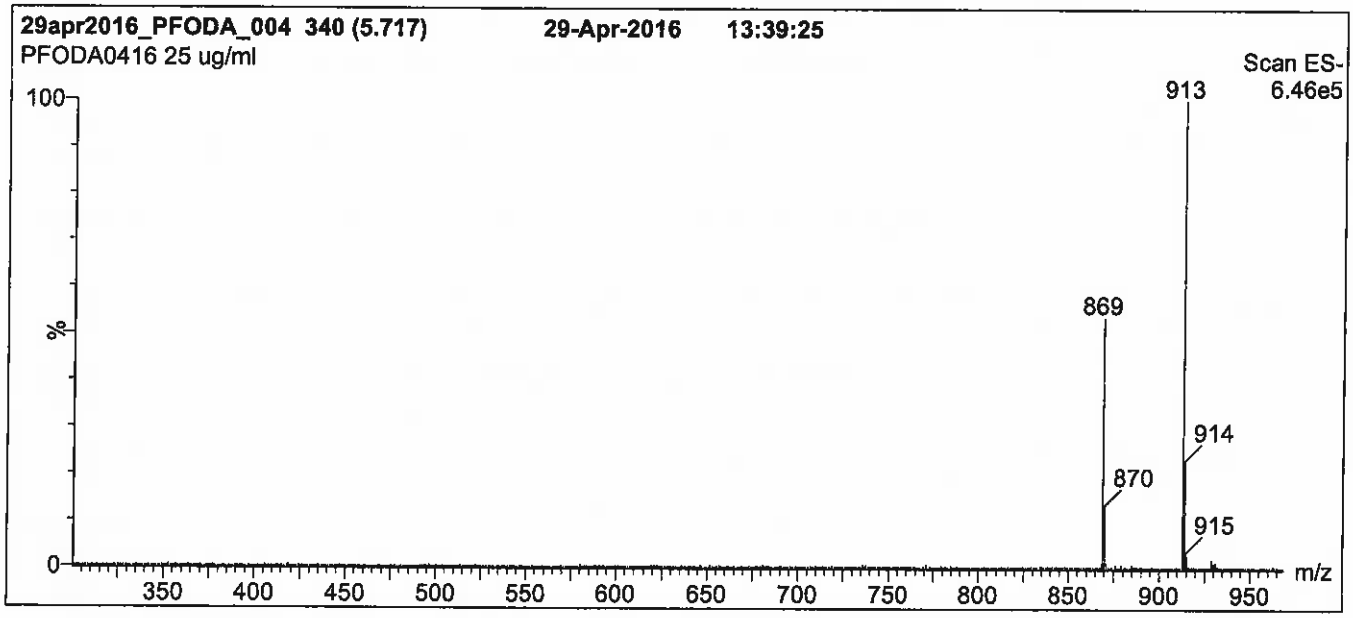
Figure 1: **PFODA; LC/MS Data (TIC and Mass Spectrum)**





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 95% organic over 6 min and hold for
2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

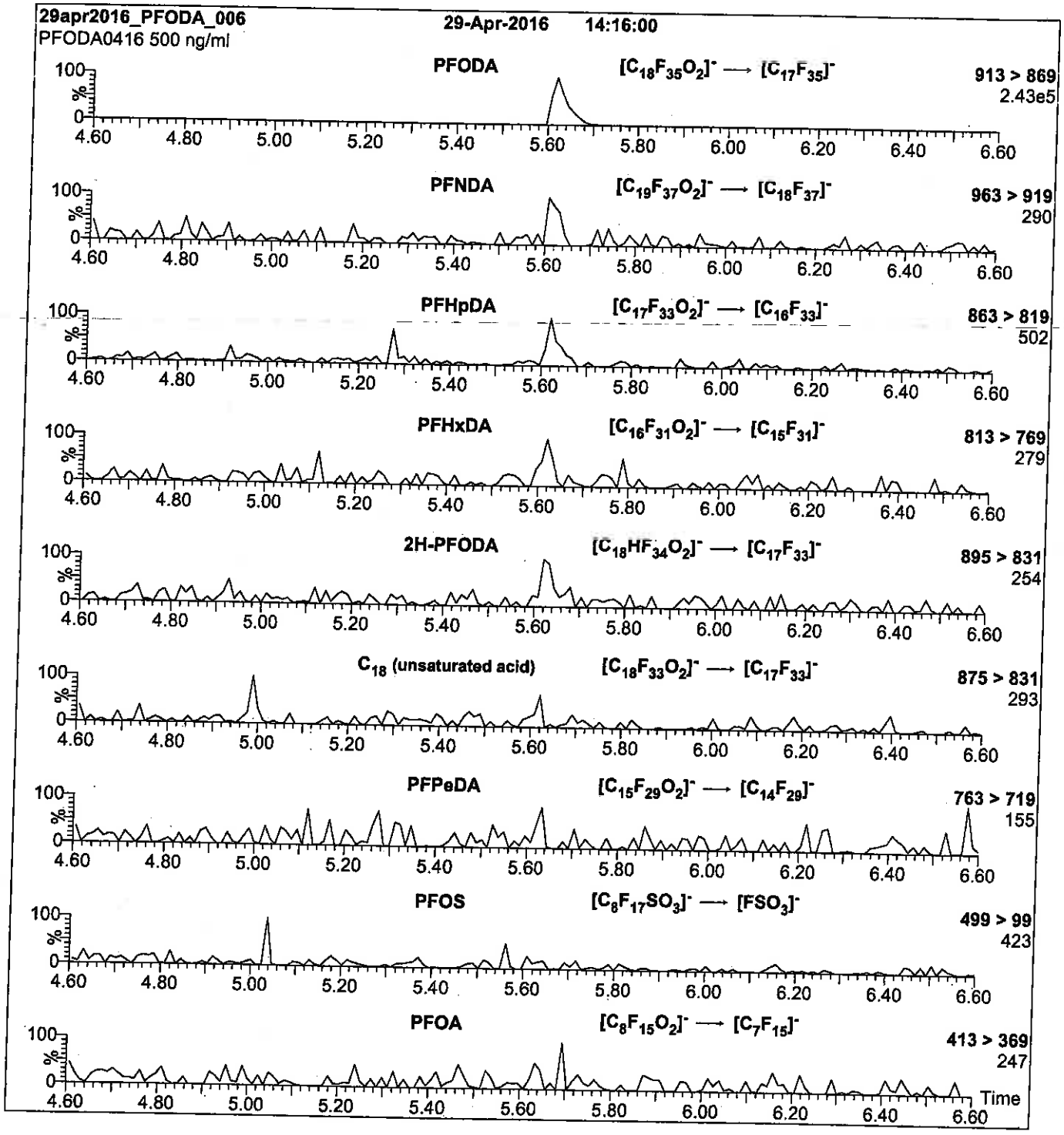
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1000 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 90% (80:20 MeOH:ACN) / 10% 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

LCPFODA_00007

Scanned 10/14/16

R: SBC 9/13/16

730632
ID: LCPFODA_00006
Exp: 04/29/21 Prpd: SBC
PFODA stock 50ug/mL

730633
ID: LCPFODA_00007
Exp: 04/29/21 Prpd: SBC
PFODA stock 50ug/mL

WELLINGTON LABORATORIES

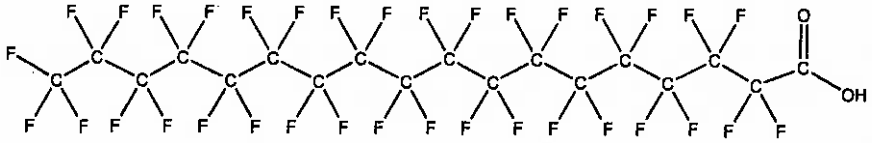
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFODA
COMPOUND: Perfluoro-n-octadecanoic acid

LOT NUMBER: PFODA0416

STRUCTURE:

CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 914.14
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/29/2016
EXPIRY DATE: (mm/dd/yyyy) 04/29/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 05/20/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

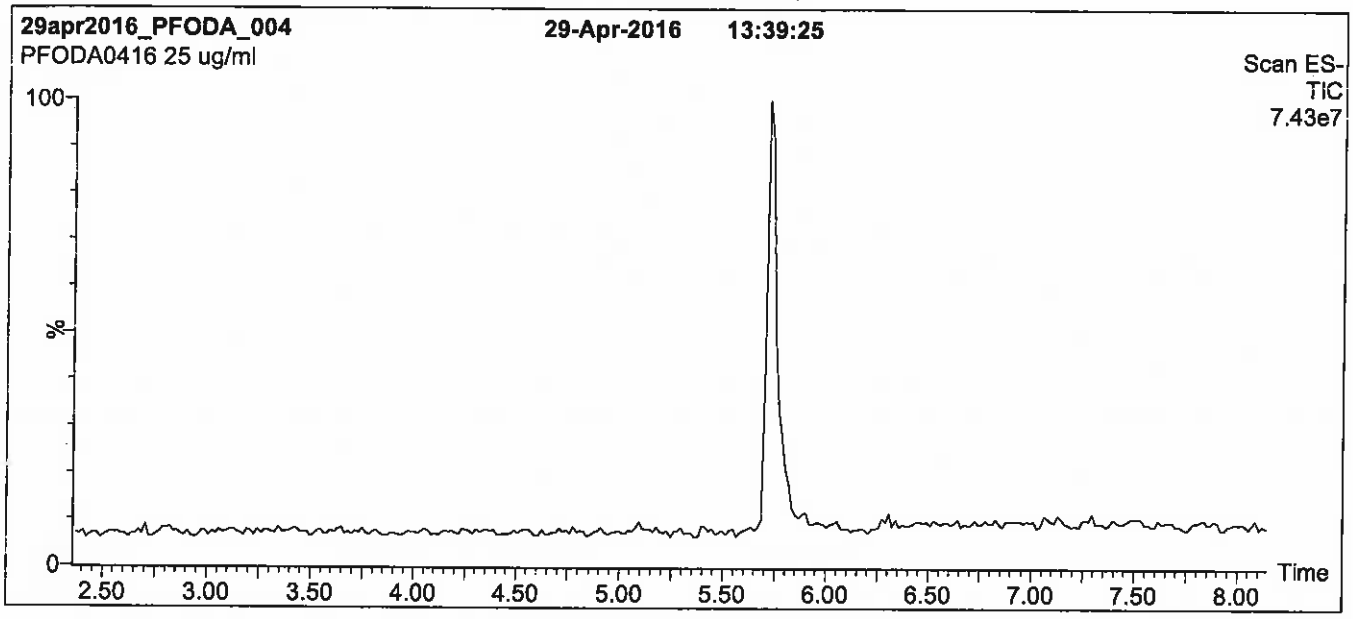
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

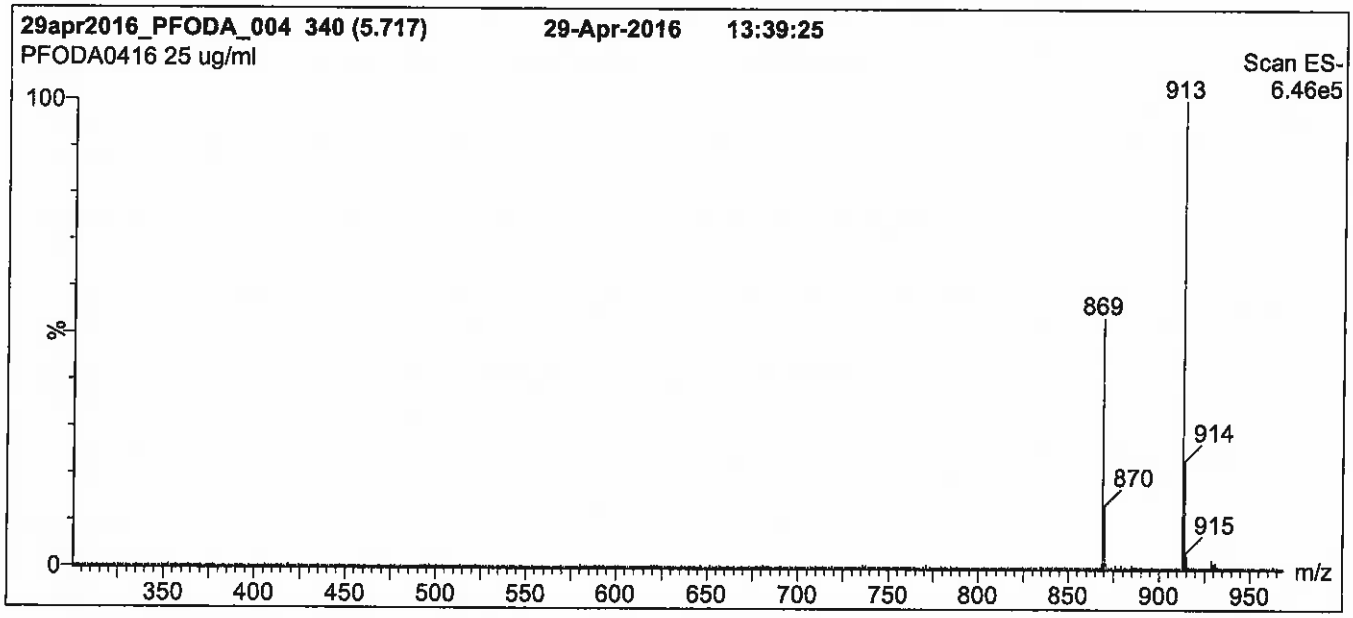
CALA Testing A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

Figure 1: **PFODA; 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 95% organic over 6 min and hold for
2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

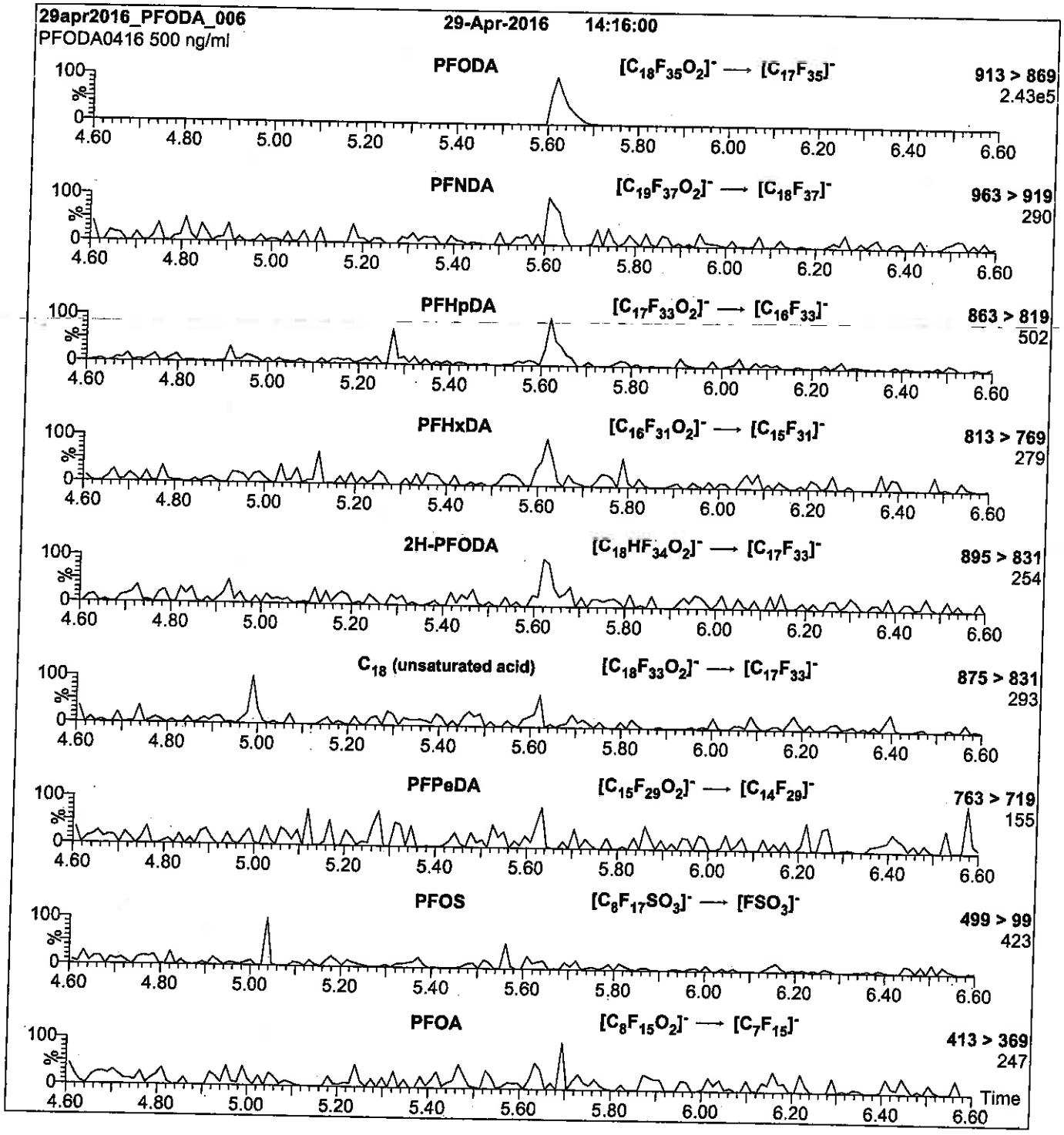
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1000 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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



Conditions for Figure 2:

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

Mobile phase: Isocratic 90% (80:20 MeOH:ACN) / 10% 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

LCPFOS-br_00002

Scanned 10/14/16 SR R: SBC 9/13/16

730515
ID: LCPFOS-br_00002
Exp: 10/14/20 Prpd: SBC
Potassium Perfluorooctane

730516
ID: LCPFOS-br_00003
Exp: 10/14/20 Prpd: SBC
Potassium Perfluorooctane

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1015
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/13/2015
LAST TESTED: (mm/dd/yyyy)	10/14/2015
EXPIRY DATE: (mm/dd/yyyy)	10/14/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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

EXPIRY DATE / PERIOD OF VALIDITY:

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

LIMITED WARRANTY:

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

QUALITY MANAGEMENT:

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

CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

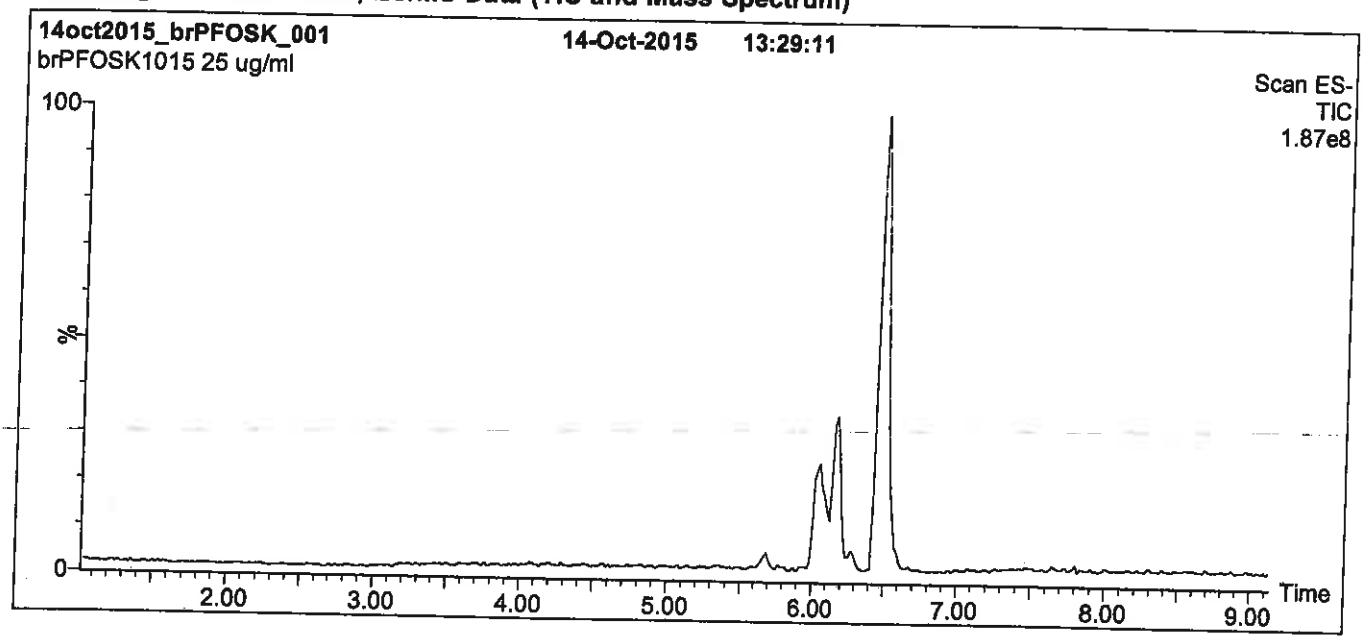
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

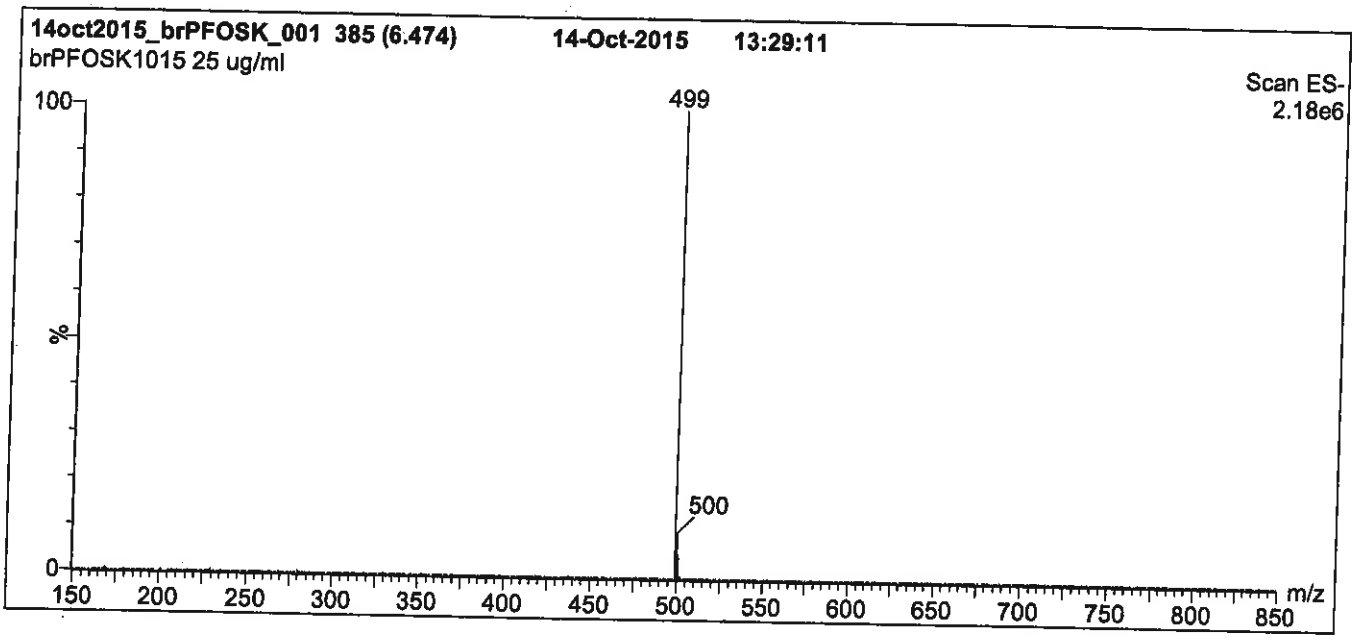
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-C(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2-C(CF_3)-CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-CF(CF_3)-CF(CF_3)-CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-CF(CF_3)-CF_2-CF(CF_3)-CF_2CF_2SO_3^-K^+$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: _____ **Date:** 10/15/2015
B.G. Chittim (mm/dd/yyyy)

Figure 1: **br-PFOSK; 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: 45% (80:20 MeOH:ACN) / 55% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

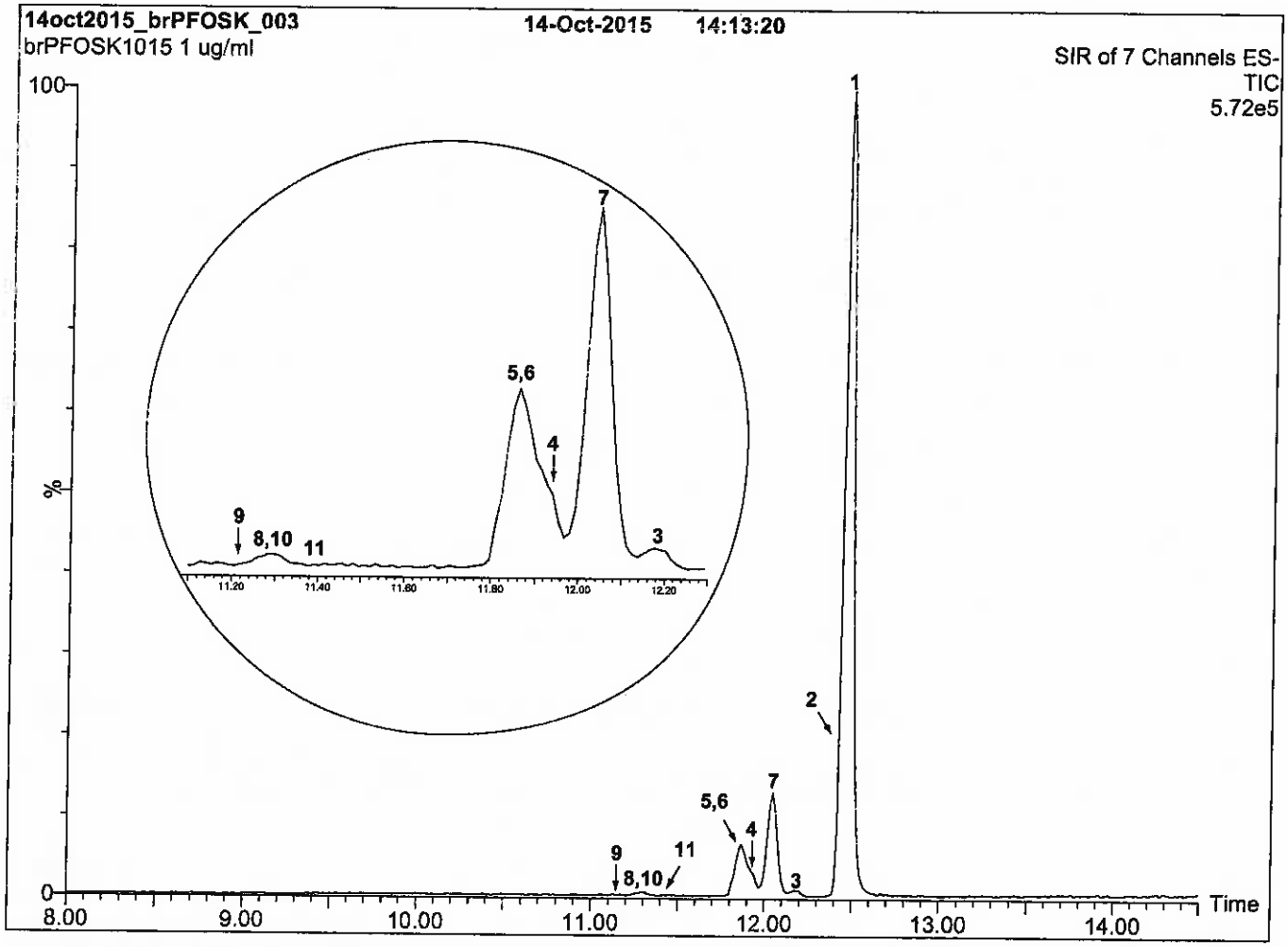
Flow: 300 µl/min

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) = 750

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

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)

Injection: 1.0 µg/ml of br-PFOSK

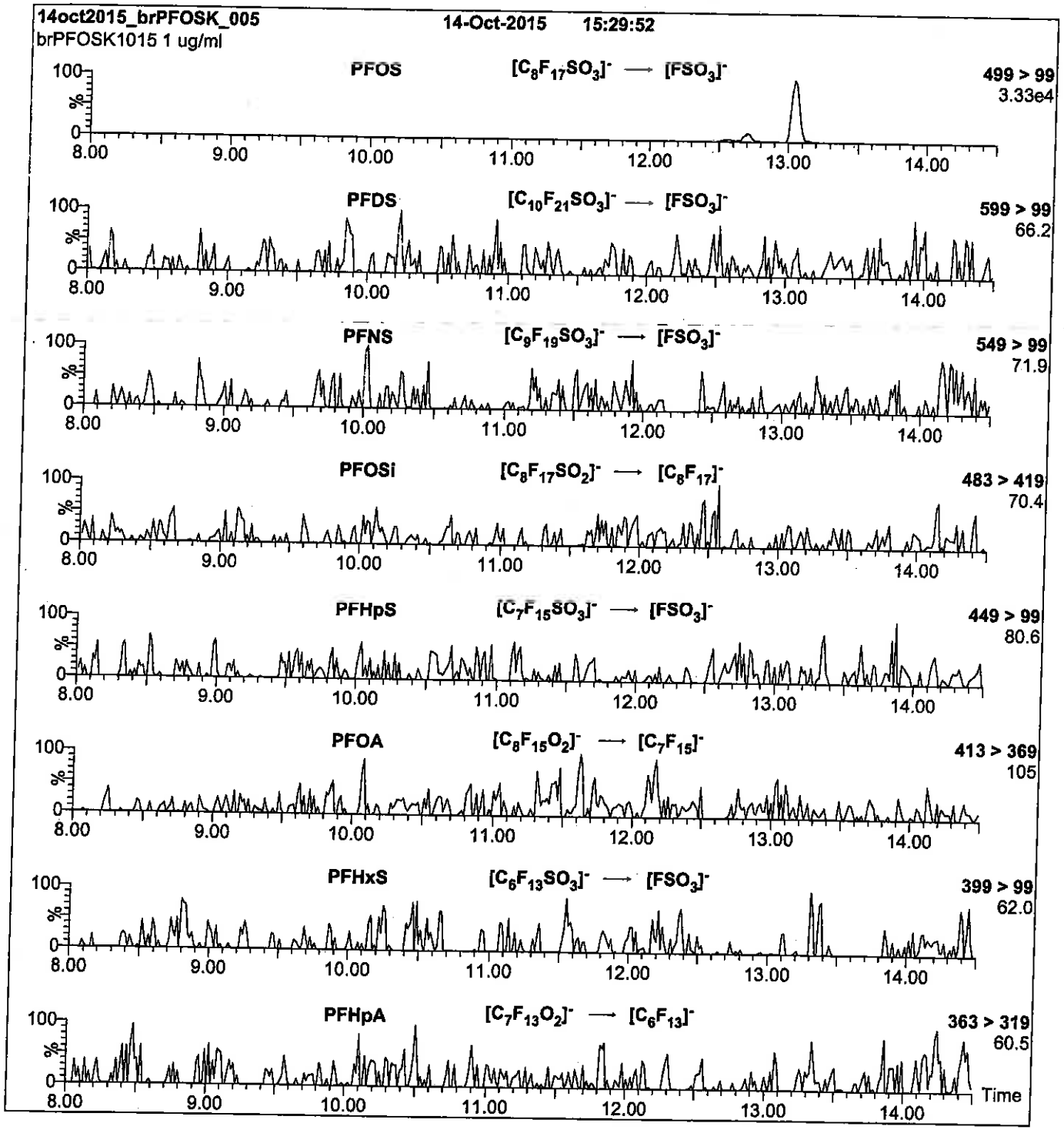
Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

Flow: 300 µl/min

MS Conditions:

SIR (ES^-)
Source = 110 °C
Desolvation = 325 °C
Cone Voltage = 60V

Figure 3: **br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.06e-3
Collision Energy (eV) = 11-50 (variable)

Reagent

LCPFOS-br_00003

Scanned 10/14/16 SC

R: SBC 9/13/16

730515
ID: LCPFOS-br_00002
Exp: 10/14/20 Prpd: SBC
Potassium Perfluorooctane

730516
ID: LCPFOS-br_00003
Exp: 10/14/20 Prpd: SBC
Potassium Perfluorooctane

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1015
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/13/2015
LAST TESTED: (mm/dd/yyyy)	10/14/2015
EXPIRY DATE: (mm/dd/yyyy)	10/14/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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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HOMOGENEITY:

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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.

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

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EXPIRY DATE / PERIOD OF VALIDITY:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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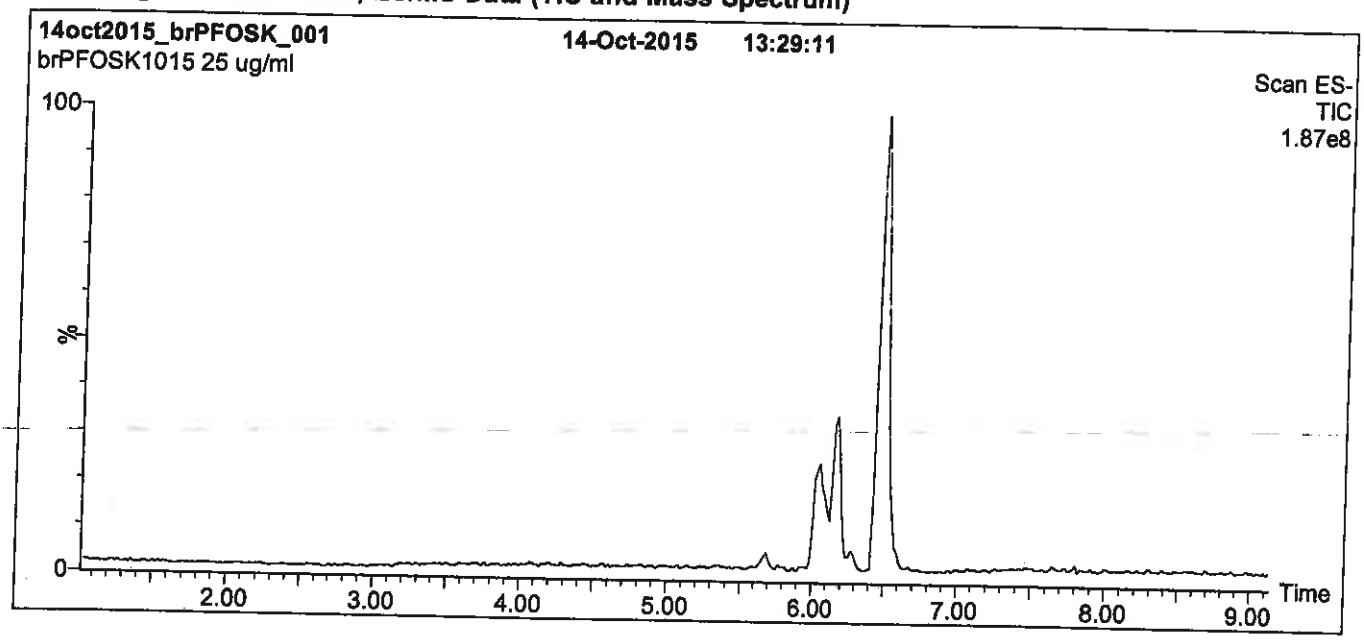
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

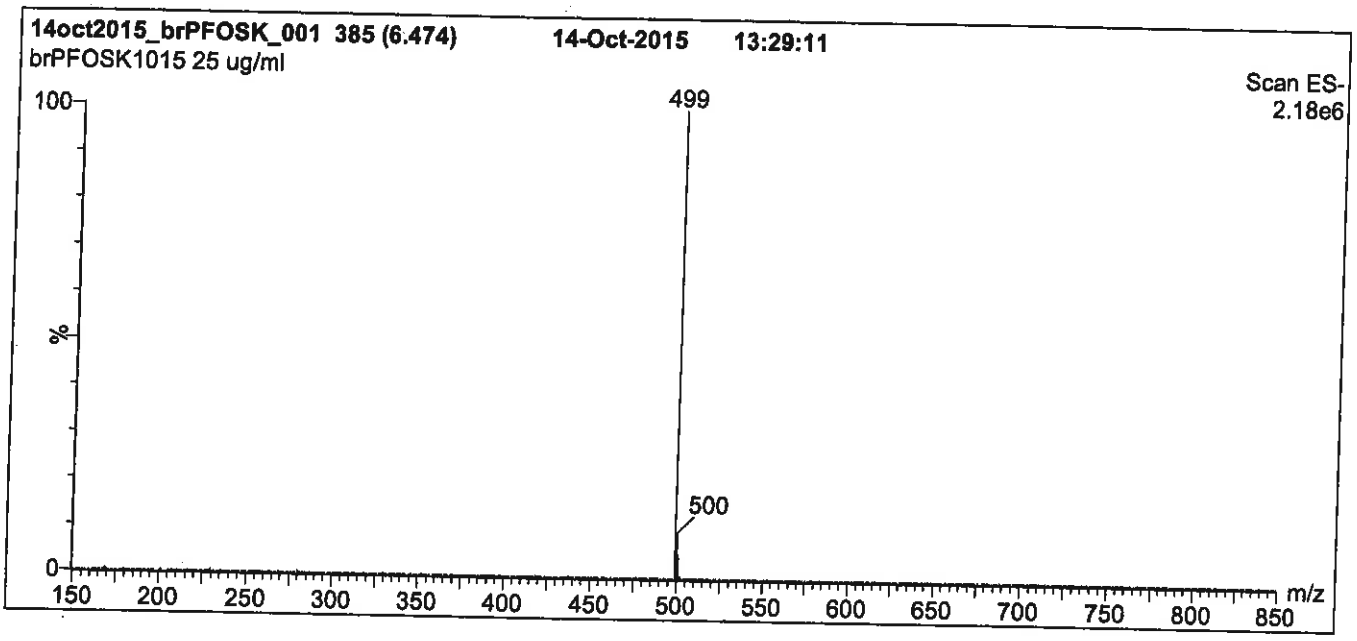
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-C(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2-C(CF_3)-CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-CF(CF_3)-CF(CF_3)-CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-CF(CF_3)-CF_2-CF(CF_3)-CF_2CF_2SO_3^-K^+$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: _____ **Date:** 10/15/2015
B.G. Chittim (mm/dd/yyyy)

Figure 1: **br-PFOSK; 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: 45% (80:20 MeOH:ACN) / 55% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

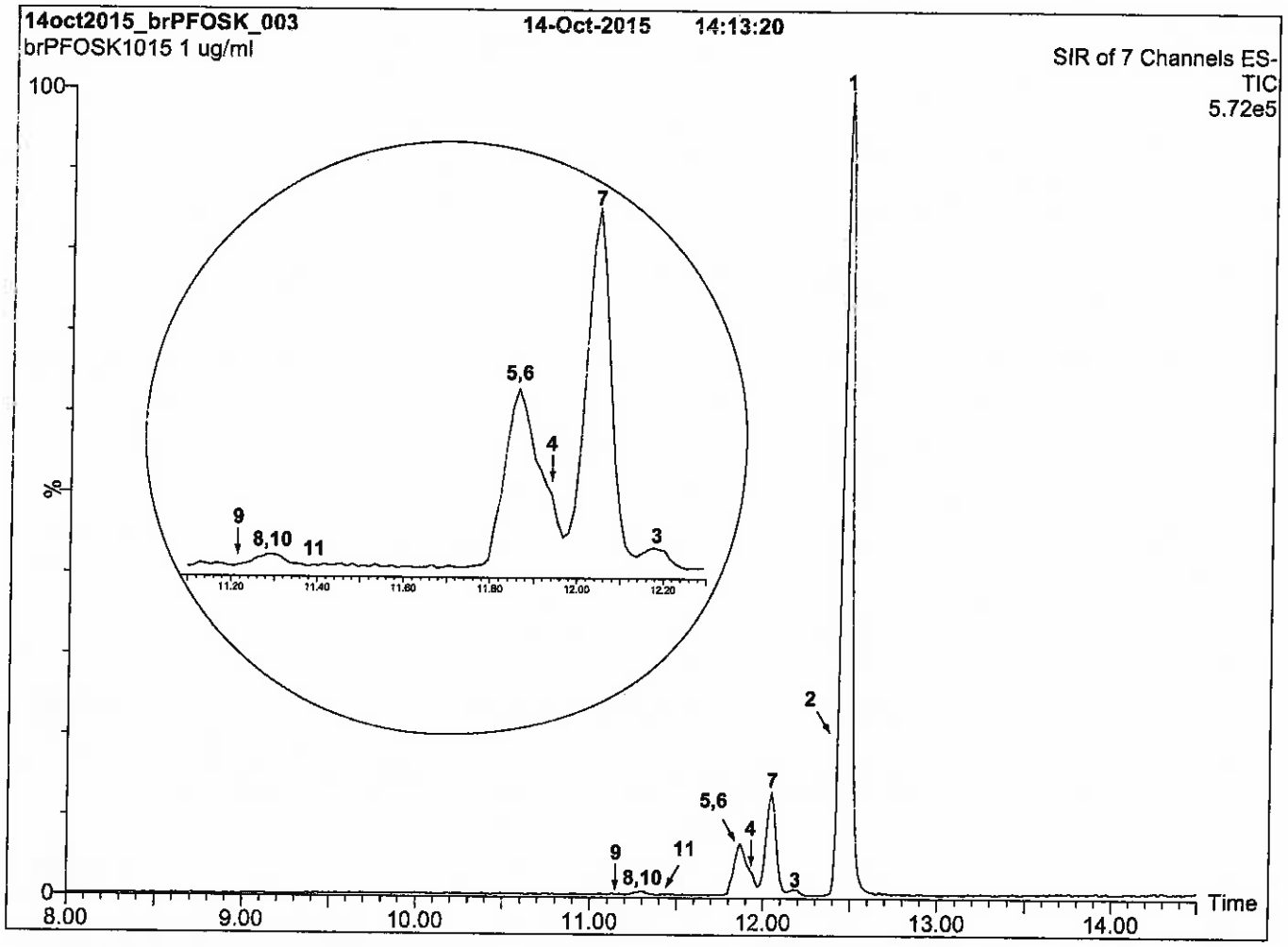
Flow: 300 µl/min

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) = 750

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

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)

Injection: 1.0 µg/ml of br-PFOSK

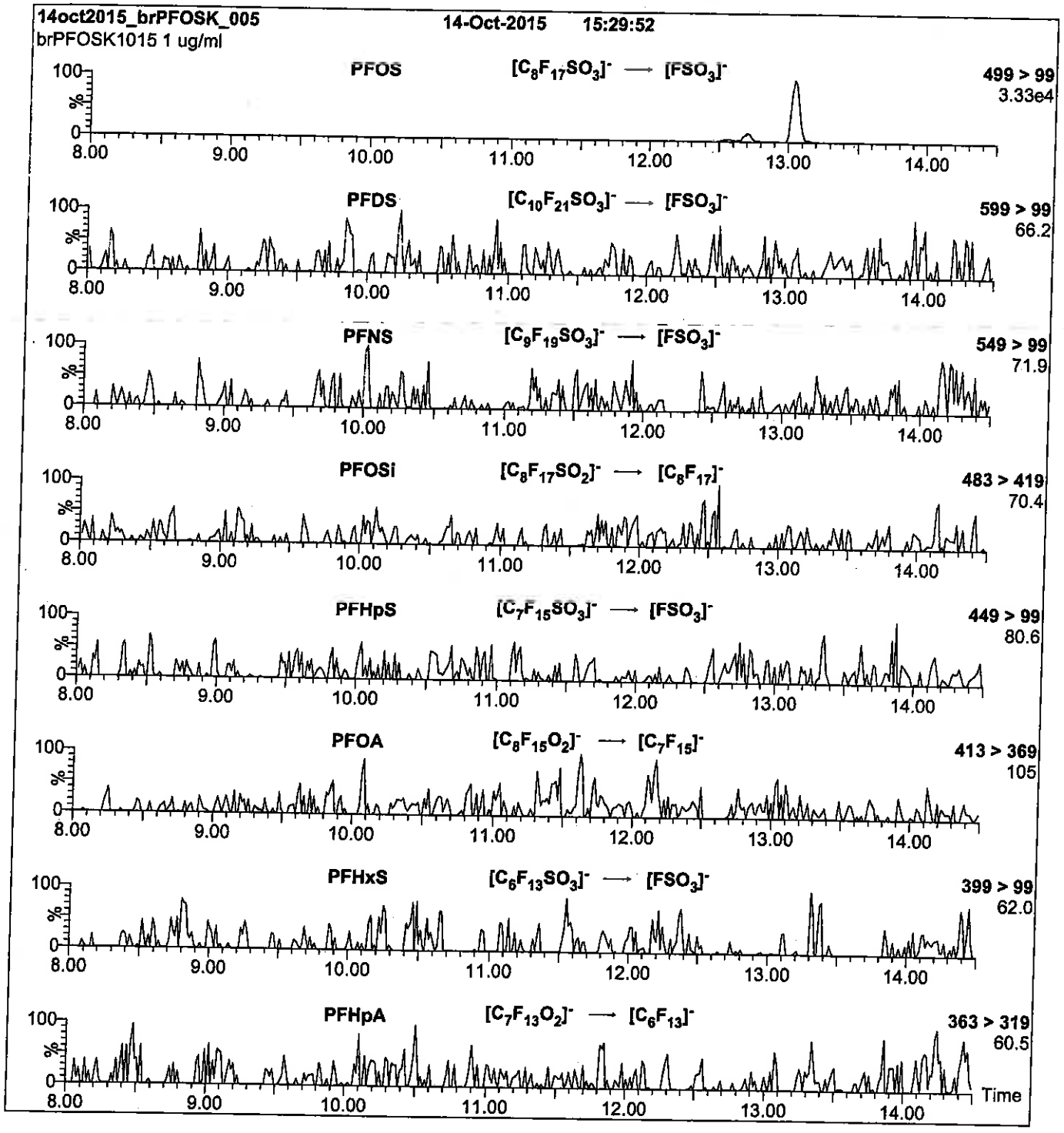
Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

Flow: 300 µl/min

MS Conditions:

SIR (ES^-)
Source = 110 °C
Desolvation = 325 °C
Cone Voltage = 60V

Figure 3: **br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.06e-3
Collision Energy (eV) = 11-50 (variable)

Reagent

LCPFOSA_00010

12/20/16 SKJ

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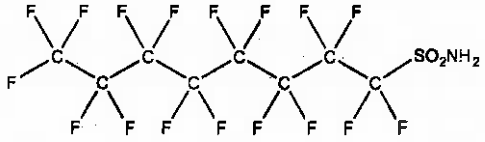
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	FOSA-I	**LOT NUMBER:**	FOSA0916I
COMPOUND:	Perfluoro-1-octanesulfonamide		
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):**	Isopropanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

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:** 10/07/2016 (mm/dd/yyyy)

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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

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

TRACEABILITY:

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LIMITED WARRANTY:

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CALA

ANAB

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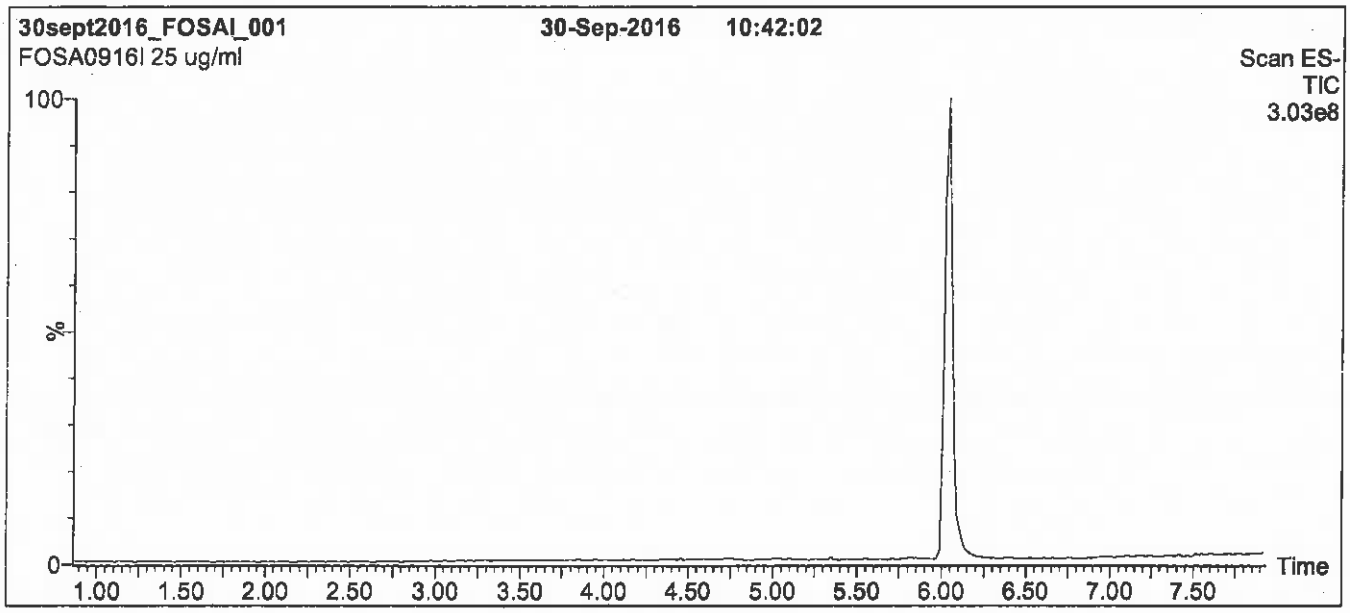
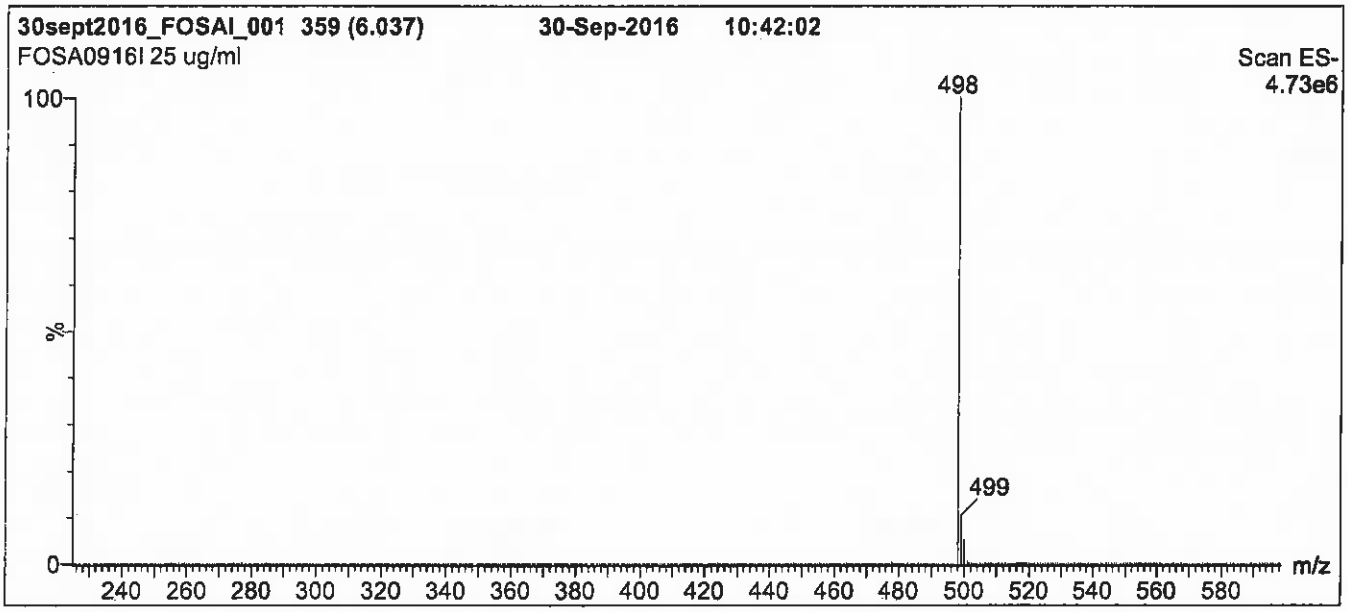
Figure 1: **FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





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

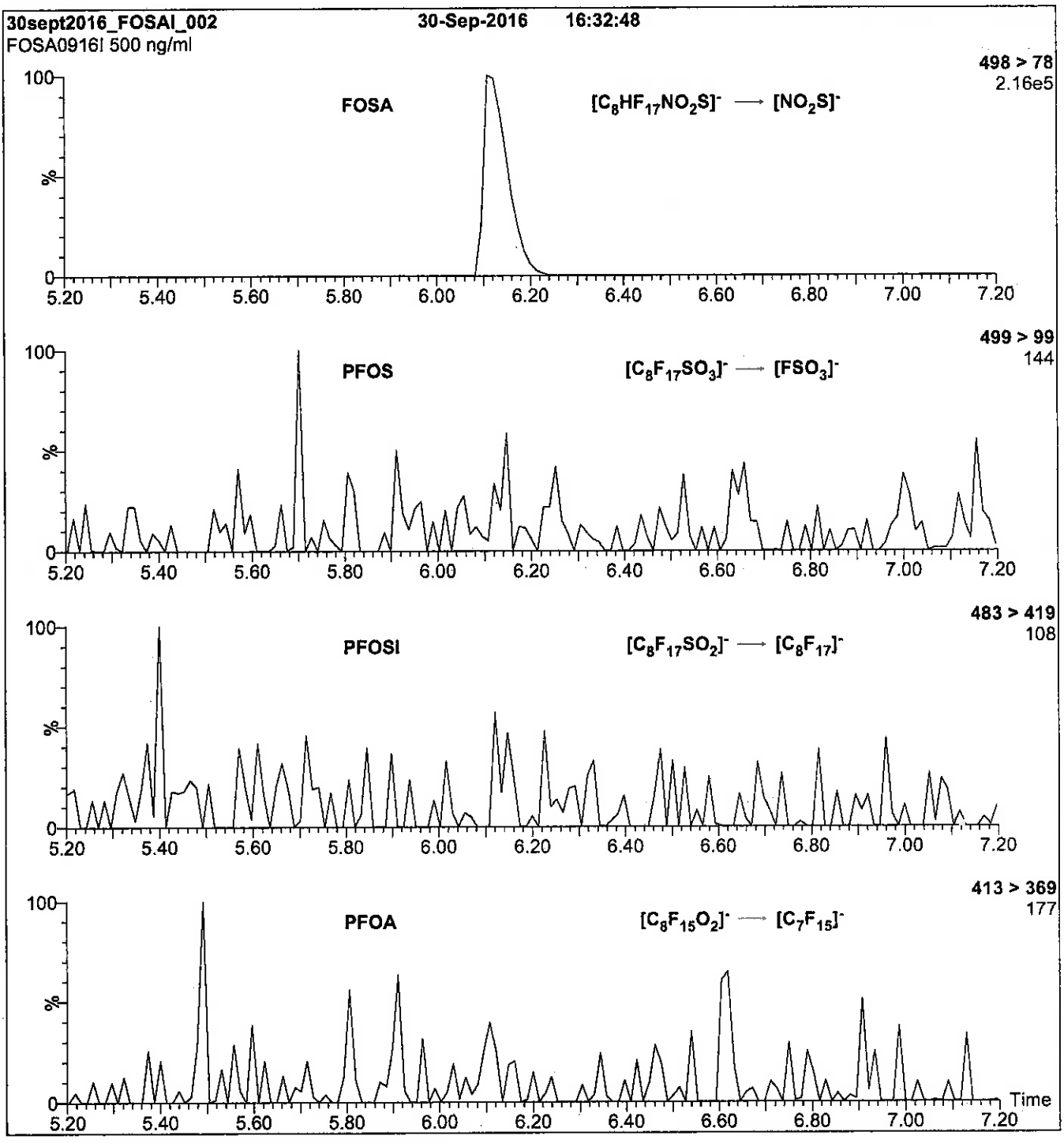
Flow: 300 µl/min

MS Parameters

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



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml FOSA-I)

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

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 30

Reagent

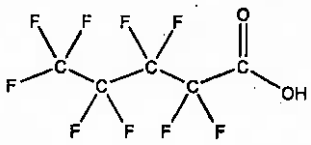
LCPFPeA_00006

r: 12/29/16 SH
s: 1/6/17 SH

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFPeA	**LOT NUMBER:**	PFPeA0516
COMPOUND:	Perfluoro-n-pentanoic acid		
STRUCTURE:		**CAS #:**	2706-90-3



MOLECULAR FORMULA:	$C_5HF_8O_2$	**MOLECULAR WEIGHT:**	264.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 06/02/2016 (mm/dd/yyyy)

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

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

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CALA

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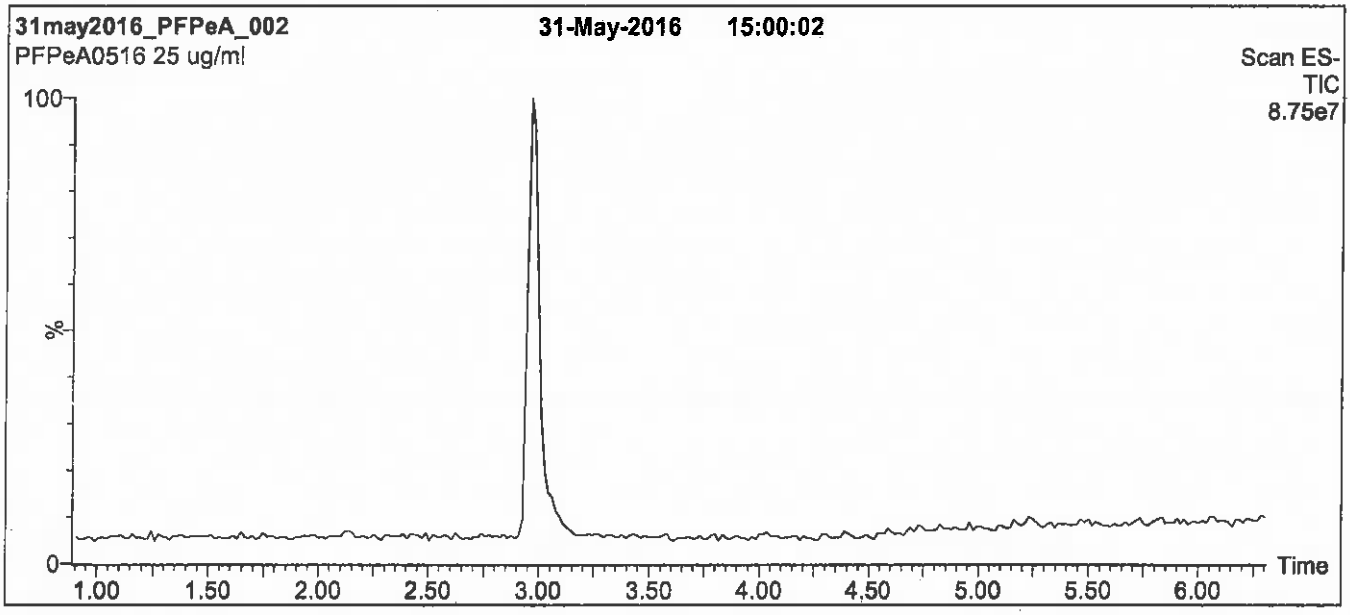
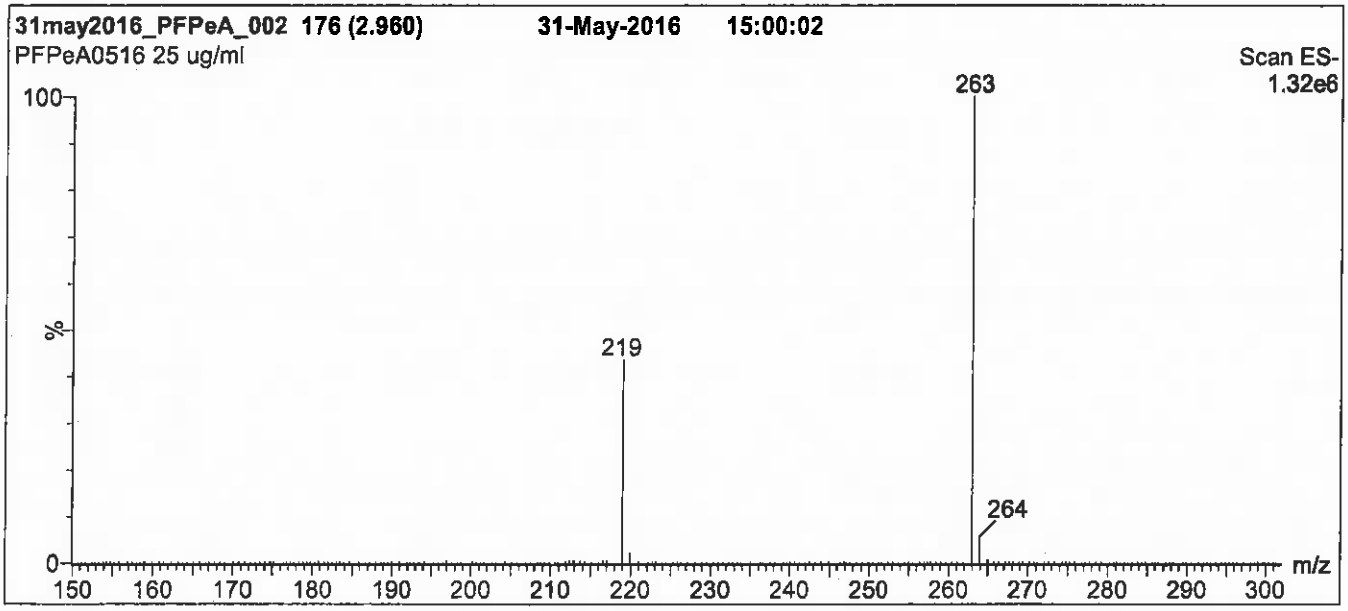
Figure 1: **PFPeA; LC/MS Data (TIC and Mass Spectrum)**





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: 30% (80:20 MeOH:ACN) / 70% 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

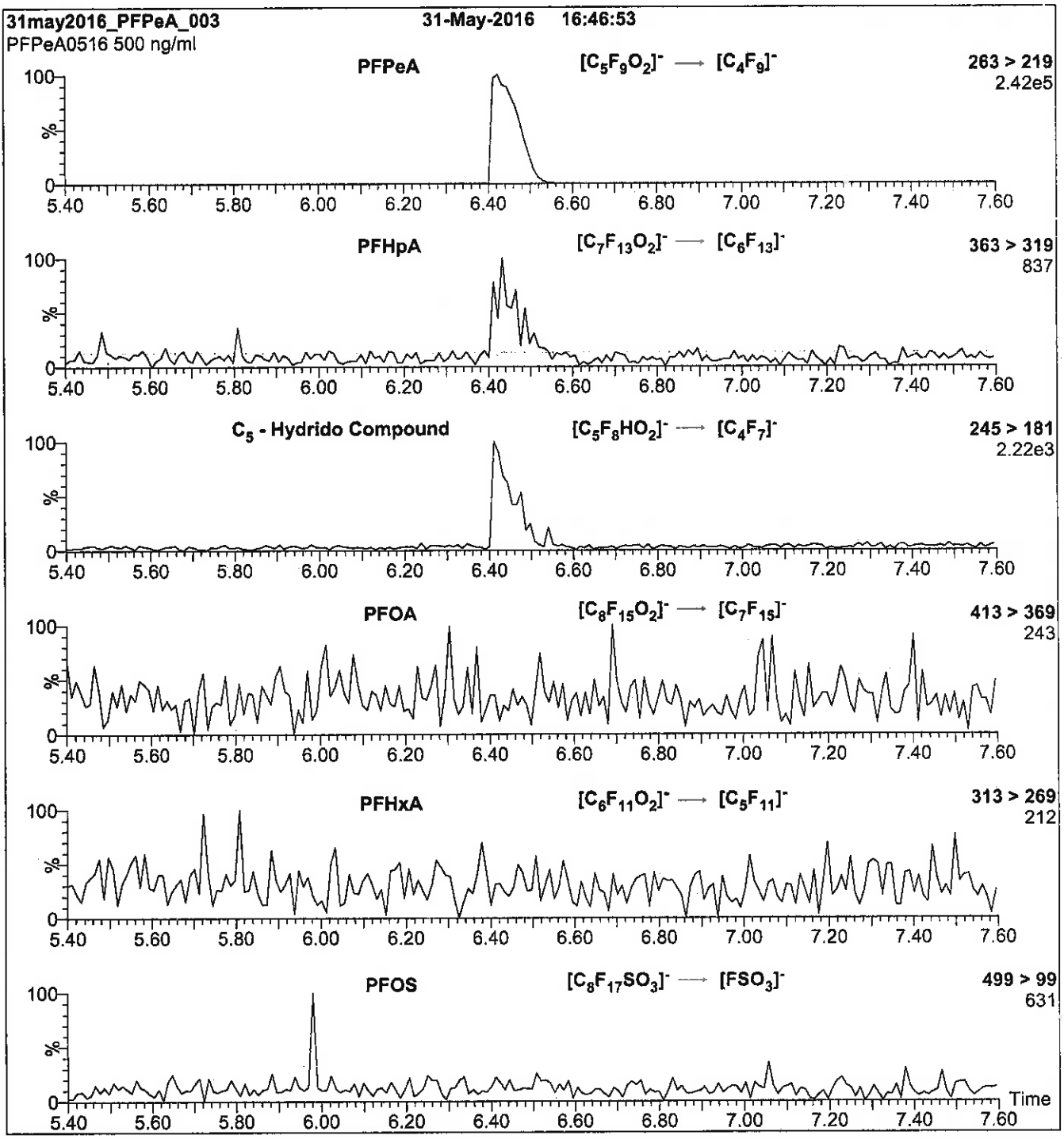
Flow: 300 µl/min

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

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 9

Reagent

LCPFTeDA_00005

R: SBG 9/13/16

730645
ID: LCPFTeDA_00005
Exp: 12/09/20 Prpd: SBC
PF-n-tetradecanoic acid

730659
ID: LCPFTeDA_00006
Exp: 12/09/20 Prpd: SBC
PF-n-tetradecanoic acid

WELLINGTON LABORATORIES

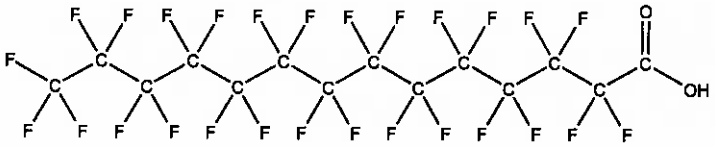
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA
COMPOUND: Perfluoro-n-tetradecanoic acid

LOT NUMBER: PFTeDA1215

STRUCTURE:

CAS #: 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 714.11
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/09/2015
EXPIRY DATE: (mm/dd/yyyy) 12/09/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% 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:** 12/09/2015 (mm/dd/yyyy)

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

INTENDED USE:

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

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

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

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

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CALA

ANAB ACCREDITED

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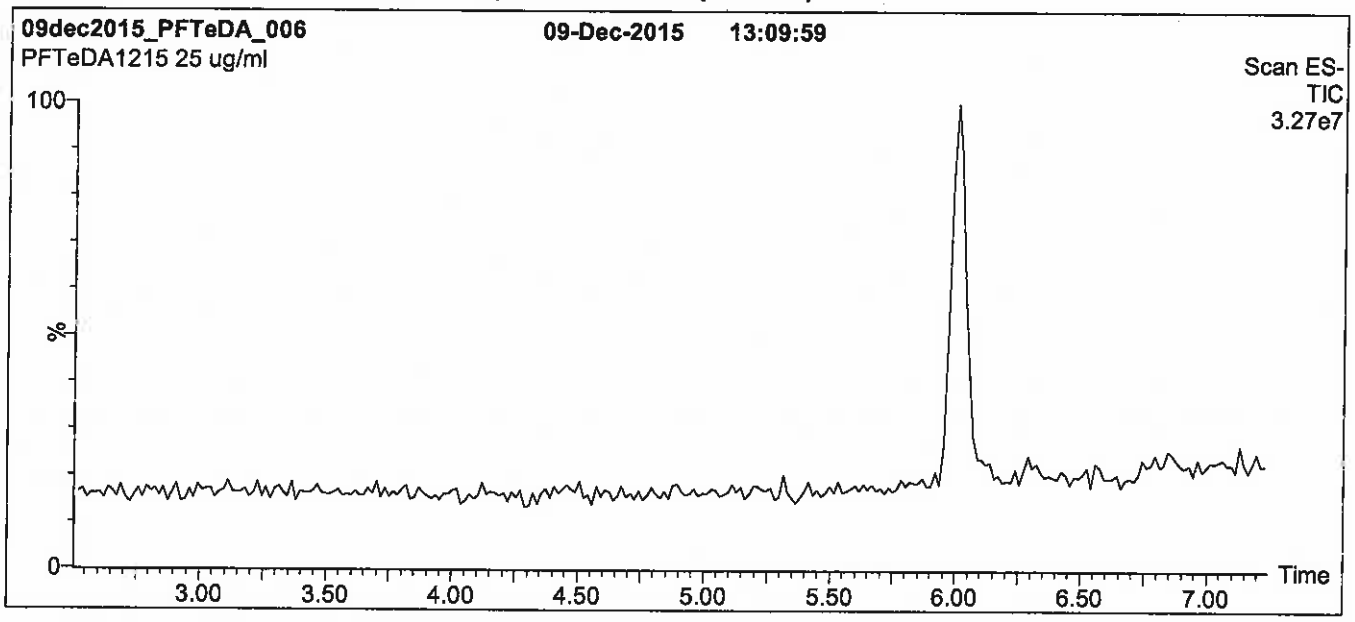
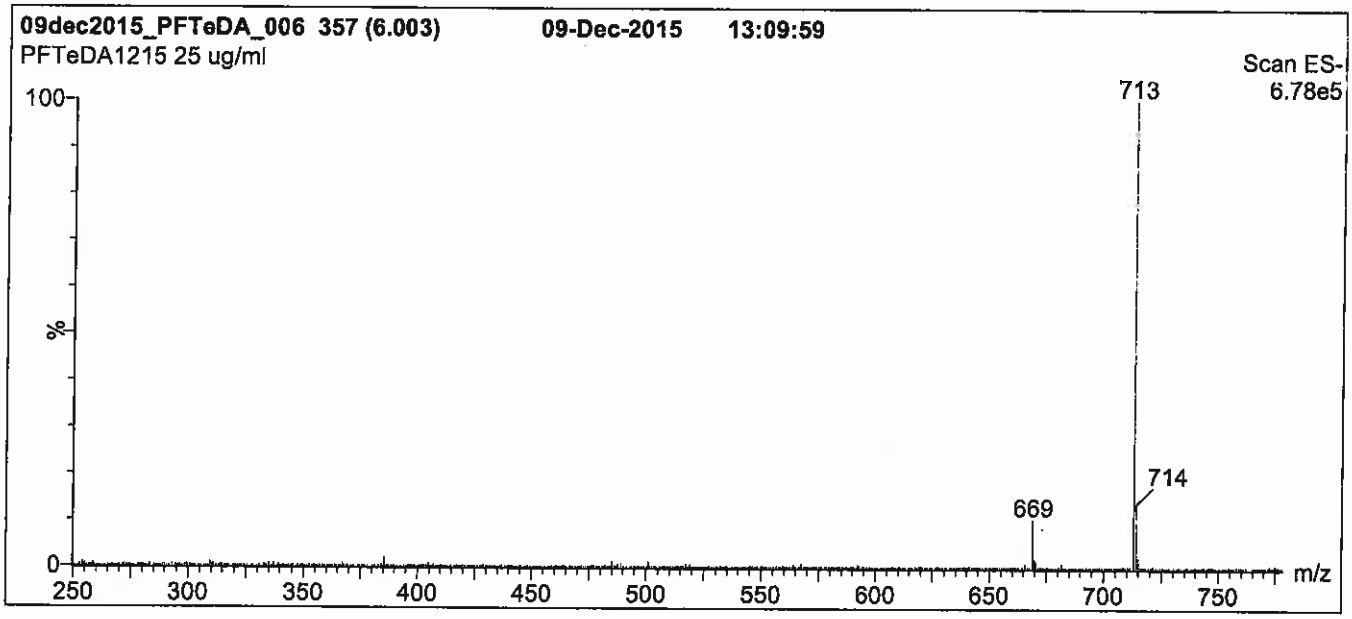
Figure 1: **PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





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

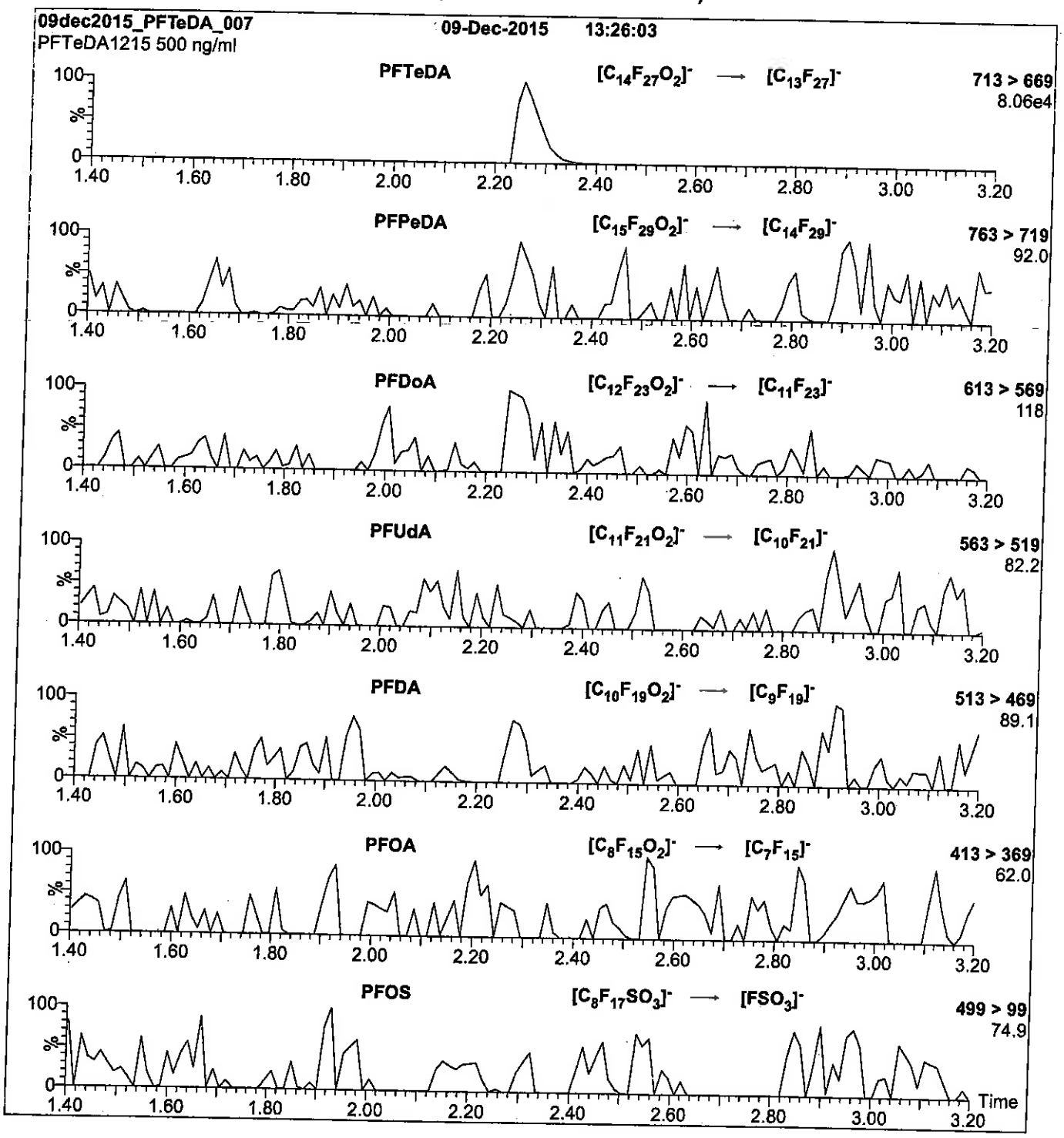
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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) = 3.43e-3
Collision Energy (eV) = 14

Reagent

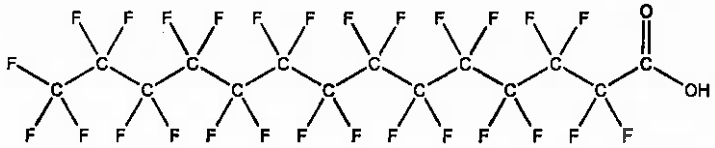
LCPFTeDA_00007

R: 12/20/16 SKV

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFTeDA	**LOT NUMBER:**	PFTeDA0916
COMPOUND:	Perfluoro-n-tetradecanoic acid		
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)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 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:** 10/05/2016 (mm/dd/yyyy)

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CALA

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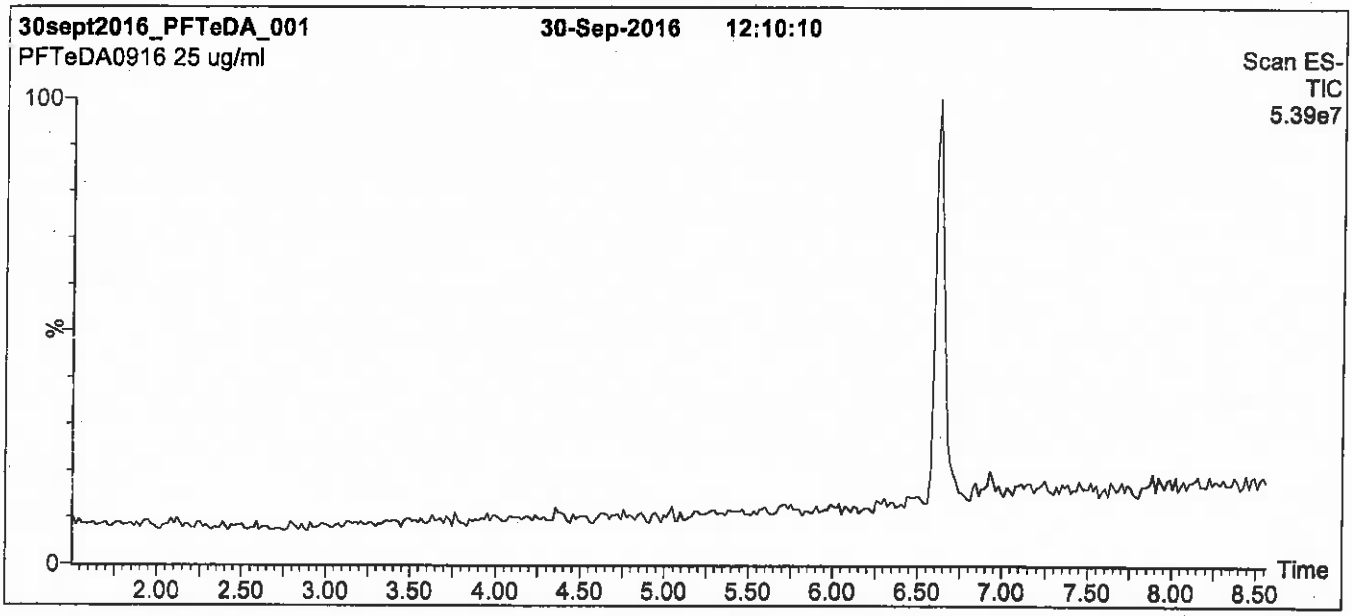
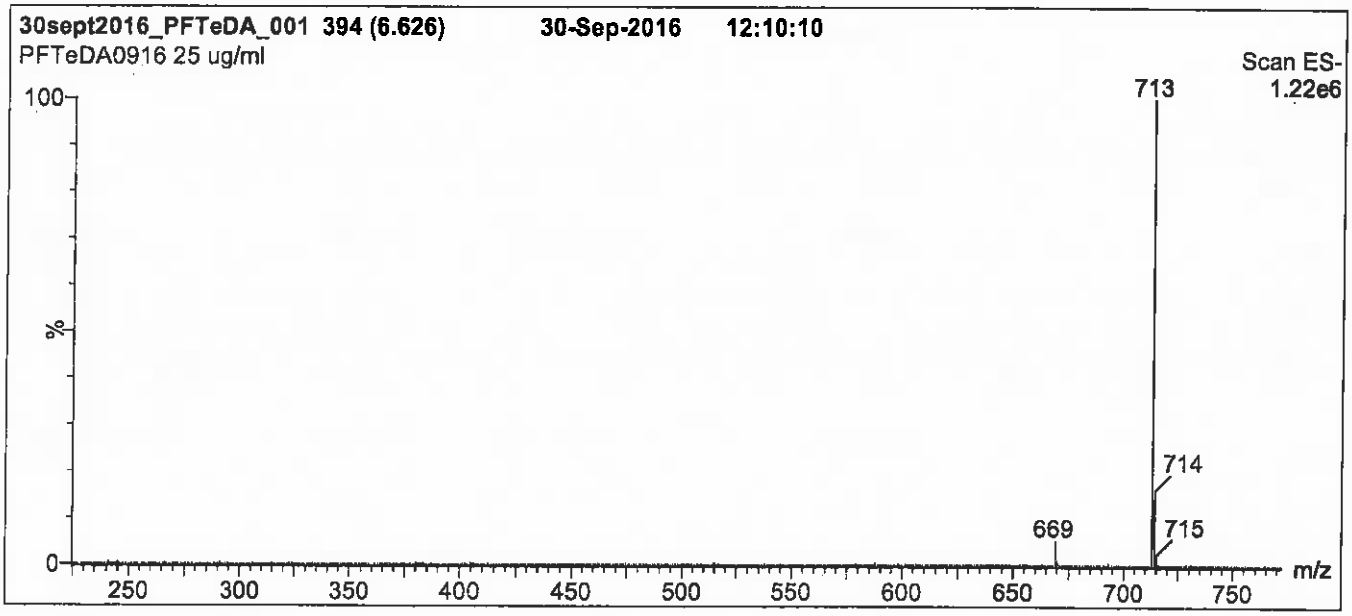




Conditions for Figure 1:

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

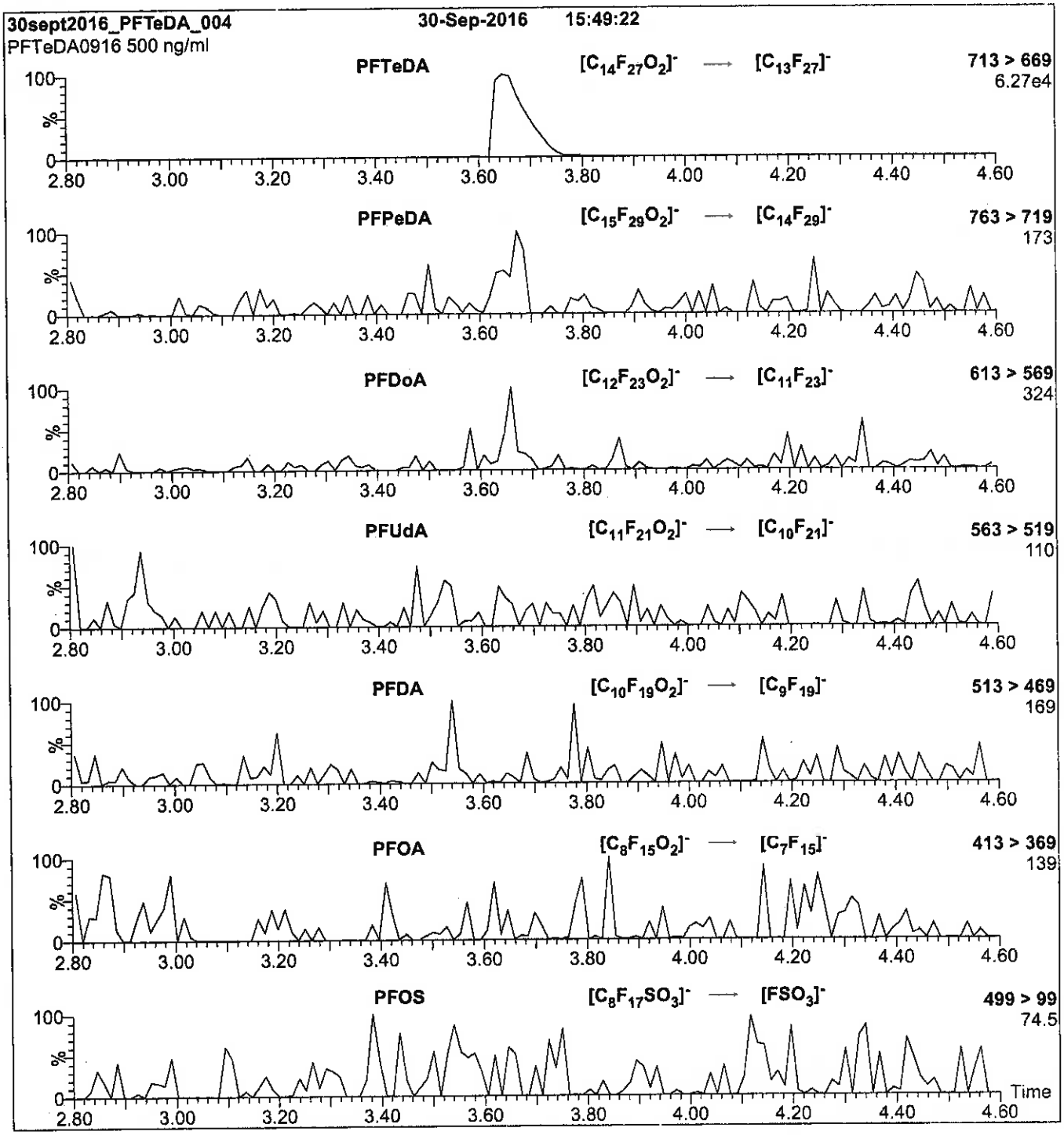
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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) = 3.20e-3
Collision Energy (eV) = 14

Reagent

LCPFTrDA_00005

R: SBC 9/13/16

730665
ID: LCPFTrDA_00005
Exp: 02/12/21 Prpd: SBC
PF-n-tridecanoic acid

730666
ID: LCPFTrDA_00006
Exp: 02/12/21 Prpd: SBC
PF-n-tridecanoic acid

WELLINGTON LABORATORIES

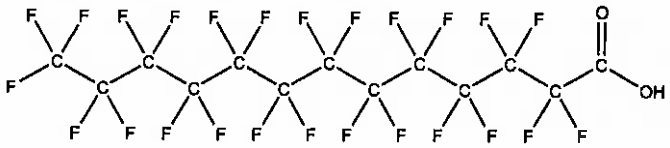
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA
COMPOUND: Perfluoro-n-tridecanoic acid

LOT NUMBER: PFTrDA0216

STRUCTURE:

CAS #: 72629-94-8



MOLECULAR FORMULA: $C_{13}HF_{25}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 664.11
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 02/12/2016
EXPIRY DATE: (mm/dd/yyyy) 02/12/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

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Figure 1: LC/MS Data (TIC and Mass Spectrum)
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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 ($C_{14}HF_{27}O_2$).

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Certified By: B.G. Chittim **Date:** 02/16/2016 (mm/dd/yyyy)

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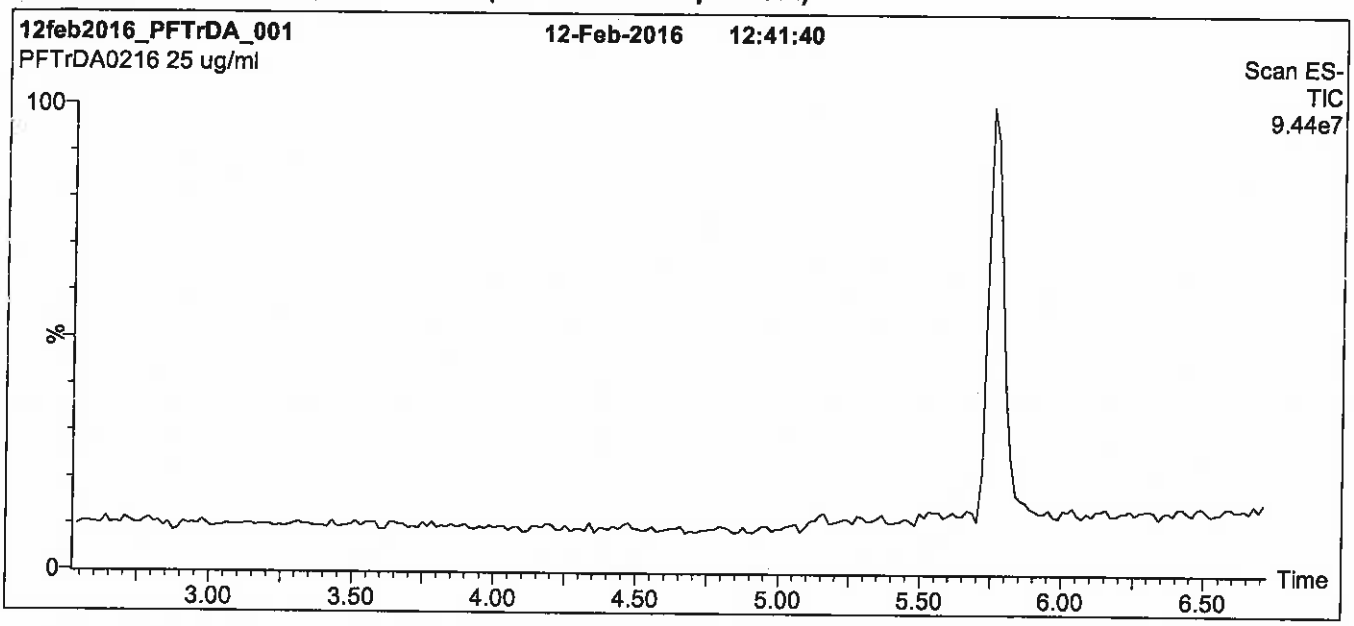

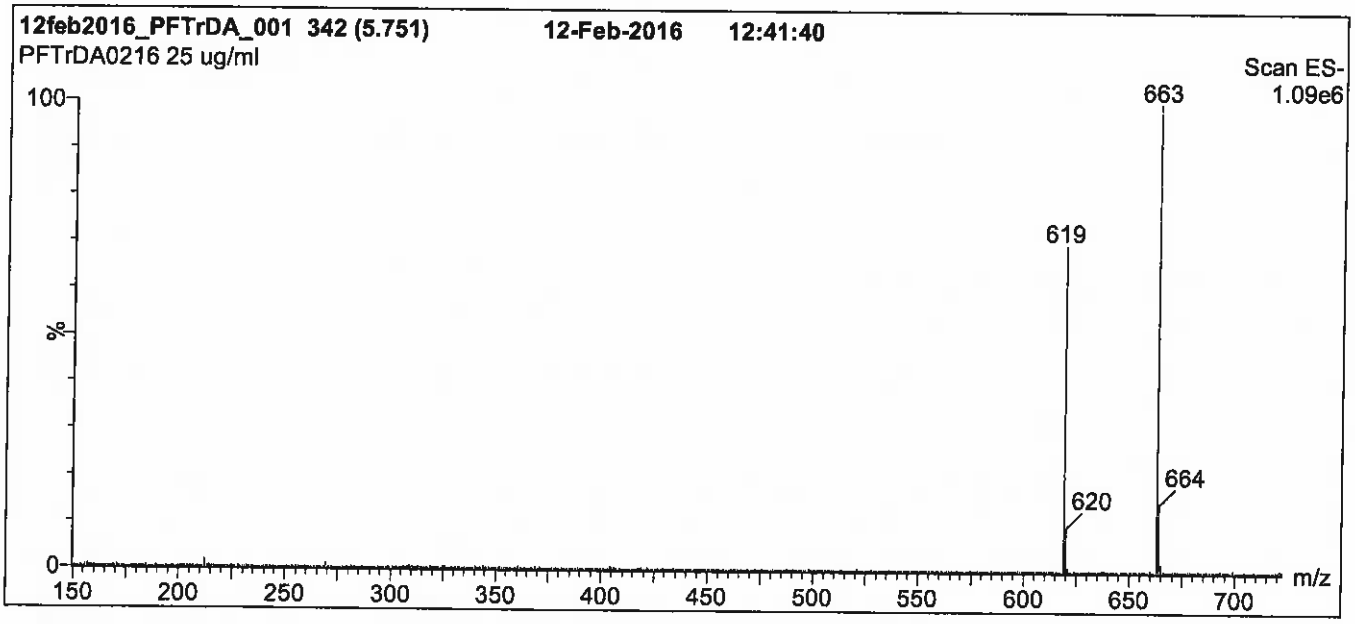

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MS: **Micromass Quattro *micro* API MS**

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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

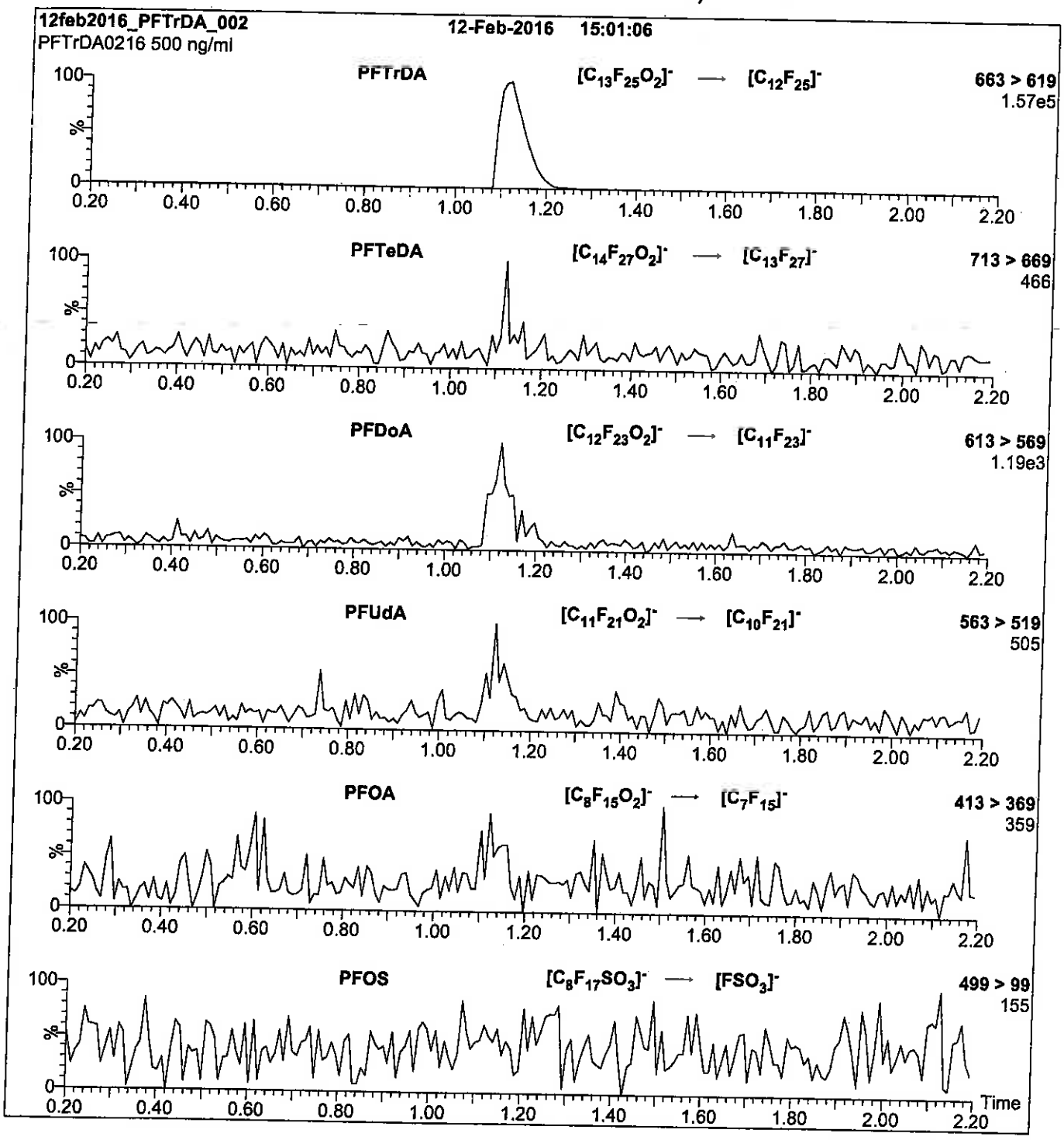
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 22.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 650

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



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10 µl (500 ng/ml PFTrDA)

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MS Parameters

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Collision Energy (eV) = 15

Reagent

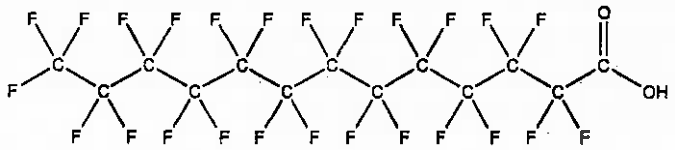
LCPFTrDA_00007

r: 12/29/16 SGJ

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFTrDA	**LOT NUMBER:**	PFTrDA0216
COMPOUND:	Perfluoro-n-tridecanoic acid		
STRUCTURE:		**CAS #:**	72629-94-8



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

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

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

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

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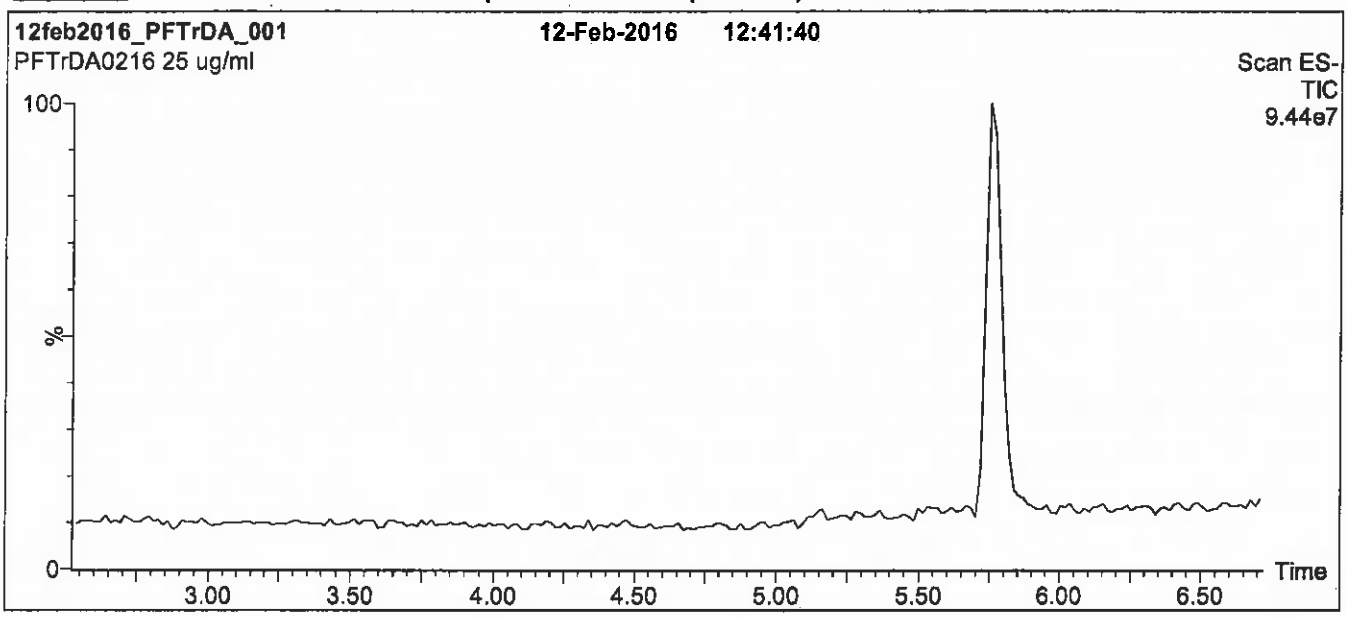
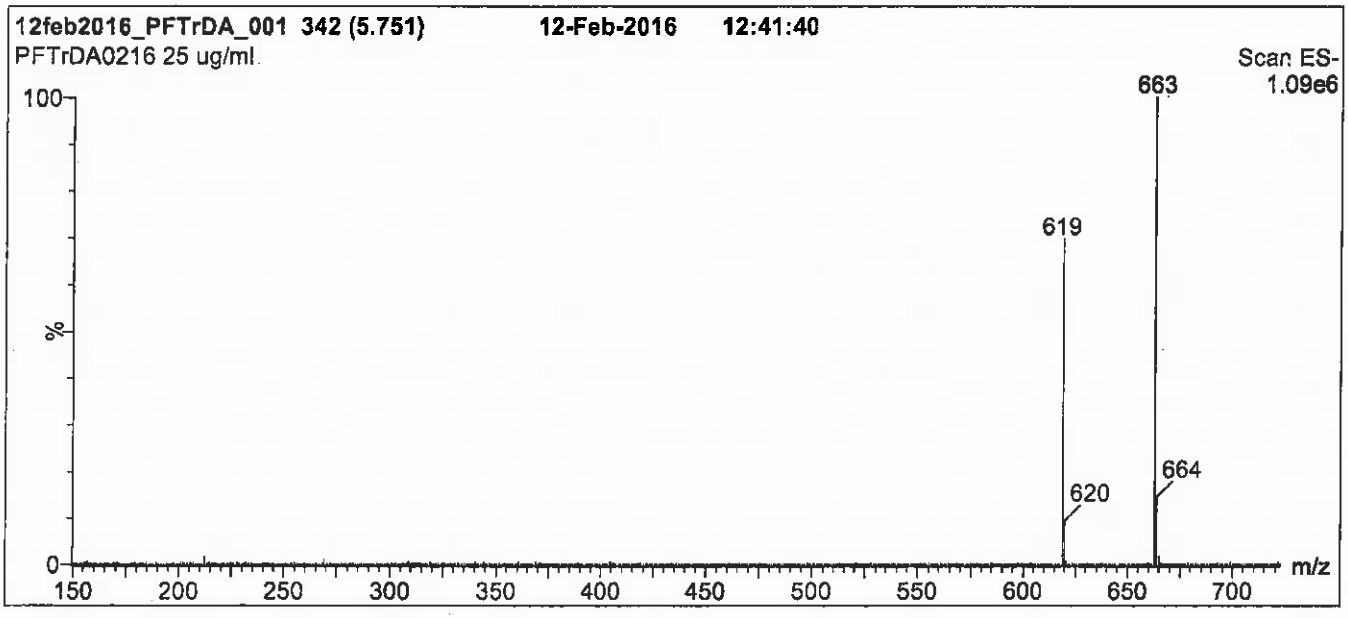
CALA

ANAB ACCREDITED

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

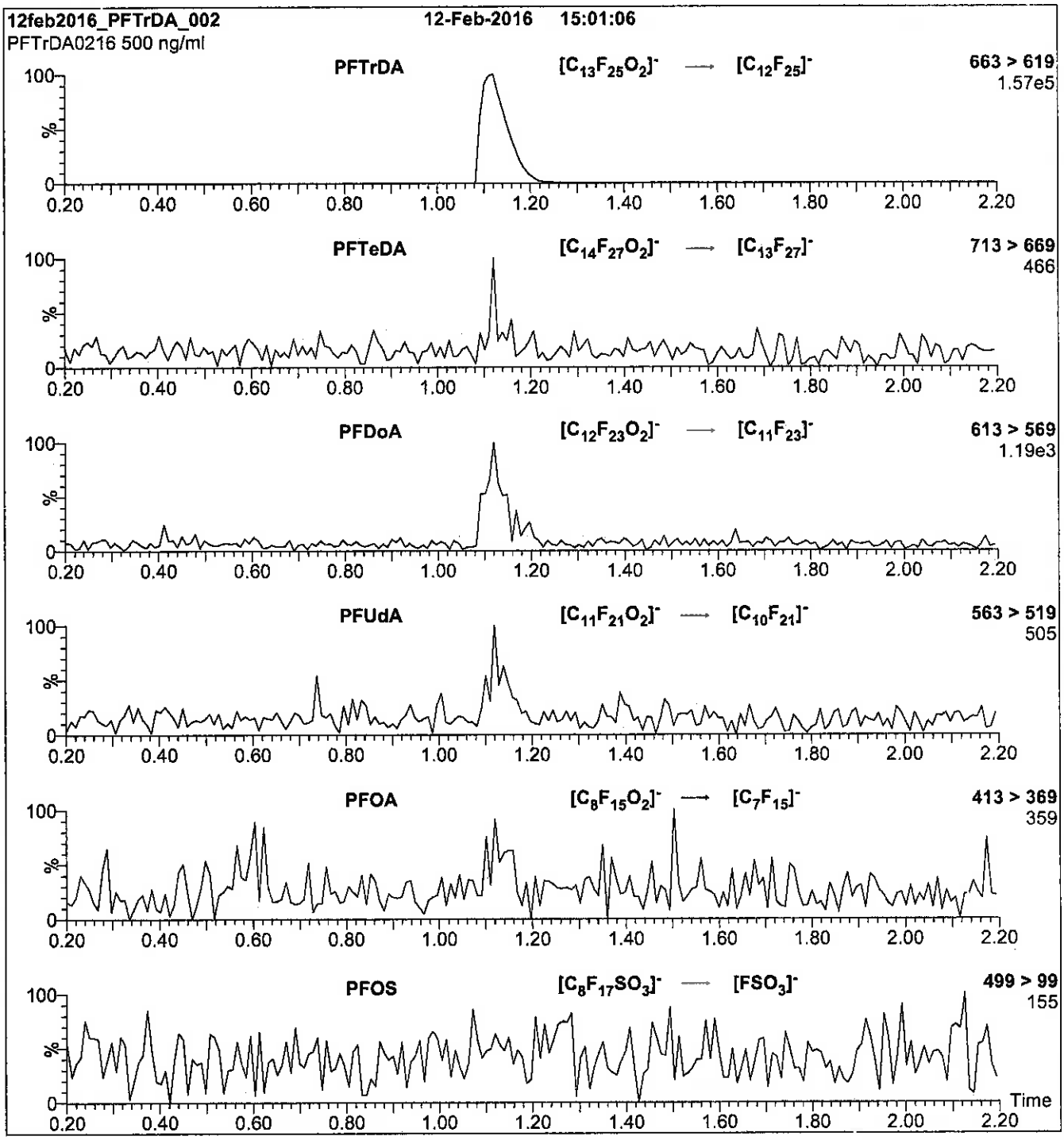
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 22.00
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 80% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 15

Reagent

LCPFUdA_00005

Scanned 10/14/16 R: SBC 9/13/16

730535
ID: LCPFUdA_00005
Exp: 08/19/20 Prpd: SBC
PF-n-undecanoic acid

730536
ID: LCPFUdA_00006
Exp: 08/19/20 Prpd: SBC
PF-n-undecanoic acid

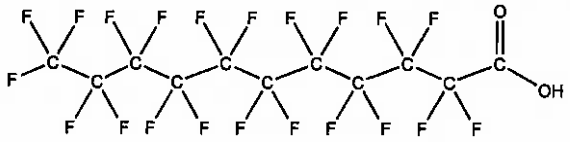
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUdA
LOT NUMBER: PFUdA0815
COMPOUND: Perfluoro-n-undecanoic acid

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
MOLECULAR WEIGHT: 564.09
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 08/19/2015
EXPIRY DATE: (mm/dd/yyyy) 08/19/2020
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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

ADDITIONAL INFORMATION:

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

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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

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

INTENDED USE:

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

HAZARDS:

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

SYNTHESIS / CHARACTERIZATION:

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

HOMOGENEITY:

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

UNCERTAINTY:

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

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

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

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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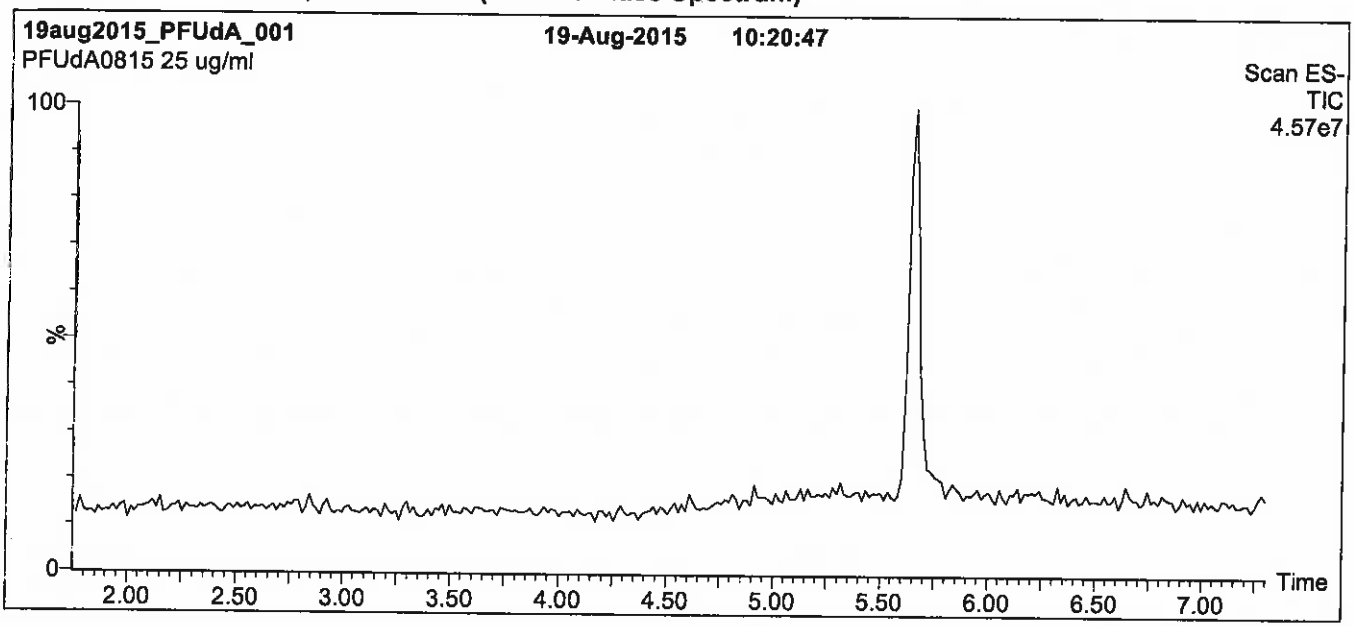
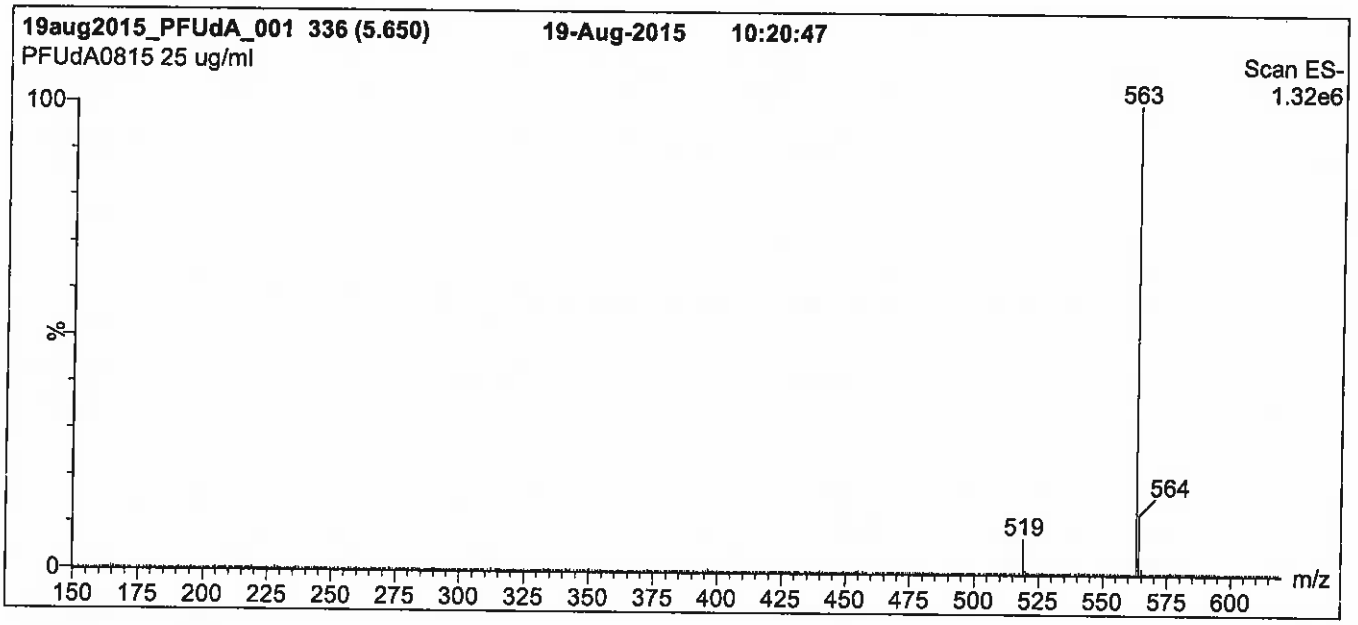
Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





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: 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

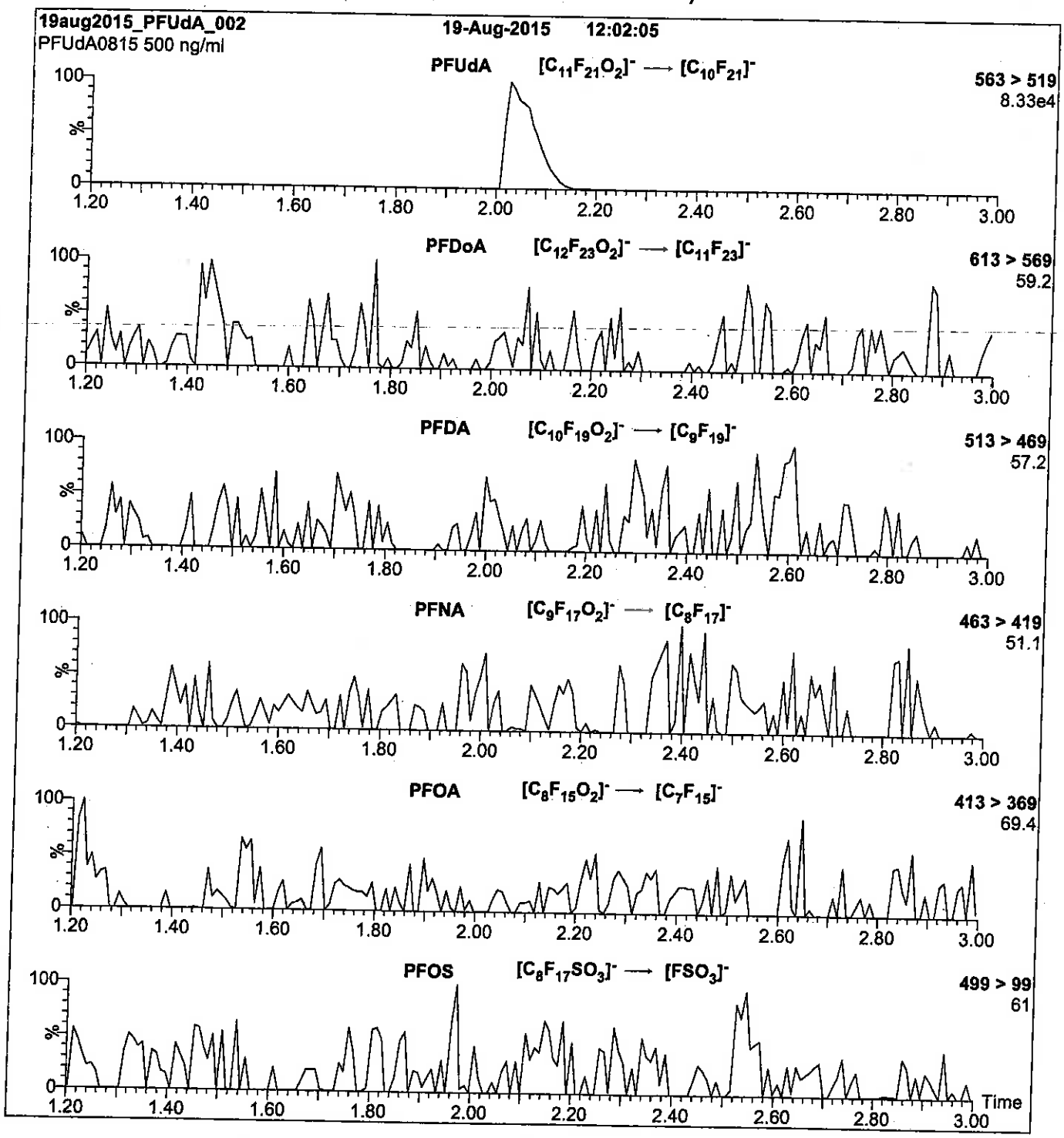
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 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 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) = 11

Reagent

LCPFUdA_00006

Scanned 10/14/16 R: SBC 9/13/16

730535
ID: LCPFUdA_00005
Exp: 08/19/20 Prpd: SBC
PF-n-undecanoic acid

730536
ID: LCPFUdA_00006
Exp: 08/19/20 Prpd: SBC
PF-n-undecanoic acid

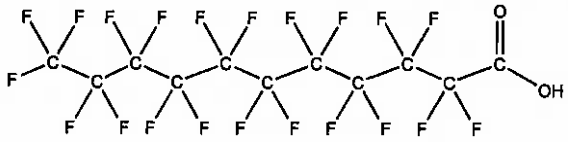
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFUdA
LOT NUMBER: PFUdA0815
COMPOUND: Perfluoro-n-undecanoic acid

STRUCTURE:

CAS #: 2058-94-8



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CALA

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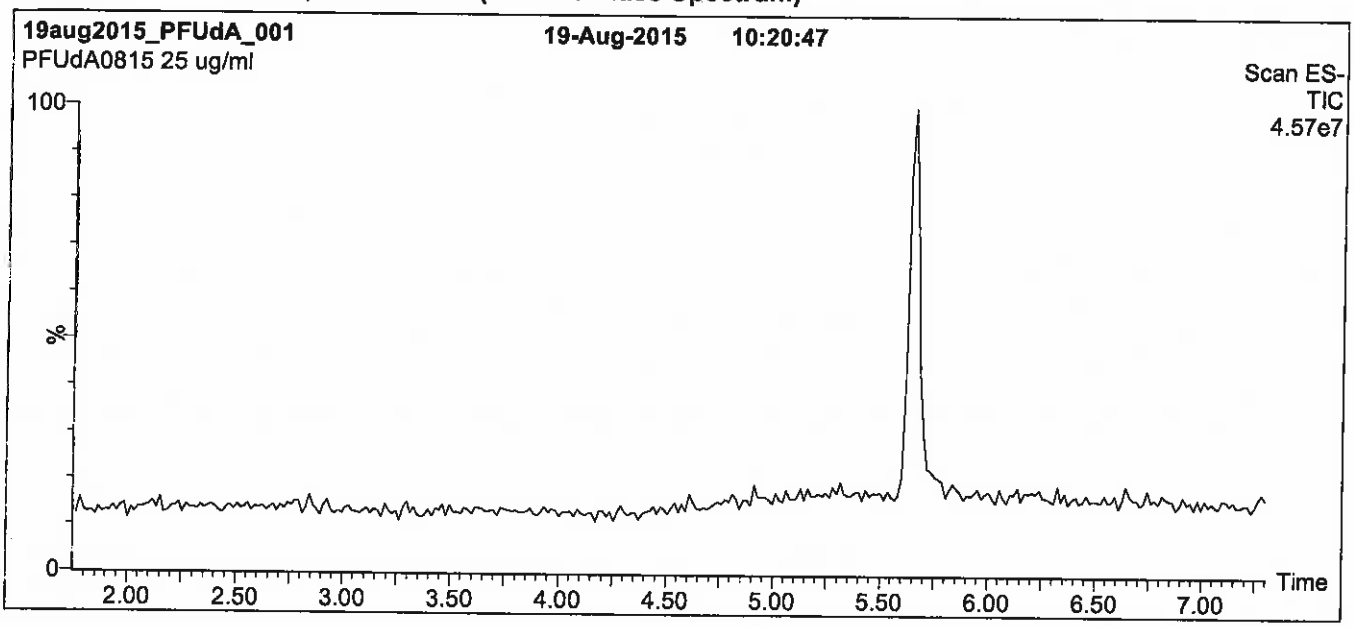

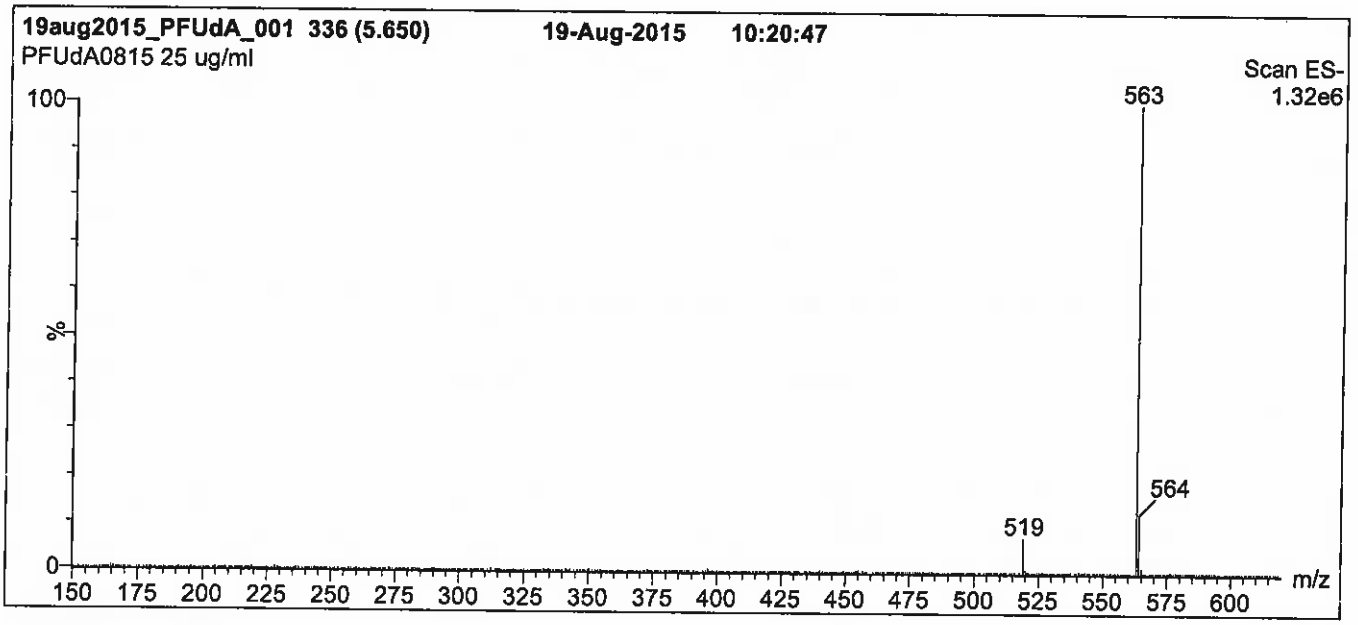

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MS: **Micromass Quattro *micro* API MS**

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

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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

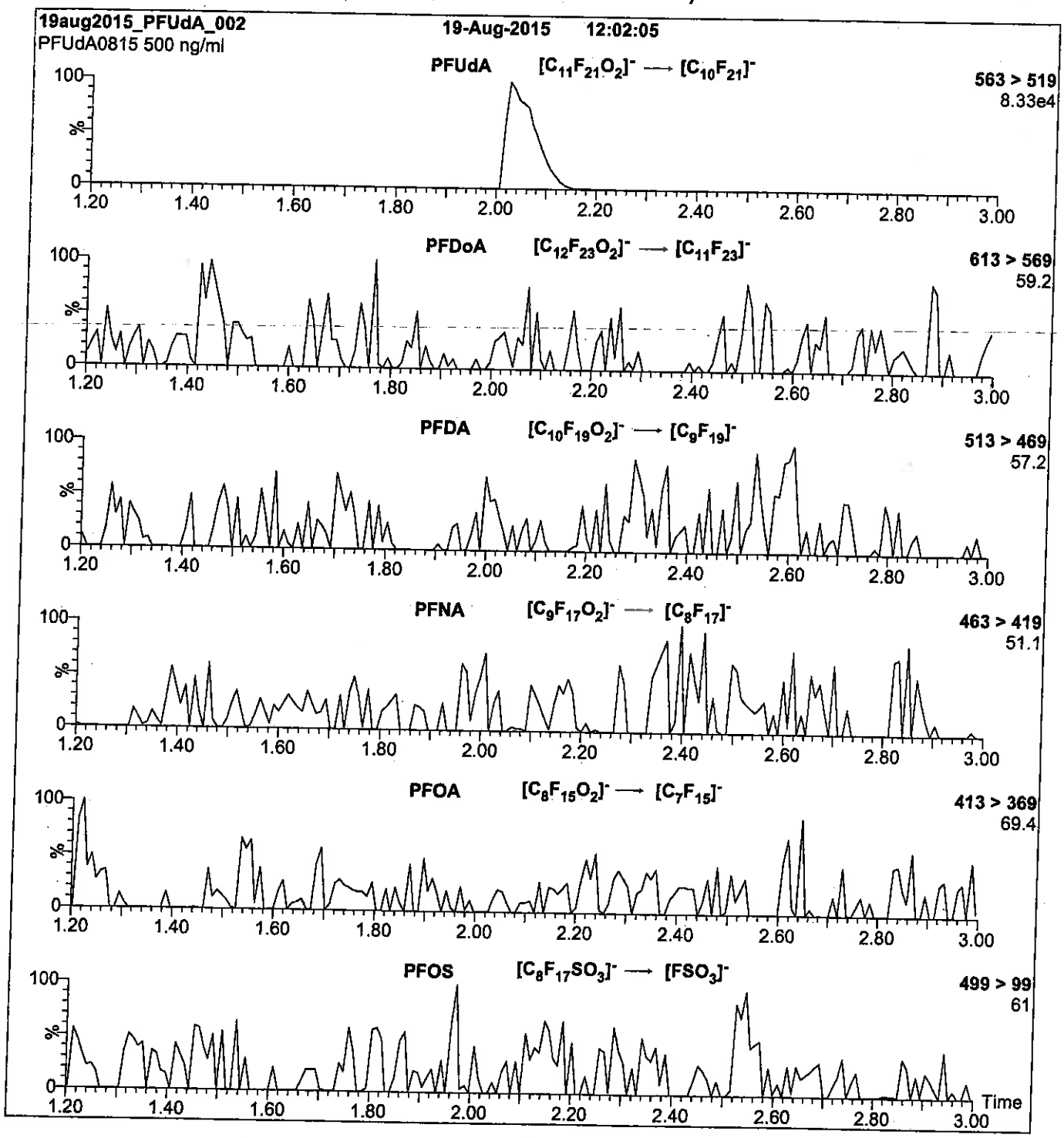
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 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 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) = 11

Method PFC DOD

Perfluronated Hydrocarbons (LC/MS) by Method PFC_DOD

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): GeminiC18 3 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFHxS #	PFOA #	PFOS #
MEAFF-T45C-2004MW01-0617	320-29198-1	95	43	92
MEAFF-EB05-0617	320-29198-2	106	129	104
MEAFF-T45C-03-2008MW01-0617	320-29198-3	109	91	107
MEAFF-UNKN16MW01-0617	320-29198-4	107	63	103
MEAFF-TA4-UNKNMW01-0617	320-29198-5	90	82	94
MEAFF-UNKN17MW01-0617	320-29198-6	113	59	107
MEAFF-EB06-0617	320-29198-7	112	140	109
MEAFF-TA4J-1992MW01-0617	320-29198-8	83	66	89
MEAFF-T45C-2005MW01-0617	320-29198-9	106	86	99
MEAFF-EB07-0617	320-29198-10	109	137	113
	MB 320-170434/1-A	102	117	99
	MB 320-170613/1-A	103	122	100
	MB 320-173923/1-A	125	136	123
	LCS 320-170434/2-A	107	88	101
	LCS 320-170613/2-A	106	123	101
	LCS 320-173923/2-A	124	125	122
	LCSD 320-170613/3-A	110	122	105
	LCSD 320-173923/3-A	130	131	128

	QC LIMITS
PFHxS = 18O2 PFHxS	25-150
PFOA = 13C4 PFOA	25-150
PFOS = 13C4 PFOS	25-150

Column to be used to flag recovery values

FORM II 537 (Modified)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): GeminiC18 3 ID: 3 (mm)

Client Sample ID	Lab Sample ID	PFOS #
MEAFF-TA4-UNKNMW01-0617 RE	320-29198-5 RE	131
MEAFF-UNKN17MW01-0617 RE	320-29198-6 RE	127
MEAFF-TA4J-1992MW01-0617 RE	320-29198-8 RE	118

	QC LIMITS
PFOS = 13C4 PFOS	25-150

Column to be used to flag recovery values

FORM II 537 (Modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2017.06.24B_055.d

Lab ID: LCS 320-170434/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.0	39.5	99	60-140	
Perfluorooctanesulfonic acid (PFOS)	37.1	40.4	109	60-140	
13C4 PFOA	100	87.8	88	25-150	
13C4 PFOS	95.6	96.7	101	25-150	
Perfluorobutanesulfonic acid (PFBS)	35.4	42.8	121	50-150	
18O2 PFHxS	94.6	101	107	25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (Modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2017.06.28B_029.d

Lab ID: LCS 320-170613/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.0	41.8	104	60-140	
Perfluorooctanesulfonic acid (PFOS)	37.1	55.9	151	60-140	Q
13C4 PFOA	100	123	123	25-150	
13C4 PFOS	95.6	96.4	101	25-150	
Perfluorobutanesulfonic acid (PFBS)	35.4	42.0	119	50-150	
18O2 PFHxS	94.6	101	106	25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (Modified)

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20170714D_002.d

Lab ID: LCS 320-173923/2-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCS CONCENTRATION (ng/L)	LCS % REC	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.0	39.1	98	60-140	
Perfluorooctanesulfonic acid (PFOS)	37.1	34.7	93	60-140	
13C4 PFOA	100	125	125	25-150	
13C4 PFOS	95.6	117	122	25-150	
Perfluorobutanesulfonic acid (PFBS)	35.4	35.6	101	50-150	
18O2 PFHxS	94.6	118	124	25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (Modified)

FORM III
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 2017.06.28B_030.d

Lab ID: LCSD 320-170613/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.0	41.0	103	2	30	60-140	
Perfluorooctanesulfonic acid (PFOS)	37.1	41.5	112	29	30	60-140	
13C4 PFOA	100	122	122			25-150	
13C4 PFOS	95.6	101	105			25-150	
Perfluorobutanesulfonic acid (PFBS)	35.4	43.3	123	3	30	50-150	
18O2 PFHxS	94.6	104	110			25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (Modified)

FORM III
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 20170714D_003.d

Lab ID: LCSD 320-173923/3-A Client ID:

COMPOUND	SPIKE ADDED (ng/L)	LCSD CONCENTRATION (ng/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorooctanoic acid (PFOA)	40.0	38.5	96	2	30	60-140	
Perfluorooctanesulfonic acid (PFOS)	37.1	36.3	98	5	30	60-140	
13C4 PFOA	100	131	131			25-150	
13C4 PFOS	95.6	122	128			25-150	
Perfluorobutanesulfonic acid (PFBS)	35.4	32.7	93	8	30	50-150	
18O2 PFHxS	94.6	123	130			25-150	

Column to be used to flag recovery and RPD values

FORM III 537 (Modified)

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab File ID: 2017.06.27ABC_003.d Lab Sample ID: MB 320-170434/1-A

Matrix: Water Date Extracted: 06/22/2017 08:27

Instrument ID: A8_N Date Analyzed: 06/28/2017 11:29

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-170434/2-A	2017.06.24B 055.d	06/25/2017 01:14
MEAFF-T45C-2004MW01-0617	320-29198-1	2017.06.27_ PFC_A_006.d	06/28/2017 01:56

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab File ID: 2017.06.28B_028.d Lab Sample ID: MB 320-170613/1-A

Matrix: Water Date Extracted: 06/23/2017 08:10

Instrument ID: A8_N Date Analyzed: 06/29/2017 02:26

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-170613/2-A	2017.06.28B_029.d	06/29/2017 02:33
	LCSD 320-170613/3-A	2017.06.28B_030.d	06/29/2017 02:39
MEAFF-EB05-0617	320-29198-2	2017.06.28B_031.d	06/29/2017 02:46
MEAFF-T45C-03-2008MW01-0617	320-29198-3	2017.06.28B_032.d	06/29/2017 02:53
MEAFF-UNKN16MW01-0617	320-29198-4	2017.06.28B_033.d	06/29/2017 03:00
MEAFF-TA4-UNKNMW01-0617	320-29198-5	2017.06.28B_034.d	06/29/2017 03:07
MEAFF-UNKN17MW01-0617	320-29198-6	2017.06.28B_035.d	06/29/2017 03:14
MEAFF-EB06-0617	320-29198-7	2017.06.28B_036.d	06/29/2017 03:21
MEAFF-TA4J-1992MW01-0617	320-29198-8	2017.06.28B_037.d	06/29/2017 03:28
MEAFF-T45C-2005MW01-0617	320-29198-9	2017.06.28B_039.d	06/29/2017 03:42
MEAFF-EB07-0617	320-29198-10	2017.06.28B_040.d	06/29/2017 03:48

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab File ID: 20170714D_001.d Lab Sample ID: MB 320-173923/1-A

Matrix: Water Date Extracted: 07/13/2017 09:26

Instrument ID: A8_N Date Analyzed: 07/15/2017 03:05

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 320-173923/2-A	20170714D_002.d	07/15/2017 03:12
	LCSD 320-173923/3-A	20170714D_003.d	07/15/2017 03:19
MEAFF-TA4-UNKNMW01-0617 RE	320-29198-5 RE	20170714D_014.d	07/15/2017 04:35
MEAFF-UNKN17MW01-0617 RE	320-29198-6 RE	20170714D_015.d	07/15/2017 04:41
MEAFF-TA4J-1992MW01-0617 RE	320-29198-8 RE	20170714D_016.d	07/15/2017 04:48

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-T45C-2004MW01-0617 Lab Sample ID: 320-29198-1

Matrix: Water Lab File ID: 2017.06.27_PFC_A_006.d

Analysis Method: 537 (Modified) Date Collected: 06/15/2017 14:45

Extraction Method: 3535 Date Extracted: 06/22/2017 08:27

Sample wt/vol: 257.2(mL) Date Analyzed: 06/28/2017 01:56

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171325 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	5.8	M	2.4	1.9	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	10		3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	1.9	0.89

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	43		25-150
STL00991	13C4 PFOS	92		25-150
STL00994	18O2 PFHxS	95		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_006.d
Lims ID: 320-29198-A-1-A
Client ID: MEAFF-T45C-2004MW01-0617
Sample Type: Client
Inject. Date: 28-Jun-2017 01:56:56 ALS Bottle#: 5 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-1-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 09:37:56 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK005

First Level Reviewer: chandrasenas Date: 28-Jun-2017 09:27:12

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.770	1.783	-0.013	1.000	289774	1.03			175	
298.90 > 99.00	1.770	1.783	-0.013	1.000	126826		2.28(0.00-0.00)		176	
D 11 18O2 PFHxS										
403.00 > 84.00	2.346	2.360	-0.014		9567673	45.0		95.1	35890	
* 62 13C2-PFOA										
415.00 > 370.00	2.677	2.695	-0.018		2186	50.0			72.7	
D 14 13C4 PFOA										
417.00 > 372.00	2.684	2.701	-0.017		2794955	21.4		42.8	12239	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.684	2.703	-0.019	1.000	177191	2.99			102	M
413.00 > 169.00	2.684	2.703	-0.019	1.000	105271		1.68(0.90-1.10)		357	M
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.060	3.076	-0.016	1.000	826694	5.24			2318	
499.00 > 99.00	3.060	3.076	-0.016	1.000	175940		4.70(0.90-1.10)		872	
D 18 13C4 PFOS										
503.00 > 80.00	3.060	3.076	-0.016		7182408	44.1		92.3	12683	

QC Flag Legend

Review Flags
M - Manually Integrated

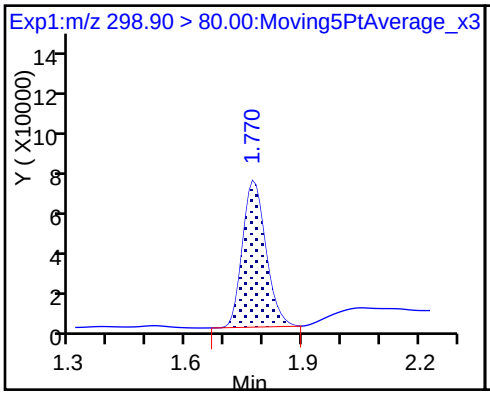
Report Date: 28-Jun-2017 09:38:13 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

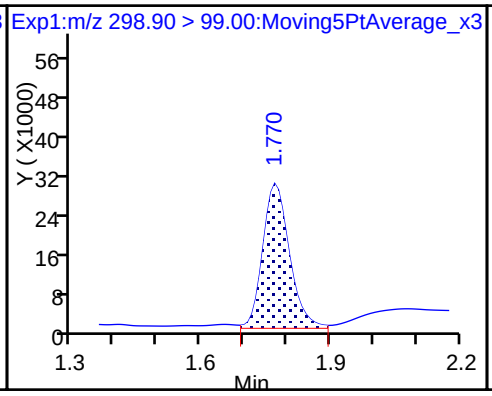
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_006.d

Injection Date:	28-Jun-2017 01:56:56	Instrument ID:	A8_N		
Lims ID:	320-29198-A-1-A	Lab Sample ID:	320-29198-1		
Client ID:	MEAFF-T45C-2004MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		

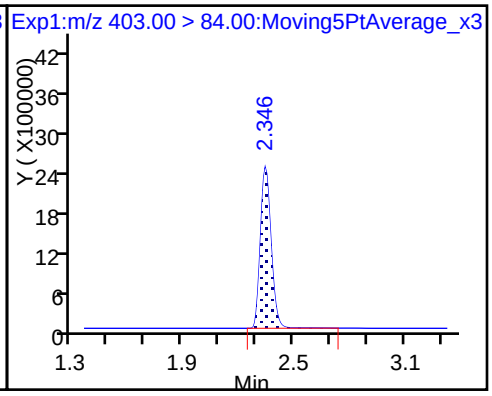
5 Perfluorobutanesulfonic acid



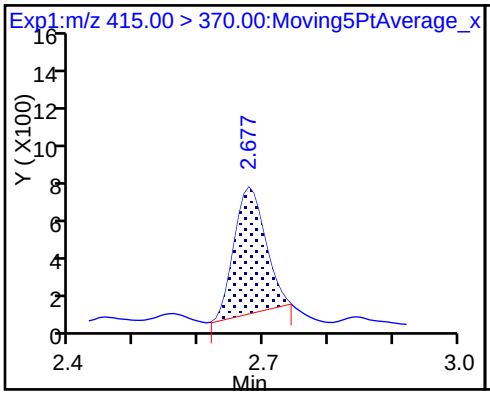
5 Perfluorobutanesulfonic acid



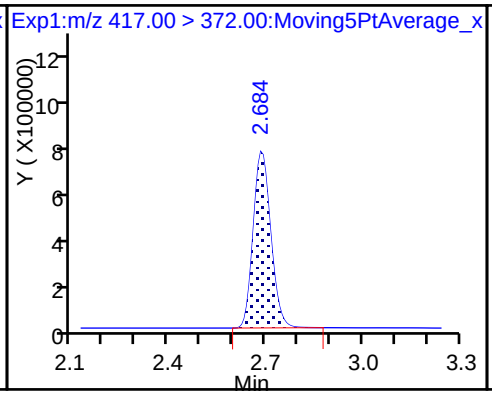
D 11 18O2 PFHxS



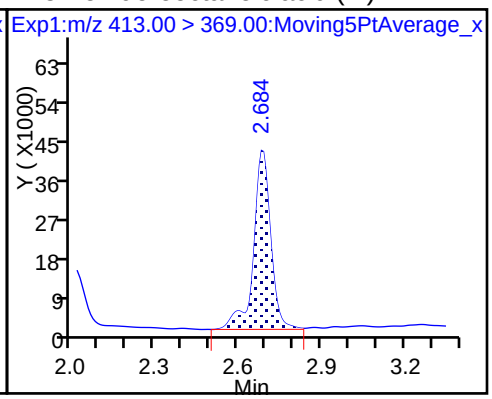
* 62 13C2-PFOA



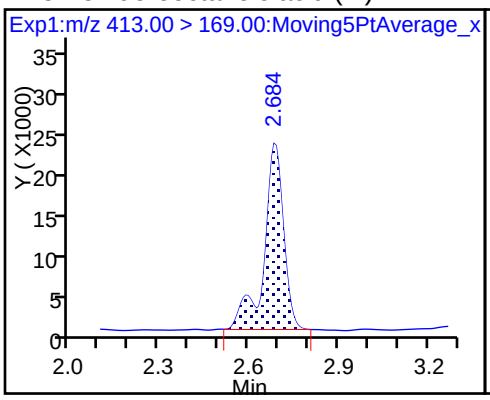
D 14 13C4 PFOA



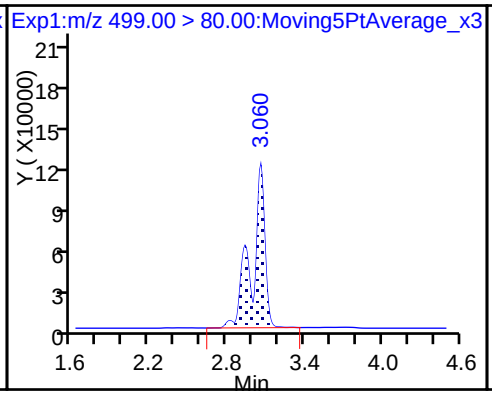
15 Perfluorooctanoic acid (M)



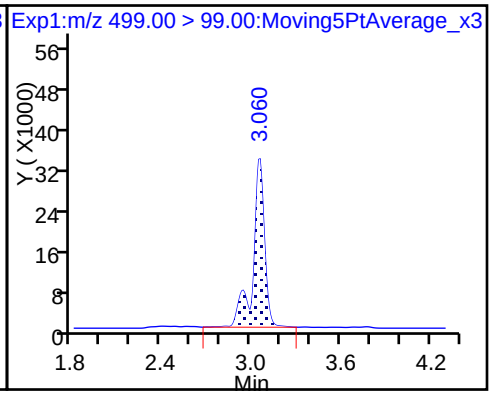
15 Perfluorooctanoic acid (M)



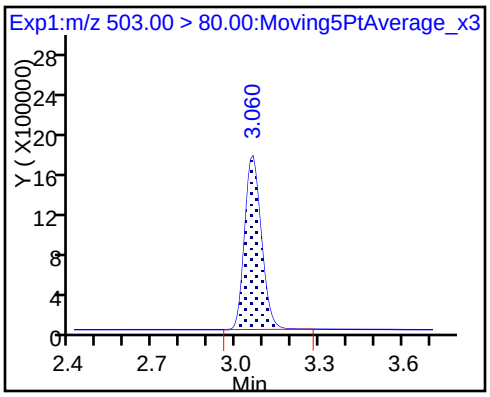
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

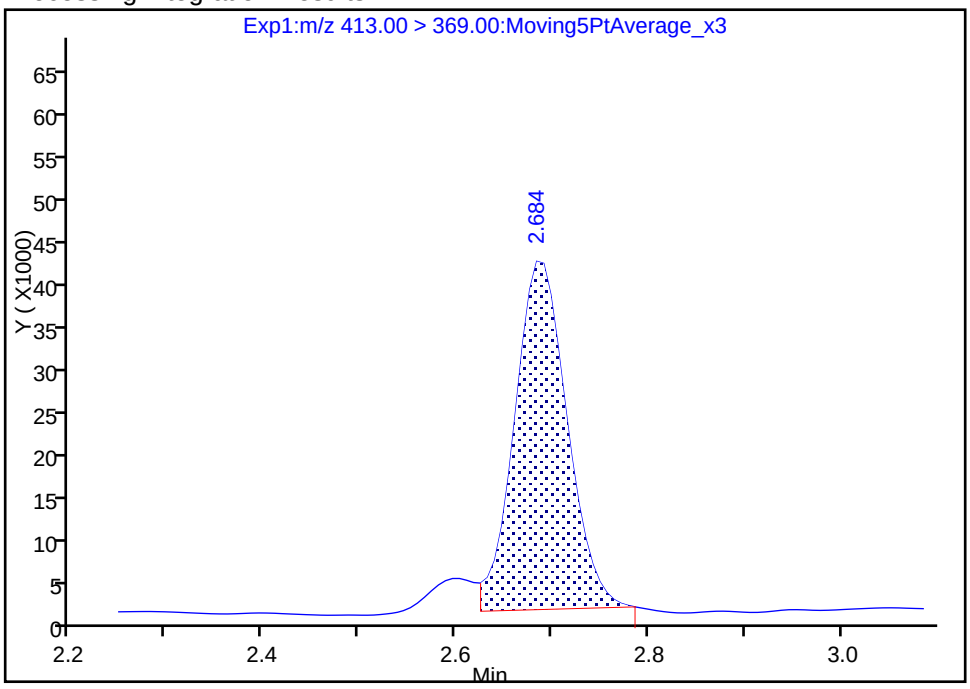
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_006.d				
Injection Date:	28-Jun-2017 01:56:56	Instrument ID:	A8_N		
Lims ID:	320-29198-A-1-A	Lab Sample ID:	320-29198-1		
Client ID:	MEAFF-T45C-2004MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

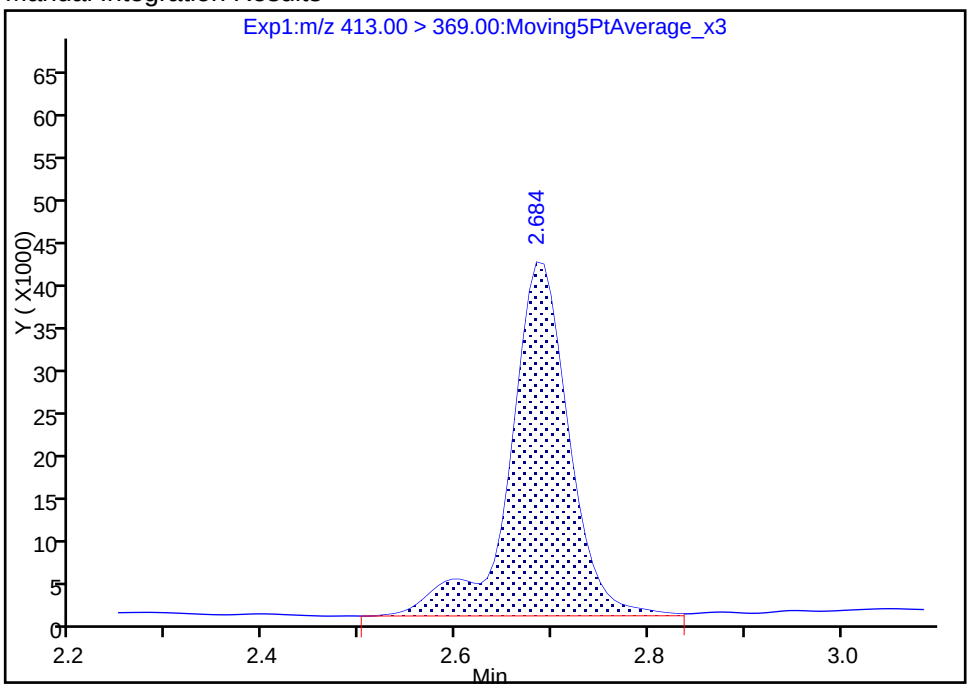
Processing Integration Results

RT: 2.68
Area: 154058
Amount: 2.599797
Amount Units: ng/ml



Manual Integration Results

RT: 2.68
Area: 177191
Amount: 2.990176
Amount Units: ng/ml



Reviewer: chandrasenas, 28-Jun-2017 09:27:04

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

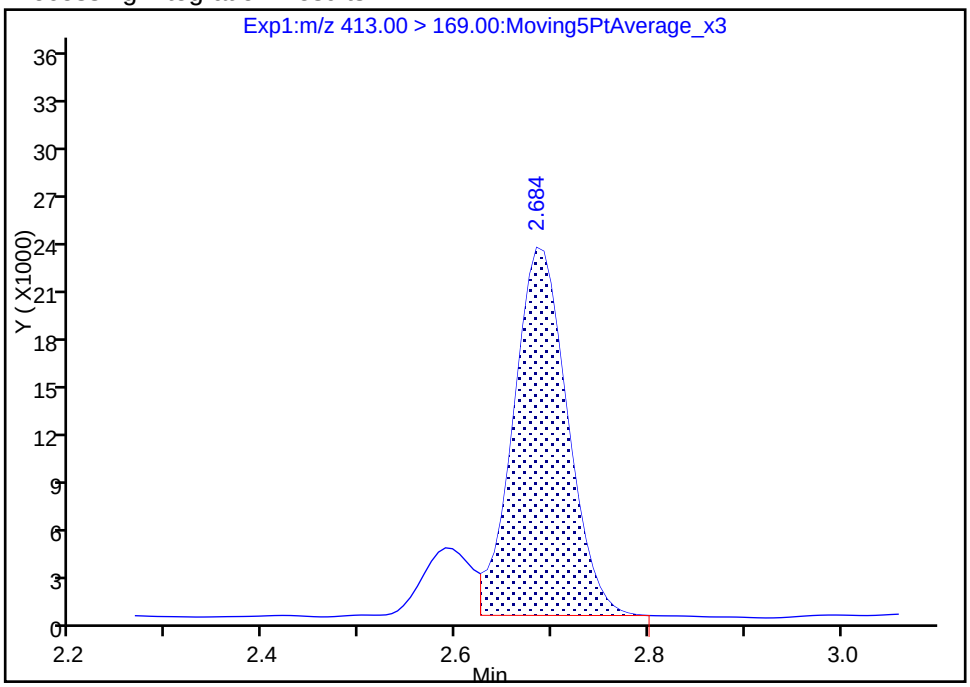
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_006.d				
Injection Date:	28-Jun-2017 01:56:56	Instrument ID:	A8_N		
Lims ID:	320-29198-A-1-A	Lab Sample ID:	320-29198-1		
Client ID:	MEAFF-T45C-2004MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	5	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

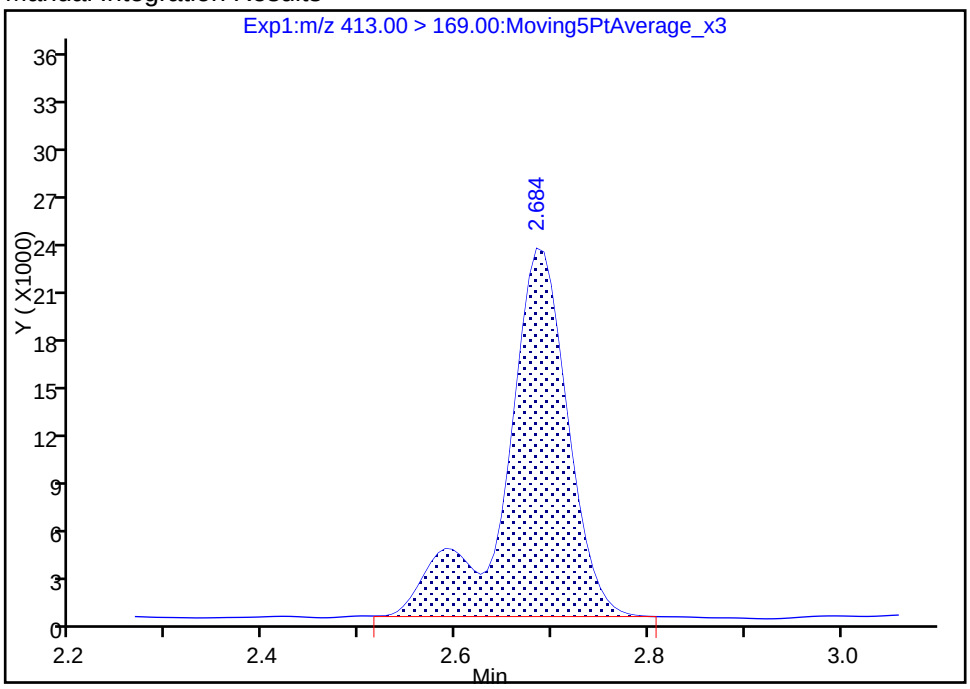
Processing Integration Results

RT: 2.68
Area: 90154
Amount: 2.599797
Amount Units: ng/ml



Manual Integration Results

RT: 2.68
Area: 105271
Amount: 2.990176
Amount Units: ng/ml



Reviewer: chandrasenas, 28-Jun-2017 09:27:09

Audit Action: Manually Integrated Audit Reason: Isomers

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-EB05-0617 | Lab Sample ID: 320-29198-2

Matrix: Water | Lab File ID: 2017.06.28B_031.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 07:40

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 260.3(mL) | Date Analyzed: 06/29/2017 02:46

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U Q	3.8	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U M	2.4	1.9	0.88

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	129		25-150
STL00991	13C4 PFOS	104		25-150
STL00994	18O2 PFHxS	106		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_031.d
Lims ID: 320-29198-B-2-A
Client ID: MEAFF-EB05-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 02:46:54 ALS Bottle#: 26 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-b-2-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 16:51:42

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.753	1.760	-0.007	1.000	4661	0.0148			3.2	M
298.90 > 99.00	1.744	1.760	-0.016	0.995	1835		2.54(0.00-0.00)		2.5	M
D 11 18O2 PFHxS										
403.00 > 84.00	2.316	2.329	-0.013		10699219	50.3		106	24342	
* 62 13C2-PFOA										
415.00 > 370.00	2.642	2.656	-0.014		5140	50.0			171	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.649	2.663	-0.014	1.000	8958	0.0503			2.4	
413.00 > 169.00	2.649	2.663	-0.014	1.000	7708		1.16(0.90-1.10)		28.4	
D 14 13C4 PFOA										
417.00 > 372.00	2.649	2.663	-0.014		8397087	64.3		129	17572	
D 18 13C4 PFOS										
503.00 > 80.00	3.017	3.026	-0.009		8062686	49.6		104	17035	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 29-Jun-2017 17:01:24 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_031.d

Injection Date: 29-Jun-2017 02:46:54 Instrument ID: A8_N

Lims ID: 320-29198-B-2-A Lab Sample ID: 320-29198-2

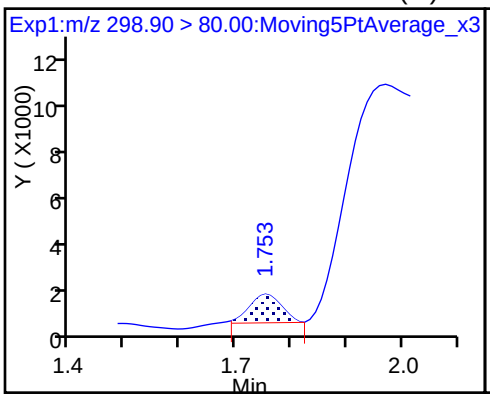
Client ID: MEAFF-EB05-0617

Operator ID: SACINSTLCMS01 ALS Bottle#: 26 Worklist Smp#: 5

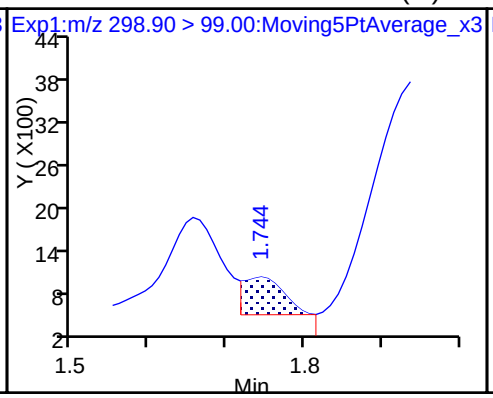
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

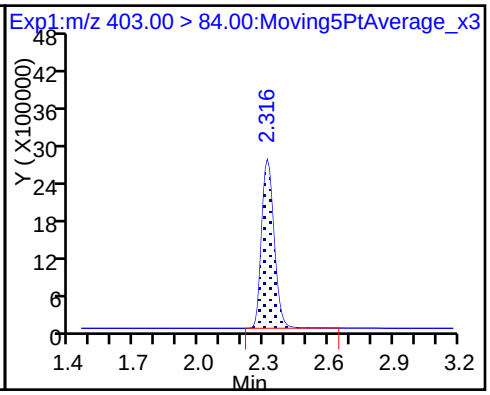
5 Perfluorobutanesulfonic acid (M)



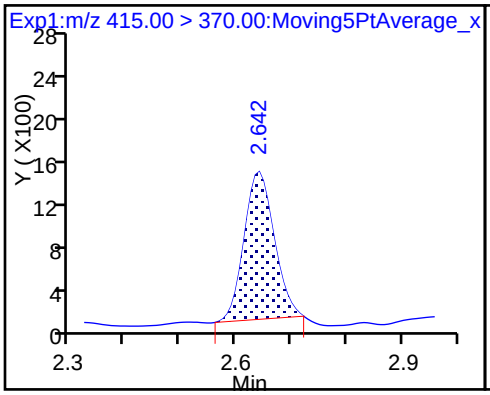
5 Perfluorobutanesulfonic acid (M)



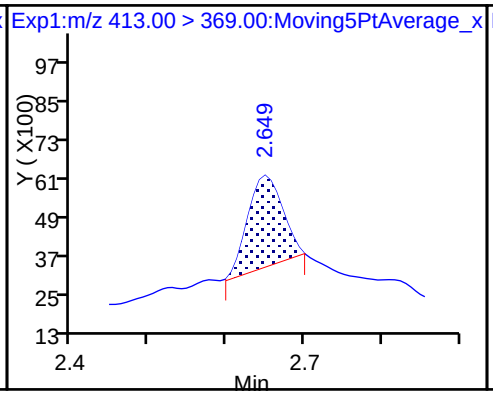
D 11 18O2 PFHxS



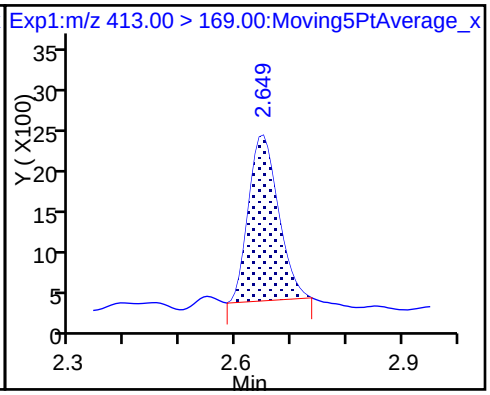
* 62 13C2-PFOA



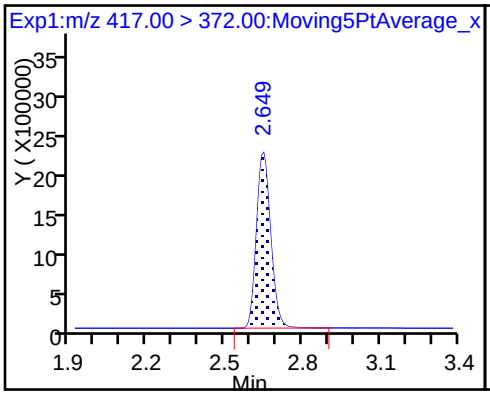
15 Perfluorooctanoic acid



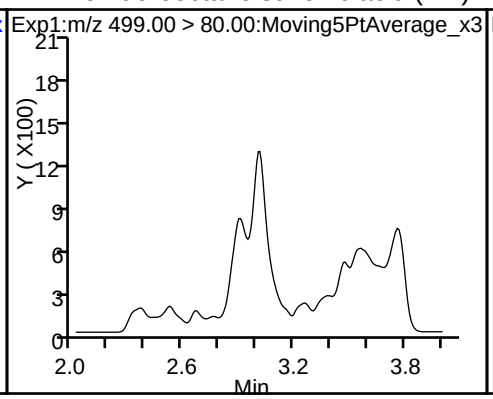
15 Perfluorooctanoic acid



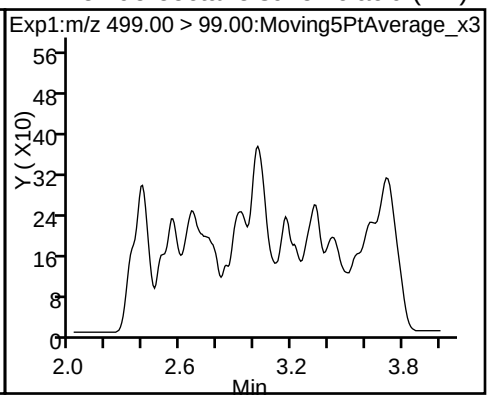
D 14 13C4 PFOA



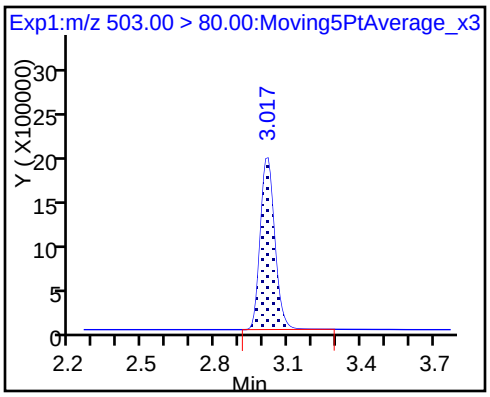
17 Perfluorooctane sulfonic acid (ND)



17 Perfluorooctane sulfonic acid (ND)



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

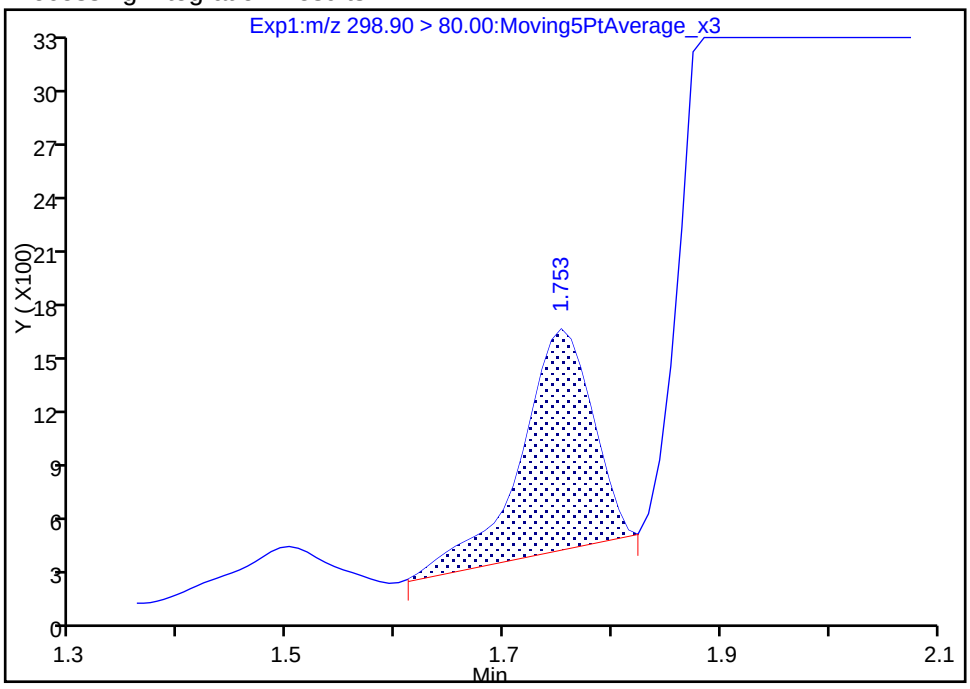
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_031.d				
Injection Date:	29-Jun-2017 02:46:54	Instrument ID:	A8_N		
Lims ID:	320-29198-B-2-A	Lab Sample ID:	320-29198-2		
Client ID:	MEAFF-EB05-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	26	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

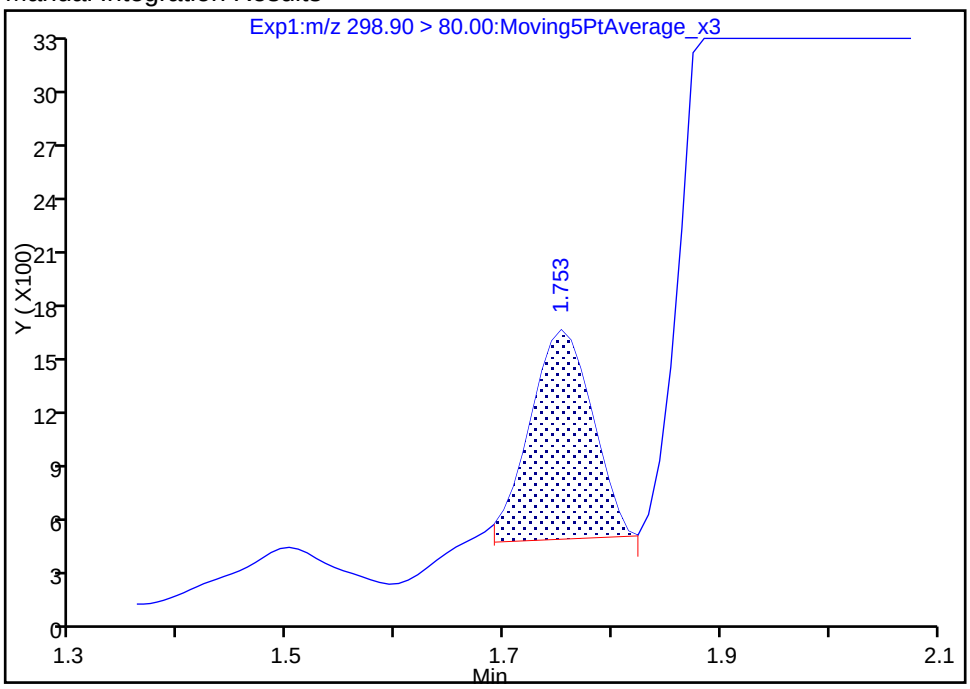
Processing Integration Results

RT: 1.75
Area: 5733
Amount: 0.018181
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 4661
Amount: 0.014781
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:50:52

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

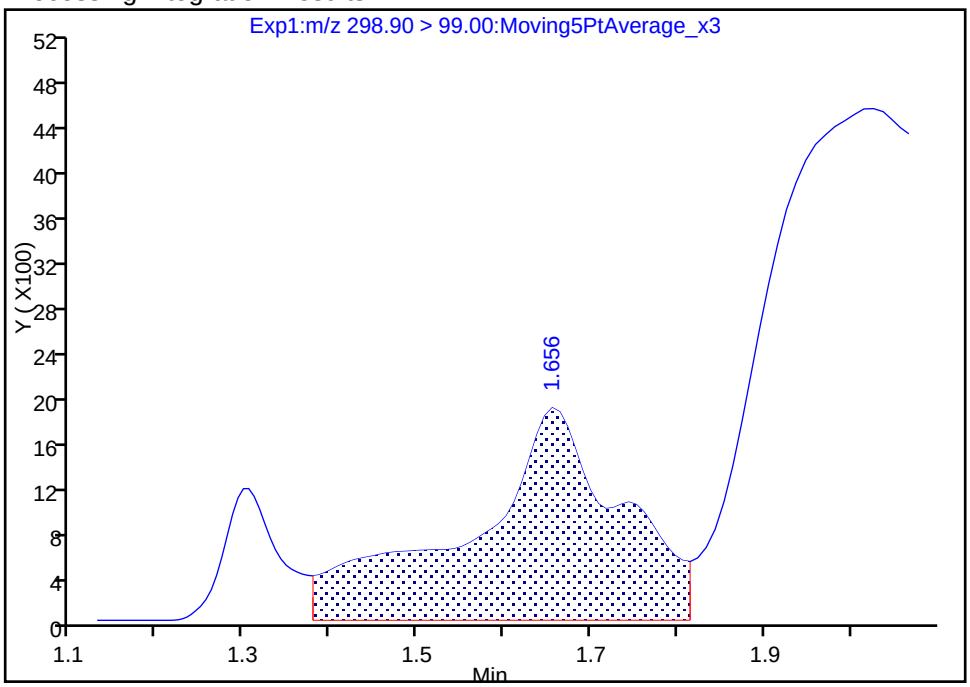
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_031.d				
Injection Date:	29-Jun-2017 02:46:54	Instrument ID:	A8_N		
Lims ID:	320-29198-B-2-A	Lab Sample ID:	320-29198-2		
Client ID:	MEAFF-EB05-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	26	Worklist Smp#:	5
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

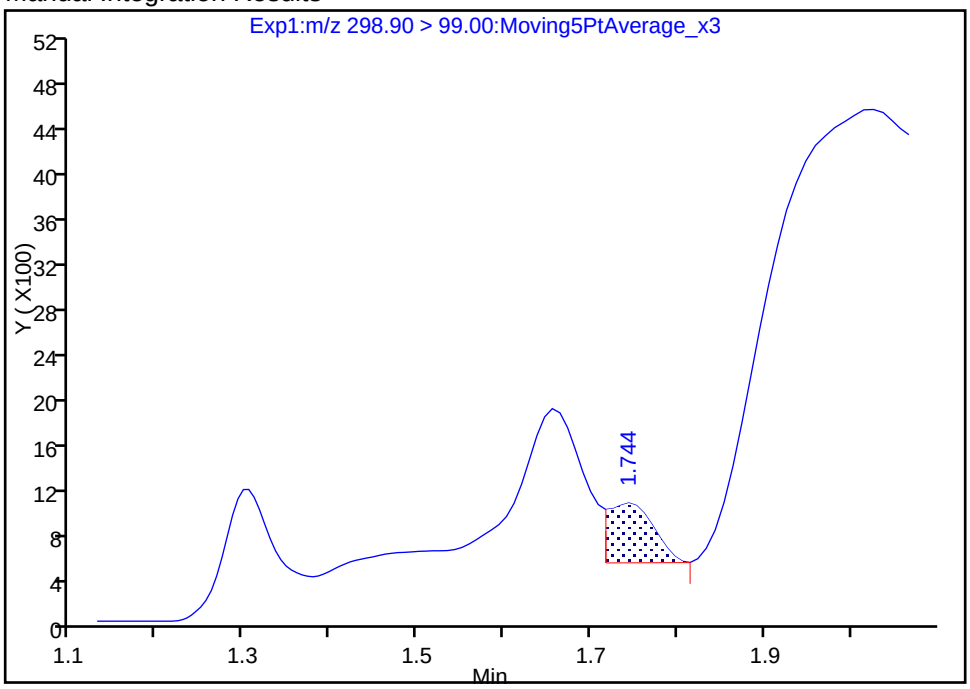
Processing Integration Results

RT: 1.66
Area: 22756
Amount: 0.018181
Amount Units: ng/ml



Manual Integration Results

RT: 1.74
Area: 1835
Amount: 0.014781
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:51:21
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-T45C-03-2008MW01-0617 Lab Sample ID: 320-29198-3

Matrix: Water Lab File ID: 2017.06.28B_032.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 09:55

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 250(mL) Date Analyzed: 06/29/2017 02:53

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	2.0	U	2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.0	J Q	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	91		25-150
STL00991	13C4 PFOS	107		25-150
STL00994	18O2 PFHxS	109		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_032.d
Lims ID: 320-29198-A-3-A
Client ID: MEAFF-T45C-03-2008MW01-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 02:53:48 ALS Bottle#: 27 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-3-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 16:53:01

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.753	1.760	-0.007	1.000	31966	0.0987			9.0	M
298.90 > 99.00	1.753	1.760	-0.007	1.000	18211		1.76(0.00-0.00)		5.0	M
D 11 18O2 PFHxS										
403.00 > 84.00	2.312	2.329	-0.017		10986466	51.7		109	20677	
* 62 13C2-PFOA										
415.00 > 370.00	2.638	2.656	-0.018		3523	50.0			117	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.645	2.663	-0.018	1.000	34212	0.2713			8.8	
413.00 > 169.00	2.645	2.663	-0.018	1.000	16818		2.03(0.90-1.10)		47.2	
D 14 13C4 PFOA										
417.00 > 372.00	2.645	2.663	-0.018		5948402	45.6		91.1	14453	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.011	3.026	-0.015	1.000	181889	1.00			381	
499.00 > 99.00	3.011	3.026	-0.015	1.000	42692		4.26(0.90-1.10)		81.2	
D 18 13C4 PFOS										
503.00 > 80.00	3.011	3.026	-0.015		8295544	51.0		107	18334	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 29-Jun-2017 17:01:25 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_032.d

Injection Date: 29-Jun-2017 02:53:48 Instrument ID: A8_N

Lims ID: 320-29198-A-3-A Lab Sample ID: 320-29198-3

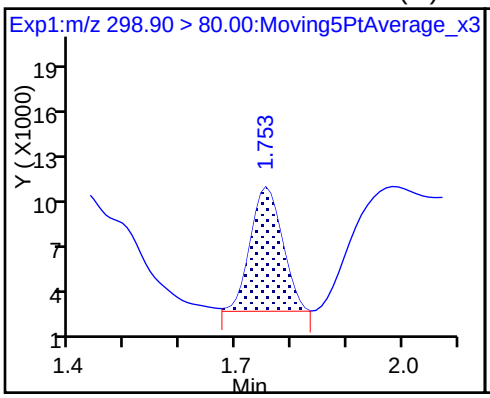
Client ID: MEAFF-T45C-03-2008MW01-0617

Operator ID: SACINSTLCMS01 ALS Bottle#: 27 Worklist Smp#: 6

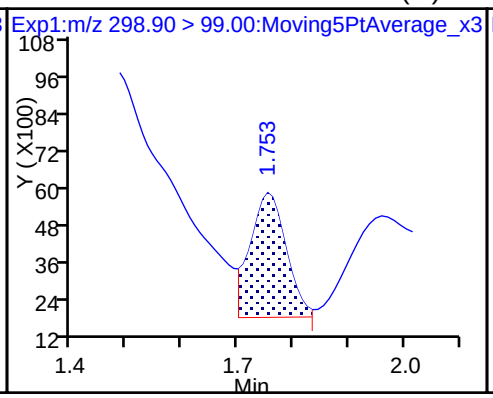
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

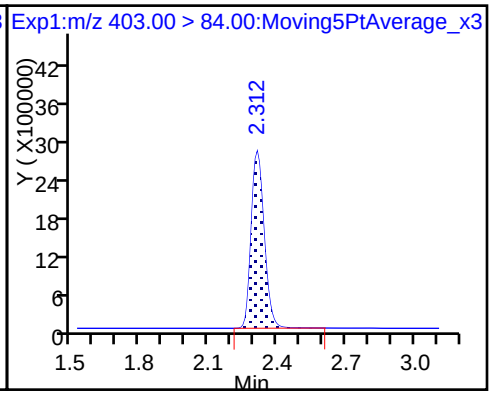
5 Perfluorobutanesulfonic acid (M)



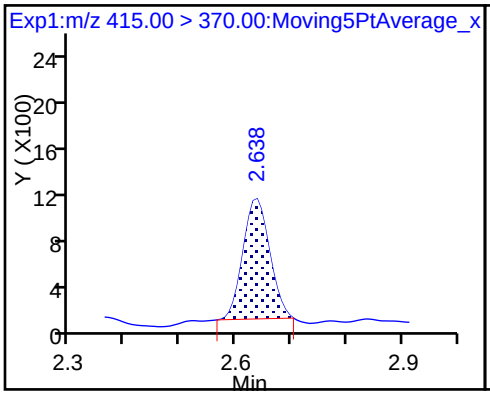
5 Perfluorobutanesulfonic acid (M)



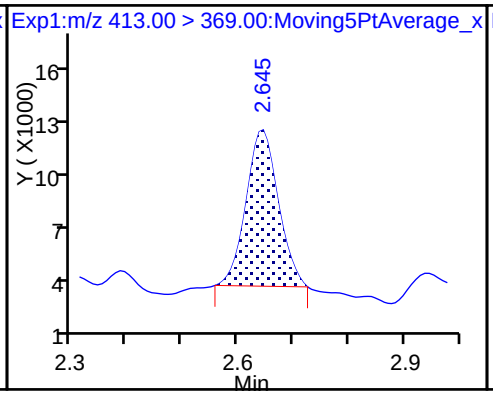
D 11 18O2 PFHxS



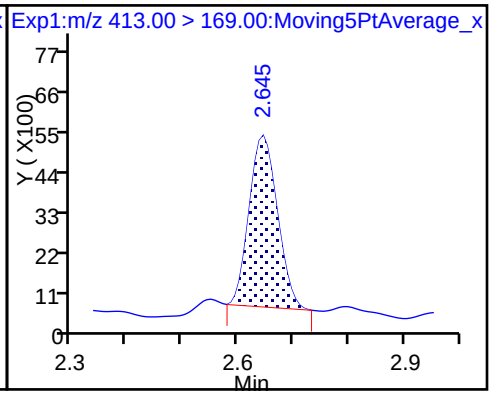
* 62 13C2-PFOA



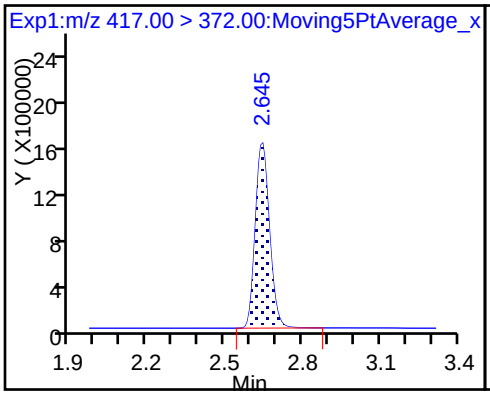
15 Perfluorooctanoic acid



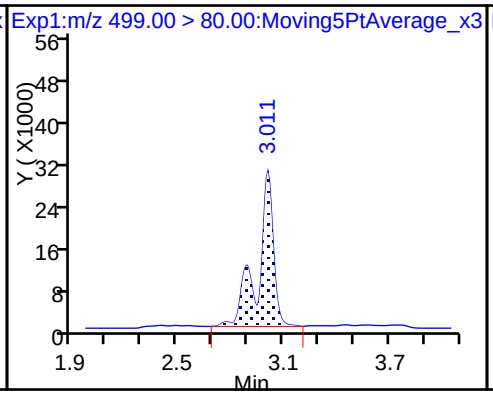
15 Perfluorooctanoic acid



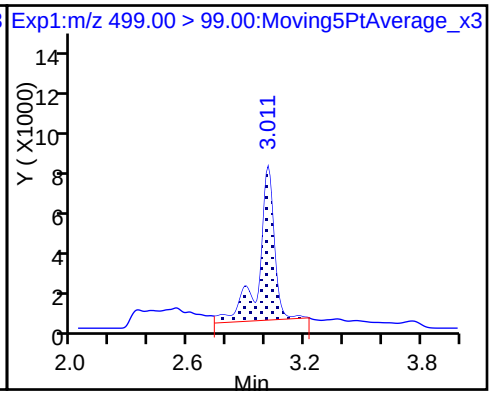
D 14 13C4 PFOA



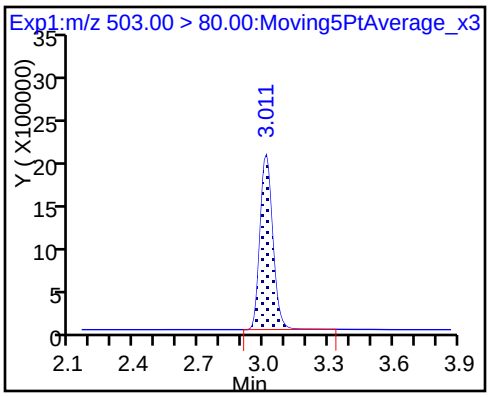
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

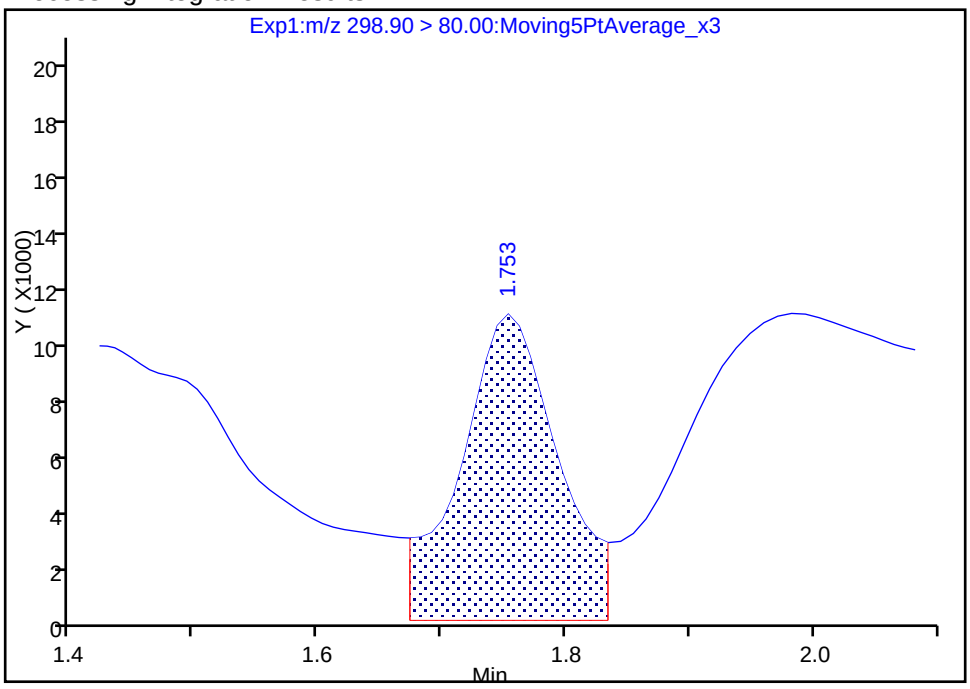
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_032.d				
Injection Date:	29-Jun-2017 02:53:48	Instrument ID:	A8_N		
Lims ID:	320-29198-A-3-A	Lab Sample ID:	320-29198-3		
Client ID:	MEAFF-T45C-03-2008MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	27	Worklist Smp#:	6
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

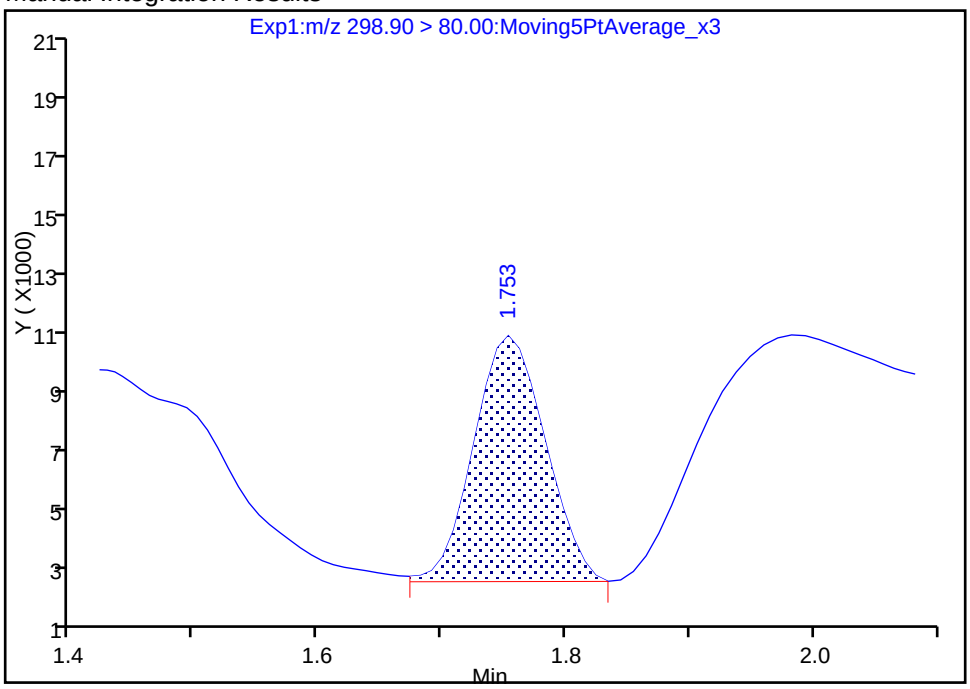
Processing Integration Results

RT: 1.75
Area: 57906
Amount: 0.178834
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 31966
Amount: 0.098722
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:52:18

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

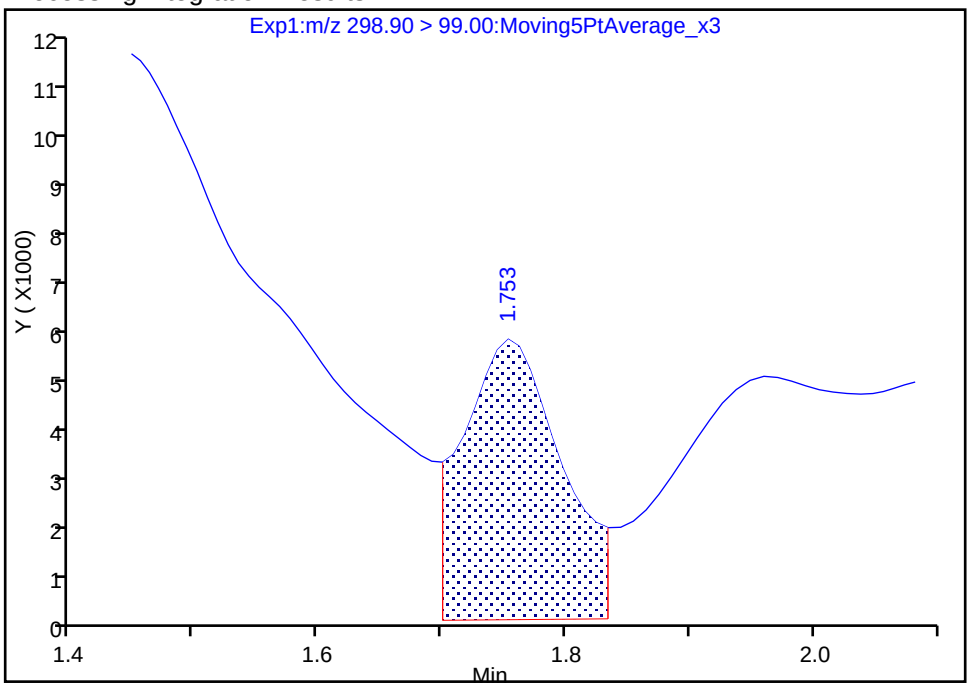
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_032.d				
Injection Date:	29-Jun-2017 02:53:48	Instrument ID:	A8_N		
Lims ID:	320-29198-A-3-A	Lab Sample ID:	320-29198-3		
Client ID:	MEAFF-T45C-03-2008MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	27	Worklist Smp#:	6
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

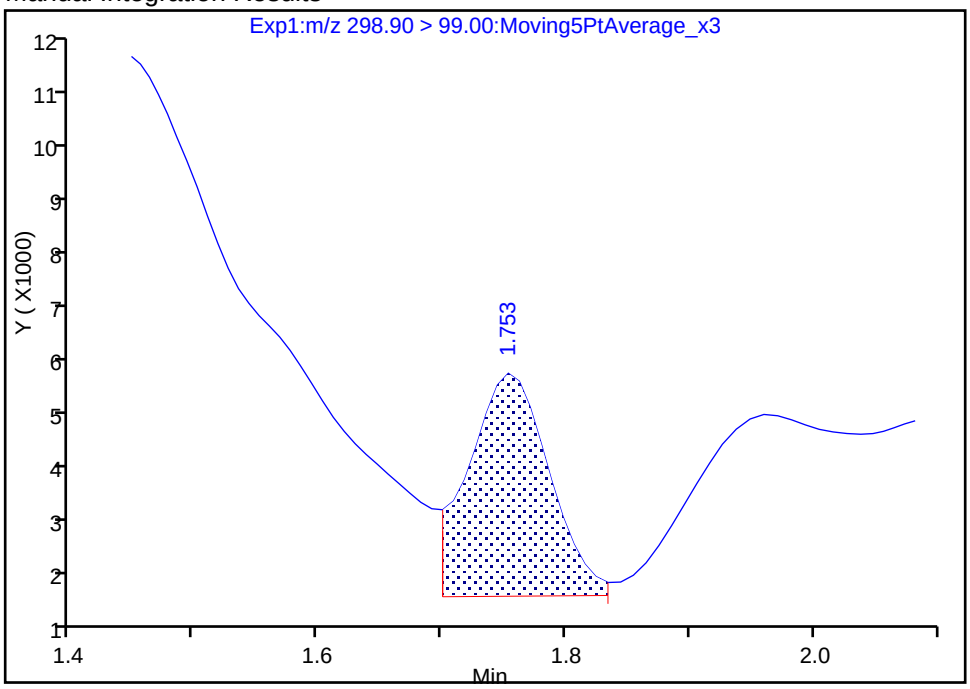
Processing Integration Results

RT: 1.75
Area: 31146
Amount: 0.178834
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 18211
Amount: 0.098722
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:52:37

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-UNKN16MW01-0617 Lab Sample ID: 320-29198-4

Matrix: Water Lab File ID: 2017.06.28B_033.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 11:25

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 260.9(mL) Date Analyzed: 06/29/2017 03:00

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.8	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	1.9	0.88

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	63		25-150
STL00991	13C4 PFOS	103		25-150
STL00994	18O2 PFHxS	107		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_033.d
Lims ID: 320-29198-A-4-A
Client ID: MEAFF-UNKN16MW01-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 03:00:41 ALS Bottle#: 28 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-4-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 16:54:40

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.760	1.760	0.0	1.000	25622	0.0805			13.8	
298.90 > 99.00	1.760	1.760	0.0	1.000	9979		2.57(0.00-0.00)		12.2	
D 11 18O2 PFHxS										
403.00 > 84.00	2.310	2.329	-0.019		10800894	50.8		107	35371	
* 62 13C2-PFOA										
415.00 > 370.00	2.637	2.656	-0.019		2300	50.0			79.1	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.644	2.663	-0.019	1.000	28033	0.3207			10.9	M
413.00 > 169.00	2.644	2.663	-0.019	1.000	19371		1.45(0.90-1.10)		50.4	M
D 14 13C4 PFOA										
417.00 > 372.00	2.644	2.663	-0.019		4123161	31.6		63.2	15888	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	3.010	3.026	-0.016	1.000	85256	0.4847			205	
499.00 > 99.00	3.010	3.026	-0.016	1.000	17129		4.98(0.90-1.10)		70.1	M
D 18 13C4 PFOS										
503.00 > 80.00	3.010	3.026	-0.016		8015419	49.3		103	12377	

QC Flag Legend

Review Flags
M - Manually Integrated

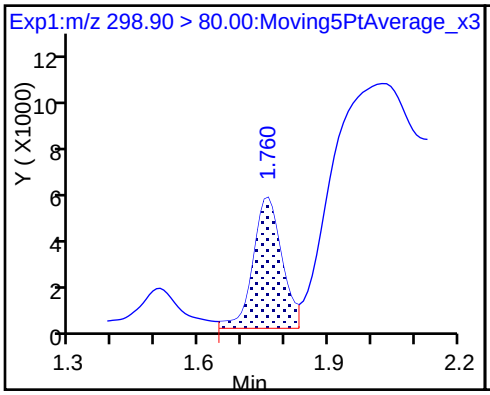
Report Date: 29-Jun-2017 17:01:26 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

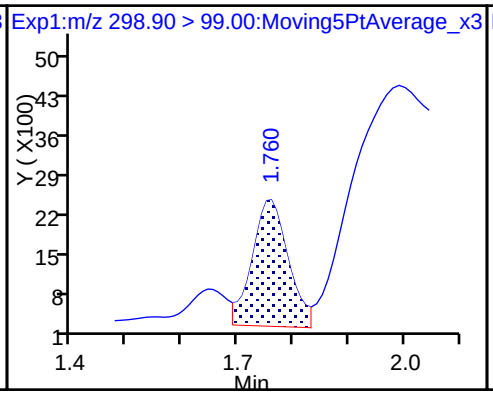
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_033.d

Injection Date:	29-Jun-2017 03:00:41	Instrument ID:	A8_N		
Lims ID:	320-29198-A-4-A	Lab Sample ID:	320-29198-4		
Client ID:	MEAFF-UNKN16MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	28	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		

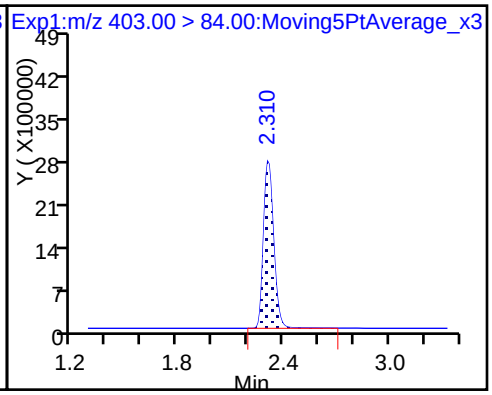
5 Perfluorobutanesulfonic acid



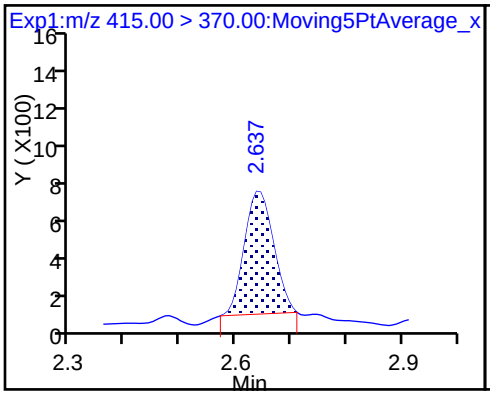
5 Perfluorobutanesulfonic acid



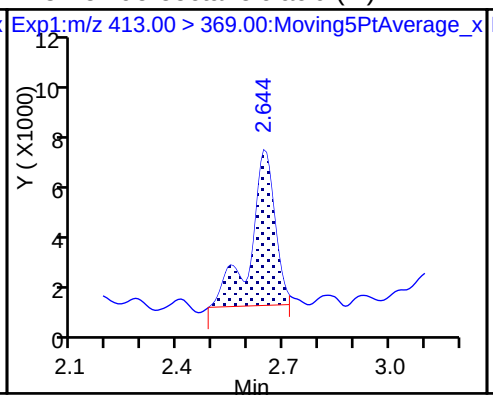
D 11 18O2 PFHxS



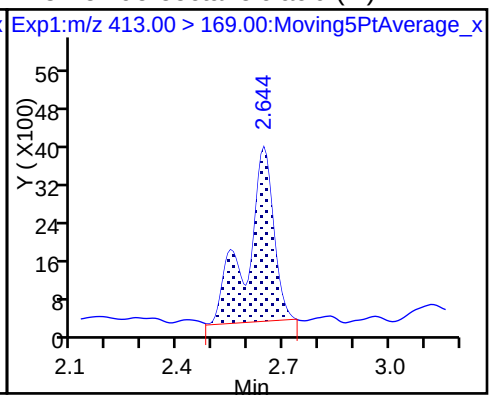
* 62 13C2-PFOA



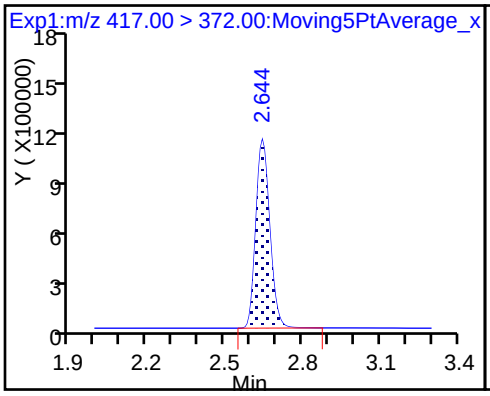
15 Perfluorooctanoic acid (M)



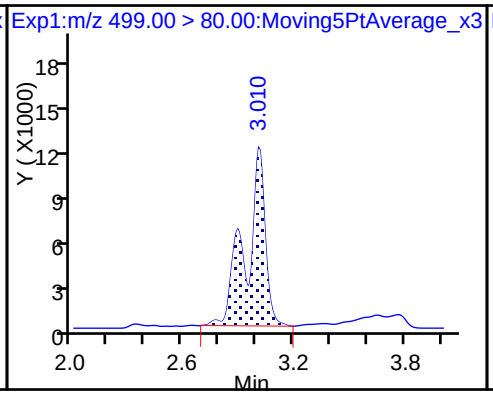
15 Perfluorooctanoic acid (M)



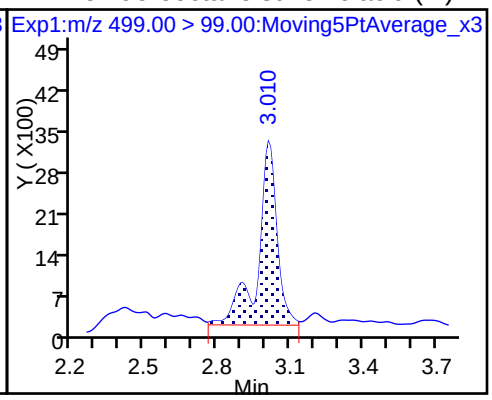
D 14 13C4 PFOA



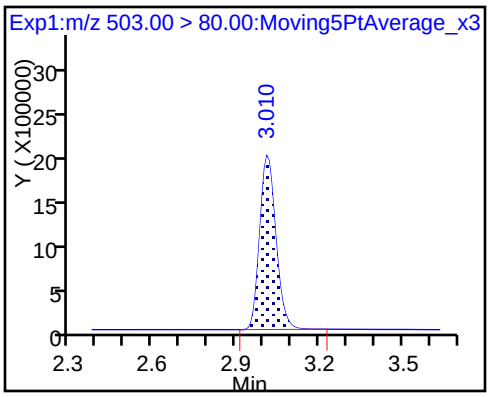
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid (M)



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

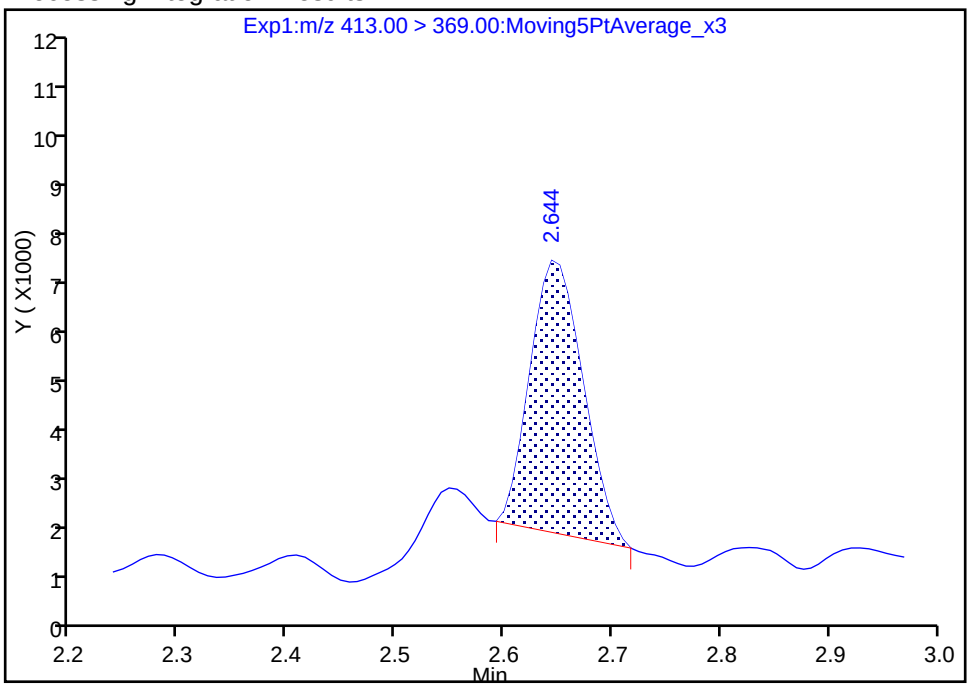
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_033.d				
Injection Date:	29-Jun-2017 03:00:41	Instrument ID:	A8_N		
Lims ID:	320-29198-A-4-A	Lab Sample ID:	320-29198-4		
Client ID:	MEAFF-UNKN16MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	28	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

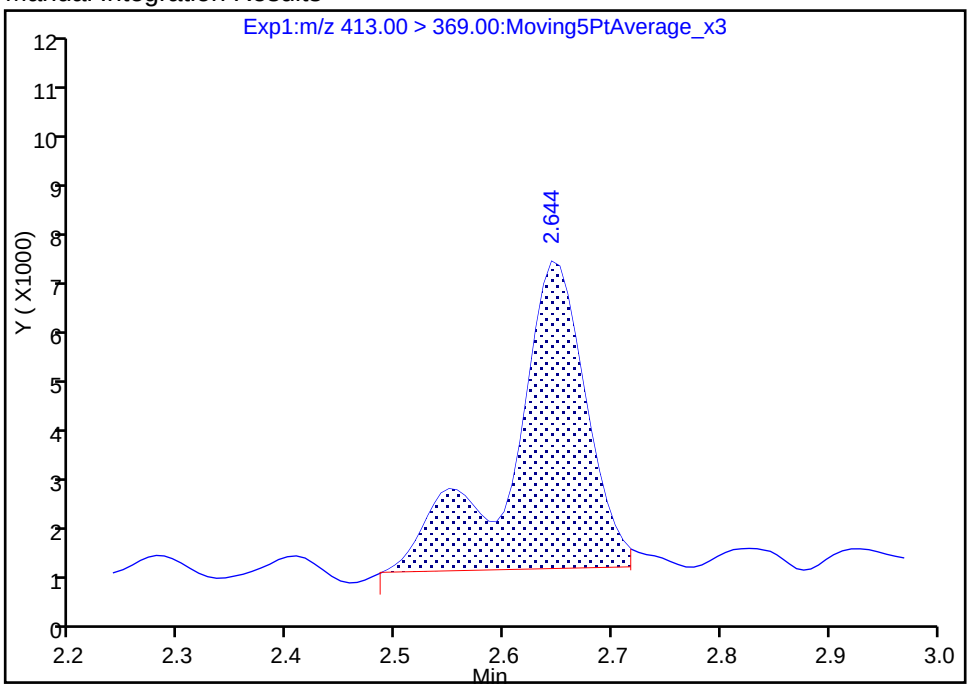
Processing Integration Results

RT: 2.64
Area: 17616
Amount: 0.201515
Amount Units: ng/ml



Manual Integration Results

RT: 2.64
Area: 28033
Amount: 0.320678
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:53:34

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

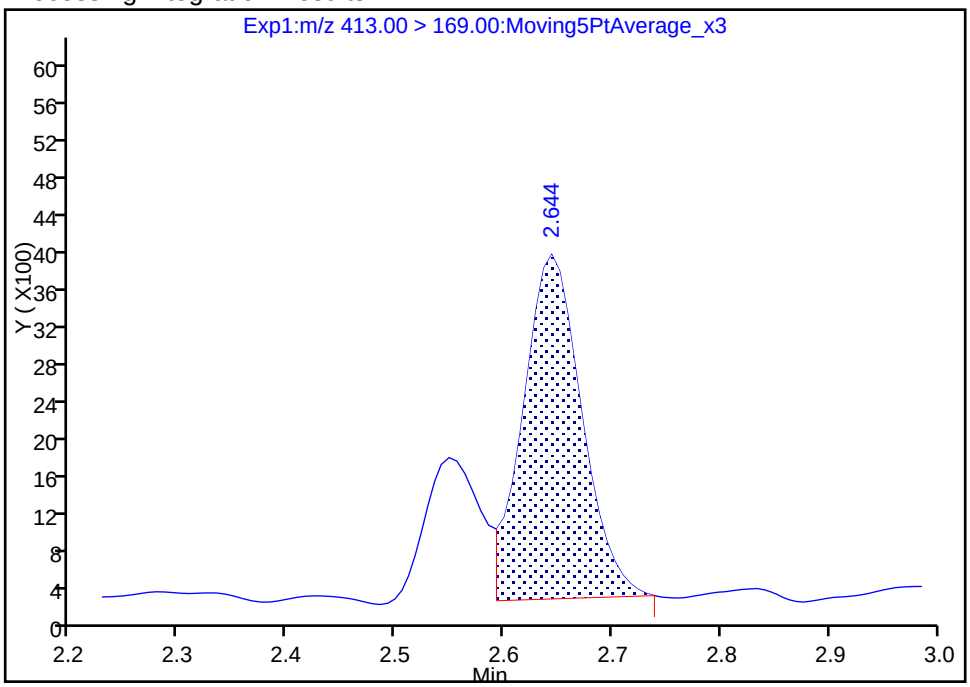
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_033.d				
Injection Date:	29-Jun-2017 03:00:41	Instrument ID:	A8_N		
Lims ID:	320-29198-A-4-A	Lab Sample ID:	320-29198-4		
Client ID:	MEAFF-UNKN16MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	28	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

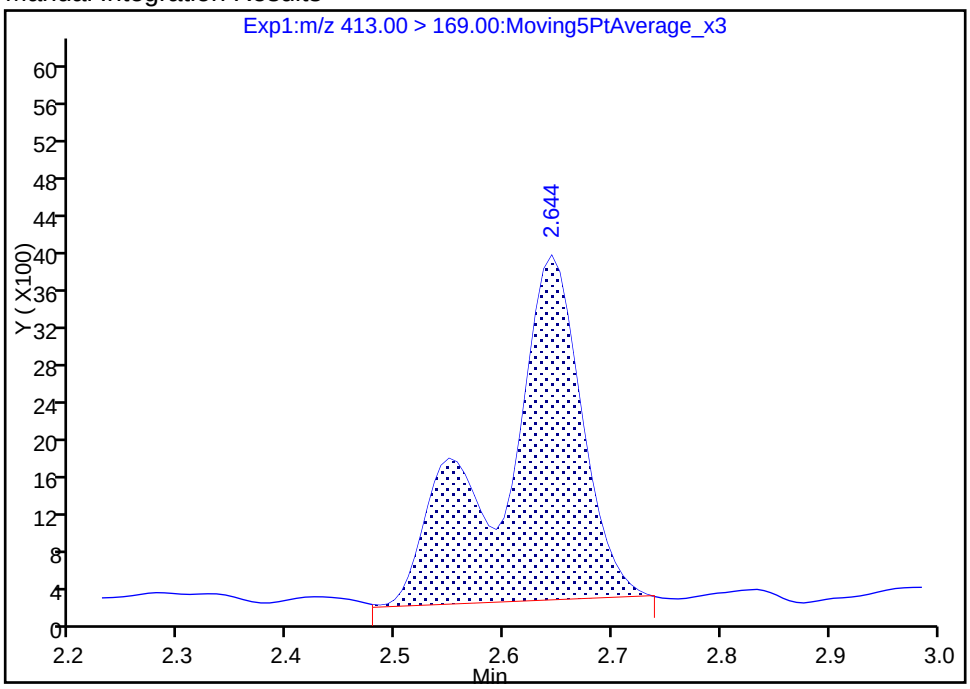
Processing Integration Results

RT: 2.64
Area: 13819
Amount: 0.201515
Amount Units: ng/ml



Manual Integration Results

RT: 2.64
Area: 19371
Amount: 0.320678
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:53:42

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

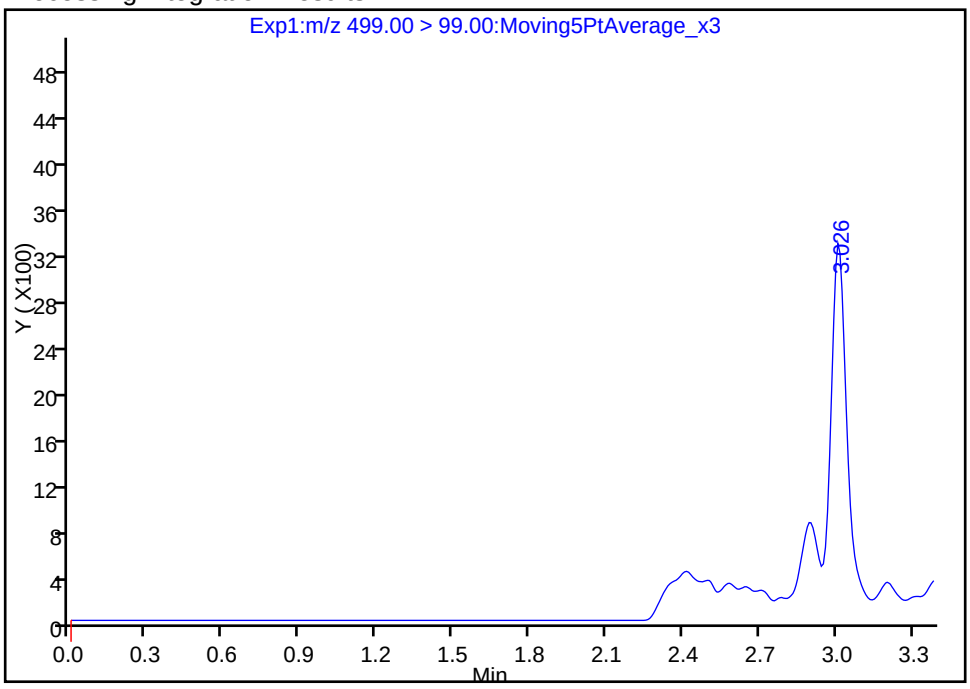
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_033.d				
Injection Date:	29-Jun-2017 03:00:41	Instrument ID:	A8_N		
Lims ID:	320-29198-A-4-A	Lab Sample ID:	320-29198-4		
Client ID:	MEAFF-UNKN16MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	28	Worklist Smp#:	7
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

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

Signal: 2

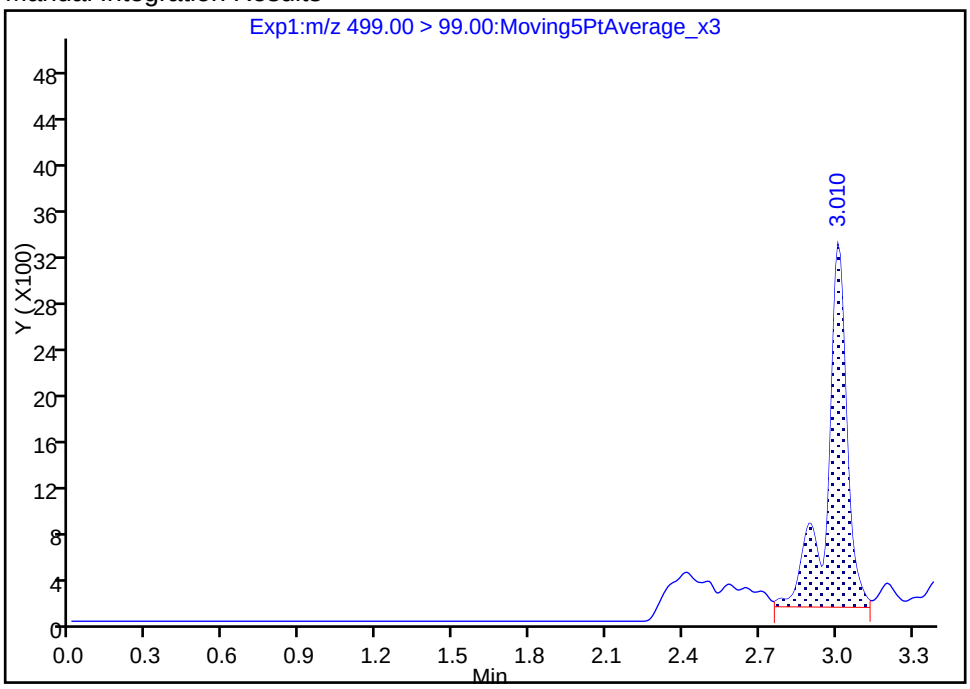
Processing Integration Results

RT: 3.03
Area: 0
Amount: 0.484691
Amount Units: ng/ml



Manual Integration Results

RT: 3.01
Area: 17129
Amount: 0.484691
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:54:31

Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4-UNKNMW01-0617 Lab Sample ID: 320-29198-5

Matrix: Water Lab File ID: 2017.06.28B_034.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 12:25

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 256.1(mL) Date Analyzed: 06/29/2017 03:07

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	4.7	M	2.4	2.0	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.8	J Q	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.4	M	2.4	2.0	0.90

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	82		25-150
STL00991	13C4 PFOS	94		25-150
STL00994	18O2 PFHxS	90		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_034.d
Lims ID: 320-29198-A-5-A
Client ID: MEAFF-TA4-UNKNMW01-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 03:07:36 ALS Bottle#: 29 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-5-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 16:57:40

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.751	1.760	-0.009	1.000	335454	1.25			54.3	M
298.90 > 99.00	1.751	1.760	-0.009	1.000	141978		2.36(0.00-0.00)		25.8	M
D 11 18O2 PFHxS										
403.00 > 84.00	2.301	2.329	-0.028		9082679	42.7		90.3	18736	
* 62 13C2-PFOA										
415.00 > 370.00	2.633	2.656	-0.023		3187	50.0			72.7	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.633	2.663	-0.030	1.000	272090	2.39			43.1	M
413.00 > 169.00	2.633	2.663	-0.030	1.000	204060		1.33(0.90-1.10)		274	M
D 14 13C4 PFOA										
417.00 > 372.00	2.633	2.663	-0.030		5362167	41.1		82.2	18833	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.886	3.026	-0.140	1.000	312025	1.95			254	
499.00 > 99.00	3.005	3.026	-0.021	1.041	54950		5.68(0.90-1.10)		46.5	
D 18 13C4 PFOS										
503.00 > 80.00	3.005	3.026	-0.021		7289644	44.8		93.7	10562	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 29-Jun-2017 17:01:29 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_034.d

Injection Date: 29-Jun-2017 03:07:36 Instrument ID: A8_N

Lims ID: 320-29198-A-5-A Lab Sample ID: 320-29198-5

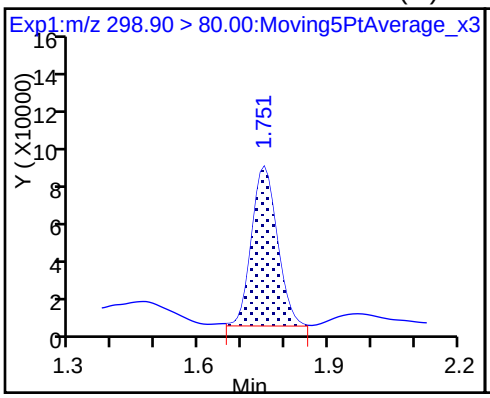
Client ID: MEAFF-TA4-UNKNMW01-0617

Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 8

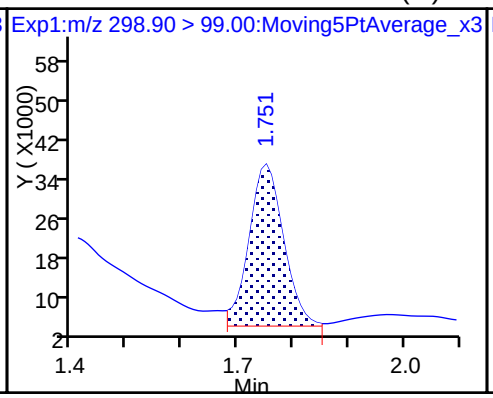
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

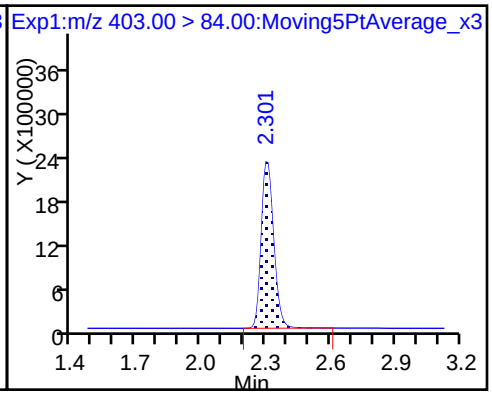
5 Perfluorobutanesulfonic acid (M)



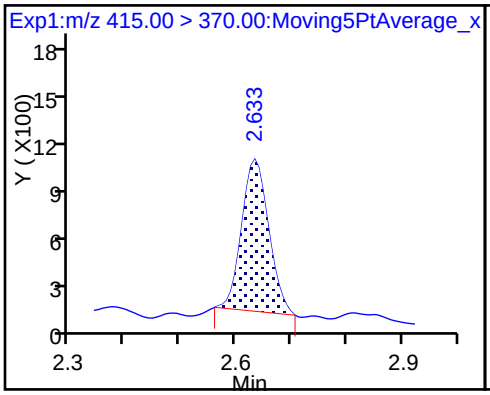
5 Perfluorobutanesulfonic acid (M)



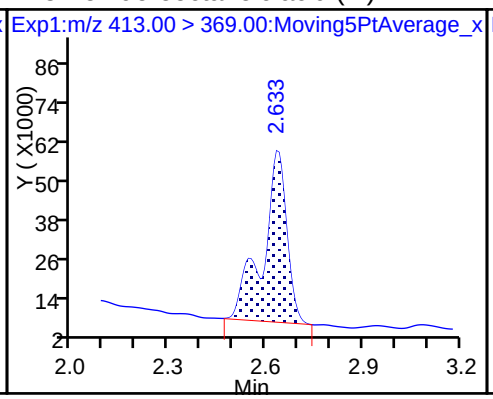
D 11 18O2 PFHxS



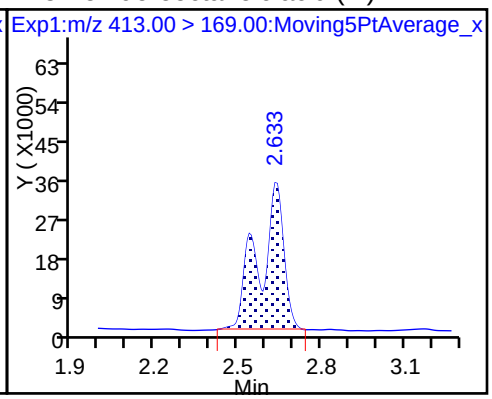
* 62 13C2-PFOA



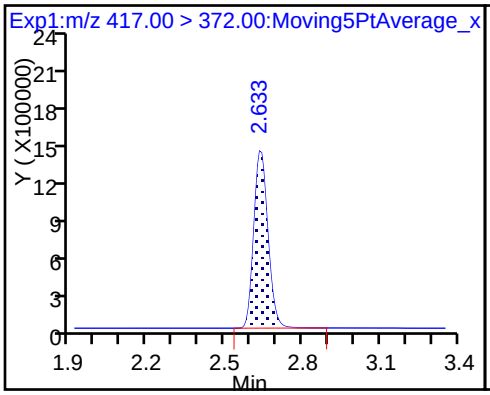
15 Perfluorooctanoic acid (M)



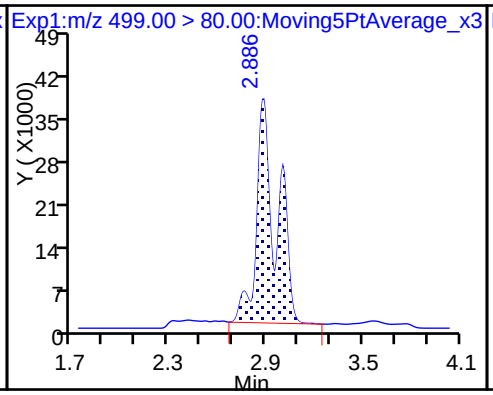
15 Perfluorooctanoic acid (M)



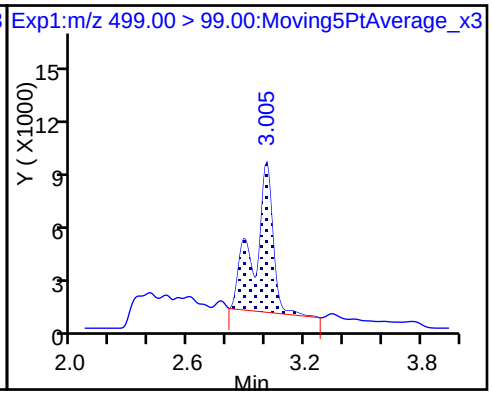
D 14 13C4 PFOA



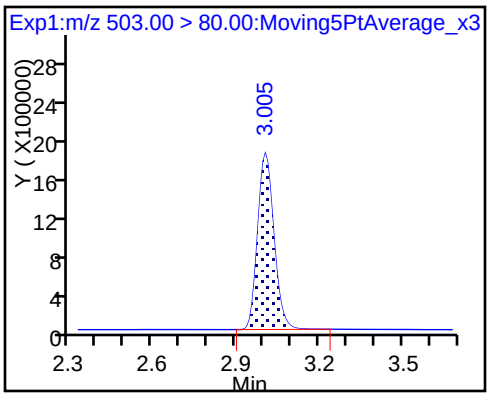
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

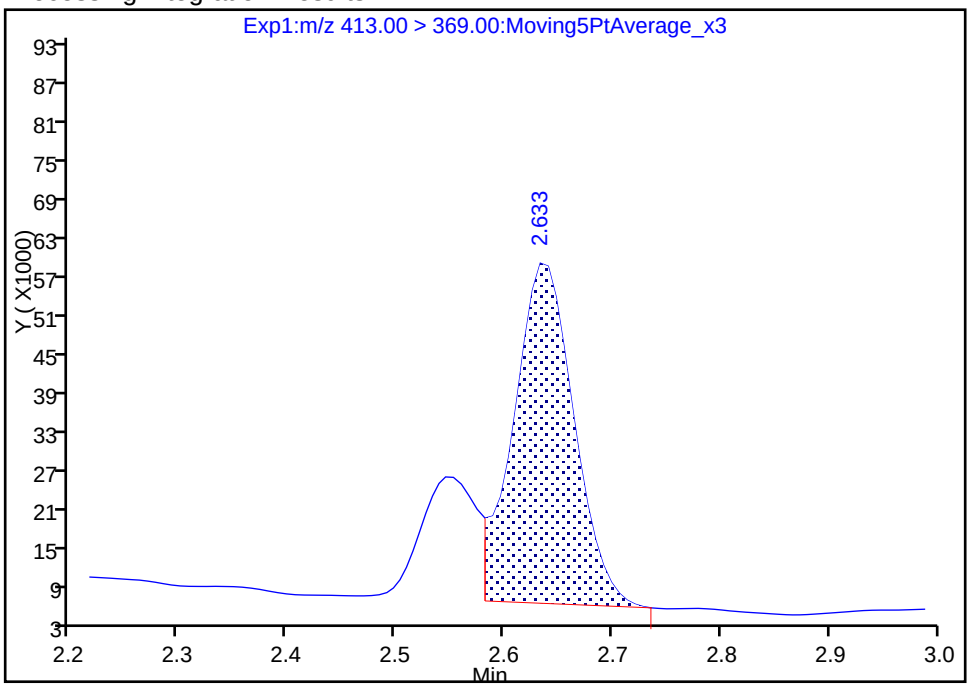
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_034.d				
Injection Date:	29-Jun-2017 03:07:36	Instrument ID:	A8_N		
Lims ID:	320-29198-A-5-A	Lab Sample ID:	320-29198-5		
Client ID:	MEAFF-TA4-UNKNMW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

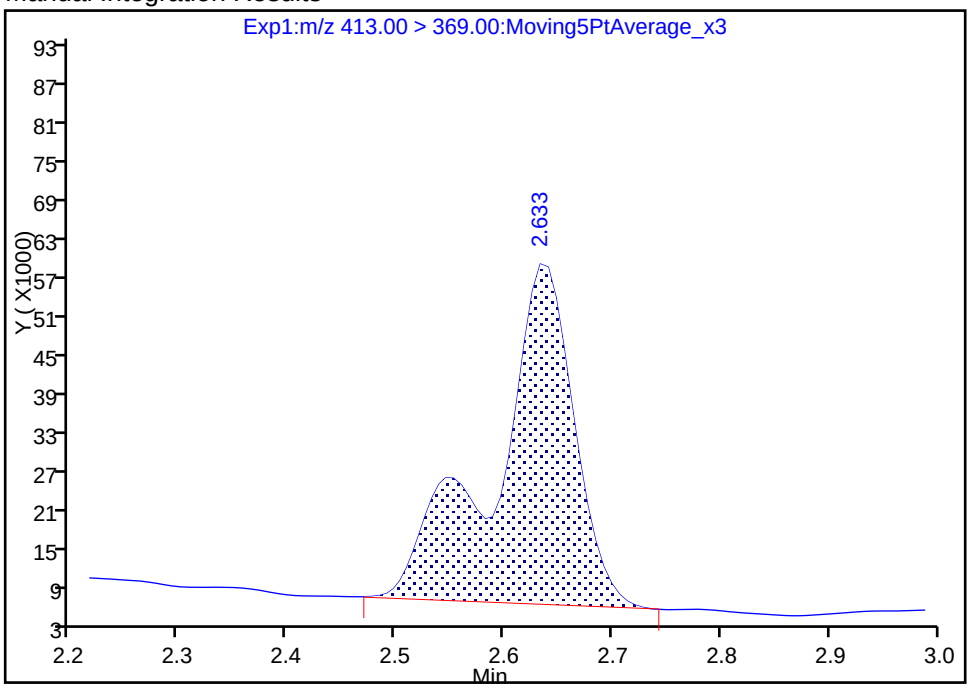
Processing Integration Results

RT: 2.63
Area: 204473
Amount: 1.798563
Amount Units: ng/ml



Manual Integration Results

RT: 2.63
Area: 272090
Amount: 2.393328
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:57:10

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

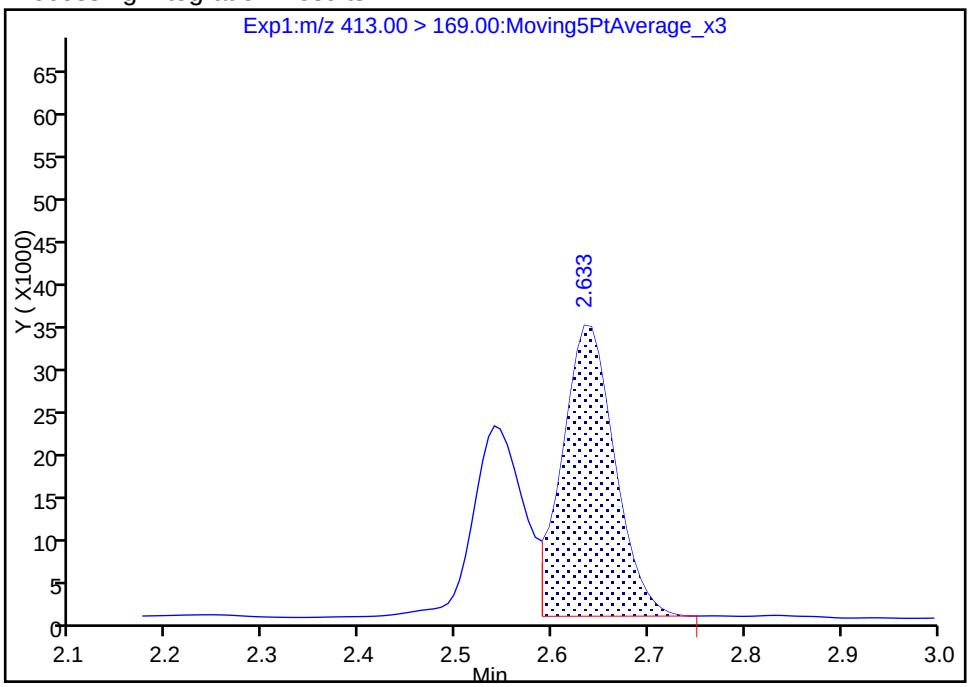
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_034.d				
Injection Date:	29-Jun-2017 03:07:36	Instrument ID:	A8_N		
Lims ID:	320-29198-A-5-A	Lab Sample ID:	320-29198-5		
Client ID:	MEAFF-TA4-UNKNMW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

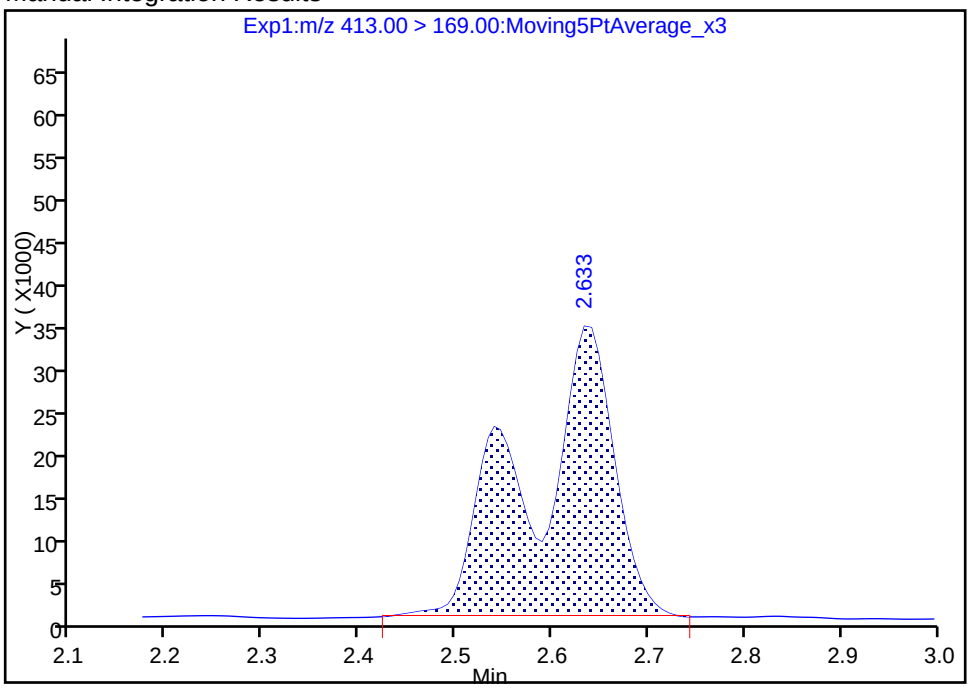
Processing Integration Results

RT: 2.63
Area: 126935
Amount: 1.798563
Amount Units: ng/ml



Manual Integration Results

RT: 2.63
Area: 204060
Amount: 2.393328
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:57:22

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

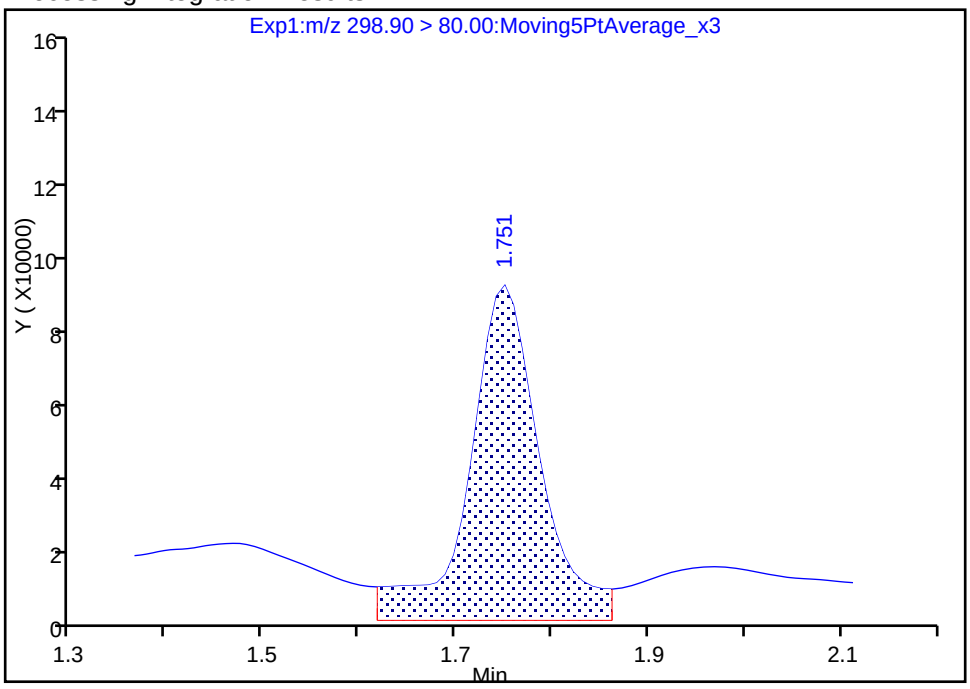
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_034.d				
Injection Date:	29-Jun-2017 03:07:36	Instrument ID:	A8_N		
Lims ID:	320-29198-A-5-A	Lab Sample ID:	320-29198-5		
Client ID:	MEAFF-TA4-UNKNMW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

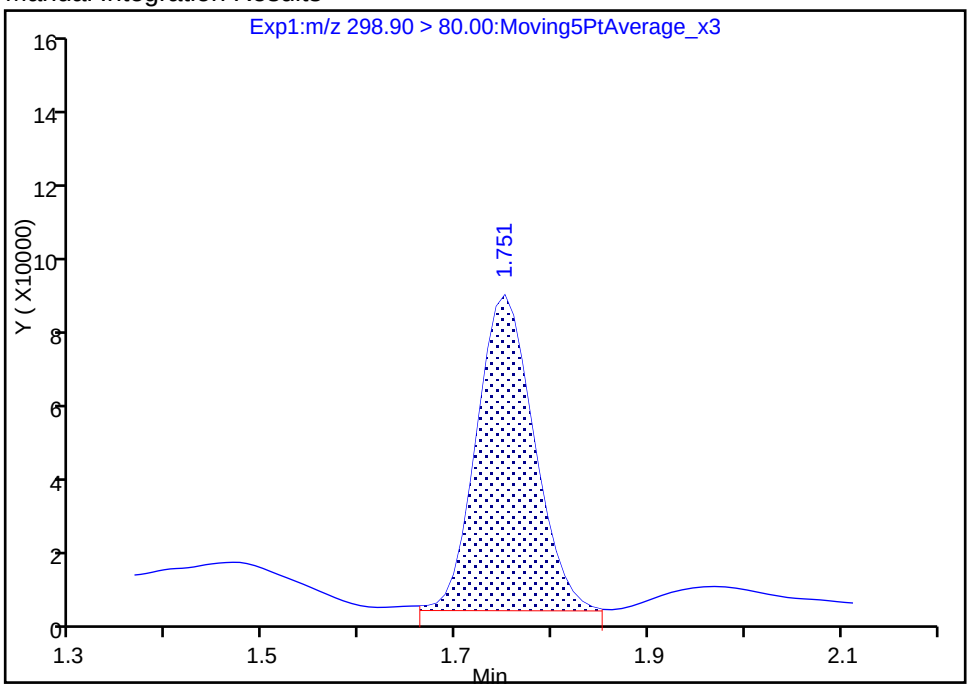
Processing Integration Results

RT: 1.75
Area: 456347
Amount: 1.704766
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 335454
Amount: 1.253149
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:56:09

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

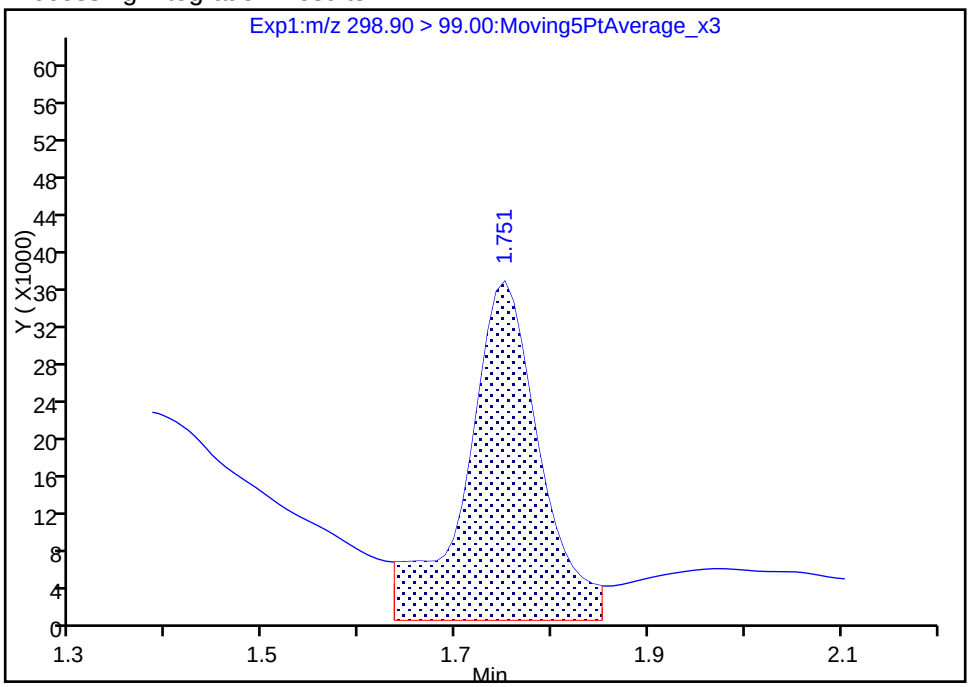
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_034.d				
Injection Date:	29-Jun-2017 03:07:36	Instrument ID:	A8_N		
Lims ID:	320-29198-A-5-A	Lab Sample ID:	320-29198-5		
Client ID:	MEAFF-TA4-UNKNMW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	8
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

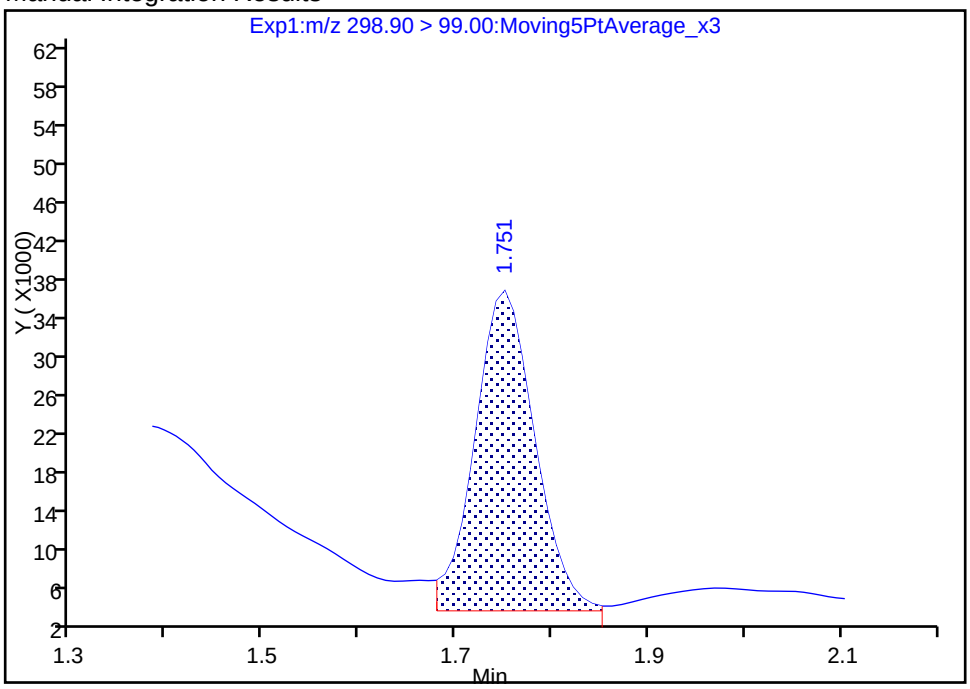
Processing Integration Results

RT: 1.75
Area: 191178
Amount: 1.704766
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 141978
Amount: 1.253149
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:56:25

Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4-UNKNMW01-0617 RE Lab Sample ID: 320-29198-5 RE

Matrix: Water Lab File ID: 20170714D_014.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 12:25

Extraction Method: 3535 Date Extracted: 07/13/2017 09:26

Sample wt/vol: 349(mL) Date Analyzed: 07/15/2017 04:35

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	*Perfluorooctanesulfonic acid (PFOS)*	*2.4*	*J H*	*2.9*	2.1	*0.91*

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	131		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_014.d
Lims ID: 320-29198-B-5-A
Client ID: MEAFF-TA4-UNKNMW01-0617
Sample Type: Client
Inject. Date: 15-Jul-2017 04:35:02 ALS Bottle#: 13 Worklist Smp#: 15
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-b-5-a
Misc. Info.: Plate: 1 Rack: 4
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 18-Jul-2017 15:32:24 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK015

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.766	1.764	0.002	1.000	283210	0.9682			52.3	M
298.90 > 99.00	1.766	1.764	0.002	1.000	108306		2.61(0.00-0.00)		22.8	
D 11 18O2 PFHxS										
403.00 > 84.00	2.327	2.326	0.001		9200525	57.3		121	28849	
* 62 13C2-PFOA										
415.00 > 370.00	2.657	2.651	0.006		4346	50.0			101	
D 14 13C4 PFOA										
417.00 > 372.00	2.657	2.659	-0.002		6113409	57.6		115	21579	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.657	2.659	-0.002	1.000	293391	2.24			53.3	M
413.00 > 169.00	2.657	2.659	-0.002	1.000	202363		1.45(0.90-1.10)		303	M
D 18 13C4 PFOS										
503.00 > 80.00	3.029	3.023	0.006		7222966	62.8		131	12558	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.907	3.023	-0.116	1.000	280530	1.69			395	
499.00 > 99.00	3.029	3.023	0.006	1.042	55295		5.07(0.90-1.10)		58.3	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 18-Jul-2017 15:32:25 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_014.d

Injection Date: 15-Jul-2017 04:35:02 Instrument ID: A8_N

Lims ID: 320-29198-B-5-A Lab Sample ID: 320-29198-5

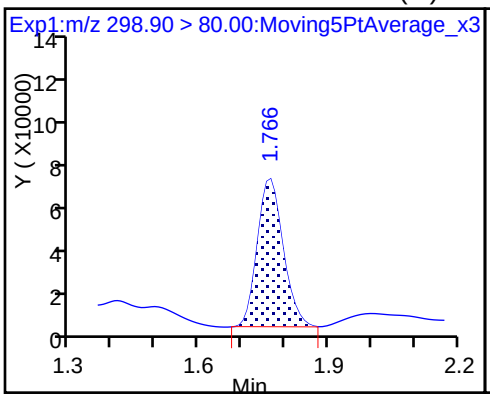
Client ID: MEAFF-TA4-UNKNMW01-0617

Operator ID: SACINSTLCMS01 ALS Bottle#: 13 Worklist Smp#: 15

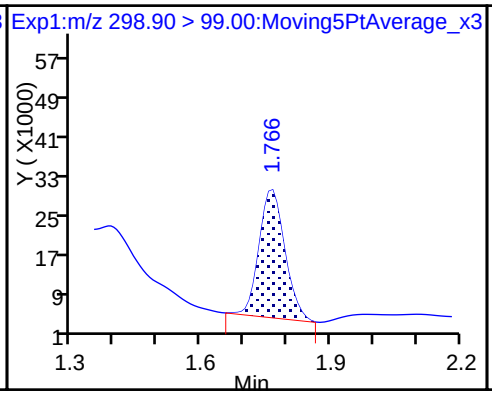
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

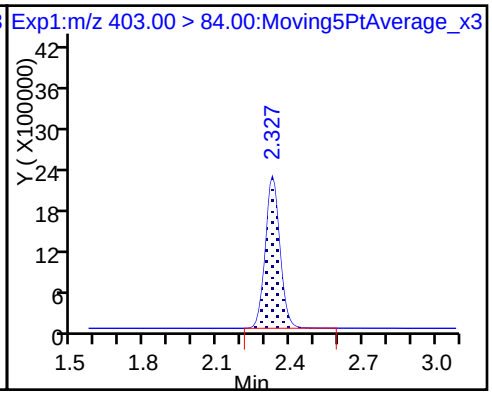
5 Perfluorobutanesulfonic acid (M)



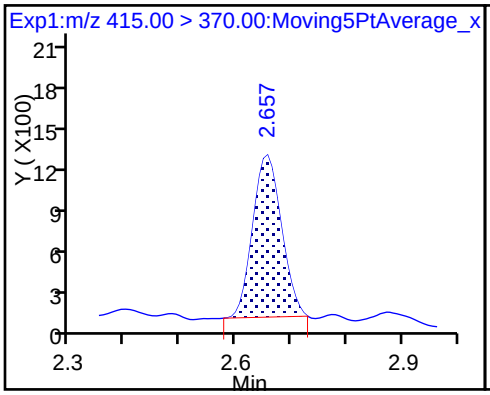
5 Perfluorobutanesulfonic acid



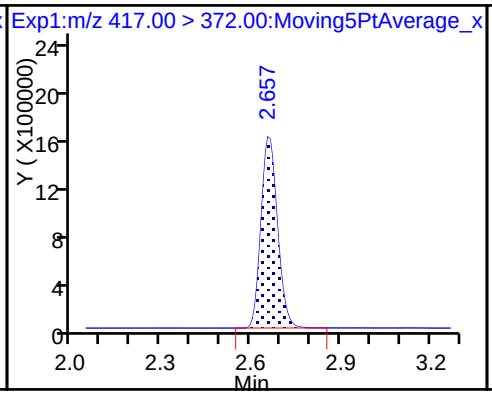
D 11 18O2 PFHxS



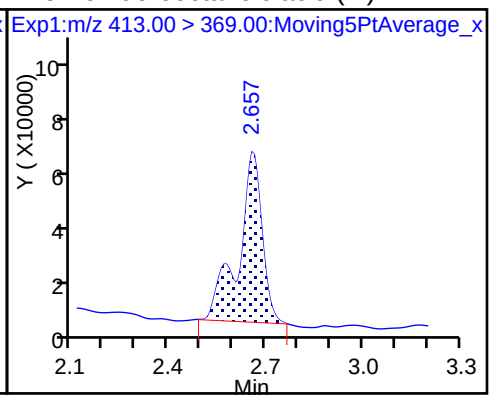
* 62 13C2-PFOA



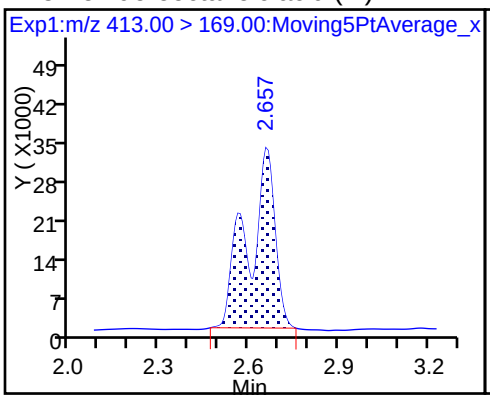
D 14 13C4 PFOA



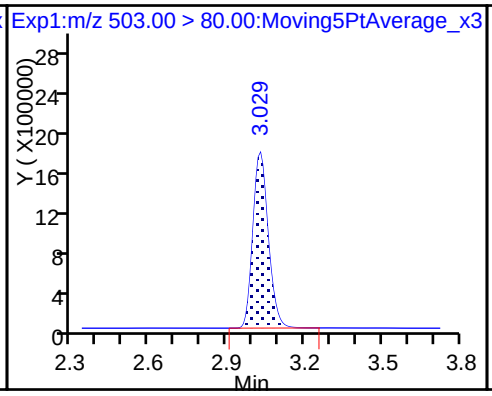
15 Perfluorooctanoic acid (M)



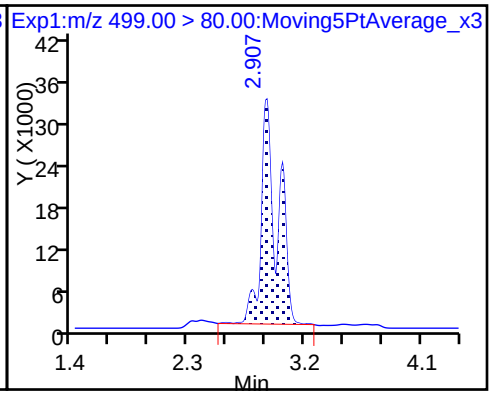
15 Perfluorooctanoic acid (M)



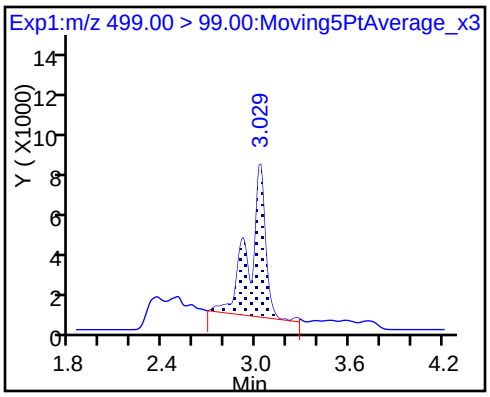
D 18 13C4 PFOS



17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-UNKN17MW01-0617 Lab Sample ID: 320-29198-6

Matrix: Water Lab File ID: 2017.06.28B_035.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 14:10

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 259.2(mL) Date Analyzed: 06/29/2017 03:14

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	5.2	M	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	38	Q	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	1.9	0.89

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	59		25-150
STL00991	13C4 PFOS	107		25-150
STL00994	18O2 PFHxS	113		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_035.d
Lims ID: 320-29198-A-6-A
Client ID: MEAFF-UNKN17MW01-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 03:14:30 ALS Bottle#: 30 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-6-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 16:58:55

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.751	1.760	-0.009	1.000	355817	1.06			185	
298.90 > 99.00	1.751	1.760	-0.009	1.000	140764		2.53(0.00-0.00)		172	
D 11 18O2 PFHxS										
403.00 > 84.00	2.311	2.329	-0.018		11362621	53.4		113	24623	
* 62 13C2-PFOA										
415.00 > 370.00	2.637	2.656	-0.019		2261	50.0			80.3	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.644	2.663	-0.019	1.000	219041	2.69			131	M
413.00 > 169.00	2.644	2.663	-0.019	1.000	142846		1.53(0.90-1.10)		320	M
D 14 13C4 PFOA										
417.00 > 372.00	2.644	2.663	-0.019		3845814	29.5		58.9	12713	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.011	3.026	-0.015	1.000	3628993	19.8			4825	
499.00 > 99.00	3.011	3.026	-0.015	1.000	770915		4.71(0.90-1.10)		3219	
D 18 13C4 PFOS										
503.00 > 80.00	3.011	3.026	-0.015		8347621	51.3		107	11968	

QC Flag Legend

Review Flags
M - Manually Integrated

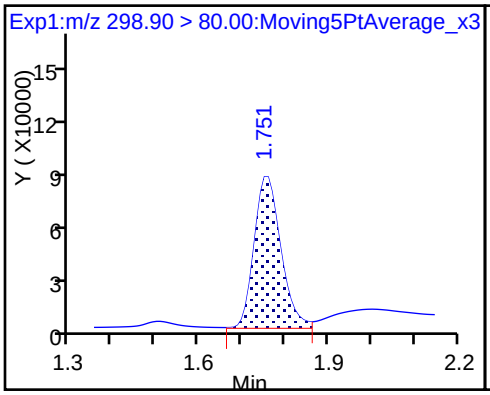
Report Date: 29-Jun-2017 17:01:31 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

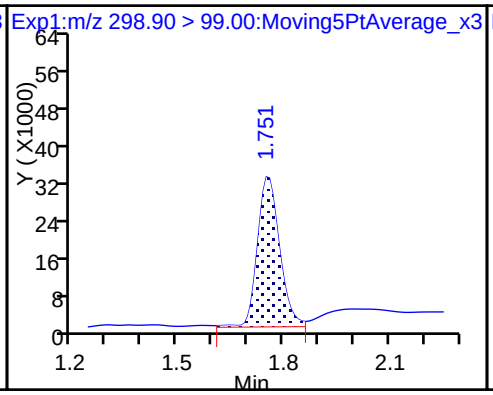
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_035.d

Injection Date:	29-Jun-2017 03:14:30	Instrument ID:	A8_N		
Lims ID:	320-29198-A-6-A	Lab Sample ID:	320-29198-6		
Client ID:	MEAFF-UNKN17MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	30	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		

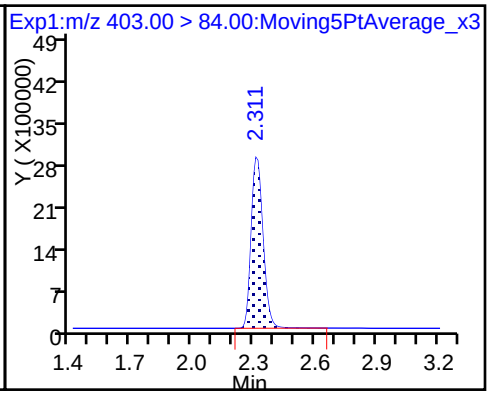
5 Perfluorobutanesulfonic acid



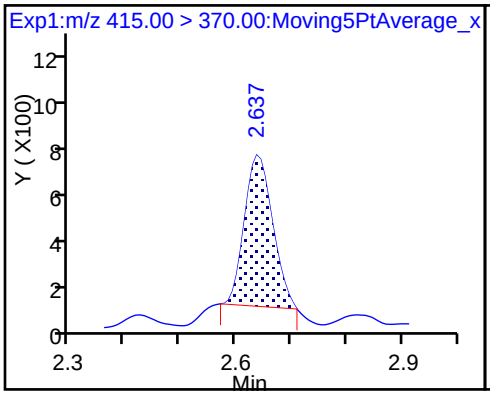
5 Perfluorobutanesulfonic acid



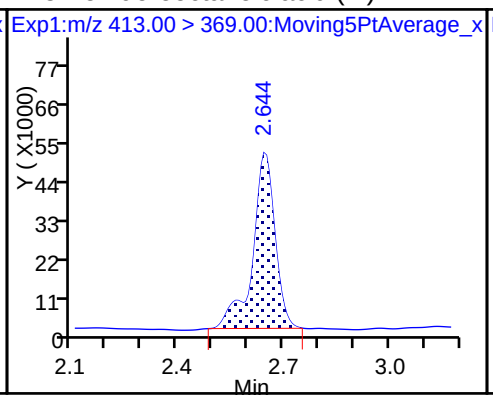
D 11 18O2 PFHxS



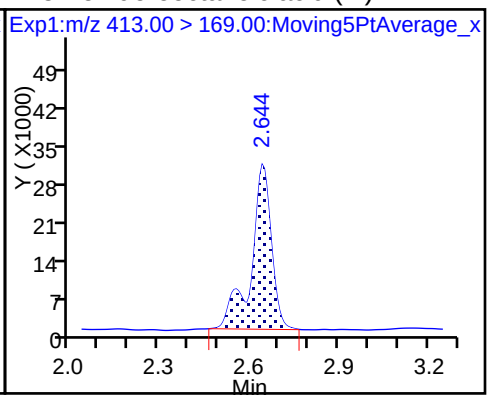
* 62 13C2-PFOA



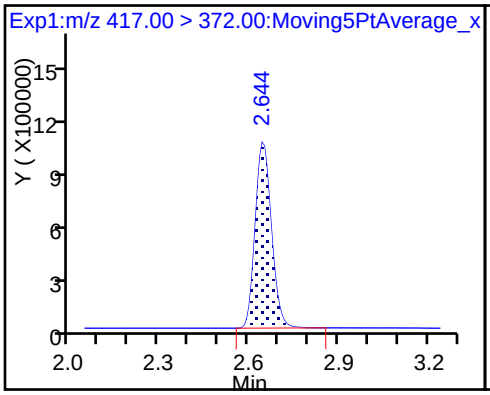
15 Perfluorooctanoic acid (M)



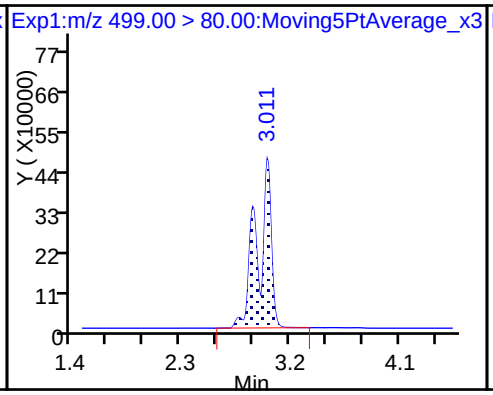
15 Perfluorooctanoic acid (M)



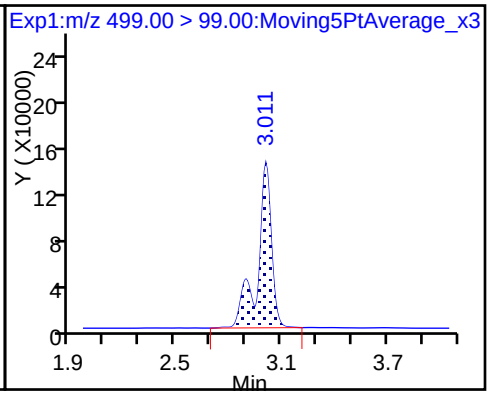
D 14 13C4 PFOA



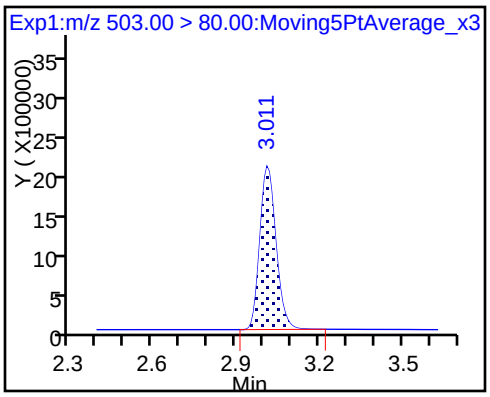
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

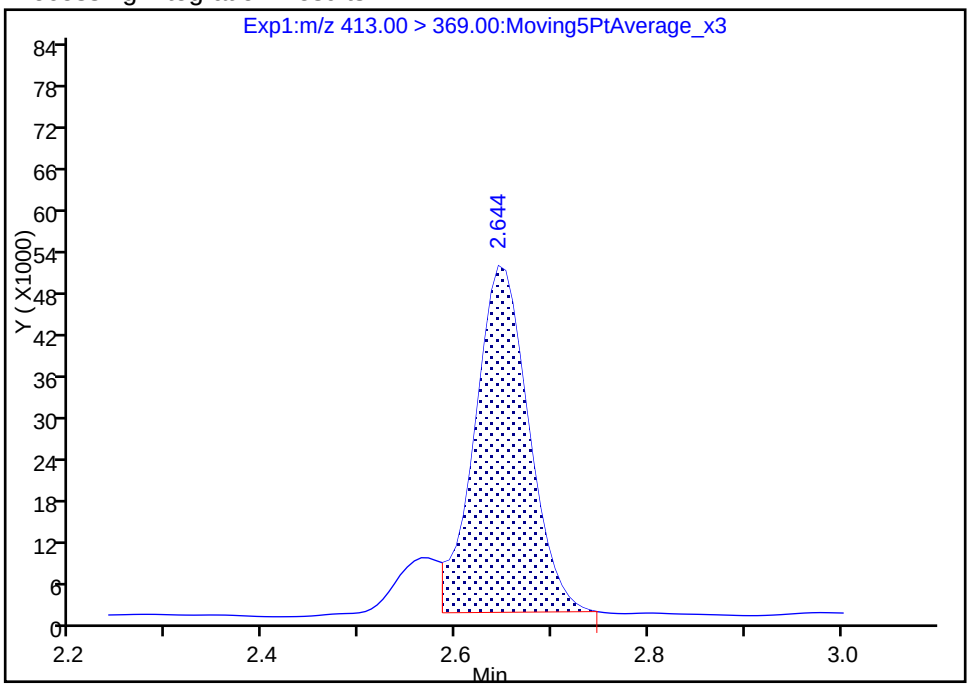
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_035.d				
Injection Date:	29-Jun-2017 03:14:30	Instrument ID:	A8_N		
Lims ID:	320-29198-A-6-A	Lab Sample ID:	320-29198-6		
Client ID:	MEAFF-UNKN17MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	30	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

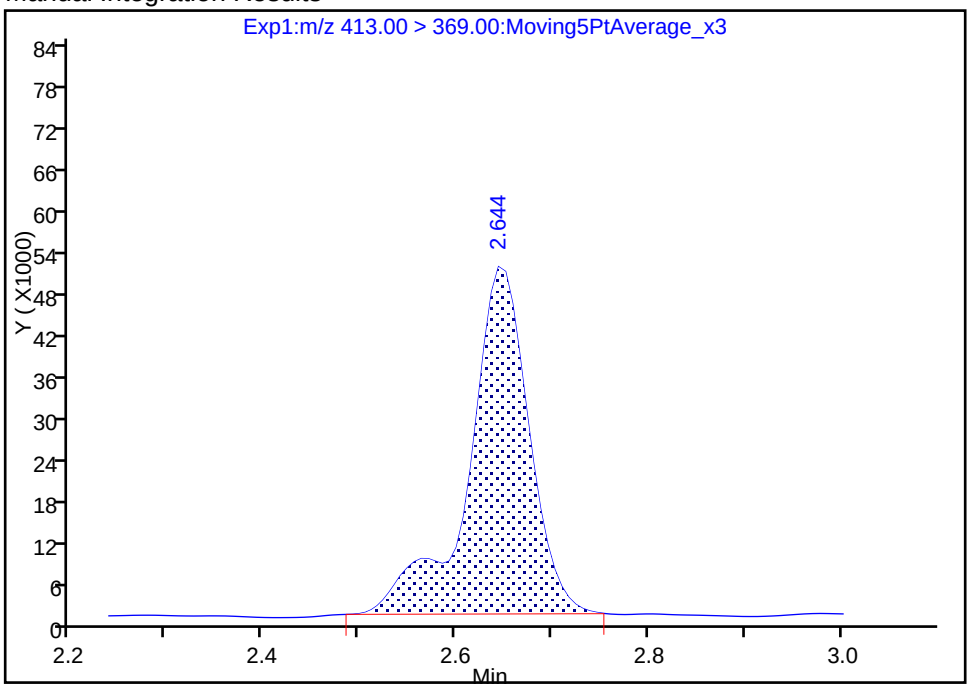
Processing Integration Results

RT: 2.64
Area: 193229
Amount: 2.369813
Amount Units: ng/ml



Manual Integration Results

RT: 2.64
Area: 219041
Amount: 2.686378
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:58:06

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

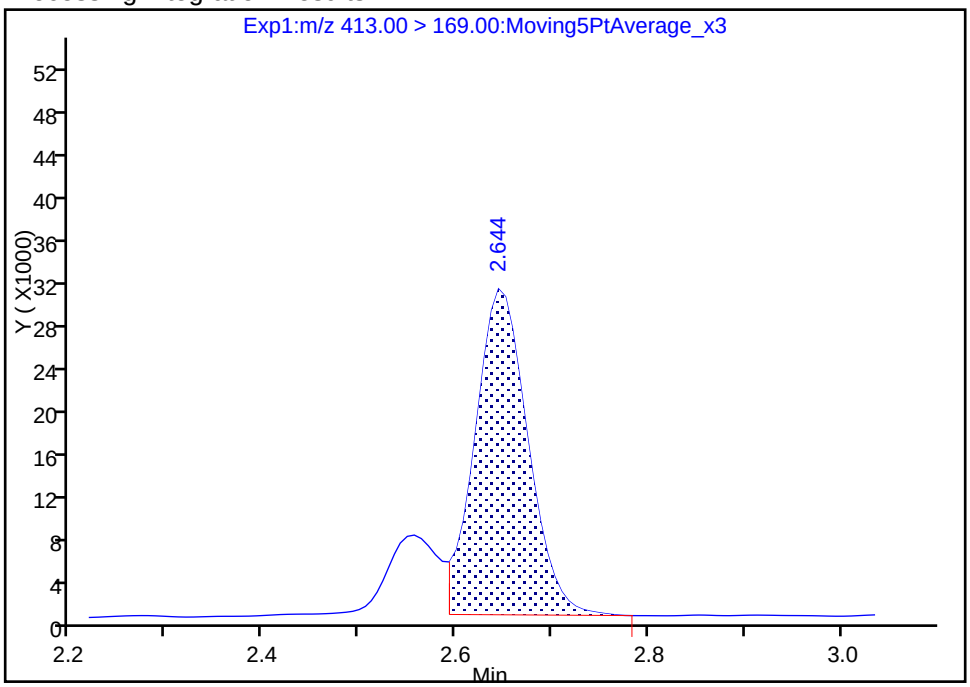
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_035.d				
Injection Date:	29-Jun-2017 03:14:30	Instrument ID:	A8_N		
Lims ID:	320-29198-A-6-A	Lab Sample ID:	320-29198-6		
Client ID:	MEAFF-UNKN17MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	30	Worklist Smp#:	9
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

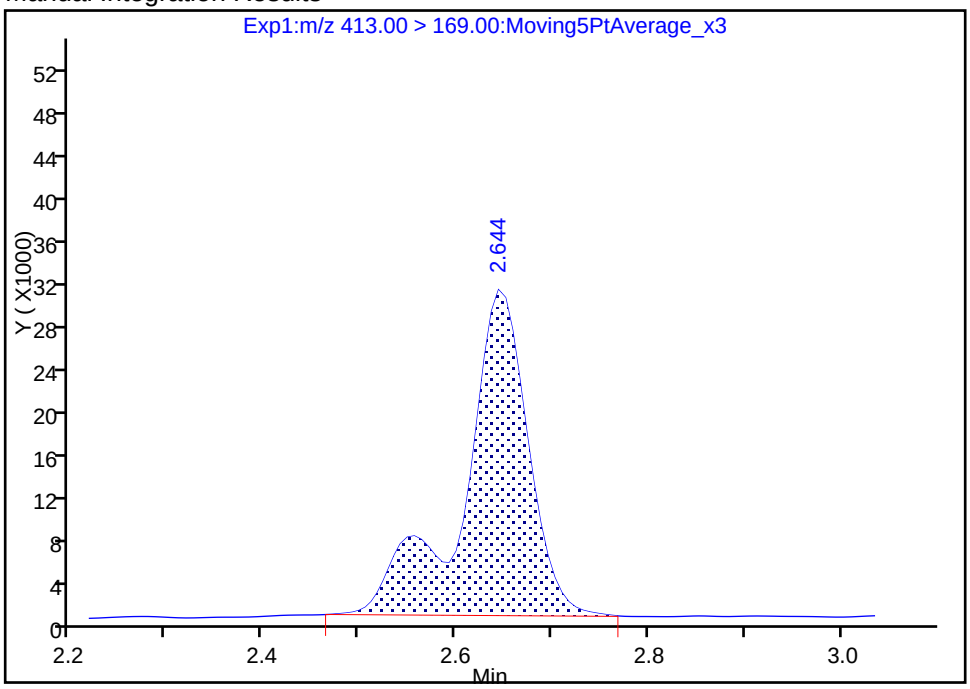
Processing Integration Results

RT: 2.64
Area: 115735
Amount: 2.369813
Amount Units: ng/ml



Manual Integration Results

RT: 2.64
Area: 142846
Amount: 2.686378
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:58:36

Audit Action: Manually Integrated Audit Reason: Isomers

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-UNKN17MW01-0617 RE Lab Sample ID: 320-29198-6 RE

Matrix: Water Lab File ID: 20170714D_015.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 14:10

Extraction Method: 3535 Date Extracted: 07/13/2017 09:26

Sample wt/vol: 253.7(mL) Date Analyzed: 07/15/2017 04:41

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	*Perfluorooctanesulfonic acid (PFOS)*	*32*	*H*	*3.9*	3.0	*1.3*

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	127		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_015.d
Lims ID: 320-29198-B-6-A
Client ID: MEAFF-UNKN17MW01-0617
Sample Type: Client
Inject. Date: 15-Jul-2017 04:41:56 ALS Bottle#: 14 Worklist Smp#: 16
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-b-6-a
Misc. Info.: Plate: 1 Rack: 4
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 17-Jul-2017 14:32:02 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK010

First Level Reviewer: barnettj Date: 17-Jul-2017 14:29:06

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.763	1.764	-0.001	1.000	256650	0.8508			161	
298.90 > 99.00	1.763	1.764	-0.001	1.000	99085		2.59(0.00-0.00)		153	M
D 11 18O2 PFHxS										
403.00 > 84.00	2.327	2.326	0.001		9488466	59.1		125	35902	
* 62 13C2-PFOA										
415.00 > 370.00	2.650	2.651	-0.001		3240	50.0			77.3	
D 14 13C4 PFOA										
417.00 > 372.00	2.657	2.659	-0.002		4883307	46.0		92.1	19848	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.657	2.659	-0.002	1.000	256592	2.46			105	M
413.00 > 169.00	2.657	2.659	-0.002	1.000	165440		1.55(0.90-1.10)		365	M
D 18 13C4 PFOS										
503.00 > 80.00	3.029	3.023	0.006		6957154	60.5		127	24190	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.029	3.023	0.006	1.000	2606622	16.3			6525	
499.00 > 99.00	3.021	3.023	-0.002	0.997	563613		4.62(0.90-1.10)		4172	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Jul-2017 14:32:10 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_015.d

Injection Date: 15-Jul-2017 04:41:56 Instrument ID: A8_N

Lims ID: 320-29198-B-6-A Lab Sample ID: 320-29198-6

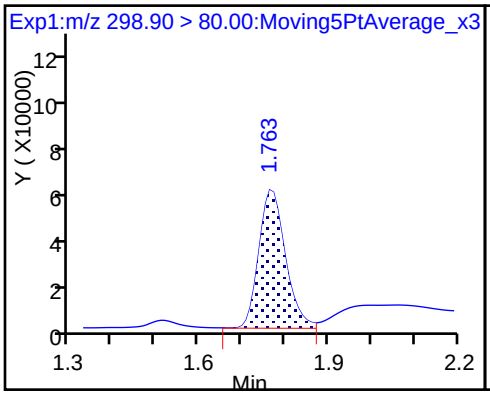
Client ID: MEAFF-UNKN17MW01-0617

Operator ID: SACINSTLCMS01 ALS Bottle#: 14 Worklist Smp#: 16

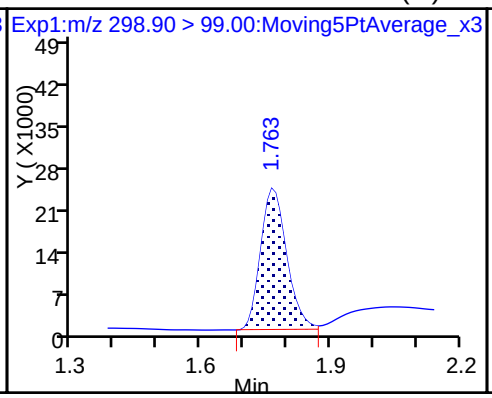
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

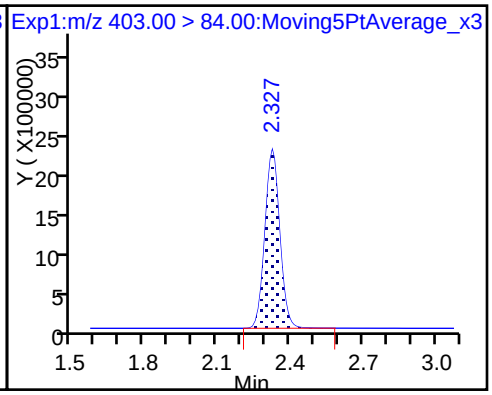
5 Perfluorobutanesulfonic acid



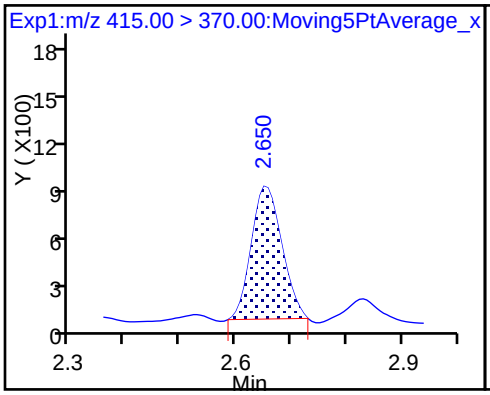
5 Perfluorobutanesulfonic acid (M)



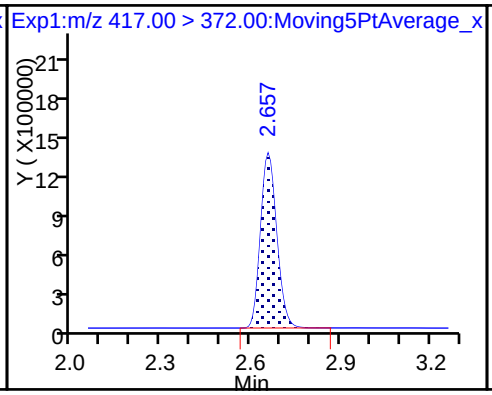
D 11 18O2 PFHxS



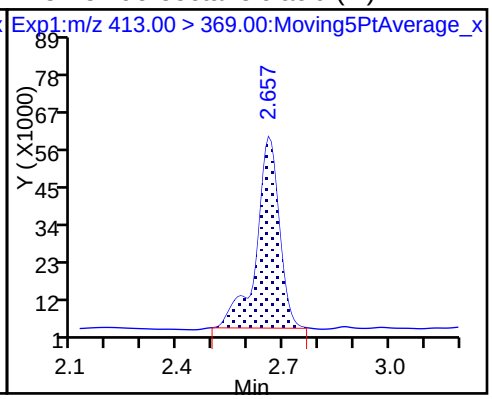
* 62 13C2-PFOA



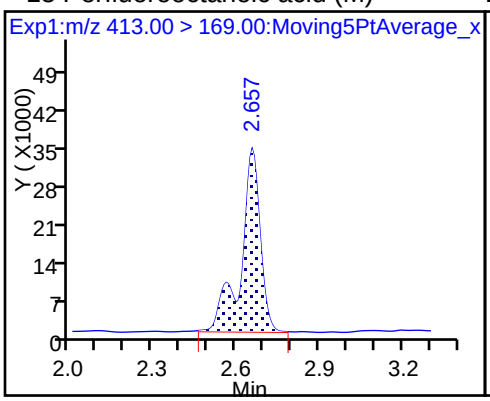
D 14 13C4 PFOA



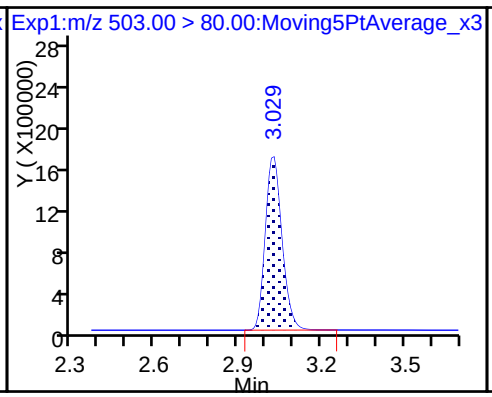
15 Perfluorooctanoic acid (M)



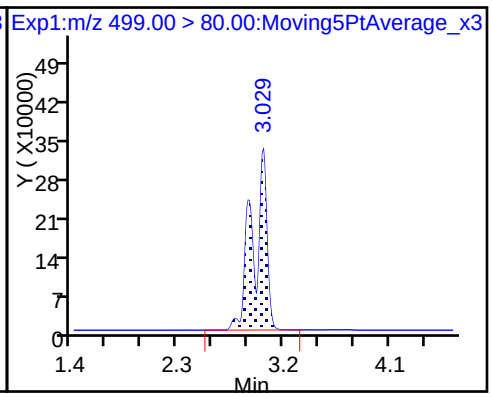
15 Perfluorooctanoic acid (M)



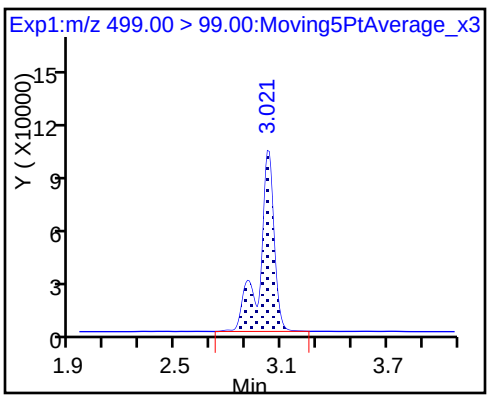
D 18 13C4 PFOS



17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-EB06-0617 Lab Sample ID: 320-29198-7

Matrix: Water Lab File ID: 2017.06.28B_036.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 14:55

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 255.7(mL) Date Analyzed: 06/29/2017 03:21

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	2.0	U	2.4	2.0	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.4	2.0	0.90

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	140		25-150
STL00991	13C4 PFOS	109		25-150
STL00994	18O2 PFHxS	112		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_036.d
Lims ID: 320-29198-B-7-A
Client ID: MEAFF-EB06-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 03:21:23 ALS Bottle#: 31 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-b-7-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 16:59:57

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 11 18O2 PFHxS										
403.00 > 84.00	2.317	2.329	-0.012		11219175	52.7		112	16022	
* 62 13C2-PFOA										
415.00 > 370.00	2.644	2.656	-0.012		4376	50.0			151	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.644	2.663	-0.019	1.000	11791	0.0611			4.5	
413.00 > 169.00	2.644	2.663	-0.019	1.000	8663		1.36(0.90-1.10)		26.4	
D 14 13C4 PFOA										
417.00 > 372.00	2.644	2.663	-0.019		9105975	69.8		140	18213	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	2.891	3.026	-0.135	1.000	52707	0.2842			139	M
499.00 > 99.00	3.011	3.026	-0.015	1.042	14780		3.57(0.90-1.10)		46.6	M
D 18 13C4 PFOS										
503.00 > 80.00	3.011	3.026	-0.015		8450237	51.9		109	12449	

QC Flag Legend

Review Flags
M - Manually Integrated

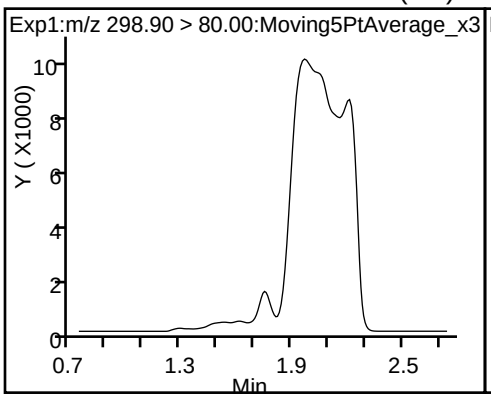
Report Date: 29-Jun-2017 17:01:33 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

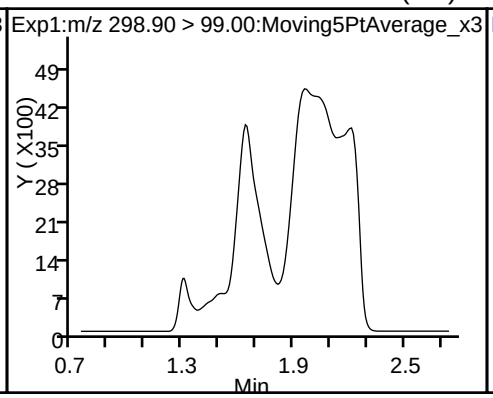
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_036.d

Injection Date:	29-Jun-2017 03:21:23	Instrument ID:	A8_N		
Lims ID:	320-29198-B-7-A	Lab Sample ID:	320-29198-7		
Client ID:	MEAFF-EB06-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	31	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		

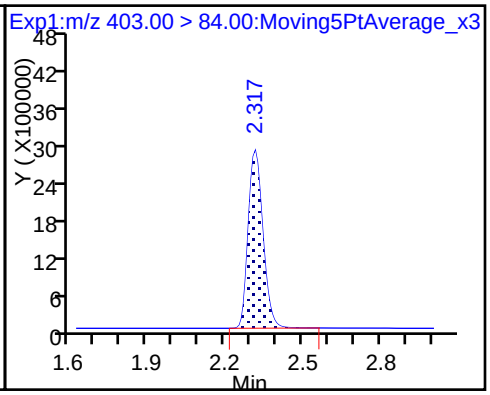
5 Perfluorobutanesulfonic acid (ND)



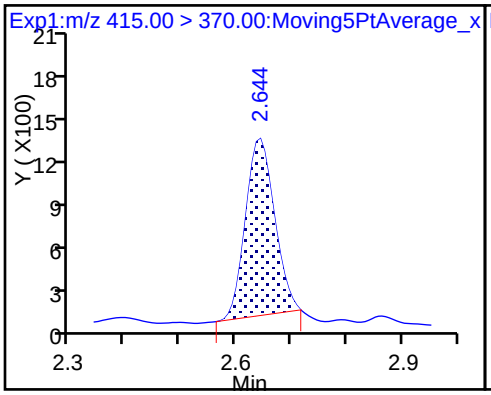
5 Perfluorobutanesulfonic acid (ND)



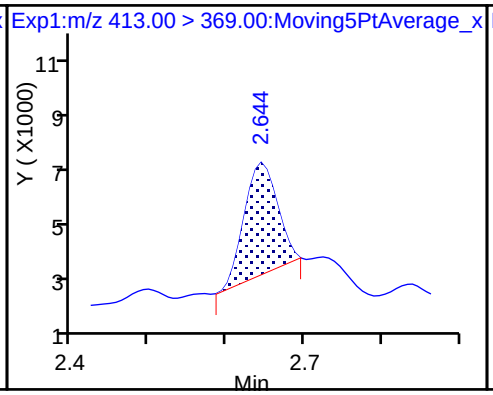
D 11 18O2 PFHxS



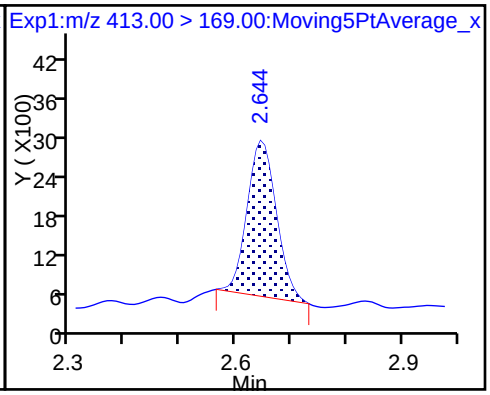
* 62 13C2-PFOA



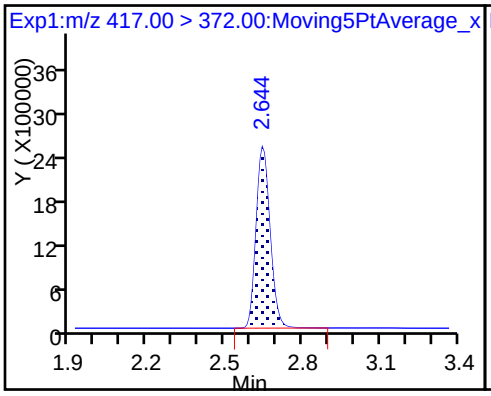
15 Perfluorooctanoic acid



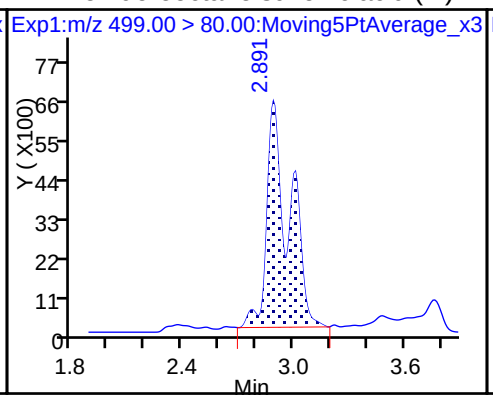
15 Perfluorooctanoic acid



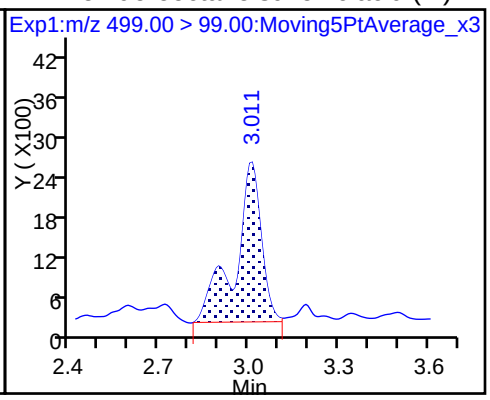
D 14 13C4 PFOA



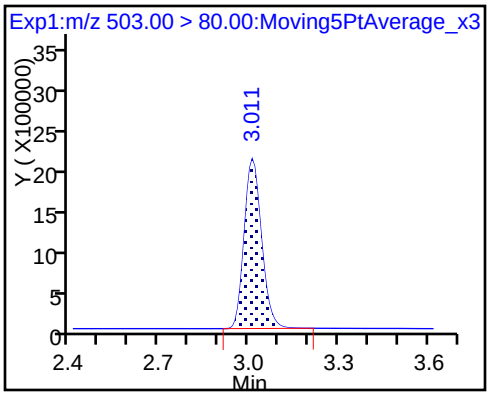
17 Perfluorooctane sulfonic acid (M)



17 Perfluorooctane sulfonic acid (M)



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

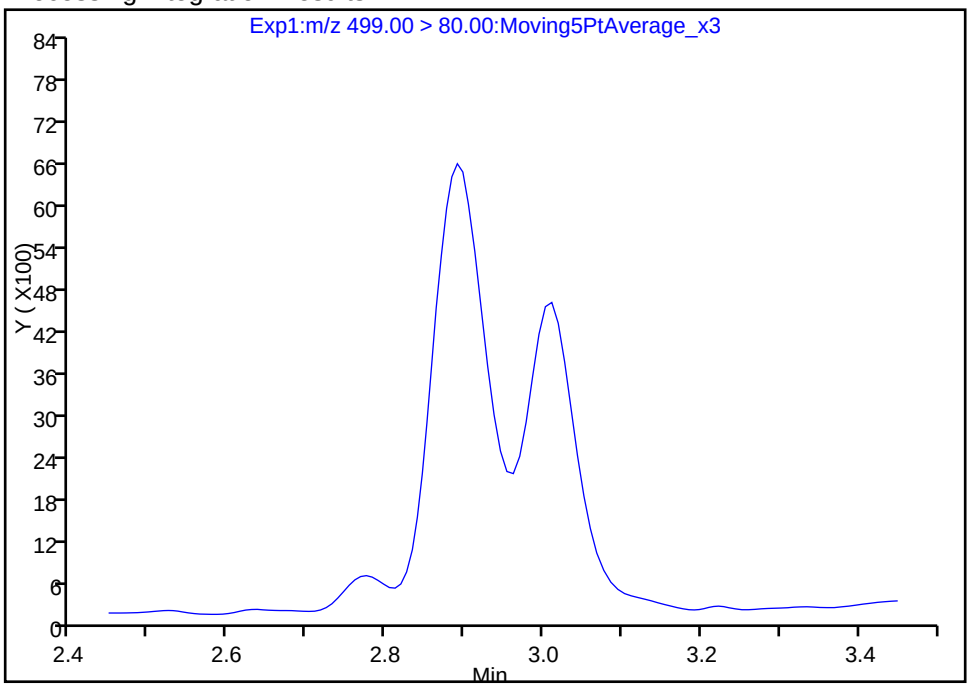
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_036.d				
Injection Date:	29-Jun-2017 03:21:23	Instrument ID:	A8_N		
Lims ID:	320-29198-B-7-A	Lab Sample ID:	320-29198-7		
Client ID:	MEAFF-EB06-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	31	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

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

Signal: 1

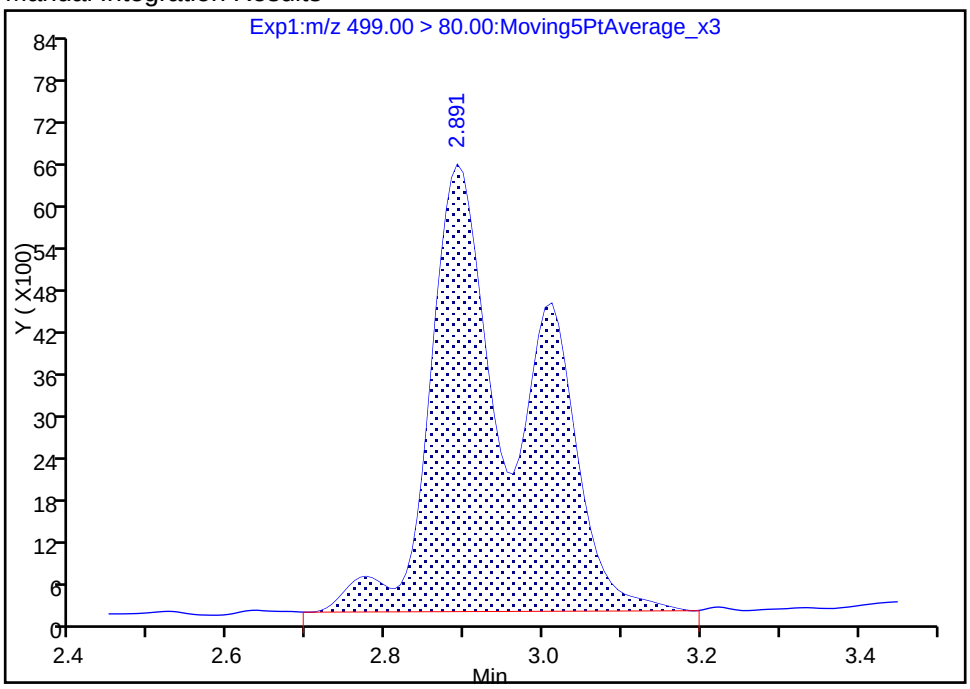
Not Detected
Expected RT: 3.03

Processing Integration Results



Manual Integration Results

RT: 2.89
Area: 52707
Amount: 0.284227
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:59:41
Audit Action: Manually Integrated Audit Reason: Missed Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

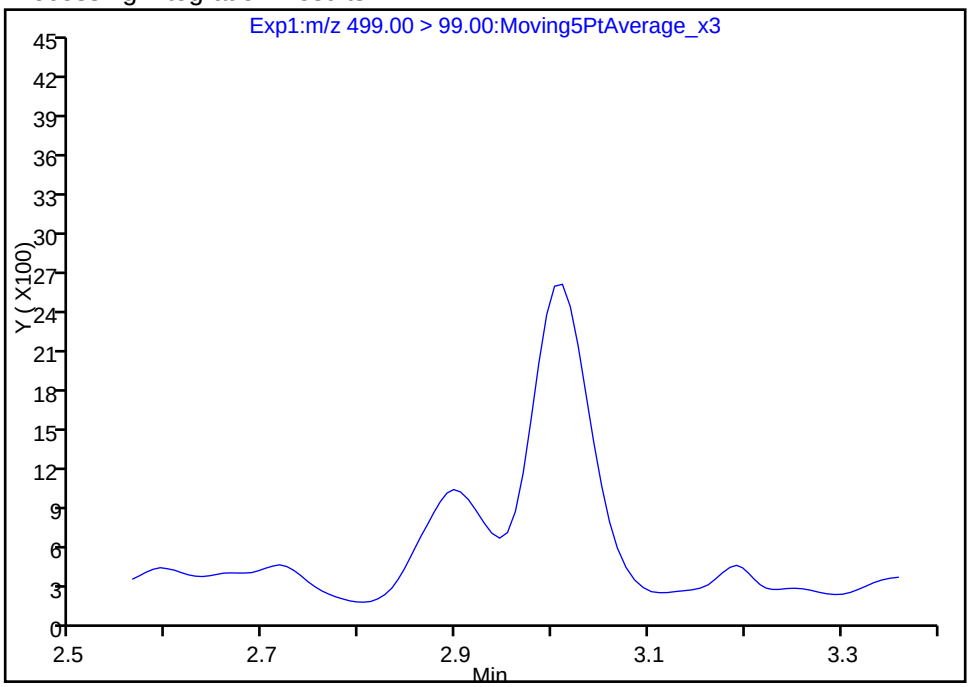
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_036.d				
Injection Date:	29-Jun-2017 03:21:23	Instrument ID:	A8_N		
Lims ID:	320-29198-B-7-A	Lab Sample ID:	320-29198-7		
Client ID:	MEAFF-EB06-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	31	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

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

Signal: 2

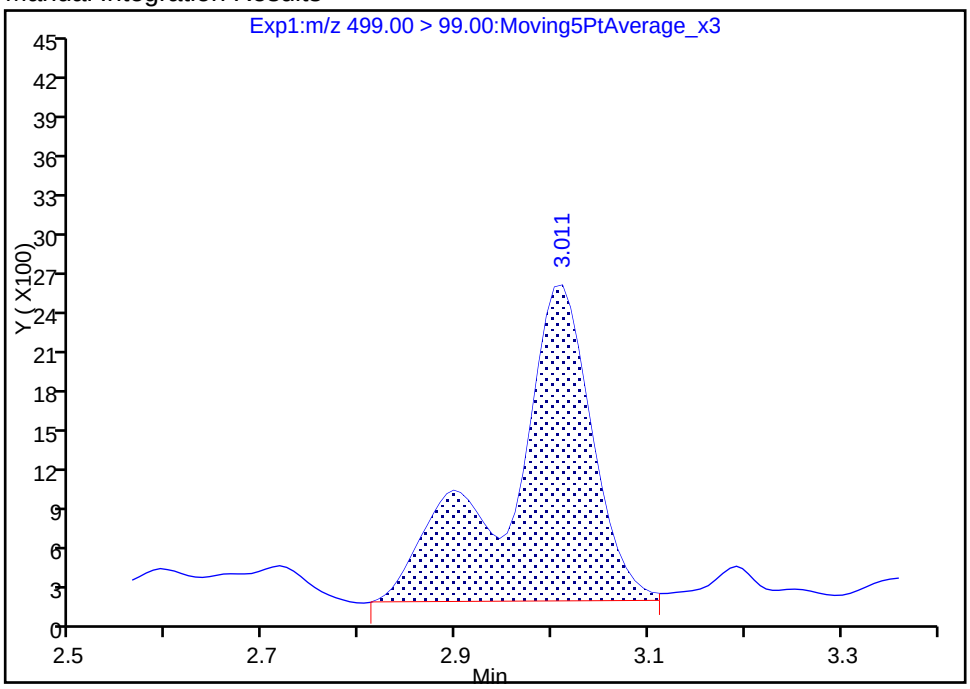
Not Detected
Expected RT: 3.03

Processing Integration Results



Manual Integration Results

RT: 3.01
Area: 14780
Amount: 0.284227
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:59:48
Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4J-1992MW01-0617 | Lab Sample ID: 320-29198-8

Matrix: Water | Lab File ID: 2017.06.28B_037.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 15:30

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 252.6(mL) | Date Analyzed: 06/29/2017 03:28

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	240	M	2.5	2.0	0.74
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	180	Q	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	47		2.5	2.0	0.91

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	66		25-150
STL00991	13C4 PFOS	89		25-150
STL00994	18O2 PFHxS	83		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_037.d
Lims ID: 320-29198-A-8-A
Client ID: MEAFF-TA4J-1992MW01-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 03:28:17 ALS Bottle#: 32 Worklist Smp#: 11
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-8-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 17:00:48

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.760	1.760	0.0	1.000	5805092	23.5			1068	
298.90 > 99.00	1.760	1.760	0.0	1.000	2232768		2.60(0.00-0.00)		435	
D 11 18O2 PFHxS										
403.00 > 84.00	2.310	2.329	-0.019		8373005	39.4		83.2	24825	
* 62 13C2-PFOA										
415.00 > 370.00	2.638	2.656	-0.018		10779	50.0			225	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.646	2.663	-0.017	1.000	10908685	119.9			2009	M
413.00 > 169.00	2.646	2.663	-0.017	1.000	7059565		1.55(0.90-1.10)		4364	M
D 14 13C4 PFOA										
417.00 > 372.00	2.646	2.663	-0.017		4291823	32.9		65.8	13211	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.885	3.026	-0.141	1.000	13703322	90.2			7072	
499.00 > 99.00	3.012	3.026	-0.014	1.044	2782032		4.93(0.90-1.10)		3871	
D 18 13C4 PFOS										
503.00 > 80.00	3.012	3.026	-0.014		6926229	42.6		89.1	8203	

QC Flag Legend

Review Flags
M - Manually Integrated

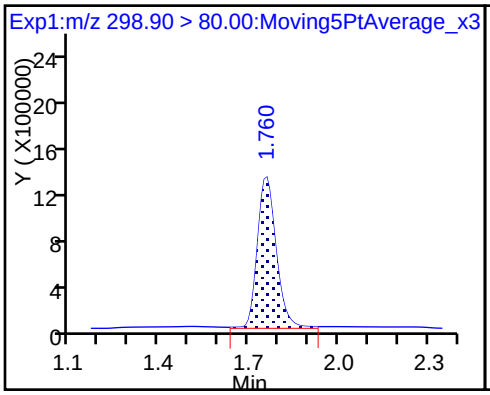
Report Date: 29-Jun-2017 17:01:36 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

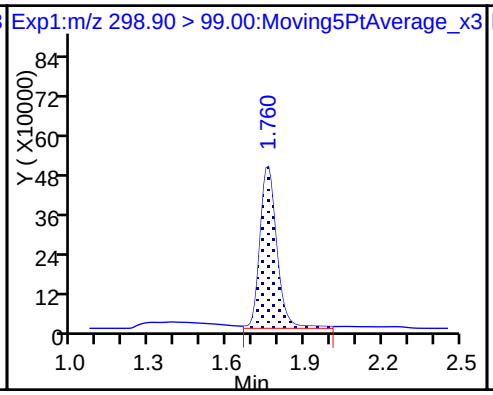
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_037.d

Injection Date:	29-Jun-2017 03:28:17	Instrument ID:	A8_N		
Lims ID:	320-29198-A-8-A	Lab Sample ID:	320-29198-8		
Client ID:	MEAFF-TA4J-1992MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	32	Worklist Smp#:	11
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		

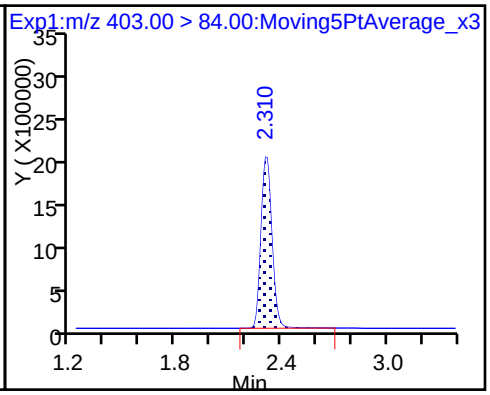
5 Perfluorobutanesulfonic acid



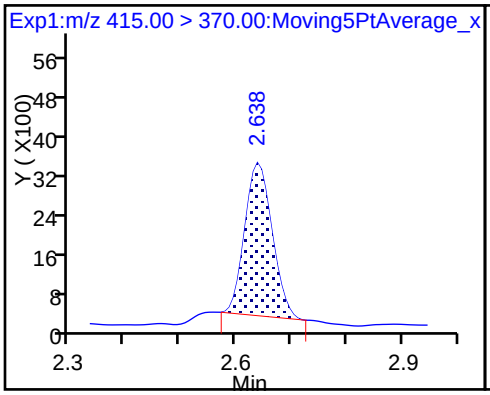
5 Perfluorobutanesulfonic acid



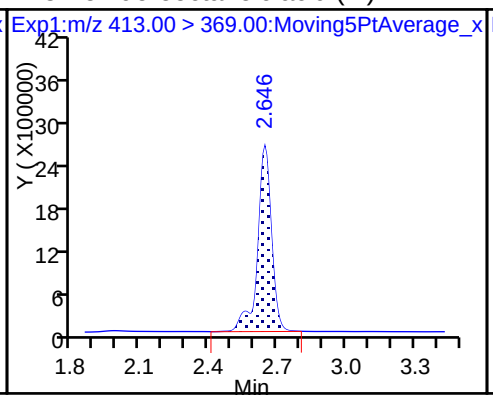
D 11 18O2 PFHxS



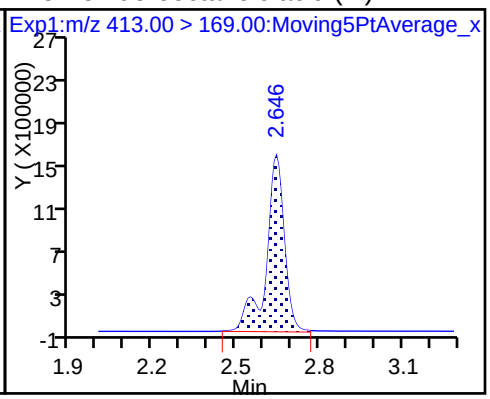
* 62 13C2-PFOA



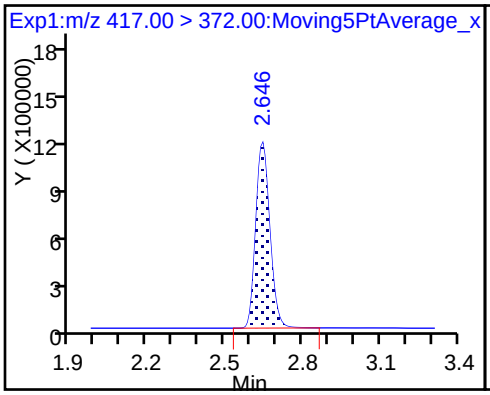
15 Perfluorooctanoic acid (M)



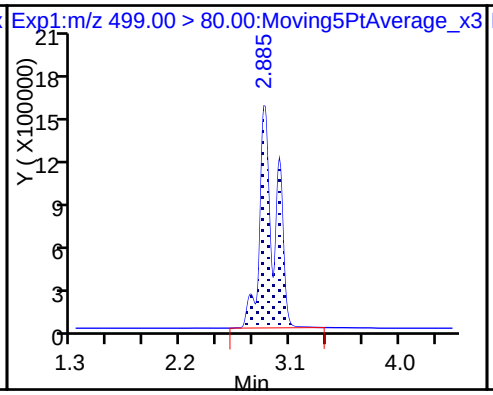
15 Perfluorooctanoic acid (M)



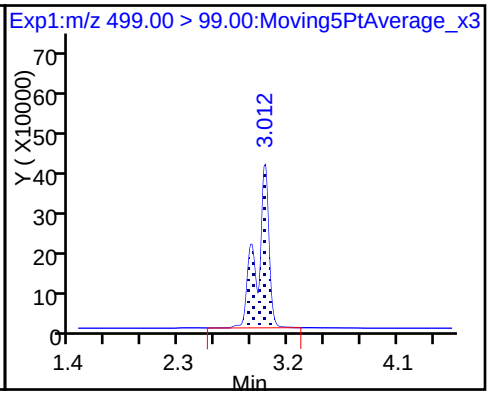
D 14 13C4 PFOA



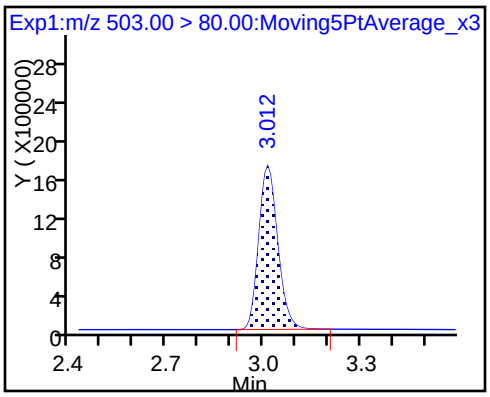
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

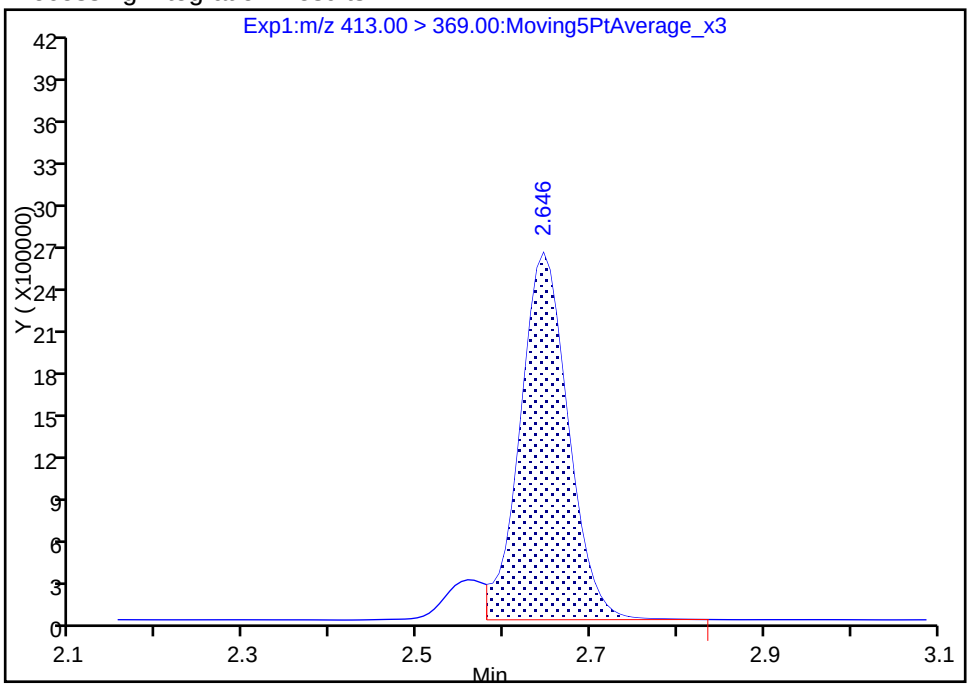
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_037.d				
Injection Date:	29-Jun-2017 03:28:17	Instrument ID:	A8_N		
Lims ID:	320-29198-A-8-A	Lab Sample ID:	320-29198-8		
Client ID:	MEAFF-TA4J-1992MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	32	Worklist Smp#:	11
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

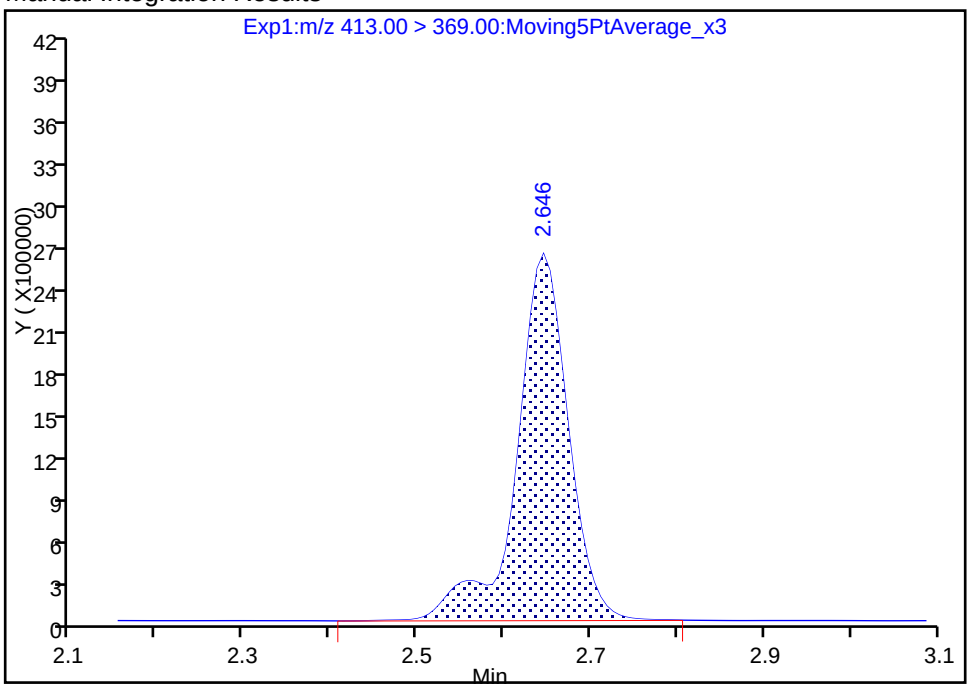
Processing Integration Results

RT: 2.65
Area: 10011082
Amount: 110.0194
Amount Units: ng/ml



Manual Integration Results

RT: 2.65
Area: 10908685
Amount: 119.8838
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 17:00:33

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

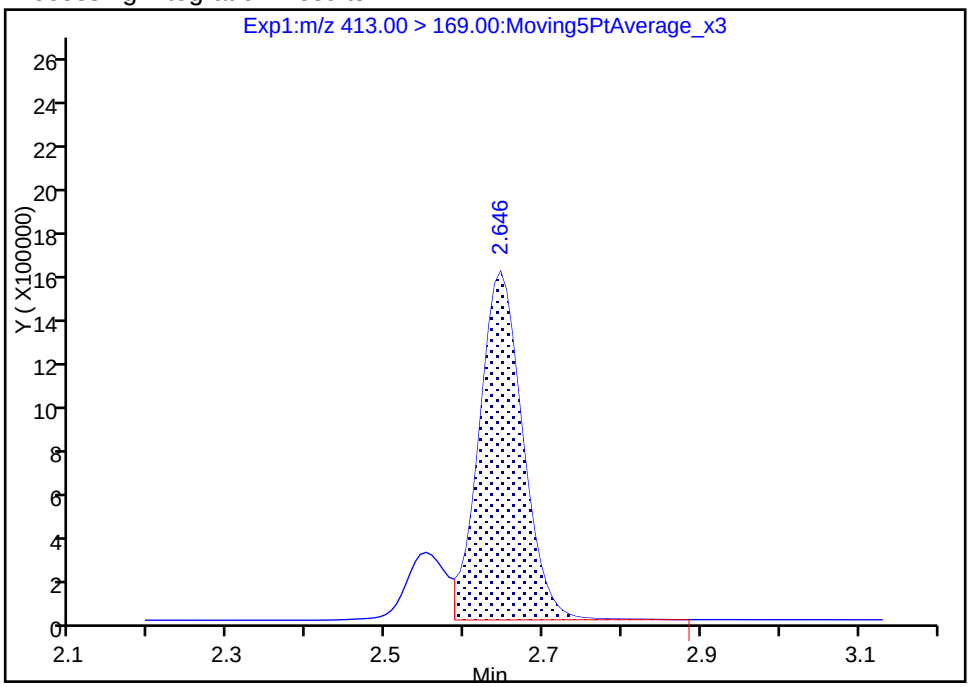
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_037.d				
Injection Date:	29-Jun-2017 03:28:17	Instrument ID:	A8_N		
Lims ID:	320-29198-A-8-A	Lab Sample ID:	320-29198-8		
Client ID:	MEAFF-TA4J-1992MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	32	Worklist Smp#:	11
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

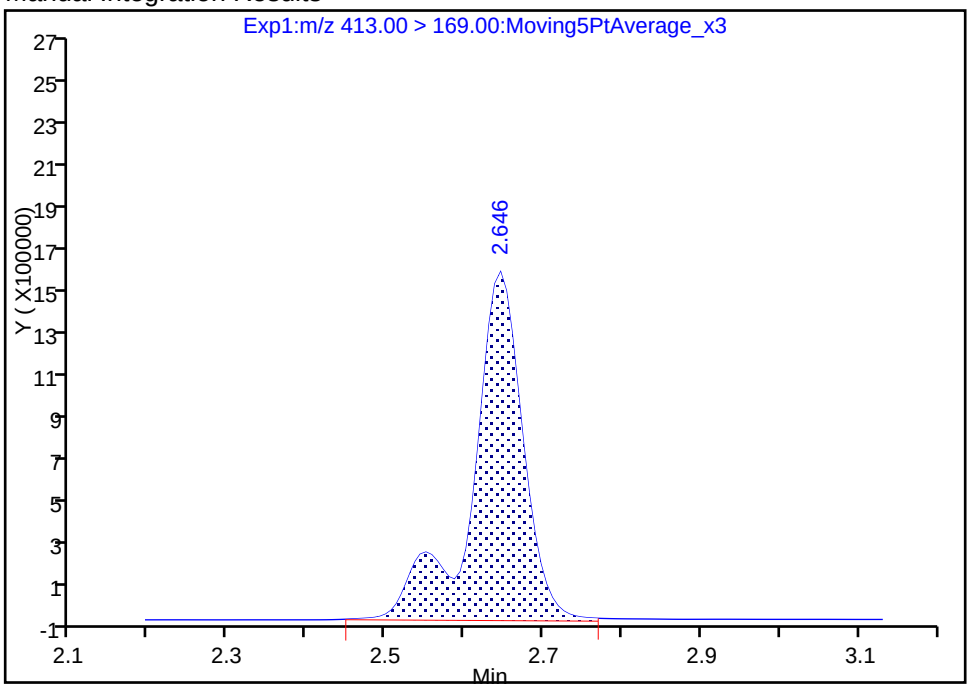
Processing Integration Results

RT: 2.65
Area: 5938476
Amount: 110.0194
Amount Units: ng/ml



Manual Integration Results

RT: 2.65
Area: 7059565
Amount: 119.8838
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 17:00:42

Audit Action: Manually Integrated Audit Reason: Isomers

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4J-1992MW01-0617 RE Lab Sample ID: 320-29198-8 RE

Matrix: Water Lab File ID: 20170714D_016.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 15:30

Extraction Method: 3535 Date Extracted: 07/13/2017 09:26

Sample wt/vol: 252(mL) Date Analyzed: 07/15/2017 04:48

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	*Perfluorooctanesulfonic acid (PFOS)*	*160*	*H*	*4.0*	3.0	*1.3*

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

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_016.d
Lims ID: 320-29198-B-8-A
Client ID: MEAFF-TA4J-1992MW01-0617
Sample Type: Client
Inject. Date: 15-Jul-2017 04:48:50 ALS Bottle#: 15 Worklist Smp#: 17
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-b-8-a
Misc. Info.: Plate: 1 Rack: 4
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 17-Jul-2017 14:32:02 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK010

First Level Reviewer: barnettj Date: 17-Jul-2017 14:30:29

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.761	1.764	-0.003	1.000	5036245	19.4			903	
298.90 > 99.00	1.761	1.764	-0.003	1.000	1878966		2.68(0.00-0.00)		352	
D 11 18O2 PFHxS										
403.00 > 84.00	2.317	2.326	-0.009		8179274	51.0		108	31743	
* 62 13C2-PFOA										
415.00 > 370.00	2.649	2.651	-0.002		12495	50.0			249	
D 14 13C4 PFOA										
417.00 > 372.00	2.649	2.659	-0.010		4511395	42.5		85.1	20780	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.649	2.659	-0.010	1.000	10806008	112.0			2596	M
413.00 > 169.00	2.649	2.659	-0.010	1.000	7005006		1.54(0.90-1.10)		7764	M
D 18 13C4 PFOS										
503.00 > 80.00	3.017	3.023	-0.006		6508361	56.6		118	16193	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	2.895	3.023	-0.128	1.000	12229815	81.9			9757	
499.00 > 99.00	3.017	3.023	-0.006	1.042	2315685		5.28(0.90-1.10)		3556	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Jul-2017 14:32:11 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_016.d

Injection Date: 15-Jul-2017 04:48:50 Instrument ID: A8_N

Lims ID: 320-29198-B-8-A Lab Sample ID: 320-29198-8

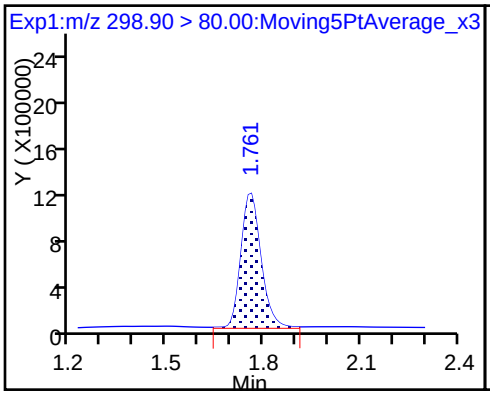
Client ID: MEAFF-TA4J-1992MW01-0617

Operator ID: SACINSTLCMS01 ALS Bottle#: 15 Worklist Smp#: 17

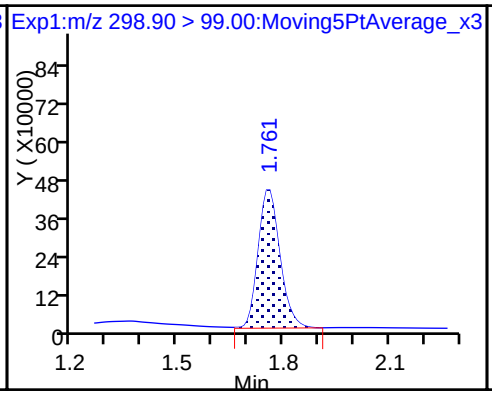
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

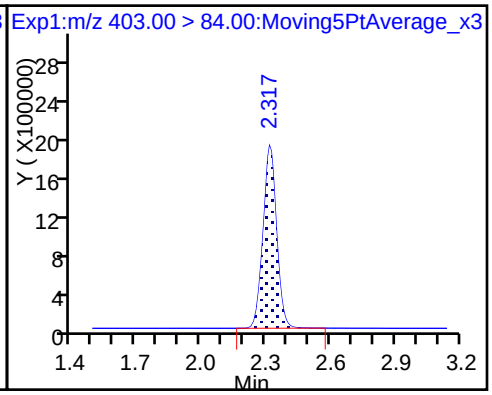
5 Perfluorobutanesulfonic acid



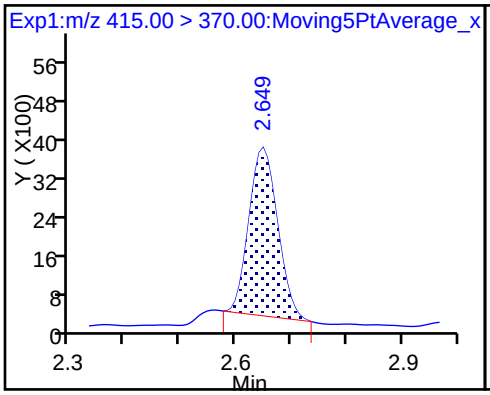
5 Perfluorobutanesulfonic acid



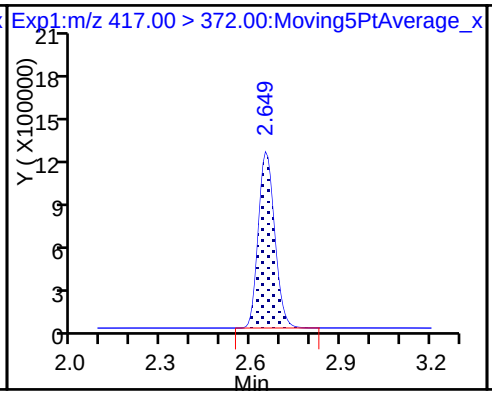
D 11 18O2 PFHxS



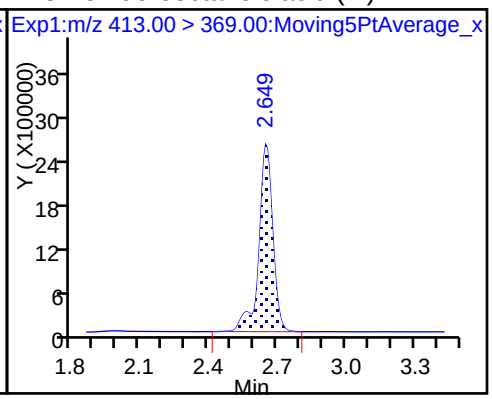
* 62 13C2-PFOA



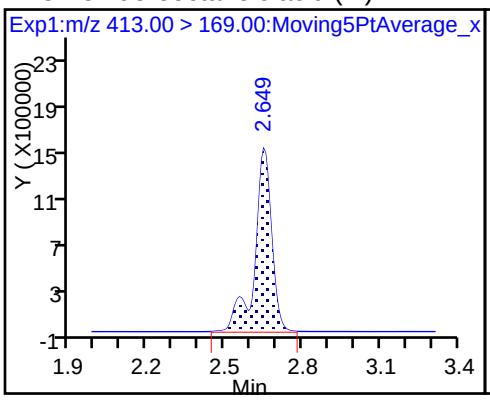
D 14 13C4 PFOA



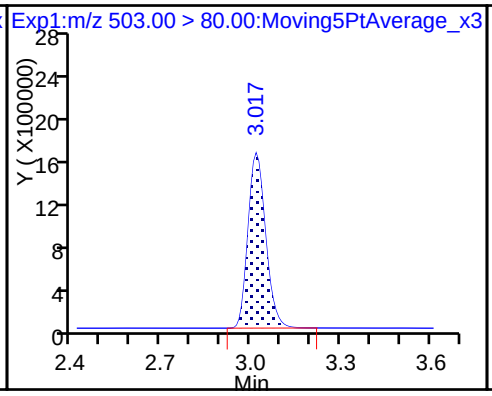
15 Perfluorooctanoic acid (M)



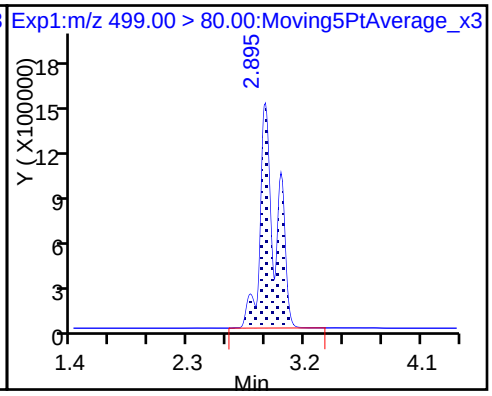
15 Perfluorooctanoic acid (M)



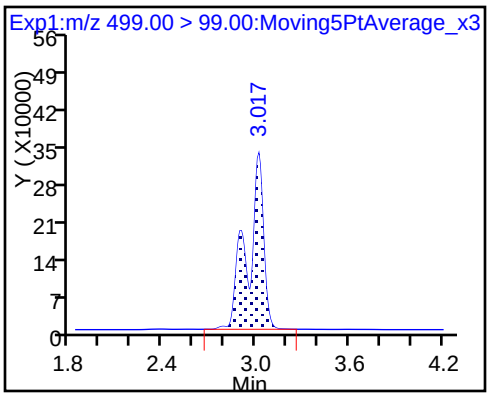
D 18 13C4 PFOS



17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-T45C-2005MW01-0617 Lab Sample ID: 320-29198-9

Matrix: Water Lab File ID: 2017.06.28B_039.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 17:00

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 257.1(mL) Date Analyzed: 06/29/2017 03:42

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	1.9	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	1.9	0.89

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	86		25-150
STL00991	13C4 PFOS	99		25-150
STL00994	18O2 PFHxS	106		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_039.d
Lims ID: 320-29198-A-9-A
Client ID: MEAFF-T45C-2005MW01-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 03:42:05 ALS Bottle#: 33 Worklist Smp#: 13
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-9-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:13:07 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 17:02:48

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.762	1.760	0.002	1.000	141682	0.4510			70.9	
298.90 > 99.00	1.762	1.760	0.002	1.000	58150		2.44(0.00-0.00)		64.4	
D 11 18O2 PFHxS										
403.00 > 84.00	2.314	2.329	-0.015		10659610	50.1		106	33099	
* 62 13C2-PFOA										
415.00 > 370.00	2.640	2.656	-0.016		4338	50.0			98.4	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.647	2.663	-0.016	1.000	37514	0.3135			14.6	M
413.00 > 169.00	2.647	2.663	-0.016	1.000	25651		1.46(0.90-1.10)		49.3	M
D 14 13C4 PFOA										
417.00 > 372.00	2.647	2.663	-0.016		5644296	43.2		86.5	15022	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	2.887	3.026	-0.139	1.000	66171	0.3912			177	
499.00 > 99.00	3.005	3.026	-0.021	1.041	9989		6.62(0.90-1.10)		77.9	M
D 18 13C4 PFOS										
503.00 > 80.00	3.014	3.026	-0.012		7708415	47.4		99.1	12182	

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 29-Jun-2017 17:15:28 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_039.d

Injection Date: 29-Jun-2017 03:42:05 Instrument ID: A8_N

Lims ID: 320-29198-A-9-A Lab Sample ID: 320-29198-9

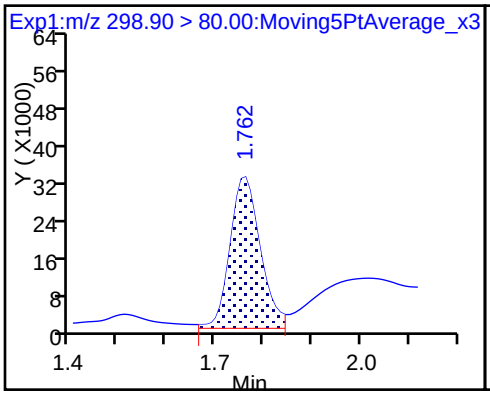
Client ID: MEAFF-T45C-2005MW01-0617

Operator ID: SACINSTLCMS01 ALS Bottle#: 33 Worklist Smp#: 13

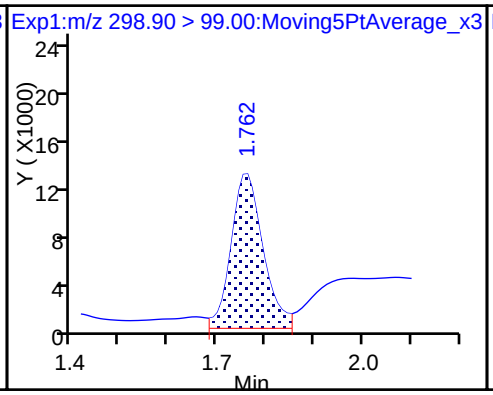
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

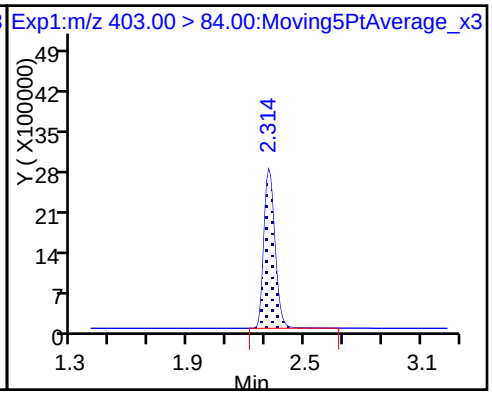
5 Perfluorobutanesulfonic acid



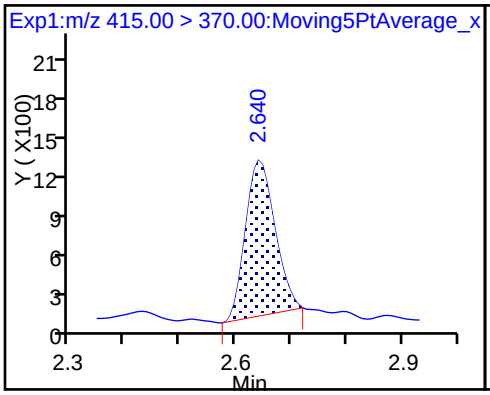
5 Perfluorobutanesulfonic acid



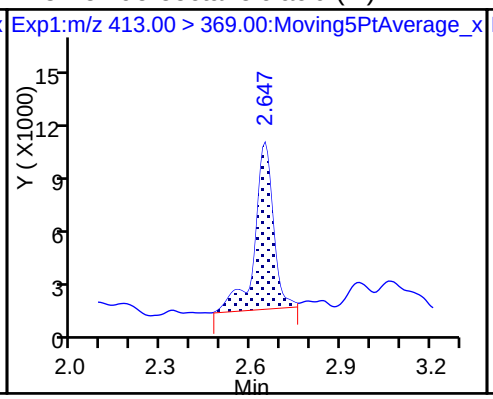
D 11 18O2 PFHxS



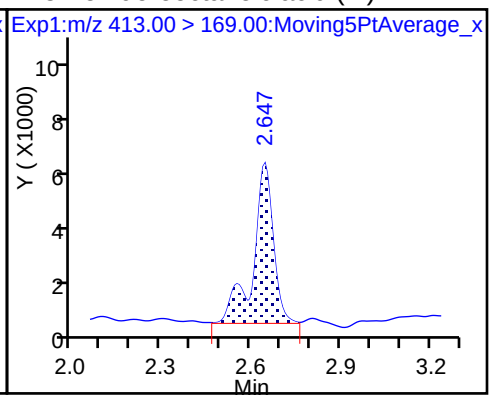
* 62 13C2-PFOA



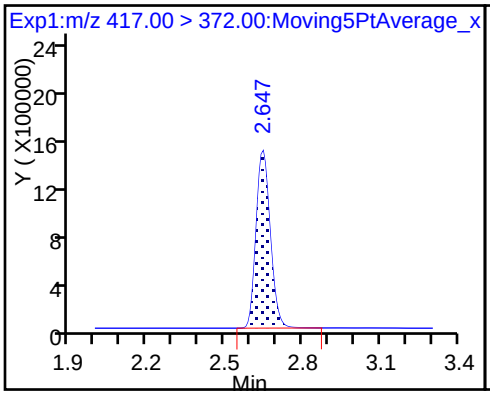
15 Perfluorooctanoic acid (M)



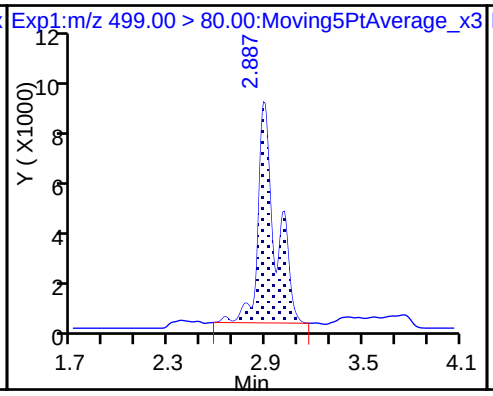
15 Perfluorooctanoic acid (M)



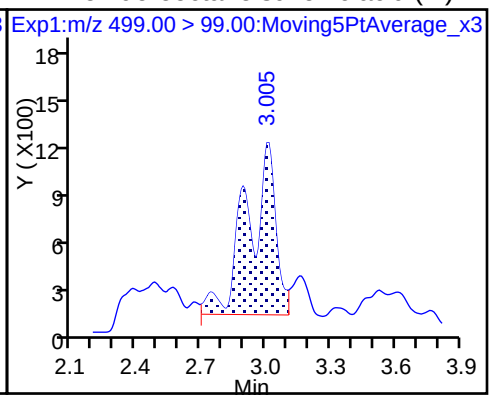
D 14 13C4 PFOA



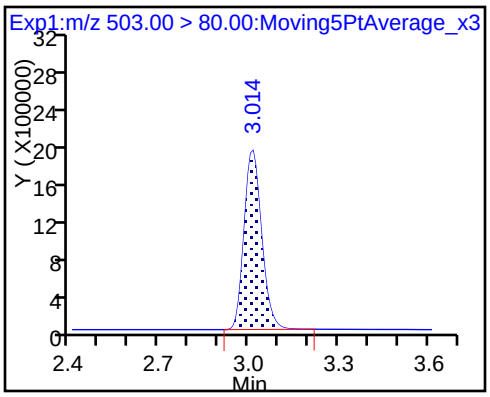
17 Perfluorooctane sulfonic acid



17 Perfluorooctane sulfonic acid (M)



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

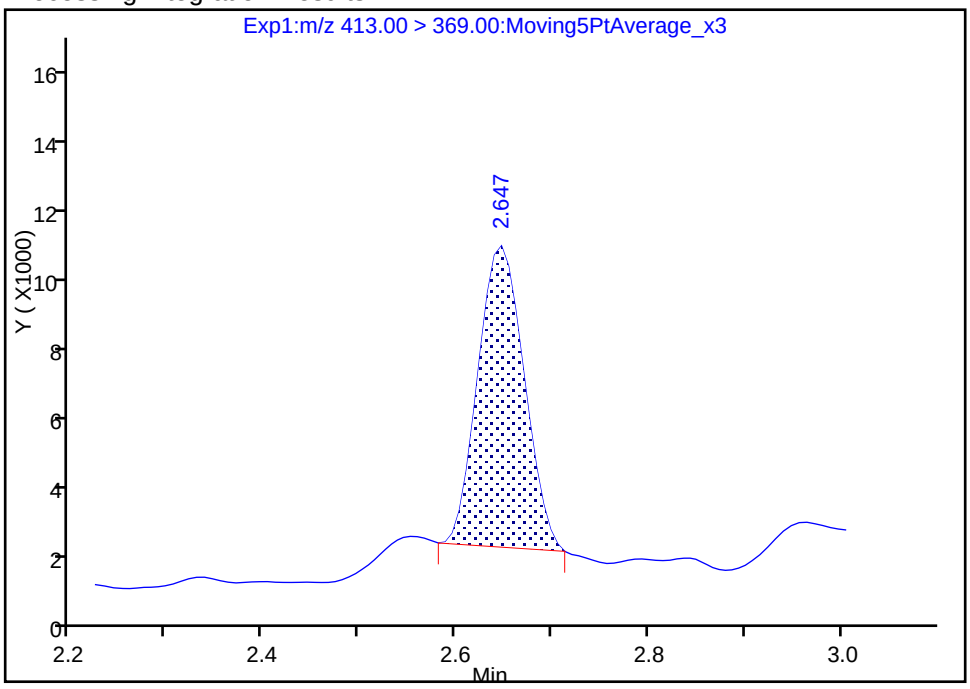
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_039.d				
Injection Date:	29-Jun-2017 03:42:05	Instrument ID:	A8_N		
Lims ID:	320-29198-A-9-A	Lab Sample ID:	320-29198-9		
Client ID:	MEAFF-T45C-2005MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	13
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

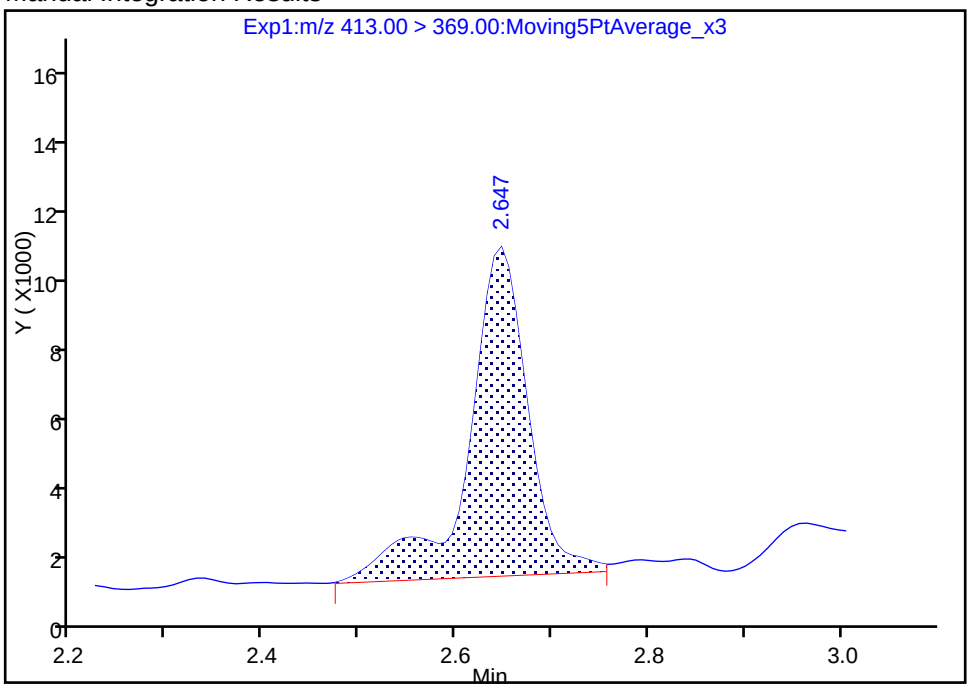
Processing Integration Results

RT: 2.65
Area: 26291
Amount: 0.219699
Amount Units: ng/ml



Manual Integration Results

RT: 2.65
Area: 37514
Amount: 0.313483
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 17:02:02

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

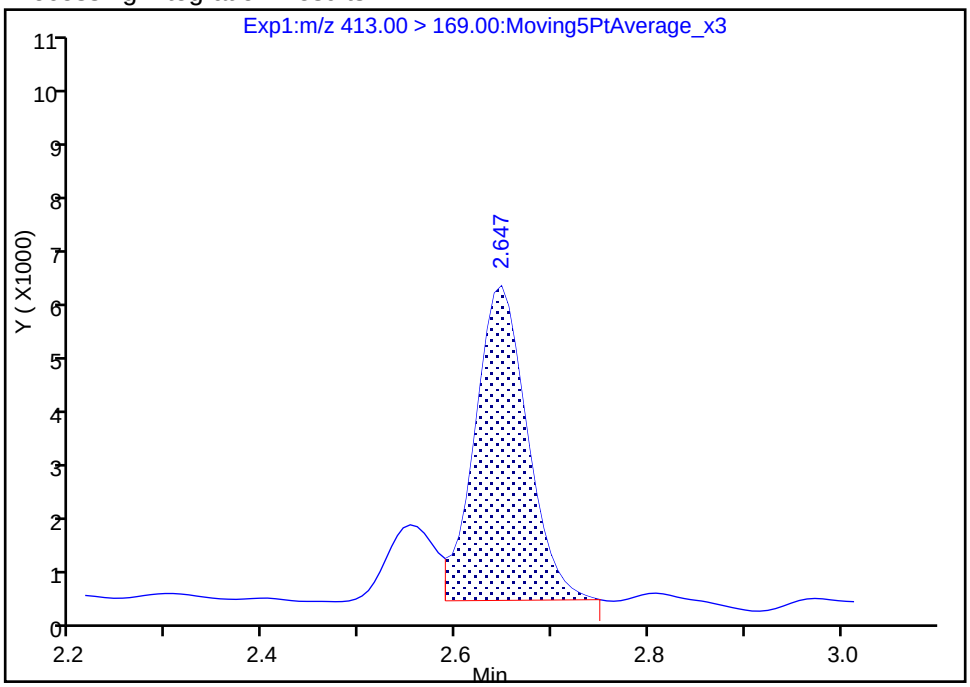
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_039.d				
Injection Date:	29-Jun-2017 03:42:05	Instrument ID:	A8_N		
Lims ID:	320-29198-A-9-A	Lab Sample ID:	320-29198-9		
Client ID:	MEAFF-T45C-2005MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	13
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 2

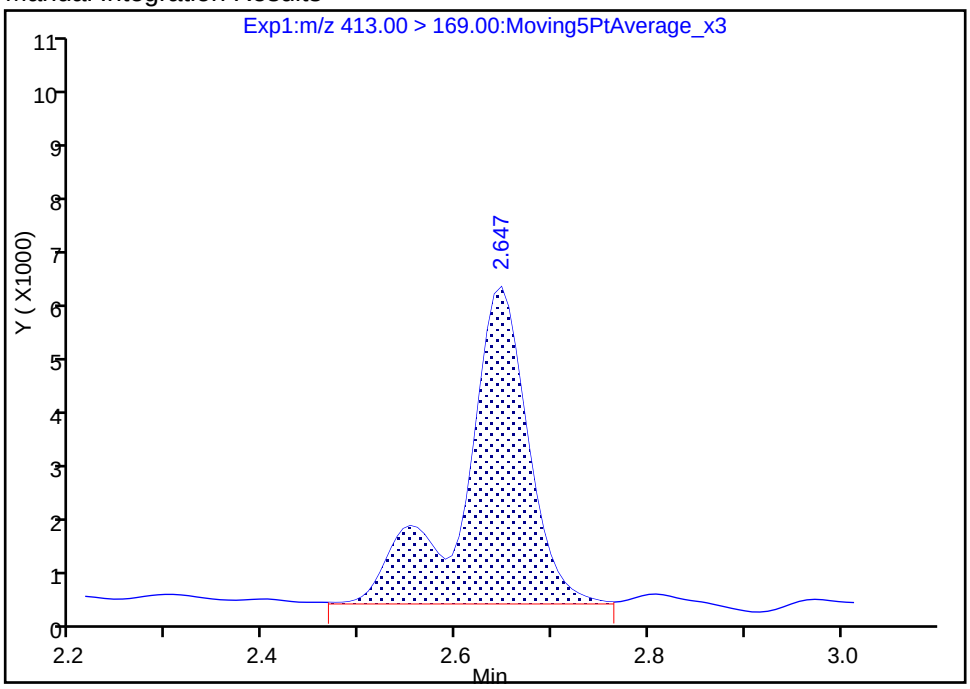
Processing Integration Results

RT: 2.65
Area: 20355
Amount: 0.219699
Amount Units: ng/ml



Manual Integration Results

RT: 2.65
Area: 25651
Amount: 0.313483
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 17:02:13

Audit Action: Manually Integrated Audit Reason: Isomers

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

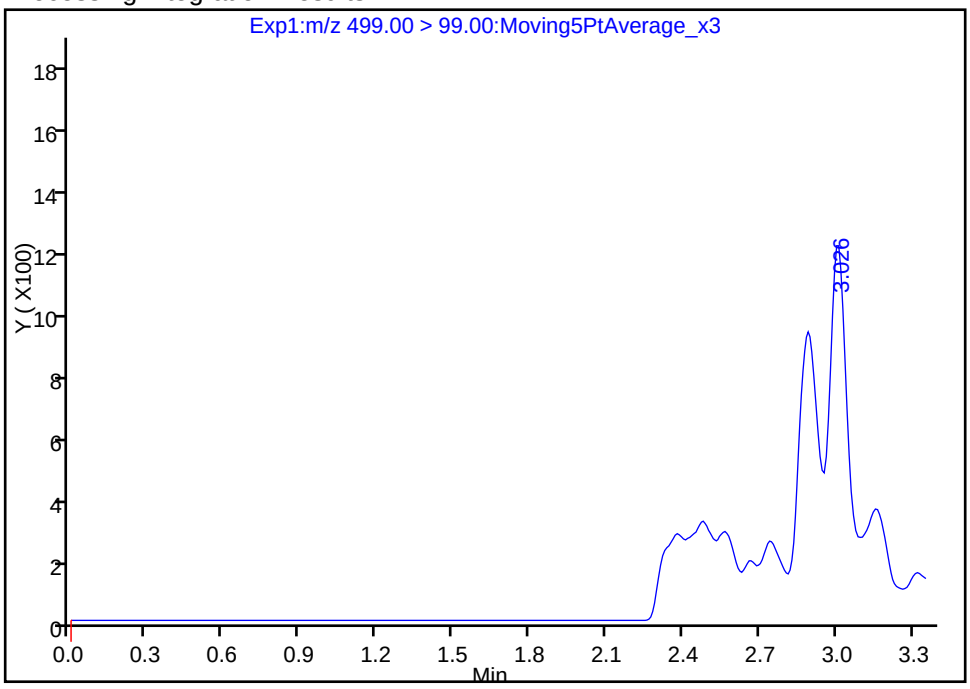
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_039.d				
Injection Date:	29-Jun-2017 03:42:05	Instrument ID:	A8_N		
Lims ID:	320-29198-A-9-A	Lab Sample ID:	320-29198-9		
Client ID:	MEAFF-T45C-2005MW01-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	33	Worklist Smp#:	13
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

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

Signal: 2

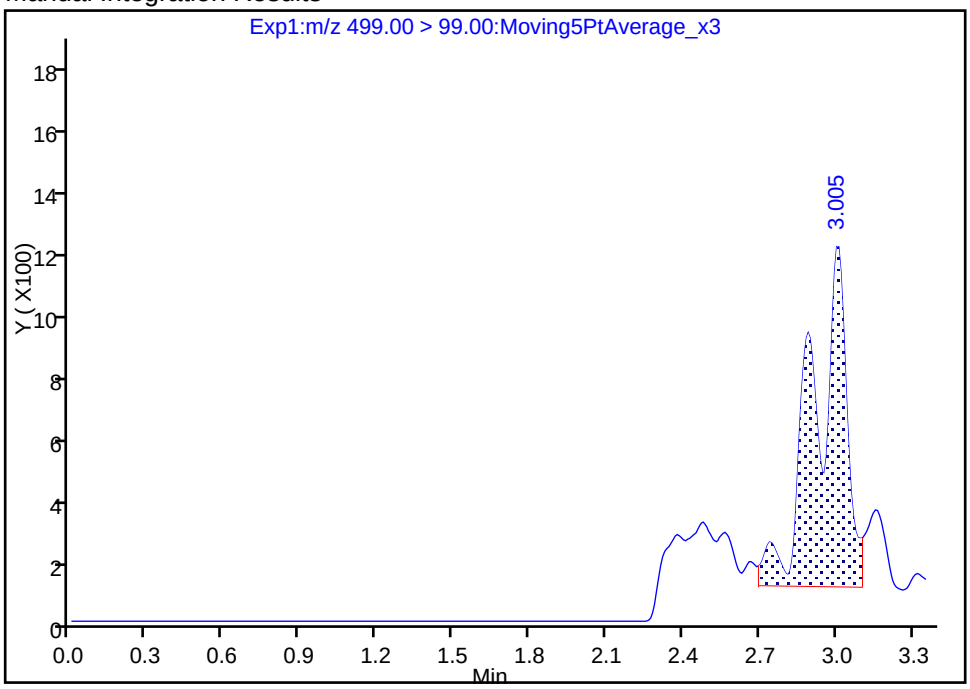
Processing Integration Results

RT: 3.03
Area: 0
Amount: 0.391173
Amount Units: ng/ml



Manual Integration Results

RT: 3.01
Area: 9989
Amount: 0.391173
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 17:02:38

Audit Action: Manually Integrated Audit Reason: Missed Peak

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-EB07-0617 | Lab Sample ID: 320-29198-10

Matrix: Water | Lab File ID: 2017.06.28B_040.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 16:45

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 260.4(mL) | Date Analyzed: 06/29/2017 03:48

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U Q	3.8	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U M	2.4	1.9	0.88

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	137		25-150
STL00991	13C4 PFOS	113		25-150
STL00994	18O2 PFHxS	109		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_040.d
Lims ID: 320-29198-A-10-A
Client ID: MEAFF-EB07-0617
Sample Type: Client
Inject. Date: 29-Jun-2017 03:48:59 ALS Bottle#: 34 Worklist Smp#: 14
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: 320-29198-a-10-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:13:07 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 17:03:55

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.751	1.760	-0.009	1.000	5501	0.0170			3.4	M
298.90 > 99.00	1.751	1.760	-0.009	1.000	1369		4.02(0.00-0.00)		1.6	M
D 11 18O2 PFHxS										
403.00 > 84.00	2.322	2.329	-0.007		10992323	51.7		109	27337	
* 62 13C2-PFOA										
415.00 > 370.00	2.648	2.656	-0.008		5707	50.0			185	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.648	2.663	-0.015	1.000	11328	0.0598			3.5	
413.00 > 169.00	2.655	2.663	-0.008	1.003	7171		1.58(0.90-1.10)		22.1	
D 14 13C4 PFOA										
417.00 > 372.00	2.648	2.663	-0.015		8941310	68.5		137	16218	
D 18 13C4 PFOS										
503.00 > 80.00	3.016	3.026	-0.010		8752304	53.8		113	12990	

QC Flag Legend

Review Flags
M - Manually Integrated

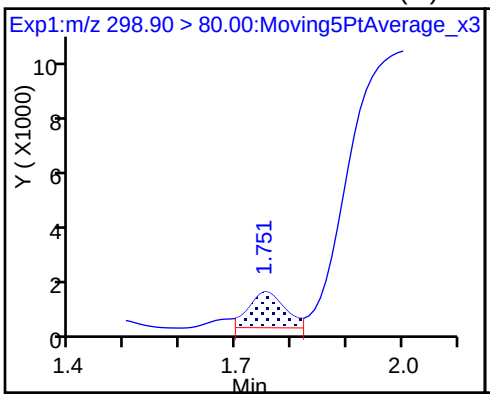
Report Date: 29-Jun-2017 17:15:30 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

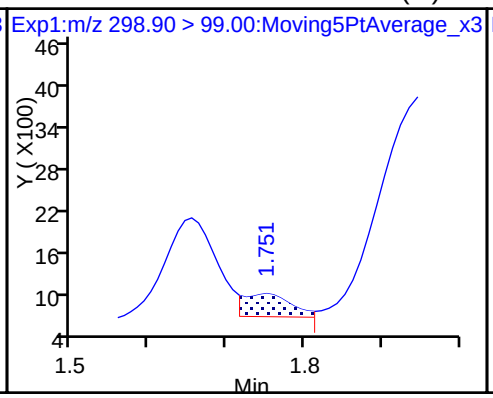
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_040.d

Injection Date:	29-Jun-2017 03:48:59	Instrument ID:	A8_N		
Lims ID:	320-29198-A-10-A	Lab Sample ID:	320-29198-10		
Client ID:	MEAFF-EB07-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	14
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		

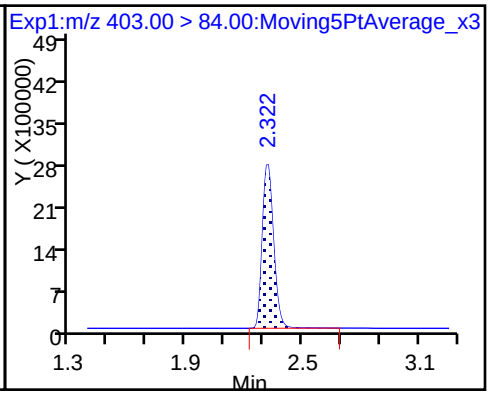
5 Perfluorobutanesulfonic acid (M)



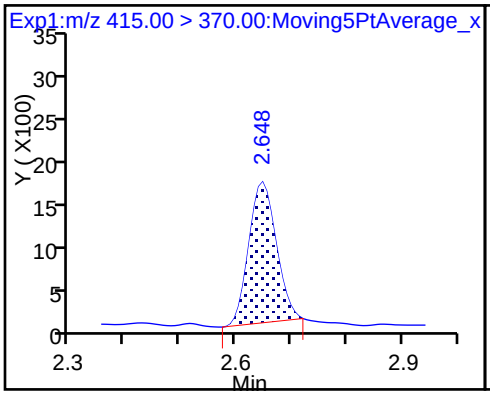
5 Perfluorobutanesulfonic acid (M)



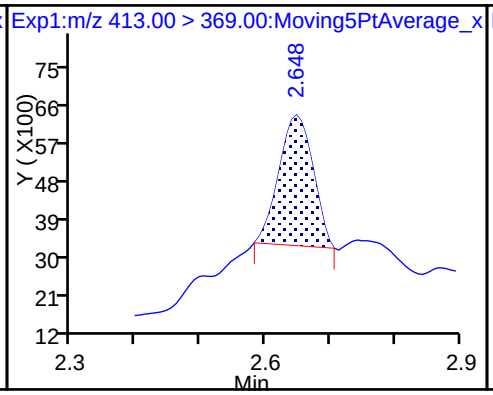
D 11 18O2 PFHxS



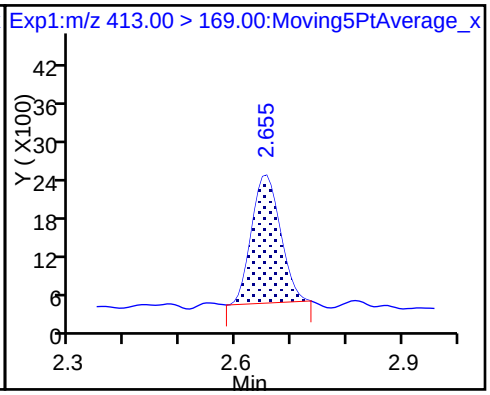
* 62 13C2-PFOA



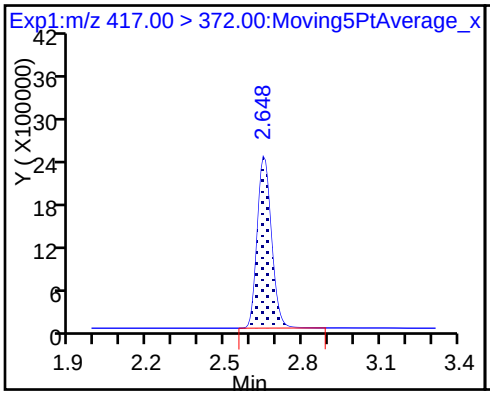
15 Perfluorooctanoic acid



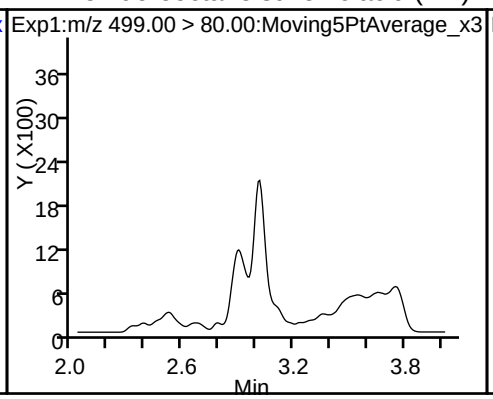
15 Perfluorooctanoic acid



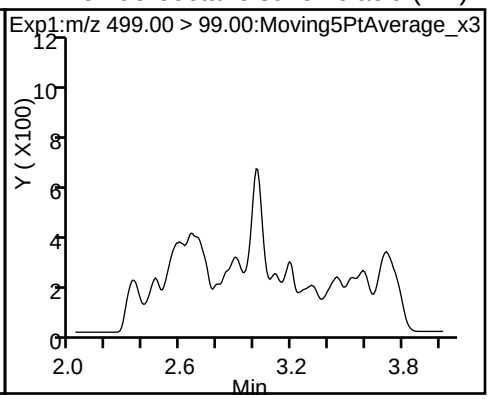
D 14 13C4 PFOA



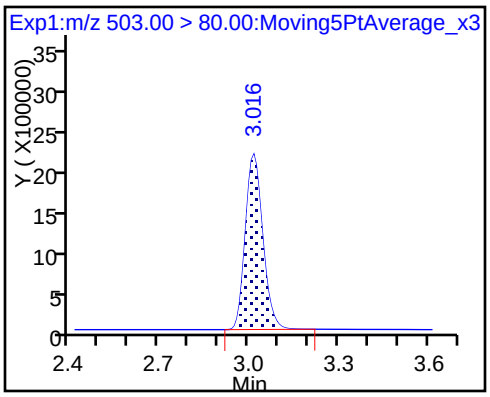
17 Perfluorooctane sulfonic acid (ND)



17 Perfluorooctane sulfonic acid (ND)



D 18 13C4 PFOS



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

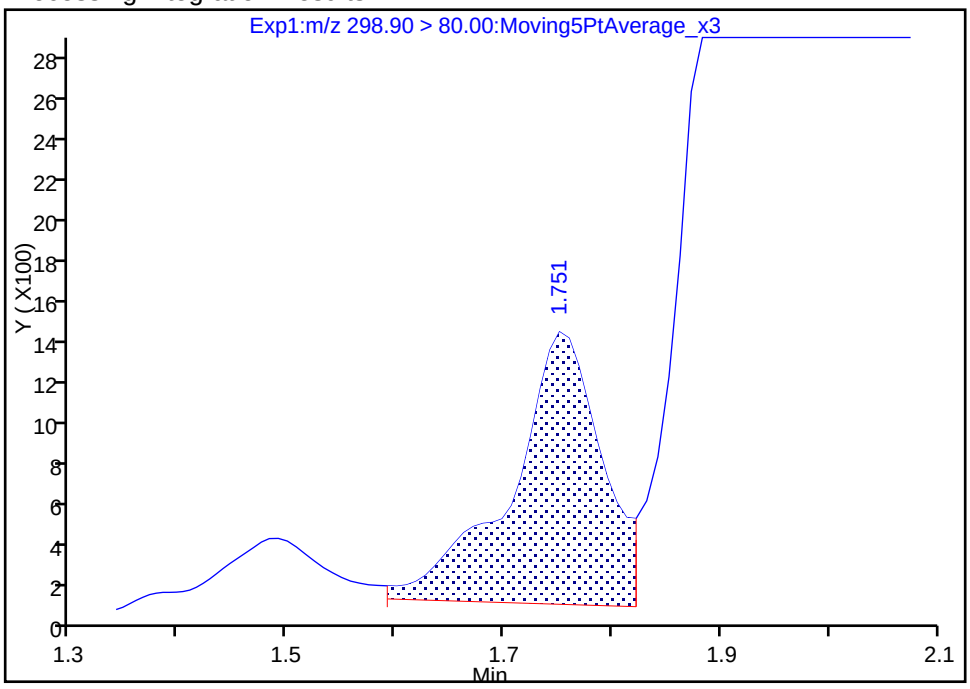
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_040.d				
Injection Date:	29-Jun-2017 03:48:59	Instrument ID:	A8_N		
Lims ID:	320-29198-A-10-A	Lab Sample ID:	320-29198-10		
Client ID:	MEAFF-EB07-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	14
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

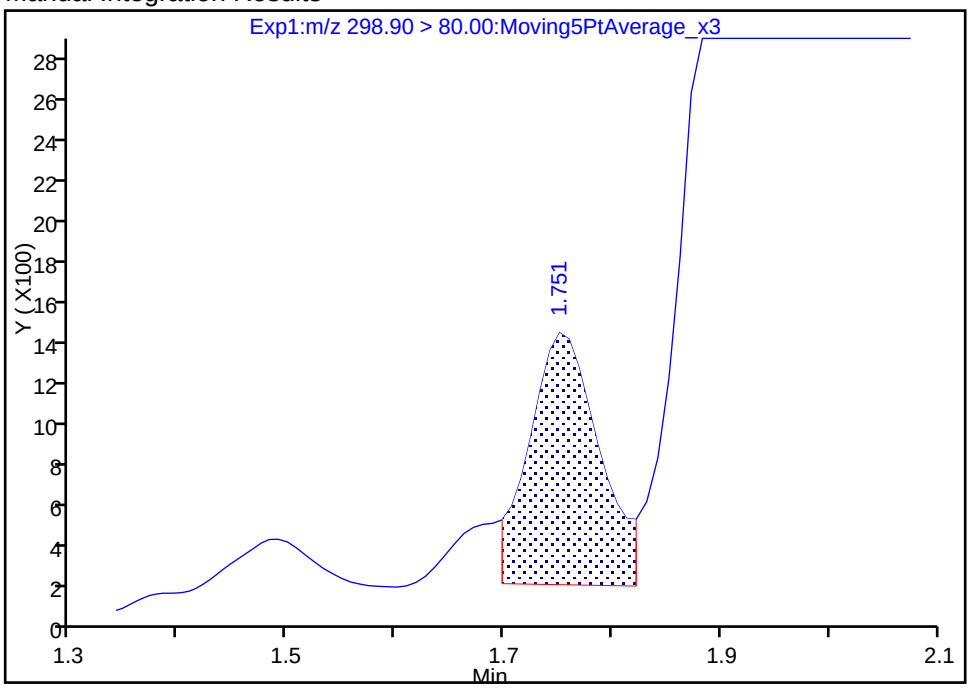
Processing Integration Results

RT: 1.75
Area: 7701
Amount: 0.023771
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 5501
Amount: 0.016980
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 17:03:09

Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

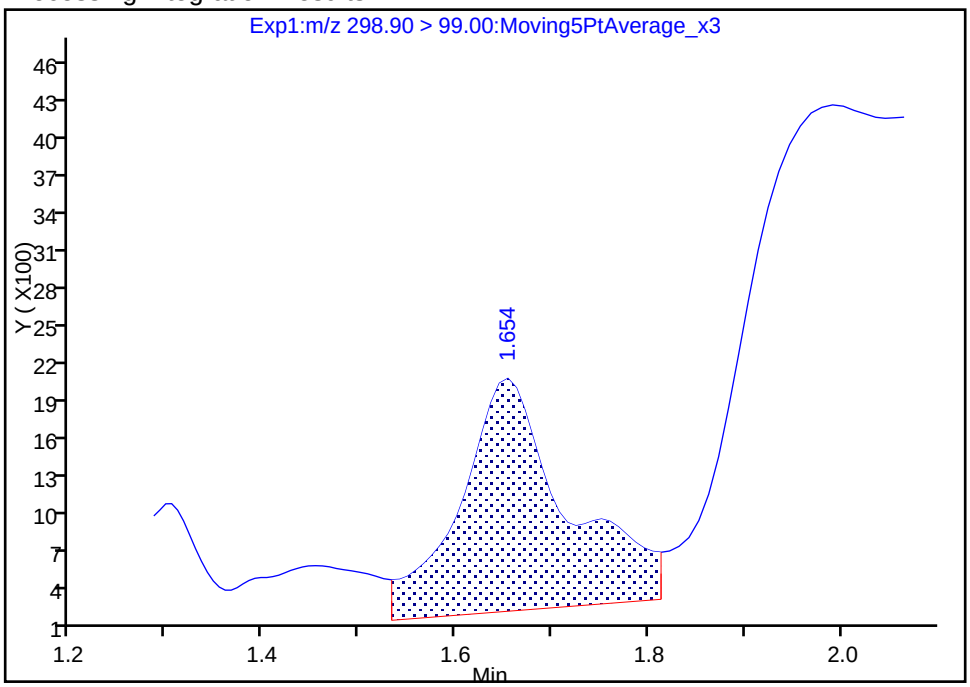
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_040.d				
Injection Date:	29-Jun-2017 03:48:59	Instrument ID:	A8_N		
Lims ID:	320-29198-A-10-A	Lab Sample ID:	320-29198-10		
Client ID:	MEAFF-EB07-0617				
Operator ID:	SACINSTLCMS01	ALS Bottle#:	34	Worklist Smp#:	14
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

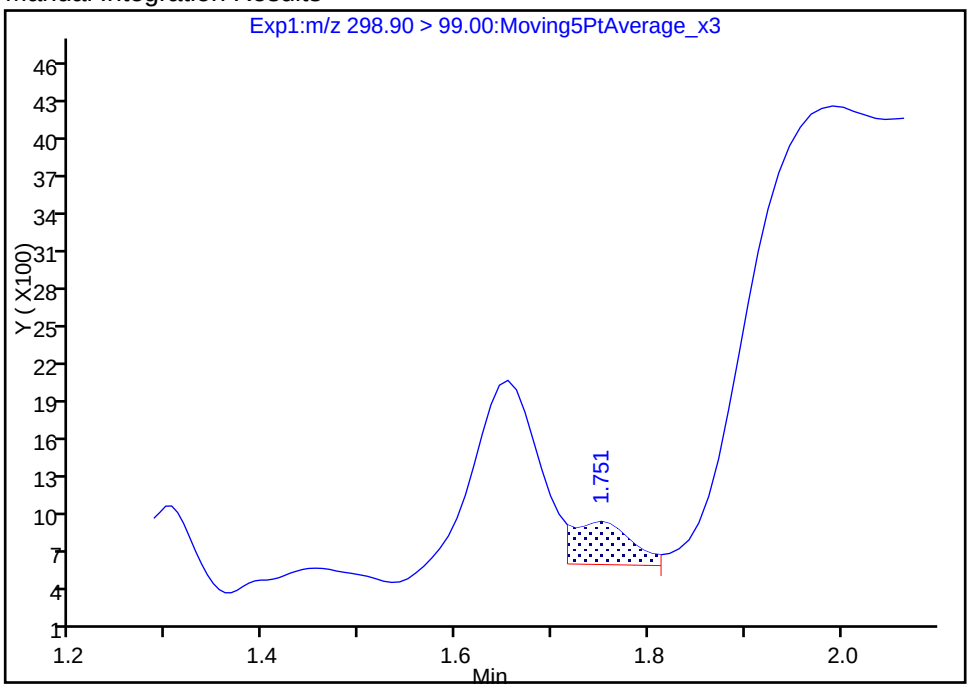
Processing Integration Results

RT: 1.65
Area: 13969
Amount: 0.023771
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 1369
Amount: 0.016980
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 17:03:36
Audit Action: Manually Integrated Audit Reason: Baseline

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-169970/3	2017.06.19_PFCICAL_003.d
Level 2	IC 320-169970/4	2017.06.19_PFCICAL_004.d
Level 3	IC 320-169970/5	2017.06.19_PFCICAL_005.d
Level 4	IC 320-169970/6	2017.06.19_PFCICAL_006.d
Level 5	IC 320-169970/7	2017.06.19_PFCICAL_007.d
Level 6	IC 320-169970/8	2017.06.19_PFCICAL_008.d
Level 7	IC 320-169970/9	2017.06.19_PFCICAL_009.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Perfluorobutanoic acid (PFBA)	2.179	2.175	2.175	2.180	2.175	2.179	2.169				1.926 - 2.426	2.176
Perfluoropentanoic acid (PFPeA)	2.566	2.563	2.563	2.568	2.562	2.555	2.555				2.312 - 2.812	2.562
Perfluorobutanesulfonic acid (PFBS)	2.597	2.605	2.605	2.605	2.611	2.605	2.605				2.425 - 2.785	2.605
4:2 FTS	2.916	2.915	2.918	2.927	2.924	2.913	2.906				2.667 - 3.167	2.917
Perfluorohexanoic acid (PFHxA)	2.964	2.959	2.965	2.968	2.965	2.964	2.957				2.713 - 3.213	2.963
Perfluoroheptanoic acid (PFHpA)	3.377	3.375	3.375	3.388	3.389	3.377	3.378				3.130 - 3.630	3.380
Perfluorohexanesulfonic acid (PFHxS)	+++++	3.375	3.375	3.388	3.389	3.377	3.378				3.130 - 3.630	3.380
6:2FTS	+++++	3.760	3.752	3.768	3.765	3.762	3.758				3.510 - 4.010	3.761
Perfluoroheptanesulfonic Acid (PFHpS)	3.764	3.770	3.772	3.779	3.776	3.773	3.768				3.522 - 4.022	3.772
Perfluorooctanoic acid (PFOA)	3.775	3.770	3.772	3.790	3.786	3.783	3.779				3.529 - 4.029	3.779
Perfluorooctanesulfonic acid (PFOS)	4.141	4.136	4.139	4.152	4.144	4.142	4.135				3.891 - 4.391	4.141
Perfluorononanoic acid (PFNA)	4.151	4.156	4.148	4.163	4.169	4.154	4.160				3.907 - 4.407	4.157
Perfluorooctane Sulfonamide (FOSA)	4.485	4.479	4.482	4.499	4.490	4.488	4.483				4.237 - 4.737	4.487
8:2FTS	4.496	4.490	4.493	4.499	4.502	4.500	4.495				4.246 - 4.746	4.496
Perfluorodecanoic acid (PFDA)	4.496	4.490	4.493	4.499	4.502	4.500	4.495				4.246 - 4.746	4.496
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	4.655	4.650	4.645	4.658	4.662	4.649	4.649				4.403 - 4.903	4.653
Perfluorodecanesulfonic acid (PFDS)	4.768	4.761	4.767	4.779	4.776	4.762	4.766				4.518 - 5.018	4.768
Perfluoroundecanoic acid (PFUnA)	+++++	4.792	4.788	4.800	4.800	4.799	4.792				4.544 - 5.044	4.795
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	+++++	4.802	4.798	4.811	4.813	4.812	4.817				4.557 - 5.057	4.809
MeFOSA	4.943	4.937	4.932	4.949	4.948	4.935	4.932				4.689 - 5.189	4.939
Perfluorododecanoic acid (PFDoA)	5.049	5.054	5.048	5.062	5.065	5.062	5.059				4.807 - 5.307	5.057
N-EtFOSA-M	5.099	5.094	5.098	5.112	5.111	5.098	5.106				4.853 - 5.353	5.103
Perfluorotridecanoic Acid (PFTriA)	5.293	5.289	5.292	5.306	5.305	5.301	5.298				5.048 - 5.548	5.298
Perfluorotetradecanoic acid (PFTeA)	5.517	5.509	5.516	5.535	5.532	5.529	+++++				5.274 - 5.774	5.523
Perfluoro-n-hexadecanoic acid (PFHxDA)	+++++	5.865	5.869	5.880	5.887	5.878	5.879				5.624 - 6.124	5.876
Perfluoro-n-octadecanoic acid (PFODA)	+++++	6.267	6.279	6.292	6.290	6.288	6.292				6.031 - 6.531	6.285
13C4 PFBA	2.169	2.165	2.175	2.180	2.175	2.169	2.169				1.922 - 2.422	2.172
13C5-PFPeA	2.555	2.553	2.563	2.568	2.562	2.555	2.555				2.309 - 2.809	2.559
13C2 PFHxA	2.964	2.959	2.965	2.968	2.965	2.964	2.957				2.713 - 3.213	2.963
13C4-PFHpA	3.377	3.375	3.375	3.388	3.380	3.377	3.378				3.128 - 3.628	3.379
18O2 PFHxS	3.377	3.375	3.375	3.388	3.389	3.387	3.378				3.131 - 3.631	3.381
M2-6:2FTS	3.755	3.751	3.752	3.768	3.765	3.762	3.758				3.509 - 4.009	3.759

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
13C4 PFOA	3.775	3.770	3.772	3.790	3.786	3.783	3.779				3.529 - 4.029	3.779
13C4 PFOS	4.141	4.136	4.139	4.152	4.144	4.142	4.135				3.891 - 4.391	4.141
13C5 PFNA	4.161	4.156	4.148	4.163	4.169	4.154	4.160				3.909 - 4.409	4.159
13C8 FOSA	4.485	4.479	4.482	4.487	4.490	4.488	4.483				4.235 - 4.735	4.485
13C2 PFDA	4.496	4.490	4.482	4.499	4.502	4.500	4.495				4.245 - 4.745	4.495
M2-8:2FTS	4.496	4.490	4.493	4.499	4.502	4.500	4.495				4.246 - 4.746	4.496
d3-NMeFOSAA	4.646	4.642	4.645	4.658	4.651	4.649	4.649				4.399 - 4.899	4.649
13C2 PFUnA	4.789	4.792	4.788	4.800	4.800	4.799	4.792				4.544 - 5.044	4.794
d5-NEtFOSAA	4.799	4.792	4.798	4.811	4.800	4.799	4.805				4.551 - 5.051	4.801
d-N-MeFOSA-M	4.943	4.927	4.932	4.939	4.936	4.935	4.932				4.685 - 5.185	4.935
13C2 PFDoA	5.049	5.044	5.048	5.062	5.065	5.062	5.059				4.806 - 5.306	5.056
d-N-EtFOSA-M	5.099	5.094	5.088	5.103	5.100	5.086	5.094				4.845 - 5.345	5.095
13C2-PFTeDA	5.517	5.509	5.516	5.535	5.532	5.529	5.529				5.274 - 5.774	5.524
13C2-PFHxDA	5.862	5.865	5.869	5.880	5.887	5.878	5.879				5.624 - 6.124	5.874

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-169970/3	2017.06.19_PFCICAL_003.d
Level 2	IC 320-169970/4	2017.06.19_PFCICAL_004.d
Level 3	IC 320-169970/5	2017.06.19_PFCICAL_005.d
Level 4	IC 320-169970/6	2017.06.19_PFCICAL_006.d
Level 5	IC 320-169970/7	2017.06.19_PFCICAL_007.d
Level 6	IC 320-169970/8	2017.06.19_PFCICAL_008.d
Level 7	IC 320-169970/9	2017.06.19_PFCICAL_009.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	473381 457271	478433 450496	502854 439772	467159	Ave		467052.169				4.4		50.0			
13C5-PFPeA	331472 330766	347163 318262	373742 300877	336609	Ave		334127.297				6.8		50.0			
13C2 PFHxA	339435 325317	341418 316738	365903 309168	336498	Ave		333496.874				5.6		50.0			
13C4-PFHpA	306110 279707	303159 267974	323361 258093	298956	Ave		291051.643				8.0		50.0			
18O2 PFHxS	342701 317924	338474 308191	352234 285775	335646	Ave		325849.311				7.1		50.0			
M2-6:2FTS	111615 151194	109998 112466	125143 126762	145048	Ave		126032.370				13.1		50.0			
13C4 PFOA	292107 292305	300876 268911	321359 248631	305308	Ave		289928.143				8.3		50.0			
13C4 PFOS	236607 227278	244508 219408	250556 208189	247865	Ave		233487.412				6.8		50.0			
13C5 PFNA	250771 245433	257548 227270	280829 216846	253403	Ave		247442.877				8.4		50.0			
13C8 FOSA	368099 348947	371594 337844	372530 308503	355767	Ave		351897.649				6.5		50.0			
13C2 PFDA	224963 215983	230599 205798	241451 189868	220280	Ave		218420.283				7.7		50.0			
M2-8:2FTS	99539 107863	96802 99040	115832 125416	98757	Ave		106178.619				10.2		50.0			
d3-NMeFOSAA	128111 133938	131221 124809	141747 118010	126995	Ave		129261.591				5.8		50.0			
13C2 PFUnA	177026 165430	186157 155054	188616 146655	177543	Ave		170925.891				9.2		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

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								
d5-NEtFOSAA	130681 121215	140986 118528	150151 93900	130013	Ave		126496.140				14.3		50.0			
d-N-MeFOSA-M	119965 124015	121716 122827	123397 119932	122166	Ave		122002.543				1.3		50.0			
13C2 PFDoA	193384 180002	197359 175133	204220 162967	192688	Ave		186536.140				7.7		50.0			
d-N-EtFOSA-M	117042 116166	120743 116132	120559 101294	118548	Ave		115783.366				5.8		50.0			
13C2-PFTeDA	346815 346964	379772 329178	357880 307915	359466	Ave		346855.683				6.7		50.0			
13C2-PFHxDA	172004 214158	231758 205216	203020 193280	225562	Ave		206428.246				9.8		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

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)	0.8879 0.8782	0.9048 0.7497	0.9675	0.9797	0.9698	AveID		0.9054				8.9		35.0			
Perfluoropentanoic acid (PFPeA)	1.0605 1.0116	1.0429 0.8764	1.0510	1.0865	1.0518	AveID		1.0258				6.8		35.0			
Perfluorobutanesulfonic acid (PFBS)	1.5474 1.5550	1.5752 1.3690	1.7229	1.7126	1.6961	AveID		1.5969				7.9		50.0			
4:2 FTS	0.9236 0.9710	0.9784 0.9167	0.9683	0.8339	0.7835	AveID		0.9108				8.2		35.0			
Perfluorohexanoic acid (PFHxA)	1.0888 0.9931	1.0261 0.8687	1.0549	1.0150	1.0202	AveID		1.0095				6.9		35.0			
Perfluoroheptanoic acid (PFHpA)	1.0910 1.0869	1.0411 0.9353	1.0737	1.0673	1.0965	AveID		1.0560				5.3		35.0			
Perfluorohexanesulfonic acid (PFHxS)	+++++ 1.0879	1.1572 1.0205	1.0769	1.0361	1.0661	AveID		1.0741				4.5		35.0			
6:2FTS	+++++ 0.9068	1.0305 0.8414	1.0245	0.9825	1.0047	AveID		0.9651				7.8		35.0			
Perfluoroheptanesulfonic Acid (PFHpS)	1.1403 1.2091	1.1255 1.1084	1.2678	1.1876	1.3186	AveID		1.1939				6.5		50.0			
Perfluorooctanoic acid (PFOA)	1.1427 1.0398	1.0651 0.9396	1.0790	1.0477	1.0898	AveID		1.0577				5.9		35.0			
Perfluorooctanesulfonic acid (PFOS)	0.9246 1.1079	1.0417 1.0831	1.1278	1.0398	1.1330	AveID		1.0654				6.8		35.0			
Perfluorononanoic acid (PFNA)	1.0510 1.0048	0.9895 0.9208	0.9994	0.9820	1.0361	AveID		0.9977				4.2		35.0			
Perfluorooctane Sulfonamide (FOSA)	0.9415 0.9402	0.9361 0.8485	1.0221	0.9946	0.9781	AveID		0.9516				5.9		35.0			
8:2FTS	1.0039 1.0249	1.0131 0.8108	0.9553	1.0320	1.0076	AveID		0.9782				8.0		35.0			
Perfluorodecanoic acid (PFDA)	0.9360 0.9432	0.9032 0.9170	0.9587	0.9240	0.9713	AveID		0.9362				2.5		35.0			
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	0.9557 1.1077	0.9761 1.0325	1.0185	1.0703	1.0261	AveID		1.0267				5.1		35.0			
Perfluorodecanesulfonic acid (PFDS)	0.6296 0.6553	0.6342 0.5945	0.6603	0.6391	0.6999	AveID		0.6447				5.0		50.0			
Perfluoroundecanoic acid (PFUnA)	+++++ 1.0005	1.0901 0.9450	1.0370	0.9964	1.0488	AveID		1.0196				4.9		35.0			
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	+++++ 0.9461	0.8319 1.0074	0.9017	0.9736	0.9799	AveID		0.9401				6.8		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

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								
MeFOSA	0.9294 0.9954	0.9422 0.9165	0.9710	1.0084	1.0175	AveID		0.9686				4.1		35.0			
Perfluorododecanoic acid (PFDoA)	1.0114 0.9620	0.9637 0.9118	0.9718	0.9234	0.9699	AveID		0.9591				3.4		35.0			
N-EtFOSA-M	0.8896 1.0431	0.9453 1.0287	1.0192	1.0591	1.0686	AveID		1.0077				6.5		35.0			
Perfluorotridecanoic Acid (PFTriA)	0.9456 0.9868	0.9866 0.9409	0.9835	1.0027	1.0449	AveID		0.9844				3.6		50.0			
Perfluorotetradecanoic acid (PFTeA)	2.2918 1.9583	2.1586 +++++	2.0179	2.1286	2.1887	L2ID	0.1074	2.0653							0.9980		0.9900
Perfluoro-n-hexadecanoic acid (PFHxDA)	+++++ 1.0308	1.7337 0.9302	0.9949	1.0601	1.0496	L2ID	0.7364	0.9755							0.9940		0.9900
Perfluoro-n-octadecanoic acid (PFODA)	+++++ 0.9855	0.9900 0.8275	0.8807	1.0370	1.0333	L2ID	0.0265	0.9533							0.9910		0.9900

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-169970/3	2017.06.19_PFCICAL_003.d
Level 2	IC 320-169970/4	2017.06.19_PFCICAL_004.d
Level 3	IC 320-169970/5	2017.06.19_PFCICAL_005.d
Level 4	IC 320-169970/6	2017.06.19_PFCICAL_006.d
Level 5	IC 320-169970/7	2017.06.19_PFCICAL_007.d
Level 6	IC 320-169970/8	2017.06.19_PFCICAL_008.d
Level 7	IC 320-169970/9	2017.06.19_PFCICAL_009.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	23669040 22524779	23921639 21988578	25142719	23357961	22863543	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C5-PFPeA	Ave	16573624 15913120	17358125 15043831	18687112	16830467	16538275	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFHxA	Ave	16971739 15836917	17070919 15458409	18295156	16824899	16265867	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C4-PFHpA	Ave	15305523 13398721	15157934 12904662	16168074	14947811	13985350	50.0 50.0	50.0 50.0	50.0	50.0	50.0
18O2 PFHxS	Ave	16209749 14577442	16009813 13517148	16660666	15876065	15037824	47.3 47.3	47.3 47.3	47.3	47.3	47.3
M2-6:2FTS	Ave	5301730 5342146	5224899 6021199	5944309	6889773	7181707	47.5 47.5	47.5 47.5	47.5	47.5	47.5
13C4 PFOA	Ave	14605365 13445532	15043813 12431548	16067963	15265378	14615251	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C4 PFOS	Ave	11309815 10487694	11687502 9951444	11976594	11847967	10863872	47.8 47.8	47.8 47.8	47.8	47.8	47.8
13C5 PFNA	Ave	12538566 11363509	12877394 10842301	14041448	12670129	12271660	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C8 FOSA	Ave	18404974 16892202	18579680 15425148	18626492	17788334	17447347	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFDA	Ave	11248171 10289884	11529967 9493410	12072530	11013985	10799152	50.0 50.0	50.0 50.0	50.0	50.0	50.0
M2-8:2FTS	Ave	4767932 4744020	4636837 6007428	5548364	4730474	5166636	47.9 47.9	47.9 47.9	47.9	47.9	47.9
d3-NMeFOSAA	Ave	6405550 6240431	6561068 5900519	7087335	6349743	6696911	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFUnA	Ave	8851307 7752697	9307846 7332739	9430823	8877139	8271511	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d5-NEtFOSAA	Ave	6534029 5926407	7049289 4694975	7507561	6500630	6060758	50.0 50.0	50.0 50.0	50.0	50.0	50.0

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

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
d-N-MeFOSA-M	Ave	5998247 6141356	6085803 5996584	6169850	6108298	6200752	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFDoA	Ave	9669208 8756658	9867940 8148345	10211013	9634401	9000084	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d-N-EtFOSA-M	Ave	5852094 5806581	6037164 5064685	6027958	5927416	5808280	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2-PFTeDA	Ave	17340770 16458893	18988620 15395744	17893990	17973275	17348197	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2-PFHxDA	Ave	8600219 10260801	11587876 9664008	10150987	11278119	10707876	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:
Ave = Average

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-169970/3	2017.06.19_PFCICAL_003.d
Level 2	IC 320-169970/4	2017.06.19_PFCICAL_004.d
Level 3	IC 320-169970/5	2017.06.19_PFCICAL_005.d
Level 4	IC 320-169970/6	2017.06.19_PFCICAL_006.d
Level 5	IC 320-169970/7	2017.06.19_PFCICAL_007.d
Level 6	IC 320-169970/8	2017.06.19_PFCICAL_008.d
Level 7	IC 320-169970/9	2017.06.19_PFCICAL_009.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	210151 39561904	432897 65943606	2432565	9153133	22172989	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoropentanoic acid (PFPeA)		AveID	175755 32196861	362072 52739286	1964084	7314332	17394669	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorobutanesulfonic acid (PFBS)		AveID	234385 42363510	471319 69169988	2682276	10162744	23834731	0.442 88.4	0.884 177	4.42	17.7	44.2
4:2 FTS		AveID	48140 10199650	100517 21706925	565911	2259388	5532265	0.467 93.4	0.934 187	4.67	18.7	46.7
Perfluorohexanoic acid (PFHxA)		AveID	184782 31454343	350337 53716336	1929866	6831179	16595020	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoroheptanoic acid (PFHpA)		AveID	166976 29126874	315633 48277529	1735942	6381773	15335591	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorohexanesulfonic acid (PFHxS)		AveID	+++++ 30511050	356420 53076547	1725971	6329580	15421542	+++++ 91.0	0.910 182	4.55	18.2	45.5
6:2FTS		AveID	+++++ 9667674	107460 20222960	607691	2701905	7200300	+++++ 94.8	0.948 190	4.74	19.0	47.4
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	128425 25255460	261988 43936485	1511989	5604919	14265381	0.476 95.2	0.952 190	4.76	19.0	47.6
Perfluorooctanoic acid (PFOA)		AveID	166901 27960996	320458 46723107	1733696	6397112	15927084	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorooctanesulfonic acid (PFOS)		AveID	101503 22558235	236367 41852276	1311128	4783521	11947820	0.464 92.8	0.928 186	4.64	18.6	46.4
Perfluorononanoic acid (PFNA)		AveID	131784 22837006	254849 39936344	1403315	4976811	12714221	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorooctane Sulfonamide (FOSA)		AveID	173289 31765304	347841 52355541	1903866	7076582	17064519	0.500 100	1.00 200	5.00	20.0	50.0
8:2FTS		AveID	47863 9724218	93952 19482688	530013	1952759	5205944	0.479 95.8	0.958 192	4.79	19.2	47.9
Perfluorodecanoic acid (PFDA)		AveID	105281 19410846	208277 34820717	1157425	4070711	10489079	0.500 100	1.00 200	5.00	20.0	50.0

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 169970

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2017 23:23 Calibration End Date: 06/20/2017 00:17 Calibration ID: 31802

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
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)		AveID	61216 13824887	128091 24370242	721870	2718401	6871508	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorodecanesulfonic acid (PFDS)		AveID	71804 13859454	149477 23863821	797454	3054379	7667549	0.482 96.4	0.964 193	4.82	19.3	48.2
Perfluoroundecanoic acid (PFUnA)		AveID	+++++ 15513832	202922 27717195	977948	3538230	8675068	+++++ 100	1.00 200	5.00	20.0	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)		AveID	+++++ 11213767	117288 18918683	676931	2531554	5938860	+++++ 100	1.00 200	5.00	20.0	50.0
MeFOSA		AveID	55750 12225681	114682 21984106	599114	2463750	6309087	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorododecanoic acid (PFDoA)		AveID	97799 16847229	190189 29718205	992269	3558527	8728975	0.500 100	1.00 200	5.00	20.0	50.0
N-EtFOSA-M		AveID	52062 12114054	114138 20839715	614366	2511159	6206959	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorotridecanoic Acid (PFTriA)		AveID	91433 17282290	194719 30667214	1004250	3864199	9404371	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorotetradecanoic acid (PFTeA)		L2ID	221600 34295702	426012 +++++	2060489	8202945	19698099	0.500 100	1.00 +++++	5.00	20.0	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)		L2ID	+++++ 18053591	342154 30319791	1015898	4085271	9446101	+++++ 100	1.00 200	5.00	20.0	50.0
Perfluoro-n-octadecanoic acid (PFODA)		L2ID	+++++ 17259979	195386 26972119	899284	3996444	9299461	+++++ 100	1.00 200	5.00	20.0	50.0

Curve Type Legend:

AveID = Average isotope dilution
L2ID = Linear 1/conc^2 IsoDil

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_003.d
Lims ID: IC L1 Full
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 19-Jun-2017 23:23:33 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L1-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:30 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 00:44:54

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.169	2.172	-0.003		23669040	50.7		101	84410	
2 Perfluorobutyric acid										M
212.90 > 169.00	2.179	2.176	0.003	1.000	210151	0.4903		98.1	91.8	M
D 3 13C5-PFPeA										
267.90 > 223.00	2.555	2.559	-0.004		16573624	49.6		99.2	130516	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.566	2.562	0.004	1.000	175755	0.5169		103	108	M
D 47 13C3-PFBS										
301.90 > 83.00	2.597	2.597	0.0		346876	NC			10955	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.597	2.605	-0.008	1.000	234385	0.4283		96.9	135	
298.90 > 99.00	2.597	2.605	-0.008	1.000	93118		2.52(0.00-0.00)	96.9	109	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.916	2.917	-0.001	1.000	48140	0.4736		101	2325	
6 Perfluorohexanoic acid										M
313.00 > 269.00	2.964	2.963	0.001	1.000	184782	0.5392		108	273	M
D 7 13C2 PFHxA										
315.00 > 270.00	2.964	2.963	0.001		16971739	50.9		102	155854	
D 9 13C4-PFHpA										
367.00 > 322.00	3.377	3.378	-0.001		15305523	52.6		105	111704	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.377	3.380	-0.003	1.000	203234	0.5521		121	126	M
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.377	3.380	-0.003	1.000	166976	0.5166		103	186	
D 11 18O2 PFHxS										
403.00 > 84.00	3.377	3.381	-0.004		16209749	49.7		105	199202	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.755	3.759	-0.004		5301730	42.1		88.6	17717	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.755	3.760	-0.005	1.000	67911	0.6305		133	257	
* 62 13C2-PFOA										
415.00 > 370.00	3.764	3.771	-0.007		15229098	50.0			66081	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.764	3.772	-0.008	1.000	128425	0.4546		95.5	1941	
D 14 13C4 PFOA										
417.00 > 372.00	3.775	3.779	-0.004		14605365	50.4		101	90886	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.775	3.779	-0.004	1.000	166901	0.5402		108	34.3	
413.00 > 169.00	3.775	3.779	-0.004	1.000	90854		1.84(0.90-1.10)	108	225	
D 18 13C4 PFOS										
503.00 > 80.00	4.141	4.141	0.0		11309815	48.4		101	92476	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.141	4.141	0.0	1.000	101503	0.4027		86.8	379	
499.00 > 99.00	4.141	4.141	0.0	1.000	20993		4.84(0.90-1.10)	86.8	208	
20 Perfluorononanoic acid										
463.00 > 419.00	4.151	4.157	-0.006	1.000	131784	0.5267		105	220	
D 19 13C5 PFNA										
468.00 > 423.00	4.161	4.159	0.002		12538566	50.7		101	108212	
D 21 13C8 FOSA										
506.00 > 78.00	4.485	4.485	0.0		18404974	52.3		105	47515	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.485	4.487	-0.002	1.000	173289	0.4947		98.9	2958	
D 23 13C2 PFDA										
515.00 > 470.00	4.496	4.495	0.001		11248171	51.5		103	8975	
D 26 M2-8:2FTS										
529.00 > 509.00	4.496	4.496	0.0		4767932	44.9		93.7	21764	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.496	4.496	0.0	1.000	105281	0.4999		100.0	28.6	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.496	4.496	0.0	1.000	47863	0.4916		103	1641	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.646	4.649	-0.003		6405550	49.6		99.1	9711	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.655	4.653	0.002	1.002	61216	0.4654		93.1	2107	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.768	4.768	0.0	1.000	71804	0.4707		97.7	1758	
D 30 13C2 PFUnA										
565.00 > 520.00	4.789	4.794	-0.005		8851307	51.8		104	10536	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.789	4.794	-0.005	1.000	110029	0.6096		122	379	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.799	4.801	-0.002		6534029	51.7		103	30380	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.799	4.807	-0.008	1.000	53767	0.4377		87.5	1106	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.943	4.935	0.008		5998247	49.2		98.3	226	
35 MeFOSA										
512.00 > 169.00	4.943	4.939	0.004	1.000	55750	0.4798		96.0	883	
D 36 13C2 PFDoA										
615.00 > 570.00	5.049	5.056	-0.007		9669208	51.8		104	24564	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.049	5.057	-0.008	1.000	97799	0.5273		105	18.0	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.099	5.095	0.004		5852094	50.5		101	1886	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.099	5.103	-0.004	1.000	52062	0.4414		88.3	639	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.293	5.298	-0.005	1.000	91433	0.4803		96.1	23.6	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.517	5.524	-0.007		17340770	50.0		100.0	13764	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.517	5.524	-0.007	1.000	221600	0.5029		101	13.4	
713.00 > 169.00	5.506	5.524	-0.018	0.998	31511		7.03(0.00-0.00)	101	300	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.862	5.874	-0.012	1.000	186425	0.2333		46.7	27.8	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.862	5.874	-0.012		8600219	41.7		83.3	4892	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.260	6.281	-0.021	1.000	44573	0.2140		42.8	4.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L1_00004 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:31 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_003.d

Injection Date: 19-Jun-2017 23:23:33 Instrument ID: A8_N

Lims ID: IC L1 Full

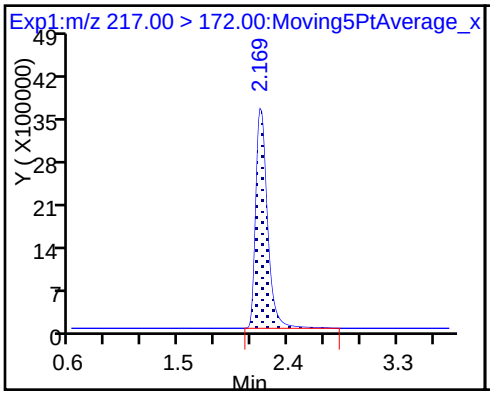
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3

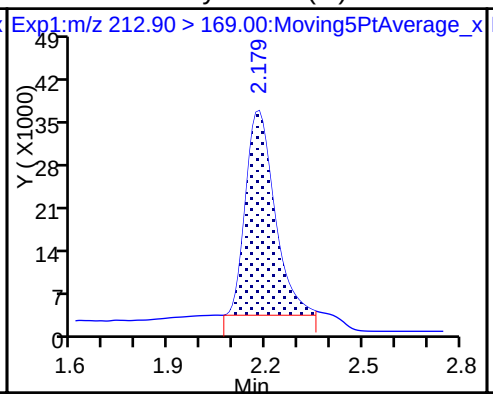
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

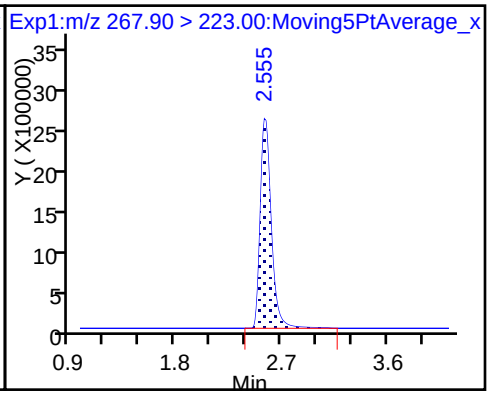
D 1 13C4 PFBA



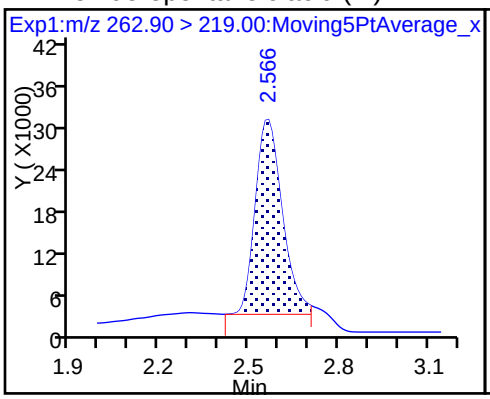
2 Perfluorobutyric acid (M)



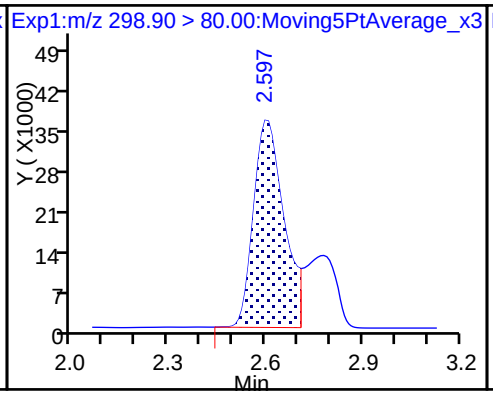
D 3 13C5-PFPeA



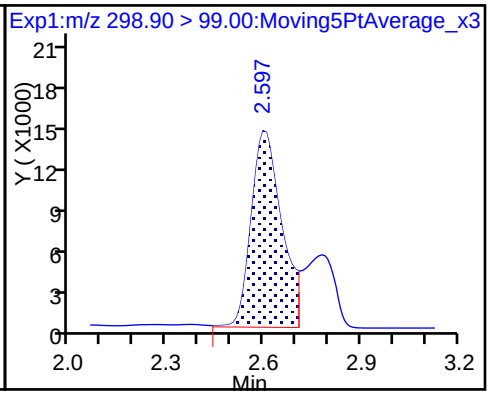
4 Perfluoropentanoic acid (M)



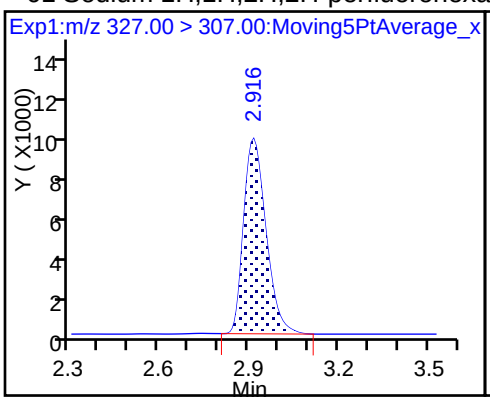
5 Perfluorobutanesulfonic acid



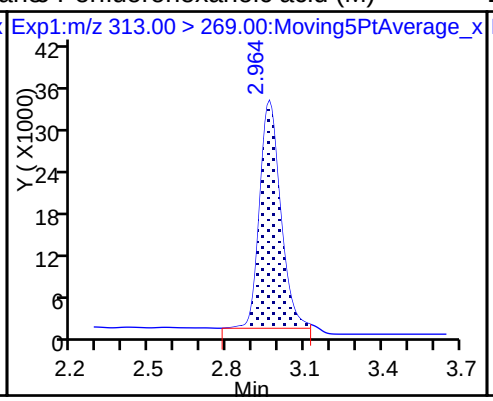
5 Perfluorobutanesulfonic acid



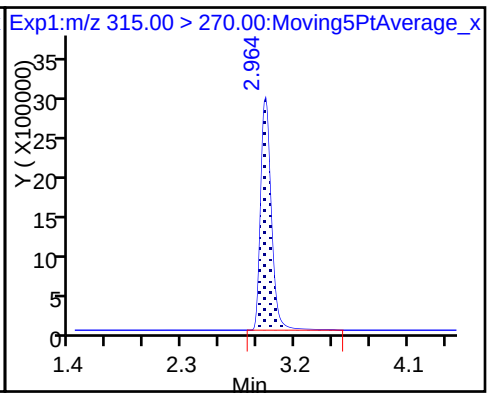
61 Sodium 1H,1H,2H,2H-perfluorohexane



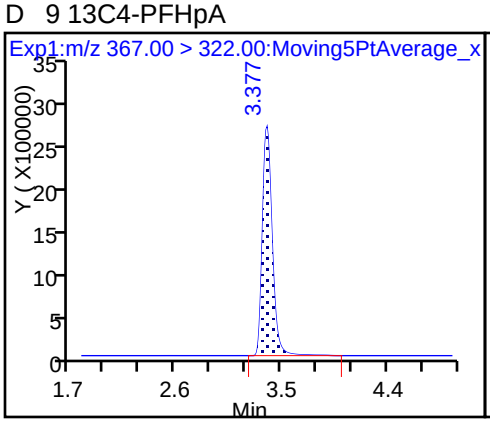
6 Perfluorohexanoic acid (M)



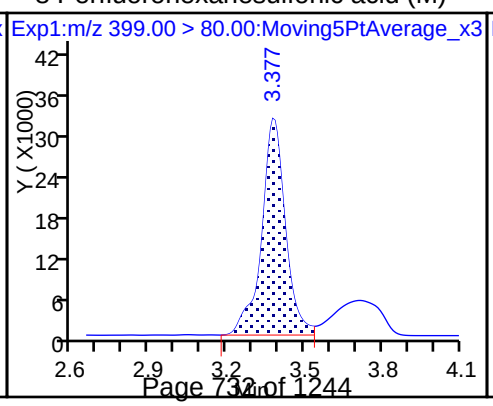
D 7 13C2 PFHxA



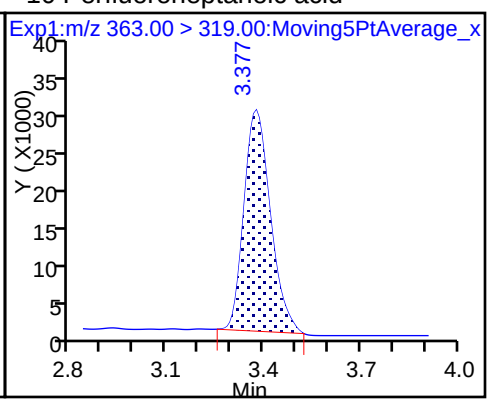
D 9 13C4-PFHpA



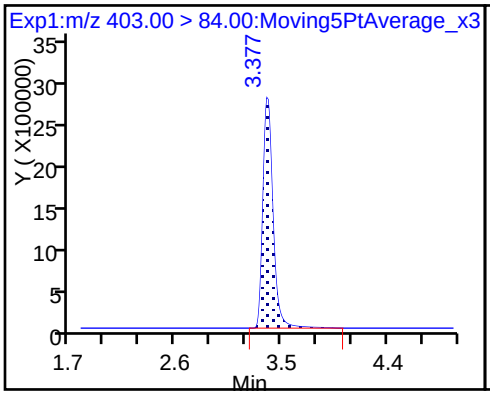
8 Perfluorohexanesulfonic acid (M)



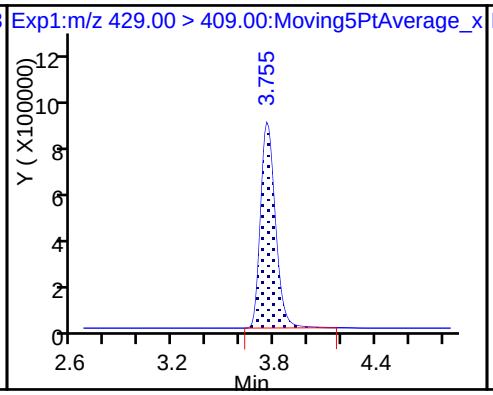
10 Perfluoroheptanoic acid



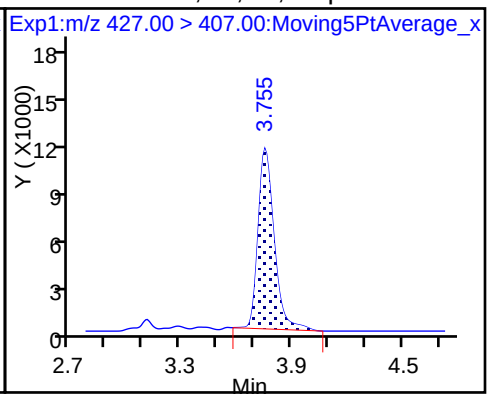
D 11 18O2 PFHxS



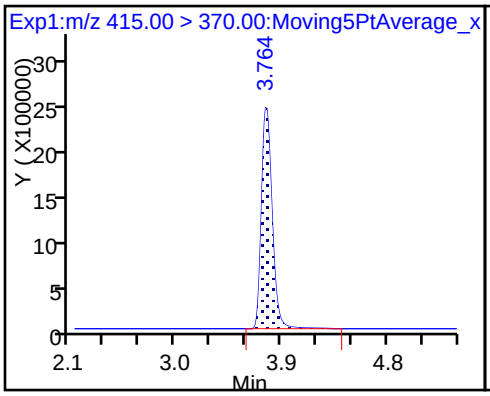
D 12 M2-6:2FTS



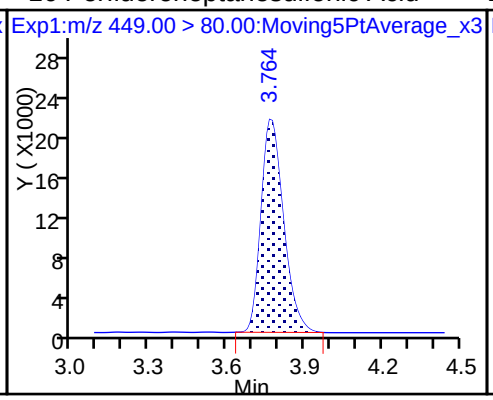
13 Sodium 1H,1H,2H,2H-perfluorooctane



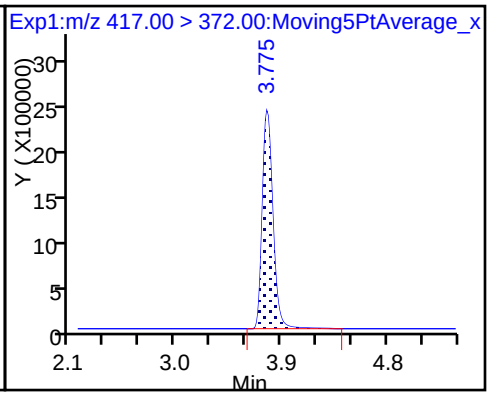
* 62 13C2-PFOA



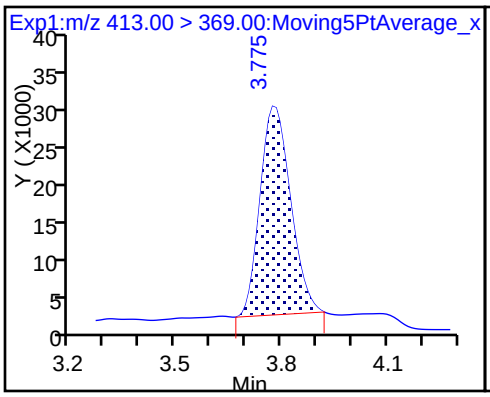
16 Perfluoroheptanesulfonic Acid



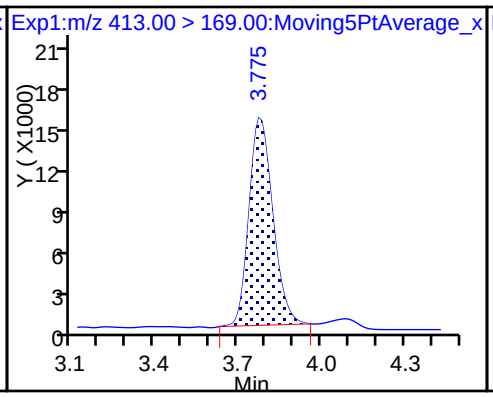
D 14 13C4 PFOA



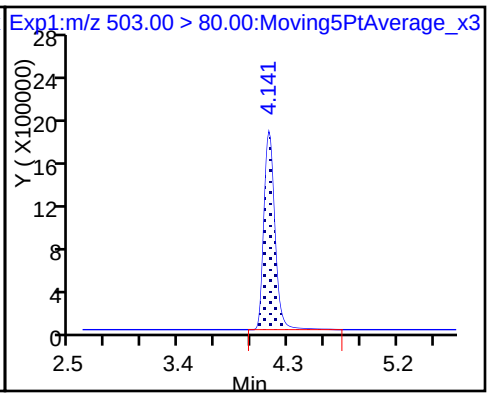
15 Perfluorooctanoic acid



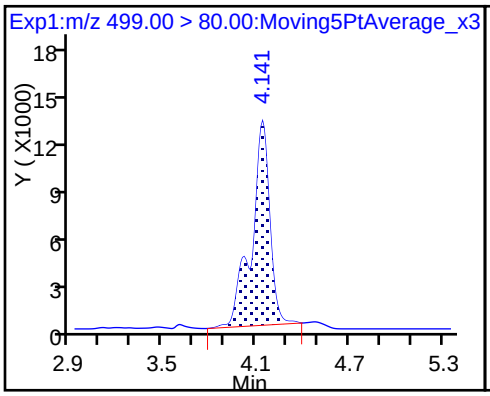
15 Perfluorooctanoic acid



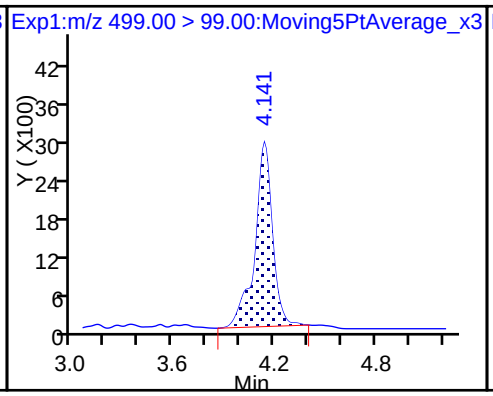
D 18 13C4 PFOS



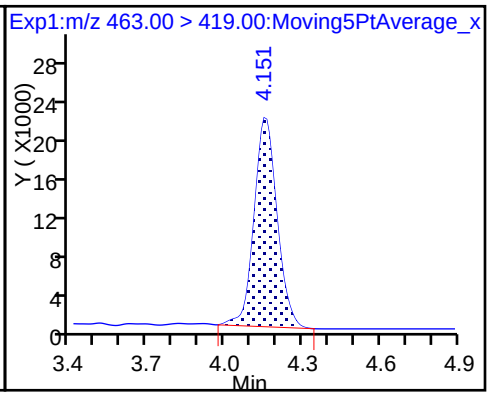
17 Perfluorooctane sulfonic acid



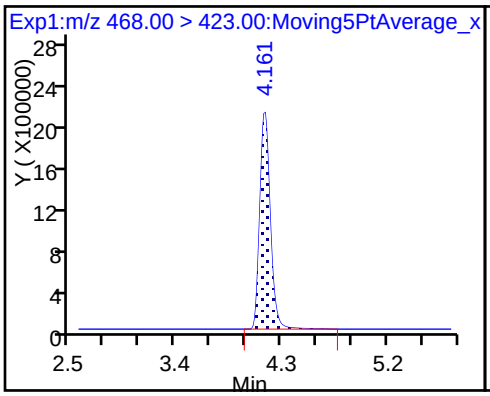
17 Perfluorooctane sulfonic acid



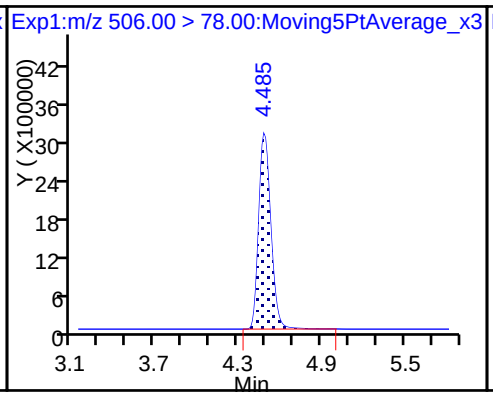
20 Perfluorononanoic acid



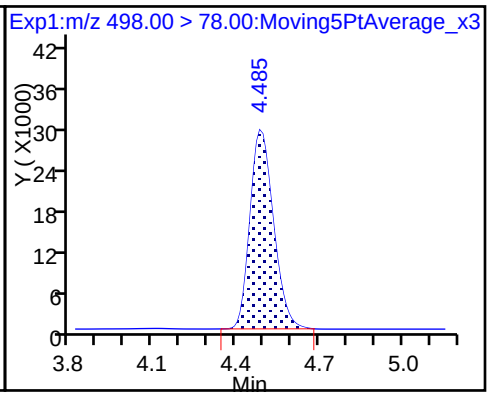
D 19 13C5 PFNA



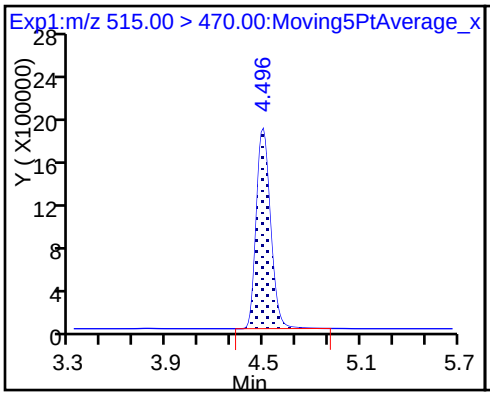
D 21 13C8 FOSA



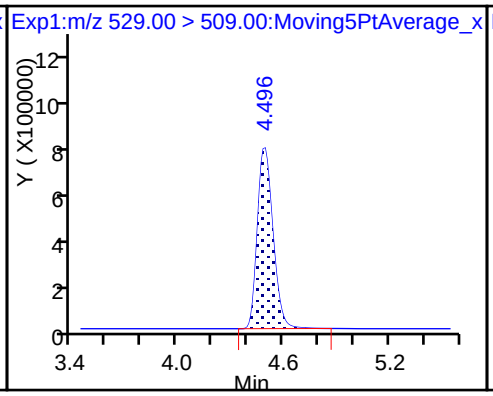
22 Perfluorooctane Sulfonamide



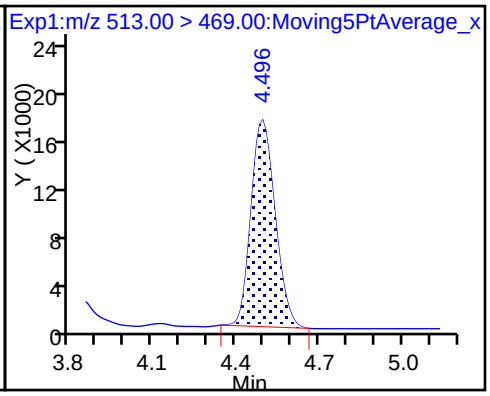
D 23 13C2 PFDA



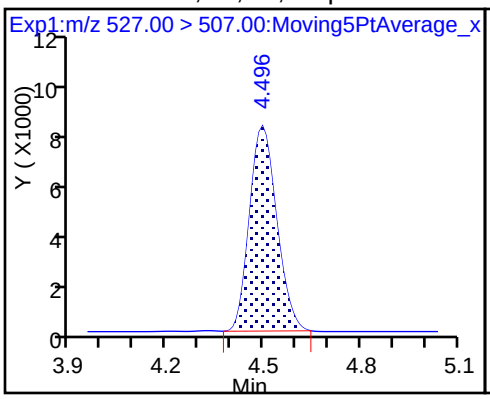
D 26 M2-8:2FTS



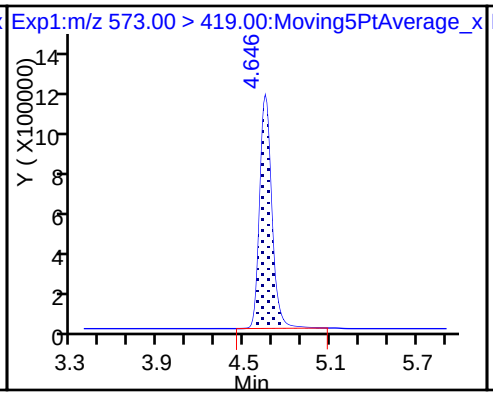
24 Perfluorodecanoic acid



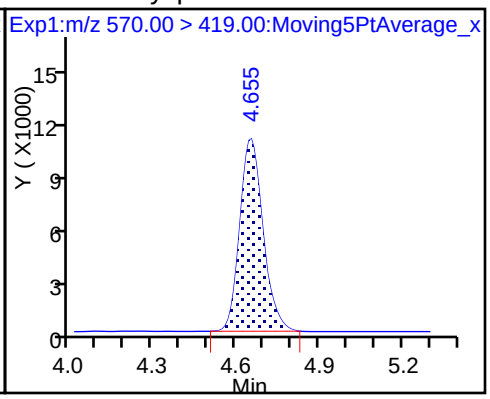
25 Sodium 1H,1H,2H,2H-perfluorodecane



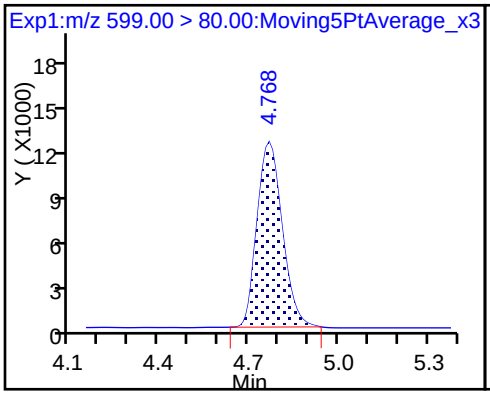
D 27 d3-NMeFOSAA



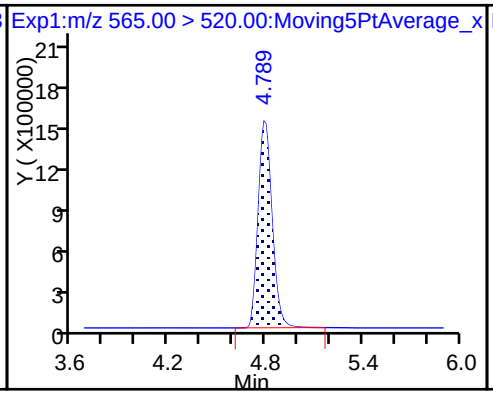
28 N-methyl perfluorooctane sulfonami



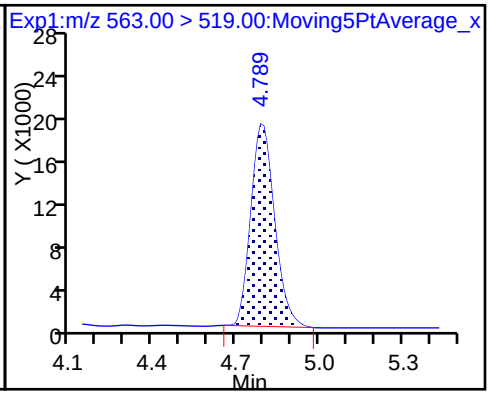
29 Perfluorodecane Sulfonic acid



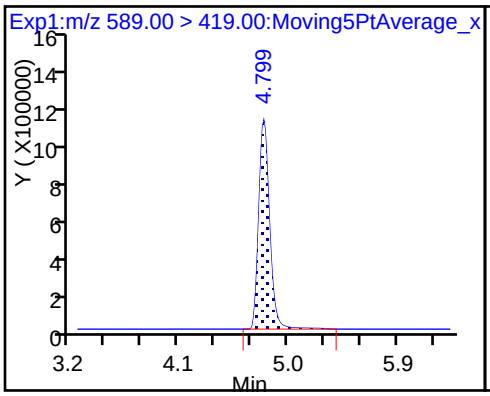
D 30 13C2 PFUnA



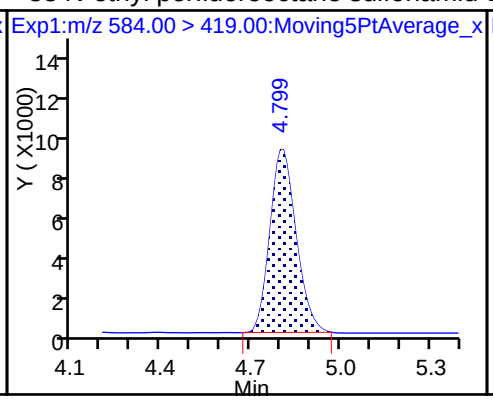
31 Perfluoroundecanoic acid



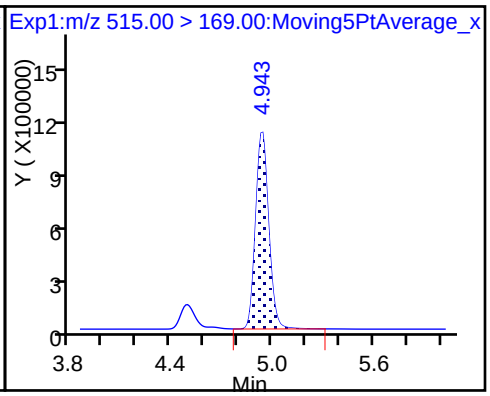
D 32 d5-NEtFOSAA



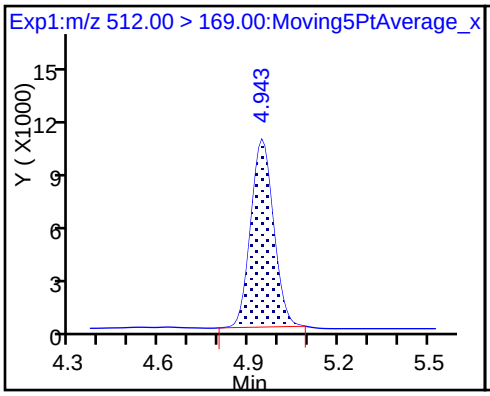
33 N-ethyl perfluorooctane sulfonamid



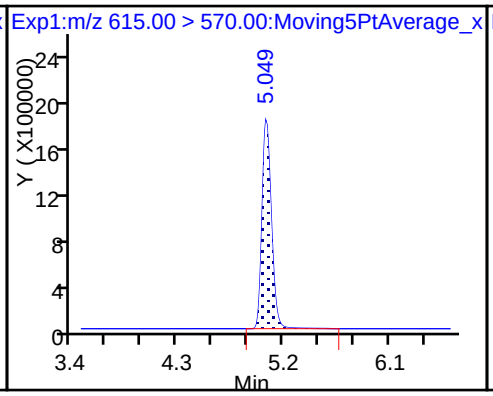
D 34 d-N-MeFOSA-M



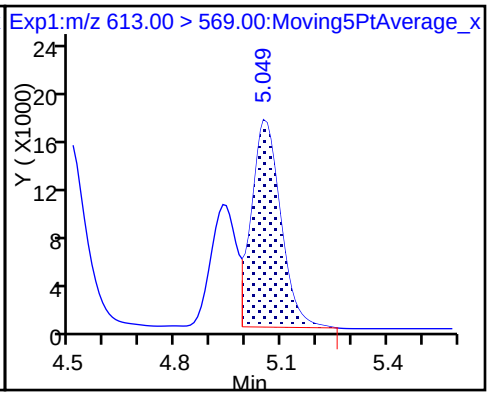
35 MeFOSA



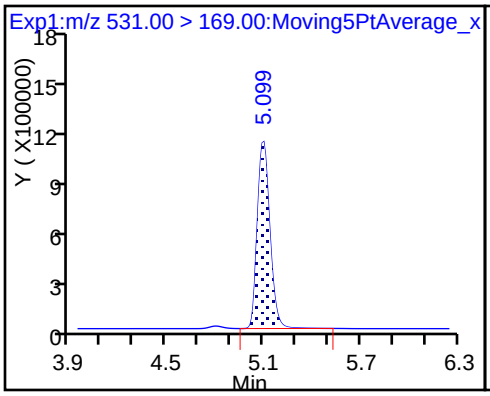
D 36 13C2 PFDoA



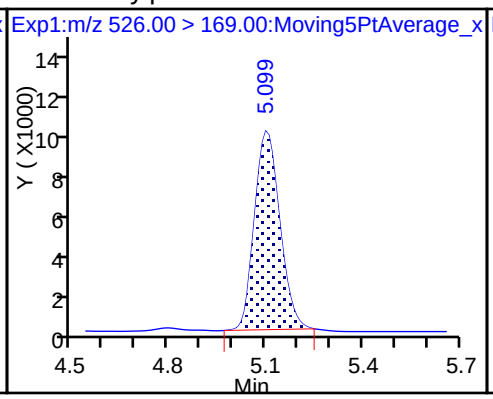
37 Perfluorododecanoic acid



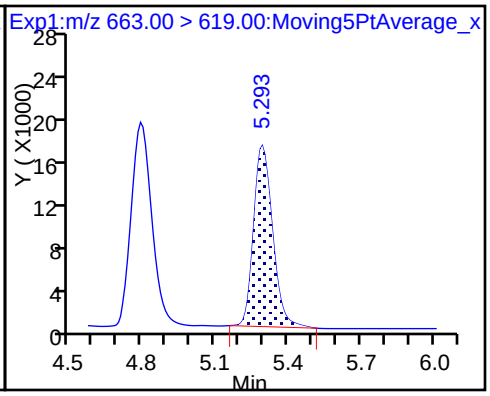
D 38 d-N-EtFOSA-M



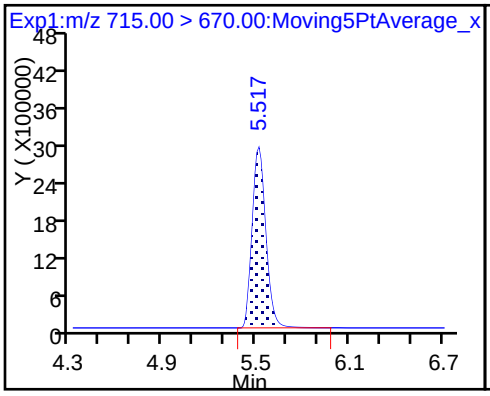
39 N-ethylperfluoro-1-octanesulfonami



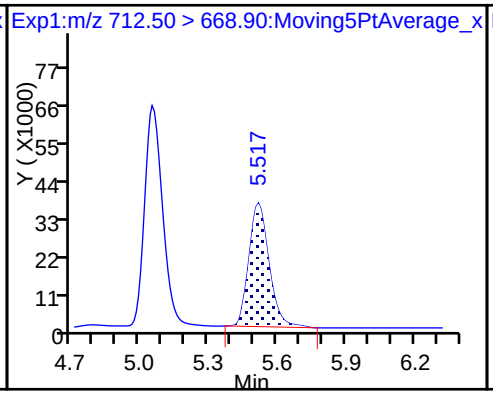
41 Perfluorotridecanoic acid



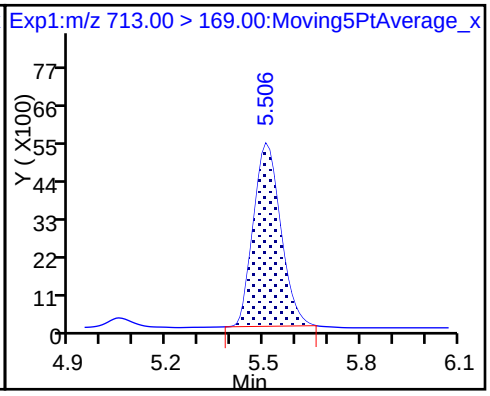
D 43 13C2-PFTeDA



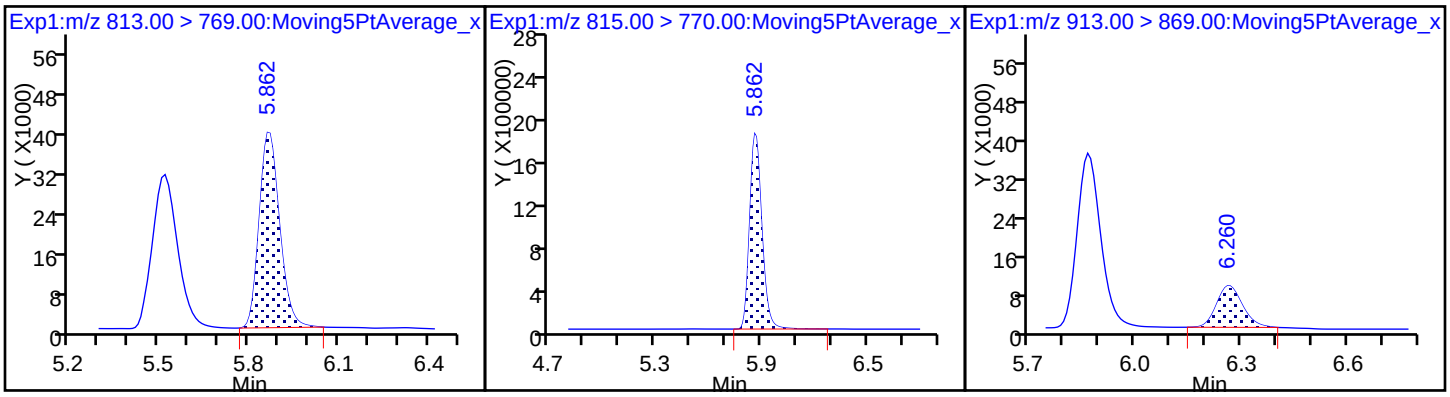
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

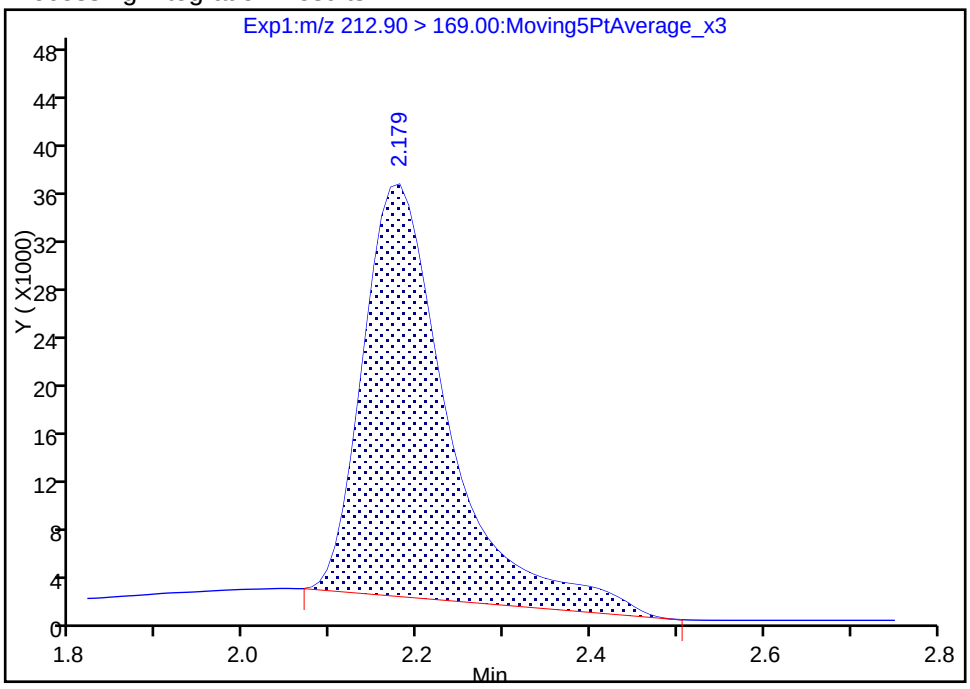
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_003.d
Injection Date: 19-Jun-2017 23:23:33 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

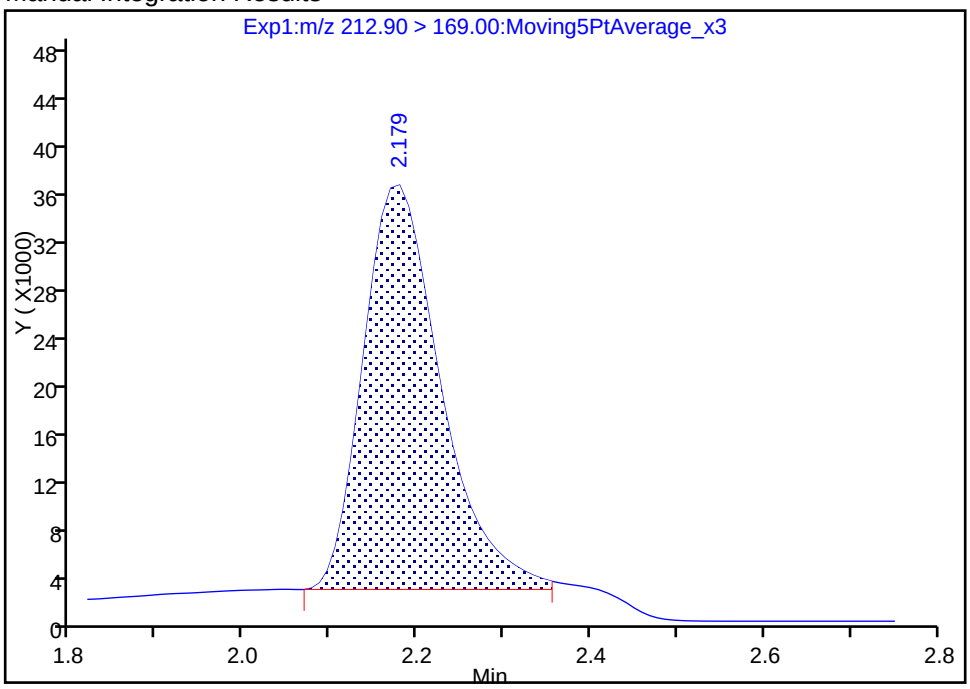
Processing Integration Results

RT: 2.18
Area: 236429
Amount: 0.537308
Amount Units: ng/ml



Manual Integration Results

RT: 2.18
Area: 210151
Amount: 0.490337
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:45:34
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

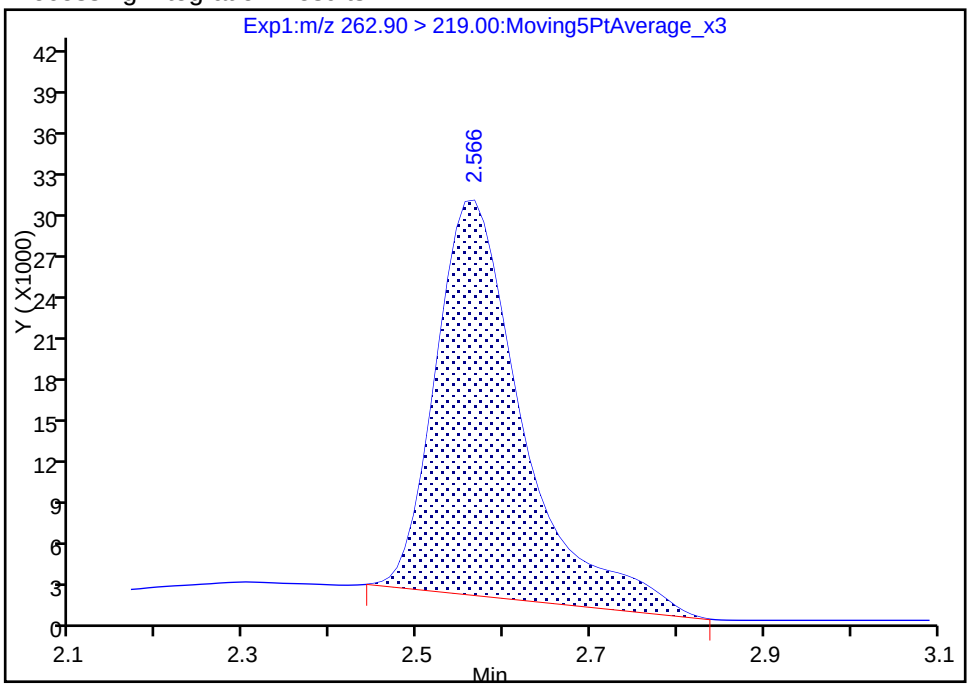
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_003.d
Injection Date: 19-Jun-2017 23:23:33 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

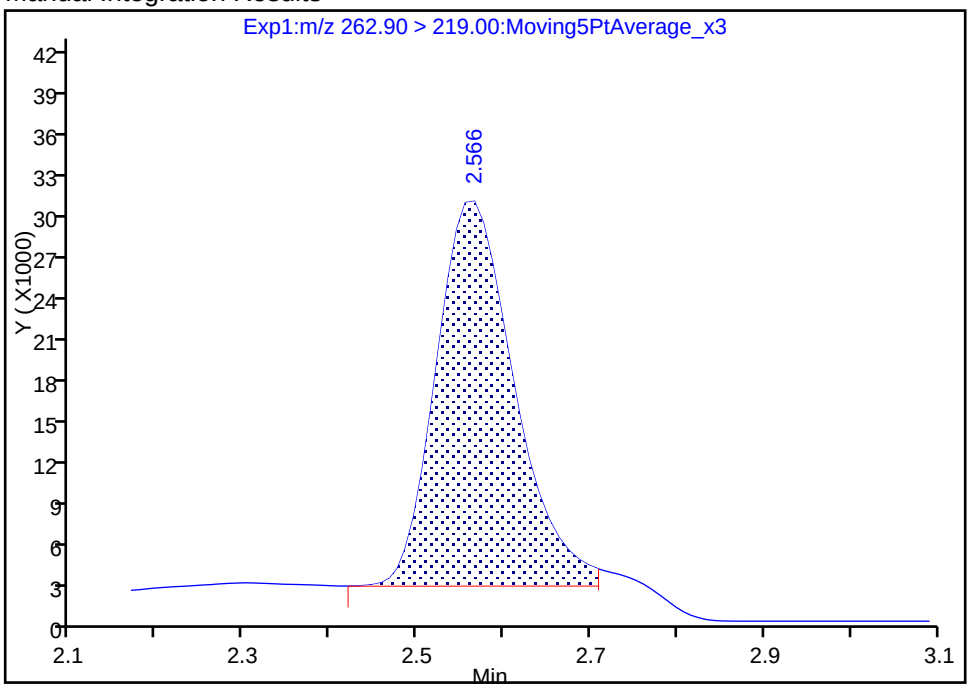
Processing Integration Results

RT: 2.57
Area: 200697
Amount: 0.572508
Amount Units: ng/ml



Manual Integration Results

RT: 2.57
Area: 175755
Amount: 0.516878
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:46:04
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

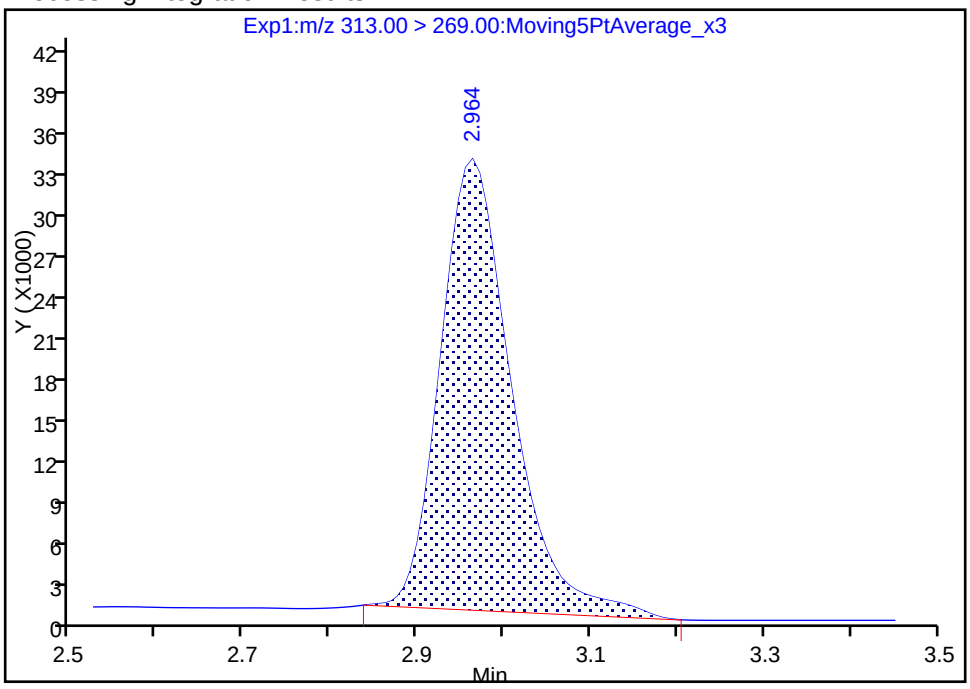
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_003.d
Injection Date: 19-Jun-2017 23:23:33 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

6 Perfluorohexanoic acid, CAS: 307-24-4

Signal: 1

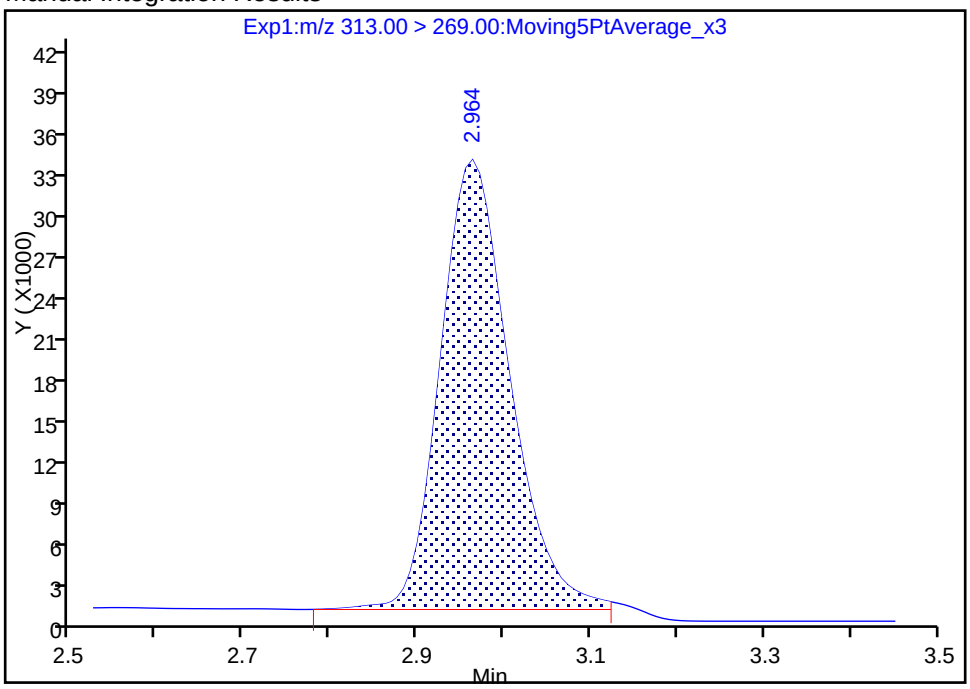
Processing Integration Results

RT: 2.96
Area: 189925
Amount: 0.551877
Amount Units: ng/ml



Manual Integration Results

RT: 2.96
Area: 184782
Amount: 0.539235
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:47:09
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

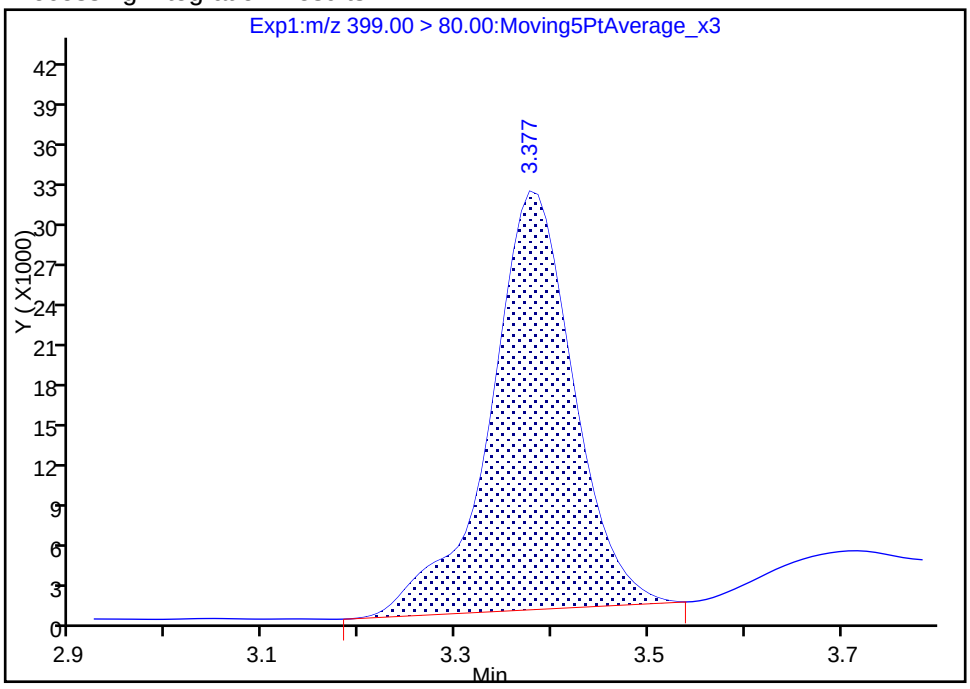
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_003.d
Injection Date: 19-Jun-2017 23:23:33 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

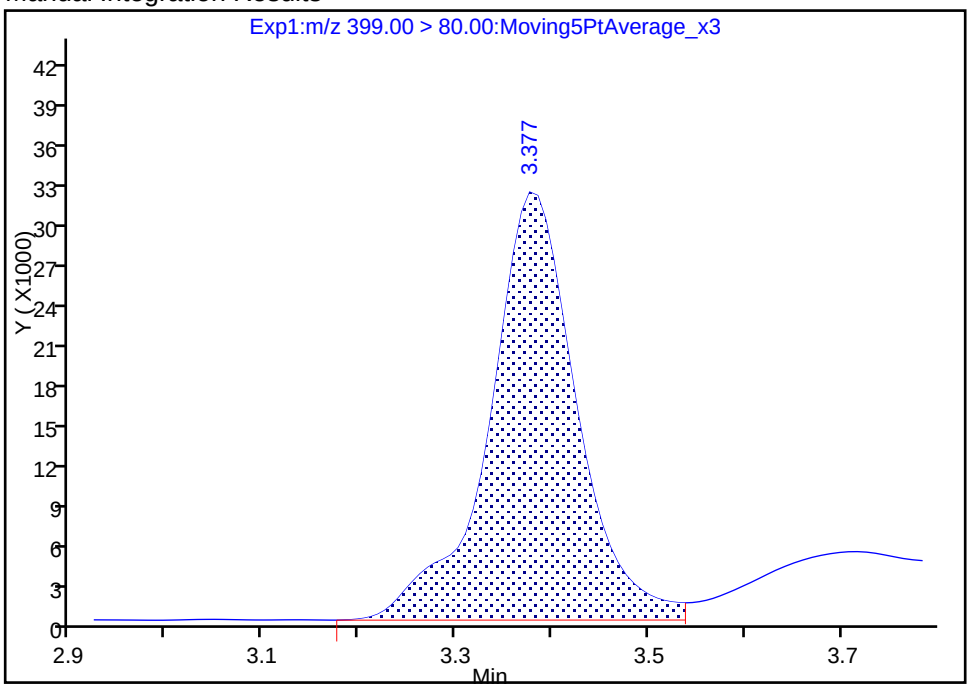
Processing Integration Results

RT: 3.38
Area: 189538
Amount: 0.520579
Amount Units: ng/ml



Manual Integration Results

RT: 3.38
Area: 203234
Amount: 0.552112
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:46:53
Audit Action: Manually Integrated Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_004.d
Lims ID: IC L2 Full
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 19-Jun-2017 23:31:15 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L2-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:33 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 01:06:54

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.165	2.172	-0.007		23921639	51.2		102	118298	
2 Perfluorobutyric acid										M
212.90 > 169.00	2.175	2.176	-0.001	1.000	432897	1.00		99.9	199	M
D 3 13C5-PFPeA										
267.90 > 223.00	2.553	2.559	-0.006		17358125	52.0		104	182987	
4 Perfluoropentanoic acid										M
262.90 > 219.00	2.563	2.562	0.001	1.000	362072	1.02		102	240	M
D 47 13C3-PFBS										
301.90 > 83.00	2.595	2.597	-0.002		371374	NC			9830	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.605	2.605	0.0	1.000	471319	0.8720		98.6	89.3	
298.90 > 99.00	2.595	2.605	-0.010	0.996	194642		2.42(0.00-0.00)	98.6	240	M
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.915	2.917	-0.002	1.000	100517	1.00		107	5984	
D 7 13C2 PFHxA										
315.00 > 270.00	2.959	2.963	-0.004		17070919	51.2		102	209465	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.959	2.963	-0.004	1.000	350337	1.02		102	495	
D 9 13C4-PFHpA										
367.00 > 322.00	3.375	3.378	-0.003		15157934	52.1		104	131459	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.375	3.380	-0.005	1.000	315633	0.9860		98.6	378	
8 Perfluorohexanesulfonic acid										M
399.00 > 80.00	3.375	3.380	-0.005	1.000	356420	0.9804		108	215	M
D 11 18O2 PFHxS										
403.00 > 84.00	3.375	3.381	-0.006		16009813	49.1		104	249377	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.751	3.759	-0.008		5224899	41.5		87.3	22569	
13 Sodium 1H,1H,2H,2H-perfluorooctane										M
427.00 > 407.00	3.760	3.760	0.0	1.000	107460	1.01		107	374	M
* 62 13C2-PFOA										
415.00 > 370.00	3.770	3.771	-0.001		15499559	50.0			87292	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.770	3.772	-0.002	1.000	261988	0.8975		94.3	3344	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.770	3.779	-0.009	1.000	320458	1.01		101	66.6	
413.00 > 169.00	3.770	3.779	-0.009	1.000	174337		1.84(0.90-1.10)	101	438	
D 14 13C4 PFOA										
417.00 > 372.00	3.770	3.779	-0.009		15043813	51.9		104	117255	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.136	4.141	-0.005	1.000	236367	0.9074		97.8	2192	
499.00 > 99.00	4.136	4.141	-0.005	1.000	50443		4.69(0.90-1.10)	97.8	575	
D 18 13C4 PFOS										
503.00 > 80.00	4.136	4.141	-0.005		11687502	50.1		105	101512	
20 Perfluorononanoic acid										
463.00 > 419.00	4.156	4.157	-0.001	1.000	254849	0.99		99.2	411	
D 19 13C5 PFNA										
468.00 > 423.00	4.156	4.159	-0.003		12877394	52.0		104	123734	
D 21 13C8 FOSA										
506.00 > 78.00	4.479	4.485	-0.006		18579680	52.8		106	24352	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.479	4.487	-0.008	1.000	347841	0.9837		98.4	6500	
D 23 13C2 PFDA										
515.00 > 470.00	4.490	4.495	-0.005		11529967	52.8		106	11473	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.490	4.496	-0.006	1.000	93952	0.99		104	2669	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.490	4.496	-0.006	1.000	208277	0.9648		96.5	53.8	
D 26 M2-8:2FTS										
529.00 > 509.00	4.490	4.496	-0.006		4636837	43.7		91.2	14153	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.642	4.649	-0.007		6561068	50.8		102	19426	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.650	4.653	-0.003	1.002	128091	0.9508		95.1	4541	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.761	4.768	-0.007	1.000	149477	0.9482		98.4	4307	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.792	4.794	-0.002	1.000	202922	1.07		107	696	
D 30 13C2 PFUnA										
565.00 > 520.00	4.792	4.794	-0.002		9307846	54.5		109	12054	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.792	4.801	-0.009		7049289	55.7		111	28908	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.802	4.807	-0.005	1.002	117288	0.8849		88.5	2230	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.927	4.935	-0.008		6085803	49.9		99.8	225	
35 MeFOSA										
512.00 > 169.00	4.937	4.939	-0.002	1.000	114682	0.9727		97.3	1251	
D 36 13C2 PFDoA										
615.00 > 570.00	5.044	5.056	-0.012		9867940	52.9		106	27648	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.054	5.057	-0.003	1.000	190189	1.00		100	35.8	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.094	5.095	-0.001		6037164	52.1		104	1901	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.094	5.103	-0.009	1.000	114138	0.9381		93.8	1142	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.289	5.298	-0.009	1.000	194719	1.00		100	44.1	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.509	5.524	-0.015	1.000	426012	0.99		99.3	24.9	
713.00 > 169.00	5.509	5.524	-0.015	1.000	56320		7.56(0.00-0.00)	99.3	502	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.509	5.524	-0.015		18988620	54.7		109	14951	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.865	5.874	-0.009		11587876	56.1		112	5998	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.865	5.874	-0.009	1.000	342154	1.02		102	46.0	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.267	6.281	-0.014	1.000	195386	1.01		101	13.3	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L2_00005 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:34 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_004.d

Injection Date: 19-Jun-2017 23:31:15 Instrument ID: A8_N

Lims ID: IC L2 Full

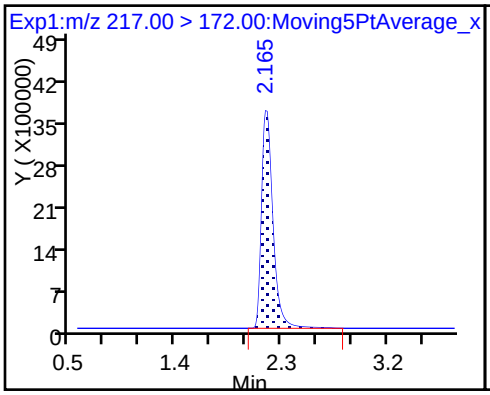
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4

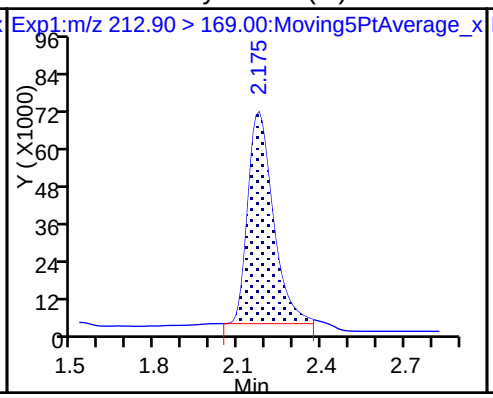
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

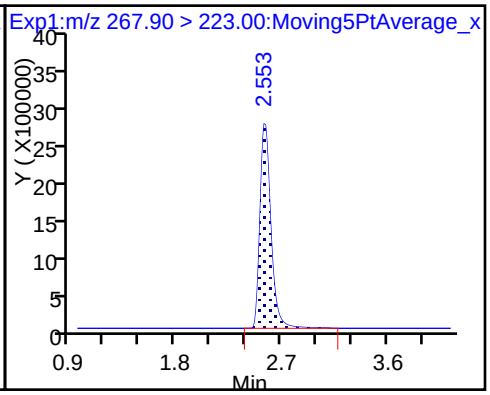
D 1 13C4 PFBA



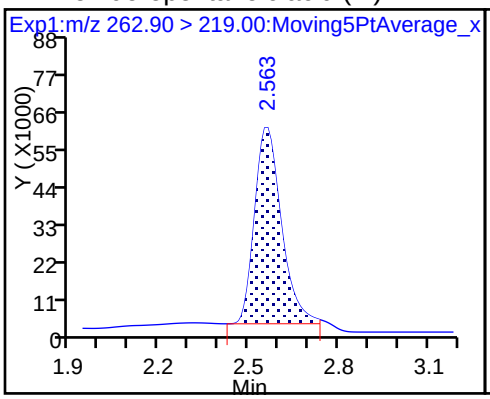
2 Perfluorobutyric acid (M)



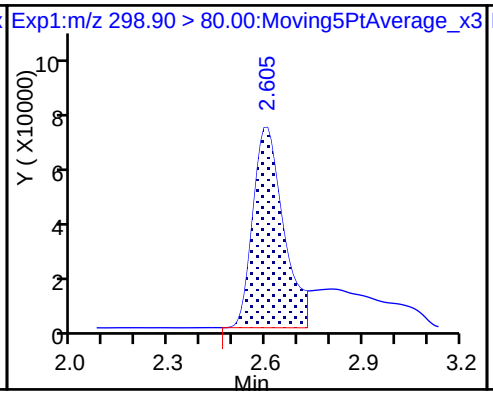
D 3 13C5-PFPeA



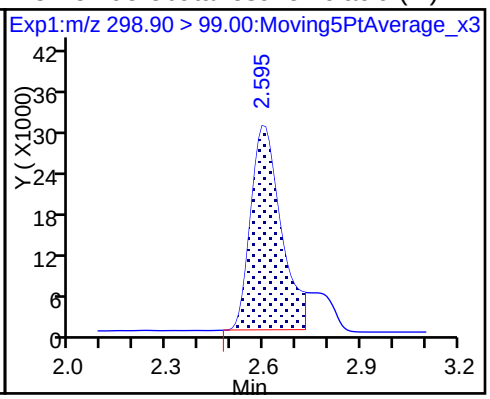
4 Perfluoropentanoic acid (M)



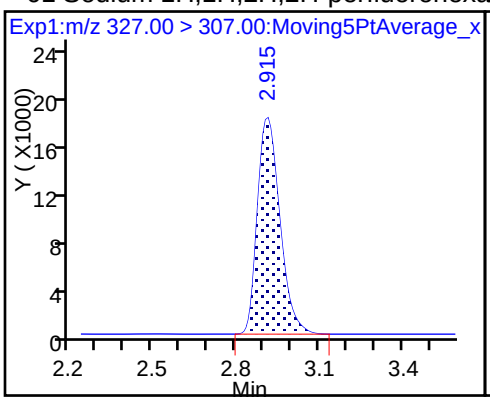
5 Perfluorobutanesulfonic acid



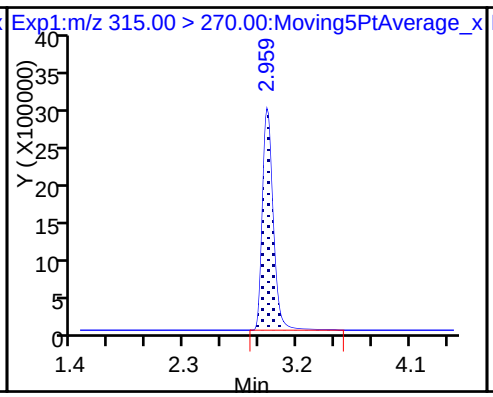
5 Perfluorobutanesulfonic acid (M)



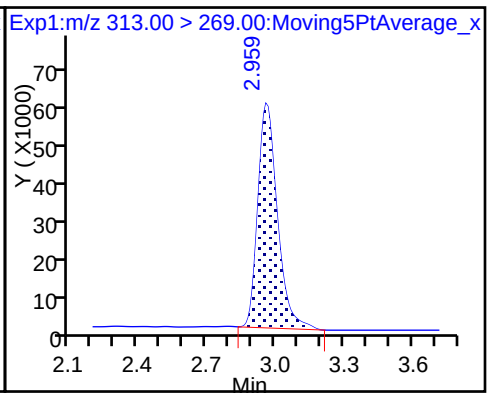
61 Sodium 1H,1H,2H,2H-perfluorohexa



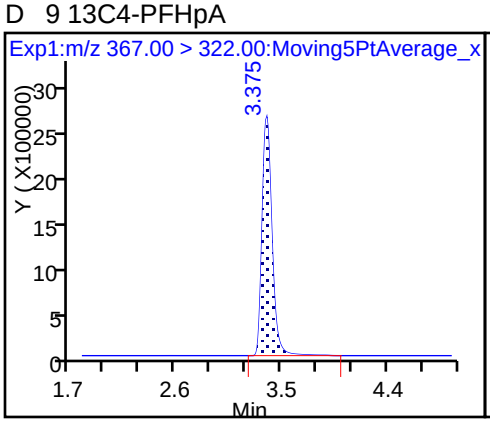
De 7 13C2 PFHxA



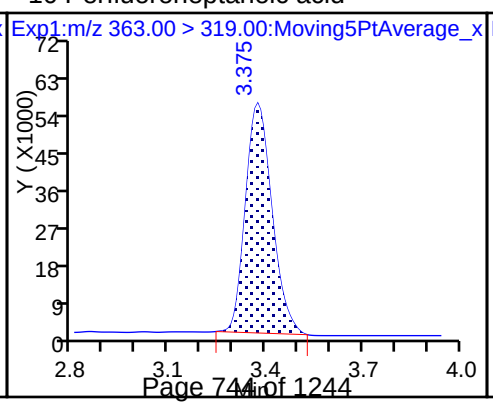
6 Perfluorohexanoic acid



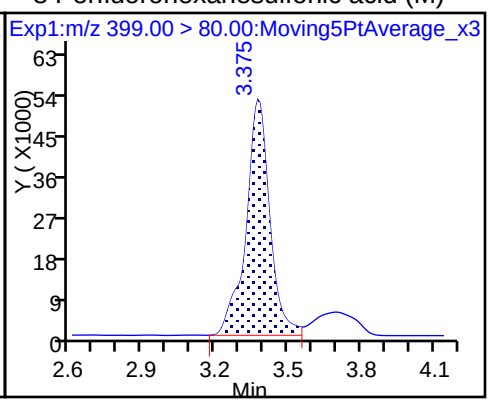
D 9 13C4-PFHpA



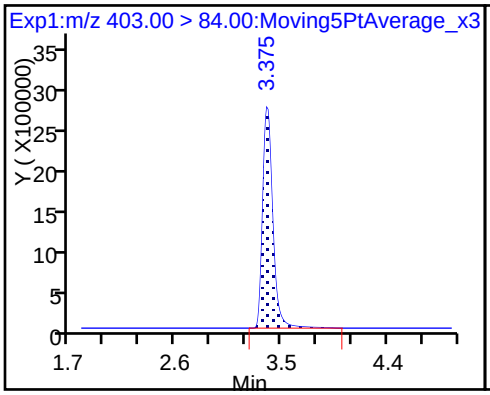
10 Perfluoroheptanoic acid



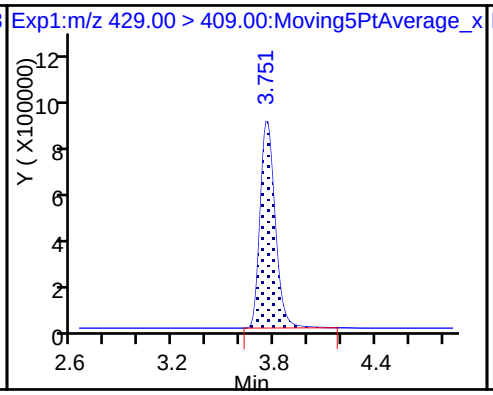
8 Perfluorohexanesulfonic acid (M)



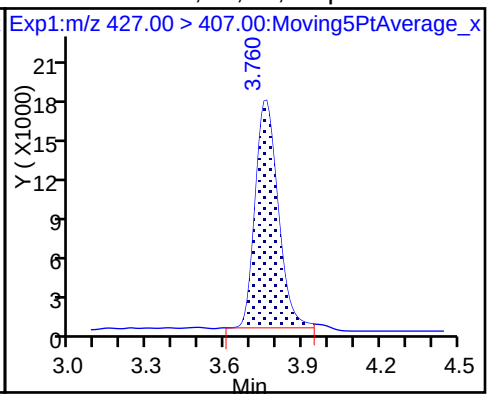
D 11 18O2 PFHxS



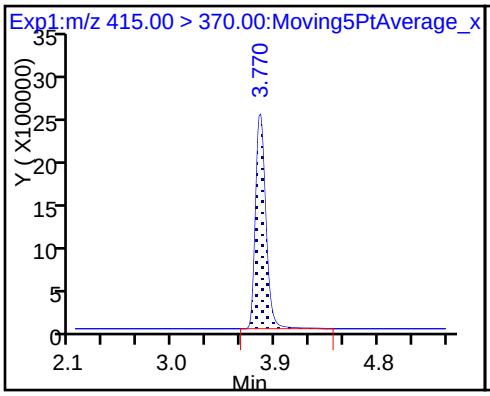
D 12 M2-6:2FTS



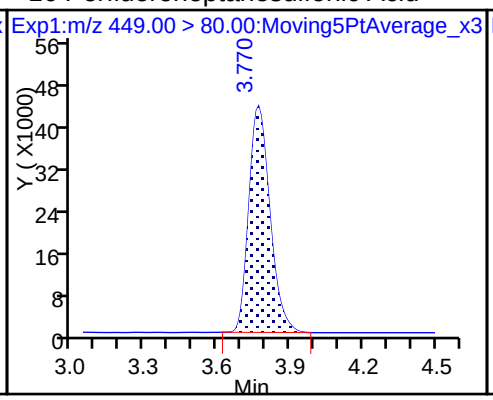
13 Sodium 1H,1H,2H,2H-perfluorooctane (M)



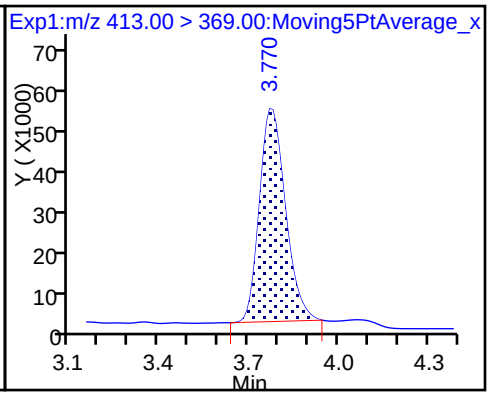
* 62 13C2-PFOA



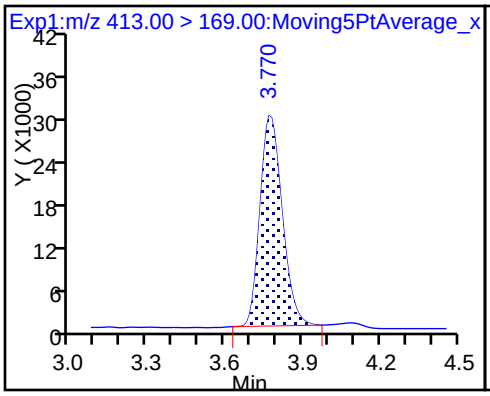
16 Perfluoroheptanesulfonic Acid



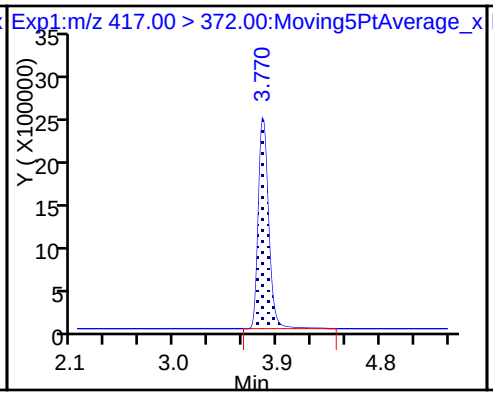
15 Perfluorooctanoic acid



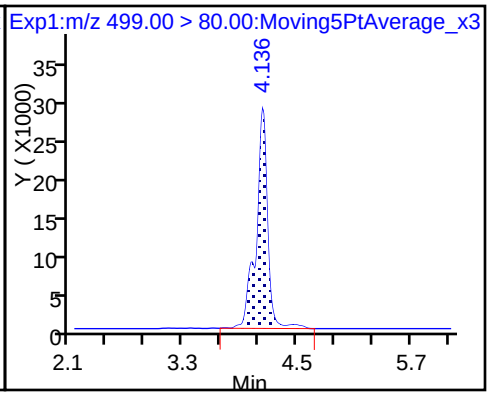
15 Perfluorooctanoic acid



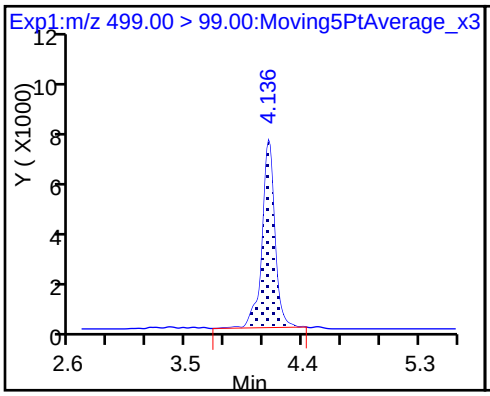
D 14 13C4 PFOA



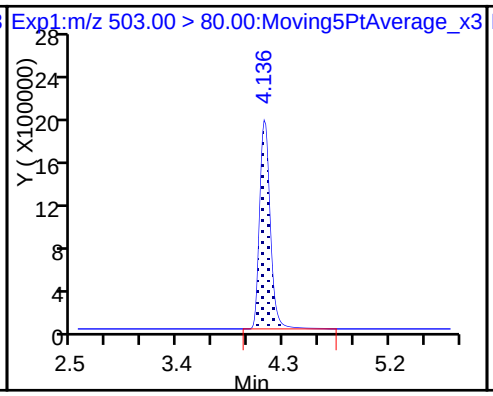
17 Perfluorooctane sulfonic acid



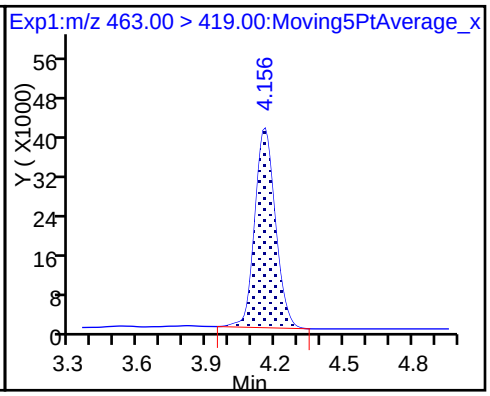
17 Perfluorooctane sulfonic acid



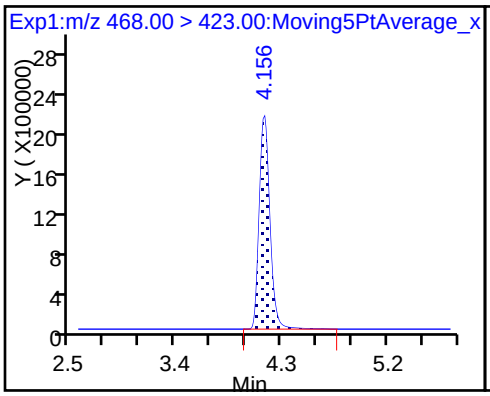
D 18 13C4 PFOS



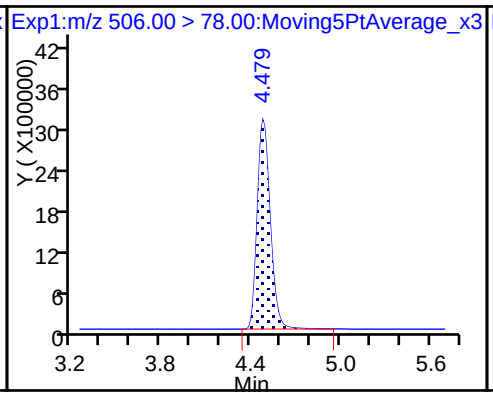
20 Perfluorononanoic acid



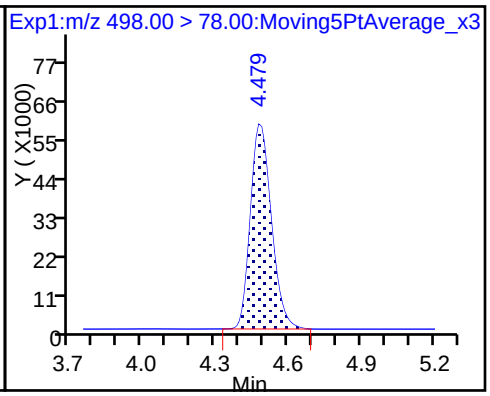
D 19 13C5 PFNA



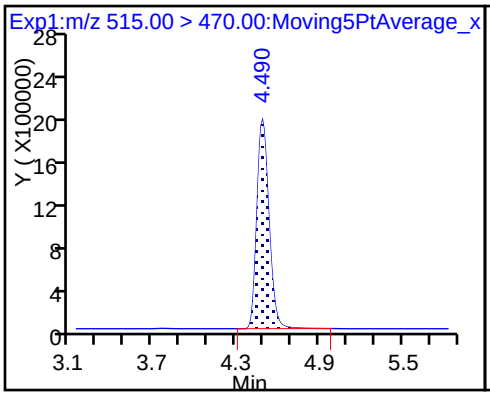
D 21 13C8 FOSA



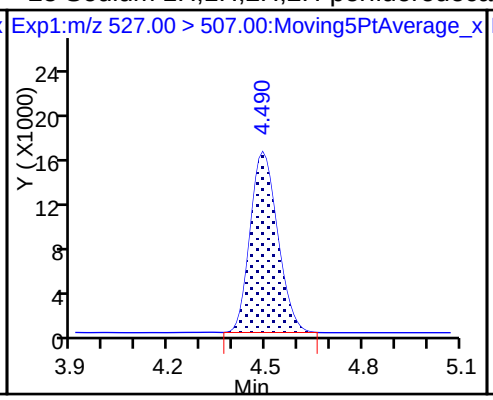
22 Perfluorooctane Sulfonamide



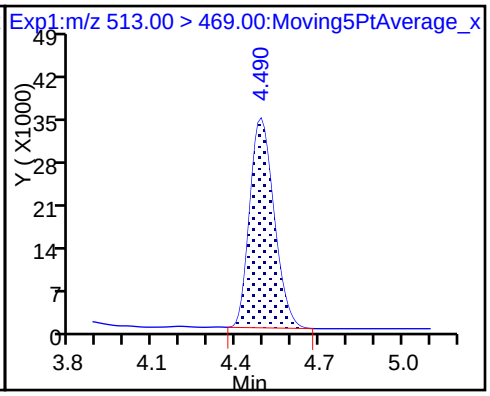
D 23 13C2 PFDA



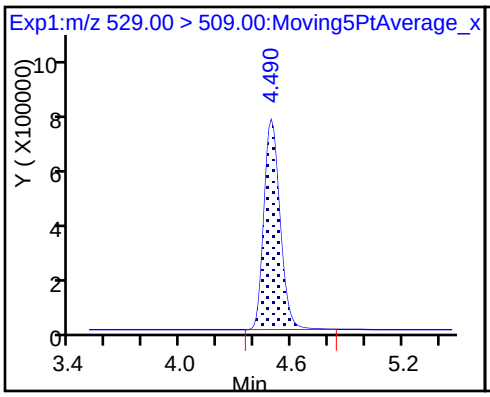
25 Sodium 1H,1H,2H,2H-perfluorodecan



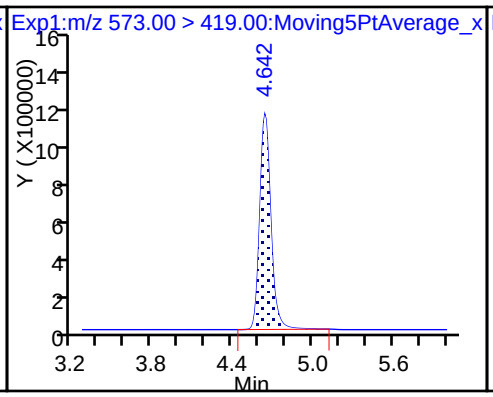
24 Perfluorodecanoic acid



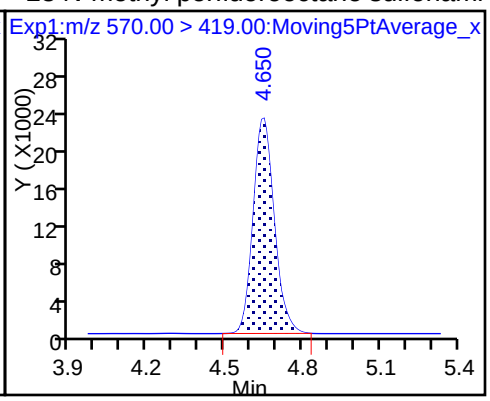
D 26 M2-8:2FTS



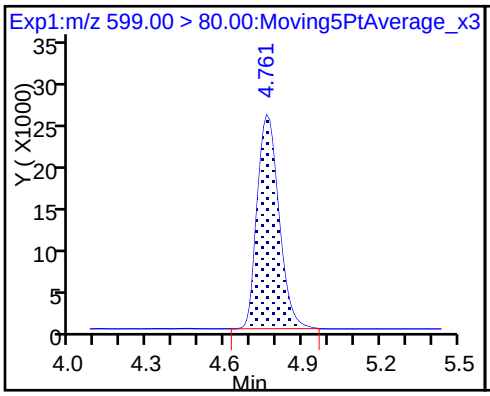
D 27 d3-NMeFOSAA



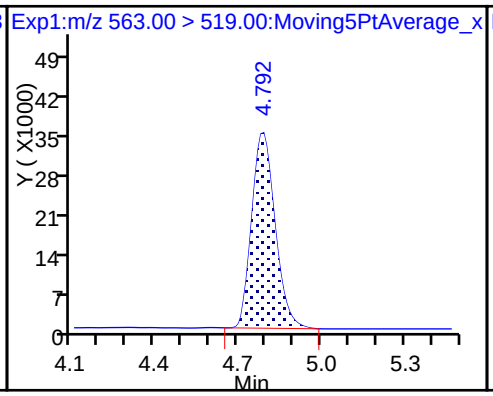
28 N-methyl perfluorooctane sulfonami



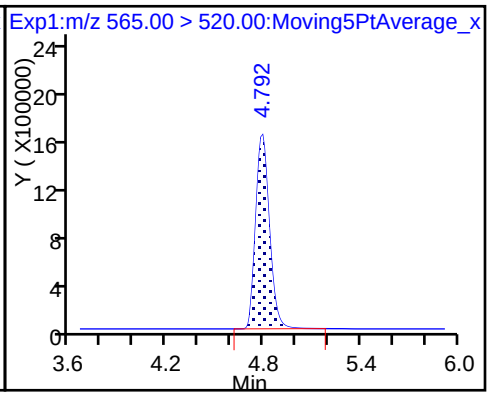
29 Perfluorodecane Sulfonic acid



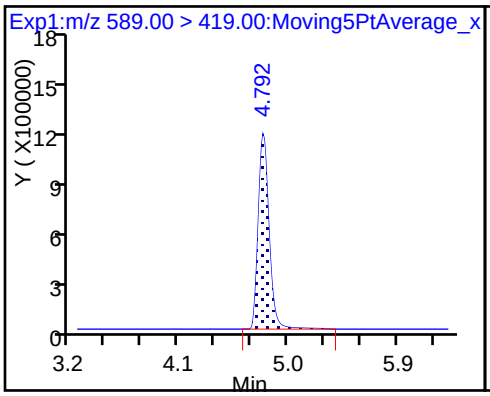
31 Perfluoroundecanoic acid



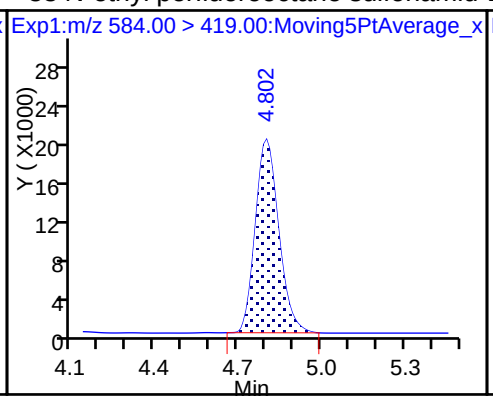
D 30 13C2 PFUnA



D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid



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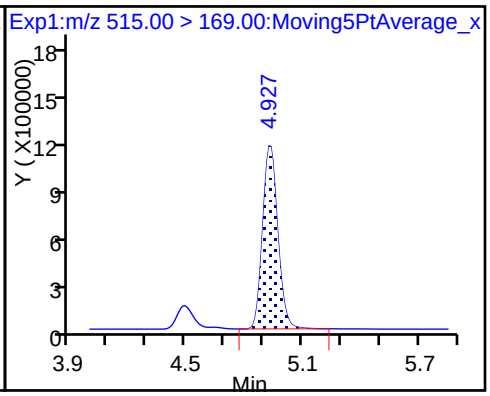
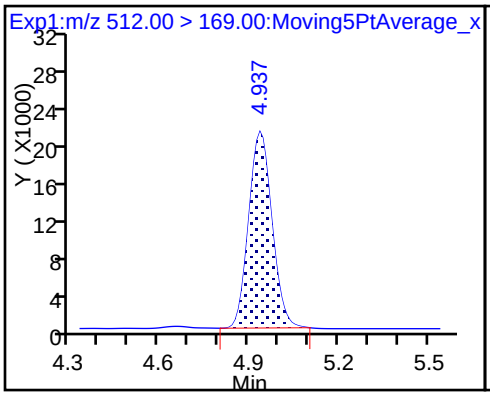


35 MeFOSA



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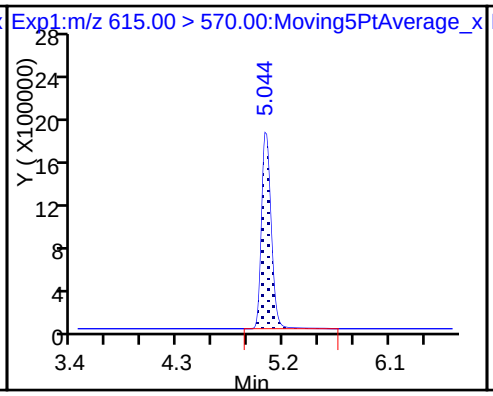
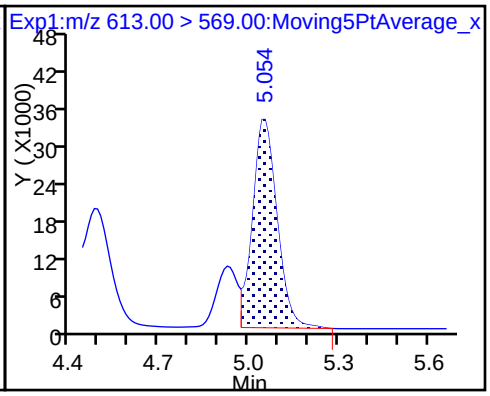
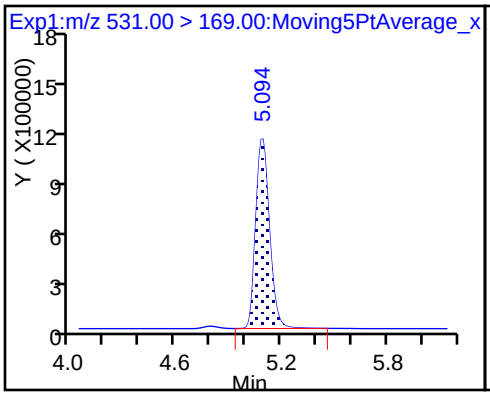


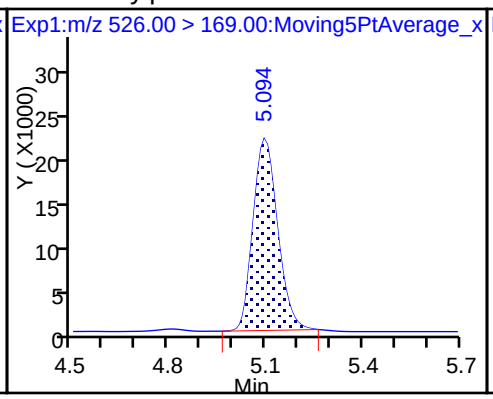
37 Perfluorododecanoic acid



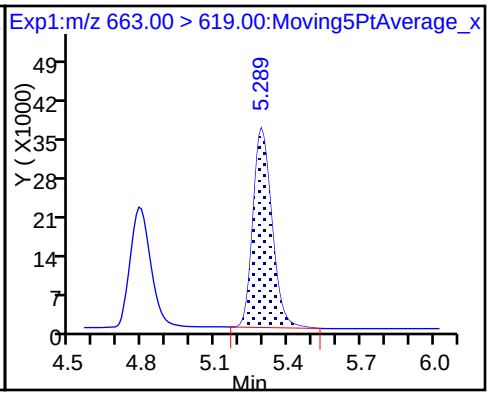
D 38 d-N-EtFOSA-M



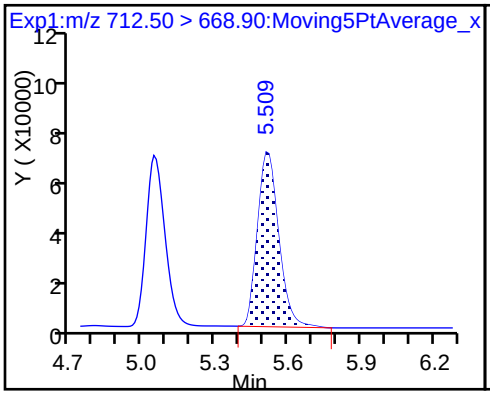
39 N-ethylperfluoro-1-octanesulfonami



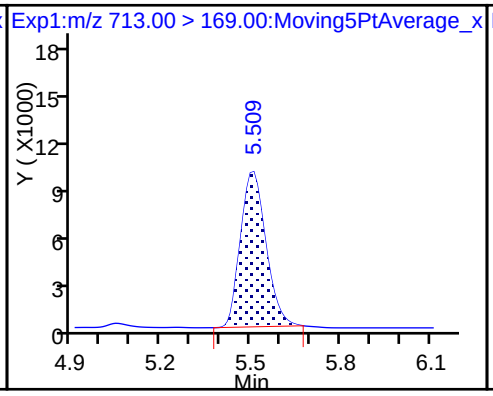
41 Perfluorotridecanoic acid



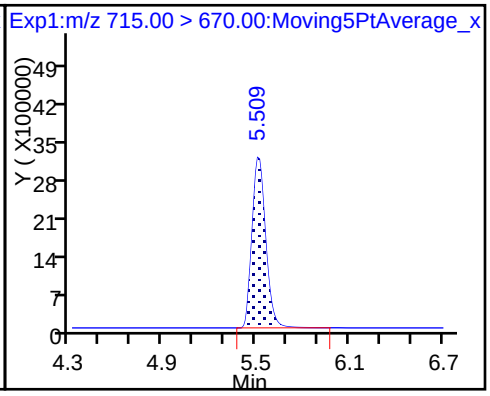
42 Perfluorotetradecanoic acid



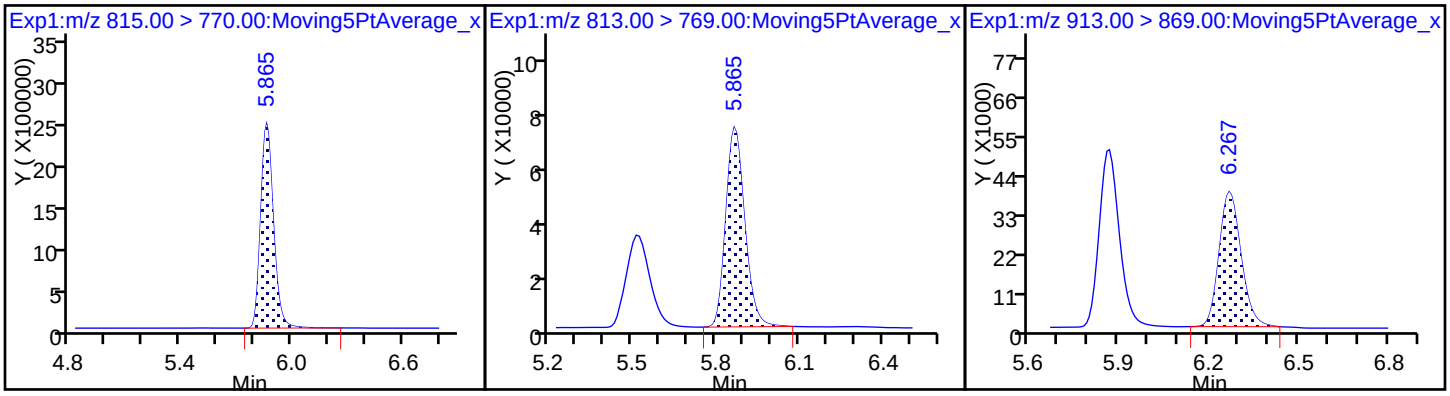
42 Perfluorotetradecanoic acid



D 43 13C2-PFTeDA



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

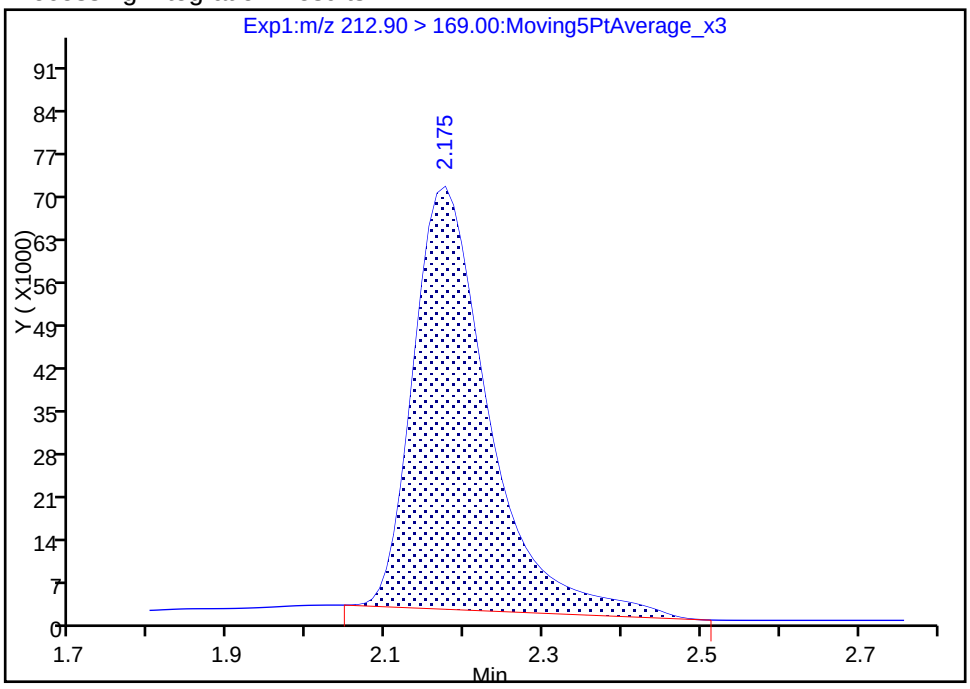
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_004.d
Injection Date: 19-Jun-2017 23:31:15 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

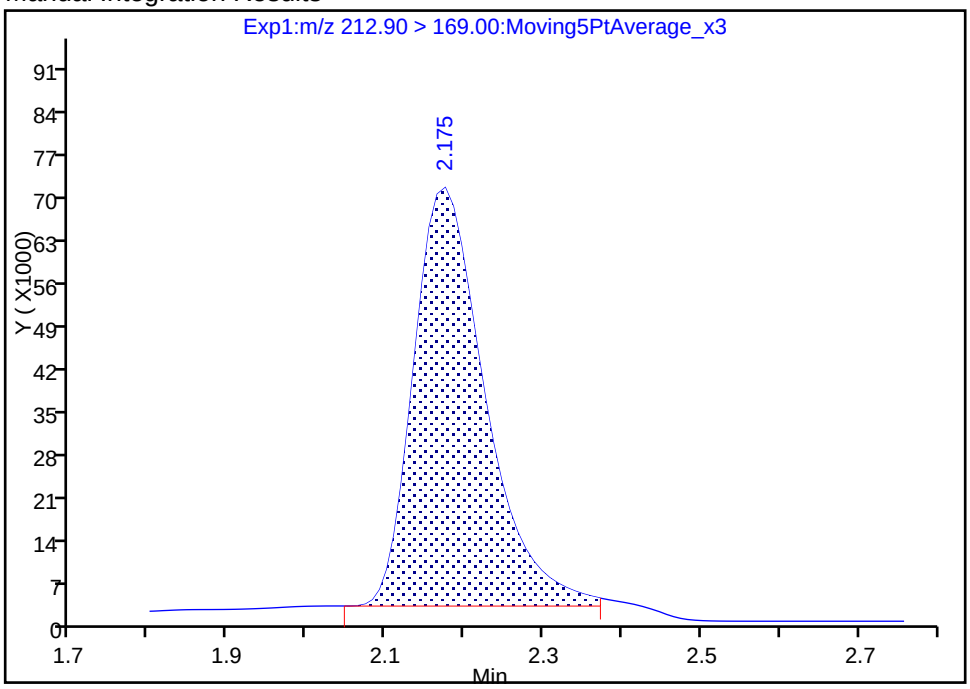
Processing Integration Results

RT: 2.18
Area: 460720
Amount: 1.053958
Amount Units: ng/ml



Manual Integration Results

RT: 2.18
Area: 432897
Amount: 0.999396
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:52:21
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

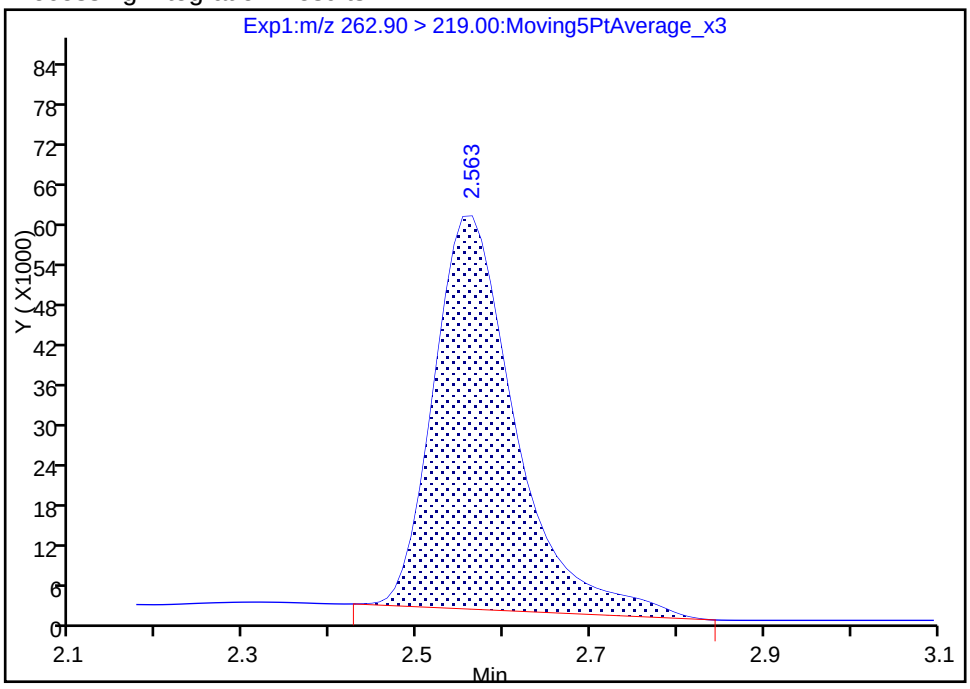
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_004.d
Injection Date: 19-Jun-2017 23:31:15 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

4 Perfluoropentanoic acid, CAS: 2706-90-3

Signal: 1

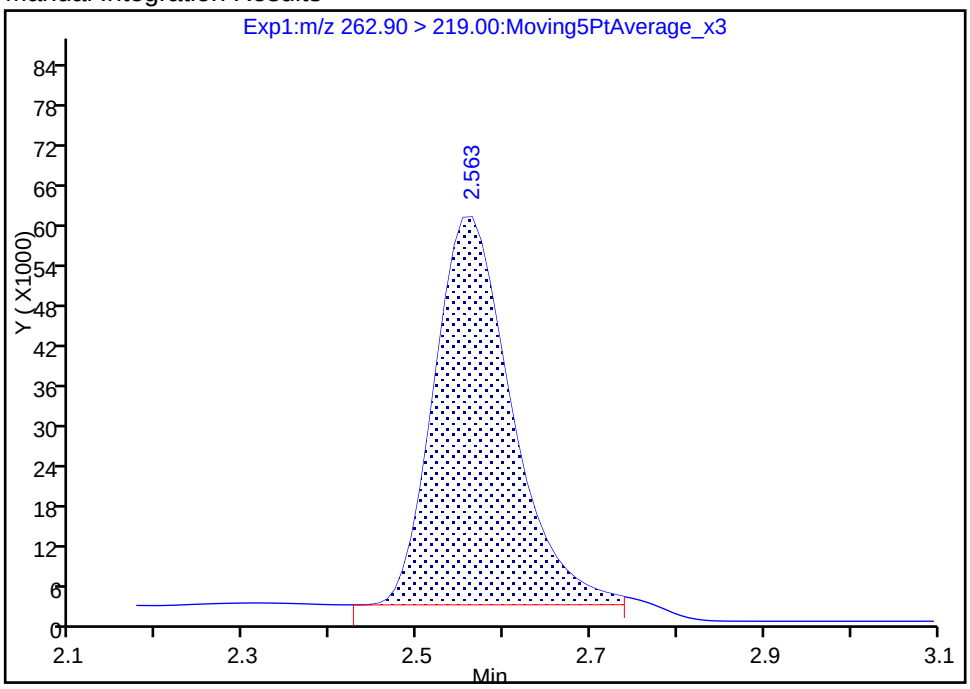
Processing Integration Results

RT: 2.56
Area: 386994
Amount: 1.075917
Amount Units: ng/ml



Manual Integration Results

RT: 2.56
Area: 362072
Amount: 1.016693
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:52:39
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

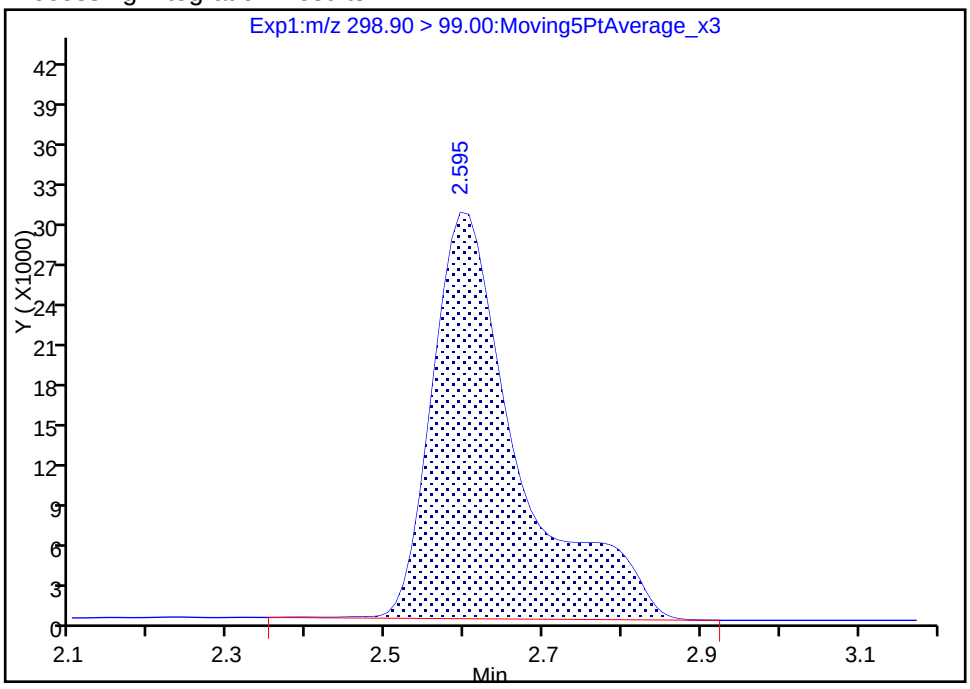
Data File:	\\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_004.d				
Injection Date:	19-Jun-2017 23:31:15	Instrument ID:	A8_N		
Lims ID:	IC L2 Full				
Client ID:					
Operator ID:	SACINSTLCMS01	ALS Bottle#:	29	Worklist Smp#:	4
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		
Column:		Detector	EXP1		

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

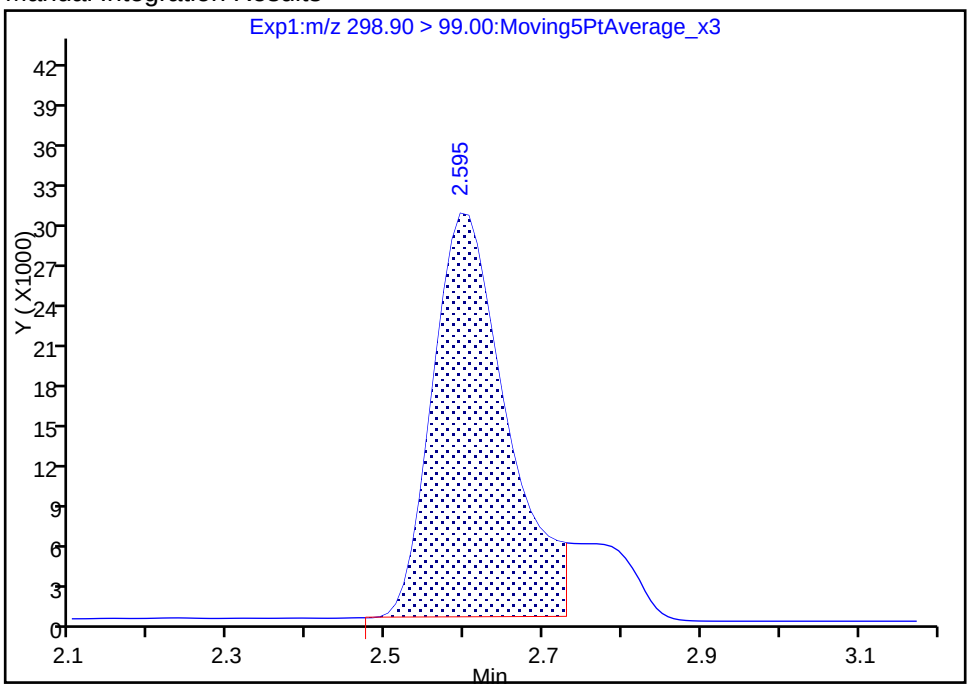
Processing Integration Results

RT: 2.59
Area: 230455
Amount: 0.872004
Amount Units: ng/ml



Manual Integration Results

RT: 2.59
Area: 194642
Amount: 0.872004
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:53:00

Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

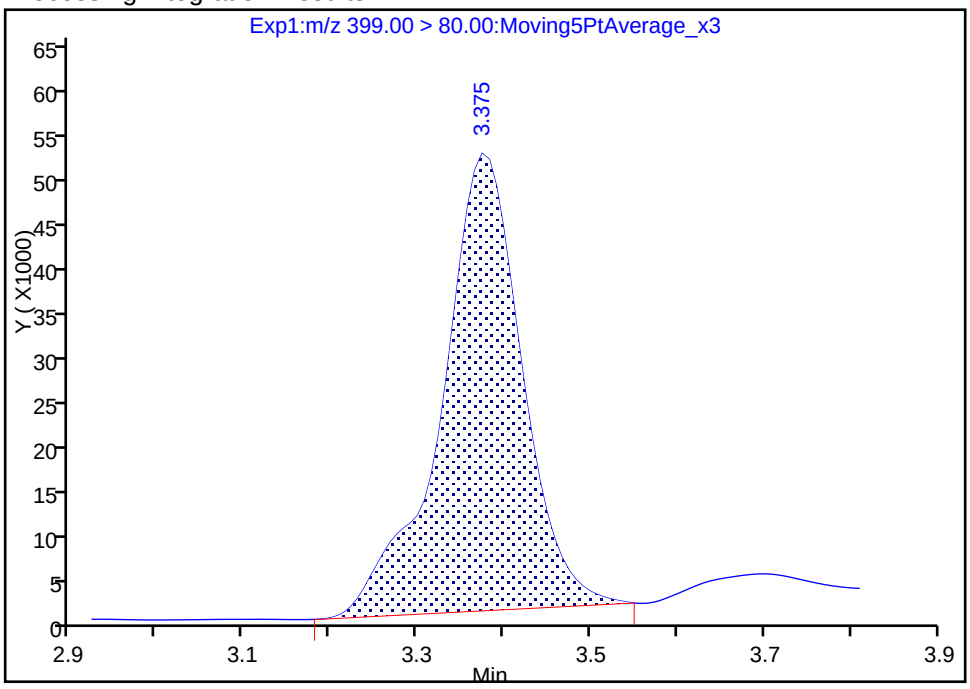
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_004.d
Injection Date: 19-Jun-2017 23:31:15 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

8 Perfluorohexanesulfonic acid, CAS: 355-46-4

Signal: 1

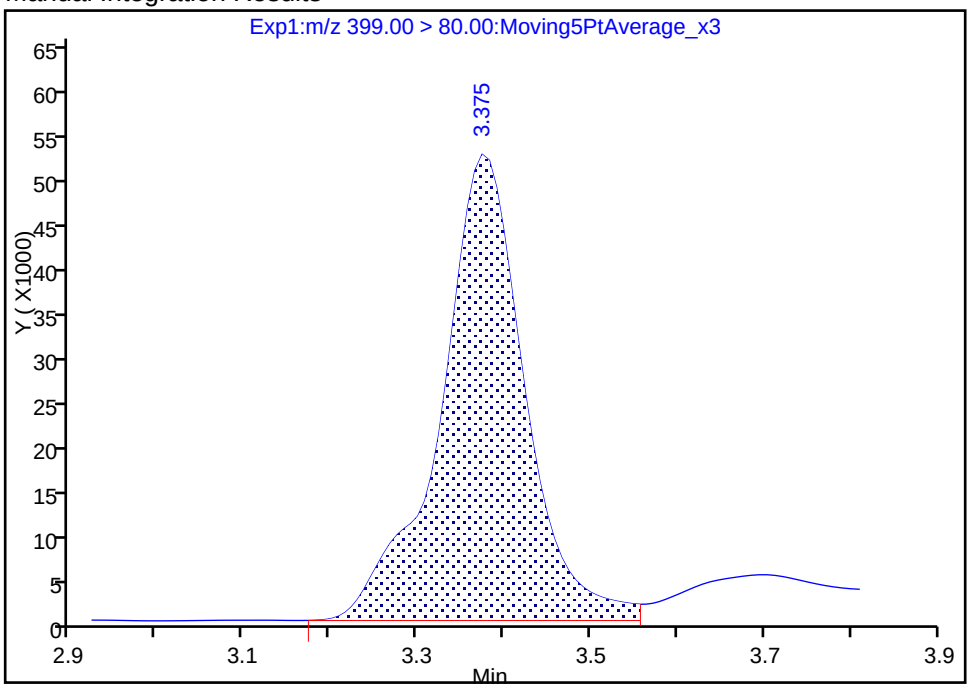
Processing Integration Results

RT: 3.37
Area: 334784
Amount: 0.930990
Amount Units: ng/ml



Manual Integration Results

RT: 3.37
Area: 356420
Amount: 0.980353
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:53:22
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

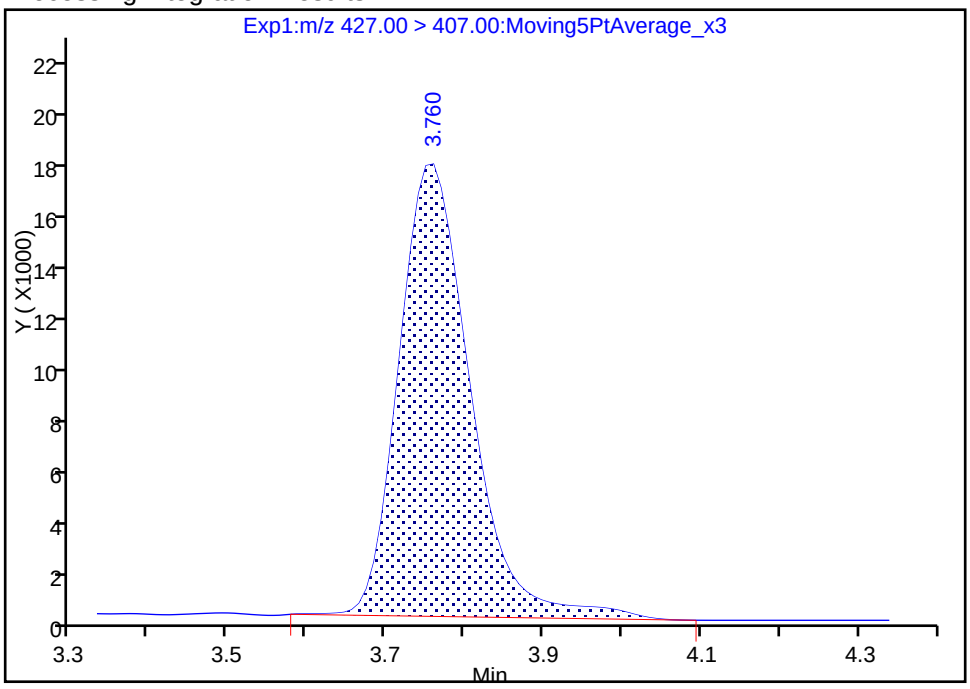
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_004.d
Injection Date: 19-Jun-2017 23:31:15 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

13 Sodium 1H,1H,2H,2H-perfluorooctane sulfonate, CAS: 27619-97-2

Signal: 1

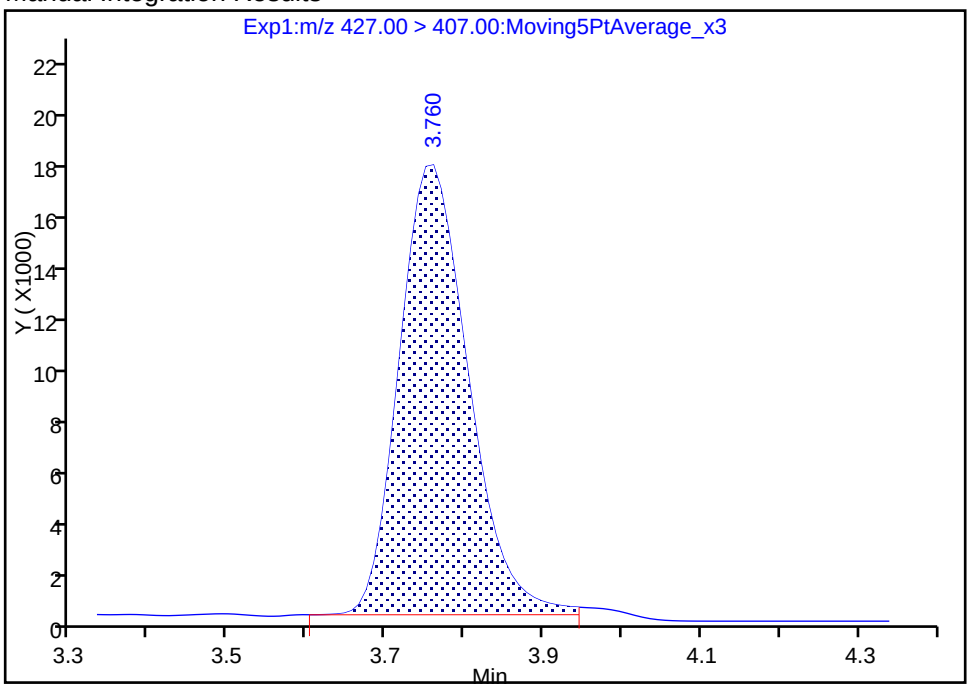
Processing Integration Results

RT: 3.76
Area: 111477
Amount: 0.911765
Amount Units: ng/ml



Manual Integration Results

RT: 3.76
Area: 107460
Amount: 1.012301
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:53:41
Audit Action: Manually Integrated Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_005.d
Lims ID: IC L3 Full
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 19-Jun-2017 23:38:57 ALS Bottle#: 30 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L3-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:37 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 00:51:41

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.175	2.172	0.003		25142719	53.8		108	151966	
2 Perfluorobutyric acid										
212.90 > 169.00	2.175	2.176	-0.001	1.000	2432565	5.34		107	1100	
D 3 13C5-PFPeA										
267.90 > 223.00	2.563	2.559	0.004		18687112	55.9		112	197370	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.563	2.562	0.001	1.000	1964084	5.12		102	1379	
D 47 13C3-PFBS										
301.90 > 83.00	2.594	2.597	-0.003		396092	NC			12562	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	2.605	2.605	0.0	1.000	2682276	4.77		108	396	M
298.90 > 99.00	2.605	2.605	0.0	1.000	1049566		2.56(0.00-0.00)	108	368	M
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.918	2.917	0.001	1.000	565911	4.97		106	24620	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.965	2.963	0.002	1.000	1929866	5.22		104	3030	
D 7 13C2 PFHxA										
315.00 > 270.00	2.965	2.963	0.002		18295156	54.9		110	212259	
D 9 13C4-PFHpA										
367.00 > 322.00	3.375	3.378	-0.003		16168074	55.6		111	173979	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.375	3.380	-0.005	1.000	1725971	4.56		100	886	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.375	3.380	-0.005	1.000	1735942	5.08		102	2108	
D 11 18O2 PFHxS										
403.00 > 84.00	3.375	3.381	-0.006		16660666	51.1		108	310825	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.752	3.759	-0.007		5944309	47.2		99.3	32723	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.752	3.760	-0.008	1.000	607691	5.03		106	2728	
* 62 13C2-PFOA										
415.00 > 370.00	3.761	3.771	-0.010		16587593	50.0			99104	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.772	3.772	0.0	1.000	1511989	5.05		106	16637	
D 14 13C4 PFOA										
417.00 > 372.00	3.772	3.779	-0.007		16067963	55.4		111	136714	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.772	3.779	-0.007	1.000	1733696	5.10		102	350	
413.00 > 169.00	3.772	3.779	-0.007	1.000	958892		1.81(0.90-1.10)	102	2381	
D 18 13C4 PFOS										
503.00 > 80.00	4.139	4.141	-0.002		11976594	51.3		107	102065	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.139	4.141	-0.002	1.000	1311128	4.91		106	5265	
499.00 > 99.00	4.139	4.141	-0.002	1.000	271467		4.83(0.90-1.10)	106	2259	
20 Perfluorononanoic acid										
463.00 > 419.00	4.148	4.157	-0.009	1.000	1403315	5.01		100	2540	
D 19 13C5 PFNA										
468.00 > 423.00	4.148	4.159	-0.011		14041448	56.7		113	134164	
D 21 13C8 FOSA										
506.00 > 78.00	4.482	4.485	-0.003		18626492	52.9		106	83010	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.482	4.487	-0.005	1.000	1903866	5.37		107	26829	
D 23 13C2 PFDA										
515.00 > 470.00	4.482	4.495	-0.013		12072530	55.3		111	10866	
D 26 M2-8:2FTS										
529.00 > 509.00	4.493	4.496	-0.003		5548364	52.3		109	17183	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.493	4.496	-0.003	1.000	1157425	5.12		102	300	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.493	4.496	-0.003	1.000	530013	4.68		97.7	22411	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.645	4.649	-0.004		7087335	54.8		110	14146	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.645	4.653	-0.008	1.000	721870	4.96		99.2	32111	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.767	4.768	-0.001	1.000	797454	4.94		102	17071	
D 30 13C2 PFUnA										
565.00 > 520.00	4.788	4.794	-0.006		9430823	55.2		110	12176	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.788	4.794	-0.006	1.000	977948	5.09		102	3475	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.798	4.801	-0.003		7507561	59.4		119	31908	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.798	4.807	-0.009	1.000	676931	4.80		95.9	5994	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.932	4.935	-0.003		6169850	50.6		101	201	
35 MeFOSA										
512.00 > 169.00	4.932	4.939	-0.007	1.000	599114	5.01		100	2036	
D 36 13C2 PFDoA										
615.00 > 570.00	5.048	5.056	-0.008		10211013	54.7		109	15849	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.048	5.057	-0.009	1.000	992269	5.07		101	184	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.088	5.095	-0.007		6027958	52.1		104	1722	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.098	5.103	-0.005	1.000	614366	5.06		101	1699	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.292	5.298	-0.006	1.000	1004250	5.00		99.9	233	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.516	5.524	-0.008		17893990	51.6		103	12127	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.516	5.524	-0.008	1.000	2060489	4.83		96.7	117	
713.00 > 169.00	5.504	5.524	-0.020	0.998	261923		7.87(0.00-0.00)	96.7	2555	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.869	5.874	-0.005	1.000	1015898	4.34		86.9	145	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.869	5.874	-0.005		10150987	49.2		98.3	4685	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.279	6.281	-0.002	1.000	899284	4.59		91.8	63.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L3_00004 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:37 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_005.d

Injection Date: 19-Jun-2017 23:38:57 Instrument ID: A8_N

Lims ID: IC L3 Full

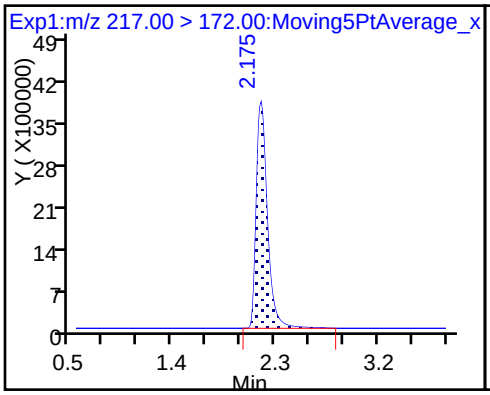
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 5

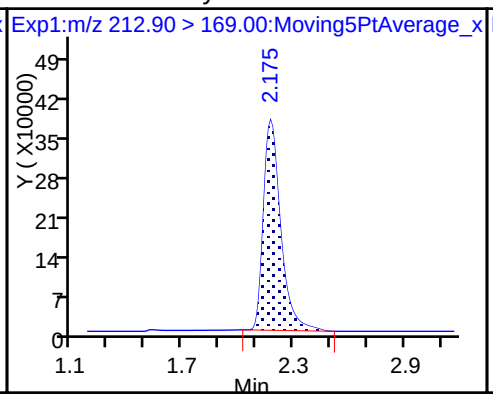
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

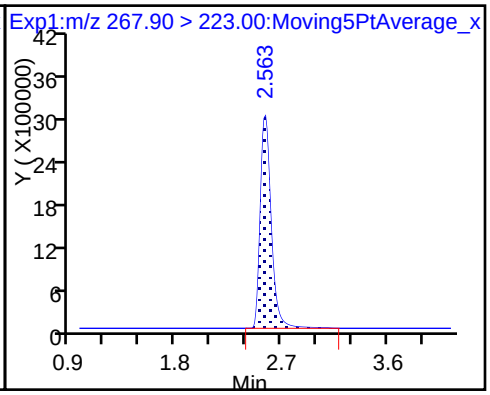
D 1 13C4 PFBA



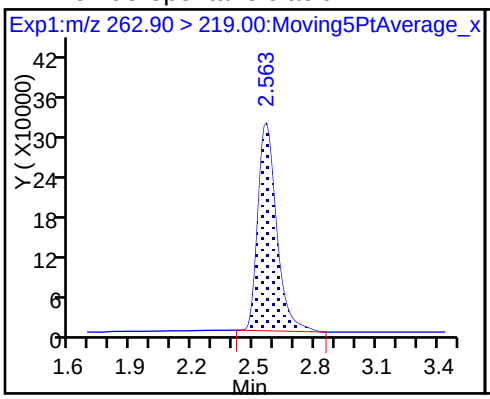
2 Perfluorobutyric acid



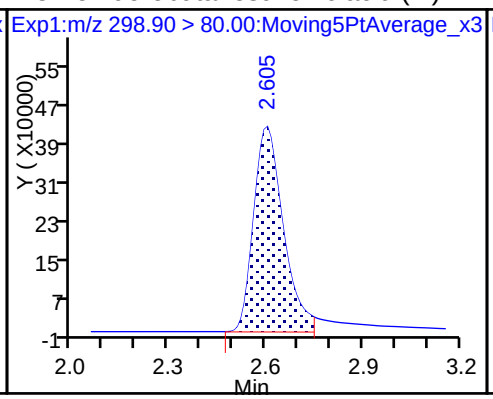
D 3 13C5-PFPeA



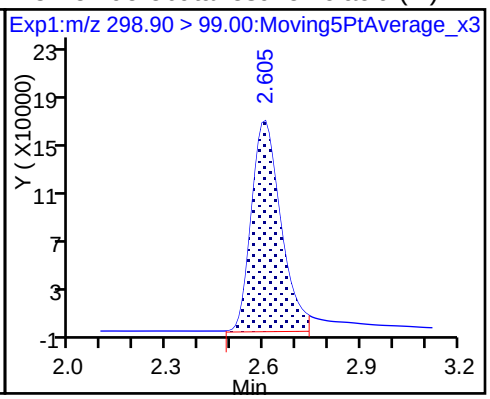
4 Perfluoropentanoic acid



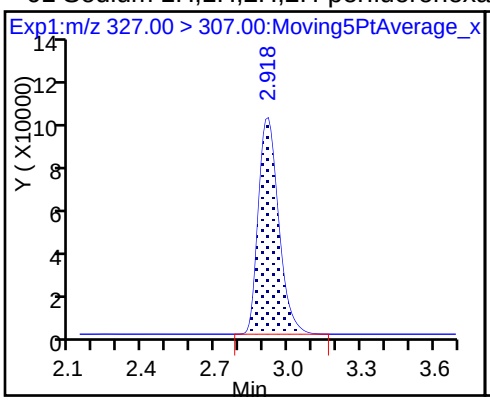
5 Perfluorobutanesulfonic acid (M)



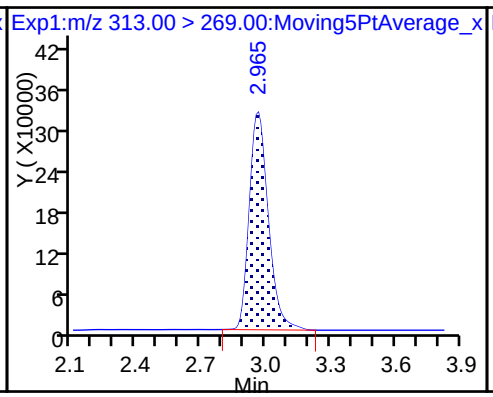
5 Perfluorobutanesulfonic acid (M)



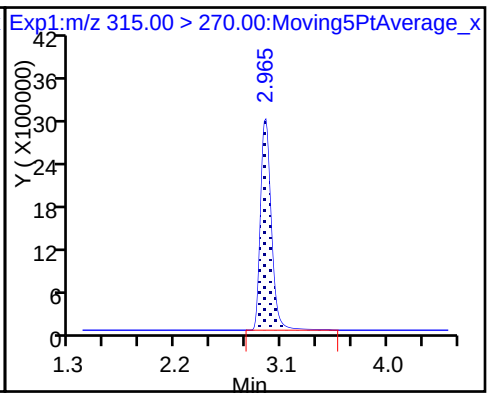
61 Sodium 1H,1H,2H,2H-perfluorohexane



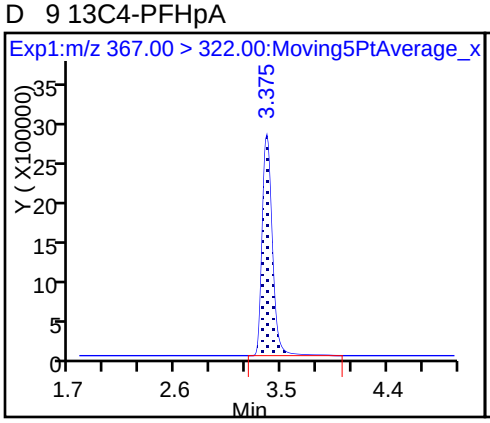
6 Perfluorohexanoic acid



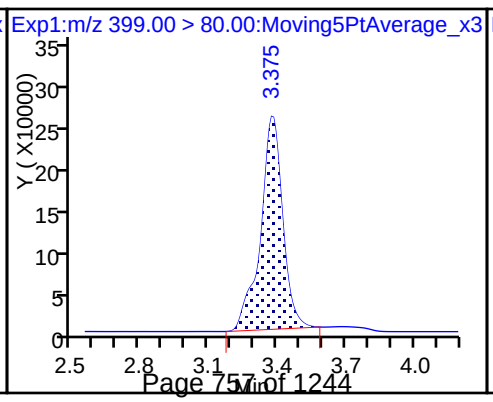
D 7 13C2 PFHxA



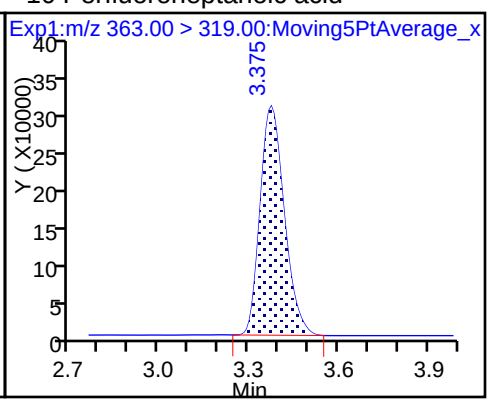
D 9 13C4-PFHpA



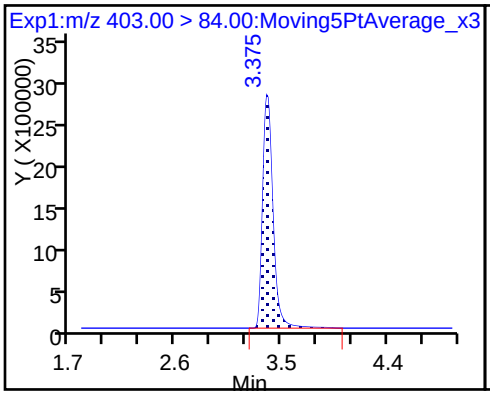
8 Perfluorohexanesulfonic acid



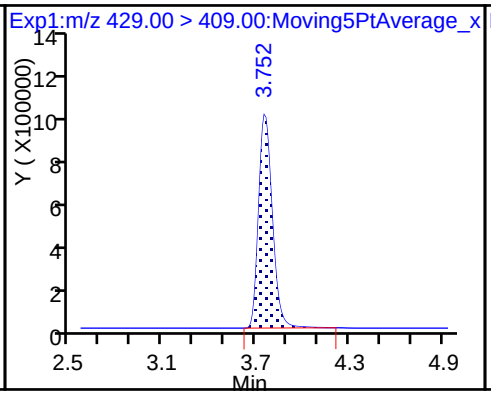
10 Perfluoroheptanoic acid



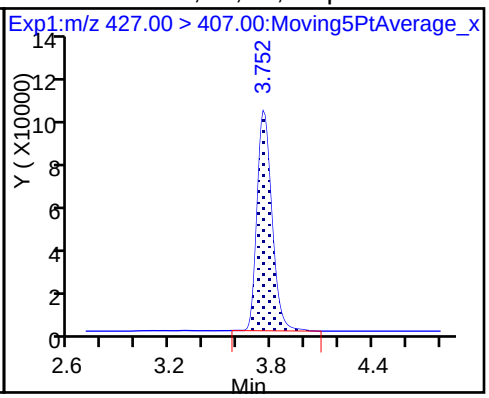
D 11 18O2 PFHxS



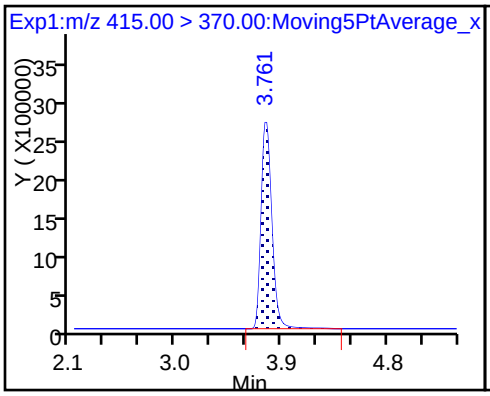
D 12 M2-6:2FTS



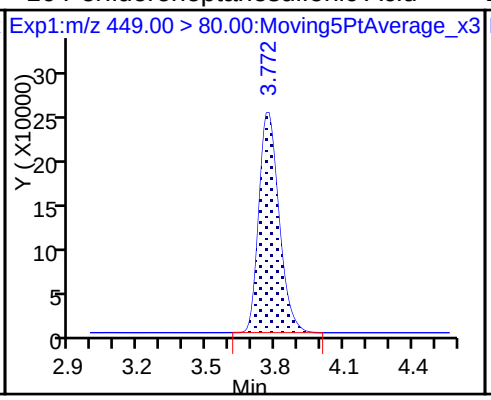
13 Sodium 1H,1H,2H,2H-perfluorooctane



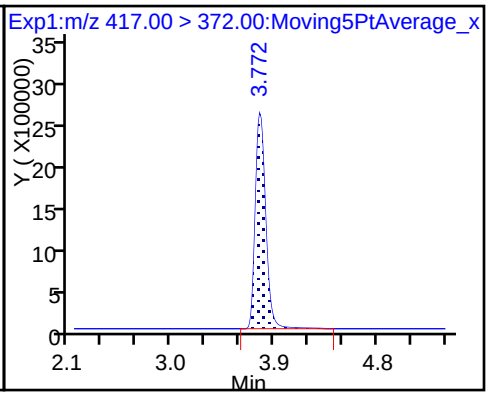
* 62 13C2-PFOA



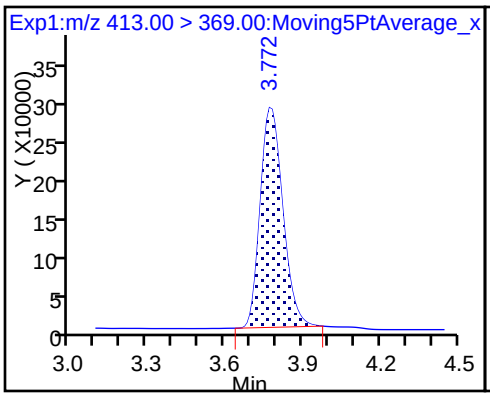
16 Perfluoroheptanesulfonic Acid



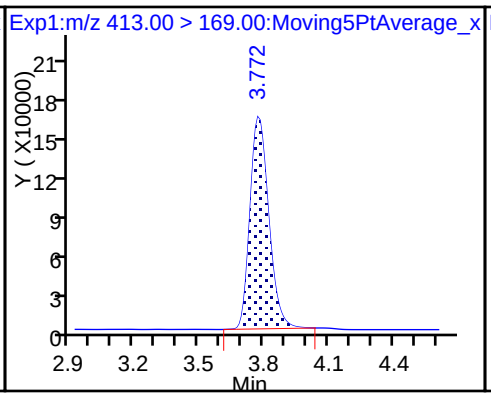
D 14 13C4 PFOA



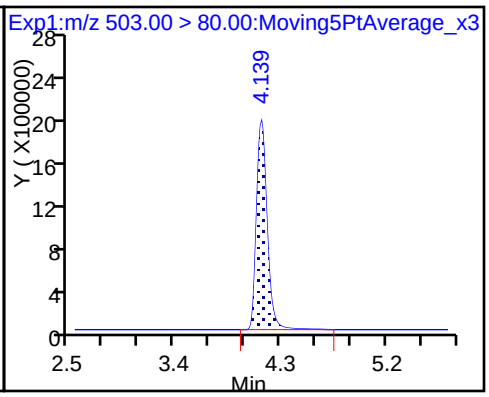
15 Perfluorooctanoic acid



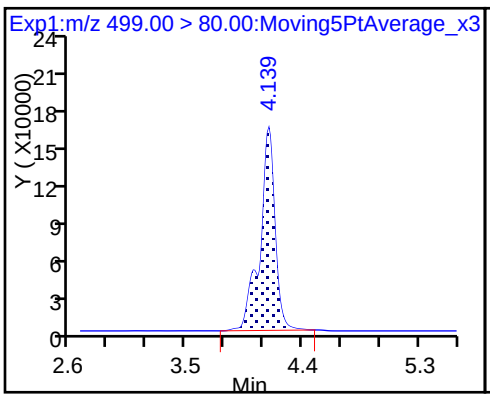
15 Perfluorooctanoic acid



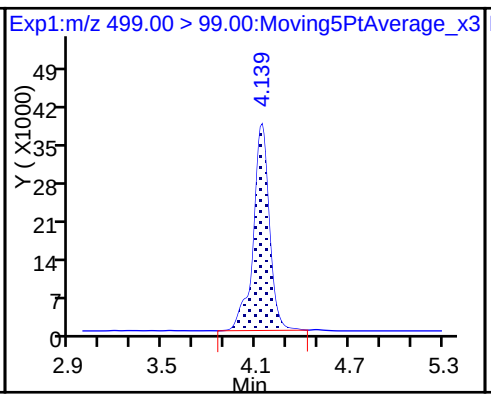
D 18 13C4 PFOS



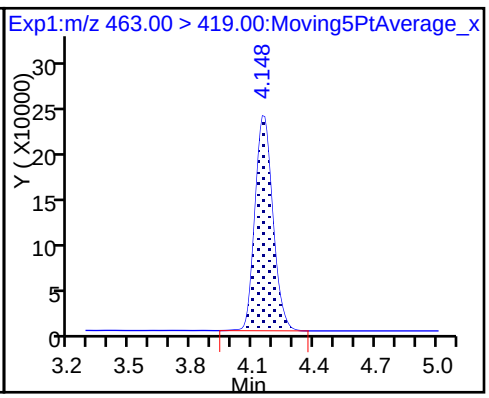
17 Perfluorooctane sulfonic acid



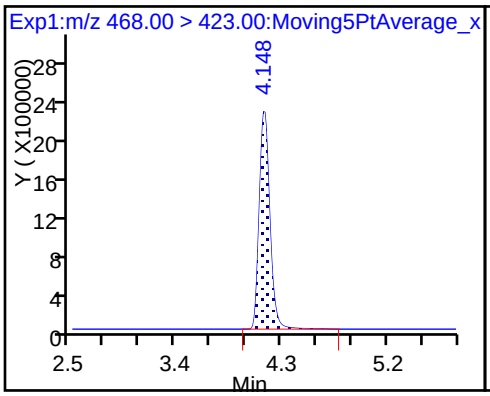
17 Perfluorooctane sulfonic acid



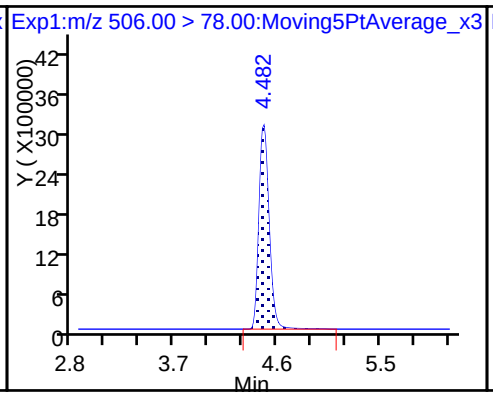
20 Perfluorononanoic acid



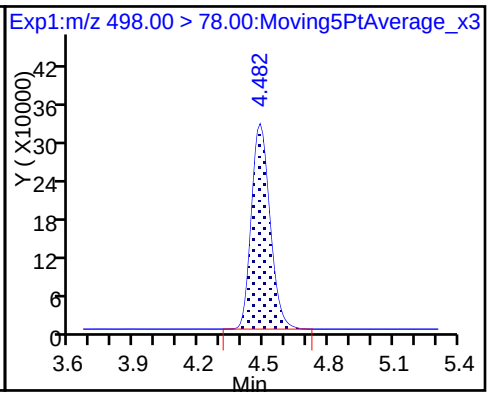
D 19 13C5 PFNA



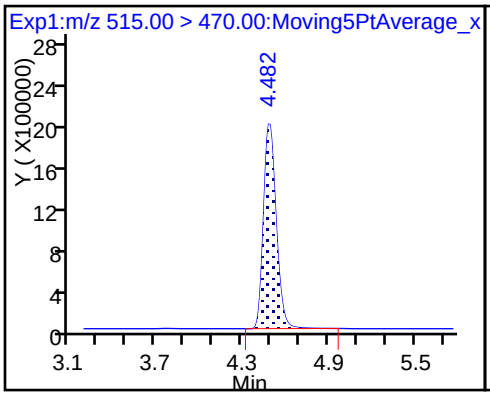
D 21 13C8 FOSA



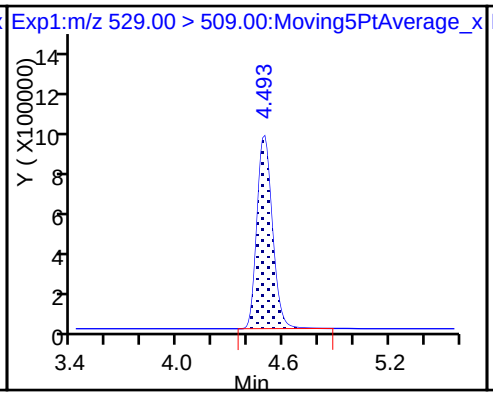
22 Perfluorooctane Sulfonamide



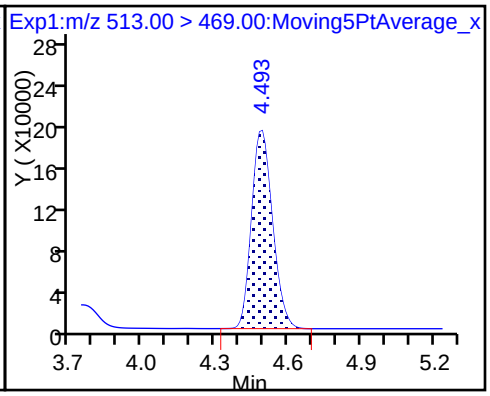
D 23 13C2 PFDA



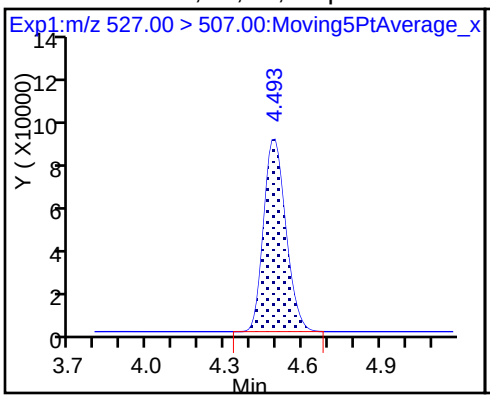
D 26 M2-8:2FTS



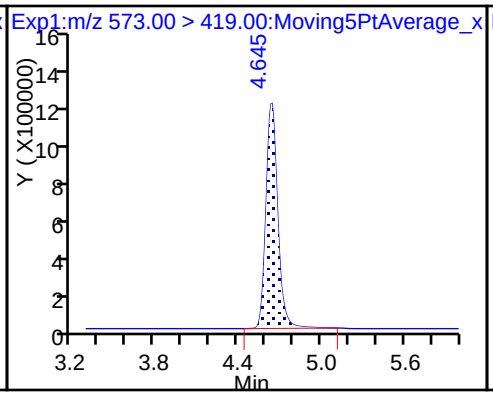
24 Perfluorodecanoic acid



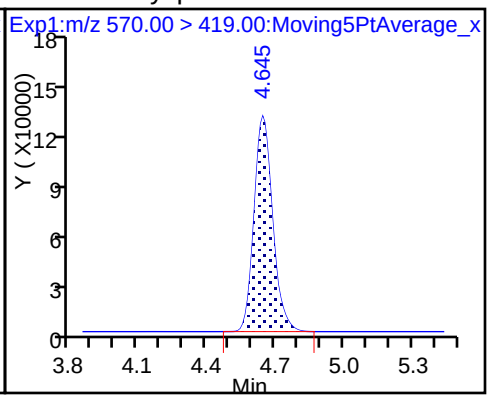
25 Sodium 1H,1H,2H,2H-perfluorodecane



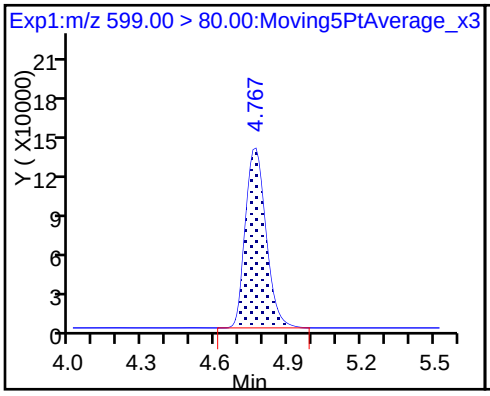
D 27 d3-NMeFOSAA



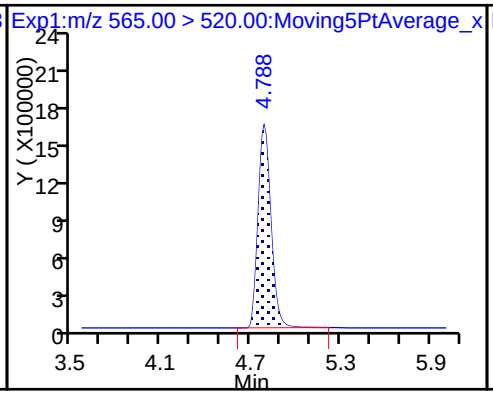
28 N-methyl perfluorooctane sulfonami



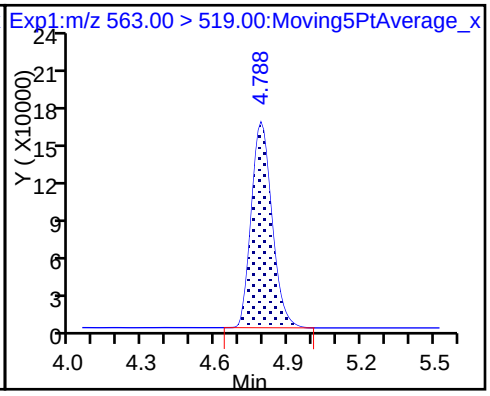
29 Perfluorodecane Sulfonic acid



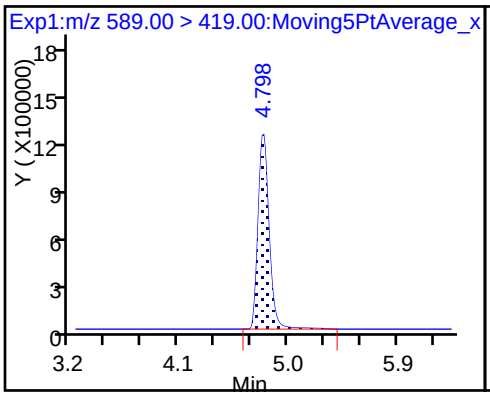
D 30 13C2 PFUnA



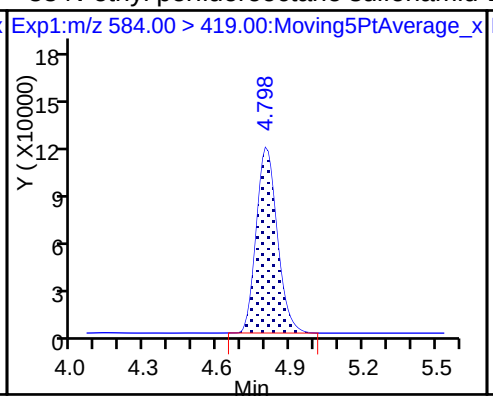
31 Perfluoroundecanoic acid



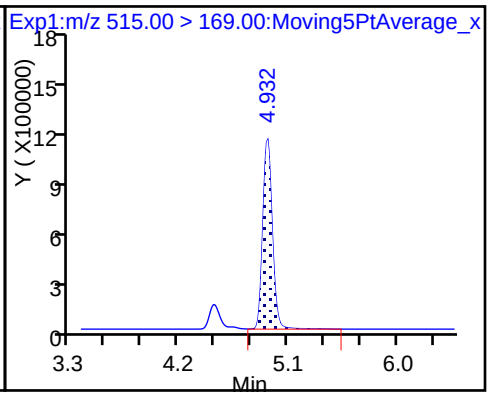
D 32 d5-NEtFOSAA



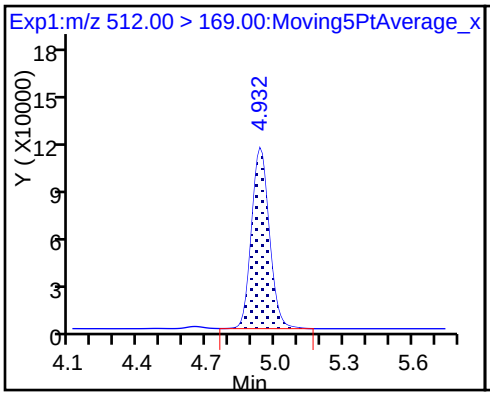
33 N-ethyl perfluorooctane sulfonamid



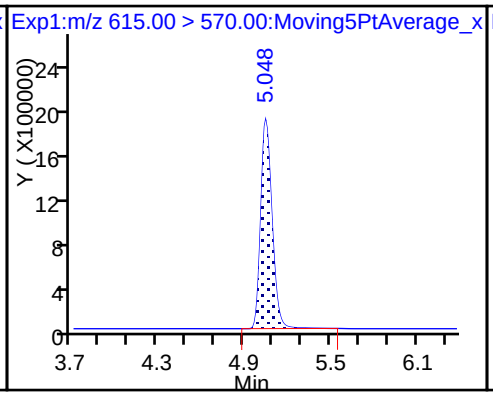
D 34 d-N-MeFOSA-M



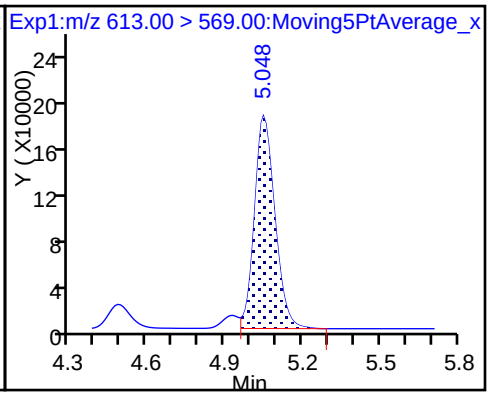
35 MeFOSA



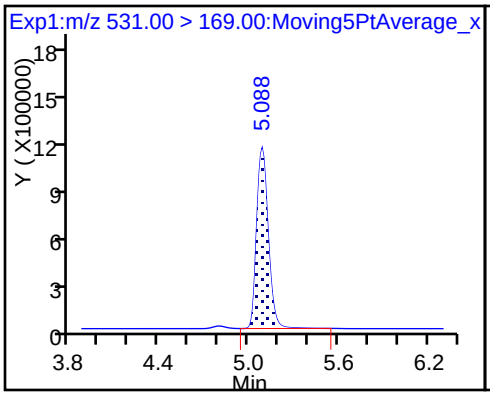
D 36 13C2 PFDoA



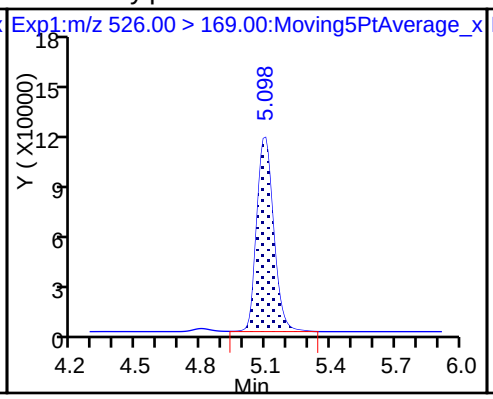
37 Perfluorododecanoic acid



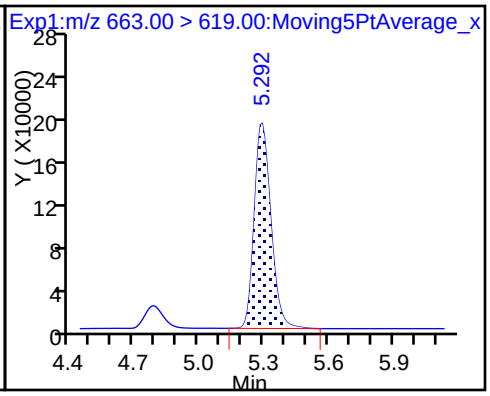
D 38 d-N-EtFOSA-M



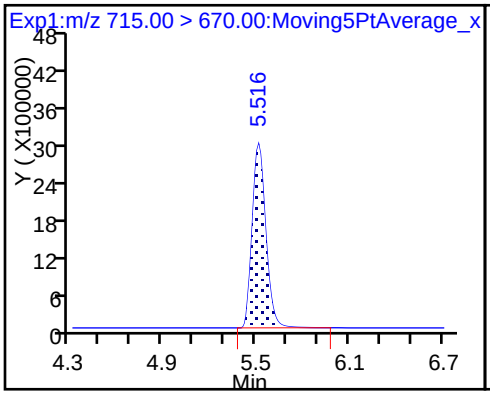
39 N-ethylperfluoro-1-octanesulfonami



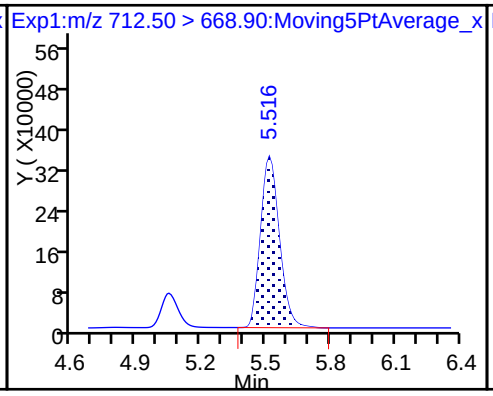
41 Perfluorotridecanoic acid



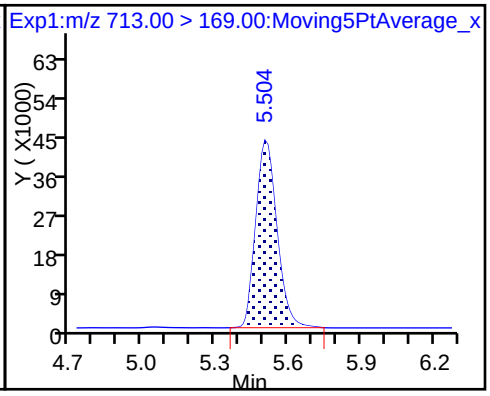
D 43 13C2-PFTeDA



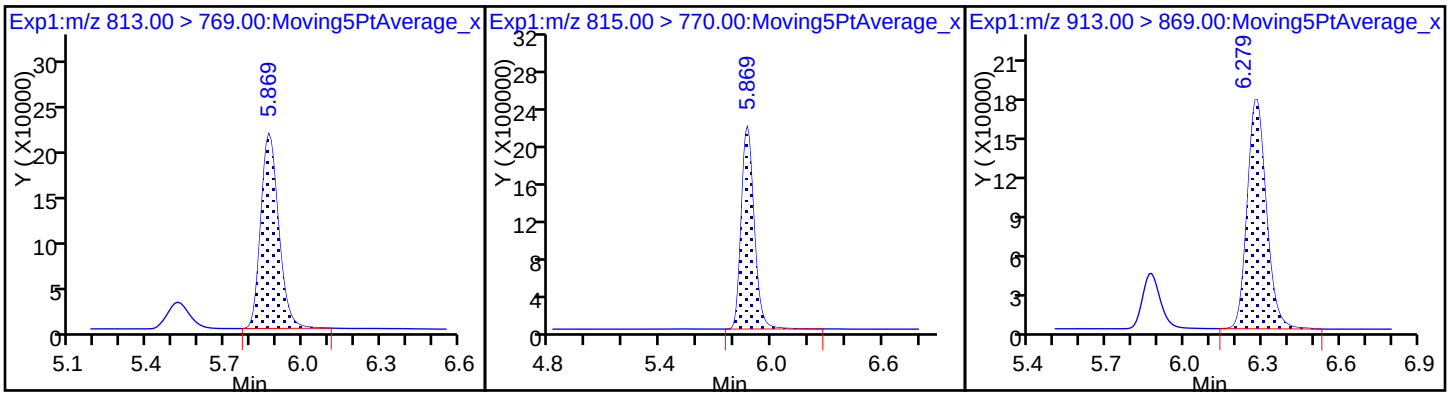
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

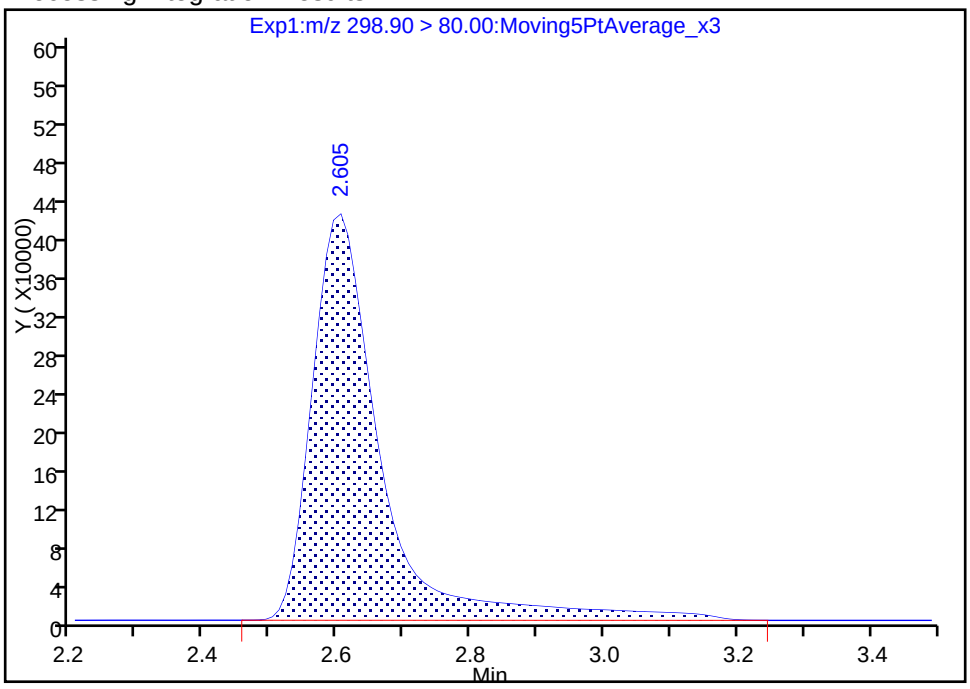
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_005.d
Injection Date: 19-Jun-2017 23:38:57 Instrument ID: A8_N
Lims ID: IC L3 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 1

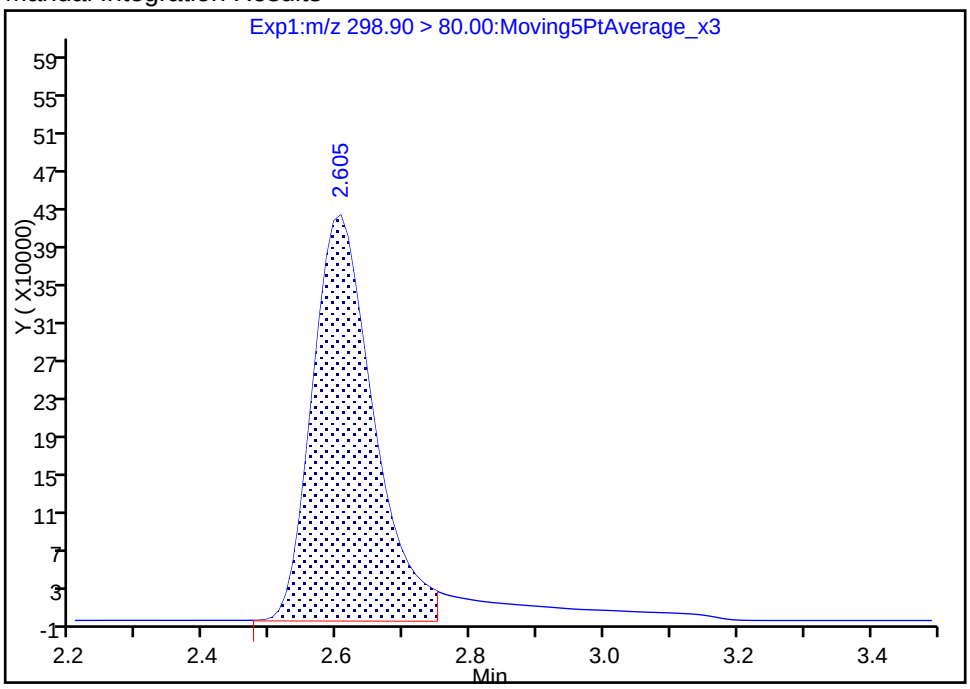
Processing Integration Results

RT: 2.60
Area: 3009163
Amount: 5.251235
Amount Units: ng/ml



Manual Integration Results

RT: 2.60
Area: 2682276
Amount: 4.768712
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:51:08
Audit Action: Manually Integrated Audit Reason: Assign Peak

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

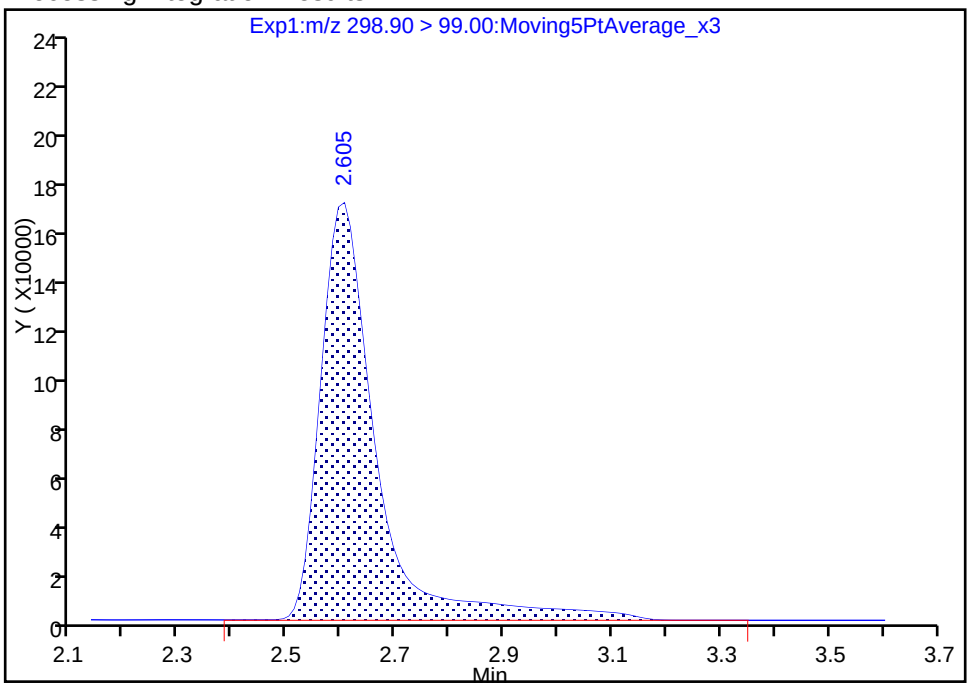
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_005.d
Injection Date: 19-Jun-2017 23:38:57 Instrument ID: A8_N
Lims ID: IC L3 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

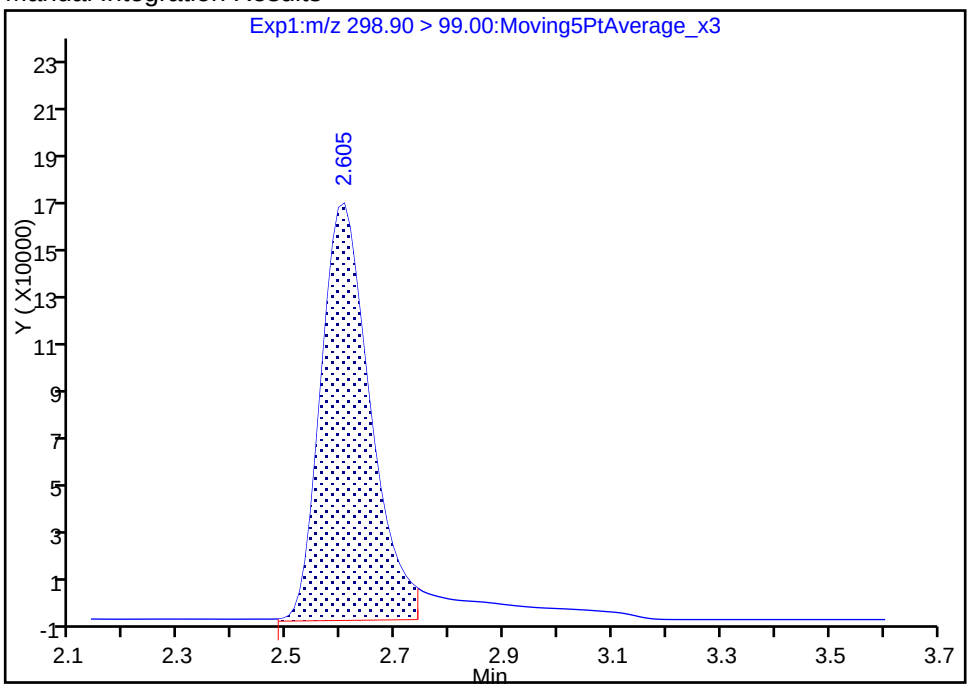
Processing Integration Results

RT: 2.60
Area: 1184387
Amount: 5.251235
Amount Units: ng/ml



Manual Integration Results

RT: 2.60
Area: 1049566
Amount: 4.768712
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 00:51:15
Audit Action: Manually Integrated Audit Reason: Assign Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_006.d
Lims ID: IC L4 Full
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 19-Jun-2017 23:46:38 ALS Bottle#: 31 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L4-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:40 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 00:42:42

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.180	2.172	0.008		23357961	50.0		100	99653	
2 Perfluorobutyric acid										
212.90 > 169.00	2.180	2.176	0.004	1.000	9153133	21.6		108	4019	
D 3 13C5-PFPeA										
267.90 > 223.00	2.568	2.559	0.009		16830467	50.4		101	135971	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.568	2.562	0.006	1.000	7314332	21.2		106	4207	
D 47 13C3-PFBS										
301.90 > 83.00	2.605	2.597	0.008		359404	NC			7551	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.605	2.605	0.0	1.000	10162744	19.0		107	82121	
298.90 > 99.00	2.605	2.605	0.0	1.000	3993556		2.54(0.00-0.00)	107	17009	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.927	2.917	0.010	1.000	2259388	17.1		91.6	127127	
D 7 13C2 PFHxA										
315.00 > 270.00	2.968	2.963	0.005		16824899	50.4		101	188900	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.968	2.963	0.005	1.000	6831179	20.1		101	7567	
D 9 13C4-PFHpA										
367.00 > 322.00	3.388	3.378	0.010		14947811	51.4		103	57006	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.388	3.380	0.008	1.000	6381773	20.2		101	1614	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.388	3.380	0.008	1.000	6329580	17.6		96.5	1672	
D 11 18O2 PFHxS										
403.00 > 84.00	3.388	3.381	0.007		15876065	48.7		103	261277	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.768	3.759	0.009		6889773	54.7		115	112485	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.768	3.760	0.008	1.000	2701905	19.3		102	9122	
* 62 13C2-PFOA										
415.00 > 370.00	3.779	3.771	0.008		15560119	50.0			85628	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.779	3.772	0.007	1.000	5604919	18.9		99.5	58495	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.790	3.779	0.011	1.000	6397112	19.8		99.1	919	
413.00 > 169.00	3.790	3.779	0.011	1.000	3507966		1.82(0.90-1.10)	99.1	13188	
D 14 13C4 PFOA										
417.00 > 372.00	3.790	3.779	0.011		15265378	52.7		105	105903	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.152	4.141	0.011	1.000	4783521	18.1		97.6	35519	
499.00 > 99.00	4.152	4.141	0.011	1.000	1034959		4.62(0.90-1.10)	97.6	10880	
D 18 13C4 PFOS										
503.00 > 80.00	4.152	4.141	0.011		11847967	50.7		106	65638	
20 Perfluorononanoic acid										
463.00 > 419.00	4.163	4.157	0.006	1.000	4976811	19.7		98.4	6222	
D 19 13C5 PFNA										
468.00 > 423.00	4.163	4.159	0.004		12670129	51.2		102	81958	
D 21 13C8 FOSA										
506.00 > 78.00	4.487	4.485	0.002		17788334	50.5		101	23887	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.499	4.487	0.012	1.000	7076582	20.9		105	20037	
D 23 13C2 PFDA										
515.00 > 470.00	4.499	4.495	0.004		11013985	50.4		101	8399	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.499	4.496	0.003	1.000	1952759	20.2		105	45357	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.499	4.496	0.003	1.000	4070711	19.7		98.7	967	
D 26 M2-8:2FTS										
529.00 > 509.00	4.499	4.496	0.003		4730474	44.6		93.0	15578	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.658	4.649	0.009		6349743	49.1		98.2	15523	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.658	4.653	0.005	1.000	2718401	20.8		104	91999	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.779	4.768	0.011	1.000	3054379	19.1		99.1	52157	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.800	4.794	0.006	1.000	3538230	19.5		97.7	11506	
D 30 13C2 PFUnA										
565.00 > 520.00	4.800	4.794	0.006		8877139	51.9		104	10286	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.811	4.801	0.010		6500630	51.4		103	7095	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.811	4.807	0.004	1.000	2531554	20.7		104	7240	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.939	4.935	0.004		6108298	50.1		100	235	
35 MeFOSA										
512.00 > 169.00	4.949	4.939	0.010	1.000	2463750	20.8		104	2588	
D 36 13C2 PFDoA										
615.00 > 570.00	5.062	5.056	0.006		9634401	51.6		103	13799	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.062	5.057	0.005	1.000	3558527	19.3		96.3	684	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.103	5.095	0.008		5927416	51.2		102	1831	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.112	5.103	0.009	1.000	2511159	21.0		105	2070	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.306	5.298	0.008	1.000	3864199	20.4		102	837	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.535	5.524	0.011	1.000	8202945	20.6		103	435	
713.00 > 169.00	5.523	5.524	-0.001	0.998	1018346		8.06(0.00-0.00)	103	7168	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.535	5.524	0.011		17973275	51.8		104	11841	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.880	5.874	0.006		11278119	54.6		109	5100	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.880	5.874	0.006	1.000	4085271	21.0		105	460	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.292	6.281	0.011	1.000	3996444	21.7		109	251	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L4_00005 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:40 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_006.d

Injection Date: 19-Jun-2017 23:46:38 Instrument ID: A8_N

Lims ID: IC L4 Full

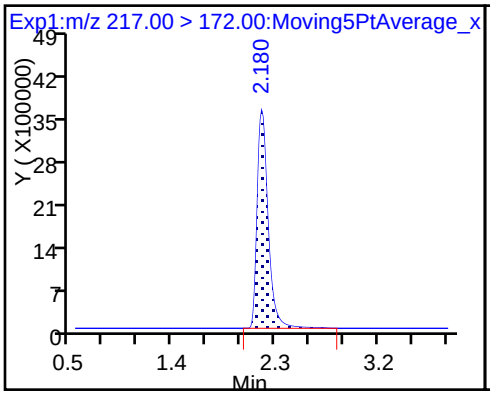
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 6

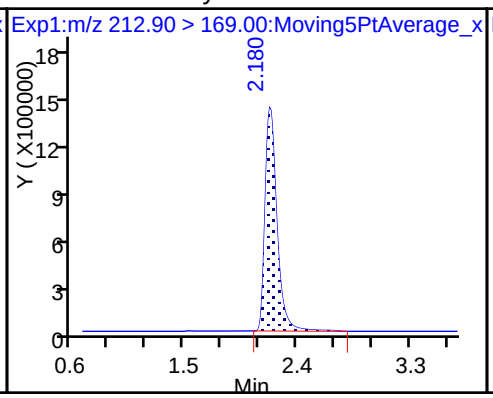
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

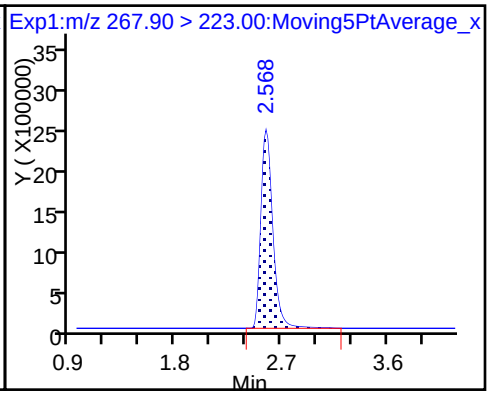
D 1 13C4 PFBA



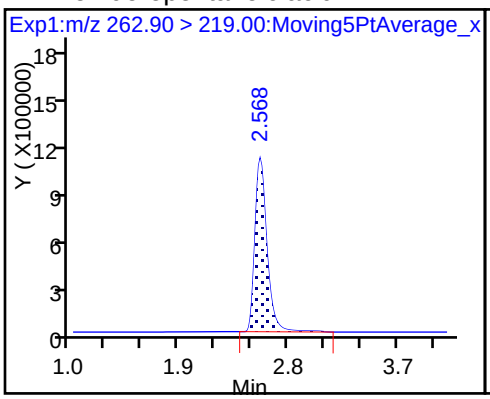
2 Perfluorobutyric acid



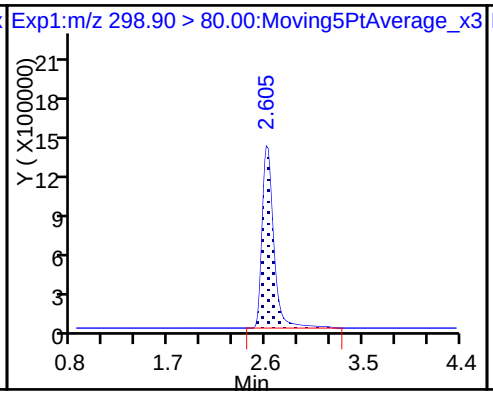
D 3 13C5-PFPeA



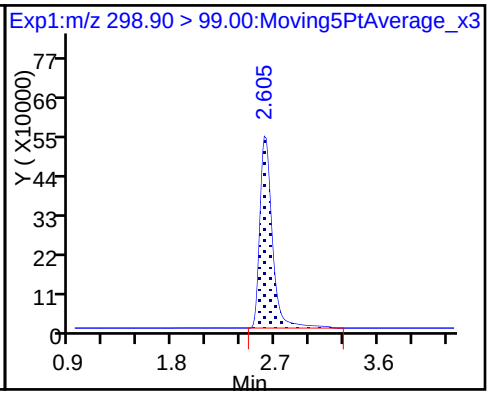
4 Perfluoropentanoic acid



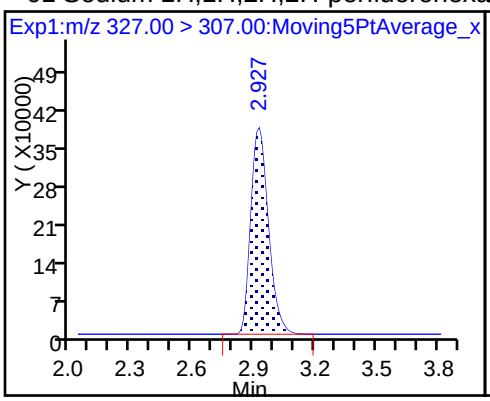
5 Perfluorobutanesulfonic acid



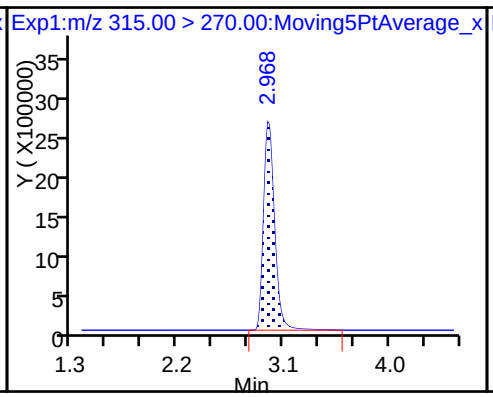
5 Perfluorobutanesulfonic acid



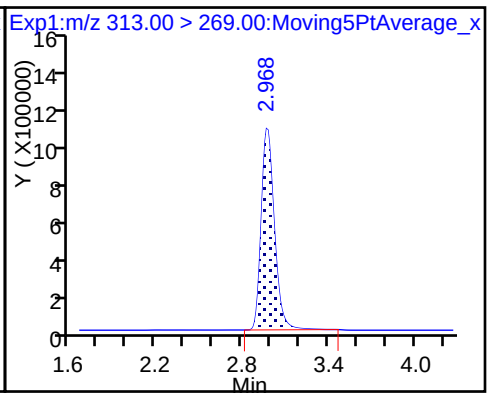
61 Sodium 1H,1H,2H,2H-perfluorohexa



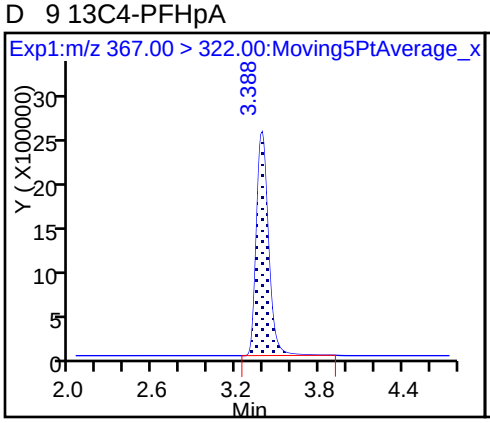
De 7 13C2 PFHxA



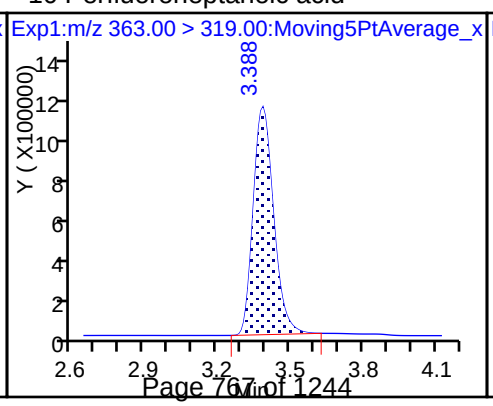
6 Perfluorohexanoic acid



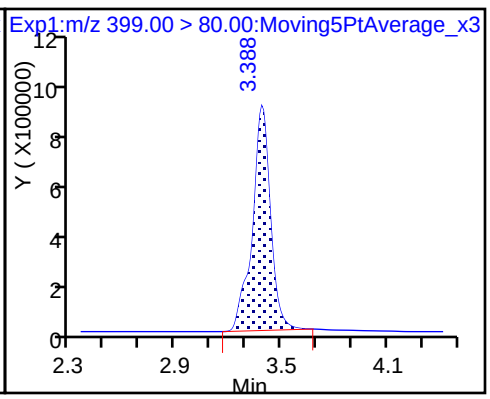
D 9 13C4-PFHpA



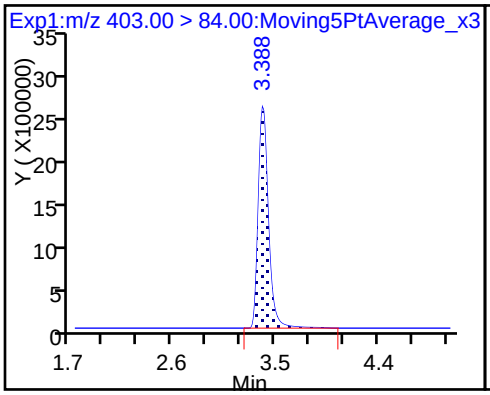
10 Perfluoroheptanoic acid



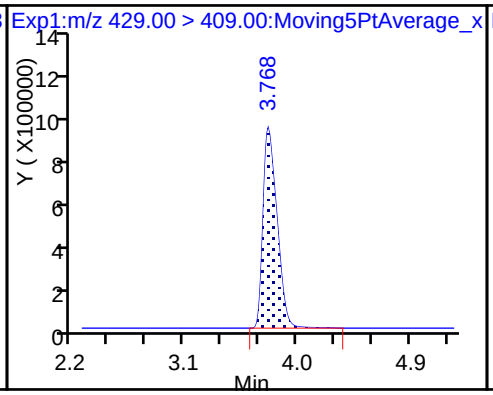
8 Perfluorohexanesulfonic acid



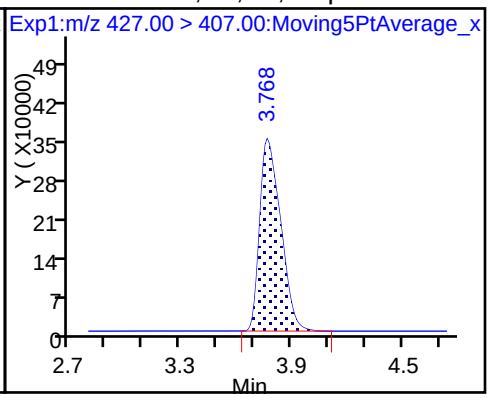
D 11 18O2 PFHxS



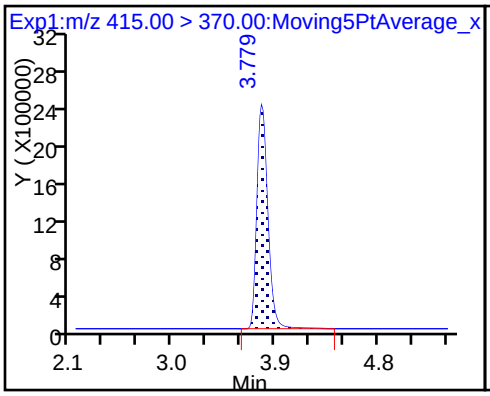
D 12 M2-6:2FTS



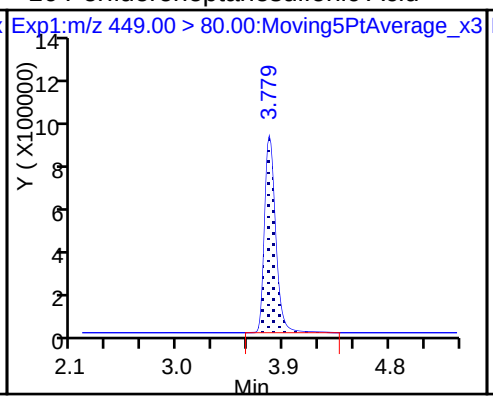
13 Sodium 1H,1H,2H,2H-perfluorooctane



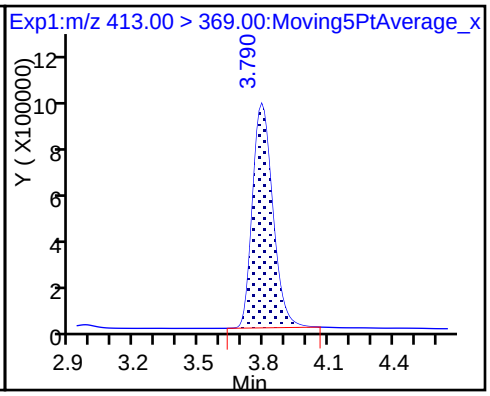
* 62 13C2-PFOA



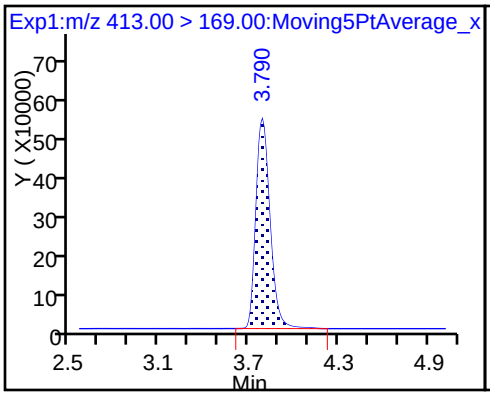
16 Perfluoroheptanesulfonic Acid



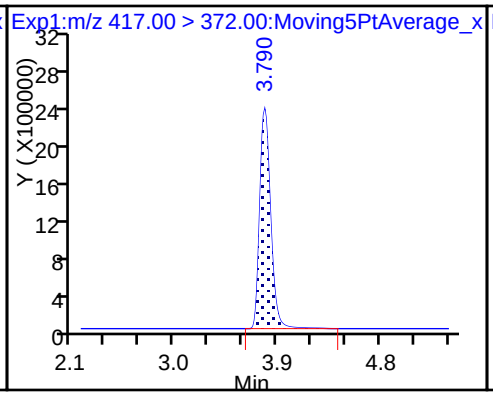
15 Perfluorooctanoic acid



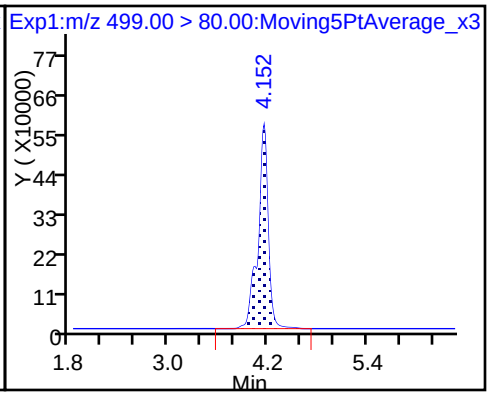
15 Perfluorooctanoic acid



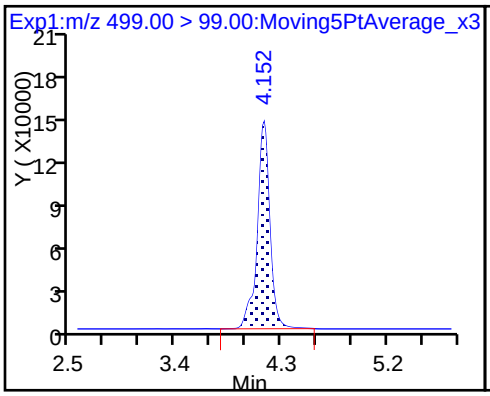
D 14 13C4 PFOA



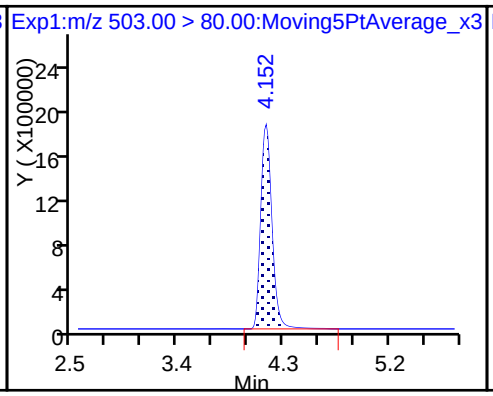
17 Perfluorooctane sulfonic acid



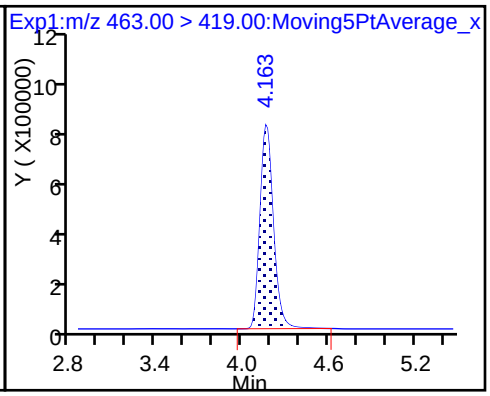
17 Perfluorooctane sulfonic acid



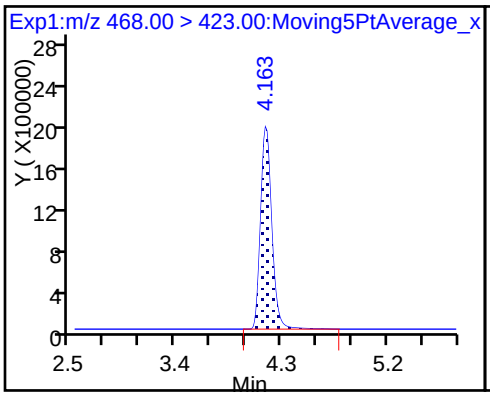
D 18 13C4 PFOS



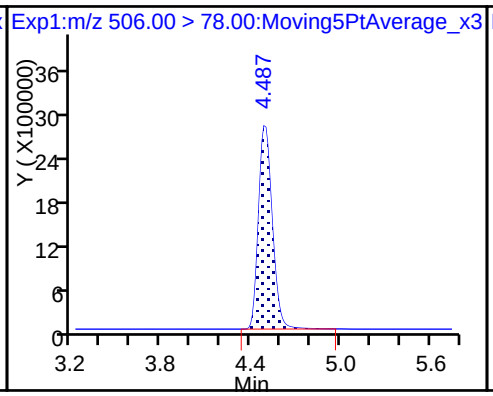
20 Perfluorononanoic acid



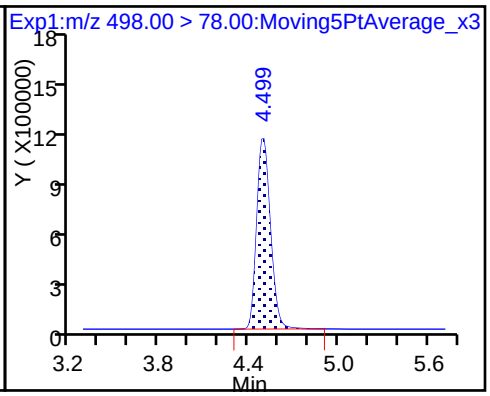
D 19 13C5 PFNA



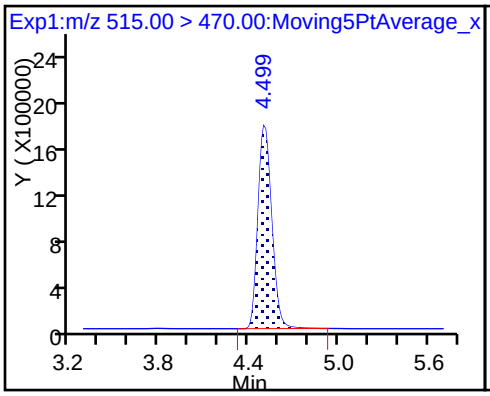
D 21 13C8 FOSA



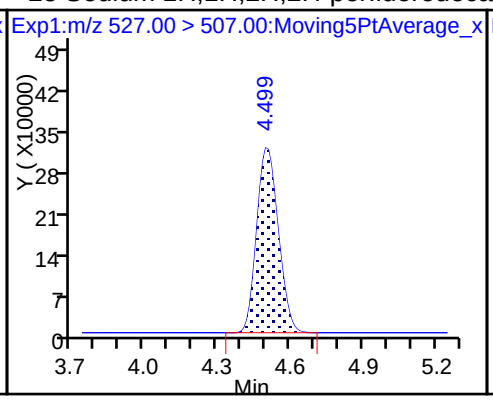
22 Perfluorooctane Sulfonamide



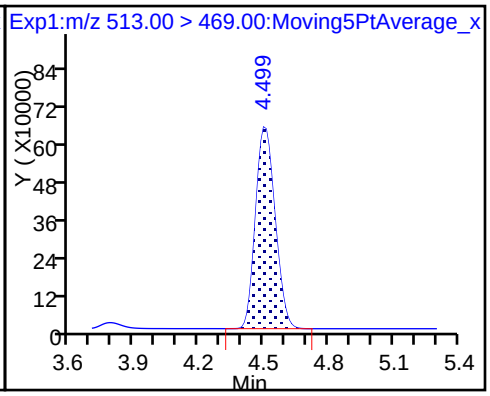
D 23 13C2 PFDA



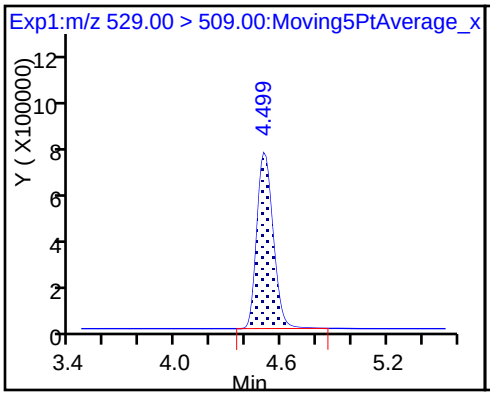
25 Sodium 1H,1H,2H,2H-perfluorodecan



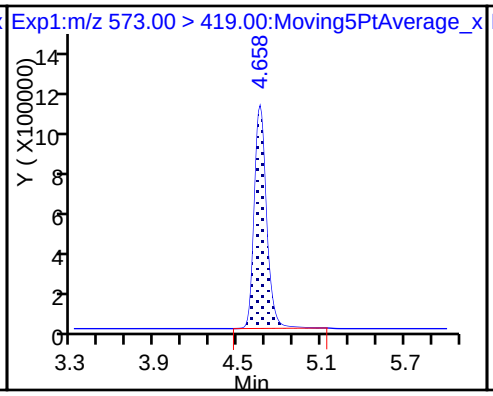
24 Perfluorodecanoic acid



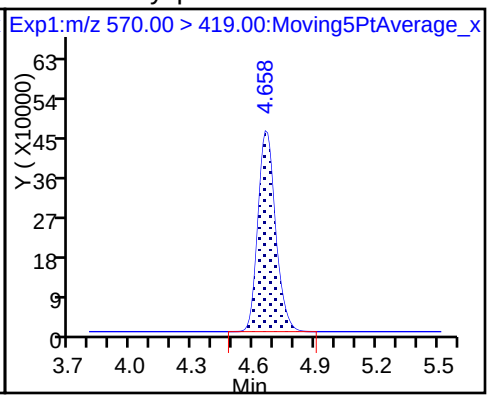
D 26 M2-8:2FTS



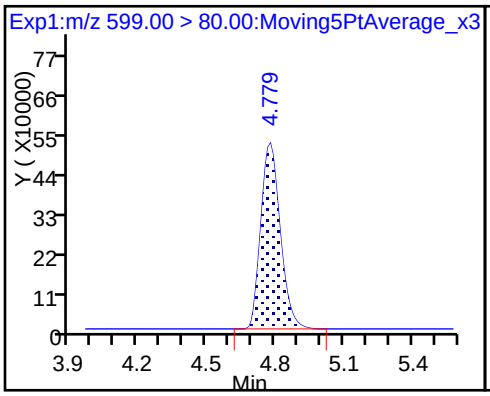
D 27 d3-NMeFOSAA



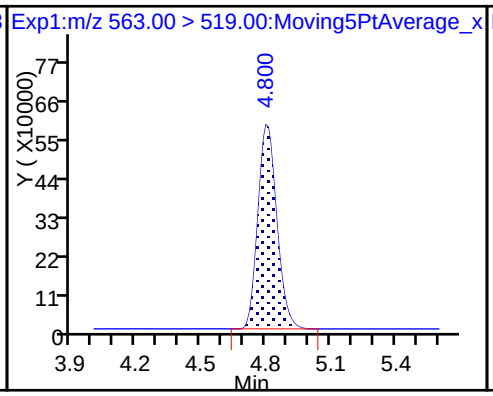
28 N-methyl perfluorooctane sulfonami



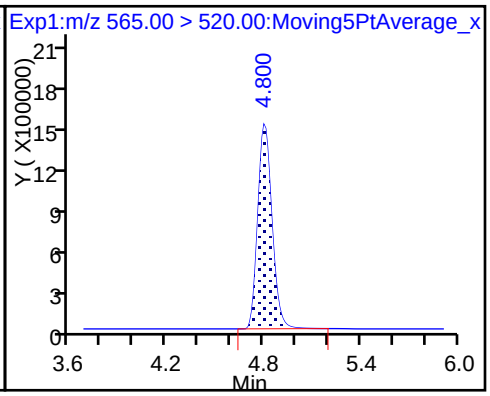
29 Perfluorodecane Sulfonic acid



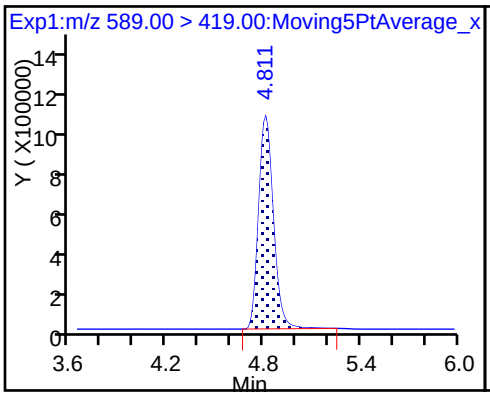
31 Perfluoroundecanoic acid



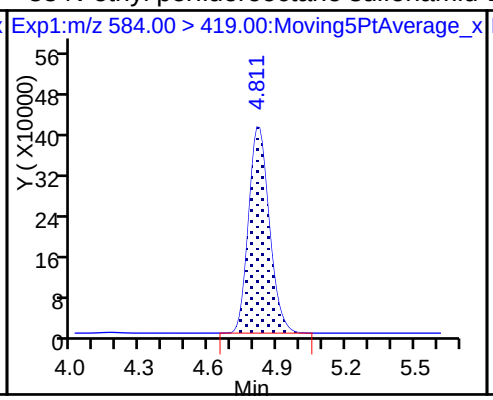
D 30 13C2 PFUnA



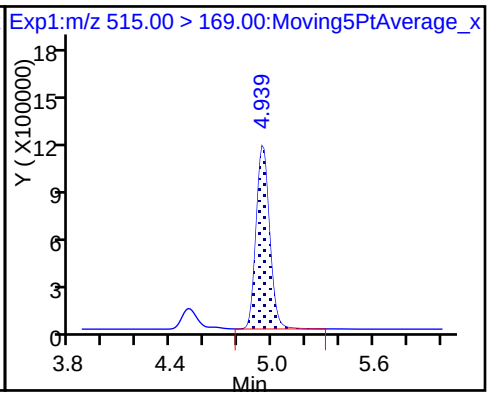
D 32 d5-NEtFOSAA



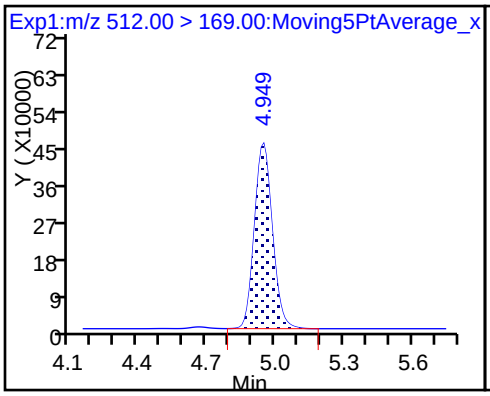
33 N-ethyl perfluorooctane sulfonamid



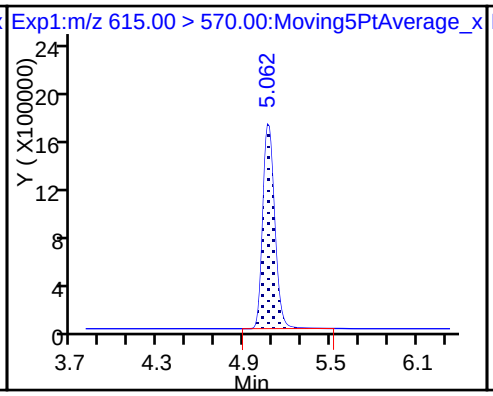
D 34 d-N-MeFOSA-M



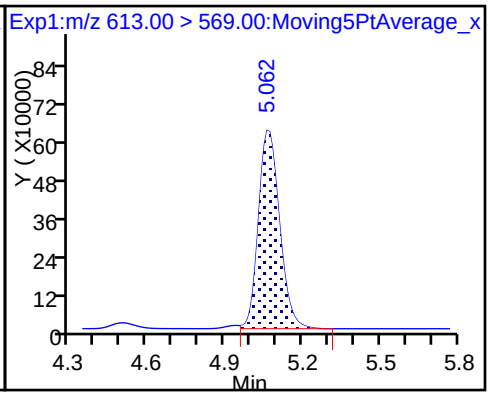
35 MeFOSA



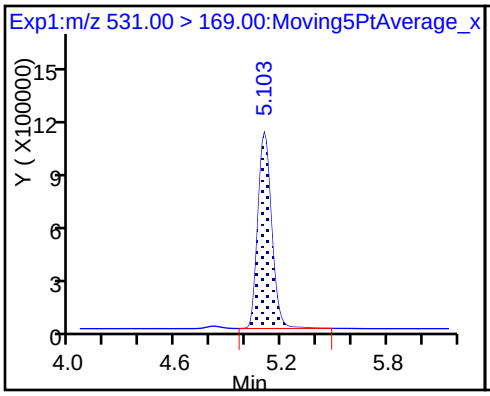
D 36 13C2 PFDoA



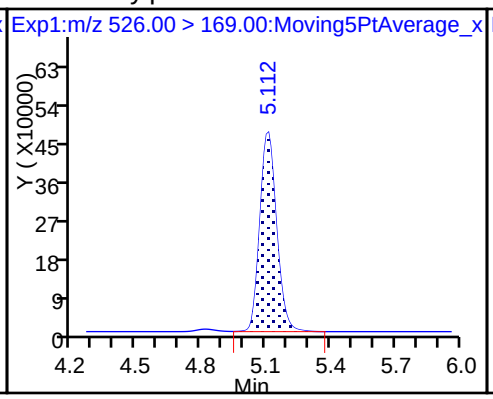
37 Perfluorododecanoic acid



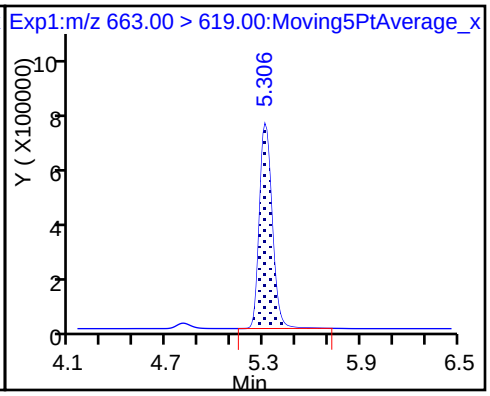
D 38 d-N-EtFOSA-M



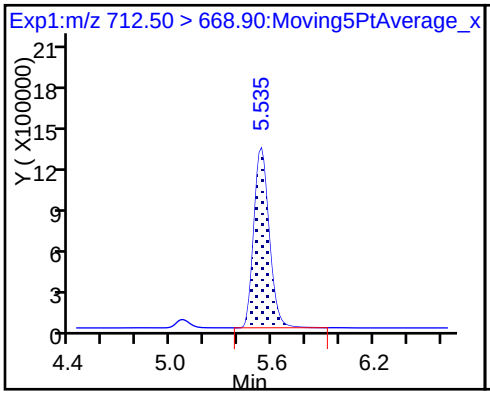
39 N-ethylperfluoro-1-octanesulfonami



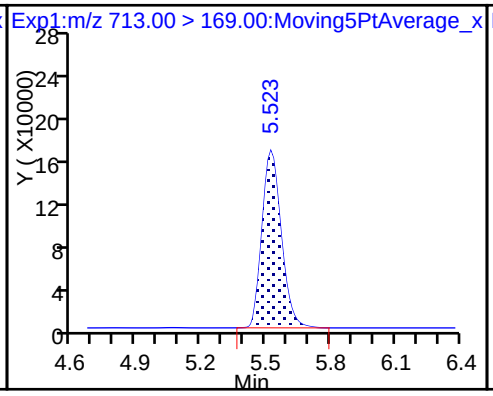
41 Perfluorotridecanoic acid



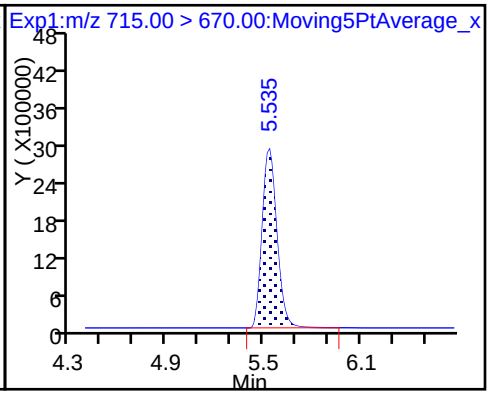
42 Perfluorotetradecanoic acid



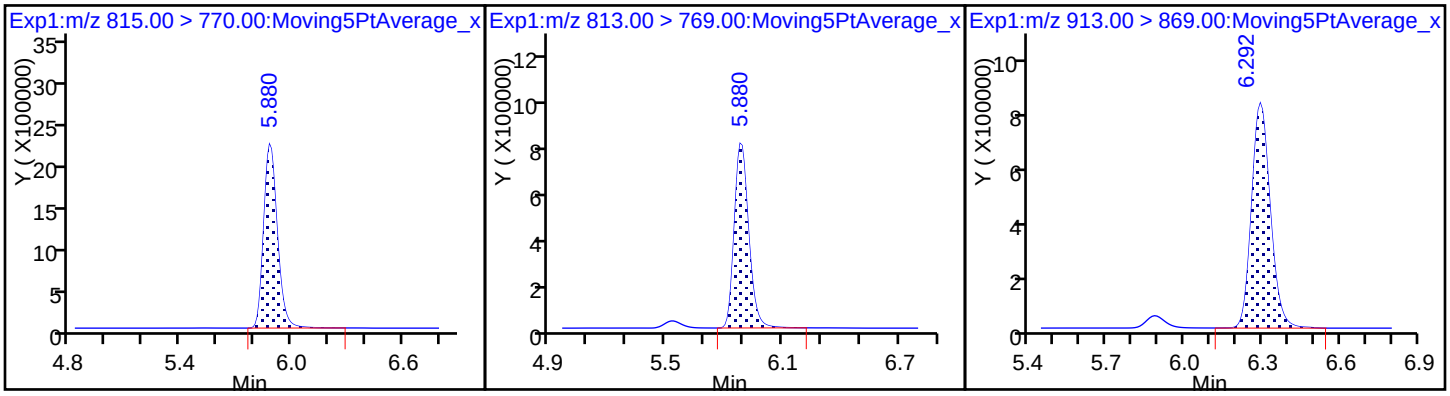
42 Perfluorotetradecanoic acid



D 43 13C2-PFTeDA



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_007.d
Lims ID: IC L5 Full
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 19-Jun-2017 23:54:19 ALS Bottle#: 32 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L5-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:43 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 00:50:29

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.175	2.172	0.003		22863543	49.0		97.9	115168	
2 Perfluorobutyric acid										
212.90 > 169.00	2.175	2.176	-0.001	1.000	22172989	53.6		107	8851	
D 3 13C5-PFPeA										
267.90 > 223.00	2.562	2.559	0.003		16538275	49.5		99.0	171321	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.562	2.562	0.0	1.000	17394669	51.3		103	9363	
D 47 13C3-PFBS										
301.90 > 83.00	2.599	2.597	0.002		357729	NC			8562	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.611	2.605	0.006	1.000	23834731	46.9		106	154812	
298.90 > 99.00	2.611	2.605	0.006	1.000	9641877		2.47(0.00-0.00)	106	38210	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.924	2.917	0.007	1.000	5532265	40.2		86.0	227072	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.965	2.963	0.002	1.000	16595020	50.5		101	20979	
D 7 13C2 PFHxA										
315.00 > 270.00	2.965	2.963	0.002		16265867	48.8		97.5	169269	
D 9 13C4-PFHpA										
367.00 > 322.00	3.380	3.378	0.002		13985350	48.1		96.1	14619	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.389	3.380	0.009	1.000	15421542	45.2		99.3	4764	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.389	3.380	0.009	1.000	15335591	51.9		104	2952	
D 11 18O2 PFHxS										
403.00 > 84.00	3.389	3.381	0.008		15037824	46.1		97.6	267967	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.765	3.759	0.006		7181707	57.0		120	28832	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.765	3.760	0.005	1.000	7200300	49.3		104	22917	
* 62 13C2-PFOA										
415.00 > 370.00	3.776	3.771	0.005		15107457	50.0			95534	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.776	3.772	0.004	1.000	14265381	52.6		110	129216	
D 14 13C4 PFOA										
417.00 > 372.00	3.786	3.779	0.007		14615251	50.4		101	116451	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.786	3.779	0.007	1.000	15927084	51.5		103	2230	
413.00 > 169.00	3.786	3.779	0.007	1.000	8691580		1.83(0.90-1.10)	103	22874	
D 18 13C4 PFOS										
503.00 > 80.00	4.144	4.141	0.003		10863872	46.5		97.3	42513	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.144	4.141	0.003	1.000	11947820	49.3		106	15347	
499.00 > 99.00	4.144	4.141	0.003	1.000	2497906		4.78(0.90-1.10)	106	25313	
20 Perfluorononanoic acid										
463.00 > 419.00	4.169	4.157	0.012	1.000	12714221	51.9		104	17341	
D 19 13C5 PFNA										
468.00 > 423.00	4.169	4.159	0.010		12271660	49.6		99.2	91217	
D 21 13C8 FOSA										
506.00 > 78.00	4.490	4.485	0.005		17447347	49.6		99.2	70630	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.490	4.487	0.003	1.000	17064519	51.4		103	27333	
D 23 13C2 PFDA										
515.00 > 470.00	4.502	4.495	0.007		10799152	49.4		98.9	9245	
D 26 M2-8:2FTS										
529.00 > 509.00	4.502	4.496	0.006		5166636	48.7		102	45140	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.502	4.496	0.006	1.000	10489079	51.9		104	2309	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.502	4.496	0.006	1.000	5205944	49.3		103	21246	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.651	4.649	0.002		6696911	51.8		104	34352	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.662	4.653	0.009	1.002	6871508	50.0		99.9	3476	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.776	4.768	0.008	1.000	7667549	52.3		109	18068	
D 30 13C2 PFUnA										
565.00 > 520.00	4.800	4.794	0.006		8271511	48.4		96.8	32685	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.800	4.794	0.006	1.000	8675068	51.4		103	17686	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.800	4.801	-0.001		6060758	47.9		95.8	3647	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.813	4.807	0.006	1.003	5938860	52.1		104	3330	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.936	4.935	0.001		6200752	50.8		102	209	
35 MeFOSA										
512.00 > 169.00	4.948	4.939	0.009	1.000	6309087	52.5		105	2014	
D 36 13C2 PFDoA										
615.00 > 570.00	5.065	5.056	0.009		9000084	48.2		96.5	21387	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.065	5.057	0.008	1.000	8728975	50.6		101	1957	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.100	5.095	0.005		5808280	50.2		100	1759	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.111	5.103	0.008	1.000	6206959	53.0		106	1905	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.305	5.298	0.007	1.000	9404371	53.1		106	1977	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.532	5.524	0.008		17348197	50.0		100	9384	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.532	5.524	0.008	1.000	19698099	52.9		106	1033	
713.00 > 169.00	5.519	5.524	-0.005	0.998	2551449		7.72(0.00-0.00)	106	18549	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.887	5.874	0.013	1.000	9446101	53.0		106	998	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.887	5.874	0.013		10707876	51.9		104	4991	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.290	6.281	0.009	1.000	9299461	54.2		108	552	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L5_00005 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:43 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_007.d

Injection Date: 19-Jun-2017 23:54:19 Instrument ID: A8_N

Lims ID: IC L5 Full

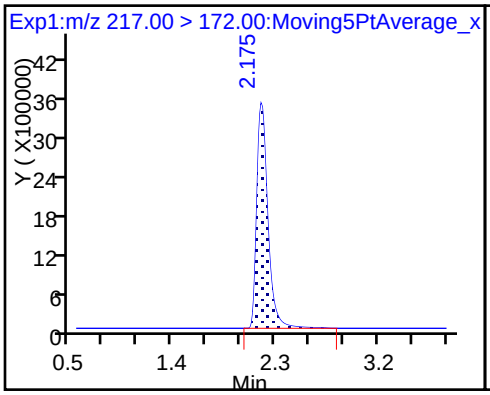
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 7

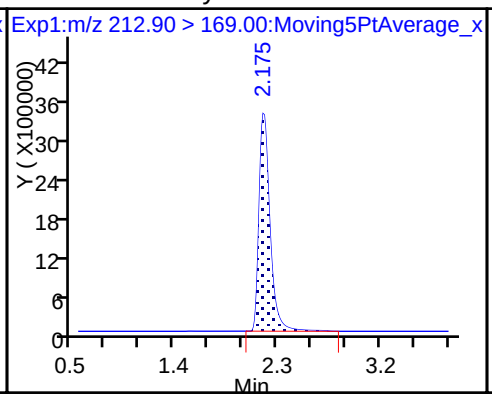
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

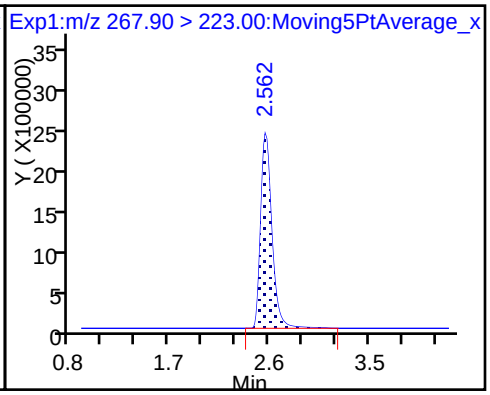
D 1 13C4 PFBA



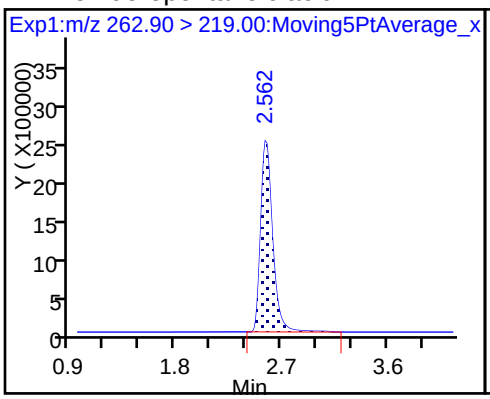
2 Perfluorobutyric acid



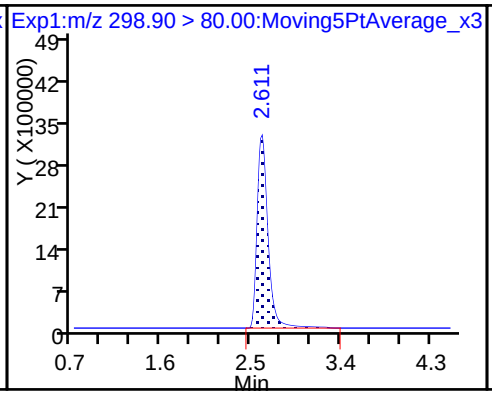
D 3 13C5-PFPeA



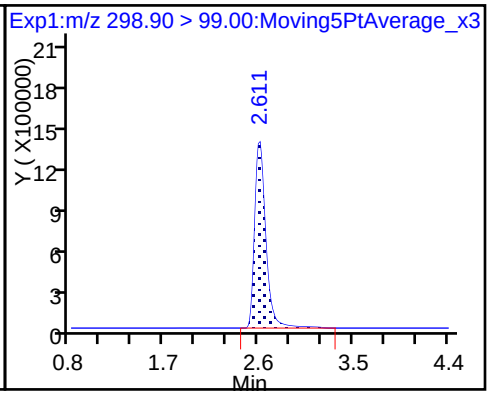
4 Perfluoropentanoic acid



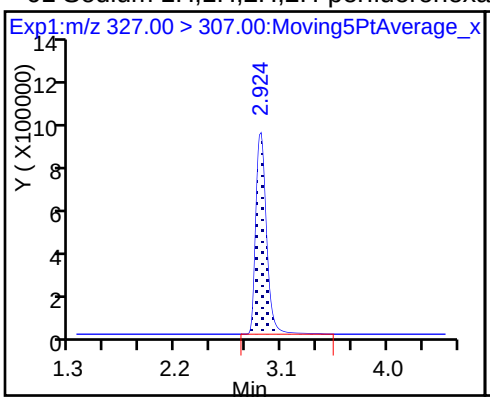
5 Perfluorobutanesulfonic acid



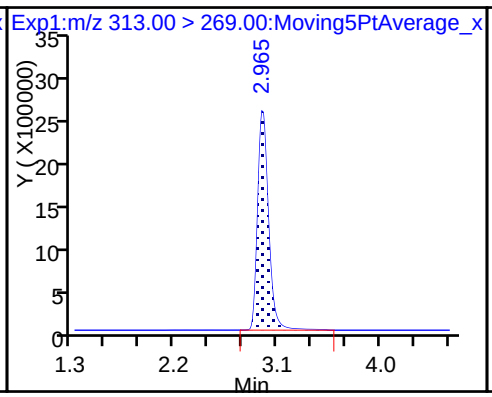
5 Perfluorobutanesulfonic acid



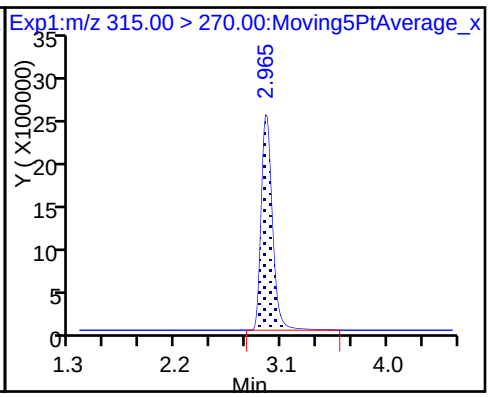
61 Sodium 1H,1H,2H,2H-perfluorohexane



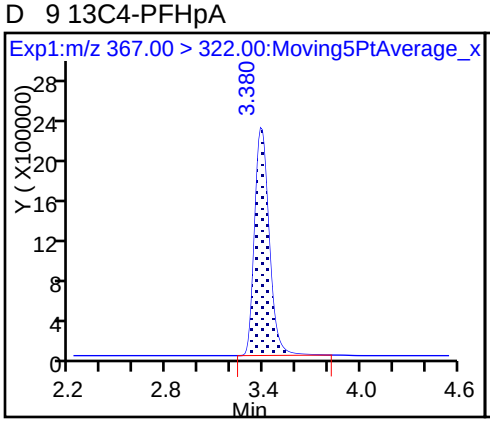
6 Perfluorohexanoic acid



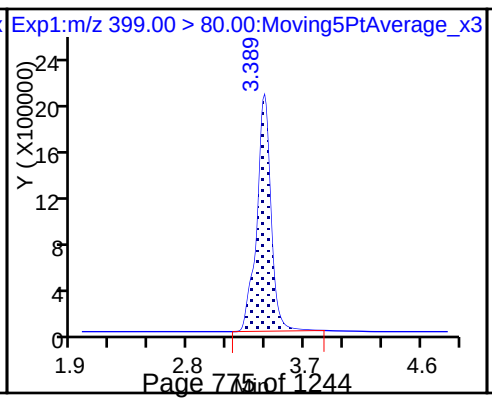
D 7 13C2 PFHxA



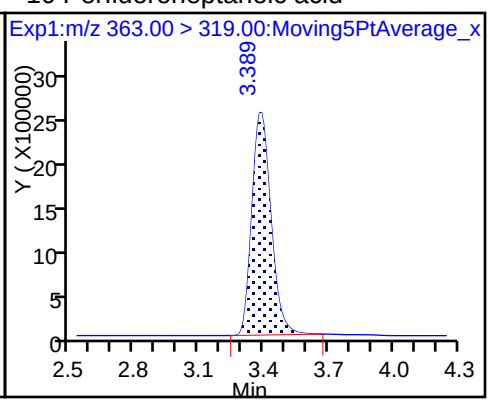
D 9 13C4-PFHpA



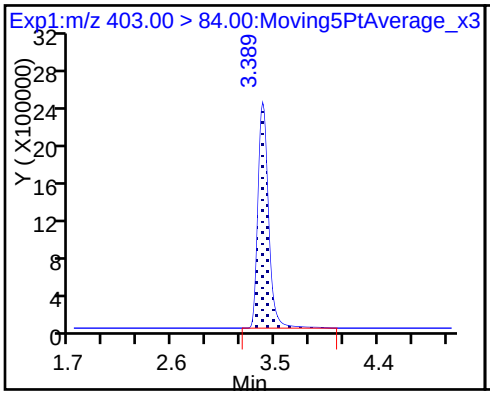
8 Perfluorohexanesulfonic acid



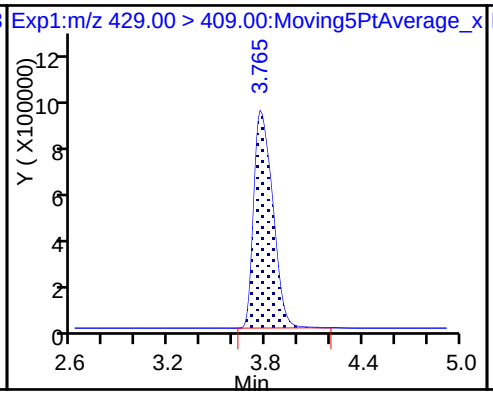
10 Perfluoroheptanoic acid



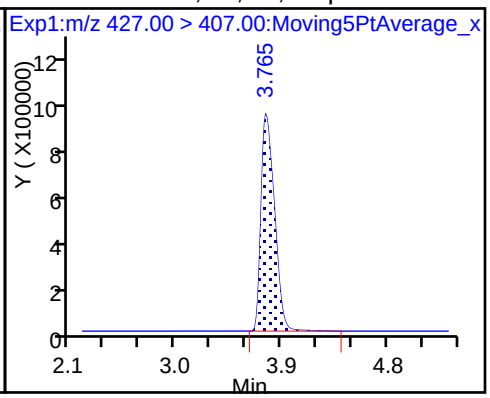
D 11 18O2 PFHxS



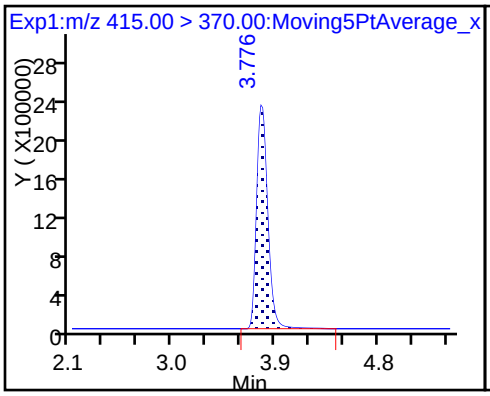
D 12 M2-6:2FTS



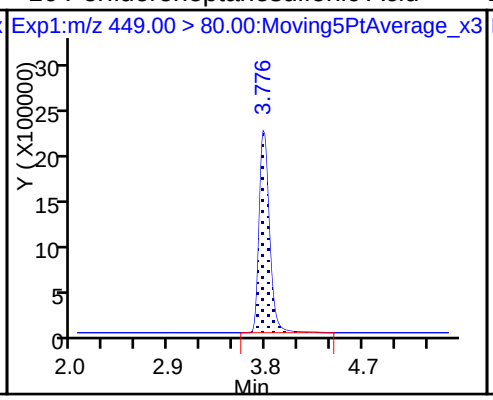
13 Sodium 1H,1H,2H,2H-perfluorooctane



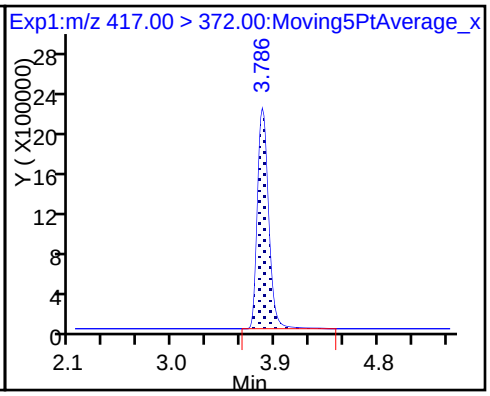
* 62 13C2-PFOA



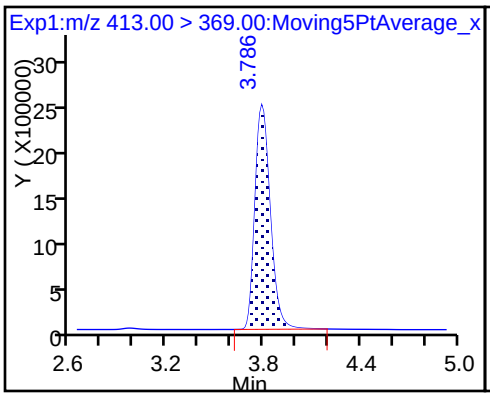
16 Perfluoroheptanesulfonic Acid



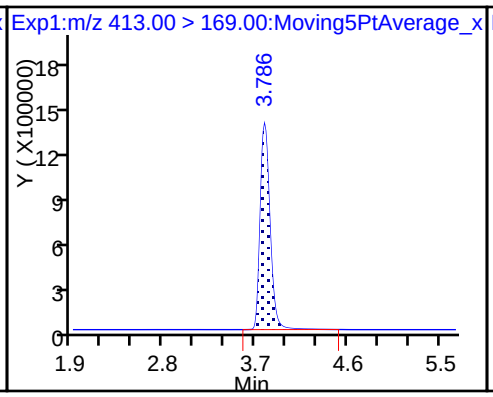
D 14 13C4 PFOA



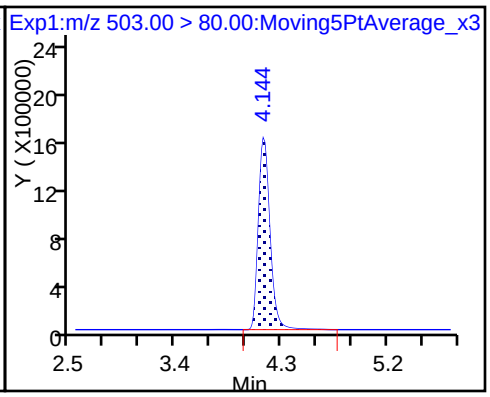
15 Perfluorooctanoic acid



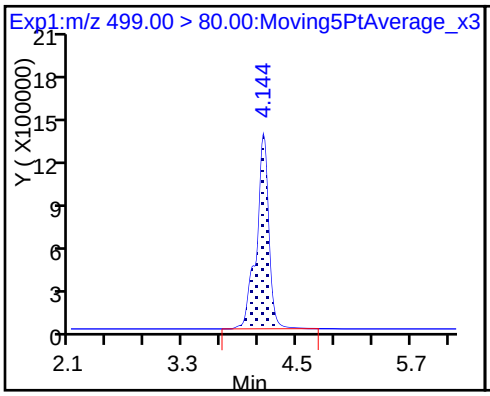
15 Perfluorooctanoic acid



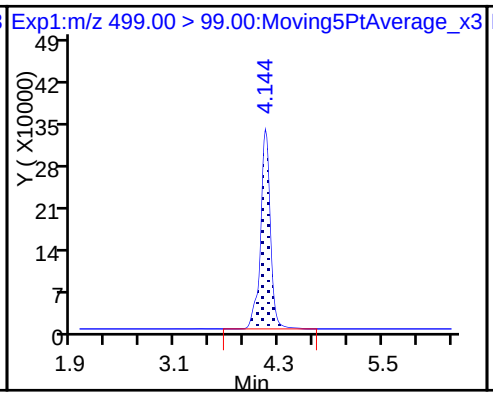
D 18 13C4 PFOS



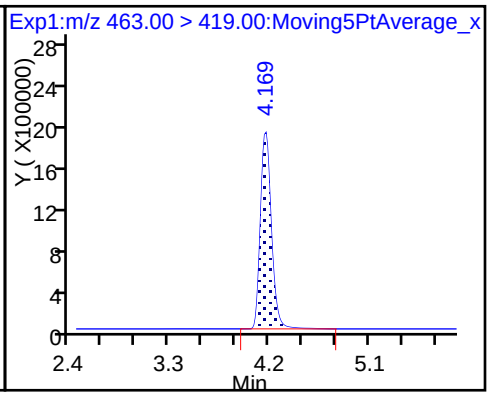
17 Perfluorooctane sulfonic acid



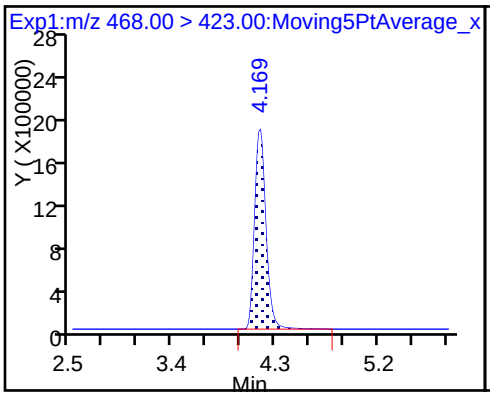
17 Perfluorooctane sulfonic acid



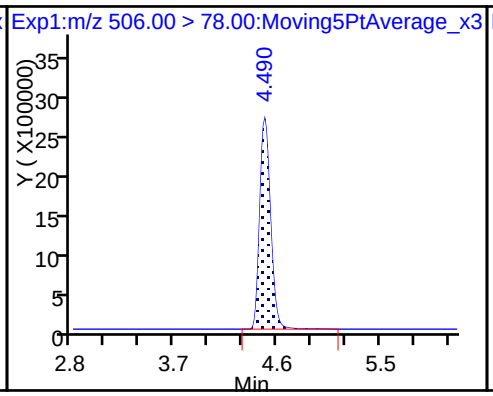
20 Perfluorononanoic acid



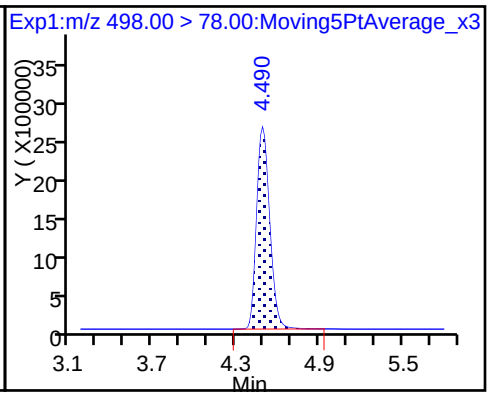
D 19 13C5 PFNA



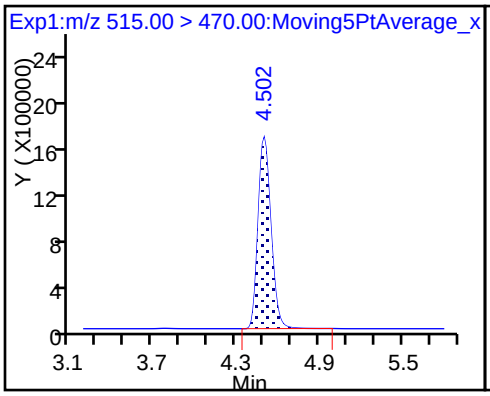
D 21 13C8 FOSA



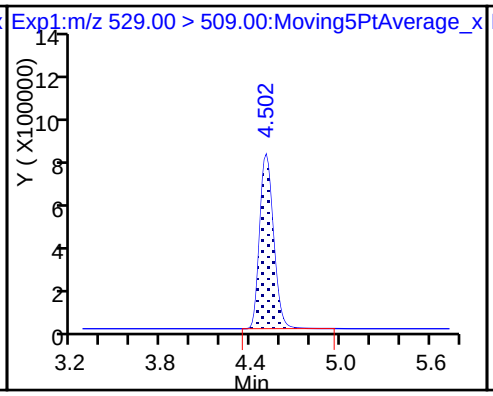
22 Perfluorooctane Sulfonamide



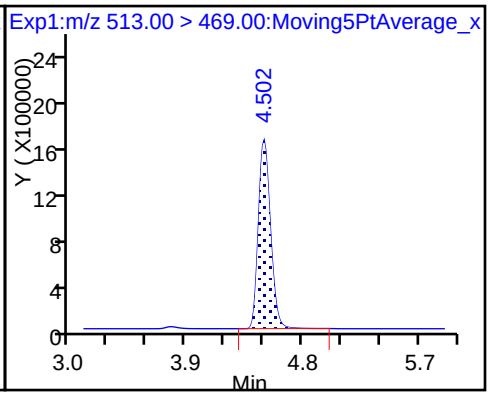
D 23 13C2 PFDA



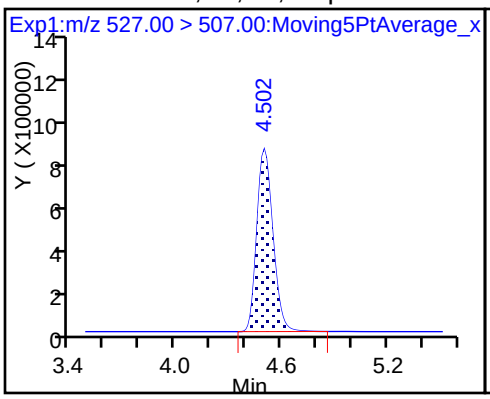
D 26 M2-8:2FTS



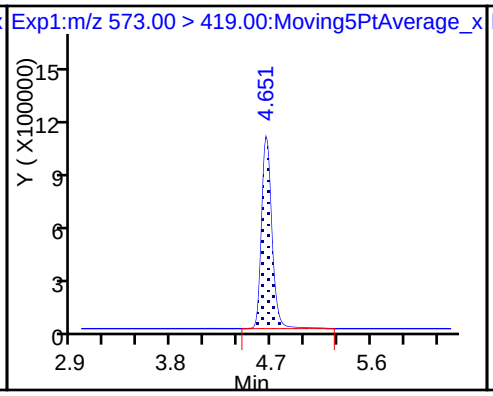
24 Perfluorodecanoic acid



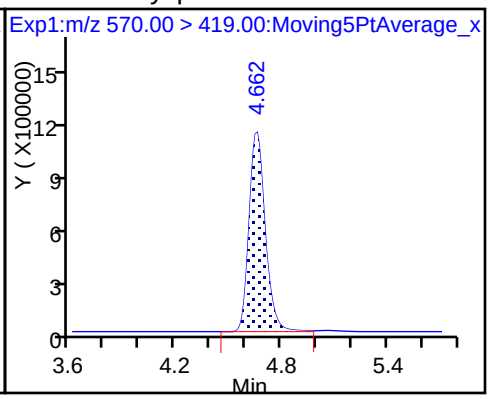
25 Sodium 1H,1H,2H,2H-perfluorodecane



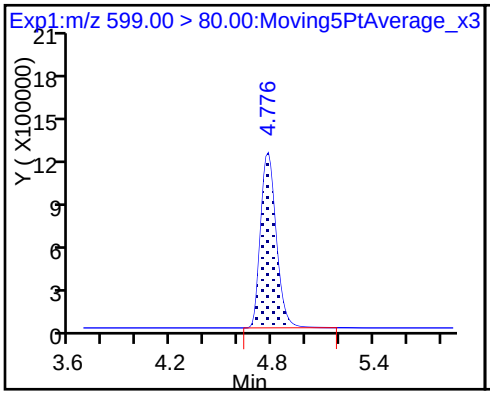
D 27 d3-NMeFOSAA



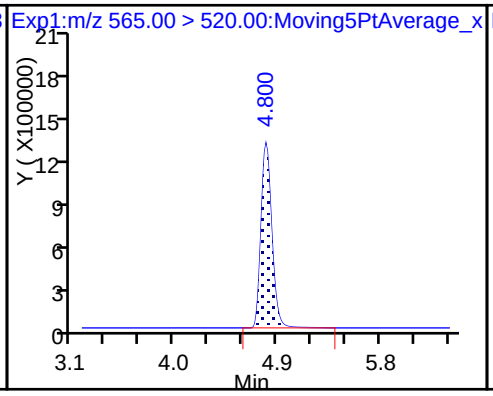
28 N-methyl perfluorooctane sulfonami



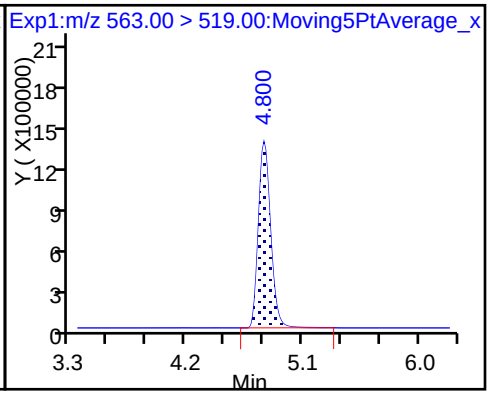
29 Perfluorodecane Sulfonic acid



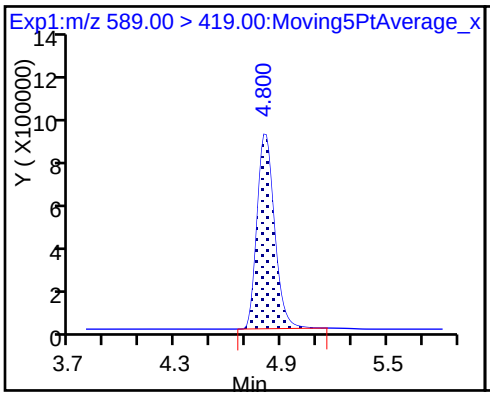
D 30 13C2 PFUnA



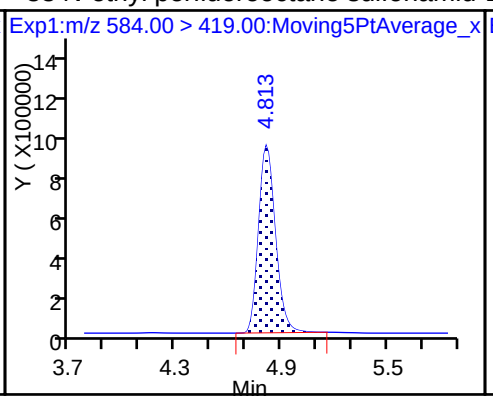
31 Perfluoroundecanoic acid



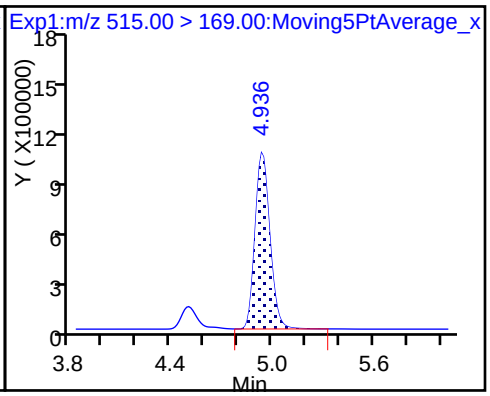
D 32 d5-NEtFOSAA



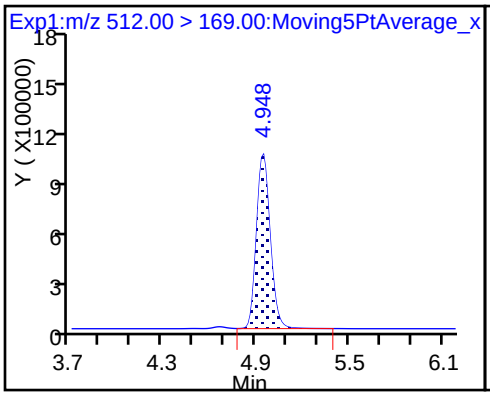
33 N-ethyl perfluorooctane sulfonamid



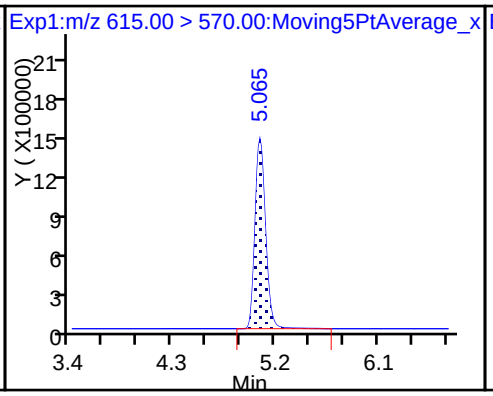
D 34 d-N-MeFOSA-M



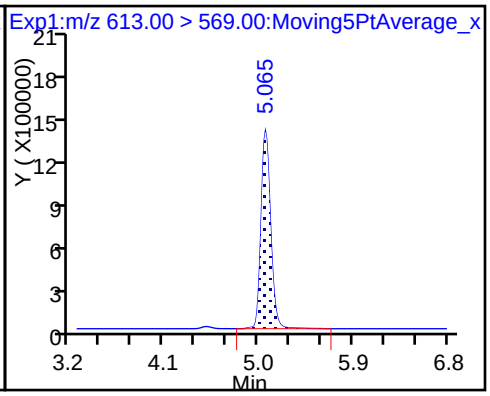
35 MeFOSA



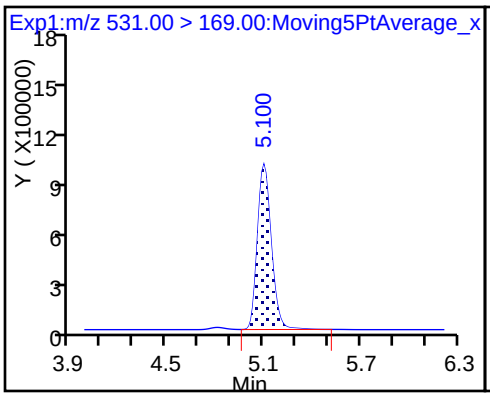
D 36 13C2 PFDoA



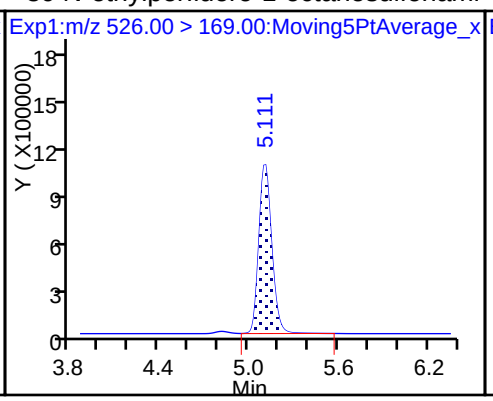
37 Perfluorododecanoic acid



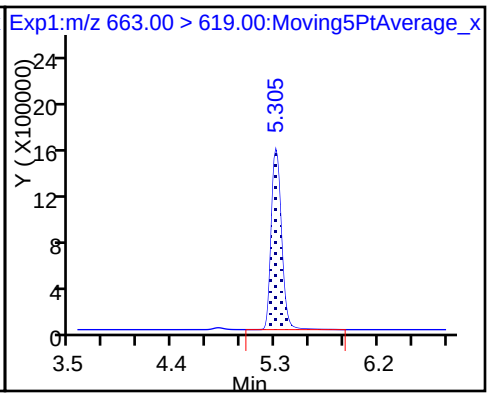
D 38 d-N-EtFOSA-M



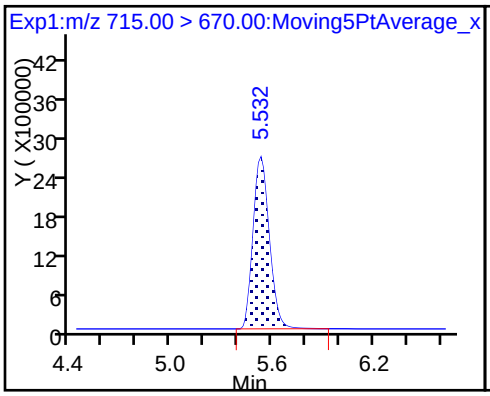
39 N-ethylperfluoro-1-octanesulfonami



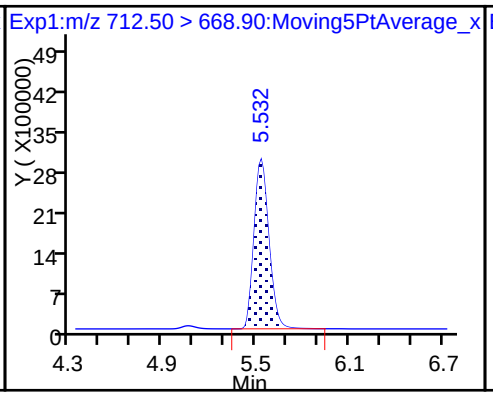
41 Perfluorotridecanoic acid



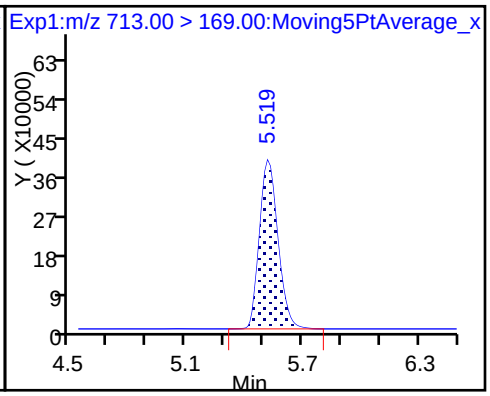
D 43 13C2-PFTeDA



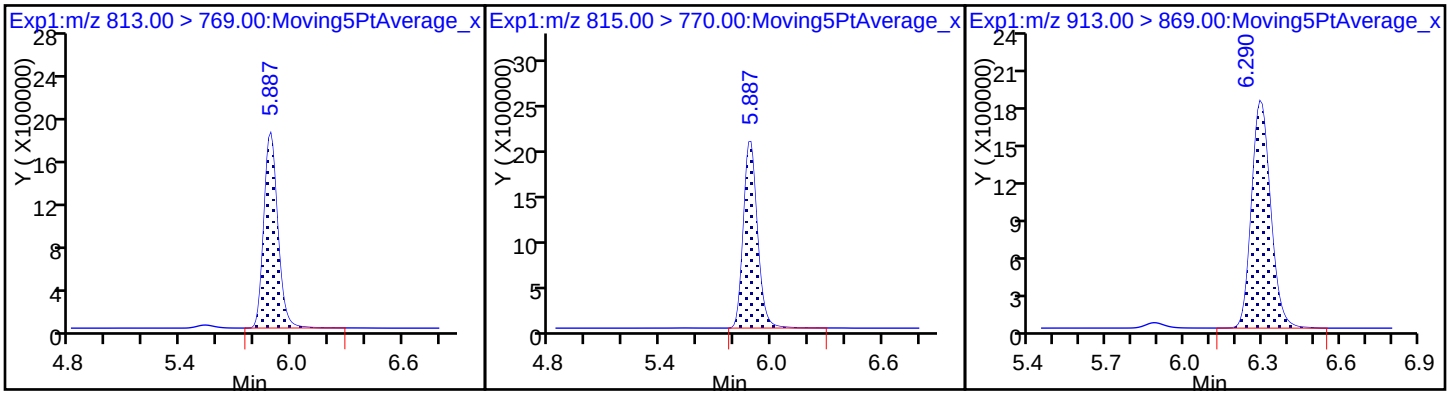
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_008.d
Lims ID: IC L6 Full
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 20-Jun-2017 00:02:01 ALS Bottle#: 33 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L6-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:46 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 00:49:50

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.169	2.172	-0.003		22524779	48.2		96.5	112752	
2 Perfluorobutyric acid										
212.90 > 169.00	2.179	2.176	0.003	1.000	39561904	97.0		97.0	18165	
D 3 13C5-PFPeA										
267.90 > 223.00	2.555	2.559	-0.004		15913120	47.6		95.3	16971	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.555	2.562	-0.007	1.000	32196861	98.6		98.6	16601	
D 47 13C3-PFBS										
301.90 > 83.00	2.593	2.597	-0.004		338580	NC			9689	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.605	2.605	0.0	1.000	42363510	86.1		97.4	236701	
298.90 > 99.00	2.605	2.605	0.0	1.000	18401078		2.30(0.00-0.00)	97.4	77077	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.913	2.917	-0.004	1.000	10199650	99.6		107	279010	
D 7 13C2 PFHxA										
315.00 > 270.00	2.964	2.963	0.001		15836917	47.5		95.0	23576	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.964	2.963	0.001	1.000	31454343	98.4		98.4	36481	
D 9 13C4-PFHpA										
367.00 > 322.00	3.377	3.378	-0.001		13398721	46.0		92.1	18512	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.377	3.380	-0.003	1.000	29126874	102.9		103	10083	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.377	3.380	-0.003	1.000	30511050	92.2		101	19334	
D 11 18O2 PFHxS										
403.00 > 84.00	3.387	3.381	0.006		14577442	44.7		94.6	287523	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.762	3.759	0.003		5342146	42.4		89.2	121436	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.762	3.760	0.002	1.000	9667674	89.1		94.0	35646	
* 62 13C2-PFOA										
415.00 > 370.00	3.773	3.771	0.001		13330570	50.0			86767	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.773	3.772	0.0	1.000	25255460	96.4		101	170300	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.783	3.779	0.004	1.000	27960996	98.3		98.3	4075	
413.00 > 169.00	3.783	3.779	0.004	1.000	15823311		1.77(0.90-1.10)	98.3	24021	
D 14 13C4 PFOA										
417.00 > 372.00	3.783	3.779	0.004		13445532	46.4		92.8	103665	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.142	4.141	0.001	1.000	22558235	96.5		104	15476	
499.00 > 99.00	4.142	4.141	0.001	1.000	4772668		4.73(0.90-1.10)	104	38332	
D 18 13C4 PFOS										
503.00 > 80.00	4.142	4.141	0.001		10487694	44.9		94.0	25244	
20 Perfluorononanoic acid										
463.00 > 419.00	4.154	4.157	-0.003	1.000	22837006	100.7		101	21028	
D 19 13C5 PFNA										
468.00 > 423.00	4.154	4.159	-0.005		11363509	45.9		91.8	21920	
D 21 13C8 FOSA										
506.00 > 78.00	4.488	4.485	0.003		16892202	48.0		96.0	55605	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.488	4.487	0.001	1.000	31765304	98.8		98.8	161953	
D 23 13C2 PFDA										
515.00 > 470.00	4.500	4.495	0.005		10289884	47.1		94.2	12600	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.500	4.496	0.004	1.000	9724218	100.4		105	22792	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.500	4.496	0.004	1.000	19410846	100.7		101	5072	
D 26 M2-8:2FTS										
529.00 > 509.00	4.500	4.496	0.004		4744020	44.7		93.3	16264	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.649	4.649	0.0		6240431	48.3		96.6	9774	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.649	4.653	-0.004	1.000	13824887	107.9		108	7607	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.762	4.768	-0.006	1.000	13859454	98.0		102	101836	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.799	4.794	0.005	1.000	15513832	98.1		98.1	32372	
D 30 13C2 PFUnA										
565.00 > 520.00	4.799	4.794	0.005		7752697	45.4		90.7	9021	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.799	4.801	-0.002		5926407	46.9		93.7	23424	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.812	4.807	0.005	1.003	11213767	100.6		101	8848	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.935	4.935	-0.001		6141356	50.3		101	220	
35 MeFOSA										
512.00 > 169.00	4.935	4.939	-0.005	1.000	12225681	102.8		103	1977	
D 36 13C2 PFDoA										
615.00 > 570.00	5.062	5.056	0.006		8756658	46.9		93.9	20579	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.062	5.057	0.005	1.000	16847229	100.3		100	4033	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.086	5.095	-0.009		5806581	50.2		100	1554	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.098	5.103	-0.005	1.000	12114054	103.5		104	1938	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.301	5.298	0.003	1.000	17282290	100.2		100	3856	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.529	5.524	0.005	1.000	34295702	94.8		94.8	1668	
713.00 > 169.00	5.516	5.524	-0.008	0.998	4776303		7.18(0.00-0.00)	94.8	8464	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.529	5.524	0.005		16458893	47.5		94.9	14887	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.878	5.874	0.004		10260801	49.7		99.4	4797	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.878	5.874	0.004	1.000	18053591	104.9		105	1573	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.288	6.281	0.007	1.000	17259979	103.3		103	1085	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L6_00005 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:47 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_008.d

Injection Date: 20-Jun-2017 00:02:01 Instrument ID: A8_N

Lims ID: IC L6 Full

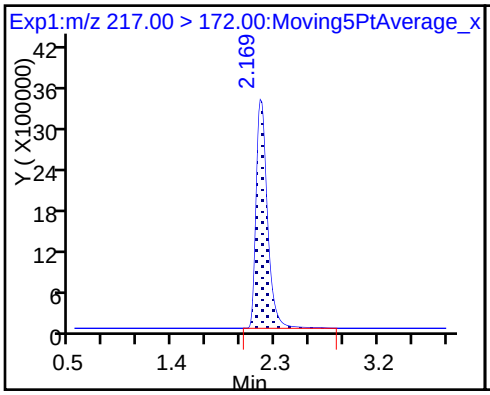
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 33 Worklist Smp#: 8

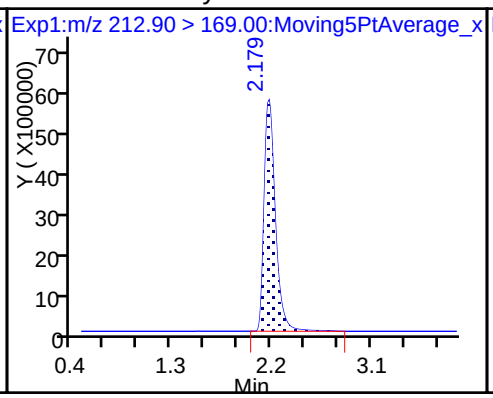
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

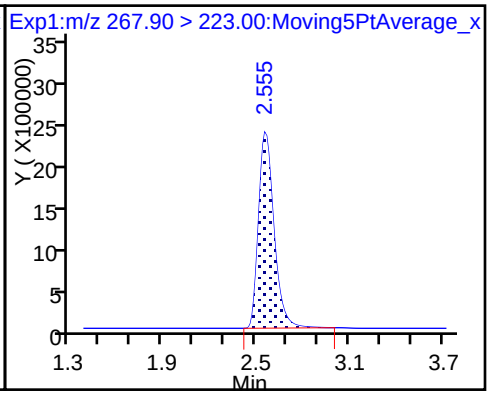
D 1 13C4 PFBA



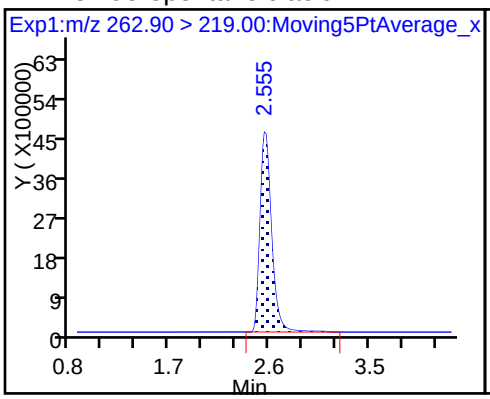
2 Perfluorobutyric acid



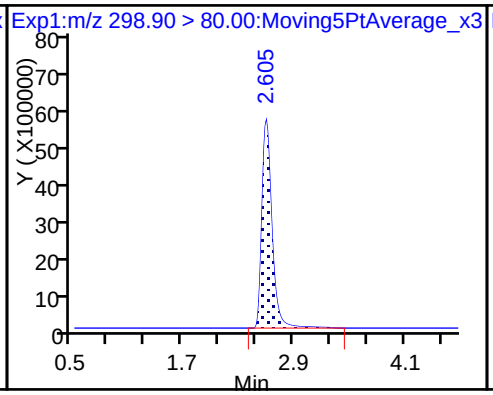
D 3 13C5-PFPeA



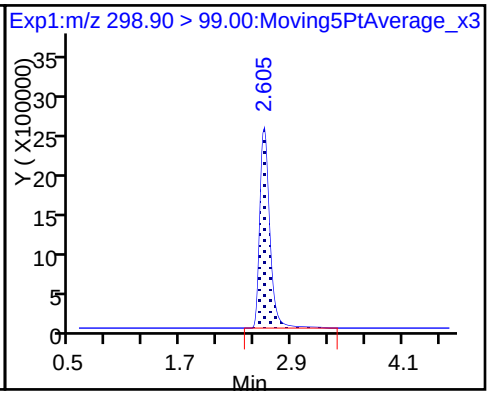
4 Perfluoropentanoic acid



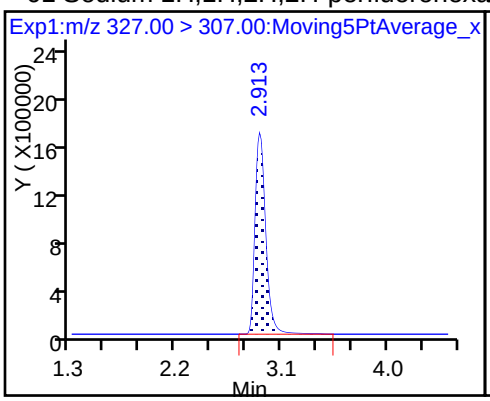
5 Perfluorobutanesulfonic acid



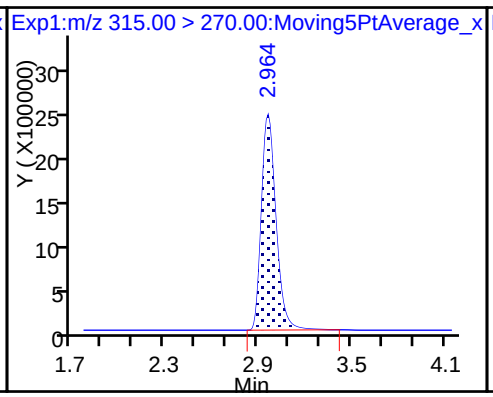
5 Perfluorobutanesulfonic acid



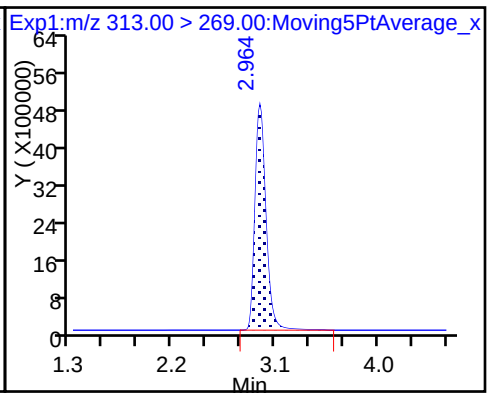
61 Sodium 1H,1H,2H,2H-perfluorohexa



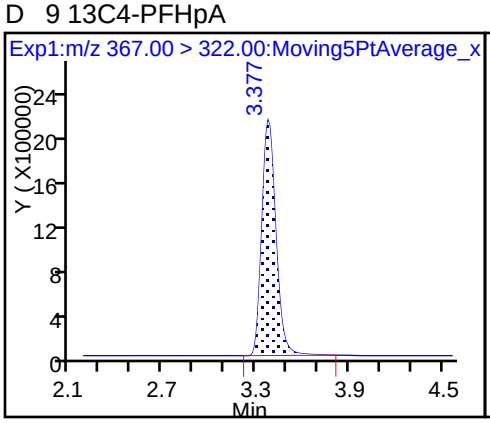
De 7 13C2 PFHxA



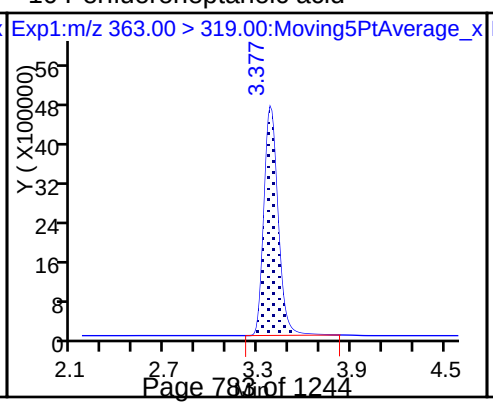
6 Perfluorohexanoic acid



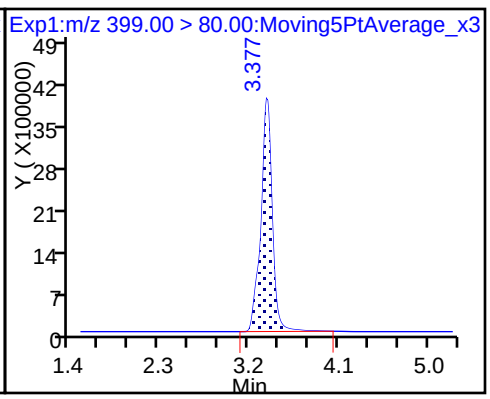
D 9 13C4-PFHpA



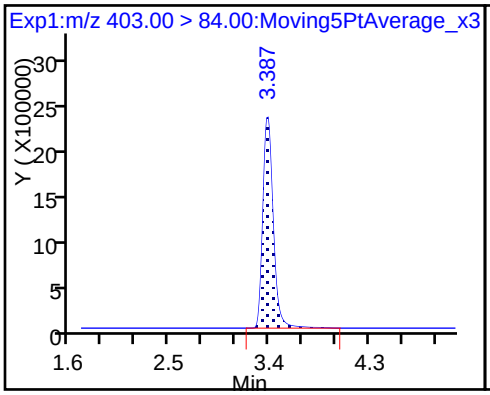
10 Perfluoroheptanoic acid



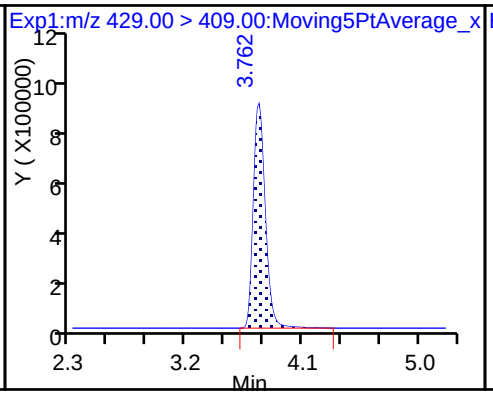
8 Perfluorohexanesulfonic acid



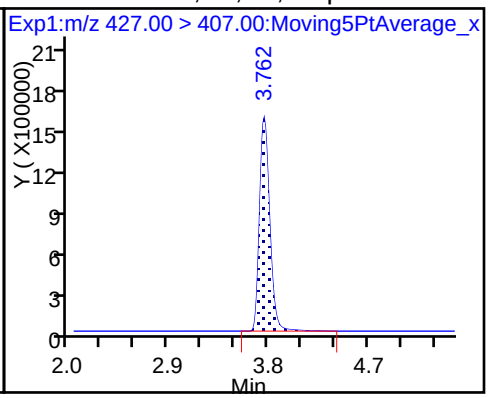
D 11 18O2 PFHxS



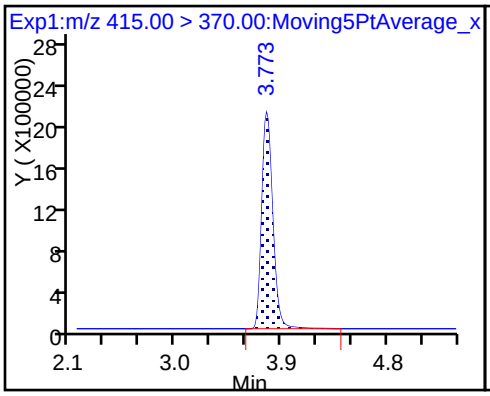
D 12 M2-6:2FTS



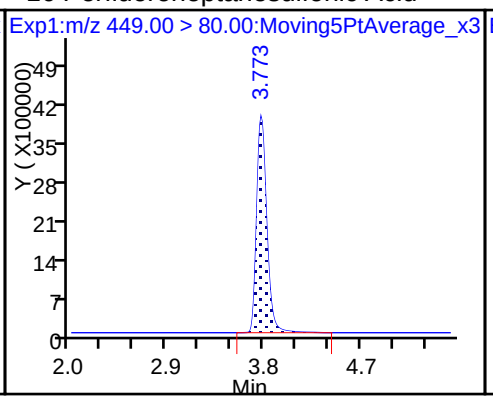
13 Sodium 1H,1H,2H,2H-perfluorooctane



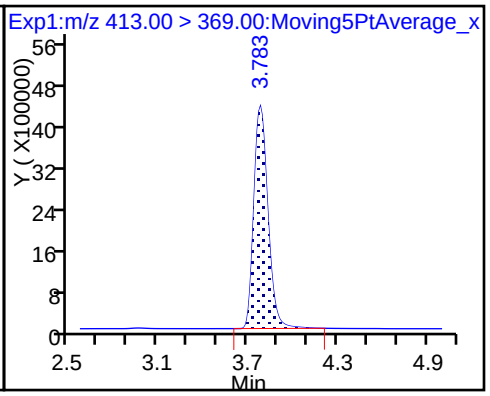
* 62 13C2-PFOA



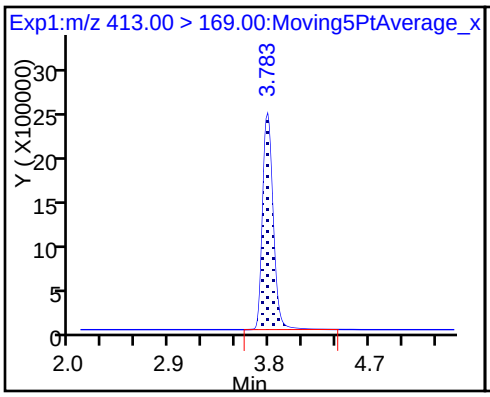
16 Perfluoroheptanesulfonic Acid



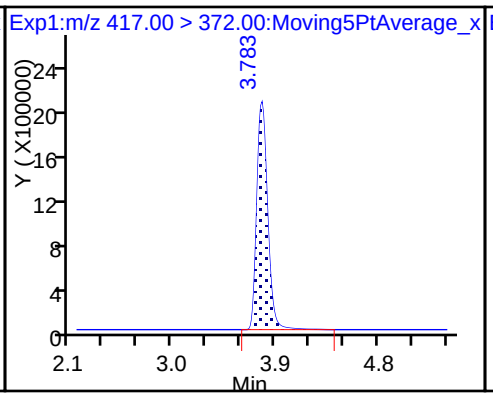
15 Perfluorooctanoic acid



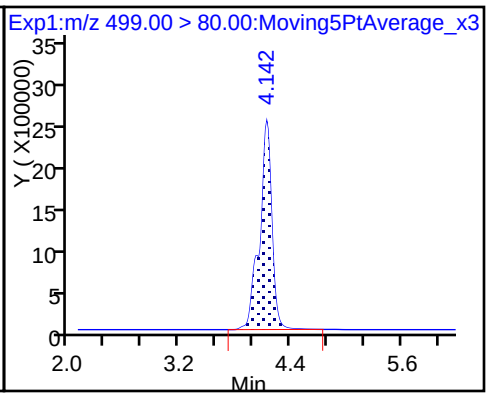
15 Perfluorooctanoic acid



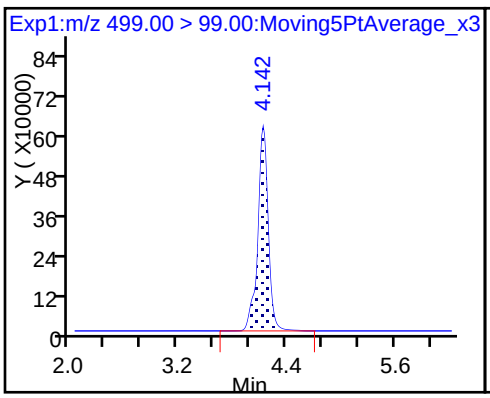
D 14 13C4 PFOA



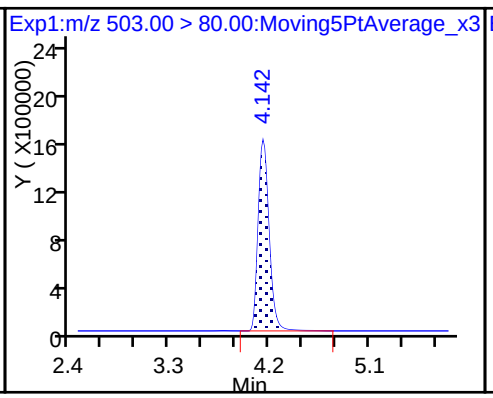
17 Perfluorooctane sulfonic acid



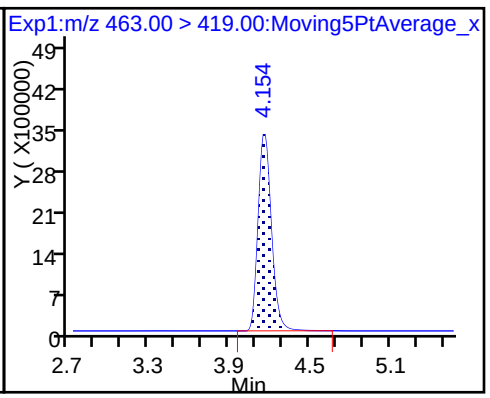
17 Perfluorooctane sulfonic acid



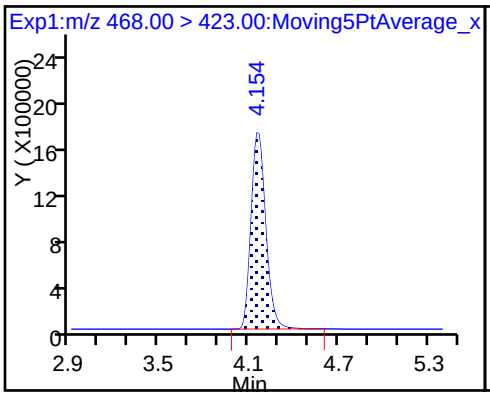
D 18 13C4 PFOS



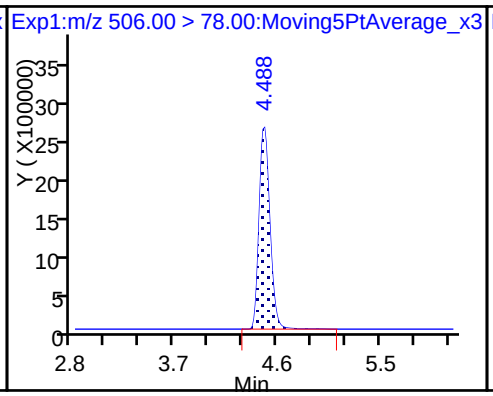
20 Perfluorononanoic acid



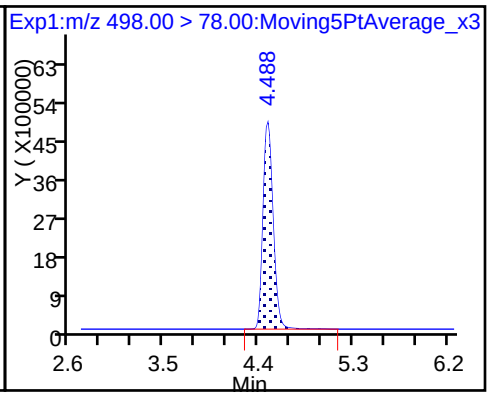
D 19 13C5 PFNA



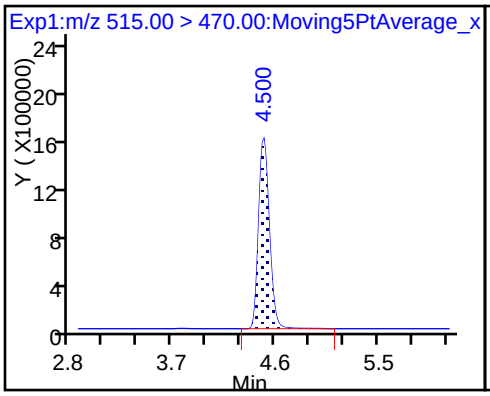
D 21 13C8 FOSA



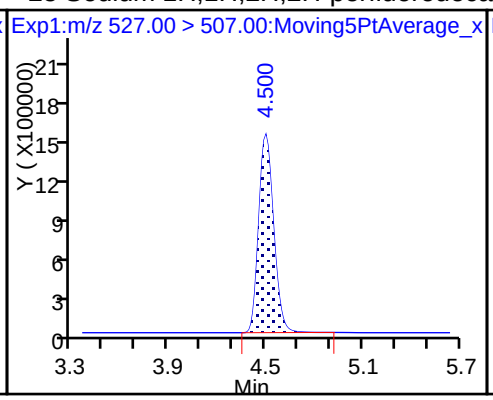
22 Perfluorooctane Sulfonamide



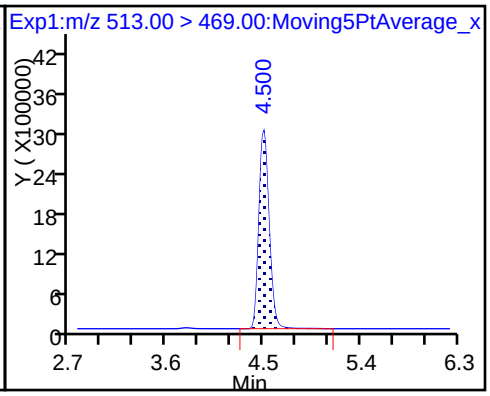
D 23 13C2 PFDA



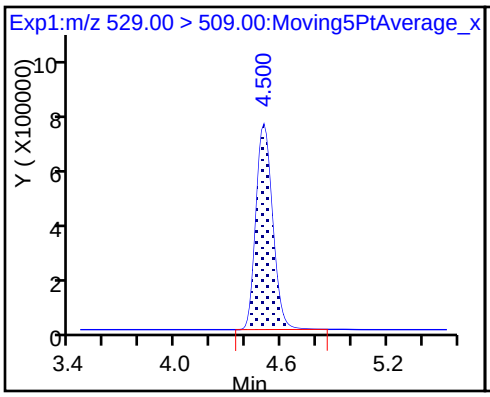
25 Sodium 1H,1H,2H,2H-perfluorodecan



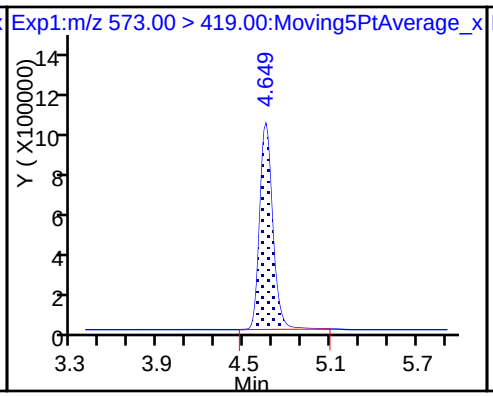
24 Perfluorodecanoic acid



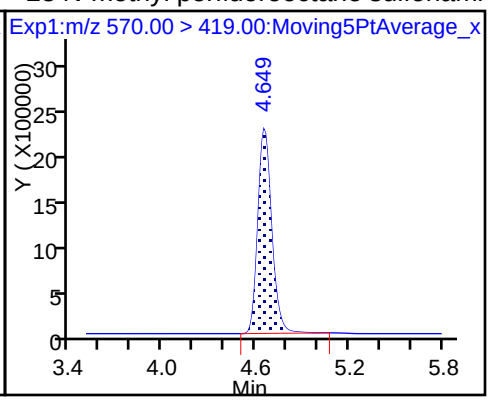
D 26 M2-8:2FTS



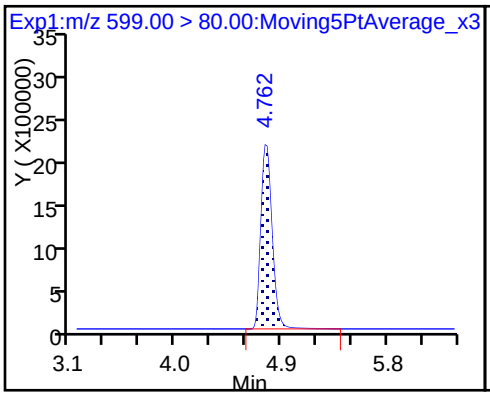
D 27 d3-NMeFOSAA



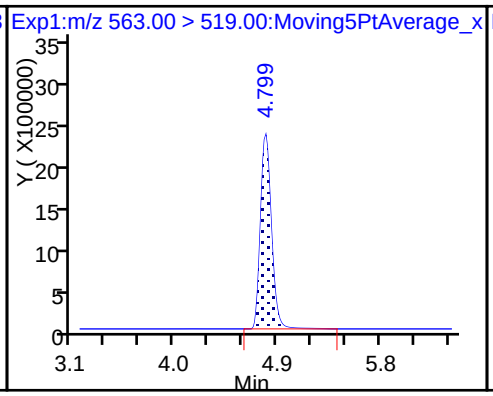
28 N-methyl perfluorooctane sulfonami



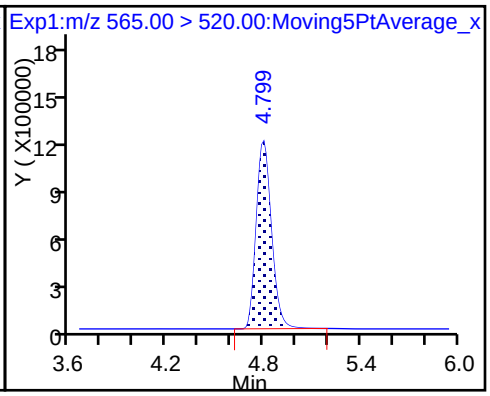
29 Perfluorodecane Sulfonic acid



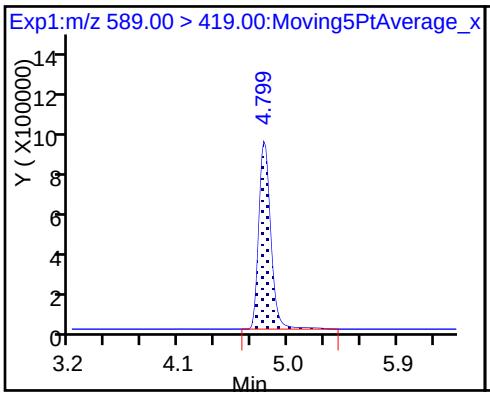
31 Perfluoroundecanoic acid



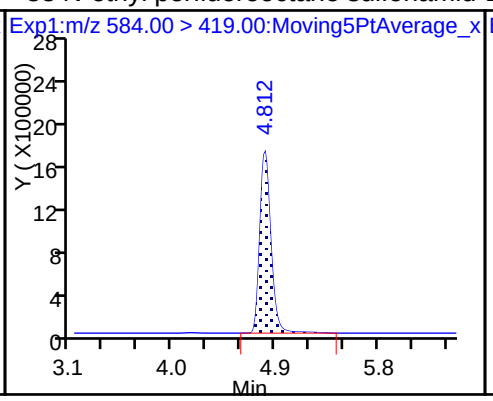
D 30 13C2 PFUnA



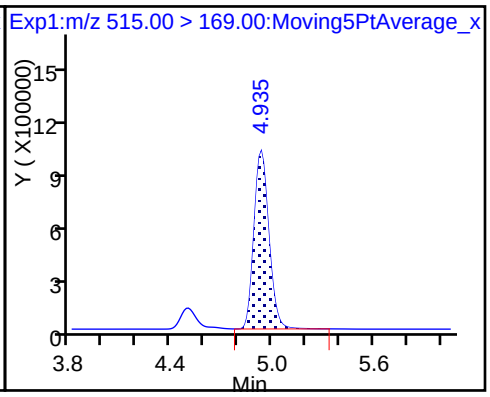
D 32 d5-NEtFOSAA



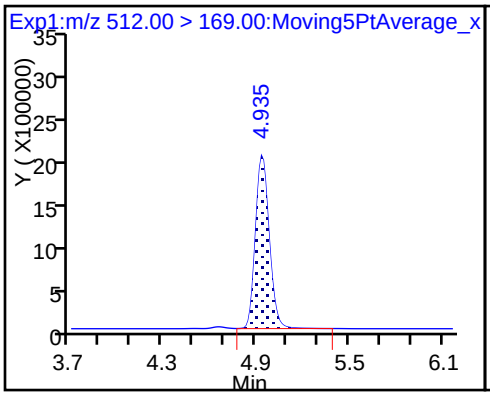
33 N-ethyl perfluorooctane sulfonamid



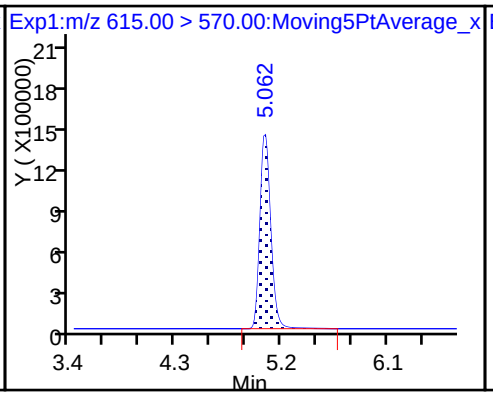
D 34 d-N-MeFOSA-M



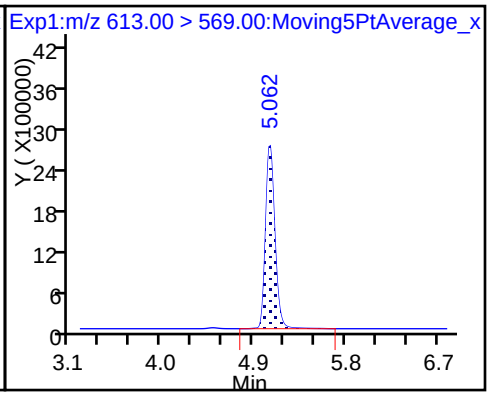
35 MeFOSA



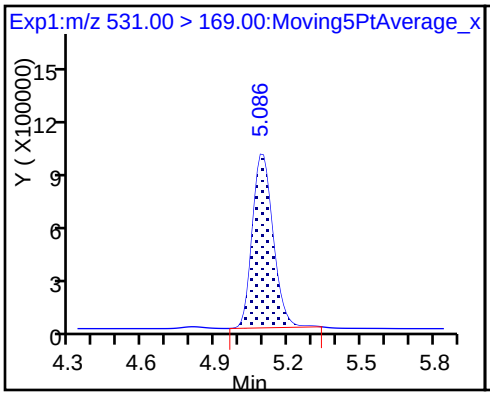
D 36 13C2 PFDoA



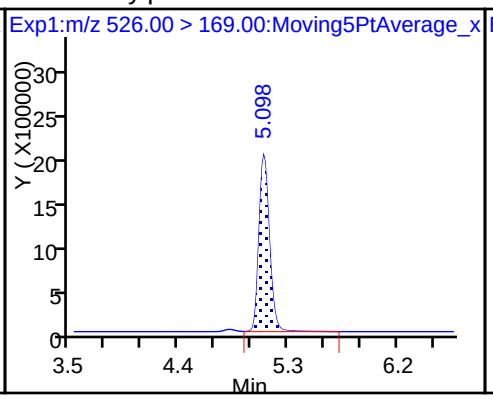
37 Perfluorododecanoic acid



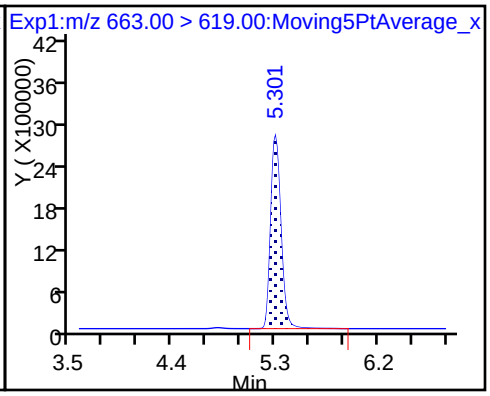
D 38 d-N-EtFOSA-M



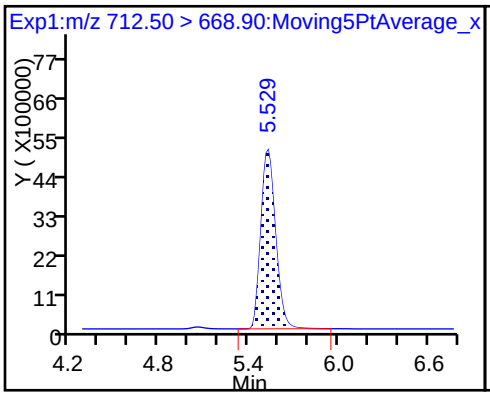
39 N-ethylperfluoro-1-octanesulfonami



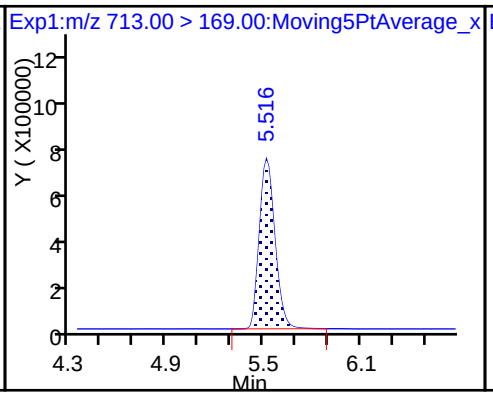
41 Perfluorotridecanoic acid



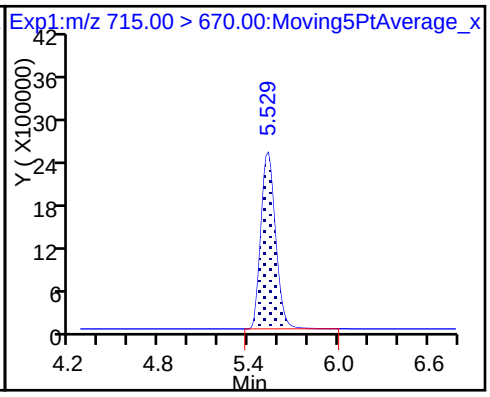
42 Perfluorotetradecanoic acid



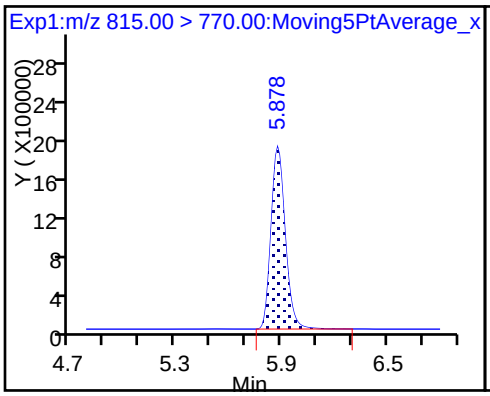
42 Perfluorotetradecanoic acid



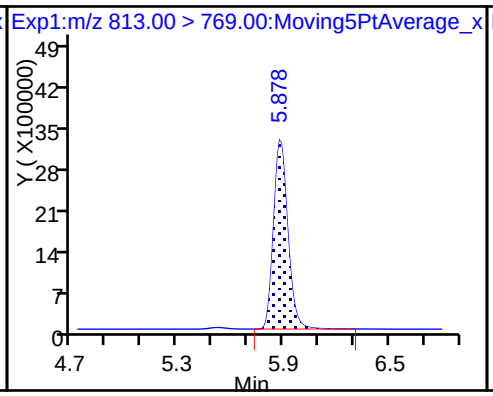
D 43 13C2-PFTeDA



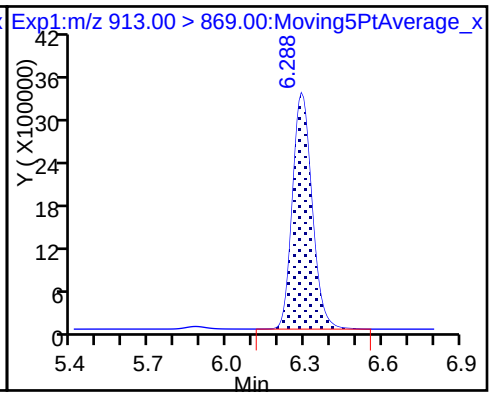
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_009.d
Lims ID: IC L7 Full
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 20-Jun-2017 00:09:42 ALS Bottle#: 34 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L7-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:49 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 00:49:15

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.169	2.172	-0.003		21988578	47.1		94.2	105038	
2 Perfluorobutyric acid										
212.90 > 169.00	2.169	2.176	-0.007	1.000	65943606	165.6		82.8	28246	
D 3 13C5-PFPeA										
267.90 > 223.00	2.555	2.559	-0.004		15043831	45.0		90.0	153094	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.555	2.562	-0.007	1.000	52739286	170.9		85.4	26954	
D 47 13C3-PFBS										
301.90 > 83.00	2.593	2.597	-0.004		324400	NC			7663	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.605	2.605	0.0	1.000	69169988	151.6		85.7	252562	
298.90 > 99.00	2.593	2.605	-0.012	0.995	34184153		2.02(0.00-0.00)	85.7	128088	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.906	2.917	-0.011	1.000	21706925	188.0		101	716664	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.957	2.963	-0.006	1.000	53716336	172.1		86.1	12183	
D 7 13C2 PFHxA										
315.00 > 270.00	2.957	2.963	-0.006		15458409	46.4		92.7	24877	
D 9 13C4-PFHpA										
367.00 > 322.00	3.378	3.378	0.0		12904662	44.3		88.7	39129	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.378	3.380	-0.002	1.000	53076547	172.9		95.0	6312	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.378	3.380	-0.002	1.000	48277529	177.1		88.6	9075	
D 11 18O2 PFHxS										
403.00 > 84.00	3.378	3.381	-0.003		13517148	41.5		87.7	38089	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.758	3.759	-0.001		6021199	47.8		101	120100	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.758	3.760	-0.002	1.000	20222960	165.3		87.2	85994	
* 62 13C2-PFOA										
415.00 > 370.00	3.768	3.771	-0.003		12561514	50.0			81500	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.768	3.772	-0.004	1.000	43936485	176.8		92.8	215211	
D 14 13C4 PFOA										
417.00 > 372.00	3.779	3.779	0.0		12431548	42.9		85.8	100414	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.779	3.779	0.0	1.000	46723107	177.7		88.8	5713	
413.00 > 169.00	3.779	3.779	0.0	1.000	28419437		1.64(0.90-1.10)	88.8	35158	
D 18 13C4 PFOS										
503.00 > 80.00	4.135	4.141	-0.006		9951444	42.6		89.2	11645	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.135	4.141	-0.006	1.000	41852276	188.7		102	16313	
499.00 > 99.00	4.135	4.141	-0.006	1.000	9167620		4.57(0.90-1.10)	102	17504	
20 Perfluorononanoic acid										
463.00 > 419.00	4.160	4.157	0.003	1.000	39936344	184.6		92.3	11787	
D 19 13C5 PFNA										
468.00 > 423.00	4.160	4.159	0.001		10842301	43.8		87.6	88693	
D 21 13C8 FOSA										
506.00 > 78.00	4.483	4.485	-0.002		15425148	43.8		87.7	18876	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.483	4.487	-0.004	1.000	52355541	178.3		89.2	137224	
D 23 13C2 PFDA										
515.00 > 470.00	4.495	4.495	0.0		9493410	43.5		86.9	9149	
D 26 M2-8:2FTS										
529.00 > 509.00	4.495	4.496	-0.001		6007428	56.6		118	16798	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.495	4.496	-0.001	1.000	34820717	195.9		97.9	6122	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.495	4.496	-0.001	1.000	19482688	158.8		82.9	18033	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.649	4.649	0.0		5900519	45.6		91.3	17553	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.649	4.653	-0.004	1.000	24370242	201.1		101	127669	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.766	4.768	-0.002	1.000	23863821	177.8		92.2	127744	
D 30 13C2 PFUnA										
565.00 > 520.00	4.792	4.794	-0.002		7332739	42.9		85.8	34039	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.792	4.794	-0.002	1.000	27717195	185.4		92.7	39268	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.805	4.801	0.004		4694975	37.1		74.2	11430	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.817	4.807	0.010	1.003	18918683	214.3		107	10233	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.932	4.935	-0.003		5996584	49.2		98.3	209	
35 MeFOSA										
512.00 > 169.00	4.932	4.939	-0.007	1.000	21984106	189.2		94.6	1944	
D 36 13C2 PFDoA										
615.00 > 570.00	5.059	5.056	0.003		8148345	43.7		87.4	24596	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.059	5.057	0.002	1.000	29718205	190.1		95.1	7596	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.094	5.095	-0.001		5064685	43.7		87.5	725	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.106	5.103	0.003	1.000	20839715	204.2		102	1753	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.298	5.298	0.0	1.000	30667214	191.2		95.6	7680	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.529	5.524	0.005		15395744	44.4		88.8	12207	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.529	5.524	0.005	1.000	52579687	156.2		78.1	2599	
713.00 > 169.00	5.516	5.524	-0.008	0.998	9094556		5.78(0.00-0.00)	78.1	9825	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.879	5.874	0.005	1.000	30319791	190.0		95.0	2558	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.879	5.874	0.005		9664008	46.8		93.6	5024	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.292	6.281	0.011	1.000	26972119	173.6		86.8	1762	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L7_00003 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:50 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_009.d

Injection Date: 20-Jun-2017 00:09:42 Instrument ID: A8_N

Lims ID: IC L7 Full

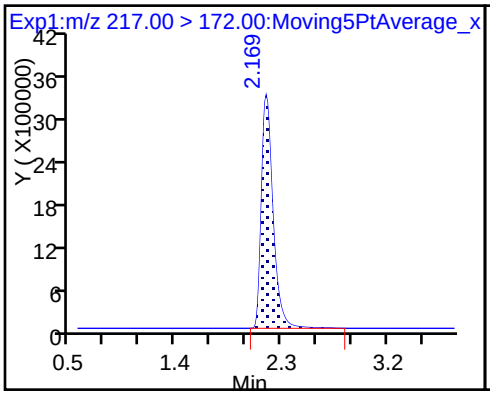
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 34 Worklist Smp#: 9

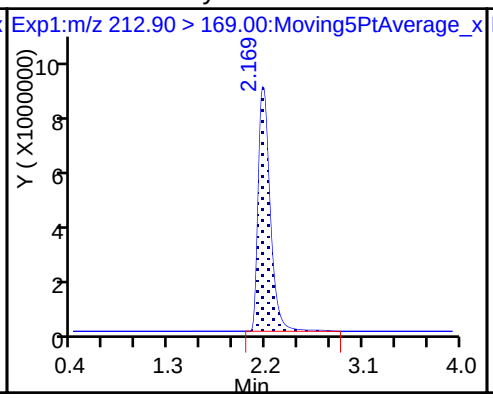
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

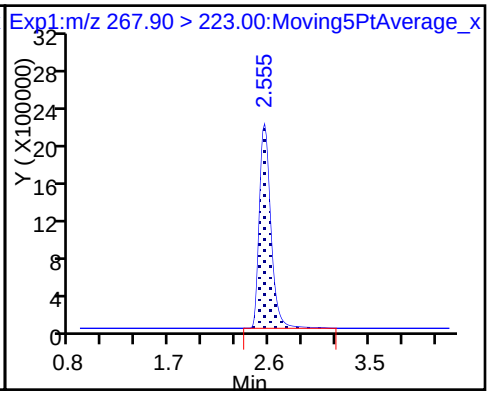
D 1 13C4 PFBA



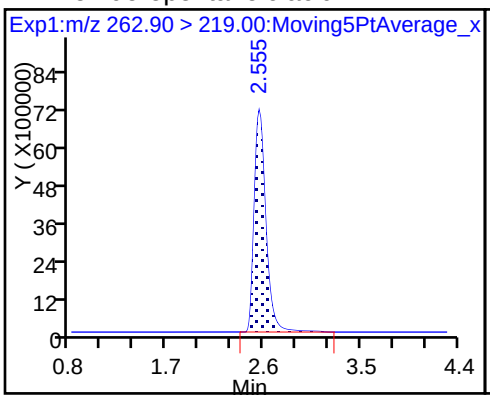
2 Perfluorobutyric acid



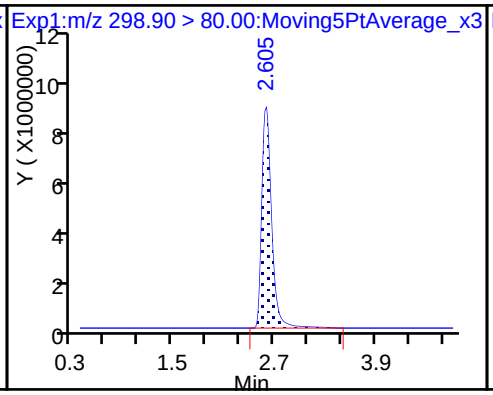
D 3 13C5-PFPeA



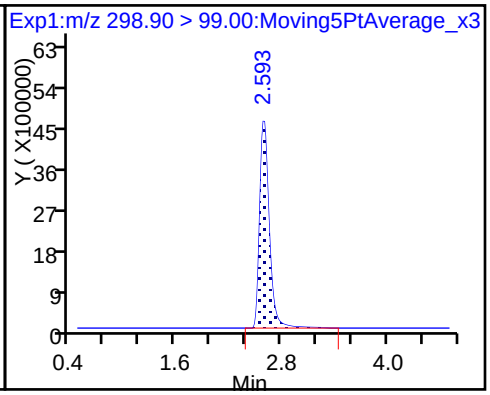
4 Perfluoropentanoic acid



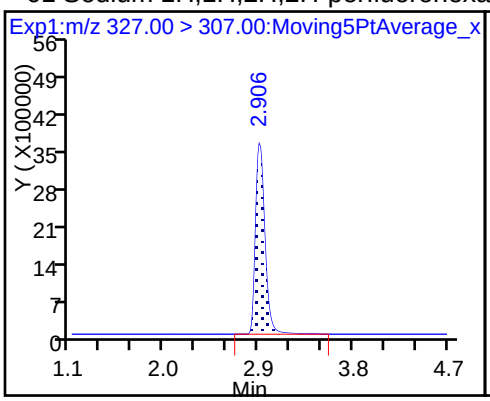
5 Perfluorobutanesulfonic acid



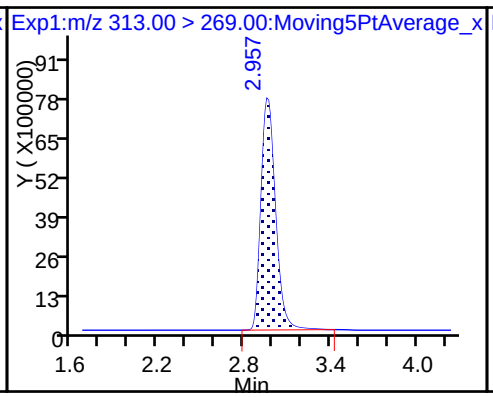
5 Perfluorobutanesulfonic acid



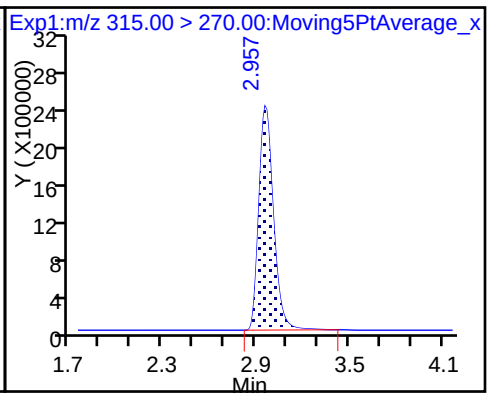
61 Sodium 1H,1H,2H,2H-perfluorohexane



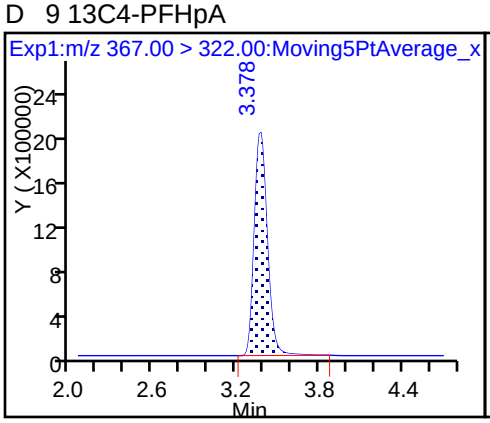
6 Perfluorohexanoic acid



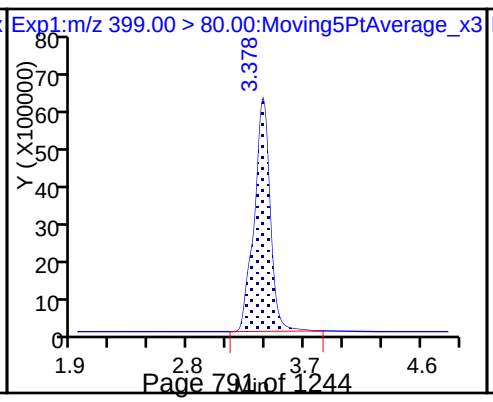
D 7 13C2 PFHxA



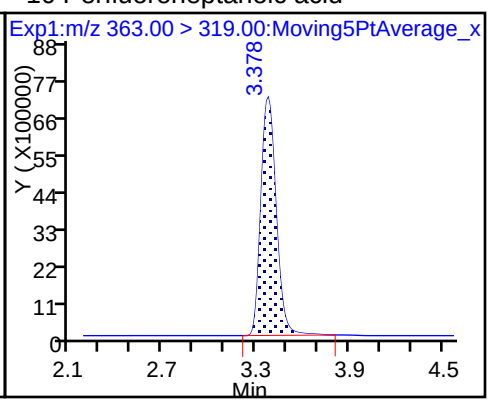
D 9 13C4-PFHpA



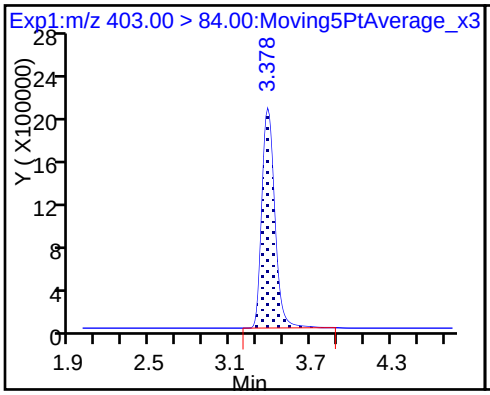
8 Perfluorohexanesulfonic acid



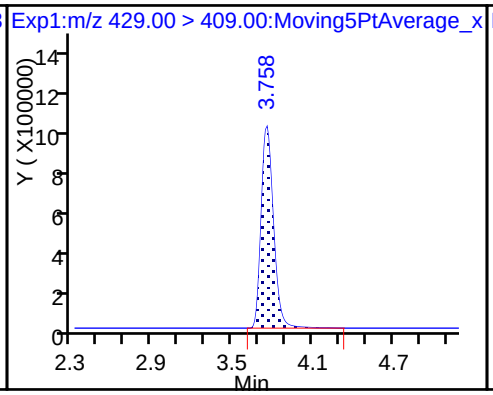
10 Perfluoroheptanoic acid



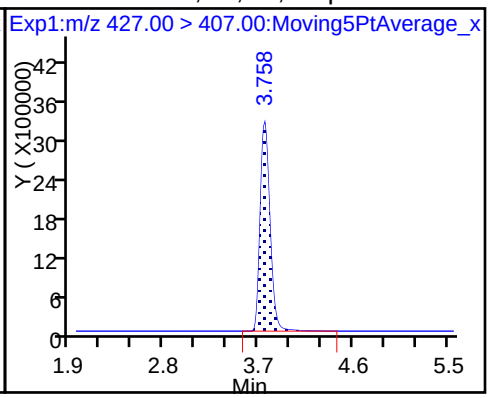
D 11 18O2 PFHxS



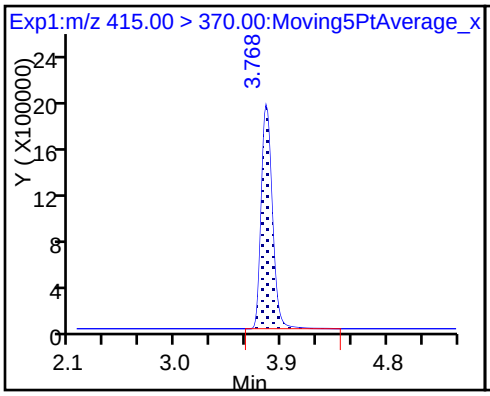
D 12 M2-6:2FTS



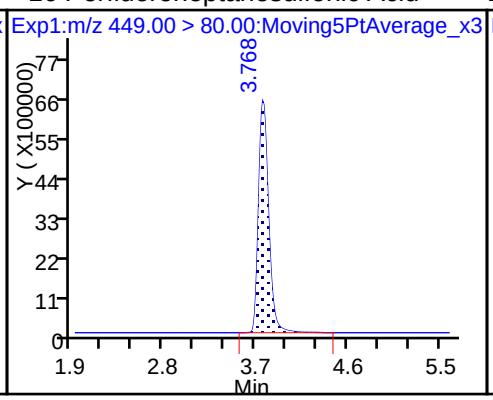
13 Sodium 1H,1H,2H,2H-perfluorooctane



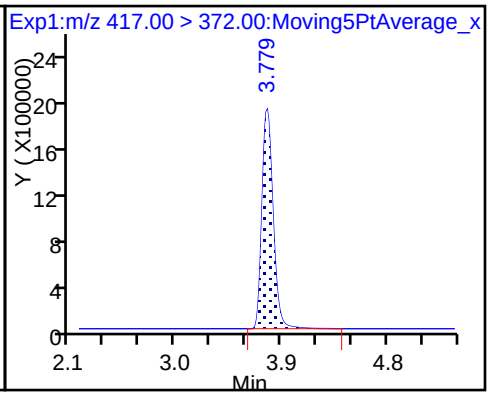
* 62 13C2-PFOA



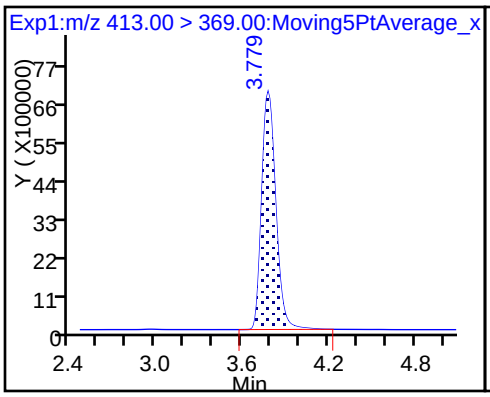
16 Perfluoroheptanesulfonic Acid



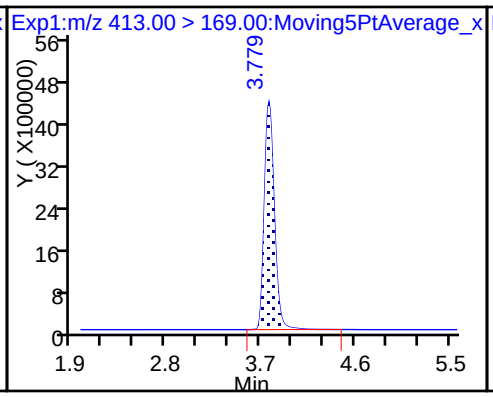
D 14 13C4 PFOA



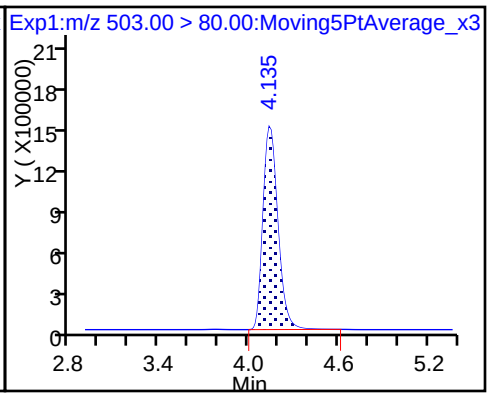
15 Perfluorooctanoic acid



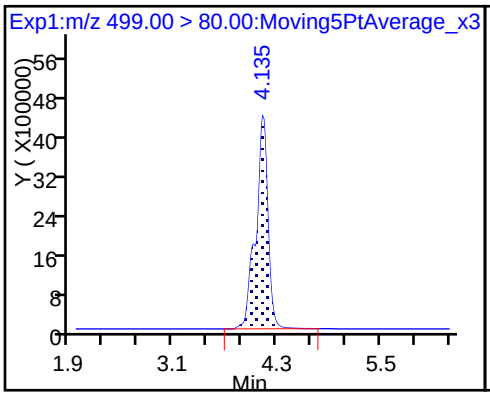
15 Perfluorooctanoic acid



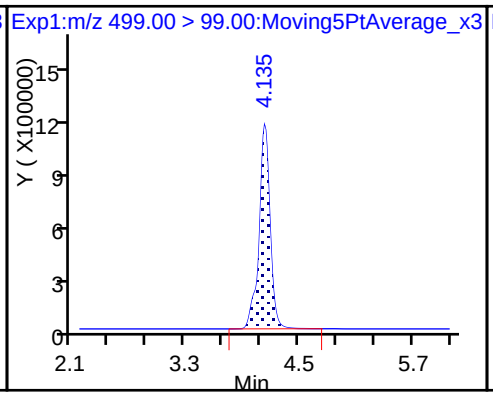
D 18 13C4 PFOS



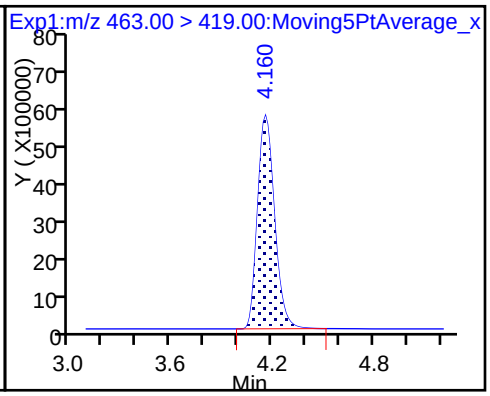
17 Perfluorooctane sulfonic acid



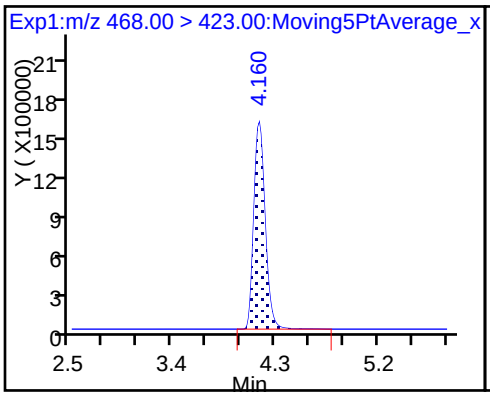
17 Perfluorooctane sulfonic acid



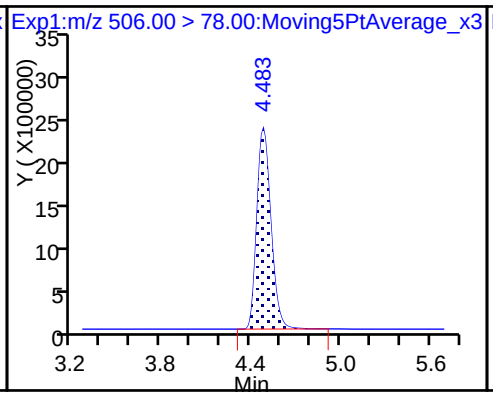
20 Perfluorononanoic acid



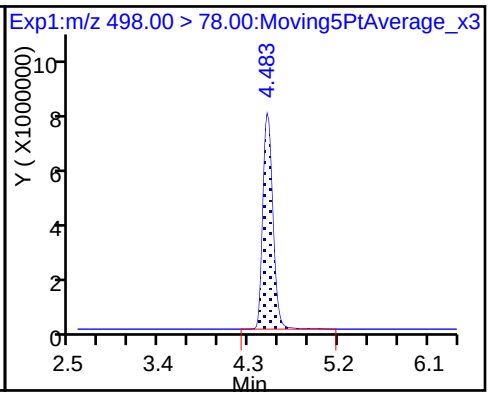
D 19 13C5 PFNA



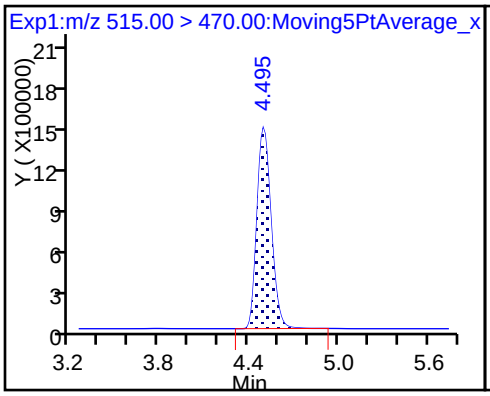
D 21 13C8 FOSA



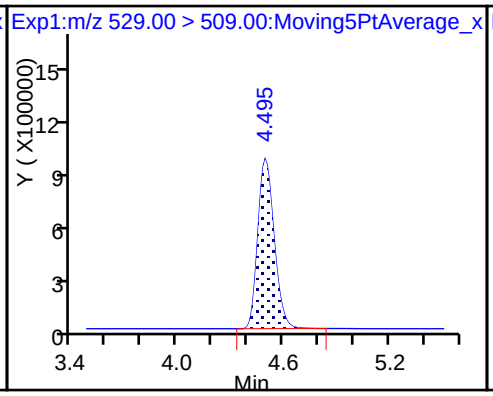
22 Perfluorooctane Sulfonamide



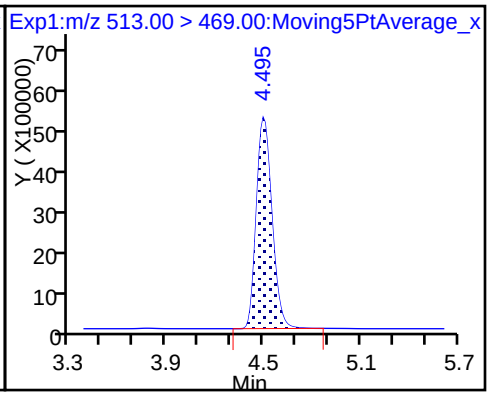
D 23 13C2 PFDA



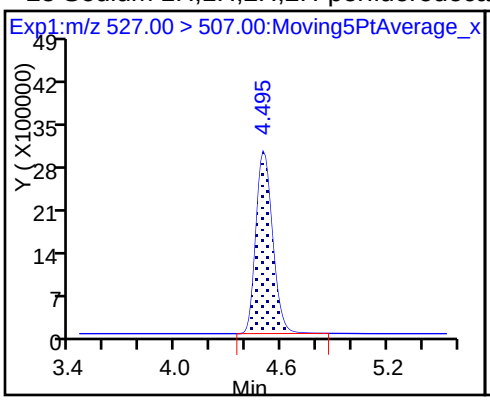
D 26 M2-8:2FTS



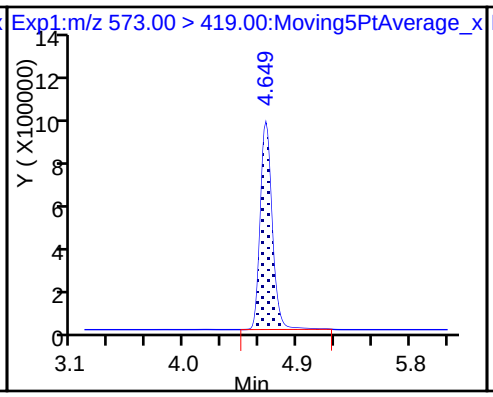
24 Perfluorodecanoic acid



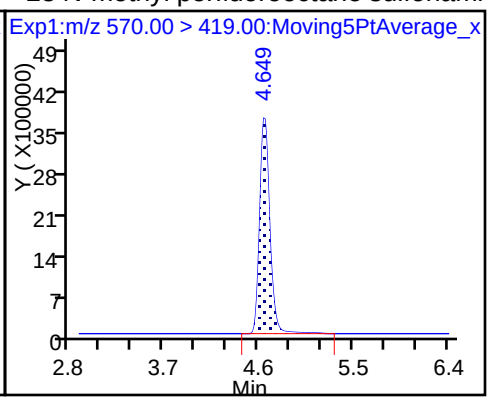
25 Sodium 1H,1H,2H,2H-perfluorodecane



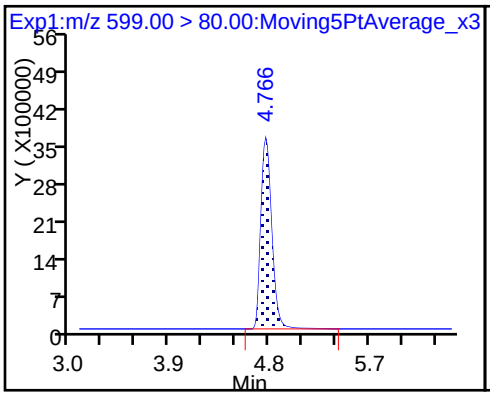
D 27 d3-NMeFOSAA



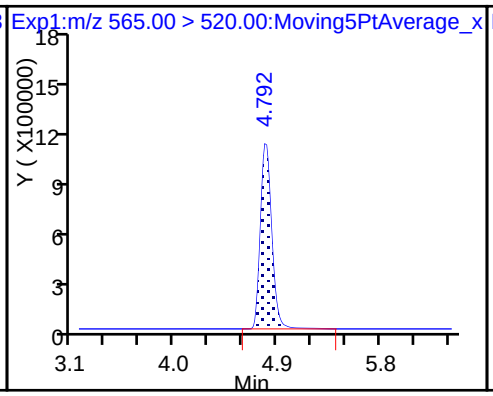
28 N-methyl perfluorooctane sulfonami



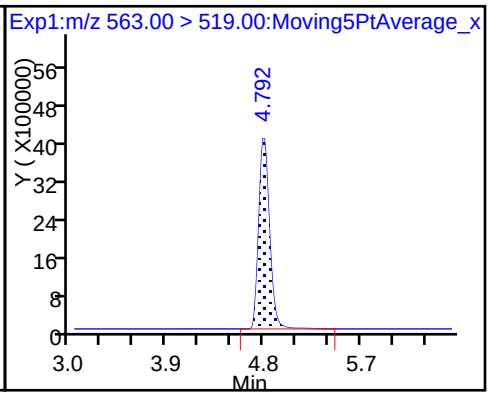
29 Perfluorodecane Sulfonic acid



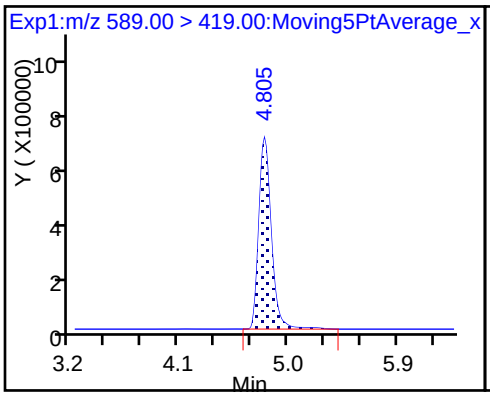
D 30 13C2 PFUnA



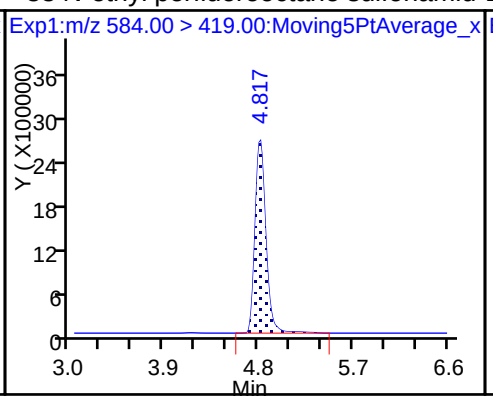
31 Perfluoroundecanoic acid



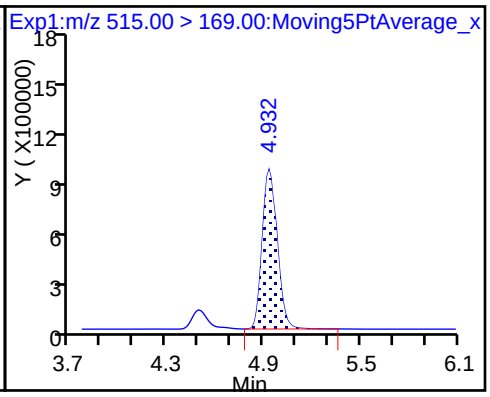
D 32 d5-NEtFOSAA



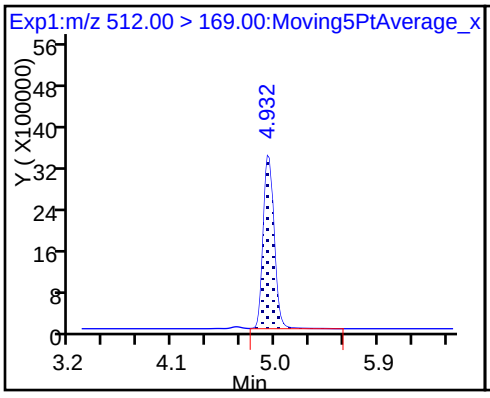
33 N-ethyl perfluorooctane sulfonamid



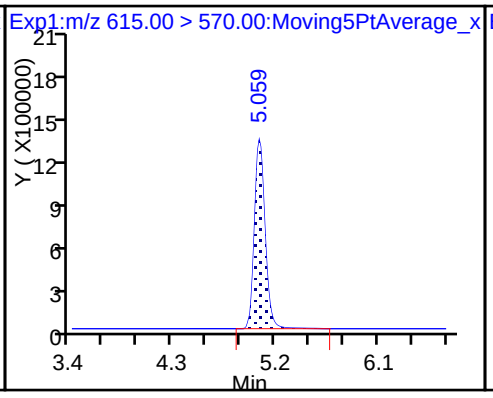
D 34 d-N-MeFOSA-M



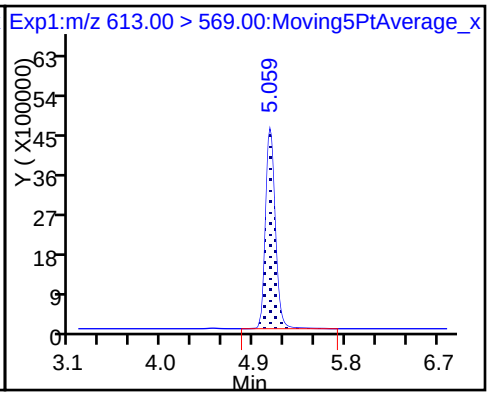
35 MeFOSA



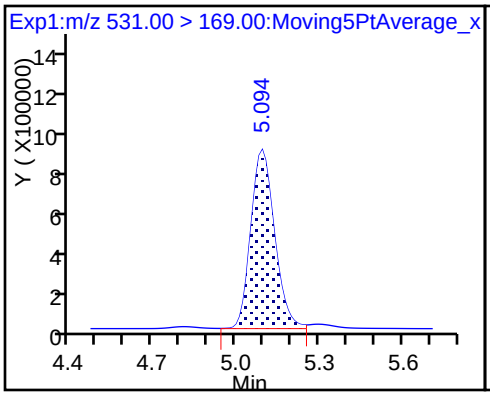
D 36 13C2 PFDoA



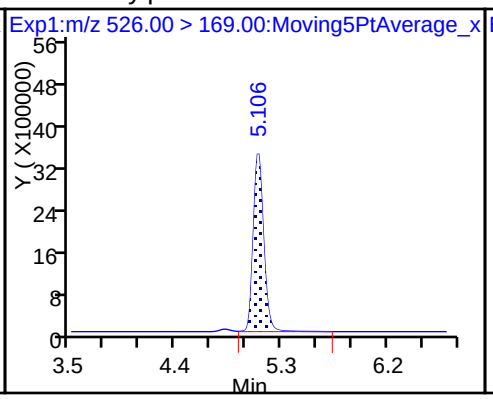
37 Perfluorododecanoic acid



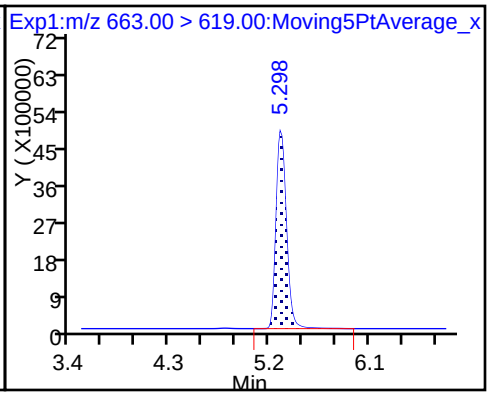
D 38 d-N-EtFOSA-M



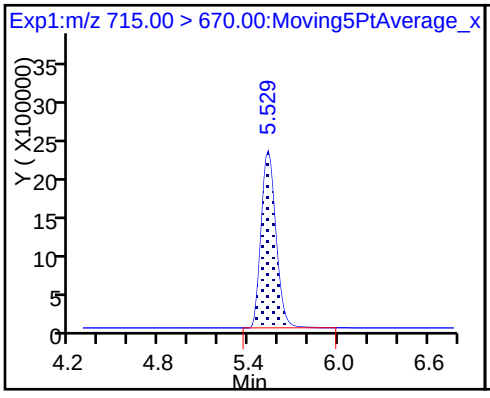
39 N-ethylperfluoro-1-octanesulfonami



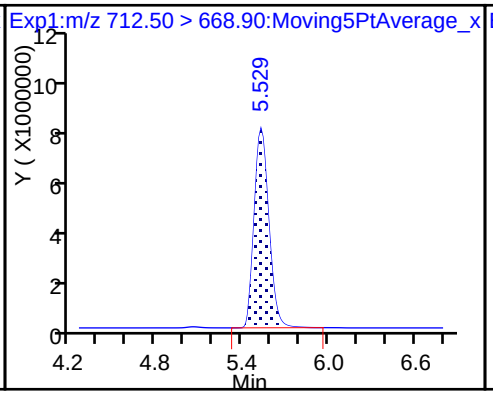
41 Perfluorotridecanoic acid



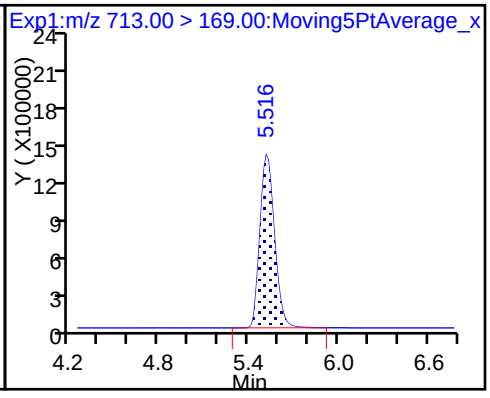
D 43 13C2-PFTeDA



42 Perfluorotetradecanoic acid

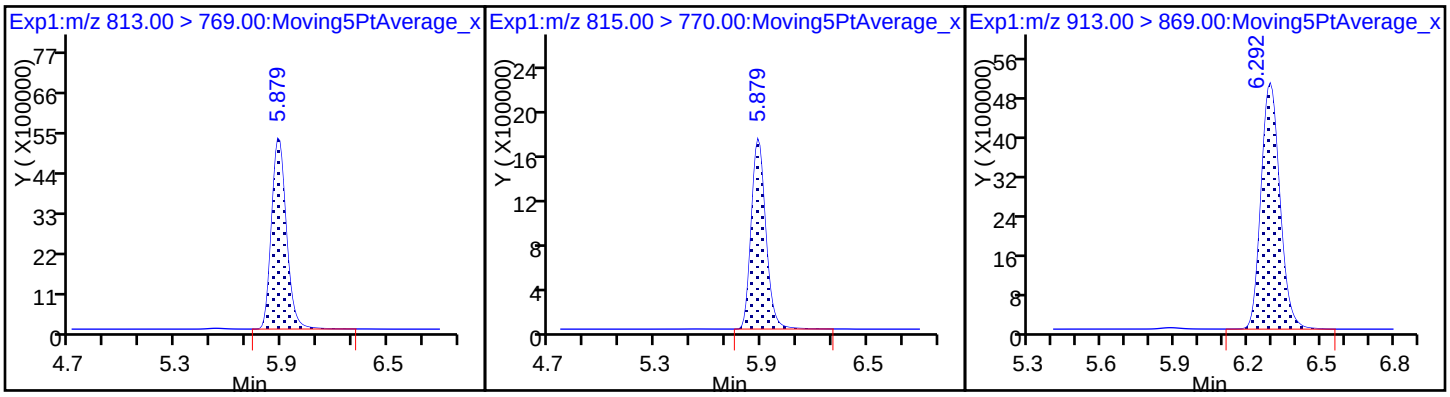


42 Perfluorotetradecanoic acid



Report Date: 20-Jun-2017 11:05:50 Chrom Revision: 2.2 15-Jun-2017 15:51:40
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_009.d

45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d
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Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 20-Jun-2017 00:17:25 ALS Bottle#: 37 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: M2:4-2FTS Calibration Std
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:52 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 60 M2-4:2FTS										
329.00 > 309.00	2.929	2.929	0.0		5991329	NC			29173	
* 62 13C2-PFOA										
415.00 > 370.00	3.774	3.771	0.003		15880350	50.0			93909	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

LCM2-4:2FTSIC_00002 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:53 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Injection Date: 20-Jun-2017 00:17:25 Instrument ID: A8_N

Lims ID: IC M2-4:2FTS

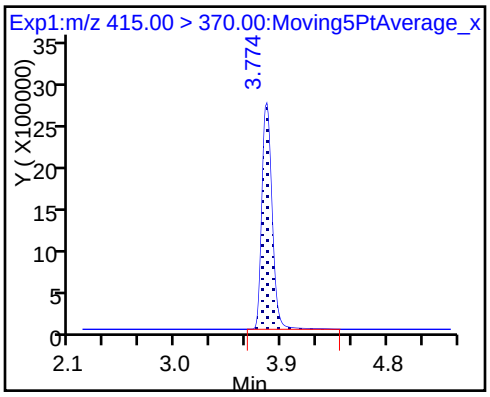
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 37 Worklist Smp#: 10

Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

* 62 13C2-PFOA



FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-171299/3	2017.06.27_PFC_CURVE_003.d
Level 2	IC 320-171299/4	2017.06.27_PFC_CURVE_004.d
Level 3	IC 320-171299/5	2017.06.27_PFC_CURVE_005.d
Level 4	IC 320-171299/6	2017.06.27_PFC_CURVE_006.d
Level 5	IC 320-171299/7	2017.06.27_PFC_CURVE_007.d
Level 6	IC 320-171299/8	2017.06.27_PFC_CURVE_008.d
Level 7	IC 320-171299/9	2017.06.27_PFC_CURVE_009.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Perfluorobutanoic acid (PFBA)	1.551	1.550	1.549	1.543	1.549	1.549	1.549				1.299 - 1.799	1.549
Perfluoropentanoic acid (PFPeA)	1.761	1.760	1.760	1.753	1.751	1.750	1.759				1.506 - 2.006	1.756
Perfluorobutanesulfonic acid (PFBS)	1.788	1.786	1.786	1.779	1.777	1.777	1.786				1.603 - 1.963	1.783
4:2 FTS	1.993	1.991	1.980	1.981	1.980	1.979	1.980				1.733 - 2.233	1.983
Perfluorohexanoic acid (PFHxA)	2.026	2.025	2.024	2.015	2.013	2.024	2.024				1.772 - 2.272	2.022
Perfluoroheptanoic acid (PFHpA)	2.352	2.353	2.350	2.340	2.339	2.339	2.343				2.095 - 2.595	2.345
Perfluorohexanesulfonic acid (PFHxS)	2.368	2.362	2.359	2.356	2.356	2.356	2.361				2.110 - 2.610	2.360
6:2FTS	2.684	2.678	2.677	2.669	2.667	2.669	2.673				2.424 - 2.924	2.674
Perfluorooctanoic acid (PFOA)	2.713	2.707	2.706	2.698	2.696	2.698	2.702				2.453 - 2.953	2.703
Perfluoroheptanesulfonic Acid (PFHpS)	2.721	2.714	2.713	2.705	2.703	2.705	2.709				2.460 - 2.960	2.710
Perfluorooctanesulfonic acid (PFOS)	3.091	3.083	3.080	3.071	3.071	3.064	3.071				2.826 - 3.326	3.076
Perfluorononanoic acid (PFNA)	3.091	3.083	3.080	3.071	3.071	3.073	3.071				2.827 - 3.327	3.077
Perfluorooctane Sulfonamide (FOSA)	3.415	3.414	3.411	3.402	3.407	3.399	3.408				3.158 - 3.658	3.408
8:2FTS	3.441	3.440	3.430	3.421	3.425	3.417	3.426				3.179 - 3.679	3.429
Perfluorodecanoic acid (PFDA)	3.458	3.449	3.447	3.439	3.434	3.436	3.436				3.192 - 3.692	3.443
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	3.616	3.614	3.600	3.601	3.601	3.592	3.594				3.352 - 3.852	3.603
Perfluorodecanesulfonic acid (PFDS)	3.774	3.761	3.760	3.749	3.749	3.750	3.743				3.505 - 4.005	3.755
Perfluoroundecanoic acid (PFUnA)	3.784	3.781	3.779	3.768	3.768	3.769	3.762				3.523 - 4.023	3.773
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	3.794	3.781	3.779	3.768	3.768	3.769	3.762				3.525 - 4.025	3.774
MeFOSA	3.919	3.916	3.906	3.908	3.909	3.910	3.905				3.660 - 4.160	3.910
Perfluorododecanoic acid (PFDoA)	4.090	4.079	4.079	4.070	4.064	4.064	4.061				3.822 - 4.322	4.072
N-EtFOSA-M	4.107	4.105	4.104	4.096	4.099	4.100	4.097				3.851 - 4.351	4.101
Perfluorotridecanoic Acid (PFTriA)	4.362	4.351	4.341	4.333	4.332	4.334	4.332				4.091 - 4.591	4.341
Perfluorotetradecanoic acid (PFTeA)	4.601	4.599	4.574	4.574	4.571	4.573	4.572				4.331 - 4.831	4.581
Perfluoro-n-hexadecanoic acid (PFHxDA)	+++++	5.008	4.995	4.995	4.995	4.985	4.985				4.748 - 5.248	4.994
Perfluoro-n-octadecanoic acid (PFODA)	5.373	5.365	5.356	5.343	5.347	5.341	5.335				5.101 - 5.601	5.351
13C4 PFBA	1.551	1.550	1.549	1.543	1.541	1.541	1.549				1.296 - 1.796	1.546
13C5-PFPeA	1.761	1.760	1.760	1.753	1.751	1.750	1.751				1.505 - 2.005	1.755
13C2 PFHxA	2.026	2.025	2.024	2.015	2.013	2.024	2.024				1.772 - 2.272	2.022
13C4-PFHpA	2.352	2.353	2.350	2.340	2.339	2.339	2.343				2.095 - 2.595	2.345
18O2 PFHxS	2.368	2.362	2.359	2.356	2.356	2.356	2.361				2.110 - 2.610	2.360
M2-6:2FTS	2.684	2.678	2.677	2.669	2.667	2.669	2.673				2.424 - 2.924	2.674

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
13C4 PFOA	2.713	2.707	2.706	2.698	2.696	2.691	2.695				2.451 - 2.951	2.701
13C4 PFOS	3.091	3.083	3.080	3.071	3.071	3.064	3.071				2.826 - 3.326	3.076
13C5 PFNA	3.091	3.083	3.080	3.071	3.071	3.073	3.071				2.827 - 3.327	3.077
13C8 FOSA	3.415	3.414	3.402	3.402	3.407	3.399	3.399				3.155 - 3.655	3.405
M2-8:2FTS	3.441	3.440	3.430	3.421	3.425	3.417	3.426				3.179 - 3.679	3.429
13C2 PFDA	3.458	3.449	3.447	3.439	3.434	3.436	3.436				3.192 - 3.692	3.443
d3-NMeFOSAA	3.616	3.603	3.600	3.591	3.590	3.592	3.594				3.348 - 3.848	3.598
d5-NEtFOSAA	3.784	3.771	3.769	3.759	3.758	3.759	3.752				3.515 - 4.015	3.765
13C2 PFUnA	3.784	3.781	3.769	3.768	3.768	3.769	3.762				3.522 - 4.022	3.772
d-N-MeFOSA-M	3.910	3.907	3.906	3.899	3.900	3.901	3.905				3.654 - 4.154	3.904
13C2 PFDoA	4.090	4.079	4.069	4.070	4.064	4.064	4.061				3.821 - 4.321	4.071
d-N-EtFOSA-M	4.098	4.096	4.096	4.087	4.091	4.091	4.088				3.842 - 4.342	4.092
13C2-PFTeDA	4.601	4.587	4.574	4.574	4.571	4.573	4.562				4.328 - 4.828	4.577
13C2-PFHxDA	5.019	5.008	4.995	4.995	4.995	4.985	4.985				4.748 - 5.248	4.997

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-171299/3	2017.06.27_PFC_CURVE_003.d
Level 2	IC 320-171299/4	2017.06.27_PFC_CURVE_004.d
Level 3	IC 320-171299/5	2017.06.27_PFC_CURVE_005.d
Level 4	IC 320-171299/6	2017.06.27_PFC_CURVE_006.d
Level 5	IC 320-171299/7	2017.06.27_PFC_CURVE_007.d
Level 6	IC 320-171299/8	2017.06.27_PFC_CURVE_008.d
Level 7	IC 320-171299/9	2017.06.27_PFC_CURVE_009.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	237738 264112	252314 213500	235956 203334	230986	Ave		233991.300				8.9		50.0			
13C5-PFPeA	165879 179599	178580 142495	165463 131839	161820	Ave		160810.774				11.0		50.0			
13C2 PFHxA	150767 182202	163501 143176	153648 131690	148822	Ave		153400.860				10.4		50.0			
13C4-PFHpA	142331 157345	150070 121786	139376 106278	141106	Ave		136898.766				12.7		50.0			
18O2 PFHxS	207251 246595	226688 197975	213940 186890	209538	Ave		212696.602				9.1		50.0			
M2-6:2FTS	69149 85644	78944 69523	67406 69370	69666	Ave		72814.4090				9.3		50.0			
13C4 PFOA	135144 148041	144402 114312	134994 102302	134576	Ave		130538.817				12.6		50.0			
13C4 PFOS	158653 185330	169592 156717	159748 147733	161237	Ave		162715.634				7.3		50.0			
13C5 PFNA	108130 116173	114825 96947	107521 83715	107623	Ave		104990.620				10.7		50.0			
13C8 FOSA	263091 300494	280053 246733	261987 231149	264230	Ave		263962.580				8.4		50.0			
M2-8:2FTS	55393 66571	62066 52640	55365 51728	52580	Ave		56620.4205				9.9		50.0			
13C2 PFDA	103140 112876	112102 88433	102655 82379	98552	Ave		100019.751				11.4		50.0			
d3-NMeFOSAA	35985 42945	39211 35175	36627 34429	34858	Ave		37033.1057				8.2		50.0			
d5-NEtFOSAA	37499 42895	39089 34475	37967 30270	36416	Ave		36944.3257				10.6		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

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								
13C2 PFUnA	79282 82095	82301 64866	78246 56939	76384	Ave		74301.7057				13.0		50.0			
d-N-MeFOSA-M	69899 87749	75322 71754	72121 74032	71345	Ave		74603.2229				8.1		50.0			
13C2 PFDoA	74335 84559	79365 67592	70818 63175	74104	Ave		73421.1657				9.7		50.0			
d-N-EtFOSA-M	69910 87075	74641 70523	70970 71263	70425	Ave		73543.9686				8.4		50.0			
13C2-PFTeDA	145891 178285	151816 143779	150937 136805	152748	Ave		151465.880				8.6		50.0			
13C2-PFHxDA	82539 95612	87646 78155	82565 75339	85348	Ave		83886.2229				7.9		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

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)	0.9096 0.9147	0.8729 0.7767	0.9388	0.9335	0.9584	AveID		0.9007				6.8		35.0			
Perfluoropentanoic acid (PFPeA)	1.0735 1.0183	1.0647 0.8820	1.0635	1.0519	1.0516	AveID		1.0294				6.5		35.0			
Perfluorobutanesulfonic acid (PFBS)	1.4463 1.2894	1.4706 1.1003	1.4775	1.5423	1.4320	AveID		1.3940				10.8		50.0			
4:2 FTS	0.9260 0.8950	0.9093 0.8393	1.0484	1.0811	0.9479	AveID		0.9496				9.1		35.0			
Perfluorohexanoic acid (PFHxA)	1.0902 0.9911	1.0349 0.8796	1.0619	1.0333	1.0219	AveID		1.0161				6.7		35.0			
Perfluoroheptanoic acid (PFHpA)	1.0858 1.0794	1.0428 1.0055	1.1208	1.0722	1.0692	AveID		1.0679				3.4		35.0			
Perfluorohexanesulfonic acid (PFHxS)	1.3523 1.0461	1.1708 0.9727	1.0645	1.0529	1.0736	AveID		1.1047				11.2		35.0			
6:2FTS	1.1329 0.9761	0.9576 0.8608	1.0290	0.9913	0.9532	AveID		0.9859				8.4		35.0			
Perfluorooctanoic acid (PFOA)	1.1910 1.0597	1.0501 0.9801	1.0750	1.0222	1.0425	AveID		1.0601				6.2		35.0			
Perfluoroheptanesulfonic Acid (PFHpS)	1.1774 1.1070	1.1673 0.9684	1.1838	1.2184	1.2312	AveID		1.1505				7.8		50.0			
Perfluorooctanesulfonic acid (PFOS)	1.0619 1.0690	1.0047 1.0439	1.0422	1.0337	1.0873	AveID		1.0490				2.6		35.0			
Perfluorononanoic acid (PFNA)	0.9129 1.0046	0.9414 1.0086	1.0237	0.9887	1.0646	AveID		0.9921				5.1		35.0			
Perfluorooctane Sulfonamide (FOSA)	1.0488 0.9382	0.9520 0.7870	1.0319	1.0356	1.0239	AveID		0.9739				9.6		35.0			
8:2FTS	1.0823 1.0153	0.9490 0.8759	0.9983	1.0704	0.9992	AveID		0.9986				7.1		35.0			
Perfluorodecanoic acid (PFDA)	0.9588 0.9943	0.9379 0.9445	0.9509	0.9755	0.9924	AveID		0.9649				2.4		35.0			
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	0.9159 1.1009	0.9803 1.0843	1.0276	1.0932	1.0955	AveID		1.0425				6.9		35.0			
Perfluorodecanesulfonic acid (PFDS)	0.6064 0.6329	0.6101 0.6255	0.6563	0.6589	0.6735	AveID		0.6377				4.0		50.0			
Perfluoroundecanoic acid (PFUnA)	1.1890 1.0019	1.1123 1.0445	1.0593	1.0063	1.0359	AveID		1.0641				6.2		35.0			
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	0.7996 0.9851	1.0353 1.0599	0.9816	0.9825	0.9787	AveID		0.9747				8.6		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

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								
MeFOSA	0.8983 1.0042	0.8981 0.9363	0.9415	0.9900	0.9969	AveID		0.9522				4.8		35.0			
Perfluorododecanoic acid (PFDoA)	0.9078 0.9573	0.9245 0.9722	1.0132	0.9271	0.9624	AveID		0.9521				3.7		35.0			
N-EtFOSA-M	0.8723 1.0544	0.9292 1.0102	0.9989	1.0617	1.0629	AveID		0.9985				7.3		35.0			
Perfluorotridecanoic Acid (PFTriA)	0.9154 0.9788	0.9417 0.9494	1.0240	0.9762	1.0082	AveID		0.9705				3.9		50.0			
Perfluorotetradecanoic acid (PFTeA)	2.3604 2.3493	2.3457 2.1203	2.4935	2.3112	2.3514	AveID		2.3331				4.7		50.0			
Perfluoro-n-hexadecanoic acid (PFHxDA)	+++++ 1.0229	1.6983 0.9814	1.1713	1.0158	1.0313	L2ID	0.6992	1.0037							0.9990		0.9900
Perfluoro-n-octadecanoic acid (PFODA)	1.0131 1.0962	1.0427 1.0863	1.1261	1.0745	1.1073	AveID		1.0780				3.6		50.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-171299/3	2017.06.27_PFC_CURVE_003.d
Level 2	IC 320-171299/4	2017.06.27_PFC_CURVE_004.d
Level 3	IC 320-171299/5	2017.06.27_PFC_CURVE_005.d
Level 4	IC 320-171299/6	2017.06.27_PFC_CURVE_006.d
Level 5	IC 320-171299/7	2017.06.27_PFC_CURVE_007.d
Level 6	IC 320-171299/8	2017.06.27_PFC_CURVE_008.d
Level 7	IC 320-171299/9	2017.06.27_PFC_CURVE_009.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	11886919 10675010	12615678 10166691	11797801	11549275	13205581	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C5-PFPeA	Ave	8293954 7124768	8929012 6591945	8273150	8090985	8979957	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFHxA	Ave	7538335 7158780	8175034 6584505	7682413	7441111	9110123	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C4-PFHpA	Ave	7116534 6089305	7503477 5313908	6968809	7055297	7867238	50.0 50.0	50.0 50.0	50.0	50.0	50.0
18O2 PFHxS	Ave	9802958 9364216	10722327 8839903	10119383	9911128	11663930	47.3 47.3	47.3 47.3	47.3	47.3	47.3
M2-6:2FTS	Ave	3284589 3302334	3749819 3295055	3201778	3309130	4068086	47.5 47.5	47.5 47.5	47.5	47.5	47.5
13C4 PFOA	Ave	6757182 5715583	7220112 5115116	6749720	6728822	7402051	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C4 PFOS	Ave	7583619 7491053	8106507 7061626	7635965	7707122	8858759	47.8 47.8	47.8 47.8	47.8	47.8	47.8
13C5 PFNA	Ave	5406486 4847358	5741270 4185731	5376033	5381166	5808673	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C8 FOSA	Ave	13154563 12336650	14002627 11557466	13099370	13211524	15024703	50.0 50.0	50.0 50.0	50.0	50.0	50.0
M2-8:2FTS	Ave	2653329 2521442	2972973 2477757	2651990	2518585	3188751	47.9 47.9	47.9 47.9	47.9	47.9	47.9
13C2 PFDA	Ave	5156995 4421659	5605116 4118965	5132771	4927623	5643784	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d3-NMeFOSAA	Ave	1799267 1758767	1960572 1721455	1831369	1742910	2147247	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d5-NEtFOSAA	Ave	1874966 1723727	1954442 1513502	1898327	1820803	2144747	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFUnA	Ave	3964080 3243280	4115073 2846934	3912305	3819175	4104750	50.0 50.0	50.0 50.0	50.0	50.0	50.0

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

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
d-N-MeFOSA-M	Ave	3494948 3587709	3766110 3701580	3606058	3567251	4387472	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFDoA	Ave	3716745 3379621	3968258 3158739	3540892	3705209	4227944	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d-N-EtFOSA-M	Ave	3495515 3526135	3732058 3563174	3548486	3521257	4353764	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2-PFTeDA	Ave	7294557 7188952	7590782 6840230	7546862	7637411	8914264	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2-PFHxDA	Ave	4126958 3907752	4382288 3766939	4128252	4267397	4780592	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:
Ave = Average

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-171299/3	2017.06.27_PFC_CURVE_003.d
Level 2	IC 320-171299/4	2017.06.27_PFC_CURVE_004.d
Level 3	IC 320-171299/5	2017.06.27_PFC_CURVE_005.d
Level 4	IC 320-171299/6	2017.06.27_PFC_CURVE_006.d
Level 5	IC 320-171299/7	2017.06.27_PFC_CURVE_007.d
Level 6	IC 320-171299/8	2017.06.27_PFC_CURVE_008.d
Level 7	IC 320-171299/9	2017.06.27_PFC_CURVE_009.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	108120 19529228	220239 31585487	1107615	4312576	12656286	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoropentanoic acid (PFPeA)		AveID	89039 14509953	190139 23255486	879879	3404309	9443251	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorobutanesulfonic acid (PFBS)		AveID	132490 22564944	294690 36354753	1397171	5713726	15607971	0.442 88.4	0.884 177	4.42	17.7	44.2
4:2 FTS		AveID	29902 5811420	67042 10875967	330033	1406942	3791195	0.467 93.4	0.934 187	4.67	18.7	46.7
Perfluorohexanoic acid (PFHxA)		AveID	82181 14190069	169209 23166575	815792	3075492	9309307	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoroheptanoic acid (PFHpA)		AveID	77268 13145899	156493 21372445	781071	3025785	8411272	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorohexanesulfonic acid (PFHxS)		AveID	127523 18845568	241518 33084312	1036177	4015290	12045375	0.455 91.0	0.910 182	4.55	18.2	45.5
6:2FTS		AveID	37133 6433270	71669 11321706	328782	1309362	3869731	0.474 94.8	0.948 190	4.74	19.0	47.4
Perfluorooctanoic acid (PFOA)		AveID	80477 12113676	151634 20052628	725611	2751243	7716902	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	88915 16515521	188463 27240352	900193	3740530	10861633	0.476 95.2	0.952 190	4.76	19.0	47.6
Perfluorooctanesulfonic acid (PFOS)		AveID	78174 15546912	158122 28622131	772533	3093407	9350192	0.464 92.8	0.928 186	4.64	18.6	46.4
Perfluorononanoic acid (PFNA)		AveID	49357 9739220	108092 16886918	550324	2128228	6184063	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorooctane Sulfonamide (FOSA)		AveID	137967 23148531	266605 36383951	1351726	5472890	15383456	0.500 100	1.00 200	5.00	20.0	50.0
8:2FTS		AveID	28717 5119791	56425 8681158	264754	1078348	3186328	0.479 95.8	0.958 192	4.79	19.2	47.9
Perfluorodecanoic acid (PFDA)		AveID	49444 8792931	105137 15560863	488082	1922781	5600678	0.500 100	1.00 200	5.00	20.0	50.0

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 171299

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/28/2017 00:13 Calibration End Date: 06/28/2017 01:01 Calibration ID: 32001

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
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)		AveID	16479 3872343	38438 7466479	188190	762143	2352348	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorodecanesulfonic acid (PFDS)		AveID	46373 9560988	99750 17816860	505354	2048221	6016476	0.482 96.4	0.964 193	4.82	19.3	48.2
Perfluoroundecanoic acid (PFUnA)		AveID	47133 6498995	91540 11894686	414412	1537226	4251916	0.500 100	1.00 200	5.00	20.0	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)		AveID	14993 3396144	40468 6416477	186343	715544	2099128	0.500 100	1.00 200	5.00	20.0	50.0
MeFOSA		AveID	31394 7205455	67644 13863578	339523	1412678	4374026	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorododecanoic acid (PFDoA)		AveID	33742 6470650	73375 12283288	358777	1374056	4068765	0.500 100	1.00 200	5.00	20.0	50.0
N-EtFOSA-M		AveID	30491 7435798	69355 14398576	354466	1495344	4627670	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorotridecanoic Acid (PFTriA)		AveID	34024 6616124	74736 11996210	362572	1446860	4262655	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorotetradecanoic acid (PFTeA)		AveID	87731 15879482	186165 26789665	882931	3425461	9941671	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)		L2ID	+++++ 6914193	134786 12399383	414748	1505434	4360289	+++++ 100	1.00 200	5.00	20.0	50.0
Perfluoro-n-octadecanoic acid (PFODA)		AveID	37653 7409509	82755 13725574	398746	1592491	4681812	0.500 100	1.00 200	5.00	20.0	50.0

Curve Type Legend:

AveID = Average isotope dilution
L2ID = Linear 1/conc^2 IsoDil

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_003.d
Lims ID: IC L1 Full
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Jun-2017 00:13:24 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L1-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:28:22 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

First Level Reviewer: westendorfc Date: 28-Jun-2017 08:21:08

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.551	1.546	0.005		11886919	50.8		102	22399	
2 Perfluorobutyric acid										
212.90 > 169.00	1.551	1.549	0.002	1.000	108120	0.5049		101	43.4	
D 3 13C5-PFPeA										
267.90 > 223.00	1.761	1.755	0.006		8293954	51.6		103	22670	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.761	1.756	0.005	1.000	89039	0.5215		104	50.7	
D 47 13C3-PFBS										
301.90 > 83.00	1.779	1.776	0.003		211470	NC			7153	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.788	1.783	0.005	1.000	132490	0.4586		104	103	
298.90 > 99.00	1.779	1.783	-0.004	0.995	58443		2.27(0.00-0.00)	104	104	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.993	1.983	0.010	1.000	29902	0.4554		97.5	1510	
D 7 13C2 PFHxA										
315.00 > 270.00	2.026	2.022	0.004		7538335	49.1		98.3	18709	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.026	2.022	0.004	1.000	82181	0.5364		107	198	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.352	2.345	0.007	1.000	77268	0.5083		102	172	
D 9 13C4-PFHpA										
367.00 > 322.00	2.352	2.345	0.007		7116534	52.0		104	22724	
D 11 18O2 PFHxS										
403.00 > 84.00	2.368	2.360	0.008		9802958	46.1		97.4	17209	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.368	2.360	0.008	1.000	127523	0.5570		122	145	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.684	2.674	0.010	1.000	37133	0.5447		115	764	
D 12 M2-6:2FTS										
429.00 > 409.00	2.684	2.674	0.010		3284589	45.1		95.0	12819	
* 62 13C2-PFOA										
415.00 > 370.00	2.706	2.695	0.011		7300132	50.0			17146	
D 14 13C4 PFOA										
417.00 > 372.00	2.713	2.701	0.012		6757182	51.8		104	13979	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.713	2.703	0.010	1.000	80477	0.5617		112	17.1	
413.00 > 169.00	2.713	2.703	0.010	1.000	47313		1.70(0.90-1.10)	112	254	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.721	2.710	0.011	1.000	88915	0.4871		102	2169	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.091	3.076	0.015	1.000	78174	0.4697		101	640	
499.00 > 99.00	3.091	3.076	0.015	1.000	16542		4.73(0.90-1.10)	101	168	
D 18 13C4 PFOS										
503.00 > 80.00	3.091	3.076	0.015		7583619	46.6		97.5	14217	
D 19 13C5 PFNA										
468.00 > 423.00	3.091	3.077	0.014		5406486	51.5		103	12379	
20 Perfluorononanoic acid										
463.00 > 419.00	3.091	3.077	0.014	1.000	49357	0.4601		92.0	159	
D 21 13C8 FOSA										
506.00 > 78.00	3.415	3.405	0.010		13154563	49.8		99.7	121496	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.415	3.408	0.007	1.000	137967	0.5385		108	1366	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.441	3.429	0.012	1.000	28717	0.5191		108	1143	
D 26 M2-8:2FTS										
529.00 > 509.00	3.441	3.429	0.012		2653329	46.9		97.8	25774	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.458	3.442	0.016	1.000	49444	0.4968		99.4	311	
D 23 13C2 PFDA										
515.00 > 470.00	3.458	3.442	0.016		5156995	51.6		103	26789	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.616	3.598	0.018		1799267	48.6		97.2	9731	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.616	3.602	0.014	1.000	16479	0.4393		87.9	381	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.774	3.755	0.019	1.000	46373	0.4584		95.1	1705	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.784	3.765	0.019		1874966	50.8		102	6794	
D 30 13C2 PFUnA										
565.00 > 520.00	3.784	3.772	0.012		3964080	53.4		107	19278	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.784	3.773	0.011	1.000	47133	0.5587		112	139	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.794	3.775	0.019	1.003	14993	0.4102		82.0	365	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.910	3.904	0.006		3494948	46.8		93.7	641	
35 MeFOSA										
512.00 > 169.00	3.919	3.910	0.009	1.000	31394	0.4717		94.3	1004	
D 36 13C2 PFDoA										
615.00 > 570.00	4.090	4.071	0.019		3716745	50.6		101	10545	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.090	4.072	0.018	1.000	33742	0.4768		95.4	37.0	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.098	4.092	0.006		3495515	47.5		95.1	6236	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.107	4.101	0.006	1.000	30491	0.4368		87.4	1092	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.362	4.341	0.021	1.000	34024	0.4716		94.3	9.2	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.601	4.578	0.022		7294557	48.2		96.3	51696	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.601	4.581	0.019	1.000	87731	0.5059		101	5.2	
713.00 > 169.00	4.589	4.581	0.008	0.997	11077		7.92(0.00-0.00)	101	172	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.019	4.998	0.021	1.000	92507	0.5432		109	18.1	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.019	4.998	0.021		4126958	49.2		98.4	7314	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.373	5.351	0.022	1.000	37653	0.4699		94.0	14.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L1_00004 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:28:24 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_003.d

Injection Date: 28-Jun-2017 00:13:24 Instrument ID: A8_N

Lims ID: IC L1 Full

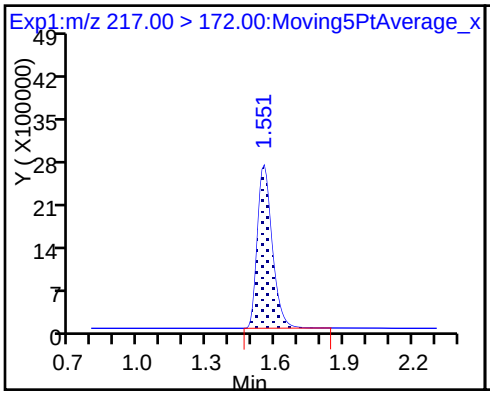
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3

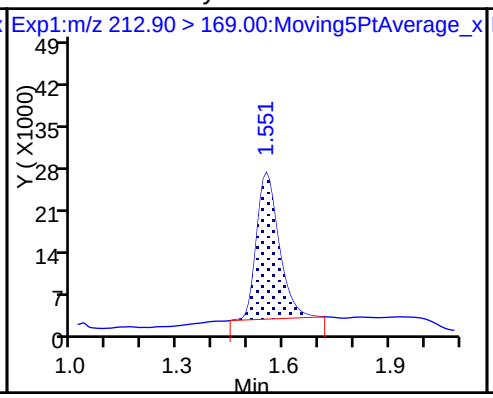
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

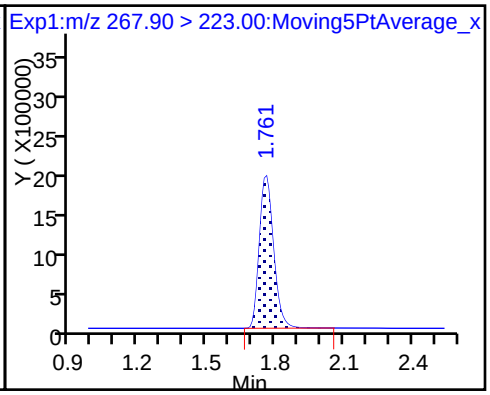
D 1 13C4 PFBA



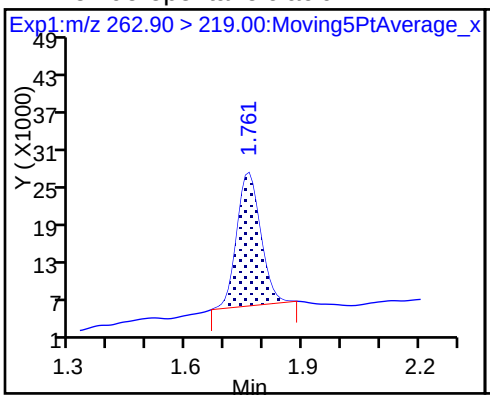
2 Perfluorobutyric acid



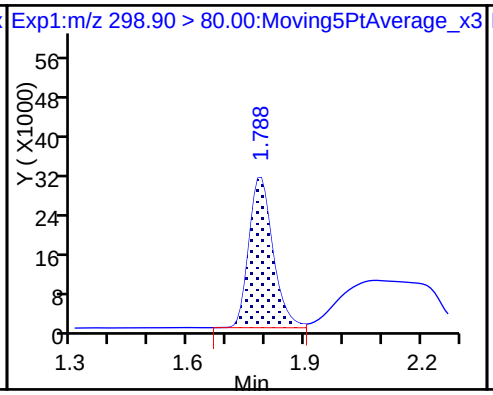
D 3 13C5-PFPeA



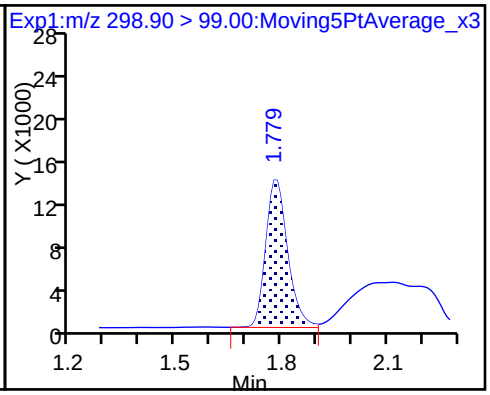
4 Perfluoropentanoic acid



5 Perfluorobutanesulfonic acid

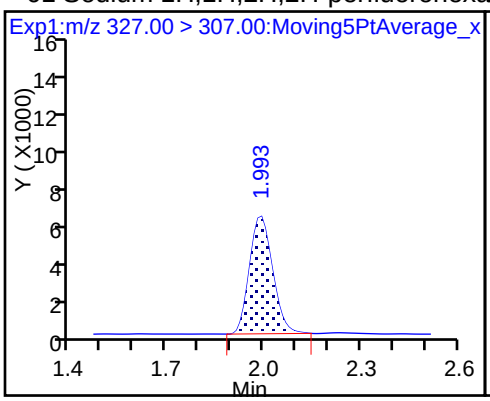


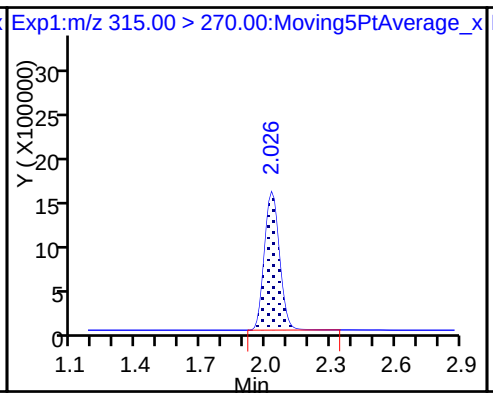
5 Perfluorobutanesulfonic acid



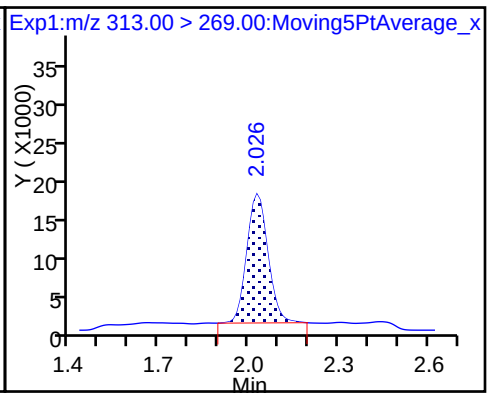
61 Sodium 1H,1H,2H,2H-perfluorohexa

D 7 13C2 PFHxA

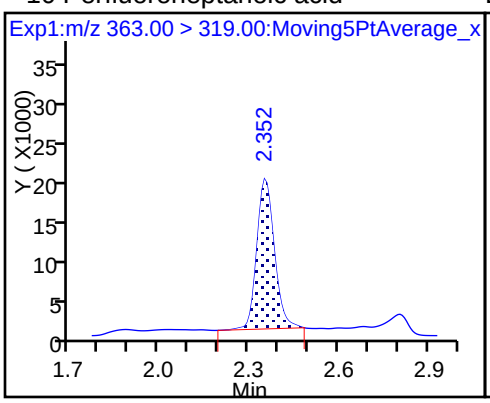




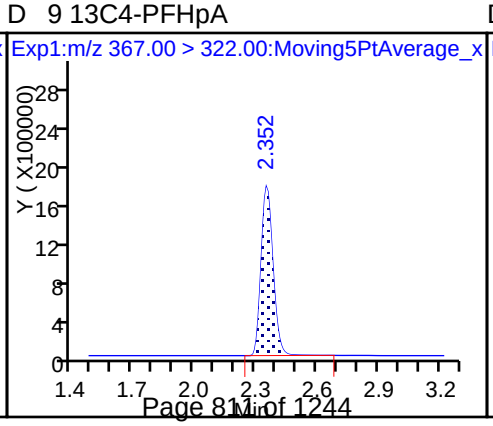
6 Perfluorohexanoic acid



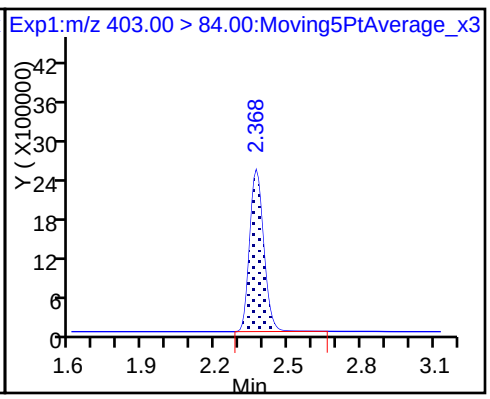
10 Perfluoroheptanoic acid



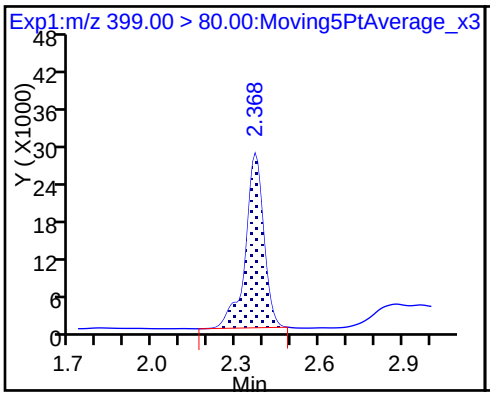
D 9 13C4-PFHpA



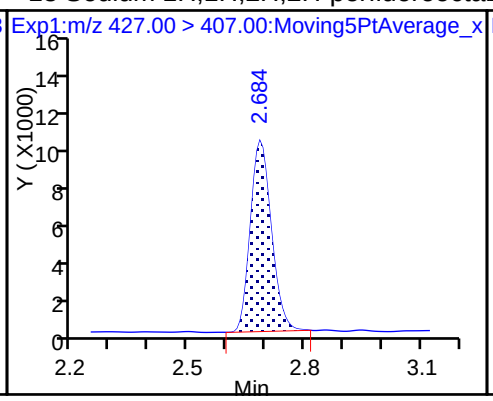
D 11 18O2 PFHxS



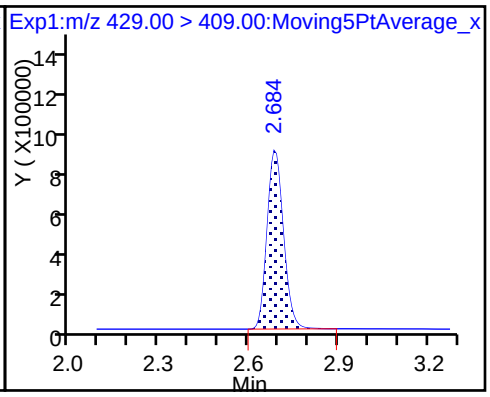
8 Perfluorohexanesulfonic acid



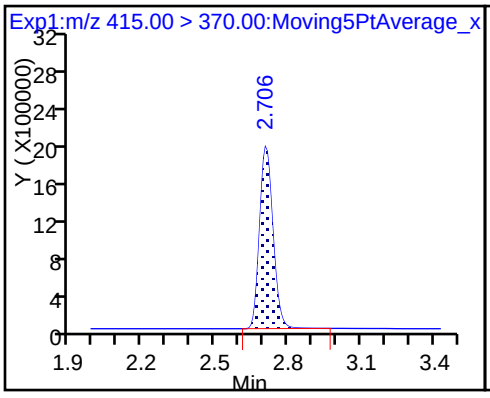
13 Sodium 1H,1H,2H,2H-perfluorooctane



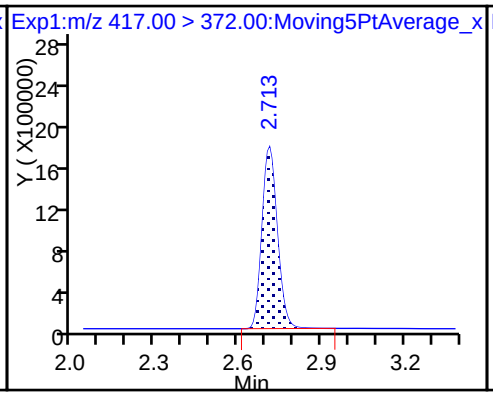
D 12 M2-6:2FTS



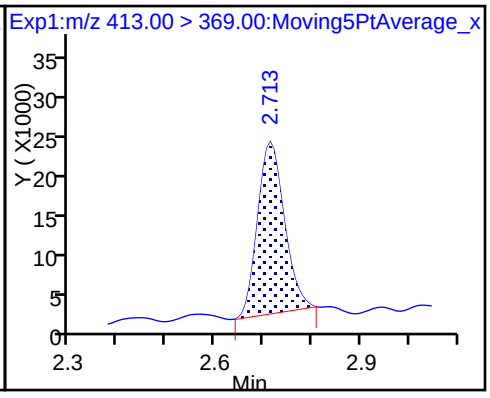
* 62 13C2-PFOA



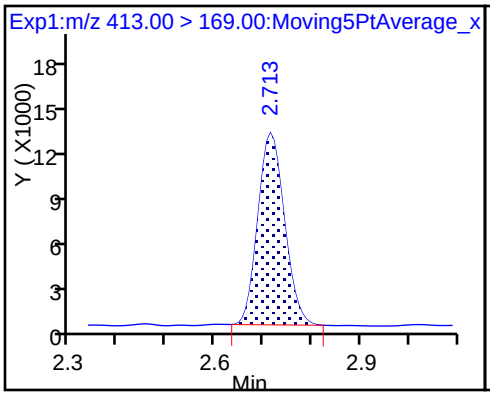
D 14 13C4 PFOA



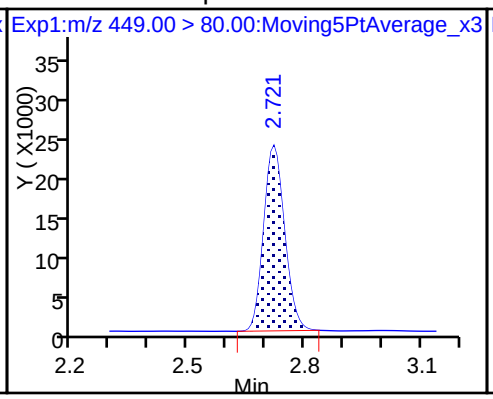
15 Perfluorooctanoic acid



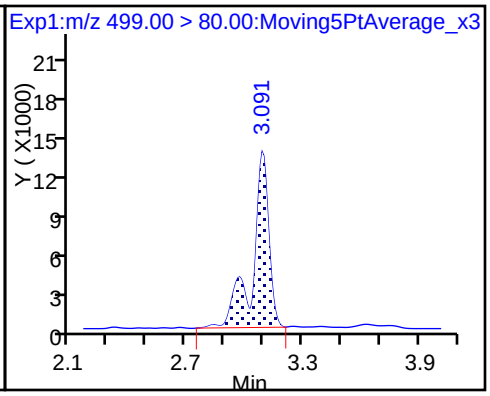
15 Perfluorooctanoic acid



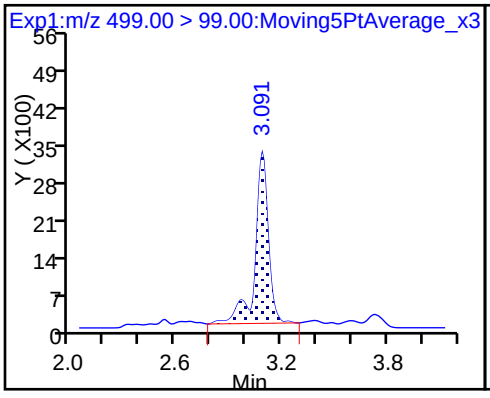
16 Perfluoroheptanesulfonic Acid



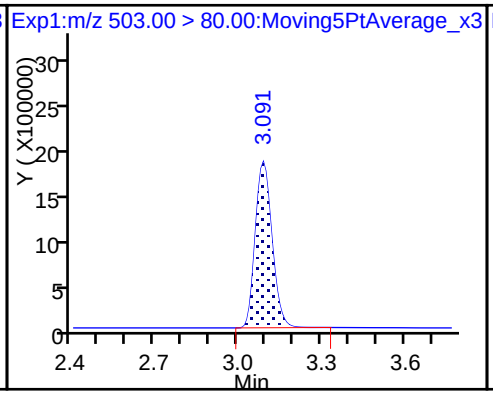
17 Perfluorooctane sulfonic acid



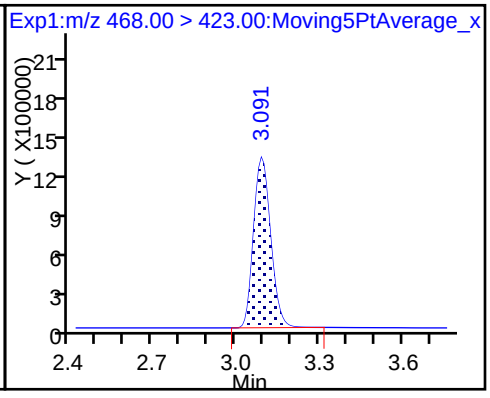
17 Perfluorooctane sulfonic acid



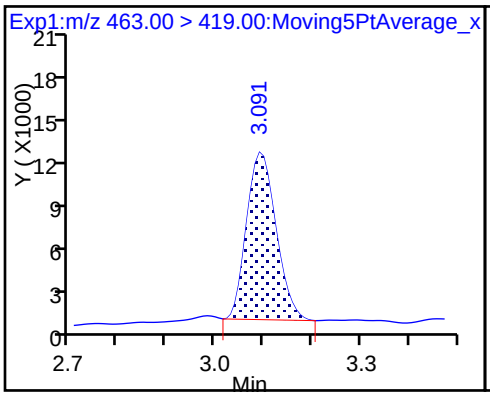
D 18 13C4 PFOS



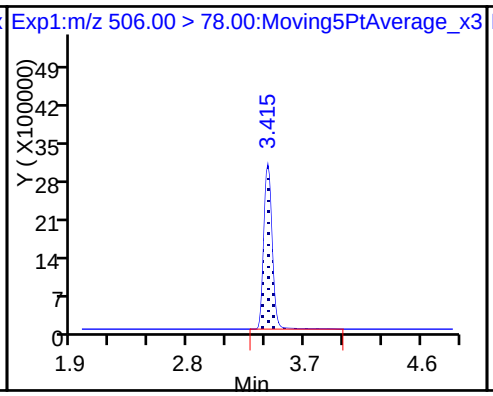
D 19 13C5 PFNA



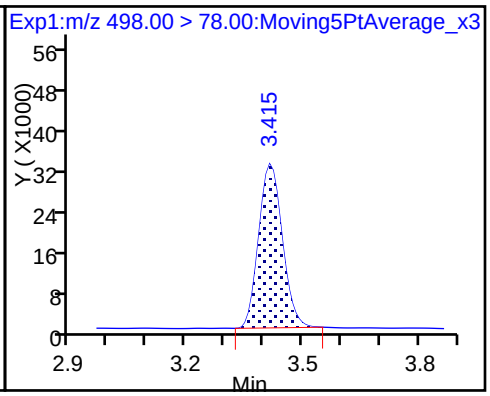
20 Perfluorononanoic acid



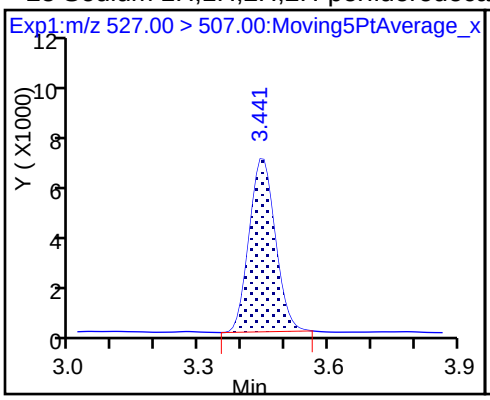
D 21 13C8 FOSA



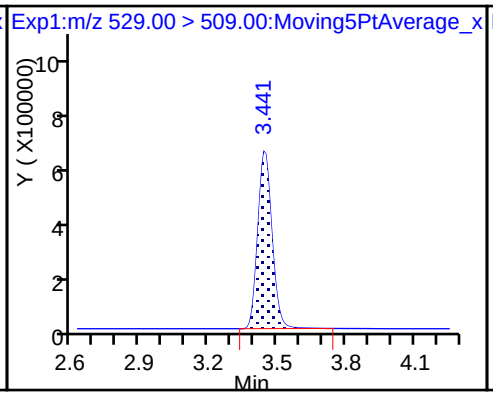
22 Perfluorooctane Sulfonamide



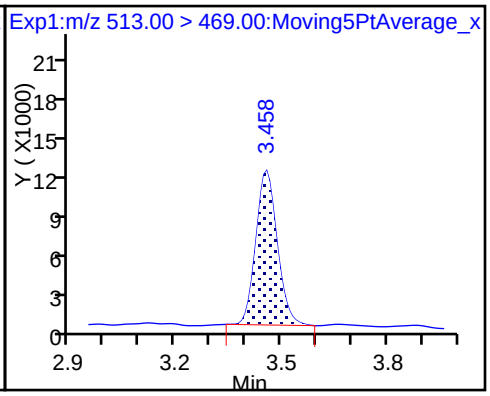
25 Sodium 1H,1H,2H,2H-perfluorodecane



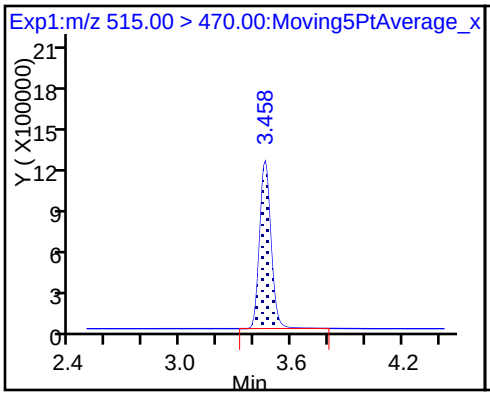
D 26 M2-8:2FTS



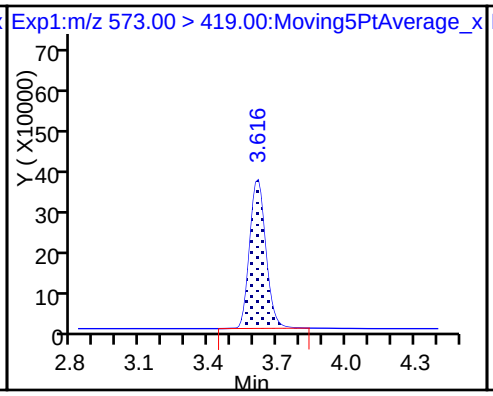
24 Perfluorodecanoic acid



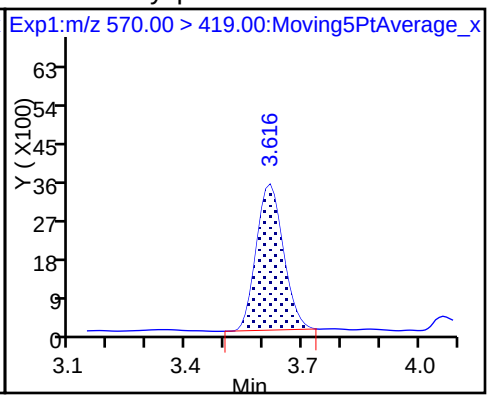
D 23 13C2 PFDA



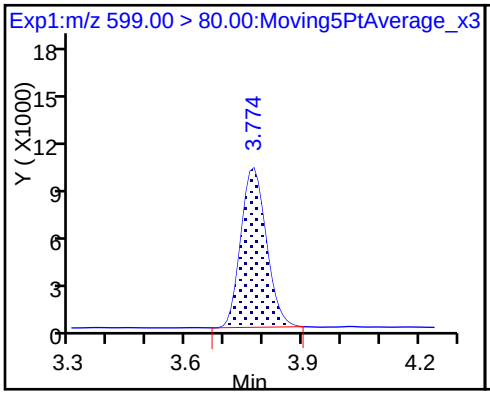
D 27 d3-NMeFOSAA



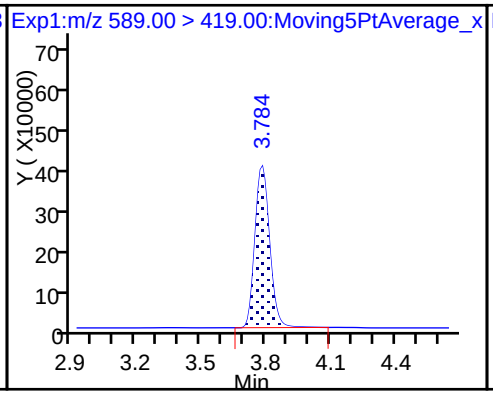
28 N-methyl perfluorooctane sulfonami



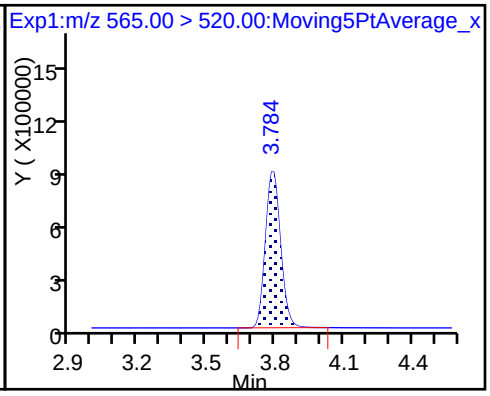
29 Perfluorodecane Sulfonic acid



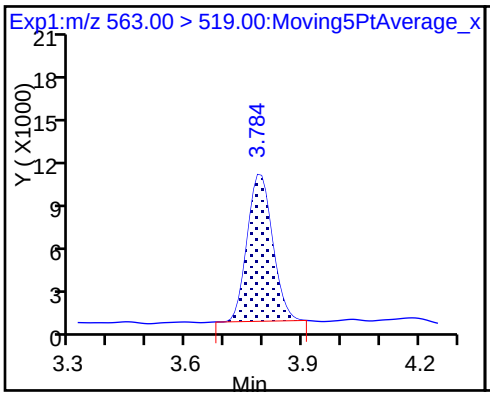
D 32 d5-NEtFOSAA



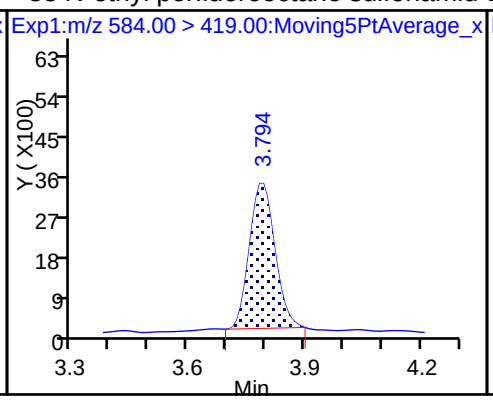
D 30 13C2 PFUnA



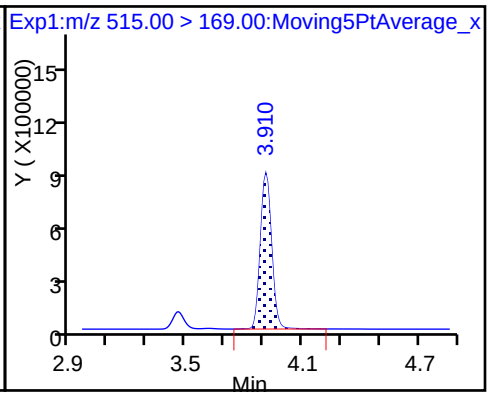
31 Perfluoroundecanoic acid



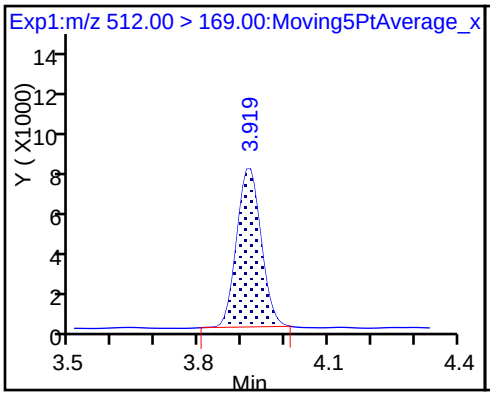
33 N-ethyl perfluorooctane sulfonamid



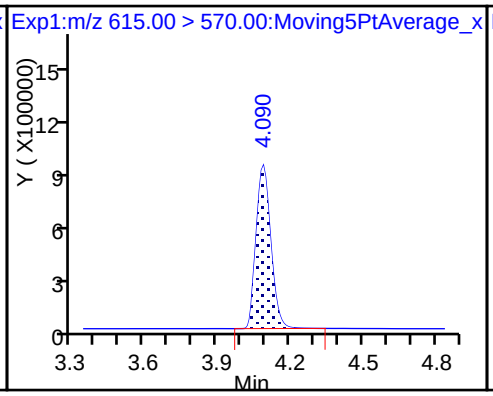
D 34 d-N-MeFOSA-M



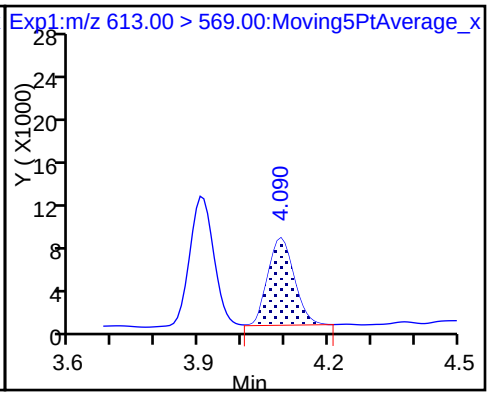
35 MeFOSA



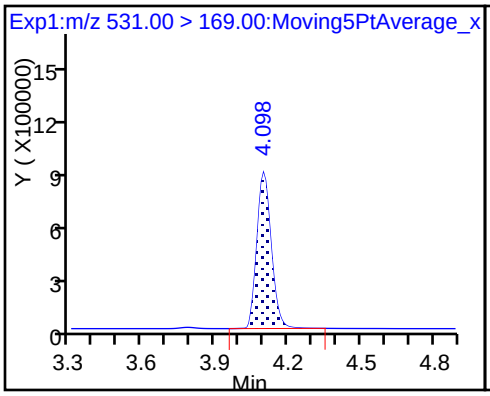
D 36 13C2 PFDoA



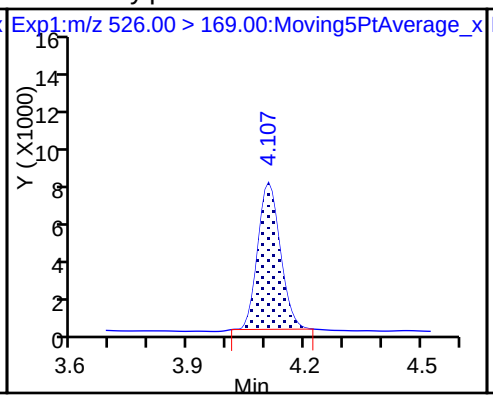
37 Perfluorododecanoic acid



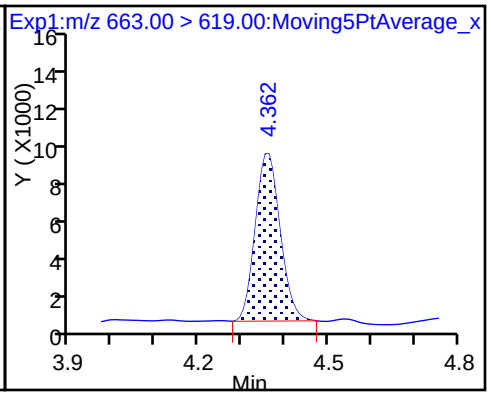
D 38 d-N-EtFOSA-M



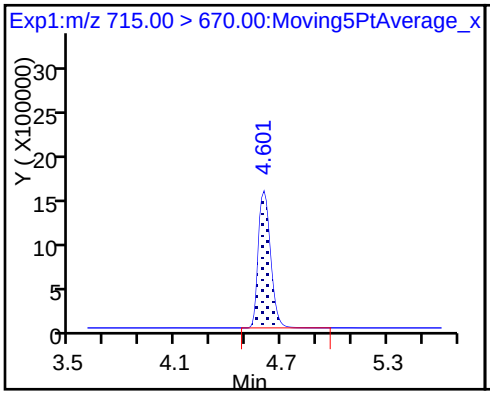
39 N-ethylperfluoro-1-octanesulfonami



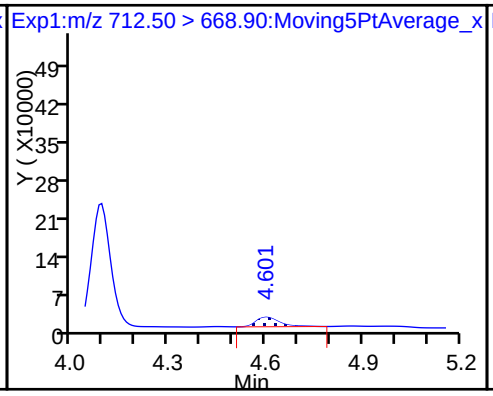
41 Perfluorotridecanoic acid



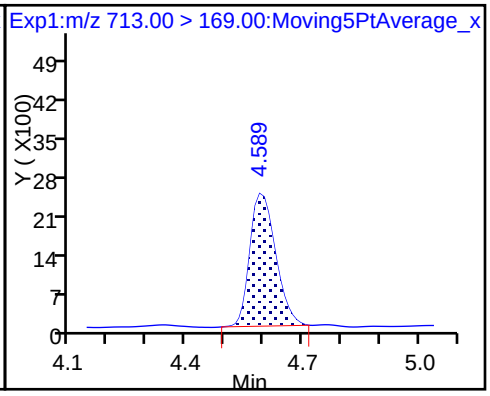
D 43 13C2-PFTeDA



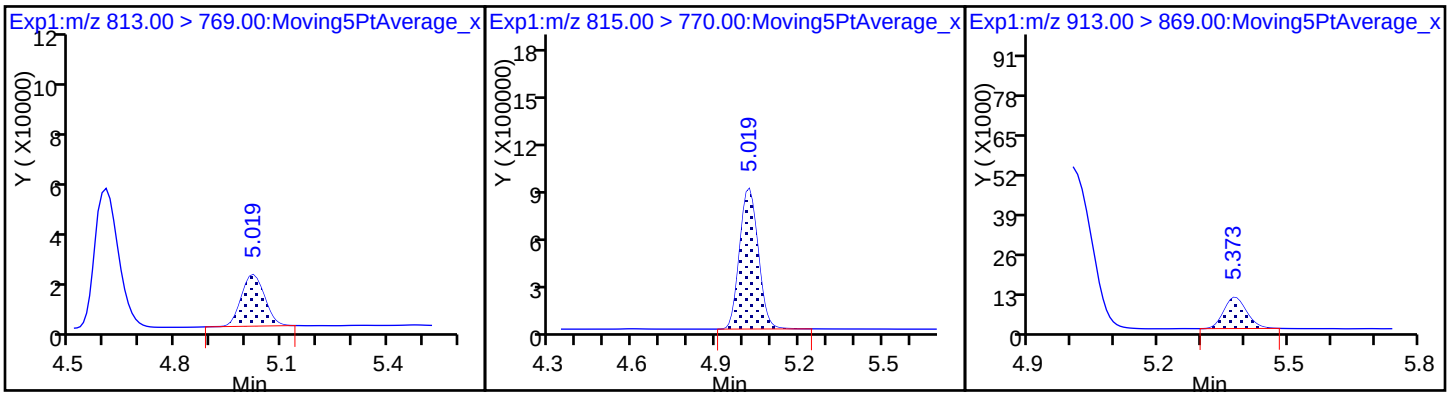
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_004.d
Lims ID: IC L2 Full
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 28-Jun-2017 00:20:18 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L2-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:28:28 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.550	1.546	0.004		12615678	53.9		108	21354	
2 Perfluorobutyric acid										
212.90 > 169.00	1.550	1.549	0.001	1.000	220239	0.9692		96.9	86.6	
D 3 13C5-PFPeA										
267.90 > 223.00	1.760	1.755	0.005		8929012	55.5		111	36736	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.760	1.756	0.004	1.000	190139	1.03		103	117	
D 47 13C3-PFBS										
301.90 > 83.00	1.777	1.776	0.001		227646	NC			6043	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.786	1.783	0.003	1.000	294690	0.9325		105	192	
298.90 > 99.00	1.777	1.783	-0.006	0.995	121552		2.42(0.00-0.00)	105	219	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.991	1.983	0.008	1.000	67042	0.8943		95.8	3382	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.025	2.022	0.003	1.000	169209	1.02		102	400	
D 7 13C2 PFHxA										
315.00 > 270.00	2.025	2.022	0.003		8175034	53.3		107	15349	
D 9 13C4-PFHpA										
367.00 > 322.00	2.353	2.345	0.008		7503477	54.8		110	32899	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.353	2.345	0.008	1.000	156493	0.9765		97.6	301	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.362	2.360	0.002	1.000	241518	0.9645		106	259	
D 11 18O2 PFHxS										
403.00 > 84.00	2.362	2.360	0.002		10722327	50.4		107	19022	
D 12 M2-6:2FTS										
429.00 > 409.00	2.678	2.674	0.004		3749819	51.5		108	16552	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.678	2.674	0.004	1.000	71669	0.9209		97.1	1446	
* 62 13C2-PFOA										
415.00 > 370.00	2.700	2.695	0.005		7674103	50.0			16369	
D 14 13C4 PFOA										
417.00 > 372.00	2.707	2.701	0.006		7220112	55.3		111	17292	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.707	2.703	0.004	1.000	151634	0.99		99.1	31.8	
413.00 > 169.00	2.707	2.703	0.004	1.000	93729		1.62(0.90-1.10)	99.1	471	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.714	2.710	0.004	1.000	188463	0.9659		101	3380	
D 18 13C4 PFOS										
503.00 > 80.00	3.083	3.076	0.007		8106507	49.8		104	18965	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.083	3.076	0.007	1.000	158122	0.8888		95.8	1189	
499.00 > 99.00	3.083	3.076	0.007	1.000	35506		4.45(0.90-1.10)	95.8	346	
20 Perfluorononanoic acid										
463.00 > 419.00	3.083	3.077	0.006	1.000	108092	0.9489		94.9	349	
D 19 13C5 PFNA										
468.00 > 423.00	3.083	3.077	0.006		5741270	54.7		109	11973	
D 21 13C8 FOSA										
506.00 > 78.00	3.414	3.405	0.009		14002627	53.0		106	64730	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.414	3.408	0.006	1.000	266605	0.9775		97.7	2616	
D 26 M2-8:2FTS										
529.00 > 509.00	3.440	3.429	0.011		2972973	52.5		110	34791	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.440	3.429	0.011	1.000	56425	0.9104		95.0	1896	
D 23 13C2 PFDA										
515.00 > 470.00	3.449	3.442	0.007		5605116	56.0		112	28415	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.449	3.442	0.007	1.000	105137	0.9720		97.2	712	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.603	3.598	0.005		1960572	52.9		106	11238	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.614	3.602	0.012	1.003	38438	0.9403		94.0	739	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.761	3.755	0.006	1.000	99750	0.9224		95.7	3673	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.771	3.765	0.006		1954442	52.9		106	5597	
D 30 13C2 PFUnA										
565.00 > 520.00	3.781	3.772	0.009		4115073	55.4		111	36083	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.781	3.773	0.008	1.000	91540	1.05		105	281	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.781	3.775	0.006	1.003	40468	1.06		106	901	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.907	3.904	0.003		3766110	50.5		101	608	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.916	3.910	0.006	1.000	67644	0.9432		94.3	1922	
D 36 13C2 PFDoA										
615.00 > 570.00	4.079	4.071	0.008		3968258	54.0		108	11258	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.079	4.072	0.007	1.000	73375	0.9711		97.1	79.3	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.096	4.092	0.004		3732058	50.7		101	5843	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.105	4.101	0.004	1.000	69355	0.9306		93.1	1723	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.351	4.341	0.010	1.000	74736	0.9703		97.0	22.6	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.587	4.578	0.009		7590782	50.1		100	39825	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.599	4.581	0.018	1.000	186165	1.01		101	11.9	
713.00 > 169.00	4.587	4.581	0.006	0.997	22304		8.35(0.00-0.00)	101	292	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.008	4.998	0.010		4382288	52.2		104	7548	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.008	4.998	0.010	1.000	134786	1.00		99.5	23.8	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.365	5.351	0.014	1.000	82755	0.9672		96.7	28.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L2_00005 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:28:29 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_004.d

Injection Date: 28-Jun-2017 00:20:18 Instrument ID: A8_N

Lims ID: IC L2 Full

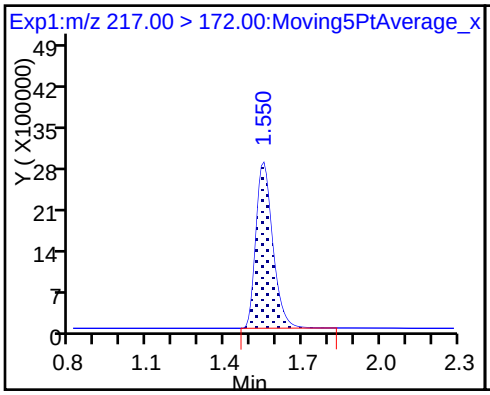
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4

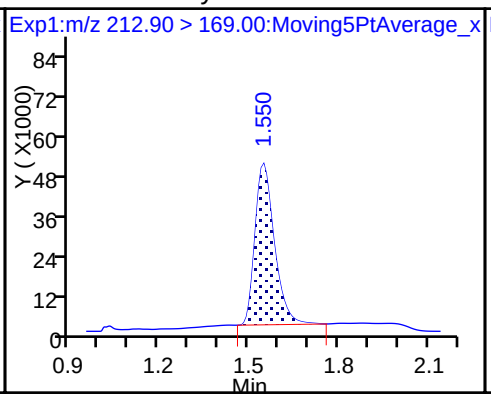
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

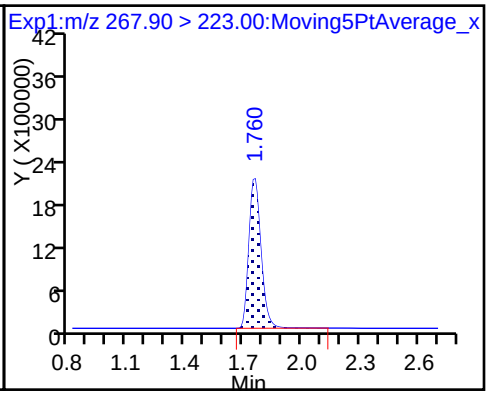
D 1 13C4 PFBA



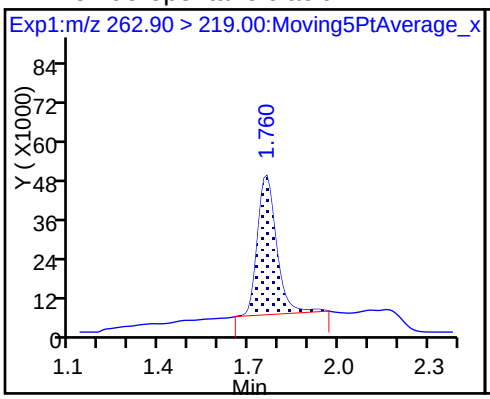
2 Perfluorobutyric acid



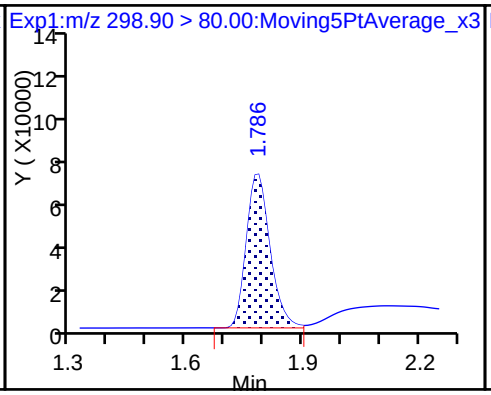
D 3 13C5-PFPeA



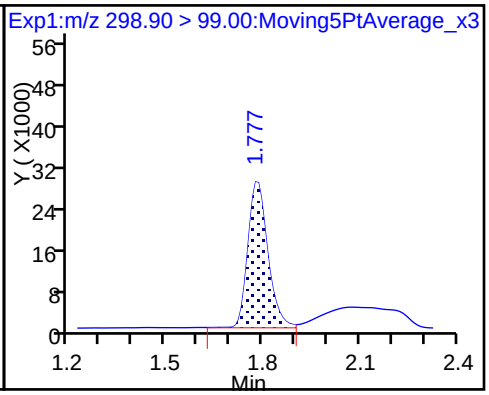
4 Perfluoropentanoic acid



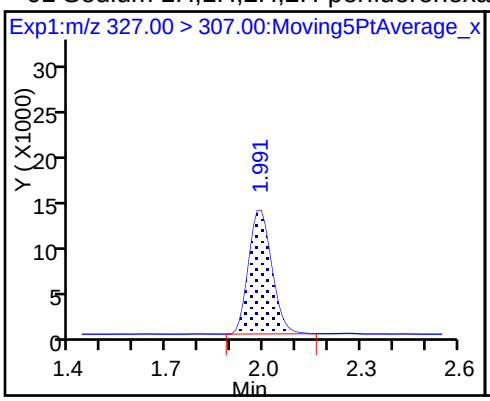
5 Perfluorobutanesulfonic acid



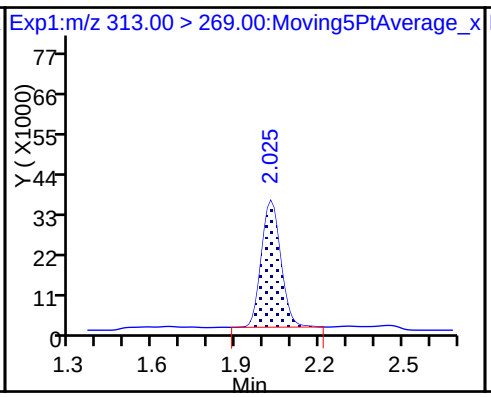
5 Perfluorobutanesulfonic acid



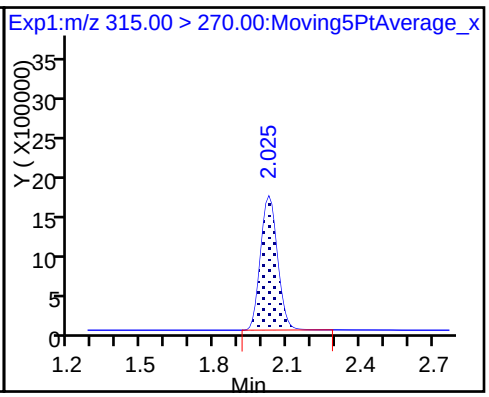
61 Sodium 1H,1H,2H,2H-perfluorohexane



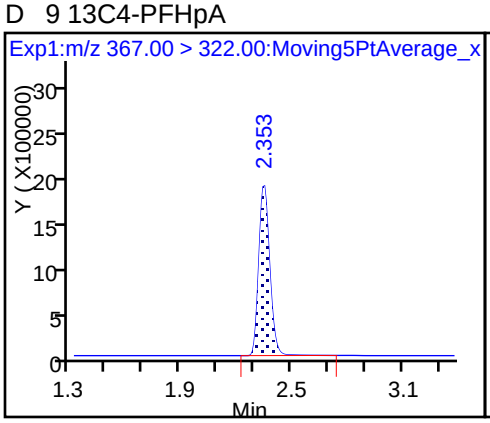
6 Perfluorohexanoic acid



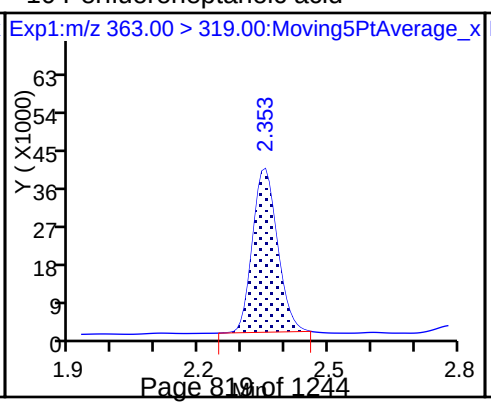
D 7 13C2 PFHxA



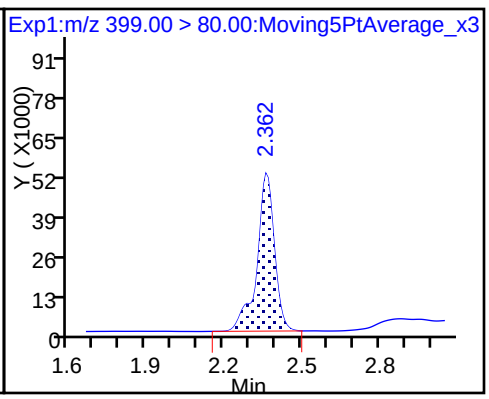
D 9 13C4-PFHpA



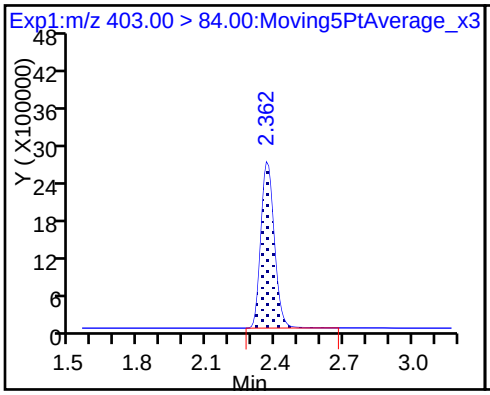
10 Perfluoroheptanoic acid



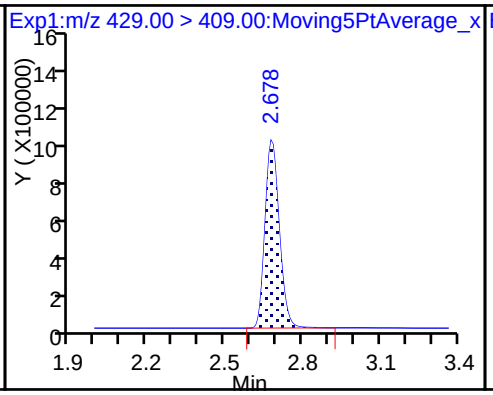
8 Perfluorohexanesulfonic acid



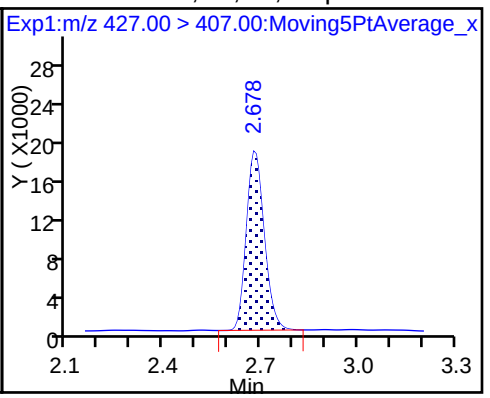
D 11 18O2 PFHxS



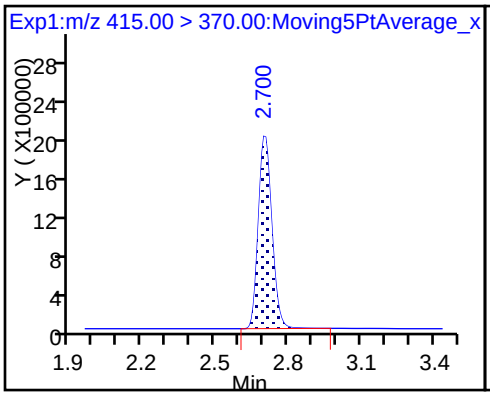
D 12 M2-6:2FTS



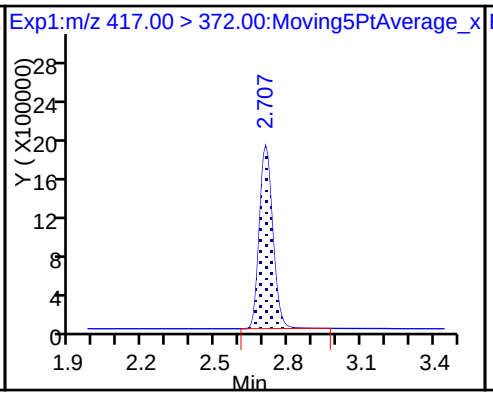
13 Sodium 1H,1H,2H,2H-perfluorooctane



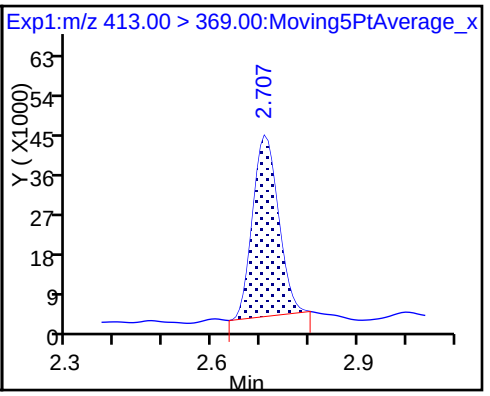
* 62 13C2-PFOA



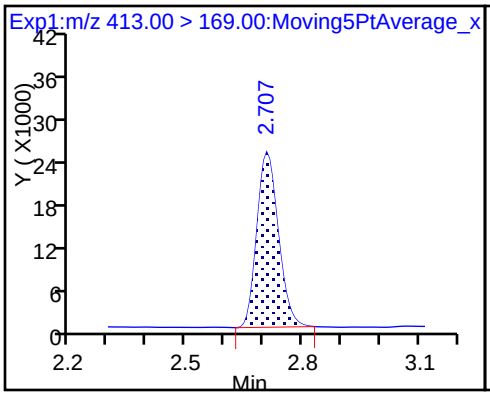
D 14 13C4 PFOA



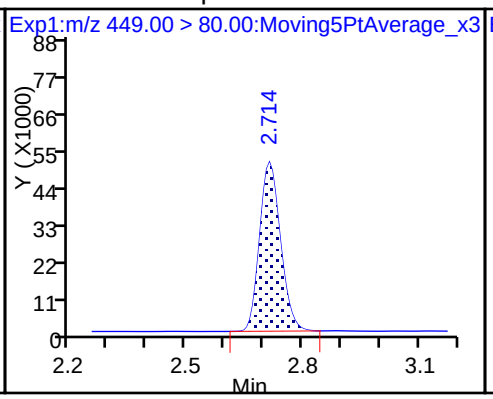
15 Perfluorooctanoic acid



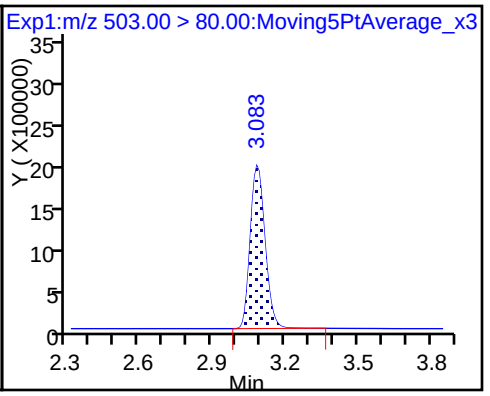
15 Perfluorooctanoic acid



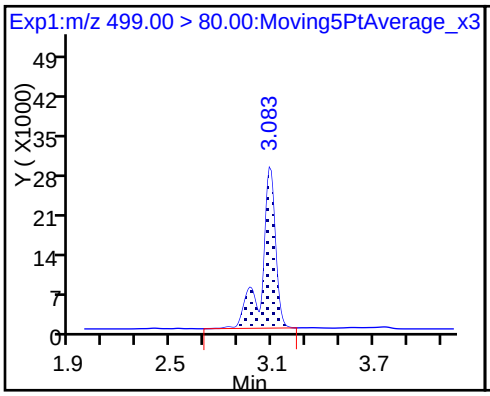
16 Perfluoroheptanesulfonic Acid



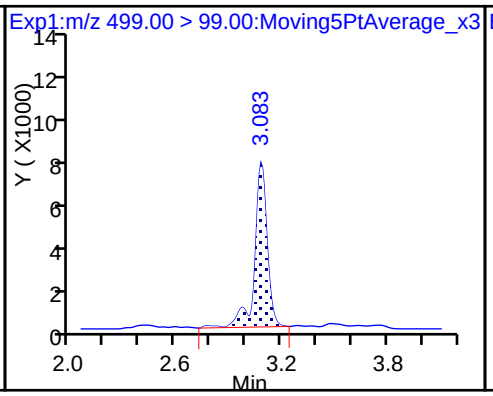
D 18 13C4 PFOS



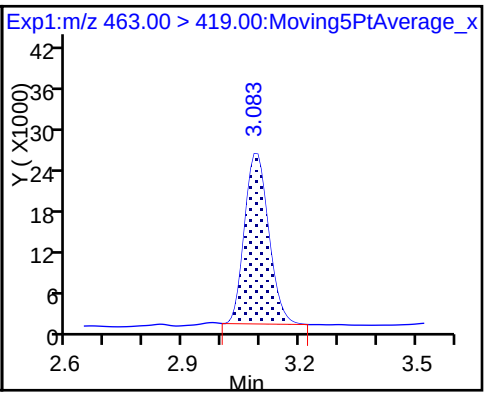
17 Perfluorooctane sulfonic acid



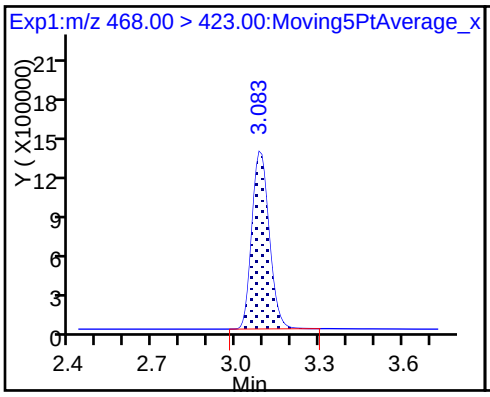
17 Perfluorooctane sulfonic acid



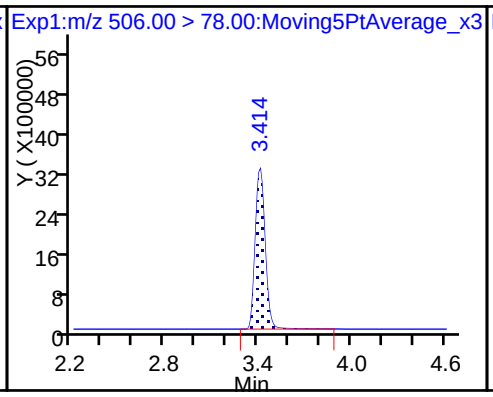
20 Perfluorononanoic acid



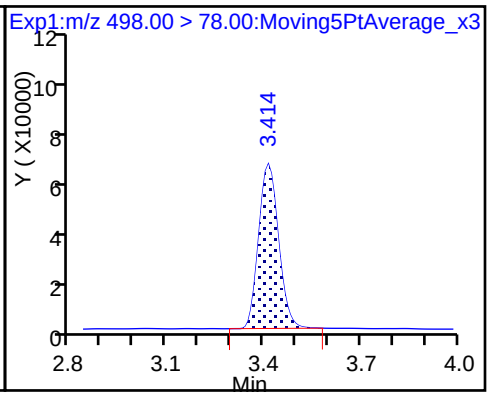
D 19 13C5 PFNA



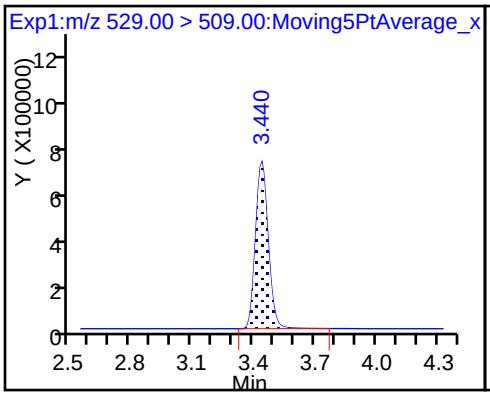
D 21 13C8 FOSA



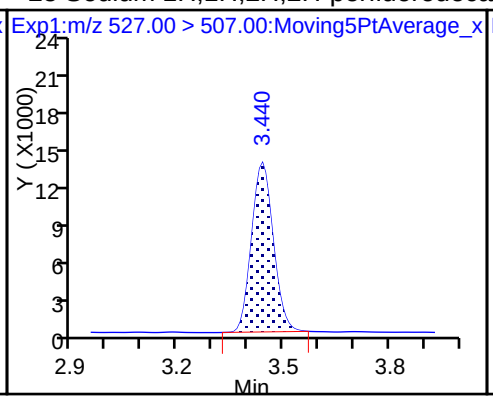
22 Perfluorooctane Sulfonamide



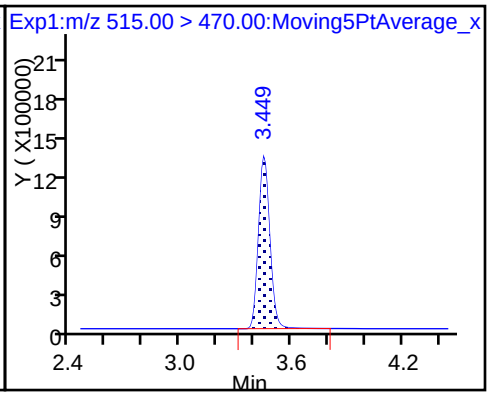
D 26 M2-8:2FTS



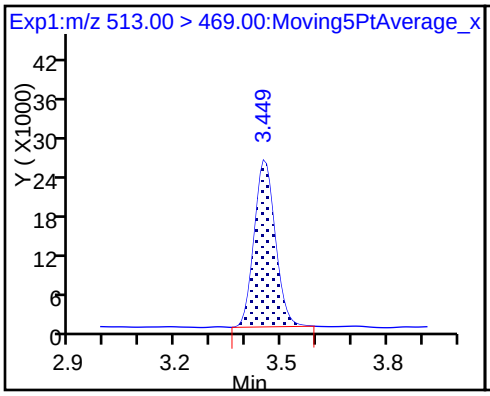
25 Sodium 1H,1H,2H,2H-perfluorodecane



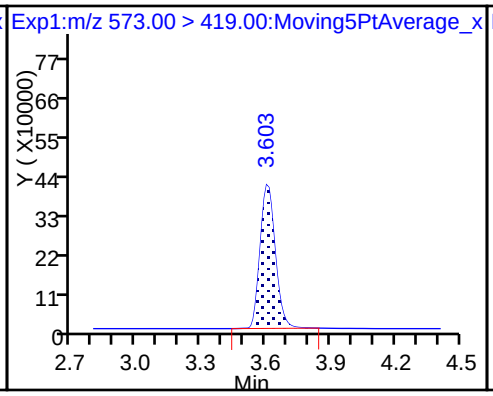
D 23 13C2 PFDA



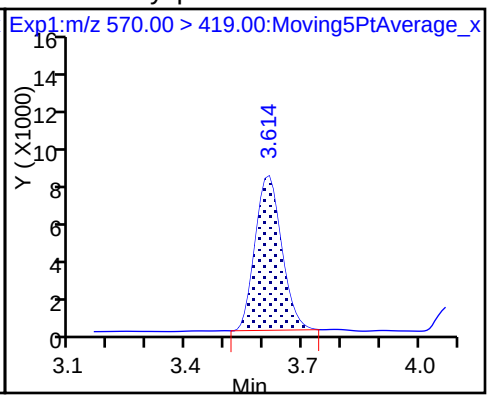
24 Perfluorodecanoic acid



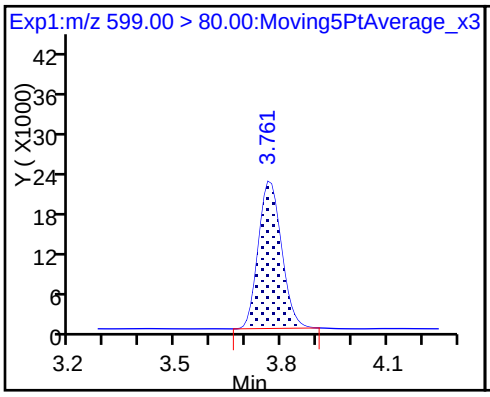
D 27 d3-NMeFOSAA



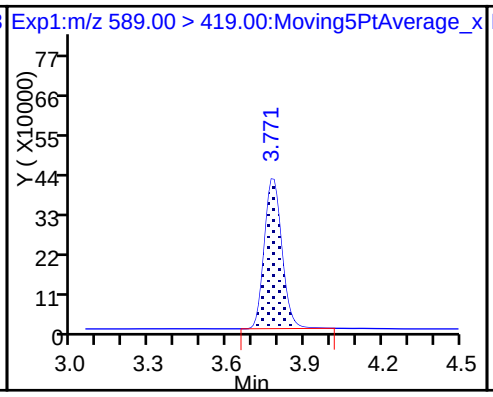
28 N-methyl perfluorooctane sulfonami



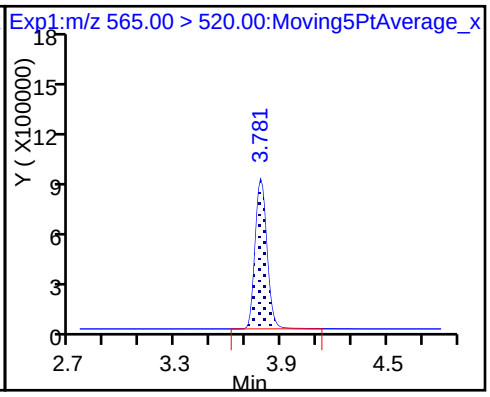
29 Perfluorodecane Sulfonic acid



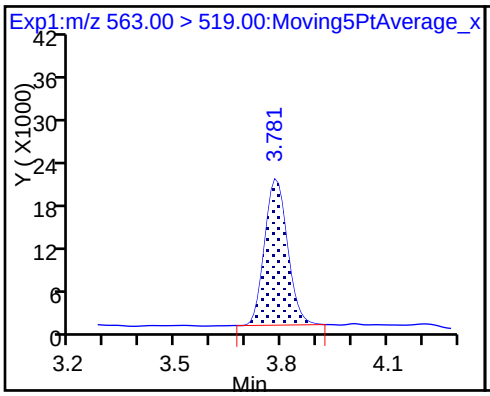
D 32 d5-NEtFOSAA



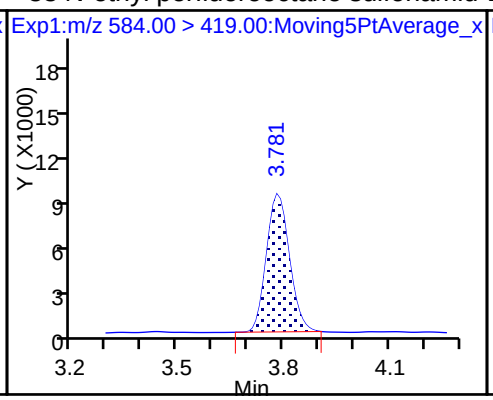
D 30 13C2 PFUnA



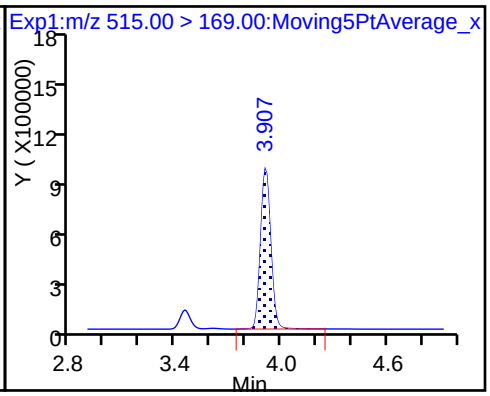
31 Perfluoroundecanoic acid



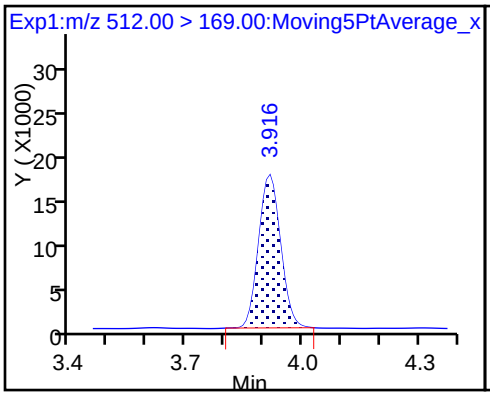
33 N-ethyl perfluorooctane sulfonamid



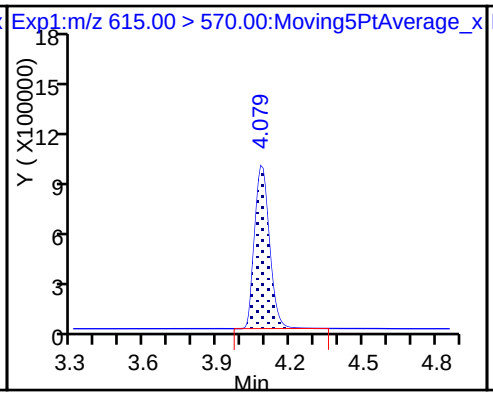
D 34 d-N-MeFOSA-M



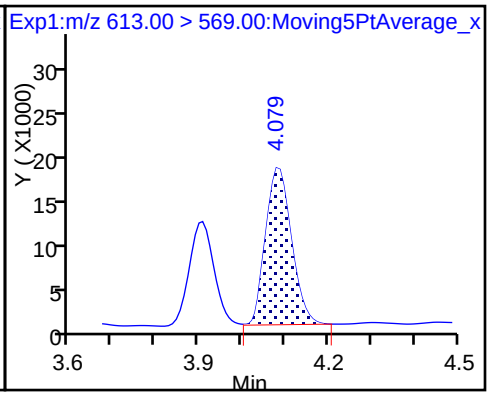
35 MeFOSA



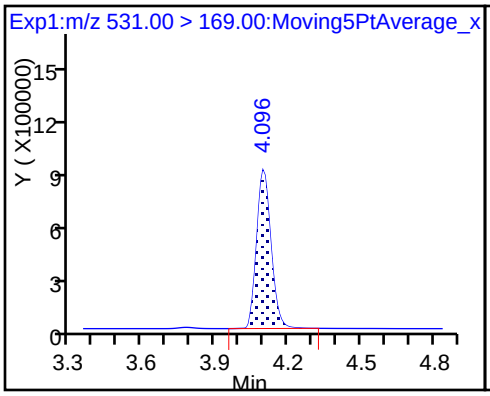
D 36 13C2 PFDoA



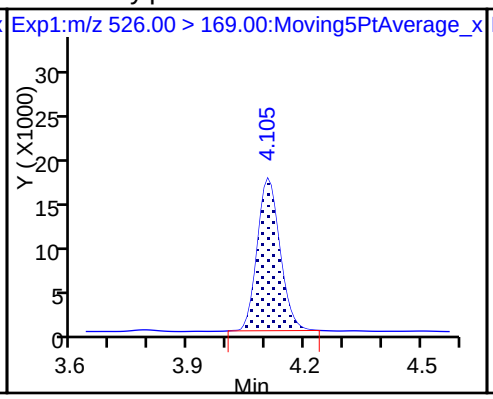
37 Perfluorododecanoic acid



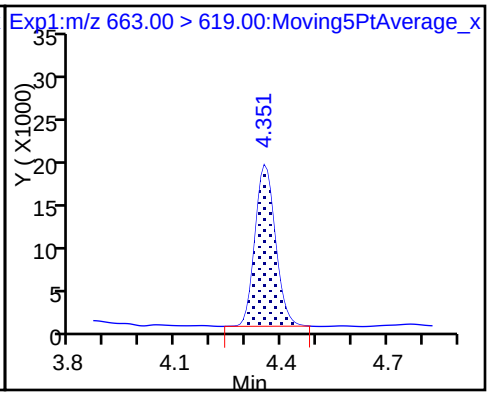
D 38 d-N-EtFOSA-M



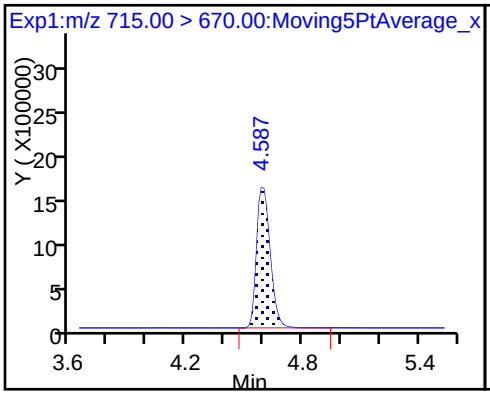
39 N-ethylperfluoro-1-octanesulfonami



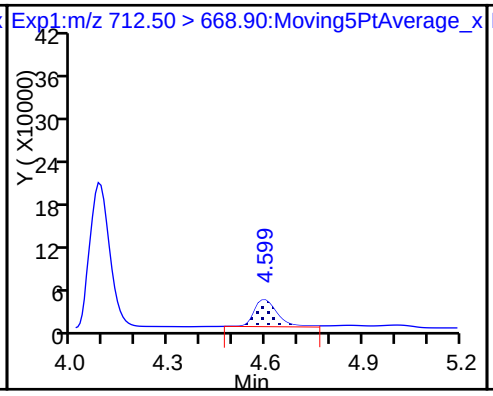
41 Perfluorotridecanoic acid



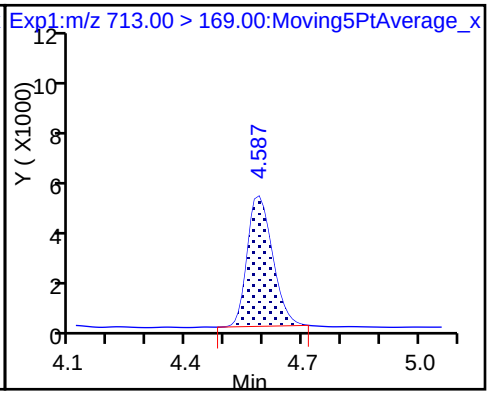
D 43 13C2-PFTeDA



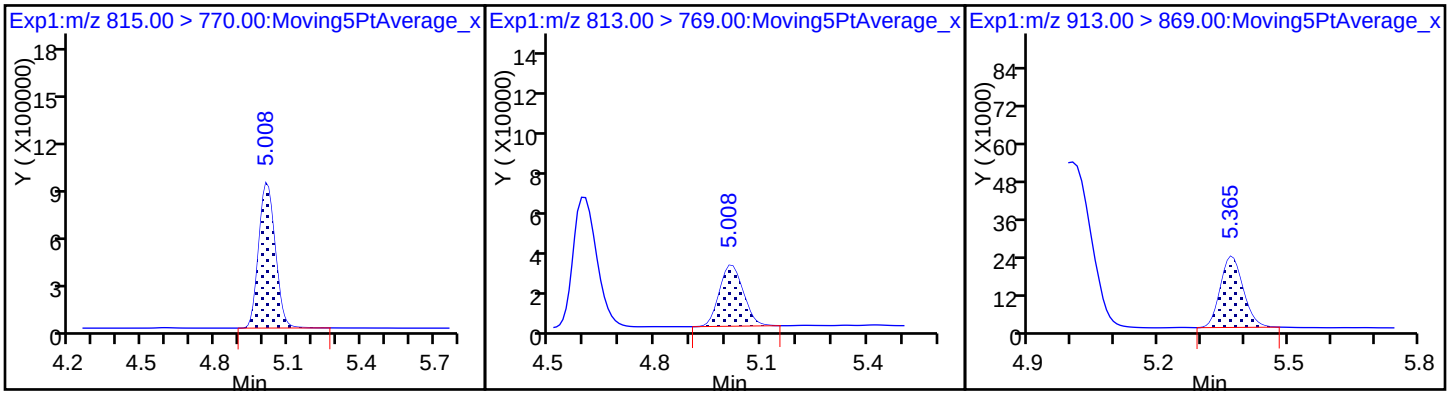
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_005.d
Lims ID: IC L3 Full
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 28-Jun-2017 00:27:13 ALS Bottle#: 30 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L3-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:28:33 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.549	1.546	0.003		11797801	50.4		101	25021	
2 Perfluorobutyric acid										
212.90 > 169.00	1.549	1.549	0.0	1.000	1107615	5.21		104	449	
D 3 13C5-PFPeA										
267.90 > 223.00	1.760	1.755	0.005		8273150	51.4		103	23346	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.760	1.756	0.004	1.000	879879	5.17		103	507	
D 47 13C3-PFBS										
301.90 > 83.00	1.777	1.776	0.001		210229	NC			6264	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.786	1.783	0.003	1.000	1397171	4.68		106	856	
298.90 > 99.00	1.786	1.783	0.003	1.000	565769		2.47(0.00-0.00)	106	825	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.980	1.983	-0.003	1.000	330033	5.16		110	8365	
D 7 13C2 PFHxA										
315.00 > 270.00	2.024	2.022	0.002		7682413	50.1		100	23872	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.024	2.022	0.002	1.000	815792	5.23		105	1772	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.350	2.345	0.005	1.000	781071	5.25		105	1343	
D 9 13C4-PFHpA										
367.00 > 322.00	2.350	2.345	0.005		6968809	50.9		102	13504	
D 11 18O2 PFHxS										
403.00 > 84.00	2.359	2.360	-0.001		10119383	47.6		101	23191	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.359	2.360	-0.001	1.000	1036177	4.38		96.4	947	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.677	2.674	0.003	1.000	328782	4.95		104	6182	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.677	2.674	0.003		3201778	44.0		92.6	11835	
* 62 13C2-PFOA										
415.00 > 370.00	2.699	2.695	0.004		7048522	50.0			24921	
D 14 13C4 PFOA										
417.00 > 372.00	2.706	2.701	0.005		6749720	51.7		103	22237	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.706	2.703	0.003	1.000	725611	5.07		101	164	
413.00 > 169.00	2.706	2.703	0.003	1.000	421016		1.72(0.90-1.10)	101	1866	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.713	2.710	0.003	1.000	900193	4.90		103	8059	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.080	3.076	0.004	1.000	772533	4.61		99.4	3835	
499.00 > 99.00	3.080	3.076	0.004	1.000	168904		4.57(0.90-1.10)	99.4	2209	
D 18 13C4 PFOS										
503.00 > 80.00	3.080	3.076	0.004		7635965	46.9		98.2	14315	
D 19 13C5 PFNA										
468.00 > 423.00	3.080	3.077	0.003		5376033	51.2		102	13292	
20 Perfluorononanoic acid										
463.00 > 419.00	3.080	3.077	0.003	1.000	550324	5.16		103	1563	
D 21 13C8 FOSA										
506.00 > 78.00	3.402	3.405	-0.003		13099370	49.6		99.3	28019	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.411	3.408	0.003	1.000	1351726	5.30		106	8251	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.430	3.429	0.001	1.000	264754	4.79		100.0	6155	
D 26 M2-8:2FTS										
529.00 > 509.00	3.430	3.429	0.001		2651990	46.8		97.8	47205	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.447	3.442	0.005	1.000	488082	4.93		98.6	2563	
D 23 13C2 PFDA										
515.00 > 470.00	3.447	3.442	0.005		5132771	51.3		103	24031	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.600	3.598	0.002		1831369	49.5		98.9	9293	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.600	3.602	-0.002	1.000	188190	4.93		98.6	1576	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.760	3.755	0.005	1.000	505354	4.96		103	7934	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.769	3.765	0.004		1898327	51.4		103	5576	
D 30 13C2 PFUnA										
565.00 > 520.00	3.769	3.772	-0.003		3912305	52.7		105	15907	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.779	3.773	0.006	1.000	414412	4.98		99.5	1119	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.779	3.775	0.004	1.003	186343	5.04		101	3061	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.906	3.904	0.002		3606058	48.3		96.7	642	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.906	3.910	-0.004	1.000	339523	4.94		98.9	4978	
D 36 13C2 PFDoA										
615.00 > 570.00	4.069	4.071	-0.002		3540892	48.2		96.5	9066	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.079	4.072	0.007	1.000	358777	5.32		106	372	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.096	4.092	0.004		3548486	48.2		96.5	6277	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.104	4.101	0.003	1.000	354466	5.00		100	4502	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.341	4.341	0.0	1.000	362572	5.28		106	106	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.574	4.578	-0.004		7546862	49.8		99.7	50714	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.574	4.581	-0.007	1.000	882931	5.34		107	57.0	
713.00 > 169.00	4.574	4.581	-0.007	1.000	107267		8.23(0.00-0.00)	107	1407	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.995	4.998	-0.003	1.000	414748	5.14		103	70.3	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.995	4.998	-0.003		4128252	49.2		98.4	8577	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.356	5.351	0.005	1.000	398746	5.22		104	135	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L3_00004 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:28:34 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_005.d

Injection Date: 28-Jun-2017 00:27:13 Instrument ID: A8_N

Lims ID: IC L3 Full

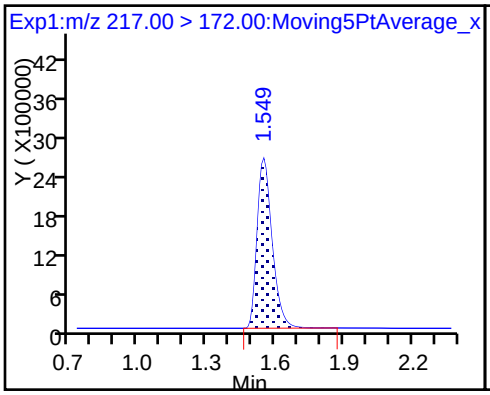
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 5

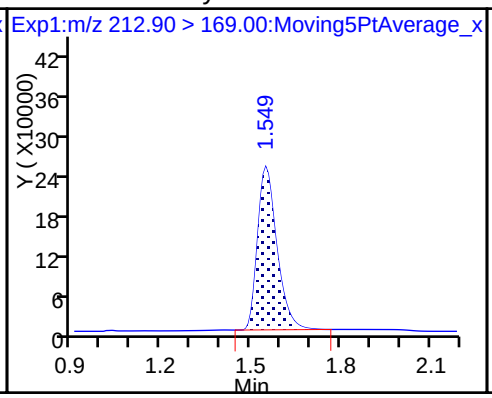
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

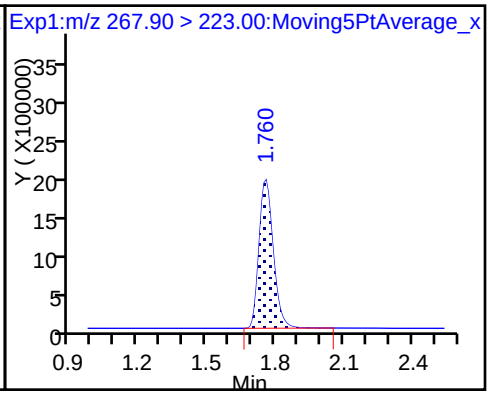
D 1 13C4 PFBA



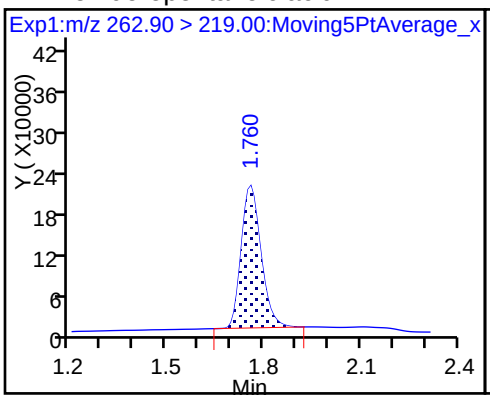
2 Perfluorobutyric acid



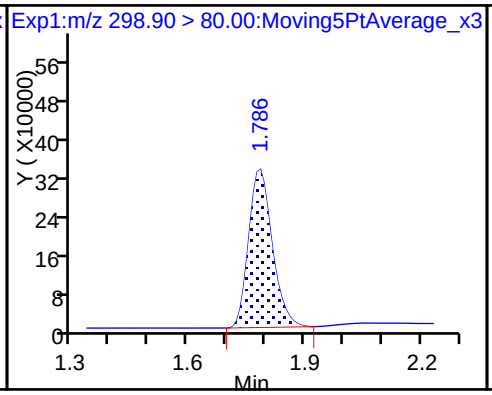
D 3 13C5-PFPeA



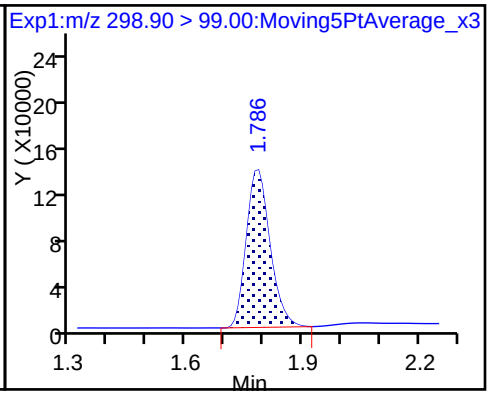
4 Perfluoropentanoic acid



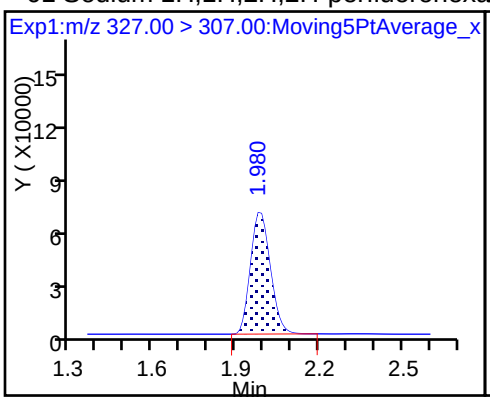
5 Perfluorobutanesulfonic acid



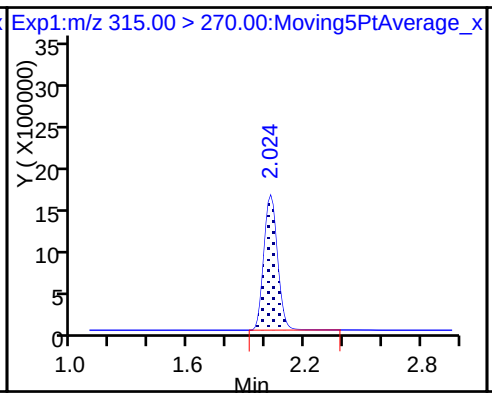
5 Perfluorobutanesulfonic acid



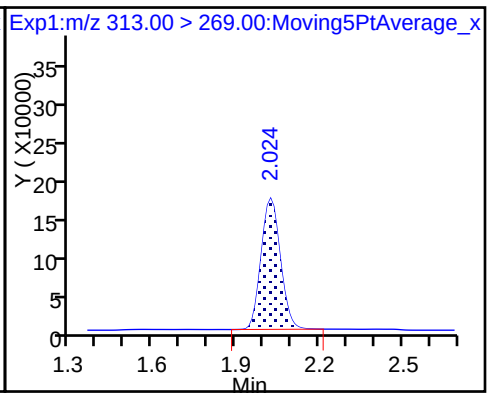
61 Sodium 1H,1H,2H,2H-perfluorohexa



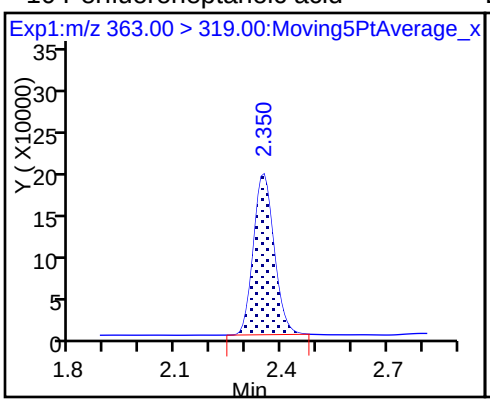
D 7 13C2 PFHxA



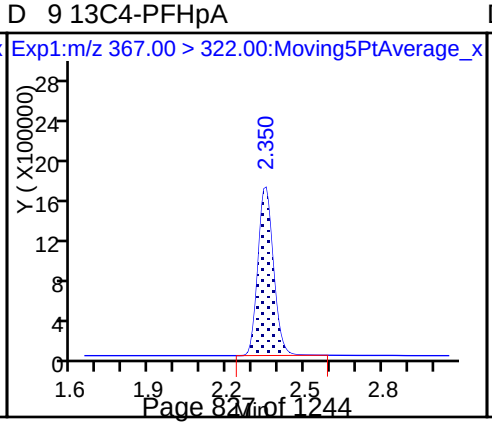
6 Perfluorohexanoic acid



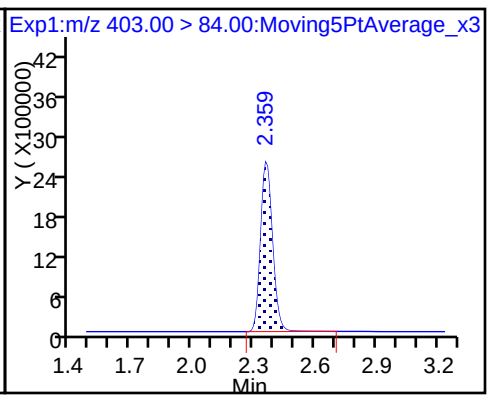
10 Perfluoroheptanoic acid



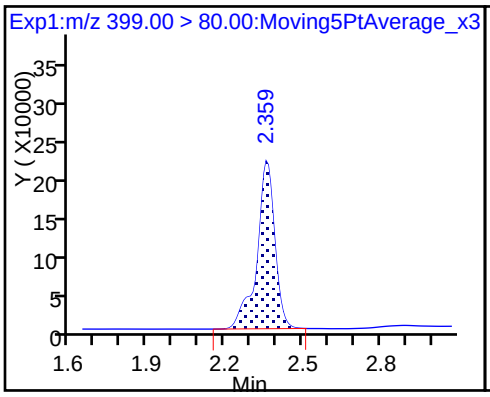
D 9 13C4-PFHpA



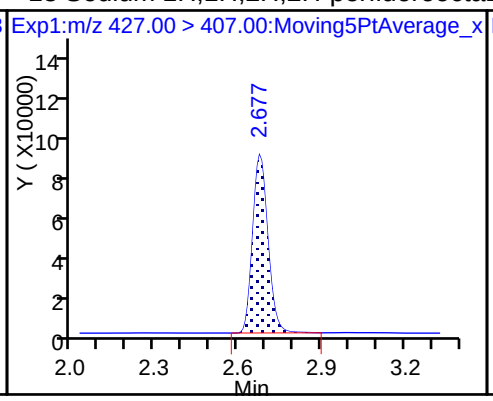
D 11 18O2 PFHxS



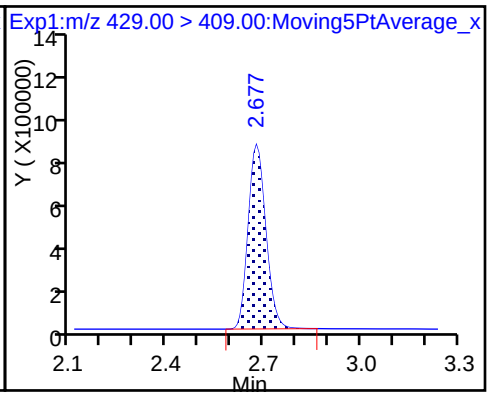
8 Perfluorohexanesulfonic acid



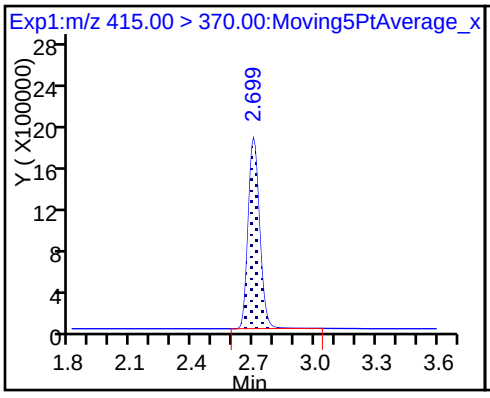
13 Sodium 1H,1H,2H,2H-perfluorooctane



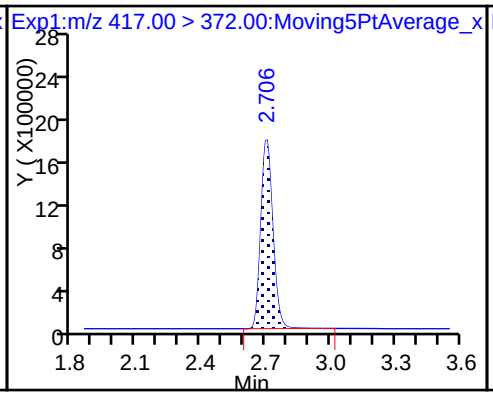
D 12 M2-6:2FTS



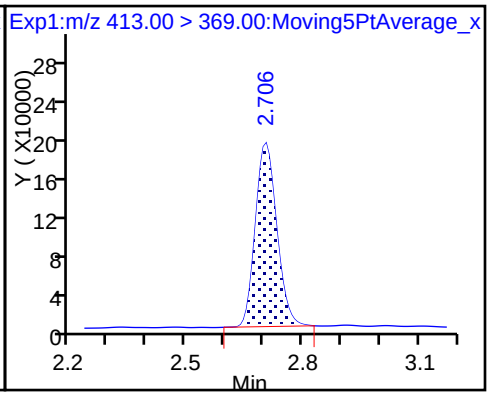
* 62 13C2-PFOA



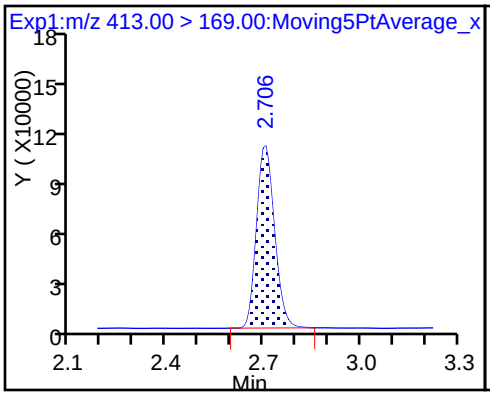
D 14 13C4 PFOA



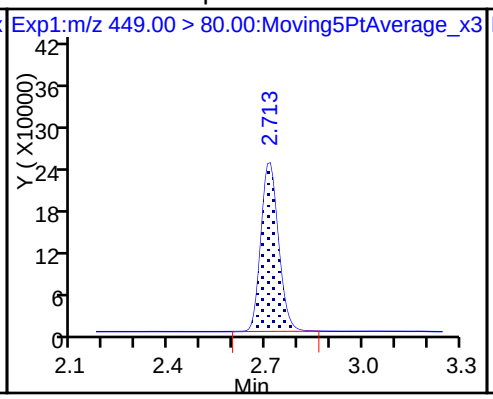
15 Perfluorooctanoic acid



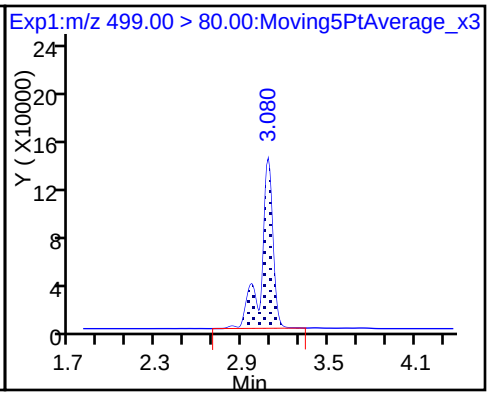
15 Perfluorooctanoic acid



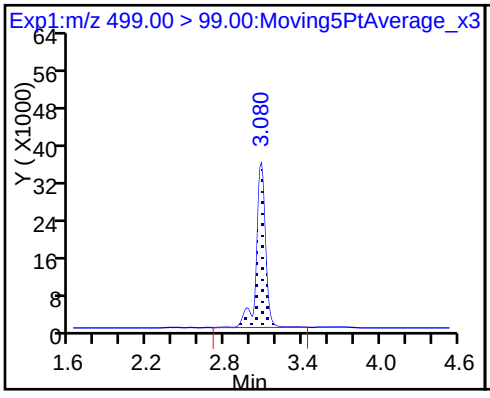
16 Perfluoroheptanesulfonic Acid



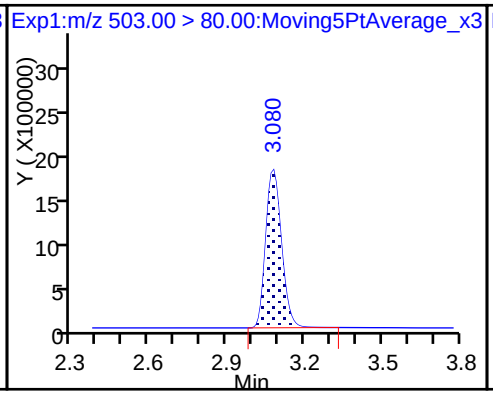
17 Perfluorooctane sulfonic acid



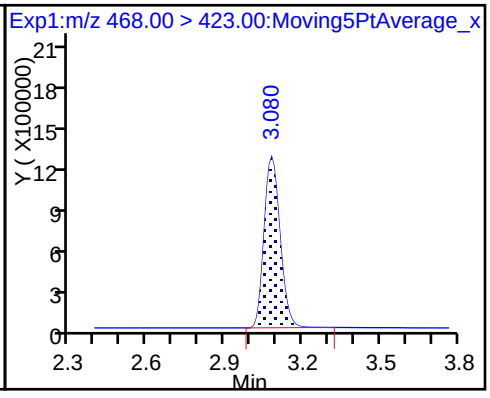
17 Perfluorooctane sulfonic acid



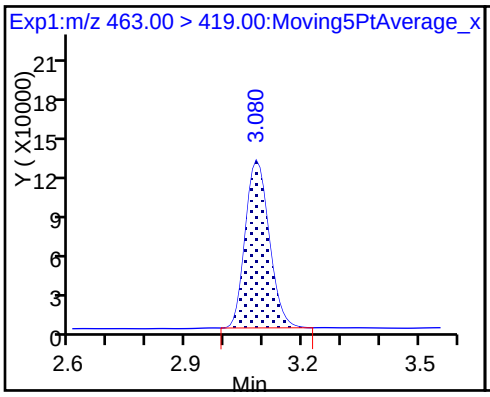
D 18 13C4 PFOS



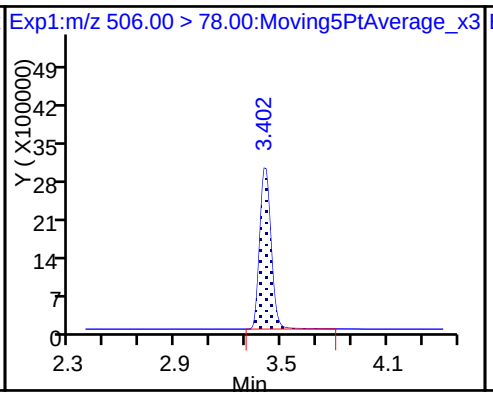
D 19 13C5 PFNA



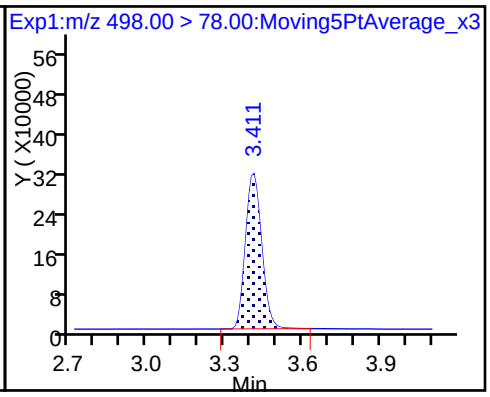
20 Perfluorononanoic acid



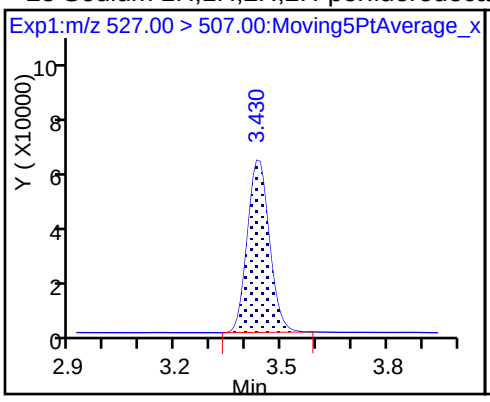
D 21 13C8 FOSA



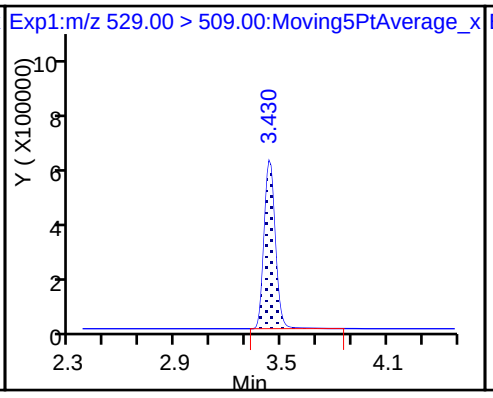
22 Perfluorooctane Sulfonamide



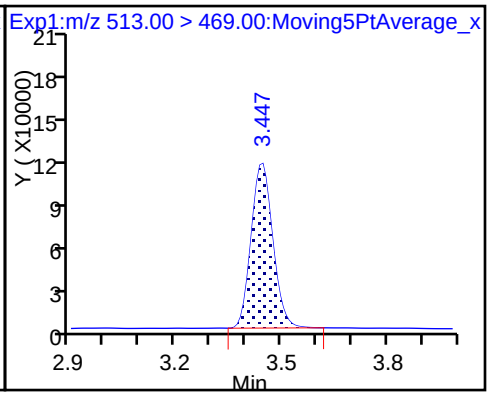
25 Sodium 1H,1H,2H,2H-perfluorodecane



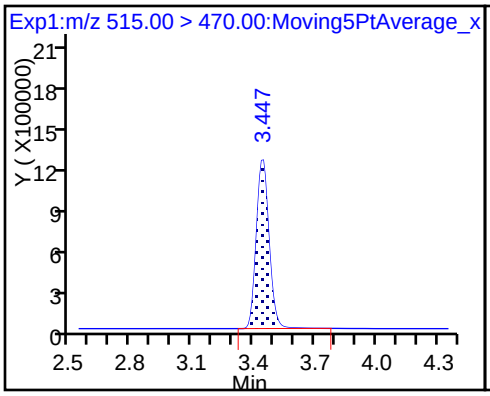
D 26 M2-8:2FTS



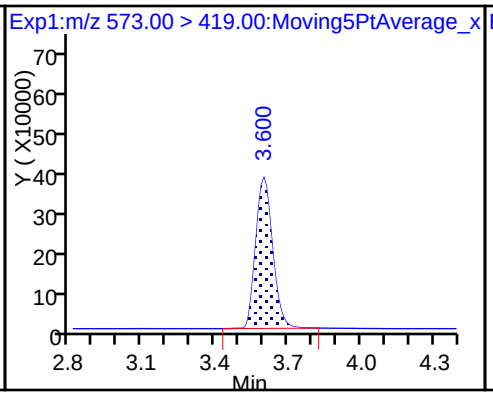
24 Perfluorodecanoic acid



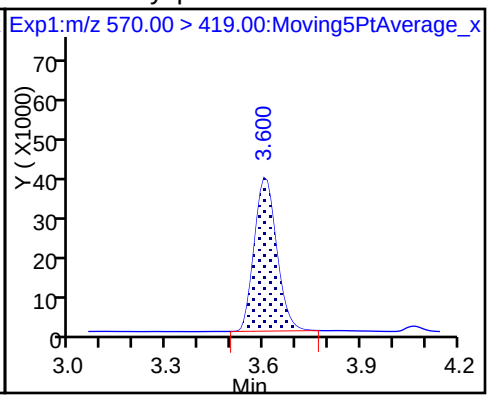
D 23 13C2 PFDA



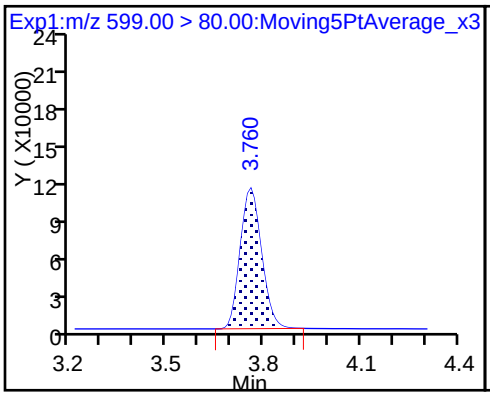
D 27 d3-NMeFOSAA



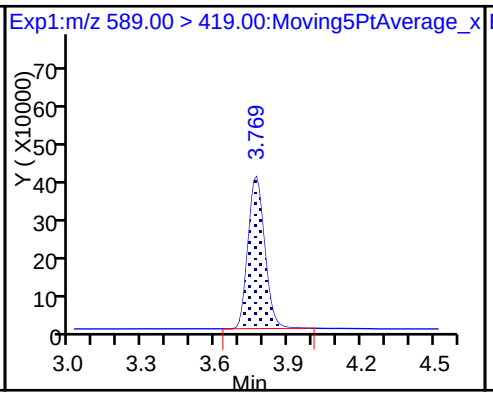
28 N-methyl perfluorooctane sulfonami



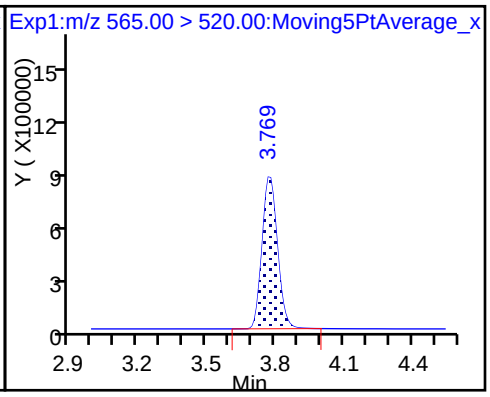
29 Perfluorodecane Sulfonic acid



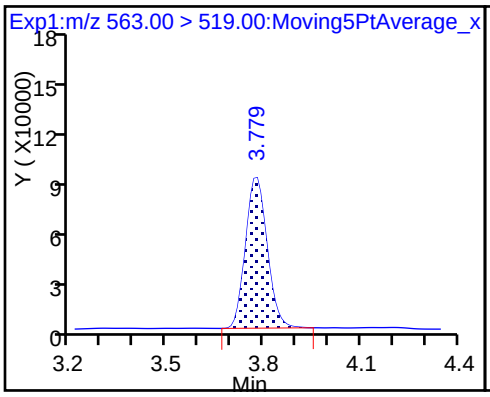
D 32 d5-NEtFOSAA



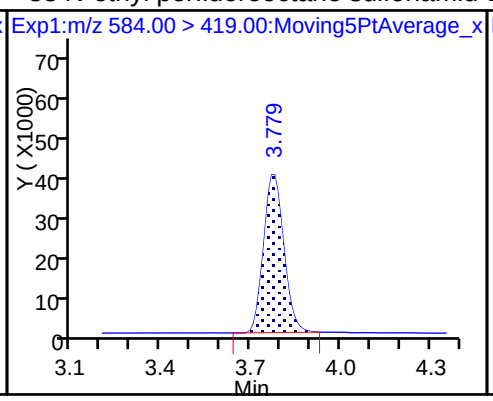
D 30 13C2 PFUnA



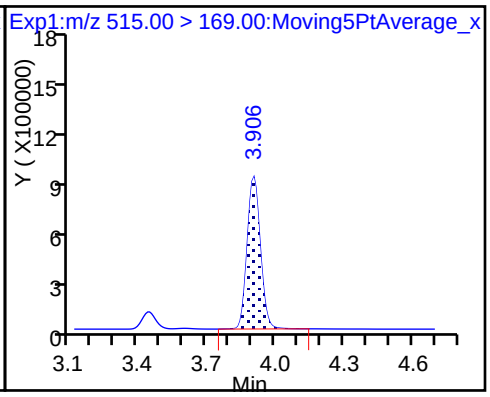
31 Perfluoroundecanoic acid



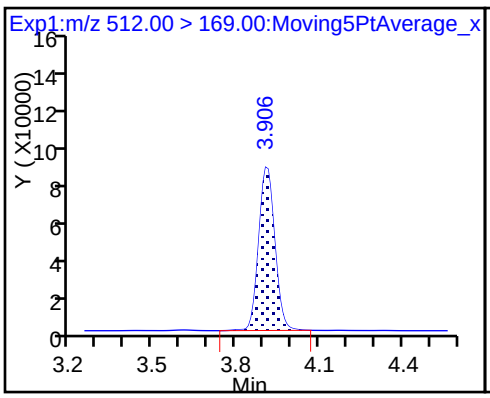
33 N-ethyl perfluorooctane sulfonamid



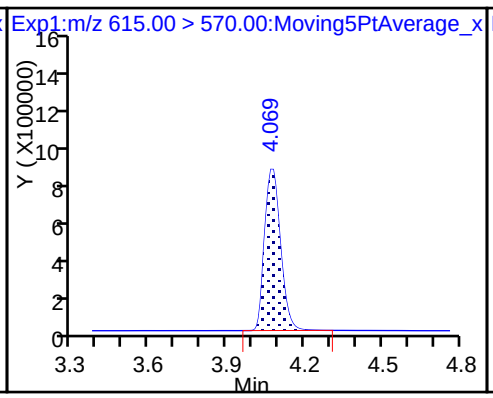
D 34 d-N-MeFOSA-M



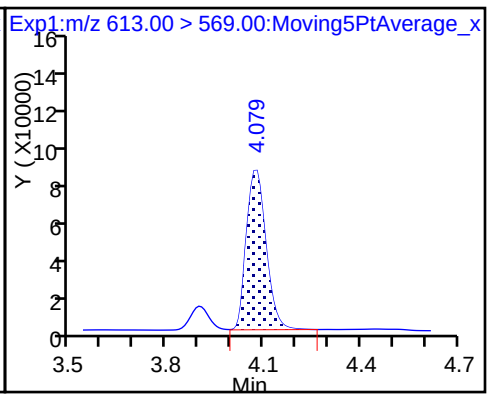
35 MeFOSA



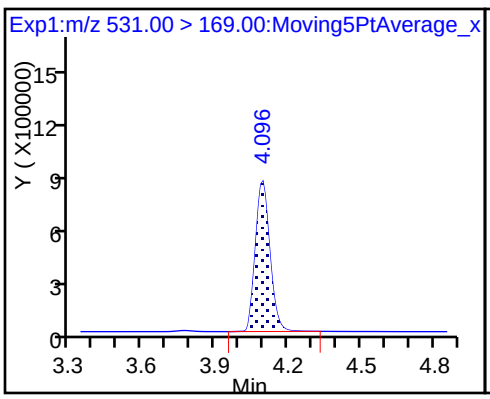
D 36 13C2 PFDoA



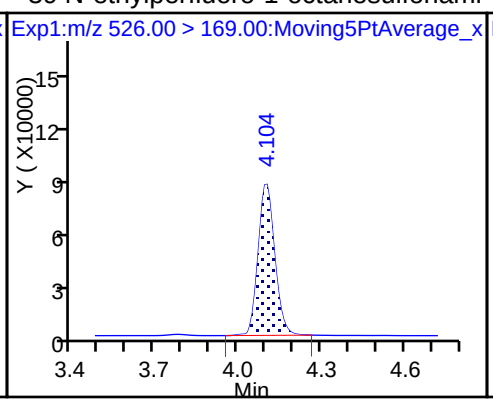
37 Perfluorododecanoic acid



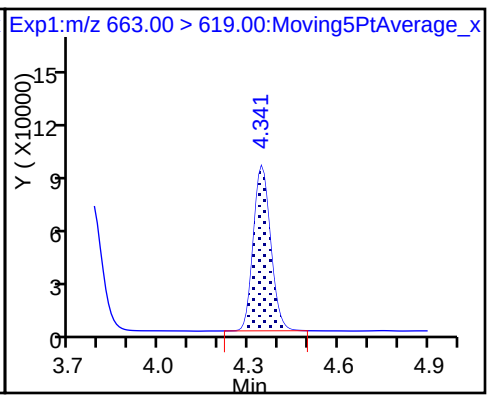
D 38 d-N-EtFOSA-M



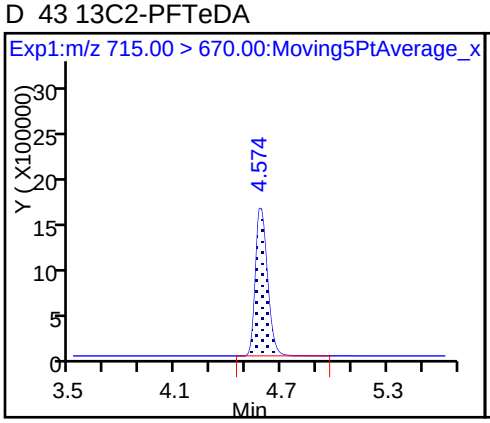
39 N-ethylperfluoro-1-octanesulfonami



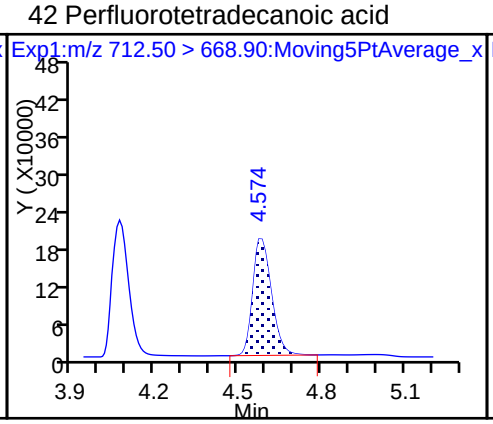
41 Perfluorotridecanoic acid



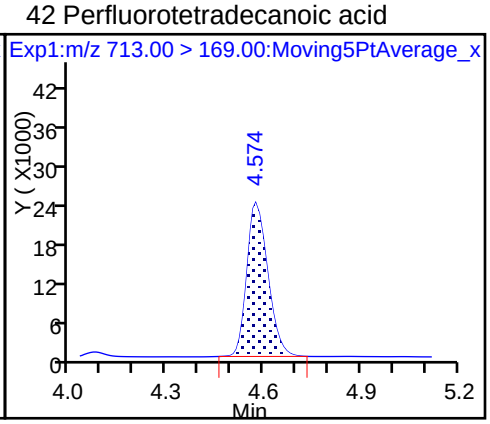
D 43 13C2-PFTeDA



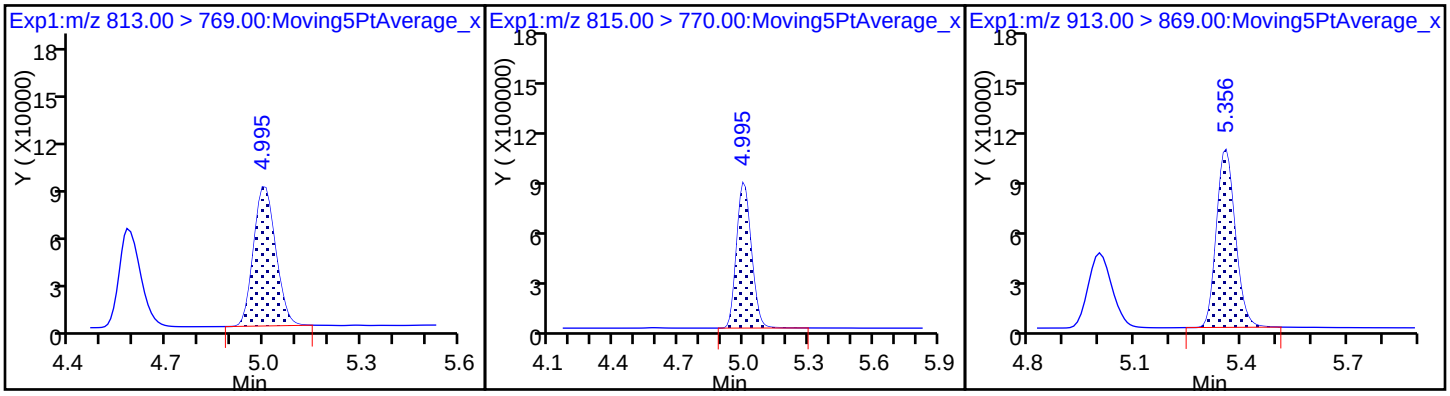
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_006.d
Lims ID: IC L4 Full
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 28-Jun-2017 00:34:07 ALS Bottle#: 31 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L4-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:28:39 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

First Level Reviewer: westendorfc Date: 28-Jun-2017 08:17:53

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.543	1.546	-0.003		11549275	49.4		98.7	23520	
2 Perfluorobutyric acid										
212.90 > 169.00	1.543	1.549	-0.006	1.000	4312576	20.7		104	1706	
D 3 13C5-PFPeA										
267.90 > 223.00	1.753	1.755	-0.002		8090985	50.3		101	32090	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.753	1.756	-0.003	1.000	3404309	20.4		102	1731	
D 47 13C3-PFBS										
301.90 > 83.00	1.770	1.776	-0.006		208624	NC			6289	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.779	1.783	-0.004	1.000	5713726	19.6		111	2969	
298.90 > 99.00	1.770	1.783	-0.013	0.995	2202610		2.59(0.00-0.00)	111	2816	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.981	1.983	-0.002	1.000	1406942	21.3		114	14977	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.015	2.022	-0.007	1.000	3075492	20.3		102	4888	
D 7 13C2 PFHxA										
315.00 > 270.00	2.015	2.022	-0.007		7441111	48.5		97.0	27966	
D 9 13C4-PFHpA										
367.00 > 322.00	2.340	2.345	-0.005		7055297	51.5		103	25129	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.340	2.345	-0.005	1.000	3025785	20.1		100	3491	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.356	2.360	-0.004	1.000	4015290	17.3		95.3	2412	
D 11 18O2 PFHxS										
403.00 > 84.00	2.356	2.360	-0.004		9911128	46.6		98.5	14752	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.669	2.674	-0.005		3309130	45.4		95.7	15688	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.669	2.674	-0.005	1.000	1309362	19.1		101	12315	
* 62 13C2-PFOA										
415.00 > 370.00	2.691	2.695	-0.004		6765741	50.0			14451	
D 14 13C4 PFOA										
417.00 > 372.00	2.698	2.701	-0.003		6728822	51.5		103	14804	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.698	2.703	-0.005	1.000	2751243	19.3		96.4	710	
413.00 > 169.00	2.698	2.703	-0.005	1.000	1641218		1.68(0.90-1.10)	96.4	4499	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.705	2.710	-0.005	1.000	3740530	20.2		106	13435	
D 18 13C4 PFOS										
503.00 > 80.00	3.071	3.076	-0.005		7707122	47.4		99.1	53853	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.071	3.076	-0.005	1.000	3093407	18.3		98.5	6326	
499.00 > 99.00	3.071	3.076	-0.005	1.000	650391		4.76(0.90-1.10)	98.5	5183	
20 Perfluorononanoic acid										
463.00 > 419.00	3.071	3.077	-0.006	1.000	2128228	19.9		99.7	4384	
D 19 13C5 PFNA										
468.00 > 423.00	3.071	3.077	-0.006		5381166	51.3		103	29190	
D 21 13C8 FOSA										
506.00 > 78.00	3.402	3.405	-0.003		13211524	50.1		100	107310	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.402	3.408	-0.006	1.000	5472890	21.3		106	23430	
D 26 M2-8:2FTS										
529.00 > 509.00	3.421	3.429	-0.008		2518585	44.5		92.9	17259	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.421	3.429	-0.008	1.000	1078348	20.5		107	13462	
D 23 13C2 PFDA										
515.00 > 470.00	3.439	3.442	-0.003		4927623	49.3		98.5	21352	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.439	3.442	-0.003	1.000	1922781	20.2		101	7209	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.591	3.598	-0.007		1742910	47.1		94.1	8224	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.601	3.602	-0.001	1.003	762143	21.0		105	3844	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.749	3.755	-0.006	1.000	2048221	19.9		103	11551	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.759	3.765	-0.006		1820803	49.3		98.6	4621	
D 30 13C2 PFUnA										
565.00 > 520.00	3.768	3.772	-0.004		3819175	51.4		103	14566	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.768	3.773	-0.005	1.000	1537226	18.9		94.6	3761	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.768	3.775	-0.007	1.003	715544	20.2		101	5719	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.899	3.904	-0.005		3567251	47.8		95.6	661	
35 MeFOSA										
512.00 > 169.00	3.908	3.910	-0.002	1.000	1412678	20.8		104	6327	
D 36 13C2 PFDoA										
615.00 > 570.00	4.070	4.071	-0.001		3705209	50.5		101	11647	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.070	4.072	-0.002	1.000	1374056	19.5		97.4	1566	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.087	4.092	-0.005		3521257	47.9		95.8	6464	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.096	4.101	-0.005	1.000	1495344	21.3		106	6149	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.333	4.341	-0.008	1.000	1446860	20.1		101	452	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.574	4.578	-0.004		7637411	50.4		101	48137	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.574	4.581	-0.007	1.000	3425461	19.8		99.1	262	
713.00 > 169.00	4.566	4.581	-0.015	0.998	433629		7.90(0.00-0.00)	99.1	5454	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.995	4.998	-0.003		4267397	50.9		102	7721	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.995	4.998	-0.003	1.000	1505434	19.5		97.7	253	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.343	5.351	-0.008	1.000	1592491	19.9		99.7	506	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L4_00005 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:28:40 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_006.d

Injection Date: 28-Jun-2017 00:34:07 Instrument ID: A8_N

Lims ID: IC L4 Full

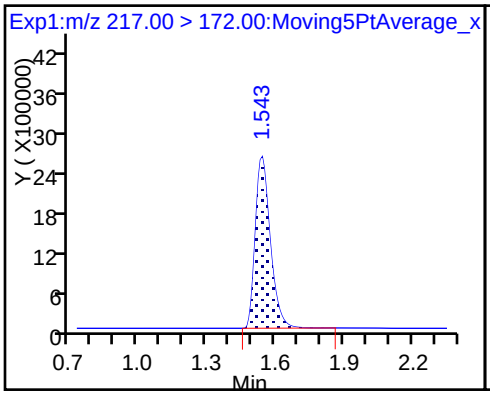
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 6

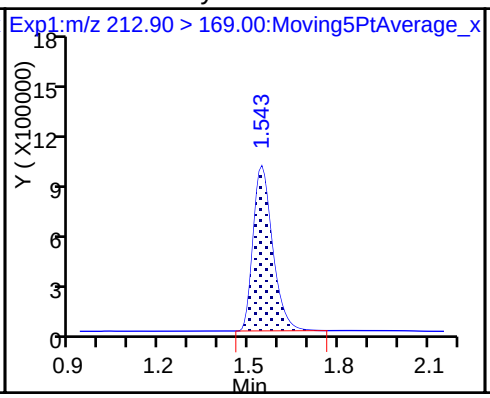
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

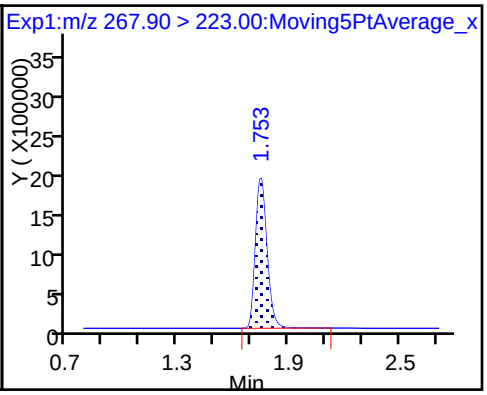
D 1 13C4 PFBA



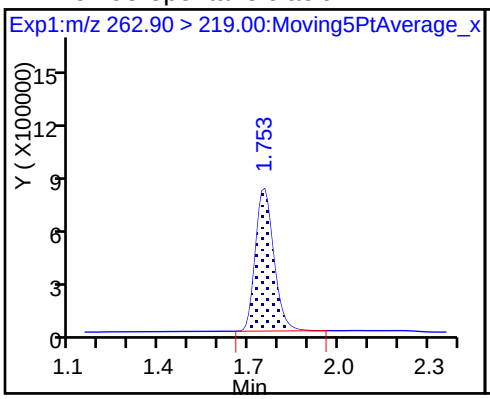
2 Perfluorobutyric acid



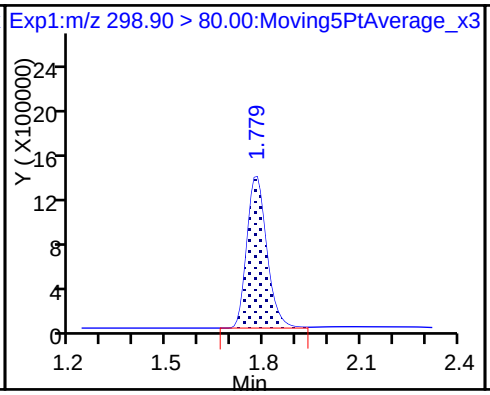
D 3 13C5-PFPeA



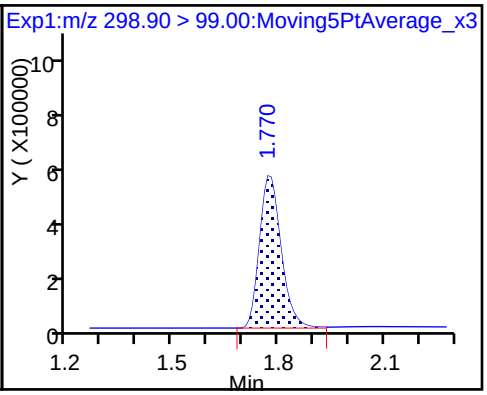
4 Perfluoropentanoic acid



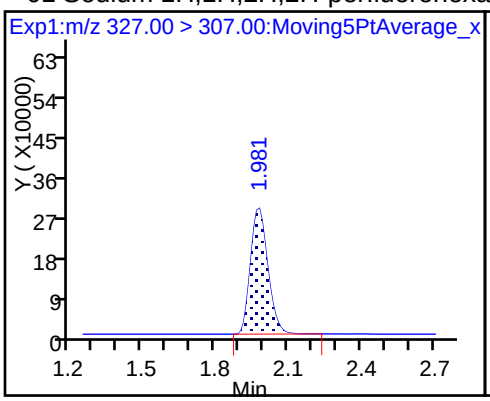
5 Perfluorobutanesulfonic acid



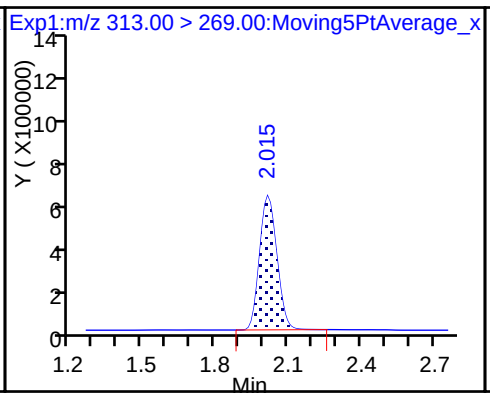
5 Perfluorobutanesulfonic acid



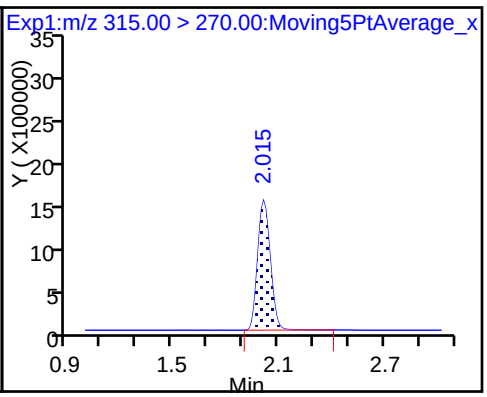
61 Sodium 1H,1H,2H,2H-perfluorohexane



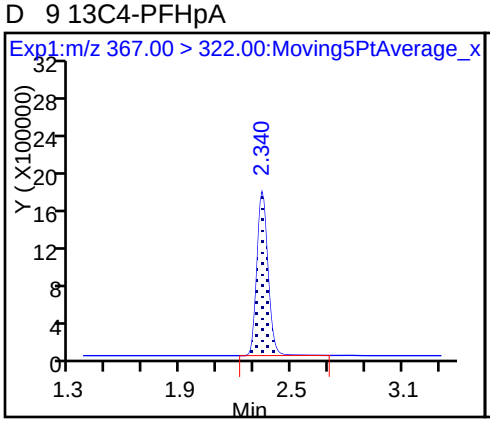
6 Perfluorohexanoic acid



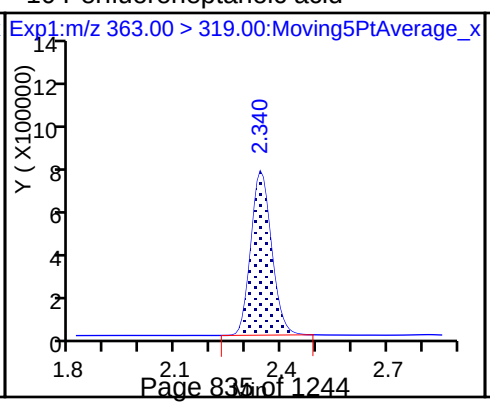
D 7 13C2 PFHxA



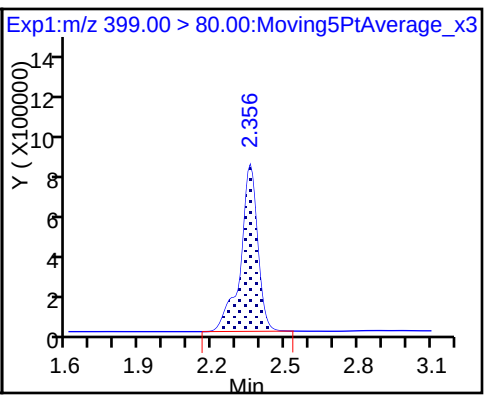
D 9 13C4-PFHpA



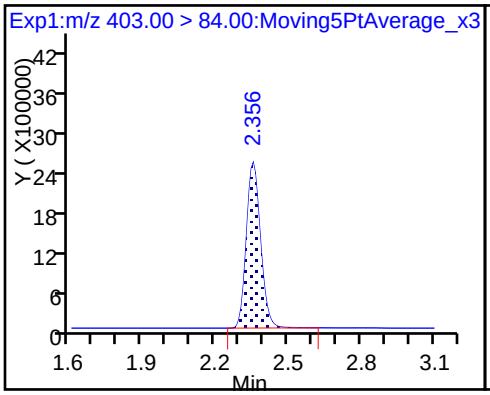
10 Perfluoroheptanoic acid



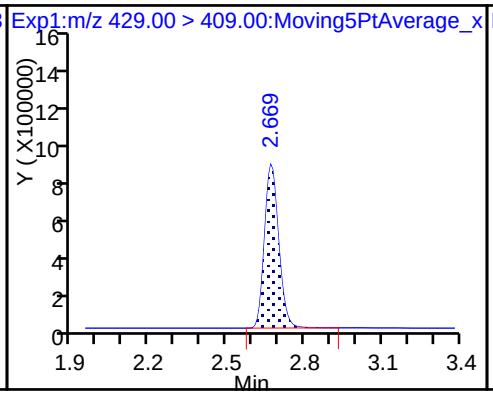
8 Perfluorohexanesulfonic acid



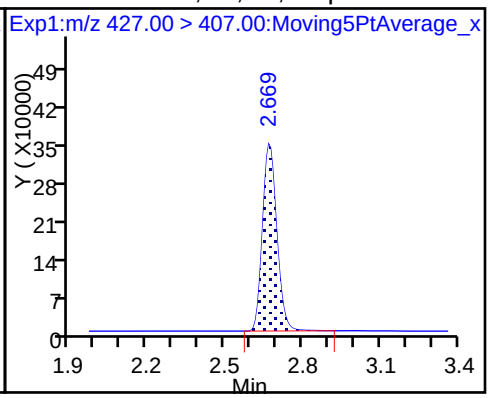
D 11 18O2 PFHxS



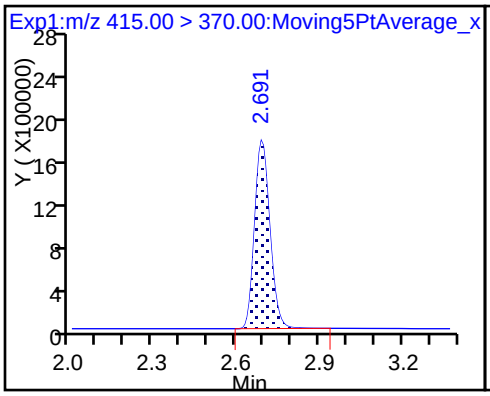
D 12 M2-6:2FTS



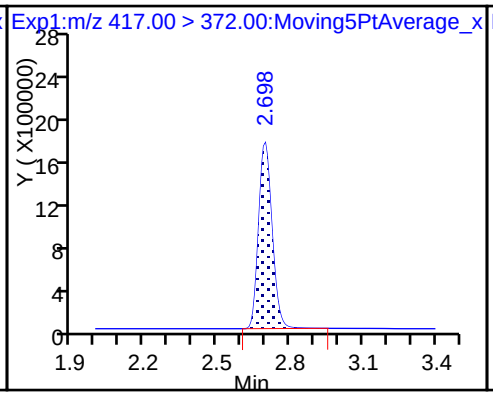
13 Sodium 1H,1H,2H,2H-perfluorooctane



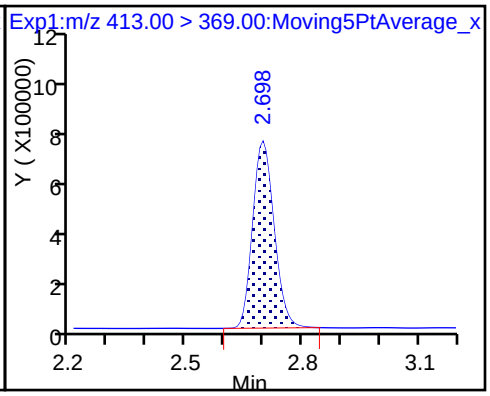
* 62 13C2-PFOA



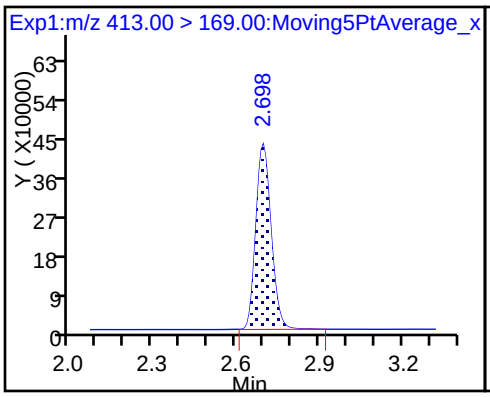
D 14 13C4 PFOA



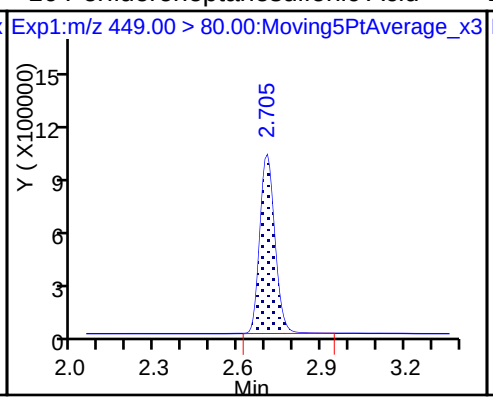
15 Perfluorooctanoic acid



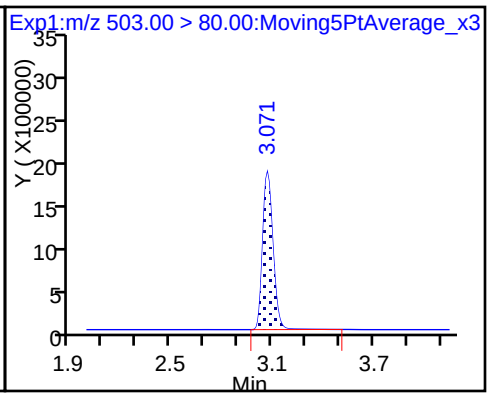
15 Perfluorooctanoic acid



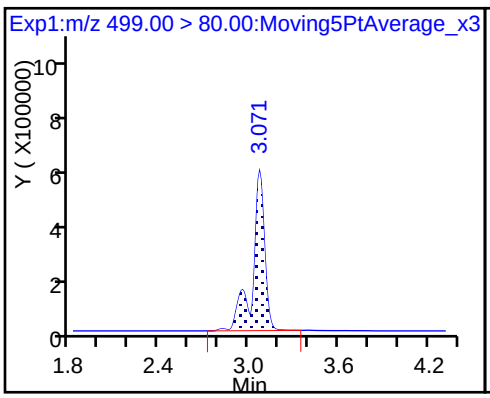
16 Perfluoroheptanesulfonic Acid



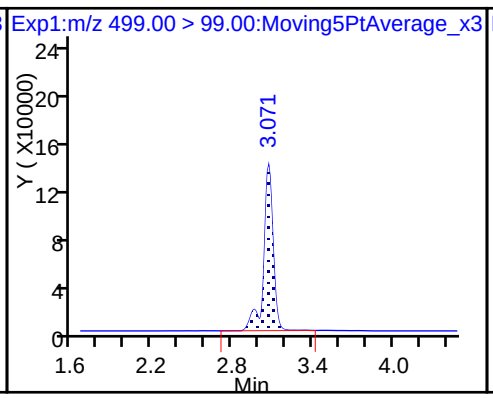
D 18 13C4 PFOS



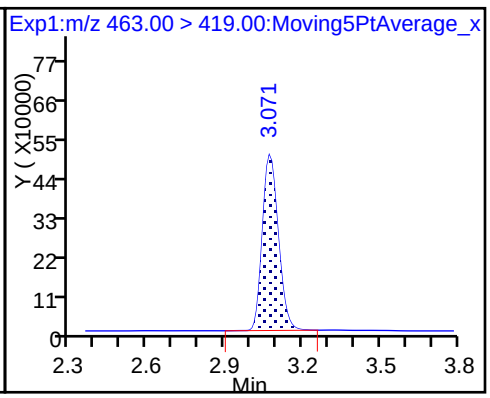
17 Perfluorooctane sulfonic acid



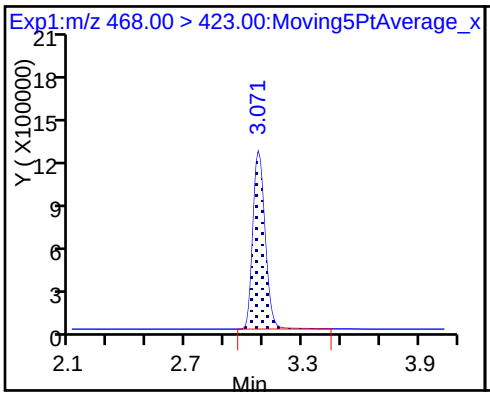
17 Perfluorooctane sulfonic acid



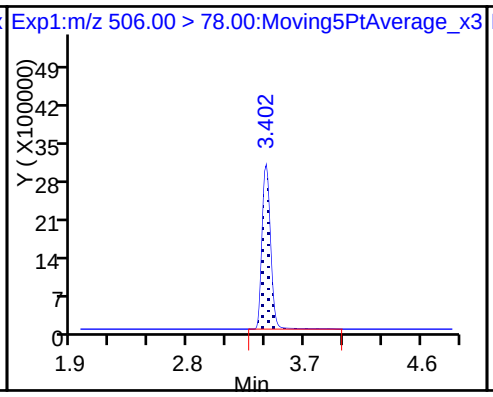
20 Perfluorononanoic acid



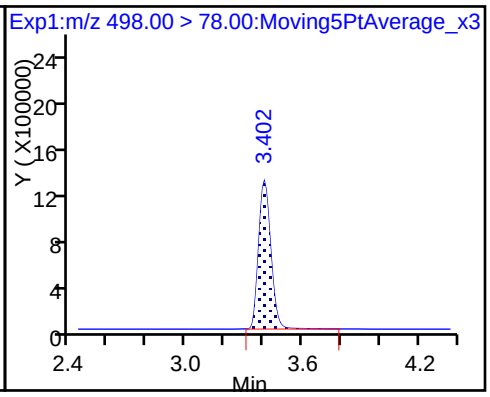
D 19 13C5 PFNA



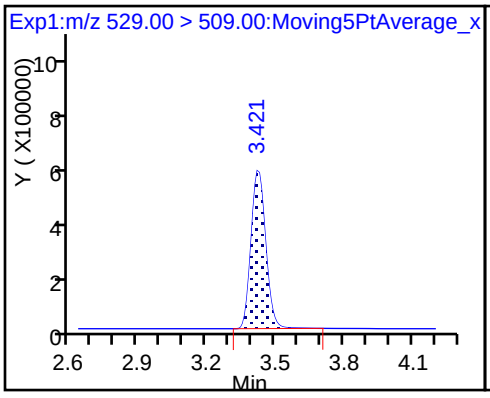
D 21 13C8 FOSA



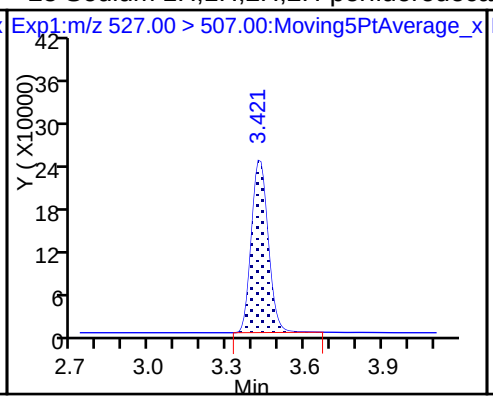
22 Perfluorooctane Sulfonamide



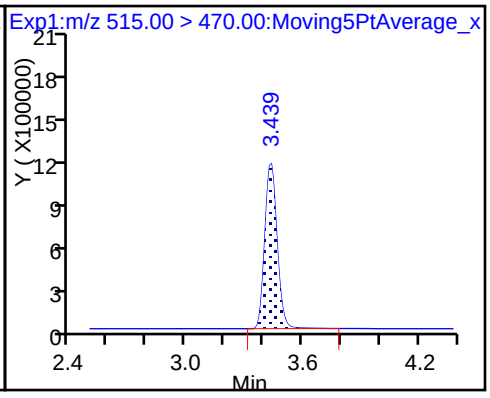
D 26 M2-8:2FTS



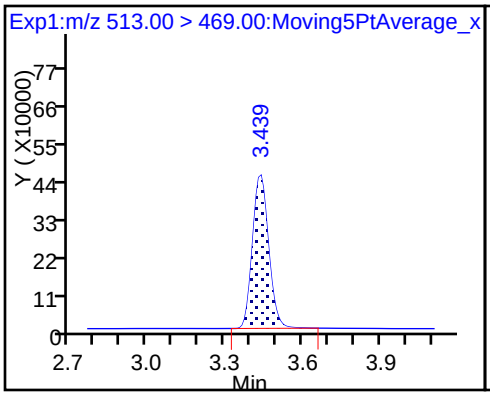
25 Sodium 1H,1H,2H,2H-perfluorodecane



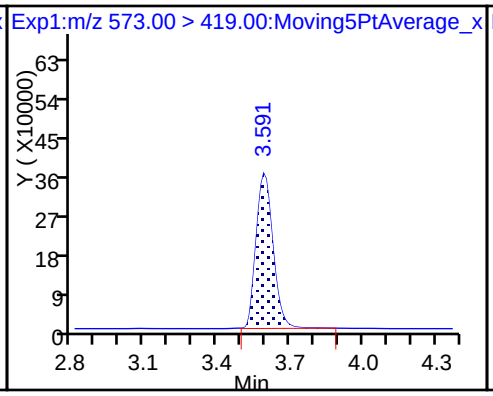
D 23 13C2 PFDA



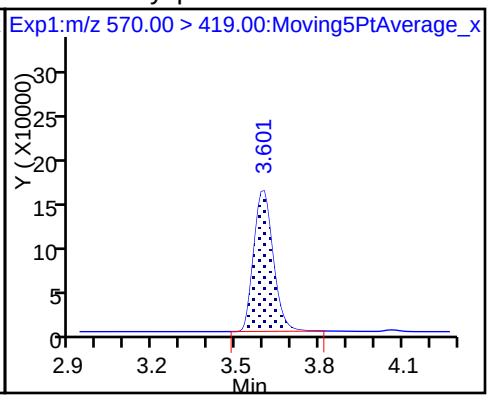
24 Perfluorodecanoic acid



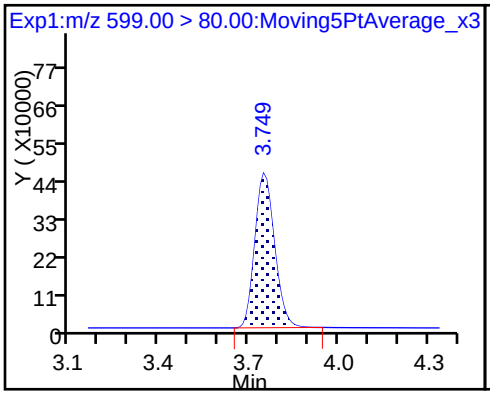
D 27 d3-NMeFOSAA



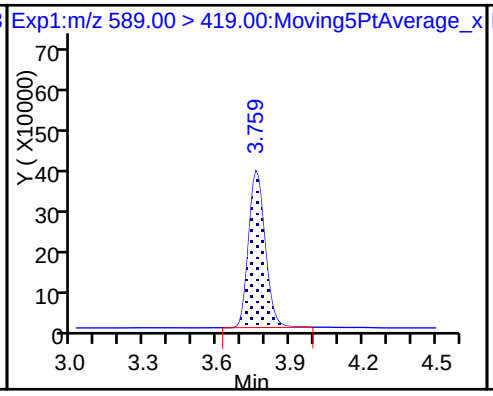
28 N-methyl perfluorooctane sulfonami



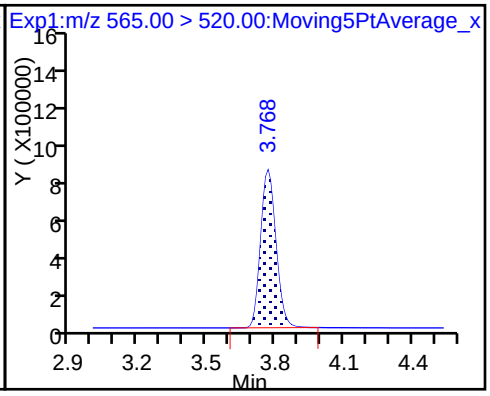
29 Perfluorodecane Sulfonic acid



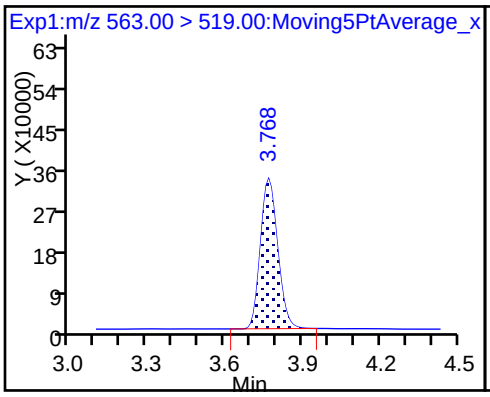
D 32 d5-NEtFOSAA



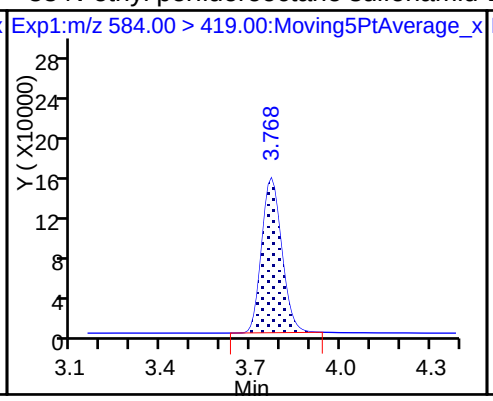
D 30 13C2 PFUnA



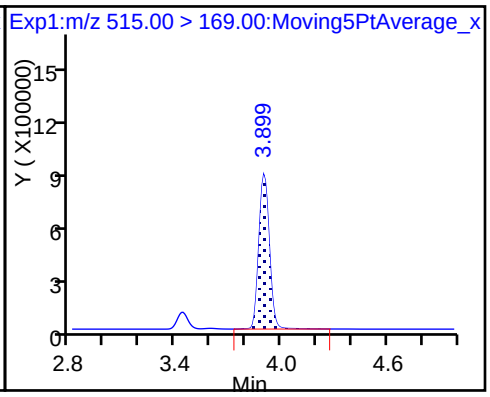
31 Perfluoroundecanoic acid



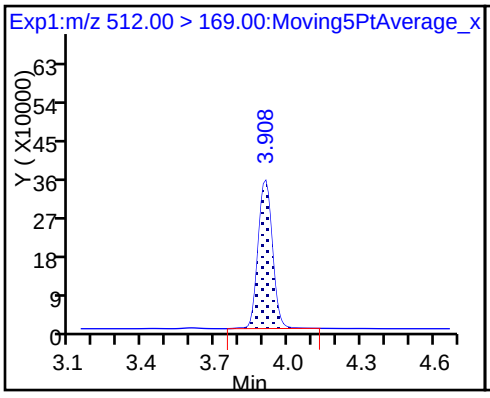
33 N-ethyl perfluorooctane sulfonamid



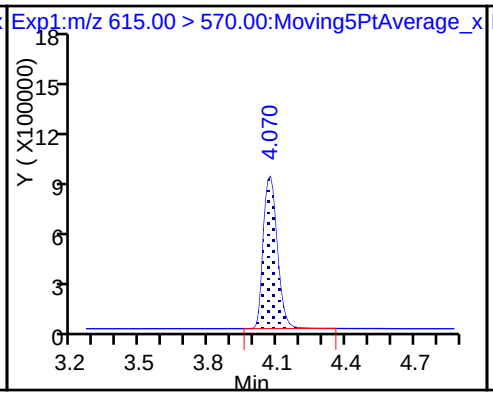
D 34 d-N-MeFOSA-M



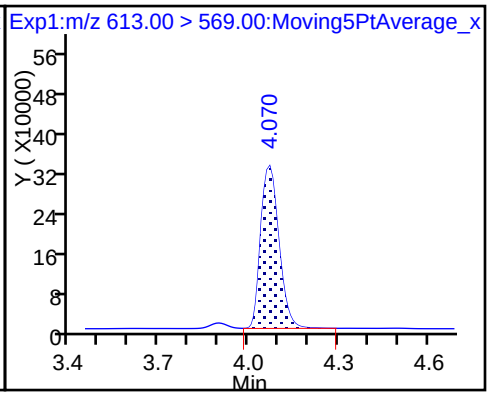
35 MeFOSA



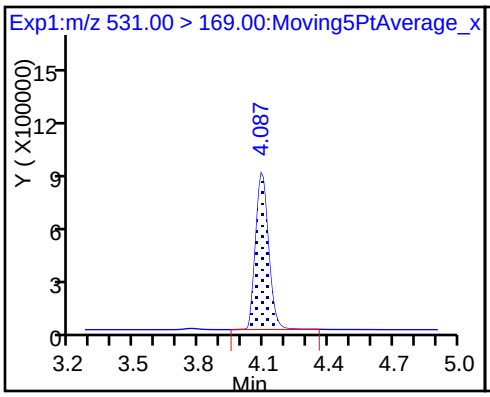
D 36 13C2 PFDoA



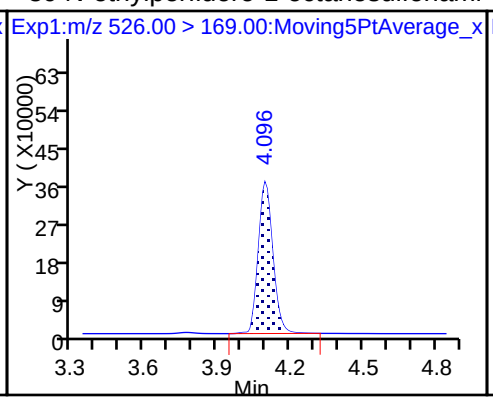
37 Perfluorododecanoic acid



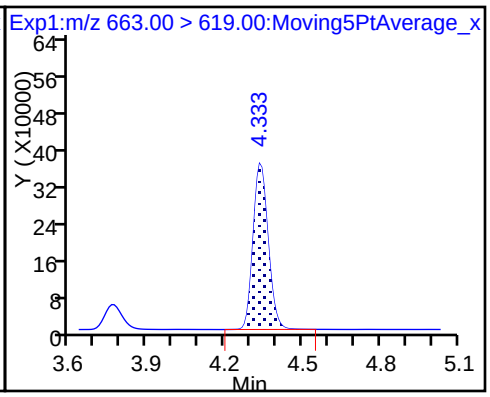
D 38 d-N-EtFOSA-M



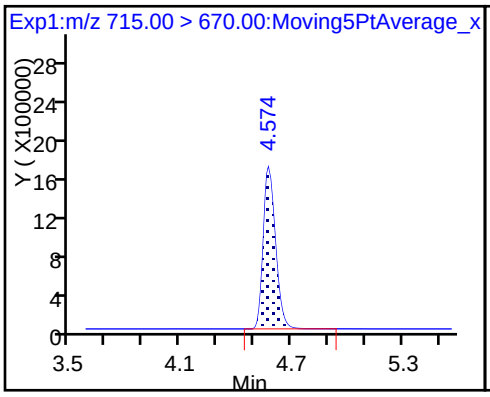
39 N-ethylperfluoro-1-octanesulfonami



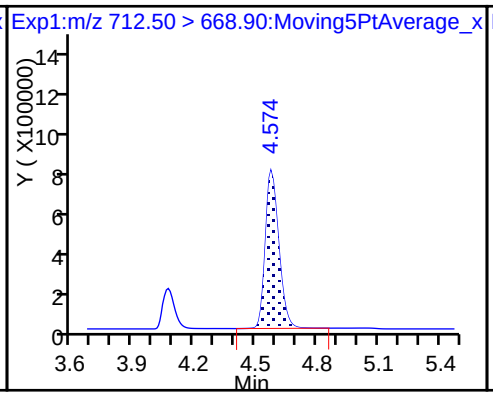
41 Perfluorotridecanoic acid



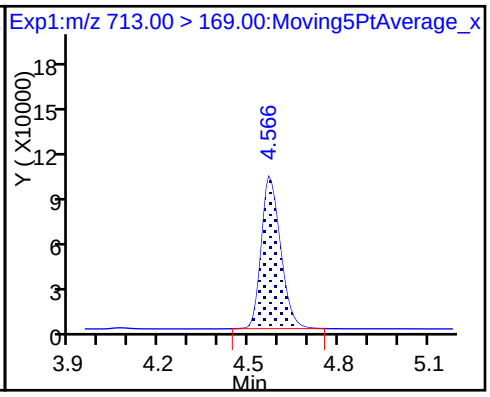
D 43 13C2-PFTeDA



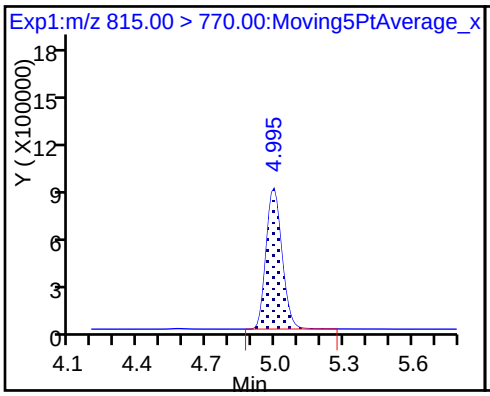
42 Perfluorotetradecanoic acid



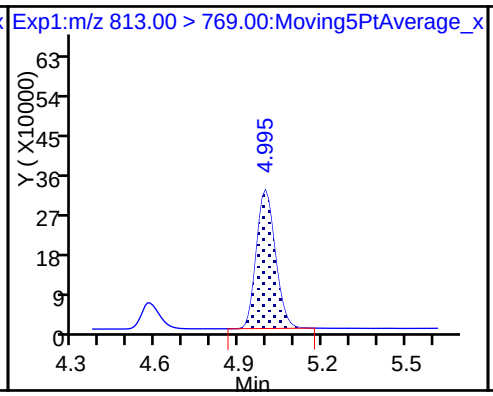
42 Perfluorotetradecanoic acid



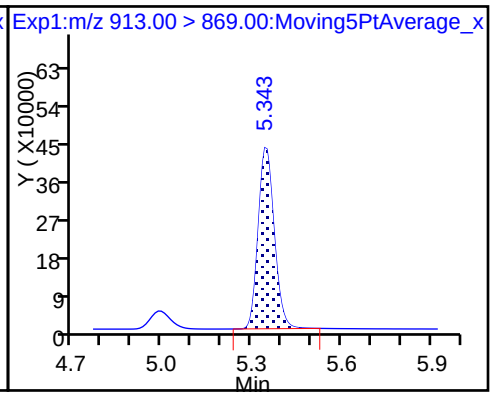
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_007.d
Lims ID: IC L5 Full
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 28-Jun-2017 00:41:01 ALS Bottle#: 32 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L5-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:28:46 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

First Level Reviewer: westendorfc Date: 28-Jun-2017 08:19:41

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.541	1.546	-0.005		13205581	56.4		113	18943	
2 Perfluorobutyric acid										
212.90 > 169.00	1.549	1.549	0.0	1.000	12656286	53.2		106	2928	
D 3 13C5-PFPeA										
267.90 > 223.00	1.751	1.755	-0.004		8979957	55.8		112	21067	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.751	1.756	-0.005	1.000	9443251	51.1		102	4244	
D 47 13C3-PFBS										
301.90 > 83.00	1.777	1.776	0.001		247453	NC			11592	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.777	1.783	-0.006	1.000	15607971	45.4		103	5605	
298.90 > 99.00	1.777	1.783	-0.006	1.000	6551181		2.38(0.00-0.00)	103	5979	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.980	1.983	-0.003	1.000	3791195	46.6		99.8	44942	
D 7 13C2 PFHxA										
315.00 > 270.00	2.013	2.022	-0.009		9110123	59.4		119	23549	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.013	2.022	-0.009	1.000	9309307	50.3		101	11704	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.339	2.345	-0.006	1.000	8411272	50.1		100	5446	
D 9 13C4-PFHpA										
367.00 > 322.00	2.339	2.345	-0.006		7867238	57.5		115	13915	
D 11 18O2 PFHxS										
403.00 > 84.00	2.356	2.360	-0.004		11663930	54.8		116	14284	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.356	2.360	-0.004	1.000	12045375	44.2		97.2	4549	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.667	2.674	-0.007	1.000	3869731	45.8		96.7	31097	
D 12 M2-6:2FTS										
429.00 > 409.00	2.667	2.674	-0.007		4068086	55.9		118	13736	
* 62 13C2-PFOA										
415.00 > 370.00	2.689	2.695	-0.006		7508691	50.0			14129	
D 14 13C4 PFOA										
417.00 > 372.00	2.696	2.701	-0.005		7402051	56.7		113	13037	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.696	2.703	-0.007	1.000	7716902	49.2		98.3	1543	
413.00 > 169.00	2.696	2.703	-0.007	1.000	4747487		1.63(0.90-1.10)	98.3	6488	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.703	2.710	-0.007	1.000	10861633	50.9		107	13141	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.071	3.076	-0.005	1.000	9350192	48.1		104	10933	
499.00 > 99.00	3.071	3.076	-0.005	1.000	1991958		4.69(0.90-1.10)	104	12708	
D 18 13C4 PFOS										
503.00 > 80.00	3.071	3.076	-0.005		8858759	54.4		114	37330	
D 19 13C5 PFNA										
468.00 > 423.00	3.071	3.077	-0.006		5808673	55.3		111	13273	
20 Perfluorononanoic acid										
463.00 > 419.00	3.071	3.077	-0.006	1.000	6184063	53.7		107	8322	
D 21 13C8 FOSA										
506.00 > 78.00	3.407	3.405	0.002		15024703	56.9		114	119972	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.407	3.408	-0.001	1.000	15383456	52.6		105	288606	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.425	3.429	-0.004	1.000	3186328	47.9		100	32548	
D 26 M2-8:2FTS										
529.00 > 509.00	3.425	3.429	-0.004		3188751	56.3		118	34398	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.434	3.442	-0.008	1.000	5600678	51.4		103	22053	
D 23 13C2 PFDA										
515.00 > 470.00	3.434	3.442	-0.008		5643784	56.4		113	25746	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.590	3.598	-0.008		2147247	58.0		116	8404	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.601	3.602	-0.001	1.003	2352348	52.5		105	7888	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.749	3.755	-0.006	1.000	6016476	50.9		106	34362	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.758	3.765	-0.007		2144747	58.1		116	7151	
D 30 13C2 PFUnA										
565.00 > 520.00	3.768	3.772	-0.004		4104750	55.2		110	13634	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.768	3.773	-0.005	1.000	4251916	48.7		97.3	13882	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.768	3.775	-0.007	1.003	2099128	50.2		100	8453	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.900	3.904	-0.004		4387472	58.8		118	680	
35 MeFOSA										
512.00 > 169.00	3.909	3.910	-0.001	1.000	4374026	52.3		105	7748	
D 36 13C2 PFDoA										
615.00 > 570.00	4.064	4.071	-0.007		4227944	57.6		115	12240	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.064	4.072	-0.008	1.000	4068765	50.5		101	3867	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.091	4.092	-0.001		4353764	59.2		118	6693	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.099	4.101	-0.002	1.000	4627670	53.2		106	7035	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.332	4.341	-0.009	1.000	4262655	51.9		104	1187	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.571	4.578	-0.007		8914264	58.9		118	66421	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.571	4.581	-0.010	1.000	9941671	50.4		101	614	
713.00 > 169.00	4.571	4.581	-0.010	1.000	1168835		8.51(0.00-0.00)	101	9454	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.995	4.998	-0.003	1.000	4360289	50.7		101	712	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.995	4.998	-0.003		4780592	57.0		114	9146	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.347	5.351	-0.004	1.000	4681812	51.4		103	1112	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L5_00005 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:28:47 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_007.d

Injection Date: 28-Jun-2017 00:41:01 Instrument ID: A8_N

Lims ID: IC L5 Full

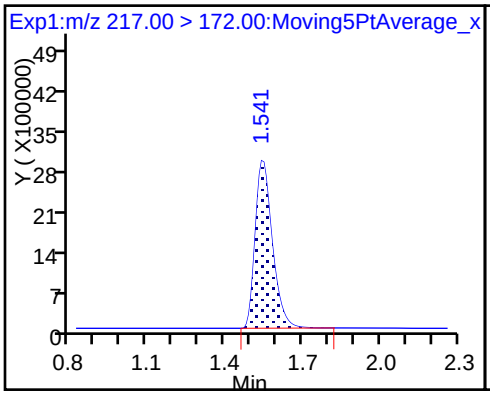
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 7

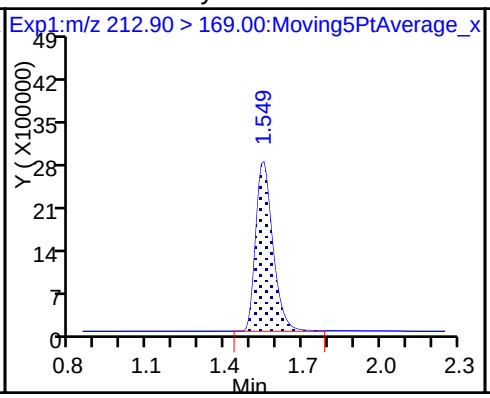
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

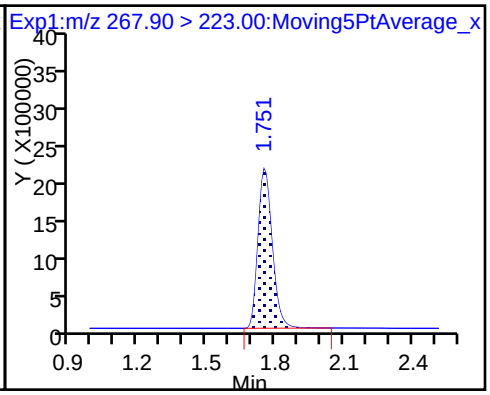
D 1 13C4 PFBA



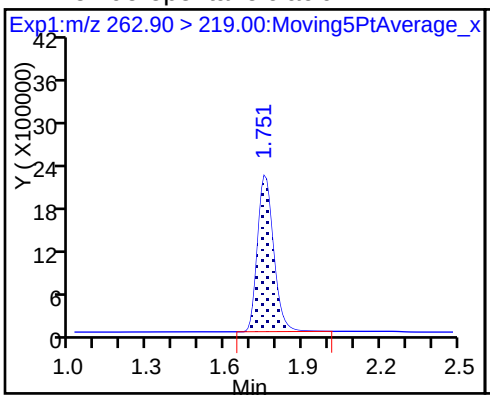
2 Perfluorobutyric acid



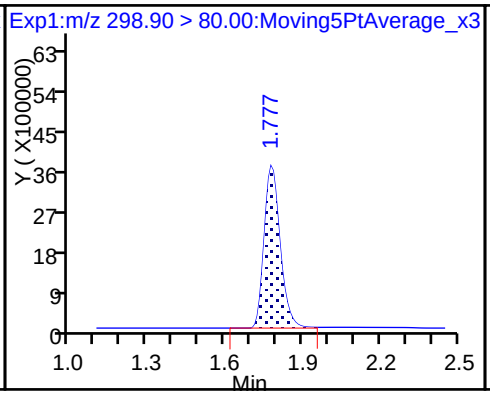
D 3 13C5-PFPeA



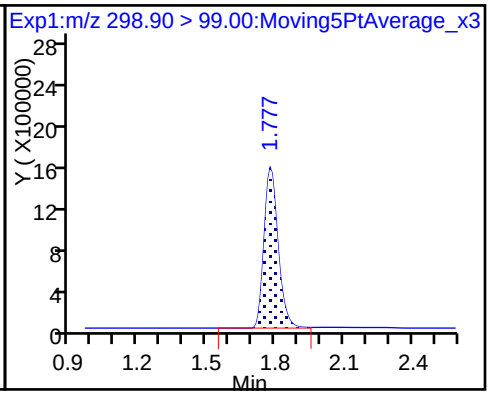
4 Perfluoropentanoic acid



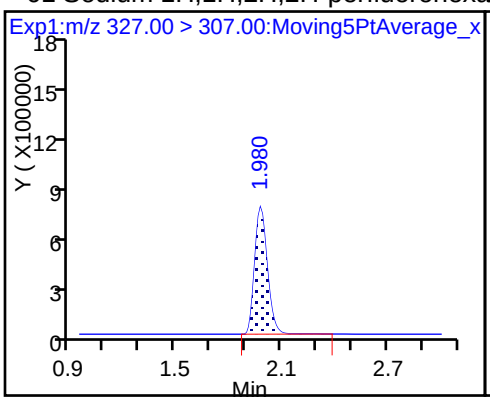
5 Perfluorobutanesulfonic acid



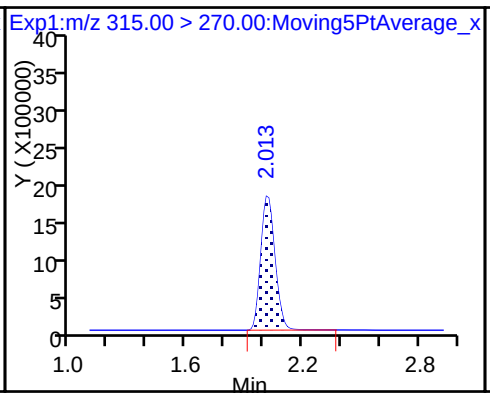
5 Perfluorobutanesulfonic acid



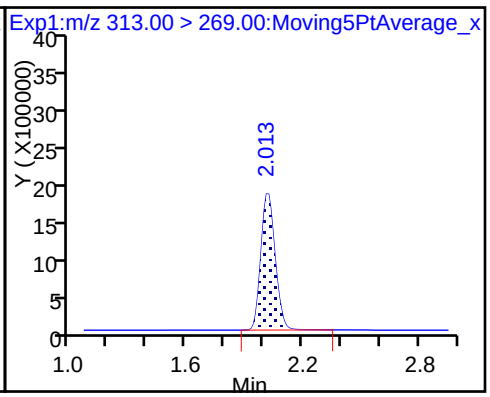
61 Sodium 1H,1H,2H,2H-perfluorohexa



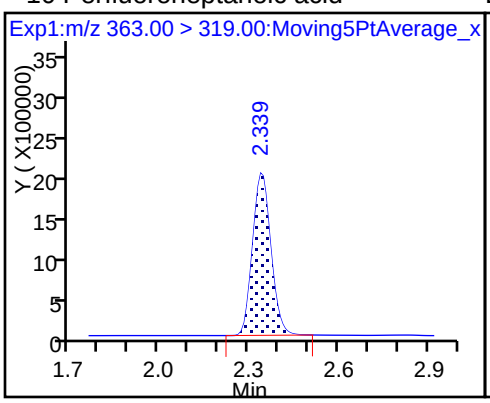
D 7 13C2 PFHxA



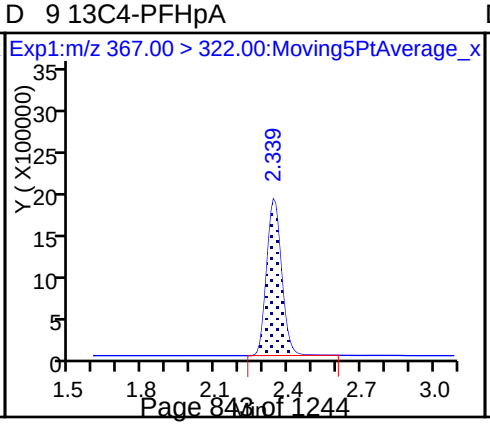
6 Perfluorohexanoic acid



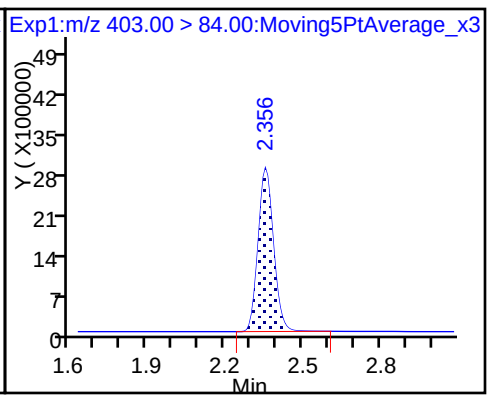
10 Perfluoroheptanoic acid



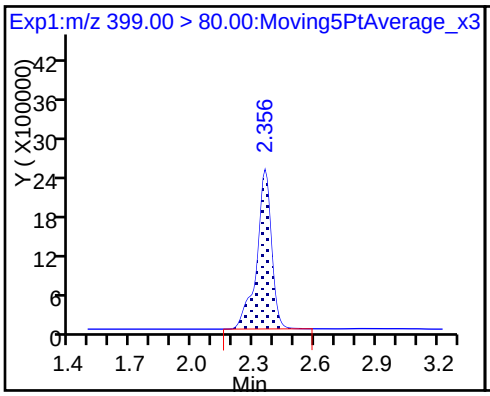
D 9 13C4-PFHpA



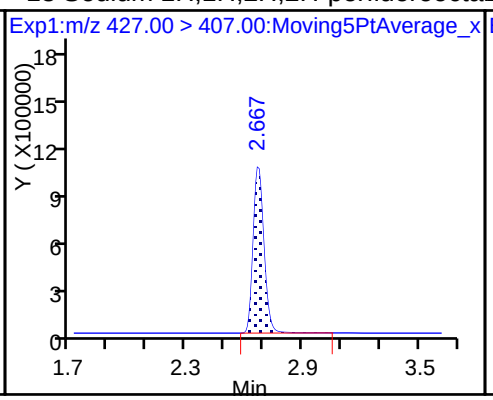
D 11 18O2 PFHxS



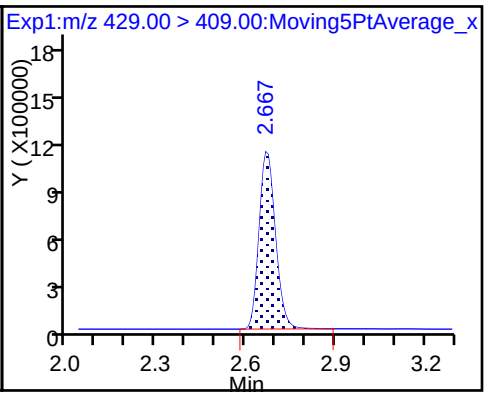
8 Perfluorohexanesulfonic acid



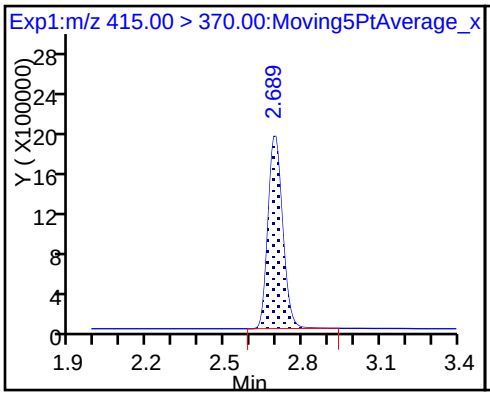
13 Sodium 1H,1H,2H,2H-perfluorooctane



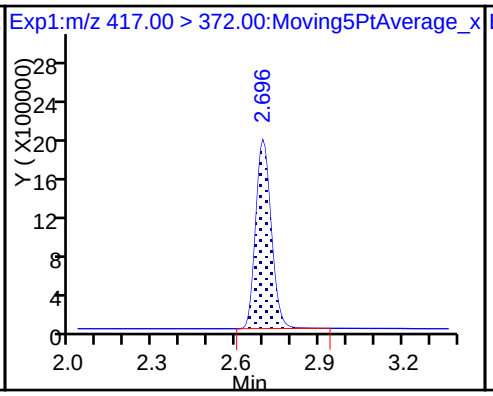
D 12 M2-6:2FTS



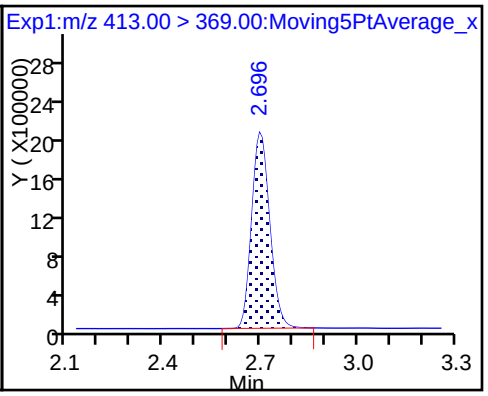
* 62 13C2-PFOA



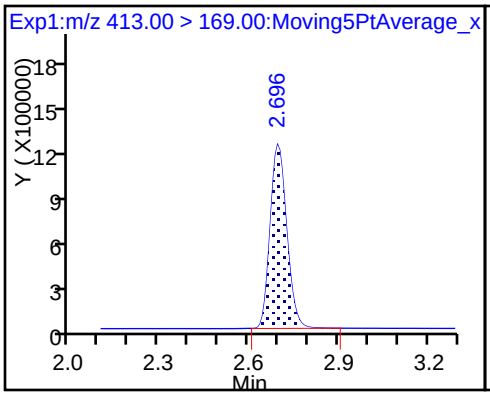
D 14 13C4 PFOA



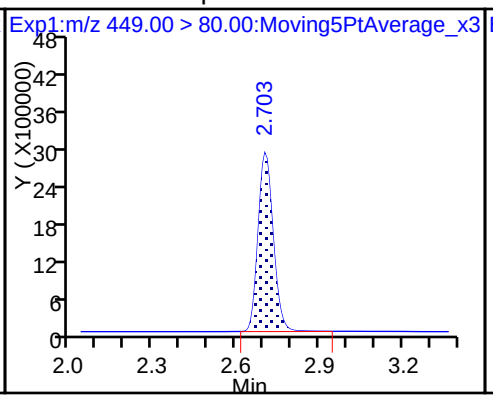
15 Perfluorooctanoic acid



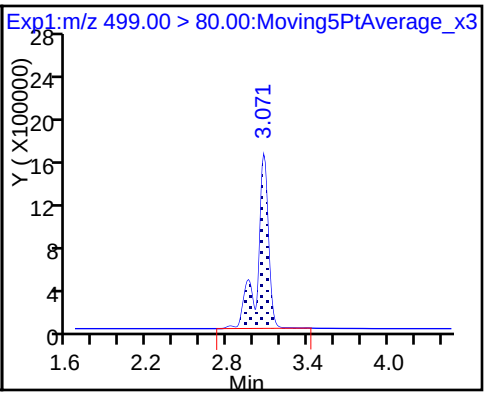
15 Perfluorooctanoic acid



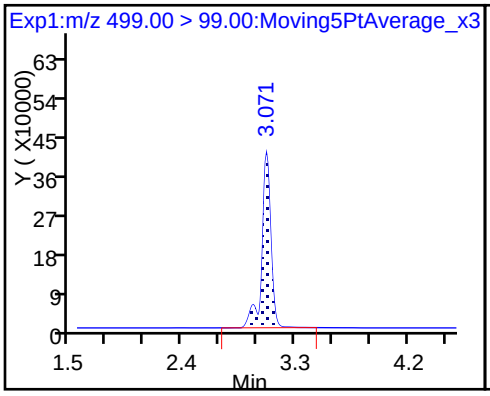
16 Perfluoroheptanesulfonic Acid



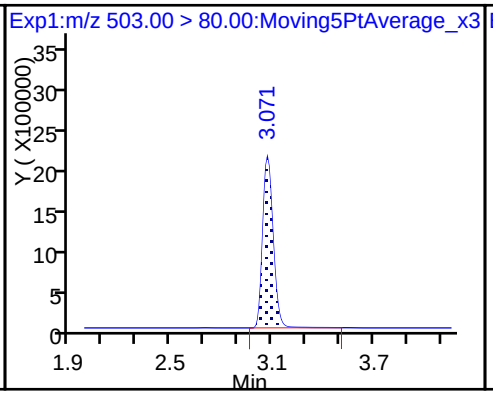
17 Perfluorooctane sulfonic acid



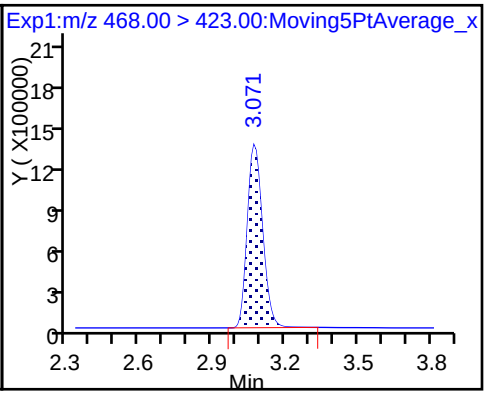
17 Perfluorooctane sulfonic acid



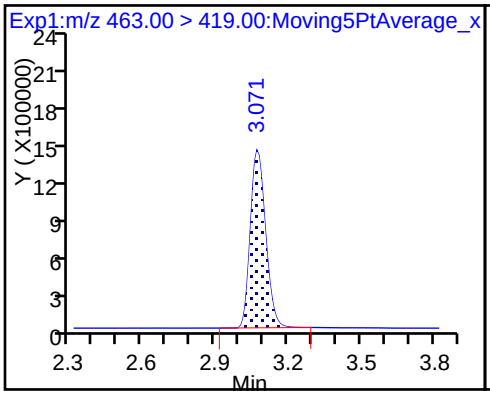
D 18 13C4 PFOS



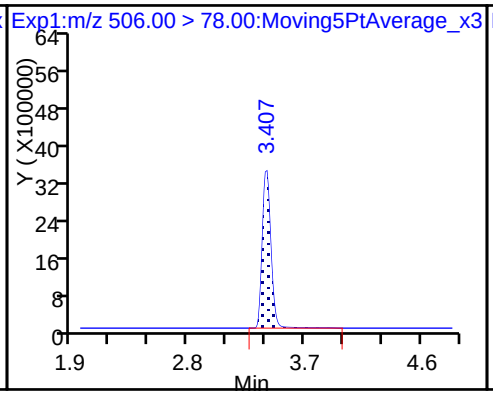
D 19 13C5 PFNA



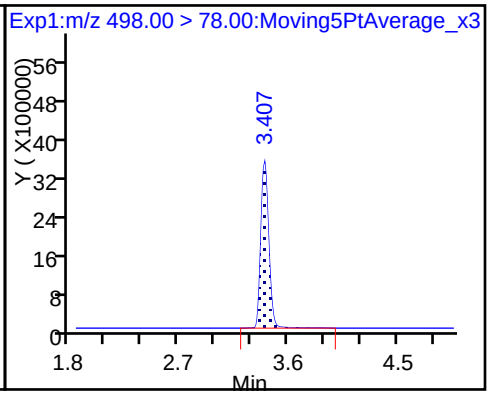
20 Perfluorononanoic acid



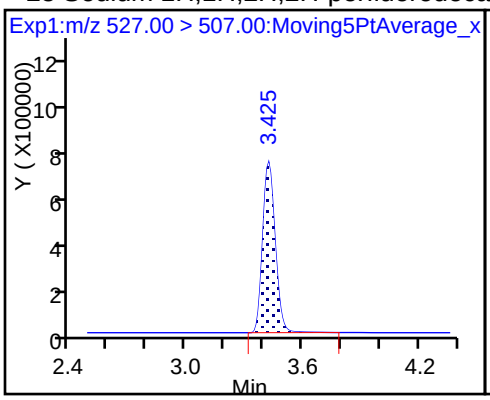
D 21 13C8 FOSA



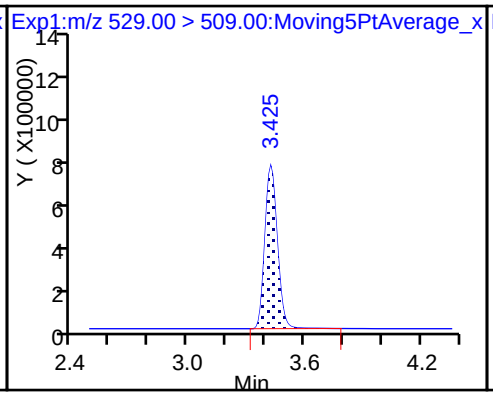
22 Perfluorooctane Sulfonamide



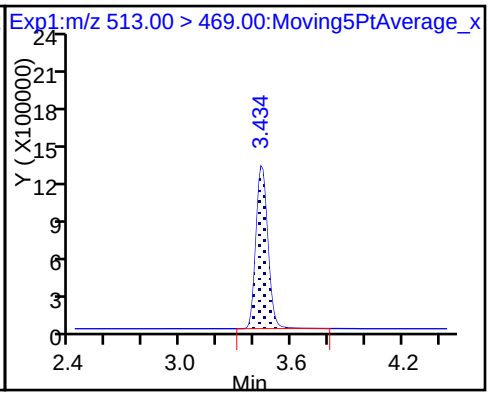
25 Sodium 1H,1H,2H,2H-perfluorodecane



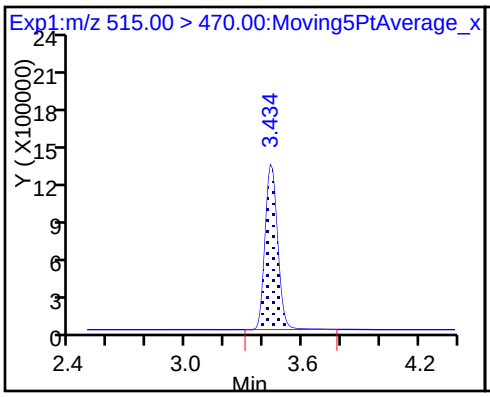
D 26 M2-8:2FTS



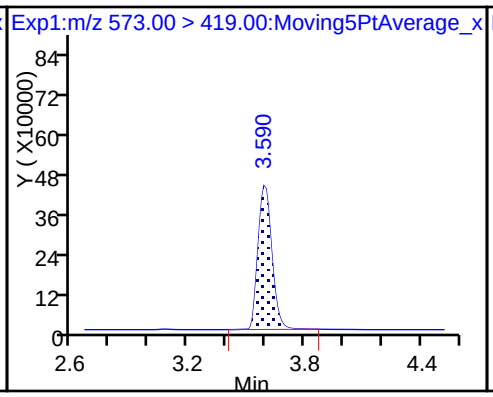
24 Perfluorodecanoic acid



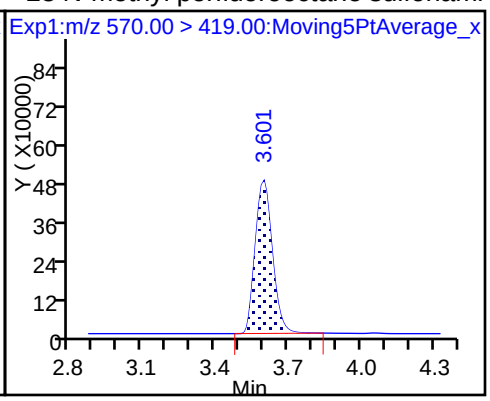
D 23 13C2 PFDA



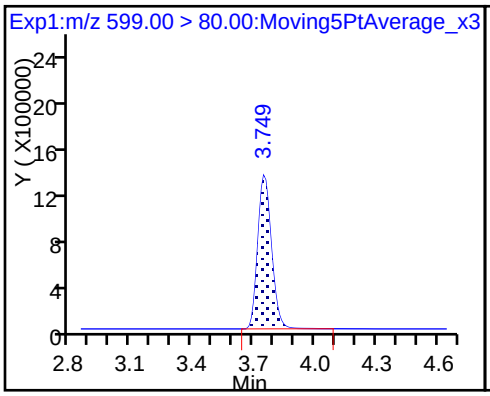
D 27 d3-NMeFOSAA



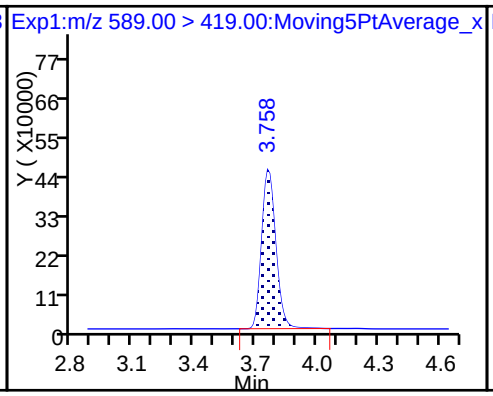
28 N-methyl perfluorooctane sulfonami



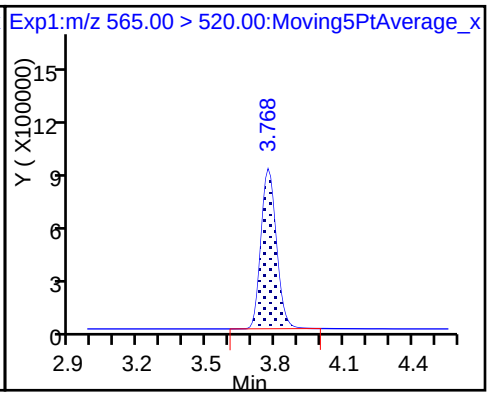
29 Perfluorodecane Sulfonic acid



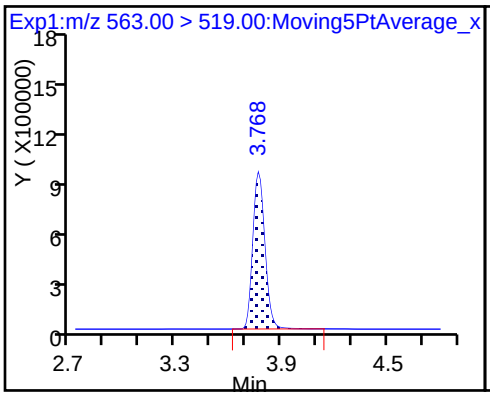
D 32 d5-NEtFOSAA



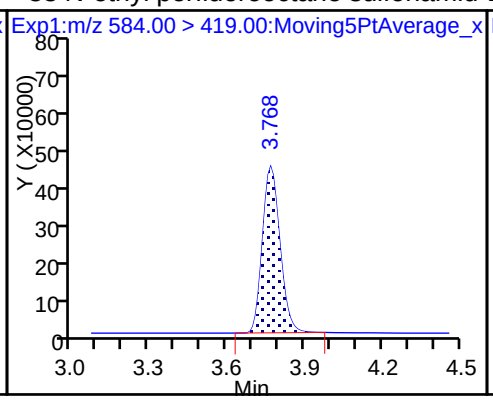
D 30 13C2 PFUnA



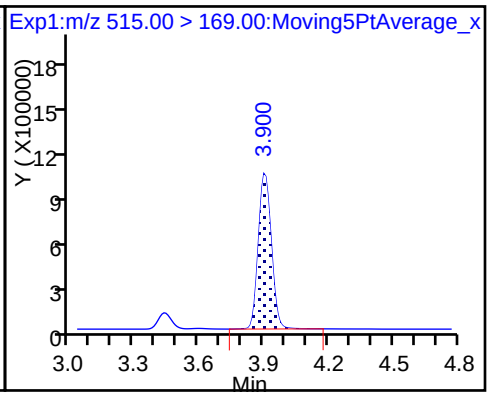
31 Perfluoroundecanoic acid



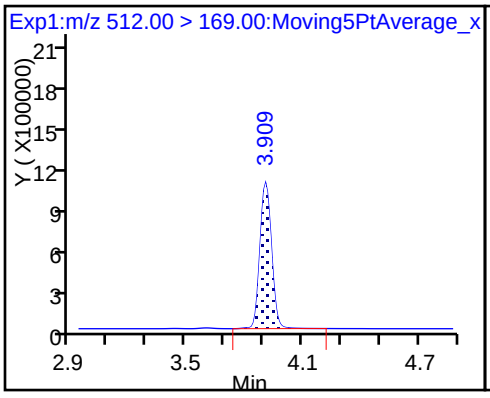
33 N-ethyl perfluorooctane sulfonamid



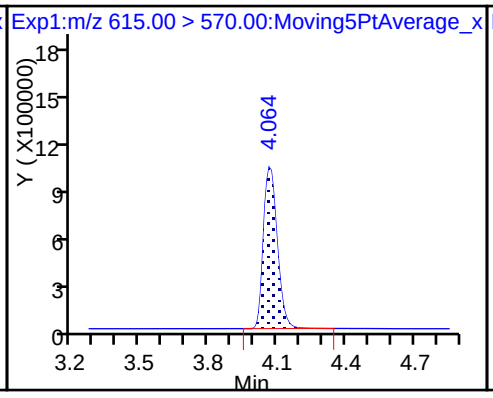
D 34 d-N-MeFOSA-M



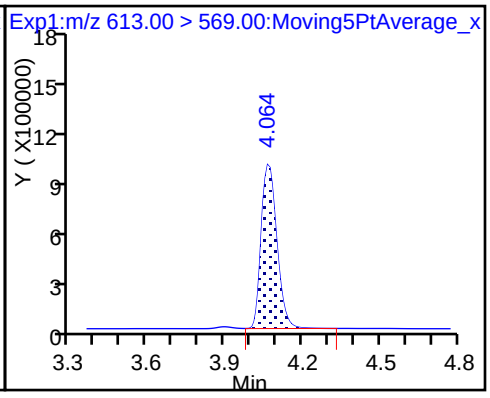
35 MeFOSA



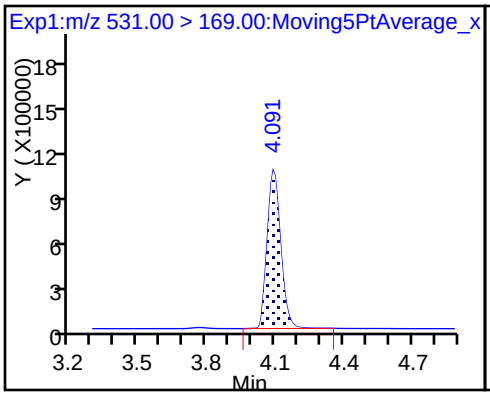
D 36 13C2 PFDoA



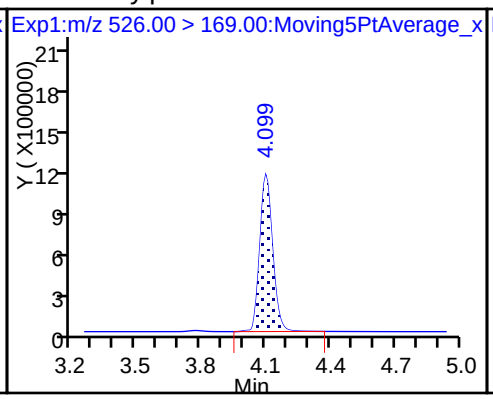
37 Perfluorododecanoic acid



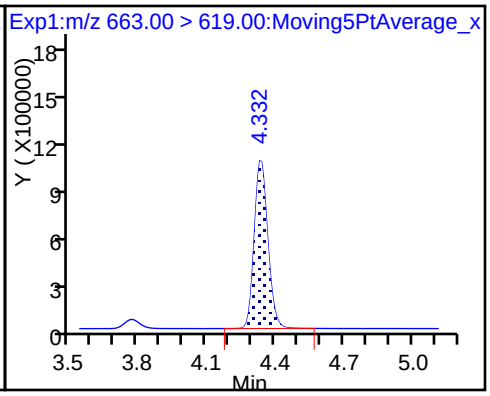
D 38 d-N-EtFOSA-M



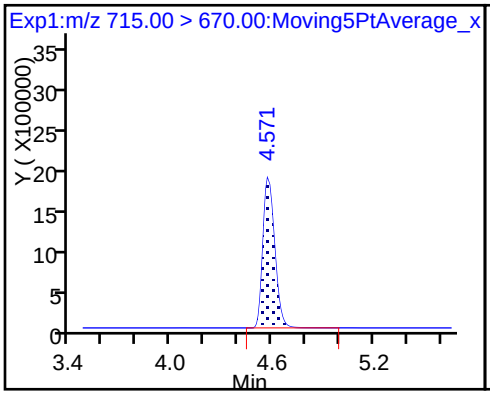
39 N-ethylperfluoro-1-octanesulfonami



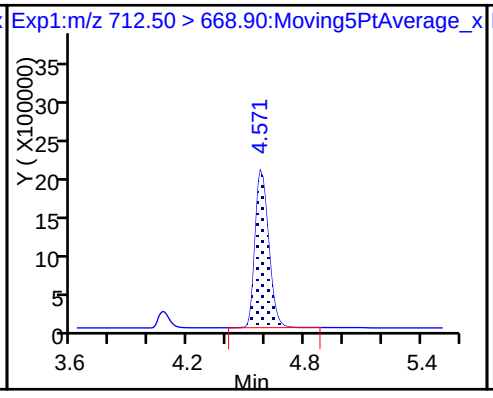
41 Perfluorotridecanoic acid



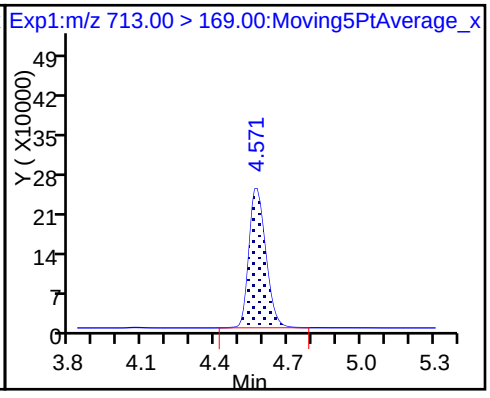
D 43 13C2-PFTeDA



42 Perfluorotetradecanoic acid



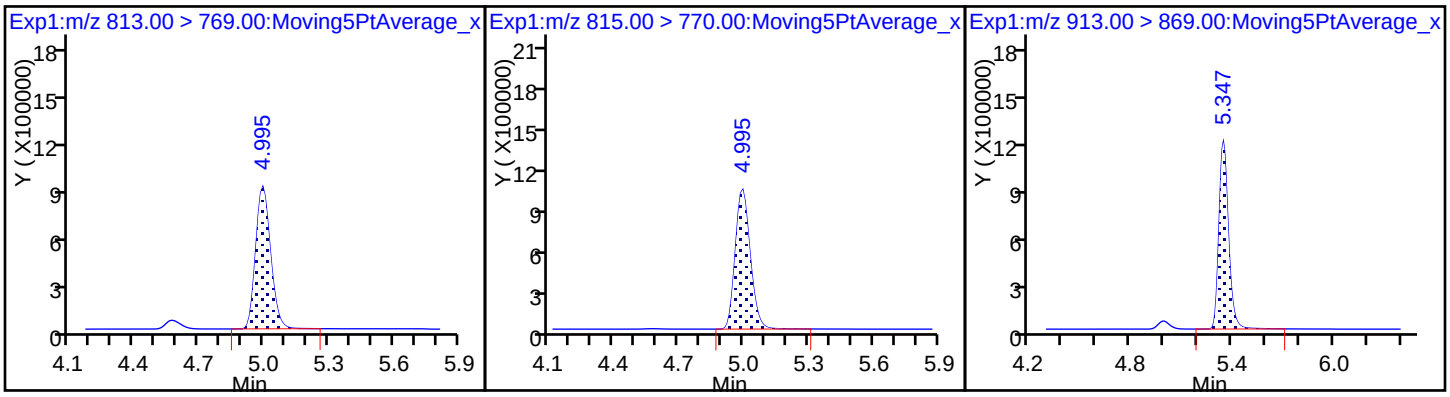
42 Perfluorotetradecanoic acid



Report Date: 28-Jun-2017 08:28:47 Chrom Revision: 2.2 26-Jun-2017 08:09:44

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_007.d

45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_008.d
Lims ID: IC L6 Full
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 28-Jun-2017 00:47:55 ALS Bottle#: 33 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L6-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:28:52 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.541	1.546	-0.005		10675010	45.6		91.2	15057	
2 Perfluorobutyric acid										
212.90 > 169.00	1.549	1.549	0.0	1.000	19529228	101.6		102	3193	
D 3 13C5-PFPeA										
267.90 > 223.00	1.750	1.755	-0.005		7124768	44.3		88.6	16993	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.750	1.756	-0.006	1.000	14509953	98.9		98.9	5716	
D 47 13C3-PFBS										
301.90 > 83.00	1.777	1.776	0.001		207862	NC			6198	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.777	1.783	-0.006	1.000	22564944	81.8		92.5	6265	
298.90 > 99.00	1.777	1.783	-0.006	1.000	10710211		2.11(0.00-0.00)	92.5	7639	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.979	1.983	-0.004	1.000	5811420	88.0		94.3	27900	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.024	2.022	0.002	1.000	14190069	97.5		97.5	13034	
D 7 13C2 PFHxA										
315.00 > 270.00	2.024	2.022	0.002		7158780	46.7		93.3	19650	
D 9 13C4-PFHpA										
367.00 > 322.00	2.339	2.345	-0.006		6089305	44.5		89.0	21687	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.339	2.345	-0.006	1.000	13145899	101.1		101	7711	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.356	2.360	-0.004	1.000	18845568	86.2		94.7	5935	
D 11 18O2 PFHxS										
403.00 > 84.00	2.356	2.360	-0.004		9364216	44.0		93.1	23462	
D 12 M2-6:2FTS										
429.00 > 409.00	2.669	2.674	-0.005		3302334	45.4		95.5	14750	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.669	2.674	-0.005	1.000	6433270	93.9		99.0	35921	
* 62 13C2-PFOA										
415.00 > 370.00	2.691	2.695	-0.004		5816091	50.0			12243	
D 14 13C4 PFOA										
417.00 > 372.00	2.691	2.701	-0.010		5715583	43.8		87.6	31674	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.698	2.703	-0.005	1.000	12113676	100.0		100.0	2317	
413.00 > 169.00	2.698	2.703	-0.005	1.000	7283179		1.66(0.90-1.10)	100.0	7180	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.705	2.710	-0.005	1.000	16515521	91.6		96.2	11566	
D 18 13C4 PFOS										
503.00 > 80.00	3.064	3.076	-0.012		7491053	46.0		96.3	23408	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.064	3.076	-0.012	1.000	15546912	94.6		102	12734	
499.00 > 99.00	3.064	3.076	-0.012	1.000	3358116		4.63(0.90-1.10)	102	14438	
20 Perfluorononanoic acid										
463.00 > 419.00	3.073	3.077	-0.004	1.000	9739220	101.3		101	17714	
D 19 13C5 PFNA										
468.00 > 423.00	3.073	3.077	-0.004		4847358	46.2		92.3	10527	
D 21 13C8 FOSA										
506.00 > 78.00	3.399	3.405	-0.006		12336650	46.7		93.5	36797	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.399	3.408	-0.009	1.000	23148531	96.3		96.3	46026	
D 26 M2-8:2FTS										
529.00 > 509.00	3.417	3.429	-0.012		2521442	44.5		93.0	16006	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.417	3.429	-0.012	1.000	5119791	97.4		102	43790	
D 23 13C2 PFDA										
515.00 > 470.00	3.436	3.442	-0.006		4421659	44.2		88.4	20431	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.436	3.442	-0.006	1.000	8792931	103.0		103	24338	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.592	3.598	-0.006		1758767	47.5		95.0	8405	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.592	3.602	-0.010	1.000	3872343	105.6		106	7978	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.750	3.755	-0.005	1.000	9560988	95.7		99.2	137425	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.759	3.765	-0.006		1723727	46.7		93.3	5378	
D 30 13C2 PFUnA										
565.00 > 520.00	3.769	3.772	-0.003		3243280	43.7		87.3	21468	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.769	3.773	-0.004	1.000	6498995	94.2		94.2	13614	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.769	3.775	-0.006	1.003	3396144	101.1		101	28269	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.901	3.904	-0.003		3587709	48.1		96.2	723	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.910	3.910	0.0	1.000	7205455	105.5		105	8520	
D 36 13C2 PFDoA										
615.00 > 570.00	4.064	4.071	-0.007		3379621	46.0		92.1	9541	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.064	4.072	-0.008	1.000	6470650	100.5		101	7588	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.091	4.092	-0.001		3526135	47.9		95.9	4766	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.100	4.101	-0.001	1.000	7435798	105.6		106	8768	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.334	4.341	-0.007	1.000	6616124	100.9		101	2054	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.573	4.578	-0.005		7188952	47.5		94.9	53791	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.573	4.581	-0.008	1.000	15879482	100.7		101	1641	
713.00 > 169.00	4.564	4.581	-0.017	0.998	1975399		8.04(0.00-0.00)	101	15763	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.985	4.998	-0.013		3907752	46.6		93.2	7015	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.985	4.998	-0.013	1.000	6914193	101.2		101	1055	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.341	5.351	-0.010	1.000	7409509	101.7		102	1994	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L6_00005 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:28:53 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_008.d

Injection Date: 28-Jun-2017 00:47:55 Instrument ID: A8_N

Lims ID: IC L6 Full

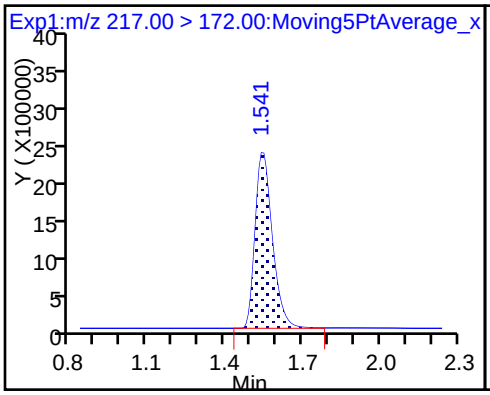
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 33 Worklist Smp#: 8

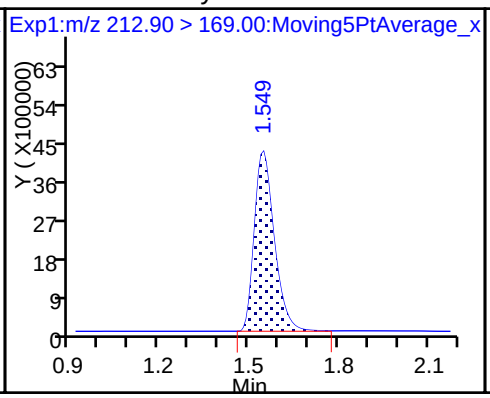
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

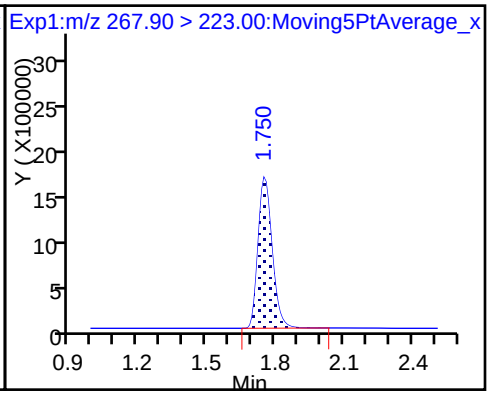
D 1 13C4 PFBA



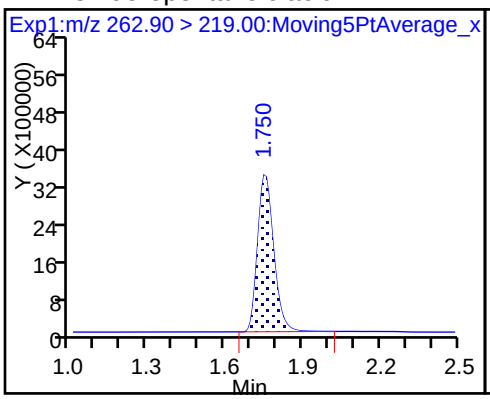
2 Perfluorobutyric acid



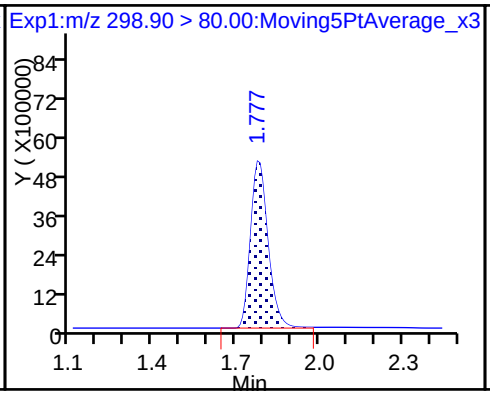
D 3 13C5-PFPeA



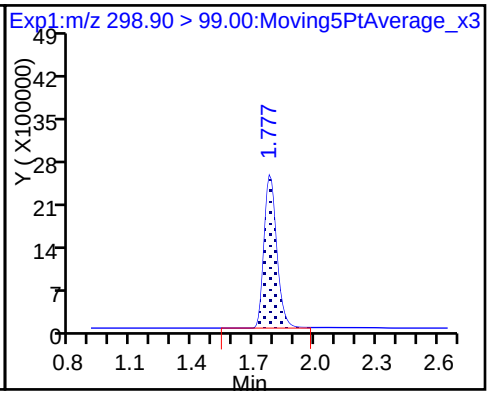
4 Perfluoropentanoic acid



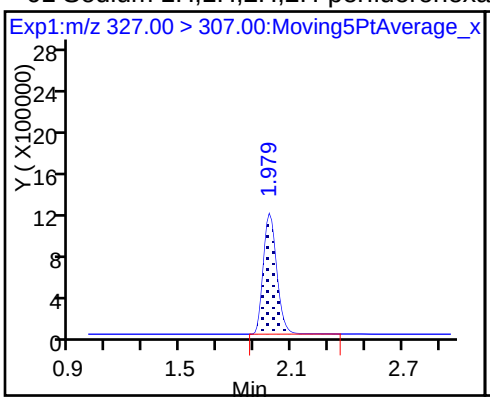
5 Perfluorobutanesulfonic acid



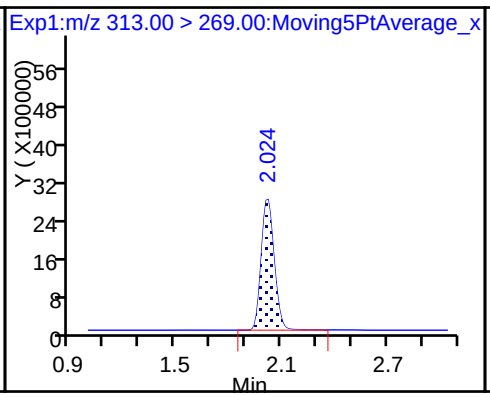
5 Perfluorobutanesulfonic acid



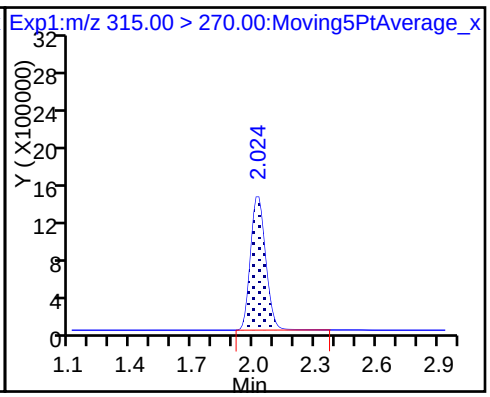
61 Sodium 1H,1H,2H,2H-perfluorohexane



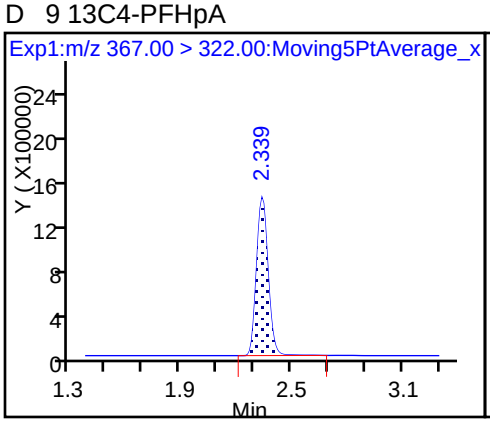
6 Perfluorohexanoic acid



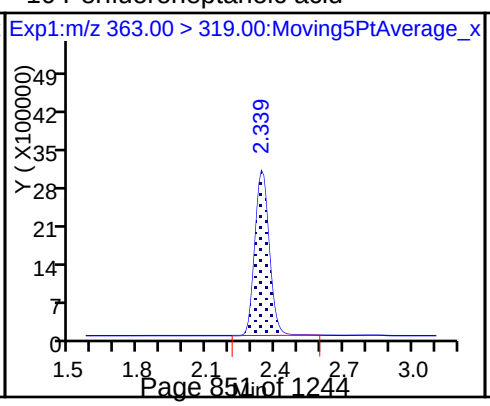
D 7 13C2 PFHxA



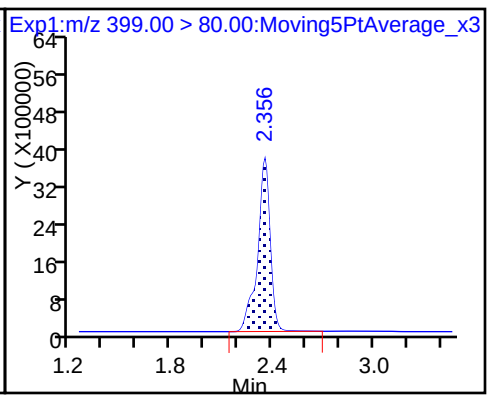
D 9 13C4-PFHpA



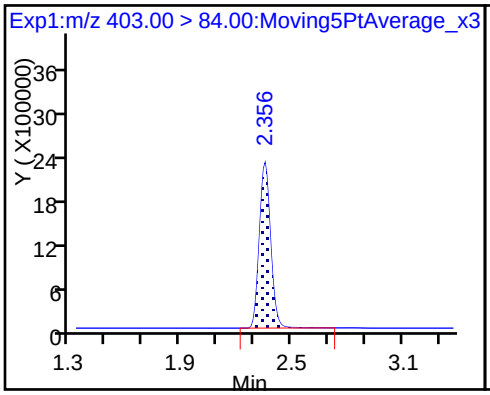
10 Perfluoroheptanoic acid



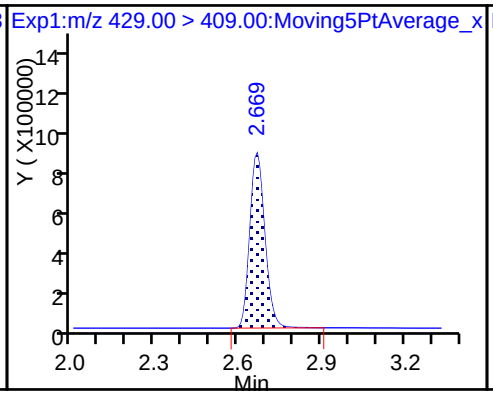
8 Perfluorohexanesulfonic acid



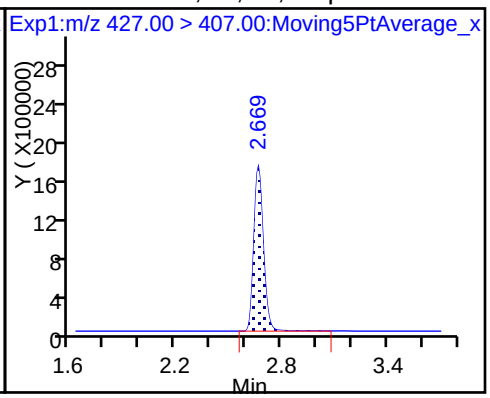
D 11 18O2 PFHxS



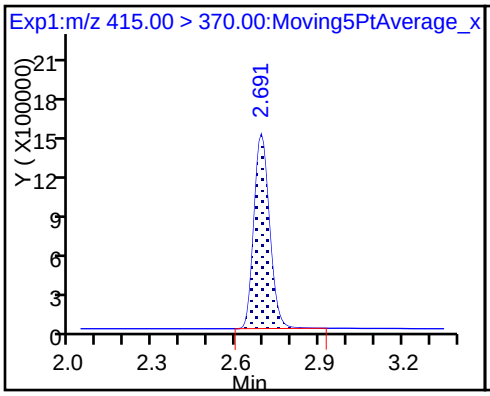
D 12 M2-6:2FTS



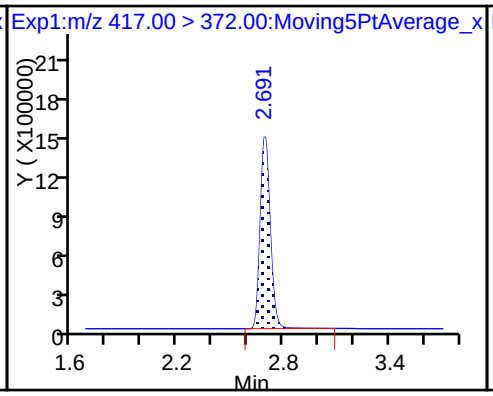
13 Sodium 1H,1H,2H,2H-perfluorooctane



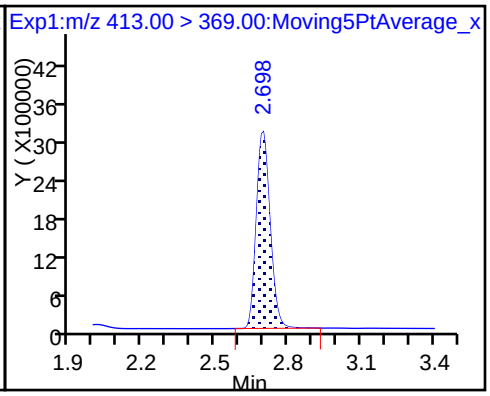
* 62 13C2-PFOA



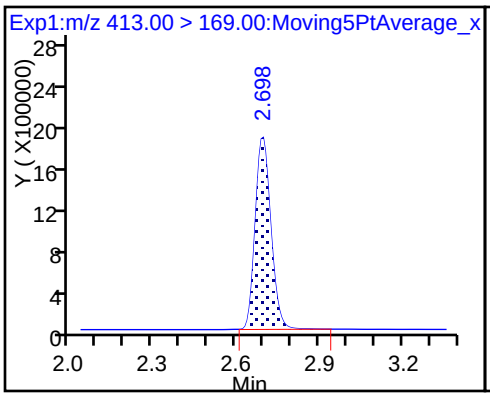
D 14 13C4 PFOA



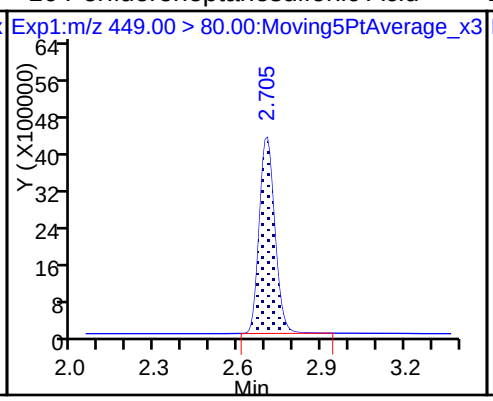
15 Perfluorooctanoic acid



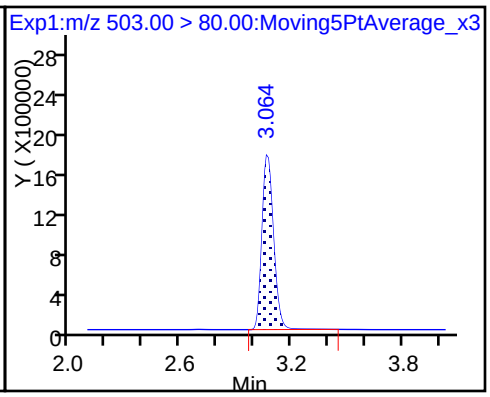
15 Perfluorooctanoic acid



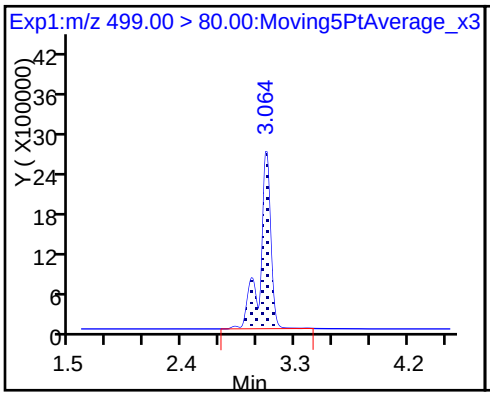
16 Perfluoroheptanesulfonic Acid



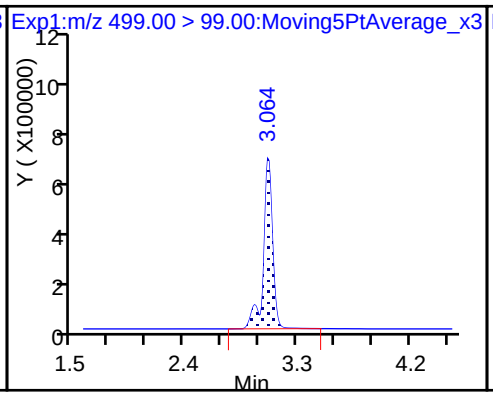
D 18 13C4 PFOS



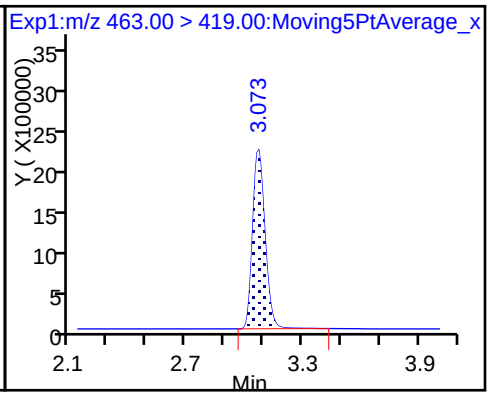
17 Perfluorooctane sulfonic acid



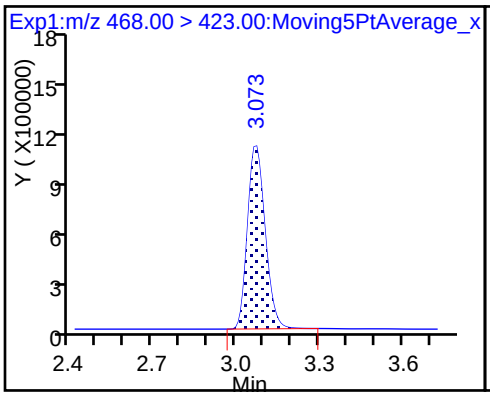
17 Perfluorooctane sulfonic acid



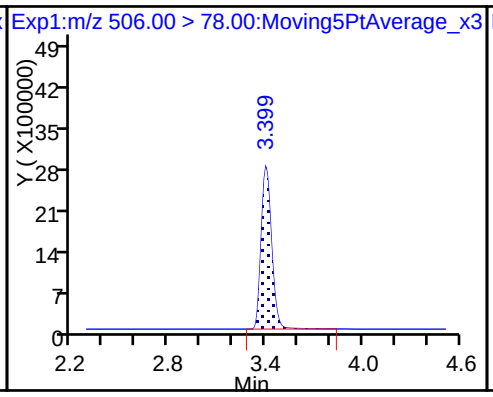
20 Perfluorononanoic acid



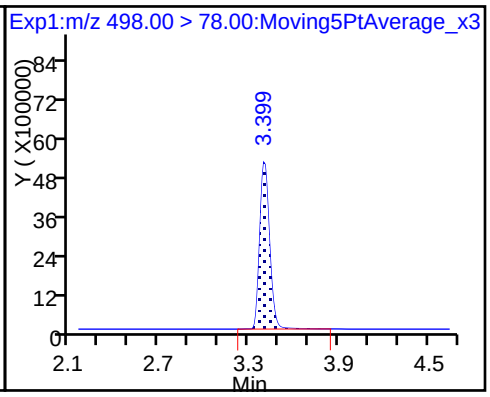
D 19 13C5 PFNA



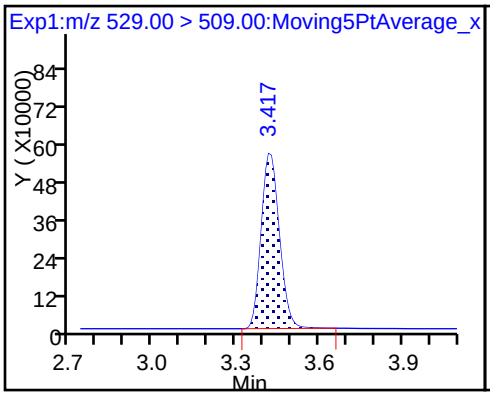
D 21 13C8 FOSA



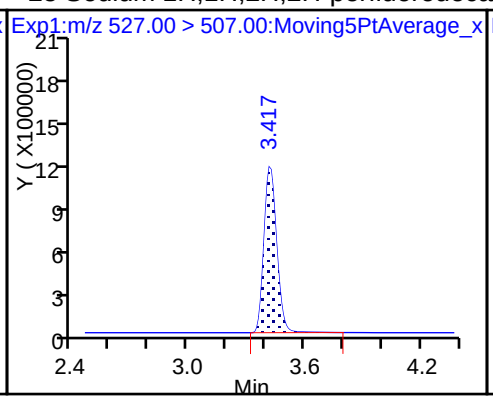
22 Perfluorooctane Sulfonamide



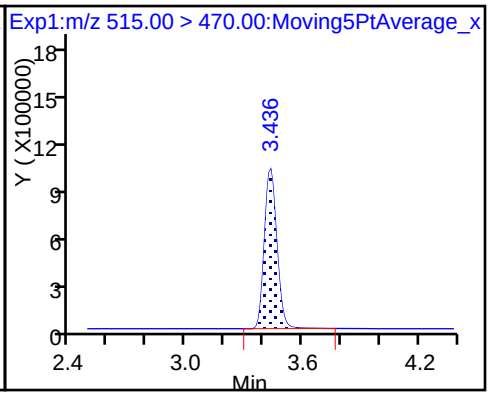
D 26 M2-8:2FTS



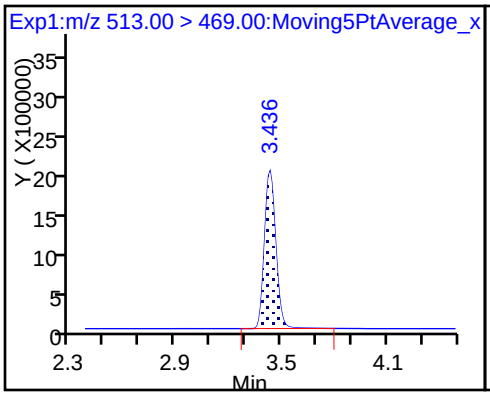
25 Sodium 1H,1H,2H,2H-perfluorodecane



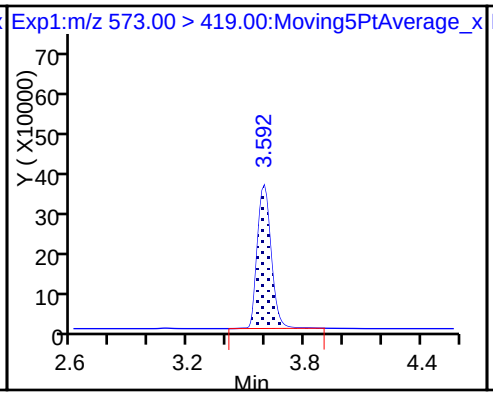
D 23 13C2 PFDA



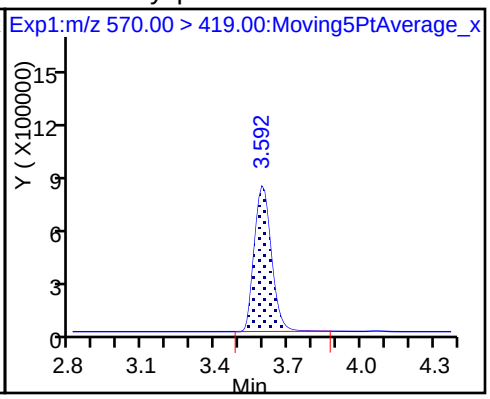
24 Perfluorodecanoic acid



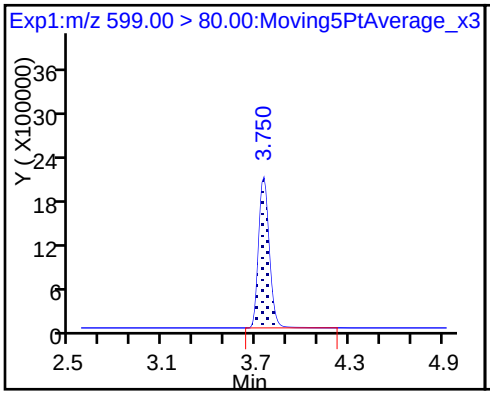
D 27 d3-NMeFOSAA



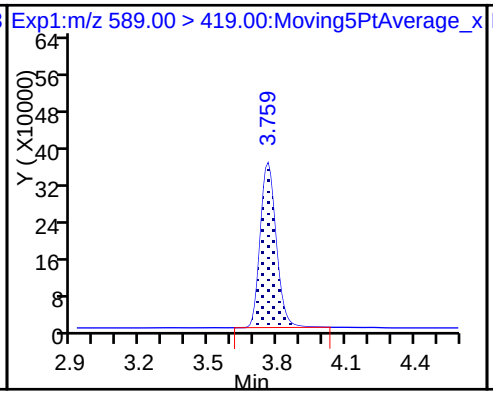
28 N-methyl perfluorooctane sulfonami



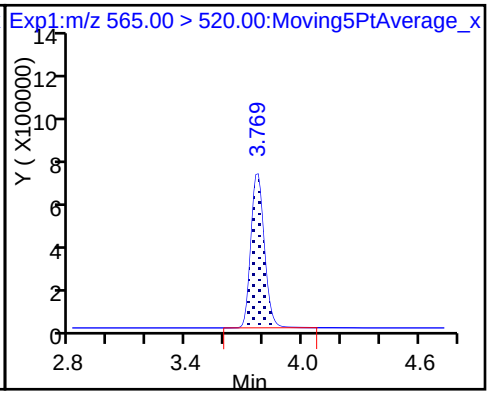
29 Perfluorodecane Sulfonic acid



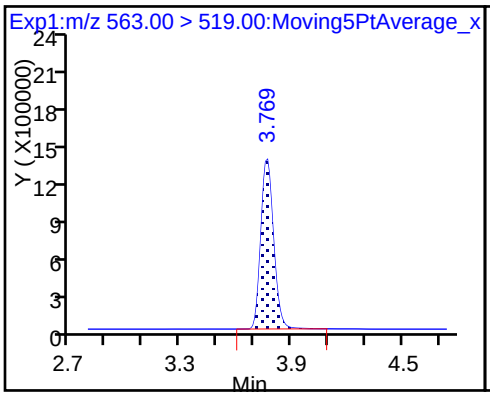
D 32 d5-NEtFOSAA



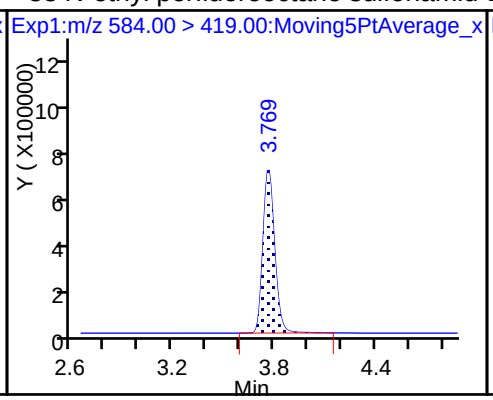
D 30 13C2 PFUnA



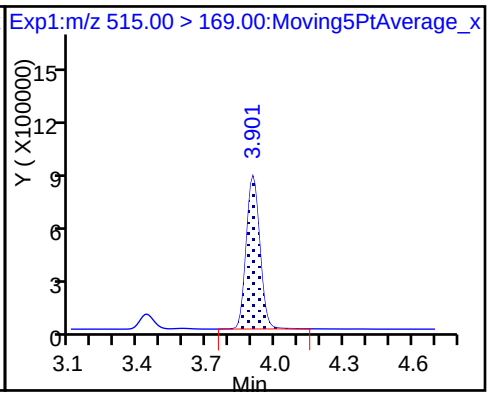
31 Perfluoroundecanoic acid



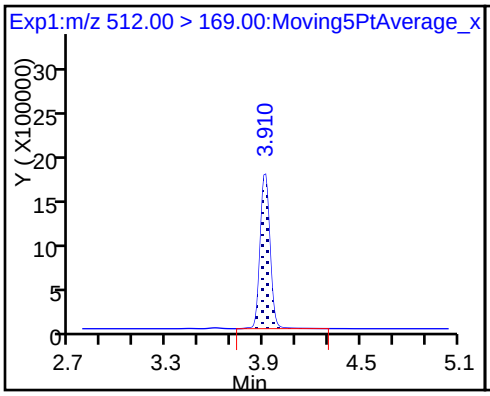
33 N-ethyl perfluorooctane sulfonamid



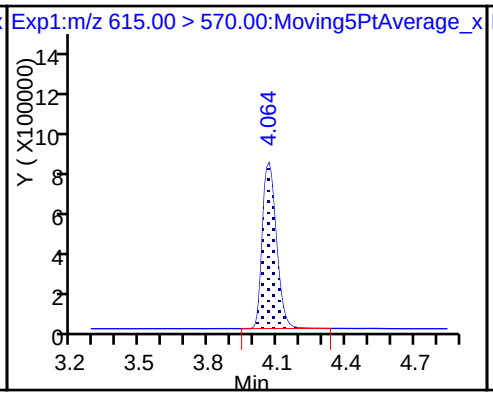
D 34 d-N-MeFOSA-M



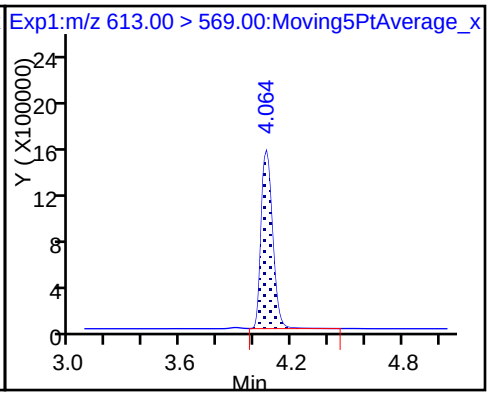
35 MeFOSA



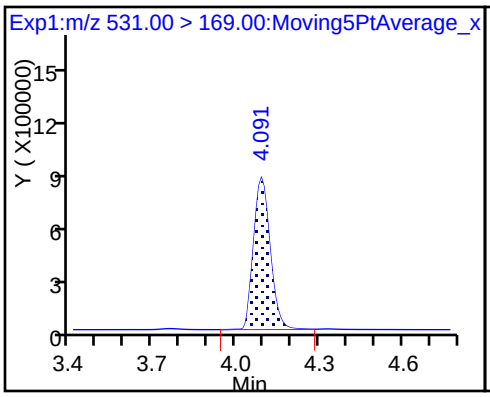
D 36 13C2 PFDoA



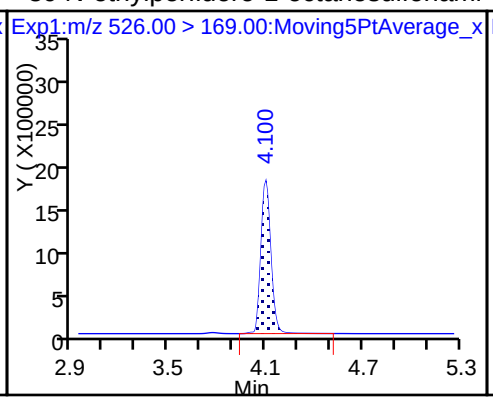
37 Perfluorododecanoic acid



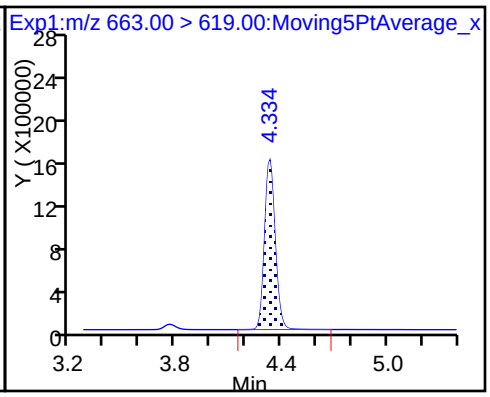
D 38 d-N-EtFOSA-M



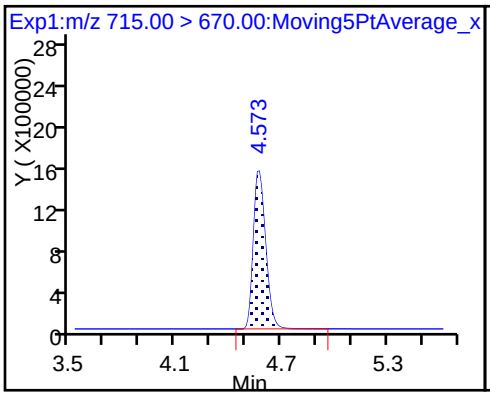
39 N-ethylperfluoro-1-octanesulfonami



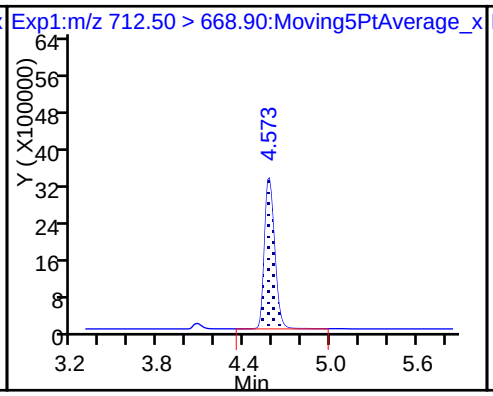
41 Perfluorotridecanoic acid



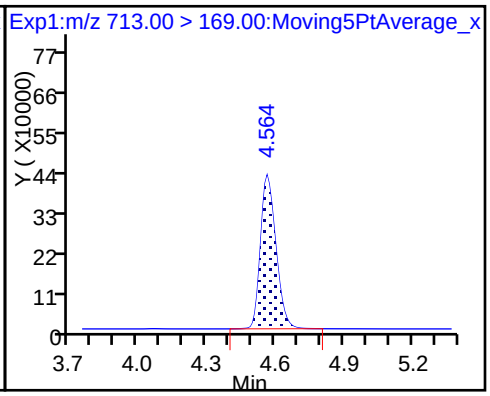
D 43 13C2-PFTeDA



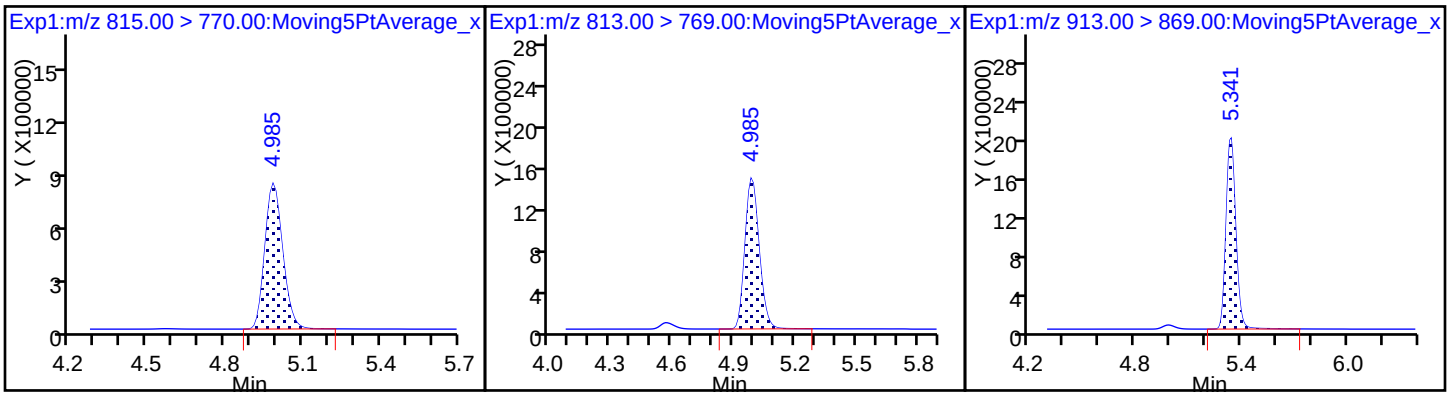
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_009.d
Lims ID: IC L7 Full
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 28-Jun-2017 00:54:49 ALS Bottle#: 34 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L7-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:28:57 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

First Level Reviewer: westendorfc Date: 28-Jun-2017 08:20:01

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.549	1.546	0.003		10166691	43.4		86.9	14734	
2 Perfluorobutyric acid										
212.90 > 169.00	1.549	1.549	0.0	1.000	31585487	172.5		86.2	3506	
D 3 13C5-PFPeA										
267.90 > 223.00	1.751	1.755	-0.004		6591945	41.0		82.0	17917	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.759	1.756	0.003	1.000	23255486	171.4		85.7	9230	
D 47 13C3-PFBS										
301.90 > 83.00	1.777	1.776	0.001		185336	NC			6253	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.786	1.783	0.003	1.000	36354753	139.5		78.9	1317724	
298.90 > 99.00	1.777	1.783	-0.006	0.995	18874231		1.93(0.00-0.00)	78.9	20819	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.980	1.983	-0.003	1.000	10875967	165.1		88.4	23856	
D 7 13C2 PFHxA										
315.00 > 270.00	2.024	2.022	0.002		6584505	42.9		85.8	24115	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.024	2.022	0.002	1.000	23166575	173.1		86.6	13245	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.343	2.345	-0.002	1.000	21372445	188.3		94.2	7708	
D 9 13C4-PFHpA										
367.00 > 322.00	2.343	2.345	-0.002		5313908	38.8		77.6	17677	
D 11 18O2 PFHxS										
403.00 > 84.00	2.361	2.360	0.001		8839903	41.6		87.9	19627	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.361	2.360	0.001	1.000	33084312	160.3		88.0	5991	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.673	2.674	-0.001	1.000	11321706	165.5		87.3	33874	
D 12 M2-6:2FTS										
429.00 > 409.00	2.673	2.674	-0.001		3295055	45.3		95.3	16412	
* 62 13C2-PFOA										
415.00 > 370.00	2.695	2.695	0.0		5010908	50.0			14208	
D 14 13C4 PFOA										
417.00 > 372.00	2.695	2.701	-0.006		5115116	39.2		78.4	12399	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.702	2.703	-0.001	1.000	20052628	184.9		92.5	3424	
413.00 > 169.00	2.702	2.703	-0.001	1.000	12853829		1.56(0.90-1.10)	92.5	11193	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.709	2.710	-0.001	1.000	27240352	160.3		84.2	10142	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.071	3.076	-0.005	1.000	28622131	184.7		99.5	11674	
499.00 > 99.00	3.071	3.076	-0.005	1.000	6655370		4.30(0.90-1.10)	99.5	22087	
D 18 13C4 PFOS										
503.00 > 80.00	3.071	3.076	-0.005		7061626	43.4		90.8	17740	
D 19 13C5 PFNA										
468.00 > 423.00	3.071	3.077	-0.006		4185731	39.9		79.7	10860	
20 Perfluorononanoic acid										
463.00 > 419.00	3.071	3.077	-0.006	1.000	16886918	203.3		102	28906	
D 21 13C8 FOSA										
506.00 > 78.00	3.399	3.405	-0.006		11557466	43.8		87.6	47221	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.408	3.408	0.0	1.000	36383951	161.6		80.8	311740	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.426	3.429	-0.003	1.000	8681158	168.1		87.7	31953	
D 26 M2-8:2FTS										
529.00 > 509.00	3.426	3.429	-0.003		2477757	43.8		91.4	44996	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.436	3.442	-0.006	1.000	15560863	195.8		97.9	38144	
D 23 13C2 PFDA										
515.00 > 470.00	3.436	3.442	-0.006		4118965	41.2		82.4	18933	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.594	3.598	-0.004		1721455	46.5		93.0	4913	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.594	3.602	-0.008	1.000	7466479	208.0		104	20274	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.743	3.755	-0.012	1.000	17816860	189.1		98.1	535860	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.752	3.765	-0.013		1513502	41.0		81.9	4065	
D 30 13C2 PFUnA										
565.00 > 520.00	3.762	3.772	-0.010		2846934	38.3		76.6	13133	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.762	3.773	-0.011	1.000	11894686	196.3		98.2	39712	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.762	3.775	-0.013	1.003	6416477	217.5		109	26914	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.905	3.904	0.001		3701580	49.6		99.2	783	
35 MeFOSA										
512.00 > 169.00	3.905	3.910	-0.005	1.000	13863578	196.7		98.3	9312	
D 36 13C2 PFDoA										
615.00 > 570.00	4.061	4.071	-0.010		3158739	43.0		86.0	6898	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.061	4.072	-0.011	1.000	12283288	204.2		102	13783	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.088	4.092	-0.004		3563174	48.4		96.9	4300	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.097	4.101	-0.004	1.000	14398576	202.3		101	8946	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.332	4.341	-0.009	1.000	11996210	195.7		97.8	4464	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.562	4.578	-0.016		6840230	45.2		90.3	61858	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.572	4.581	-0.009	1.000	26789665	181.8		90.9	2048	
713.00 > 169.00	4.562	4.581	-0.019	0.998	3695030		7.25(0.00-0.00)	90.9	31532	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.985	4.998	-0.013	1.000	12399383	194.8		97.4	1899	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.985	4.998	-0.013		3766939	44.9		89.8	9592	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.335	5.351	-0.016	1.000	13725574	201.5		101	3281	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L7_00003 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:28:58 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_009.d

Injection Date: 28-Jun-2017 00:54:49 Instrument ID: A8_N

Lims ID: IC L7 Full

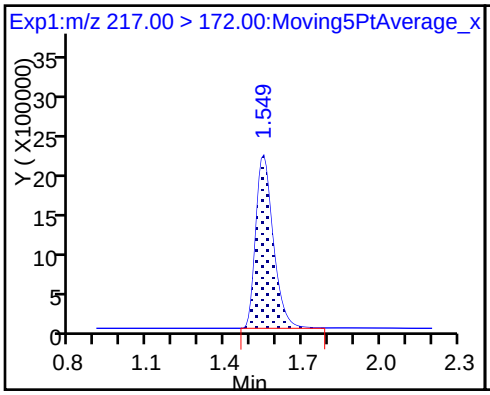
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 34 Worklist Smp#: 9

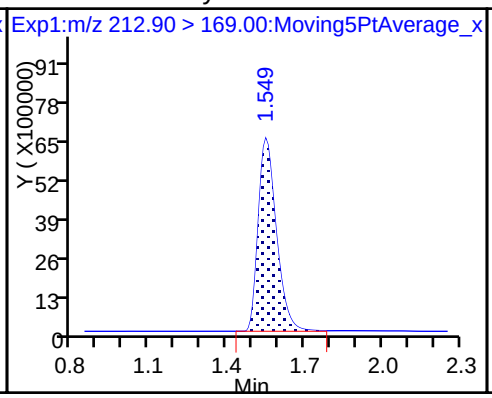
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

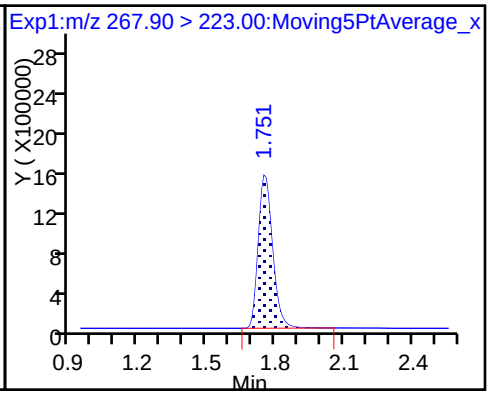
D 1 13C4 PFBA



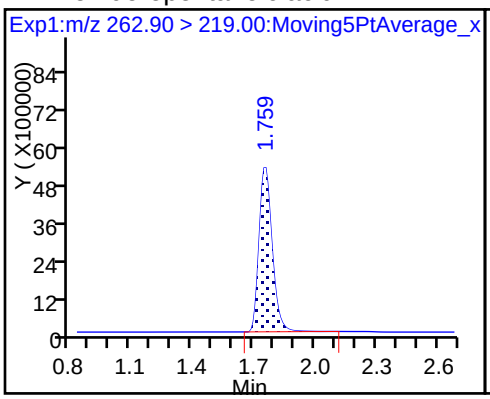
2 Perfluorobutyric acid



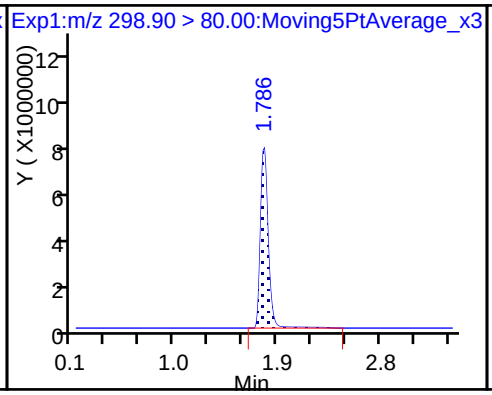
D 3 13C5-PFPeA



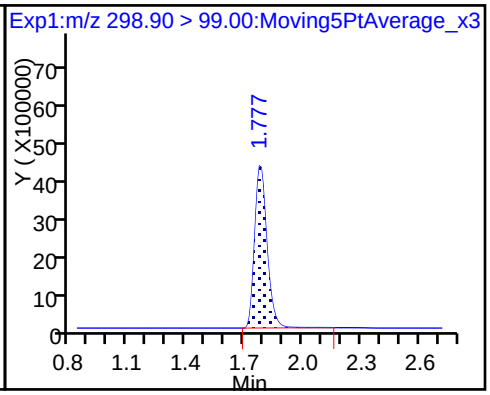
4 Perfluoropentanoic acid



5 Perfluorobutanesulfonic acid

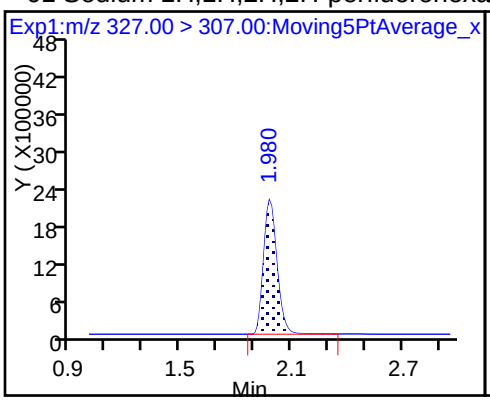


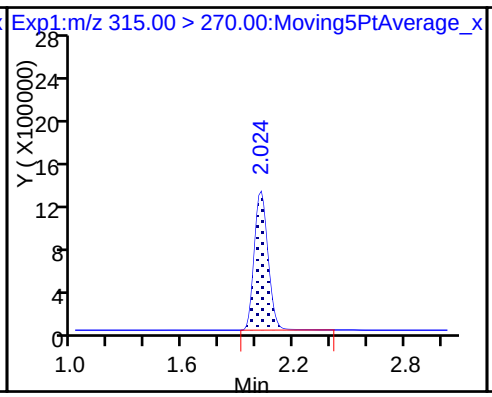
5 Perfluorobutanesulfonic acid



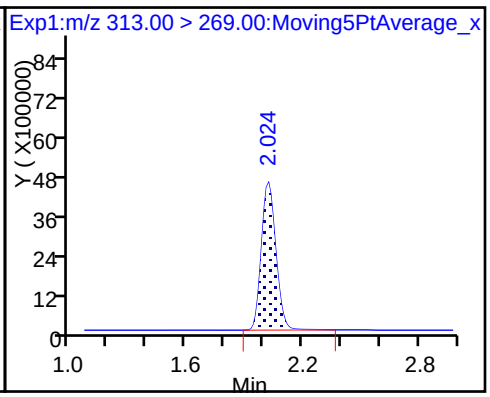
61 Sodium 1H,1H,2H,2H-perfluorohexa

D 7 13C2 PFHxA

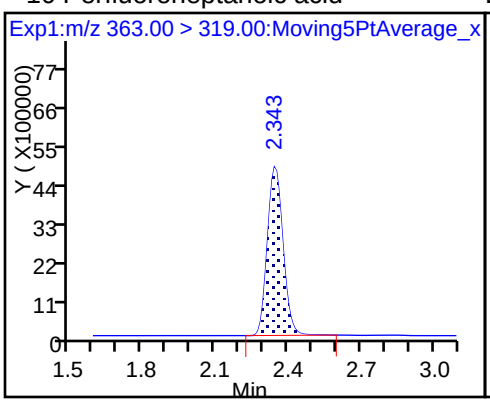




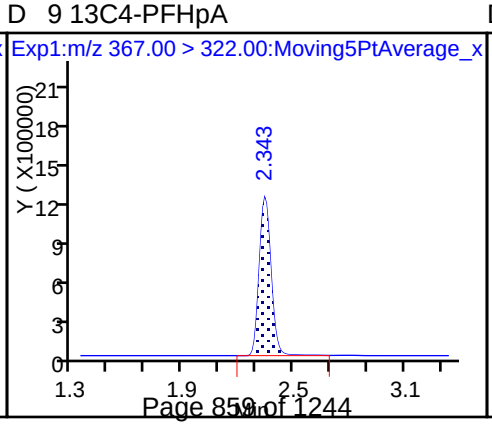
6 Perfluorohexanoic acid



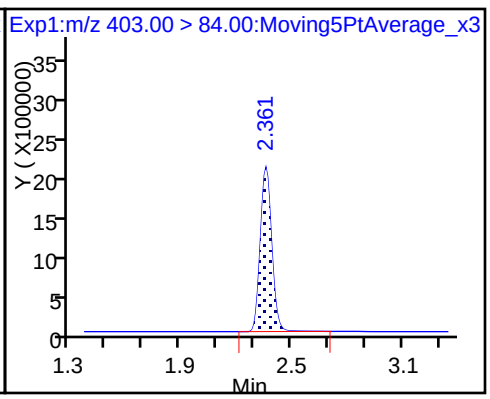
10 Perfluoroheptanoic acid



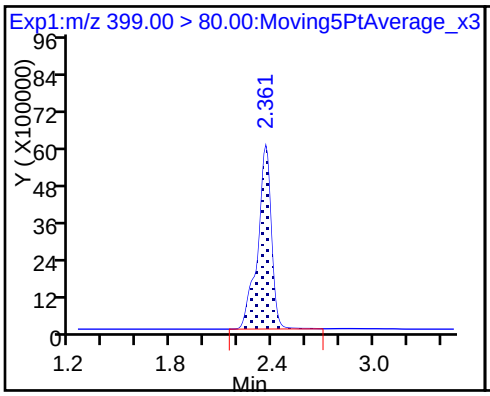
D 9 13C4-PFHpA



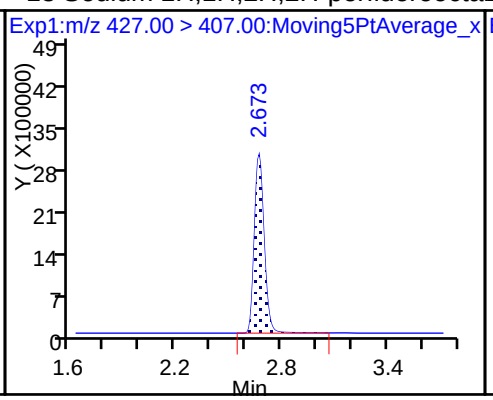
D 11 18O2 PFHxS



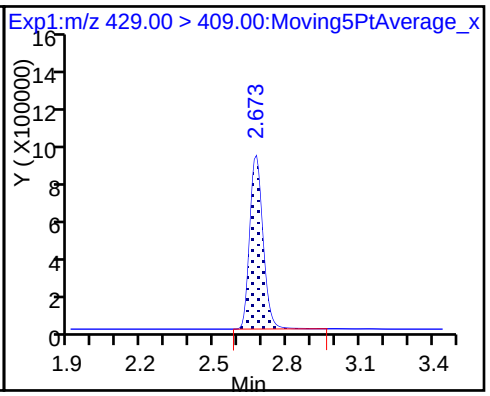
8 Perfluorohexanesulfonic acid



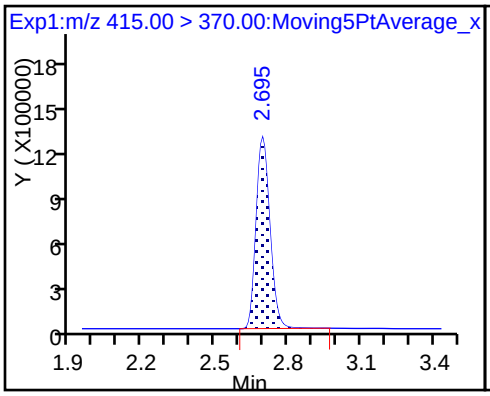
13 Sodium 1H,1H,2H,2H-perfluorooctane



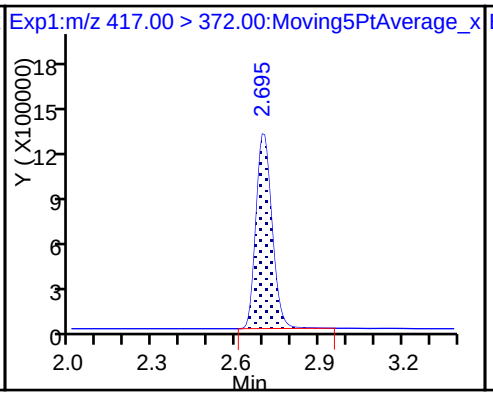
D 12 M2-6:2FTS



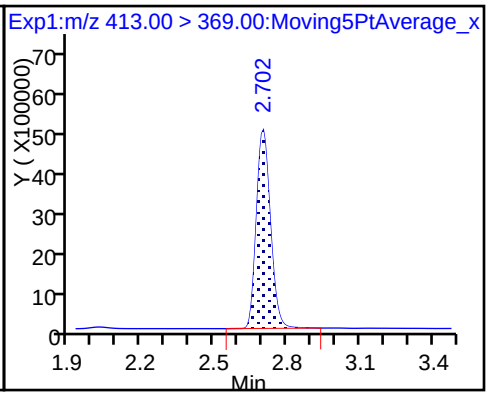
* 62 13C2-PFOA



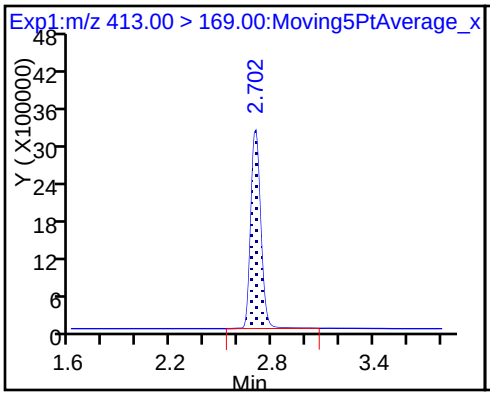
D 14 13C4 PFOA



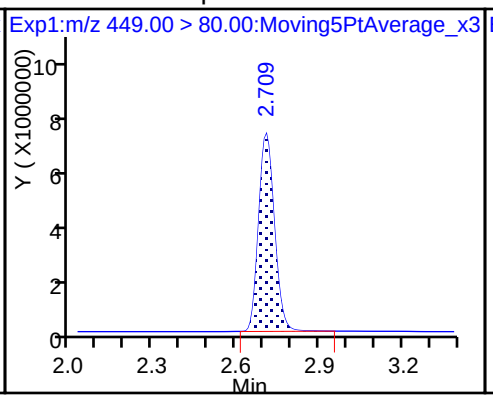
15 Perfluorooctanoic acid



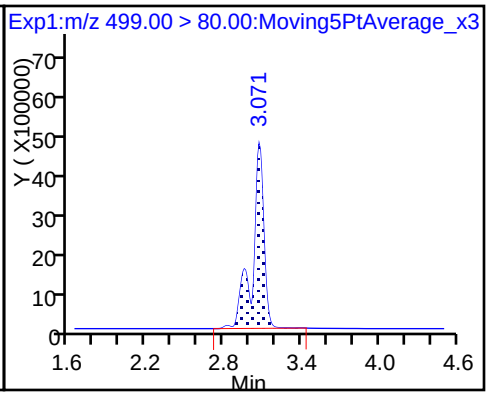
15 Perfluorooctanoic acid



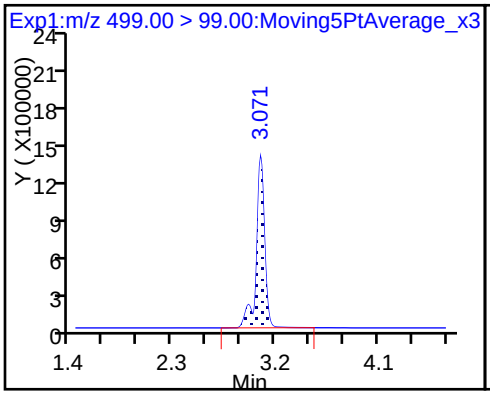
16 Perfluoroheptanesulfonic Acid



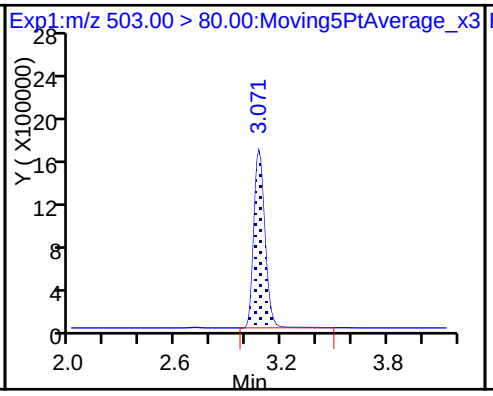
17 Perfluorooctane sulfonic acid



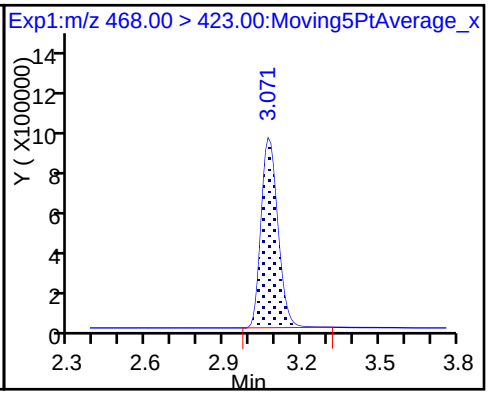
17 Perfluorooctane sulfonic acid



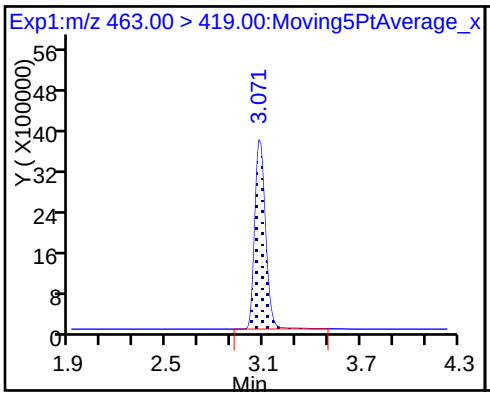
D 18 13C4 PFOS



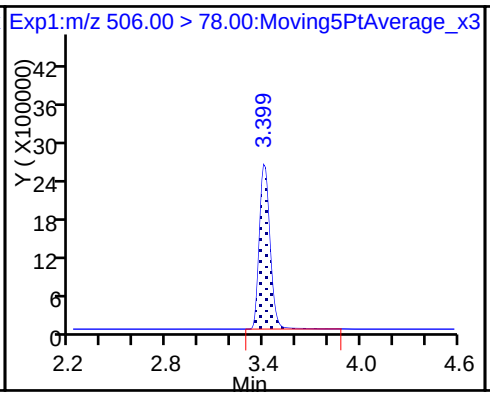
D 19 13C5 PFNA



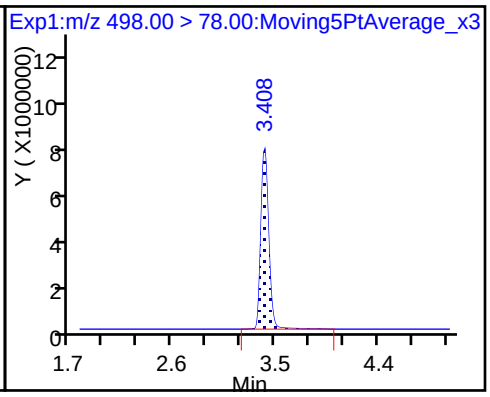
20 Perfluorononanoic acid



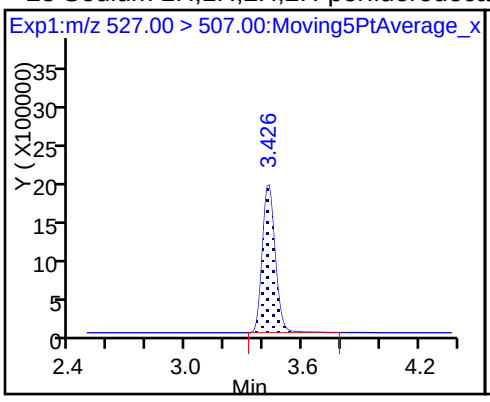
D 21 13C8 FOSA



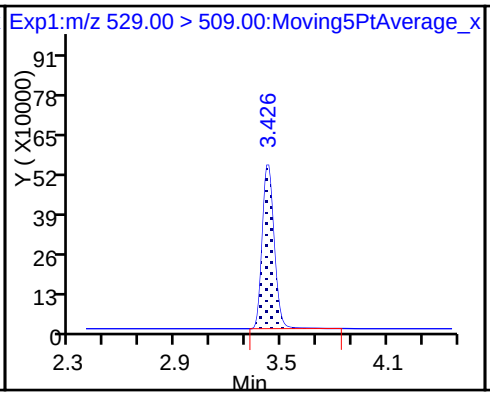
22 Perfluorooctane Sulfonamide



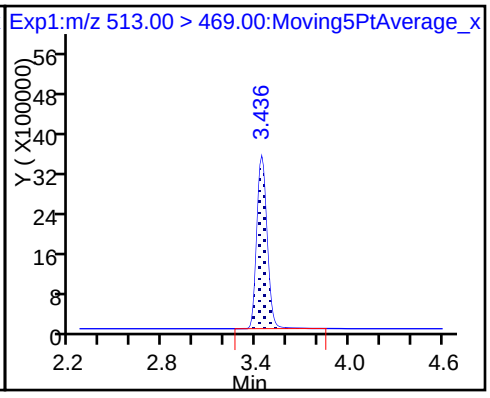
25 Sodium 1H,1H,2H,2H-perfluorodecane



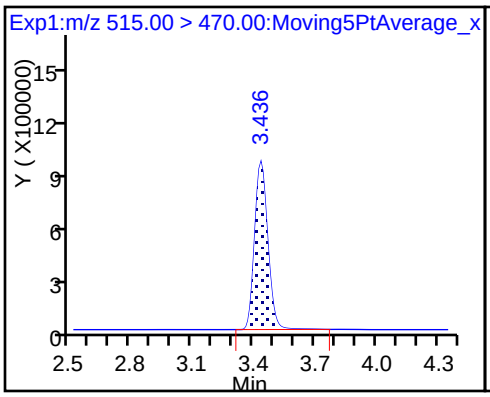
D 26 M2-8:2FTS



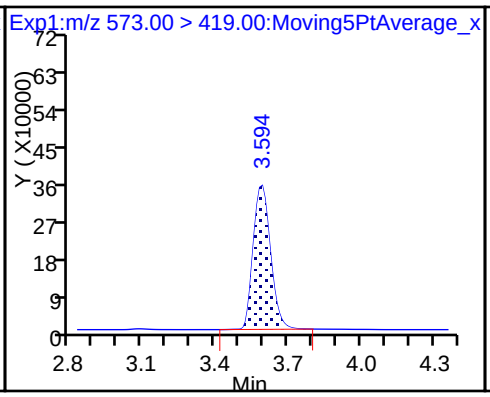
24 Perfluorodecanoic acid



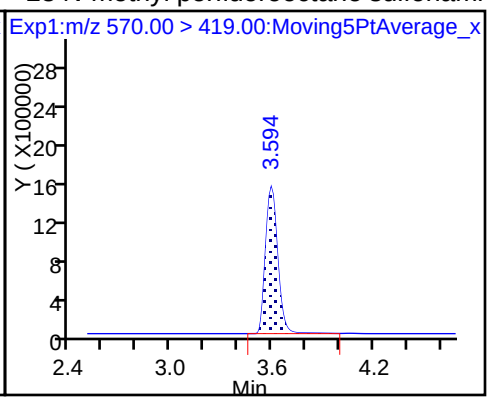
D 23 13C2 PFDA



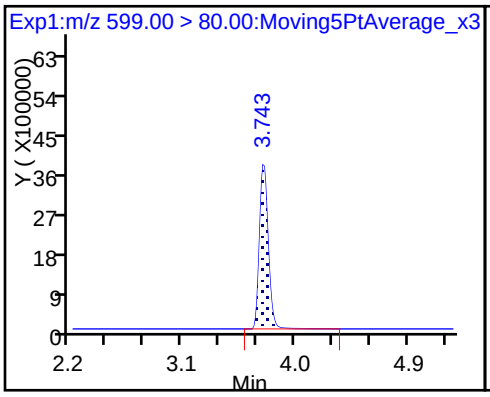
D 27 d3-NMeFOSAA



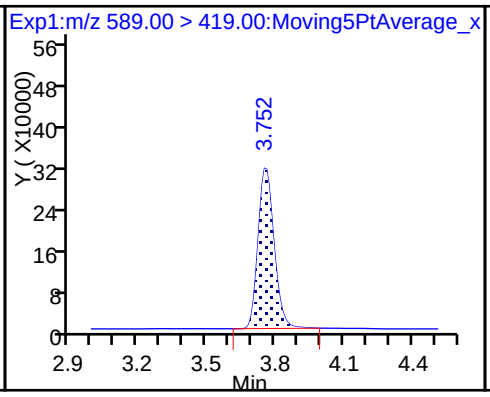
28 N-methyl perfluorooctane sulfonami



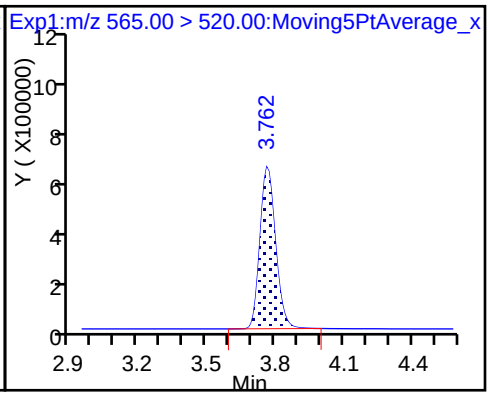
29 Perfluorodecane Sulfonic acid



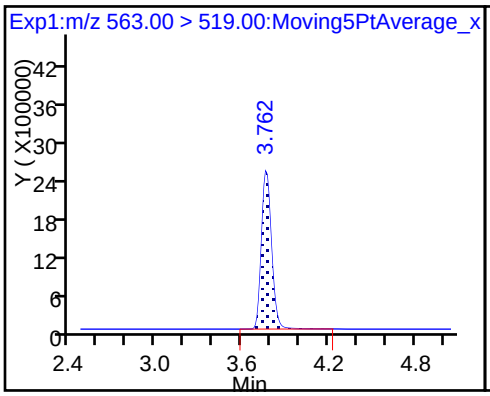
D 32 d5-NEtFOSAA



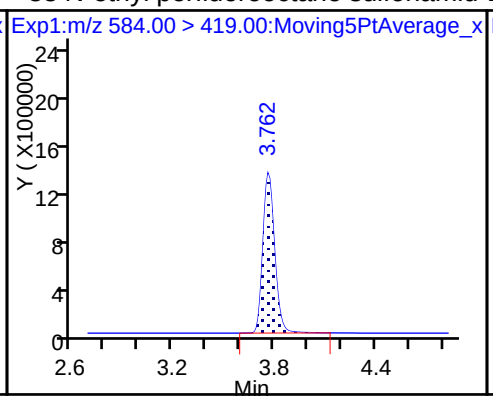
D 30 13C2 PFUnA



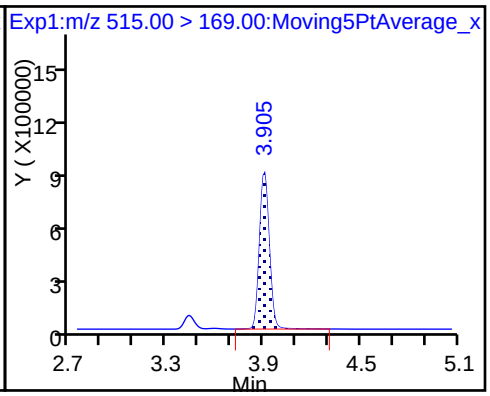
31 Perfluoroundecanoic acid



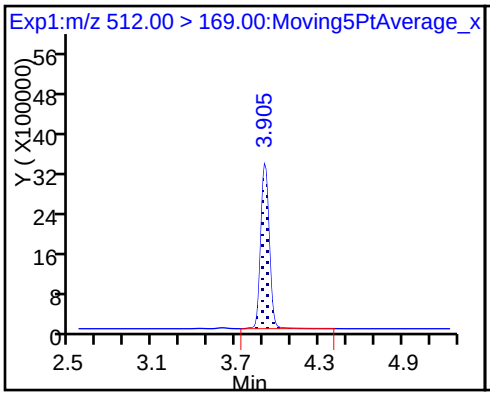
33 N-ethyl perfluorooctane sulfonamid



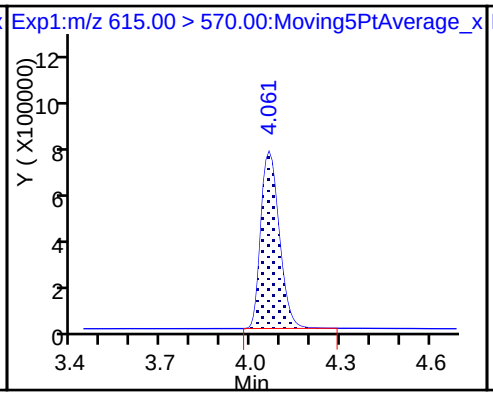
D 34 d-N-MeFOSA-M



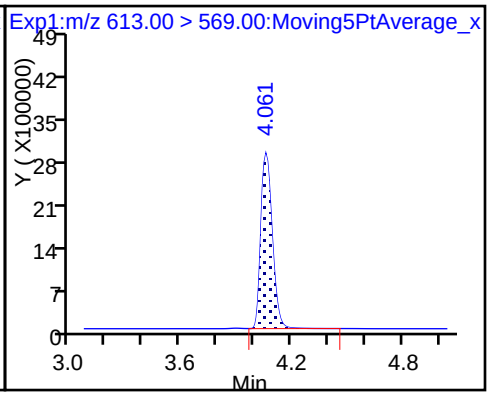
35 MeFOSA



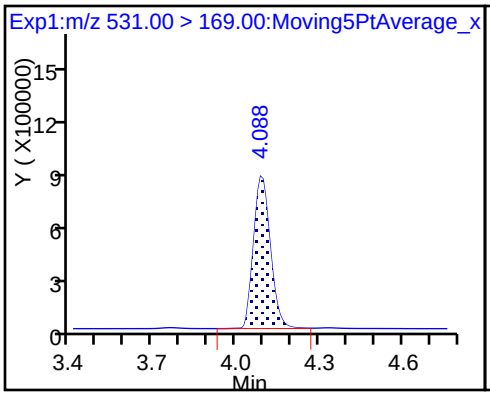
D 36 13C2 PFDoA



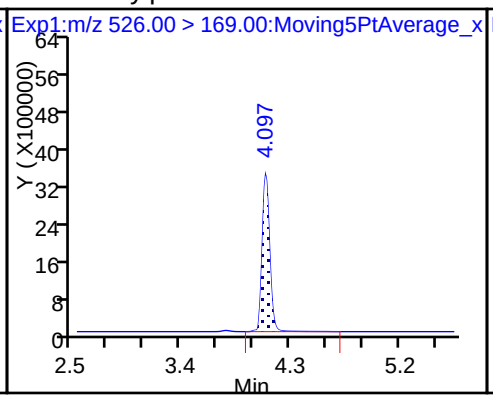
37 Perfluorododecanoic acid



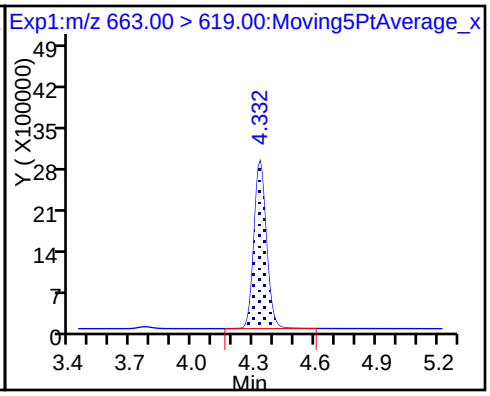
D 38 d-N-EtFOSA-M



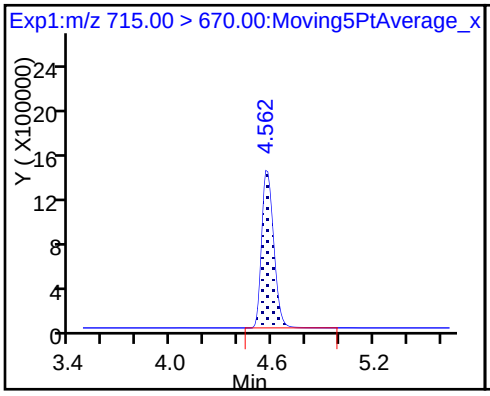
39 N-ethylperfluoro-1-octanesulfonami



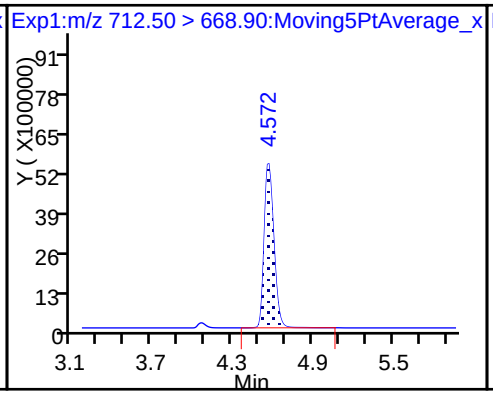
41 Perfluorotridecanoic acid



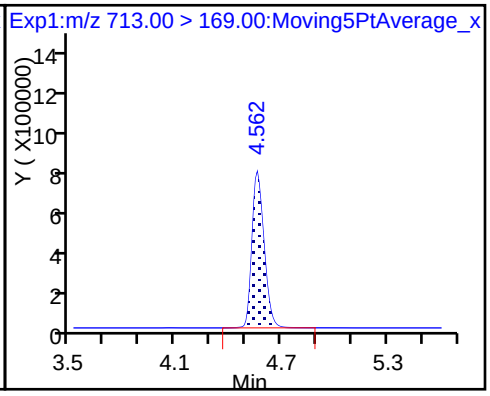
D 43 13C2-PFTeDA



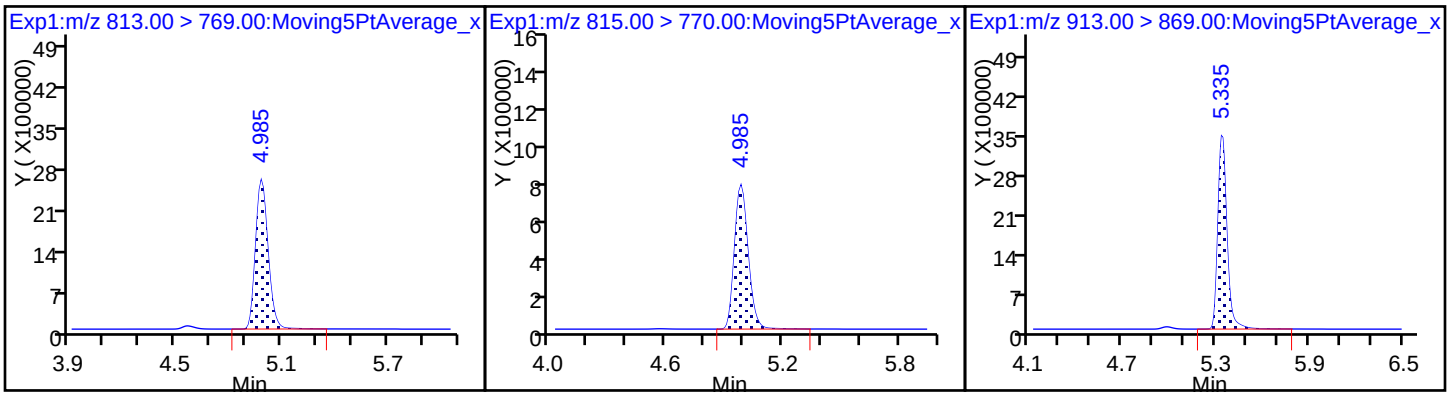
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d
Lims ID: IC M2-4:2FTS
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 28-Jun-2017 01:01:43 ALS Bottle#: 37 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: M2:4-2FTS Calibration Std
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:31:07 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

First Level Reviewer: westendorfc Date: 28-Jun-2017 08:27:46

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 60 M2-4:2FTS										
329.00 > 309.00	1.977	1.977	0.0		3800214	NC			16979	
* 62 13C2-PFOA										
415.00 > 370.00	2.690	2.695	-0.005		8023221	50.0			20123	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

LCM2-4:2FTSIC_00002 Amount Added: 1.00 Units: mL

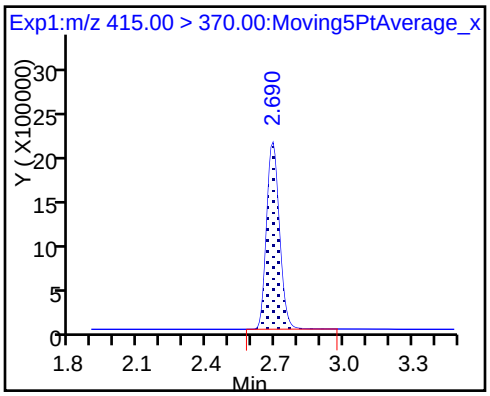
Report Date: 28-Jun-2017 08:31:08 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Injection Date:	28-Jun-2017 01:01:43	Instrument ID:	A8_N		
Lims ID:	IC M2-4:2FTS				
Client ID:					
Operator ID:	SACINSTLCMS01	ALS Bottle#:	37	Worklist Smp#:	10
Injection Vol:	2.0 ul	Dil. Factor:	1.0000		
Method:	A8_N	Limit Group:	LC PFC_DOD ICAL		

* 62 13C2-PFOA



FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-173619/3	2017.07.11CURVE_003.d
Level 2	IC 320-173619/4	2017.07.11CURVE_004.d
Level 3	IC 320-173619/5	2017.07.11CURVE_005.d
Level 4	IC 320-173619/6	2017.07.11CURVE_006.d
Level 5	IC 320-173619/7	2017.07.11CURVE_007.d
Level 6	IC 320-173619/8	2017.07.11CURVE_008.d
Level 7	IC 320-173619/9	2017.07.11CURVE_009.d

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
Perfluorobutanoic acid (PFBA)	1.537	1.544	1.537	1.536	1.537	1.536	1.547				1.289 - 1.789	1.539
Perfluoropentanoic acid (PFPeA)	1.755	1.753	1.745	1.745	1.746	1.745	1.756				1.499 - 1.999	1.749
Perfluorobutanesulfonic acid (PFBS)	1.773	1.781	1.773	1.772	1.773	1.772	1.784				1.595 - 1.955	1.775
4:2 FTS	1.983	1.982	1.983	1.982	1.972	1.971	1.986				1.730 - 2.230	1.980
Perfluorohexanoic acid (PFHxA)	2.017	2.016	2.017	2.017	2.017	2.016	2.020				1.767 - 2.267	2.017
Perfluoroheptanoic acid (PFHpA)	2.343	2.343	2.339	2.343	2.338	2.336	2.344				2.091 - 2.591	2.341
Perfluorohexanesulfonic acid (PFHxS)	+++++	2.359	2.355	2.359	2.354	2.352	2.361				2.107 - 2.607	2.357
6:2FTS	+++++	+++++	2.670	2.671	2.673	2.666	2.677				2.423 - 2.923	2.671
Perfluorooctanoic acid (PFOA)	2.702	2.702	2.699	2.699	2.695	2.695	2.705				2.450 - 2.950	2.700
Perfluoroheptanesulfonic Acid (PFHpS)	2.702	2.710	2.707	2.707	2.702	2.702	2.713				2.456 - 2.956	2.706
Perfluorononanoic acid (PFNA)	3.076	3.078	3.074	3.067	3.072	3.063	3.077				2.822 - 3.322	3.072
Perfluorooctanesulfonic acid (PFOS)	3.076	3.078	3.074	3.067	3.072	3.063	3.077				2.822 - 3.322	3.072
Perfluorooctane Sulfonamide (FOSA)	3.406	3.403	3.406	3.403	3.412	3.403	3.404				3.155 - 3.655	3.405
8:2FTS	3.425	3.430	3.425	3.422	3.430	3.421	3.422				3.175 - 3.675	3.425
Perfluorodecanoic acid (PFDA)	3.433	3.438	3.441	3.430	3.439	3.430	3.431				3.185 - 3.685	3.435
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	3.596	3.601	3.605	3.590	3.598	3.587	3.590				3.345 - 3.845	3.595
Perfluorodecanesulfonic acid (PFDS)	3.752	3.747	3.751	3.747	3.754	3.744	3.748				3.499 - 3.999	3.749
Perfluoroundecanoic acid (PFUnA)	+++++	3.767	3.770	3.766	3.773	3.763	3.767				3.518 - 4.018	3.768
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	3.772	3.767	3.770	3.766	3.773	3.763	3.767				3.518 - 4.018	3.768
MeFOSA	3.898	3.894	3.905	3.894	3.910	3.893	3.899				3.649 - 4.149	3.899
Perfluorododecanoic acid (PFDoA)	4.061	4.065	4.070	4.055	4.070	4.052	4.063				3.812 - 4.312	4.062
N-EtFOSA-M	4.088	4.083	4.095	4.091	4.096	4.088	4.090				3.840 - 4.340	4.090
Perfluorotridecanoic Acid (PFTriA)	4.333	4.328	4.341	4.327	4.337	4.322	4.325				4.081 - 4.581	4.330
Perfluorotetradecanoic acid (PFTeA)	4.573	4.579	4.583	4.575	4.572	4.561	4.566				4.323 - 4.823	4.573
Perfluoro-n-hexadecanoic acid (PFHxDA)	+++++	4.987	5.001	4.993	4.985	4.976	4.981				4.738 - 5.238	4.987
Perfluoro-n-octadecanoic acid (PFODA)	5.346	5.349	5.354	5.342	5.346	5.337	5.336				5.094 - 5.594	5.344
13C4 PFBA	1.537	1.544	1.537	1.536	1.537	1.536	1.538				1.288 - 1.788	1.538
13C5-PFPeA	1.746	1.753	1.745	1.745	1.746	1.745	1.756				1.498 - 1.998	1.748
13C2 PFHxA	2.017	2.016	2.017	2.017	2.017	2.016	2.020				1.767 - 2.267	2.017
13C4-PFHpA	2.343	2.343	2.339	2.343	2.338	2.336	2.344				2.091 - 2.591	2.341
18O2 PFHxS	2.359	2.359	2.355	2.359	2.354	2.352	2.361				2.107 - 2.607	2.357
M2-6:2FTS	2.673	2.681	2.670	2.671	2.673	2.666	2.677				2.423 - 2.923	2.673

FORM VI
LCMS BY EXTERNAL STANDARD - INITIAL CALIBRATION DATA
RETENTION TIME SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

ANALYTE	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 7				RT WINDOW	AVG RT
13C4 PFOA	2.695	2.702	2.699	2.699	2.695	2.688	2.705				2.448 - 2.948	2.698
13C4 PFOS	3.076	3.070	3.074	3.067	3.072	3.063	3.077				2.821 - 3.321	3.071
13C5 PFNA	3.076	3.078	3.074	3.067	3.072	3.063	3.077				2.822 - 3.322	3.072
13C8 FOSA	3.397	3.403	3.406	3.403	3.403	3.394	3.404				3.151 - 3.651	3.401
M2-8:2FTS	3.425	3.422	3.425	3.422	3.430	3.421	3.422				3.174 - 3.674	3.424
13C2 PFDA	3.433	3.438	3.441	3.430	3.439	3.430	3.431				3.185 - 3.685	3.435
d3-NMeFOSAA	3.596	3.591	3.595	3.590	3.598	3.587	3.590				3.342 - 3.842	3.592
d5-NEtFOSAA	3.762	3.757	3.761	3.757	3.764	3.753	3.758				3.509 - 4.009	3.759
13C2 PFUnA	3.772	3.767	3.770	3.766	3.773	3.763	3.767				3.518 - 4.018	3.768
d-N-MeFOSA-M	3.889	3.894	3.897	3.894	3.902	3.893	3.890				3.644 - 4.144	3.894
13C2 PFDoA	4.061	4.065	4.070	4.055	4.070	4.052	4.053				3.811 - 4.311	4.061
d-N-EtFOSA-M	4.079	4.083	4.087	4.082	4.087	4.079	4.081				3.833 - 4.333	4.083
13C2-PFTeDA	4.573	4.568	4.583	4.575	4.572	4.561	4.566				4.321 - 4.821	4.571
13C2-PFHxDA	4.991	4.987	5.001	4.984	4.985	4.976	4.981				4.736 - 5.236	4.986

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-173619/3	2017.07.11CURVE_003.d
Level 2	IC 320-173619/4	2017.07.11CURVE_004.d
Level 3	IC 320-173619/5	2017.07.11CURVE_005.d
Level 4	IC 320-173619/6	2017.07.11CURVE_006.d
Level 5	IC 320-173619/7	2017.07.11CURVE_007.d
Level 6	IC 320-173619/8	2017.07.11CURVE_008.d
Level 7	IC 320-173619/9	2017.07.11CURVE_009.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	174025 173841	185124 165267	179330 153709	182242	Ave		173362.571				6.3		50.0			
13C5-PFPeA	127683 130594	134956 122495	140948 108920	138019	Ave		129087.834				8.4		50.0			
13C2 PFHxA	133872 127139	135110 123214	128729 116249	134211	Ave		128360.526				5.4		50.0			
13C4-PFHpA	122348 118829	120986 110577	116742 98876	125909	Ave		116323.806				7.8		50.0			
18O2 PFHxS	160707 158432	164769 161261	166007 147795	164358	Ave		160475.729				3.9		50.0			
M2-6:2FTS	52592 54757	58727 48604	53503 52096	57946	Ave		54032.3128				6.5		50.0			
13C4 PFOA	109596 106208	123525 96076	106486 81495	119178	Ave		106080.554				13.3		50.0			
13C4 PFOS	113649 112316	118804 112191	119292 104886	124224	Ave		115051.739				5.5		50.0			
13C5 PFNA	88885 82023	91013 78321	90391 70228	89194	Ave		84293.5457				9.3		50.0			
13C8 FOSA	209134 199349	207789 190206	210021 182516	214215	Ave		201889.857				5.8		50.0			
M2-8:2FTS	44642 42925	42960 40838	46762 42247	45179	Ave		43650.4444				4.6		50.0			
13C2 PFDA	77940 74595	80112 70292	78853 67315	80983	Ave		75727.1714				6.9		50.0			
d3-NMeFOSAA	32874 30726	31130 30802	31741 30388	32315	Ave		31425.1543				2.9		50.0			
d5-NEtFOSAA	32569 30535	32743 27746	32986 25547	32556	Ave		30668.7657				9.6		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

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								
13C2 PFUnA	61276 57438	62714 54483	62791 45890	59567	Ave		57736.8200				10.4		50.0			
d-N-MeFOSA-M	48657 49960	49640 51175	50612 51913	50922	Ave		50411.3771				2.1		50.0			
13C2 PFDoA	59994 56383	59668 55543	64288 55029	62760	Ave		59094.9771				6.1		50.0			
d-N-EtFOSA-M	48778 52427	49237 50586	50817 48561	50347	Ave		50107.6514				2.7		50.0			
13C2-PFTeDA	117206 110979	121168 101904	116204 99026	117125	Ave		111944.574				7.5		50.0			
13C2-PFHxDA	68296 70028	72010 67468	70048 58237	70054	Ave		68020.2000				6.7		50.0			

Note: The M1 coefficient is the same as Ave CF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

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)	1.0034 0.8705	0.9130 0.7647	0.9668	0.9721	0.9307	AveID		0.9173				8.7		35.0			
Perfluoropentanoic acid (PFPeA)	1.2469 0.9612	1.0291 0.8717	0.9906	1.0423	0.9990	AveID		1.0201				11.2		35.0			
Perfluorobutanesulfonic acid (PFBS)	1.7824 1.3362	1.5691 1.1655	1.5524	1.5996	1.5212	AveID		1.5038				13.2		50.0			
4:2 FTS	1.0045 0.8837	0.7588 0.7669	0.9645	0.8929	0.8580	AveID		0.8756				10.5		35.0			
Perfluorohexanoic acid (PFHxA)	1.0890 0.9463	0.9560 0.8246	1.0083	0.9505	0.9090	AveID		0.9548				8.6		35.0			
Perfluoroheptanoic acid (PFHpA)	1.0836 0.9846	0.9553 0.9427	1.0613	0.9896	0.9888	AveID		1.0009				5.2		35.0			
Perfluorohexanesulfonic acid (PFHxS)	+++++ 0.9727	1.1310 0.9722	1.0288	1.0608	1.0059	AveID		1.0286				5.9		35.0			
6:2FTS	+++++ 0.8645	+++++ 0.7770	0.8856	0.8416	0.8597	AveID		0.8457				4.9		35.0			
Perfluorooctanoic acid (PFOA)	1.2830 1.0071	1.0622 1.0109	1.0615	1.0244	1.0345	AveID		1.0691				9.1		35.0			
Perfluoroheptanesulfonic Acid (PFHpS)	1.2196 1.1423	1.1563 1.0830	1.2433	1.1353	1.1951	AveID		1.1678				4.7		50.0			
Perfluorononanoic acid (PFNA)	1.0149 0.9952	0.9430 0.9398	1.0050	0.9915	0.9651	AveID		0.9792				3.1		35.0			
Perfluorooctanesulfonic acid (PFOS)	1.2656 1.0755	1.0294 1.0687	1.0710	1.0820	1.0882	AveID		1.0972				7.0		35.0			
Perfluorooctane Sulfonamide (FOSA)	1.0231 0.9164	0.9396 0.7905	0.9268	0.9194	0.9171	AveID		0.9190				7.4		35.0			
8:2FTS	1.0083 0.8952	0.9246 0.7620	0.9317	0.9388	0.8845	AveID		0.9064				8.3		35.0			
Perfluorodecanoic acid (PFDA)	1.0641 0.9508	0.9606 0.8976	0.9754	0.9290	0.8919	AveID		0.9528				6.1		35.0			
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	0.9484 0.9411	0.8526 0.8990	0.8976	0.9265	0.9044	AveID		0.9099				3.6		35.0			
Perfluorodecanesulfonic acid (PFDS)	0.7701 0.6588	0.6489 0.6458	0.6728	0.6687	0.6844	AveID		0.6785				6.3		50.0			
Perfluoroundecanoic acid (PFUnA)	+++++ 0.9640	1.1169 1.0100	1.0375	1.0284	0.9389	AveID		1.0160				6.1		35.0			
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	0.9409 0.8689	0.7707 0.8745	0.8530	0.8600	0.8183	AveID		0.8552				6.1		35.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

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								
MeFOSA	0.9950 0.9187	0.8939 0.8917	0.9159	0.8879	0.9047	AveID		0.9154				4.0		35.0			
Perfluorododecanoic acid (PFDoA)	1.0386 0.9646	0.9799 0.8979	0.8603	0.9299	0.9557	AveID		0.9467				6.1		35.0			
N-EtFOSA-M	0.9709 0.9400	0.8861 0.9510	0.9707	0.9272	0.8928	AveID		0.9341				3.7		35.0			
Perfluorotridecanoic Acid (PFTriA)	1.0082 0.9103	0.9673 0.8522	0.8456	0.8633	0.8940	AveID		0.9058				6.8		50.0			
Perfluorotetradecanoic acid (PFTeA)	2.1026 1.9639	2.0745 1.7374	1.9582	1.9669	1.9599	AveID		1.9662				6.0		50.0			
Perfluoro-n-hexadecanoic acid (PFHxDA)	+++++ 1.0472	1.8458 0.9338	1.1326	1.0147	1.0129	L2ID	0.8623	0.9798							0.9980		0.9900
Perfluoro-n-octadecanoic acid (PFODA)	1.1486 1.1541	1.1573 1.0499	1.1619	1.0848	1.1982	AveID		1.1364				4.5		50.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-173619/3	2017.07.11CURVE_003.d
Level 2	IC 320-173619/4	2017.07.11CURVE_004.d
Level 3	IC 320-173619/5	2017.07.11CURVE_005.d
Level 4	IC 320-173619/6	2017.07.11CURVE_006.d
Level 5	IC 320-173619/7	2017.07.11CURVE_007.d
Level 6	IC 320-173619/8	2017.07.11CURVE_008.d
Level 7	IC 320-173619/9	2017.07.11CURVE_009.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	8701245 8263370	9256222 7685444	8966494	9112082	8692043	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C5-PFPeA	Ave	6384132 6124764	6747798 5445981	7047415	6900965	6529687	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFHxA	Ave	6693589 6160690	6755522 5812449	6436448	6710534	6356952	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C4-PFHpA	Ave	6117378 5528861	6049300 4943785	5837112	6295438	5941458	50.0 50.0	50.0 50.0	50.0	50.0	50.0
18O2 PFHxS	Ave	7601456 7627663	7793583 6990713	7852141	7774125	7493833	47.3 47.3	47.3 47.3	47.3	47.3	47.3
M2-6:2FTS	Ave	2498125 2308713	2789517 2474574	2541392	2752456	2600967	47.5 47.5	47.5 47.5	47.5	47.5	47.5
13C4 PFOA	Ave	5479781 4803806	6176242 4074770	5324298	5958886	5310411	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C4 PFOS	Ave	5432431 5362707	5678833 5013563	5702168	5937906	5368704	47.8 47.8	47.8 47.8	47.8	47.8	47.8
13C5 PFNA	Ave	4444229 3916061	4550654 3511423	4519543	4459696	4101135	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C8 FOSA	Ave	10456700 9510275	10389457 9125800	10501031	10710740	9967447	50.0 50.0	50.0 50.0	50.0	50.0	50.0
M2-8:2FTS	Ave	2138334 1956136	2057785 2023649	2239911	2164085	2056094	47.9 47.9	47.9 47.9	47.9	47.9	47.9
13C2 PFDA	Ave	3897021 3514599	4005580 3365764	3942670	4049125	3729751	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d3-NMeFOSAA	Ave	1643694 1540118	1556511 1519406	1587038	1615732	1536305	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d5-NEtFOSAA	Ave	1628441 1387289	1637137 1277371	1649287	1627802	1526741	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFUnA	Ave	3063782 2724125	3135682 2294498	3139540	2978349	2871911	50.0 50.0	50.0 50.0	50.0	50.0	50.0

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

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

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
d-N-MeFOSA-M	Ave	2432869 2558750	2481983 2595661	2530599	2546103	2498017	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2 PFDoA	Ave	2999675 2777161	2983399 2751457	3214404	3138002	2819144	50.0 50.0	50.0 50.0	50.0	50.0	50.0
d-N-EtFOSA-M	Ave	2438921 2529319	2461825 2428058	2540845	2517372	2621338	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2-PFTeDA	Ave	5860313 5095195	6058388 4951305	5810191	5856238	5548971	50.0 50.0	50.0 50.0	50.0	50.0	50.0
13C2-PFHxDA	Ave	3414823 3373424	3600496 2911858	3502393	3502685	3501391	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:
Ave = Average

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 320-173619/3	2017.07.11CURVE_003.d
Level 2	IC 320-173619/4	2017.07.11CURVE_004.d
Level 3	IC 320-173619/5	2017.07.11CURVE_005.d
Level 4	IC 320-173619/6	2017.07.11CURVE_006.d
Level 5	IC 320-173619/7	2017.07.11CURVE_007.d
Level 6	IC 320-173619/8	2017.07.11CURVE_008.d
Level 7	IC 320-173619/9	2017.07.11CURVE_009.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	87307 14385817	169011 23507400	866909	3543267	8089442	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoropentanoic acid (PFPeA)		AveID	79605 11774287	138879 18990102	698144	2877125	6522949	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorobutanesulfonic acid (PFBS)		AveID	126612 19048222	228544 30455153	1139073	4648337	10652662	0.442 88.4	0.884 177	4.42	17.7	44.2
4:2 FTS		AveID	24670 4011674	41621 7463553	240997	966521	2194168	0.467 93.4	0.934 187	4.67	18.7	46.7
Perfluorohexanoic acid (PFHxA)		AveID	72893 11659429	129160 19172711	648995	2551212	5778381	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoroheptanoic acid (PFHpA)		AveID	66290 10887965	115576 18642879	619504	2492092	5874933	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorohexanesulfonic acid (PFHxS)		AveID	+++++ 14273518	169578 26149679	777080	3173299	7251502	+++++ 91.0	0.910 182	4.55	18.2	45.5
6:2FTS		AveID	+++++ 3983542	+++++ 7674596	224587	924635	2231234	+++++ 94.8	+++++ 190	4.74	19.0	47.4
Perfluorooctanoic acid (PFOA)		AveID	70308 9675495	131208 16476745	565179	2441610	5493698	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoroheptanesulfonic Acid (PFHpS)		AveID	65977 12199896	130784 21626964	706006	2685345	6389176	0.476 95.2	0.952 190	4.76	19.0	47.6
Perfluorononanoic acid (PFNA)		AveID	45104 7794418	85829 13200390	454235	1768748	3957986	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorooctanesulfonic acid (PFOS)		AveID	66741 11197734	113492 20804820	592791	2494647	5671174	0.464 92.8	0.928 186	4.64	18.6	46.4
Perfluorooctane Sulfonamide (FOSA)		AveID	106987 17430355	195248 28855107	973202	3938779	9140966	0.500 100	1.00 200	5.00	20.0	50.0
8:2FTS		AveID	21560 3502099	38051 6167806	208687	812657	1818600	0.479 95.8	0.958 192	4.79	19.2	47.9
Perfluorodecanoic acid (PFDA)		AveID	41469 6683213	76957 12083778	384552	1504600	3326656	0.500 100	1.00 200	5.00	20.0	50.0

FORM VI
LCMS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1 Analy Batch No.: 173619

SDG No.:

Instrument ID: A8_N GC Column: GeminiC18 3 ID: 3(mm) Heated Purge: (Y/N) N

Calibration Start Date: 07/11/2017 18:42 Calibration End Date: 07/11/2017 19:30 Calibration ID: 32327

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
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)		AveID	15588 2898940	26541 5463742	142451	598773	1389407	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorodecanesulfonic acid (PFDS)		AveID	42184 7125544	74312 13058835	386858	1601613	3705005	0.482 96.4	0.964 193	4.82	19.3	48.2
Perfluoroundecanoic acid (PFUnA)		AveID	+++++ 5252232	70047 9270112	325725	1225227	2696477	+++++ 100	1.00 200	5.00	20.0	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)		AveID	15322 2410792	25236 4468219	140688	559960	1249281	0.500 100	1.00 200	5.00	20.0	50.0
MeFOSA		AveID	24206 4701696	44374 9258391	231768	904224	2260003	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorododecanoic acid (PFDoA)		AveID	31155 5357817	58466 9881680	276523	1167244	2694353	0.500 100	1.00 200	5.00	20.0	50.0
N-EtFOSA-M		AveID	23679 4754959	43627 9236606	246651	933597	2340293	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorotridecanoic Acid (PFTriA)		AveID	30244 5056348	57714 9379429	271807	1083591	2520181	0.500 100	1.00 200	5.00	20.0	50.0
Perfluorotetradecanoic acid (PFTeA)		AveID	63072 10907878	123781 19122021	629448	2468849	5525148	0.500 100	1.00 200	5.00	20.0	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)		L2ID	+++++ 5816577	110138 10277597	364068	1273617	2855376	+++++ 100	1.00 200	5.00	20.0	50.0
Perfluoro-n-octadecanoic acid (PFODA)		AveID	34454 6410272	69054 11554931	373483	1361690	3377804	0.500 100	1.00 200	5.00	20.0	50.0

Curve Type Legend:

AveID = Average isotope dilution
L2ID = Linear 1/conc^2 IsoDil

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_003.d
Lims ID: IC L1 Full
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Jul-2017 18:42:25 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L1-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:06 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

First Level Reviewer: westendorfc Date: 12-Jul-2017 07:48:52

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.537	1.538	-0.001		8701245	50.2		100	12066	
2 Perfluorobutyric acid										M
212.90 > 169.00	1.537	1.539	-0.002	1.000	87307	0.5469		109	34.2	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.746	1.748	-0.002		6384132	49.5		98.9	25305	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.755	1.749	0.006	1.000	79605	0.6112		122	51.0	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.775	-0.002	1.000	126612	0.5239		119	95.8	
298.90 > 99.00	1.773	1.775	-0.002	1.000	46131		2.74(0.00-0.00)	119	80.0	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.983	1.980	0.003	1.000	24670	0.5357		115	1618	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		6693589	52.1		104	15873	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.017	0.0	1.000	72893	0.5703		114	83.6	
D 9 13C4-PFHpA										
367.00 > 322.00	2.343	2.341	0.002		6117378	52.6		105	18902	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	2.343	2.341	0.002	1.000	66290	0.5413		108	81.2	M
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.359	2.357	0.002	1.000	102971	0.6229		137	98.8	
D 11 18O2 PFHxS										
403.00 > 84.00	2.359	2.357	0.002		7601456	47.4		100	18213	
D 12 M2-6:2FTS										
429.00 > 409.00	2.673	2.673	0.0		2498125	46.2		97.3	15179	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.673	2.673	0.0	1.000	31184	0.7011		148	834	
* 62 13C2-PFOA										
415.00 > 370.00	2.695	2.694	0.001		5066646	50.0			14456	
D 14 13C4 PFOA										
417.00 > 372.00	2.695	2.698	-0.003		5479781	51.7		103	16087	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.702	2.700	0.002	1.000	70308	0.6001		120	20.0	
413.00 > 169.00	2.695	2.700	-0.005	0.997	37523		1.87(0.90-1.10)	120	120	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.702	2.706	-0.004	1.000	65977	0.4971		104	1506	
D 18 13C4 PFOS										
503.00 > 80.00	3.076	3.071	0.005		5432431	47.2		98.8	15123	
20 Perfluorononanoic acid										
463.00 > 419.00	3.076	3.072	0.004	1.000	45104	0.5182		104	106	
D 19 13C5 PFNA										
468.00 > 423.00	3.076	3.072	0.004		4444229	52.7		105	15695	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.076	3.072	0.004	1.000	66741	0.5352		115	611	
499.00 > 99.00	3.076	3.072	0.004	1.000	16326		4.09(0.90-1.10)	115	145	
D 21 13C8 FOSA										
506.00 > 78.00	3.397	3.401	-0.004		10456700	51.8		104	40150	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.406	3.405	0.001	1.000	106987	0.5567		111	2537	
D 26 M2-8:2FTS										
529.00 > 509.00	3.425	3.424	0.001		2138334	49.0		102	15527	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.425	3.425	0.0	1.000	21560	0.5328		111	850	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.433	3.435	-0.002	1.000	41469	0.5584		112	222	
D 23 13C2 PFDA										
515.00 > 470.00	3.433	3.435	-0.002		3897021	51.5		103	10009	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.596	3.592	0.004		1643694	52.3		105	9062	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.596	3.595	0.001	1.000	15588	0.5211		104	174	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.752	3.749	0.003	1.000	42184	0.5471		113	1364	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.762	3.759	0.003		1628441	53.1		106	3860	
D 30 13C2 PFUnA										
565.00 > 520.00	3.772	3.768	0.004		3063782	53.1		106	11133	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.772	3.768	0.004	1.000	42957	0.6900		138	168	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.772	3.768	0.004	1.003	15322	0.5501		110	342	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.889	3.894	-0.005		2432869	48.3		96.5	594	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.898	3.899	-0.001	1.000	24206	0.5435		109	890	
D 36 13C2 PFDoA										
615.00 > 570.00	4.061	4.061	0.0		2999675	50.8		102	9851	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.061	4.062	-0.001	1.000	31155	0.5485		110	43.6	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.079	4.083	-0.004		2438921	48.7		97.3	4502	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.088	4.090	-0.002	1.000	23679	0.5197		104	750	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.333	4.331	0.002	1.000	30244	0.5565		111	8.9	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.573	4.571	0.001		5860313	52.4		105	29157	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.573	4.573	-0.001	1.000	63072	0.5347		107	5.1	
713.00 > 169.00	4.561	4.573	-0.012	0.998	10482		6.02(0.00-0.00)	107	184	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.991	4.986	0.005		3414823	50.2		100	4633	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.991	4.988	0.003	1.000	89048	0.6348		127	16.2	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.346	5.344	0.002	1.000	34454	0.5054		101	9.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L1_00005 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:07 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_003.d

Injection Date: 11-Jul-2017 18:42:25 Instrument ID: A8_N

Lims ID: IC L1 Full

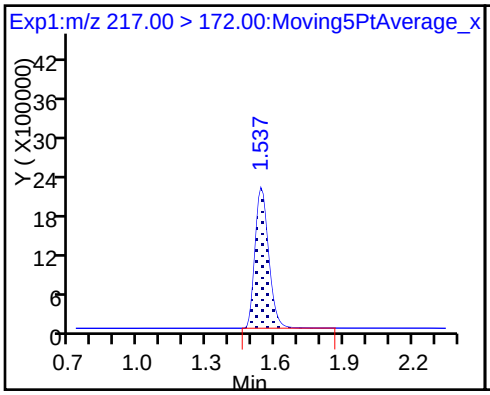
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3

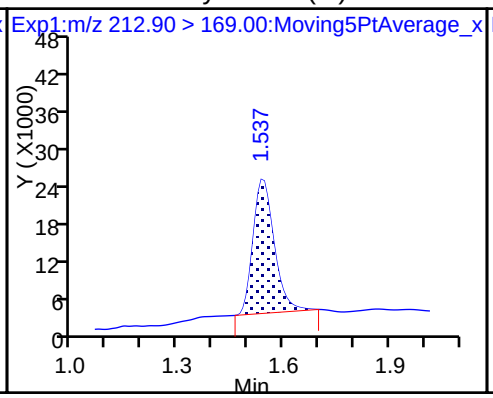
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

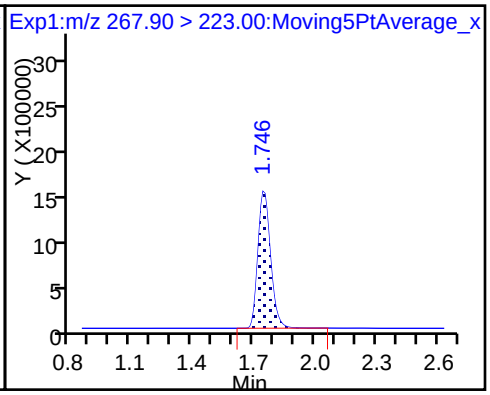
D 1 13C4 PFBA



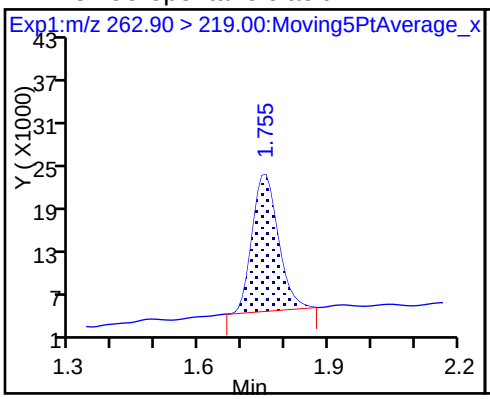
2 Perfluorobutyric acid (M)



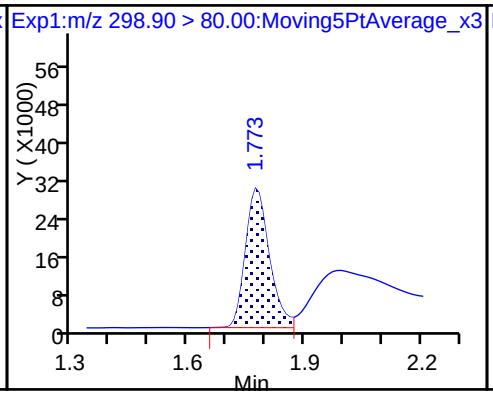
D 3 13C5-PFPeA



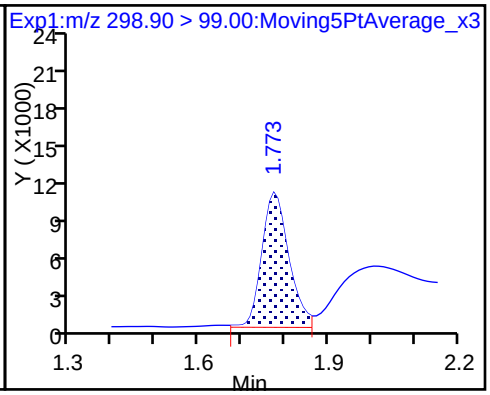
4 Perfluoropentanoic acid



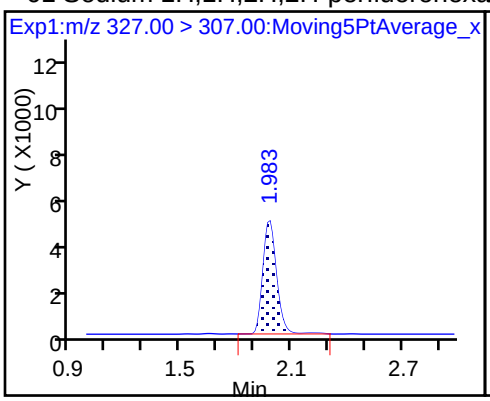
5 Perfluorobutanesulfonic acid



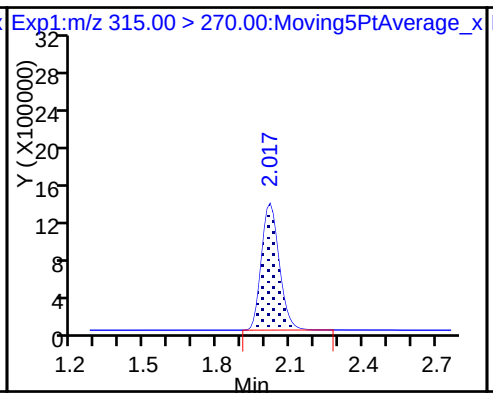
5 Perfluorobutanesulfonic acid



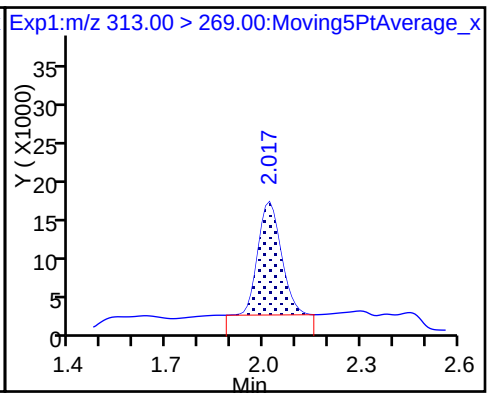
61 Sodium 1H,1H,2H,2H-perfluorohexa



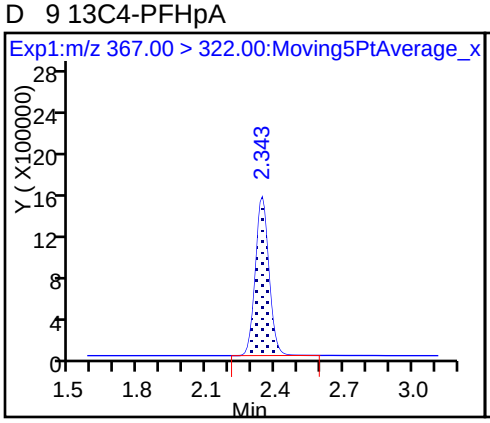
De 7 13C2 PFHxA



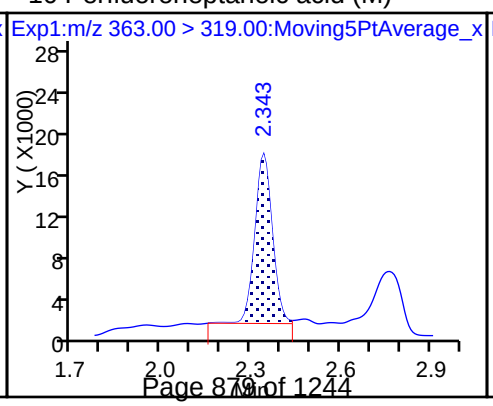
6 Perfluorohexanoic acid



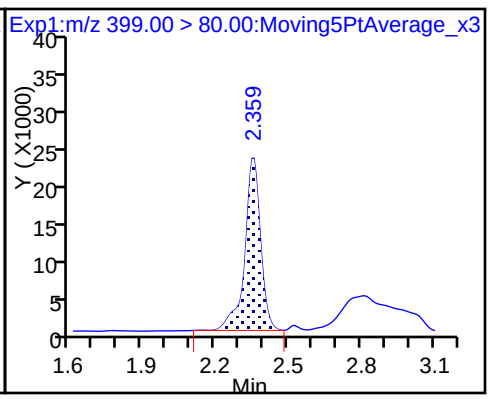
D 9 13C4-PFHpA



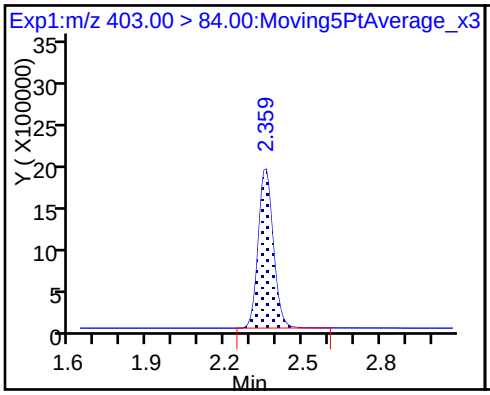
10 Perfluoroheptanoic acid (M)



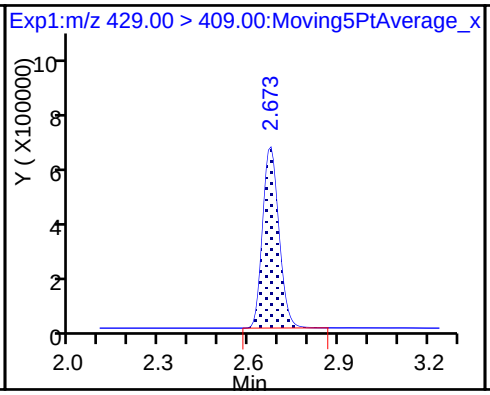
8 Perfluorohexanesulfonic acid



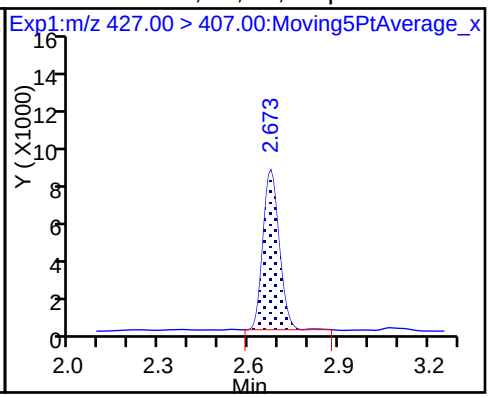
D 11 18O2 PFHxS



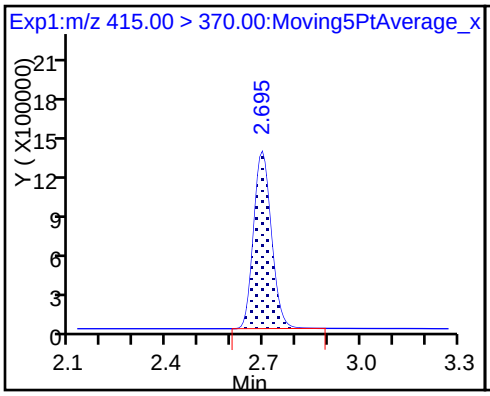
D 12 M2-6:2FTS



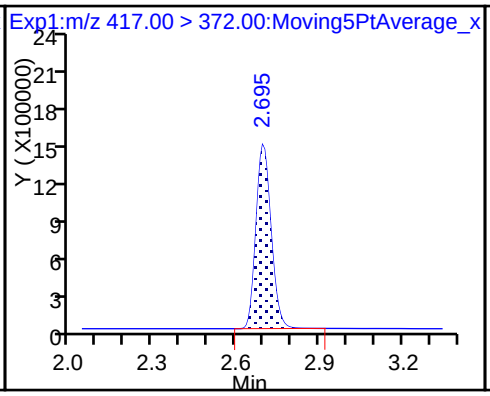
13 Sodium 1H,1H,2H,2H-perfluorooctane



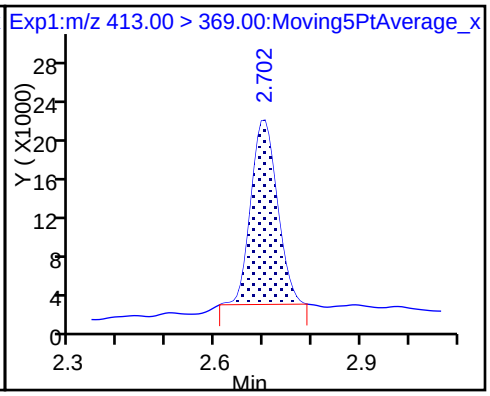
* 62 13C2-PFOA



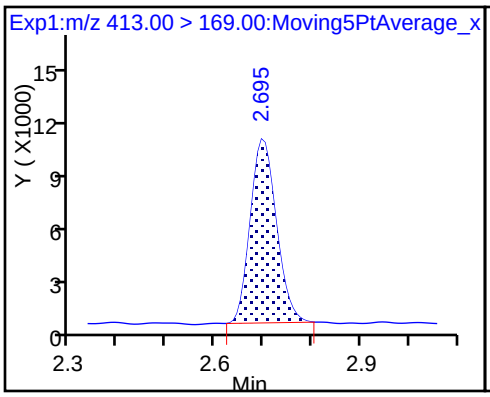
D 14 13C4 PFOA



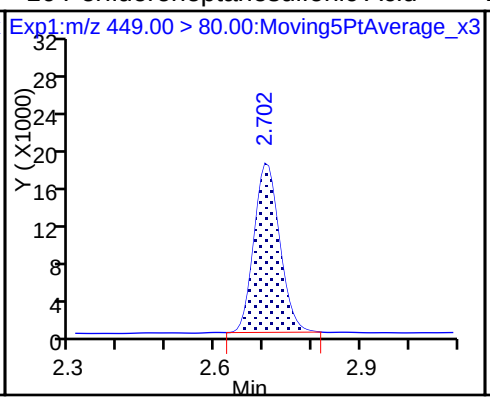
15 Perfluorooctanoic acid



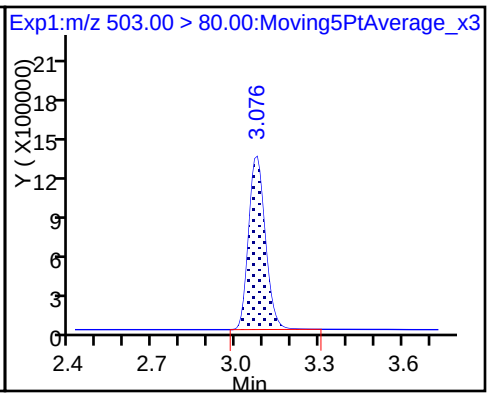
15 Perfluorooctanoic acid



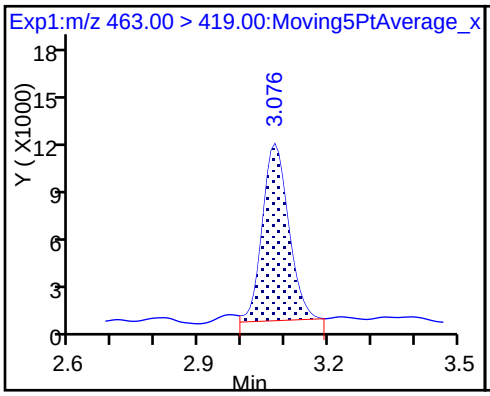
16 Perfluoroheptanesulfonic Acid



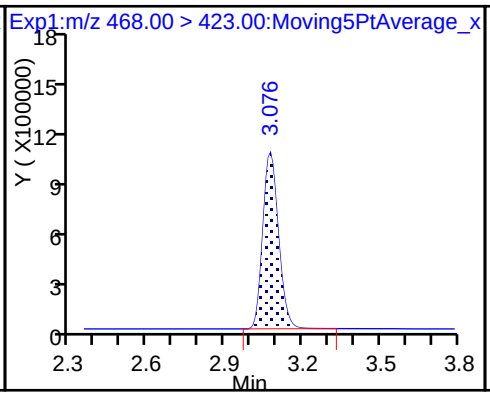
D 18 13C4 PFOS



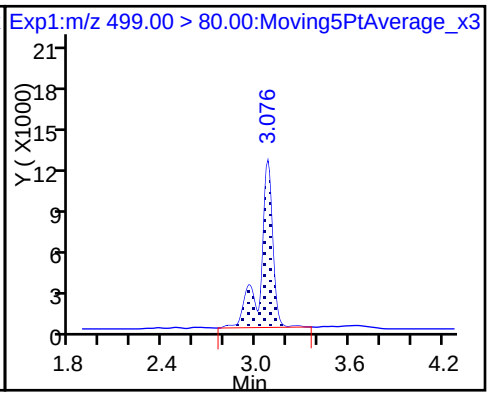
20 Perfluorononanoic acid



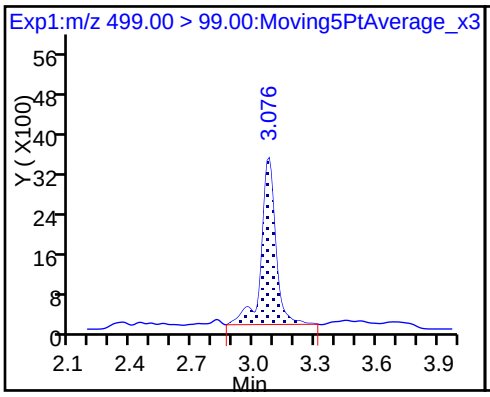
D 19 13C5 PFNA



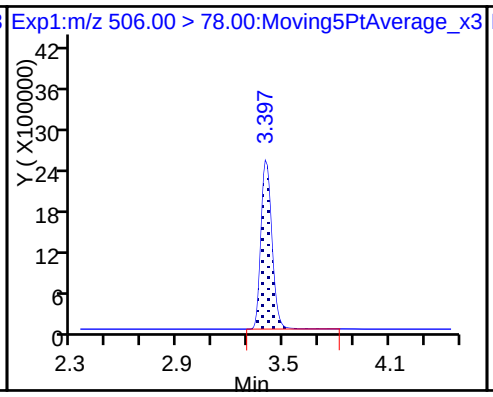
17 Perfluorooctane sulfonic acid



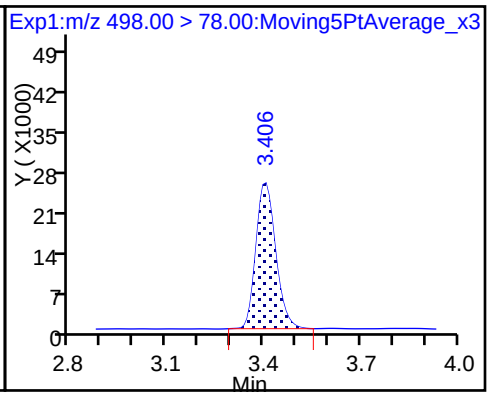
17 Perfluorooctane sulfonic acid



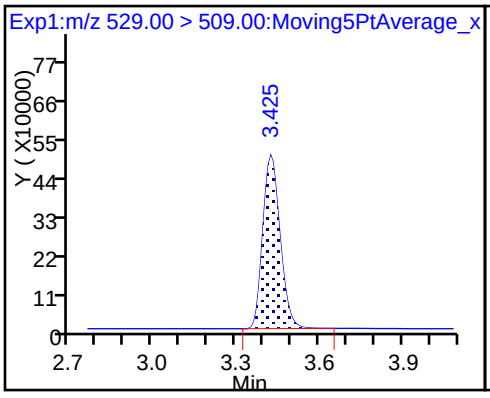
D 21 13C8 FOSA



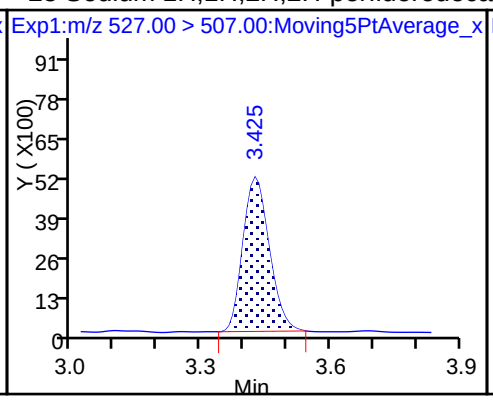
22 Perfluorooctane Sulfonamide



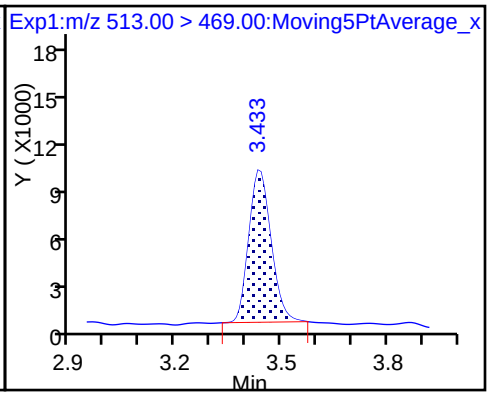
D 26 M2-8:2FTS



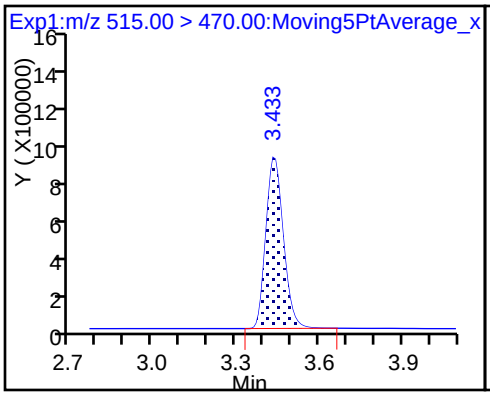
25 Sodium 1H,1H,2H,2H-perfluorodecan



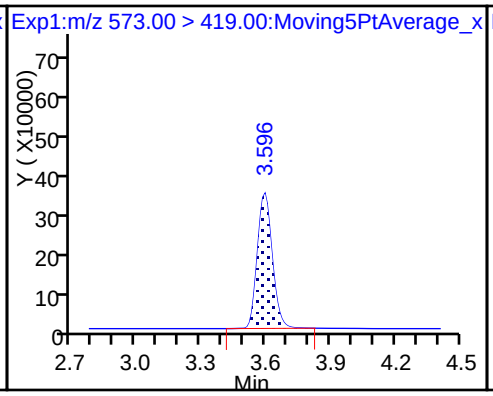
24 Perfluorodecanoic acid



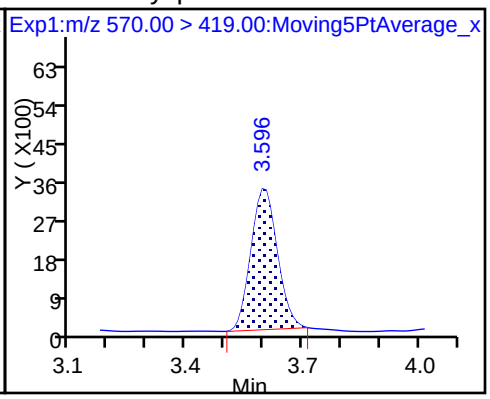
D 23 13C2 PFDA



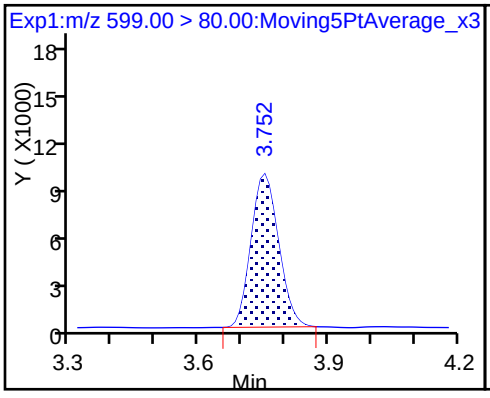
D 27 d3-NMeFOSAA



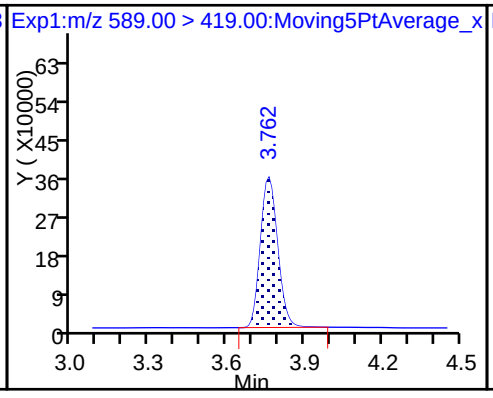
28 N-methyl perfluorooctane sulfonami



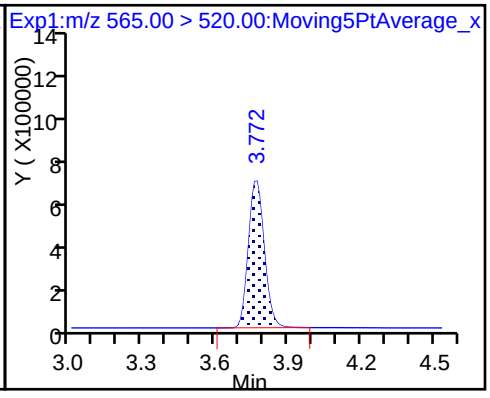
29 Perfluorodecane Sulfonic acid



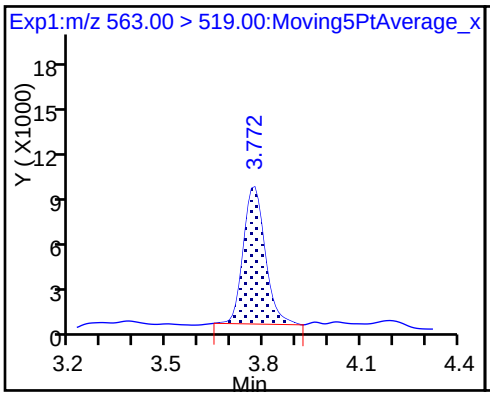
D 32 d5-NEtFOSAA



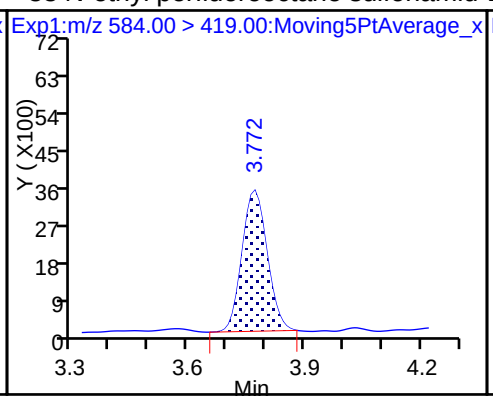
D 30 13C2 PFUnA



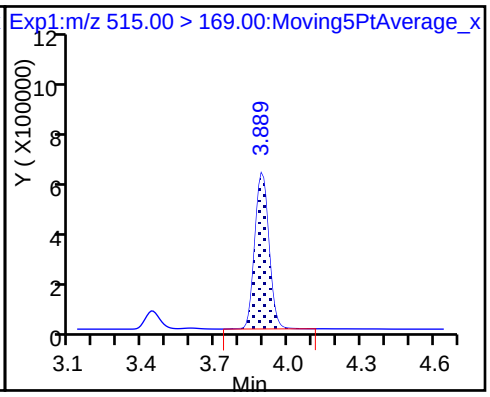
31 Perfluoroundecanoic acid



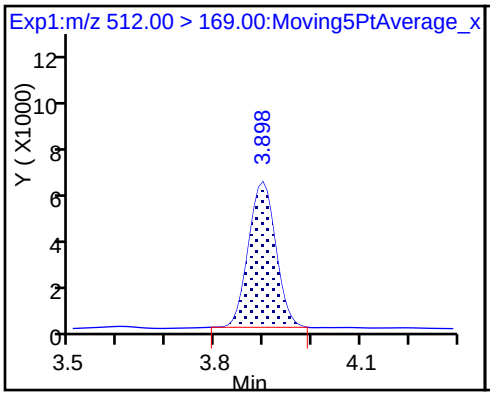
33 N-ethyl perfluorooctane sulfonamid



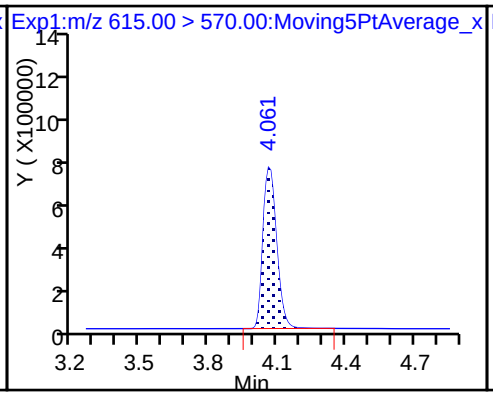
D 34 d-N-MeFOSA-M



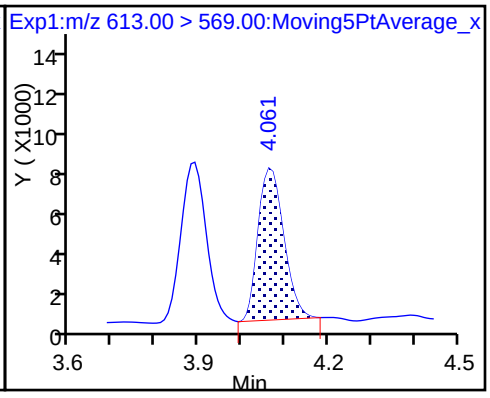
35 MeFOSA



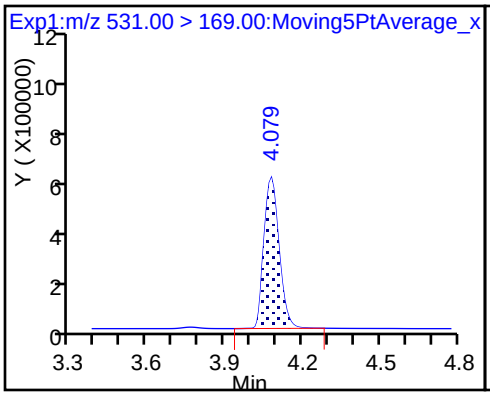
D 36 13C2 PFDoA



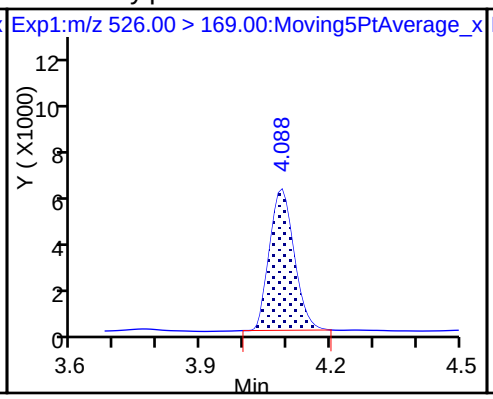
37 Perfluorododecanoic acid



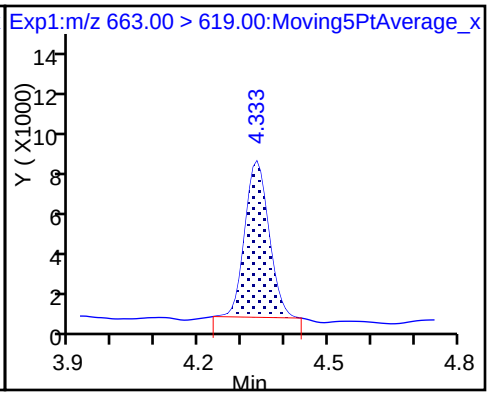
D 38 d-N-EtFOSA-M



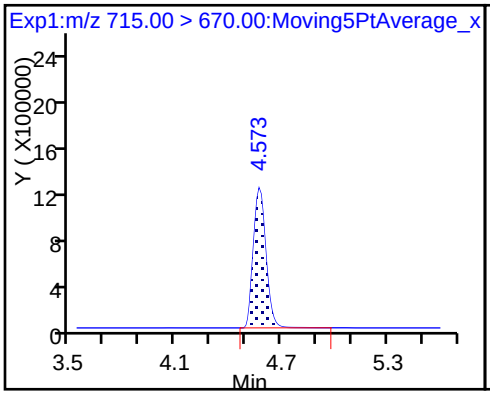
39 N-ethylperfluoro-1-octanesulfonami



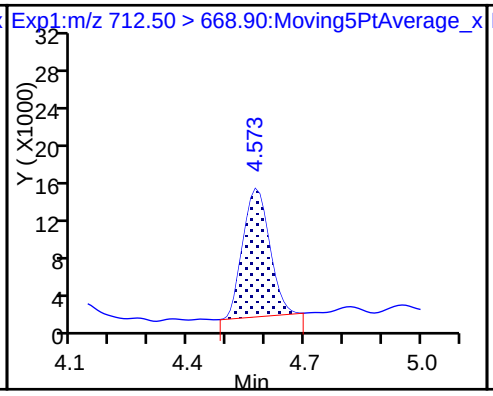
41 Perfluorotridecanoic acid



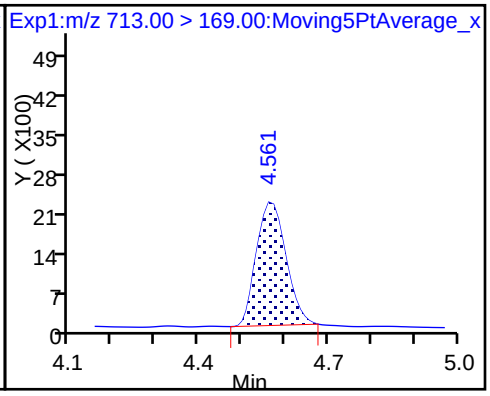
D 43 13C2-PFTeDA



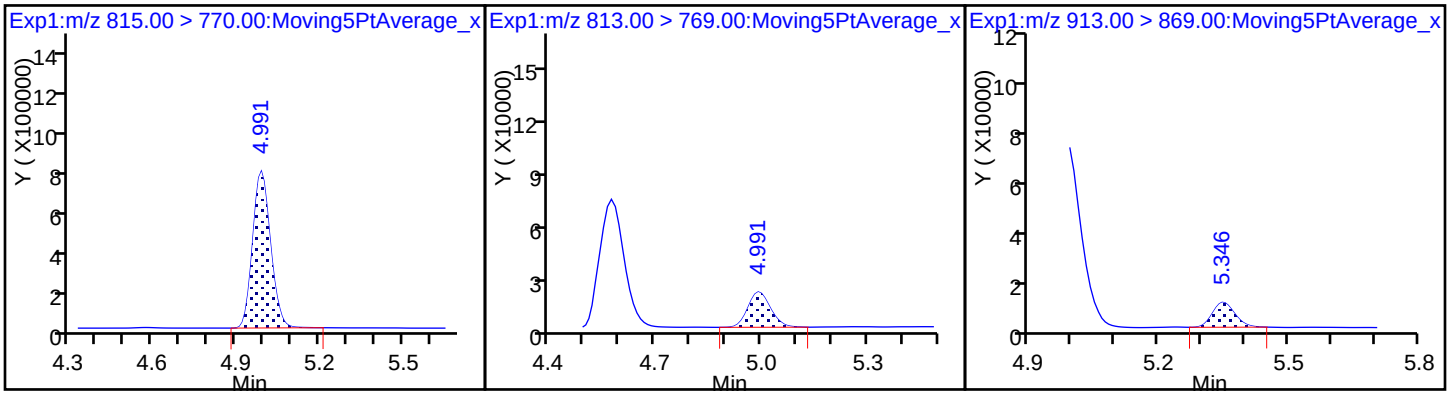
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

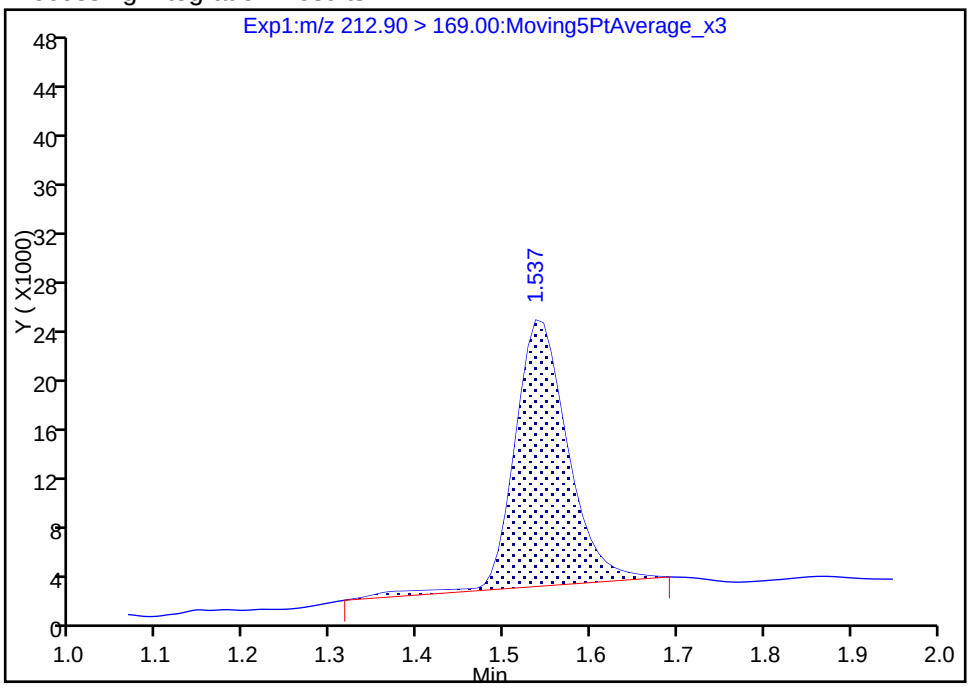
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_003.d
Injection Date: 11-Jul-2017 18:42:25 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

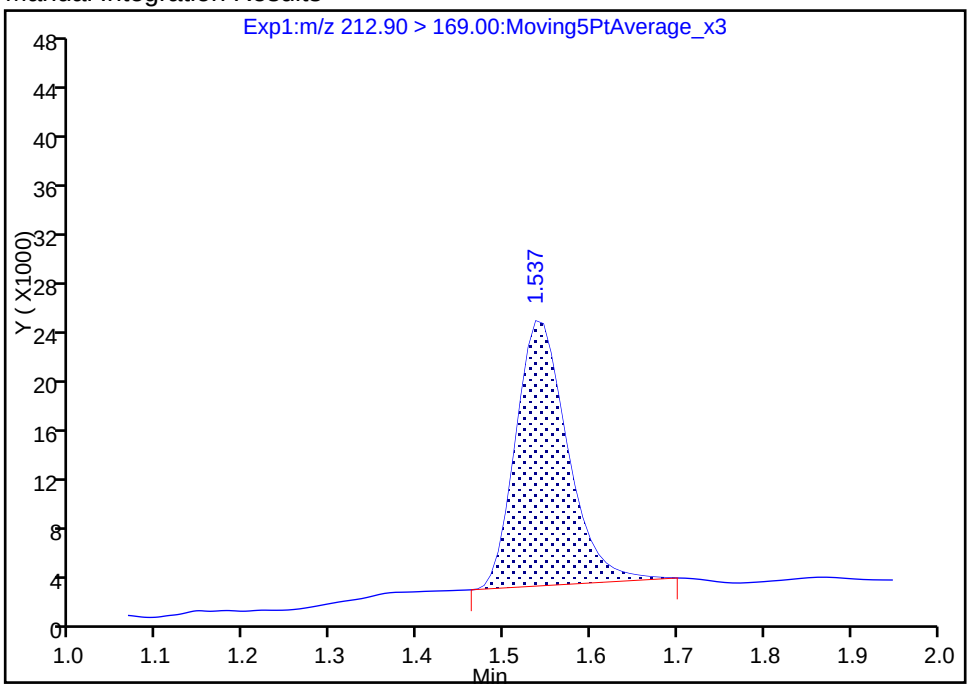
Processing Integration Results

RT: 1.54
Area: 90400
Amount: 0.558884
Amount Units: ng/ml



Manual Integration Results

RT: 1.54
Area: 87307
Amount: 0.546922
Amount Units: ng/ml



Reviewer: westendorfc, 12-Jul-2017 07:50:31
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

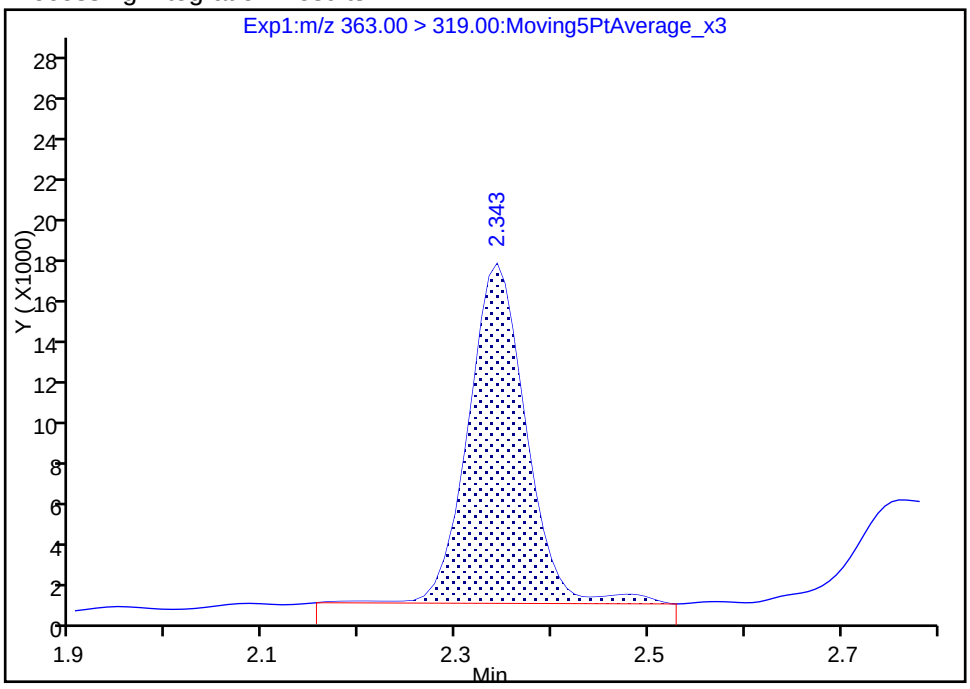
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_003.d
Injection Date: 11-Jul-2017 18:42:25 Instrument ID: A8_N
Lims ID: IC L1 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 28 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

10 Perfluoroheptanoic acid, CAS: 375-85-9

Signal: 1

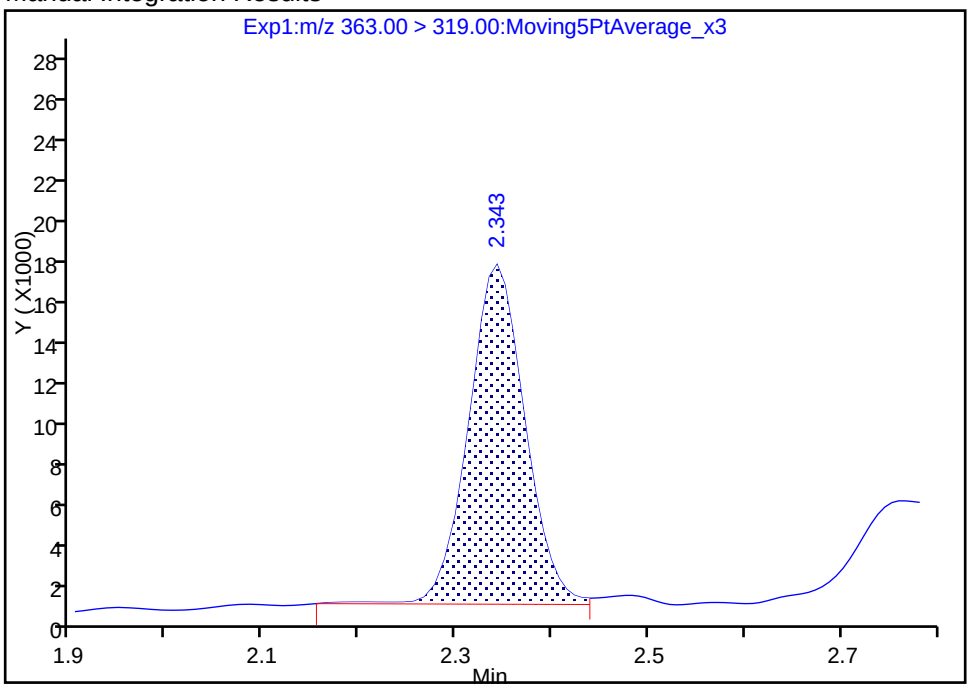
Processing Integration Results

RT: 2.34
Area: 67884
Amount: 0.552310
Amount Units: ng/ml



Manual Integration Results

RT: 2.34
Area: 66290
Amount: 0.541347
Amount Units: ng/ml



Reviewer: westendorfc, 12-Jul-2017 07:50:47
Audit Action: Manually Integrated Audit Reason: Split Peak

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_004.d
Lims ID: IC L2 Full
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 11-Jul-2017 18:49:19 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L2-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:10 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

First Level Reviewer: westendorfc Date: 12-Jul-2017 07:51:56

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.544	1.538	0.006		9256222	53.4		107	11756	
2 Perfluorobutyric acid										M
212.90 > 169.00	1.544	1.539	0.005	1.000	169011	1.00		99.5	72.5	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.753	1.748	0.005		6747798	52.3		105	25973	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.753	1.749	0.004	1.000	138879	1.01		101	88.1	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.781	1.775	0.006	1.000	228544	0.9224		104	155	
298.90 > 99.00	1.781	1.775	0.006	1.000	89489		2.55(0.00-0.00)	104	154	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.982	1.980	0.002	1.000	41621	0.8094		86.7	2105	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.016	2.017	-0.001	1.000	129160	1.00		100	163	
D 7 13C2 PFHxA										
315.00 > 270.00	2.016	2.017	-0.001		6755522	52.6		105	15791	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.343	2.341	0.002	1.000	115576	0.9545		95.4	148	
D 9 13C4-PFHpA										
367.00 > 322.00	2.343	2.341	0.002		6049300	52.0		104	12036	
D 11 18O2 PFHxS										
403.00 > 84.00	2.359	2.357	0.002		7793583	48.6		103	17132	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.359	2.357	0.002	1.000	169578	1.00		110	166	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.681	2.673	0.008	1.000	94985	1.91		202	1873	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.681	2.673	0.008		2789517	51.6		109	18910	
* 62 13C2-PFOA										
415.00 > 370.00	2.702	2.694	0.008		5969065	50.0			19938	
D 14 13C4 PFOA										
417.00 > 372.00	2.702	2.698	0.004		6176242	58.2		116	20523	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.702	2.700	0.002	1.000	131208	0.99		99.4	37.9	
413.00 > 169.00	2.702	2.700	0.002	1.000	72673		1.81(0.90-1.10)	99.4	240	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.710	2.706	0.004	1.000	130784	0.9426		99.0	2945	
D 18 13C4 PFOS										
503.00 > 80.00	3.070	3.071	-0.001		5678833	49.4		103	22420	
17 Perfluorooctane sulfonic acid										M
499.00 > 80.00	3.078	3.072	0.006	1.000	113492	0.8707		93.8	672	M
499.00 > 99.00	3.078	3.072	0.006	1.000	24818		4.57(0.90-1.10)	93.8	250	
D 19 13C5 PFNA										
468.00 > 423.00	3.078	3.072	0.006		4550654	54.0		108	17858	
20 Perfluorononanoic acid										
463.00 > 419.00	3.078	3.072	0.006	1.000	85829	0.9630		96.3	224	
D 21 13C8 FOSA										
506.00 > 78.00	3.403	3.401	0.002		10389457	51.5		103	128615	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.403	3.405	-0.002	1.000	195248	1.02		102	3616	
D 26 M2-8:2FTS										
529.00 > 509.00	3.422	3.424	-0.002		2057785	47.1		98.4	15238	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.430	3.425	0.005	1.002	38051	0.9772		102	1489	
D 23 13C2 PFDA										
515.00 > 470.00	3.438	3.435	0.003		4005580	52.9		106	11016	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.438	3.435	0.003	1.000	76957	1.01		101	524	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.591	3.592	-0.001		1556511	49.5		99.1	7667	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.601	3.595	0.006	1.003	26541	0.9370		93.7	271	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.747	3.749	-0.002	1.000	74312	0.9219		95.6	2328	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.757	3.759	-0.002		1637137	53.4		107	3943	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.767	3.768	-0.001	1.003	25236	0.9012		90.1	563	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.767	3.768	-0.001	1.000	70047	1.10		110	250	
D 30 13C2 PFUnA										
565.00 > 520.00	3.767	3.768	-0.001		3135682	54.3		109	11930	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.894	3.894	0.0		2481983	49.2		98.5	611	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.894	3.899	-0.005	1.000	44374	0.9765		97.7	1421	
D 36 13C2 PFDoA										
615.00 > 570.00	4.065	4.061	0.004		2983399	50.5		101	7639	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.065	4.062	0.003	1.000	58466	1.04		104	71.7	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.083	4.083	0.0		2461825	49.1		98.3	4798	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.083	4.090	-0.007	1.000	43627	0.9486		94.9	1544	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.328	4.331	-0.003	1.000	57714	1.07		107	16.1	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.568	4.571	-0.003		6058388	54.1		108	22948	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.579	4.573	0.006	1.000	123781	1.06		106	10.3	
713.00 > 169.00	4.568	4.573	-0.005	0.998	16881		7.33(0.00-0.00)	106	264	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.987	4.986	0.001		3600496	52.9		106	5249	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.987	4.988	-0.001	1.000	110138	1.00		100	21.6	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.349	5.344	0.005	1.000	69054	1.02		102	16.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

LCPFC_FULL-L2_00006 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:11 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_004.d

Injection Date: 11-Jul-2017 18:49:19 Instrument ID: A8_N

Lims ID: IC L2 Full

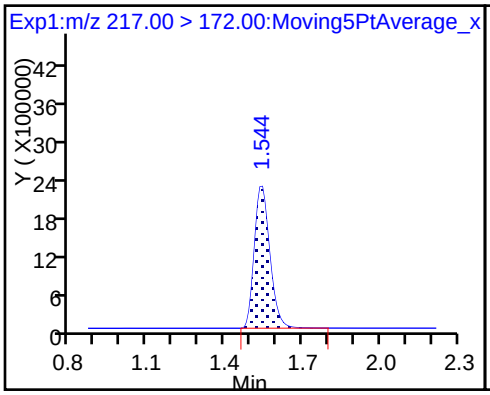
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4

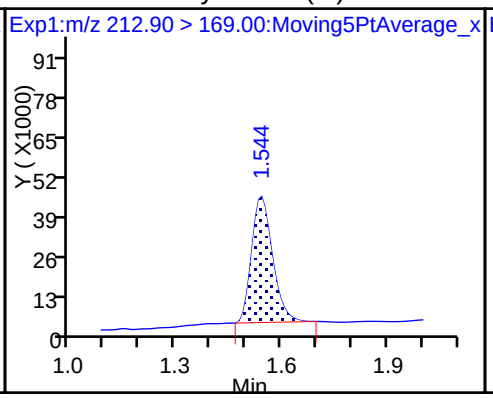
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

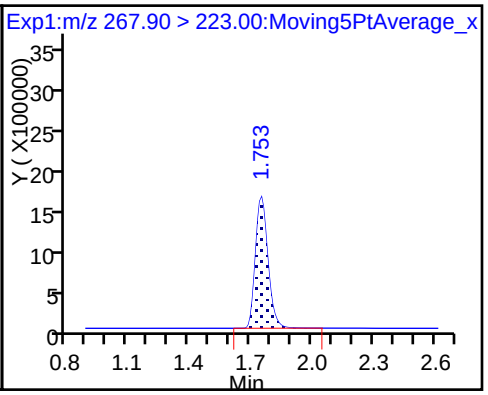
D 1 13C4 PFBA



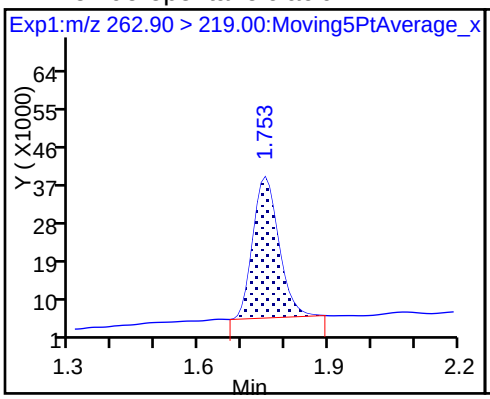
2 Perfluorobutyric acid (M)



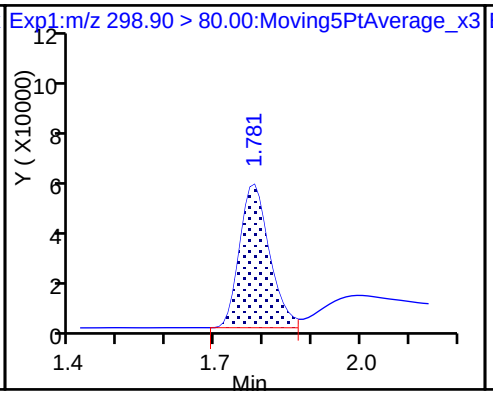
D 3 13C5-PFPeA



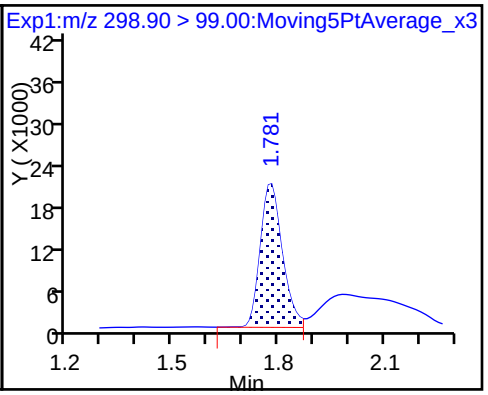
4 Perfluoropentanoic acid



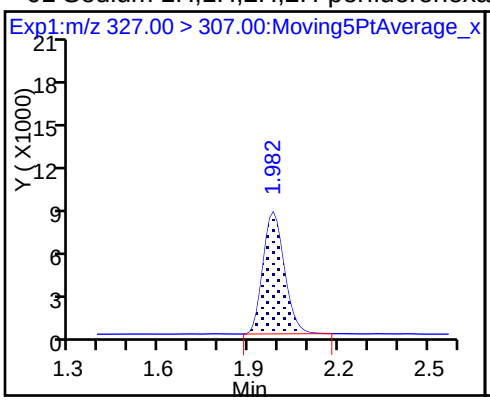
5 Perfluorobutanesulfonic acid



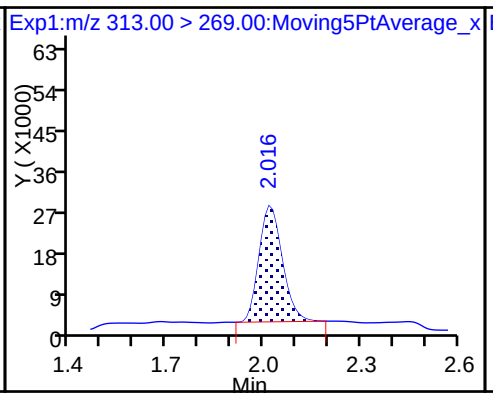
5 Perfluorobutanesulfonic acid



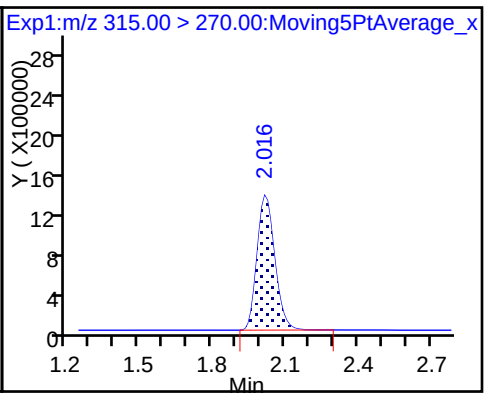
61 Sodium 1H,1H,2H,2H-perfluorohexane



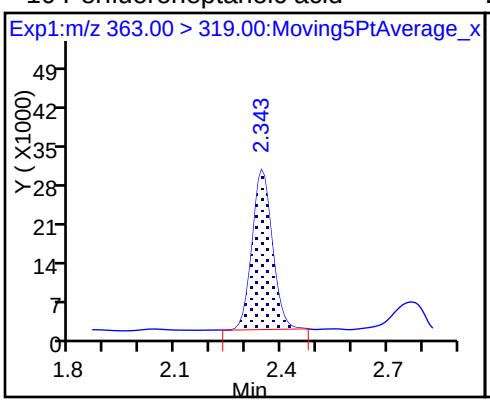
6 Perfluorohexanoic acid



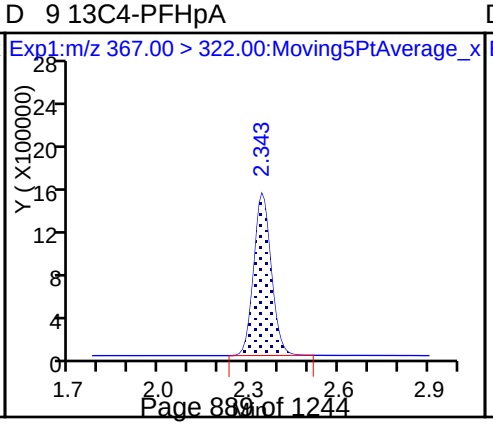
D 7 13C2 PFHxA



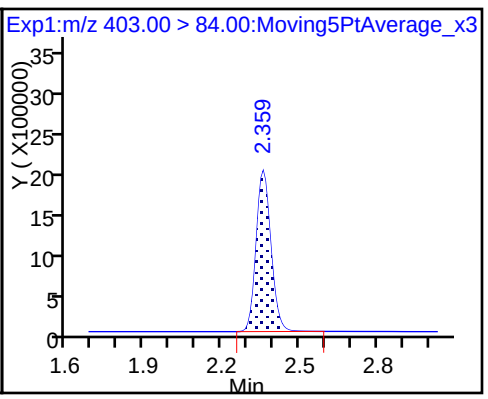
10 Perfluoroheptanoic acid



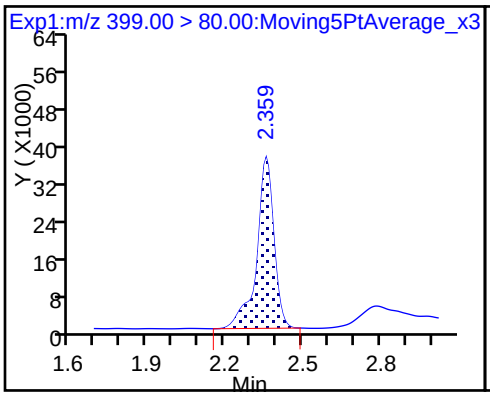
D 9 13C4-PFHpA



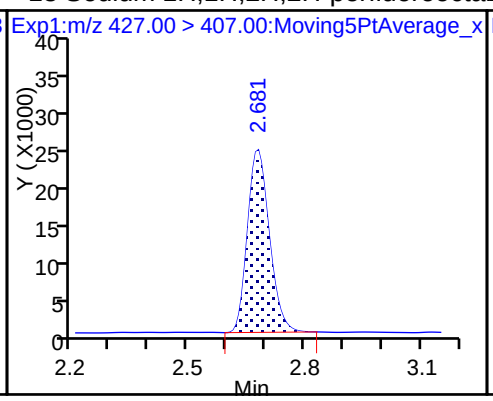
D 11 18O2 PFHxS



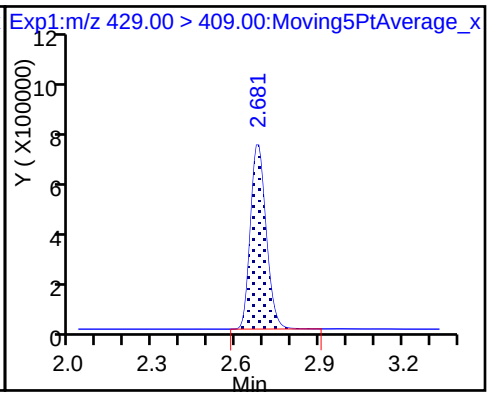
8 Perfluorohexanesulfonic acid



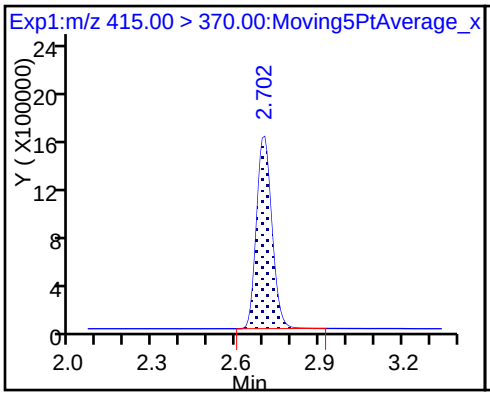
13 Sodium 1H,1H,2H,2H-perfluorooctane



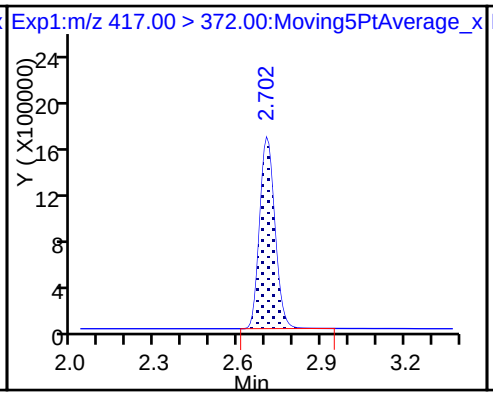
D 12 M2-6:2FTS



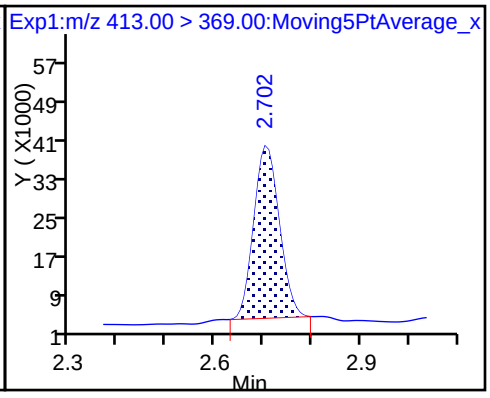
* 62 13C2-PFOA



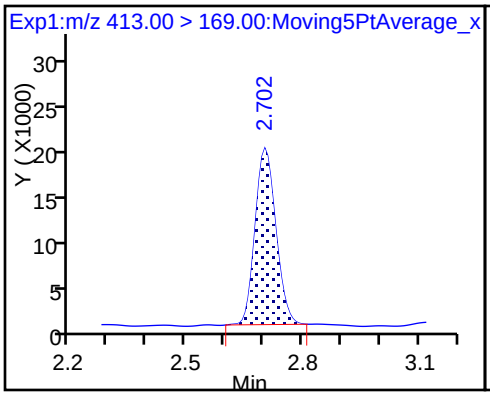
D 14 13C4 PFOA



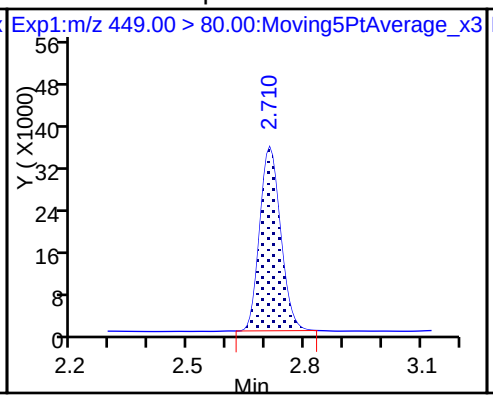
15 Perfluorooctanoic acid



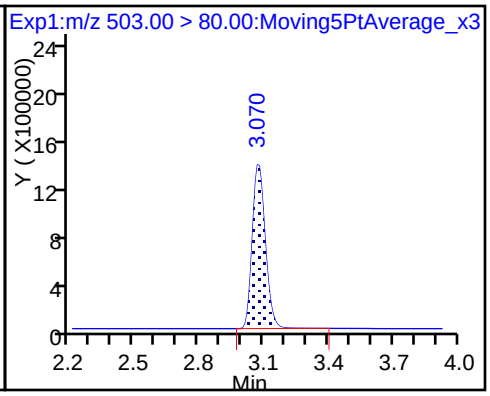
15 Perfluorooctanoic acid



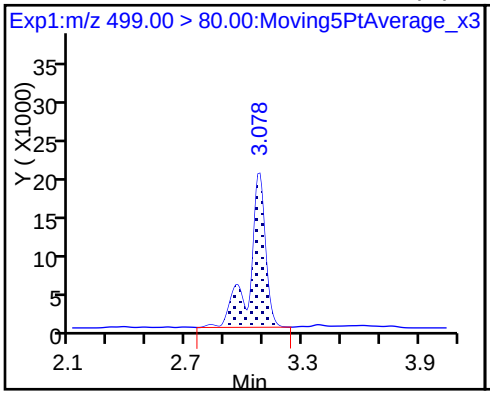
16 Perfluoroheptanesulfonic Acid



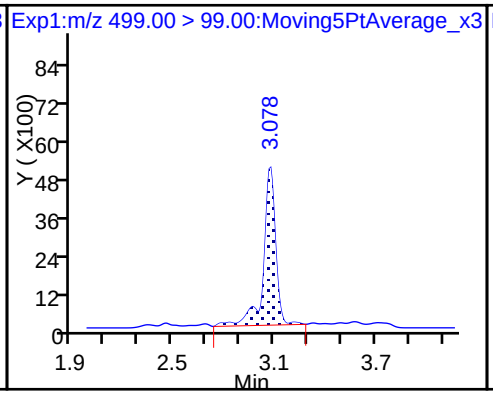
D 18 13C4 PFOS



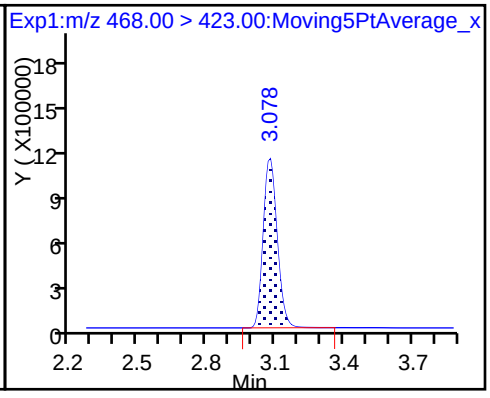
17 Perfluorooctane sulfonic acid (M)



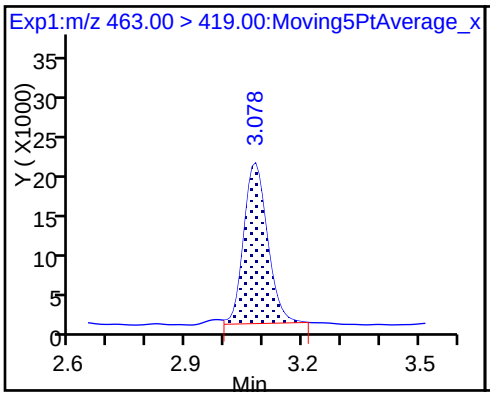
17 Perfluorooctane sulfonic acid



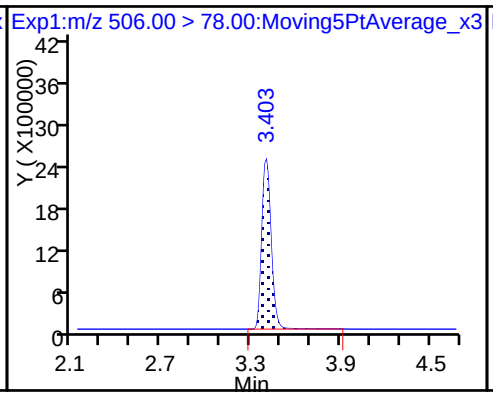
D 19 13C5 PFNA



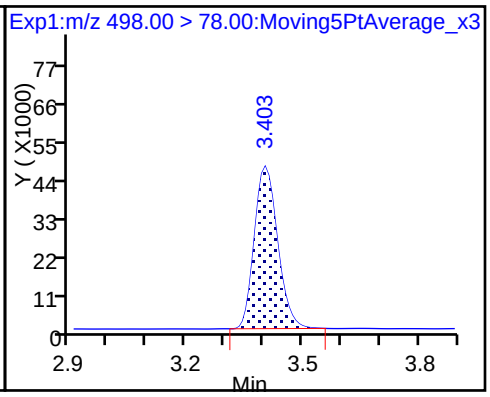
20 Perfluorononanoic acid



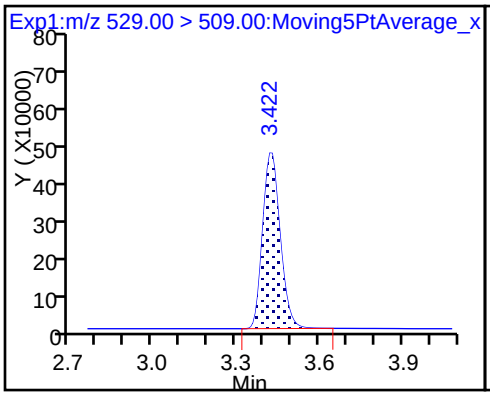
D 21 13C8 FOSA



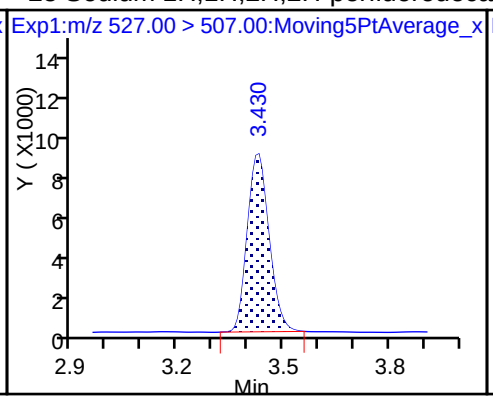
22 Perfluorooctane Sulfonamide



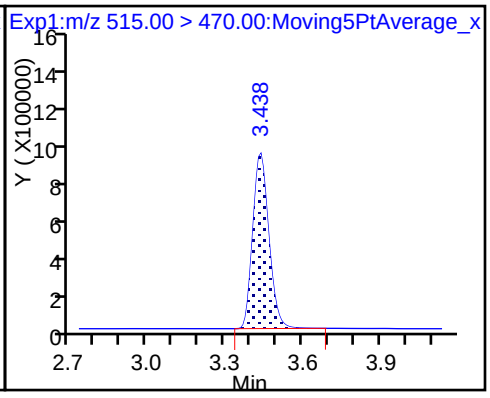
D 26 M2-8:2FTS



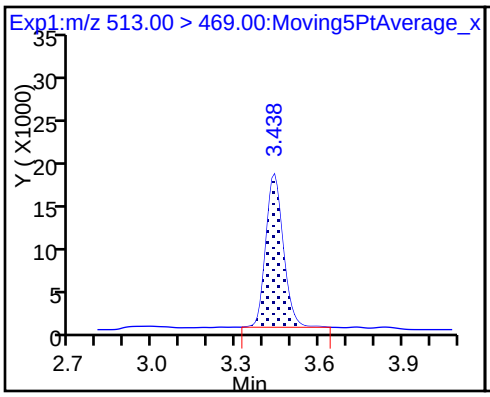
25 Sodium 1H,1H,2H,2H-perfluorodecane



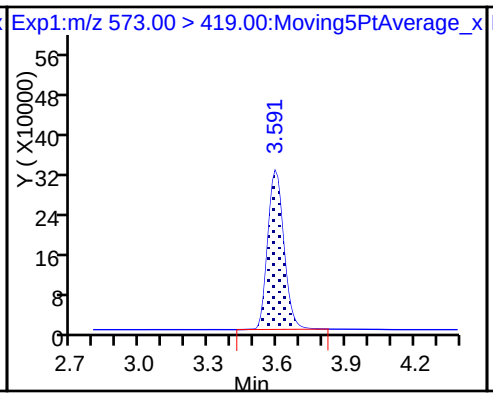
D 23 13C2 PFDA



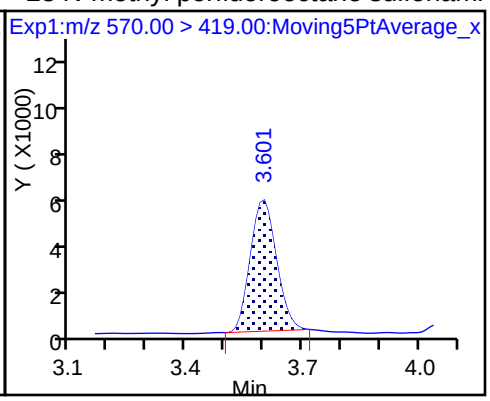
24 Perfluorodecanoic acid



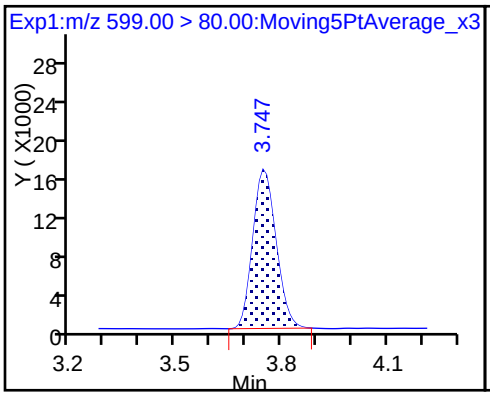
D 27 d3-NMeFOSAA



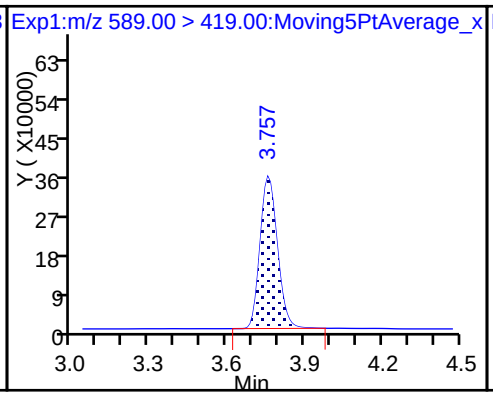
28 N-methyl perfluorooctane sulfonami



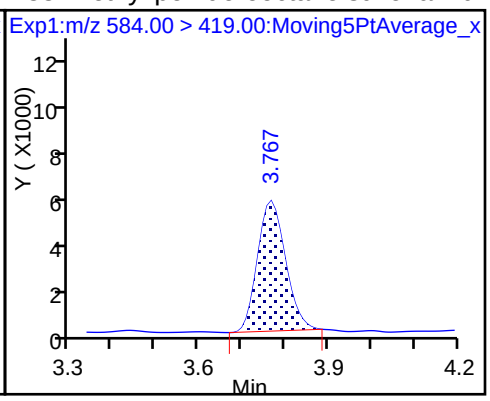
29 Perfluorodecane Sulfonic acid



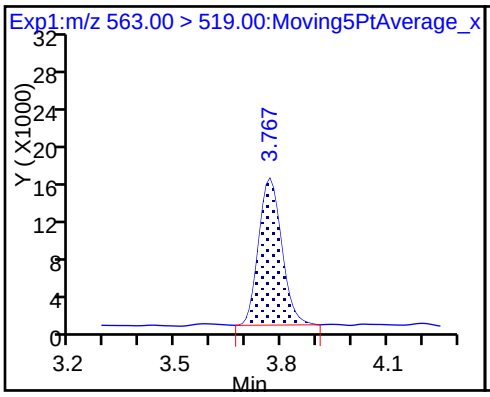
D 32 d5-NEtFOSAA



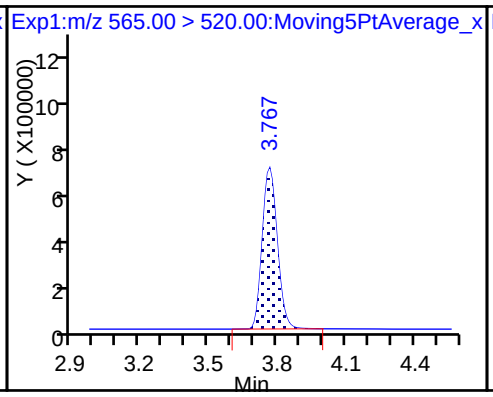
33 N-ethyl perfluorooctane sulfonamid



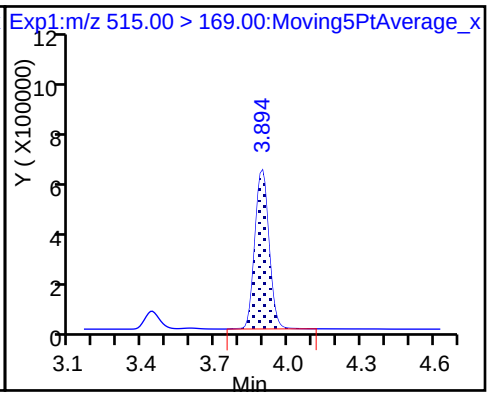
31 Perfluoroundecanoic acid



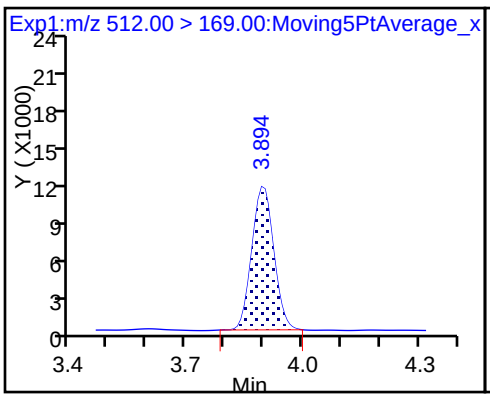
D 30 13C2 PFUnA



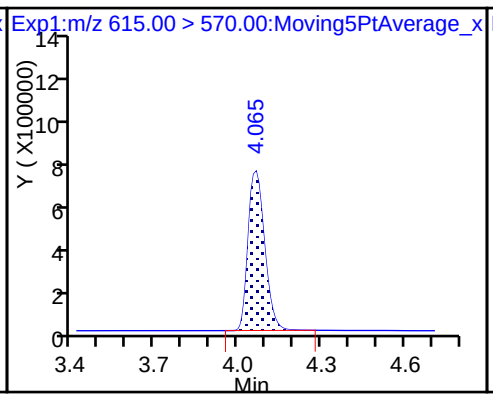
D 34 d-N-MeFOSA-M



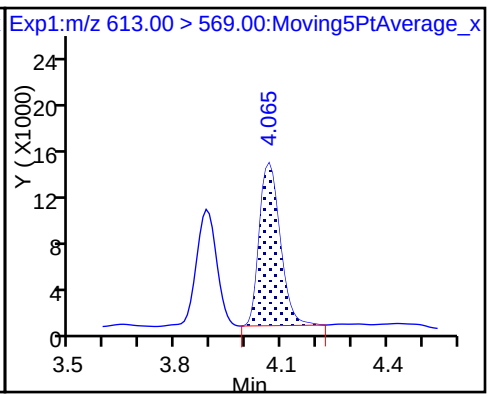
35 MeFOSA



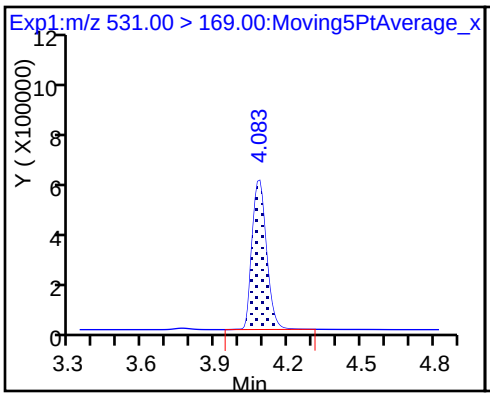
D 36 13C2 PFDoA



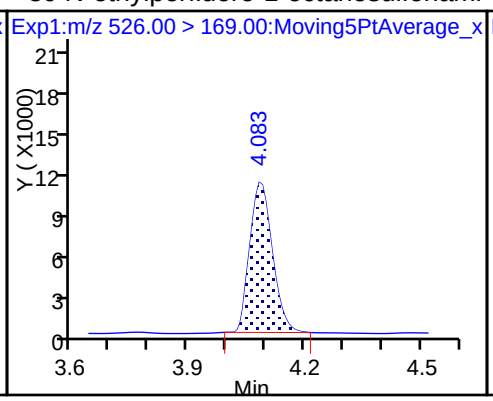
37 Perfluorododecanoic acid



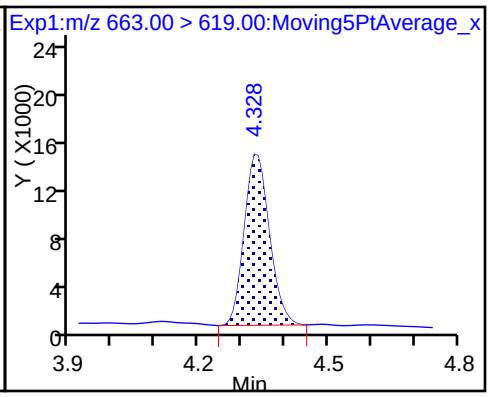
D 38 d-N-EtFOSA-M



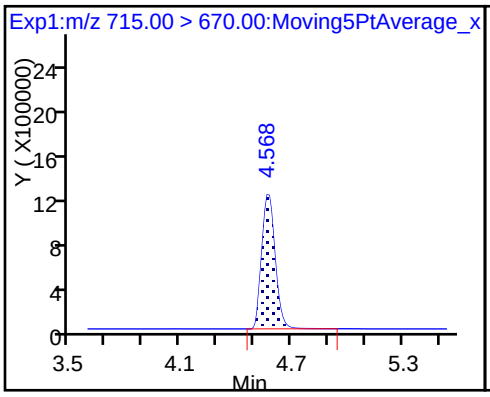
39 N-ethylperfluoro-1-octanesulfonami



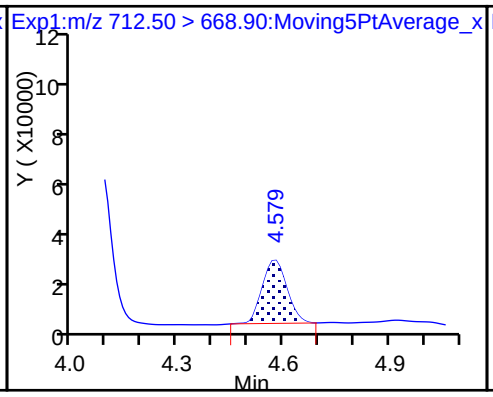
41 Perfluorotridecanoic acid



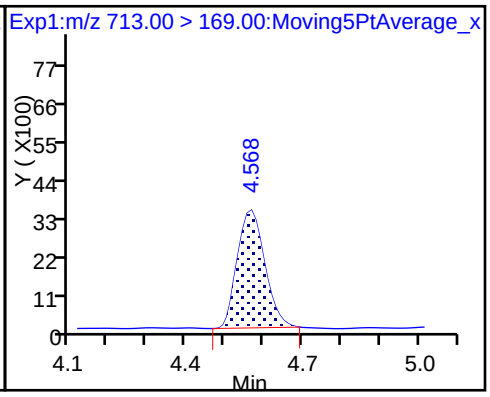
D 43 13C2-PFTeDA



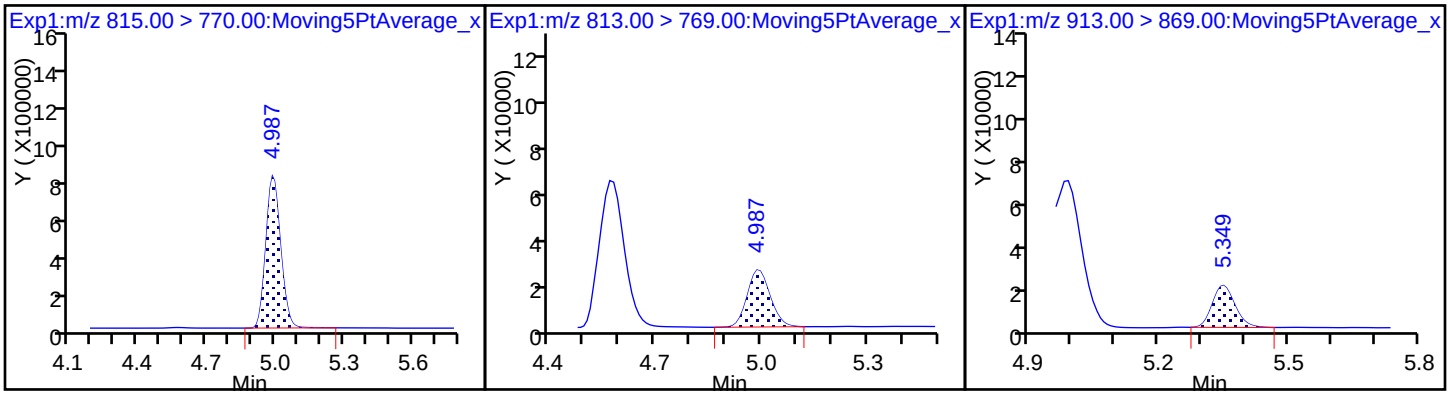
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

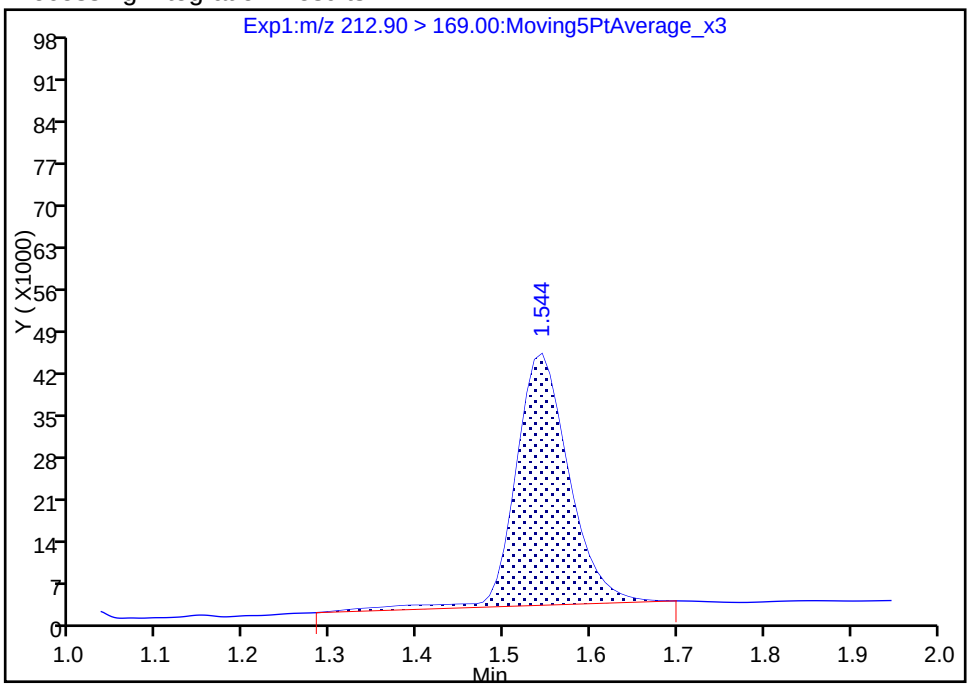
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_004.d
Injection Date: 11-Jul-2017 18:49:19 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

2 Perfluorobutyric acid, CAS: 375-22-4

Signal: 1

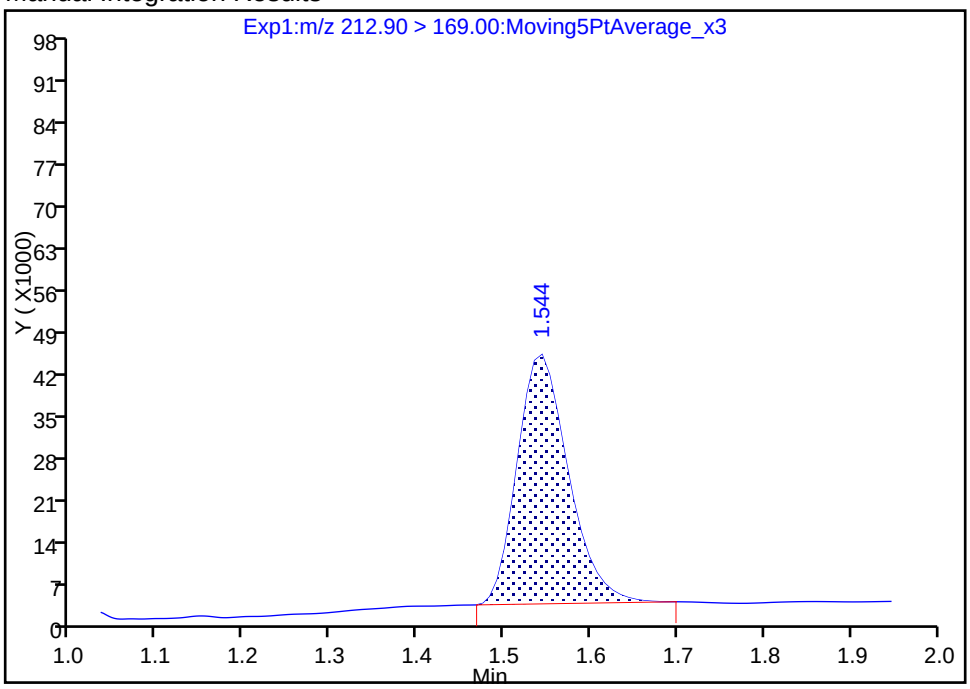
Processing Integration Results

RT: 1.54
Area: 178198
Amount: 1.041318
Amount Units: ng/ml



Manual Integration Results

RT: 1.54
Area: 169011
Amount: 0.995266
Amount Units: ng/ml



Reviewer: westendorfc, 12-Jul-2017 07:51:33
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

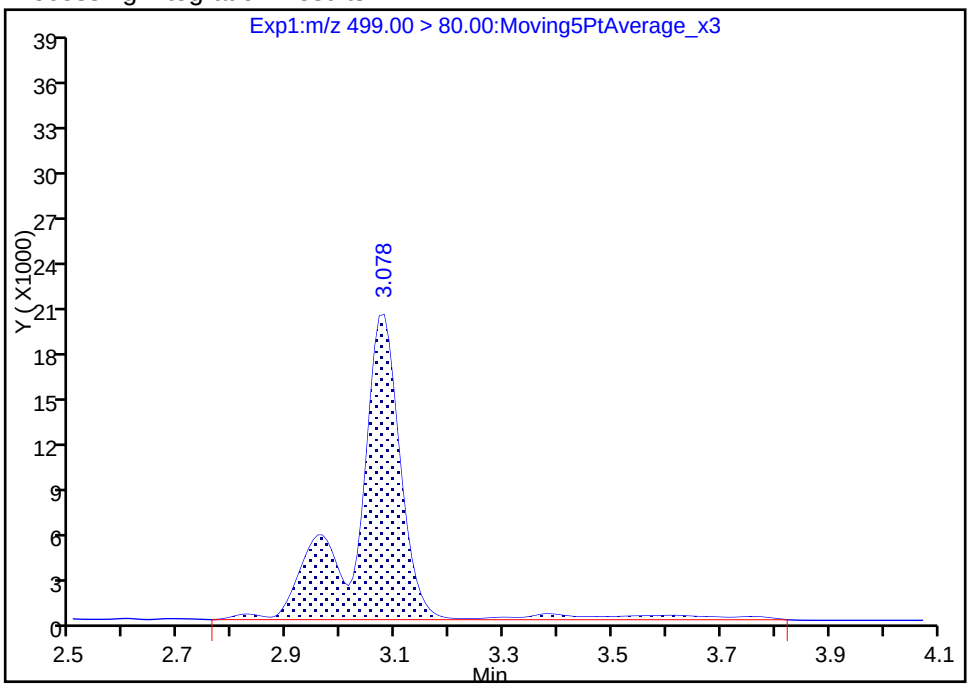
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_004.d
Injection Date: 11-Jul-2017 18:49:19 Instrument ID: A8_N
Lims ID: IC L2 Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

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

Signal: 1

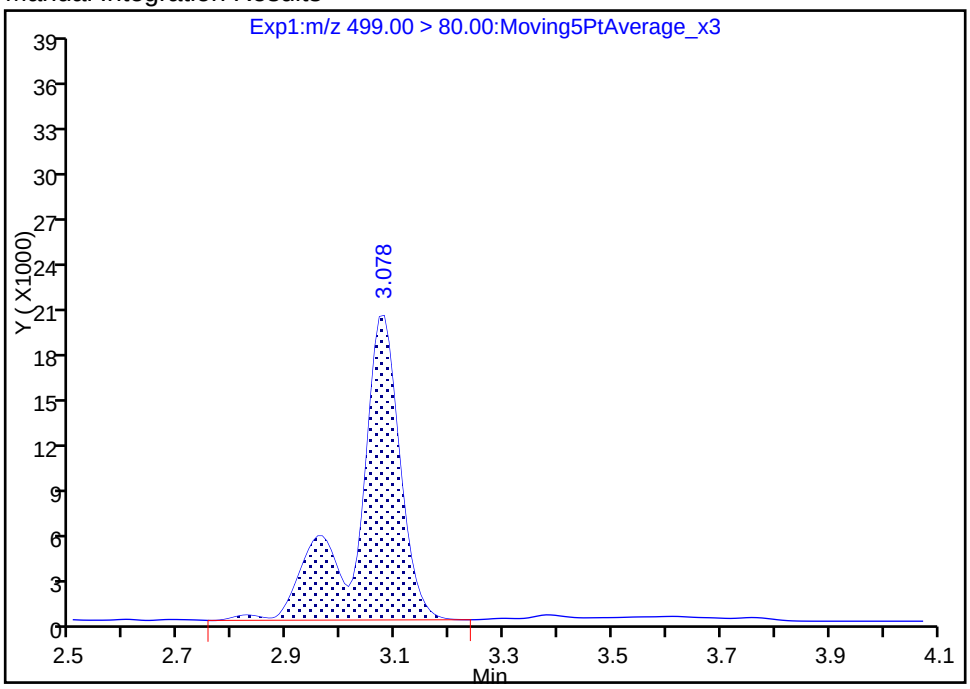
Processing Integration Results

RT: 3.08
Area: 121228
Amount: 0.921579
Amount Units: ng/ml



Manual Integration Results

RT: 3.08
Area: 113492
Amount: 0.870651
Amount Units: ng/ml



Reviewer: westendorfc, 12-Jul-2017 07:51:44
Audit Action: Manually Integrated Audit Reason: Baseline

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_005.d
Lims ID: IC L3 Full
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 11-Jul-2017 18:56:13 ALS Bottle#: 30 Worklist Smp#: 5
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L3-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:14 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

First Level Reviewer: westendorfc Date: 12-Jul-2017 07:52:17

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.537	1.538	-0.001		8966494	51.7		103	11774	
2 Perfluorobutyric acid										
212.90 > 169.00	1.537	1.539	-0.002	1.000	866909	5.27		105	363	
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.748	-0.003		7047415	54.6		109	24533	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.745	1.749	-0.004	1.000	698144	4.86		97.1	459	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.775	-0.002	1.000	1139073	4.56		103	763	
298.90 > 99.00	1.773	1.775	-0.002	1.000	442831		2.57(0.00-0.00)	103	698	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.983	1.980	0.003	1.000	240997	5.14		110	12004	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		6436448	50.1		100	15791	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.017	0.0	1.000	648995	5.28		106	803	
D 9 13C4-PFHpA										
367.00 > 322.00	2.339	2.341	-0.002		5837112	50.2		100	13180	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.339	2.341	-0.002	1.000	619504	5.30		106	848	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.355	2.357	-0.002	1.000	777080	4.55		100	673	
D 11 18O2 PFHxS										
403.00 > 84.00	2.355	2.357	-0.002		7852141	48.9		103	47107	
D 12 M2-6:2FTS										
429.00 > 409.00	2.670	2.673	-0.003		2541392	47.0		99.0	21120	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.670	2.673	-0.003	1.000	224587	4.96		105	4612	
* 62 13C2-PFOA										
415.00 > 370.00	2.692	2.694	-0.002		5094426	50.0			22947	
D 14 13C4 PFOA										
417.00 > 372.00	2.699	2.698	0.001		5324298	50.2		100	14786	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.699	2.700	-0.001	1.000	565179	4.96		99.3	164	
413.00 > 169.00	2.699	2.700	-0.001	1.000	316907		1.78(0.90-1.10)	99.3	1039	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.707	2.706	0.001	1.000	706006	5.07		106	9597	
D 18 13C4 PFOS										
503.00 > 80.00	3.074	3.071	0.003		5702168	49.6		104	13848	
20 Perfluorononanoic acid										
463.00 > 419.00	3.074	3.072	0.002	1.000	454235	5.13		103	1118	
D 19 13C5 PFNA										
468.00 > 423.00	3.074	3.072	0.002		4519543	53.6		107	17192	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.074	3.072	0.002	1.000	592791	4.53		97.6	3140	
499.00 > 99.00	3.074	3.072	0.002	1.000	131440		4.51(0.90-1.10)	97.6	1416	
D 21 13C8 FOSA										
506.00 > 78.00	3.406	3.401	0.005		10501031	52.0		104	32382	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.406	3.405	0.001	1.000	973202	5.04		101	8559	
D 26 M2-8:2FTS										
529.00 > 509.00	3.425	3.424	0.001		2239911	51.3		107	17347	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.425	3.425	0.0	1.000	208687	4.92		103	5957	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.441	3.435	0.006	1.000	384552	5.12		102	2036	
D 23 13C2 PFDA										
515.00 > 470.00	3.441	3.435	0.006		3942670	52.1		104	9938	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.595	3.592	0.003		1587038	50.5		101	6498	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.605	3.595	0.010	1.003	142451	4.93		98.6	1472	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.751	3.749	0.002	1.000	386858	4.78		99.2	6124	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.761	3.759	0.002		1649287	53.8		108	3553	
D 30 13C2 PFUnA										
565.00 > 520.00	3.770	3.768	0.002		3139540	54.4		109	12702	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.770	3.768	0.002	1.000	325725	5.11		102	1285	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.770	3.768	0.002	1.003	140688	4.99		99.7	2231	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.897	3.894	0.003		2530599	50.2		100	633	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.905	3.899	0.006	1.000	231768	5.00		100	2833	
D 36 13C2 PFDoA										
615.00 > 570.00	4.070	4.061	0.009		3214404	54.4		109	10838	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.070	4.062	0.008	1.000	276523	4.54		90.9	360	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.087	4.083	0.004		2540845	50.7		101	4669	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.095	4.090	0.005	1.000	246651	5.20		104	3037	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.341	4.331	0.010	1.000	271807	4.67		93.3	81.4	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.583	4.571	0.012		5810191	51.9		104	27935	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.583	4.573	0.010	1.000	629448	4.98		99.6	47.3	
713.00 > 169.00	4.572	4.573	-0.001	0.998	78971		7.97(0.00-0.00)	99.6	1242	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.001	4.986	0.015		3502393	51.5		103	4496	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.001	4.988	0.013	1.000	364068	4.90		98.0	71.6	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.354	5.344	0.010	1.000	373483	5.11		102	92.7	

Reagents:

LCPFC_FULL-L3_00005 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:15 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_005.d

Injection Date: 11-Jul-2017 18:56:13 Instrument ID: A8_N

Lims ID: IC L3 Full

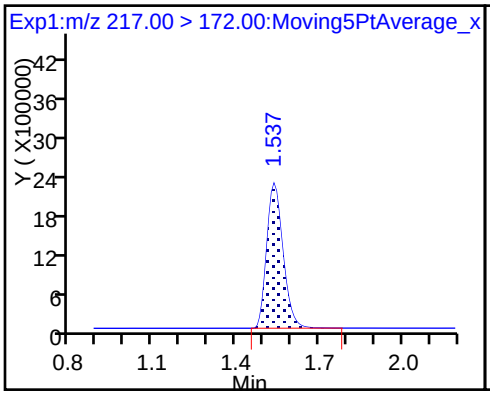
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 30 Worklist Smp#: 5

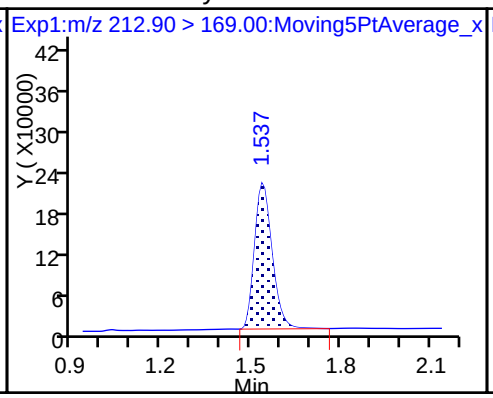
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

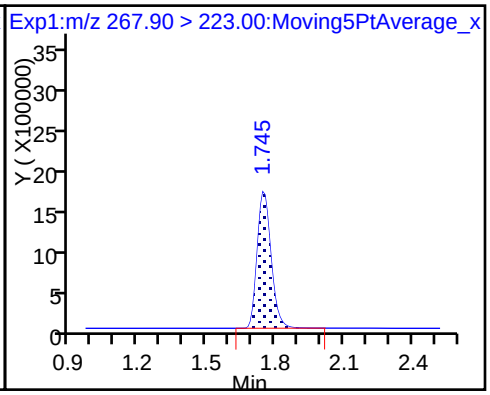
D 1 13C4 PFBA



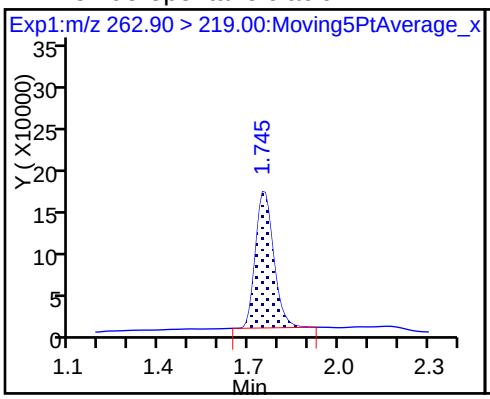
2 Perfluorobutyric acid



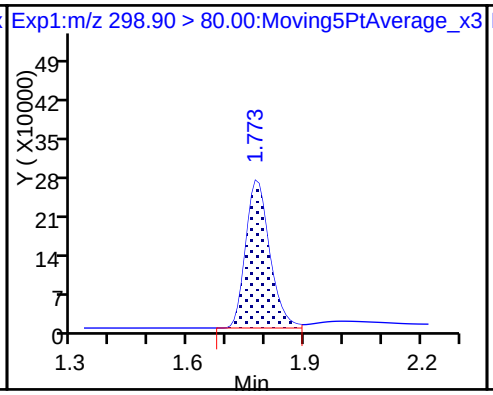
D 3 13C5-PFPeA



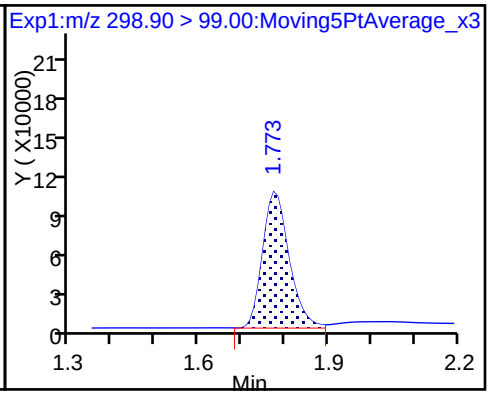
4 Perfluoropentanoic acid



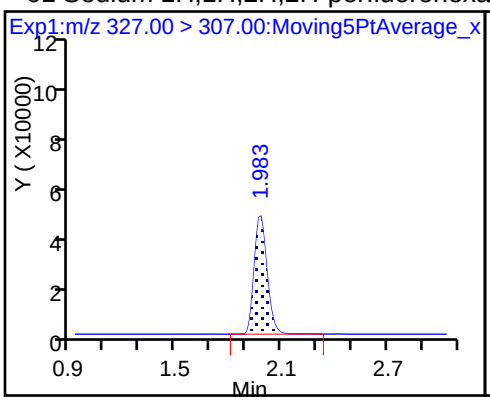
5 Perfluorobutanesulfonic acid



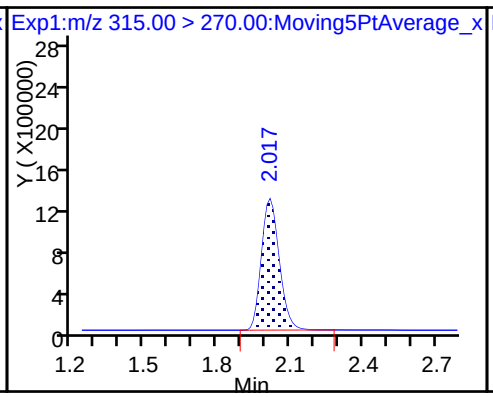
5 Perfluorobutanesulfonic acid



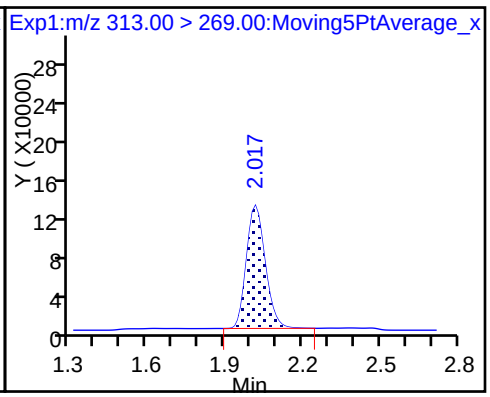
61 Sodium 1H,1H,2H,2H-perfluorohexa



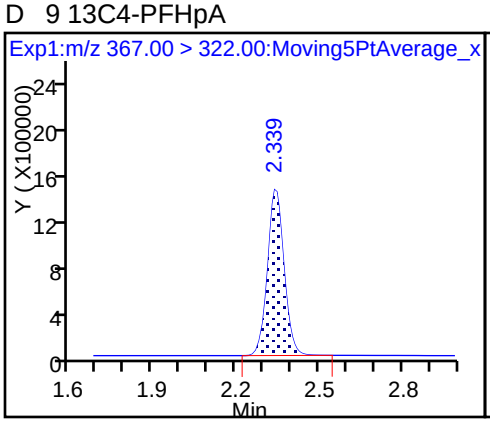
De 7 13C2 PFHxA



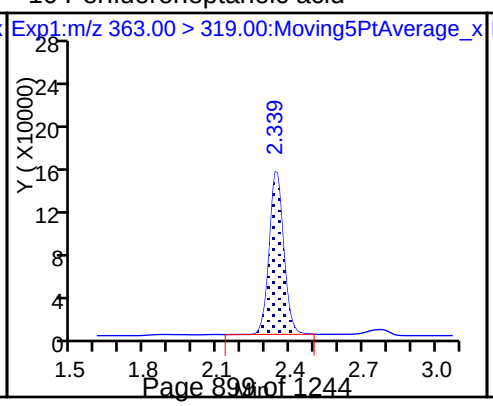
6 Perfluorohexanoic acid



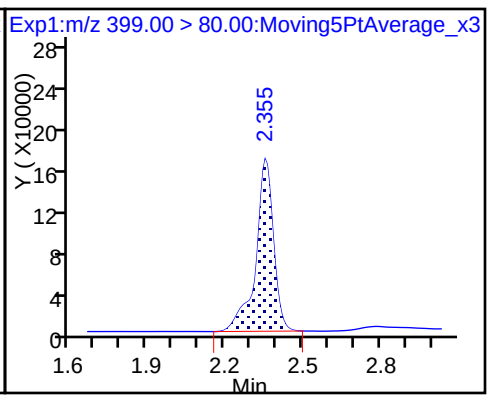
D 9 13C4-PFHpA



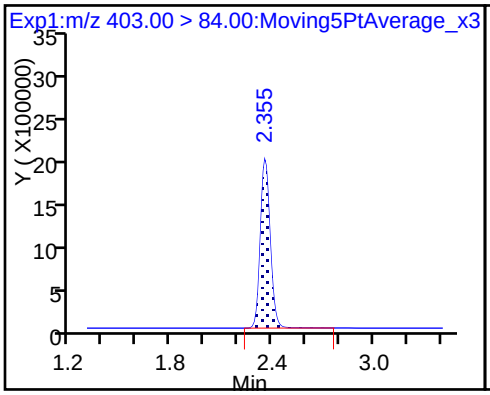
10 Perfluoroheptanoic acid



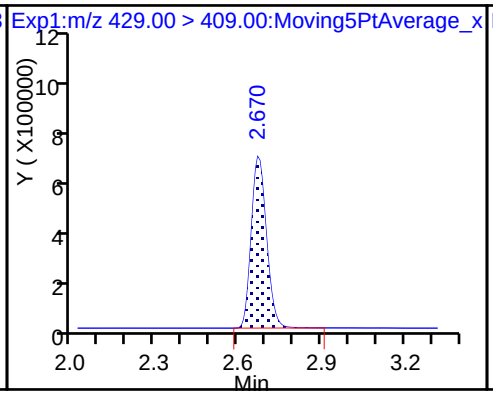
8 Perfluorohexanesulfonic acid



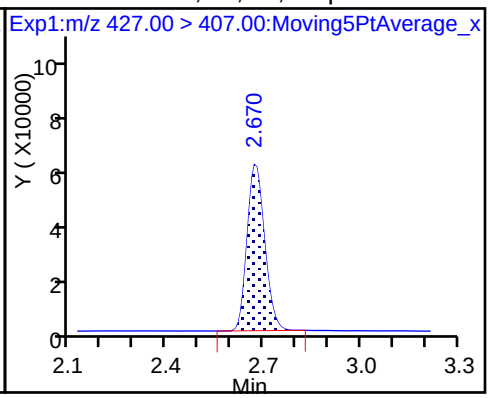
D 11 18O2 PFHxS



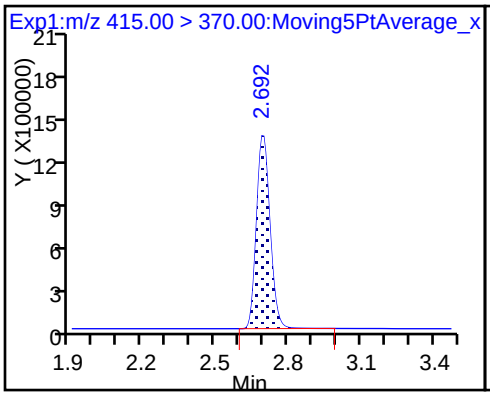
D 12 M2-6:2FTS



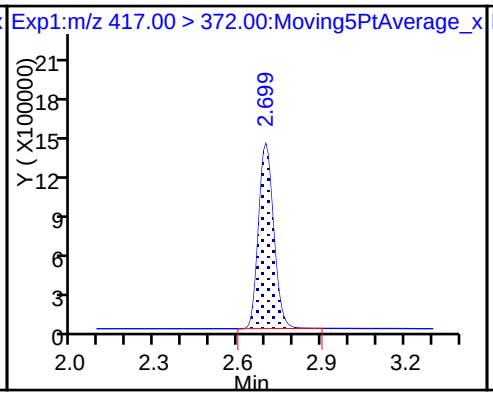
13 Sodium 1H,1H,2H,2H-perfluorooctane



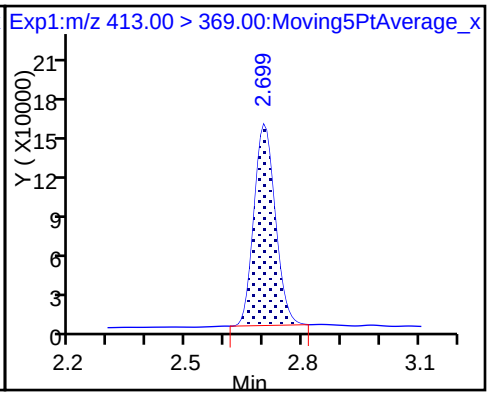
* 62 13C2-PFOA



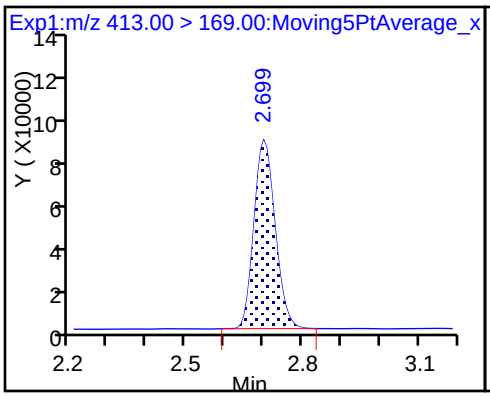
D 14 13C4 PFOA



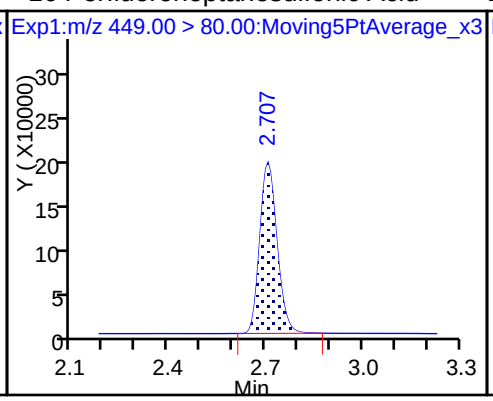
15 Perfluorooctanoic acid



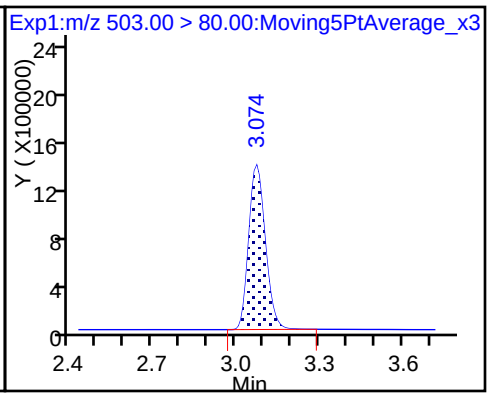
15 Perfluorooctanoic acid



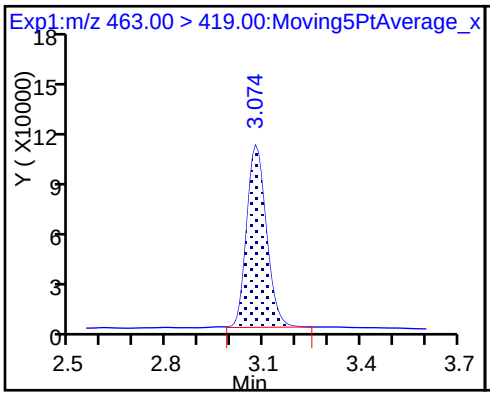
16 Perfluoroheptanesulfonic Acid



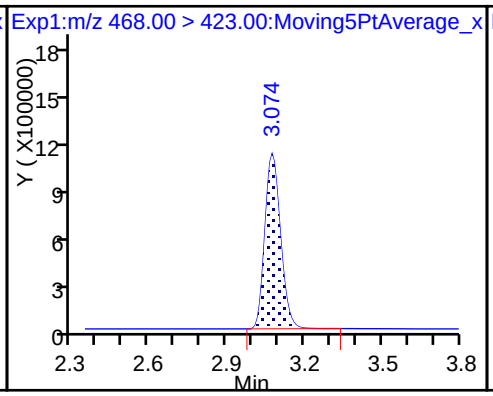
D 18 13C4 PFOS



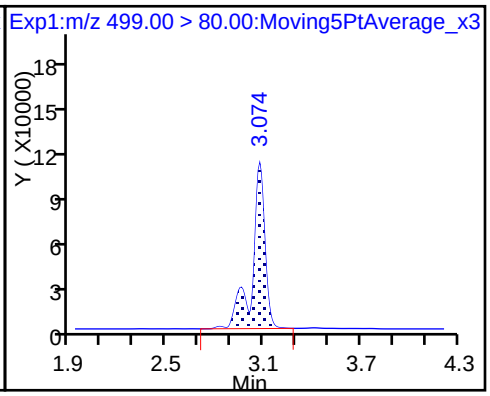
20 Perfluorononanoic acid



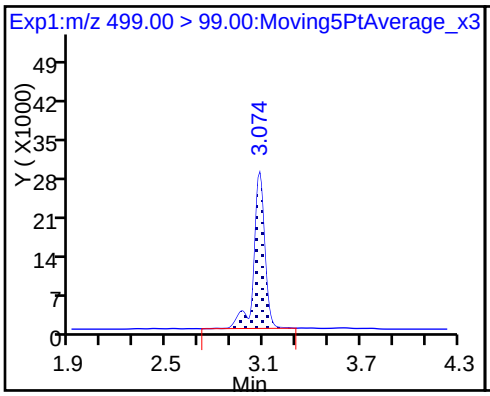
D 19 13C5 PFNA



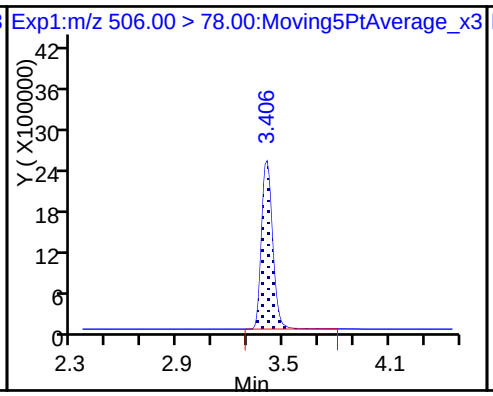
17 Perfluorooctane sulfonic acid



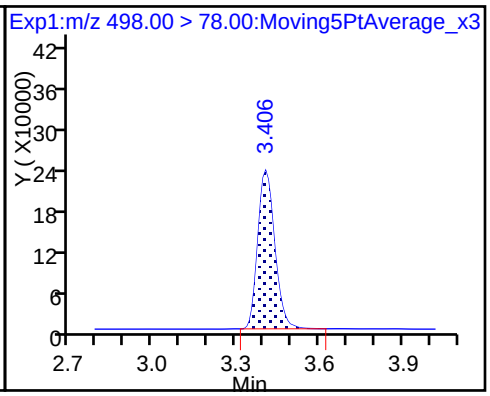
17 Perfluorooctane sulfonic acid



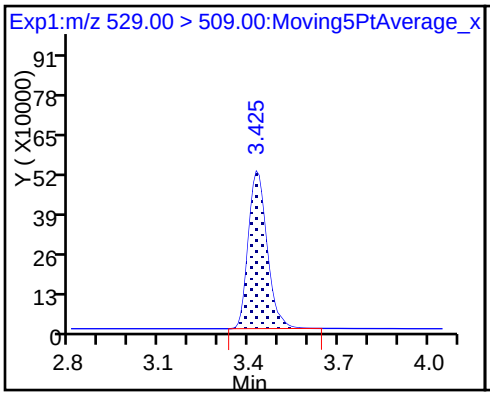
D 21 13C8 FOSA



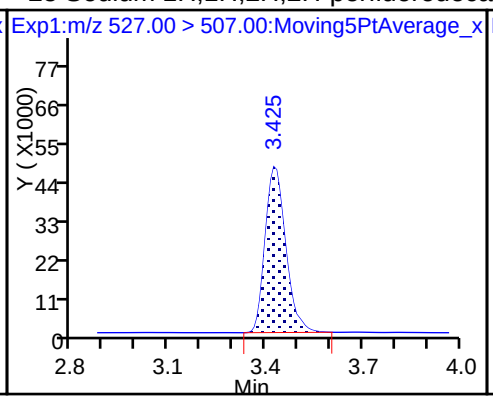
22 Perfluorooctane Sulfonamide



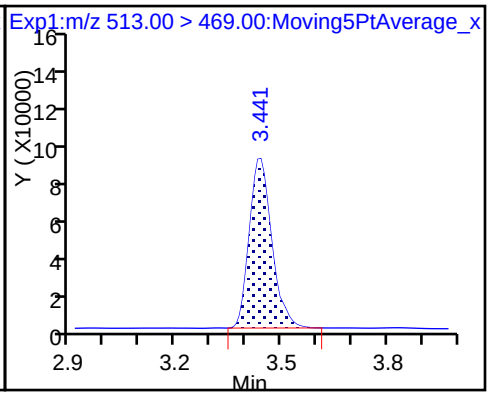
D 26 M2-8:2FTS



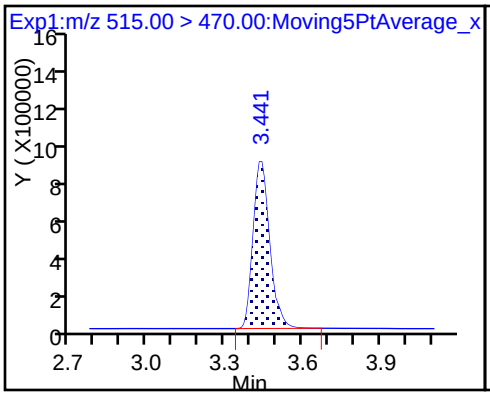
25 Sodium 1H,1H,2H,2H-perfluorodecan



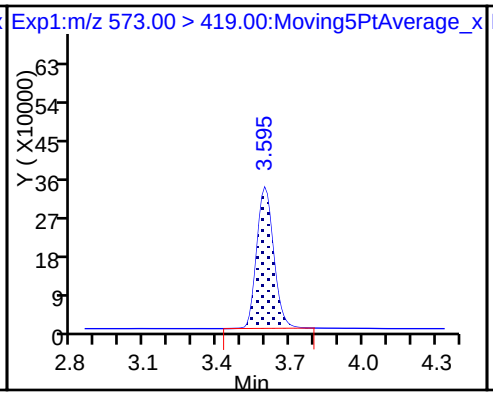
24 Perfluorodecanoic acid



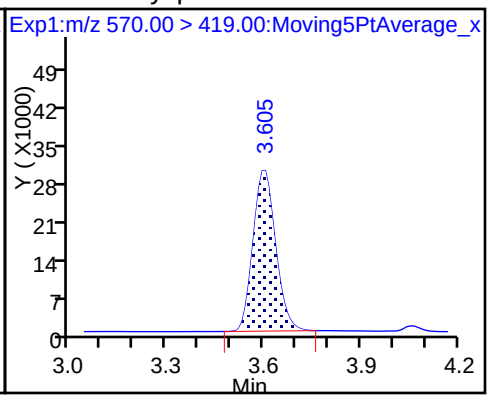
D 23 13C2 PFDA



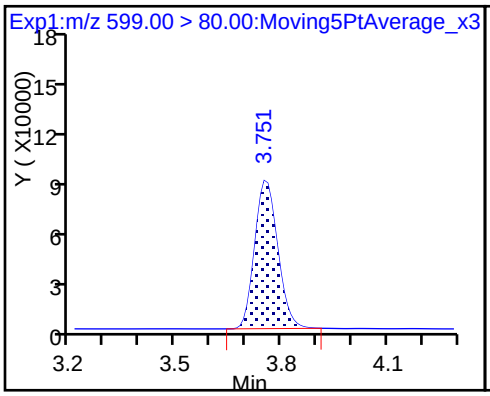
D 27 d3-NMeFOSAA



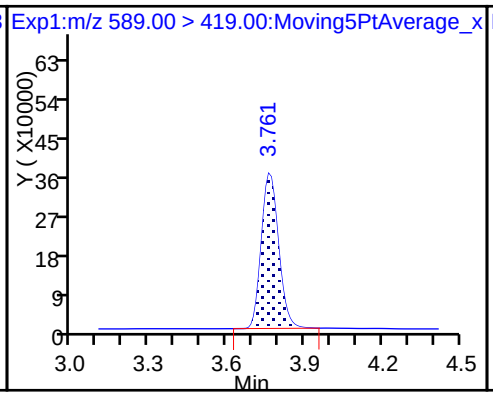
28 N-methyl perfluorooctane sulfonami



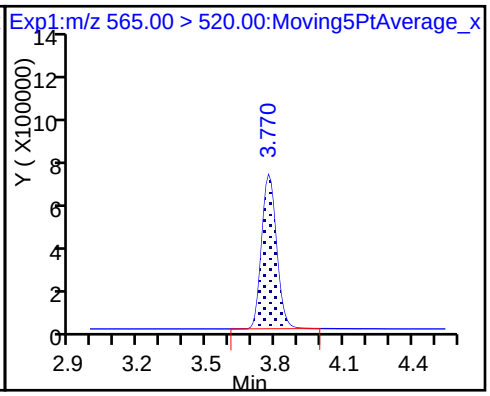
29 Perfluorodecane Sulfonic acid



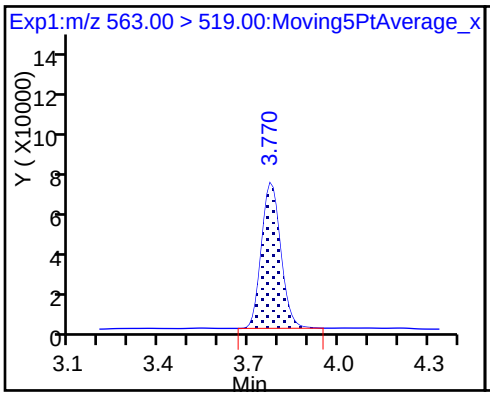
D 32 d5-NEtFOSAA



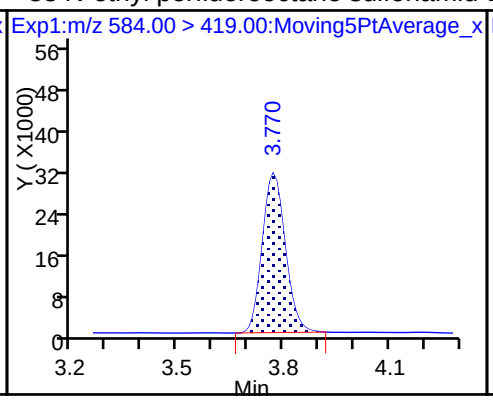
D 30 13C2 PFUnA



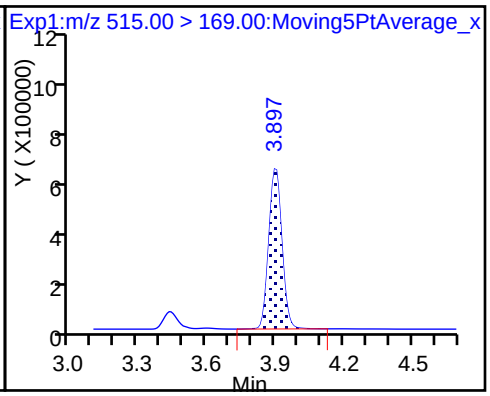
31 Perfluoroundecanoic acid



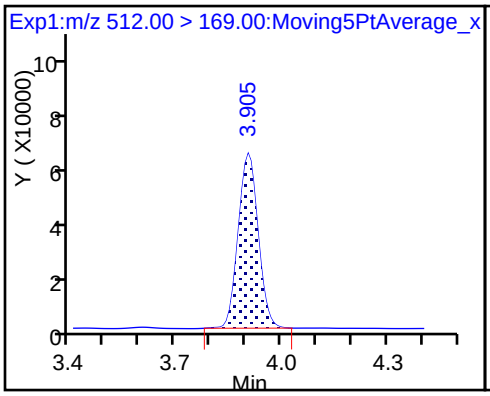
33 N-ethyl perfluorooctane sulfonamid



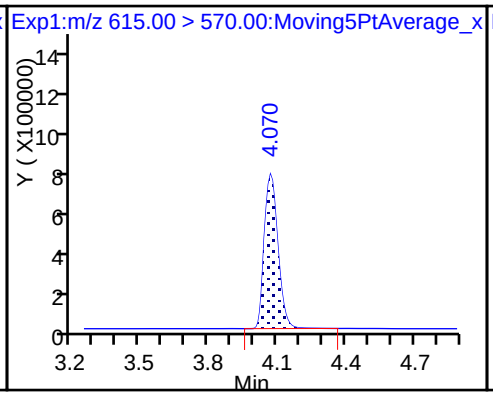
D 34 d-N-MeFOSA-M



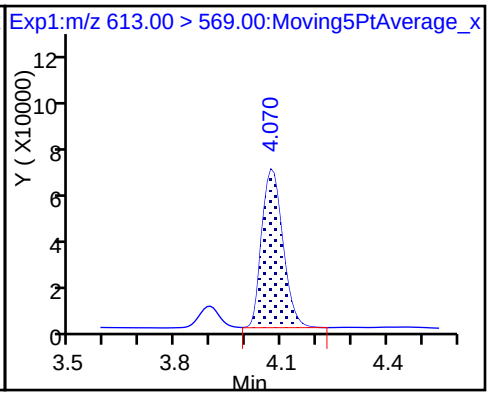
35 MeFOSA



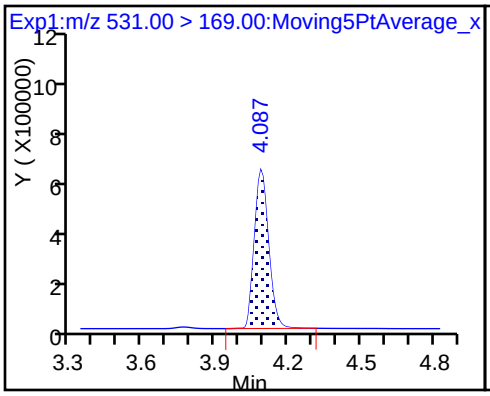
D 36 13C2 PFDoA



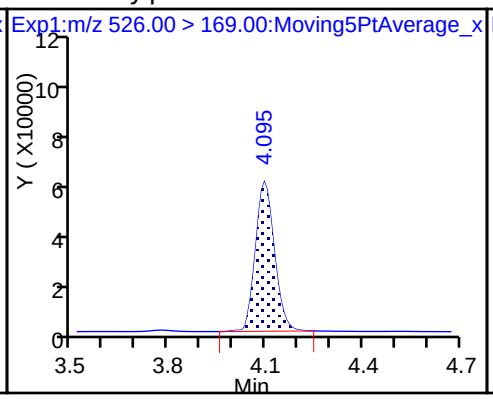
37 Perfluorododecanoic acid



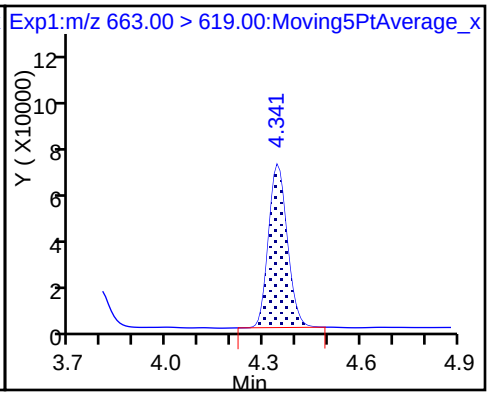
D 38 d-N-EtFOSA-M



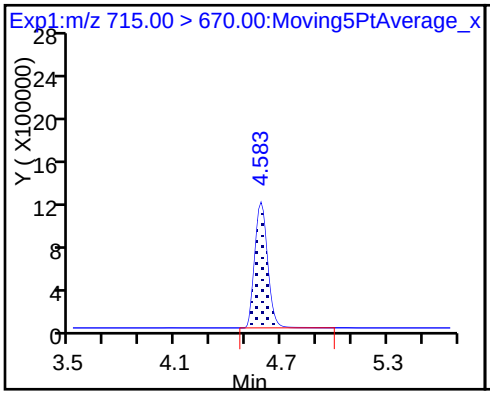
39 N-ethylperfluoro-1-octanesulfonami



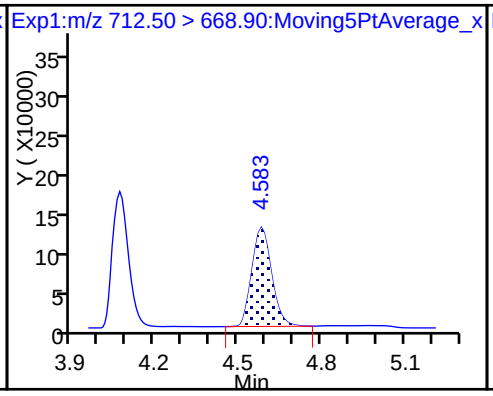
41 Perfluorotridecanoic acid



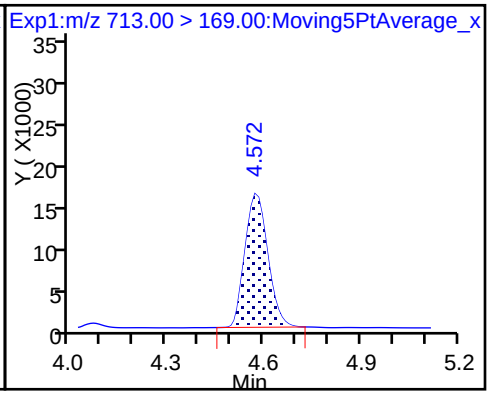
D 43 13C2-PFTeDA



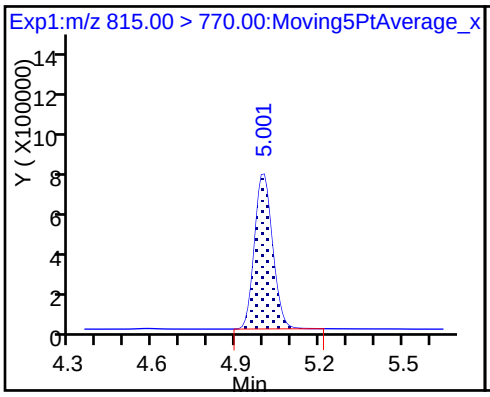
42 Perfluorotetradecanoic acid



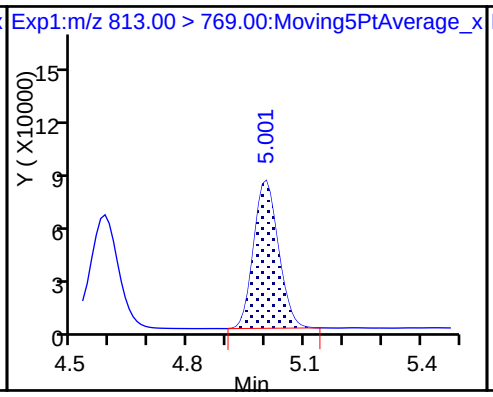
42 Perfluorotetradecanoic acid



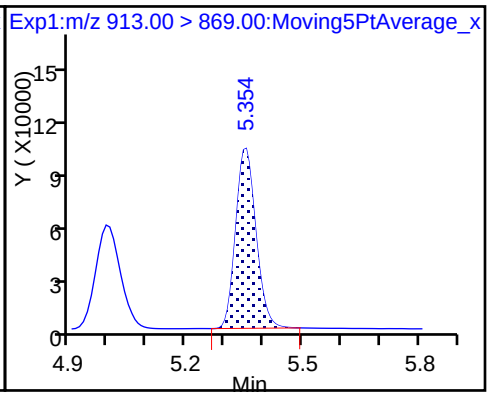
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

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Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 11-Jul-2017 19:03:07 ALS Bottle#: 31 Worklist Smp#: 6
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L4-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:19 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

First Level Reviewer: westendorfc Date: 12-Jul-2017 07:52:32

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.536	1.538	-0.002		9112082	52.6		105	13668	
2 Perfluorobutyric acid										
212.90 > 169.00	1.536	1.539	-0.003	1.000	3543267	21.2		106	1461	
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.748	-0.003		6900965	53.5		107	24512	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.745	1.749	-0.004	1.000	2877125	20.4		102	1865	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.772	1.775	-0.003	1.000	4648337	18.8		106	2914	
298.90 > 99.00	1.772	1.775	-0.003	1.000	1841503		2.52(0.00-0.00)	106	2793	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.982	1.980	0.002	1.000	966521	19.0		102	27482	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.017	0.0	1.000	2551212	19.9		99.5	3394	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		6710534	52.3		105	23739	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.343	2.341	0.002	1.000	2492092	19.8		98.9	2303	
D 9 13C4-PFHpA										
367.00 > 322.00	2.343	2.341	0.002		6295438	54.1		108	15745	
D 11 18O2 PFHxS										
403.00 > 84.00	2.359	2.357	0.002		7774125	48.4		102	17091	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.359	2.357	0.002	1.000	3173299	18.8		103	2177	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.671	2.673	-0.002	1.000	924635	18.9		99.5	10833	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.671	2.673	-0.002		2752456	50.9		107	17538	
* 62 13C2-PFOA										
415.00 > 370.00	2.692	2.694	-0.002		5800279	50.0			19527	
D 14 13C4 PFOA										
417.00 > 372.00	2.699	2.698	0.001		5958886	56.2		112	18088	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.699	2.700	-0.001	1.000	2441610	19.2		95.8	679	
413.00 > 169.00	2.699	2.700	-0.001	1.000	1373229		1.78(0.90-1.10)	95.8	3614	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.707	2.706	0.001	1.000	2685345	18.5		97.2	12709	
D 18 13C4 PFOS										
503.00 > 80.00	3.067	3.071	-0.004		5937906	51.6		108	19643	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.067	3.072	-0.005	1.000	2494647	18.3		98.6	55619	
499.00 > 99.00	3.067	3.072	-0.005	1.000	508000		4.91(0.90-1.10)	98.6	3777	
D 19 13C5 PFNA										
468.00 > 423.00	3.067	3.072	-0.005		4459696	52.9		106	12834	
20 Perfluorononanoic acid										
463.00 > 419.00	3.067	3.072	-0.005	1.000	1768748	20.3		101	4468	
D 21 13C8 FOSA										
506.00 > 78.00	3.403	3.401	0.002		10710740	53.1		106	20796	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.403	3.405	-0.002	1.000	3938779	20.0		100	15435	
D 26 M2-8:2FTS										
529.00 > 509.00	3.422	3.424	-0.002		2164085	49.6		104	15265	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.422	3.425	-0.003	1.000	812657	19.8		104	12655	
D 23 13C2 PFDA										
515.00 > 470.00	3.430	3.435	-0.005		4049125	53.5		107	12131	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.430	3.435	-0.005	1.000	1504600	19.5		97.5	6615	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.590	3.592	-0.002		1615732	51.4		103	7180	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.590	3.595	-0.005	1.000	598773	20.4		102	3469	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.747	3.749	-0.002	1.000	1601613	19.0		98.6	10780	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.757	3.759	-0.002		1627802	53.1		106	4350	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.766	3.768	-0.002	1.003	559960	20.1		101	4335	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.766	3.768	-0.002	1.000	1225227	20.2		101	3963	
D 30 13C2 PFUnA										
565.00 > 520.00	3.766	3.768	-0.002		2978349	51.6		103	12500	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.894	3.894	0.0		2546103	50.5		101	612	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.894	3.899	-0.005	1.000	904224	19.4		97.0	4220	
D 36 13C2 PFDoA										
615.00 > 570.00	4.055	4.061	-0.006		3138002	53.1		106	8587	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.055	4.062	-0.007	1.000	1167244	19.6		98.2	1328	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.082	4.083	-0.001		2517372	50.2		100	4476	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.091	4.090	0.001	1.000	933597	19.9		99.3	3126	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.327	4.331	-0.004	1.000	1083591	19.1		95.3	264	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.575	4.571	0.004		5856238	52.3		105	16858	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.575	4.573	0.002	1.000	2468849	20.0		100	205	
713.00 > 169.00	4.564	4.573	-0.009	0.998	278408		8.87(0.00-0.00)	100	3591	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.984	4.986	-0.002		3502685	51.5		103	4541	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.993	4.988	0.005	1.000	1273617	19.8		99.2	236	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.342	5.344	-0.002	1.000	1361690	19.1		95.5	320	

Reagents:

LCPFC_FULL-L4_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:20 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_006.d

Injection Date: 11-Jul-2017 19:03:07 Instrument ID: A8_N

Lims ID: IC L4 Full

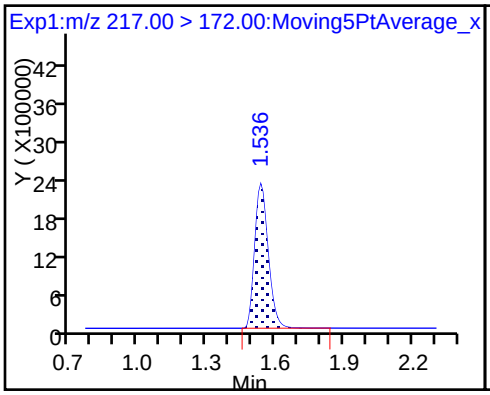
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 6

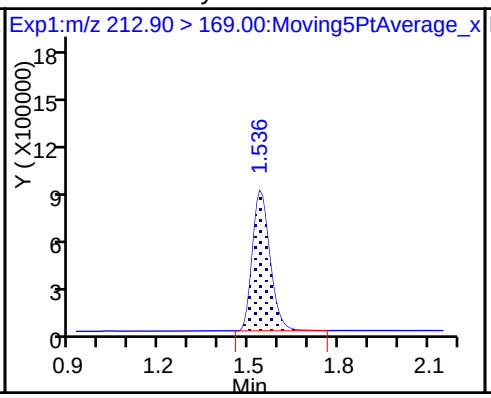
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

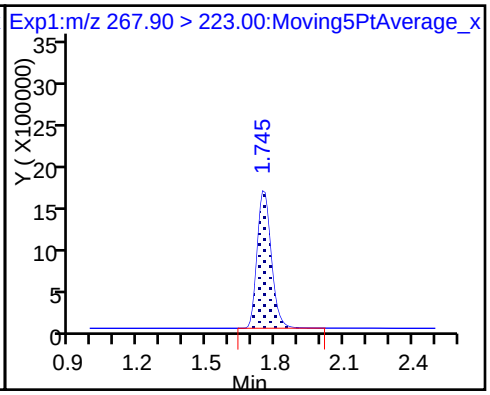
D 1 13C4 PFBA



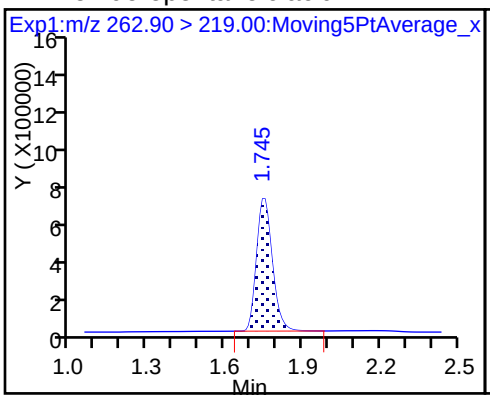
2 Perfluorobutyric acid



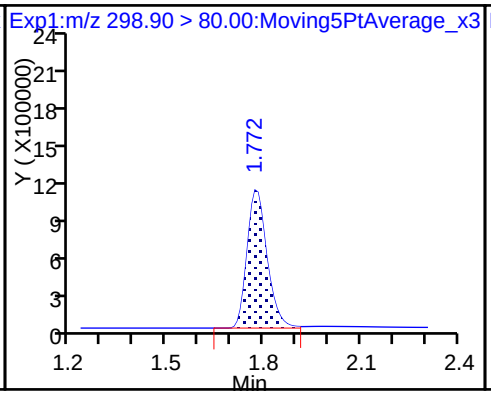
D 3 13C5-PFPeA



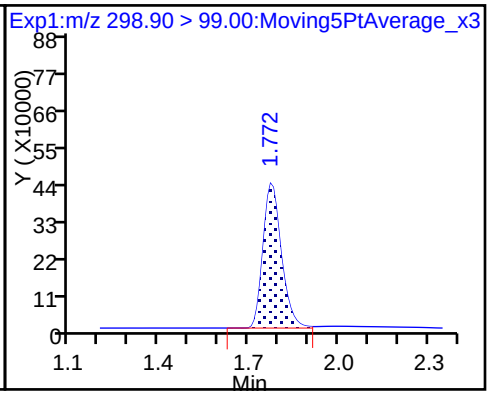
4 Perfluoropentanoic acid



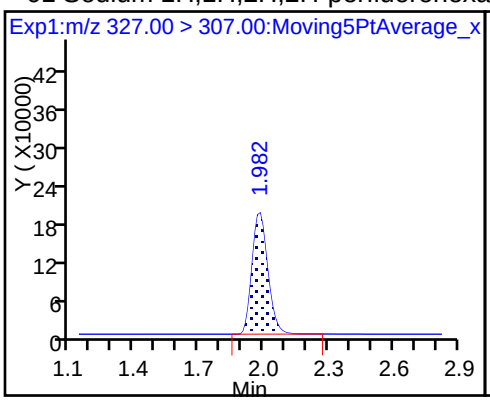
5 Perfluorobutanesulfonic acid



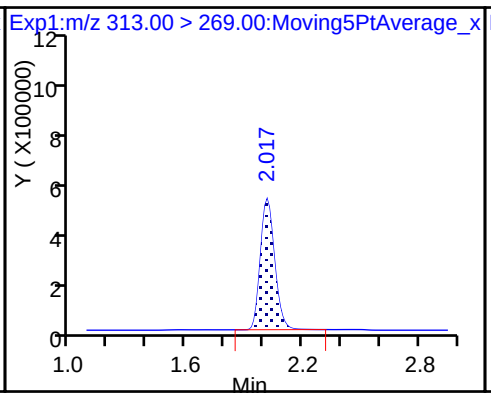
5 Perfluorobutanesulfonic acid



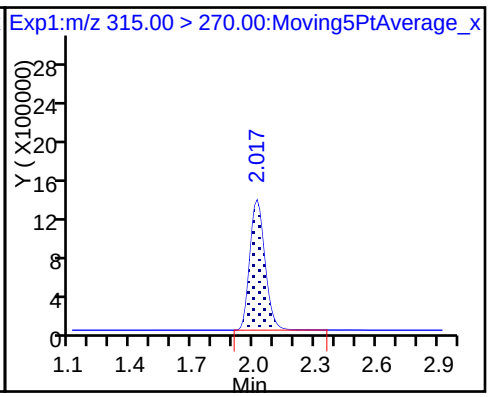
61 Sodium 1H,1H,2H,2H-perfluorohexane



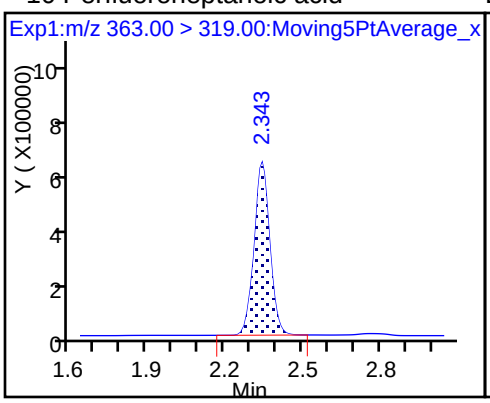
6 Perfluorohexanoic acid



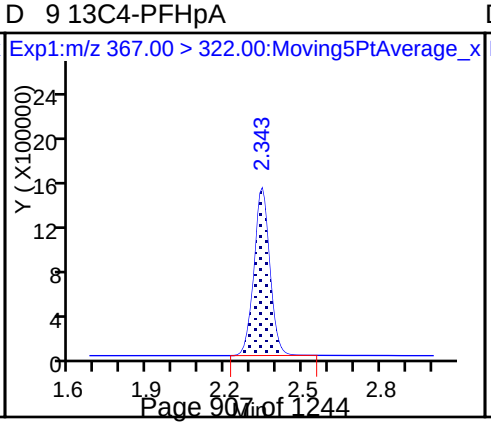
D 7 13C2 PFHxA



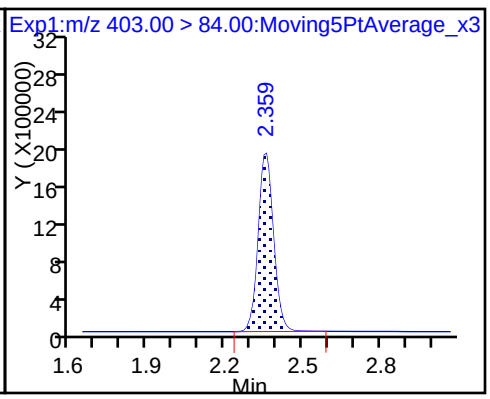
10 Perfluoroheptanoic acid



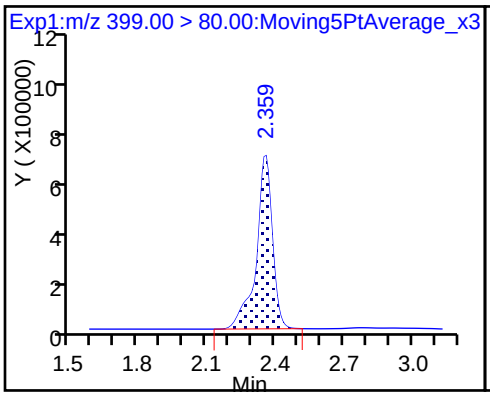
D 9 13C4-PFHpA



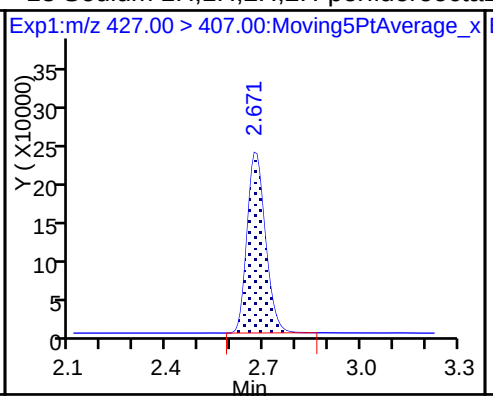
D 11 18O2 PFHxS



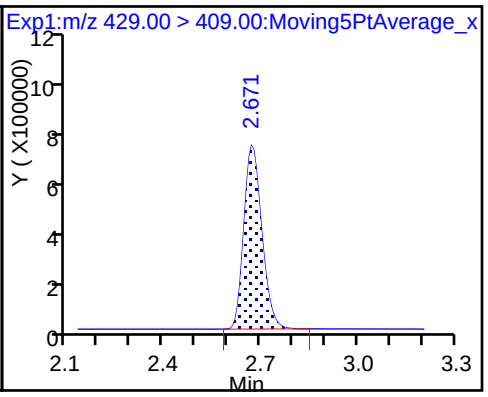
8 Perfluorohexanesulfonic acid



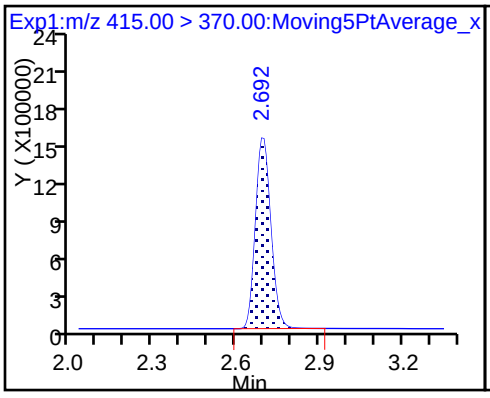
13 Sodium 1H,1H,2H,2H-perfluorooctane



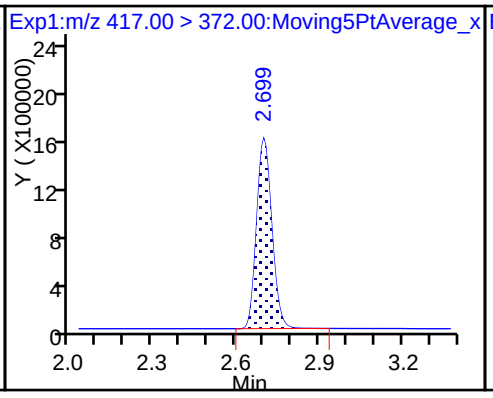
D 12 M2-6:2FTS



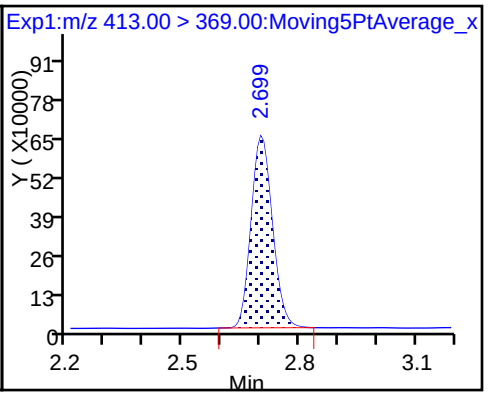
* 62 13C2-PFOA



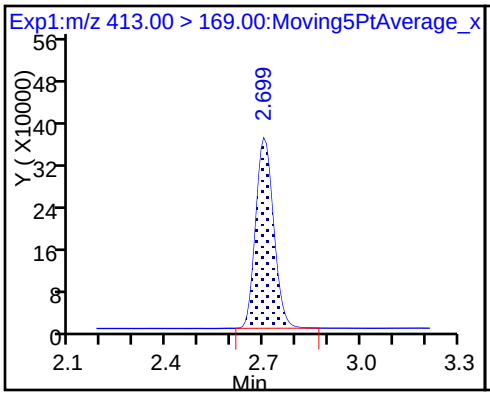
D 14 13C4 PFOA



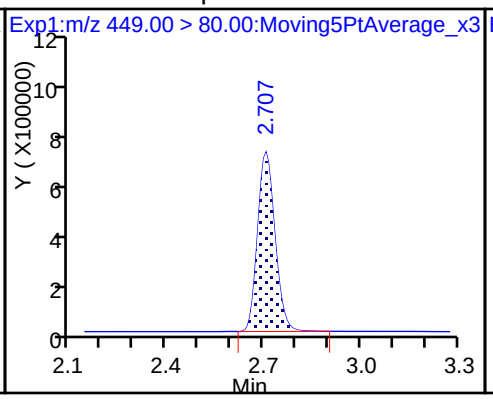
15 Perfluorooctanoic acid



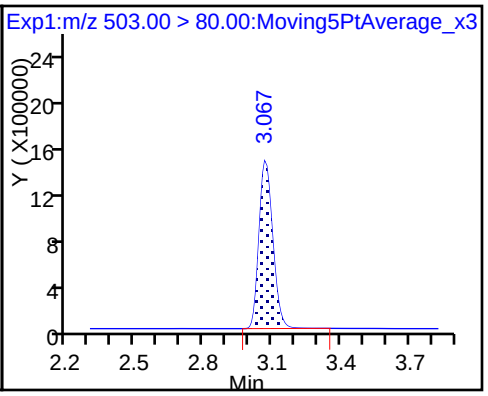
15 Perfluorooctanoic acid



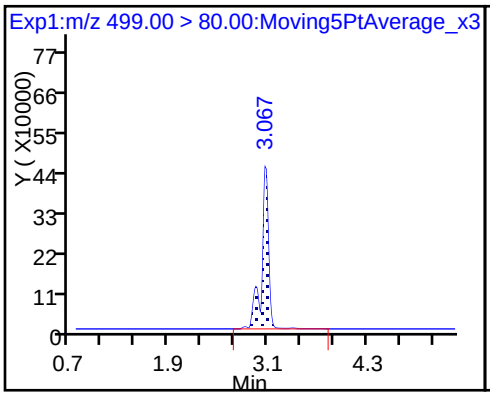
16 Perfluoroheptanesulfonic Acid



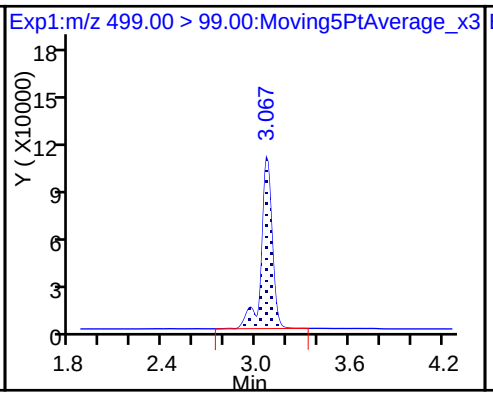
D 18 13C4 PFOS



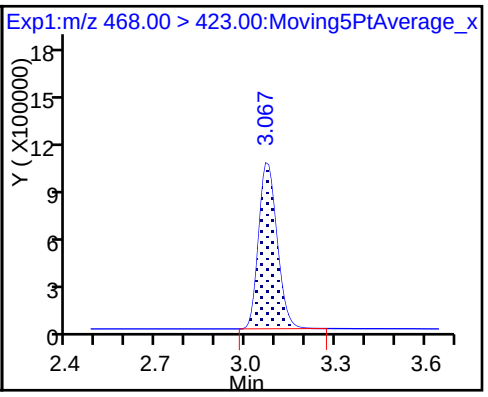
17 Perfluorooctane sulfonic acid



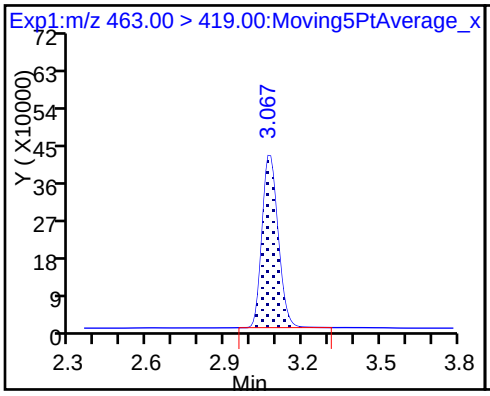
17 Perfluorooctane sulfonic acid



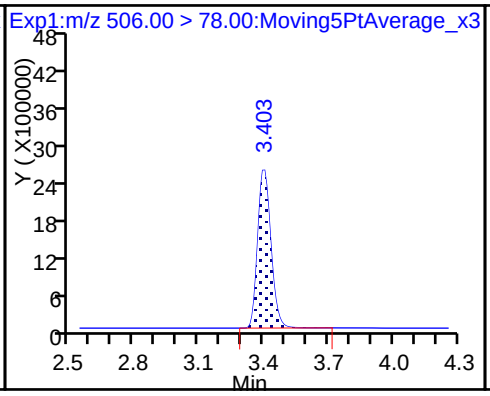
D 19 13C5 PFNA



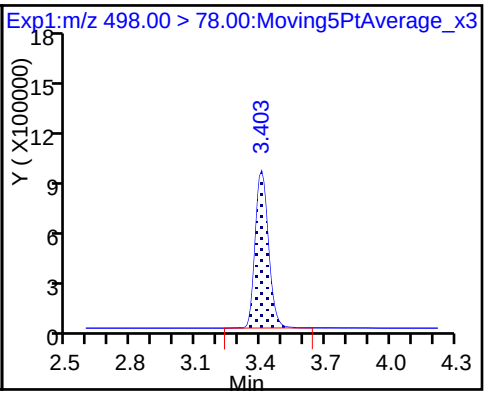
20 Perfluorononanoic acid



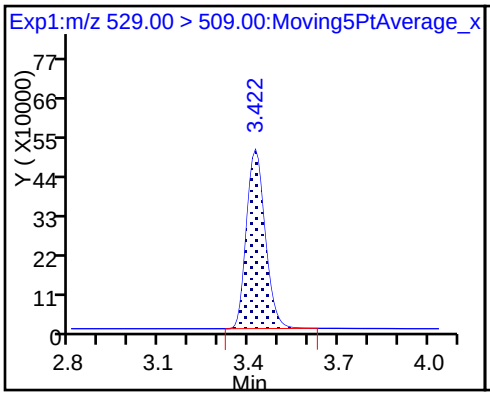
D 21 13C8 FOSA



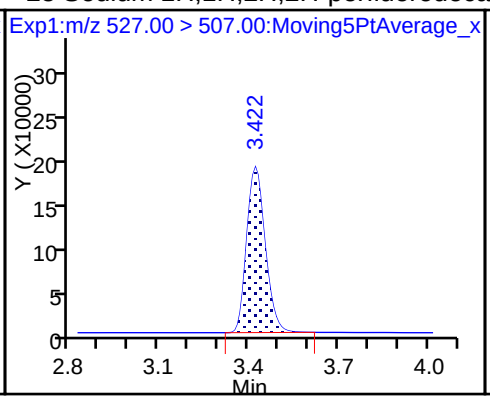
22 Perfluorooctane Sulfonamide



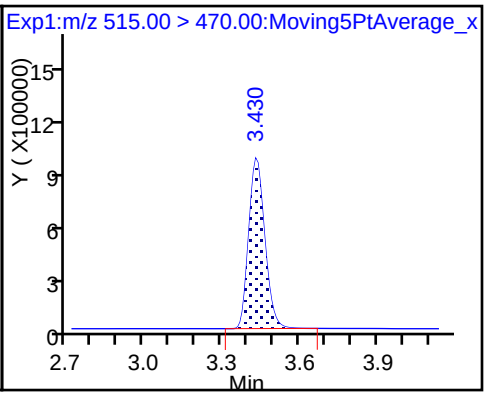
D 26 M2-8:2FTS



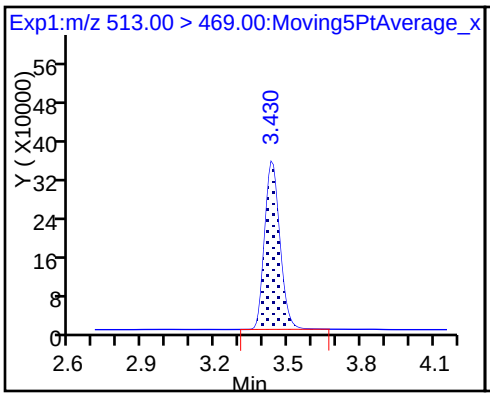
25 Sodium 1H,1H,2H,2H-perfluorodecane



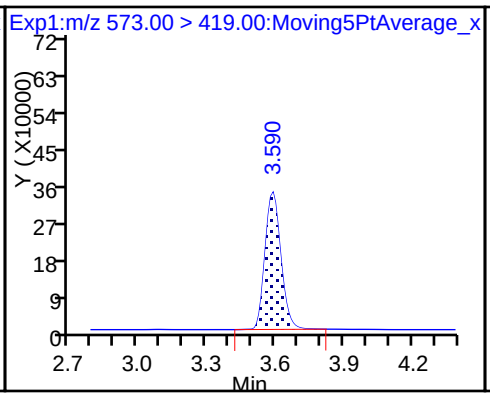
D 23 13C2 PFDA



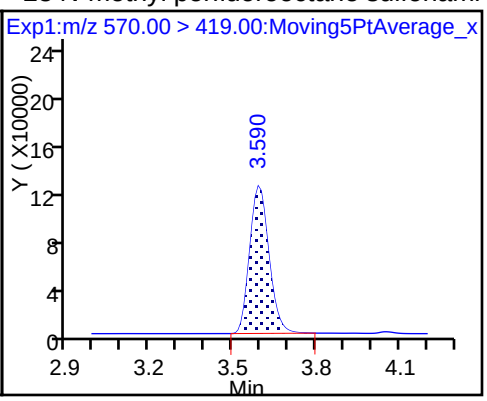
24 Perfluorodecanoic acid



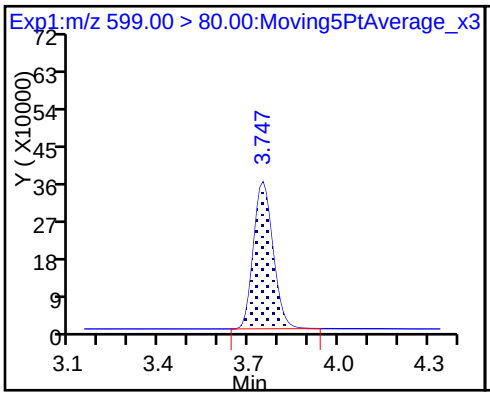
D 27 d3-NMeFOSAA



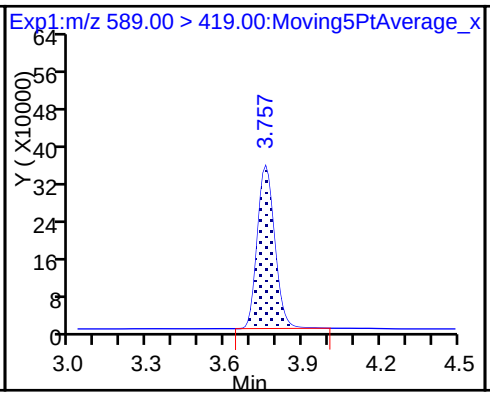
28 N-methyl perfluorooctane sulfonami



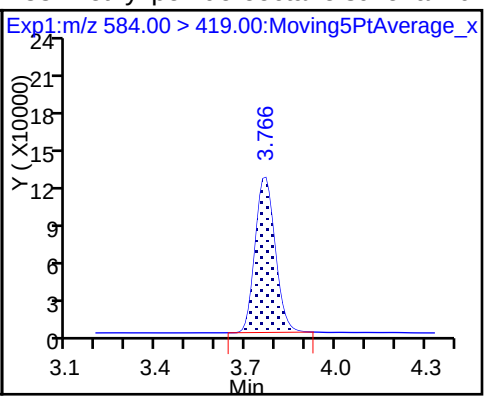
29 Perfluorodecane Sulfonic acid



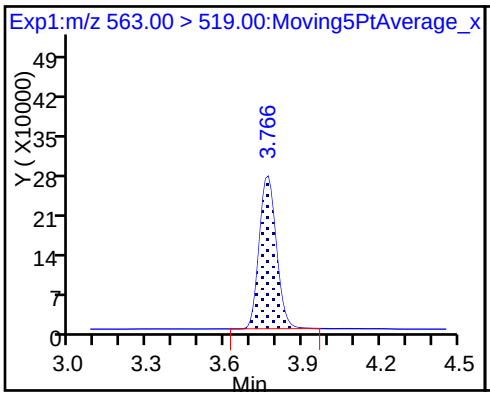
D 32 d5-NEtFOSAA



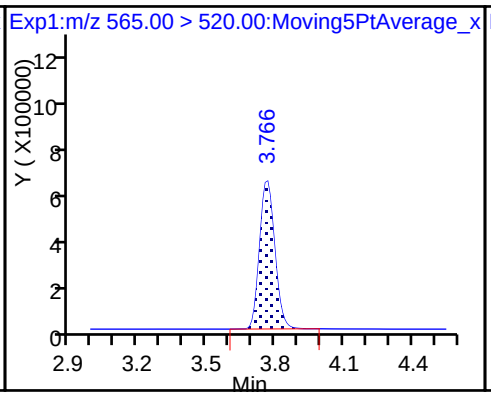
33 N-ethyl perfluorooctane sulfonamid



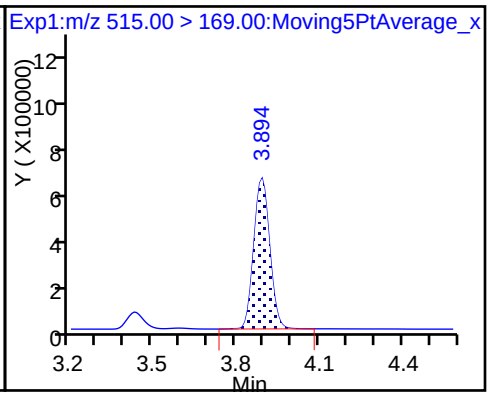
31 Perfluoroundecanoic acid



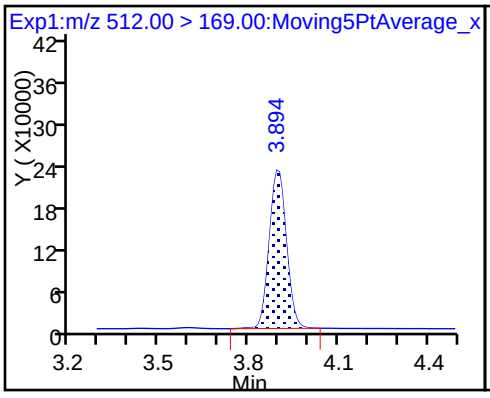
D 30 13C2 PFUnA



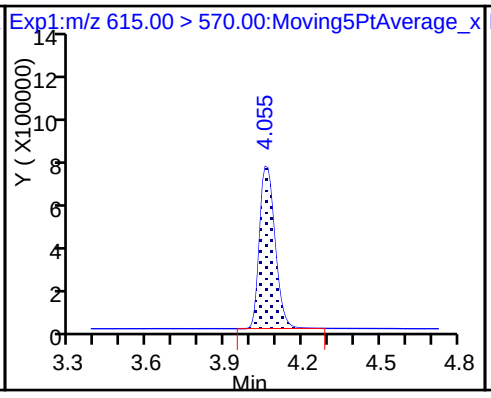
D 34 d-N-MeFOSA-M



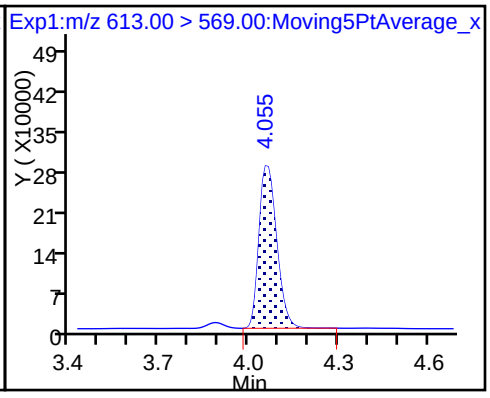
35 MeFOSA



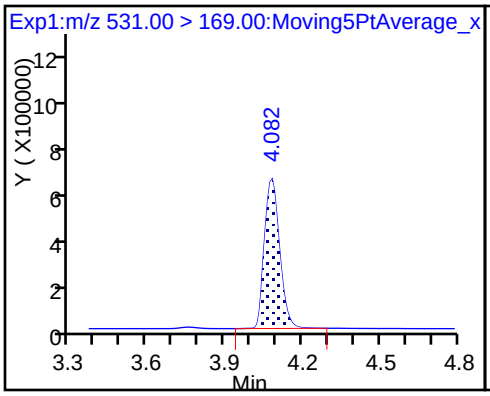
D 36 13C2 PFDoA



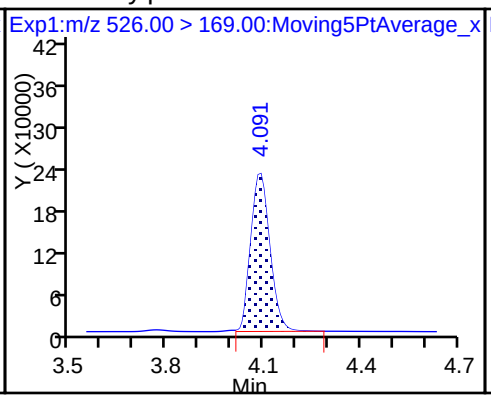
37 Perfluorododecanoic acid



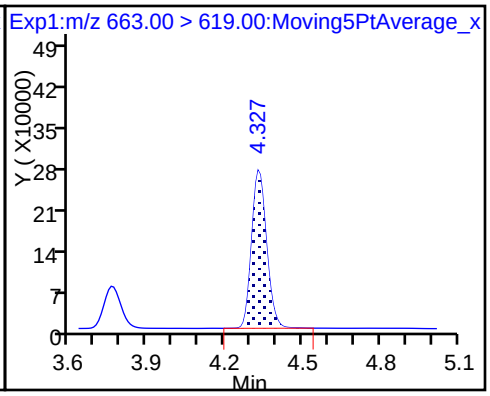
D 38 d-N-EtFOSA-M



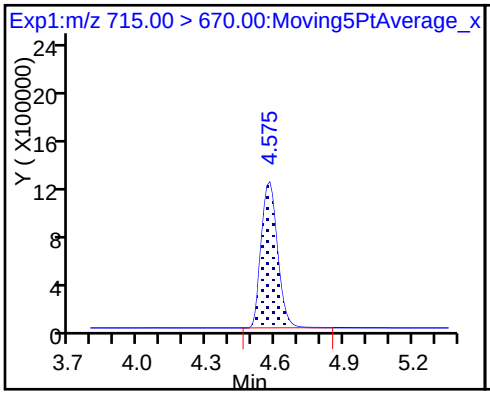
39 N-ethylperfluoro-1-octanesulfonami



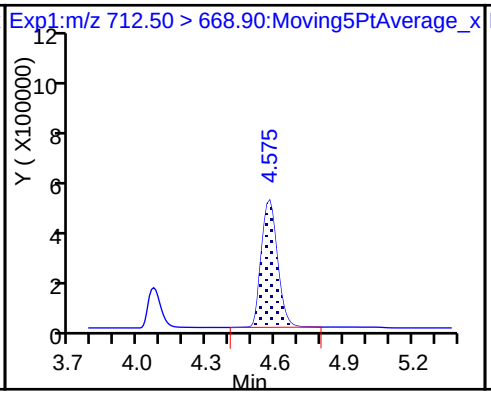
41 Perfluorotridecanoic acid



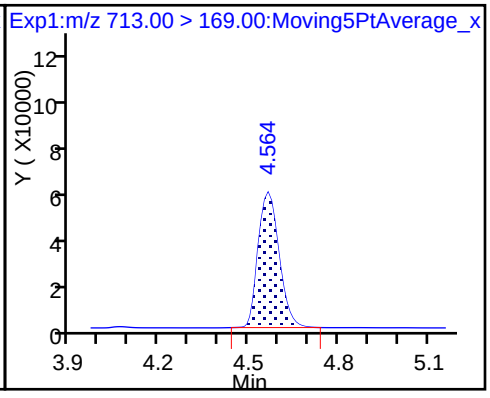
D 43 13C2-PFTeDA



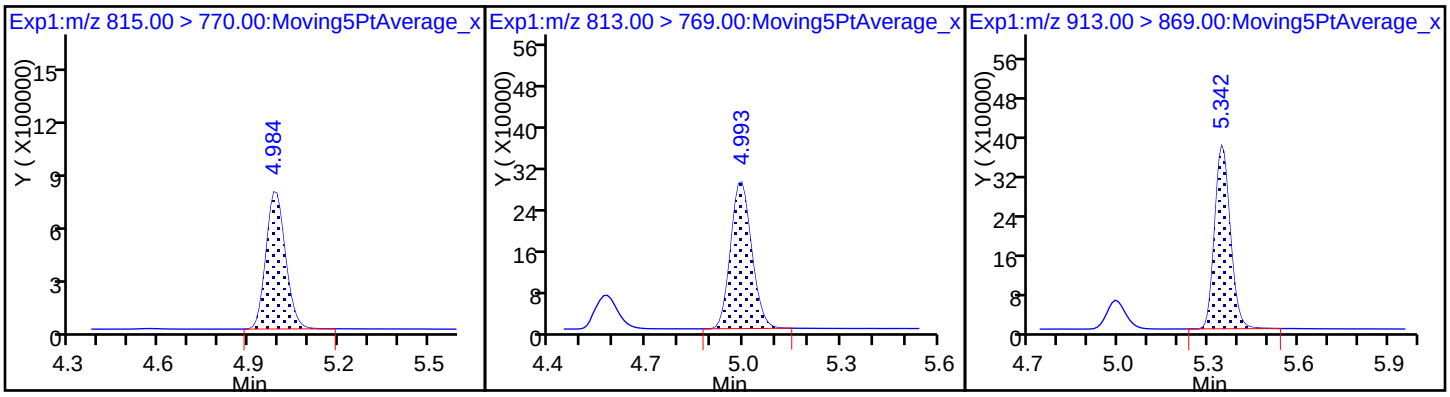
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_007.d
Lims ID: IC L5 Full
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 11-Jul-2017 19:10:01 ALS Bottle#: 32 Worklist Smp#: 7
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L5-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:24 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.537	1.538	-0.001		8692043	50.1		100	11649	
2 Perfluorobutyric acid										
212.90 > 169.00	1.537	1.539	-0.002	1.000	8089442	50.7		101	2825	
D 3 13C5-PFPeA										
267.90 > 223.00	1.746	1.748	-0.002		6529687	50.6		101	21407	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.746	1.749	-0.003	1.000	6522949	49.0		97.9	3971	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.773	1.775	-0.002	1.000	10652662	44.7		101	6166	
298.90 > 99.00	1.773	1.775	-0.002	1.000	4373715		2.44(0.00-0.00)	101	202091	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.972	1.980	-0.008	1.000	2194168	45.8		98.0	31297	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		6356952	49.5		99.0	16072	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.017	0.0	1.000	5778381	47.6		95.2	6651	
D 9 13C4-PFHpA										
367.00 > 322.00	2.338	2.341	-0.003		5941458	51.1		102	14983	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.338	2.341	-0.003	1.000	5874933	49.4		98.8	4505	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.354	2.357	-0.003	1.000	7251502	44.5		97.8	3625	
D 11 18O2 PFHxS										
403.00 > 84.00	2.354	2.357	-0.003		7493833	46.7		98.7	14850	
D 12 M2-6:2FTS										
429.00 > 409.00	2.673	2.673	0.0		2600967	48.1		101	13073	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.673	2.673	0.0	1.000	2231234	48.2		102	14661	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 62 13C2-PFOA										
415.00 > 370.00	2.695	2.694	0.001		5418027	50.0			20655	
D 14 13C4 PFOA										
417.00 > 372.00	2.695	2.698	-0.003		5310411	50.1		100	13268	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.695	2.700	-0.005	1.000	5493698	48.4		96.8	1384	
413.00 > 169.00	2.695	2.700	-0.005	1.000	3001220		1.83(0.90-1.10)	96.8	5000	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.702	2.706	-0.004	1.000	6389176	48.7		102	20263	
D 18 13C4 PFOS										
503.00 > 80.00	3.072	3.071	0.001		5368704	46.7		97.6	19511	
20 Perfluorononanoic acid										
463.00 > 419.00	3.072	3.072	0.0	1.000	3957986	49.3		98.6	6898	
D 19 13C5 PFNA										
468.00 > 423.00	3.072	3.072	0.0		4101135	48.7		97.3	10860	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.072	3.072	0.0	1.000	5671174	46.0		99.2	100195	
499.00 > 99.00	3.072	3.072	0.0	1.000	1192655		4.76(0.90-1.10)	99.2	6636	
D 21 13C8 FOSA										
506.00 > 78.00	3.403	3.401	0.002		9967447	49.4		98.7	15477	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.412	3.405	0.007	1.000	9140966	49.9		99.8	47588	
D 26 M2-8:2FTS										
529.00 > 509.00	3.430	3.424	0.006		2056094	47.1		98.3	17770	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.430	3.425	0.005	1.000	1818600	46.7		97.6	12054	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.439	3.435	0.004	1.000	3326656	46.8		93.6	7928	
D 23 13C2 PFDA										
515.00 > 470.00	3.439	3.435	0.004		3729751	49.3		98.5	13365	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.598	3.592	0.006		1536305	48.9		97.8	8471	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.598	3.595	0.003	1.000	1389407	49.7		99.4	5341	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.754	3.749	0.005	1.000	3705005	48.6		101	10660	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.764	3.759	0.005		1526741	49.8		99.6	2914	
D 30 13C2 PFUnA										
565.00 > 520.00	3.773	3.768	0.005		2871911	49.7		99.5	8694	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.773	3.768	0.005	1.000	2696477	46.2		92.4	5773	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.773	3.768	0.005	1.003	1249281	47.8		95.7	7667	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.902	3.894	0.008		2498017	49.6		99.1	668	
35 MeFOSA										
512.00 > 169.00	3.910	3.899	0.011	1.000	2260003	49.4		98.8	5048	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 36 13C2 PFDoA										
615.00 > 570.00	4.070	4.061	0.009		2819144	47.7		95.4	7999	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.070	4.062	0.008	1.000	2694353	50.5		101	2953	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.087	4.083	0.004		2621338	52.3		105	4030	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.096	4.090	0.006	1.000	2340293	47.8		95.6	4658	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.337	4.331	0.006	1.000	2520181	49.3		98.7	791	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.572	4.571	0.001		5548971	49.6		99.1	19887	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.572	4.573	-0.001	1.000	5525148	49.8		99.7	327	
713.00 > 169.00	4.572	4.573	-0.001	1.000	675684		8.18(0.00-0.00)	99.7	5718	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.985	4.986	-0.001		3501391	51.5		103	4156	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.985	4.988	-0.003	1.000	2855376	50.8		102	450	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.346	5.344	0.002	1.000	3377804	52.7		105	697	

Reagents:

LCPFC_FULL-L5_00008 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:26 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_007.d

Injection Date: 11-Jul-2017 19:10:01 Instrument ID: A8_N

Lims ID: IC L5 Full

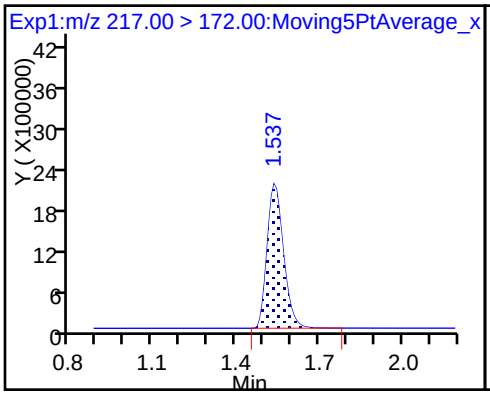
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 7

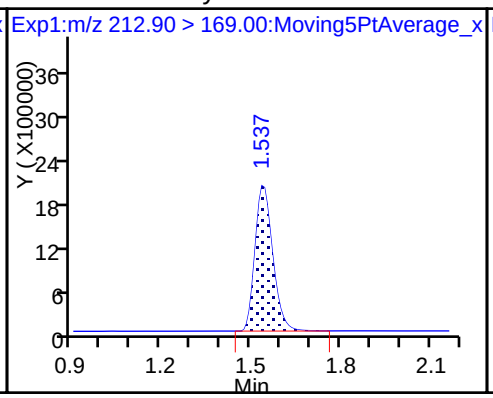
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

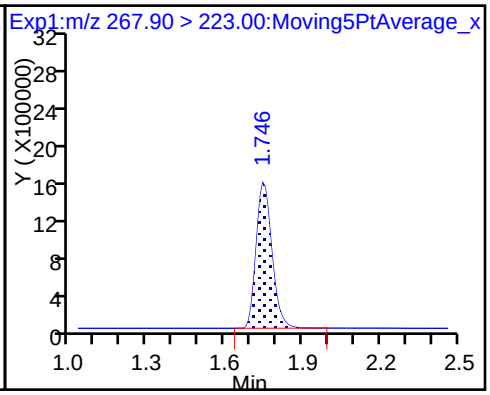
D 1 13C4 PFBA



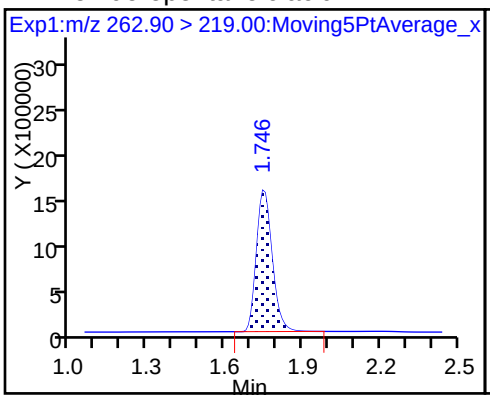
2 Perfluorobutyric acid



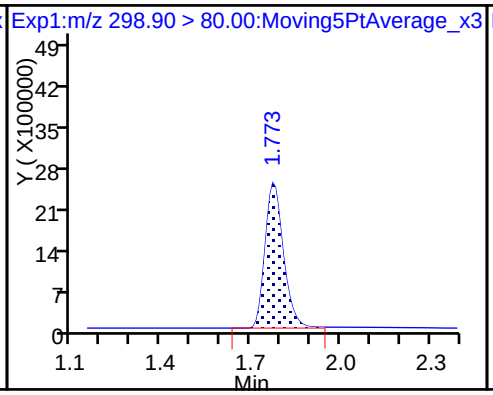
D 3 13C5-PFPeA



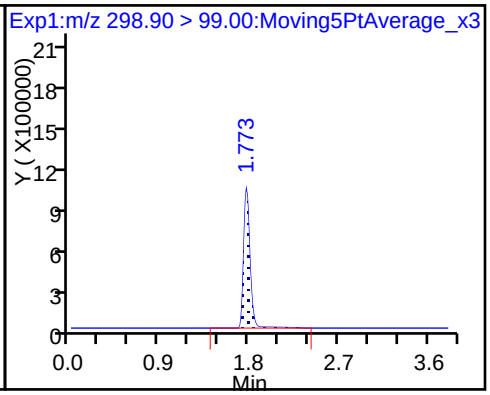
4 Perfluoropentanoic acid



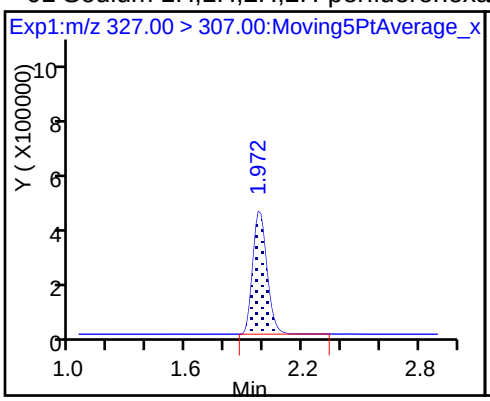
5 Perfluorobutanesulfonic acid



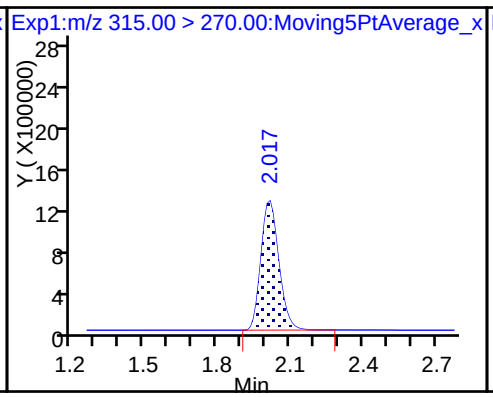
5 Perfluorobutanesulfonic acid



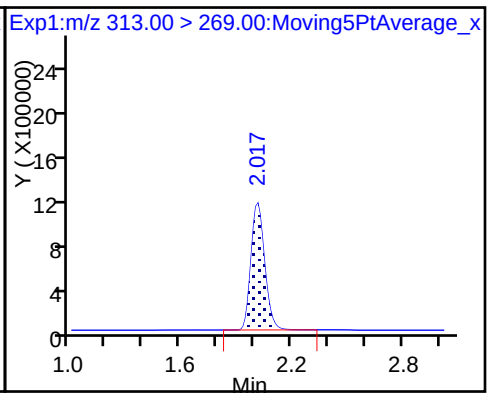
61 Sodium 1H,1H,2H,2H-perfluorohexane



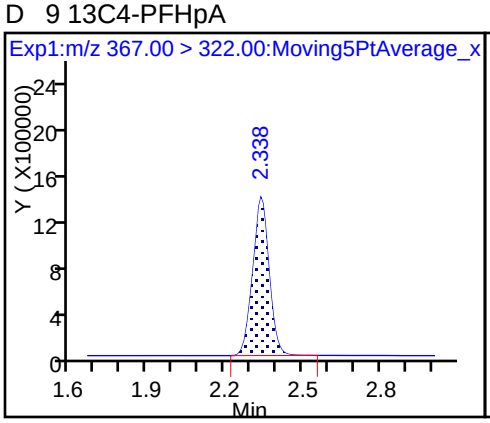
D 7 13C2 PFHxA



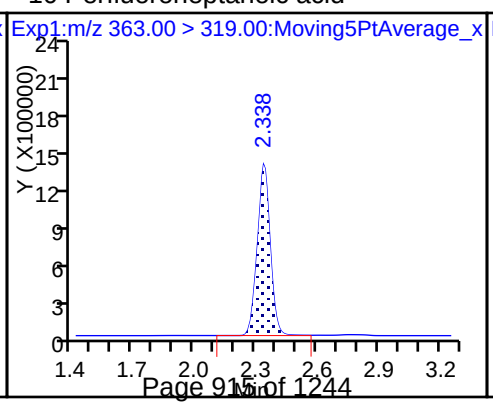
6 Perfluorohexanoic acid



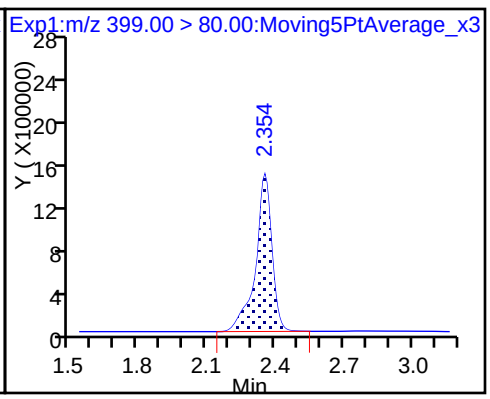
D 9 13C4-PFHpA



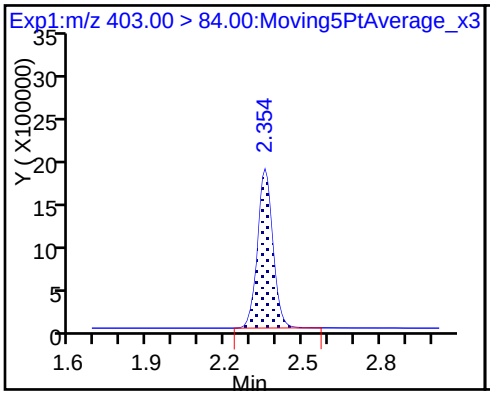
10 Perfluoroheptanoic acid



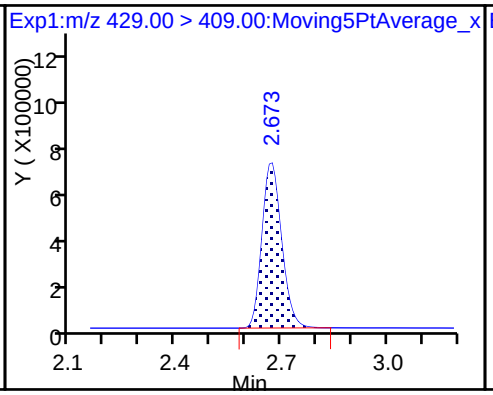
8 Perfluorohexanesulfonic acid



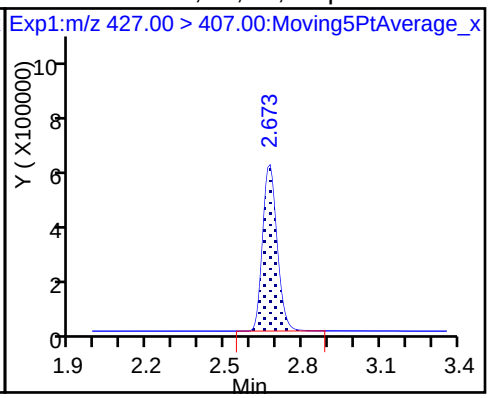
D 11 18O2 PFHxS



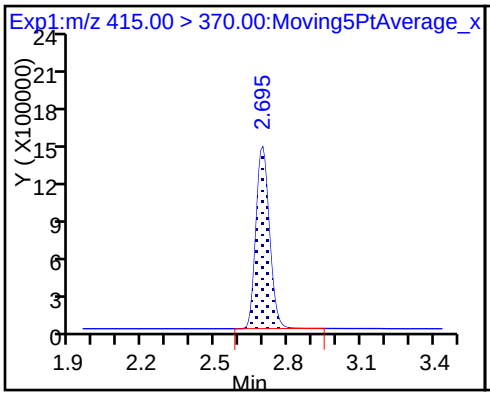
D 12 M2-6:2FTS



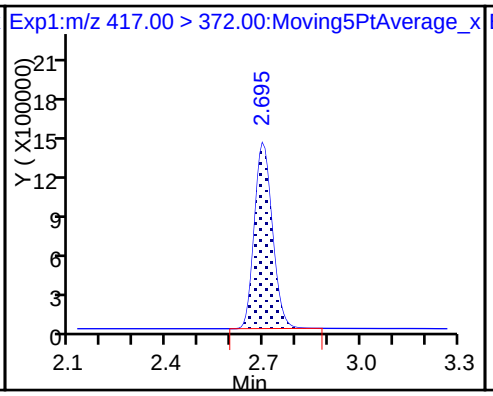
13 Sodium 1H,1H,2H,2H-perfluorooctane



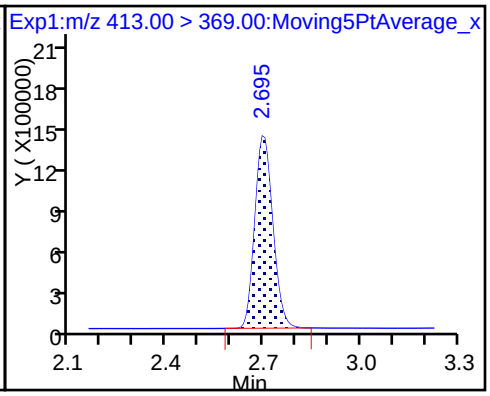
* 62 13C2-PFOA



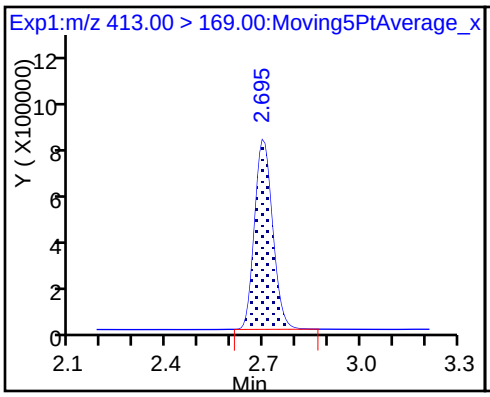
D 14 13C4 PFOA



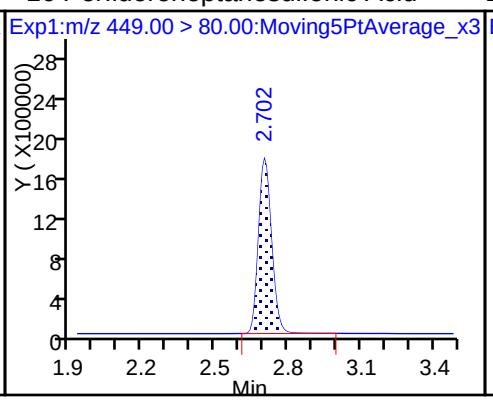
15 Perfluorooctanoic acid



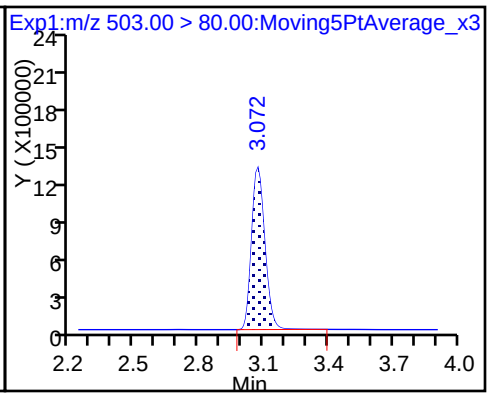
15 Perfluorooctanoic acid



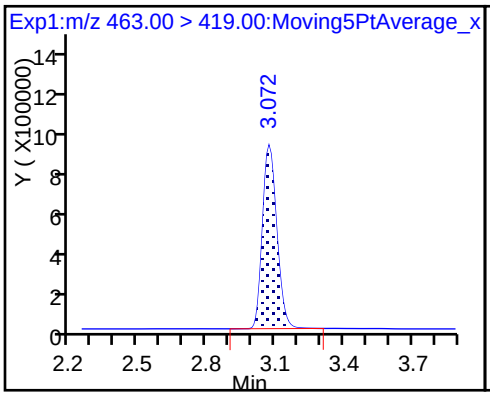
16 Perfluoroheptanesulfonic Acid



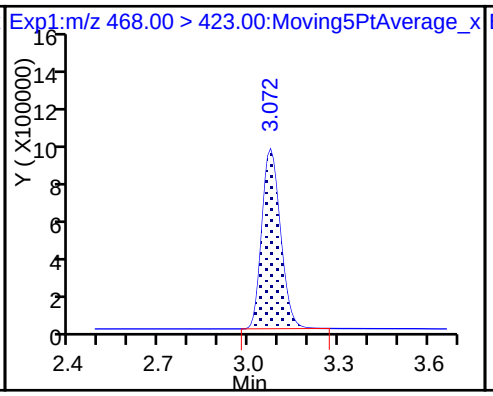
D 18 13C4 PFOS



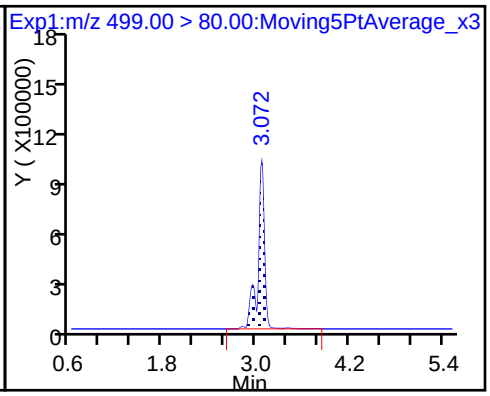
20 Perfluorononanoic acid



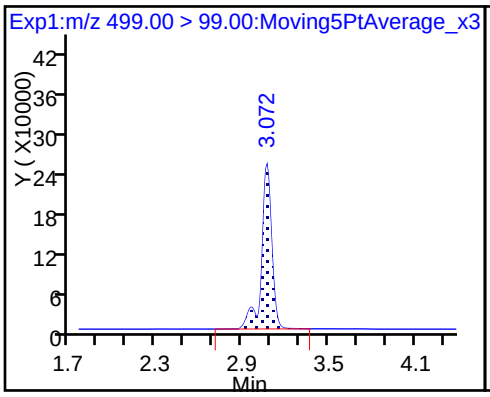
D 19 13C5 PFNA



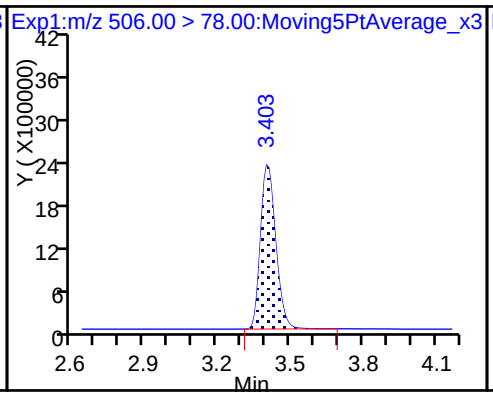
17 Perfluorooctane sulfonic acid



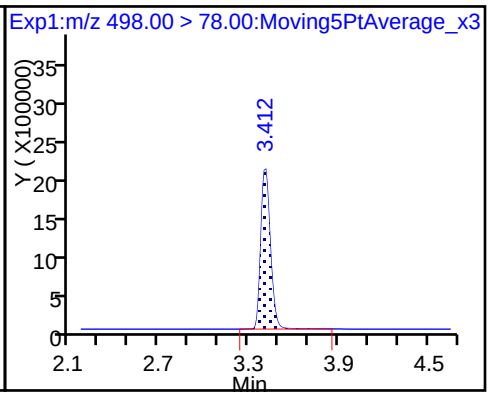
17 Perfluorooctane sulfonic acid



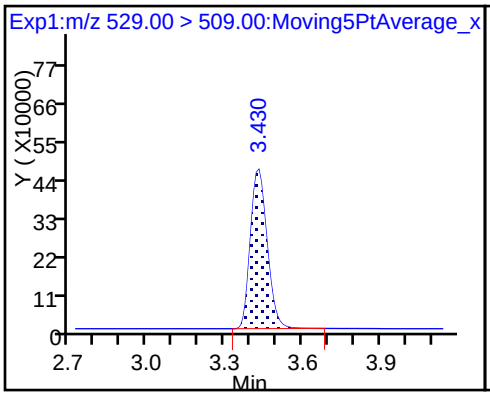
D 21 13C8 FOSA



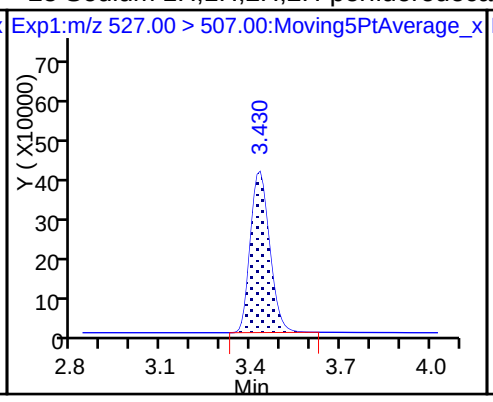
22 Perfluorooctane Sulfonamide



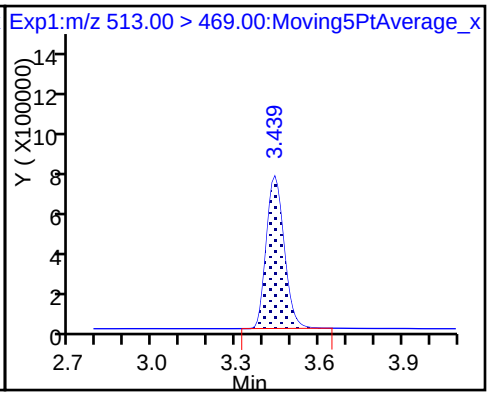
D 26 M2-8:2FTS



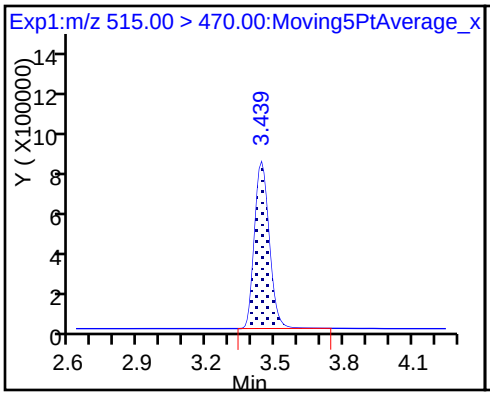
25 Sodium 1H,1H,2H,2H-perfluorodecan



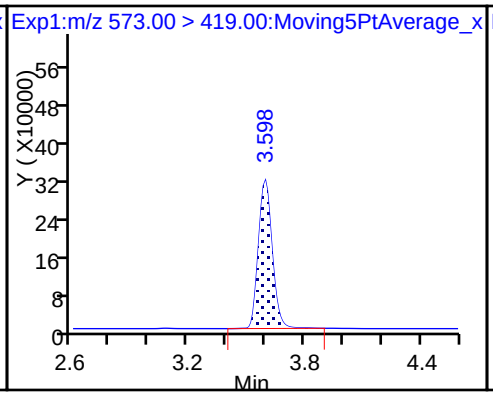
24 Perfluorodecanoic acid



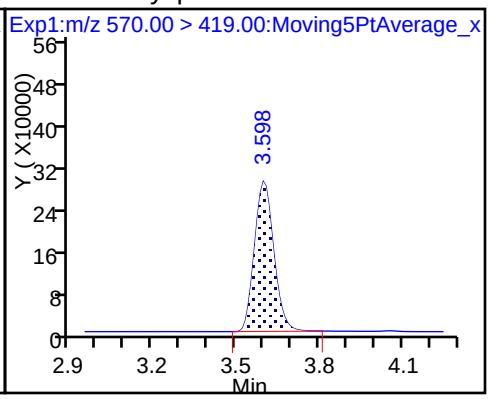
D 23 13C2 PFDA



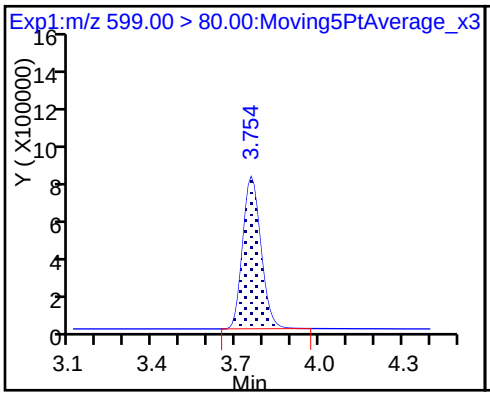
D 27 d3-NMeFOSAA



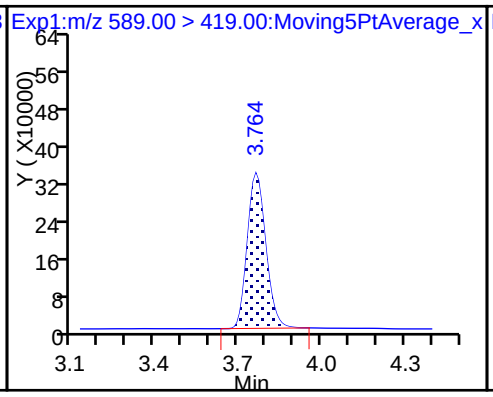
28 N-methyl perfluorooctane sulfonami



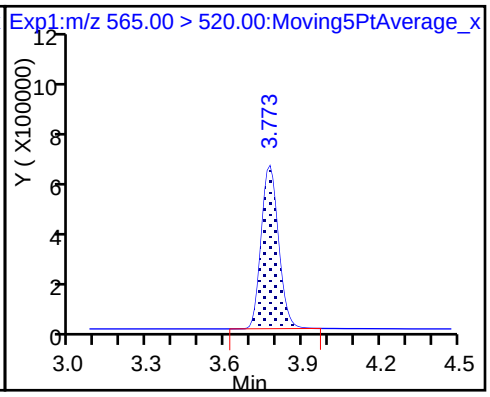
29 Perfluorodecane Sulfonic acid



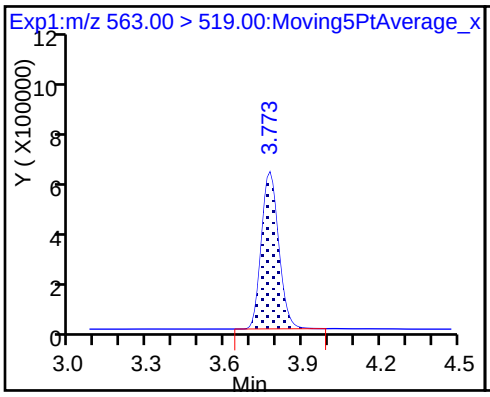
D 32 d5-NEtFOSAA



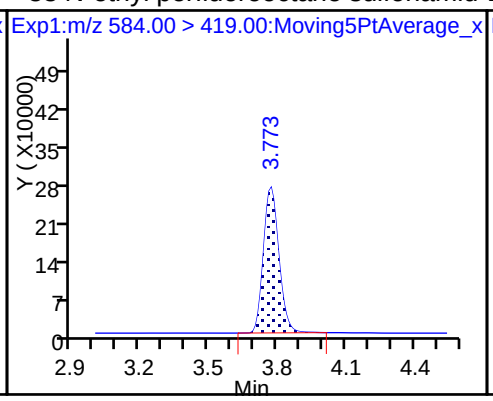
D 30 13C2 PFUnA



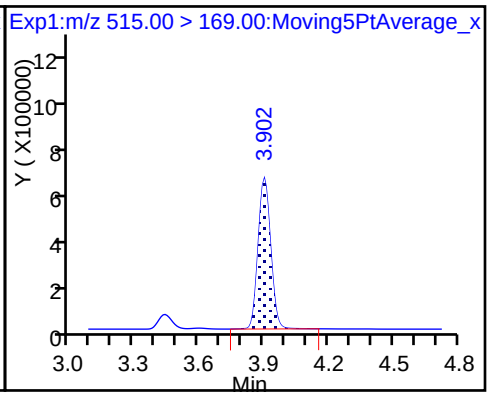
31 Perfluoroundecanoic acid



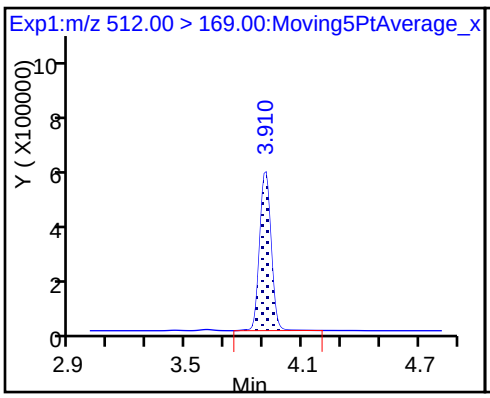
33 N-ethyl perfluorooctane sulfonamid



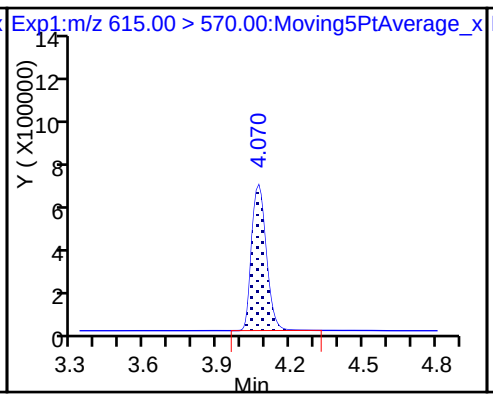
D 34 d-N-MeFOSA-M



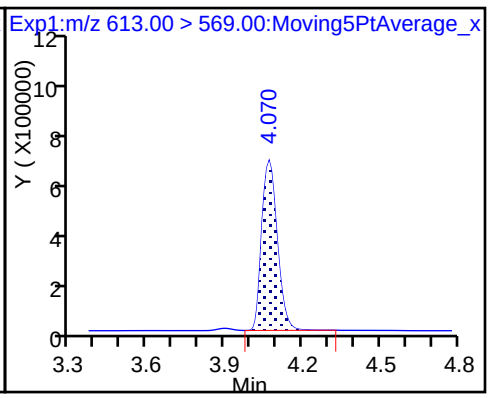
35 MeFOSA



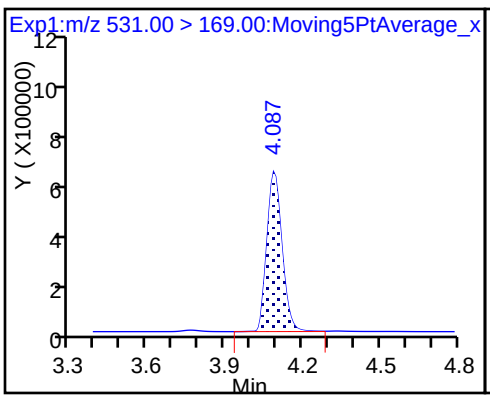
D 36 13C2 PFDoA



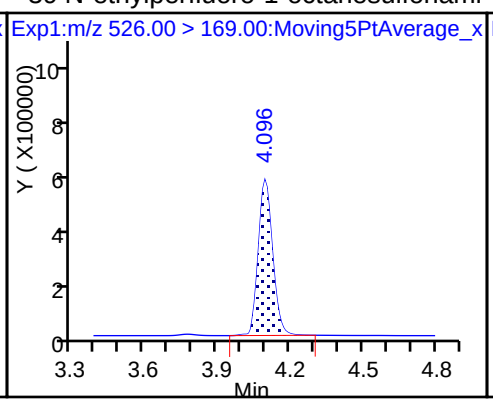
37 Perfluorododecanoic acid



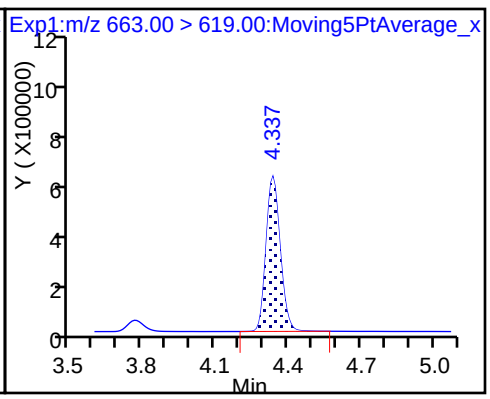
D 38 d-N-EtFOSA-M



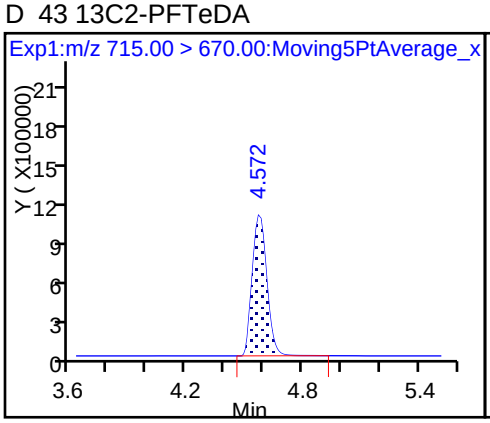
39 N-ethylperfluoro-1-octanesulfonami



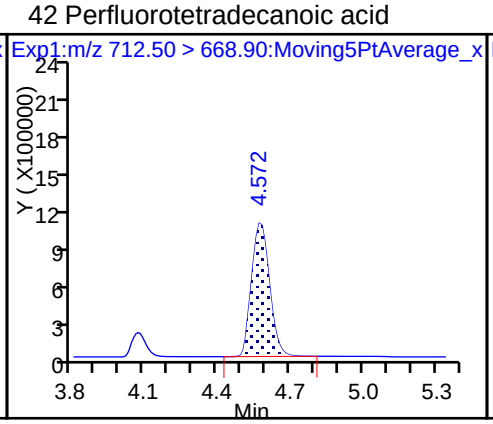
41 Perfluorotridecanoic acid



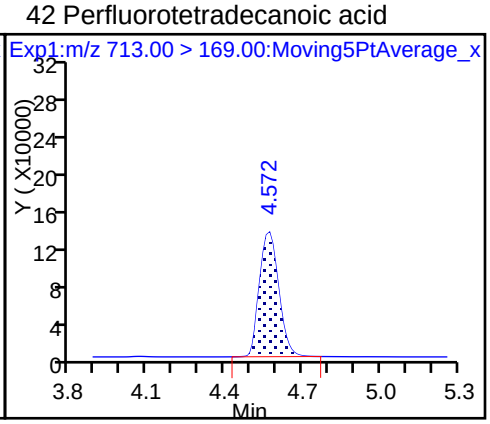
D 43 13C2-PFTeDA



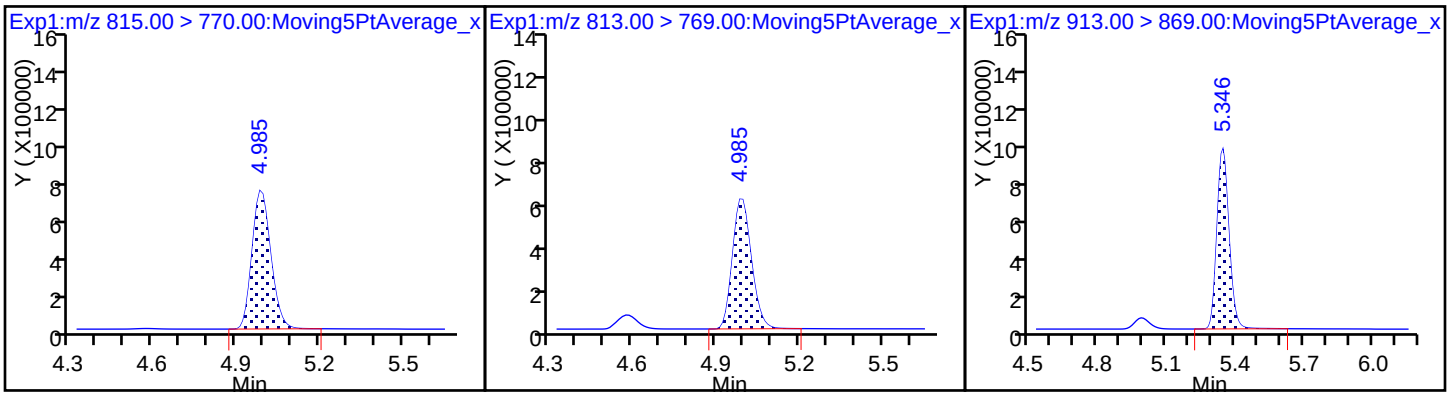
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_008.d
Lims ID: IC L6 Full
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 11-Jul-2017 19:16:55 ALS Bottle#: 33 Worklist Smp#: 8
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L6-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:29 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.536	1.538	-0.002		8263370	47.7		95.3	11091	
2 Perfluorobutyric acid										
212.90 > 169.00	1.536	1.539	-0.003	1.000	14385817	94.9		94.9	4395	
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.748	-0.003		6124764	47.4		94.9	31353	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.745	1.749	-0.004	1.000	11774287	94.2		94.2	7075	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.772	1.775	-0.003	1.000	19048222	78.5		88.9	726548	
298.90 > 99.00	1.772	1.775	-0.003	1.000	8587013		2.22(0.00-0.00)	88.9	200526	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.971	1.980	-0.009	1.000	4011674	94.3		101	26686	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.016	2.017	-0.001	1.000	11659429	99.1		99.1	10438	
D 7 13C2 PFHxA										
315.00 > 270.00	2.016	2.017	-0.001		6160690	48.0		96.0	19199	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.336	2.341	-0.005	1.000	10887965	98.4		98.4	9213	
D 9 13C4-PFHpA										
367.00 > 322.00	2.336	2.341	-0.005		5528861	47.5		95.1	12306	
D 11 18O2 PFHxS										
403.00 > 84.00	2.352	2.357	-0.005		7627663	47.5		100	19832	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.352	2.357	-0.005	1.000	14273518	86.1		94.6	5156	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.666	2.673	-0.007	1.000	3983542	96.9		102	26908	
D 12 M2-6:2FTS										
429.00 > 409.00	2.666	2.673	-0.007		2308713	42.7		90.0	15622	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 62 13C2-PFOA										
415.00 > 370.00	2.688	2.694	-0.006		4554686	50.0			15580	
D 14 13C4 PFOA										
417.00 > 372.00	2.688	2.698	-0.010		4803806	45.3		90.6	21227	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.695	2.700	-0.005	1.000	9675495	94.2		94.2	2204	
413.00 > 169.00	2.695	2.700	-0.005	1.000	5404823		1.79(0.90-1.10)	94.2	6818	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.702	2.706	-0.004	1.000	12199896	93.1		97.8	39971	
D 18 13C4 PFOS										
503.00 > 80.00	3.063	3.071	-0.008		5362707	46.6		97.5	14110	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.063	3.072	-0.009	1.000	11197734	91.0		98.0	76693	
499.00 > 99.00	3.063	3.072	-0.009	1.000	2351383		4.76(0.90-1.10)	98.0	10921	
D 19 13C5 PFNA										
468.00 > 423.00	3.063	3.072	-0.009		3916061	46.5		92.9	11961	
20 Perfluorononanoic acid										
463.00 > 419.00	3.063	3.072	-0.009	1.000	7794418	101.6		102	16373	
D 21 13C8 FOSA										
506.00 > 78.00	3.394	3.401	-0.007		9510275	47.1		94.2	26937	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.403	3.405	-0.002	1.000	17430355	99.7		99.7	498575	
D 26 M2-8:2FTS										
529.00 > 509.00	3.421	3.424	-0.003		1956136	44.8		93.6	15258	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.421	3.425	-0.004	1.000	3502099	94.6		98.8	15151	
D 23 13C2 PFDA										
515.00 > 470.00	3.430	3.435	-0.005		3514599	46.4		92.8	13836	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.430	3.435	-0.005	1.000	6683213	99.8		99.8	11014	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.587	3.592	-0.005		1540118	49.0		98.0	6819	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.587	3.595	-0.008	1.000	2898940	103.4		103	7935	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.744	3.749	-0.005	1.000	7125544	93.6		97.1	29381	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.753	3.759	-0.006		1387289	45.2		90.5	3979	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.763	3.768	-0.005	1.003	2410792	101.6		102	6819	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.763	3.768	-0.005	1.000	5252232	94.9		94.9	19421	
D 30 13C2 PFUnA										
565.00 > 520.00	3.763	3.768	-0.005		2724125	47.2		94.4	8920	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.893	3.894	-0.001		2558750	50.8		102	668	
35 MeFOSA										
512.00 > 169.00	3.893	3.899	-0.006	1.000	4701696	100.4		100	5585	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 36 13C2 PFDoA										
615.00 > 570.00	4.052	4.061	-0.009		2777161	47.0		94.0	6974	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.052	4.062	-0.010	1.000	5357817	101.9		102	5496	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.079	4.083	-0.004		2529319	50.5		101	3733	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.088	4.090	-0.002	1.000	4754959	100.6		101	4057	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.322	4.331	-0.009	1.000	5056348	100.5		100	1649	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.561	4.571	-0.010		5095195	45.5		91.0	26662	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.561	4.573	-0.012	1.000	10907878	99.9		99.9	1178	
713.00 > 169.00	4.561	4.573	-0.012	1.000	1363965		8.00(0.00-0.00)	99.9	8363	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.976	4.986	-0.010		3373424	49.6		99.2	4034	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.976	4.988	-0.012	1.000	5816577	106.0		106	979	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.337	5.344	-0.007	1.000	6410272	101.6		102	1232	

Reagents:

LCPFC_FULL-L6_00006 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:30 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_008.d

Injection Date: 11-Jul-2017 19:16:55 Instrument ID: A8_N

Lims ID: IC L6 Full

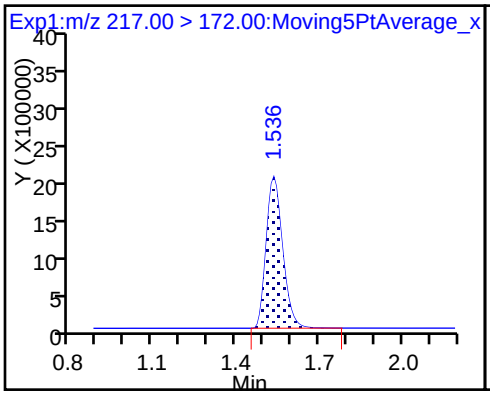
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 33 Worklist Smp#: 8

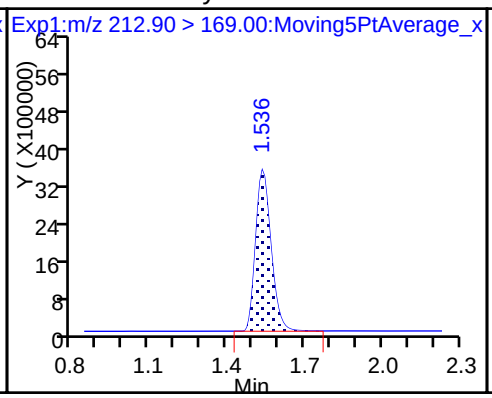
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

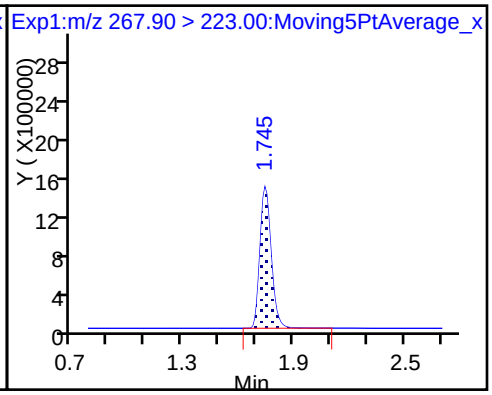
D 1 13C4 PFBA



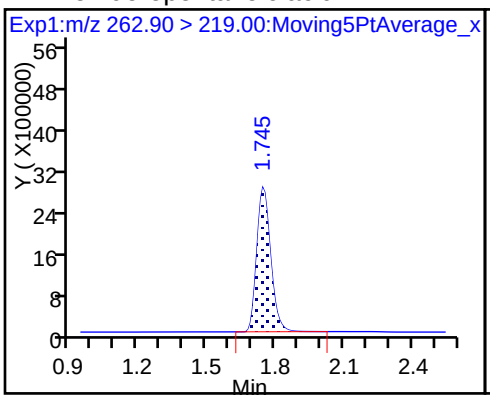
2 Perfluorobutyric acid



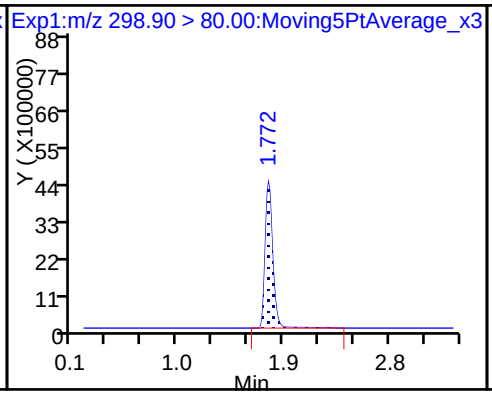
D 3 13C5-PFPeA



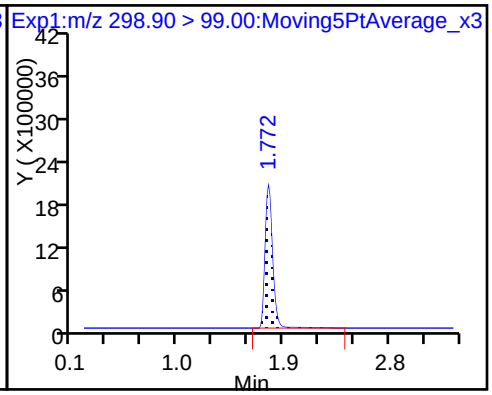
4 Perfluoropentanoic acid



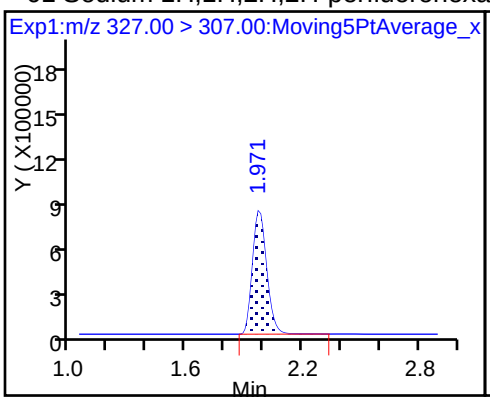
5 Perfluorobutanesulfonic acid



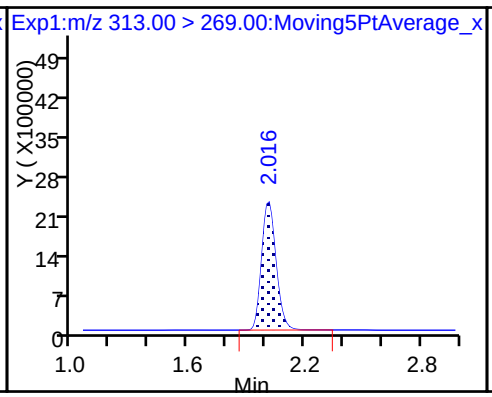
5 Perfluorobutanesulfonic acid



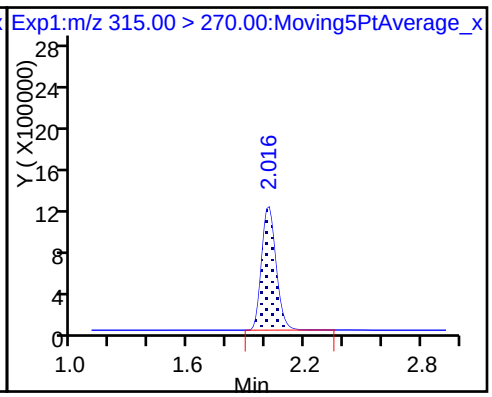
61 Sodium 1H,1H,2H,2H-perfluorohexane



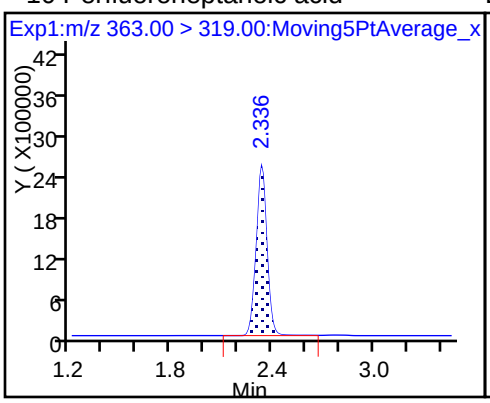
6 Perfluorohexanoic acid



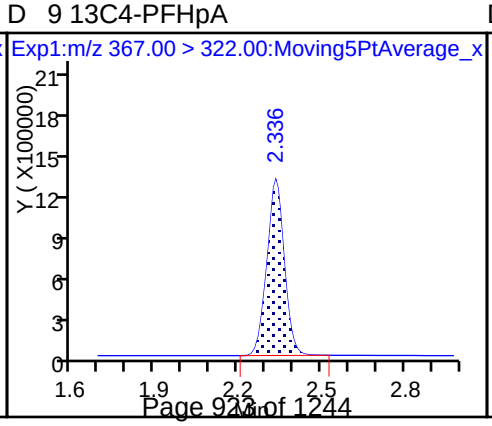
D 7 13C2 PFHxA



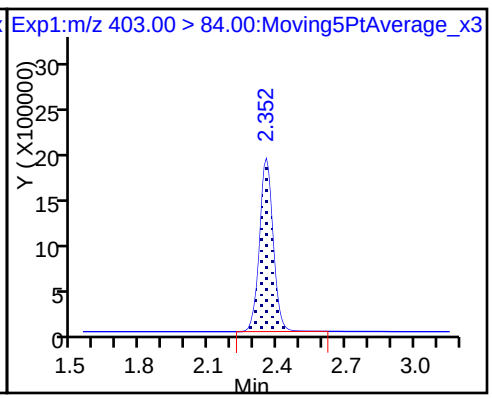
10 Perfluoroheptanoic acid



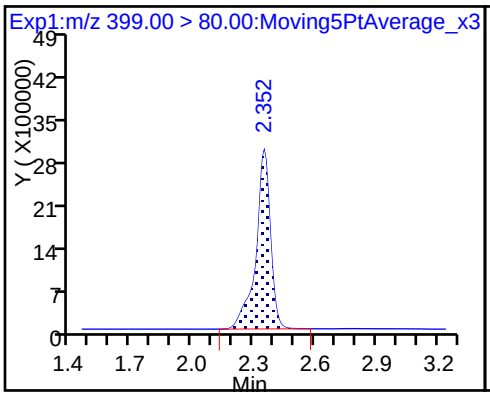
D 9 13C4-PFHpA



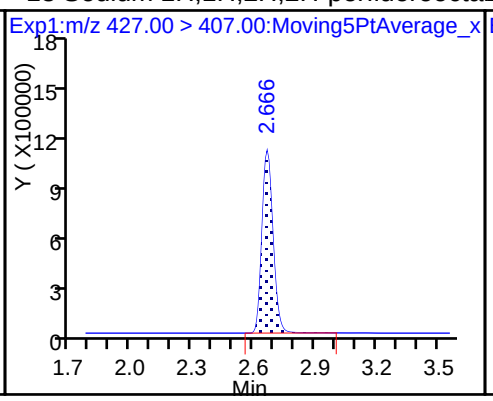
D 11 18O2 PFHxS



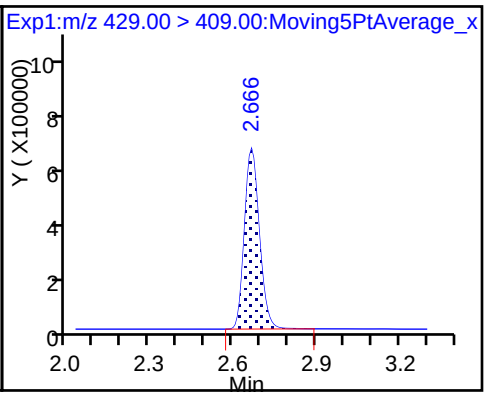
8 Perfluorohexanesulfonic acid



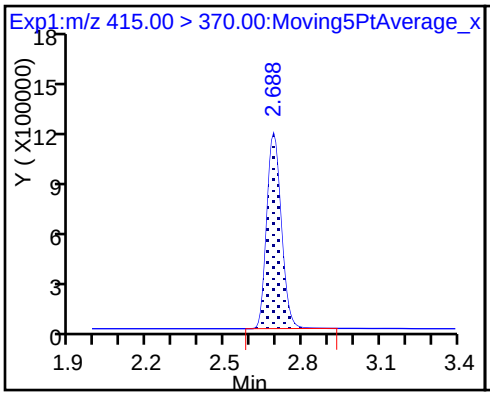
13 Sodium 1H,1H,2H,2H-perfluorooctane



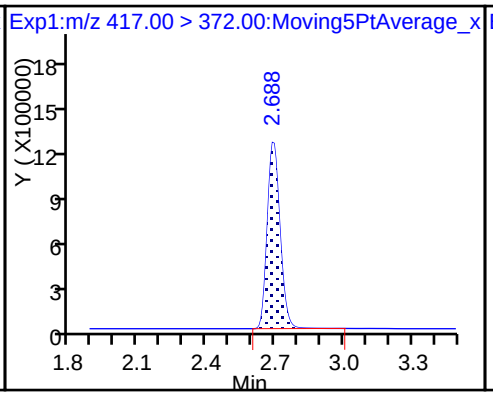
D 12 M2-6:2FTS



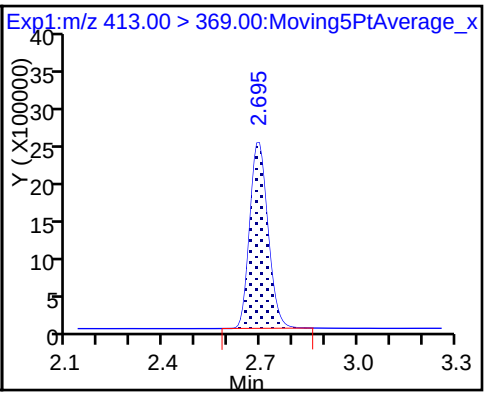
* 62 13C2-PFOA



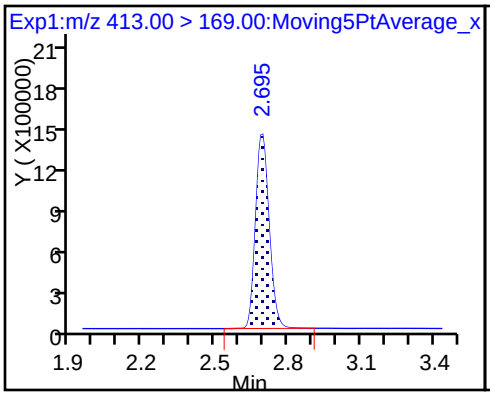
D 14 13C4 PFOA



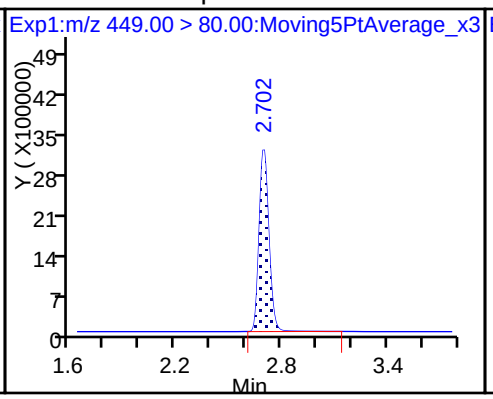
15 Perfluorooctanoic acid



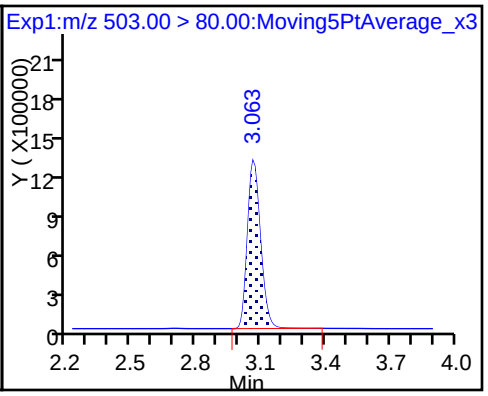
15 Perfluorooctanoic acid



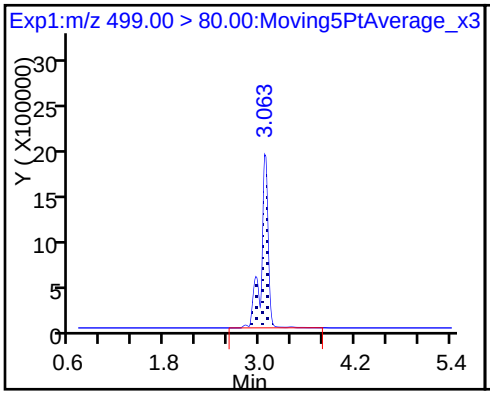
16 Perfluoroheptanesulfonic Acid



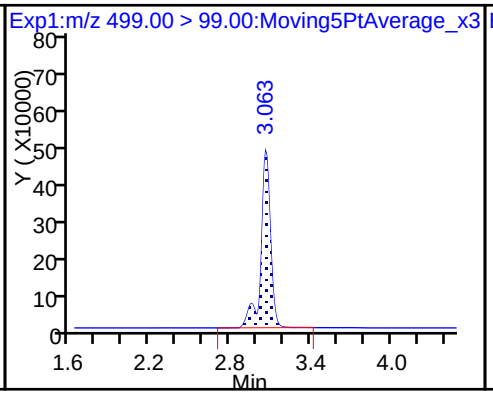
D 18 13C4 PFOS



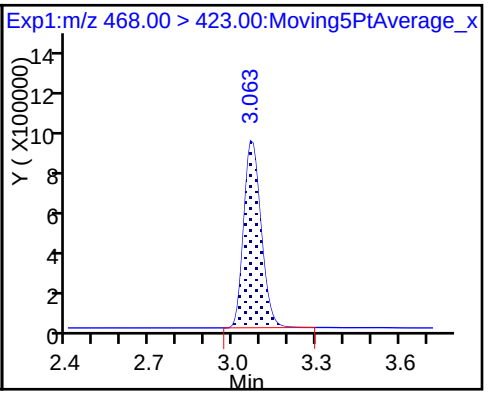
17 Perfluorooctane sulfonic acid



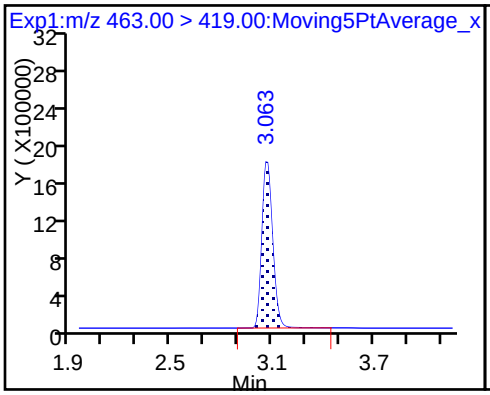
17 Perfluorooctane sulfonic acid



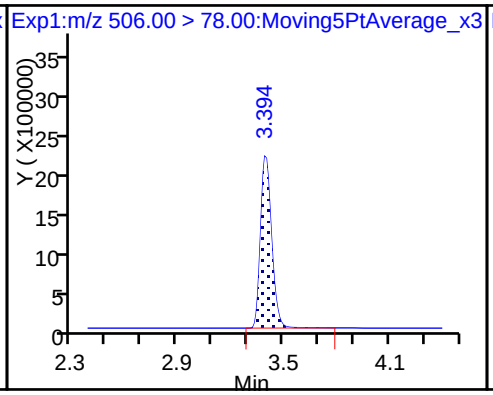
D 19 13C5 PFNA



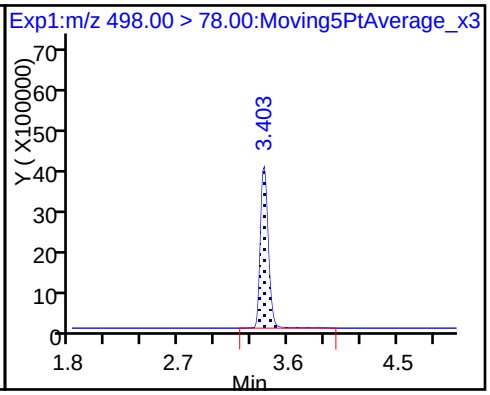
20 Perfluorononanoic acid



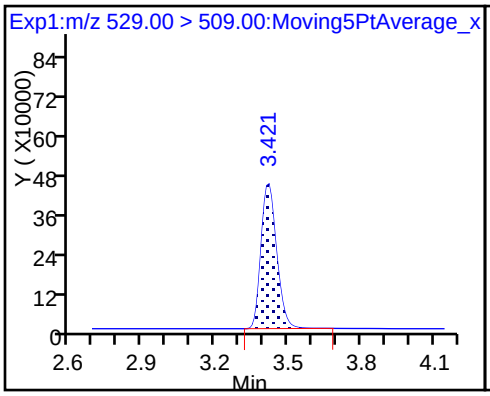
D 21 13C8 FOSA



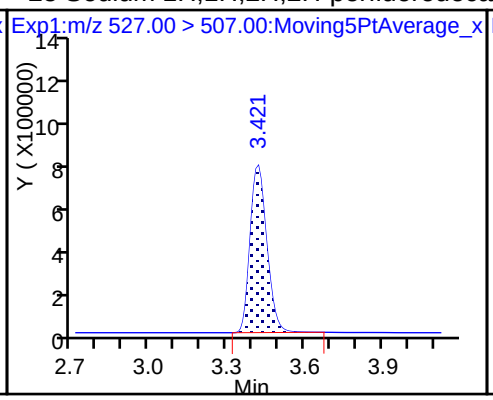
22 Perfluorooctane Sulfonamide



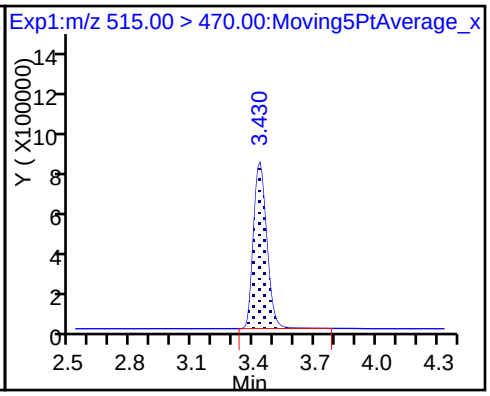
D 26 M2-8:2FTS



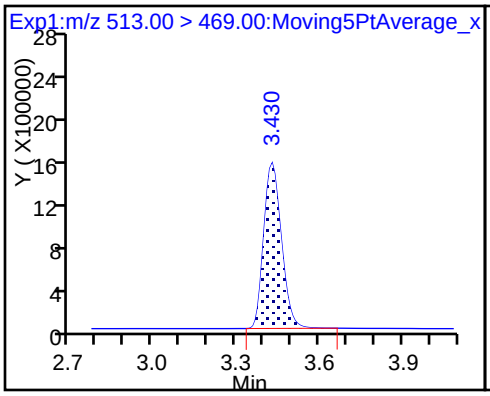
25 Sodium 1H,1H,2H,2H-perfluorodecane



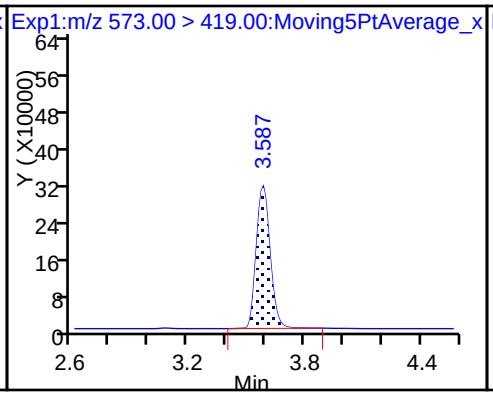
D 23 13C2 PFDA



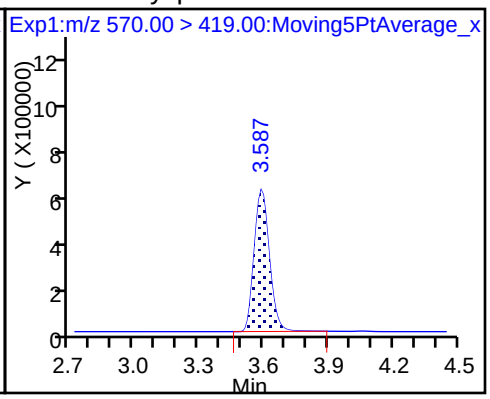
24 Perfluorodecanoic acid



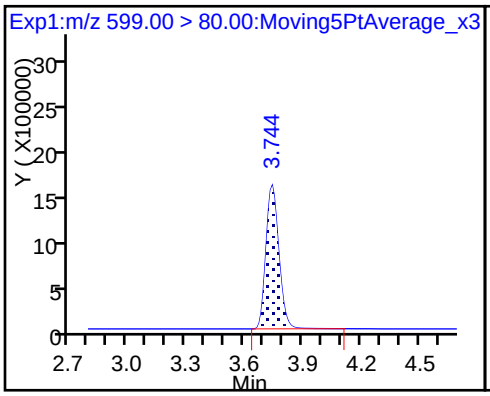
D 27 d3-NMeFOSAA



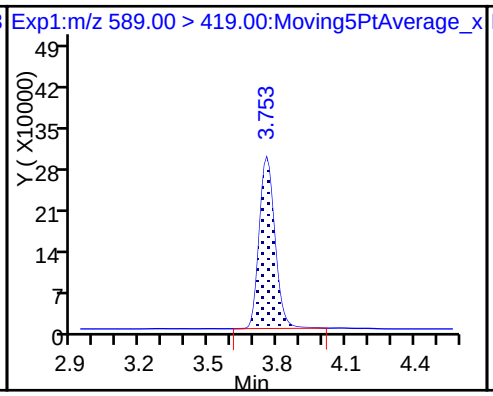
28 N-methyl perfluorooctane sulfonami



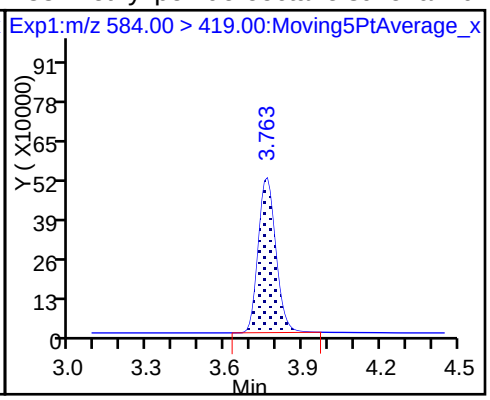
29 Perfluorodecane Sulfonic acid



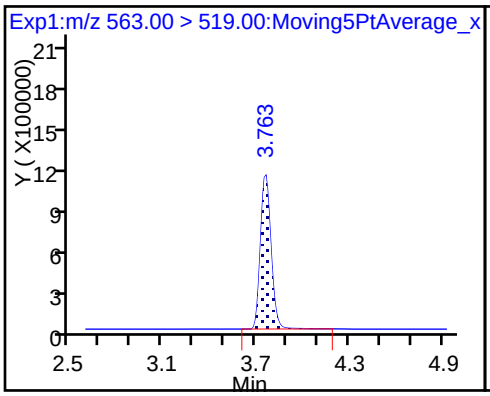
D 32 d5-NEtFOSAA



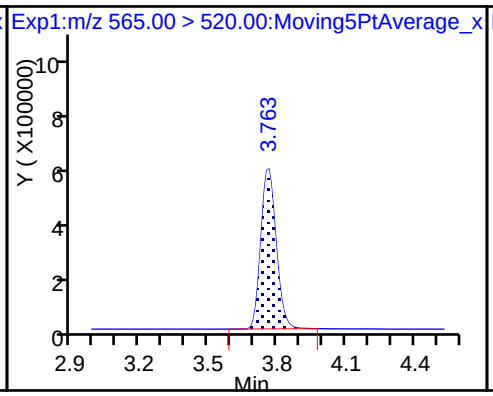
33 N-ethyl perfluorooctane sulfonamid



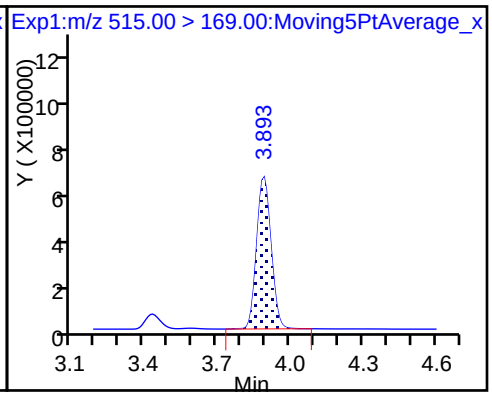
31 Perfluoroundecanoic acid



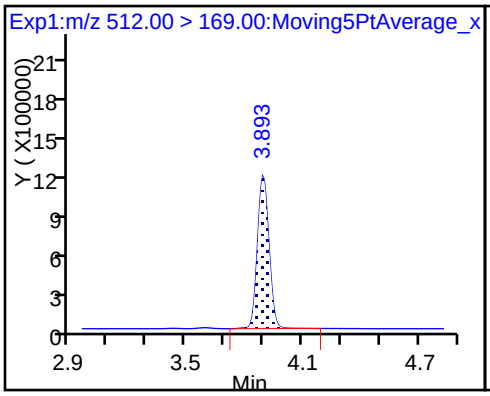
D 30 13C2 PFUnA



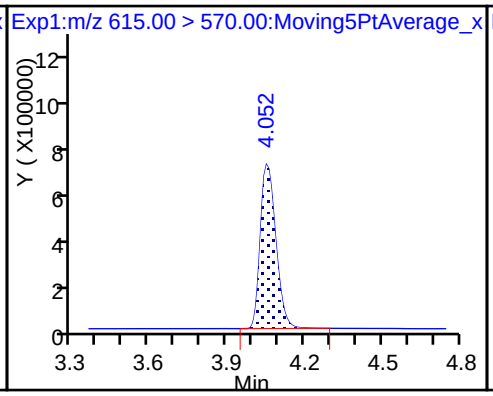
D 34 d-N-MeFOSA-M



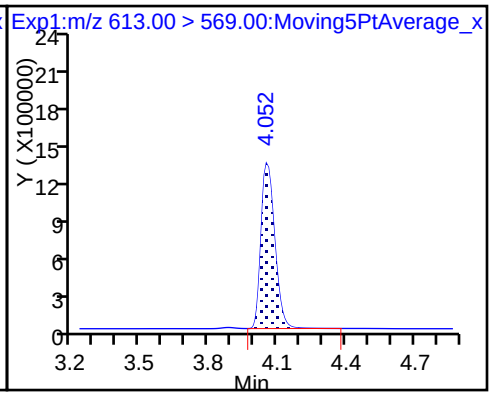
35 MeFOSA



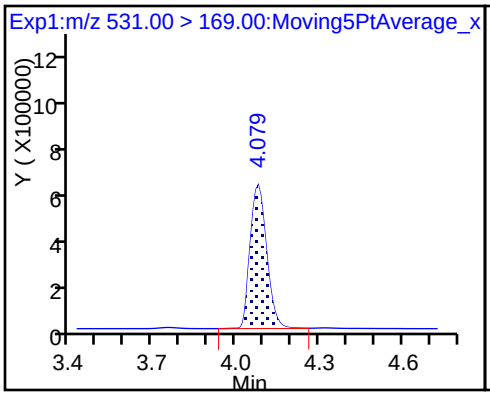
D 36 13C2 PFDoA



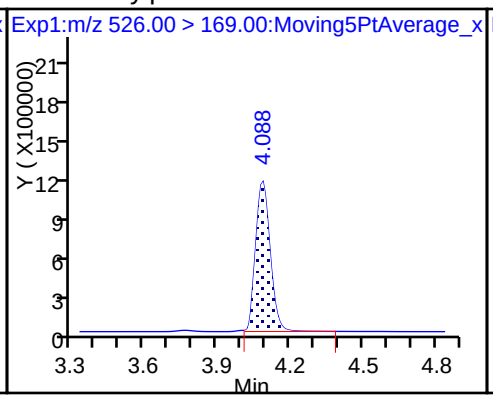
37 Perfluorododecanoic acid



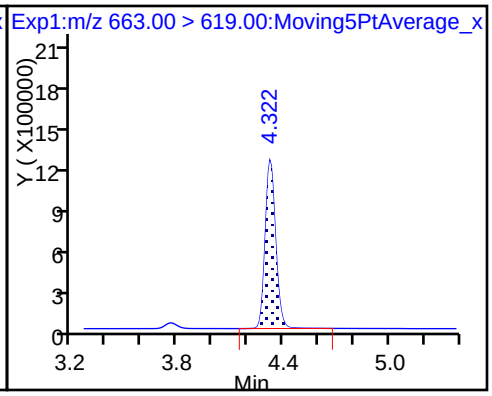
D 38 d-N-EtFOSA-M



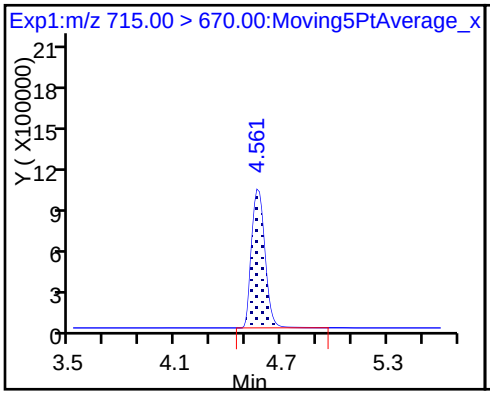
39 N-ethylperfluoro-1-octanesulfonami



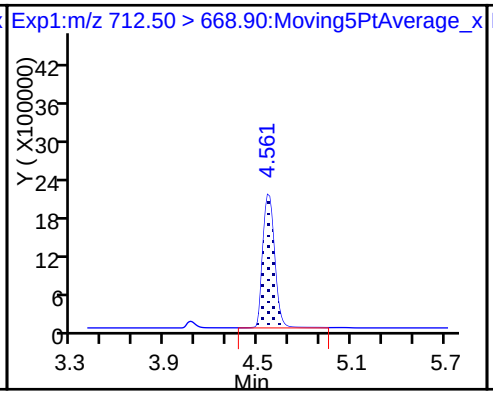
41 Perfluorotridecanoic acid



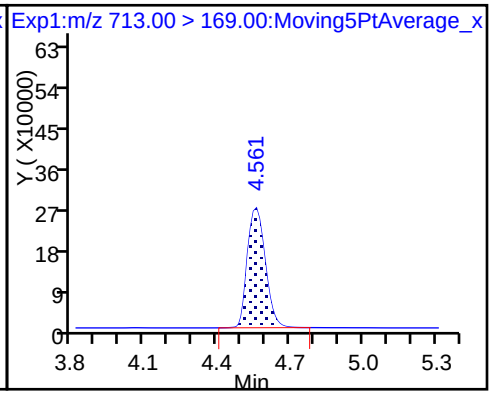
D 43 13C2-PFTeDA



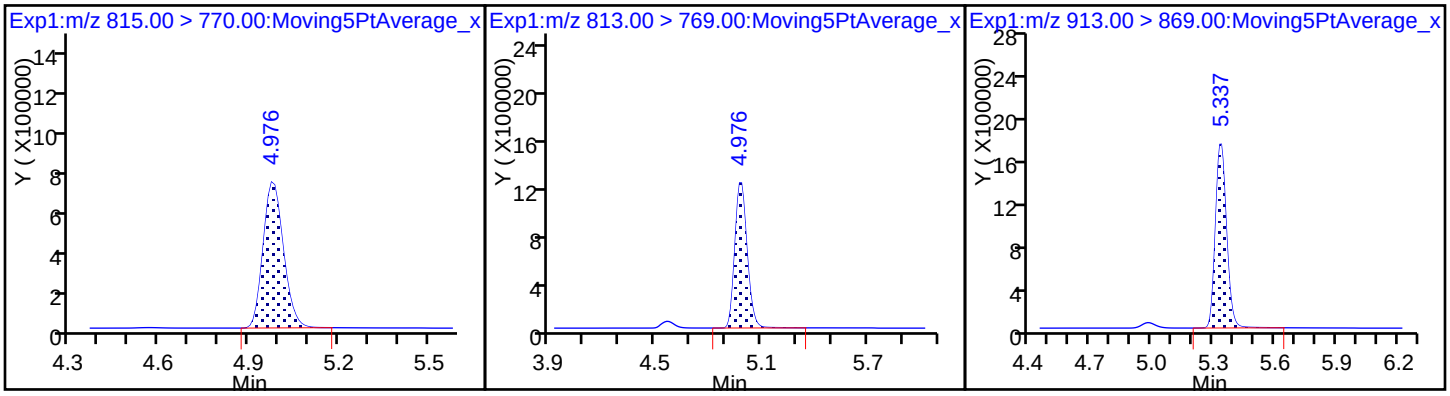
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_009.d
Lims ID: IC L7 Full
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 11-Jul-2017 19:23:49 ALS Bottle#: 34 Worklist Smp#: 9
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: L7-FULL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:33 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.538	1.538	0.0		7685444	44.3		88.7	10930	
2 Perfluorobutyric acid										
212.90 > 169.00	1.547	1.539	0.008	1.000	23507400	166.7		83.4	5473	
D 3 13C5-PFPeA										
267.90 > 223.00	1.756	1.748	0.008		5445981	42.2		84.4	26273	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.756	1.749	0.007	1.000	18990102	170.9		85.5	9326	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.784	1.775	0.009	1.000	30455153	137.0		77.5	743318	
298.90 > 99.00	1.784	1.775	0.009	1.000	14949912		2.04(0.00-0.00)	77.5	373486	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.986	1.980	0.006	1.000	7463553	163.6		87.6	34698	
D 7 13C2 PFHxA										
315.00 > 270.00	2.020	2.017	0.003		5812449	45.3		90.6	22563	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.020	2.017	0.003	1.000	19172711	172.7		86.4	12781	
D 9 13C4-PFHpA										
367.00 > 322.00	2.344	2.341	0.003		4943785	42.5		85.0	17173	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.344	2.341	0.003	1.000	18642879	188.4		94.2	12116	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.361	2.357	0.004	1.000	26149679	172.0		94.5	7844	
D 11 18O2 PFHxS										
403.00 > 84.00	2.361	2.357	0.004		6990713	43.6		92.1	16053	
D 12 M2-6:2FTS										
429.00 > 409.00	2.677	2.673	0.003		2474574	45.8		96.4	15266	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.677	2.673	0.003	1.000	7674596	174.2		91.9	38845	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 62 13C2-PFOA										
415.00 > 370.00	2.698	2.694	0.004		4045584	50.0			17191	
D 14 13C4 PFOA										
417.00 > 372.00	2.705	2.698	0.007		4074770	38.4		76.8	13884	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.705	2.700	0.005	1.000	16476745	189.1		94.6	3607	
413.00 > 169.00	2.705	2.700	0.005	1.000	9642582		1.71(0.90-1.10)	94.6	10311	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.713	2.706	0.007	1.000	21626964	176.6		92.7	34490	
D 18 13C4 PFOS										
503.00 > 80.00	3.077	3.071	0.006		5013563	43.6		91.2	8258	
20 Perfluorononanoic acid										
463.00 > 419.00	3.077	3.072	0.005	1.000	13200390	192.0		96.0	17354	
D 19 13C5 PFNA										
468.00 > 423.00	3.077	3.072	0.005		3511423	41.7		83.3	23607	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.077	3.072	0.005	1.000	20804820	180.8		97.4	59989	
499.00 > 99.00	3.077	3.072	0.005	1.000	4529655		4.59(0.90-1.10)	97.4	15389	
D 21 13C8 FOSA										
506.00 > 78.00	3.404	3.401	0.003		9125800	45.2		90.4	23311	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.404	3.405	-0.001	1.000	28855107	172.0		86.0	20560	
D 26 M2-8:2FTS										
529.00 > 509.00	3.422	3.424	-0.002		2023649	46.4		96.8	12611	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.422	3.425	-0.003	1.000	6167806	161.1		84.1	19716	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.431	3.435	-0.004	1.000	12083778	188.4		94.2	18507	
D 23 13C2 PFDA										
515.00 > 470.00	3.431	3.435	-0.004		3365764	44.4		88.9	8794	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.590	3.592	-0.002		1519406	48.3		96.7	4415	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.590	3.595	-0.005	1.000	5463742	197.6		98.8	17918	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.748	3.749	-0.001	1.000	13058835	183.5		95.2	37533	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.758	3.759	-0.001		1277371	41.7		83.3	2954	
D 30 13C2 PFUnA										
565.00 > 520.00	3.767	3.768	-0.001		2294498	39.7		79.5	8738	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.767	3.768	-0.001	1.000	9270112	198.8		99.4	12564	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.767	3.768	-0.001	1.003	4468219	204.5		102	13232	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.890	3.894	-0.004		2595661	51.5		103	737	
35 MeFOSA										
512.00 > 169.00	3.899	3.899	0.0	1.000	9258391	194.8		97.4	6690	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 36 13C2 PFDoA										
615.00 > 570.00	4.053	4.061	-0.008		2751457	46.6		93.1	7648	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.063	4.062	0.001	1.000	9881680	189.7		94.8	8224	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.081	4.083	-0.002		2428058	48.5		96.9	3341	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.090	4.090	0.0	1.000	9236606	203.6		102	4940	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.325	4.331	-0.006	1.000	9379429	188.2		94.1	3459	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.566	4.571	-0.005		4951305	44.2		88.5	12461	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.566	4.573	-0.007	1.000	19122021	176.7		88.4	1731	
713.00 > 169.00	4.566	4.573	-0.007	1.000	2385604		8.02(0.00-0.00)	88.4	10561	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.981	4.986	-0.005		2911858	42.8		85.6	4000	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.981	4.988	-0.007	1.000	10277597	189.7		94.9	1550	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.336	5.344	-0.008	1.000	11554931	184.8		92.4	1944	

Reagents:

LCPFC_FULL-L7_00004 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:34 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_009.d

Injection Date: 11-Jul-2017 19:23:49 Instrument ID: A8_N

Lims ID: IC L7 Full

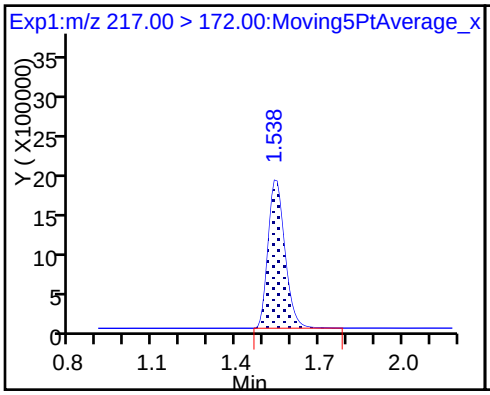
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 34 Worklist Smp#: 9

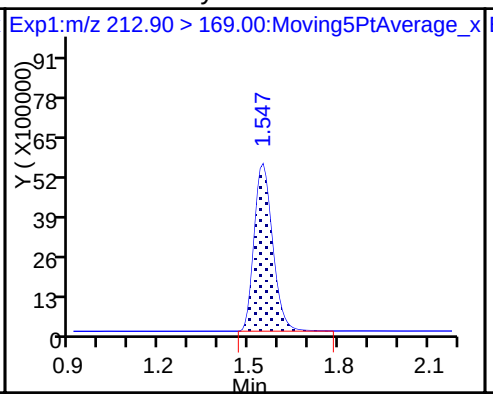
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

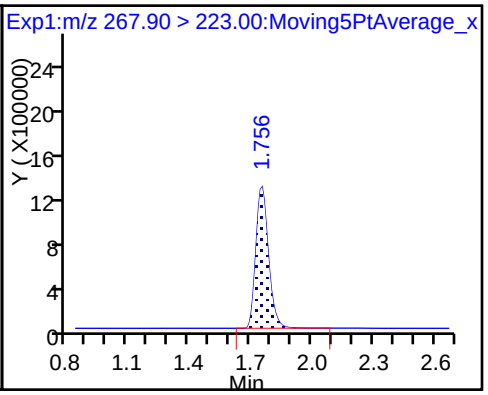
D 1 13C4 PFBA



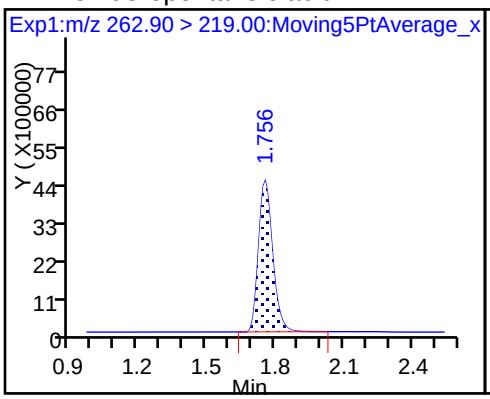
2 Perfluorobutyric acid



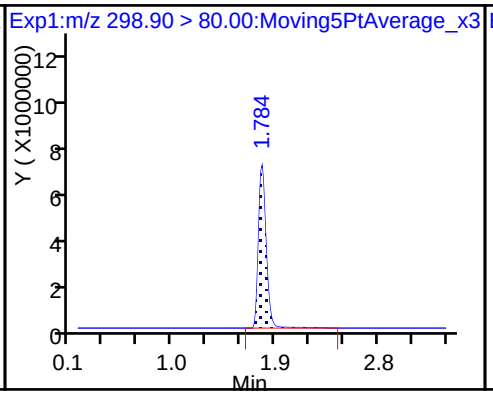
D 3 13C5-PFPeA



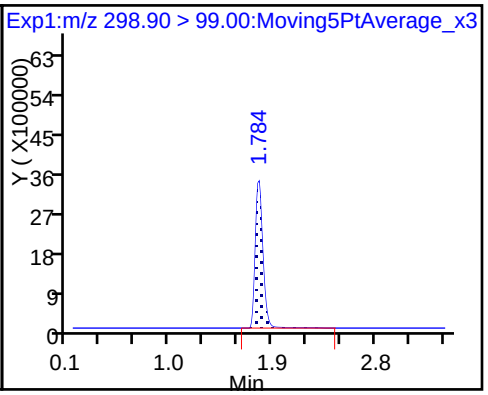
4 Perfluoropentanoic acid



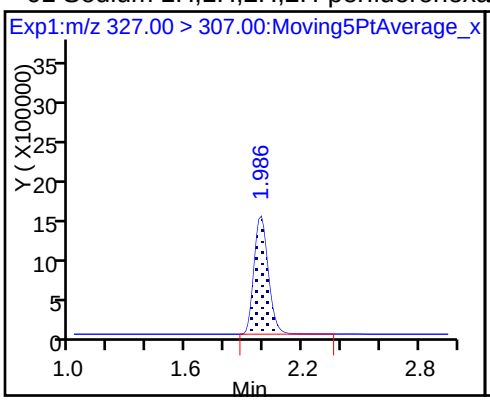
5 Perfluorobutanesulfonic acid



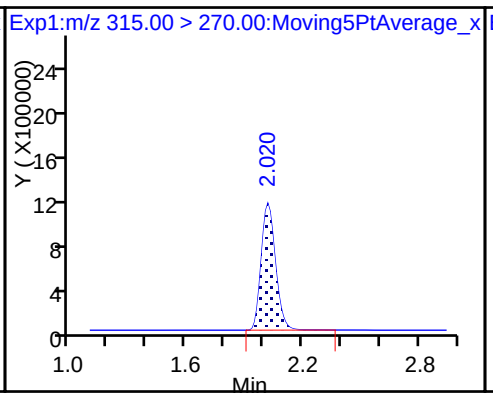
5 Perfluorobutanesulfonic acid



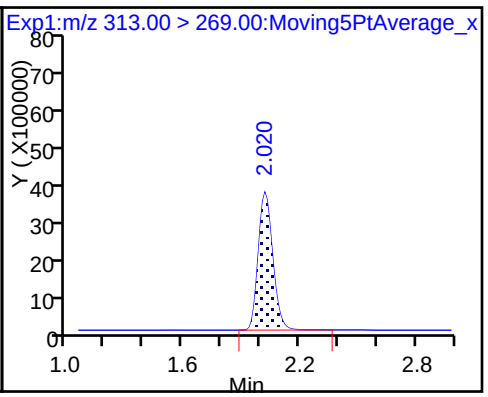
61 Sodium 1H,1H,2H,2H-perfluorohexa



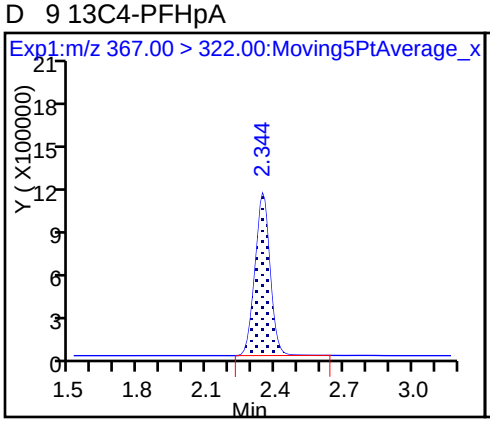
D 7 13C2 PFHxA



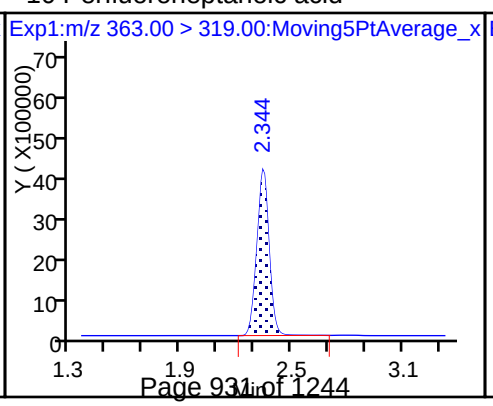
6 Perfluorohexanoic acid



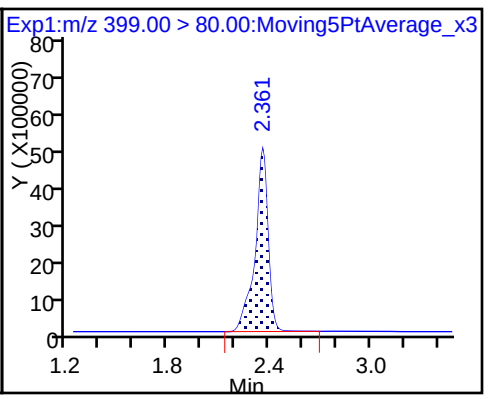
D 9 13C4-PFHpA



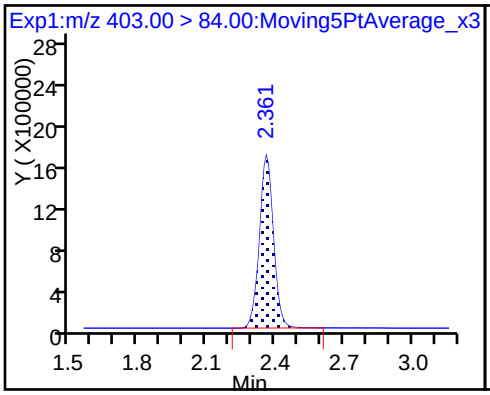
10 Perfluoroheptanoic acid



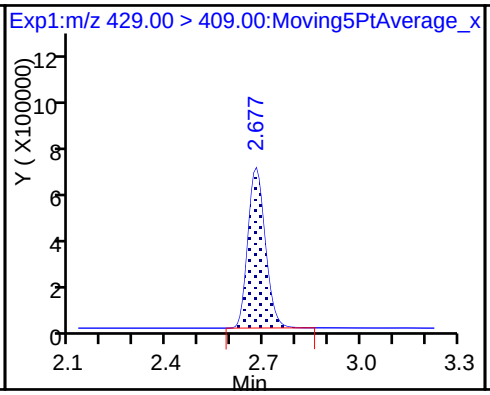
8 Perfluorohexanesulfonic acid



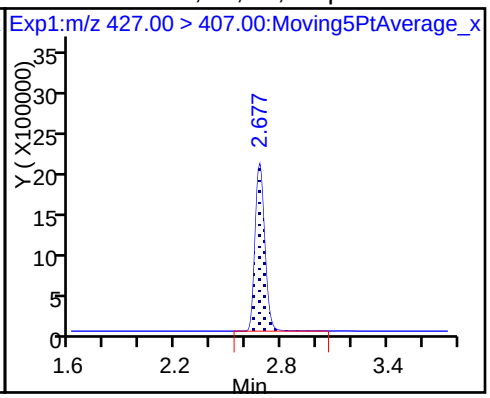
D 11 18O2 PFHxS



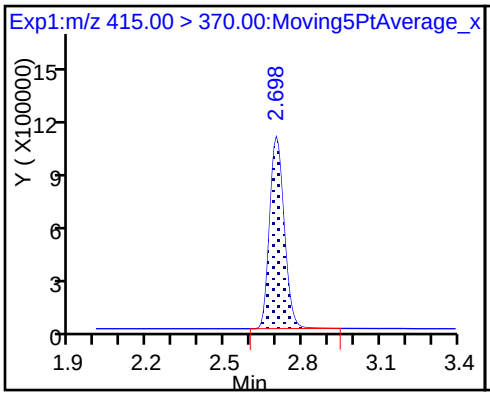
D 12 M2-6:2FTS



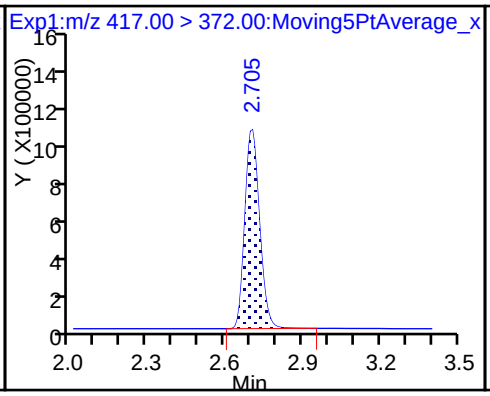
13 Sodium 1H,1H,2H,2H-perfluorooctane



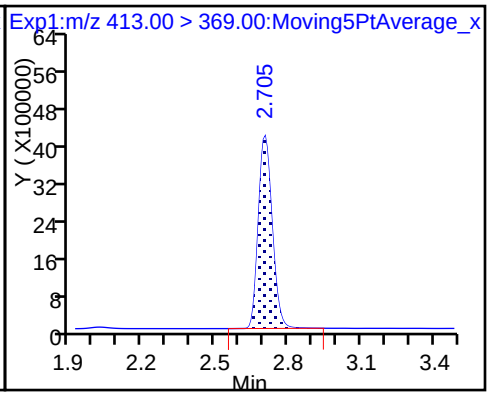
* 62 13C2-PFOA



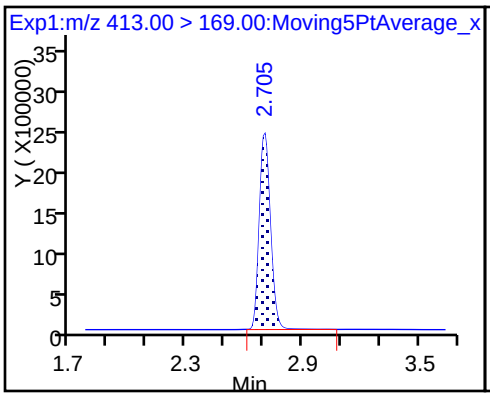
D 14 13C4 PFOA



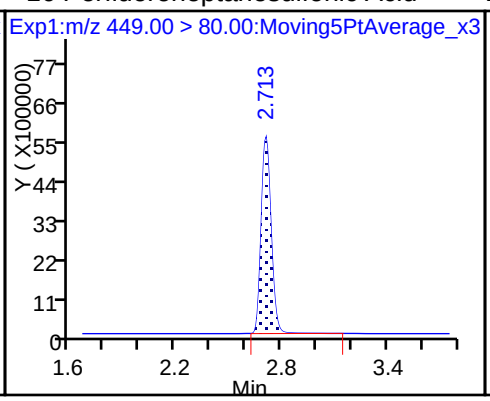
15 Perfluorooctanoic acid



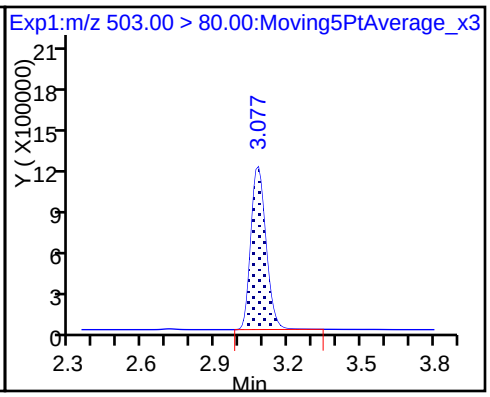
15 Perfluorooctanoic acid



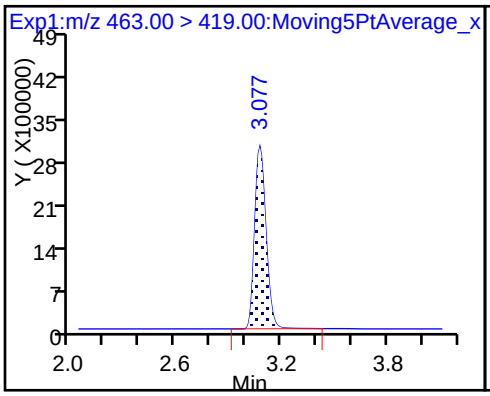
16 Perfluoroheptanesulfonic Acid



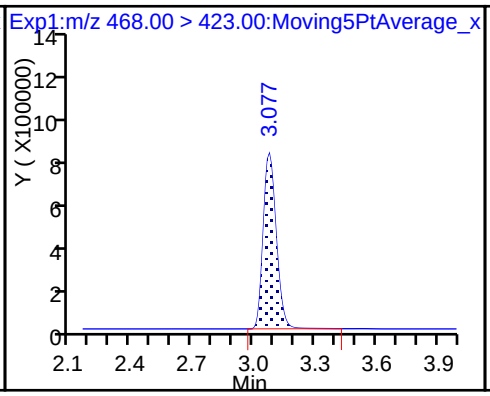
D 18 13C4 PFOS



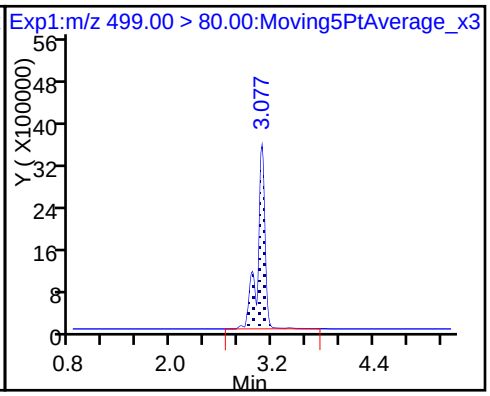
20 Perfluorononanoic acid



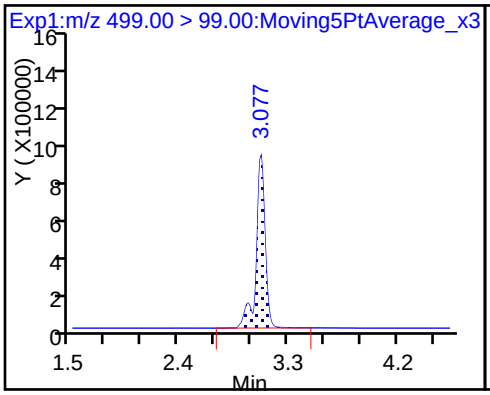
D 19 13C5 PFNA



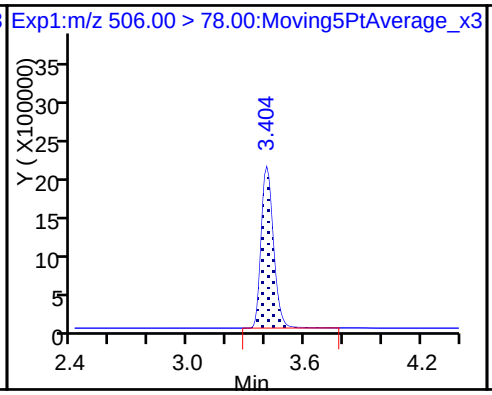
17 Perfluorooctane sulfonic acid



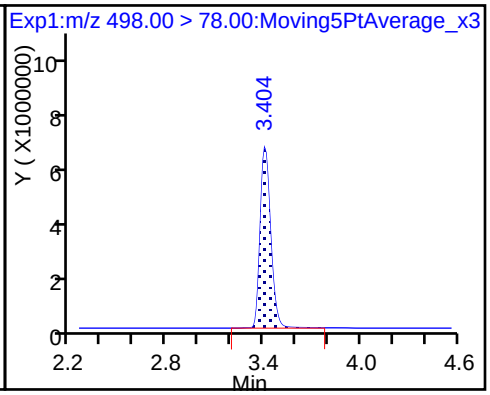
17 Perfluorooctane sulfonic acid



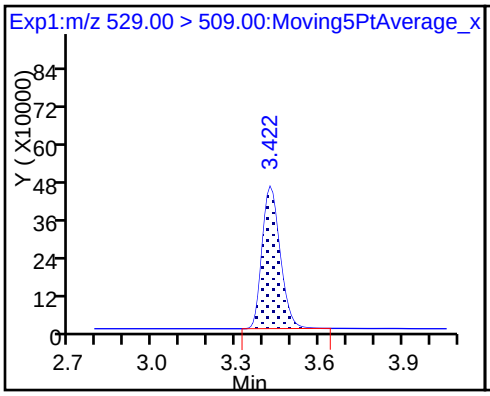
D 21 13C8 FOSA



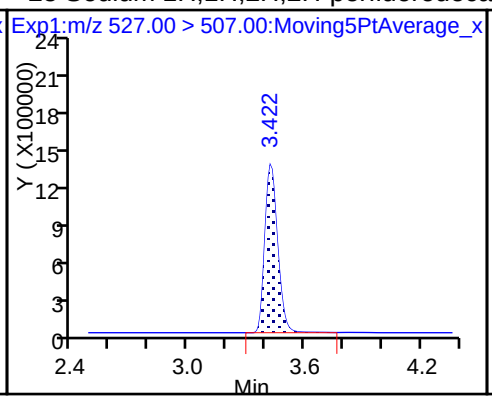
22 Perfluorooctane Sulfonamide



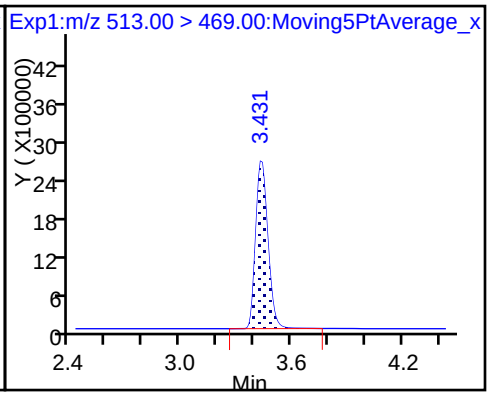
D 26 M2-8:2FTS



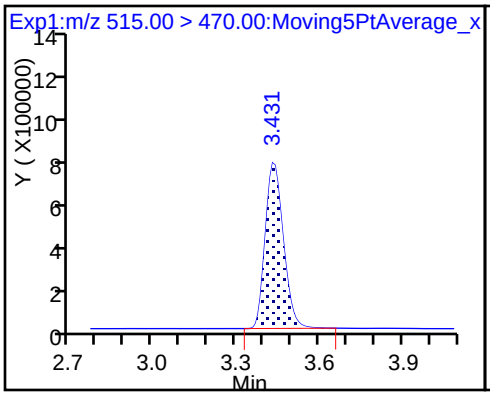
25 Sodium 1H,1H,2H,2H-perfluorodecan



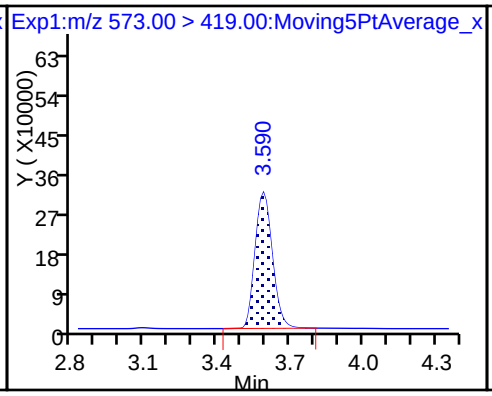
24 Perfluorodecanoic acid



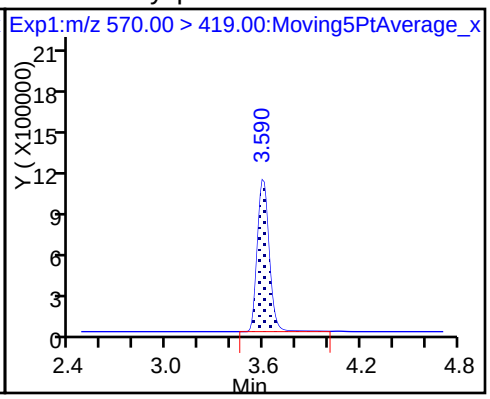
D 23 13C2 PFDA



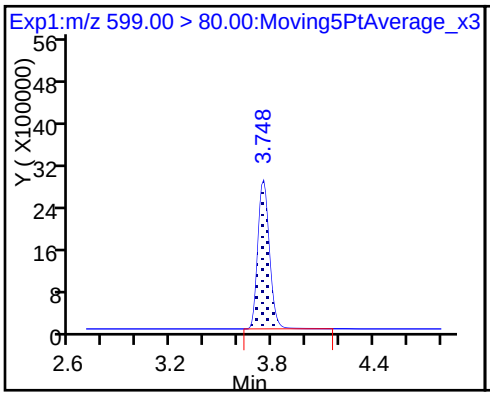
D 27 d3-NMeFOSAA



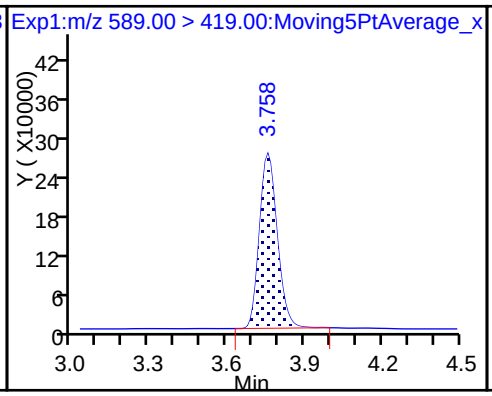
28 N-methyl perfluorooctane sulfonami



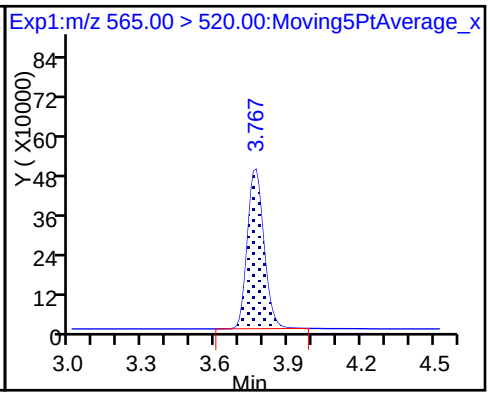
29 Perfluorodecane Sulfonic acid



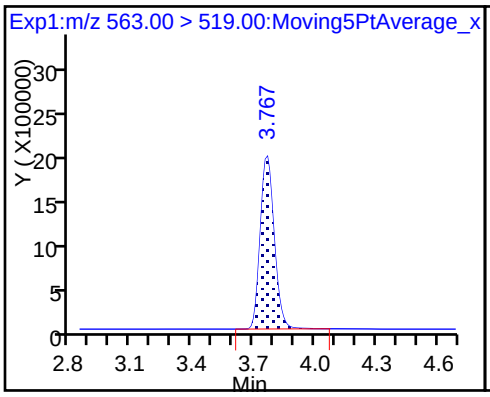
D 32 d5-NEtFOSAA



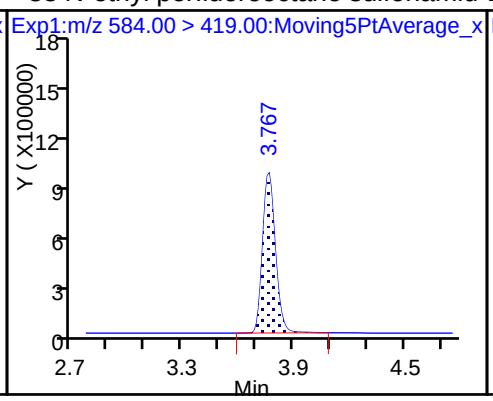
D 30 13C2 PFUnA



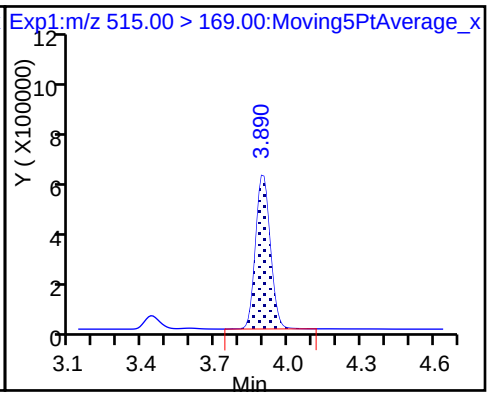
31 Perfluoroundecanoic acid



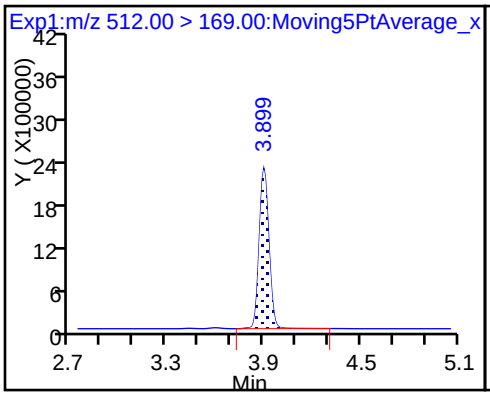
33 N-ethyl perfluorooctane sulfonamid



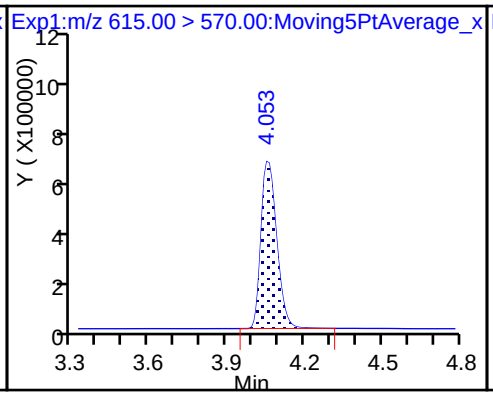
D 34 d-N-MeFOSA-M



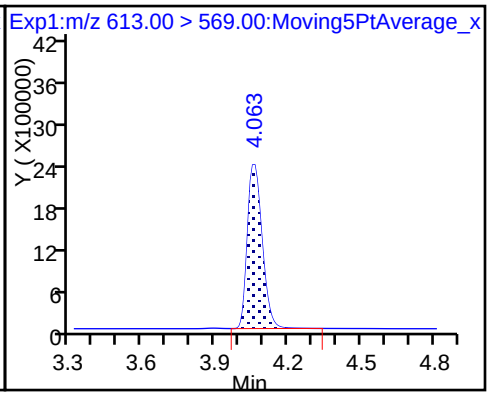
35 MeFOSA



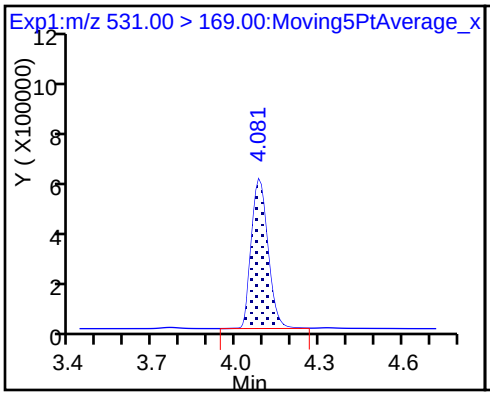
D 36 13C2 PFDoA



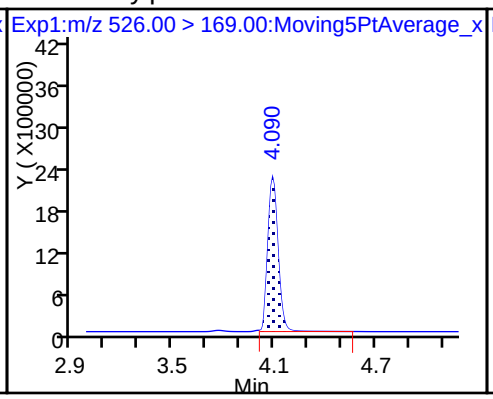
37 Perfluorododecanoic acid



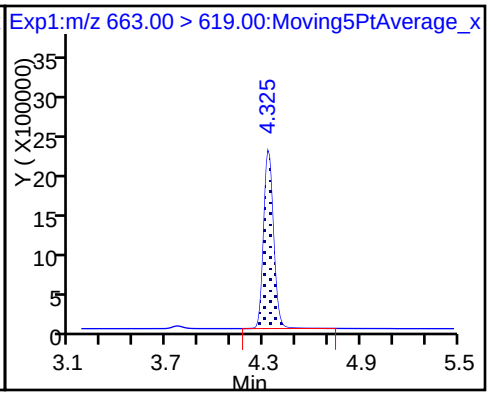
D 38 d-N-EtFOSA-M



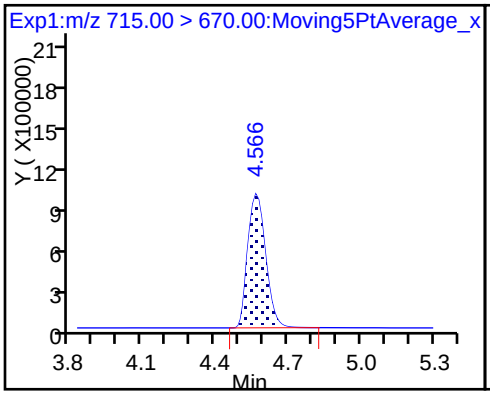
39 N-ethylperfluoro-1-octanesulfonami



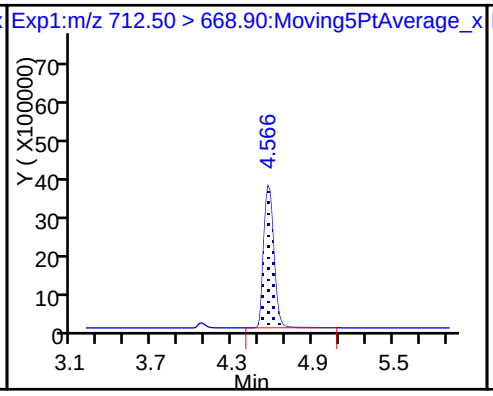
41 Perfluorotridecanoic acid



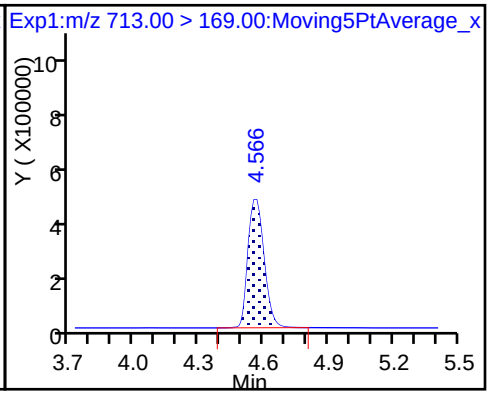
D 43 13C2-PFTeDA



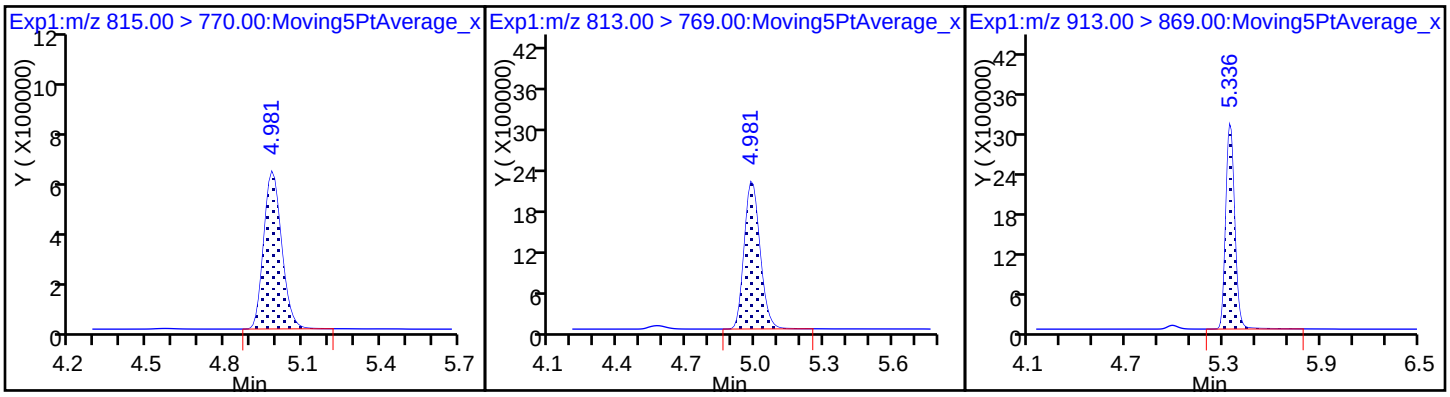
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d
Lims ID: IC M2-4:2FTS
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 11-Jul-2017 19:30:43 ALS Bottle#: 37 Worklist Smp#: 10
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: M2:4-2FTS Calibration Std
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub19

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 08:01:43 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 60 M2-4:2FTS										
329.00 > 309.00	1.986	1.986	0.0		3394988	NC			24191	
* 62 13C2-PFOA										
415.00 > 370.00	2.691	2.694	-0.003		7152921	50.0			26360	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

LCM2-4:2FTSIC_00002 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 08:01:44 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Injection Date: 11-Jul-2017 19:30:43 Instrument ID: A8_N

Lims ID: IC M2-4:2FTS

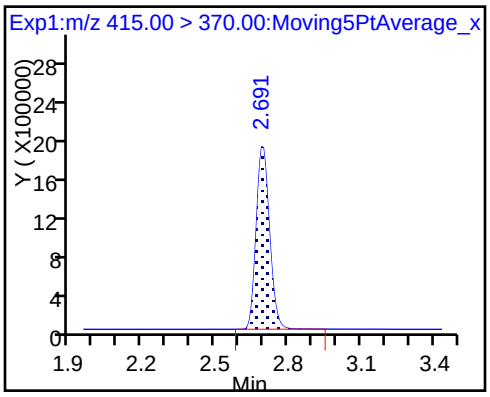
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 37 Worklist Smp#: 10

Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

* 62 13C2-PFOA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: ICV 320-169970/12 Calibration Date: 06/20/2017 00:32

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.19_PFCICAL_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9054	0.9565		52.3	49.5	5.6	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.026	1.076		51.9	49.5	4.9	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.597	1.731		47.5	43.8	8.4	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.010	1.031		50.6	49.5	2.1	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.056	1.087		51.0	49.5	3.0	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.074	1.093		47.6	46.8	1.8	25.0
6:2FTS	AveID	0.9651	0.9406		45.7	46.9	-2.5	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.194	1.284		50.7	47.1	7.5	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.058	1.131		53.0	49.5	7.0	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.065	1.083		48.1	47.3	1.7	25.0
Perfluorononanoic acid (PFNA)	AveID	0.998	1.064		52.8	49.5	6.7	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9516	1.005		52.3	49.5	5.6	25.0
8:2FTS	AveID	0.9782	1.036		50.2	47.4	5.9	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9362	1.014		53.6	49.5	8.3	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.027	1.080		52.1	49.5	5.2	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6447	0.7072		52.4	47.8	9.7	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.020	1.076		52.3	49.5	5.6	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9401	0.9250		48.7	49.5	-1.6	25.0
MeFOSA	AveID	0.9686	0.9686		49.5	49.5	-0.0	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9591	1.035		53.4	49.5	7.9	25.0
N-EtFOSA-M	AveID	1.008	1.018		50.0	49.5	1.0	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9844	1.038		52.2	49.5	5.5	25.0
Perfluorotetradecanoic acid (PFTeA)	L2ID		2.205		52.8	49.5	6.6	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.100		55.1	49.5	11.2	25.0
Perfluoro-n-octadecanoic acid (PFODA)	L2ID		1.018		52.8	49.5	6.7	25.0
13C4 PFBA	Ave	467052	507149		53.8	49.5	8.6	50.0
13C5-PFPeA	Ave	334127	349811		51.8	49.5	4.7	50.0
13C2 PFHxA	Ave	333497	356728		53.0	49.5	7.0	50.0
13C4-PFHpA	Ave	291052	308326		52.4	49.5	5.9	50.0
18O2 PFHxS	Ave	325849	343952		49.4	46.8	5.6	50.0
M2-6:2FTS	Ave	126032	123622		46.1	47.0	-1.9	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: ICV 320-169970/12 Calibration Date: 06/20/2017 00:32

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.19_PFCICAL_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	289928	295638		50.5	49.5	2.0	50.0
13C4 PFOS	Ave	233487	232484		47.1	47.3	-0.4	50.0
13C5 PFNA	Ave	247443	257075		51.4	49.5	3.9	50.0
13C8 FOSA	Ave	351898	372239		52.4	49.5	5.8	50.0
13C2 PFDA	Ave	218420	226148		51.3	49.5	3.5	50.0
M2-8:2FTS	Ave	106179	114905		51.3	47.4	8.2	50.0
d3-NMeFOSAA	Ave	129262	134510		51.5	49.5	4.1	50.0
13C2 PFUnA	Ave	170926	174970		50.7	49.5	2.4	50.0
d5-NEtFOSAA	Ave	126496	130030		50.9	49.5	2.8	50.0
d-N-MeFOSA-M	Ave	122003	137487		55.8	49.5	12.7	50.0
13C2 PFDoA	Ave	186536	190872		50.7	49.5	2.3	50.0
d-N-EtFOSA-M	Ave	115783	125628		53.7	49.5	8.5	50.0
13C2-PFTeDA	Ave	346856	375590		53.6	49.5	8.3	50.0
13C2-PFHxDA	Ave	206428	220431		52.9	49.5	6.8	50.0

FORM VII 537 (Modified)

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_012.d
Lims ID: ICV Full
Client ID:
Sample Type: ICV
Inject. Date: 20-Jun-2017 00:32:48 ALS Bottle#: 36 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist:

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 20-Jun-2017 11:05:56 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK024

First Level Reviewer: phomsophat Date: 20-Jun-2017 01:10:31

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.179	2.172	0.007		25106393	53.8		109	132155	
2 Perfluorobutyric acid										
212.90 > 169.00	2.179	2.176	0.003	1.000	24013537	52.3			10565	
D 3 13C5-PFPeA										
267.90 > 223.00	2.568	2.559	0.009		17317390	51.8		105	189559	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.568	2.562	0.006	1.000	18636426	51.9			6516	
D 47 13C3-PFBS										
301.90 > 83.00	2.593	2.597	-0.004		371322	NC			10703	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.605	2.605	0.0	1.000	26083108	47.5			179315	
298.90 > 99.00	2.605	2.605	0.0	1.000	10871514		2.40(0.00-0.00)		50492	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	2.918	2.917	0.001	1.000	6074327	54.0			338841	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.970	2.963	0.007	1.000	18208417	50.6			16401	
D 7 13C2 PFHxA										
315.00 > 270.00	2.970	2.963	0.007		17659826	53.0		107	198768	
D 9 13C4-PFHpA										
367.00 > 322.00	3.383	3.378	0.005		15263665	52.4		106	117895	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.383	3.380	0.003	1.000	17590046	47.6			5953	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.383	3.380	0.003	1.000	16596793	51.0			6364	
D 11 18O2 PFHxS										
403.00 > 84.00	3.383	3.381	0.002		16107860	49.4		106	286059	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.766	3.759	0.007		5813918	46.1		98.1	153243	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.766	3.760	0.006	1.000	5457203	45.7			21898	
* 62 13C2-PFOA										
415.00 > 370.00	3.776	3.771	0.005		15340189	49.5			92411	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.776	3.772	0.004	1.000	14065715	50.7			152815	
D 14 13C4 PFOA										
417.00 > 372.00	3.787	3.779	0.008		14635521	50.5		102	123654	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.787	3.779	0.008	1.000	16557411	53.0			2205	
413.00 > 169.00	3.787	3.779	0.008	1.000	9086275		1.82(0.90-1.10)		14422	
D 18 13C4 PFOS										M
503.00 > 80.00	4.145	4.141	0.004		11002696	47.1		99.6	5513	M
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.145	4.141	0.004	1.000	11903824	48.1			23135	
499.00 > 99.00	4.145	4.141	0.004	1.000	2708127		4.40(0.90-1.10)		28444	
20 Perfluorononanoic acid										
463.00 > 419.00	4.170	4.157	0.013	1.000	13545904	52.8			16646	
D 19 13C5 PFNA										
468.00 > 423.00	4.170	4.159	0.011		12726502	51.4		104	89266	
D 21 13C8 FOSA										
506.00 > 78.00	4.490	4.485	0.005		18427660	52.4		106	67486	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.490	4.487	0.003	1.000	18517879	52.3			73592	
D 23 13C2 PFDA										
515.00 > 470.00	4.502	4.495	0.007		11195466	51.3		104	6885	
D 26 M2-8:2FTS										
529.00 > 509.00	4.502	4.496	0.006		5449436	51.3		108	18175	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.502	4.496	0.006	1.000	11354877	53.6			2600	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.502	4.496	0.006	1.000	5646566	50.2			26024	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.650	4.649	0.001		6658887	51.5		104	26258	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.661	4.653	0.008	1.002	7191717	52.1			3524	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.775	4.768	0.007	1.000	7854046	52.4			20946	
D 30 13C2 PFUnA										
565.00 > 520.00	4.800	4.794	0.006		8661901	50.7		102	13747	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.800	4.794	0.006	1.000	9322627	52.3			10640	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.812	4.801	0.011		6437107	50.9		103	22725	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.812	4.807	0.005	1.000	5954180	48.7			8693	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	4.935	4.935	0.0		6806293	55.8		113	218	
35 MeFOSA										
512.00 > 169.00	4.935	4.939	-0.004	1.000	6592268	49.5			2152	
D 36 13C2 PFDoA										
615.00 > 570.00	5.062	5.056	0.006		9449118	50.7		102	20229	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.062	5.057	0.005	1.000	9780466	53.4			2046	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.097	5.095	0.002		6219229	53.7		109	1832	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.097	5.103	-0.006	1.000	6329526	50.0			1971	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.300	5.298	0.002	1.000	9809647	52.2			2123	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.527	5.524	0.003		18593578	53.6		108	10835	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.527	5.524	0.003	1.000	20831966	52.8			1109	
713.00 > 169.00	5.527	5.524	0.003	1.000	2663095		7.82(0.00-0.00)		18350	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	5.883	5.874	0.009	1.000	10392657	55.1			1060	
D 44 13C2-PFHxDA										
815.00 > 770.00	5.883	5.874	0.009		10912445	52.9		107	6191	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.296	6.281	0.015	1.000	9619913	52.8			554	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

LCPFCIC_FULL_00003 Amount Added: 1.00 Units: mL

Report Date: 20-Jun-2017 11:05:56 Chrom Revision: 2.2 15-Jun-2017 15:51:40

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_012.d

Injection Date: 20-Jun-2017 00:32:48 Instrument ID: A8_N

Lims ID: ICV Full

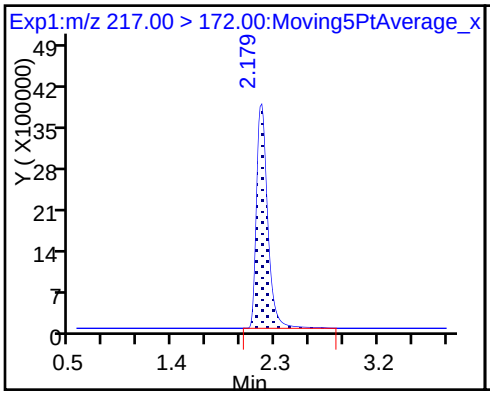
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 12

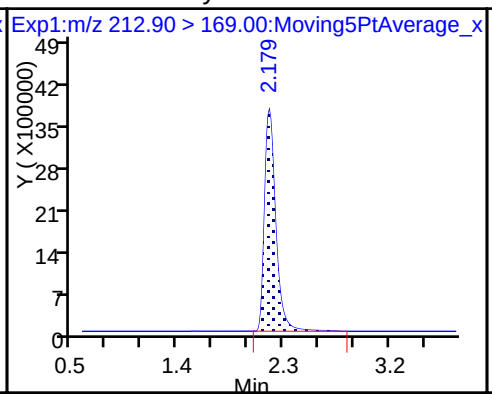
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

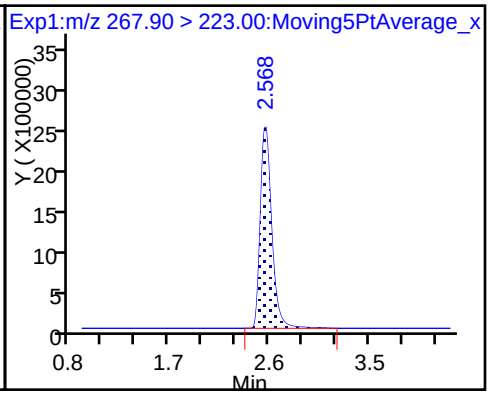
D 1 13C4 PFBA



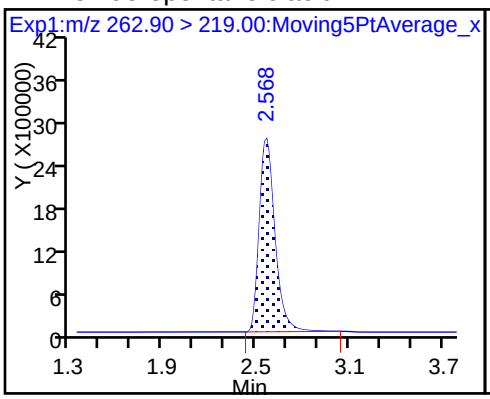
2 Perfluorobutyric acid



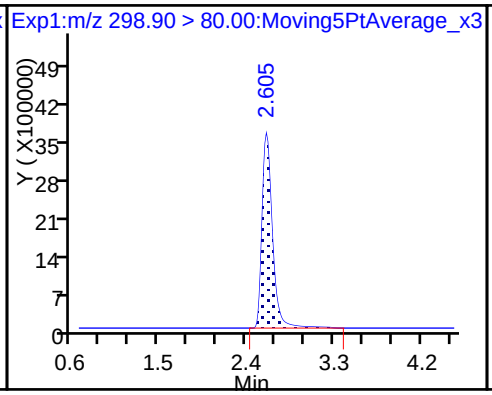
D 3 13C5-PFPeA



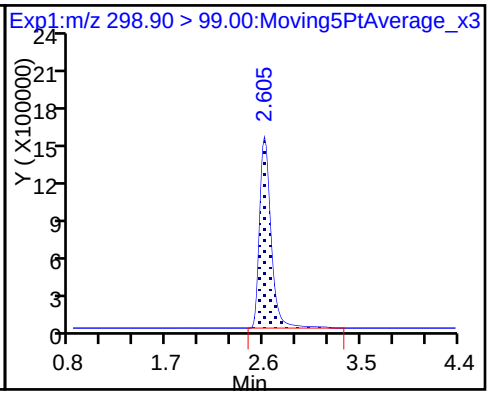
4 Perfluoropentanoic acid



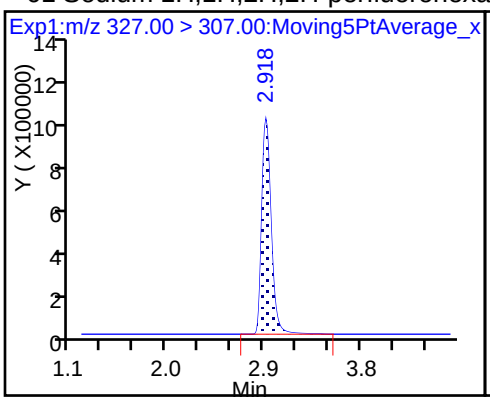
5 Perfluorobutanesulfonic acid



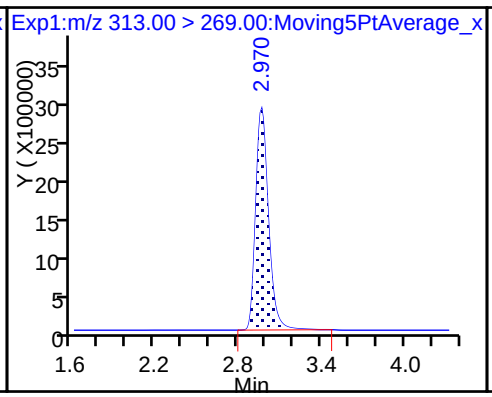
5 Perfluorobutanesulfonic acid



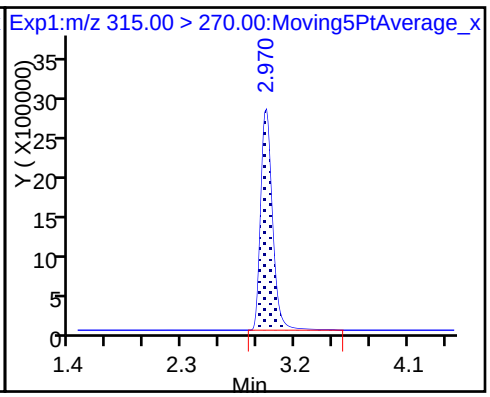
61 Sodium 1H,1H,2H,2H-perfluorohexane



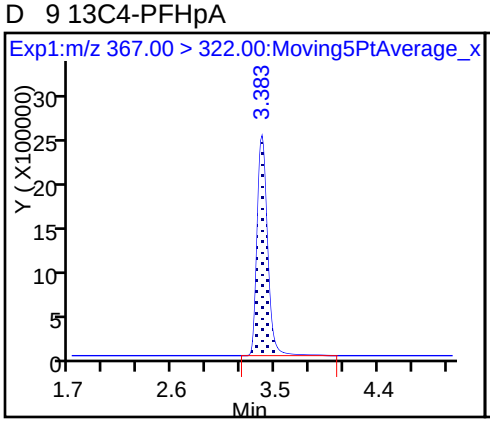
6 Perfluorohexanoic acid



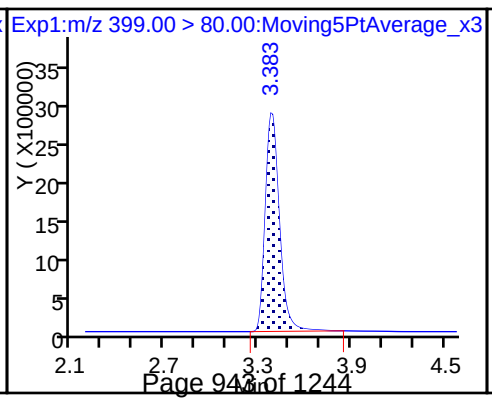
D 7 13C2 PFHxA



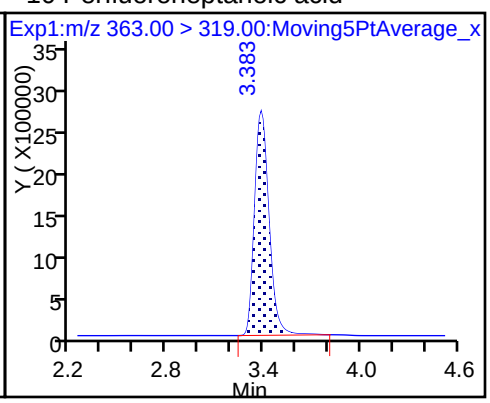
D 9 13C4-PFHpA



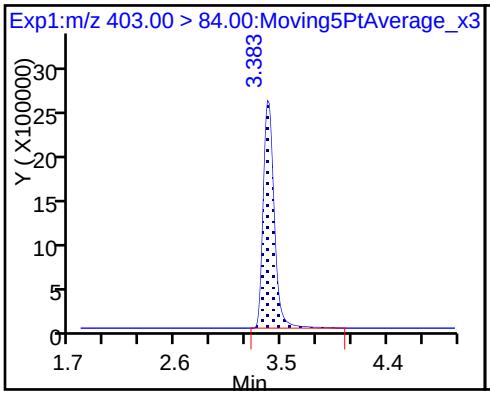
8 Perfluorohexanesulfonic acid



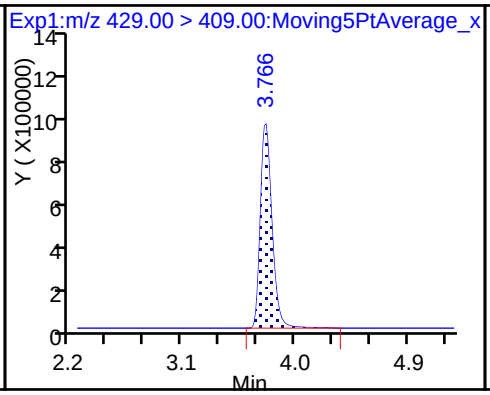
10 Perfluoroheptanoic acid



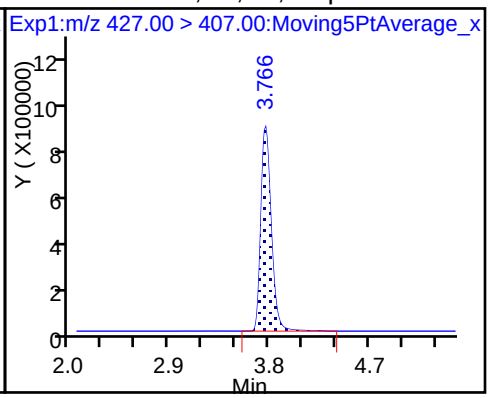
D 11 18O2 PFHxS



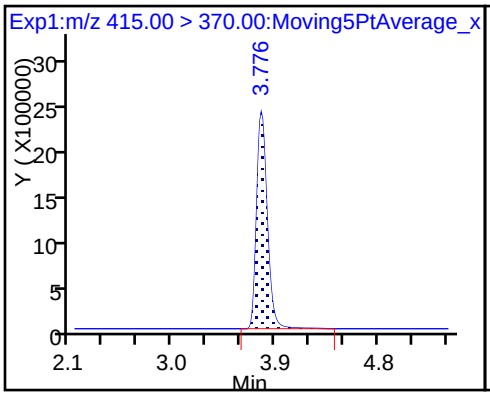
D 12 M2-6:2FTS



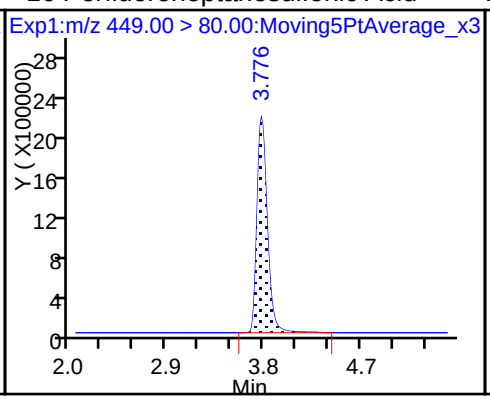
13 Sodium 1H,1H,2H,2H-perfluorooctane



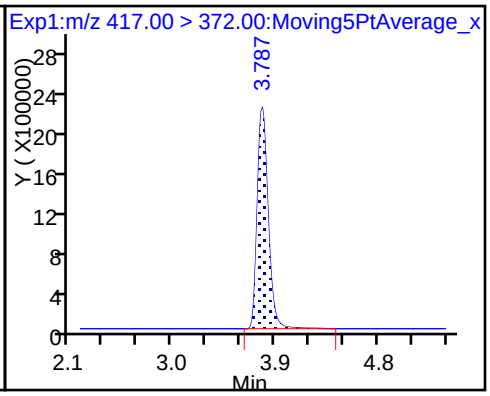
* 62 13C2-PFOA



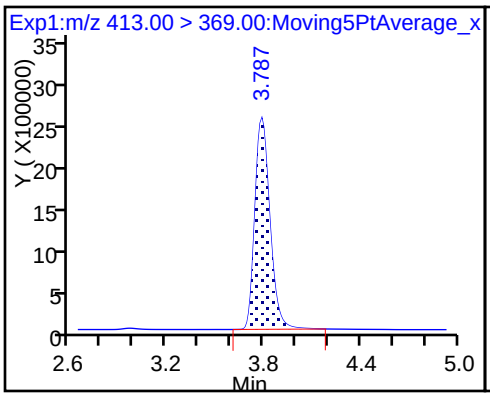
16 Perfluoroheptanesulfonic Acid



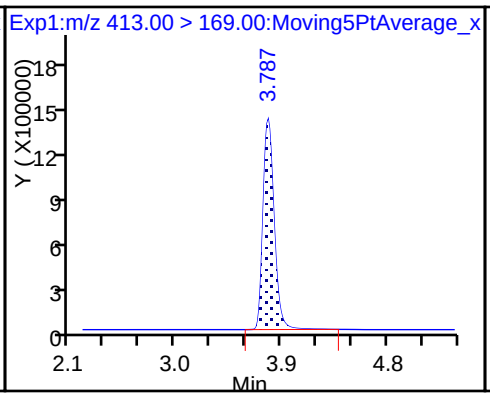
D 14 13C4 PFOA



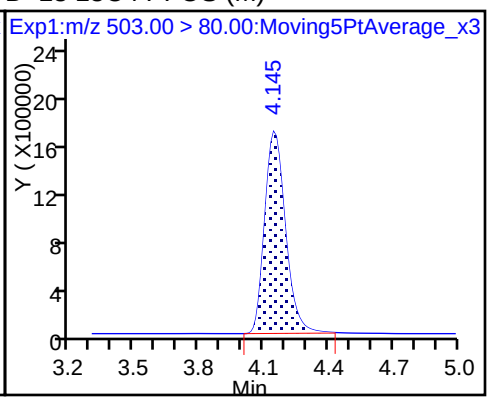
15 Perfluorooctanoic acid



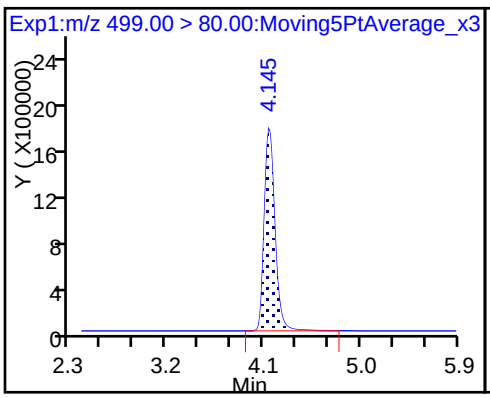
15 Perfluorooctanoic acid



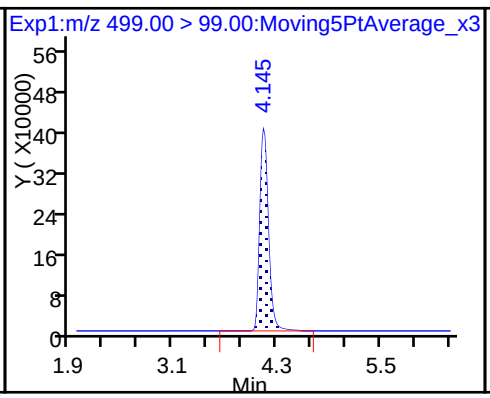
D 18 13C4 PFOS (M)



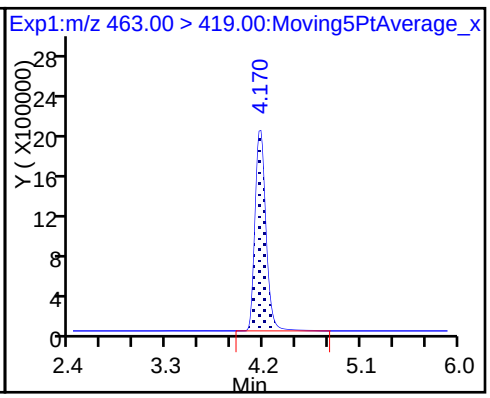
17 Perfluorooctane sulfonic acid



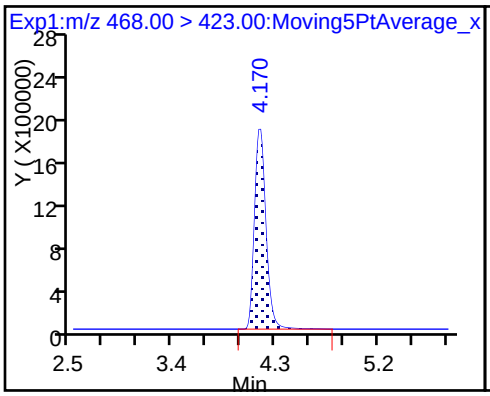
17 Perfluorooctane sulfonic acid



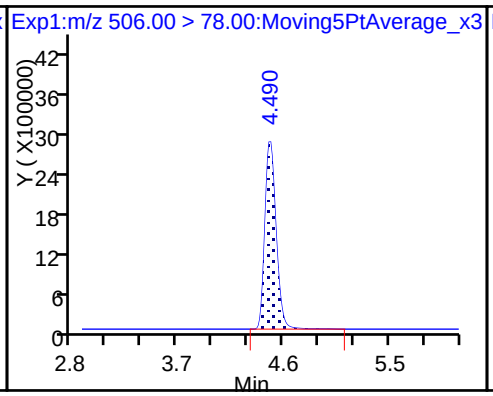
20 Perfluorononanoic acid



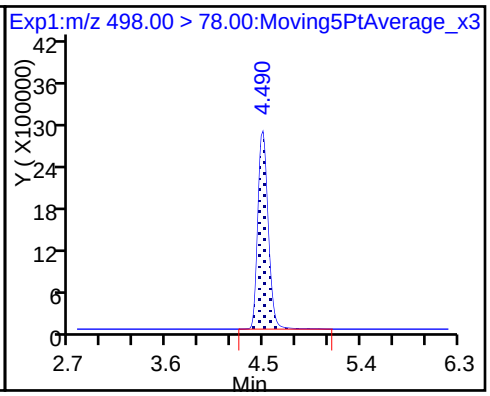
D 19 13C5 PFNA



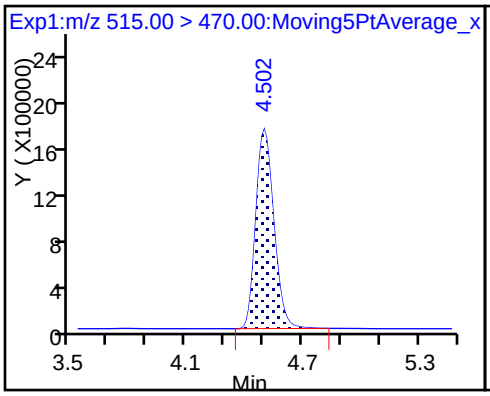
D 21 13C8 FOSA



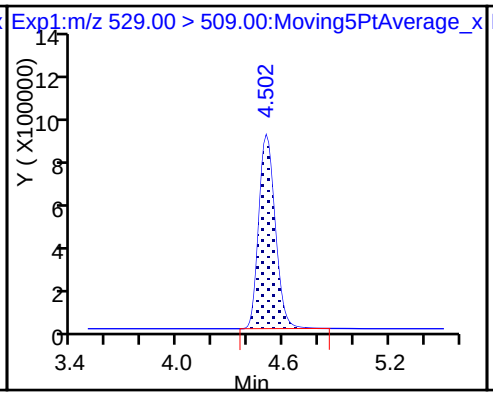
22 Perfluorooctane Sulfonamide



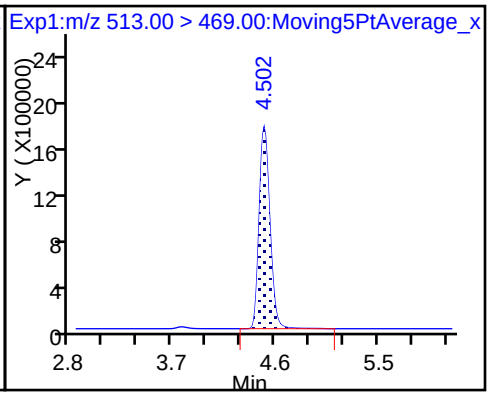
D 23 13C2 PFDA



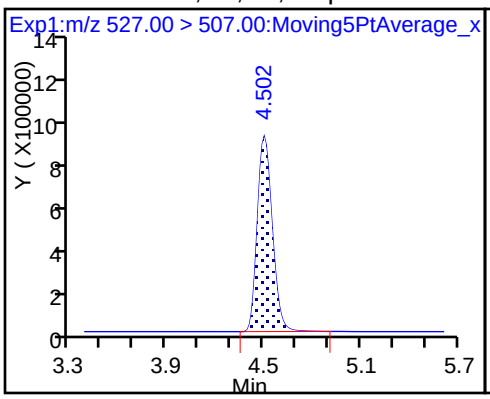
D 26 M2-8:2FTS



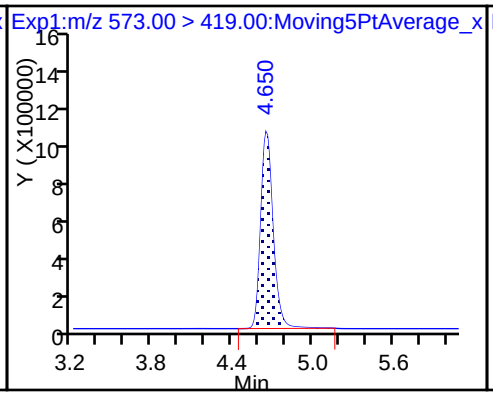
24 Perfluorodecanoic acid



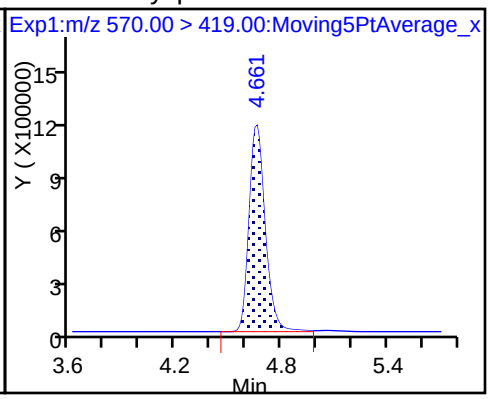
25 Sodium 1H,1H,2H,2H-perfluorodecane



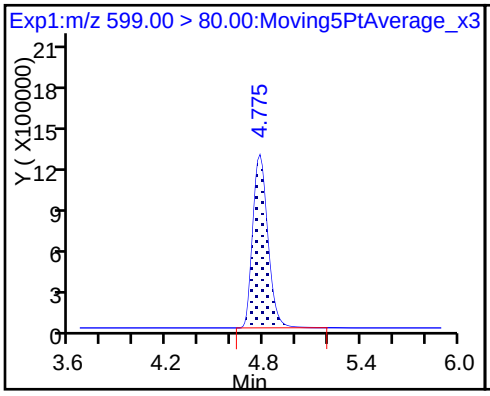
D 27 d3-NMeFOSAA



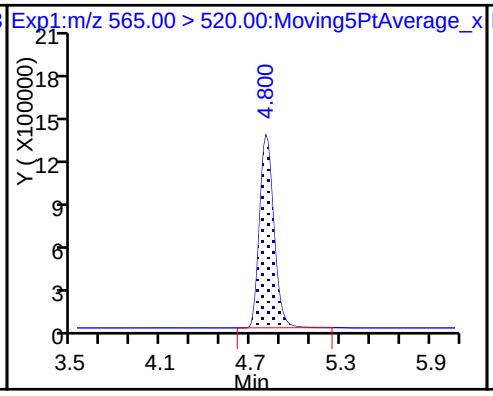
28 N-methyl perfluorooctane sulfonami



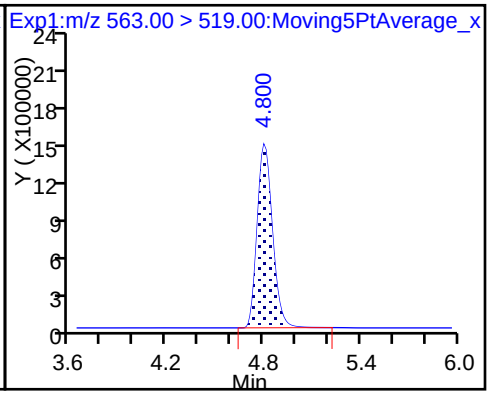
29 Perfluorodecane Sulfonic acid



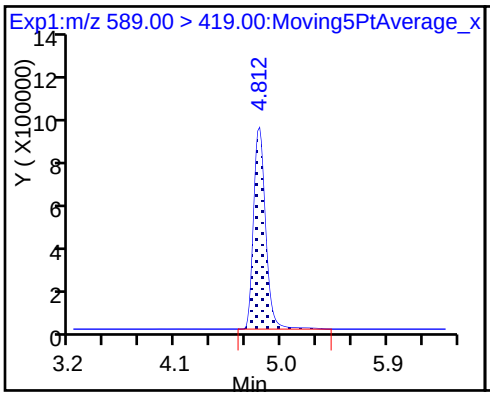
D 30 13C2 PFUnA



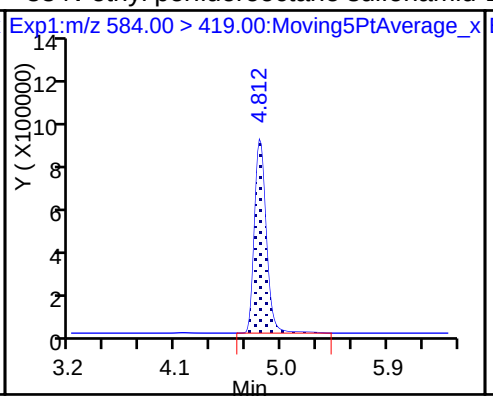
31 Perfluoroundecanoic acid



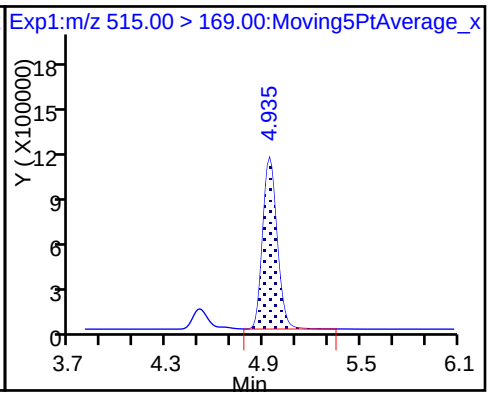
D 32 d5-NEtFOSAA



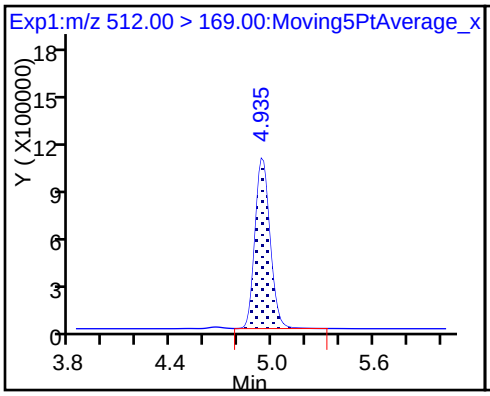
33 N-ethyl perfluorooctane sulfonamid



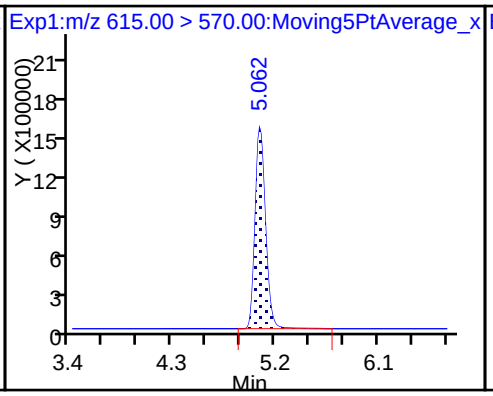
D 34 d-N-MeFOSA-M



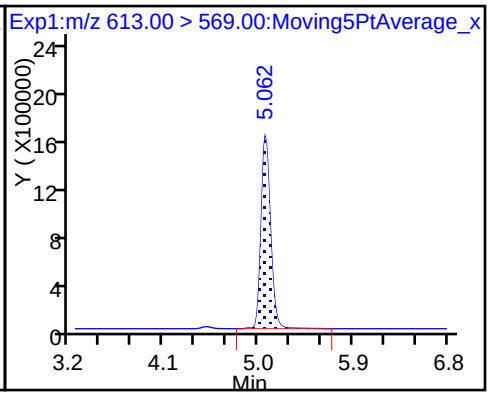
35 MeFOSA



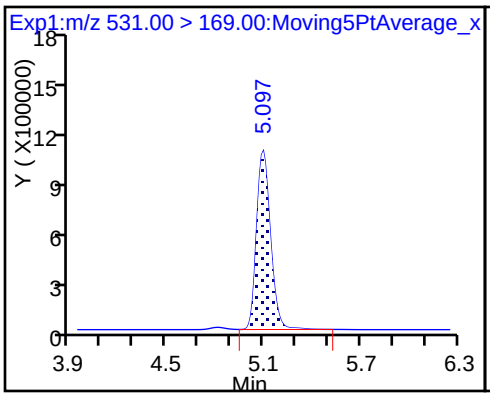
D 36 13C2 PFDoA



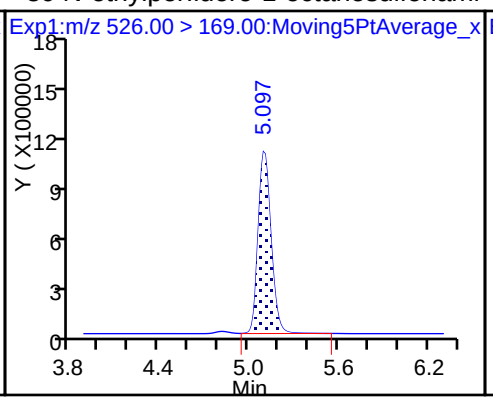
37 Perfluorododecanoic acid



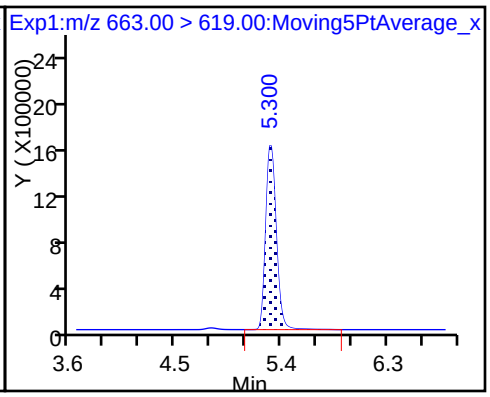
D 38 d-N-EtFOSA-M



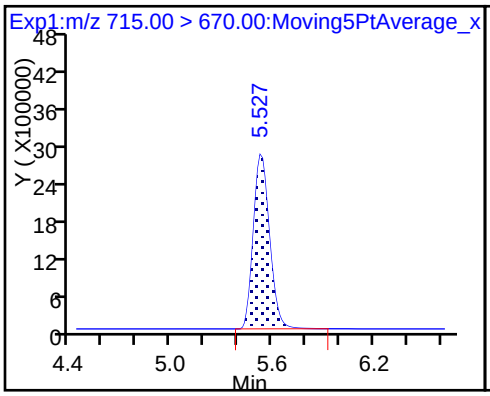
39 N-ethylperfluoro-1-octanesulfonami



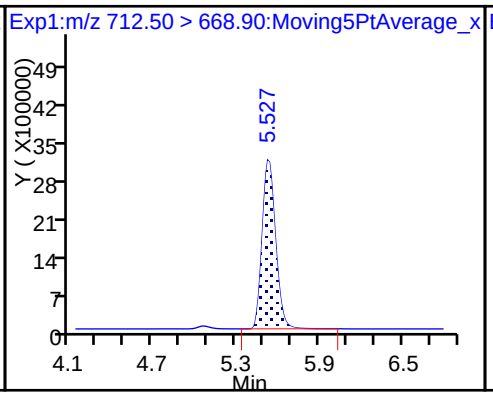
41 Perfluorotridecanoic acid



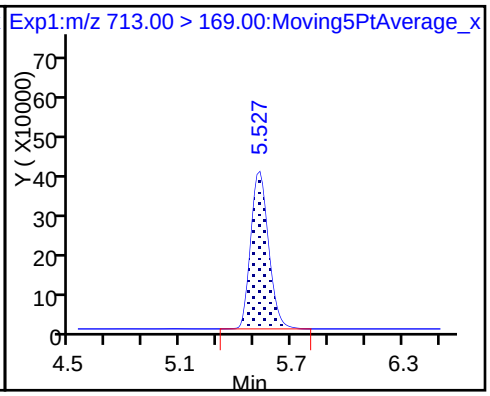
D 43 13C2-PFTeDA



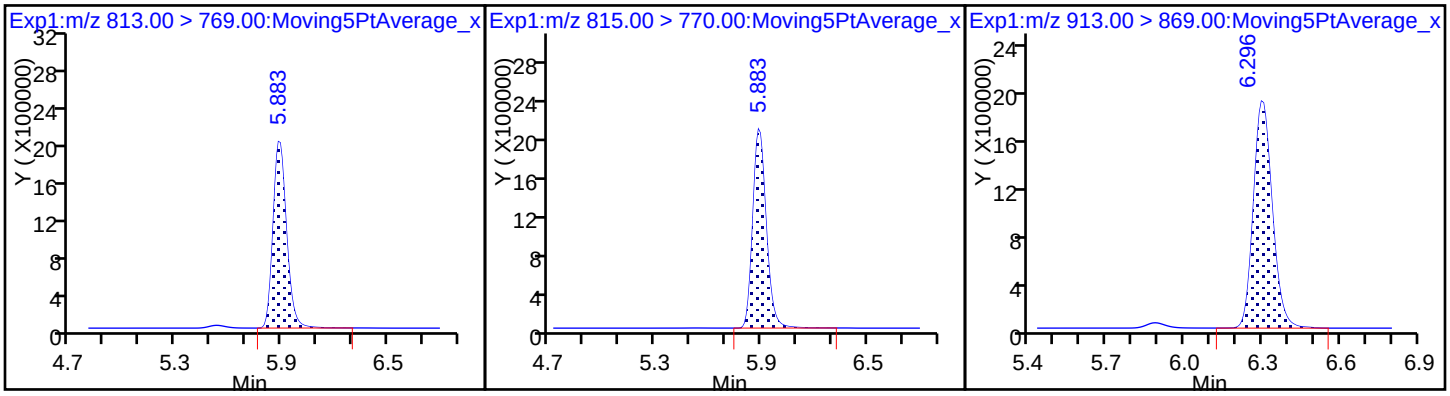
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

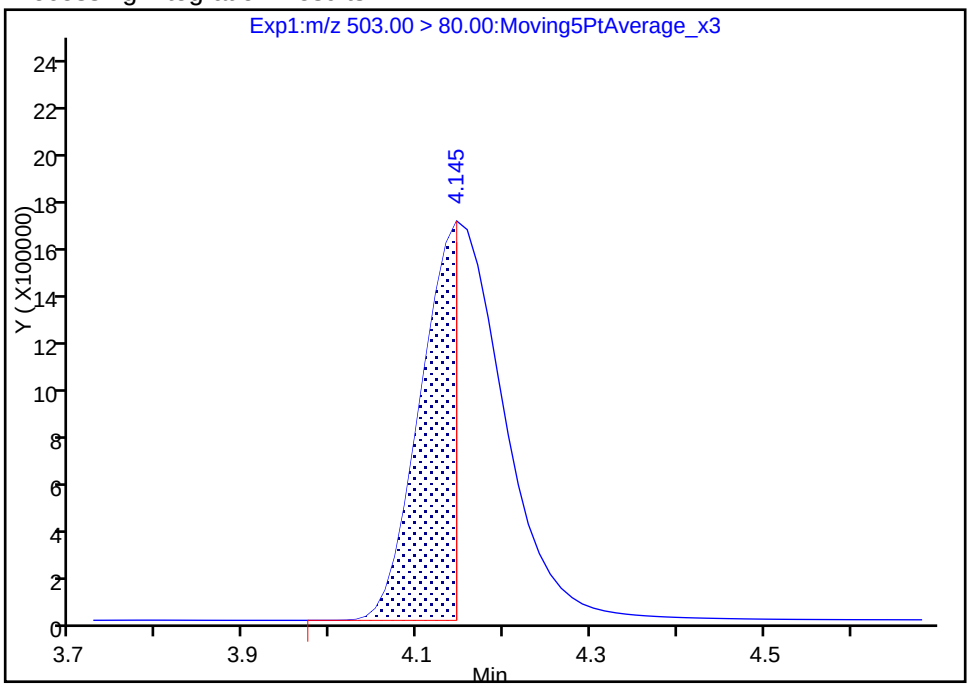
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_012.d
Injection Date: 20-Jun-2017 00:32:48 Instrument ID: A8_N
Lims ID: ICV Full
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

D 18 13C4 PFOS, CAS: STL00991

Signal: 1

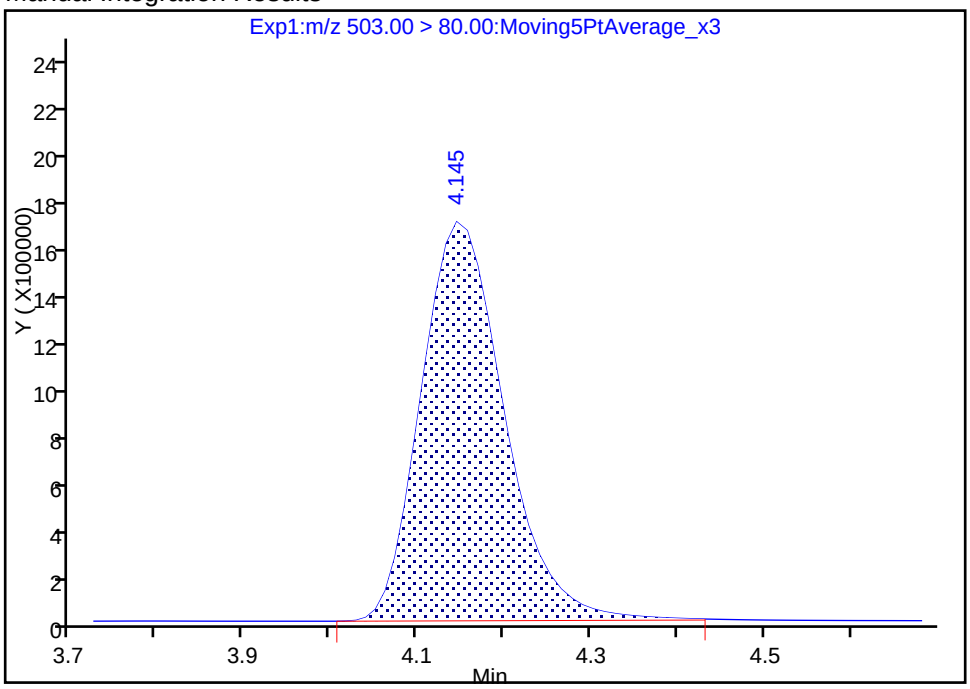
Processing Integration Results

RT: 4.15
Area: 4666145
Amount: 19.984568
Amount Units: ng/ml



Manual Integration Results

RT: 4.15
Area: 11002696
Amount: 47.123294
Amount Units: ng/ml



Reviewer: phomsophat, 20-Jun-2017 01:09:53
Audit Action: Manually Integrated Audit Reason: Assign Peak

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCVL 320-170803/4 Calibration Date: 06/24/2017 11:47

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.24A_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9054	0.9047		0.989	0.990	-0.0	50.0
Perfluoropentanoic acid (PFPeA)	AveID	1.026	1.060		1.02	0.990	3.3	50.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.597	1.650		0.904	0.875	3.3	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.010	0.9928		0.974	0.990	-1.7	50.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.056	1.032		0.968	0.990	-2.3	50.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.074	1.115		0.935	0.901	3.8	50.0
6:2FTS	AveID	0.9651	1.443		1.40	0.939	49.6	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.194	1.174		0.927	0.943	-1.7	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.058	1.058		0.991	0.990	0.0	50.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.065	1.029		0.888	0.919	-3.4	50.0
Perfluorononanoic acid (PFNA)	AveID	0.998	0.9854		0.978	0.990	-1.2	50.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9516	1.007		1.05	0.990	5.8	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9362	0.9408		0.995	0.990	0.5	50.0
8:2FTS	AveID	0.9782	1.015		0.984	0.949	3.8	50.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.027	0.9678		0.933	0.990	-5.7	50.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6447	0.5852		0.866	0.954	-9.2	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.020	1.101		1.07	0.990	8.0	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9401	0.8774		0.924	0.990	-6.7	50.0
MeFOSA	AveID	0.9686	0.9066		0.927	0.990	-6.4	50.0
N-EtFOSA-M	AveID	1.008	0.9105		0.895	0.990	-9.6	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9591	0.9098		0.939	0.990	-5.1	50.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9844	0.9438		0.949	0.990	-4.1	50.0
Perfluorotetradecanoic acid (PFTeA)	L2ID		1.935		0.876	0.990	-11.6	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.498		0.765	0.990	-22.7	50.0
Perfluoro-n-octadecanoic acid (PFODA)	L2ID		0.7917		0.795	0.990	-19.8	50.0
13C4 PFBA	Ave	467052	470465		49.9	49.5	0.7	50.0
13C5-PFPeA	Ave	334127	350276		51.9	49.5	4.8	50.0
13C2 PFHxA	Ave	333497	324977		48.2	49.5	-2.6	50.0
13C4-PFHpA	Ave	291052	283084		48.1	49.5	-2.7	50.0
18O2 PFHxS	Ave	325849	404166		58.1	46.8	24.0	50.0
M2-6:2FTS	Ave	126032	155066		57.9	47.0	23.0	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCVL 320-170803/4 Calibration Date: 06/24/2017 11:47

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.24A_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	289928	272729		46.6	49.5	-5.9	50.0
13C4 PFOS	Ave	233487	274901		55.7	47.3	17.7	50.0
13C5 PFNA	Ave	247443	219657		43.9	49.5	-11.2	50.0
13C8 FOSA	Ave	351898	432406		60.8	49.5	22.9	50.0
13C2 PFDA	Ave	218420	192555		43.6	49.5	-11.8	50.0
M2-8:2FTS	Ave	106179	134220		60.0	47.4	26.4	50.0
d3-NMeFOSAA	Ave	129262	78647		30.1	49.5	-39.2	50.0
13C2 PFUnA	Ave	170926	139895		40.5	49.5	-18.2	50.0
d5-NEtFOSAA	Ave	126496	77171		30.2	49.5	-39.0	50.0
d-N-MeFOSA-M	Ave	122003	116296		47.2	49.5	-4.7	50.0
d-N-EtFOSA-M	Ave	115783	109683		46.9	49.5	-5.3	50.0
13C2 PFDoA	Ave	186536	126212		33.5	49.5	-32.3	50.0
13C2-PFTeDA	Ave	346856	228002		32.5	49.5	-34.3	50.0
13C2-PFHxDA	Ave	206428	133113		31.9	49.5	-35.5	50.0

FORM VII 537 (Modified)

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170624-44671.b\2017.06.24A_004.d
Lims ID: CCVL 2
Client ID:
Sample Type: CCVL
Inject. Date: 24-Jun-2017 11:47:39 ALS Bottle#: 29 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCVL 2
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170624-44671.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 26-Jun-2017 12:09:38 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK012

First Level Reviewer: raineys Date: 24-Jun-2017 12:34:26

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.303	2.293	0.010		23290361	49.9		101	121928	
2 Perfluorobutyric acid										
212.90 > 169.00	2.303	2.302	0.001	1.000	421400	0.9893		99.9	71.8	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.715	2.703	0.012	1.000	367483	1.02		103	105	
D 3 13C5-PFPeA										
267.90 > 223.00	2.715	2.703	0.012		17340387	51.9		105	111098	
D 47 13C3-PFBS										
301.90 > 83.00	2.748	2.748	0.0		447083	NC			9213	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.759	2.748	0.011	1.000	583761	0.9045		103	215	
298.90 > 99.00	2.759	2.748	0.011	1.000	229945		2.54(0.00-0.00)		205	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	3.087	3.077	0.010	1.000	147350	1.04		113	5536	
6 Perfluorohexanoic acid										
313.00 > 269.00	3.139	3.129	0.010	1.000	319435	0.9737		98.3	587	
D 7 13C2 PFHxA										
315.00 > 270.00	3.139	3.129	0.010		16087957	48.2		97.4	103692	
D 9 13C4-PFHpA										
367.00 > 322.00	3.570	3.555	0.015		14014058	48.1		97.3	87961	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.570	3.555	0.015	1.000	289293	0.9678		97.7	203	
D 11 18O2 PFHxS										
403.00 > 84.00	3.578	3.555	0.023		18927784	58.1		124	75847	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.578	3.563	0.015	1.000	405967	0.9351		104	283	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.967	3.947	0.020	1.000	210093	1.40		150	1988	
D 12 M2-6:2FTS										
429.00 > 409.00	3.967	3.947	0.020		7292698	57.9		123	71683	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.975	3.955	0.020	1.000	304105	0.9266		98.3	3042	
* 62 13C2-PFOA										
415.00 > 370.00	3.983	3.964	0.019		14365320	49.5		100	61201	
D 14 13C4 PFOA										
417.00 > 372.00	3.983	3.964	0.019		13501422	46.6		94.1	54651	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.991	3.972	0.019	1.000	285799	0.99		100	79.9	
413.00 > 169.00	3.983	3.972	0.011	0.998	170258		1.68(0.90-1.10)		673	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.352	4.333	0.019	1.000	260000	0.8877		96.6	1589	
499.00 > 99.00	4.352	4.333	0.019	1.000	56536		4.60(0.90-1.10)		651	
D 18 13C4 PFOS										
503.00 > 80.00	4.352	4.333	0.019		13010160	55.7		118	70379	
20 Perfluorononanoic acid										
463.00 > 419.00	4.369	4.351	0.018	1.000	214295	0.9779		98.8	434	
D 19 13C5 PFNA										
468.00 > 423.00	4.369	4.351	0.018		10874102	43.9		88.8	50856	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.646	4.644	0.002	1.000	431140	1.05		106	4180	
D 21 13C8 FOSA										
506.00 > 78.00	4.646	4.644	0.002		21406231	60.8		123	48179	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.709	4.690	0.019	1.000	179353	0.99		100	606	
D 23 13C2 PFDA										
515.00 > 470.00	4.709	4.690	0.019		9532443	43.6		88.2	21825	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.717	4.690	0.027	1.000	129236	0.9843		104	2730	
D 26 M2-8:2FTS										
529.00 > 509.00	4.717	4.690	0.027		6365484	60.0		126	37014	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.873	4.845	0.028		3893415	30.1		60.8	23647	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.873	4.845	0.028	1.000	75358	0.9333		94.3	279	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.983	4.963	0.020	1.000	153546	0.8664		90.8	3271	
31 Perfluoroundecanoic acid										
563.00 > 519.00	5.021	4.991	0.030	1.000	152559	1.07		108	564	
D 30 13C2 PFUnA										
565.00 > 520.00	5.021	4.991	0.030		6925519	40.5		81.8	21838	
D 32 d5-NEtFOSAA										
589.00 > 419.00	5.021	4.991	0.030		3820324	30.2		61.0	9400	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	5.030	5.001	0.029	1.002	67037	0.9240		93.3	1271	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	5.077	5.076	0.001		5757228	47.2		95.3	463	
35 MeFOSA										
512.00 > 169.00	5.077	5.084	-0.007	1.000	104390	0.9267		93.6	1441	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.225	5.234	-0.009		5429863	46.9		94.7	5444	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.234	5.243	-0.009	1.000	98873	0.8946		90.4	1673	
D 36 13C2 PFDoA										
615.00 > 570.00	5.289	5.252	0.037		6248112	33.5		67.7	14775	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.289	5.261	0.028	1.000	113692	0.9392		94.9	32.2	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.542	5.499	0.043	1.000	117934	0.9492		95.9	13.5	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.774	5.723	0.051	1.000	241799	0.8756		88.4	8.6	
713.00 > 169.00	5.762	5.723	0.039	0.998	33051		7.32(0.00-0.00)		332	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.774	5.723	0.051		11287222	32.5		65.7	79519	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	6.228	6.159	0.069	1.000	187157	0.7652		77.3	26.1	
D 44 13C2-PFHxDA										
815.00 > 770.00	6.228	6.159	0.069		6589742	31.9		64.5	10433	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.729	6.616	0.113	1.000	98938	0.7945		80.2	12.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L2_00003 Amount Added: 1.00 Units: mL

Report Date: 26-Jun-2017 12:09:38 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170624-44671.b\2017.06.24A_004.d

Injection Date: 24-Jun-2017 11:47:39 Instrument ID: A8_N

Lims ID: CCVL 2

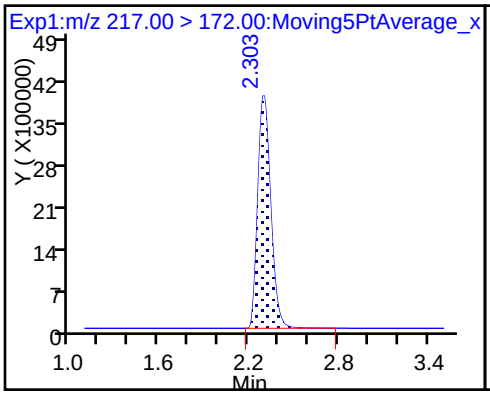
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 4

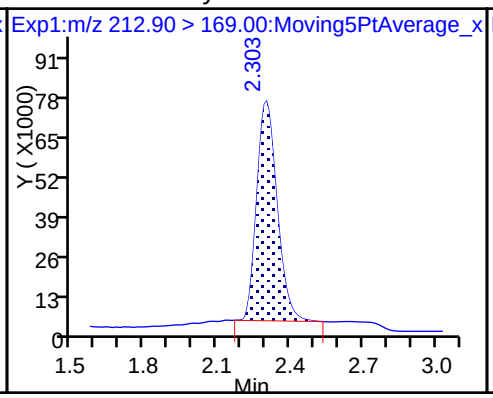
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

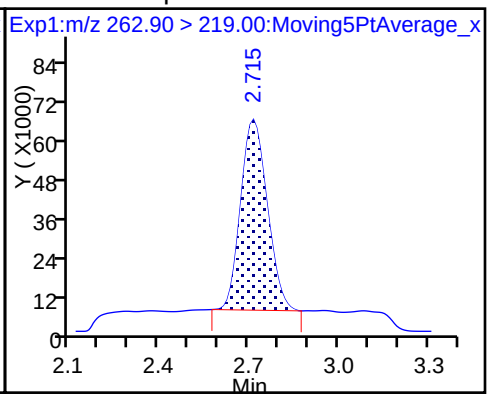
D 1 13C4 PFBA



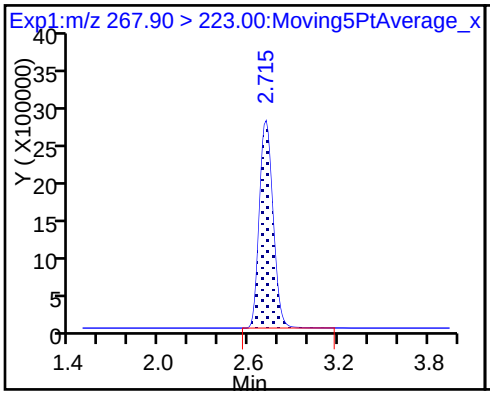
2 Perfluorobutyric acid



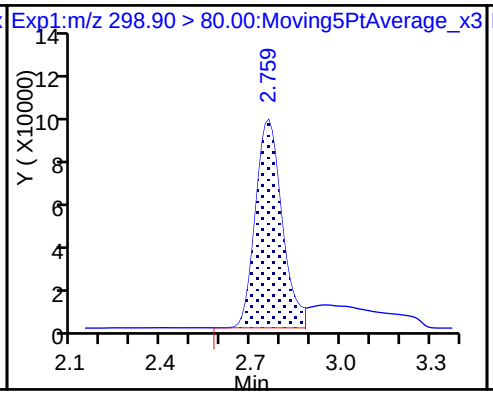
4 Perfluoropentanoic acid



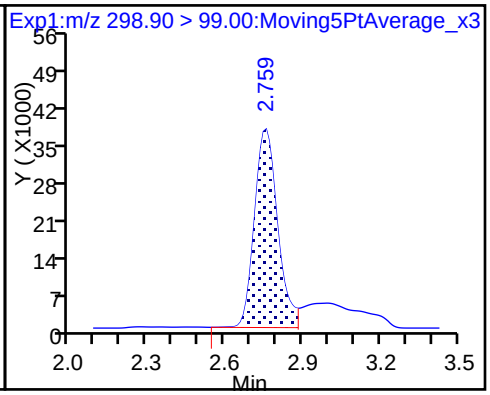
D 3 13C5-PFPeA



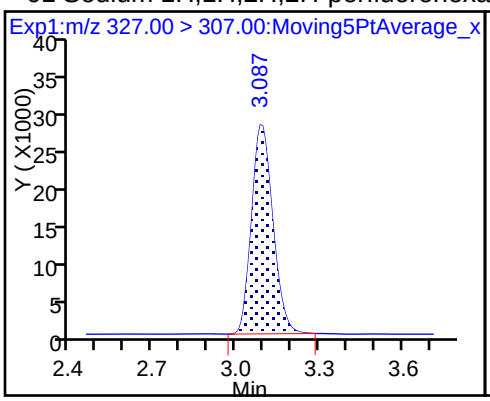
5 Perfluorobutanesulfonic acid



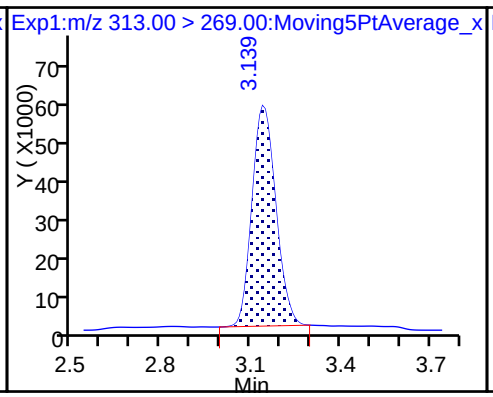
5 Perfluorobutanesulfonic acid



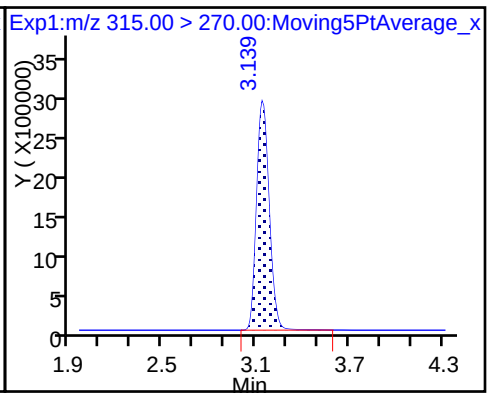
61 Sodium 1H,1H,2H,2H-perfluorohexane



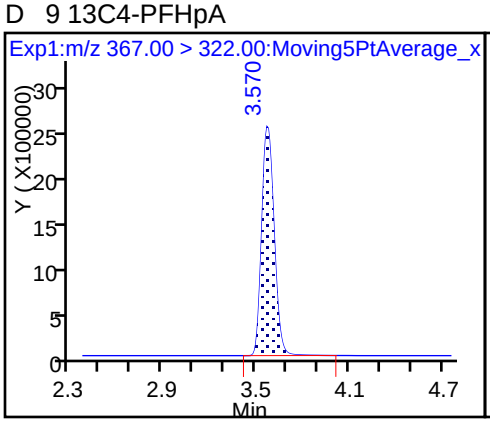
6 Perfluorohexanoic acid



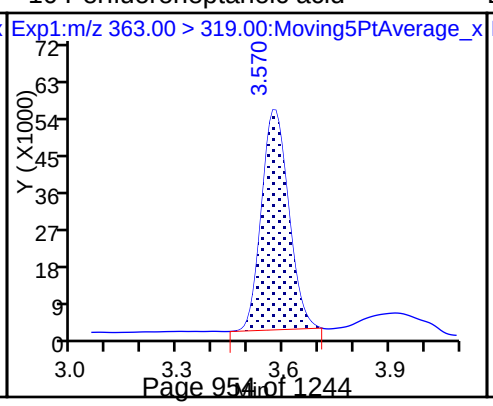
D 7 13C2 PFHxA



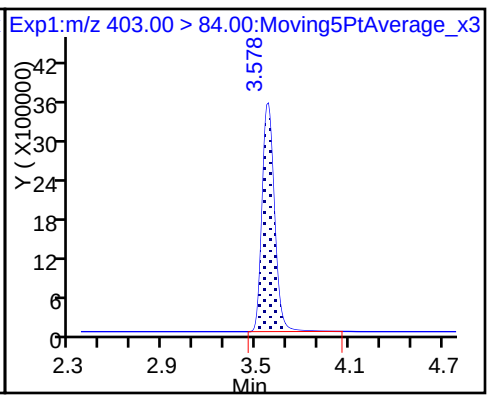
D 9 13C4-PFHpA



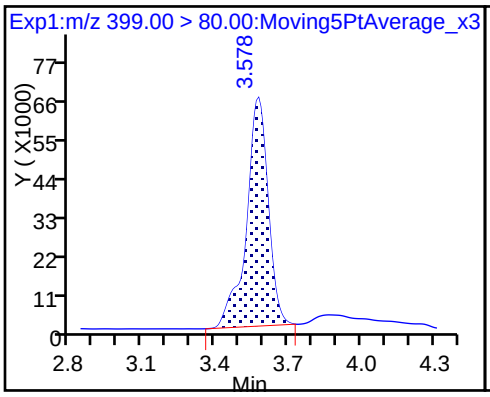
10 Perfluoroheptanoic acid



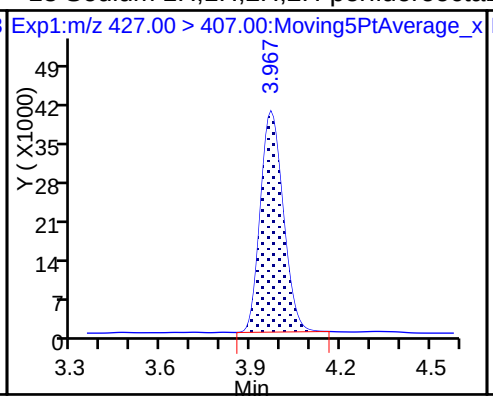
D 11 18O2 PFHxS



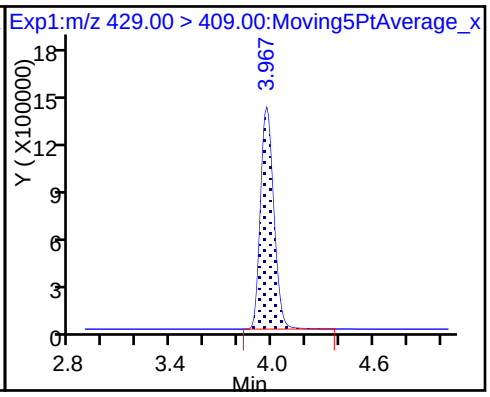
8 Perfluorohexanesulfonic acid



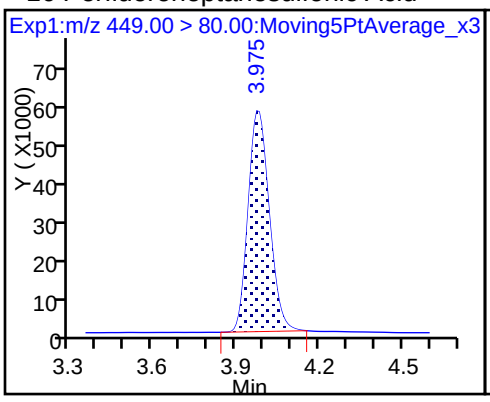
13 Sodium 1H,1H,2H,2H-perfluorooctane



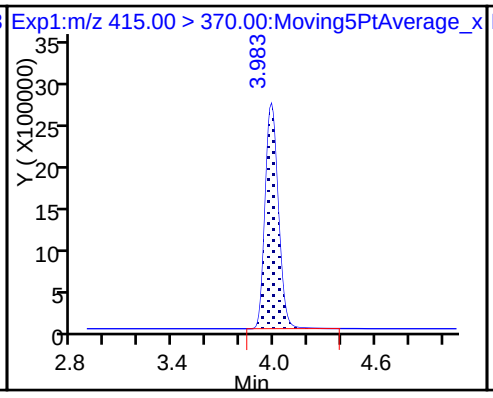
D 12 M2-6:2FTS



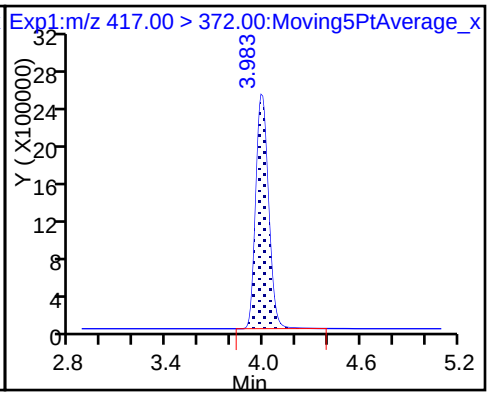
16 Perfluoroheptanesulfonic Acid



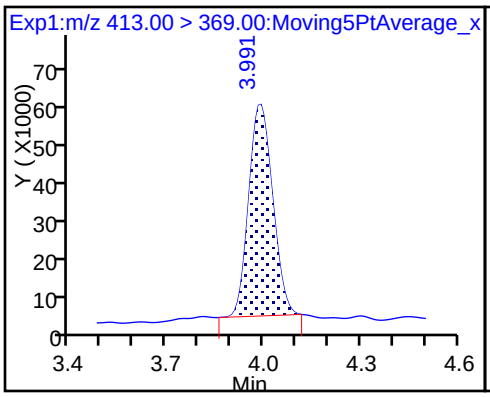
* 62 13C2-PFOA



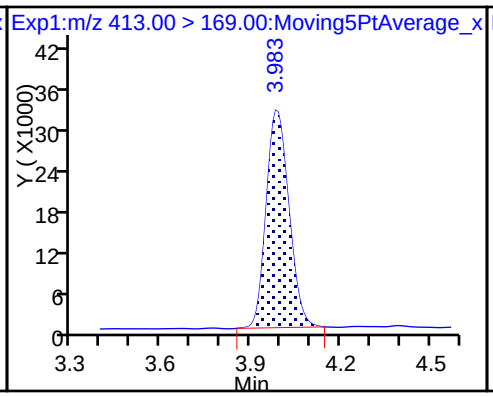
D 14 13C4 PFOA



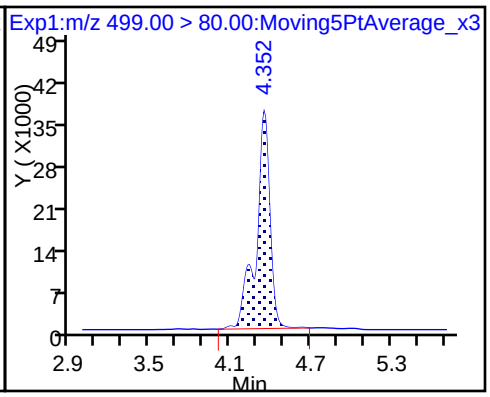
15 Perfluorooctanoic acid



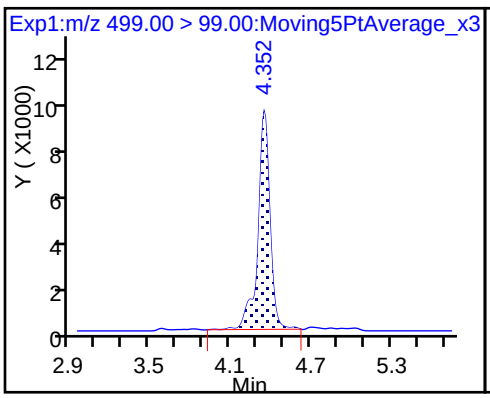
15 Perfluorooctanoic acid



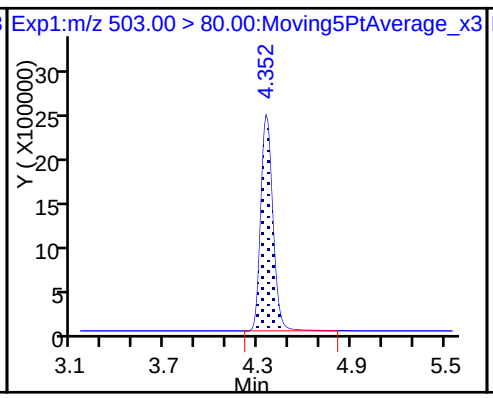
17 Perfluorooctane sulfonic acid



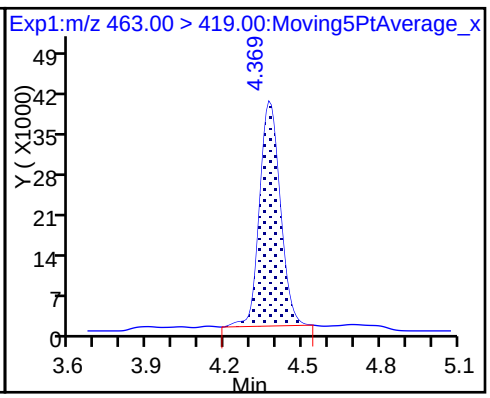
17 Perfluorooctane sulfonic acid



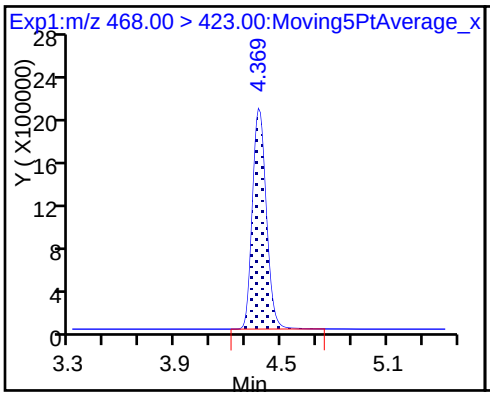
D 18 13C4 PFOS



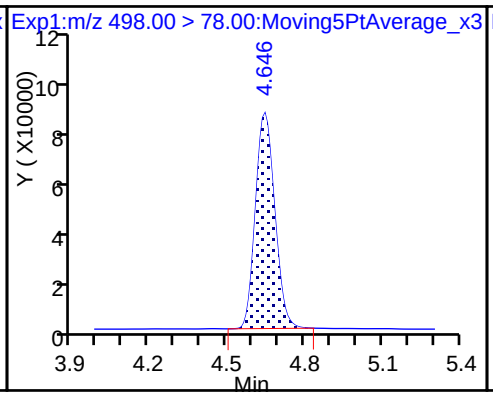
20 Perfluorononanoic acid



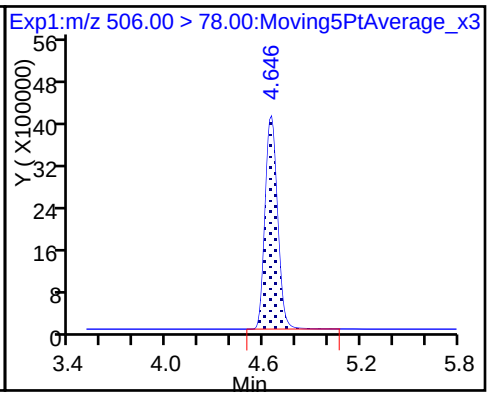
D 19 13C5 PFNA



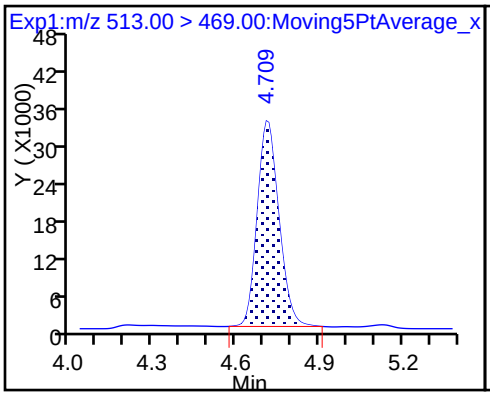
22 Perfluorooctane Sulfonamide



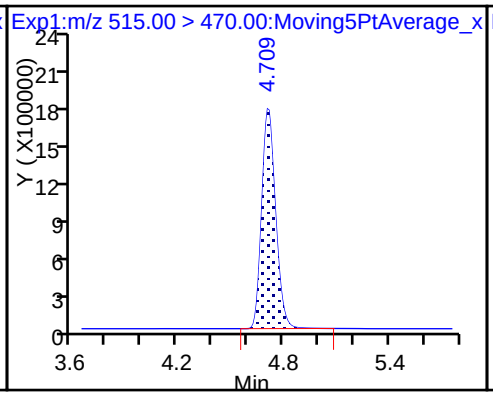
D 21 13C8 FOSA



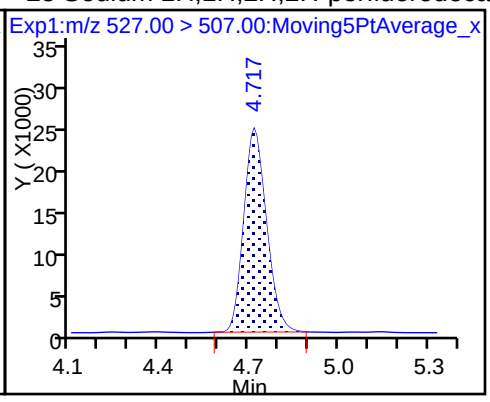
24 Perfluorodecanoic acid



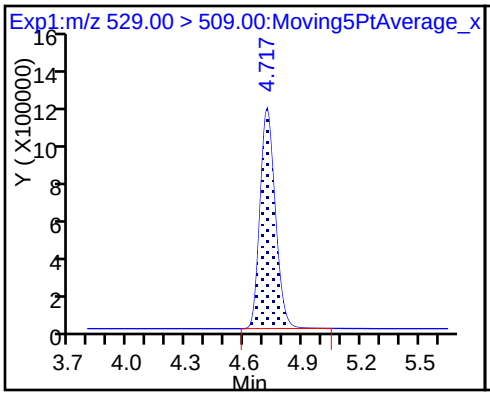
D 23 13C2 PFDA



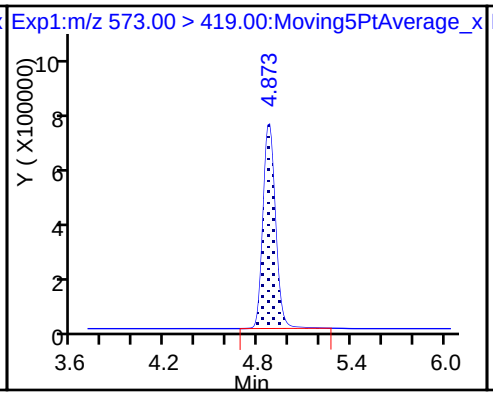
25 Sodium 1H,1H,2H,2H-perfluorodecane



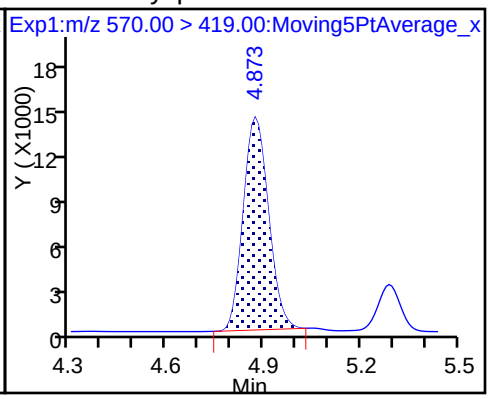
D 26 M2-8:2FTS



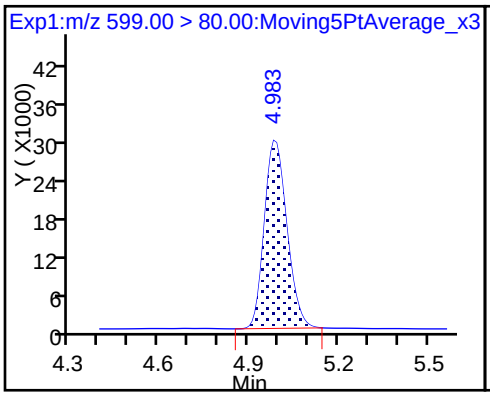
D 27 d3-NMeFOSAA



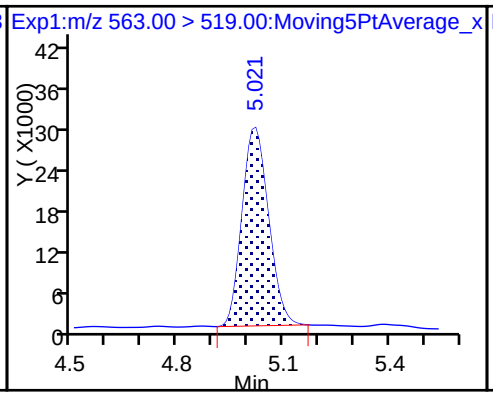
28 N-methyl perfluorooctane sulfonami



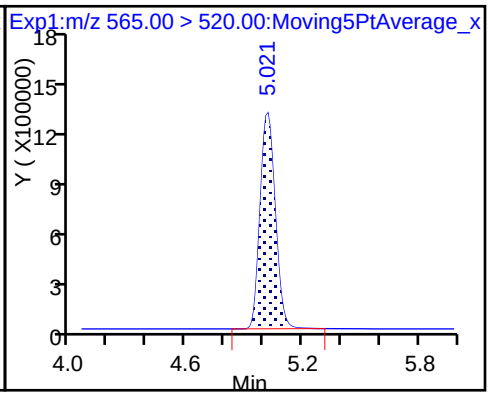
29 Perfluorodecane Sulfonic acid



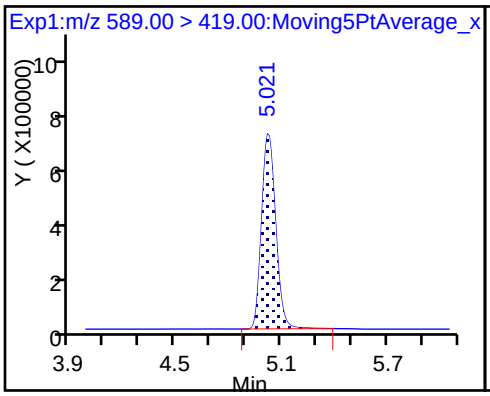
31 Perfluoroundecanoic acid



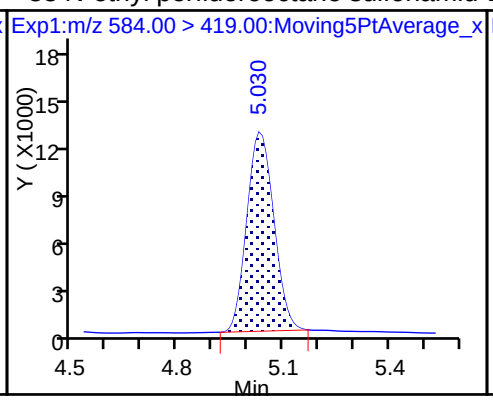
D 30 13C2 PFUnA



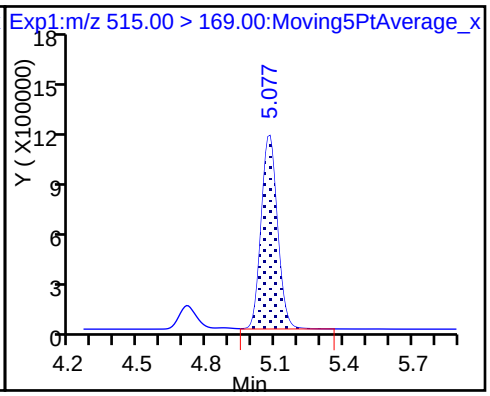
D 32 d5-NEtFOSAA



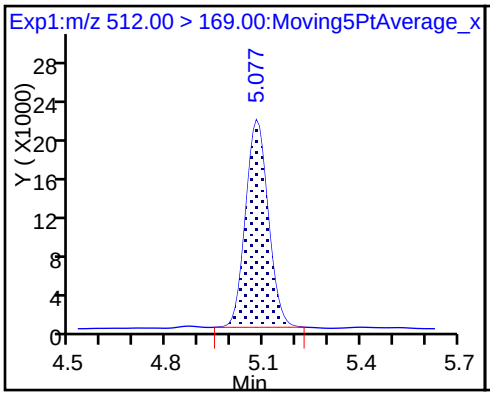
33 N-ethyl perfluorooctane sulfonamid



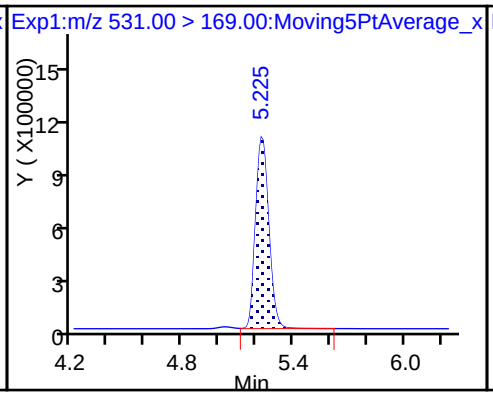
D 34 d-N-MeFOSA-M



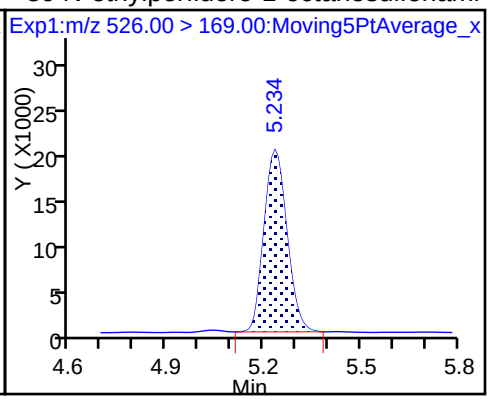
35 MeFOSA



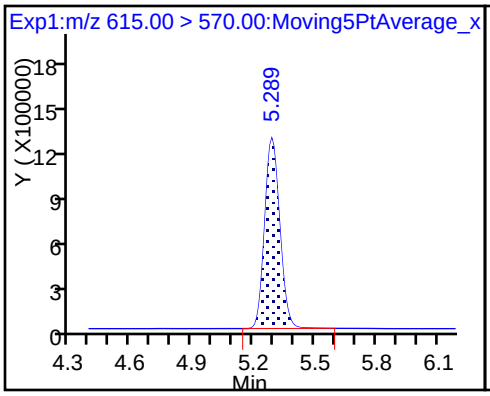
D 38 d-N-EtFOSA-M



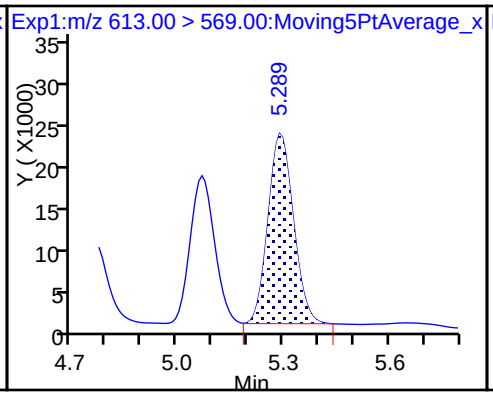
39 N-ethylperfluoro-1-octanesulfonami



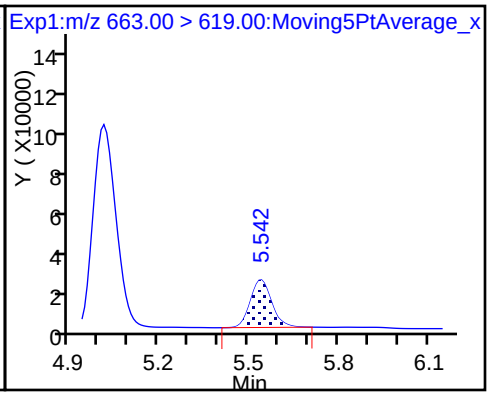
D 36 13C2 PFDoA



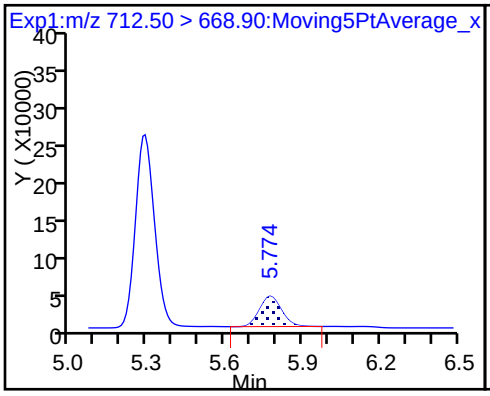
37 Perfluorododecanoic acid



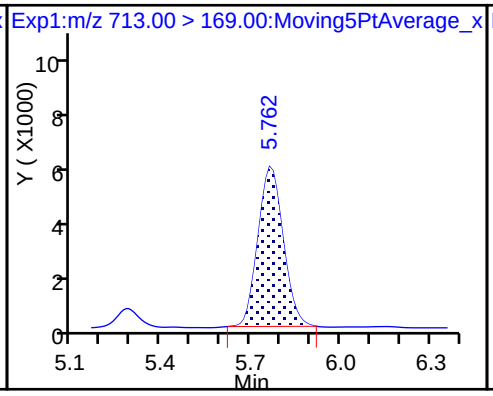
41 Perfluorotridecanoic acid



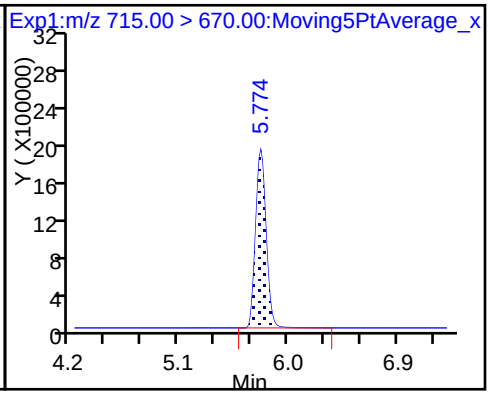
42 Perfluorotetradecanoic acid



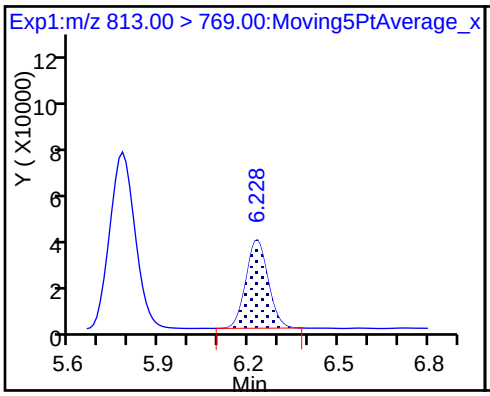
42 Perfluorotetradecanoic acid



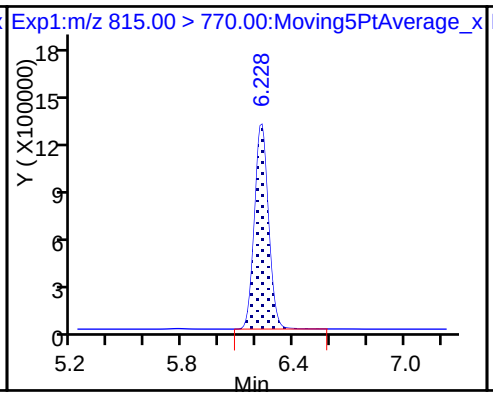
D 43 13C2-PFTeDA



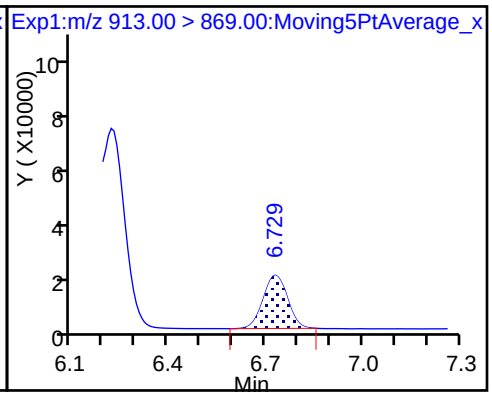
45 Perfluorohexadecanoic acid



D 44 13C2-PFHxDA



46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-170860/23 Calibration Date: 06/25/2017 00:20

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.24B_049.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9054	0.9473		20.7	19.8	4.6	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.026	1.049		20.3	19.8	2.3	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.597	1.637		17.9	17.5	2.5	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.010	1.043		20.5	19.8	3.3	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.056	1.077		20.2	19.8	2.0	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.074	1.041		17.5	18.0	-3.1	25.0
6:2FTS	AveID	0.9651	1.074		20.9	18.8	11.3	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.194	1.273		20.1	18.9	6.6	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.058	1.040		19.5	19.8	-1.7	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.065	1.064		18.4	18.4	-0.0	25.0
Perfluorononanoic acid (PFNA)	AveID	0.998	1.013		20.1	19.8	1.5	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9362	0.9087		19.2	19.8	-2.9	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9516	1.008		21.0	19.8	5.9	25.0
8:2FTS	AveID	0.9782	1.066		20.7	19.0	9.0	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.027	1.111		21.4	19.8	8.2	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6447	0.6093		18.0	19.1	-5.5	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.020	0.9868		19.2	19.8	-3.2	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9401	0.9433		19.9	19.8	0.3	25.0
MeFOSA	AveID	0.9686	0.997		20.4	19.8	2.9	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9591	0.8887		18.3	19.8	-7.3	25.0
N-EtFOSA-M	AveID	1.008	1.037		20.4	19.8	2.9	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9844	0.8755		17.6	19.8	-11.1	25.0
Perfluorotetradecanoic acid (PFTeA)	L2ID		1.780		17.0	19.8	-14.1	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8233		16.0	19.8	-19.4	25.0
Perfluoro-n-octadecanoic acid (PFODA)	L2ID		0.7210		14.9	19.8	-24.5	25.0
13C4 PFBA	Ave	467052	503236		53.3	49.5	7.7	50.0
13C5-PFPeA	Ave	334127	328391		48.7	49.5	-1.7	50.0
13C2 PFHxA	Ave	333497	330387		49.0	49.5	-0.9	50.0
13C4-PFHpA	Ave	291052	290137		49.3	49.5	-0.3	50.0
18O2 PFHxS	Ave	325849	420708		60.5	46.8	29.1	50.0
M2-6:2FTS	Ave	126032	167521		62.5	47.0	32.9	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-170860/23 Calibration Date: 06/25/2017 00:20

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.24B_049.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	289928	280837		48.0	49.5	-3.1	50.0
13C4 PFOS	Ave	233487	287270		58.2	47.3	23.0	50.0
13C5 PFNA	Ave	247443	213827		42.8	49.5	-13.6	50.0
13C2 PFDA	Ave	218420	176866		40.1	49.5	-19.0	50.0
13C8 FOSA	Ave	351898	437306		61.5	49.5	24.3	50.0
M2-8:2FTS	Ave	106179	129340		57.8	47.4	21.8	50.0
d3-NMeFOSAA	Ave	129262	74647		28.6	49.5	-42.3	50.0
13C2 PFUnA	Ave	170926	129447		37.5	49.5	-24.3	50.0
d5-NEtFOSAA	Ave	126496	78515		30.7	49.5	-37.9	50.0
d-N-MeFOSA-M	Ave	122003	120030		48.7	49.5	-1.6	50.0
13C2 PFDoA	Ave	186536	121200		32.2	49.5	-35.0	50.0
d-N-EtFOSA-M	Ave	115783	115256		49.3	49.5	-0.5	50.0
13C2-PFTeDA	Ave	346856	200799		28.7	49.5	-42.1	50.0
13C2-PFHxDA	Ave	206428	110367		26.5	49.5	-46.5	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\2017.06.24B_049.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 25-Jun-2017 00:20:38 ALS Bottle#: 31 Worklist Smp#: 23
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 26-Jun-2017 13:48:13 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK012

First Level Reviewer: chandrasenas Date: 26-Jun-2017 13:29:24

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.439	2.439	0.0		24912663	53.3		108	116987	
2 Perfluorobutyric acid										
212.90 > 169.00	2.439	2.439	0.0	1.000	9439916	20.7		105	1051	
D 3 13C5-PFPeA										
267.90 > 223.00	2.853	2.853	0.0		16256960	48.7		98.3	81505	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.853	2.853	0.0	1.000	6822767	20.3		102	1557	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.900	2.900	0.0	1.000	12056111	17.9		103	93800	
298.90 > 99.00	2.900	2.900	0.0	1.000	4782536		2.52(0.00-0.00)		70337	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	3.240	3.240	0.0	1.000	3215729	21.1		114	186584	
D 7 13C2 PFHxA										
315.00 > 270.00	3.284	3.284	0.0		16355788	49.0		99.1	76472	
6 Perfluorohexanoic acid										
313.00 > 269.00	3.284	3.284	0.0	1.000	6824323	20.5		103	14458	
D 9 13C4-PFHpA										
367.00 > 322.00	3.714	3.714	0.0		14363216	49.3		99.7	88237	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.714	3.714	0.0	1.000	6187892	20.2		102	3027	
D 11 18O2 PFHxS										
403.00 > 84.00	3.714	3.714	0.0		19702458	60.5		129	680907	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.714	3.714	0.0	1.000	7891097	17.5		96.9	4045	
D 12 M2-6:2FTS										
429.00 > 409.00	4.102	4.102	0.0		7878458	62.5		133	78916	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	4.102	4.102	0.0	1.000	3377315	20.9		111	71578	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	4.110	4.110	0.0	1.000	6894546	20.1		107	43081	
15 Perfluorooctanoic acid										
413.00 > 369.00	4.119	4.119	0.0	1.000	5782404	19.5		98.3	378	
413.00 > 169.00	4.119	4.119	0.0	1.000	3397195		1.70(0.90-1.10)		11521	
D 14 13C4 PFOA										
417.00 > 372.00	4.119	4.119	0.0		13902837	48.0		96.9	69343	
D 18 13C4 PFOS										
503.00 > 80.00	4.474	4.474	0.0		13595540	58.2		123	46696	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.474	4.474	0.0	1.000	5619092	18.4		99.9	8126	
499.00 > 99.00	4.474	4.474	0.0	1.000	1204157		4.67(0.90-1.10)		8788	
D 19 13C5 PFNA										
468.00 > 423.00	4.495	4.495	0.0		10585476	42.8		86.4	38577	
20 Perfluorononanoic acid										
463.00 > 419.00	4.495	4.495	0.0	1.000	4287881	20.1		102	6557	
D 21 13C8 FOSA										
506.00 > 78.00	4.821	4.821	0.0		21648803	61.5		124	366906	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.821	4.821	0.0	1.000	8726417	21.0		106	33626	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.821	4.821	0.0	1.000	3182372	19.2		97.1	2343	
D 23 13C2 PFDA										
515.00 > 470.00	4.821	4.821	0.0		8755745	40.1		81.0	3648	
D 26 M2-8:2FTS										
529.00 > 509.00	4.831	4.831	0.0		6134049	57.8		122	37818	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.831	4.831	0.0	1.000	2615597	20.7		109	27266	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.976	4.976	0.0		3695397	28.6		57.7	57121	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.976	4.976	0.0	1.000	1641917	21.4		108	23437	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	5.085	5.085	0.0	1.000	3341433	18.0		94.5	48542	
D 30 13C2 PFUnA										
565.00 > 520.00	5.112	5.112	0.0		6408280	37.5		75.7	29966	
31 Perfluoroundecanoic acid										
563.00 > 519.00	5.112	5.112	0.0	1.000	2529347	19.2		96.8	7719	
D 32 d5-NEtFOSAA										
589.00 > 419.00	5.121	5.121	0.0		3886869	30.7		62.1	9778	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	5.130	5.130	0.0	1.002	1466573	19.9		100	15497	
D 36 13C2 PFDoA										
615.00 > 570.00	5.376	5.376	0.0		6000024	32.2		65.0	13654	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.376	5.376	0.0	1.000	2132810	18.3		92.7	213	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	5.259	5.259	0.0	1.000	2370167	20.4		103	6102	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	5.259	5.259	0.0		5942074	48.7		98.4	564	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.417	5.417	0.0	1.000	2366645	20.4		103	4737	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.409	5.409	0.0		5705740	49.3		99.5	5516	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.608	5.608	0.0	1.000	2101147	17.6		88.9	200	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.819	5.819	0.0		9940562	28.7		57.9	38061	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.819	5.819	0.0	1.000	4272749	17.0		85.9	132	
713.00 > 169.00	5.807	5.819	-0.012	0.998	558536		7.65(0.00-0.00)		3955	
D 44 13C2-PFHxDA										
815.00 > 770.00	6.218	6.218	0.0		5463711	26.5		53.5	8213	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	6.218	6.218	0.0	1.000	1976023	16.0		80.6	251	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.640	6.640	0.0	1.000	1730300	14.9		75.5	194	

Reagents:

LCPFC_FULL-L4_00003 Amount Added: 1.00 Units: mL

Report Date: 26-Jun-2017 13:48:14 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\2017.06.24B_049.d

Injection Date: 25-Jun-2017 00:20:38 Instrument ID: A8_N

Lims ID: CCV L4

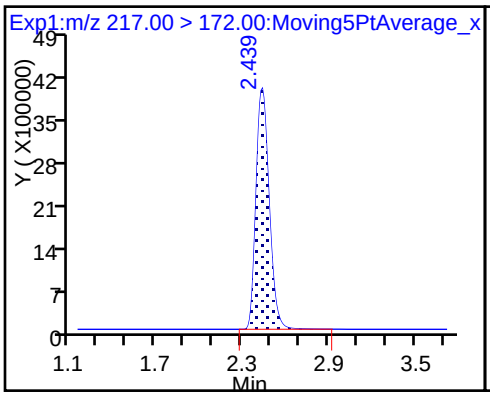
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 23

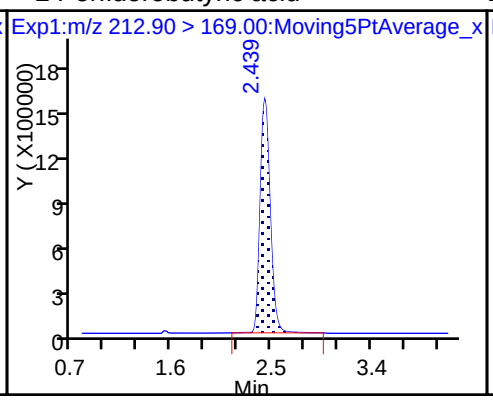
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

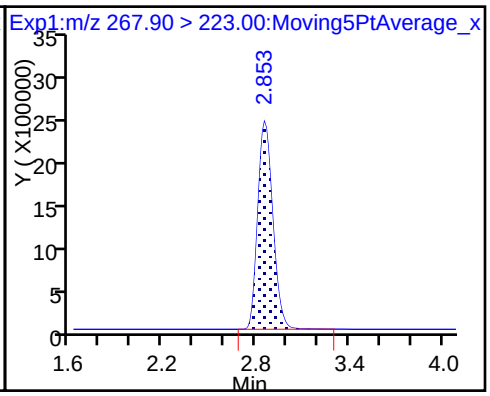
D 1 13C4 PFBA



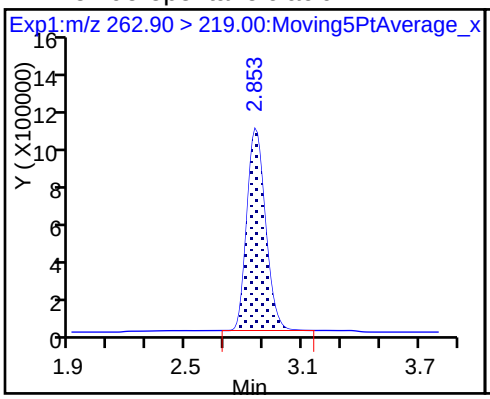
2 Perfluorobutyric acid



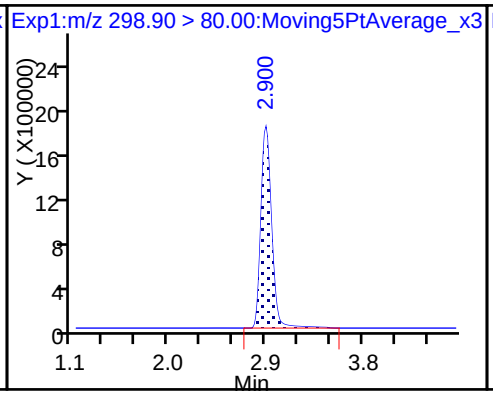
D 3 13C5-PFPeA



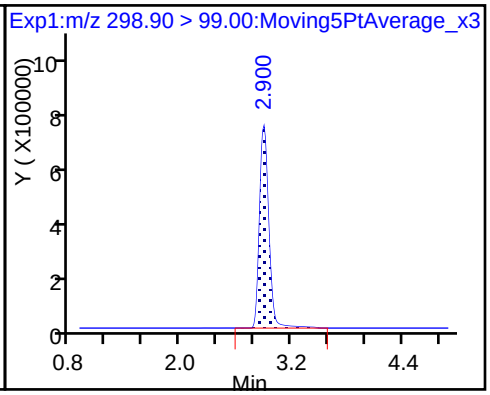
4 Perfluoropentanoic acid



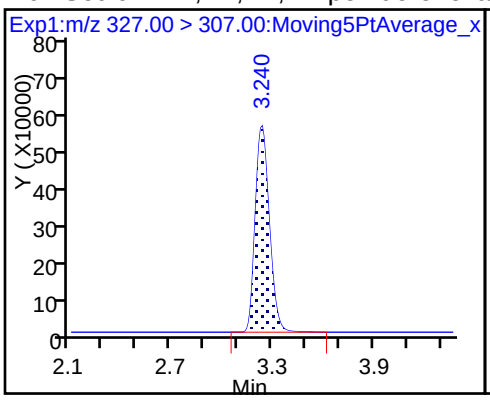
5 Perfluorobutanesulfonic acid



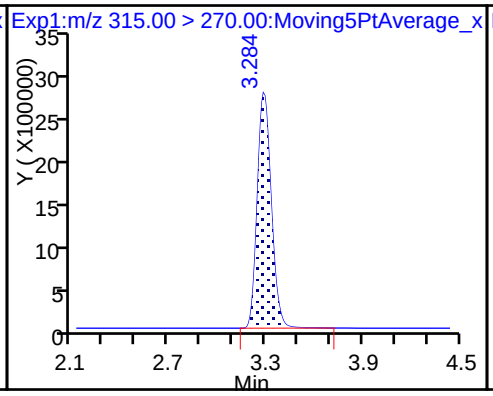
5 Perfluorobutanesulfonic acid



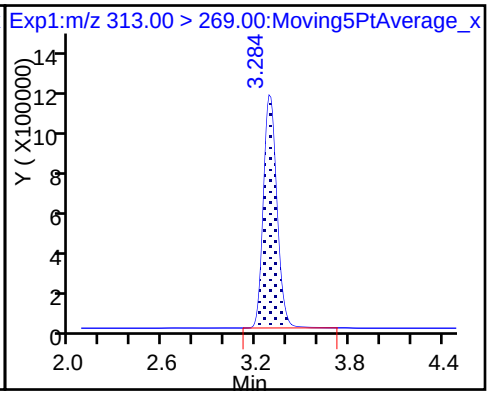
61 Sodium 1H,1H,2H,2H-perfluorohexa



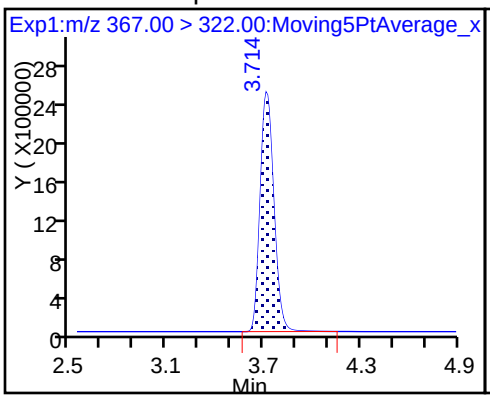
De 7 13C2 PFHxA



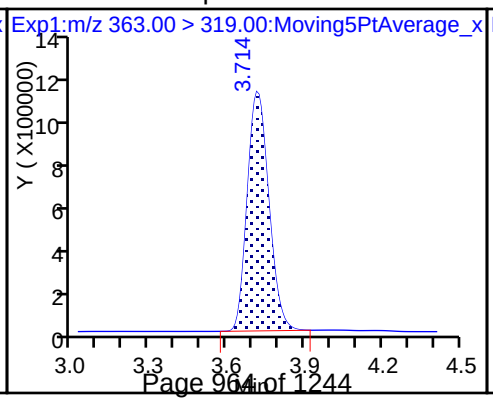
6 Perfluorohexanoic acid



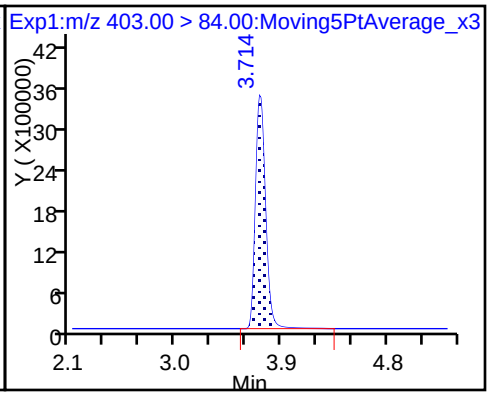
D 9 13C4-PFHpA



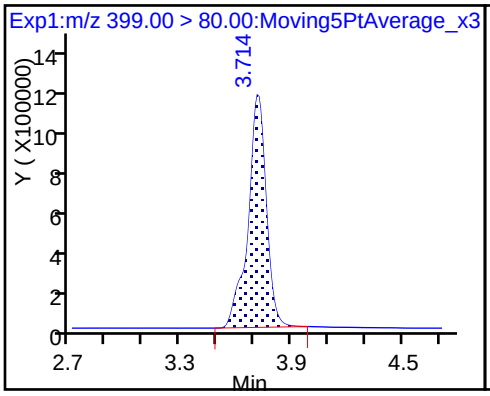
10 Perfluoroheptanoic acid



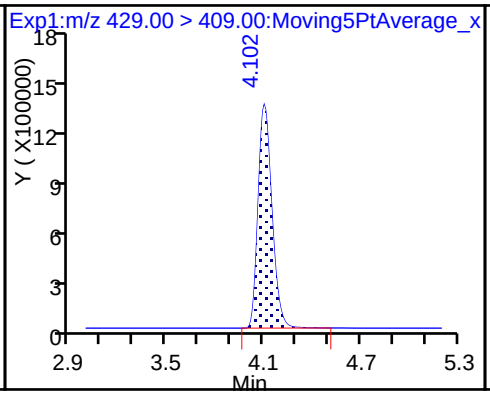
D 11 18O2 PFHxS



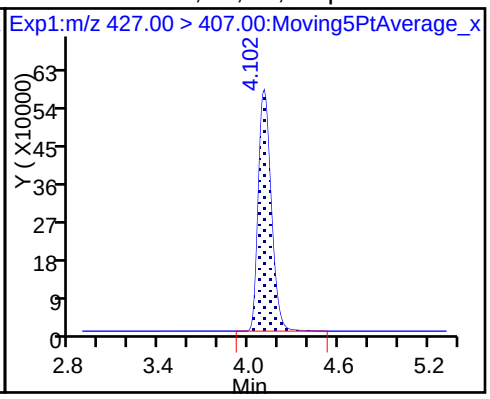
8 Perfluorohexanesulfonic acid



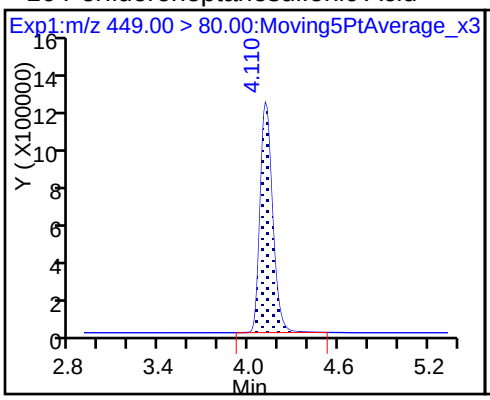
D 12 M2-6:2FTS



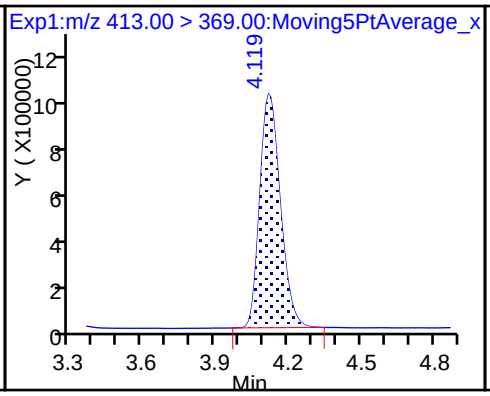
13 Sodium 1H,1H,2H,2H-perfluorooctane



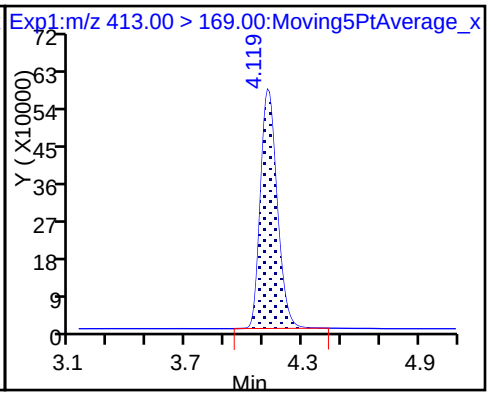
16 Perfluoroheptanesulfonic Acid



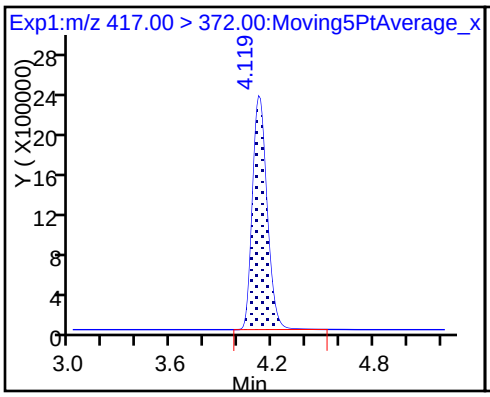
15 Perfluorooctanoic acid



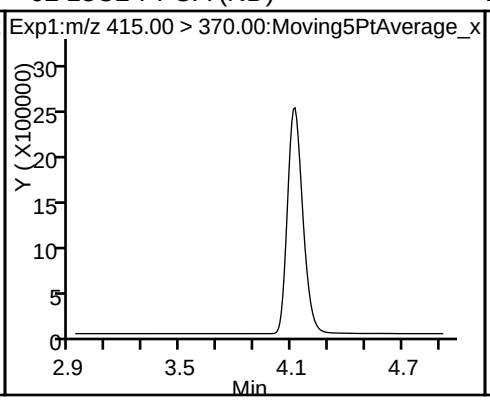
15 Perfluorooctanoic acid



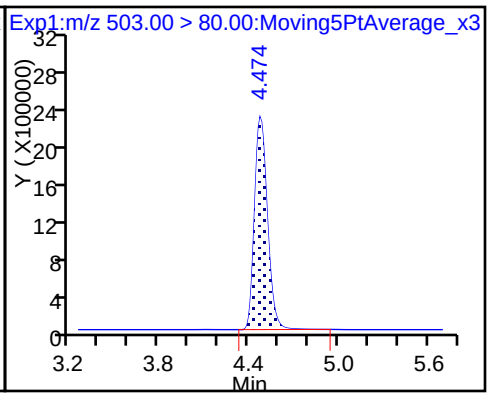
D 14 13C4 PFOA



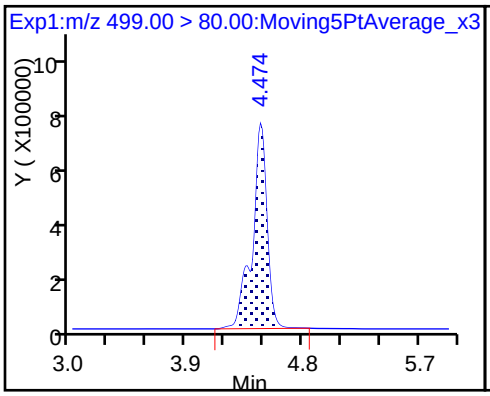
* 62 13C2-PFOA (ND)



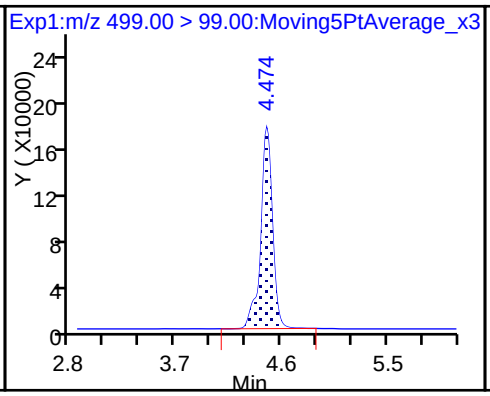
D 18 13C4 PFOS



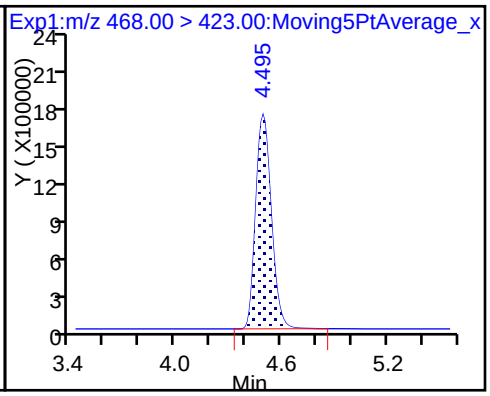
17 Perfluorooctane sulfonic acid



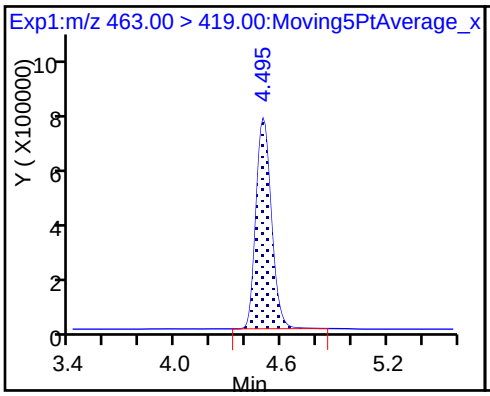
17 Perfluorooctane sulfonic acid



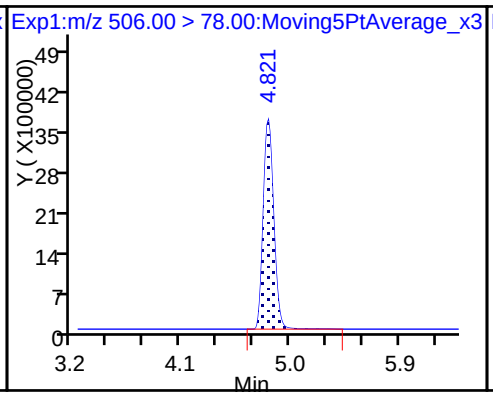
D 19 13C5 PFNA



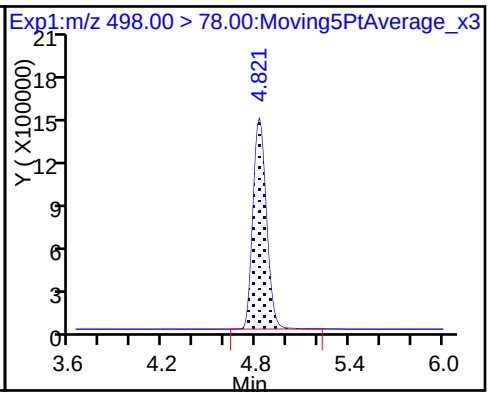
20 Perfluorononanoic acid



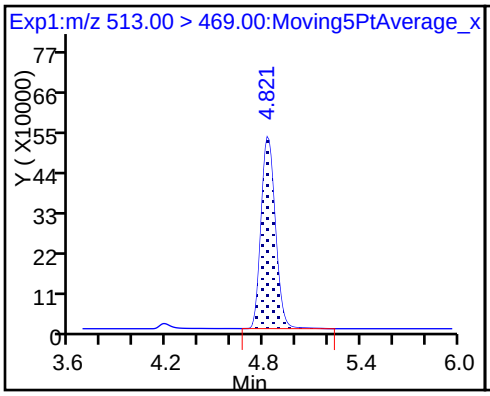
D 21 13C8 FOSA



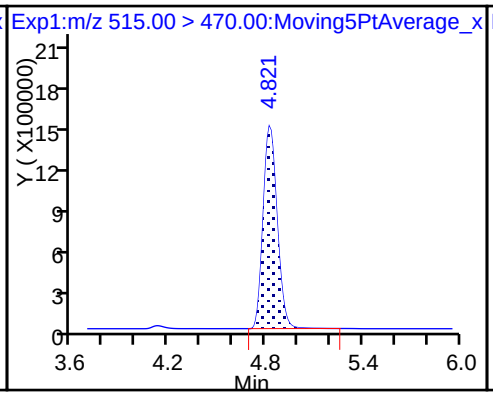
22 Perfluorooctane Sulfonamide



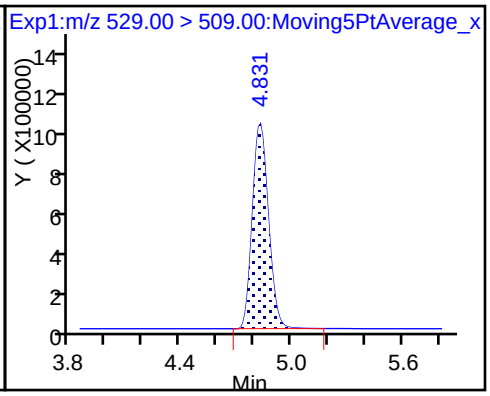
24 Perfluorodecanoic acid



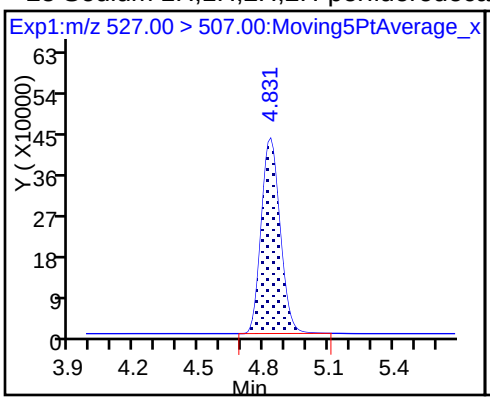
D 23 13C2 PFDA



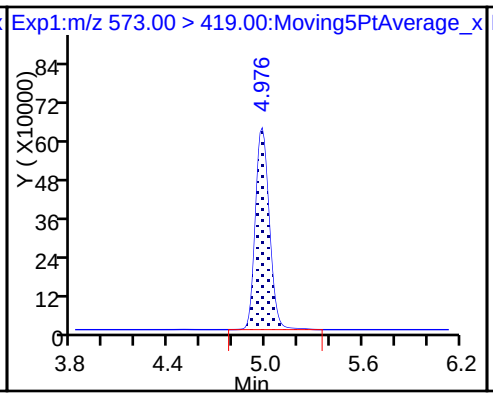
D 26 M2-8:2FTS



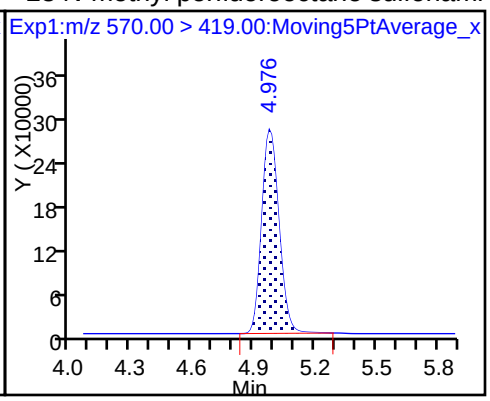
25 Sodium 1H,1H,2H,2H-perfluorodecane



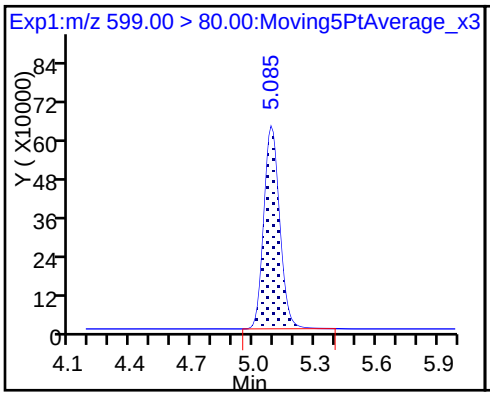
D 27 d3-NMeFOSAA



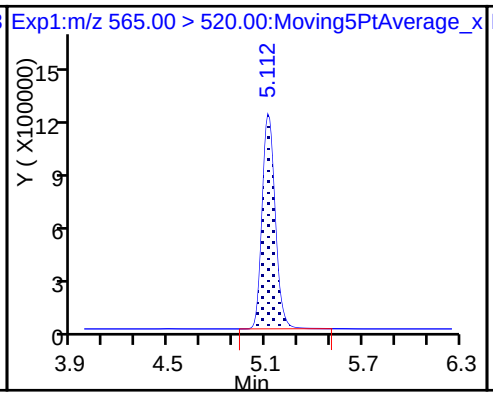
28 N-methyl perfluorooctane sulfonami



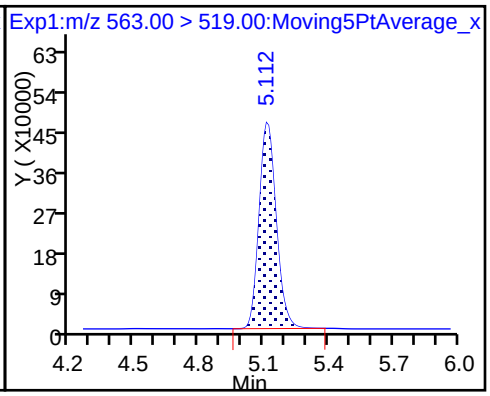
29 Perfluorodecane Sulfonic acid



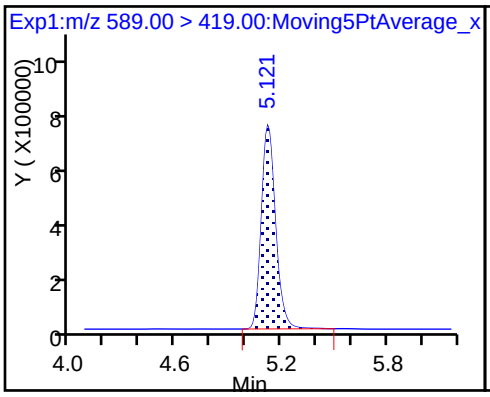
D 30 13C2 PFUnA



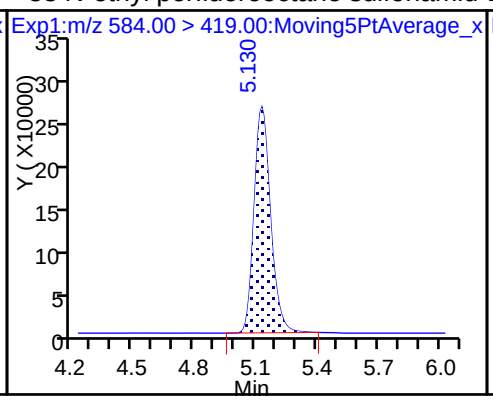
31 Perfluoroundecanoic acid



D 32 d5-NEtFOSAA



33 N-ethyl perfluorooctane sulfonamid



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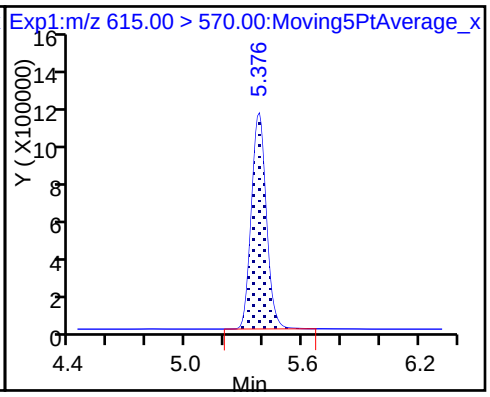
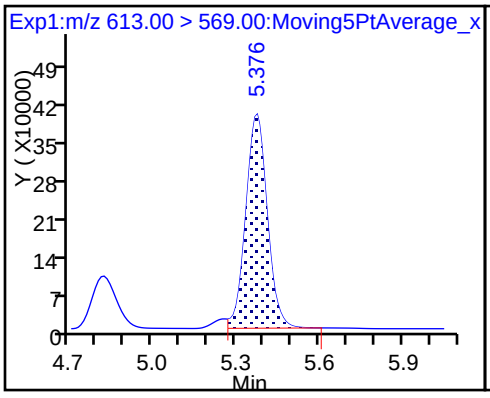
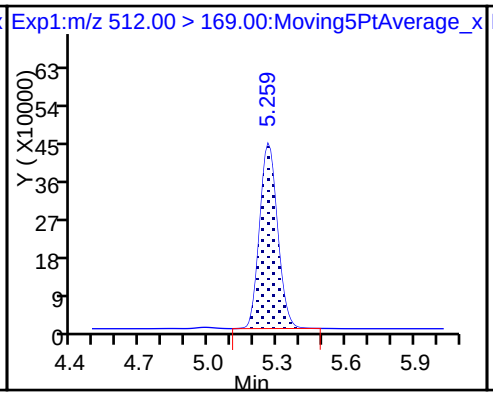


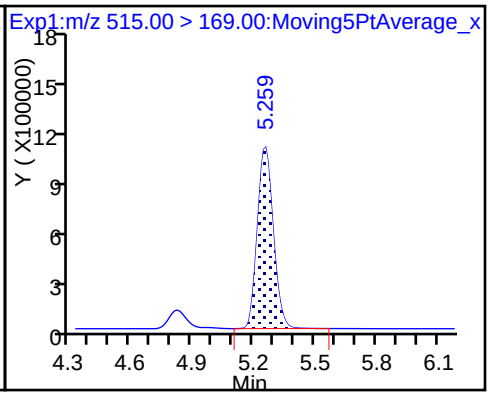
37 Perfluorododecanoic acid



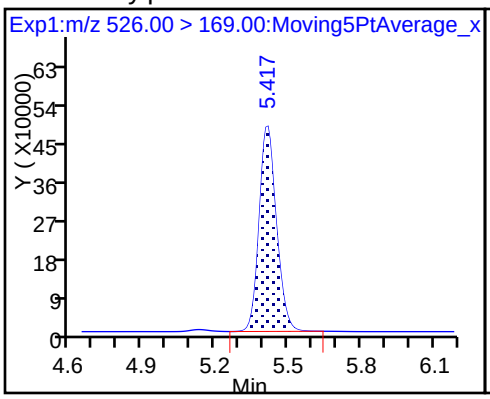
35 MeFOSA



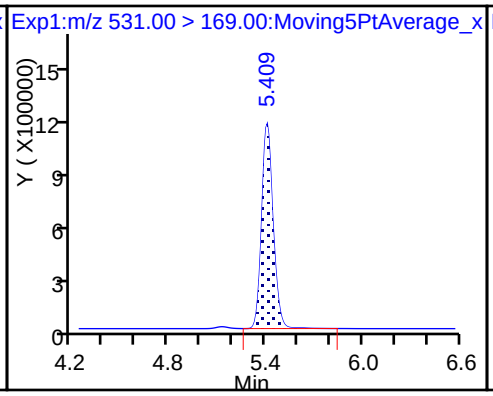
D 34 d-N-MeFOSA-M



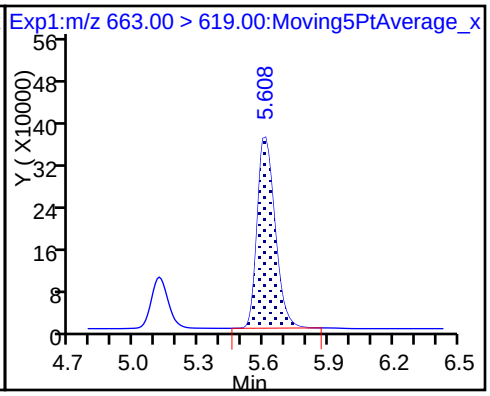
39 N-ethylperfluoro-1-octanesulfonami



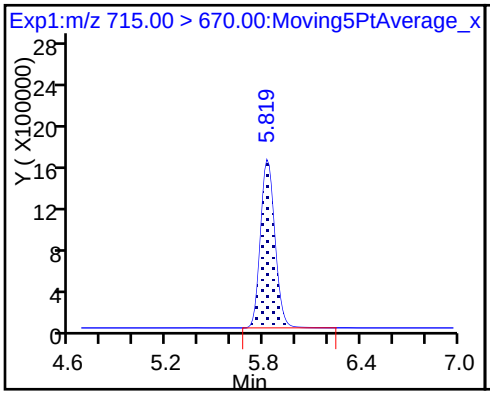
D 38 d-N-EtFOSA-M



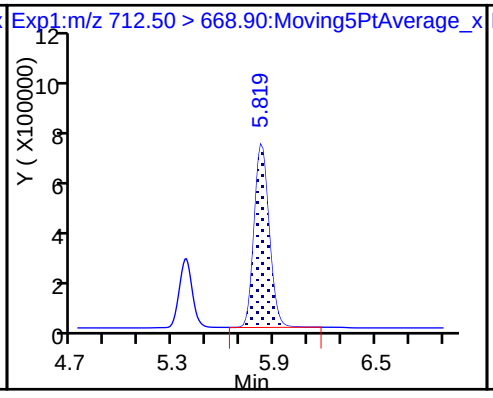
41 Perfluorotridecanoic acid



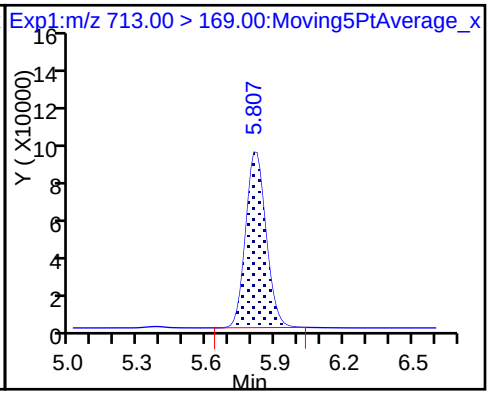
D 43 13C2-PFTeDA



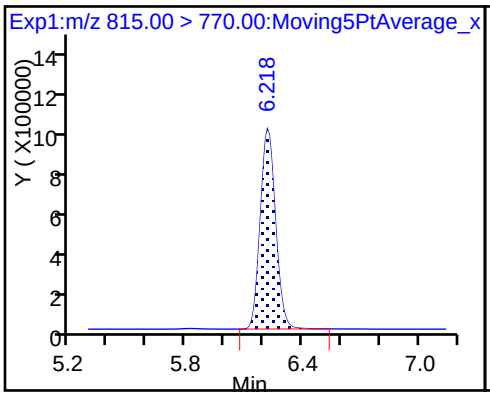
42 Perfluorotetradecanoic acid



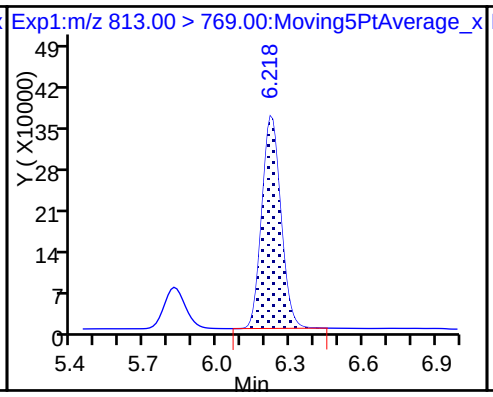
42 Perfluorotetradecanoic acid



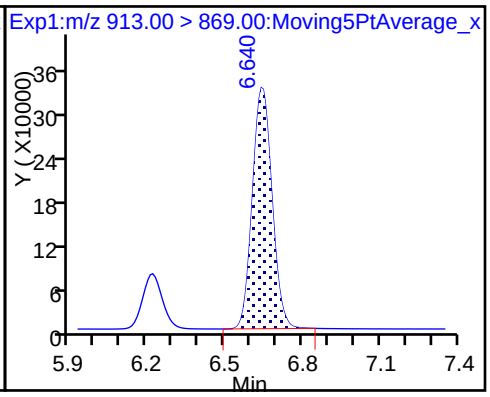
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-170860/34 Calibration Date: 06/25/2017 01:58

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.24B_060.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9054	0.9445		51.6	49.5	4.3	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.026	1.055		50.9	49.5	2.8	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.597	1.761		48.3	43.8	10.3	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.010	1.031		50.5	49.5	2.1	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.056	1.089		51.1	49.5	3.2	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.074	1.082		45.4	45.0	0.7	25.0
6:2FTS	AveID	0.9651	1.096		53.3	46.9	13.5	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.194	1.232		48.6	47.1	3.2	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.058	1.052		49.2	49.5	-0.6	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.065	1.085		46.8	45.9	1.8	25.0
Perfluorononanoic acid (PFNA)	AveID	0.998	0.9903		49.1	49.5	-0.7	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9362	0.9763		51.6	49.5	4.3	25.0
8:2FTS	AveID	0.9782	1.034		50.1	47.4	5.7	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9516	1.014		52.8	49.5	6.6	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.027	1.095		52.8	49.5	6.6	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6447	0.6339		46.9	47.7	-1.7	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.020	1.015		49.3	49.5	-0.4	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9401	0.9393		49.5	49.5	-0.0	25.0
MeFOSA	AveID	0.9686	1.000		51.1	49.5	3.2	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9591	0.9780		50.5	49.5	2.0	25.0
N-EtFOSA-M	AveID	1.008	1.038		51.0	49.5	3.0	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9844	0.8903		44.8	49.5	-9.6	25.0
Perfluorotetradecanoic acid (PFTeA)	L2ID		1.969		47.1	49.5	-4.8	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8673		43.3	49.5	-12.6	25.0
Perfluoro-n-octadecanoic acid (PFODA)	L2ID		0.7648		39.7	49.5	-19.8	25.0
13C4 PFBA	Ave	467052	482223		51.1	49.5	3.2	50.0
13C5-PFPeA	Ave	334127	349928		51.8	49.5	4.7	50.0
13C2 PFHxA	Ave	333497	324730		48.2	49.5	-2.6	50.0
13C4-PFHpA	Ave	291052	271051		46.1	49.5	-6.9	50.0
18O2 PFHxS	Ave	325849	413808		59.5	46.8	27.0	50.0
M2-6:2FTS	Ave	126032	153881		57.4	47.0	22.1	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-170860/34 Calibration Date: 06/25/2017 01:58

Instrument ID: A8_N Calib Start Date: 06/19/2017 23:23

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/20/2017 00:17

Lab File ID: 2017.06.24B_060.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	289928	253118		43.2	49.5	-12.7	50.0
13C4 PFOS	Ave	233487	289189		58.6	47.3	23.9	50.0
13C5 PFNA	Ave	247443	205174		41.0	49.5	-17.1	50.0
13C2 PFDA	Ave	218420	168997		38.3	49.5	-22.6	50.0
13C8 FOSA	Ave	351898	428624		60.3	49.5	21.8	50.0
M2-8:2FTS	Ave	106179	124332		55.5	47.4	17.1	50.0
d3-NMeFOSAA	Ave	129262	76368		29.2	49.5	-40.9	50.0
13C2 PFUnA	Ave	170926	120523		34.9	49.5	-29.5	50.0
d5-NEtFOSAA	Ave	126496	79347		31.1	49.5	-37.3	50.0
d-N-MeFOSA-M	Ave	122003	127086		51.6	49.5	4.2	50.0
13C2 PFDoA	Ave	186536	117699		31.2	49.5	-36.9	50.0
d-N-EtFOSA-M	Ave	115783	116687		49.9	49.5	0.8	50.0
13C2-PFTeDA	Ave	346856	190366		27.2	49.5	-45.1	50.0
13C2-PFHxDA	Ave	206428	116277		27.9	49.5	-43.7	50.0

FORM VII 537 (Modified)

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\2017.06.24B_060.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 25-Jun-2017 01:58:32 ALS Bottle#: 32 Worklist Smp#: 34
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 26-Jun-2017 13:48:49 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK012

First Level Reviewer: chandrasenas Date: 26-Jun-2017 13:41:18

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.296	2.439	-0.143		23872438	51.1		103	127126	
2 Perfluorobutyric acid										
212.90 > 169.00	2.296	2.439	-0.143	1.000	22546242	51.6		104	2355	
D 3 13C5-PFPeA										
267.90 > 223.00	2.695	2.853	-0.158		17323144	51.8		105	99532	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.695	2.853	-0.158	1.000	18273391	50.9		103	4802	
D 47 13C3-PFBS										
301.90 > 83.00	2.728	2.725	0.003		497734	NC			13492	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.739	2.900	-0.161	1.000	31891986	48.3		110	451941	
298.90 > 99.00	2.739	2.900	-0.161	1.000	13330617		2.39(0.00-0.00)		233063	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	3.057	3.240	-0.183	1.000	7438501	53.1		115	279490	
D 7 13C2 PFHxA										
315.00 > 270.00	3.108	3.284	-0.176		16075728	48.2		97.4	98711	
6 Perfluorohexanoic acid										
313.00 > 269.00	3.108	3.284	-0.176	1.000	16570665	50.5		102	40937	
D 9 13C4-PFHpA										
367.00 > 322.00	3.522	3.714	-0.192		13418371	46.1		93.1	57654	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.530	3.714	-0.184	1.000	14616224	51.1		103	6311	
D 11 18O2 PFHxS										
403.00 > 84.00	3.530	3.714	-0.184		19379336	59.5		127	101718	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.530	3.714	-0.184	1.000	20165050	45.4		101	11730	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	3.906	4.102	-0.196		7236976	57.4		122	64820	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.906	4.102	-0.196	1.000	7912250	53.3		114	177061	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.923	4.110	-0.187	1.000	16796437	48.6		103	56971	
* 62 13C2-PFOA										
415.00 > 370.00	3.923	3.923	0.0		13148230	49.5		100	46876	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.931	4.119	-0.188	1.000	13178194	49.2		99.4	2961	
413.00 > 169.00	3.931	4.119	-0.188	1.000	7972040		1.65(0.90-1.10)		16875	
D 14 13C4 PFOA										
417.00 > 372.00	3.931	4.119	-0.188		12530581	43.2		87.3	55547	
D 18 13C4 PFOS										
503.00 > 80.00	4.282	4.474	-0.192		13686367	58.6		124	30066	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.282	4.474	-0.192	1.000	14411552	46.8		102	13045	
499.00 > 99.00	4.282	4.474	-0.192	1.000	3222101		4.47(0.90-1.10)		15707	
D 19 13C5 PFNA										
468.00 > 423.00	4.300	4.495	-0.195		10157139	41.0		82.9	44680	
20 Perfluorononanoic acid										
463.00 > 419.00	4.300	4.495	-0.195	1.000	10058386	49.1		99.3	23812	
D 21 13C8 FOSA										
506.00 > 78.00	4.630	4.821	-0.191		21219009	60.3		122	73346	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.639	4.821	-0.182	1.000	21521097	52.8		107	49761	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.630	4.821	-0.191	1.000	8167844	51.6		104	19838	
D 23 13C2 PFDA										
515.00 > 470.00	4.630	4.821	-0.191		8366199	38.3		77.4	15458	
D 26 M2-8:2FTS										
529.00 > 509.00	4.639	4.831	-0.192		5896535	55.5		117	27117	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.639	4.831	-0.192	1.000	6097262	50.1		106	24758	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.789	4.976	-0.187		3780605	29.2		59.1	8362	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.789	4.976	-0.187	1.000	4138111	52.8		107	6923	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.901	5.085	-0.184	1.000	8748778	46.9		98.3	39198	
D 30 13C2 PFUnA										
565.00 > 520.00	4.928	5.112	-0.184		5966481	34.9		70.5	25089	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.928	5.112	-0.184	1.000	6056342	49.3		99.6	18897	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.936	5.121	-0.185		3928073	31.1		62.7	22812	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.945	5.130	-0.185	1.002	3689763	49.5		99.9	13098	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 36 13C2 PFDoA										
615.00 > 570.00	5.187	5.376	-0.189		5826692	31.2		63.1	13728	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.187	5.376	-0.189	1.000	5698558	50.5		102	3953	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.231	5.409	-0.177		5776574	49.9		101	3166	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	5.076	5.259	-0.183		6291368	51.6		104	591	
35 MeFOSA										
512.00 > 169.00	5.085	5.259	-0.174	1.000	6291943	51.1		103	5808	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	5.240	5.417	-0.177	1.000	5996758	51.0		103	4672	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.417	5.608	-0.191	1.000	5187196	44.8		90.4	4712	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.639	5.819	-0.180	1.000	11470853	47.1		95.2	762	
713.00 > 169.00	5.628	5.819	-0.191	0.998	1362570		8.42(0.00-0.00)		10975	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.639	5.819	-0.180		9424044	27.2		54.9	45961	
D 44 13C2-PFHxDA										
815.00 > 770.00	6.023	6.218	-0.195		5756298	27.9		56.3	11677	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	6.033	6.218	-0.185	1.000	5053310	43.3		87.4	563	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.426	6.640	-0.214	1.000	4456183	39.7		80.2	529	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L5_00004 Amount Added: 1.00 Units: mL

Report Date: 26-Jun-2017 13:48:50 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\2017.06.24B_060.d

Injection Date: 25-Jun-2017 01:58:32 Instrument ID: A8_N

Lims ID: CCV L5

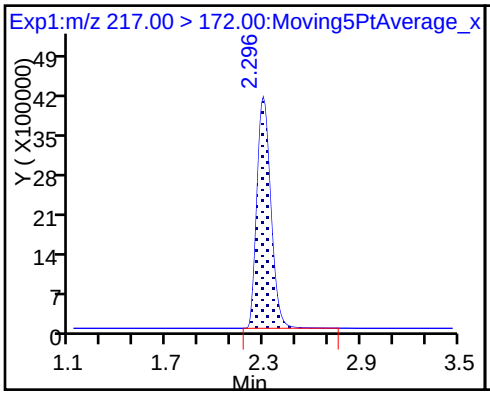
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 34

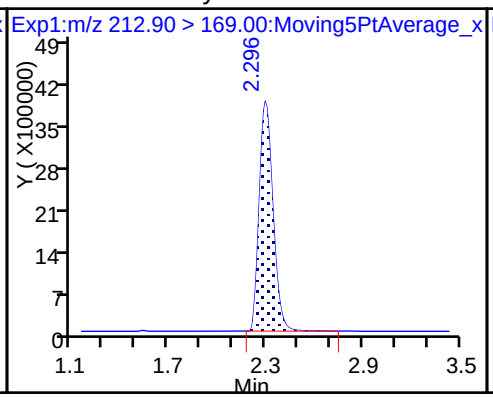
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

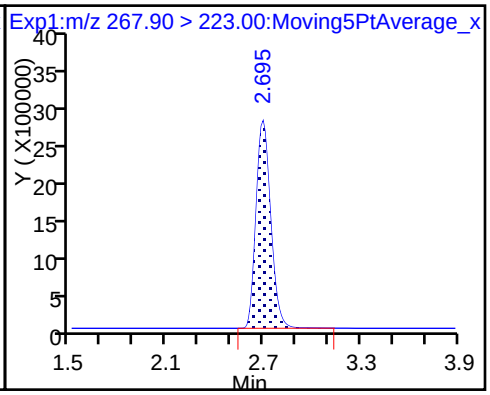
D 1 13C4 PFBA



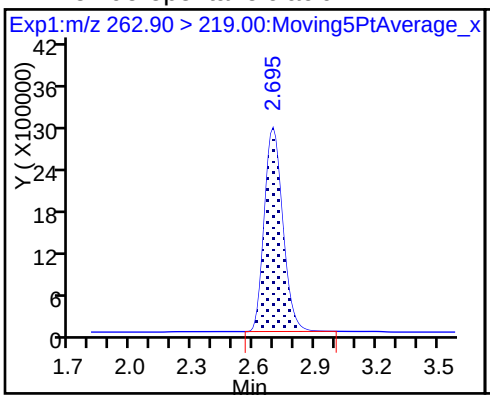
2 Perfluorobutyric acid



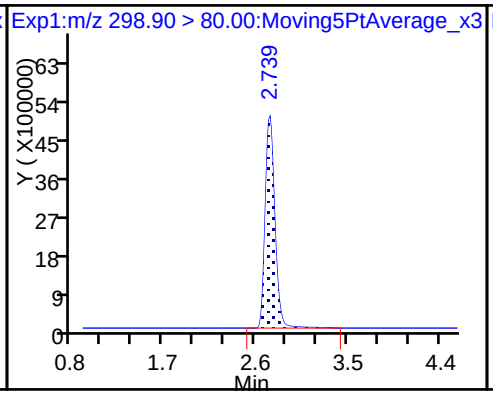
D 3 13C5-PFPeA



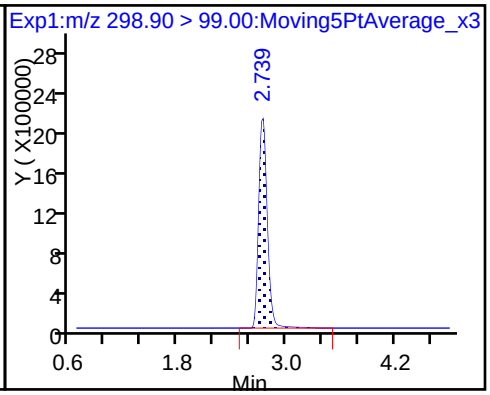
4 Perfluoropentanoic acid



5 Perfluorobutanesulfonic acid

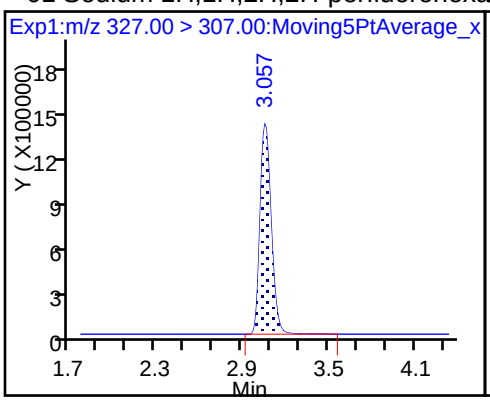


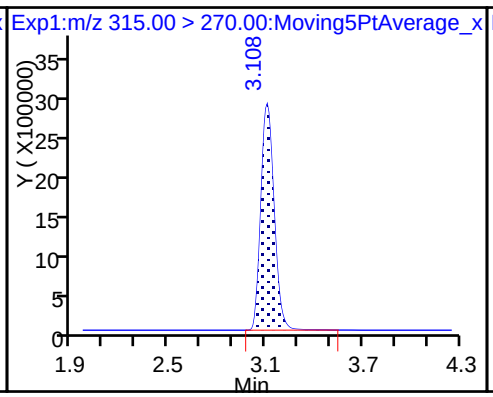
5 Perfluorobutanesulfonic acid



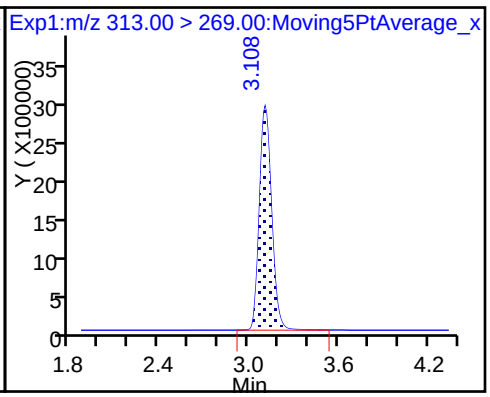
61 Sodium 1H,1H,2H,2H-perfluorohexa

D 7 13C2 PFHxA

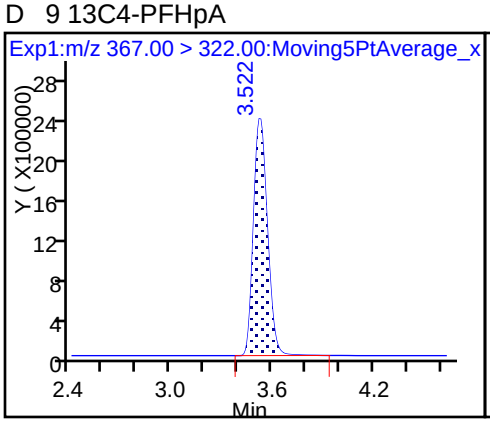




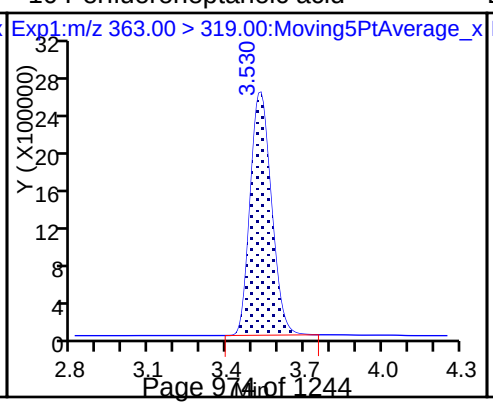
6 Perfluorohexanoic acid



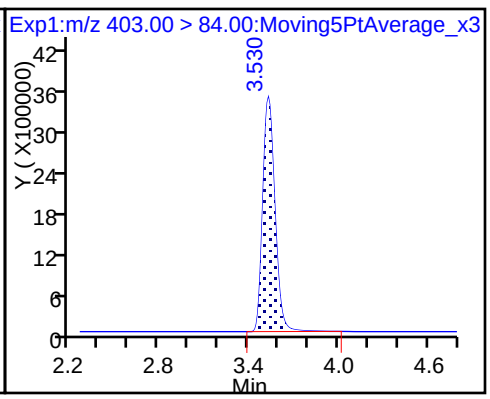
D 9 13C4-PFHpA



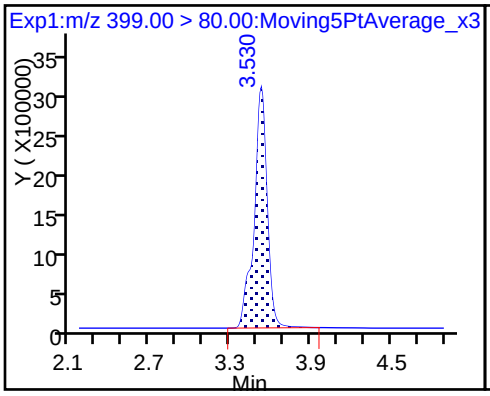
10 Perfluoroheptanoic acid



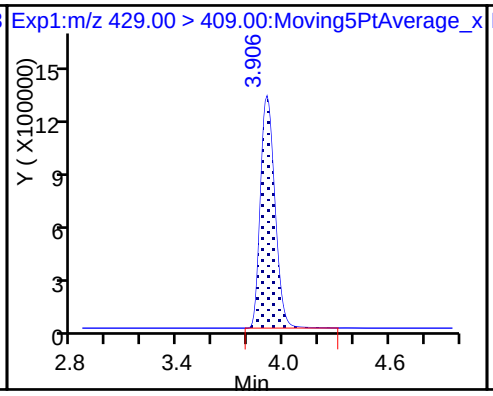
D 11 18O2 PFHxS



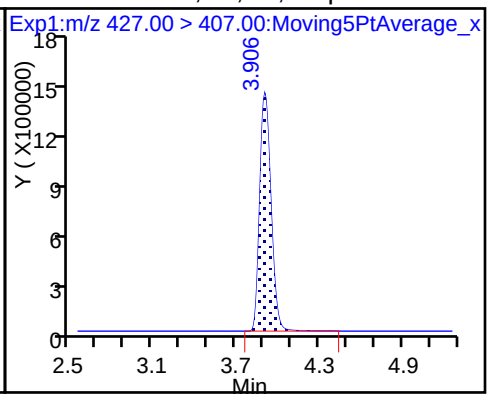
8 Perfluorohexanesulfonic acid



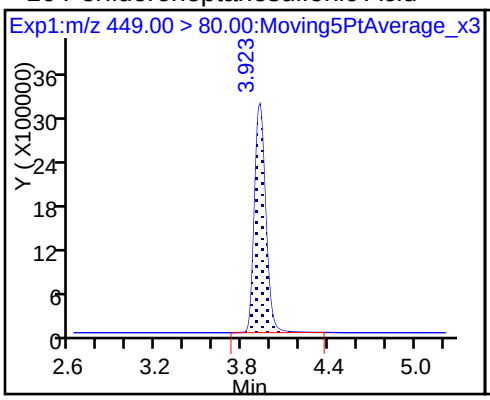
D 12 M2-6:2FTS



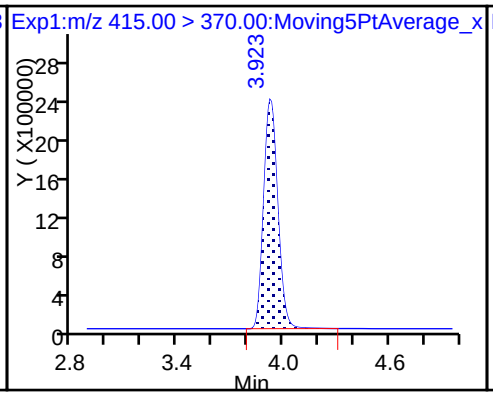
13 Sodium 1H,1H,2H,2H-perfluorooctane



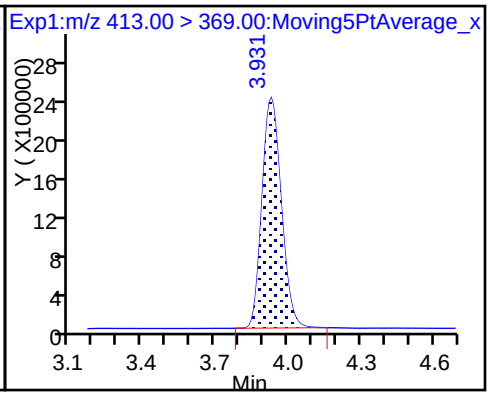
16 Perfluoroheptanesulfonic Acid



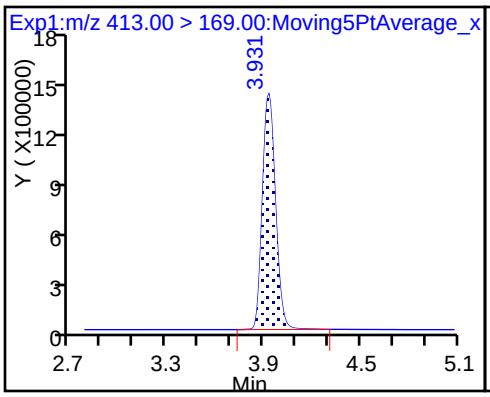
* 62 13C2-PFOA



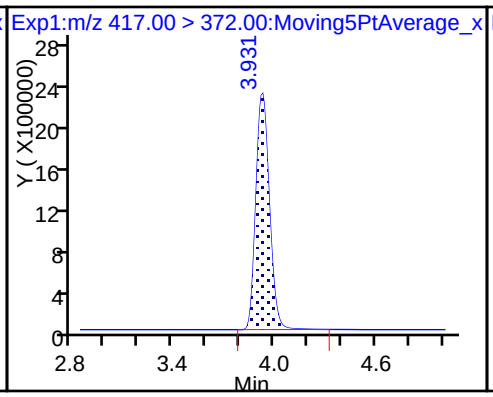
15 Perfluorooctanoic acid



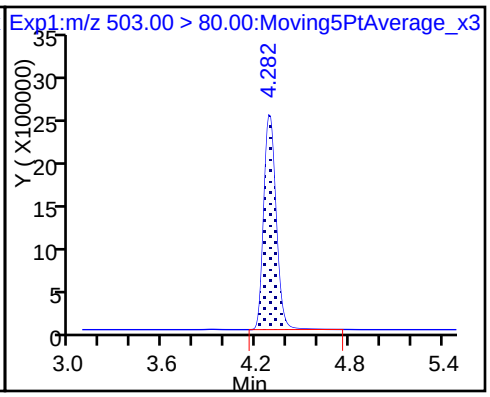
15 Perfluorooctanoic acid



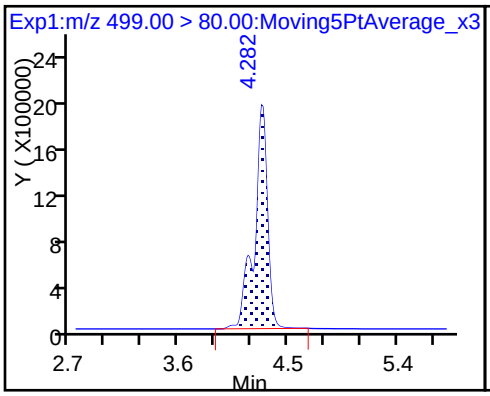
D 14 13C4 PFOA



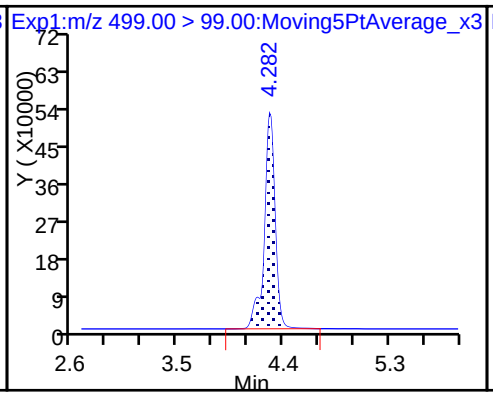
D 18 13C4 PFOS



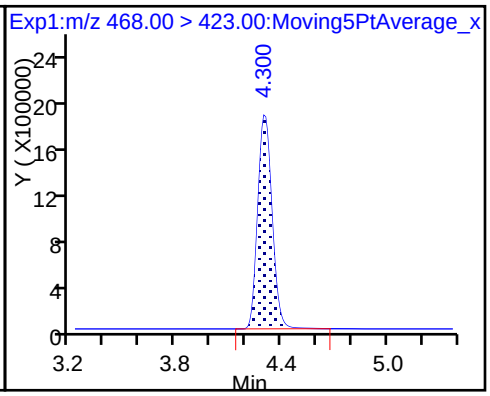
17 Perfluorooctane sulfonic acid



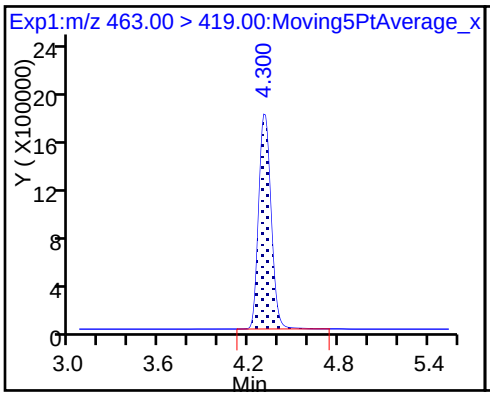
17 Perfluorooctane sulfonic acid



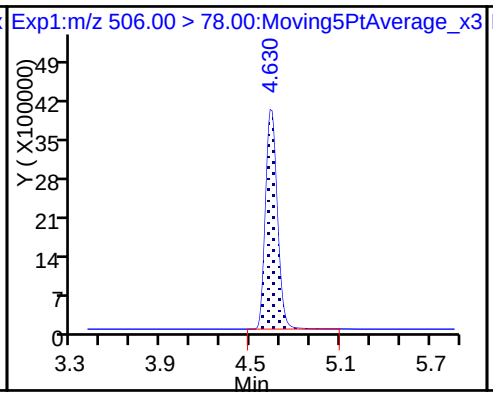
D 19 13C5 PFNA



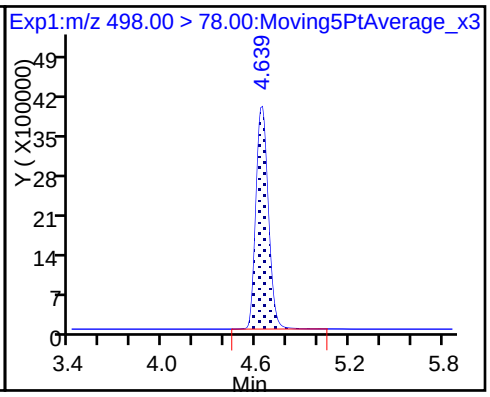
20 Perfluorononanoic acid



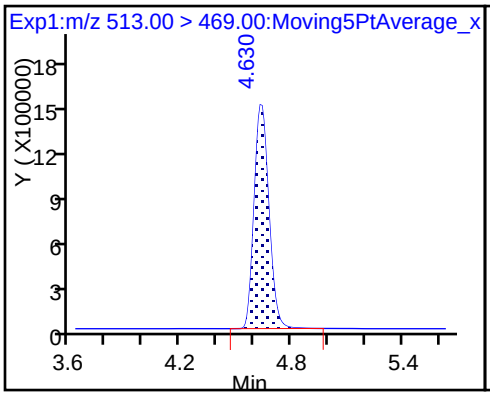
D 21 13C8 FOSA



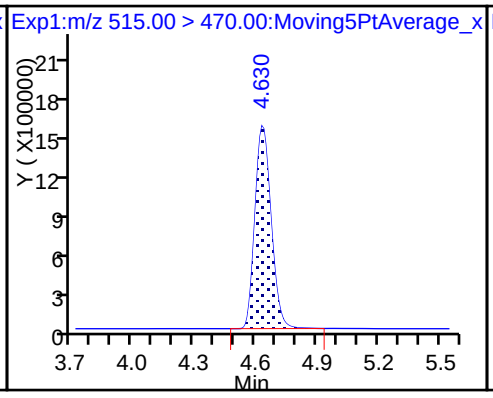
22 Perfluorooctane Sulfonamide



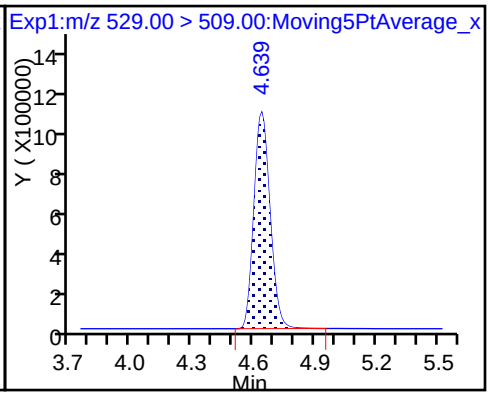
24 Perfluorodecanoic acid



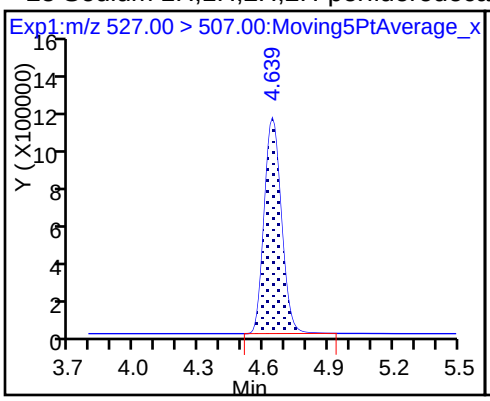
D 23 13C2 PFDA



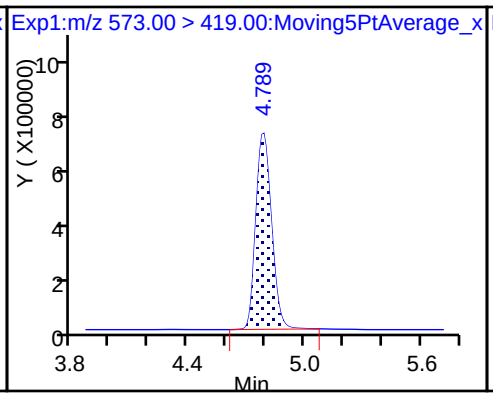
D 26 M2-8:2FTS



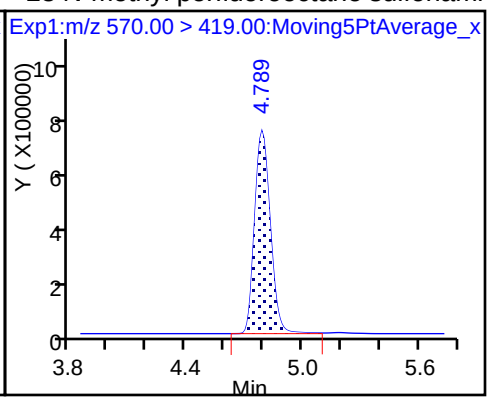
25 Sodium 1H,1H,2H,2H-perfluorodecane



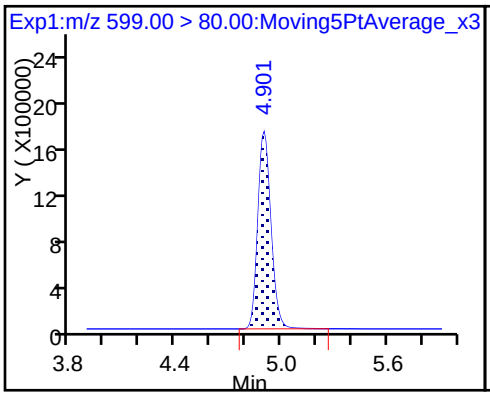
D 27 d3-NMeFOSAA



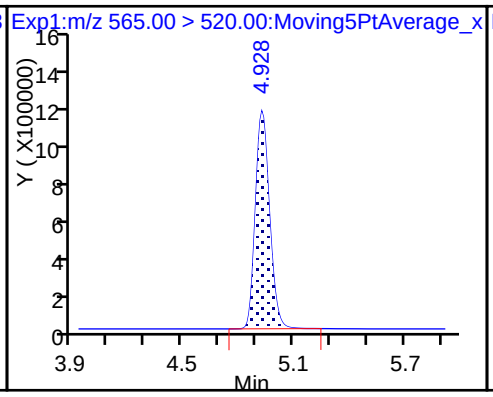
28 N-methyl perfluorooctane sulfonami



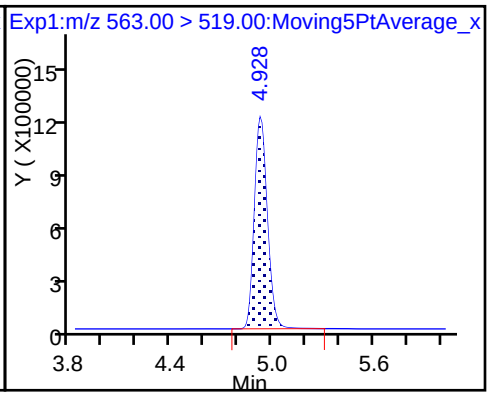
29 Perfluorodecane Sulfonic acid



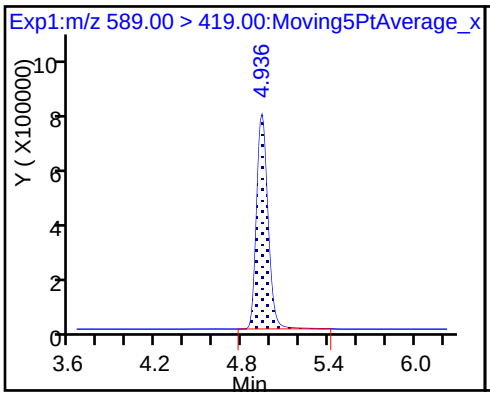
D 30 13C2 PFUnA



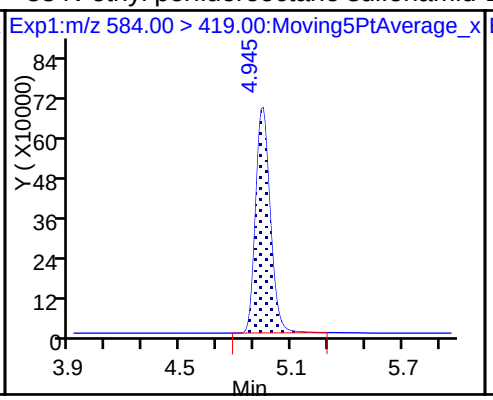
31 Perfluoroundecanoic acid



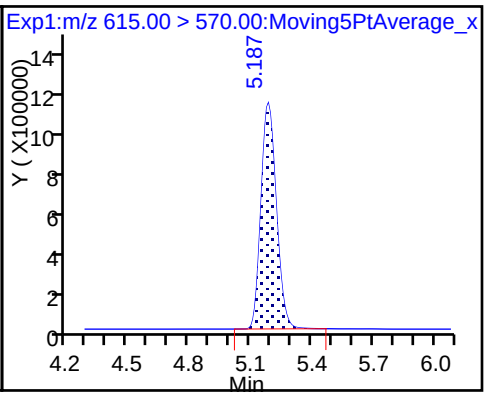
D 32 d5-NEtFOSAA



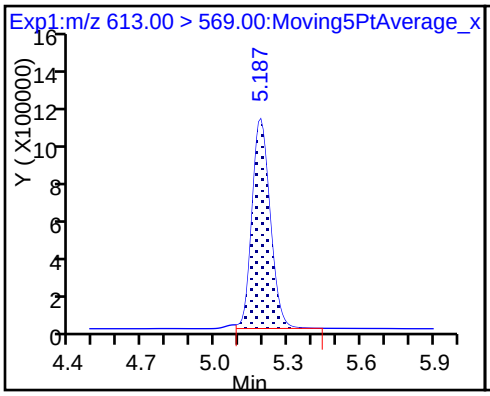
33 N-ethyl perfluorooctane sulfonamid



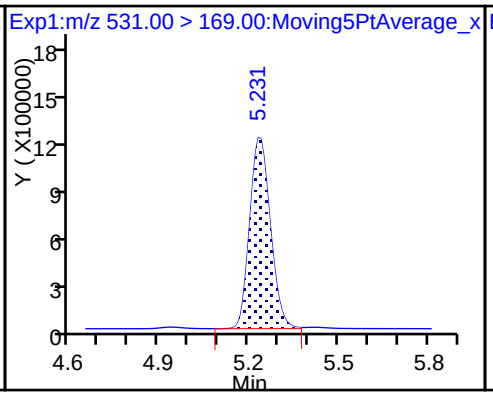
D 36 13C2 PFDoA



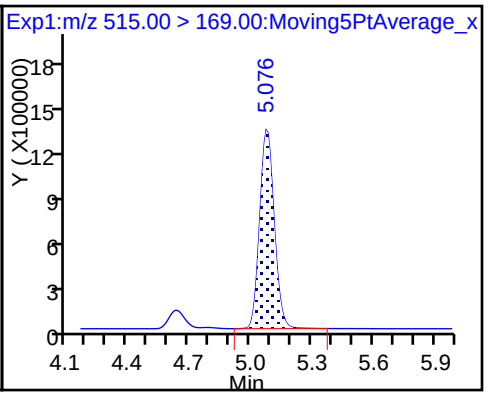
37 Perfluorododecanoic acid



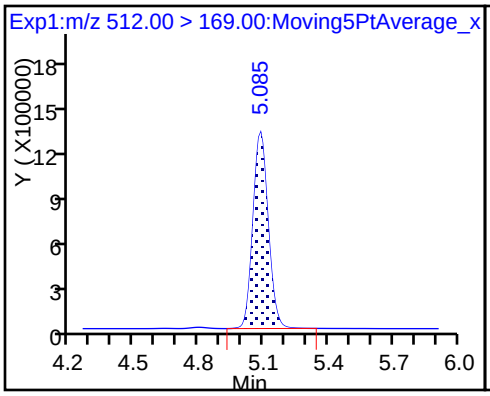
D 38 d-N-EtFOSA-M



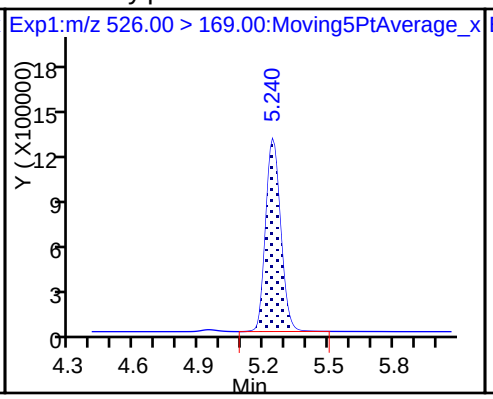
D 34 d-N-MeFOSA-M



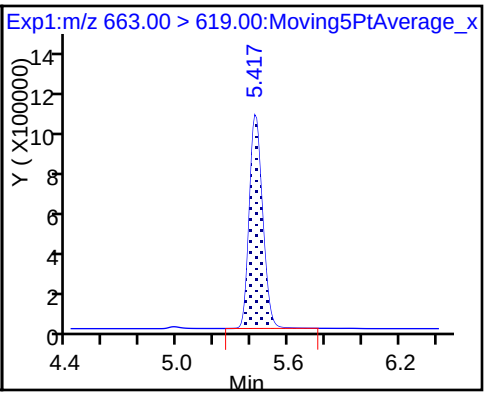
35 MeFOSA



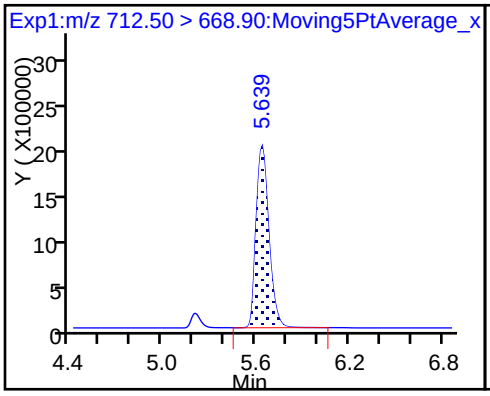
39 N-ethylperfluoro-1-octanesulfonami



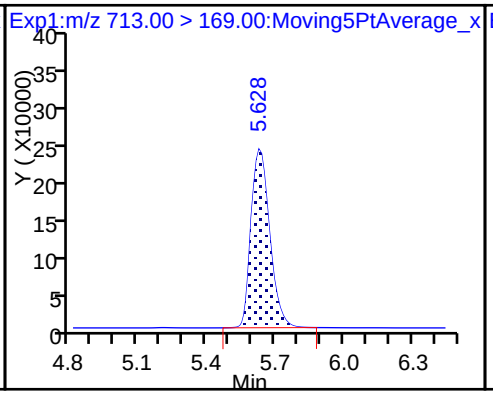
41 Perfluorotridecanoic acid



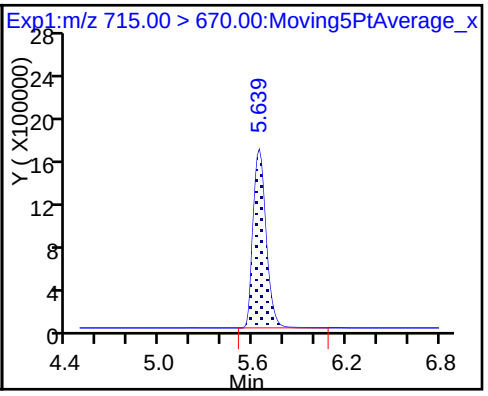
42 Perfluorotetradecanoic acid



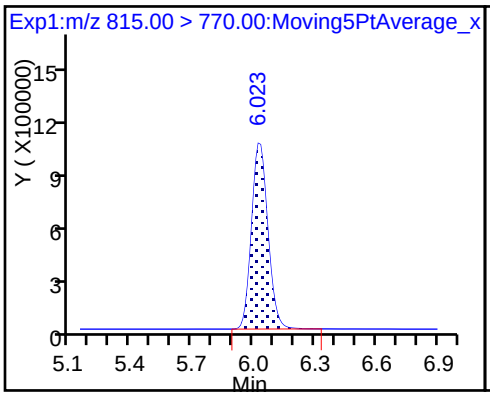
42 Perfluorotetradecanoic acid



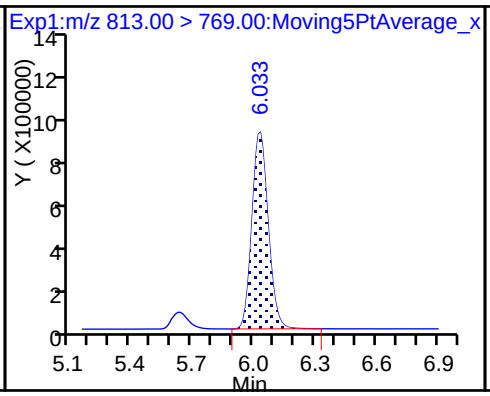
D 43 13C2-PFTeDA



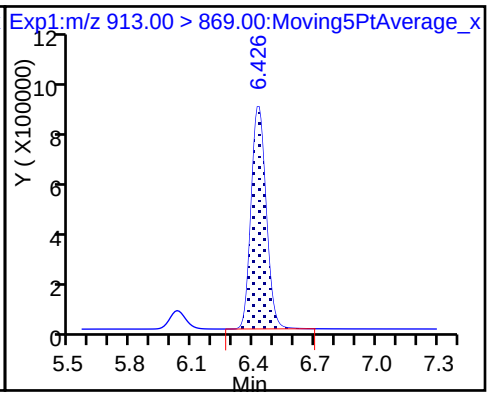
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: ICV 320-171299/12 Calibration Date: 06/28/2017 01:15

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_CURVE_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9530		52.4	49.5	5.8	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.054		50.7	49.5	2.4	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.550		48.7	43.8	11.2	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.017		49.6	49.5	0.1	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.109		51.4	49.5	3.9	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.059		44.9	46.8	-4.1	25.0
6:2FTS	AveID	0.9859	0.9300		44.3	46.9	-5.7	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.208		49.5	47.1	5.0	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.128		52.7	49.5	6.4	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	1.075		53.7	49.5	8.4	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.014		45.7	47.3	-3.3	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	0.9947		50.6	49.5	2.1	25.0
8:2FTS	AveID	0.999	1.027		48.8	47.4	2.9	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	1.052		54.0	49.5	9.1	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.053		50.0	49.5	1.0	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6903		51.7	47.8	8.3	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	0.8865		45.0	49.5	-9.0	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.029		47.9	49.5	-3.3	25.0
MeFOSA	AveID	0.9522	0.9521		49.5	49.5	-0.0	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9759		50.7	49.5	2.5	25.0
N-EtFOSA-M	AveID	0.999	1.034		51.3	49.5	3.6	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9419		48.0	49.5	-2.9	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.287		48.5	49.5	-2.0	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.034		50.3	49.5	1.6	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	1.050		48.2	49.5	-2.6	25.0
13C4 PFBA	Ave	233991	233290		49.4	49.5	-0.3	50.0
13C5-PFPeA	Ave	160811	156992		48.3	49.5	-2.4	50.0
13C2 PFHxA	Ave	153401	152081		49.1	49.5	-0.9	50.0
13C4-PFHpA	Ave	136899	132594		47.9	49.5	-3.1	50.0
18O2 PFHxS	Ave	212697	213415		47.0	46.8	0.3	50.0
M2-6:2FTS	Ave	72814	72781		47.0	47.0	-0.0	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: ICV 320-171299/12 Calibration Date: 06/28/2017 01:15

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_CURVE_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	125529		47.6	49.5	-3.8	50.0
13C4 PFOS	Ave	162716	159419		46.4	47.3	-2.0	50.0
13C5 PFNA	Ave	104991	104300		49.2	49.5	-0.7	50.0
13C8 FOSA	Ave	263963	266081		49.9	49.5	0.8	50.0
M2-8:2FTS	Ave	56620	57500		48.2	47.4	1.6	50.0
13C2 PFDA	Ave	100020	93526		46.3	49.5	-6.5	50.0
d3-NMeFOSAA	Ave	37033	38773		51.8	49.5	4.7	50.0
d5-NEtFOSAA	Ave	36944	38038		51.0	49.5	3.0	50.0
13C2 PFUnA	Ave	74302	75283		50.2	49.5	1.3	50.0
d-N-MeFOSA-M	Ave	74603	76095		50.5	49.5	2.0	50.0
13C2 PFDoA	Ave	73421	76489		51.6	49.5	4.2	50.0
d-N-EtFOSA-M	Ave	73544	75192		50.6	49.5	2.2	50.0
13C2-PFTeDA	Ave	151466	154386		50.5	49.5	1.9	50.0
13C2-PFHxDA	Ave	83886	83725		49.4	49.5	-0.2	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_012.d
Lims ID: ICV Full
Client ID:
Sample Type: ICV
Inject. Date: 28-Jun-2017 01:15:31 ALS Bottle#: 36 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist:

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 08:31:34 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK004

First Level Reviewer: westendorfc Date: 28-Jun-2017 08:28:14

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.541	1.546	-0.005		11549014	49.4		99.7	13753	
2 Perfluorobutyric acid										
212.90 > 169.00	1.541	1.549	-0.008	1.000	11006397	52.4			2593	
D 3 13C5-PFPeA										
267.90 > 223.00	1.742	1.755	-0.013		7771882	48.3		97.6	17916	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.742	1.756	-0.014	1.000	8189358	50.7			4957	
D 47 13C3-PFBS										
301.90 > 83.00	1.769	1.776	-0.007		204223	NC			6030	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.769	1.783	-0.014	1.000	14489553	48.7			5318	
298.90 > 99.00	1.769	1.783	-0.014	1.000	6010314		2.41(0.00-0.00)		5546	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.969	1.983	-0.014	1.000	3177192	46.0			17770	
D 7 13C2 PFHxA										
315.00 > 270.00	2.013	2.022	-0.009		7528760	49.1		99.1	31164	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.013	2.022	-0.009	1.000	7659484	49.6			7209	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.334	2.345	-0.011	1.000	7280879	51.4			7060	
D 9 13C4-PFHpA										
367.00 > 322.00	2.334	2.345	-0.011		6564048	47.9		96.9	21618	
D 11 18O2 PFHxS										
403.00 > 84.00	2.350	2.360	-0.010		9994595	47.0		100	25194	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.350	2.360	-0.010	1.000	10574445	44.9			4731	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.659	2.674	-0.015	1.000	3176550	44.3			29819	
D 12 M2-6:2FTS										
429.00 > 409.00	2.659	2.674	-0.015		3422877	47.0		100.0	11821	
* 62 13C2-PFOA										
415.00 > 370.00	2.681	2.695	-0.014		6424078	49.5			14355	
D 14 13C4 PFOA										
417.00 > 372.00	2.681	2.701	-0.020		6214322	47.6		96.2	19131	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.689	2.703	-0.014	1.000	7011091	52.7			1497	
413.00 > 169.00	2.681	2.703	-0.022	0.997	4207494		1.67(0.90-1.10)		7067	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.689	2.710	-0.021	1.000	9077038	49.5			12265	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.060	3.076	-0.016	1.000	7643326	45.7			9738	
499.00 > 99.00	3.060	3.076	-0.016	1.000	1796306		4.26(0.90-1.10)		9364	
D 18 13C4 PFOS										
503.00 > 80.00	3.060	3.076	-0.016		7544763	46.4		98.0	36678	
D 19 13C5 PFNA										
468.00 > 423.00	3.060	3.077	-0.017		5163357	49.2		99.3	9934	
20 Perfluorononanoic acid										
463.00 > 419.00	3.060	3.077	-0.017	1.000	5553123	53.7			10865	
D 21 13C8 FOSA										
506.00 > 78.00	3.389	3.405	-0.016		13172342	49.9		101	50601	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.398	3.408	-0.010	1.000	13102606	50.6			140798	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.408	3.429	-0.021	1.000	2801957	48.8			15965	
D 26 M2-8:2FTS										
529.00 > 509.00	3.408	3.429	-0.021		2726994	48.2		102	30878	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.417	3.442	-0.025	1.000	4872599	54.0			12184	
D 23 13C2 PFDA										
515.00 > 470.00	3.417	3.442	-0.025		4630014	46.3		93.5	22751	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.578	3.598	-0.020		1919474	51.8		105	7806	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.578	3.602	-0.024	1.000	2020380	50.0			5467	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.736	3.755	-0.019	1.000	5257352	51.7			17780	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.746	3.765	-0.019		1883087	51.0		103	5492	
D 30 13C2 PFUnA										
565.00 > 520.00	3.755	3.772	-0.017		3726861	50.2		101	27505	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.755	3.773	-0.018	1.000	3833659	47.9			7418	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.755	3.775	-0.020	1.003	1669302	45.0			8644	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.896	3.904	-0.008		3767066	50.5		102	709	
35 MeFOSA										
512.00 > 169.00	3.896	3.910	-0.014	1.000	3586748	49.5			6430	
D 36 13C2 PFDoA										
615.00 > 570.00	4.046	4.071	-0.025		3786597	51.6		104	11893	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.046	4.072	-0.026	1.000	3695182	50.7			4281	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.083	4.092	-0.009		3722352	50.6		102	5305	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.092	4.101	-0.009	1.000	3850542	51.3			5593	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.314	4.341	-0.027	1.000	3566711	48.0			1100	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.560	4.578	-0.018		7642874	50.5		102	72600	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.560	4.581	-0.021	1.000	8659116	48.5			1272	
713.00 > 169.00	4.551	4.581	-0.030	0.998	1067841		8.11(0.00-0.00)		13235	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.978	4.998	-0.020	1.000	3916180	50.3			639	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.967	4.998	-0.031		4144784	49.4		99.8	6971	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.323	5.351	-0.028	1.000	3976763	48.2			1209	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFCIC_FULL_00003 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 08:31:35 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_012.d

Injection Date: 28-Jun-2017 01:15:31 Instrument ID: A8_N

Lims ID: ICV Full

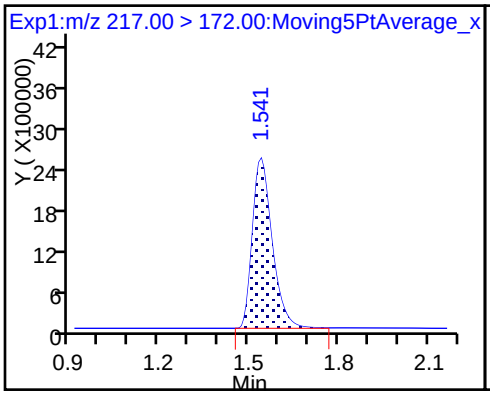
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 12

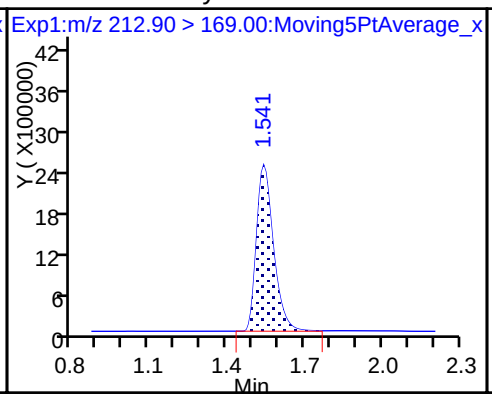
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

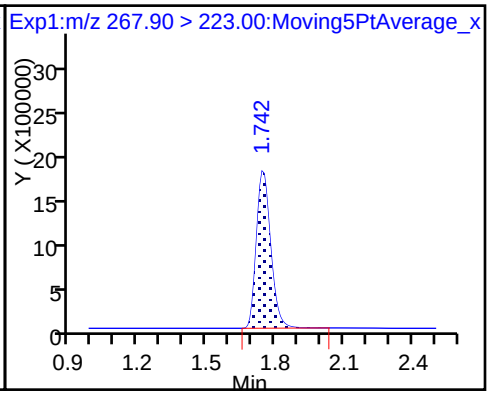
D 1 13C4 PFBA



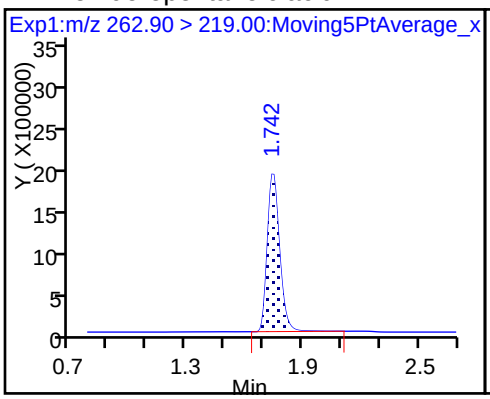
2 Perfluorobutyric acid



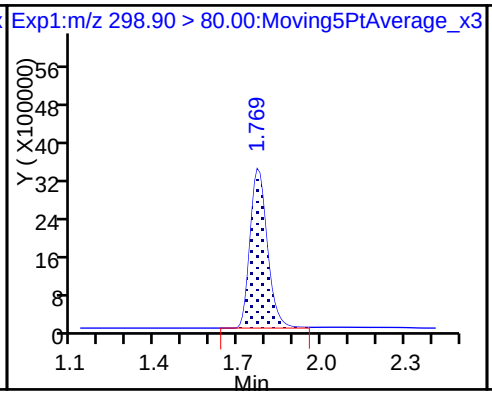
D 3 13C5-PFPeA



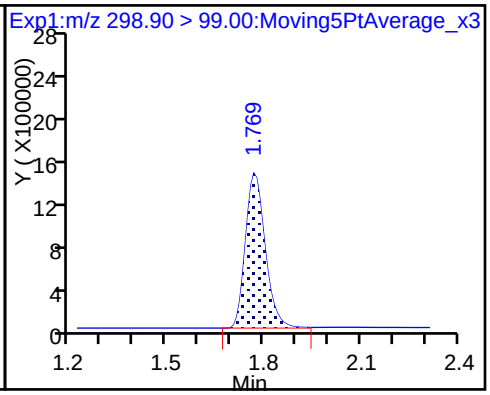
4 Perfluoropentanoic acid



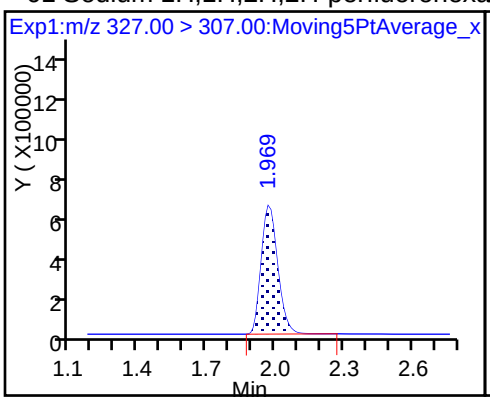
5 Perfluorobutanesulfonic acid



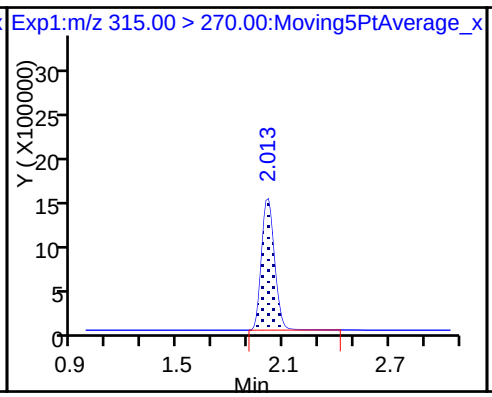
5 Perfluorobutanesulfonic acid



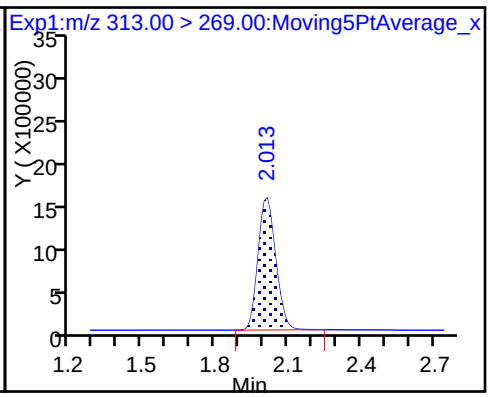
61 Sodium 1H,1H,2H,2H-perfluorohexane



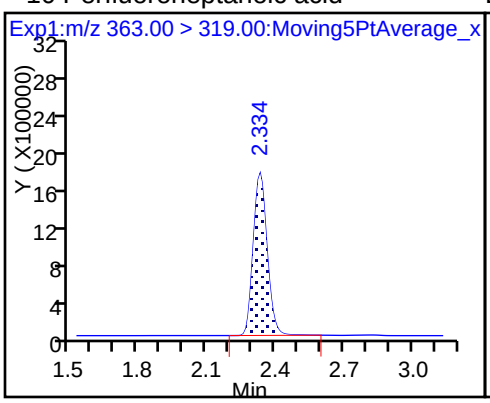
D 7 13C2 PFHxA



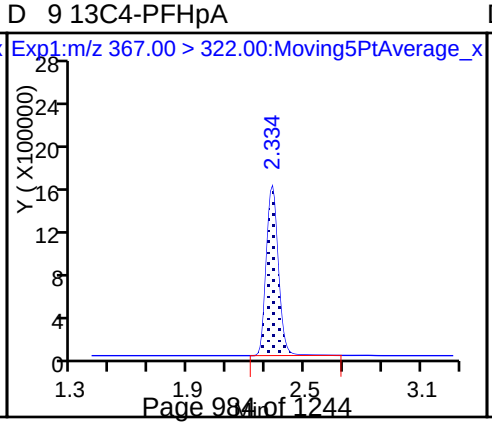
6 Perfluorohexanoic acid



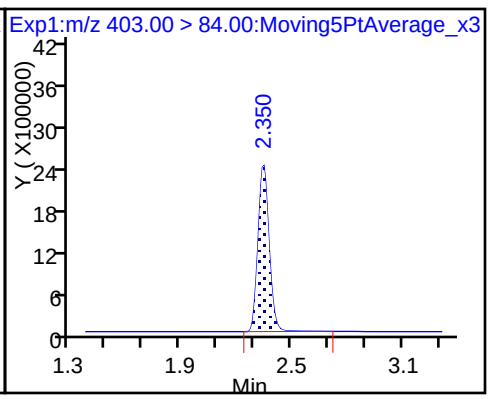
10 Perfluoroheptanoic acid



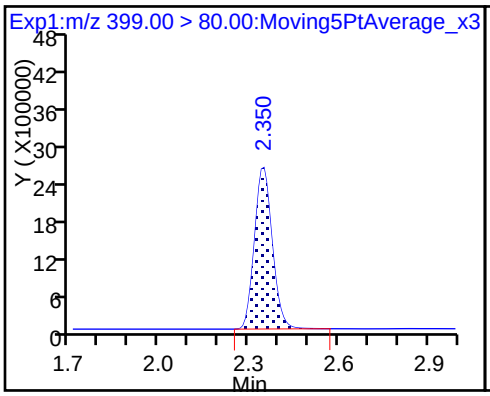
D 9 13C4-PFHpA



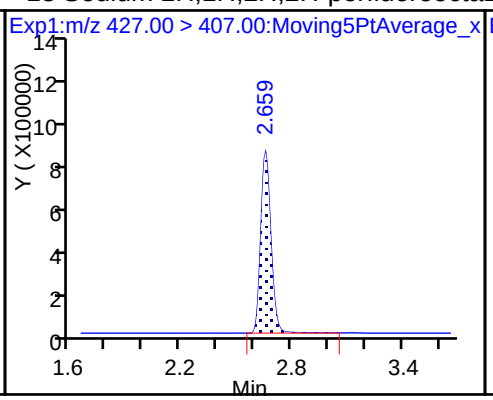
D 11 18O2 PFHxS



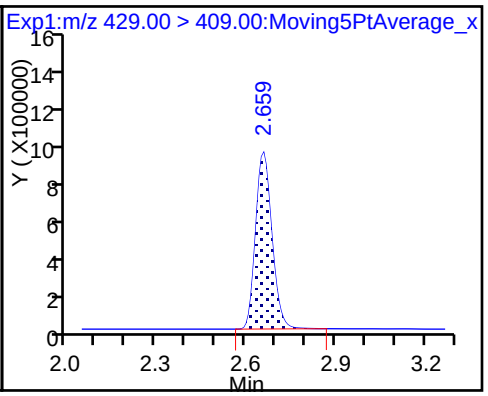
8 Perfluorohexanesulfonic acid



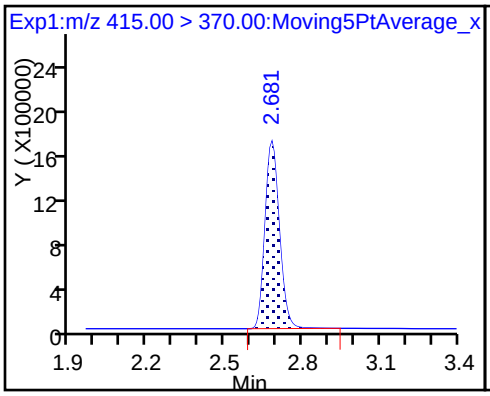
13 Sodium 1H,1H,2H,2H-perfluorooctane



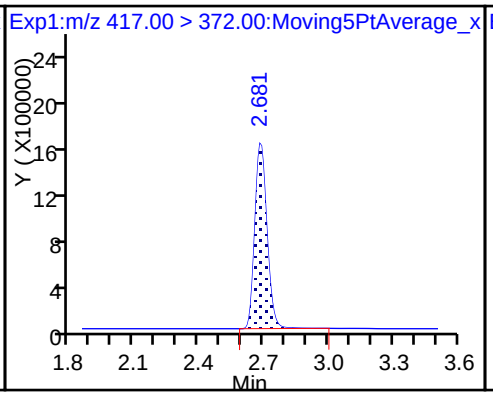
D 12 M2-6:2FTS



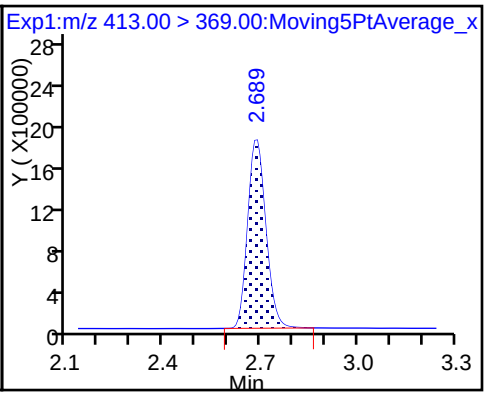
* 62 13C2-PFOA



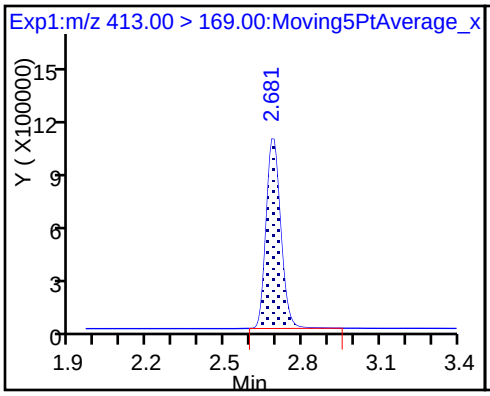
D 14 13C4 PFOA



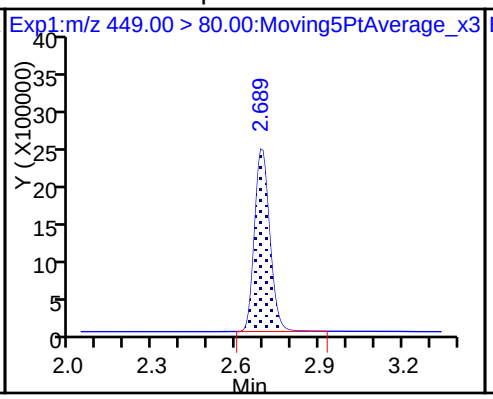
15 Perfluorooctanoic acid



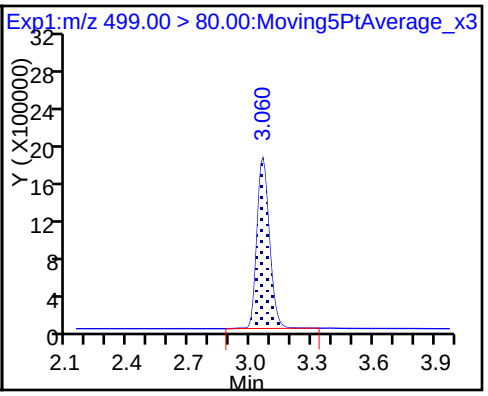
15 Perfluorooctanoic acid



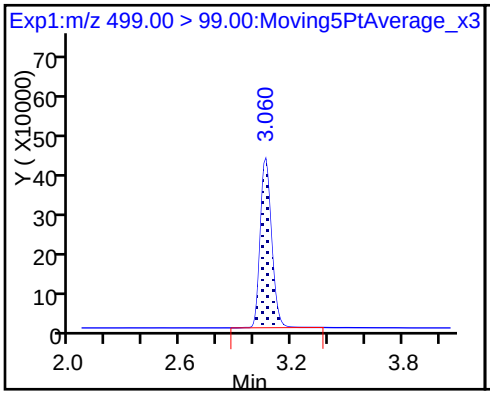
16 Perfluoroheptanesulfonic Acid



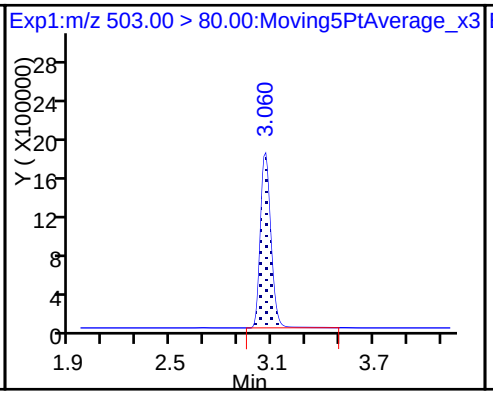
17 Perfluorooctane sulfonic acid



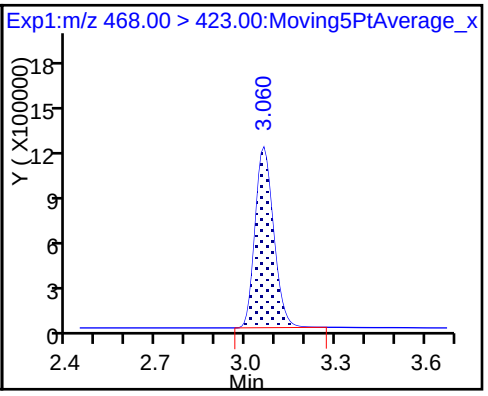
17 Perfluorooctane sulfonic acid



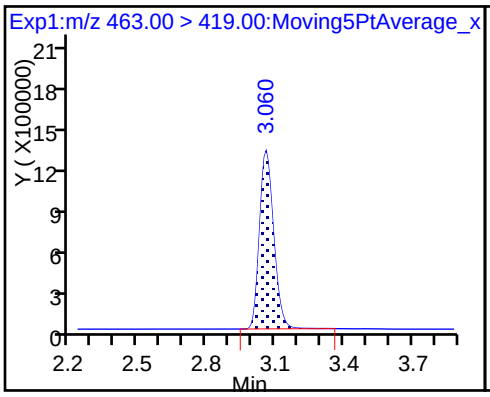
D 18 13C4 PFOS



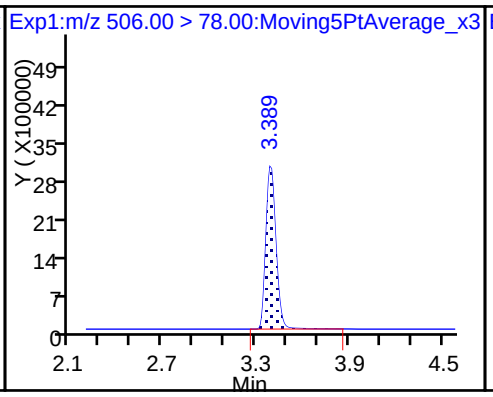
D 19 13C5 PFNA



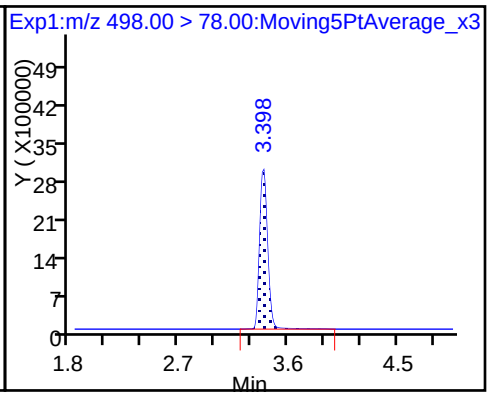
20 Perfluorononanoic acid



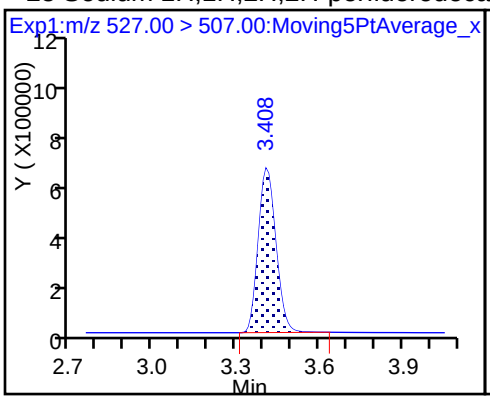
D 21 13C8 FOSA



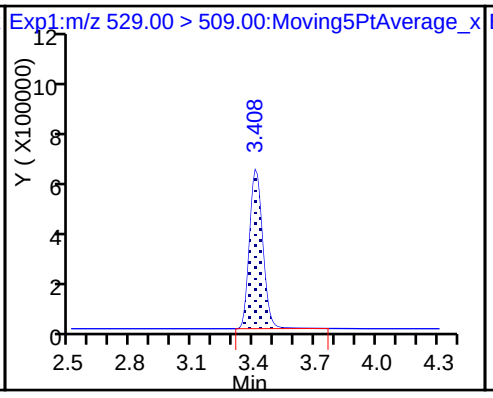
22 Perfluorooctane Sulfonamide



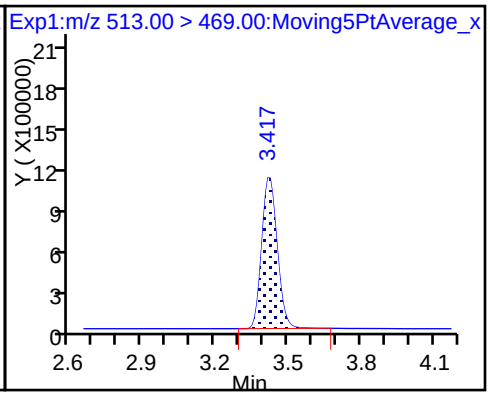
25 Sodium 1H,1H,2H,2H-perfluorodecane



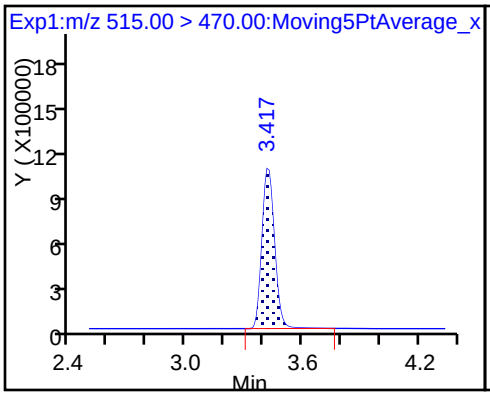
D 26 M2-8:2FTS



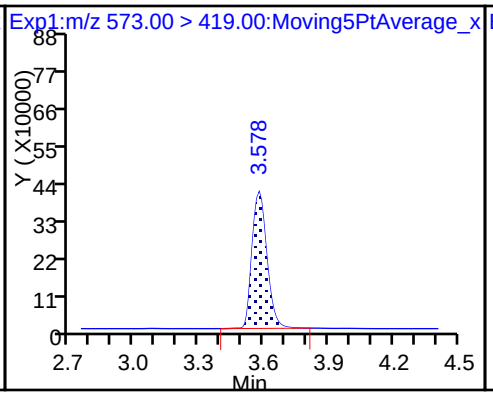
24 Perfluorodecanoic acid



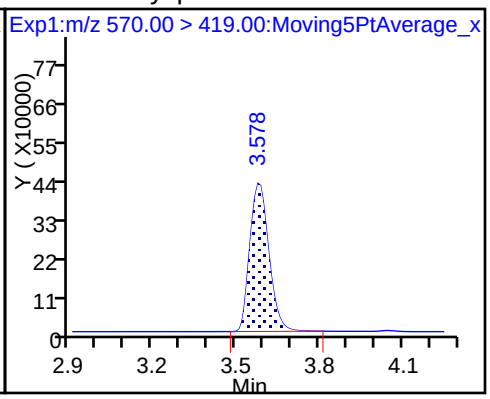
D 23 13C2 PFDA



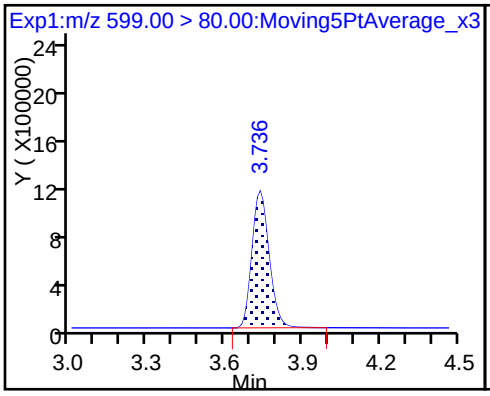
D 27 d3-NMeFOSAA



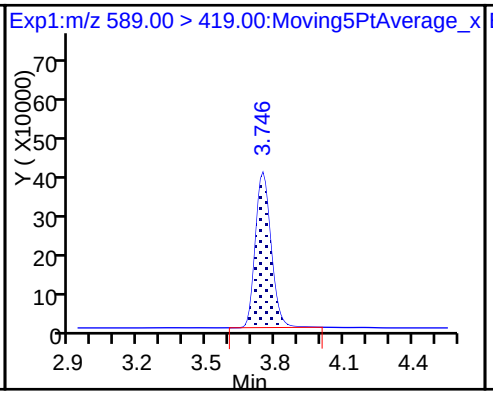
28 N-methyl perfluorooctane sulfonami



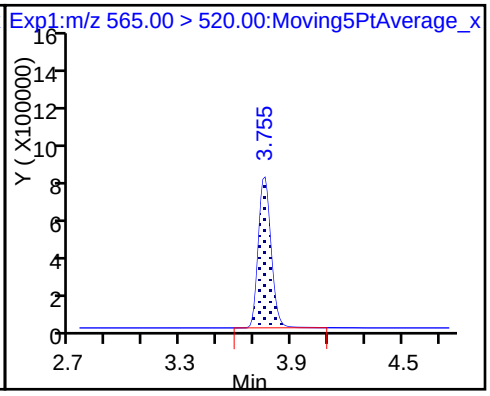
29 Perfluorodecane Sulfonic acid



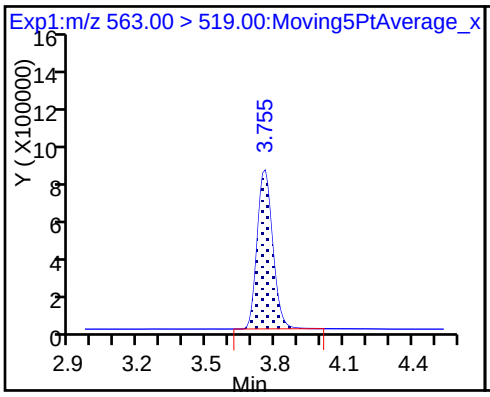
D 32 d5-NEtFOSAA



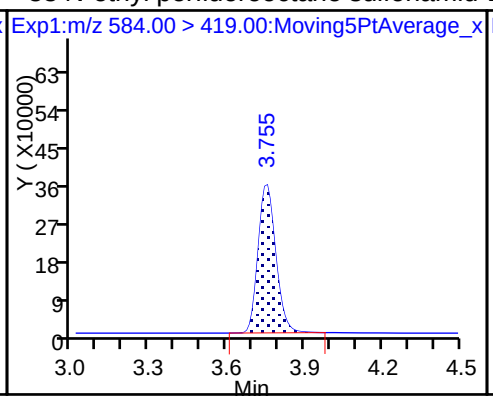
D 30 13C2 PFUnA



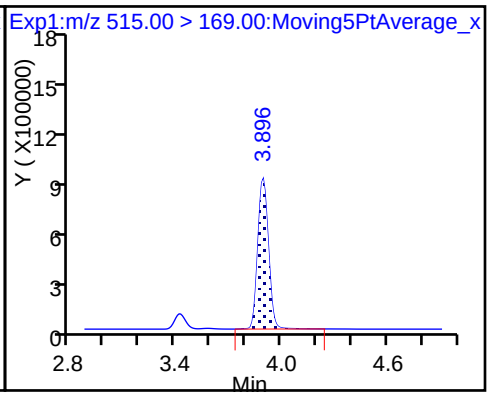
31 Perfluoroundecanoic acid



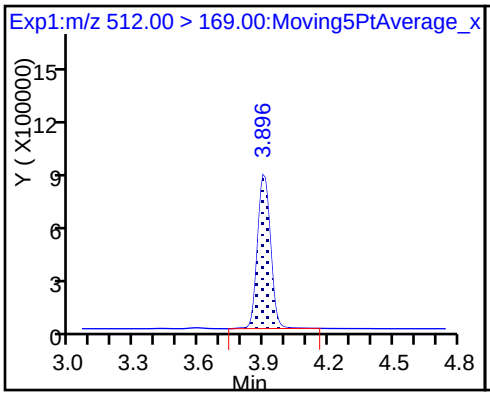
33 N-ethyl perfluorooctane sulfonamid



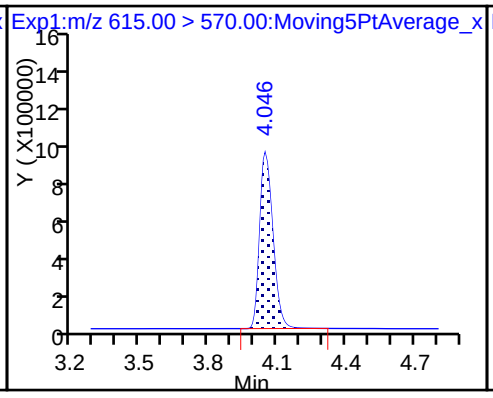
D 34 d-N-MeFOSA-M



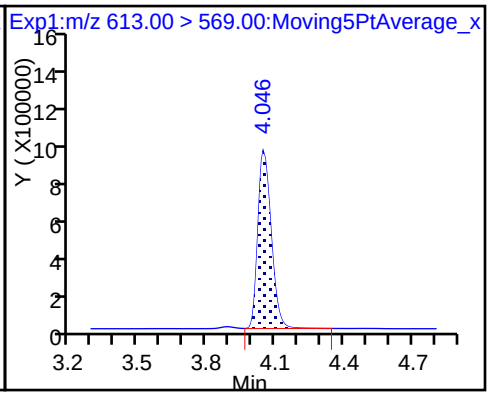
35 MeFOSA



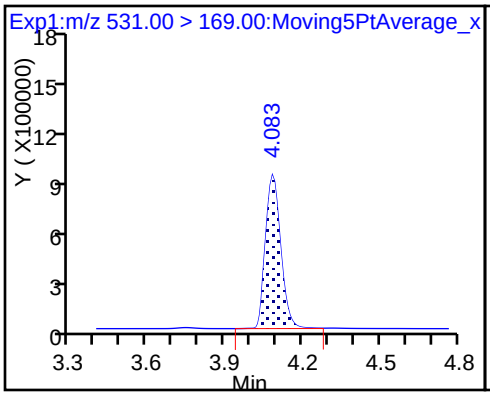
D 36 13C2 PFDoA



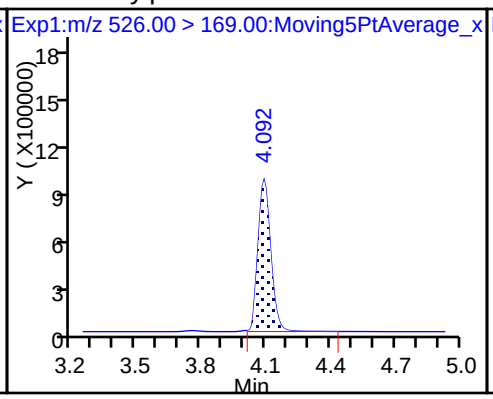
37 Perfluorododecanoic acid



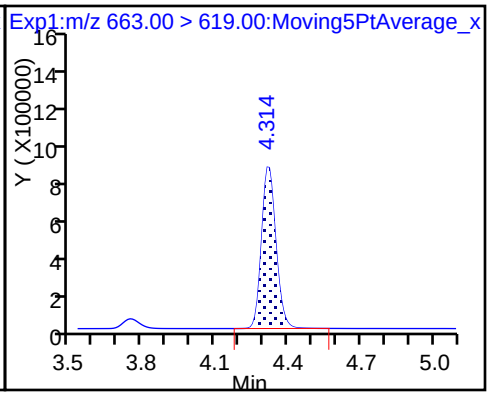
D 38 d-N-EtFOSA-M



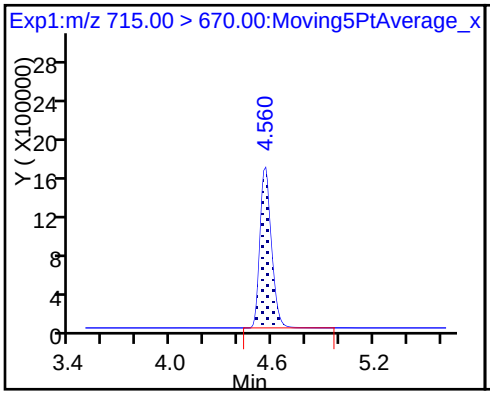
39 N-ethylperfluoro-1-octanesulfonami



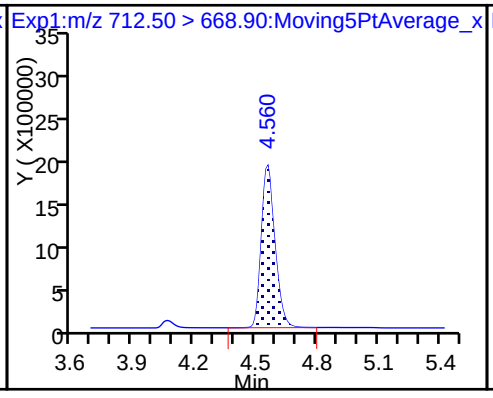
41 Perfluorotridecanoic acid



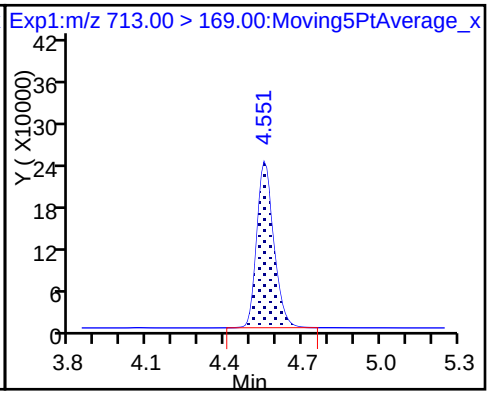
D 43 13C2-PFTeDA



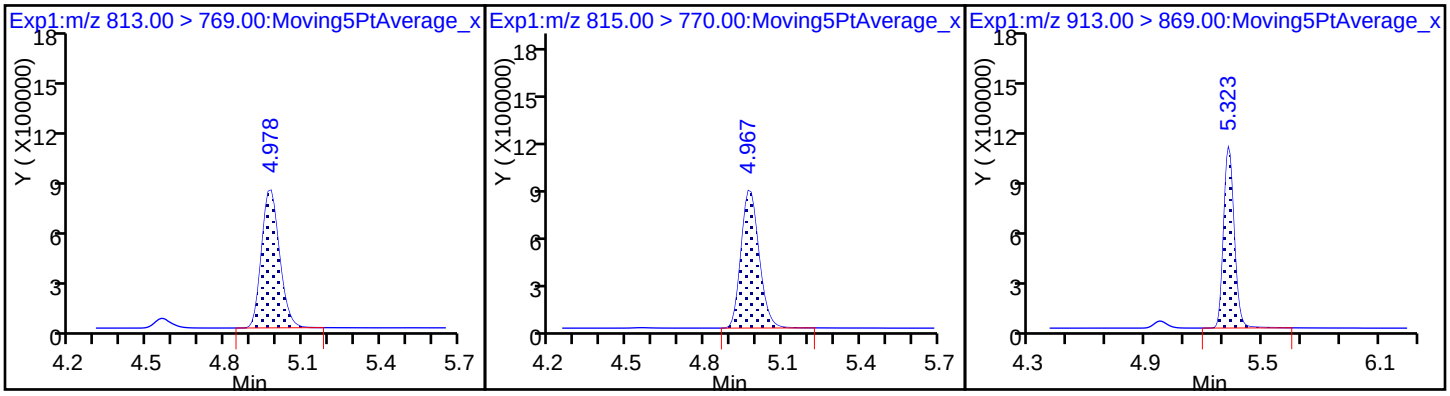
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171325/2 Calibration Date: 06/28/2017 01:22

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_A_001.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9782		21.7	20.0	8.6	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.048		20.4	20.0	1.8	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.477		18.7	17.7	5.9	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.007		19.8	20.0	-0.9	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.087		20.4	20.0	1.8	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.018		16.8	18.2	-7.8	25.0
6:2FTS	AveID	0.9859	1.070		20.6	19.0	8.5	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.080		20.4	20.0	1.9	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.162		19.2	19.0	1.0	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	0.9886		19.9	20.0	-0.4	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.018		18.0	18.6	-3.0	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	1.014		20.8	20.0	4.1	25.0
8:2FTS	AveID	0.999	1.015		19.5	19.2	1.7	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9596		19.9	20.0	-0.5	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.122		21.5	20.0	7.6	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6451		19.5	19.3	1.2	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	1.000		20.5	20.0	2.6	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.035		19.4	20.0	-2.8	25.0
MeFOSA	AveID	0.9522	0.9903		20.8	20.0	4.0	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9325		19.6	20.0	-2.1	25.0
N-EtFOSA-M	AveID	0.999	1.038		20.8	20.0	4.0	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9420		19.4	20.0	-2.9	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.334		20.0	20.0	0.0	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9853		18.9	20.0	-5.3	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	1.027		19.1	20.0	-4.7	25.0
13C4 PFBA	Ave	233991	228859		48.9	50.0	-2.2	50.0
13C5-PFPeA	Ave	160811	165710		51.5	50.0	3.0	50.0
13C2 PFHxA	Ave	153401	153780		50.1	50.0	0.2	50.0
13C4-PFHpA	Ave	136899	141795		51.8	50.0	3.6	50.0
18O2 PFHxS	Ave	212697	219320		48.8	47.3	3.1	50.0
M2-6:2FTS	Ave	72814	68849		44.9	47.5	-5.4	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171325/2 Calibration Date: 06/28/2017 01:22

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_A_001.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	130616		50.0	50.0	0.0	50.0
13C4 PFOS	Ave	162716	168470		49.5	47.8	3.5	50.0
13C5 PFNA	Ave	104991	106897		50.9	50.0	1.8	50.0
13C8 FOSA	Ave	263963	261919		49.6	50.0	-0.8	50.0
M2-8:2FTS	Ave	56620	55672		47.1	47.9	-1.7	50.0
13C2 PFDA	Ave	100020	100431		50.2	50.0	0.4	50.0
d3-NMeFOSAA	Ave	37033	36568		49.4	50.0	-1.3	50.0
d5-NEtFOSAA	Ave	36944	38741		52.4	50.0	4.9	50.0
13C2 PFUnA	Ave	74302	76776		51.7	50.0	3.3	50.0
d-N-MeFOSA-M	Ave	74603	71024		47.6	50.0	-4.8	50.0
13C2 PFDoA	Ave	73421	76656		52.2	50.0	4.4	50.0
d-N-EtFOSA-M	Ave	73544	72265		49.1	50.0	-1.7	50.0
13C2-PFTeDA	Ave	151466	156885		51.8	50.0	3.6	50.0
13C2-PFHxDA	Ave	83886	83798		49.9	50.0	-0.1	50.0

FORM VII 537 (Modified)

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_001.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 28-Jun-2017 01:22:25 ALS Bottle#: 31 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub18

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 09:38:31 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK005

First Level Reviewer: chandrasenas Date: 28-Jun-2017 09:25:09

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.541	1.546	-0.005		11442952	48.9		97.8	18506	
2 Perfluorobutyric acid										
212.90 > 169.00	1.541	1.549	-0.008	1.000	4477434	21.7		109	1818	
D 3 13C5-PFPeA										
267.90 > 223.00	1.751	1.755	-0.004		8285490	51.5		103	61087	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.751	1.756	-0.005	1.000	3474285	20.4		102	1745	
D 47 13C3-PFBS										
301.90 > 83.00	1.768	1.776	-0.008		208946	NC			6194	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.777	1.783	-0.006	1.000	5726832	18.7		106	3057	
298.90 > 99.00	1.777	1.783	-0.006	1.000	2329171		2.46(0.00-0.00)		3062	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.980	1.983	-0.003	1.000	1437226	22.0		118	20804	
D 7 13C2 PFHxA										
315.00 > 270.00	2.013	2.022	-0.009		7689021	50.1		100	23924	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.013	2.022	-0.009	1.000	3098029	19.8		99.1	5078	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.340	2.345	-0.005	1.000	3083081	20.4		102	3760	
D 9 13C4-PFHpA										
367.00 > 322.00	2.340	2.345	-0.005		7089774	51.8		104	25590	
D 11 18O2 PFHxS										
403.00 > 84.00	2.357	2.360	-0.003		10373831	48.8		103	22522	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.357	2.360	-0.003	1.000	4065175	16.8		92.2	2500	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.665	2.674	-0.009	1.000	1396144	20.6		108	23384	
D 12 M2-6:2FTS										
429.00 > 409.00	2.665	2.674	-0.009		3270305	44.9		94.6	15949	
* 62 13C2-PFOA										
415.00 > 370.00	2.687	2.695	-0.008		6797433	50.0		100	15615	
D 14 13C4 PFOA										
417.00 > 372.00	2.694	2.701	-0.007		6530805	50.0		100	16699	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.694	2.703	-0.009	1.000	2822525	20.4		102	650	
413.00 > 169.00	2.694	2.703	-0.009	1.000	1655471		1.70(0.90-1.10)		4523	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.702	2.710	-0.008	1.000	3728141	19.2		101	13281	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.067	3.076	-0.009	1.000	3183086	18.0		97.0	11907	
499.00 > 99.00	3.059	3.076	-0.017	0.997	693868		4.59(0.90-1.10)		5996	
D 18 13C4 PFOS										
503.00 > 80.00	3.059	3.076	-0.017		8052880	49.5		104	87400	
D 19 13C5 PFNA										
468.00 > 423.00	3.067	3.077	-0.010		5344868	50.9		102	10906	
20 Perfluorononanoic acid										
463.00 > 419.00	3.067	3.077	-0.010	1.000	2113562	19.9		99.6	4920	
D 21 13C8 FOSA										
506.00 > 78.00	3.397	3.405	-0.008		13095972	49.6		99.2	44714	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.397	3.408	-0.011	1.000	5313323	20.8		104	23354	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.416	3.429	-0.013	1.000	1083007	19.5		102	11175	
D 26 M2-8:2FTS										
529.00 > 509.00	3.416	3.429	-0.013		2666689	47.1		98.3	20250	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.425	3.442	-0.017	1.000	1927532	19.9		99.5	9752	
D 23 13C2 PFDA										
515.00 > 470.00	3.425	3.442	-0.017		5021546	50.2		100	16023	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.586	3.598	-0.012		1828389	49.4		98.7	9260	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.586	3.602	-0.016	1.000	820360	21.5		108	3153	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.734	3.755	-0.021	1.000	2095372	19.5		101	14744	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.744	3.765	-0.021		1937056	52.4		105	5654	
D 30 13C2 PFUnA										
565.00 > 520.00	3.754	3.772	-0.018		3838807	51.7		103	14429	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.754	3.773	-0.019	1.000	1588773	19.4		97.2	4238	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.754	3.775	-0.021	1.003	774720	20.5		103	5409	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.902	3.904	-0.002		3551203	47.6		95.2	662	
35 MeFOSA										
512.00 > 169.00	3.902	3.910	-0.008	1.000	1406642	20.8		104	5934	
D 36 13C2 PFDoA										
615.00 > 570.00	4.051	4.071	-0.020		3832822	52.2		104	13827	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.051	4.072	-0.021	1.000	1429642	19.6		97.9	1793	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.088	4.092	-0.004		3613273	49.1		98.3	6298	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.096	4.101	-0.005	1.000	1500476	20.8		104	5172	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.324	4.341	-0.017	1.000	1444166	19.4		97.1	391	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.557	4.578	-0.021		7844247	51.8		104	76219	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.557	4.581	-0.024	1.000	3577622	20.0		100	328	
713.00 > 169.00	4.557	4.581	-0.024	1.000	438444		8.16(0.00-0.00)		6256	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.972	4.998	-0.026	1.000	1510522	18.9		94.7	241	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.972	4.998	-0.026		4189876	49.9		99.9	8622	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.324	5.351	-0.027	1.000	1574356	19.1		95.3	424	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L4_00005 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 09:38:32 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_001.d

Injection Date: 28-Jun-2017 01:22:25 Instrument ID: A8_N

Lims ID: CCV L4

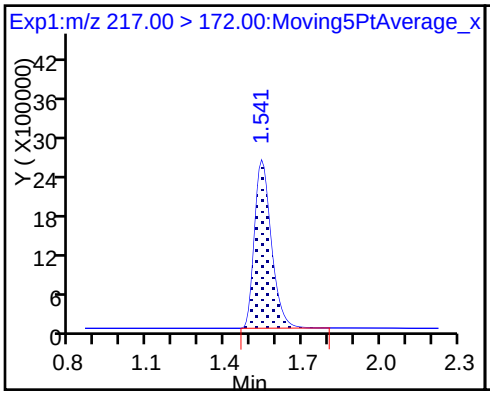
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 2

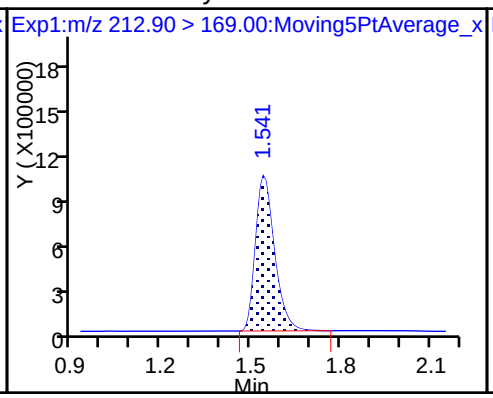
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

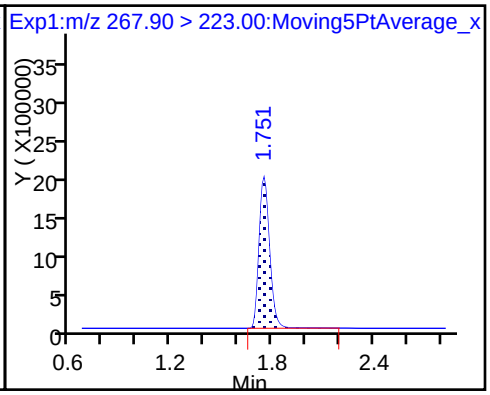
D 1 13C4 PFBA



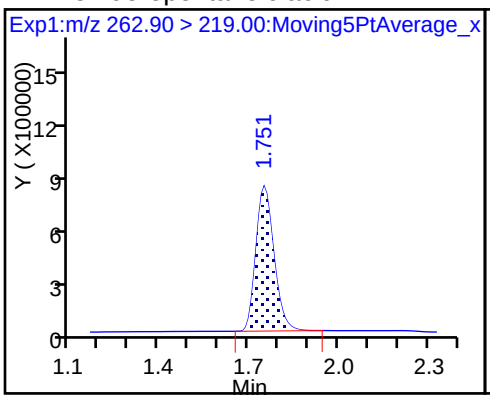
2 Perfluorobutyric acid



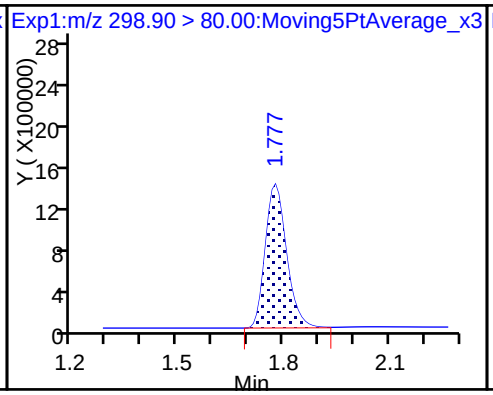
D 3 13C5-PFPeA



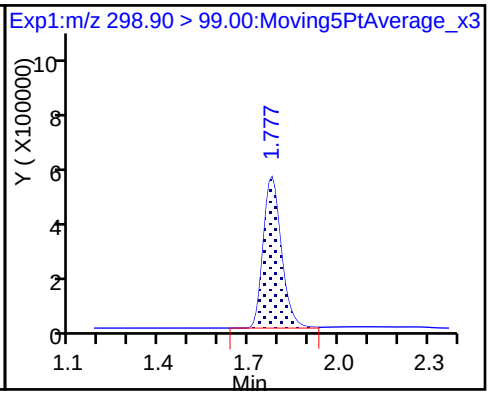
4 Perfluoropentanoic acid



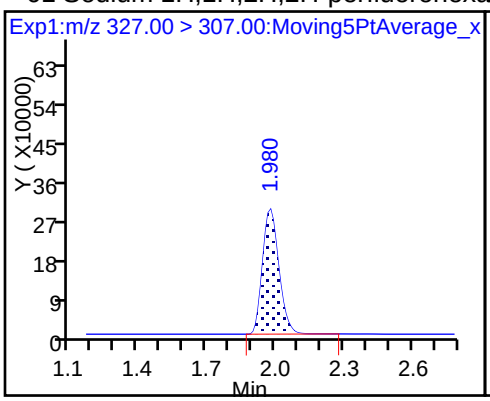
5 Perfluorobutanesulfonic acid



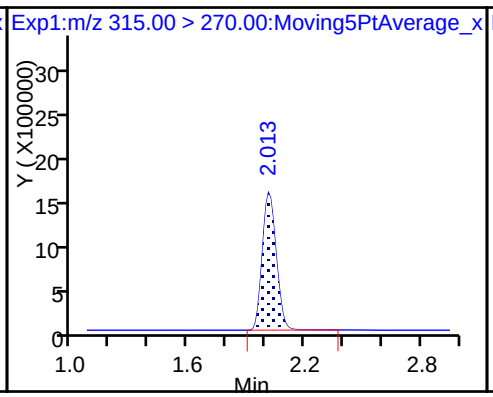
5 Perfluorobutanesulfonic acid



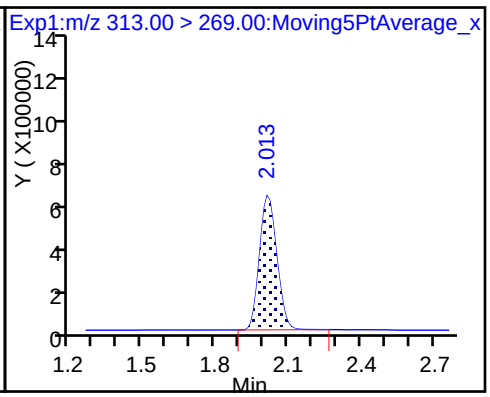
61 Sodium 1H,1H,2H,2H-perfluorohexa



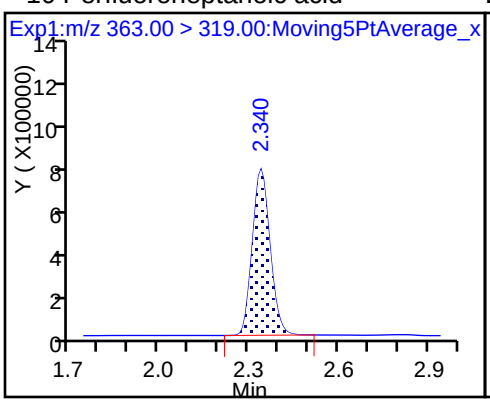
D 7 13C2 PFHxA



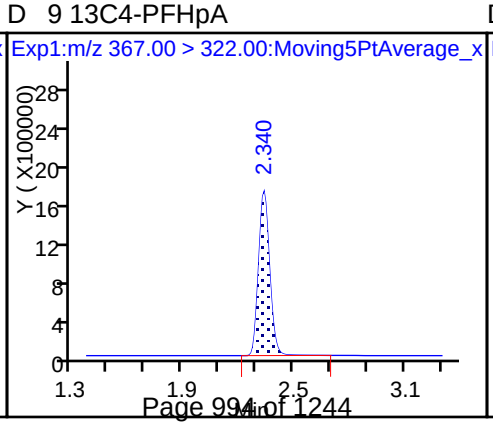
6 Perfluorohexanoic acid



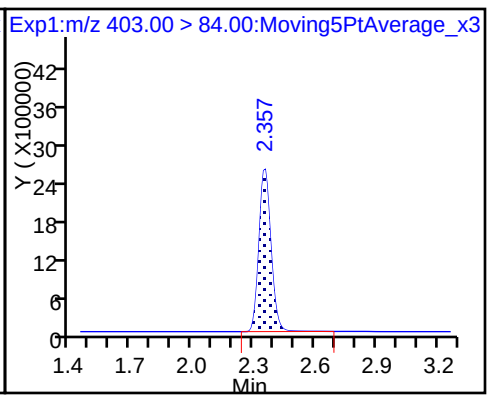
10 Perfluoroheptanoic acid



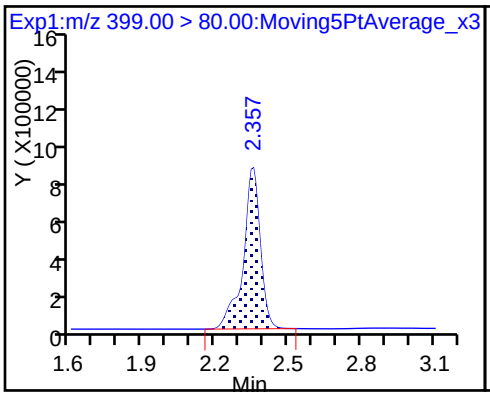
D 9 13C4-PFHpA



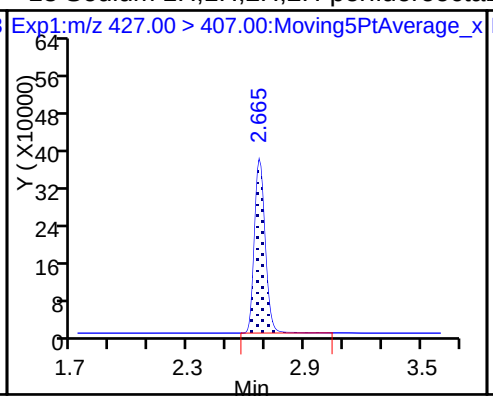
D 11 18O2 PFHxS



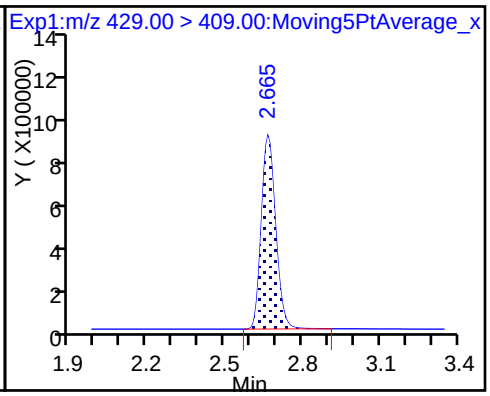
8 Perfluorohexanesulfonic acid



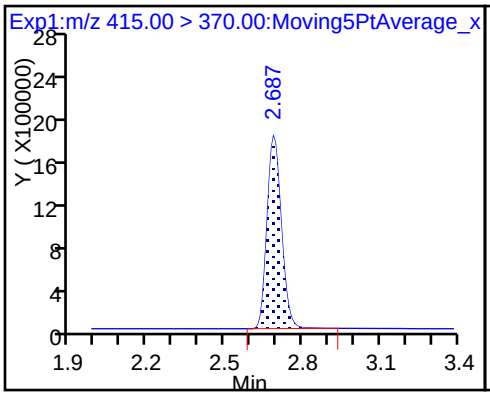
13 Sodium 1H,1H,2H,2H-perfluorooctane



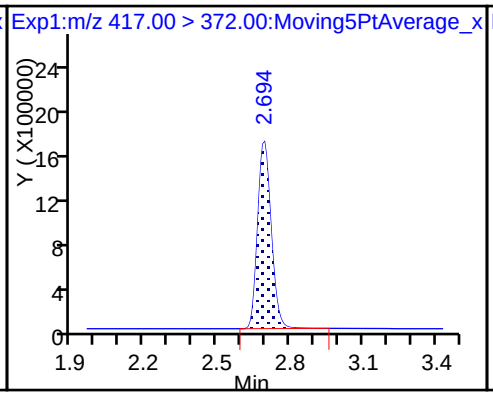
D 12 M2-6:2FTS



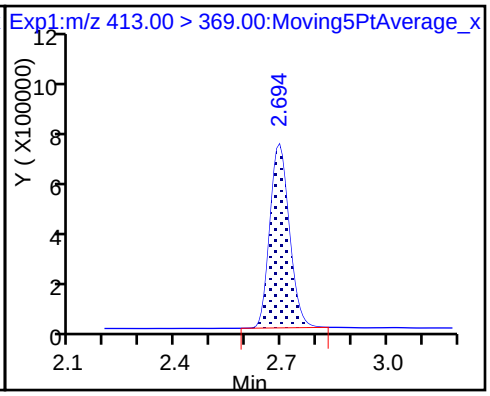
* 62 13C2-PFOA



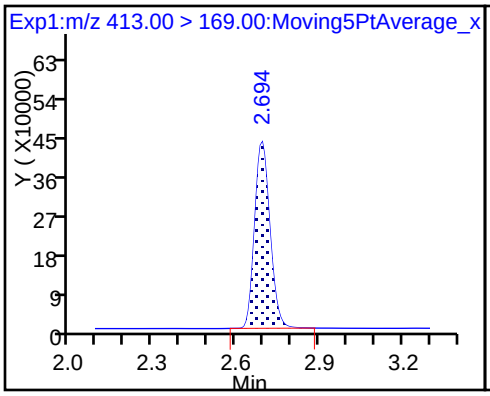
D 14 13C4 PFOA



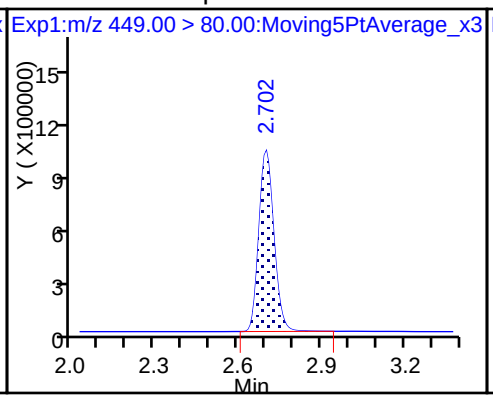
15 Perfluorooctanoic acid



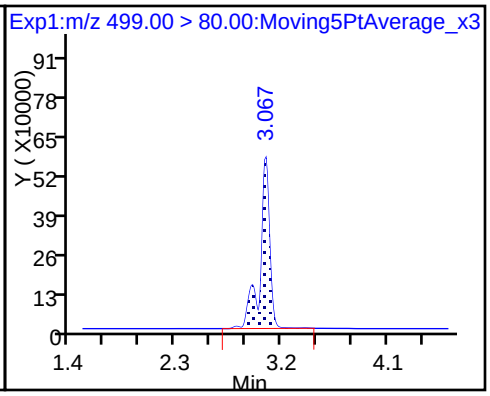
15 Perfluorooctanoic acid



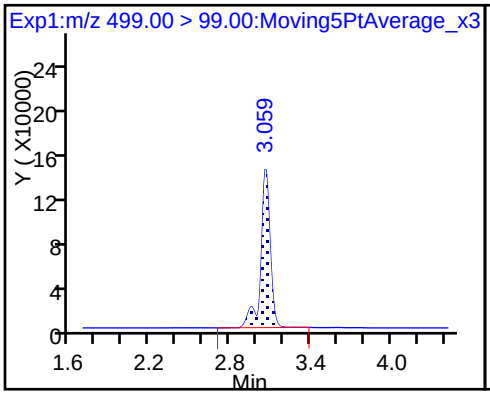
16 Perfluoroheptanesulfonic Acid



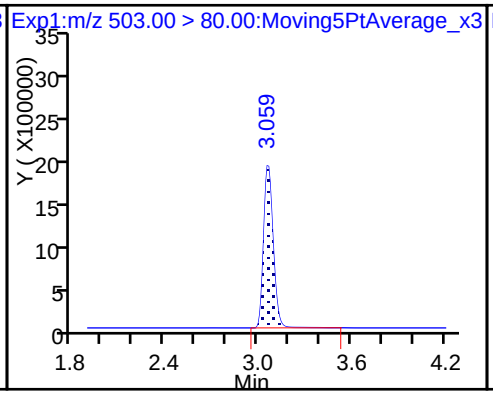
17 Perfluorooctane sulfonic acid



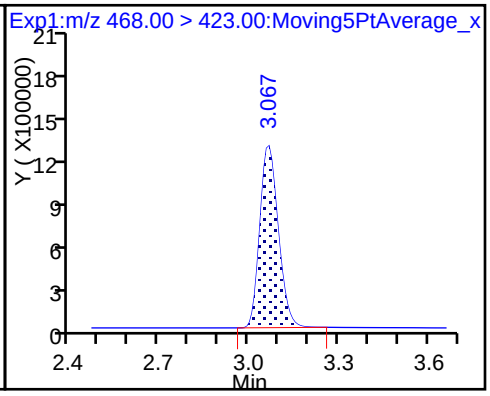
17 Perfluorooctane sulfonic acid



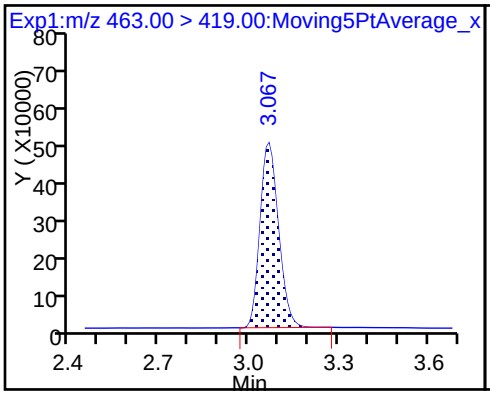
D 18 13C4 PFOS



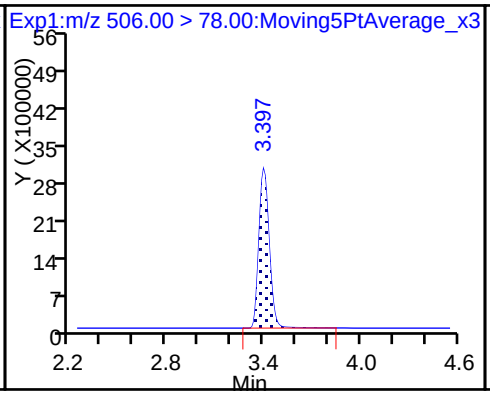
D 19 13C5 PFNA



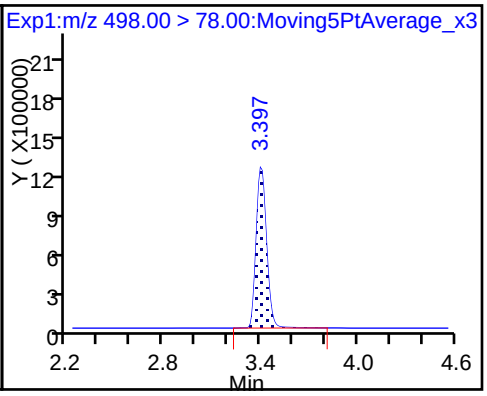
20 Perfluorononanoic acid



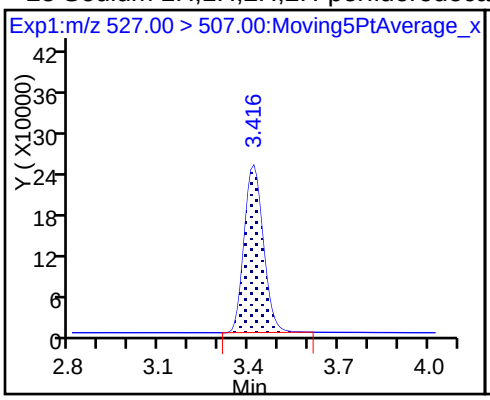
D 21 13C8 FOSA



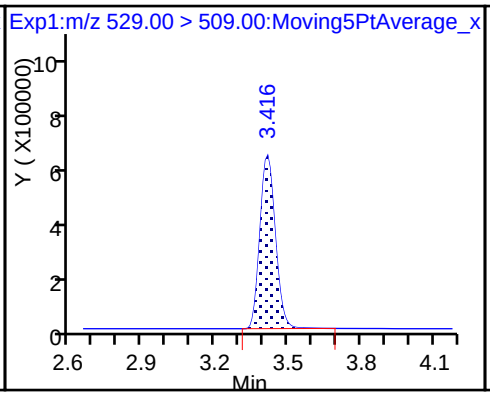
22 Perfluorooctane Sulfonamide



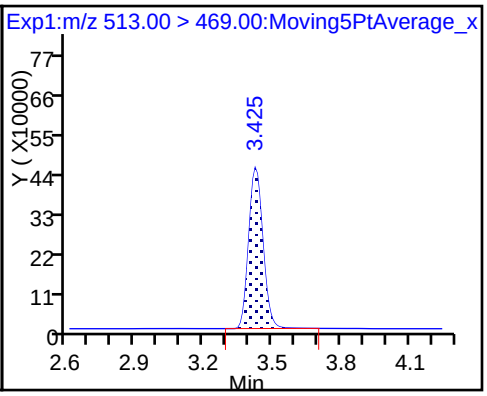
25 Sodium 1H,1H,2H,2H-perfluorodecane



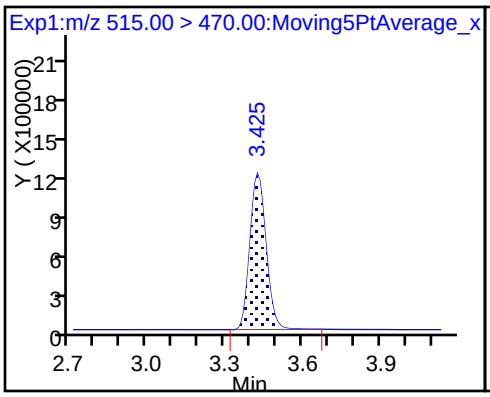
D 26 M2-8:2FTS



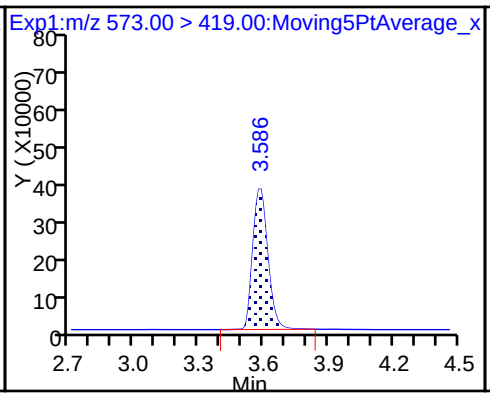
24 Perfluorodecanoic acid



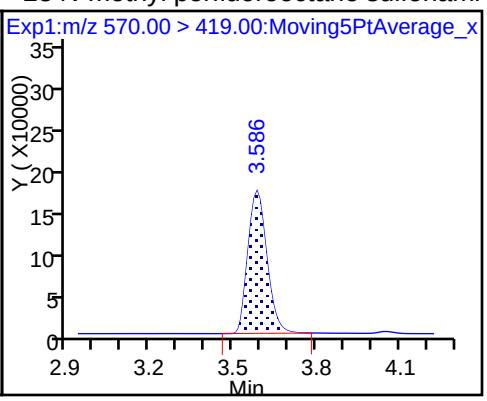
D 23 13C2 PFDA



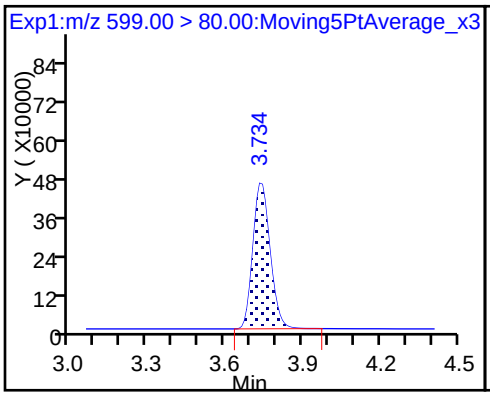
D 27 d3-NMeFOSAA



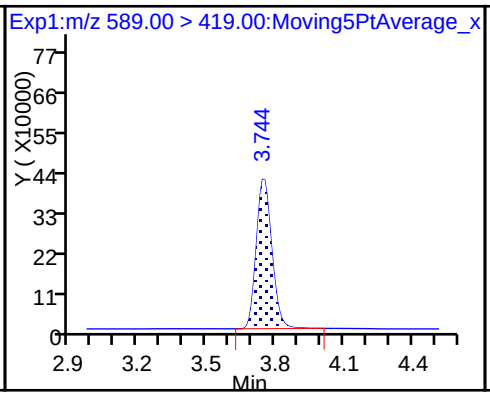
28 N-methyl perfluorooctane sulfonami



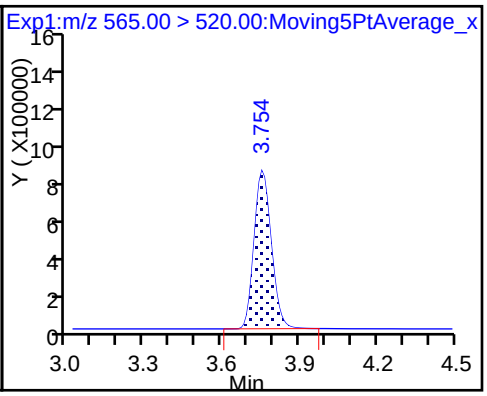
29 Perfluorodecane Sulfonic acid



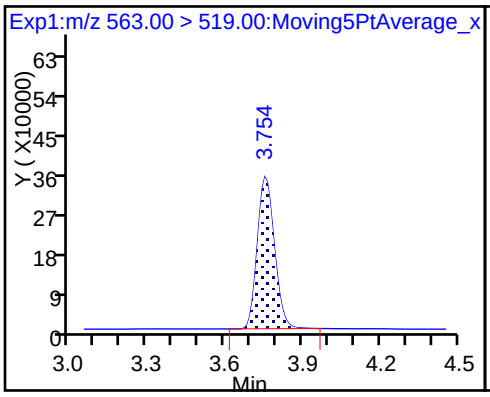
D 32 d5-NEtFOSAA



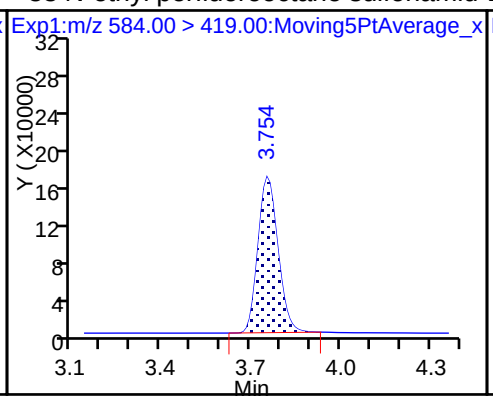
D 30 13C2 PFUnA



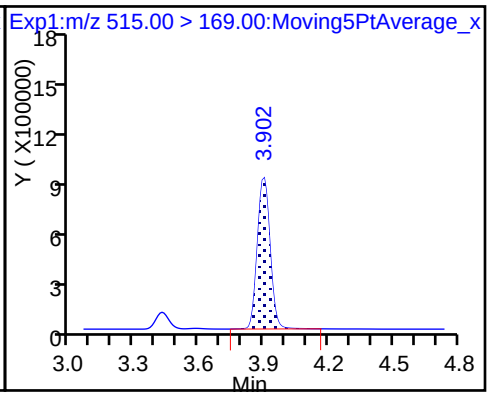
31 Perfluoroundecanoic acid



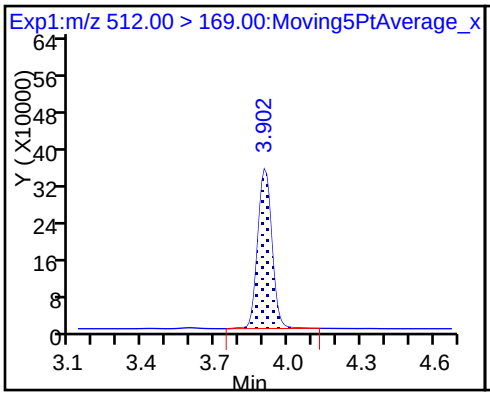
33 N-ethyl perfluorooctane sulfonamid



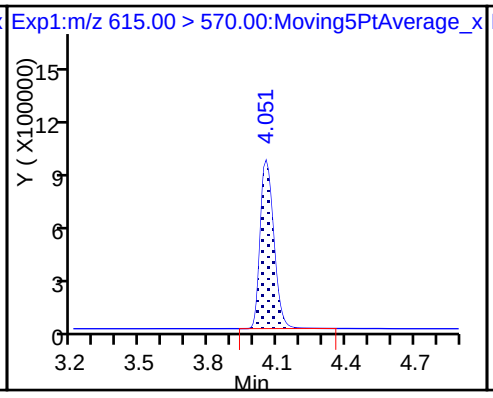
D 34 d-N-MeFOSA-M



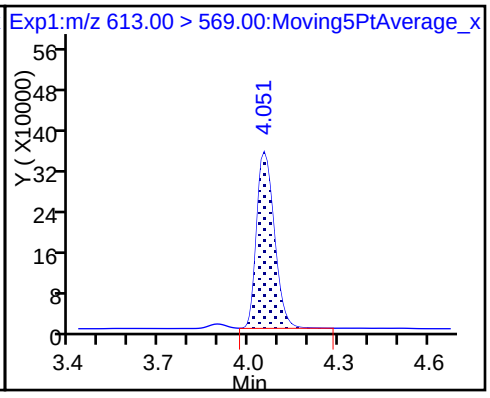
35 MeFOSA



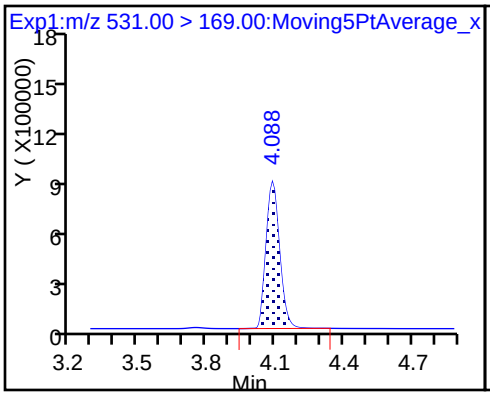
D 36 13C2 PFDoA



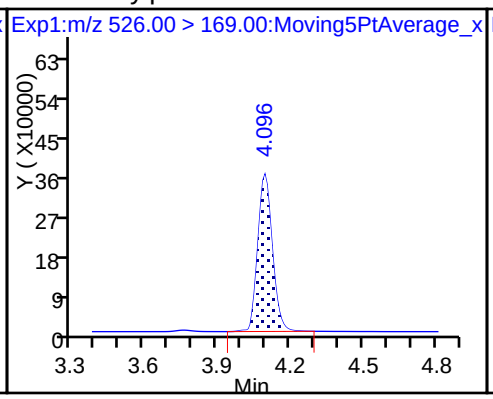
37 Perfluorododecanoic acid



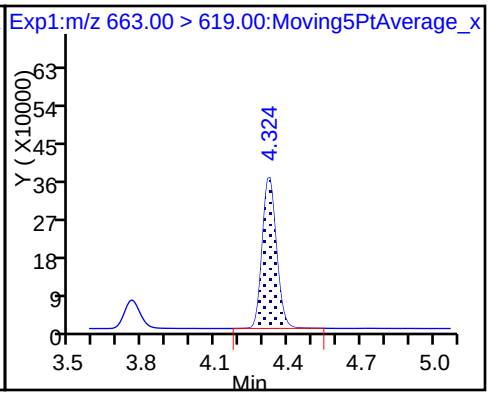
D 38 d-N-EtFOSA-M



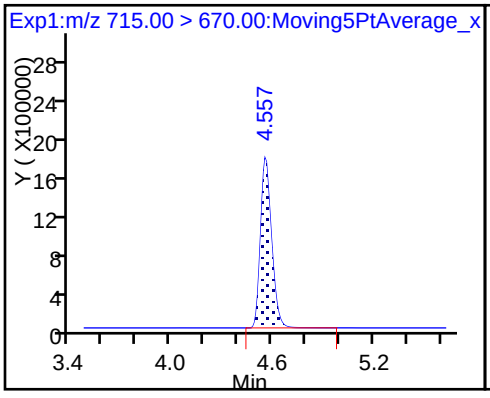
39 N-ethylperfluoro-1-octanesulfonami



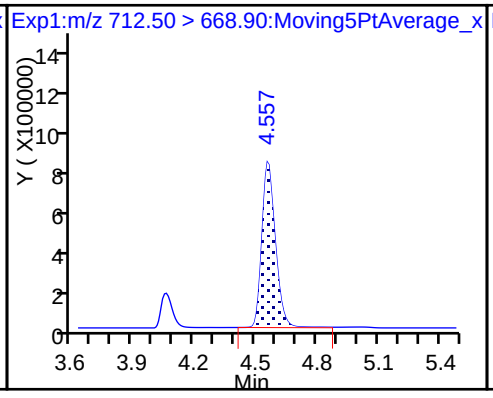
41 Perfluorotridecanoic acid



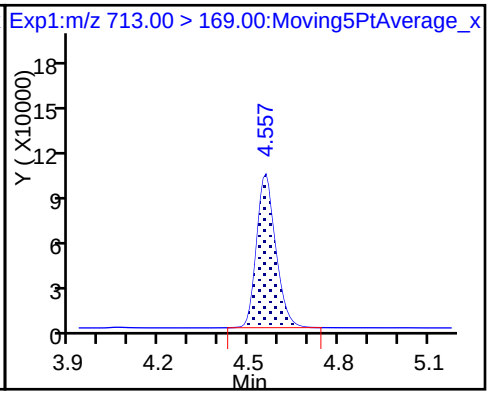
D 43 13C2-PFTeDA



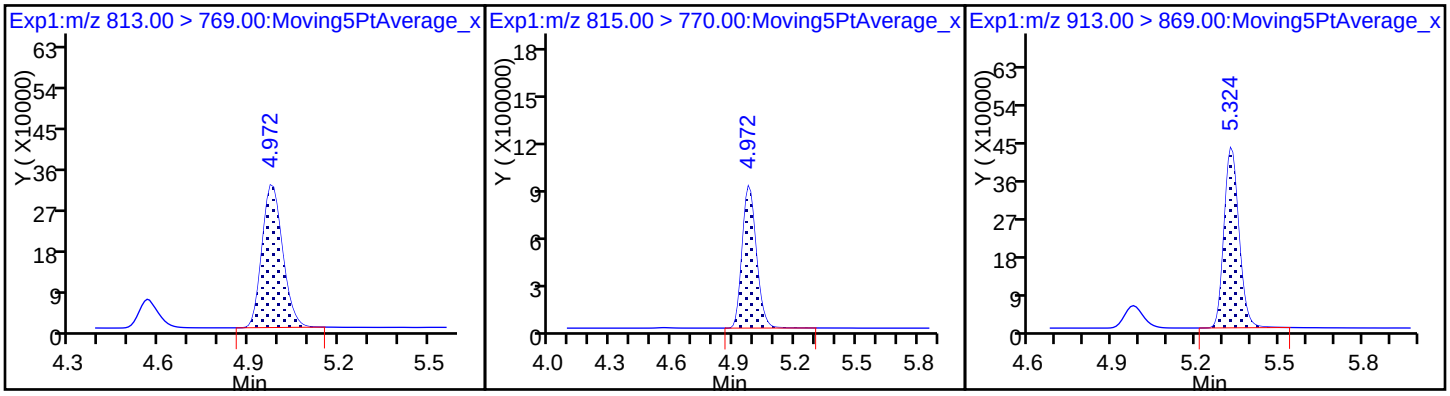
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171325/13 Calibration Date: 06/28/2017 02:38

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_A_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9445		52.4	50.0	4.9	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.018		49.4	50.0	-1.1	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.382		43.8	44.2	-0.9	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.048		51.6	50.0	3.2	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.092		51.1	50.0	2.2	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.077		44.4	45.5	-2.5	25.0
6:2FTS	AveID	0.9859	0.9937		47.8	47.4	0.8	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.108		52.2	50.0	4.5	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.152		47.7	47.6	0.2	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	1.020		51.4	50.0	2.8	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.066		47.1	46.4	1.6	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	1.027		52.7	50.0	5.5	25.0
8:2FTS	AveID	0.999	1.006		48.3	47.9	0.7	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9526		49.4	50.0	-1.3	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.081		51.8	50.0	3.7	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6477		49.0	48.2	1.6	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	1.034		53.1	50.0	6.1	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.036		48.7	50.0	-2.7	25.0
MeFOSA	AveID	0.9522	0.9713		51.0	50.0	2.0	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9536		50.1	50.0	0.2	25.0
N-EtFOSA-M	AveID	0.999	1.060		53.1	50.0	6.2	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9298		47.9	50.0	-4.2	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.066		44.3	50.0	-11.5	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9330		45.8	50.0	-8.4	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	1.028		47.7	50.0	-4.7	25.0
13C4 PFBA	Ave	233991	271190		57.9	50.0	15.9	50.0
13C5-PFPeA	Ave	160811	187162		58.2	50.0	16.4	50.0
13C2 PFHxA	Ave	153401	181205		59.1	50.0	18.1	50.0
13C4-PFHpA	Ave	136899	162776		59.5	50.0	18.9	50.0
18O2 PFHxS	Ave	212697	253613		56.4	47.3	19.2	50.0
M2-6:2FTS	Ave	72814	82048		53.5	47.5	12.7	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171325/13 Calibration Date: 06/28/2017 02:38

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_A_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	146879		56.3	50.0	12.5	50.0
13C4 PFOS	Ave	162716	193589		56.9	47.8	19.0	50.0
13C5 PFNA	Ave	104991	125666		59.8	50.0	19.7	50.0
13C8 FOSA	Ave	263963	296533		56.2	50.0	12.3	50.0
M2-8:2FTS	Ave	56620	67338		57.0	47.9	18.9	50.0
13C2 PFDA	Ave	100020	114904		57.4	50.0	14.9	50.0
d3-NMeFOSAA	Ave	37033	45947		62.0	50.0	24.1	50.0
d5-NEtFOSAA	Ave	36944	41808		56.6	50.0	13.2	50.0
13C2 PFUnA	Ave	74302	88292		59.4	50.0	18.8	50.0
d-N-MeFOSA-M	Ave	74603	86790		58.2	50.0	16.3	50.0
13C2 PFDoA	Ave	73421	95595		65.1	50.0	30.2	50.0
d-N-EtFOSA-M	Ave	73544	85297		58.0	50.0	16.0	50.0
13C2-PFTeDA	Ave	151466	176009		58.1	50.0	16.2	50.0
13C2-PFHxDA	Ave	83886	98890		58.9	50.0	17.9	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_012.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 28-Jun-2017 02:38:19 ALS Bottle#: 32 Worklist Smp#: 13
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub18

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 09:38:27 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK005

First Level Reviewer: chandrasenas Date: 28-Jun-2017 09:37:19

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.535	1.546	-0.011		13559509	57.9		116	16056	
2 Perfluorobutyric acid										
212.90 > 169.00	1.535	1.549	-0.014	1.000	12807546	52.4		105	2691	
D 3 13C5-PFPeA										
267.90 > 223.00	1.735	1.755	-0.020		9358086	58.2		116	21488	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.735	1.756	-0.021	1.000	9524323	49.4		98.9	5119	
D 47 13C3-PFBS										
301.90 > 83.00	1.762	1.776	-0.014		248737	NC			7503	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.762	1.783	-0.021	1.000	15488432	43.8		99.1	5906	
298.90 > 99.00	1.762	1.783	-0.021	1.000	6815423		2.27(0.00-0.00)		6549	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.960	1.983	-0.023	1.000	4064864	52.2		112	119830	
D 7 13C2 PFHxA										
315.00 > 270.00	1.993	2.022	-0.029		9060274	59.1		118	22625	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.993	2.022	-0.029	1.000	9499297	51.6		103	11075	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.316	2.345	-0.029	1.000	8886369	51.1		102	9785	
D 9 13C4-PFHpA										
367.00 > 322.00	2.316	2.345	-0.029		8138786	59.5		119	14656	
D 11 18O2 PFHxS										
403.00 > 84.00	2.332	2.360	-0.028		11995903	56.4		119	24664	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.332	2.360	-0.028	1.000	12428209	44.4		97.5	4592	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.640	2.674	-0.034	1.000	3864473	47.8		101	24549	
D 12 M2-6:2FTS										
429.00 > 409.00	2.640	2.674	-0.034		3897269	53.5		113	15945	
* 62 13C2-PFOA										
415.00 > 370.00	2.662	2.695	-0.033		7740206	50.0		100	15000	
D 14 13C4 PFOA										
417.00 > 372.00	2.662	2.701	-0.039		7343950	56.3		113	12965	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.662	2.703	-0.041	1.000	8135204	52.2		104	1658	
413.00 > 169.00	2.662	2.703	-0.041	1.000	4820848		1.69(0.90-1.10)		6827	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.669	2.710	-0.041	1.000	10619592	47.7		100	13571	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.034	3.076	-0.042	1.000	9573733	47.1		102	8602	
499.00 > 99.00	3.034	3.076	-0.042	1.000	2126001		4.50(0.90-1.10)		10357	
D 18 13C4 PFOS										
503.00 > 80.00	3.034	3.076	-0.042		9253575	56.9		119	43241	
D 19 13C5 PFNA										
468.00 > 423.00	3.034	3.077	-0.043		6283323	59.8		120	9813	
20 Perfluorononanoic acid										
463.00 > 419.00	3.034	3.077	-0.043	1.000	6406261	51.4		103	10209	
D 21 13C8 FOSA										
506.00 > 78.00	3.380	3.405	-0.025		14826667	56.2		112	374326	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.380	3.408	-0.028	1.000	15228462	52.7		105	44805	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.389	3.429	-0.040	1.000	3245196	48.3		101	35154	
D 26 M2-8:2FTS										
529.00 > 509.00	3.389	3.429	-0.040		3225490	57.0		119	30557	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.398	3.442	-0.044	1.000	5472582	49.4		98.7	19793	
D 23 13C2 PFDA										
515.00 > 470.00	3.398	3.442	-0.044		5745199	57.4		115	32010	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.554	3.598	-0.044		2297328	62.0		124	15289	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.565	3.602	-0.037	1.003	2483050	51.8		104	5812	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.713	3.755	-0.042	1.000	6043842	49.0		102	87108	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.723	3.765	-0.042		2090401	56.6		113	5584	
D 30 13C2 PFUnA										
565.00 > 520.00	3.733	3.772	-0.039		4414592	59.4		119	13855	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.733	3.773	-0.040	1.000	4571956	48.7		97.3	7537	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.733	3.775	-0.042	1.003	2162403	53.1		106	9254	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.883	3.904	-0.021		4339487	58.2		116	717	
35 MeFOSA										
512.00 > 169.00	3.892	3.910	-0.018	1.000	4215068	51.0		102	7451	
D 36 13C2 PFDoA										
615.00 > 570.00	4.031	4.071	-0.040		4779753	65.1		130	16638	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.031	4.072	-0.041	1.000	4558026	50.1		100	4668	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.073	4.092	-0.019		4264844	58.0		116	5222	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.081	4.101	-0.020	1.000	4520886	53.1		106	5447	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.302	4.341	-0.039	1.000	4444185	47.9		95.8	1305	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.535	4.578	-0.043		8800463	58.1		116	101125	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.535	4.581	-0.046	1.000	9873422	44.3		88.5	3062	
713.00 > 169.00	4.535	4.581	-0.046	1.000	1293527		7.63(0.00-0.00)		17567	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.956	4.998	-0.042	1.000	4459502	45.8		91.6	630	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.956	4.998	-0.042		4944491	58.9		118	10122	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.296	5.351	-0.055	1.000	4911998	47.7		95.3	1233	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L5_00005 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 09:38:28 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b\2017.06.27_PFC_A_012.d

Injection Date: 28-Jun-2017 02:38:19 Instrument ID: A8_N

Lims ID: CCV L5

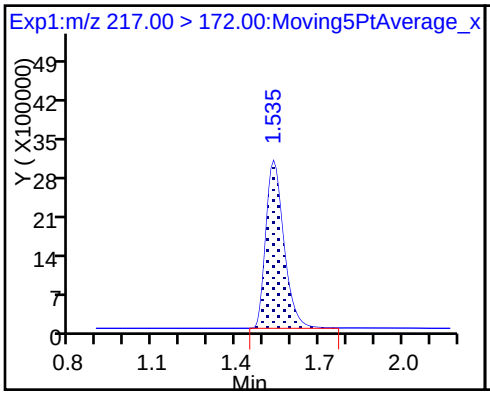
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 13

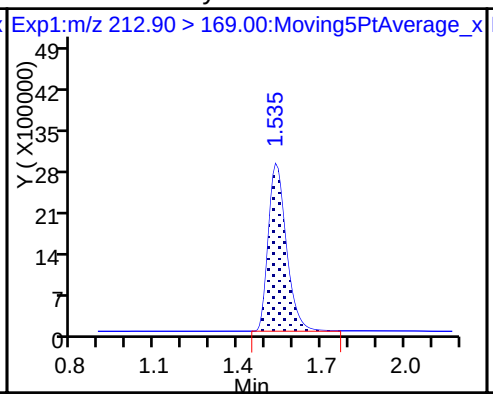
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

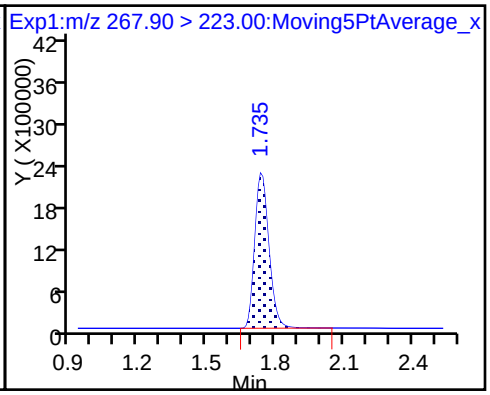
D 1 13C4 PFBA



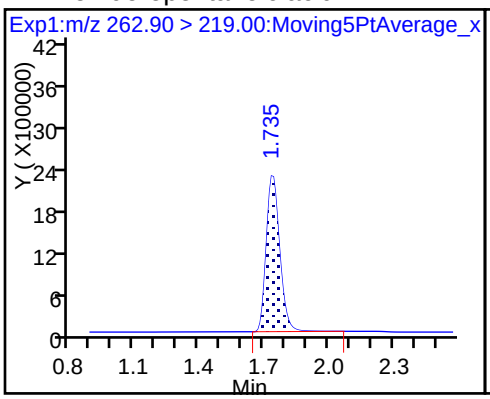
2 Perfluorobutyric acid



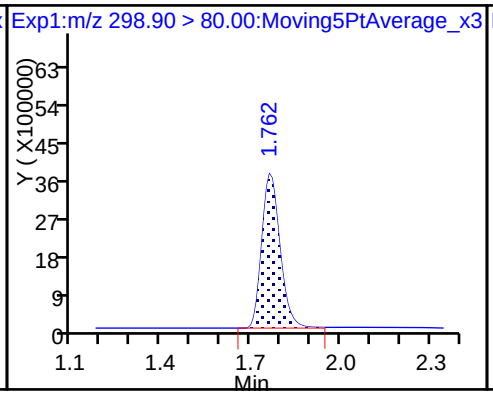
D 3 13C5-PFPeA



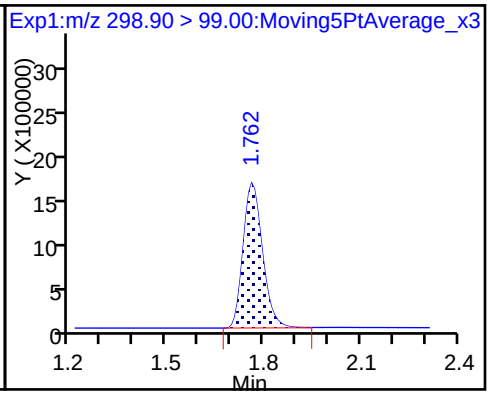
4 Perfluoropentanoic acid



5 Perfluorobutanesulfonic acid

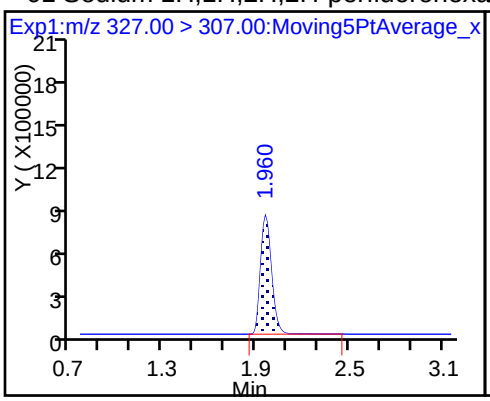


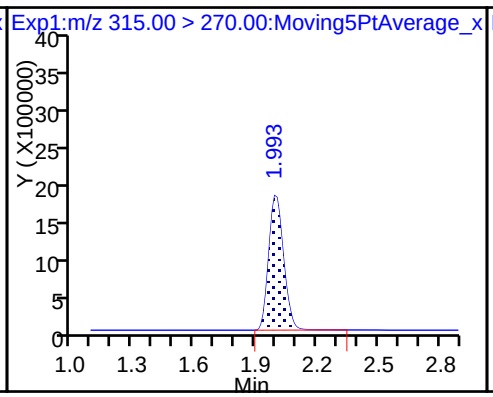
5 Perfluorobutanesulfonic acid



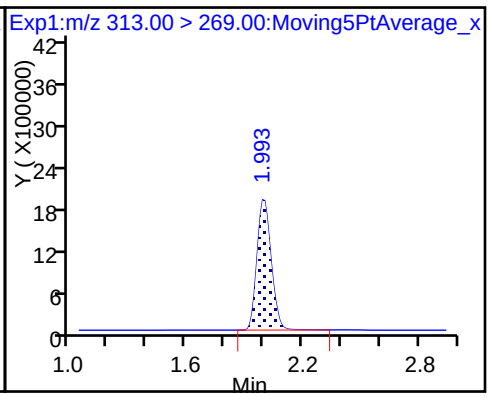
61 Sodium 1H,1H,2H,2H-perfluorohexa

D 7 13C2 PFHxA

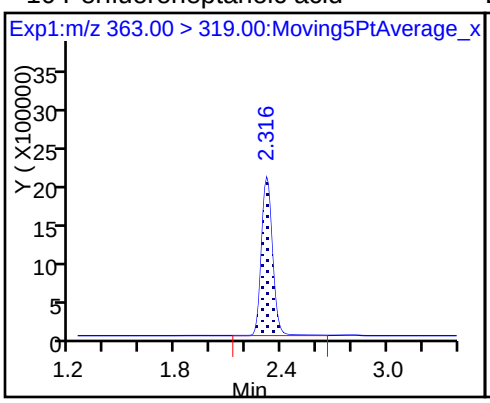




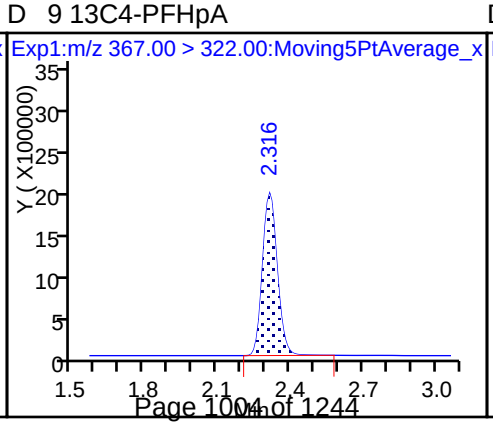
6 Perfluorohexanoic acid



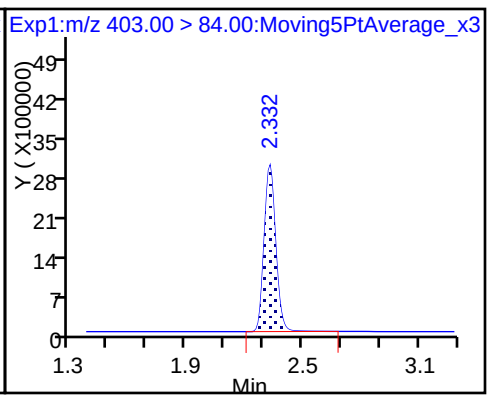
10 Perfluoroheptanoic acid



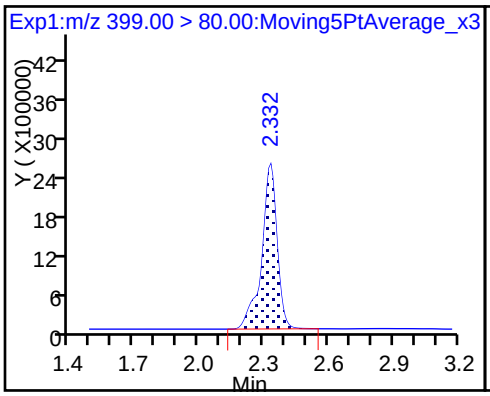
D 9 13C4-PFHpA



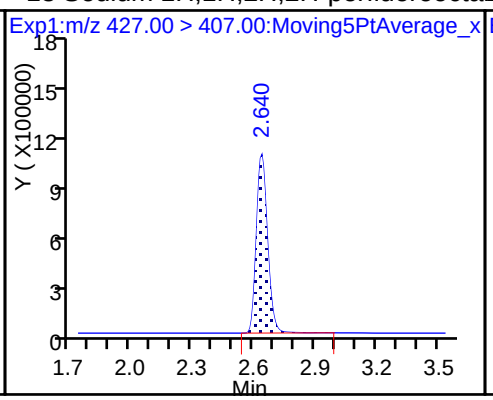
D 11 18O2 PFHxS



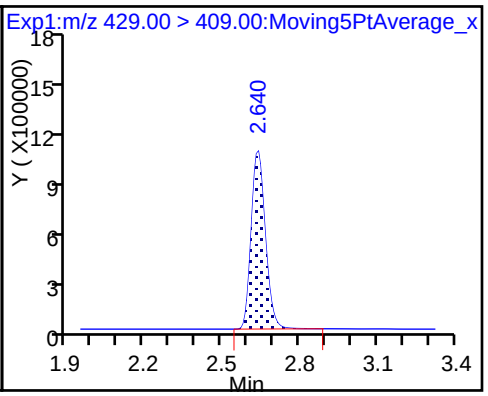
8 Perfluorohexanesulfonic acid



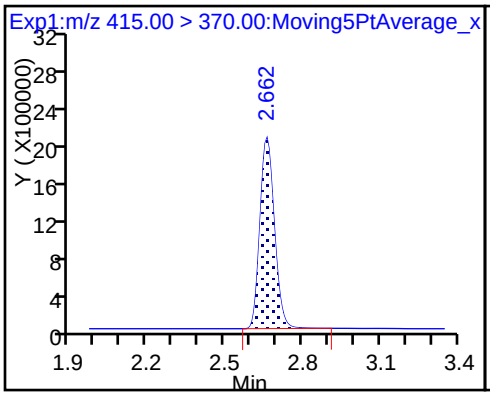
13 Sodium 1H,1H,2H,2H-perfluorooctane



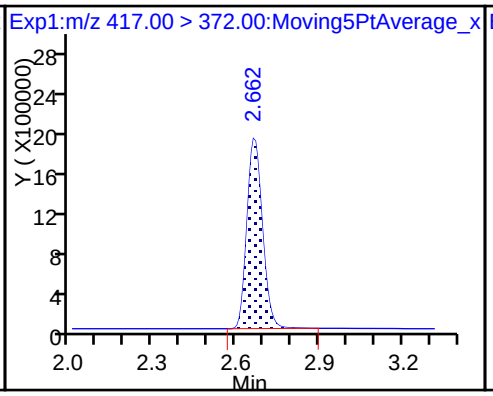
D 12 M2-6:2FTS



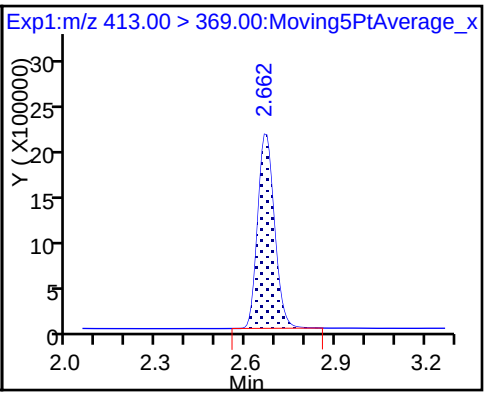
* 62 13C2-PFOA



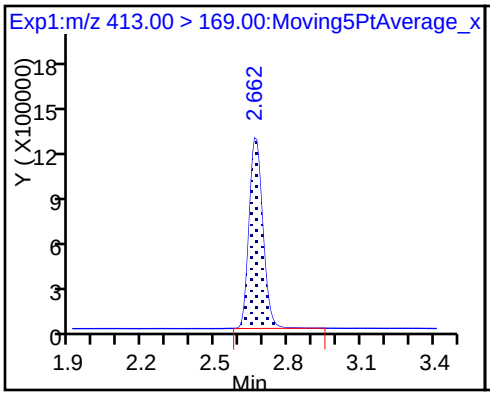
D 14 13C4 PFOA



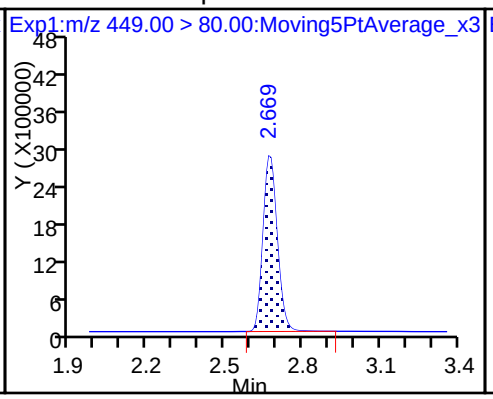
15 Perfluorooctanoic acid



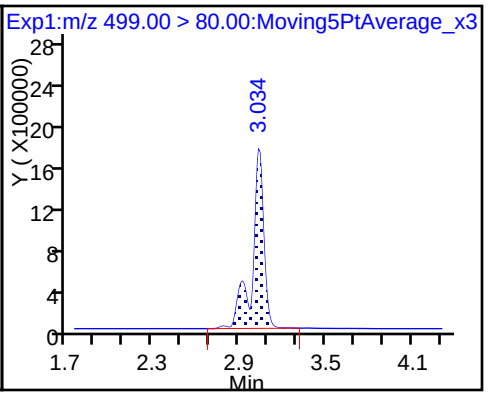
15 Perfluorooctanoic acid



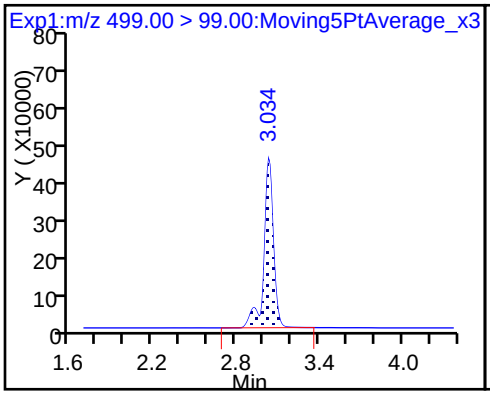
16 Perfluoroheptanesulfonic Acid



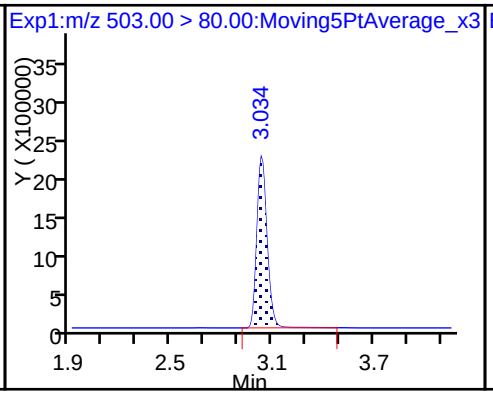
17 Perfluorooctane sulfonic acid



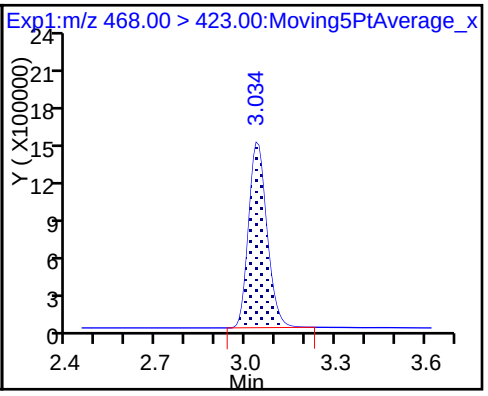
17 Perfluorooctane sulfonic acid



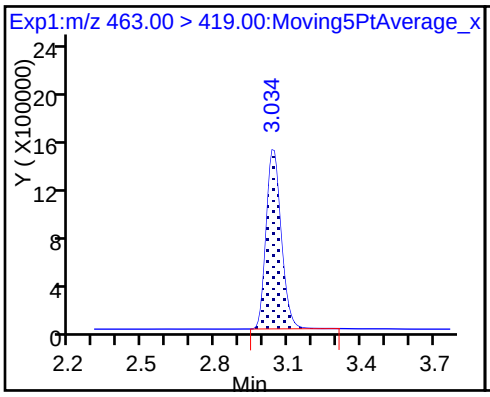
D 18 13C4 PFOS



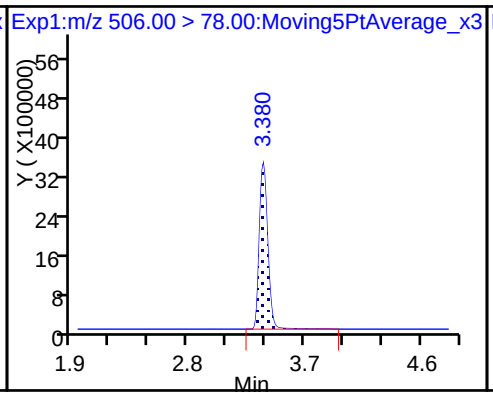
D 19 13C5 PFNA



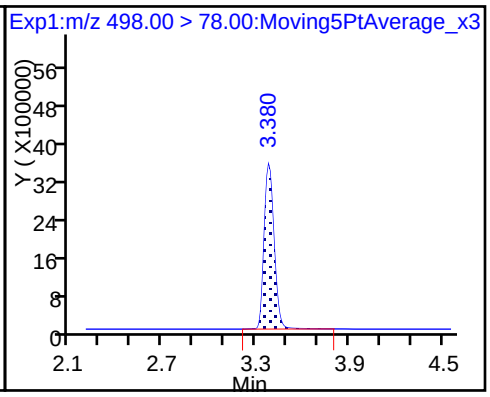
20 Perfluorononanoic acid



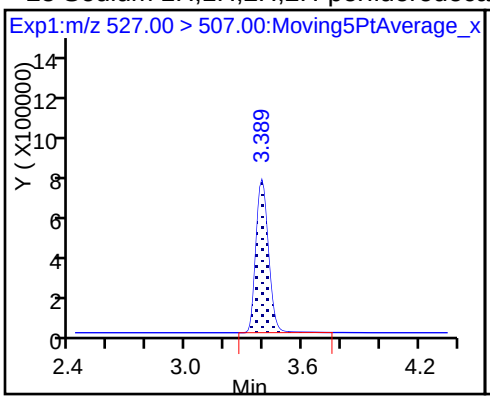
D 21 13C8 FOSA



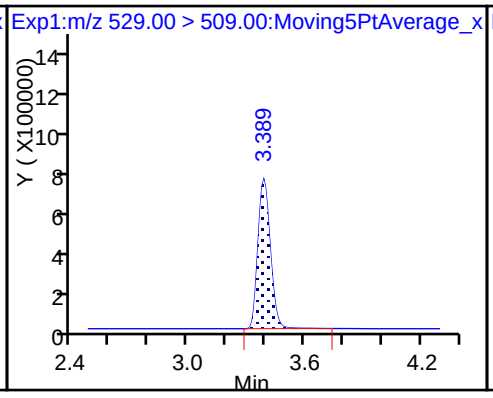
22 Perfluorooctane Sulfonamide



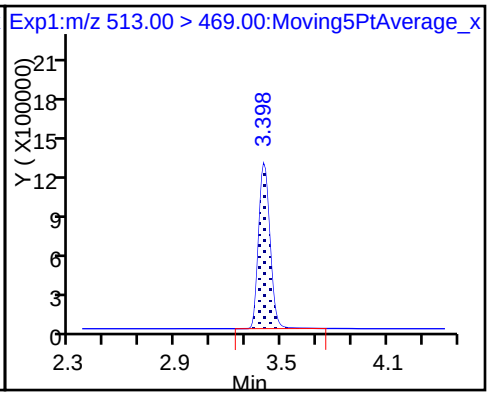
25 Sodium 1H,1H,2H,2H-perfluorodecane



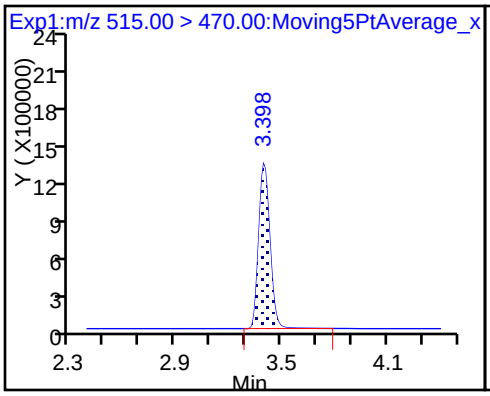
D 26 M2-8:2FTS



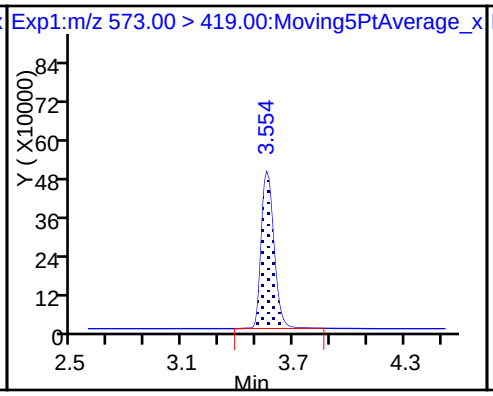
24 Perfluorodecanoic acid



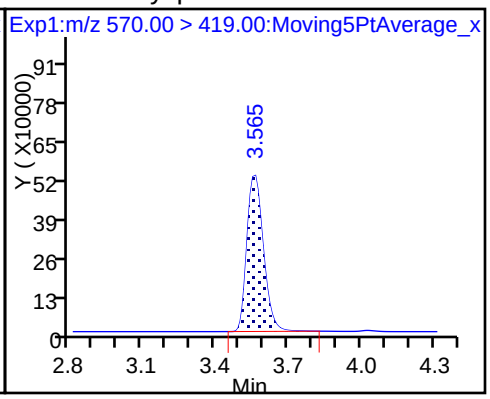
D 23 13C2 PFDA



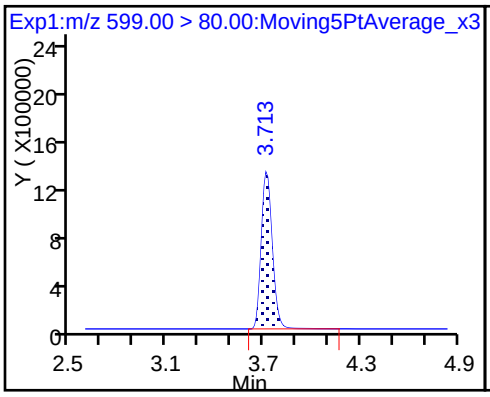
D 27 d3-NMeFOSAA



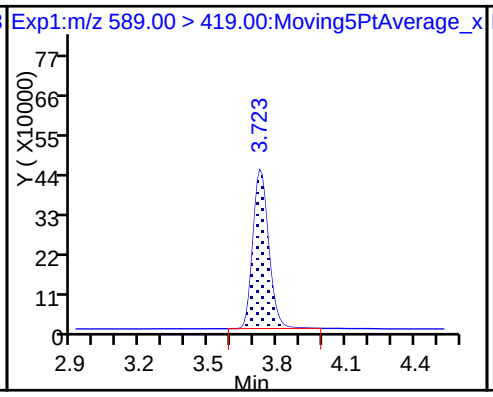
28 N-methyl perfluorooctane sulfonami



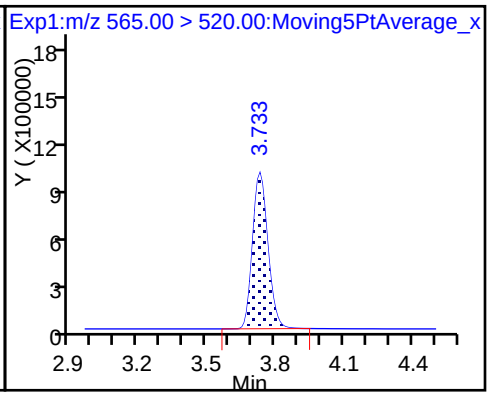
29 Perfluorodecane Sulfonic acid



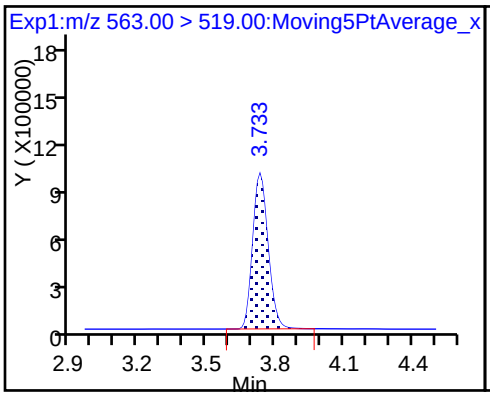
D 32 d5-NEtFOSAA



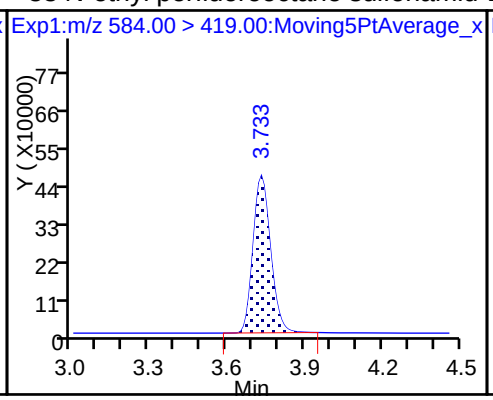
D 30 13C2 PFUnA



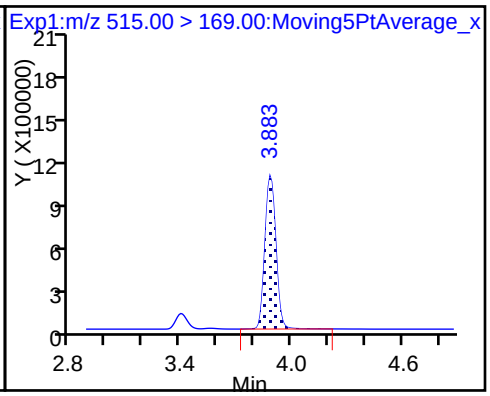
31 Perfluoroundecanoic acid



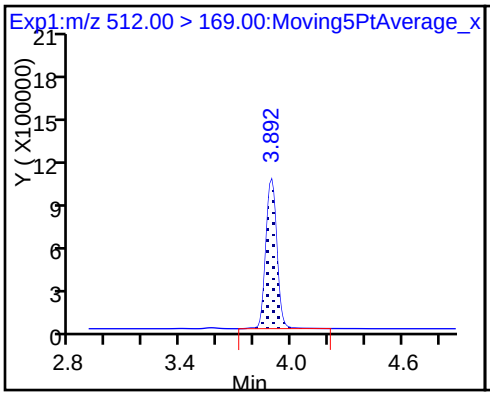
33 N-ethyl perfluorooctane sulfonamid



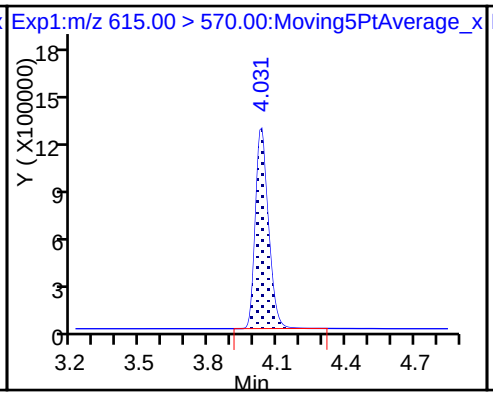
D 34 d-N-MeFOSA-M



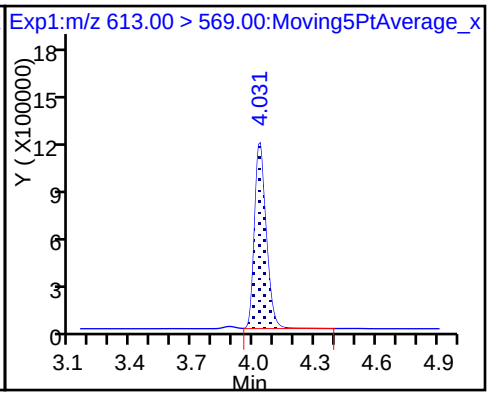
35 MeFOSA



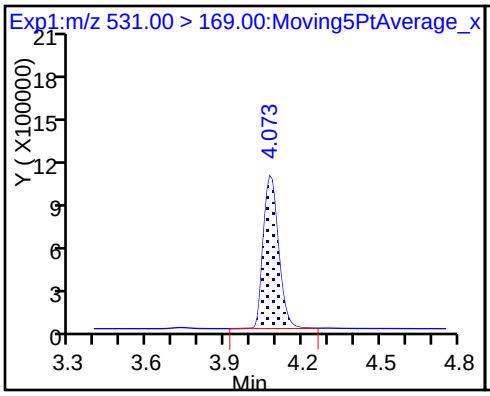
D 36 13C2 PFDoA



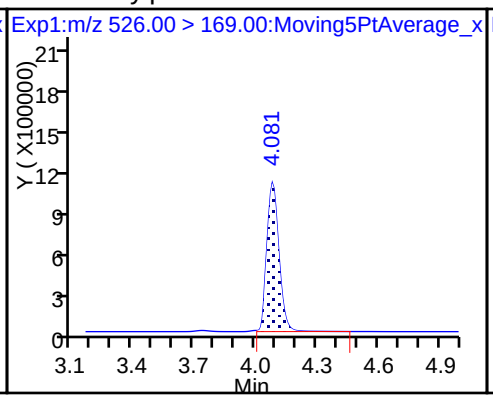
37 Perfluorododecanoic acid



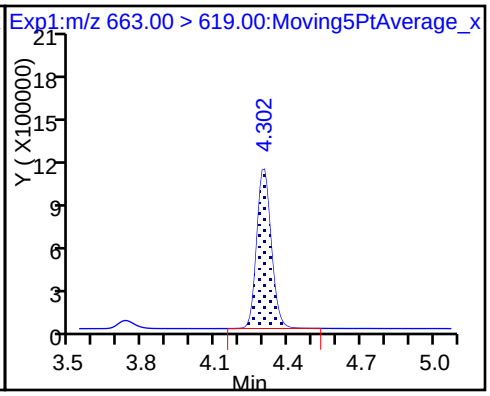
D 38 d-N-EtFOSA-M



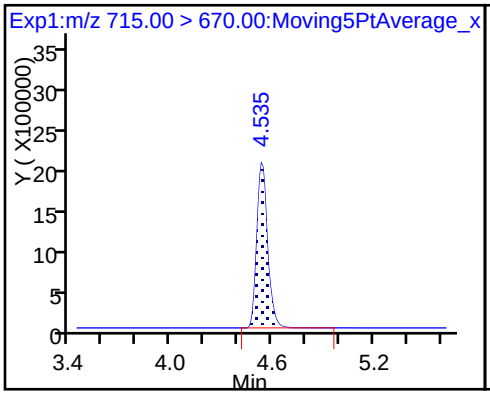
39 N-ethylperfluoro-1-octanesulfonami



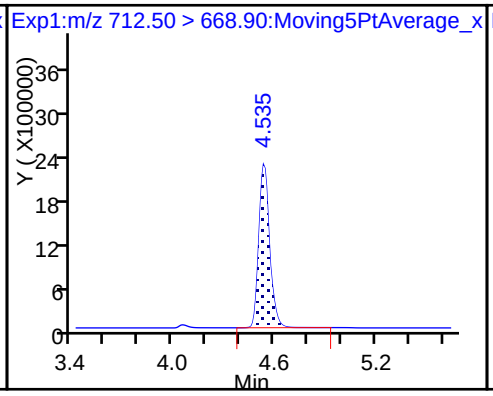
41 Perfluorotridecanoic acid



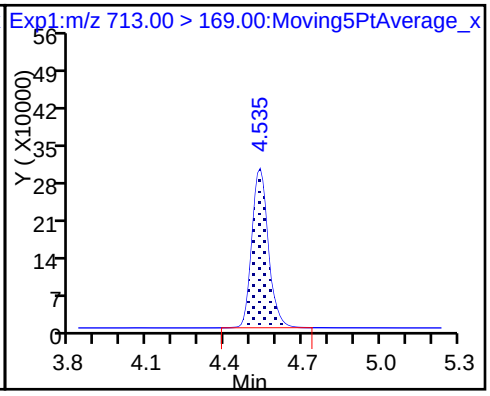
D 43 13C2-PFTeDA



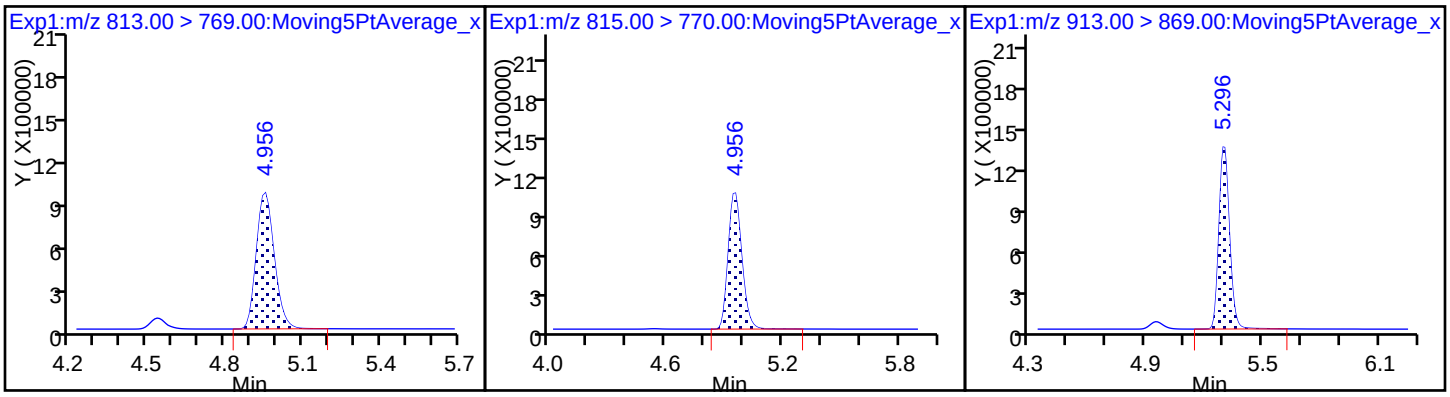
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



45 Perfluorohexadecanoic acid D 44 13C2-PFHxDA 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171405/12 Calibration Date: 06/28/2017 11:09

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_B1B_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9311		20.5	19.8	3.4	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.054		20.3	19.8	2.4	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.461		18.3	17.5	4.8	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.025		20.0	19.8	0.9	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.077		20.0	19.8	0.9	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.028		16.8	18.0	-7.0	25.0
6:2FTS	AveID	0.9859	1.078		20.5	18.8	9.4	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.064		19.9	19.8	0.4	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.179		19.3	18.9	2.5	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	1.033		20.6	19.8	4.1	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.032		18.1	18.4	-1.6	25.0
8:2FTS	AveID	0.999	1.041		19.8	19.0	4.2	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9503		19.5	19.8	-1.5	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	1.028		20.9	19.8	5.6	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.051		20.0	19.8	0.8	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6374		19.1	19.1	-0.0	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	1.007		20.5	19.8	3.3	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	0.997		18.5	19.8	-6.3	25.0
MeFOSA	AveID	0.9522	0.9870		20.5	19.8	3.7	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.996		20.7	19.8	4.6	25.0
N-EtFOSA-M	AveID	0.999	1.049		20.8	19.8	5.1	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9257		18.9	19.8	-4.6	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.096		17.8	19.8	-10.2	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9512		18.1	19.8	-8.8	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	1.016		18.7	19.8	-5.7	25.0
13C4 PFBA	Ave	233991	243770		51.6	49.5	4.2	50.0
13C5-PFPeA	Ave	160811	174750		53.8	49.5	8.7	50.0
13C2 PFHxA	Ave	153401	164179		53.0	49.5	7.0	50.0
13C4-PFHpA	Ave	136899	150252		54.3	49.5	9.8	50.0
18O2 PFHxS	Ave	212697	228281		50.3	46.8	7.3	50.0
M2-6:2FTS	Ave	72814	71602		46.2	47.0	-1.7	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171405/12 Calibration Date: 06/28/2017 11:09

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27_PFC_B1B_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	143660		54.5	49.5	10.1	50.0
13C4 PFOS	Ave	162716	172642		50.2	47.3	6.1	50.0
13C5 PFNA	Ave	104991	117972		55.6	49.5	12.4	50.0
M2-8:2FTS	Ave	56620	58150		48.7	47.4	2.7	50.0
13C2 PFDA	Ave	100020	104763		51.9	49.5	4.7	50.0
13C8 FOSA	Ave	263963	263998		49.5	49.5	0.0	50.0
d3-NMeFOSAA	Ave	37033	41700		55.7	49.5	12.6	50.0
d5-NEtFOSAA	Ave	36944	40698		54.5	49.5	10.2	50.0
13C2 PFUnA	Ave	74302	84025		56.0	49.5	13.1	50.0
d-N-MeFOSA-M	Ave	74603	73858		49.0	49.5	-1.0	50.0
13C2 PFDoA	Ave	73421	84425		56.9	49.5	15.0	50.0
d-N-EtFOSA-M	Ave	73544	71634		48.2	49.5	-2.6	50.0
13C2-PFTeDA	Ave	151466	156961		51.3	49.5	3.6	50.0
13C2-PFHxDA	Ave	83886	91186		53.8	49.5	8.7	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\2017.06.27_PFC_B1B_012.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 28-Jun-2017 11:09:03 ALS Bottle#: 31 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 11:49:53 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK005

First Level Reviewer: chandrasenas Date: 28-Jun-2017 11:42:23

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.541	1.541	0.0		12067818	51.6		104	18998	
2 Perfluorobutyric acid										
212.90 > 169.00	1.541	1.541	0.0	1.000	4494306	20.5		103	2859	
D 3 13C5-PFPeA										
267.90 > 223.00	1.751	1.751	0.0		8650966	53.8		109	201317	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.751	1.751	0.0	1.000	3646230	20.3		102	1962	
D 47 13C3-PFBS										
301.90 > 83.00	1.768	1.768	0.0		218531	NC			4639	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.777	1.777	0.0	1.000	5836242	18.3		105	2759	
298.90 > 99.00	1.777	1.777	0.0	1.000	2289241		2.55(0.00-0.00)		2589	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.969	1.969	0.0	1.000	1377294	20.3		110	16107	
D 7 13C2 PFHxA										
315.00 > 270.00	2.013	2.013	0.0		8127662	53.0		107	30755	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.013	2.013	0.0	1.000	3332855	20.0		101	4849	
D 9 13C4-PFHpA										
367.00 > 322.00	2.331	2.331	0.0		7438195	54.3		110	33884	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.331	2.331	0.0	1.000	3205379	20.0		101	3469	
D 11 18O2 PFHxS										
403.00 > 84.00	2.339	2.339	0.0		10690791	50.3		107	25635	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.339	2.339	0.0	1.000	4226722	16.8		93.0	2219	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.646	2.646	0.0		3367432	46.2		98.3	10922	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.646	2.646	0.0	1.000	1449312	20.5		109	10193	
D 14 13C4 PFOA										
417.00 > 372.00	2.668	2.668	0.0		7111877	54.5		110	14046	
* 62 13C2-PFOA										
415.00 > 370.00	2.668	2.668	0.0		7675537	49.5		100	30398	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.675	2.675	0.0	1.000	3026931	19.9		100	675	
413.00 > 169.00	2.675	2.675	0.0	1.000	1769102		1.71(0.90-1.10)		4558	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.682	2.682	0.0	1.000	3836927	19.3		102	10077	
D 19 13C5 PFNA										
468.00 > 423.00	3.034	3.034	0.0		5840207	55.6		112	36318	
D 18 13C4 PFOS										
503.00 > 80.00	3.034	3.034	0.0		8170593	50.2		106	139911	
20 Perfluorononanoic acid										
463.00 > 419.00	3.034	3.034	0.0	1.000	2412562	20.6		104	5580	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.034	3.034	0.0	1.000	3274548	18.1		98.4	6192	
499.00 > 99.00	3.034	3.034	0.0	1.000	715680		4.58(0.90-1.10)		4911	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.380	3.380	0.0	1.000	1148263	19.8		104	14532	
D 26 M2-8:2FTS										
529.00 > 509.00	3.380	3.380	0.0		2757799	48.7		103	34873	
D 21 13C8 FOSA										
506.00 > 78.00	3.389	3.389	0.0		13069226	49.5		100	265511	
D 23 13C2 PFDA										
515.00 > 470.00	3.389	3.389	0.0		5186268	51.9		105	12980	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.389	3.389	0.0	1.000	5374125	20.9		106	25569	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.389	3.389	0.0	1.000	1971333	19.5		98.5	6647	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.543	3.543	0.0		2064368	55.7		113	11888	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.554	3.554	0.0	1.003	867773	20.0		101	3119	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.702	3.702	0.0	1.000	2100710	19.1		100.0	9727	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.712	3.712	0.0		2014743	54.5		110	4886	
D 30 13C2 PFUnA										
565.00 > 520.00	3.722	3.722	0.0		4159678	56.0		113	24845	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.722	3.722	0.0	1.000	1658409	18.5		93.7	3415	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.722	3.722	0.0	1.003	811640	20.5		103	5603	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.891	3.891	0.0		3656319	49.0		99.0	686	
35 MeFOSA										
512.00 > 169.00	3.891	3.891	0.0	1.000	1443463	20.5		104	5421	
D 36 13C2 PFDoA										
615.00 > 570.00	4.017	4.017	0.0		4179442	56.9		115	15958	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.017	4.017	0.0	1.000	1664501	20.7		105	2170	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.081	4.081	0.0		3546255	48.2		97.4	5169	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.089	4.089	0.0	1.000	1487983	20.8		105	4258	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.282	4.282	0.0	1.000	1547517	18.9		95.4	486	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.520	4.520	0.0		7770368	51.3		104	70314	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.520	4.520	0.0	1.000	3504558	17.8		89.8	1762	
713.00 > 169.00	4.520	4.520	0.0	1.000	439221		7.98(0.00-0.00)		11418	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.934	4.934	0.0		4514151	53.8		109	6135	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.934	4.934	0.0	1.000	1590183	18.1		91.2	240	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.280	5.280	0.0	1.000	1698849	18.7		94.3	511	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L4_00003 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 11:49:54 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\2017.06.27_PFC_B1B_012.d

Injection Date: 28-Jun-2017 11:09:03 Instrument ID: A8_N

Lims ID: CCV L4

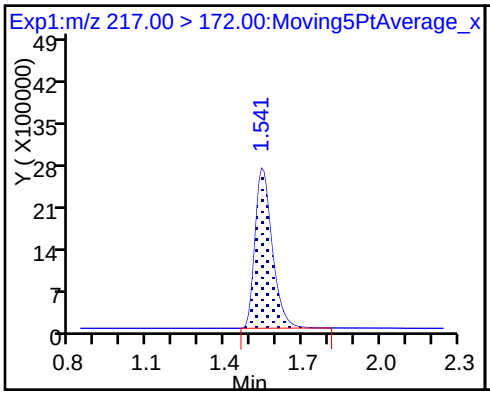
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 12

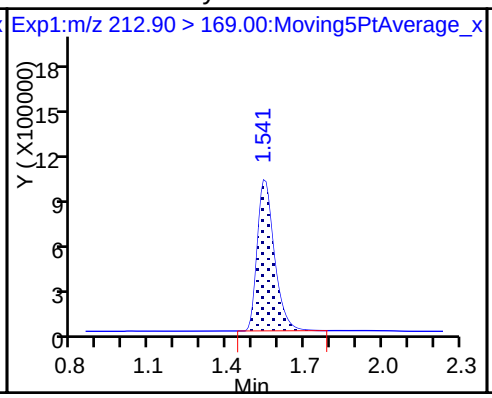
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

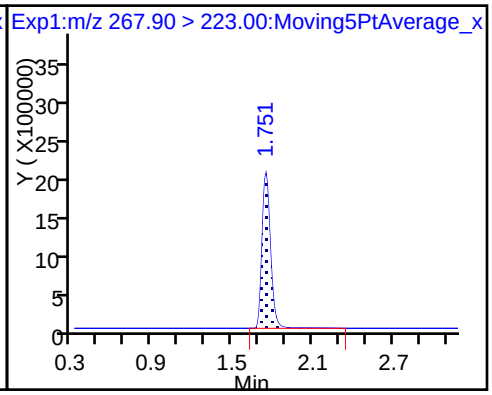
D 1 13C4 PFBA



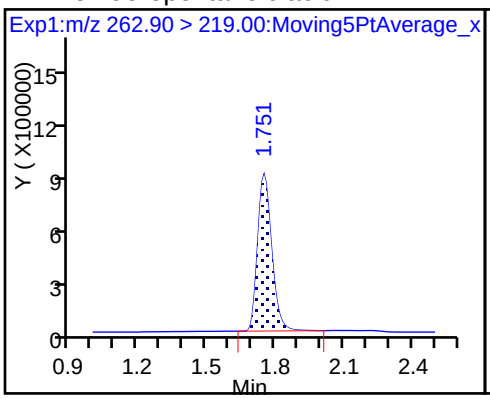
2 Perfluorobutyric acid



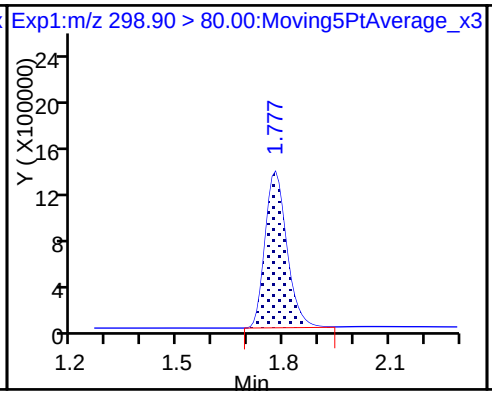
D 3 13C5-PFPeA



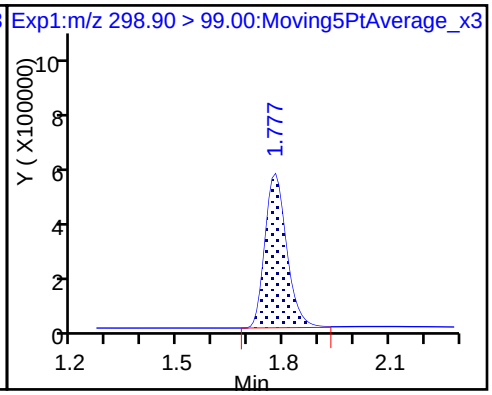
4 Perfluoropentanoic acid



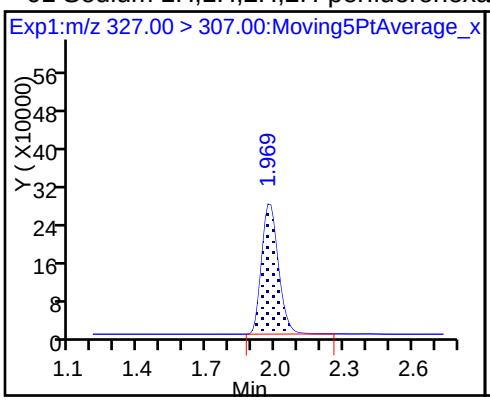
5 Perfluorobutanesulfonic acid



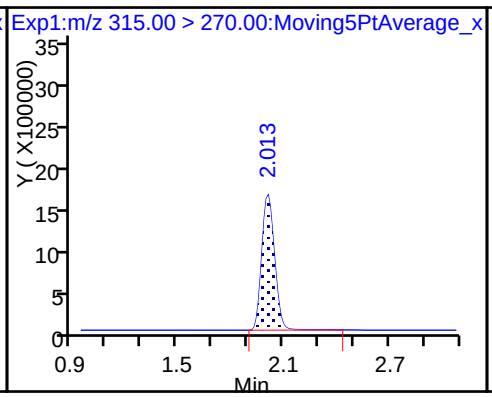
5 Perfluorobutanesulfonic acid



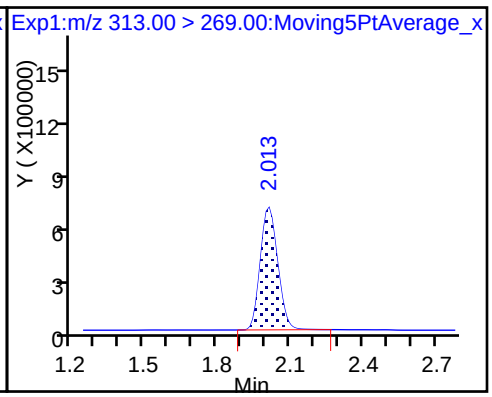
61 Sodium 1H,1H,2H,2H-perfluorohexa



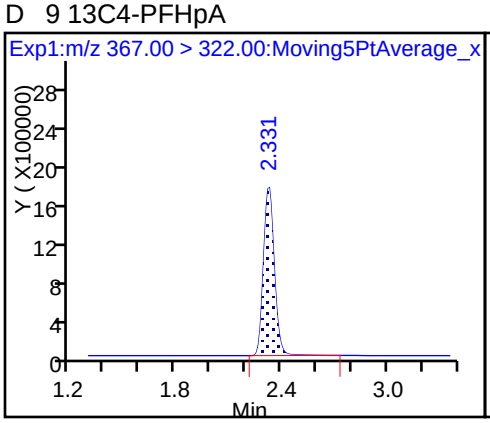
De 7 13C2 PFHxA



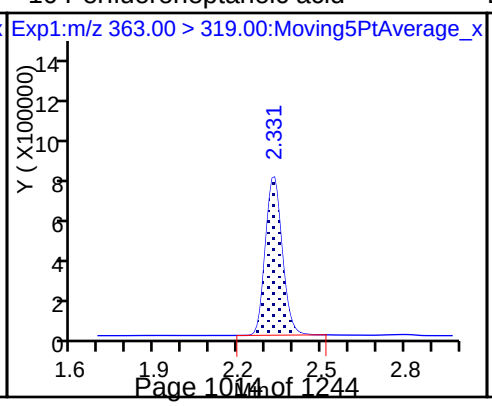
6 Perfluorohexanoic acid



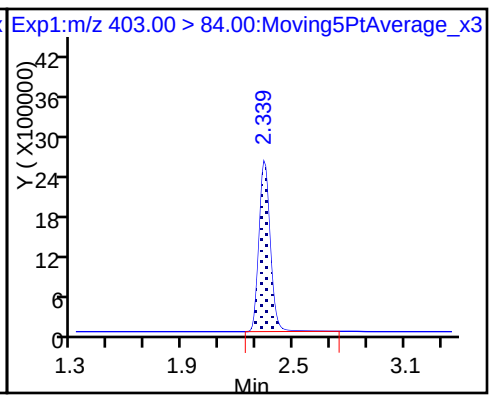
D 9 13C4-PFHpA



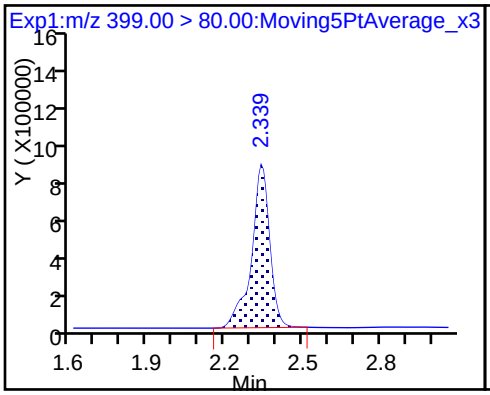
10 Perfluoroheptanoic acid



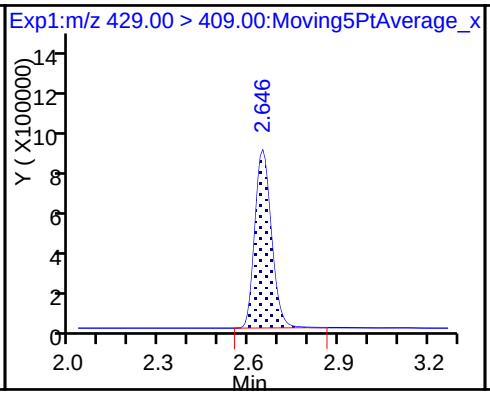
D 11 18O2 PFHxS



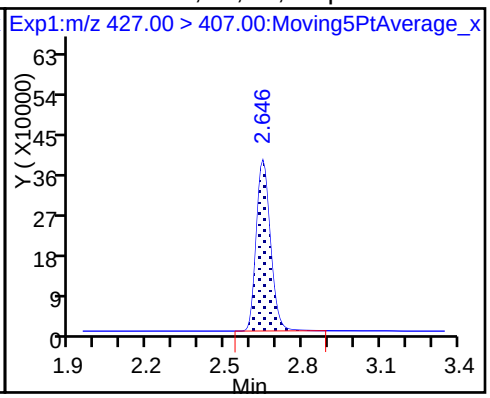
8 Perfluorohexanesulfonic acid



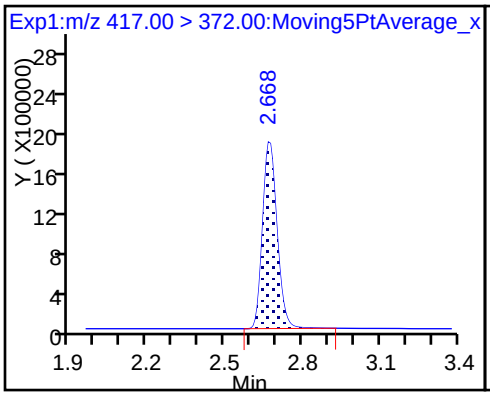
D 12 M2-6:2FTS



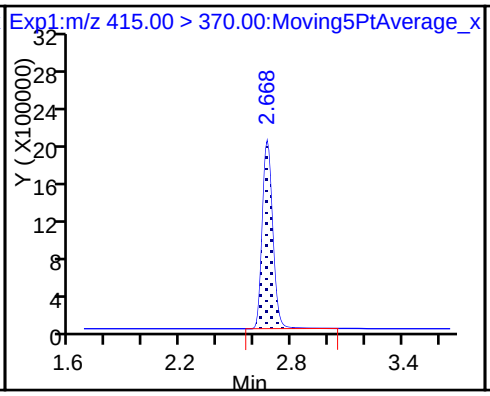
13 Sodium 1H,1H,2H,2H-perfluorooctane



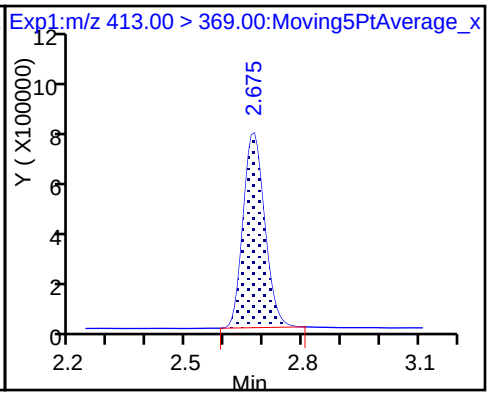
D 14 13C4 PFOA



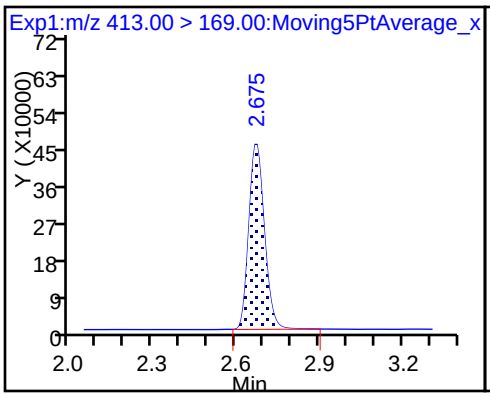
* 62 13C2-PFOA



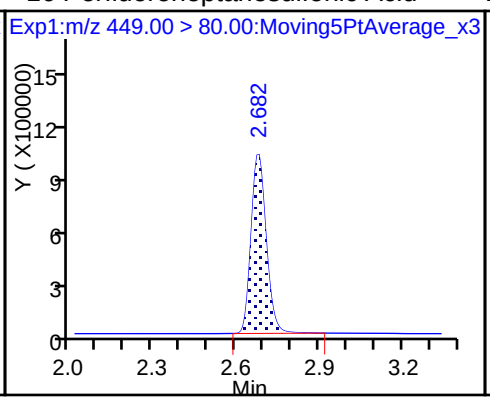
15 Perfluorooctanoic acid



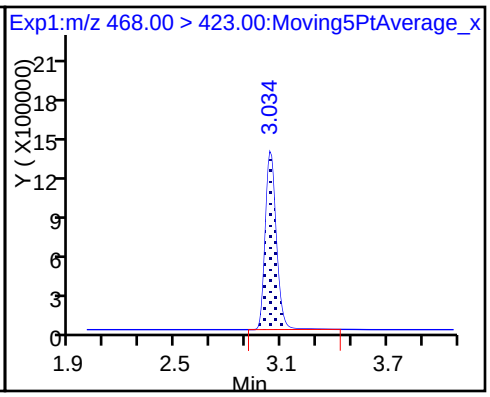
15 Perfluorooctanoic acid



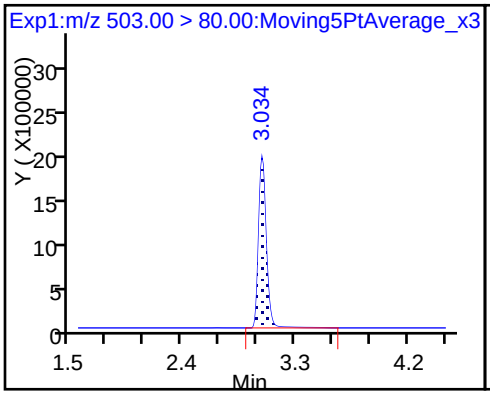
16 Perfluoroheptanesulfonic Acid



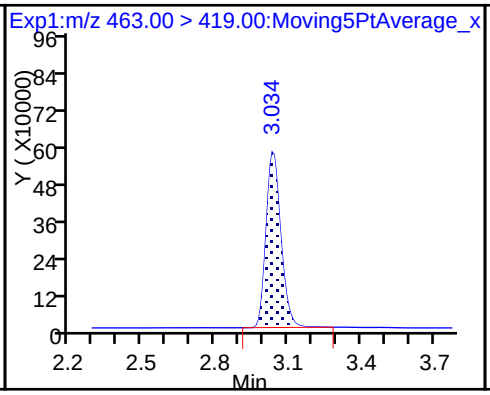
D 19 13C5 PFNA



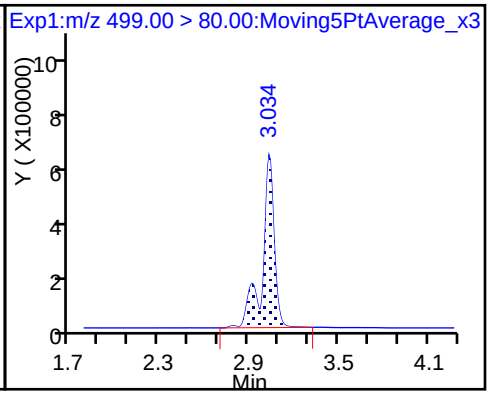
D 18 13C4 PFOS



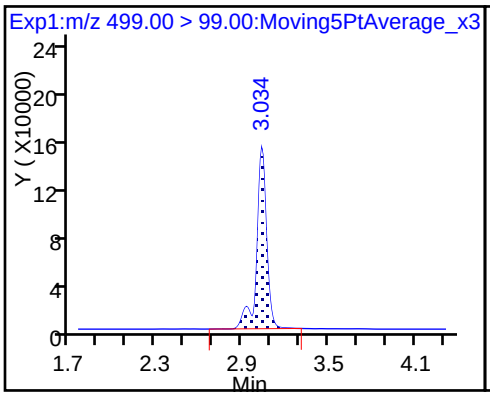
20 Perfluorononanoic acid



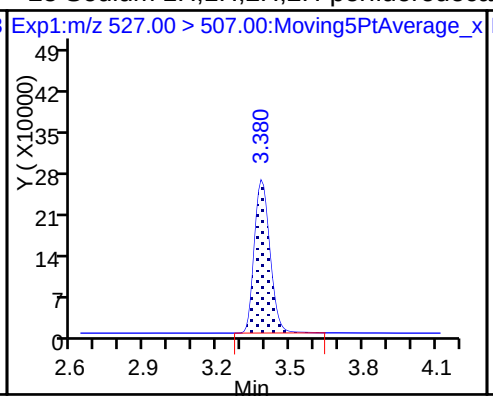
17 Perfluorooctane sulfonic acid



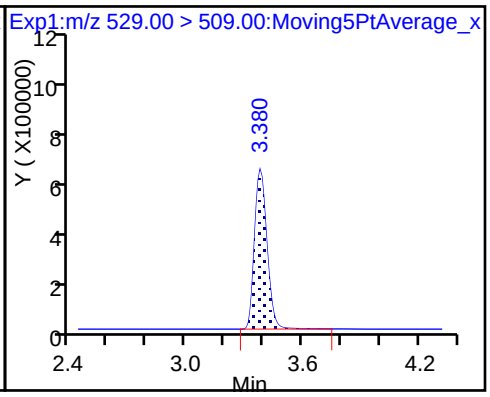
17 Perfluorooctane sulfonic acid



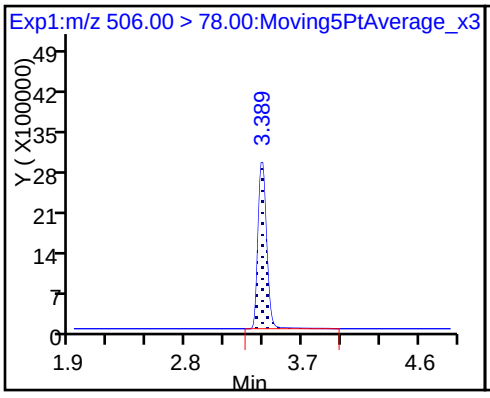
25 Sodium 1H,1H,2H,2H-perfluorodecane



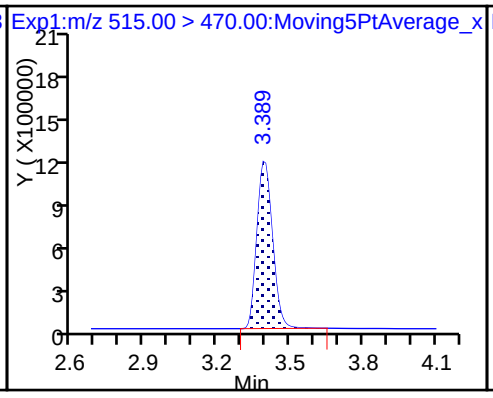
D 26 M2-8:2FTS



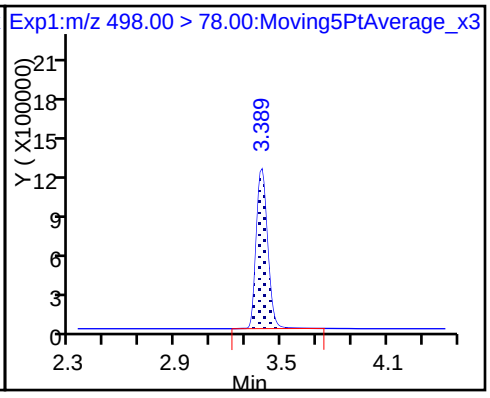
D 21 13C8 FOSA



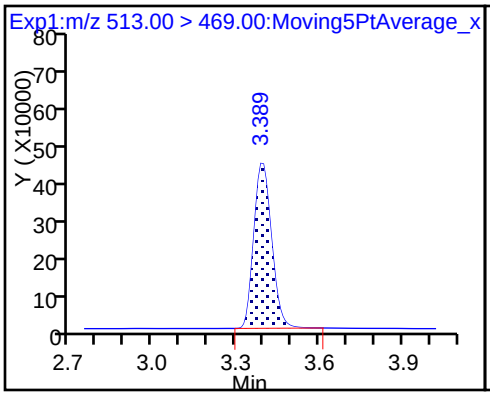
D 23 13C2 PFDA



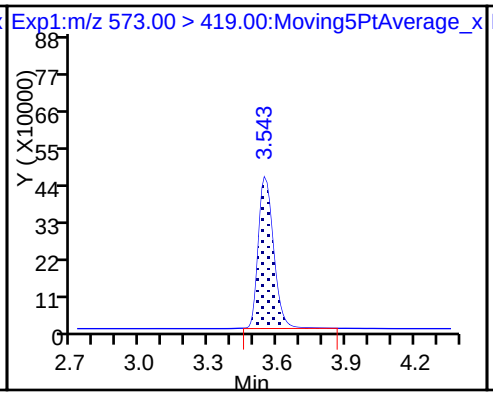
22 Perfluorooctane Sulfonamide



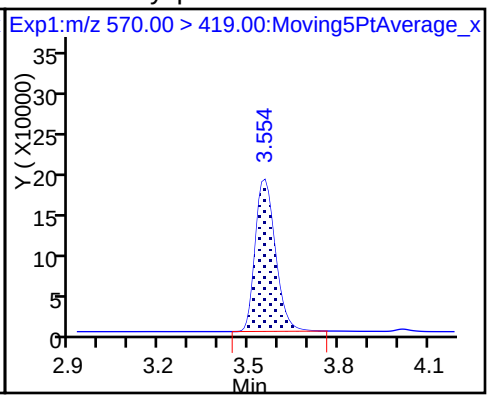
24 Perfluorodecanoic acid



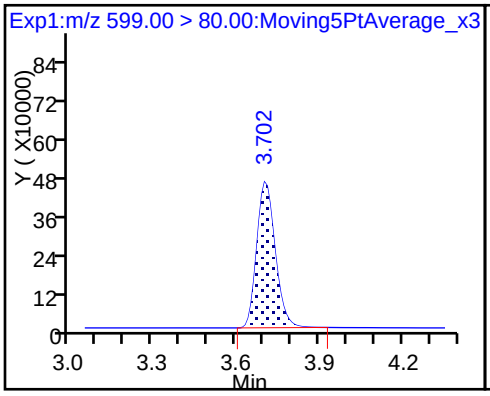
D 27 d3-NMeFOSAA



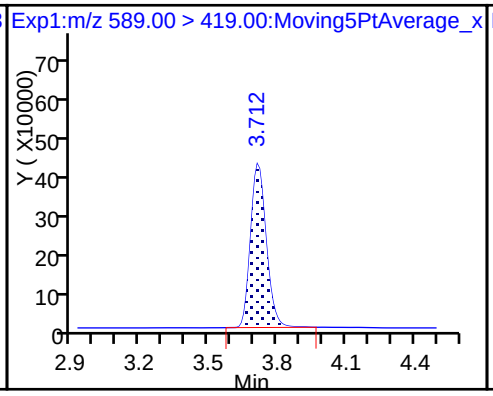
28 N-methyl perfluorooctane sulfonami



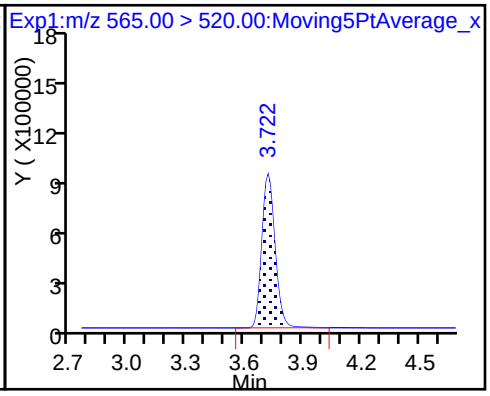
29 Perfluorodecane Sulfonic acid



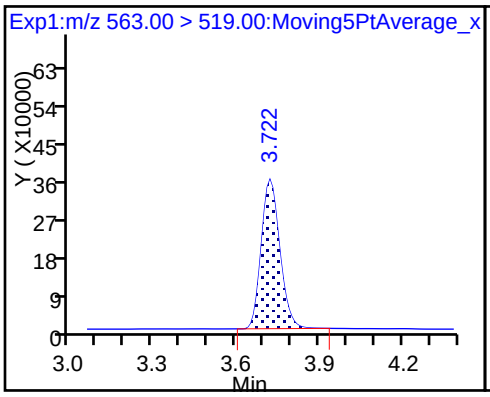
D 32 d5-NEtFOSAA



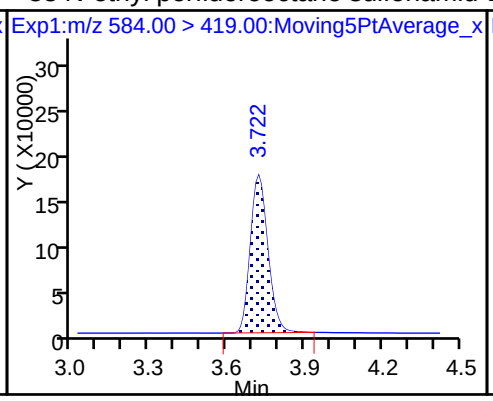
D 30 13C2 PFUnA



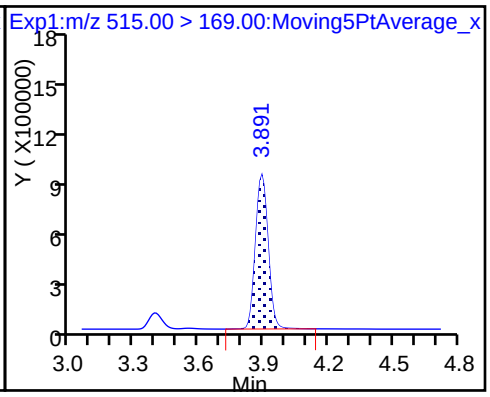
31 Perfluoroundecanoic acid



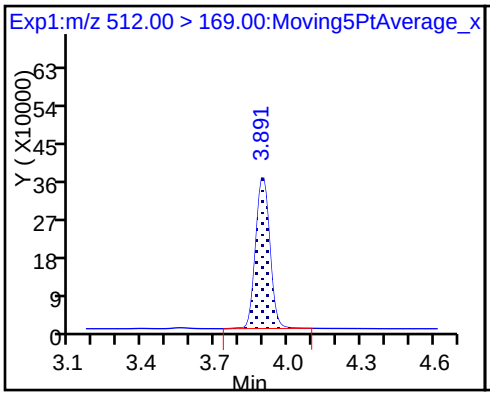
33 N-ethyl perfluorooctane sulfonamid



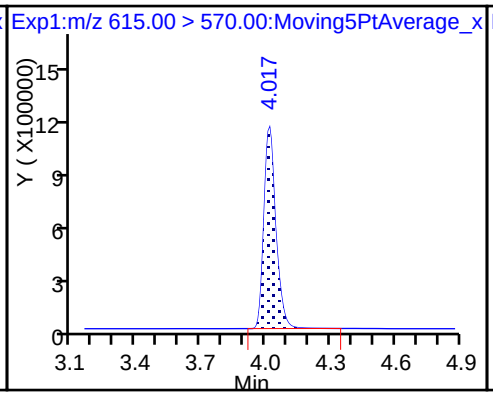
D 34 d-N-MeFOSA-M



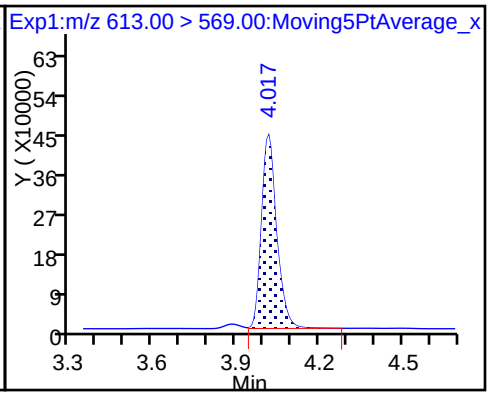
35 MeFOSA



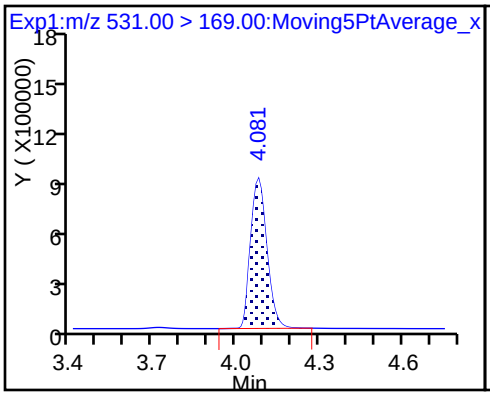
D 36 13C2 PFDoA



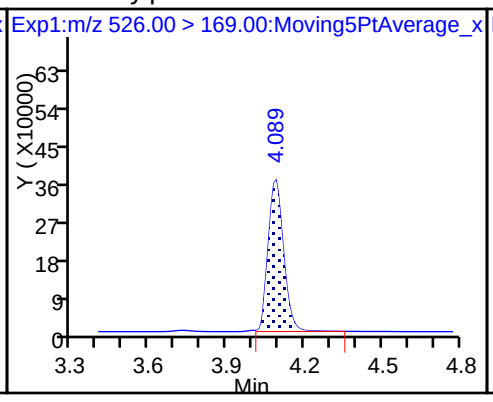
37 Perfluorododecanoic acid



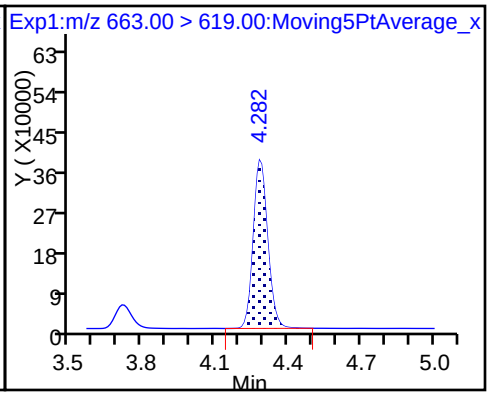
D 38 d-N-EtFOSA-M



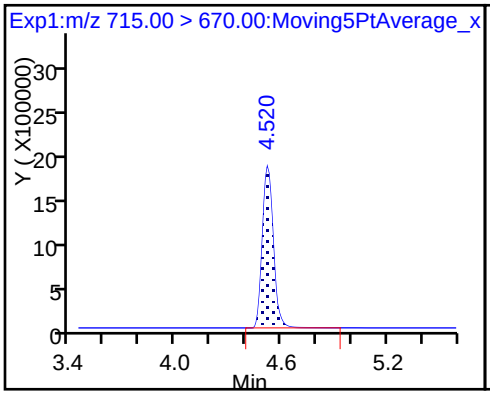
39 N-ethylperfluoro-1-octanesulfonami



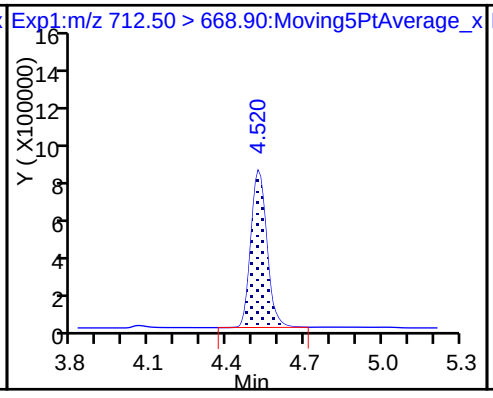
41 Perfluorotridecanoic acid



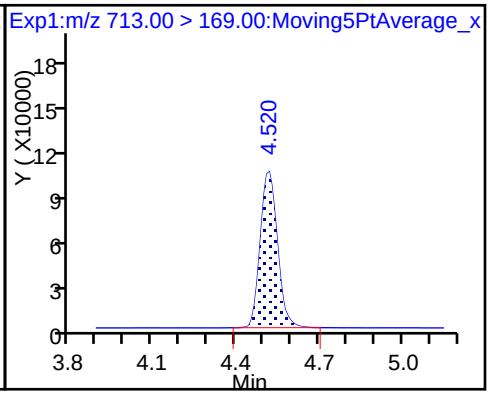
D 43 13C2-PFTeDA



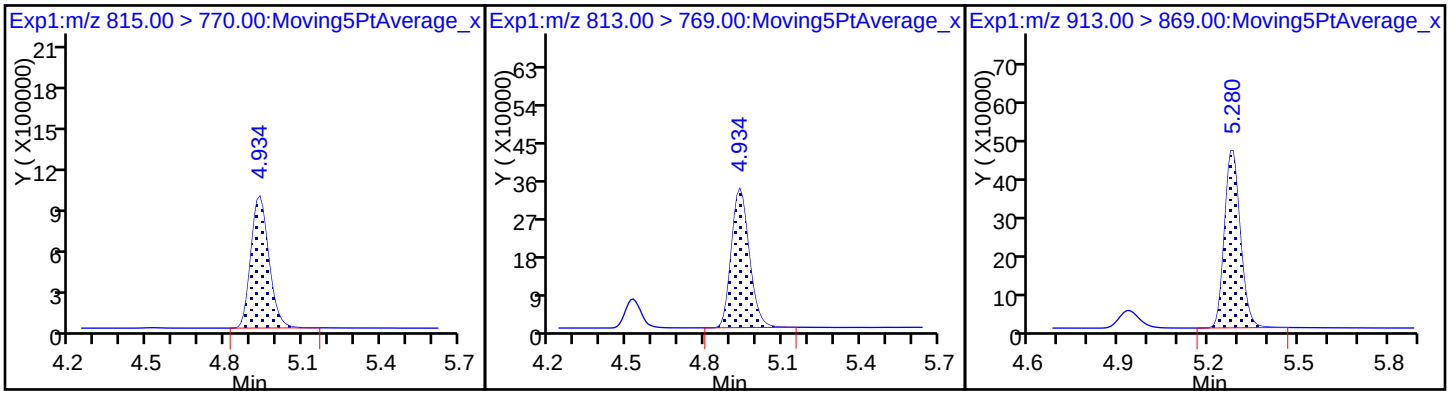
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171405/16 Calibration Date: 06/28/2017 11:36

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27ABC_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9348		20.6	19.8	3.8	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.016		19.6	19.8	-1.3	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.512		19.0	17.5	8.5	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.035		20.2	19.8	1.8	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.124		20.8	19.8	5.2	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.044		17.0	18.0	-5.5	25.0
6:2FTS	AveID	0.9859	1.038		19.8	18.8	5.3	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.041		19.5	19.8	-1.8	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.157		19.0	18.9	0.6	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	1.020		20.4	19.8	2.8	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.010		17.7	18.4	-3.8	25.0
8:2FTS	AveID	0.999	1.034		19.6	19.0	3.5	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9492		19.5	19.8	-1.6	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	1.009		20.5	19.8	3.6	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.093		20.8	19.8	4.9	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6349		19.0	19.1	-0.4	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	0.9890		20.1	19.8	1.5	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.003		18.7	19.8	-5.7	25.0
MeFOSA	AveID	0.9522	0.9839		20.5	19.8	3.3	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9468		19.7	19.8	-0.6	25.0
N-EtFOSA-M	AveID	0.999	1.039		20.6	19.8	4.1	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9376		19.1	19.8	-3.4	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	1.976		16.8	19.8	-15.3	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9047		17.2	19.8	-13.4	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	0.9768		17.9	19.8	-9.4	25.0
13C4 PFBA	Ave	233991	240707		50.9	49.5	2.9	50.0
13C5-PFPeA	Ave	160811	174687		53.8	49.5	8.6	50.0
13C2 PFHxA	Ave	153401	159798		51.6	49.5	4.2	50.0
13C4-PFHpA	Ave	136899	148949		53.9	49.5	8.8	50.0
18O2 PFHxS	Ave	212697	221571		48.8	46.8	4.2	50.0
M2-6:2FTS	Ave	72814	78466		50.7	47.0	7.8	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171405/16 Calibration Date: 06/28/2017 11:36

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.27ABC_004.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	143825		54.5	49.5	10.2	50.0
13C4 PFOS	Ave	162716	171630		49.9	47.3	5.5	50.0
13C5 PFNA	Ave	104991	116431		54.9	49.5	10.9	50.0
M2-8:2FTS	Ave	56620	59713		50.0	47.4	5.5	50.0
13C2 PFDA	Ave	100020	105514		52.2	49.5	5.5	50.0
13C8 FOSA	Ave	263963	266090		49.9	49.5	0.8	50.0
d3-NMeFOSAA	Ave	37033	41863		56.0	49.5	13.0	50.0
13C2 PFUnA	Ave	74302	83139		55.4	49.5	11.9	50.0
d5-NEtFOSAA	Ave	36944	40361		54.1	49.5	9.2	50.0
d-N-MeFOSA-M	Ave	74603	72818		48.3	49.5	-2.4	50.0
13C2 PFDoA	Ave	73421	84588		57.0	49.5	15.2	50.0
d-N-EtFOSA-M	Ave	73544	71318		48.0	49.5	-3.0	50.0
13C2-PFTeDA	Ave	151466	149058		48.7	49.5	-1.6	50.0
13C2-PFHxDA	Ave	83886	88849		52.4	49.5	5.9	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\2017.06.27ABC_004.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 28-Jun-2017 11:36:39 ALS Bottle#: 31 Worklist Smp#: 16
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 11:50:49 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK005

First Level Reviewer: chandrasenas Date: 28-Jun-2017 11:50:42

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.543	1.543	0.0		11916165	50.9		103	58529	
2 Perfluorobutyric acid										
212.90 > 169.00	1.543	1.543	0.0	1.000	4455654	20.6		104	2807	
D 3 13C5-PFPeA										
267.90 > 223.00	1.744	1.744	0.0		8647862	53.8		109	66633	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.744	1.744	0.0	1.000	3515441	19.6		98.7	1908	
D 47 13C3-PFBS										
301.90 > 83.00	1.770	1.770	0.0		212780	NC			6210	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.770	1.770	0.0	1.000	5865281	19.0		108	2721	
298.90 > 99.00	1.770	1.770	0.0	1.000	2316661		2.53(0.00-0.00)		2641	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.971	1.971	0.0	1.000	1341631	18.0		97.4	12291	
D 7 13C2 PFHxA										
315.00 > 270.00	2.004	2.004	0.0		7910798	51.6		104	17241	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.004	2.004	0.0	1.000	3274522	20.2		102	5223	
D 9 13C4-PFHpA										
367.00 > 322.00	2.323	2.323	0.0		7373719	53.9		109	13401	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.323	2.323	0.0	1.000	3314700	20.8		105	5372	
D 11 18O2 PFHxS										
403.00 > 84.00	2.332	2.332	0.0		10376526	48.8		104	19197	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.332	2.332	0.0	1.000	4167704	17.0		94.5	2253	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.638	2.638	0.0		3690235	50.7		108	13761	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.638	2.638	0.0	1.000	1529170	19.8		105	14632	
* 62 13C2-PFOA										
415.00 > 370.00	2.660	2.660	0.0		7329890	49.5		100	14844	
D 14 13C4 PFOA										
417.00 > 372.00	2.667	2.667	0.0		7120061	54.5		110	16963	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.667	2.667	0.0	1.000	2965812	19.5		98.2	571	
413.00 > 169.00	2.667	2.667	0.0	1.000	1744881		1.70(0.90-1.10)		4062	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.675	2.675	0.0	1.000	3743280	19.0		101	9132	
D 19 13C5 PFNA										
468.00 > 423.00	3.032	3.032	0.0		5763933	54.9		111	12129	
D 18 13C4 PFOS										
503.00 > 80.00	3.032	3.032	0.0		8122699	49.9		105	176565	
20 Perfluorononanoic acid										
463.00 > 419.00	3.032	3.032	0.0	1.000	2352361	20.4		103	4497	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.032	3.032	0.0	1.000	3184128	17.7		96.2	5457	
499.00 > 99.00	3.032	3.032	0.0	1.000	678858		4.69(0.90-1.10)		3902	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.376	3.376	0.0	1.000	1170798	19.6		103	10344	
D 26 M2-8:2FTS										
529.00 > 509.00	3.376	3.376	0.0		2831953	50.0		105	29315	
D 21 13C8 FOSA										
506.00 > 78.00	3.385	3.385	0.0		13172784	49.9		101	34347	
D 23 13C2 PFDA										
515.00 > 470.00	3.385	3.385	0.0		5223461	52.2		105	45227	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.385	3.385	0.0	1.000	5317420	20.5		104	50653	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.385	3.385	0.0	1.000	1983219	19.5		98.4	11208	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.538	3.538	0.0		2072418	56.0		113	8172	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.548	3.548	0.0	1.003	906398	20.8		105	3243	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.706	3.706	0.0	1.000	2080031	19.0		99.6	15504	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.716	3.716	0.0		1998045	54.1		109	4814	
D 30 13C2 PFUnA										
565.00 > 520.00	3.716	3.716	0.0		4115808	55.4		112	18056	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.716	3.716	0.0	1.000	1651659	18.7		94.3	4146	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.716	3.716	0.0	1.000	790391	20.1		101	5217	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.885	3.885	0.0		3604853	48.3		97.6	679	
35 MeFOSA										
512.00 > 169.00	3.894	3.894	0.0	1.000	1418674	20.5		103	5832	
D 36 13C2 PFDoA										
615.00 > 570.00	4.013	4.013	0.0		4187529	57.0		115	14217	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.013	4.013	0.0	1.000	1585967	19.7		99.4	2222	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.083	4.083	0.0		3530612	48.0		97.0	6348	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.083	4.083	0.0	1.000	1467475	20.6		104	4145	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.285	4.285	0.0	1.000	1570434	19.1		96.6	470	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.515	4.515	0.0		7379086	48.7		98.4	61109	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.524	4.524	0.0	1.000	3310035	16.8		84.7	2015	
713.00 > 169.00	4.515	4.524	-0.009	0.998	411316		8.05(0.00-0.00)		9677	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.929	4.929	0.0		4398443	52.4		106	7614	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.929	4.929	0.0	1.000	1515417	17.2		86.6	214	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.276	5.276	0.0	1.000	1636094	17.9		90.6	463	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L4_00003 Amount Added: 1.00 Units: mL

Report Date: 28-Jun-2017 11:50:49 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\2017.06.27ABC_004.d

Injection Date: 28-Jun-2017 11:36:39 Instrument ID: A8_N

Lims ID: CCV L4

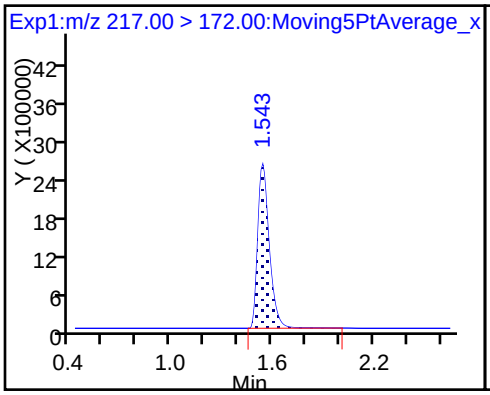
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 16

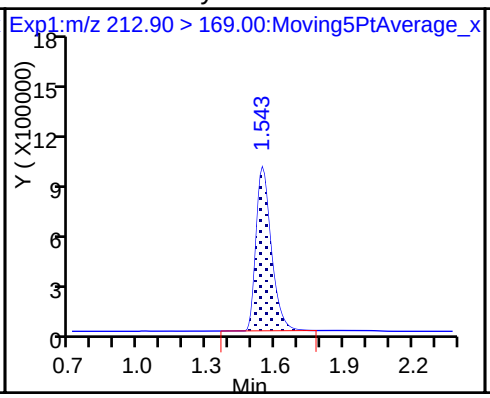
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

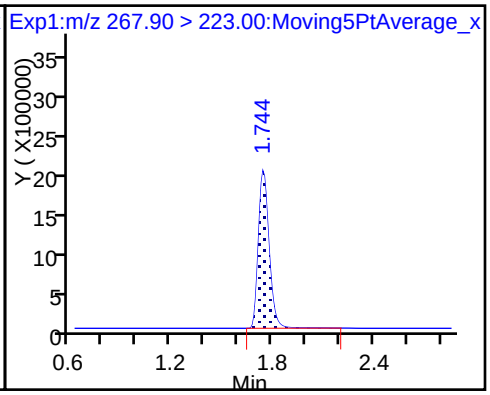
D 1 13C4 PFBA



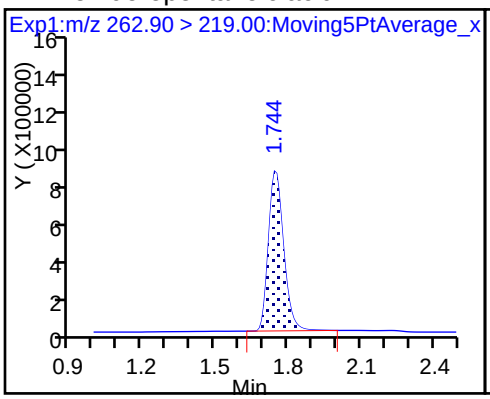
2 Perfluorobutyric acid



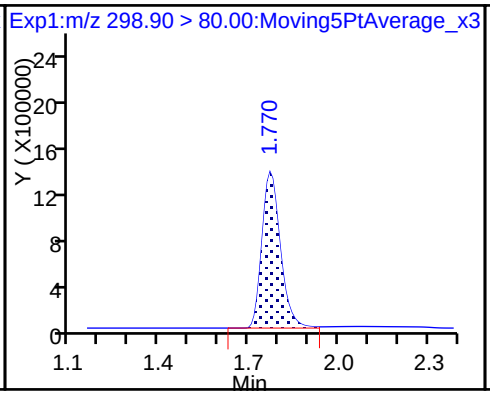
D 3 13C5-PFPeA



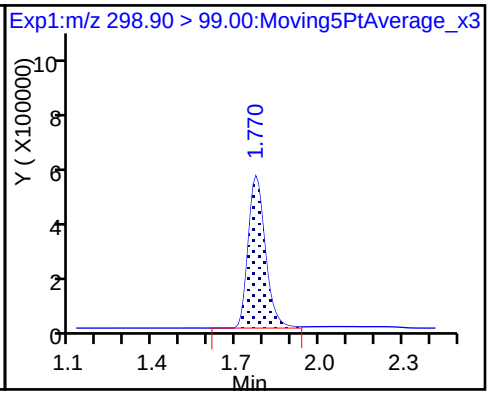
4 Perfluoropentanoic acid



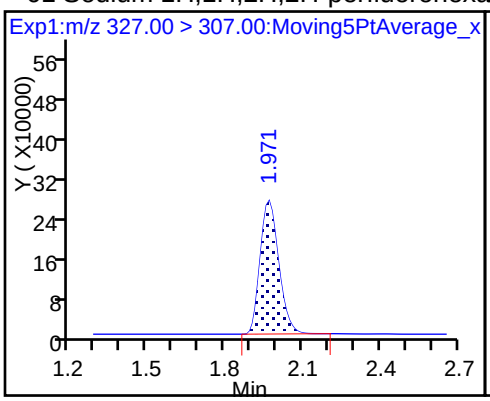
5 Perfluorobutanesulfonic acid



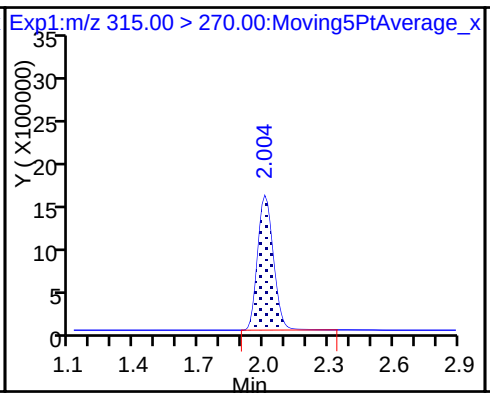
5 Perfluorobutanesulfonic acid



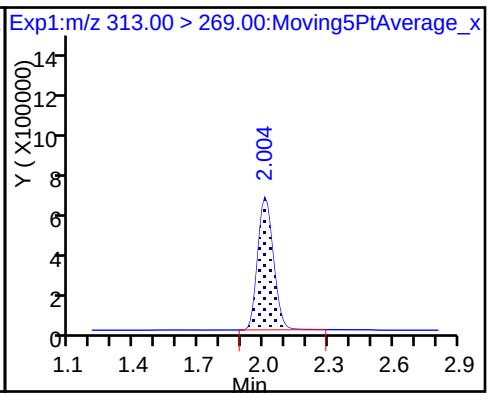
61 Sodium 1H,1H,2H,2H-perfluorohexa



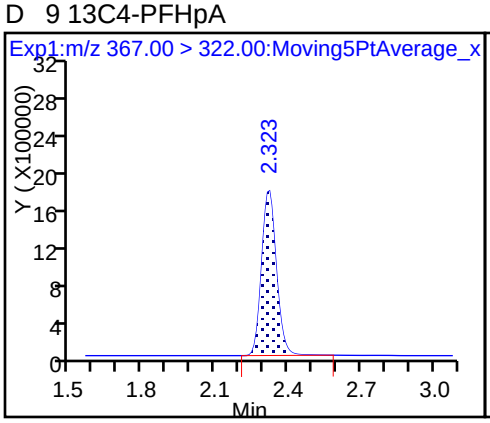
De 7 13C2 PFHxA



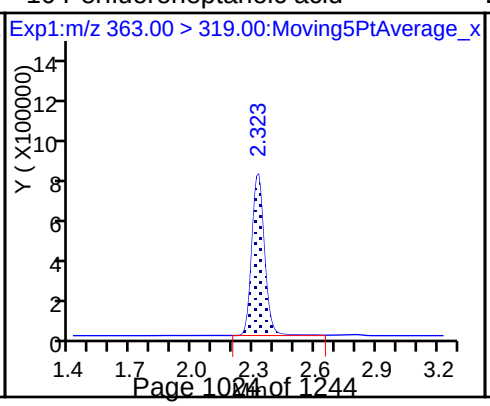
6 Perfluorohexanoic acid



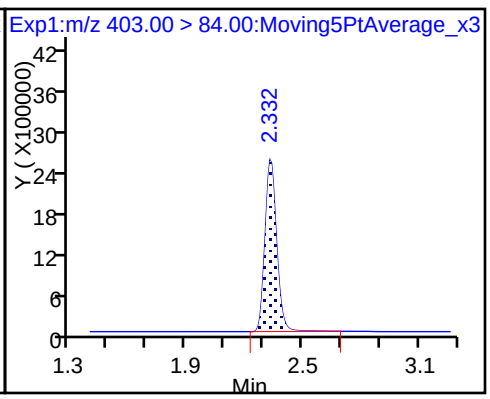
D 9 13C4-PFHpA



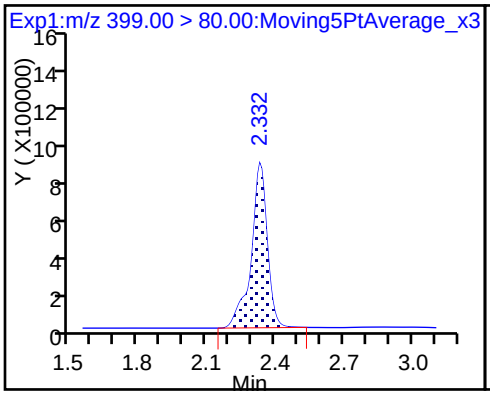
10 Perfluoroheptanoic acid



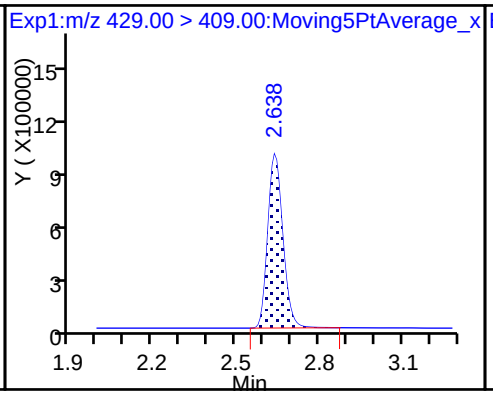
D 11 18O2 PFHxS



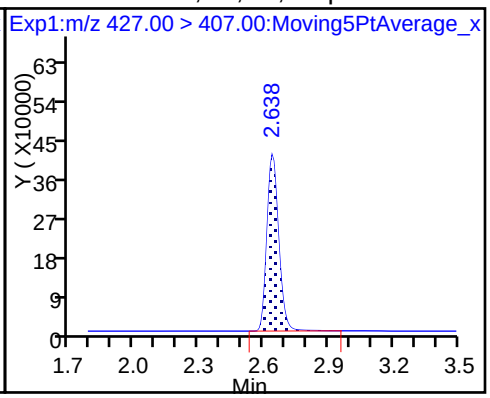
8 Perfluorohexanesulfonic acid



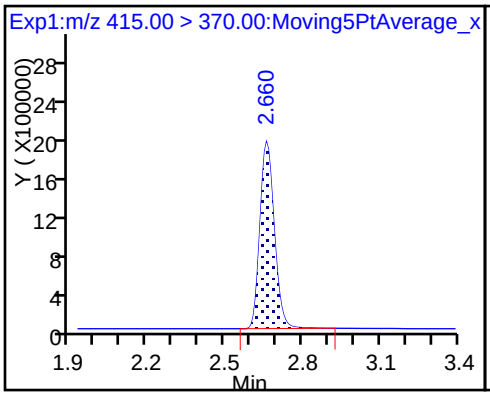
D 12 M2-6:2FTS



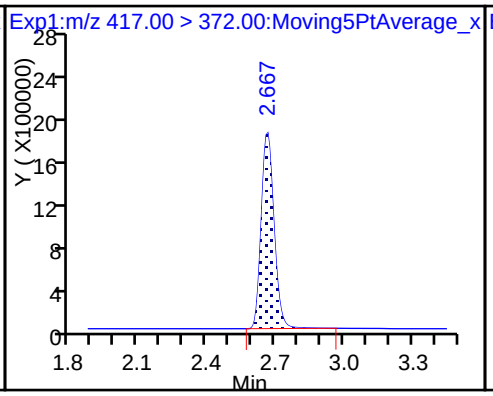
13 Sodium 1H,1H,2H,2H-perfluorooctane



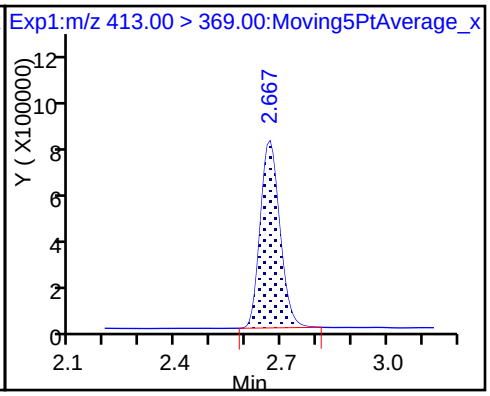
* 62 13C2-PFOA



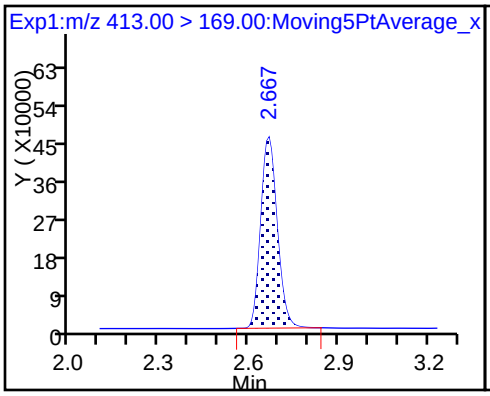
D 14 13C4 PFOA



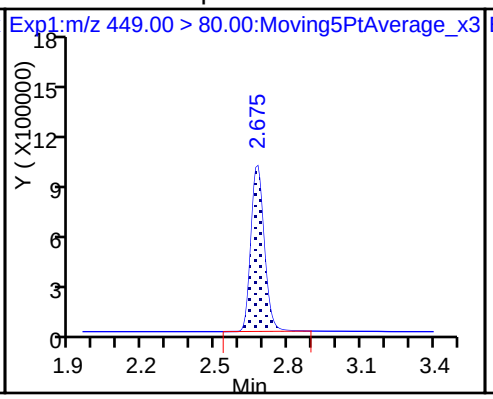
15 Perfluorooctanoic acid



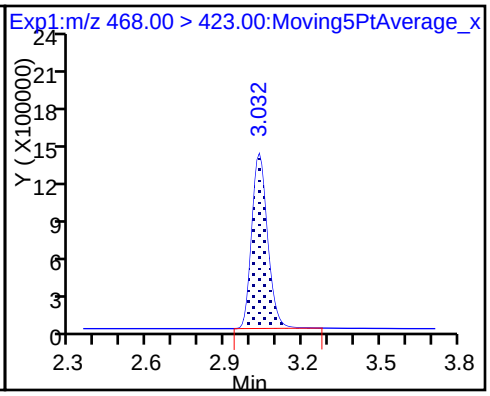
15 Perfluorooctanoic acid



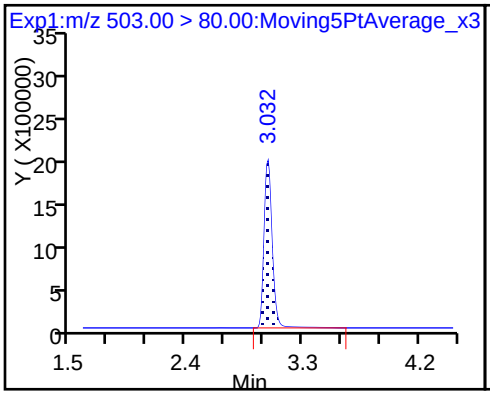
16 Perfluoroheptanesulfonic Acid



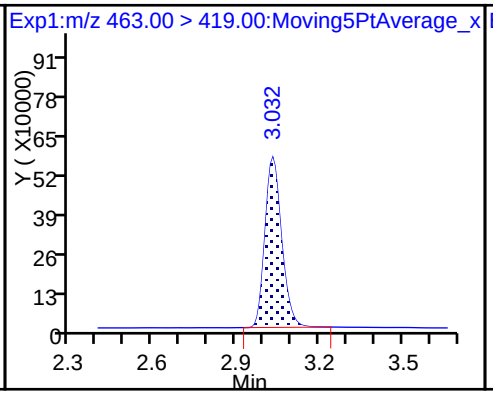
D 19 13C5 PFNA



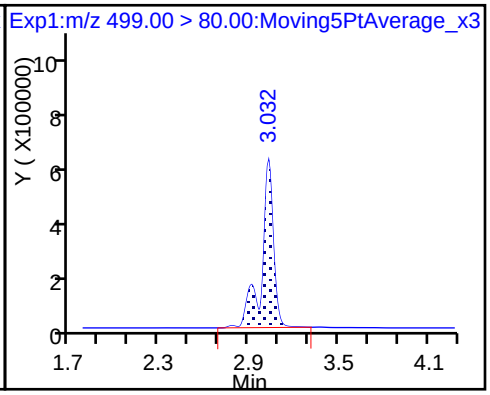
D 18 13C4 PFOS



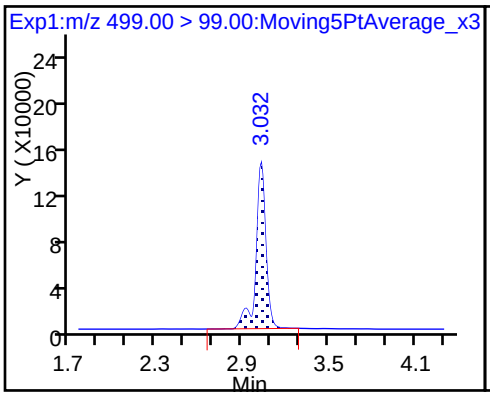
20 Perfluorononanoic acid



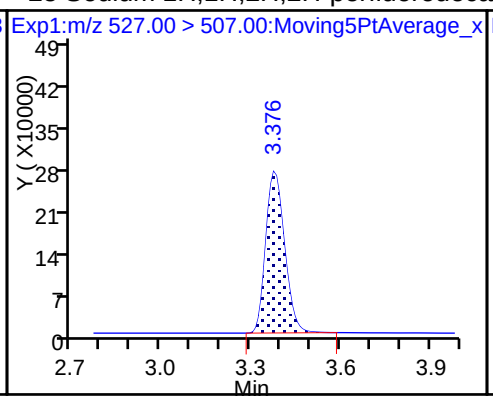
17 Perfluorooctane sulfonic acid



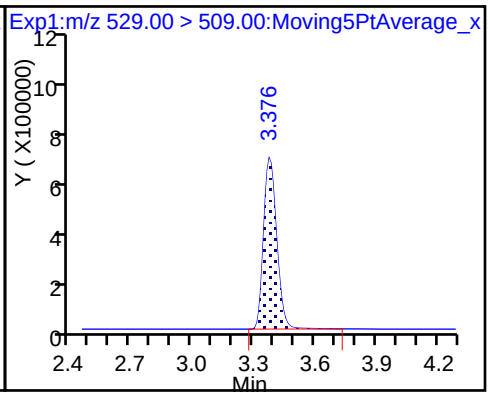
17 Perfluorooctane sulfonic acid



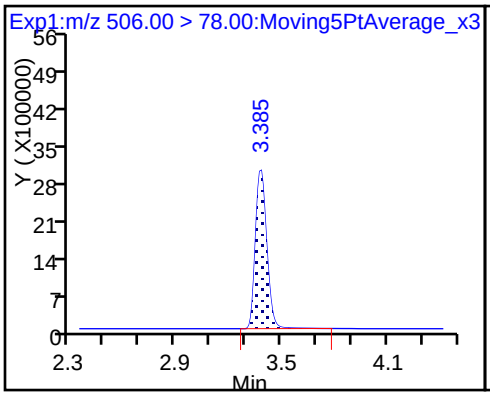
25 Sodium 1H,1H,2H,2H-perfluorodecane



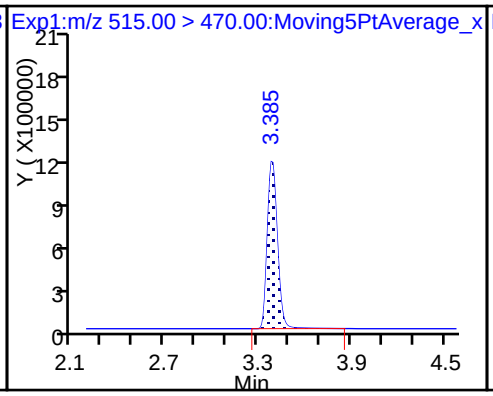
D 26 M2-8:2FTS



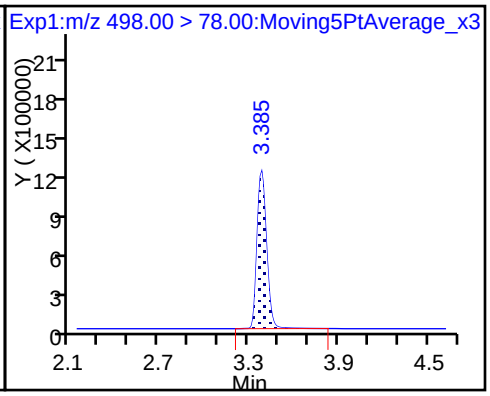
D 21 13C8 FOSA



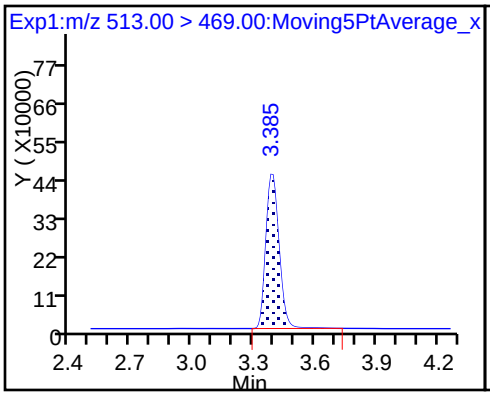
D 23 13C2 PFDA



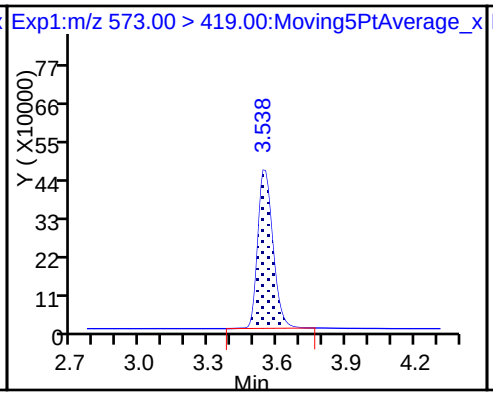
22 Perfluorooctane Sulfonamide



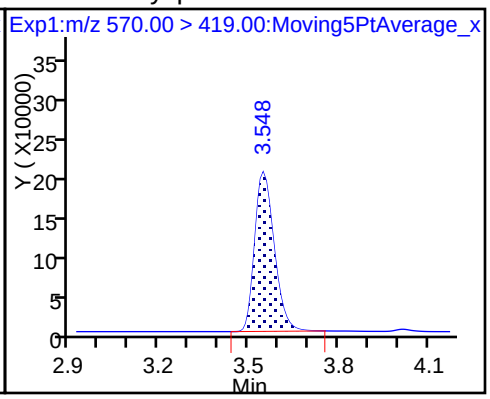
24 Perfluorodecanoic acid



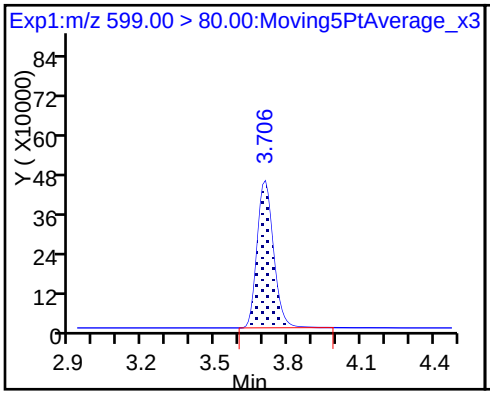
D 27 d3-NMeFOSAA



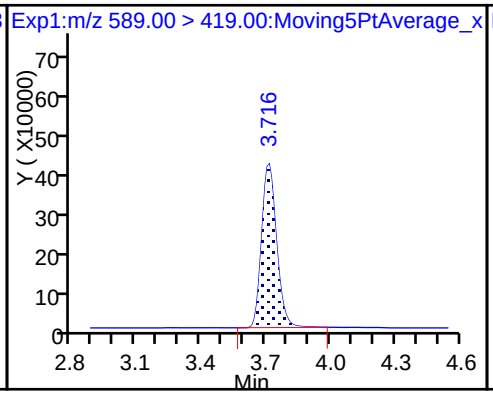
28 N-methyl perfluorooctane sulfonami



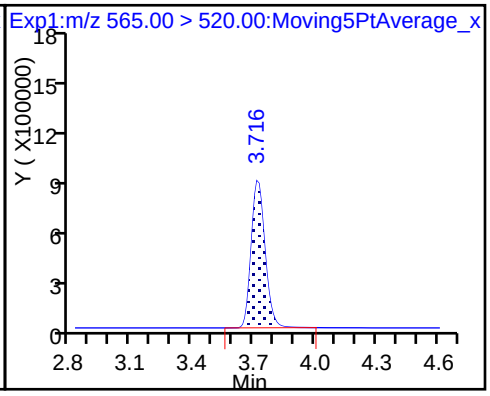
29 Perfluorodecane Sulfonic acid



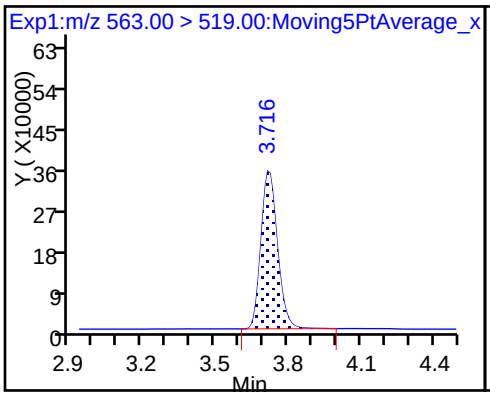
D 32 d5-NEtFOSAA



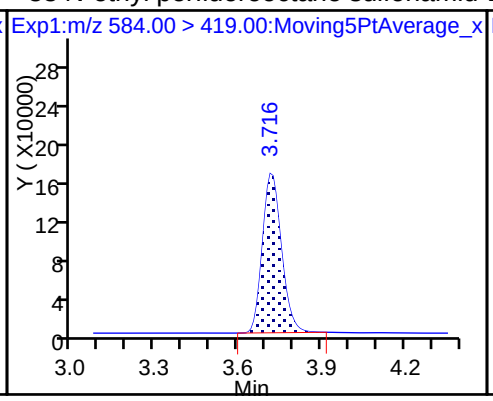
D 30 13C2 PFUnA



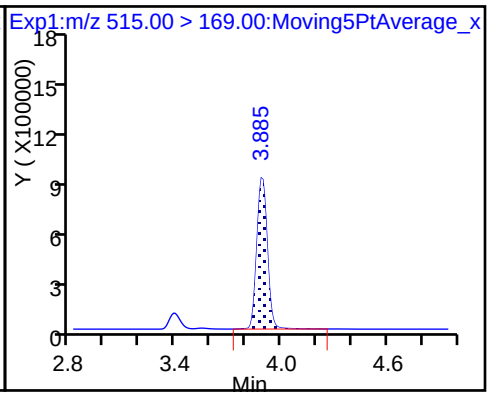
31 Perfluoroundecanoic acid



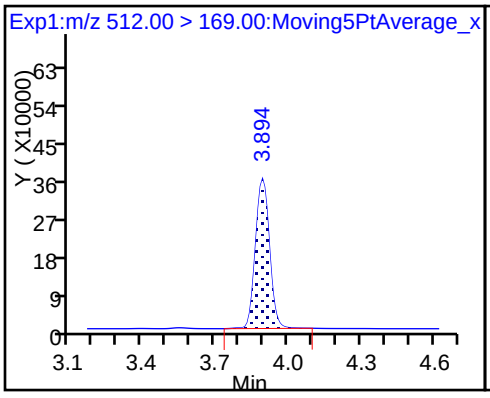
33 N-ethyl perfluorooctane sulfonamid



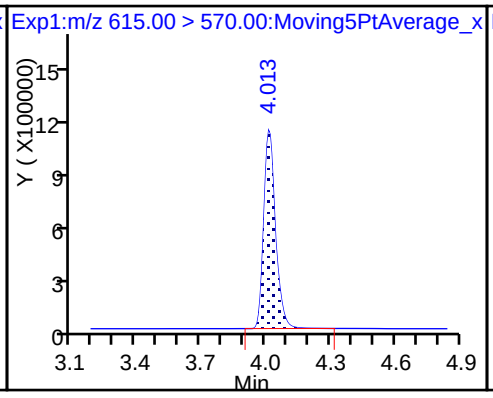
D 34 d-N-MeFOSA-M



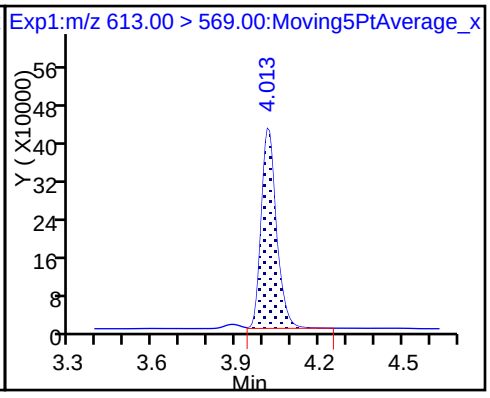
35 MeFOSA



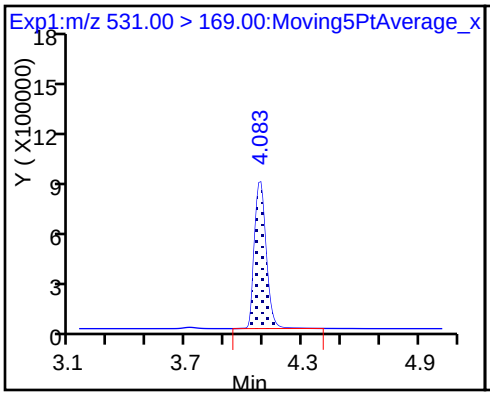
D 36 13C2 PFDoA



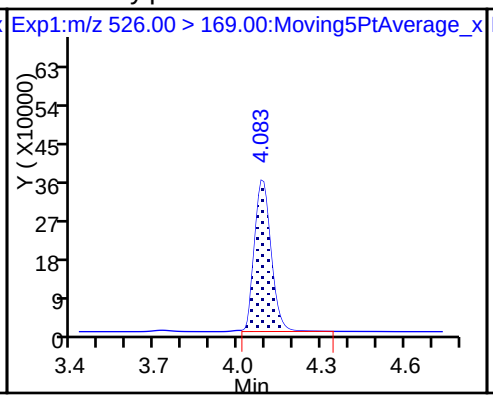
37 Perfluorododecanoic acid



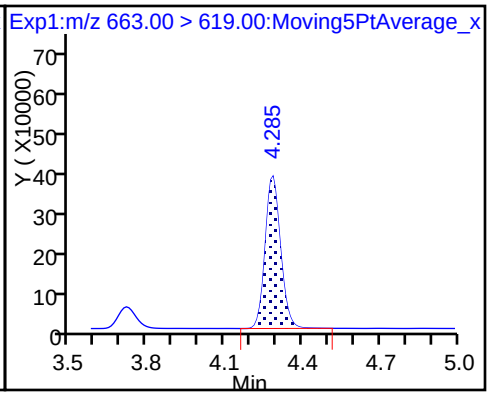
D 38 d-N-EtFOSA-M



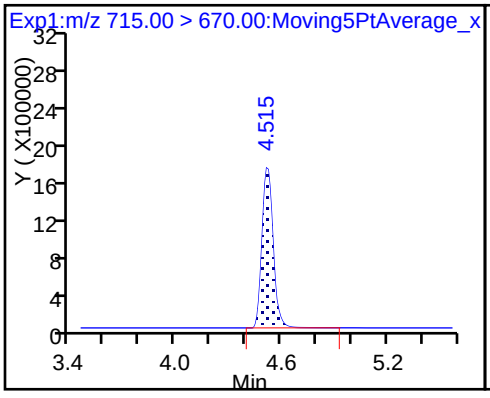
39 N-ethylperfluoro-1-octanesulfonami



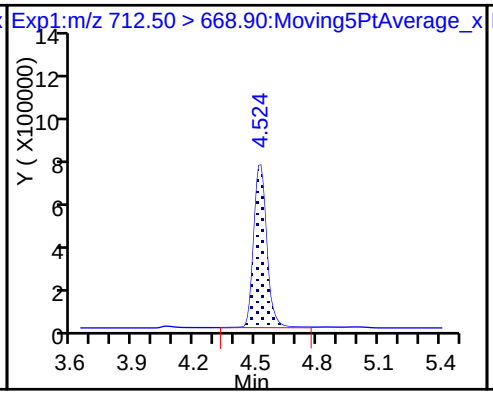
41 Perfluorotridecanoic acid



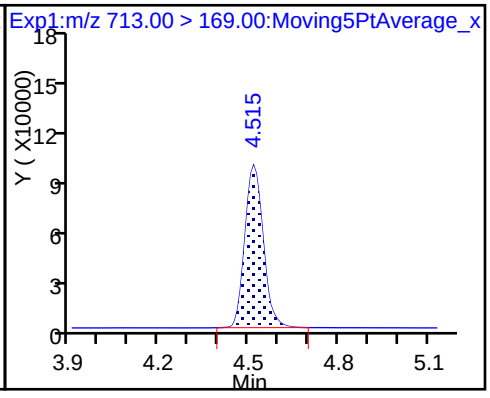
D 43 13C2-PFTeDA



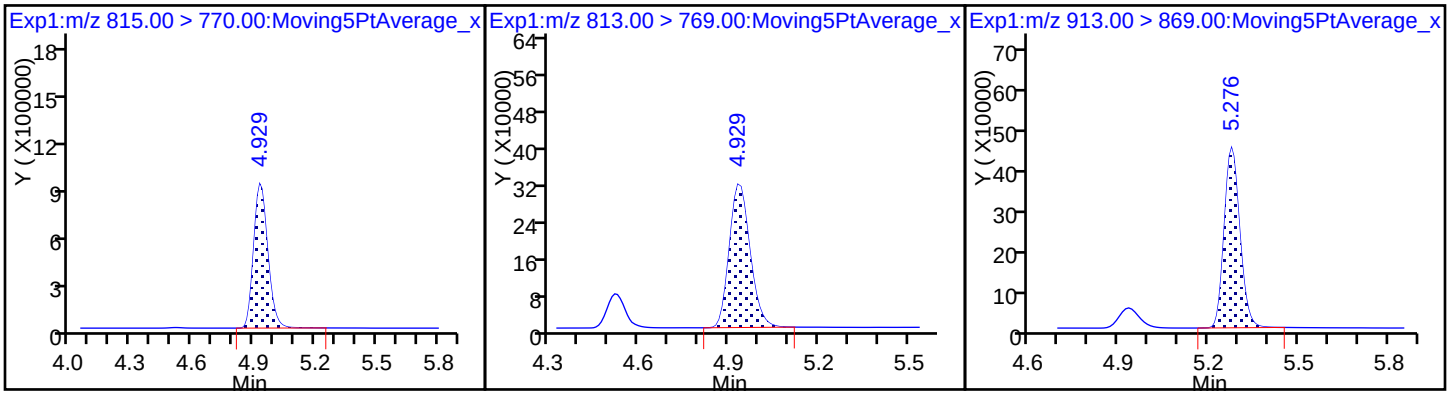
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCVL 320-171592/1 Calibration Date: 06/28/2017 21:43

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28A_003.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9075		0.998	0.990	0.8	50.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.027		0.988	0.990	-0.3	50.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.562		0.980	0.875	12.0	50.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.006		0.980	0.990	-1.0	50.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.037		0.961	0.990	-2.9	50.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.209		0.986	0.901	9.4	50.0
6:2FTS	AveID	0.9859	0.9751		0.928	0.939	-1.1	50.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.064		0.993	0.990	0.3	50.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.117		0.915	0.943	-2.9	50.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.016		0.890	0.919	-3.1	50.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	0.9633		0.961	0.990	-2.9	50.0
8:2FTS	AveID	0.999	1.005		0.955	0.949	0.7	50.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9596		0.985	0.990	-0.5	50.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	1.012		1.03	0.990	3.9	50.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.007		0.957	0.990	-3.4	50.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6112		0.915	0.954	-4.1	50.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	0.8989		0.913	0.990	-7.8	50.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.046		0.973	0.990	-1.7	50.0
MeFOSA	AveID	0.9522	0.8837		0.919	0.990	-7.2	50.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9894		1.03	0.990	3.9	50.0
N-EtFOSA-M	AveID	0.999	0.9739		0.966	0.990	-2.5	50.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9431		0.962	0.990	-2.8	50.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.298		0.975	0.990	-1.5	50.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.548		0.831	0.990	-16.1	50.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	0.9395		0.863	0.990	-12.9	50.0
13C4 PFBA	Ave	233991	296105		62.6	49.5	26.5	50.0
13C5-PFPeA	Ave	160811	217861		67.1	49.5	35.5	50.0
13C2 PFHxA	Ave	153401	198689		64.1	49.5	29.5	50.0
13C4-PFHpA	Ave	136899	184167		66.6	49.5	34.5	50.0
18O2 PFHxS	Ave	212697	249993		55.0	46.8	17.5	50.0
M2-6:2FTS	Ave	72814	83016		53.6	47.0	14.0	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCVL 320-171592/1 Calibration Date: 06/28/2017 21:43

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28A_003.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	163737		62.1	49.5	25.4	50.0
13C4 PFOS	Ave	162716	187811		54.6	47.3	15.4	50.0
13C5 PFNA	Ave	104991	130466		61.5	49.5	24.3	50.0
M2-8:2FTS	Ave	56620	60505		50.7	47.4	6.9	50.0
13C2 PFDA	Ave	100020	110335		54.6	49.5	10.3	50.0
13C8 FOSA	Ave	263963	297638		55.8	49.5	12.8	50.0
d3-NMeFOSAA	Ave	37033	41862		56.0	49.5	13.0	50.0
d5-NEtFOSAA	Ave	36944	42035		56.3	49.5	13.8	50.0
13C2 PFUnA	Ave	74302	87554		58.3	49.5	17.8	50.0
d-N-MeFOSA-M	Ave	74603	82093		54.5	49.5	10.0	50.0
13C2 PFDoA	Ave	73421	78400		52.9	49.5	6.8	50.0
d-N-EtFOSA-M	Ave	73544	76325		51.4	49.5	3.8	50.0
13C2-PFTeDA	Ave	151466	147221		48.1	49.5	-2.8	50.0
13C2-PFHxDA	Ave	83886	82657		48.8	49.5	-1.5	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44857.b\2017.06.28A_003.d
Lims ID: CCVL 2
Client ID:
Sample Type: CCVL
Inject. Date: 28-Jun-2017 21:43:17 ALS Bottle#: 29 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44857.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 10:22:38 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK005

First Level Reviewer: chandrasenas Date: 29-Jun-2017 09:18:24

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.535	1.533	0.002	1.000	266043	1.00		101	122	
D 1 13C4 PFBA										
217.00 > 172.00	1.535	1.533	0.002		14658645	62.6		127	215717	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.735	1.742	-0.007	1.000	221472	0.9876		99.7	109	
D 3 13C5-PFPeA										
267.90 > 223.00	1.735	1.742	-0.007		10785176	67.1		135	21877	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.762	1.760	0.002	1.000	341665	0.9804		112	216	
298.90 > 99.00	1.762	1.760	0.002	1.000	135102		2.53(0.00-0.00)		206	
D 47 13C3-PFBS										
301.90 > 83.00	1.753	1.760	-0.007		268022	NC			7862	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.948	1.958	-0.010	1.000	80469	1.02		110	3288	
D 7 13C2 PFHxA										
315.00 > 270.00	1.982	1.992	-0.010		9836069	64.1		130	85234	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.982	2.003	-0.021	1.000	197858	0.9800		99.0	466	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.294	2.312	-0.018	1.000	189011	0.9610		97.1	254	
D 9 13C4-PFHpA										
367.00 > 322.00	2.294	2.312	-0.018		9117167	66.6		135	21066	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.310	2.329	-0.019	1.000	272249	0.9858		109	265	
D 11 18O2 PFHxS										
403.00 > 84.00	2.310	2.329	-0.019		11707573	55.0		118	42690	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.616	2.634	-0.018	1.000	75977	0.9283		98.9	1734	
D 12 M2-6:2FTS										
429.00 > 409.00	2.616	2.634	-0.018		3904199	53.6		114	15154	
* 62 13C2-PFOA										
415.00 > 370.00	2.638	2.656	-0.018		8533043	49.5		100	27343	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.638	2.663	-0.025	1.000	172445	0.99		100	34.9	
413.00 > 169.00	2.638	2.663	-0.025	1.000	102165		1.69(0.90-1.10)		540	
D 14 13C4 PFOA										
417.00 > 372.00	2.638	2.663	-0.025		8105808	62.1		125	23433	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.645	2.671	-0.026	1.000	197672	0.9148		97.1	3543	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.003	3.026	-0.023	1.000	175357	0.8901		96.9	1129	
499.00 > 99.00	3.003	3.026	-0.023	1.000	37472		4.68(0.90-1.10)		417	
D 18 13C4 PFOS										
503.00 > 80.00	3.003	3.026	-0.023		8888482	54.6		115	18538	
D 19 13C5 PFNA										
468.00 > 423.00	3.003	3.026	-0.023		6458720	61.5		124	11031	
20 Perfluorononanoic acid										
463.00 > 419.00	3.011	3.026	-0.015	1.000	124430	0.9614		97.1	351	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.370	3.379	-0.009	1.000	298156	1.03		104	4343	
D 21 13C8 FOSA										
506.00 > 78.00	3.370	3.379	-0.009		14734567	55.8		113	37795	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.352	3.379	-0.027	1.000	57692	0.9548		101	1717	
D 26 M2-8:2FTS										
529.00 > 509.00	3.352	3.379	-0.027		2869487	50.7		107	12308	
D 23 13C2 PFDA										
515.00 > 470.00	3.361	3.388	-0.027		5462116	54.6		110	28767	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.361	3.388	-0.027	1.000	104832	0.9847		99.5	559	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.517	3.542	-0.025		2072370	56.0		113	17131	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.517	3.542	-0.025	1.000	41751	0.9567		96.6	229	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.671	3.700	-0.029	1.000	109564	0.9149		95.9	3427	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.681	3.710	-0.029		2080933	56.3		114	5346	
D 30 13C2 PFUnA										
565.00 > 520.00	3.691	3.710	-0.019		4334361	58.3		118	20842	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.691	3.710	-0.019	1.000	90663	0.9731		98.3	200	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.691	3.720	-0.029	1.003	37409	0.9131		92.2	804	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.880	3.889	-0.009		4064033	54.5		110	974	
35 MeFOSA										
512.00 > 169.00	3.880	3.889	-0.009	1.000	71827	0.9189		92.8	2276	
D 36 13C2 PFDoA										
615.00 > 570.00	3.980	4.008	-0.028		3881174	52.9		107	11843	
37 Perfluorododecanoic acid										
613.00 > 569.00	3.980	4.008	-0.028	1.000	76798	1.03		104	86.8	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.066	4.078	-0.012		3778472	51.4		104	6635	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.076	4.078	-0.002	1.000	73596	0.9657		97.5	2050	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.245	4.273	-0.028	1.000	73207	0.9621		97.2	17.6	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.479	4.510	-0.031		7288165	48.1		97.2	43672	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.479	4.510	-0.031	1.000	178356	0.9751		98.5	95.9	
713.00 > 169.00	4.470	4.510	-0.040	0.998	21736		8.21(0.00-0.00)		878	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.888	4.922	-0.034		4091920	48.8		98.5	5846	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.888	4.922	-0.034	1.000	120191	0.8307		83.9	15.7	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.219	5.265	-0.046	1.000	72927	0.8629		87.1	23.1	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L2_00003 Amount Added: 1.00 Units: mL

Report Date: 29-Jun-2017 10:22:39 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44857.b\2017.06.28A_003.d

Injection Date: 28-Jun-2017 21:43:17 Instrument ID: A8_N

Lims ID: CCVL 2

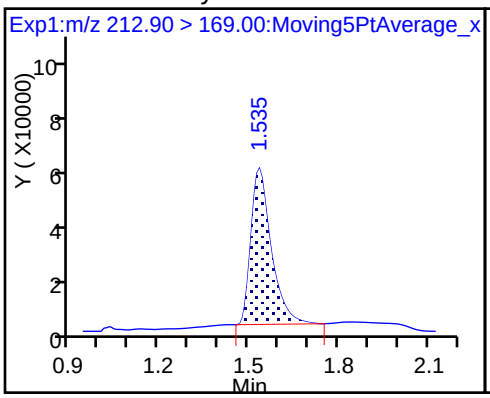
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 29 Worklist Smp#: 1

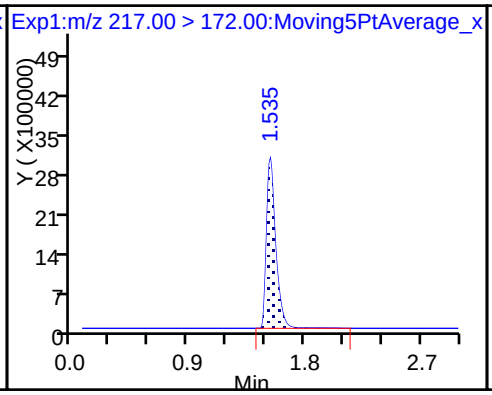
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

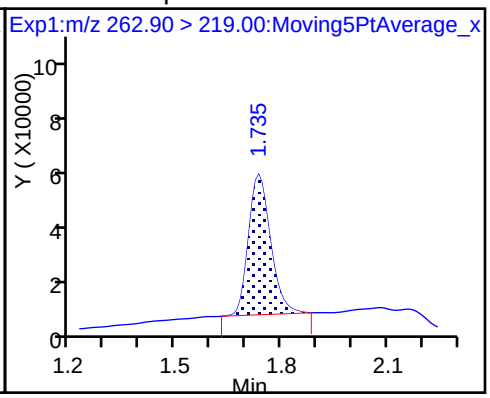
2 Perfluorobutyric acid



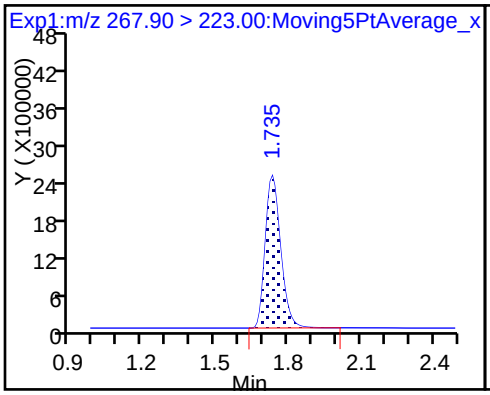
D 1 13C4 PFBA



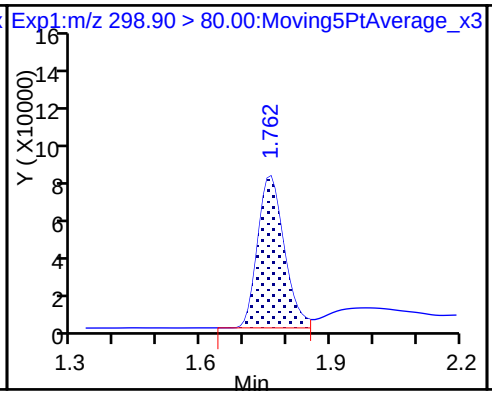
4 Perfluoropentanoic acid



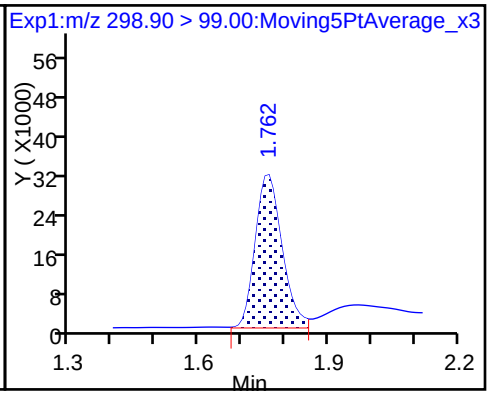
D 3 13C5-PFPeA



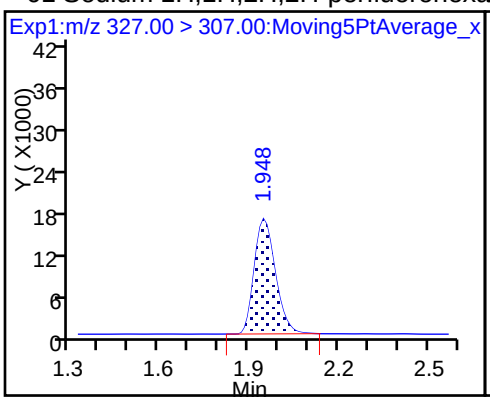
5 Perfluorobutanesulfonic acid



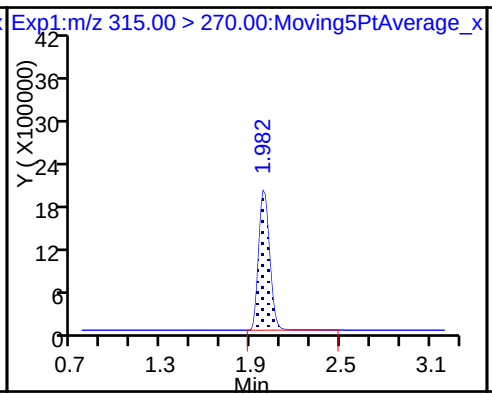
5 Perfluorobutanesulfonic acid



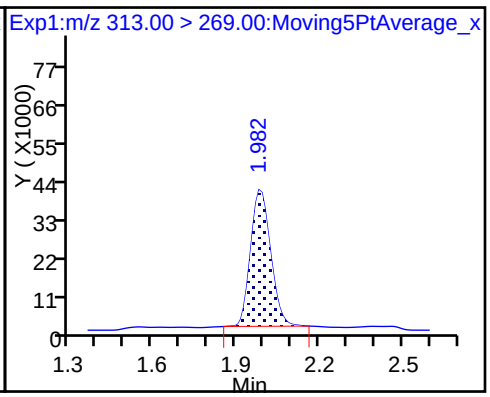
61 Sodium 1H,1H,2H,2H-perfluorohexa



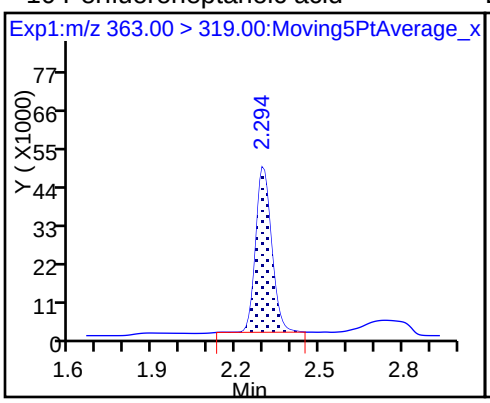
D 7 13C2 PFHxA



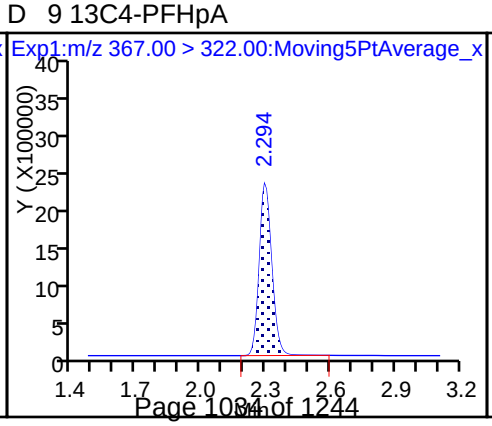
6 Perfluorohexanoic acid



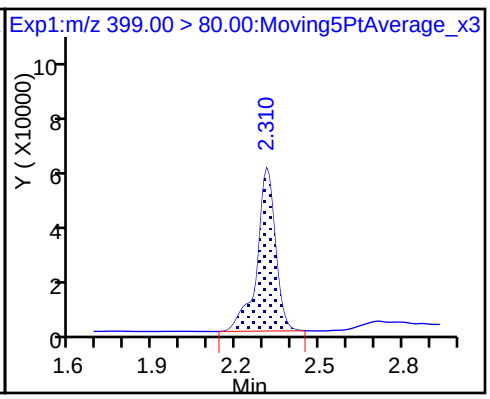
10 Perfluoroheptanoic acid



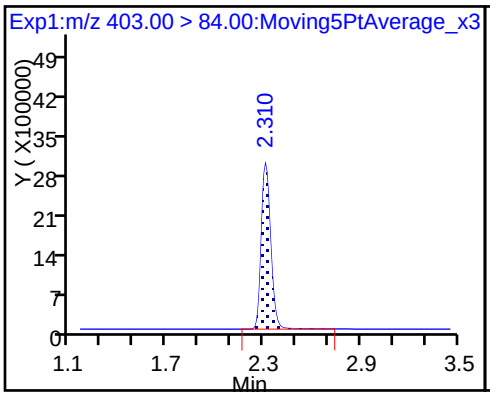
D 9 13C4-PFHpA



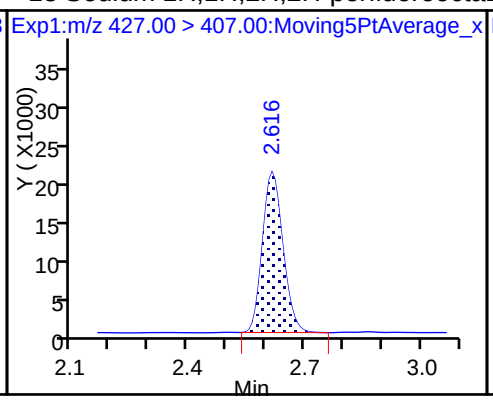
8 Perfluorohexanesulfonic acid



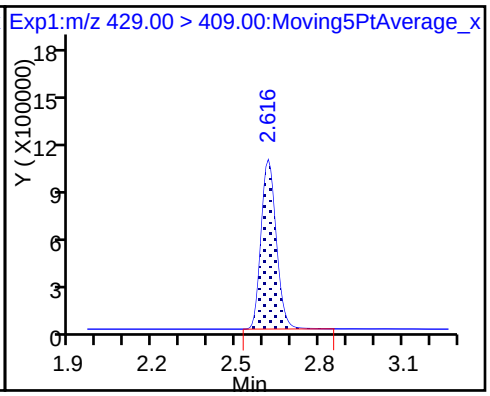
D 11 18O2 PFHxS



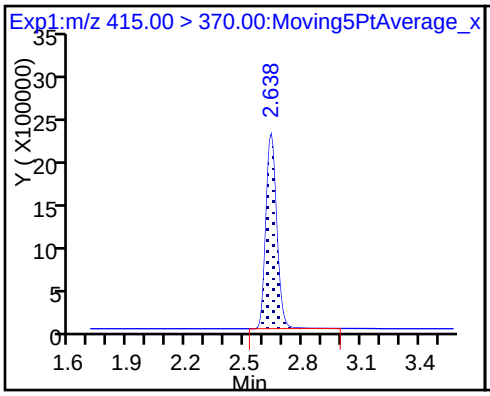
13 Sodium 1H,1H,2H,2H-perfluorooctane



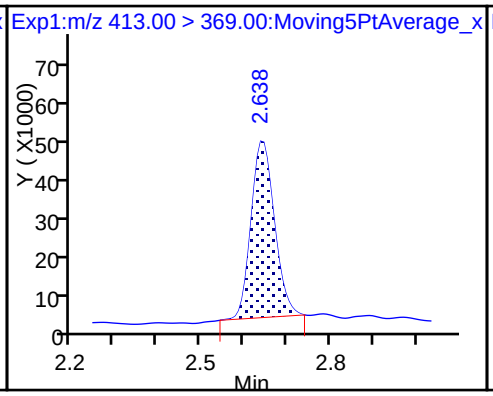
D 12 M2-6:2FTS



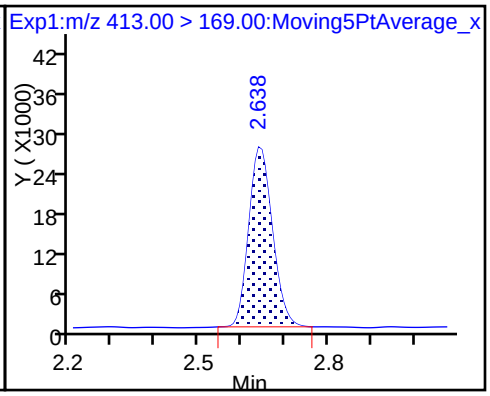
* 62 13C2-PFOA



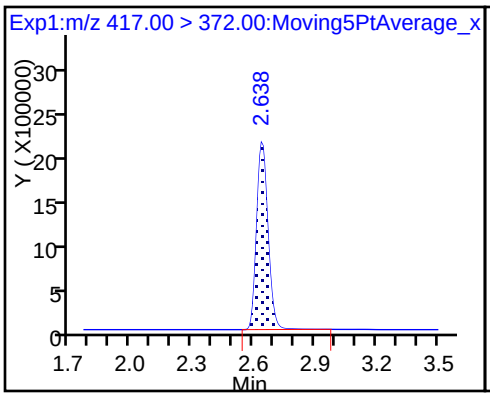
15 Perfluorooctanoic acid



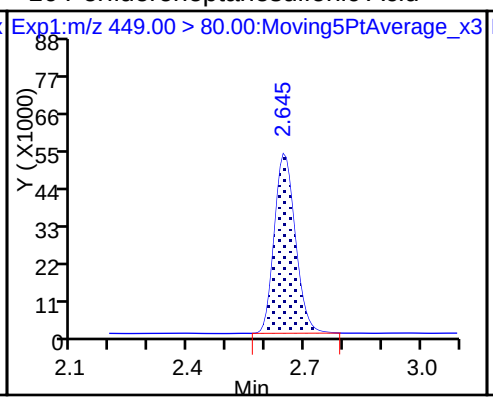
15 Perfluorooctanoic acid



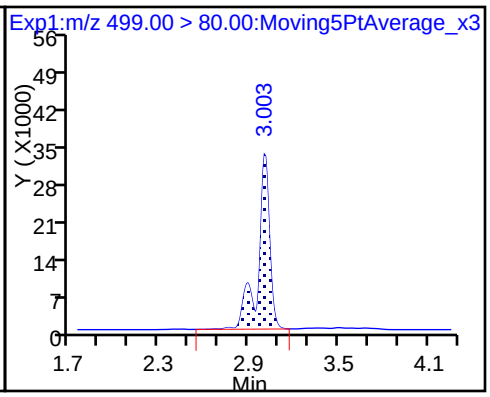
D 14 13C4 PFOA



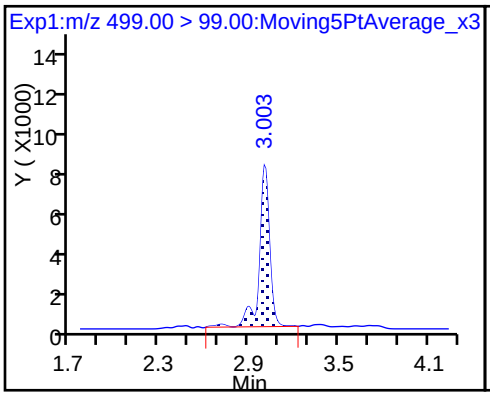
16 Perfluoroheptanesulfonic Acid



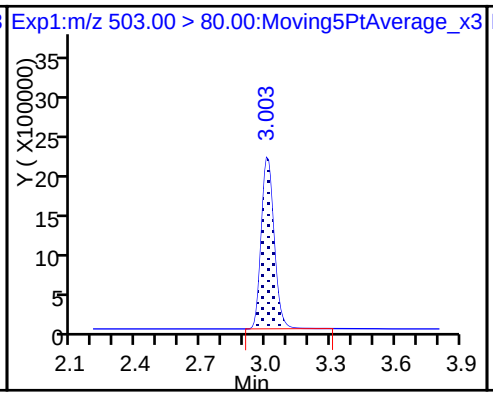
17 Perfluorooctane sulfonic acid



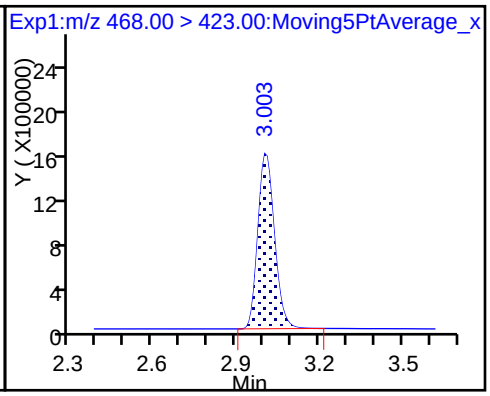
17 Perfluorooctane sulfonic acid



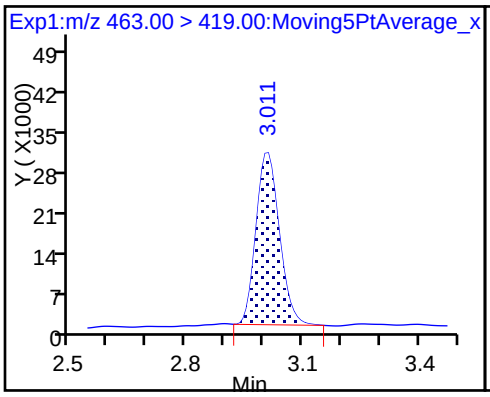
D 18 13C4 PFOS



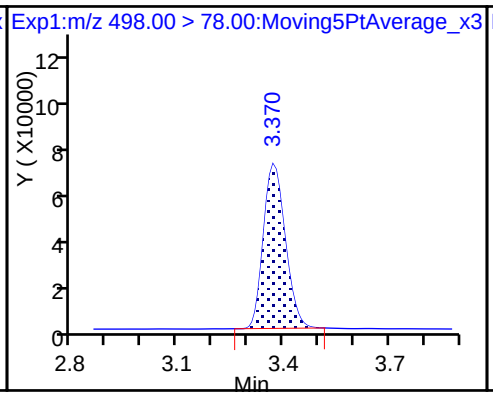
D 19 13C5 PFNA



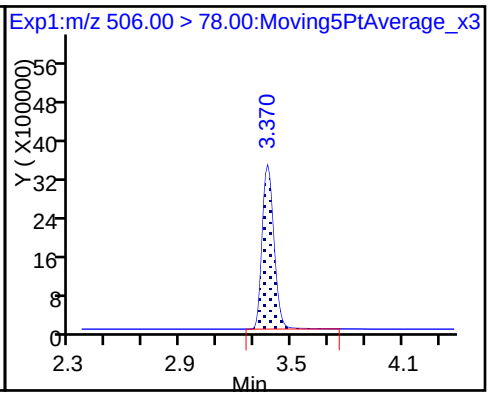
20 Perfluorononanoic acid



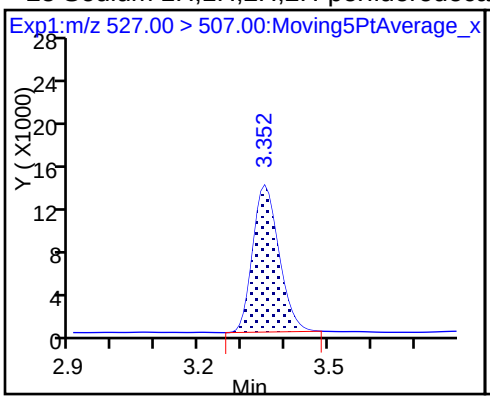
22 Perfluorooctane Sulfonamide



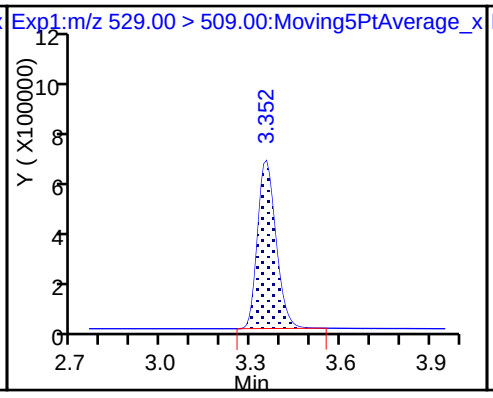
D 21 13C8 FOSA



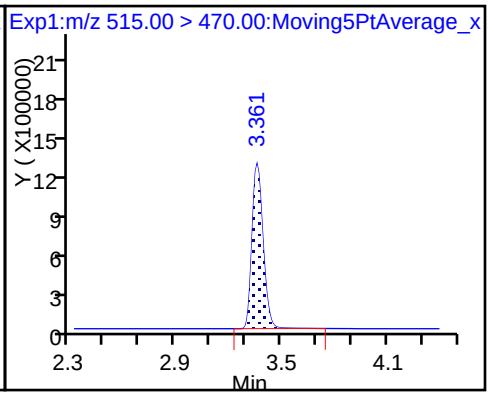
25 Sodium 1H,1H,2H,2H-perfluorodecane



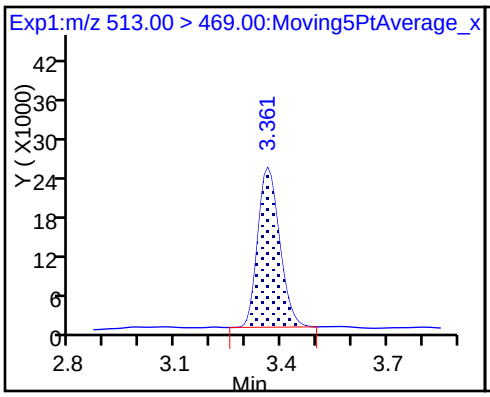
D 26 M2-8:2FTS



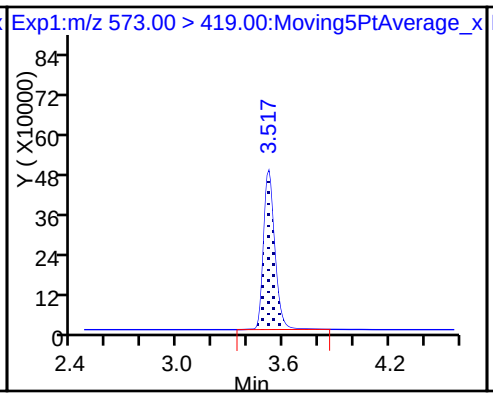
D 23 13C2 PFDA



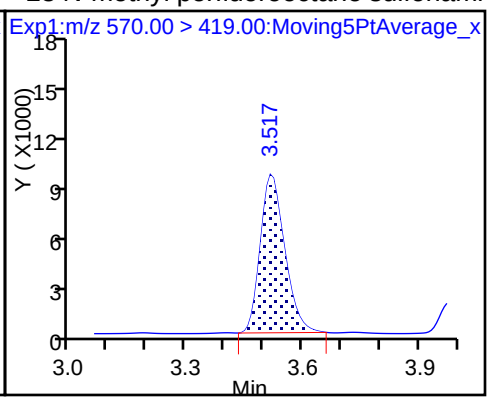
24 Perfluorodecanoic acid



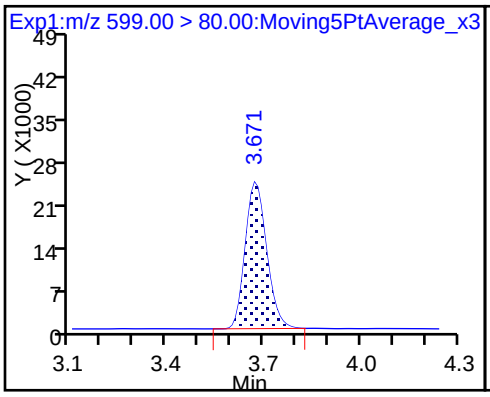
D 27 d3-NMeFOSAA



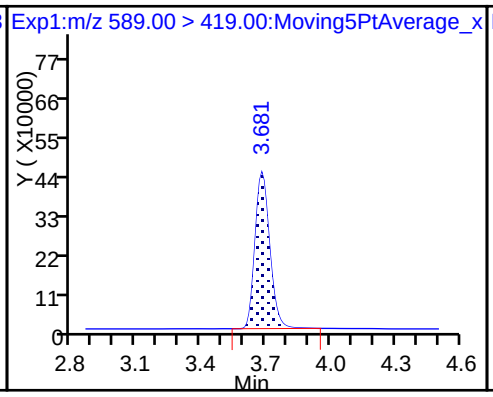
28 N-methyl perfluorooctane sulfonami



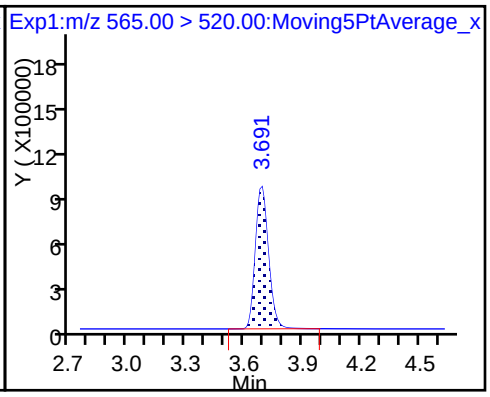
29 Perfluorodecane Sulfonic acid



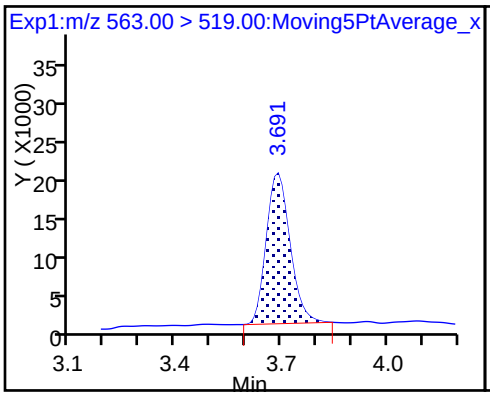
D 32 d5-NEtFOSAA



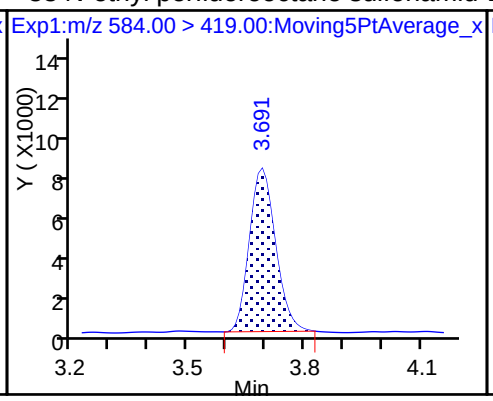
D 30 13C2 PFUnA



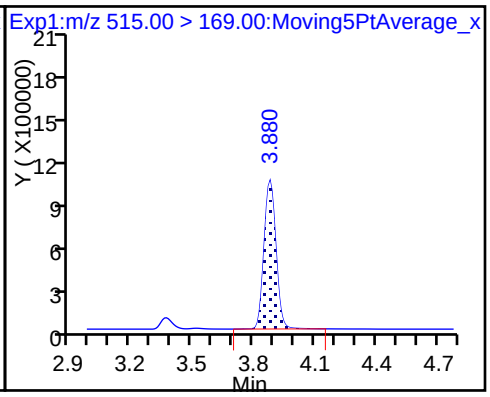
31 Perfluoroundecanoic acid



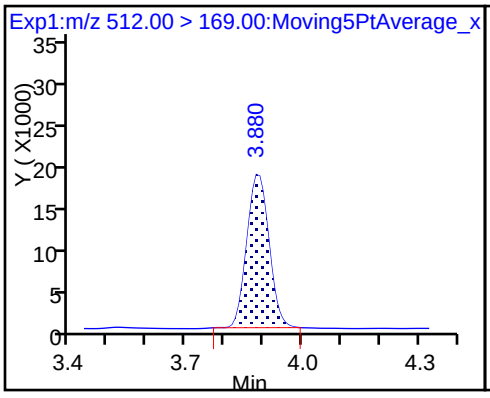
33 N-ethyl perfluorooctane sulfonamid



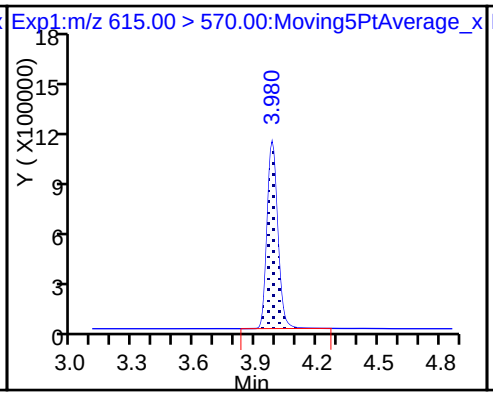
D 34 d-N-MeFOSA-M



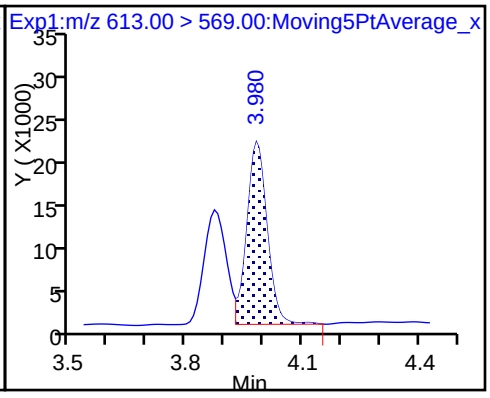
35 MeFOSA



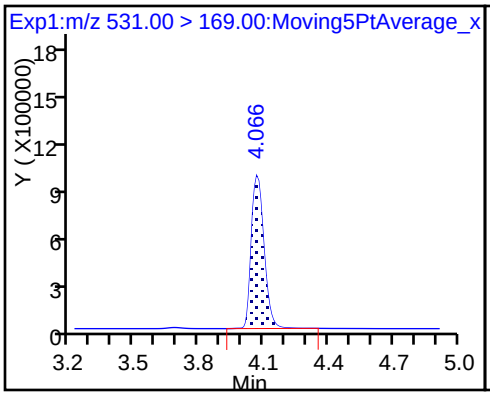
D 36 13C2 PFDoA



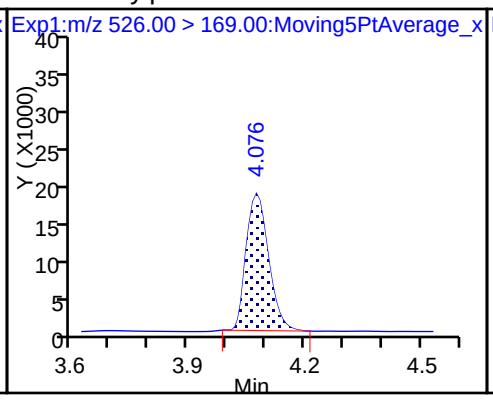
37 Perfluorododecanoic acid



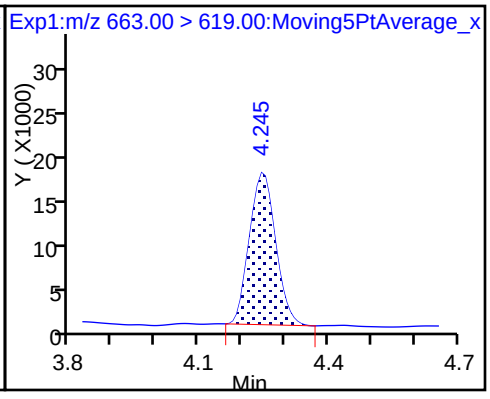
D 38 d-N-EtFOSA-M



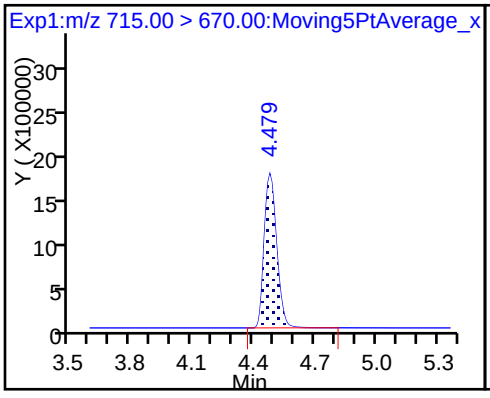
39 N-ethylperfluoro-1-octanesulfonami



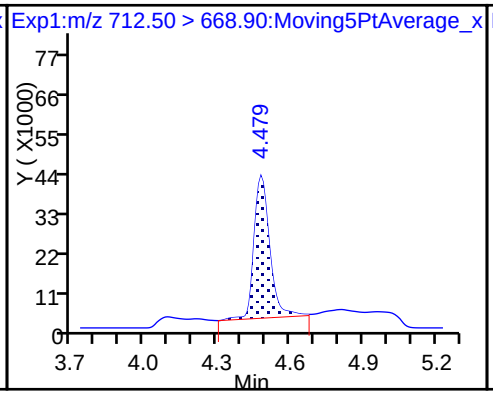
41 Perfluorotridecanoic acid



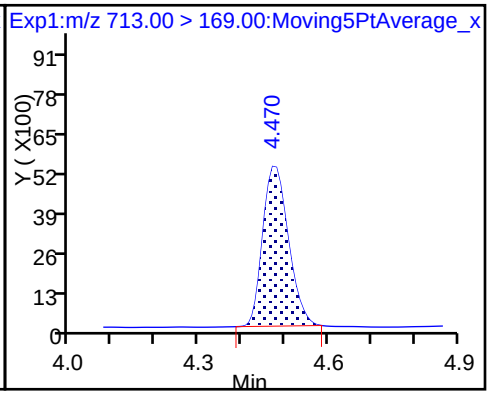
D 43 13C2-PFTeDA



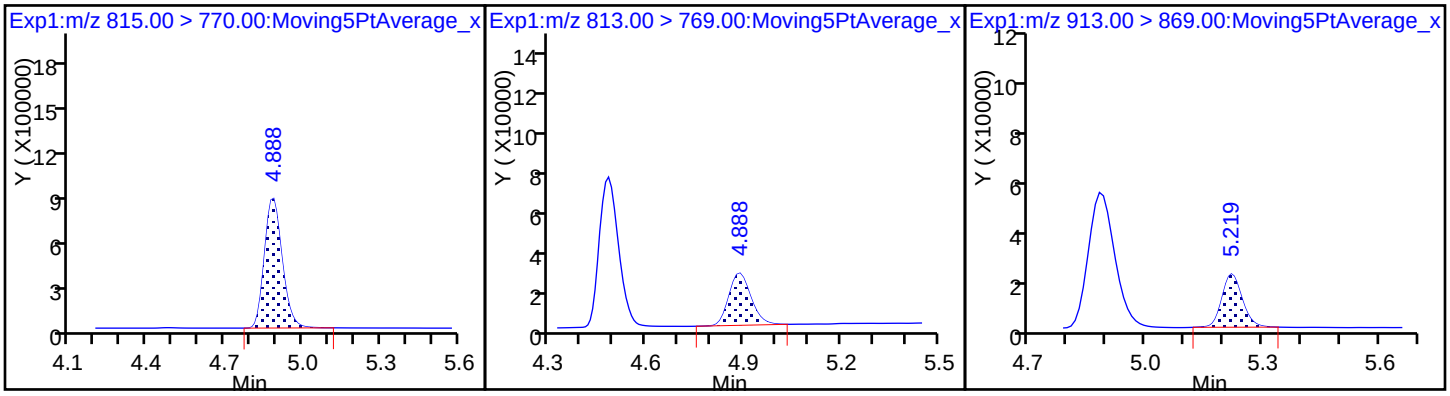
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171596/1 Calibration Date: 06/29/2017 02:19

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28B_027.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9536		52.4	49.5	5.9	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.066		51.2	49.5	3.5	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.506		47.3	43.8	8.0	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.074		52.3	49.5	5.7	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.091		50.6	49.5	2.1	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.072		43.7	45.0	-3.0	25.0
6:2FTS	AveID	0.9859	1.012		48.2	46.9	2.7	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.062		49.6	49.5	0.1	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.270		52.0	47.1	10.4	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	1.019		50.8	49.5	2.7	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.146		50.2	45.9	9.3	25.0
8:2FTS	AveID	0.999	0.9450		44.9	47.4	-5.4	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9726		49.9	49.5	0.8	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	0.9940		50.5	49.5	2.1	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.070		50.8	49.5	2.6	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6762		50.6	47.7	6.0	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	0.9900		50.3	49.5	1.6	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.066		49.6	49.5	0.2	25.0
MeFOSA	AveID	0.9522	0.9834		51.1	49.5	3.3	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9692		50.4	49.5	1.8	25.0
N-EtFOSA-M	AveID	0.999	1.048		52.0	49.5	5.0	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9692		49.4	49.5	-0.1	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.104		44.6	49.5	-9.8	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9189		44.6	49.5	-9.9	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	1.006		46.2	49.5	-6.7	25.0
13C4 PFBA	Ave	233991	311230		65.8	49.5	33.0	50.0
13C5-PFPeA	Ave	160811	212366		65.4	49.5	32.1	50.0
13C2 PFHxA	Ave	153401	207645		67.0	49.5	35.4	50.0
13C4-PFHpA	Ave	136899	180747		65.4	49.5	32.0	50.0
18O2 PFHxS	Ave	212697	277163		61.0	46.8	30.3	50.0
M2-6:2FTS	Ave	72814	93116		60.1	47.0	27.9	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171596/1 Calibration Date: 06/29/2017 02:19

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28B_027.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	166776		63.2	49.5	27.8	50.0
13C4 PFOS	Ave	162716	206990		60.2	47.3	27.2	50.0
13C5 PFNA	Ave	104991	134366		63.4	49.5	28.0	50.0
M2-8:2FTS	Ave	56620	71447		59.8	47.4	26.2	50.0
13C2 PFDA	Ave	100020	113195		56.0	49.5	13.2	50.0
13C8 FOSA	Ave	263963	324526		60.9	49.5	22.9	50.0
d3-NMeFOSAA	Ave	37033	47378		63.3	49.5	27.9	50.0
d5-NEtFOSAA	Ave	36944	44273		59.3	49.5	19.8	50.0
13C2 PFUnA	Ave	74302	88007		58.6	49.5	18.4	50.0
d-N-MeFOSA-M	Ave	74603	92249		61.2	49.5	23.7	50.0
13C2 PFDoA	Ave	73421	89409		60.3	49.5	21.8	50.0
d-N-EtFOSA-M	Ave	73544	87340		58.8	49.5	18.8	50.0
13C2-PFTeDA	Ave	151466	161374		52.7	49.5	6.5	50.0
13C2-PFHxDA	Ave	83886	88624		52.3	49.5	5.6	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_027.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 29-Jun-2017 02:19:17 ALS Bottle#: 32 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.526	1.533	-0.007	1.000	14692194	52.4		106	3862	
D 1 13C4 PFBA										
217.00 > 172.00	1.526	1.533	-0.007		15407430	65.8		133	22597	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.726	1.742	-0.016	1.000	11202961	51.2		104	4392	
D 3 13C5-PFPeA										
267.90 > 223.00	1.726	1.742	-0.016		10513145	65.4		132	20685	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.753	1.760	-0.007	1.000	18262572	47.3		108	16078	
298.90 > 99.00	1.753	1.760	-0.007	1.000	8400855		2.17(0.00-0.00)		195767	
D 47 13C3-PFBS										
301.90 > 83.00	1.753	1.760	-0.007		287644	NC			7624	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.948	1.958	-0.010	1.000	4758003	53.8		116	33758	
D 7 13C2 PFHxA										
315.00 > 270.00	1.982	1.992	-0.010		10279446	67.0		135	30340	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.982	2.003	-0.021	1.000	11036706	52.3		106	14168	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.296	2.312	-0.016	1.000	9759594	50.6		102	6669	
D 9 13C4-PFHpA										
367.00 > 322.00	2.296	2.312	-0.016		8947888	65.4		132	15968	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.315	2.329	-0.014	1.000	13383314	43.7		97.0	5182	
D 11 18O2 PFHxS										
403.00 > 84.00	2.315	2.329	-0.014		12980017	61.0		130	27916	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.616	2.634	-0.018	1.000	4422481	48.2		103	31778	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.616	2.634	-0.018		4379199	60.1		128	13903	
* 62 13C2-PFOA										
415.00 > 370.00	2.638	2.656	-0.018		8444697	49.5		100	14735	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.645	2.663	-0.018	1.000	8764000	49.6		100	1454	
413.00 > 169.00	2.645	2.663	-0.018	1.000	5396567		1.62(0.90-1.10)		7757	
D 14 13C4 PFOA										
417.00 > 372.00	2.645	2.663	-0.018		8256243	63.2		128	15314	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.652	2.671	-0.019	1.000	12388349	52.0		110	27630	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.011	3.026	-0.015	1.000	10901361	50.2		109	9604	
499.00 > 99.00	3.011	3.026	-0.015	1.000	2339635		4.66(0.90-1.10)		10165	
D 18 13C4 PFOS										
503.00 > 80.00	3.011	3.026	-0.015		9796155	60.2		127	26081	
D 19 13C5 PFNA										
468.00 > 423.00	3.011	3.026	-0.015		6651774	63.4		128	12192	
20 Perfluorononanoic acid										
463.00 > 419.00	3.011	3.026	-0.015	1.000	6776561	50.8		103	7887	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.370	3.379	-0.009	1.000	15968490	50.5		102	512638	
D 21 13C8 FOSA										
506.00 > 78.00	3.370	3.379	-0.009		16065638	60.9		123	402815	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.361	3.379	-0.018	1.000	3201910	44.9		94.6	31671	
D 26 M2-8:2FTS										
529.00 > 509.00	3.361	3.379	-0.018		3388442	59.8		126	31043	
D 23 13C2 PFDA										
515.00 > 470.00	3.370	3.388	-0.018		5603689	56.0		113	24090	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.370	3.388	-0.018	1.000	5450399	49.9		101	17883	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.525	3.542	-0.017		2345421	63.3		128	9937	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.525	3.542	-0.017	1.000	2509606	50.8		103	5881	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.681	3.700	-0.019	1.000	6679744	50.6		106	22311	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.691	3.710	-0.019		2191745	59.3		120	4802	
D 30 13C2 PFUnA										
565.00 > 520.00	3.701	3.710	-0.009		4356804	58.6		118	18380	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.701	3.710	-0.009	1.000	4643702	49.6		100	10787	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.701	3.720	-0.019	1.003	2169884	50.3		102	9807	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.881	3.889	-0.008		4566766	61.2		124	841	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.881	3.889	-0.008	1.000	4491111	51.1		103	6395	
D 36 13C2 PFDoA										
615.00 > 570.00	3.996	4.008	-0.012		4426202	60.3		122	12357	
37 Perfluorododecanoic acid										
613.00 > 569.00	3.996	4.008	-0.012	1.000	4289998	50.4		102	4408	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.071	4.078	-0.007		4323767	58.8		119	5576	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.079	4.078	0.001	1.000	4531616	52.0		105	4891	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.257	4.273	-0.016	1.000	4289994	49.4		99.9	1061	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.497	4.510	-0.013		7988828	52.7		107	71836	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.497	4.510	-0.013	1.000	9310599	44.6		90.2	4779	
713.00 > 169.00	4.487	4.510	-0.023	0.998	1160975		8.02(0.00-0.00)		16947	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.900	4.922	-0.022		4387309	52.3		106	5396	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.900	4.922	-0.022	1.000	4067394	44.6		90.1	458	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.243	5.265	-0.022	1.000	4452418	46.2		93.3	1142	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L5_00004 Amount Added: 1.00 Units: mL

Report Date: 29-Jun-2017 17:01:06 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_027.d

Injection Date: 29-Jun-2017 02:19:17 Instrument ID: A8_N

Lims ID: CCV L5

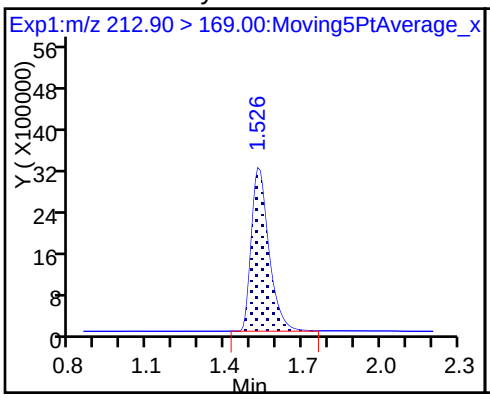
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 1

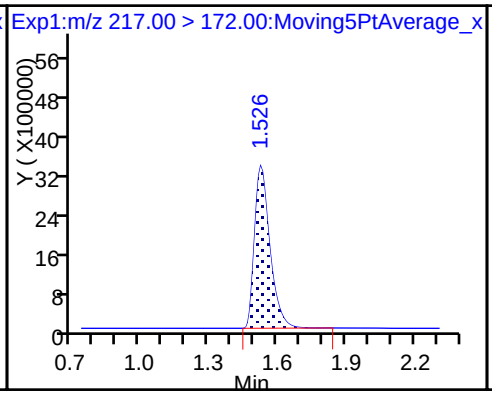
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

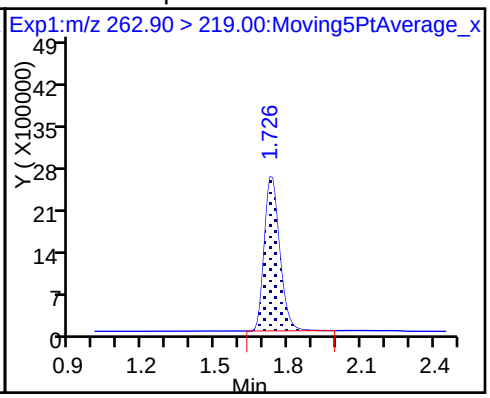
2 Perfluorobutyric acid



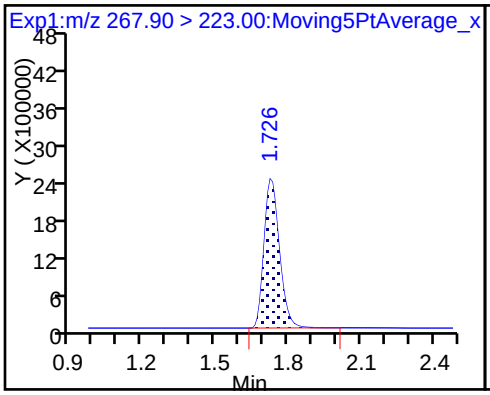
D 1 13C4 PFBA



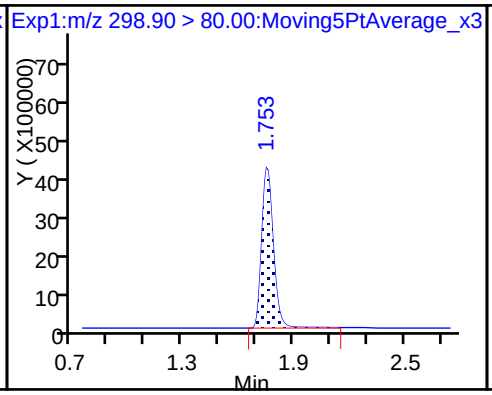
4 Perfluoropentanoic acid



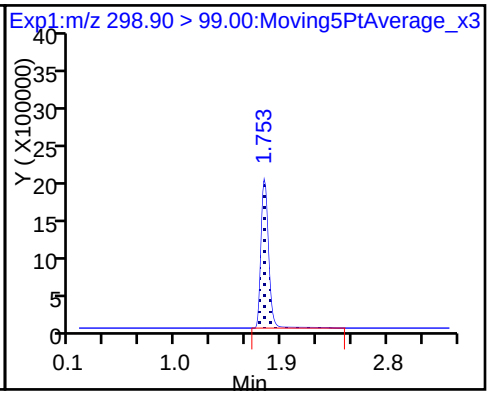
D 3 13C5-PFPeA



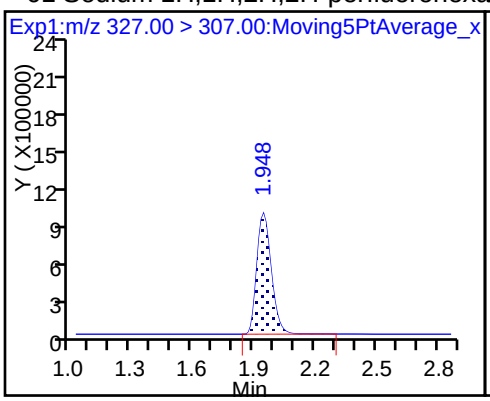
5 Perfluorobutanesulfonic acid



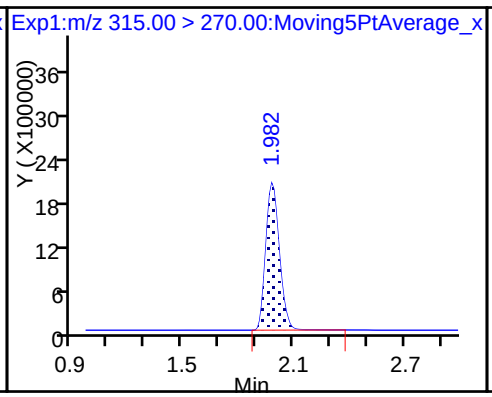
5 Perfluorobutanesulfonic acid



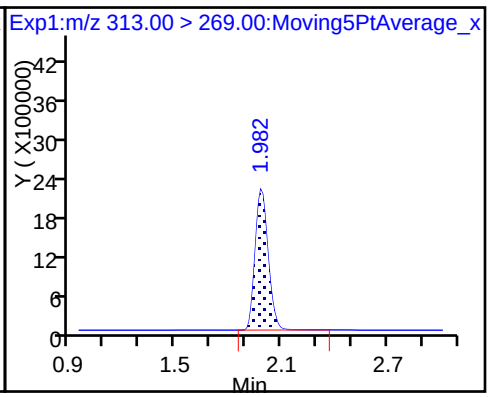
61 Sodium 1H,1H,2H,2H-perfluorohexa



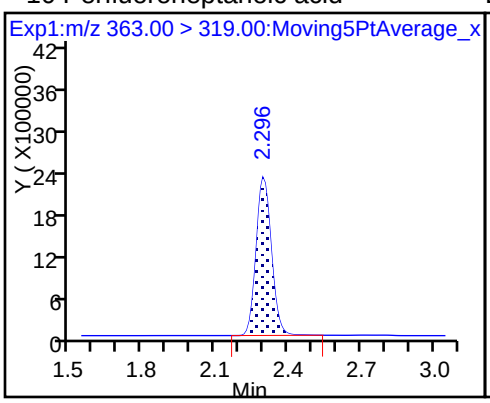
D 7 13C2 PFHxA



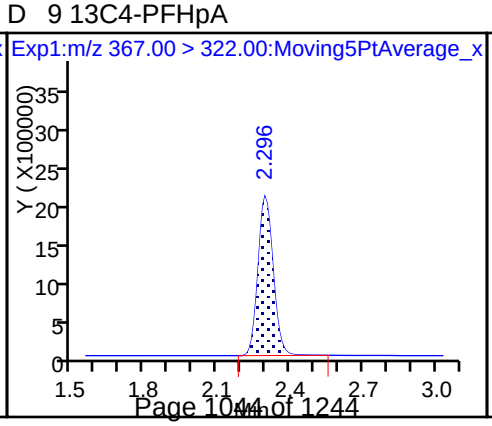
6 Perfluorohexanoic acid



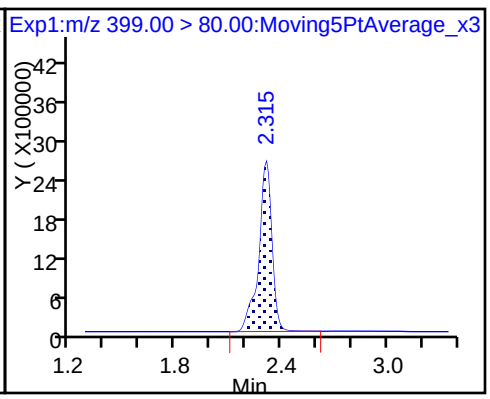
10 Perfluoroheptanoic acid



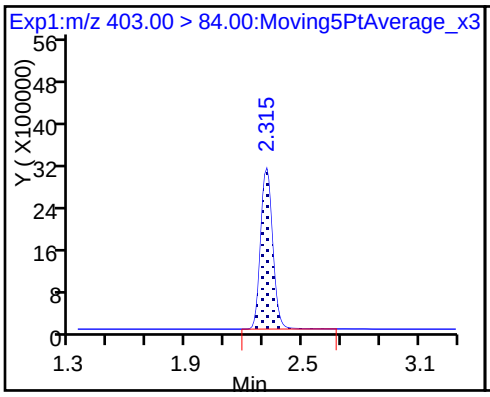
D 9 13C4-PFHpA



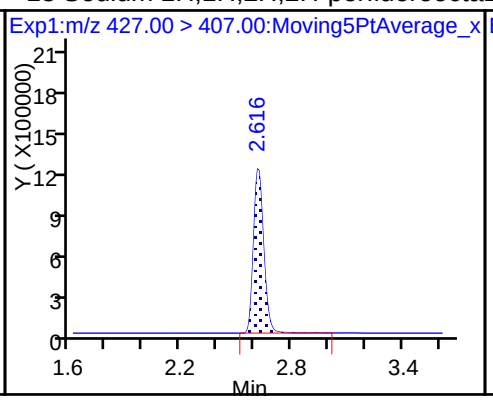
8 Perfluorohexanesulfonic acid



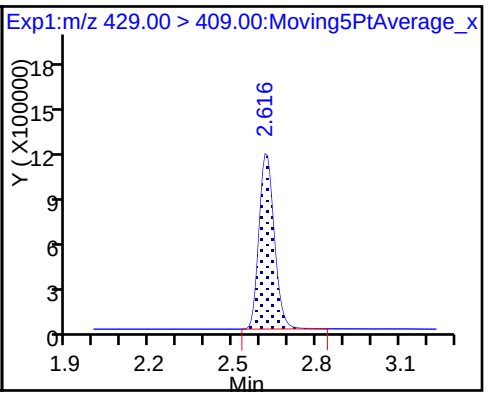
D 11 18O2 PFHxS



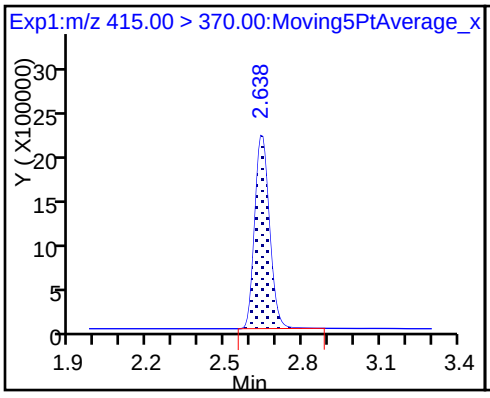
13 Sodium 1H,1H,2H,2H-perfluorooctane



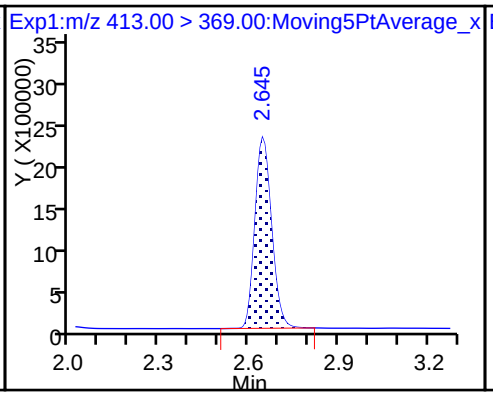
D 12 M2-6:2FTS



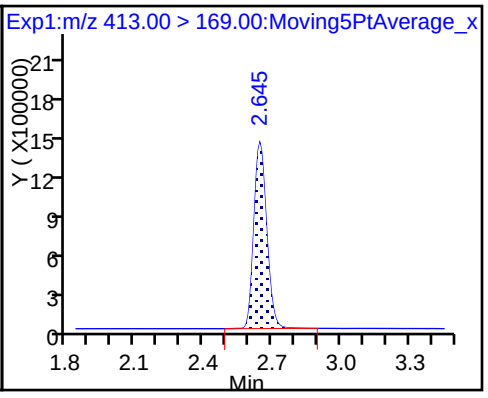
* 62 13C2-PFOA



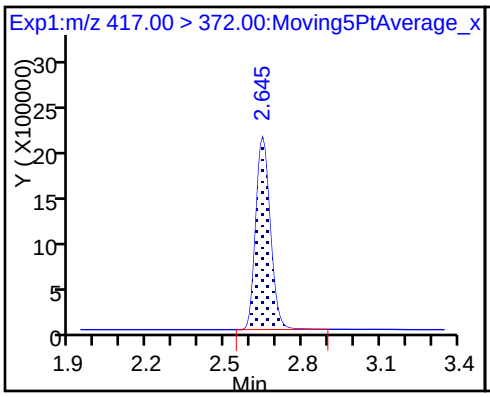
15 Perfluorooctanoic acid



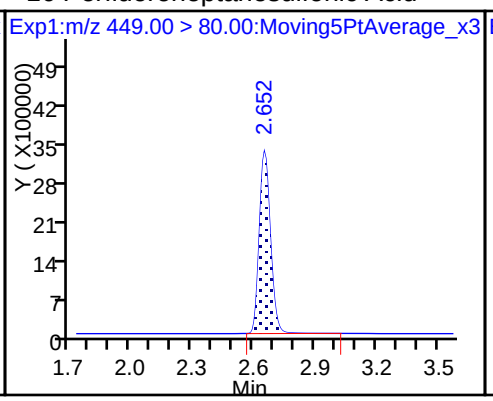
15 Perfluorooctanoic acid



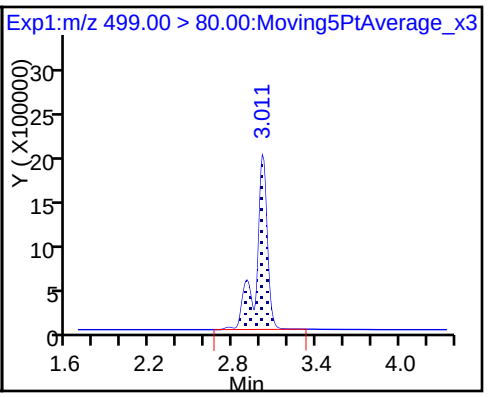
D 14 13C4 PFOA



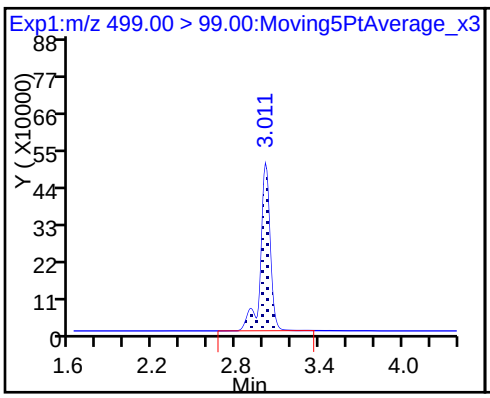
16 Perfluoroheptanesulfonic Acid



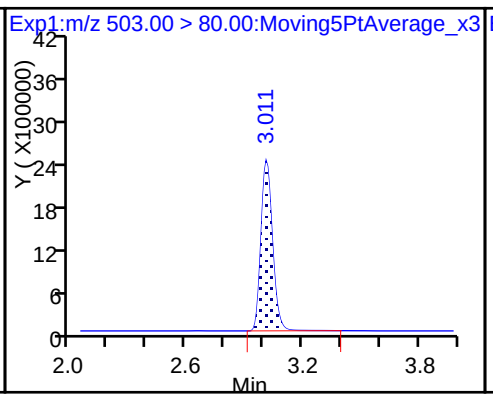
17 Perfluorooctane sulfonic acid



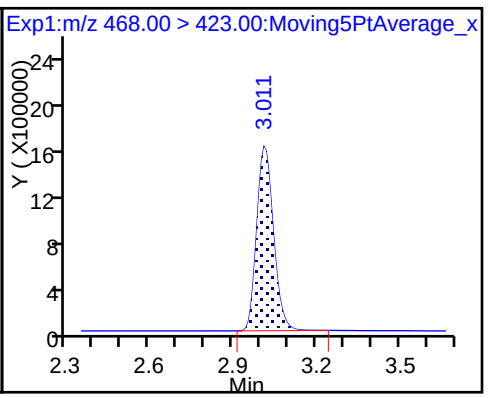
17 Perfluorooctane sulfonic acid



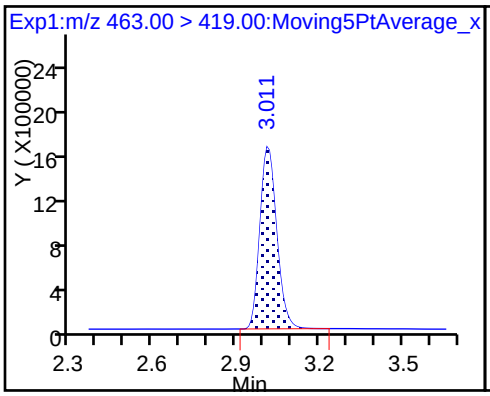
D 18 13C4 PFOS



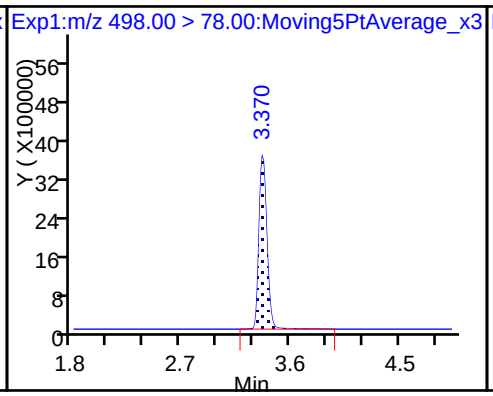
D 19 13C5 PFNA



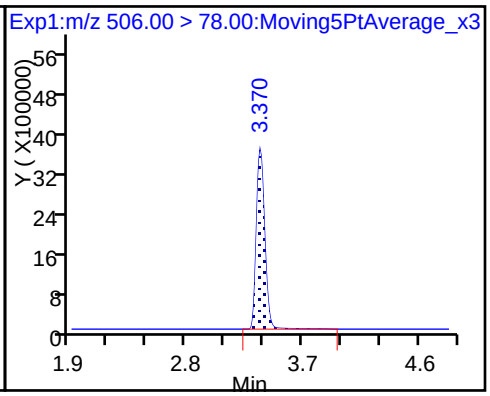
20 Perfluorononanoic acid



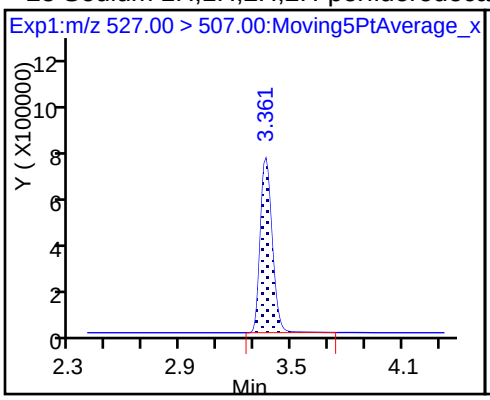
22 Perfluorooctane Sulfonamide



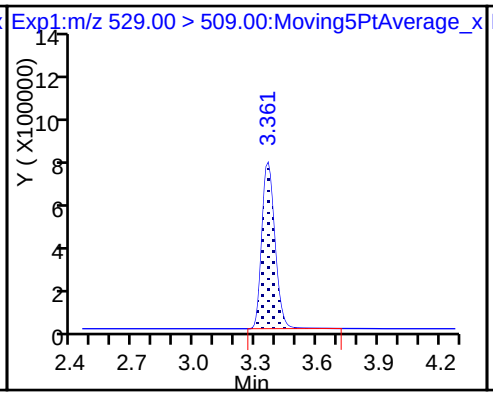
D 21 13C8 FOSA



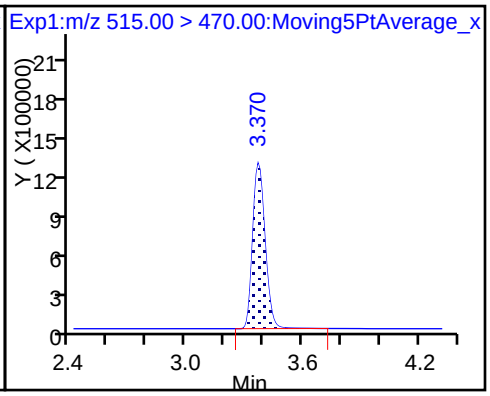
25 Sodium 1H,1H,2H,2H-perfluorodecane



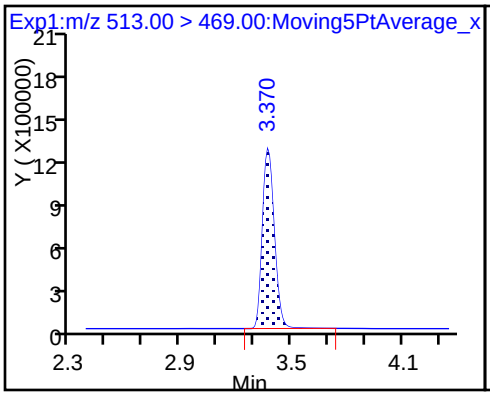
D 26 M2-8:2FTS



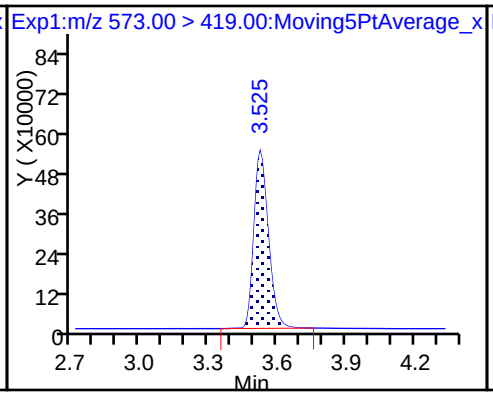
D 23 13C2 PFDA



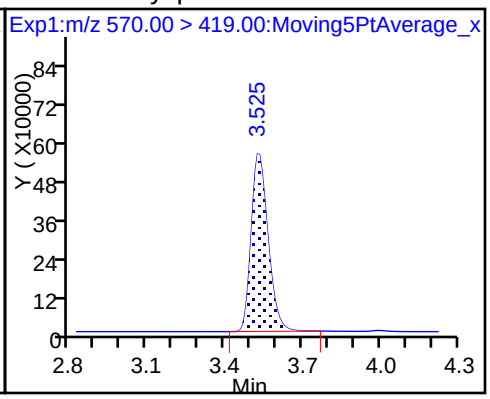
24 Perfluorodecanoic acid



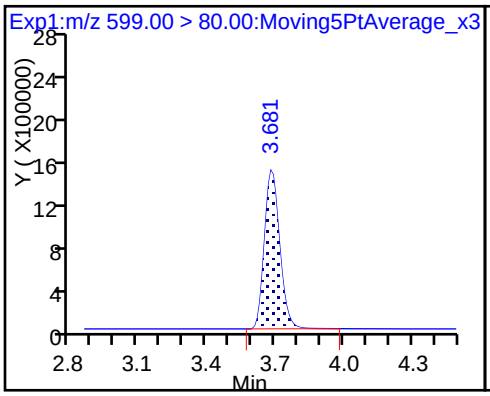
D 27 d3-NMeFOSAA



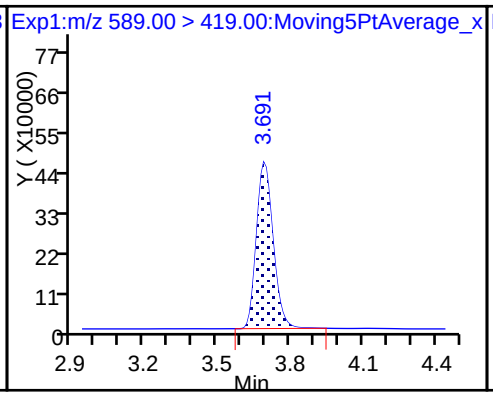
28 N-methyl perfluorooctane sulfonami



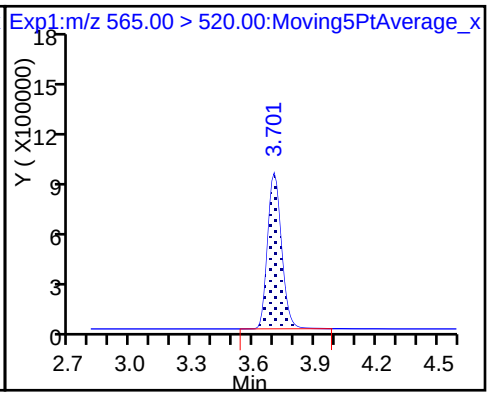
29 Perfluorodecane Sulfonic acid



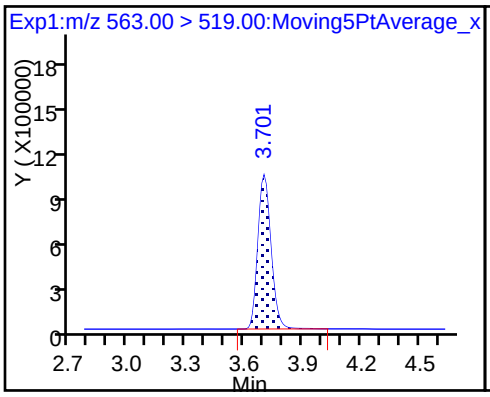
D 32 d5-NEtFOSAA



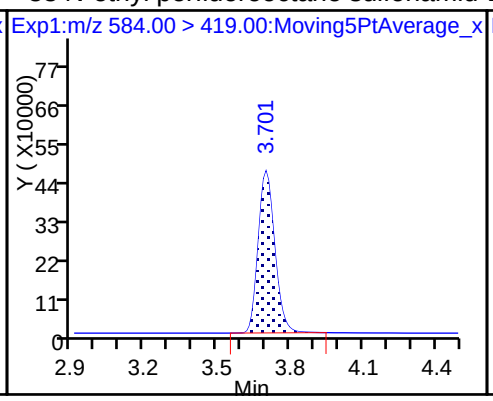
D 30 13C2 PFUnA



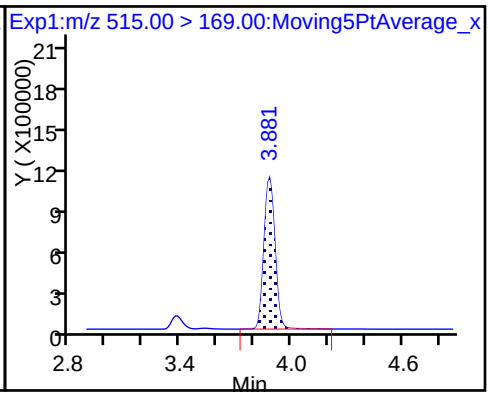
31 Perfluoroundecanoic acid



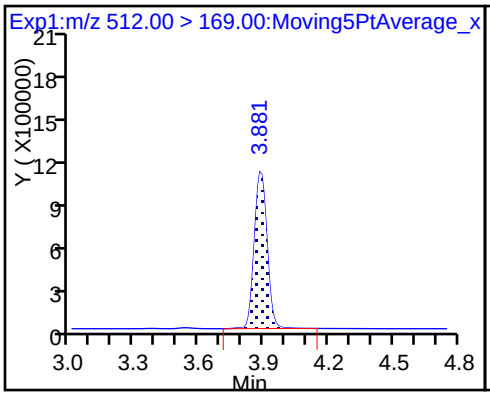
33 N-ethyl perfluorooctane sulfonamid



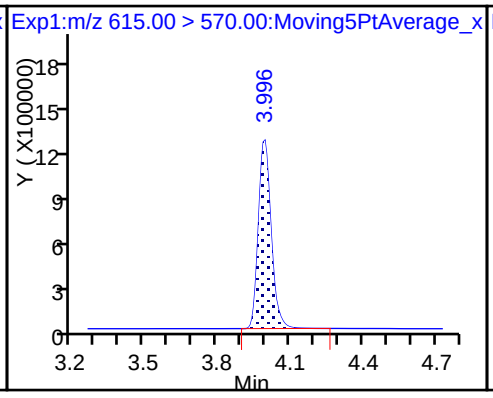
D 34 d-N-MeFOSA-M



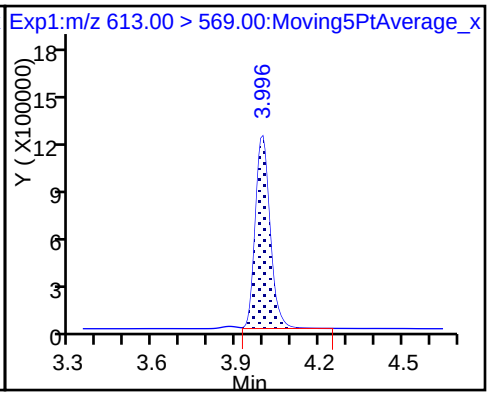
35 MeFOSA



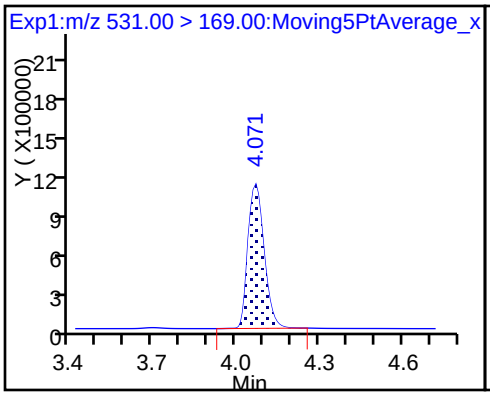
D 36 13C2 PFDoA



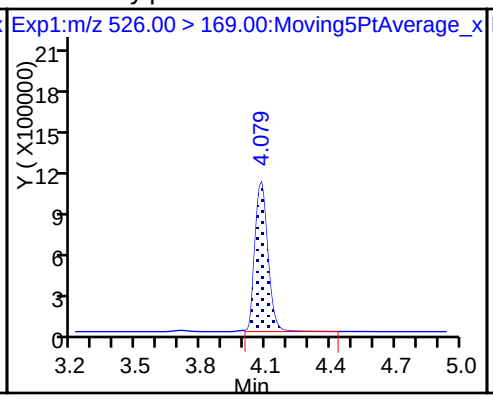
37 Perfluorododecanoic acid



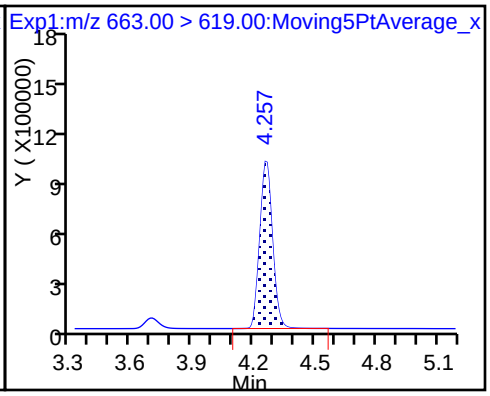
D 38 d-N-EtFOSA-M



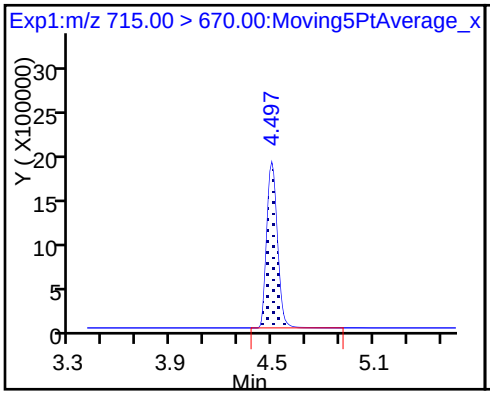
39 N-ethylperfluoro-1-octanesulfonami



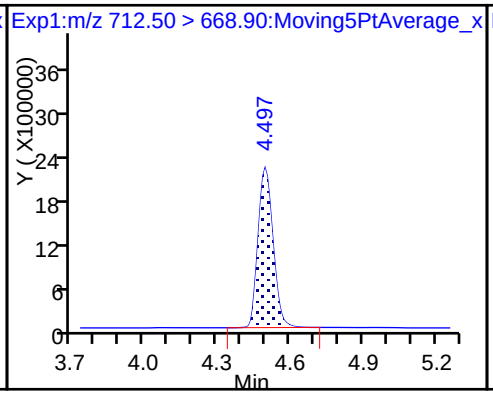
41 Perfluorotridecanoic acid



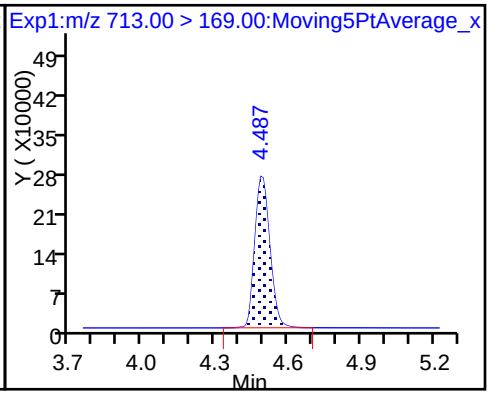
D 43 13C2-PFTeDA



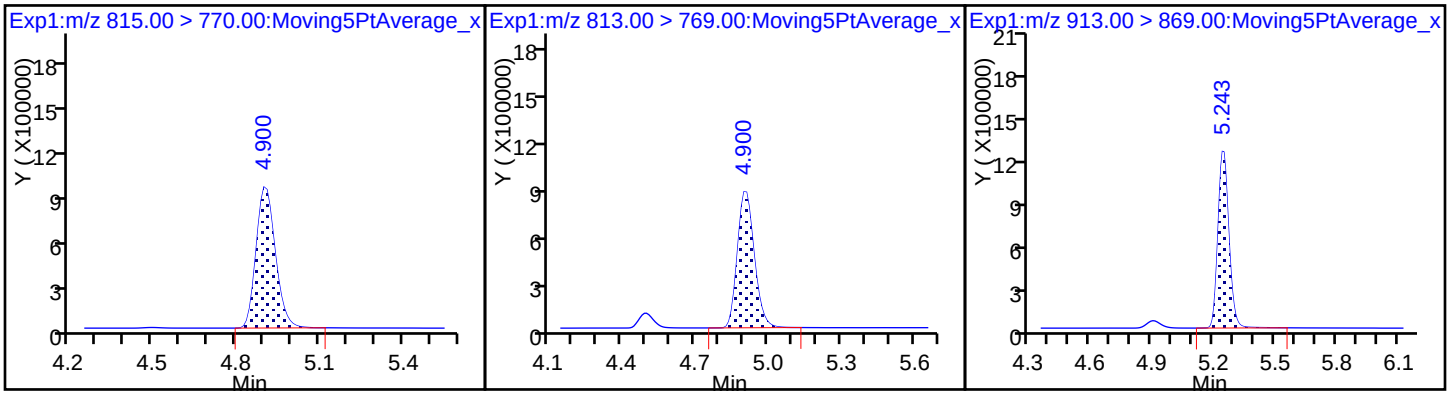
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171596/12 Calibration Date: 06/29/2017 03:35

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28B_038.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9283		20.4	19.8	3.1	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.083		20.8	19.8	5.2	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.576		19.8	17.5	13.0	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	0.9761		19.0	19.8	-3.9	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.085		20.1	19.8	1.6	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.038		16.9	18.0	-6.0	25.0
6:2FTS	AveID	0.9859	1.069		20.4	18.8	8.4	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.061		19.8	19.8	0.1	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.223		20.0	18.9	6.3	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	1.004		20.0	19.8	1.2	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.059		18.6	18.4	1.0	25.0
8:2FTS	AveID	0.999	1.018		19.3	19.0	1.9	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9403		19.3	19.8	-2.5	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	1.016		20.7	19.8	4.3	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.081		20.5	19.8	3.7	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6549		19.6	19.1	2.7	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	0.9501		19.3	19.8	-2.5	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.028		19.1	19.8	-3.4	25.0
MeFOSA	AveID	0.9522	0.9757		20.3	19.8	2.5	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9517		19.8	19.8	-0.0	25.0
N-EtFOSA-M	AveID	0.999	1.015		20.1	19.8	1.7	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9208		18.8	19.8	-5.1	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.008		17.0	19.8	-13.9	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8854		16.8	19.8	-15.3	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	0.9195		16.9	19.8	-14.7	25.0
13C4 PFBA	Ave	233991	279910		59.2	49.5	19.6	50.0
13C5-PFPeA	Ave	160811	193887		59.7	49.5	20.6	50.0
13C2 PFHxA	Ave	153401	192504		62.1	49.5	25.5	50.0
13C4-PFHpA	Ave	136899	166104		60.1	49.5	21.3	50.0
18O2 PFHxS	Ave	212697	249431		54.9	46.8	17.3	50.0
M2-6:2FTS	Ave	72814	77168		49.8	47.0	6.0	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171596/12 Calibration Date: 06/29/2017 03:35

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28B_038.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	152060		57.7	49.5	16.5	50.0
13C4 PFOS	Ave	162716	182995		53.2	47.3	12.5	50.0
13C5 PFNA	Ave	104991	121733		57.4	49.5	15.9	50.0
M2-8:2FTS	Ave	56620	58857		49.3	47.4	3.9	50.0
13C2 PFDA	Ave	100020	106842		52.9	49.5	6.8	50.0
13C8 FOSA	Ave	263963	282919		53.1	49.5	7.2	50.0
d3-NMeFOSAA	Ave	37033	39657		53.0	49.5	7.1	50.0
d5-NEtFOSAA	Ave	36944	41479		55.6	49.5	12.3	50.0
13C2 PFUnA	Ave	74302	80879		53.9	49.5	8.9	50.0
d-N-MeFOSA-M	Ave	74603	75548		50.1	49.5	1.3	50.0
13C2 PFDoA	Ave	73421	80277		54.1	49.5	9.3	50.0
d-N-EtFOSA-M	Ave	73544	73593		49.5	49.5	0.0	50.0
13C2-PFTeDA	Ave	151466	144086		47.1	49.5	-4.9	50.0
13C2-PFHxDA	Ave	83886	79132		46.7	49.5	-5.7	50.0

FORM VII 537 (Modified)

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_038.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 29-Jun-2017 03:35:12 ALS Bottle#: 31 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:38 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.525	1.533	-0.008	1.000	5145382	20.4		103	1731	
D 1 13C4 PFBA										
217.00 > 172.00	1.525	1.533	-0.008		13856949	59.2		120	17565	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.725	1.742	-0.017	1.000	4157291	20.8		105	1793	
D 3 13C5-PFPeA										
267.90 > 223.00	1.725	1.742	-0.017		9598391	59.7		121	19899	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.752	1.760	-0.008	1.000	6879672	19.8		113	3273	
298.90 > 99.00	1.752	1.760	-0.008	1.000	2809639		2.45(0.00-0.00)		6805	
D 47 13C3-PFBS										
301.90 > 83.00	1.752	1.760	-0.008		256353	NC			5471	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.947	1.958	-0.011	1.000	1449579	19.8		107	14789	
D 7 13C2 PFHxA										
315.00 > 270.00	1.980	1.992	-0.012		9529904	62.1		125	24164	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.980	2.003	-0.023	1.000	3720744	19.0		96.1	4795	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.298	2.312	-0.014	1.000	3569496	20.1		102	3167	
D 9 13C4-PFHpA										
367.00 > 322.00	2.298	2.312	-0.014		8222982	60.1		121	14183	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.307	2.329	-0.022	1.000	4665196	16.9		94.0	2409	
D 11 18O2 PFHxS										
403.00 > 84.00	2.307	2.329	-0.022		11681278	54.9		117	30803	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.619	2.634	-0.016	1.000	1548611	20.4		108	9677	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.619	2.634	-0.016		3629187	49.8		106	12818	
* 62 13C2-PFOA										
415.00 > 370.00	2.633	2.656	-0.023		7944843	49.5		100	14248	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.640	2.663	-0.023	1.000	3195500	19.8		100	596	
413.00 > 169.00	2.640	2.663	-0.023	1.000	1882843		1.70(0.90-1.10)		3917	
D 14 13C4 PFOA										
417.00 > 372.00	2.640	2.663	-0.023		7527719	57.7		116	14648	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.648	2.671	-0.023	1.000	4220341	20.0		106	12313	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.005	3.026	-0.021	1.000	3561155	18.6		101	5967	
499.00 > 99.00	3.005	3.026	-0.021	1.000	771494		4.62(0.90-1.10)		4240	
D 18 13C4 PFOS										
503.00 > 80.00	3.005	3.026	-0.021		8660543	53.2		112	13232	
D 19 13C5 PFNA										
468.00 > 423.00	3.005	3.026	-0.021		6026404	57.4		116	10950	
20 Perfluorononanoic acid										
463.00 > 419.00	3.005	3.026	-0.021	1.000	2419214	20.0		101	4258	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.364	3.379	-0.015	1.000	5692107	20.7		104	23822	
D 21 13C8 FOSA										
506.00 > 78.00	3.364	3.379	-0.015		14005889	53.1		107	60806	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.355	3.379	-0.024	1.000	1136432	19.3		102	11449	
D 26 M2-8:2FTS										
529.00 > 509.00	3.355	3.379	-0.024		2791329	49.3		104	30739	
D 23 13C2 PFDA										
515.00 > 470.00	3.364	3.388	-0.024		5289227	52.9		107	21629	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.364	3.388	-0.024	1.000	1989384	19.3		97.5	7334	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.520	3.542	-0.022		1963205	53.0		107	15038	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.520	3.542	-0.022	1.000	849201	20.5		104	3234	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.674	3.700	-0.026	1.000	2287841	19.6		103	10939	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.684	3.710	-0.026		2053437	55.6		112	5198	
D 30 13C2 PFUnA										
565.00 > 520.00	3.694	3.710	-0.016		4003908	53.9		109	17653	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.694	3.710	-0.016	1.000	1646171	19.1		96.6	3921	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.694	3.720	-0.026	1.003	780400	19.3		97.5	7203	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.874	3.889	-0.015		3739992	50.1		101	959	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.874	3.889	-0.015	1.000	1459635	20.3		102	5280	
D 36 13C2 PFDoA										
615.00 > 570.00	3.982	4.008	-0.026		3974117	54.1		109	11580	
37 Perfluorododecanoic acid										
613.00 > 569.00	3.989	4.008	-0.019	1.000	1512827	19.8		100.0	1552	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.062	4.078	-0.016		3643202	49.5		100	6476	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.071	4.078	-0.007	1.000	1479762	20.1		102	5092	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.257	4.273	-0.016	1.000	1463671	18.8		94.9	371	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.492	4.510	-0.018		7132955	47.1		95.1	52818	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.492	4.510	-0.018	1.000	3191640	17.0		86.1	2079	
713.00 > 169.00	4.483	4.510	-0.027	0.998	398286		8.01(0.00-0.00)		8707	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.901	4.922	-0.021		3917418	46.7		94.3	5278	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.901	4.922	-0.021	1.000	1407408	16.8		84.7	203	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.236	5.265	-0.029	1.000	1461645	16.9		85.3	490	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L4_00003 Amount Added: 1.00 Units: mL

Report Date: 29-Jun-2017 17:01:39 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_038.d

Injection Date: 29-Jun-2017 03:35:12 Instrument ID: A8_N

Lims ID: CCV L4

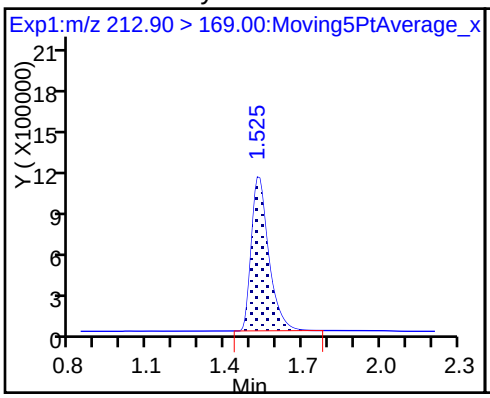
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 12

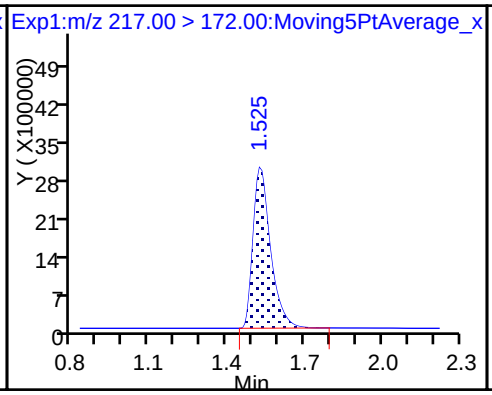
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

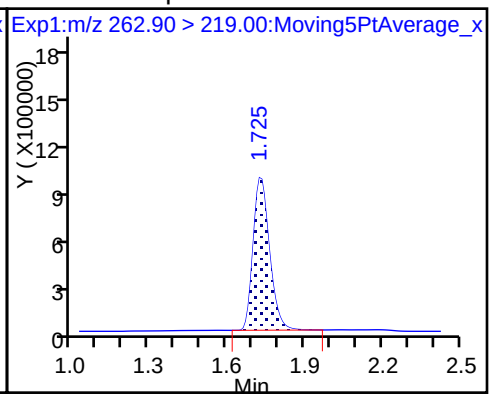
2 Perfluorobutyric acid



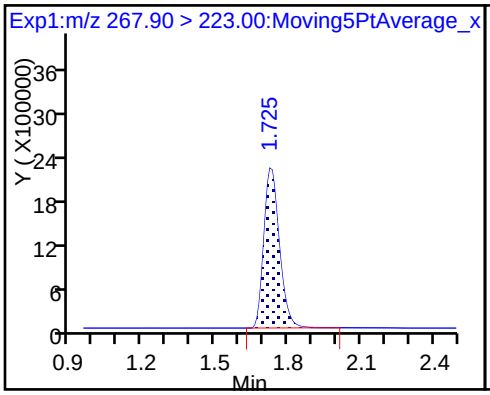
D 1 13C4 PFBA



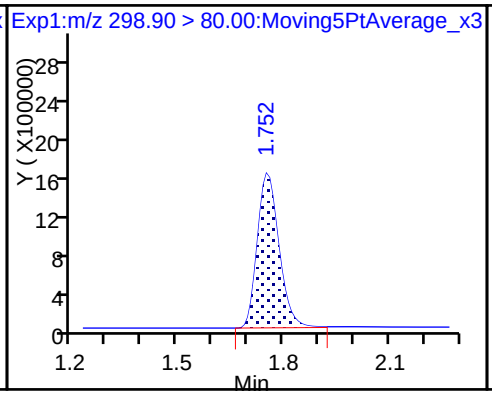
4 Perfluoropentanoic acid



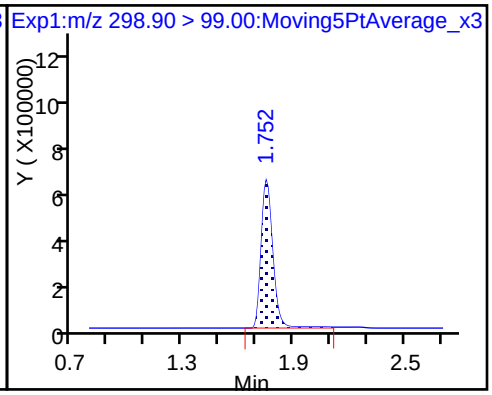
D 3 13C5-PFPeA



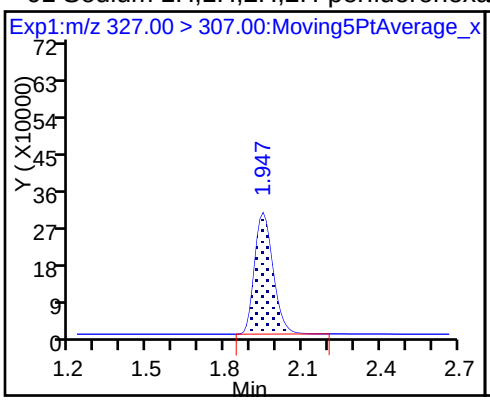
5 Perfluorobutanesulfonic acid



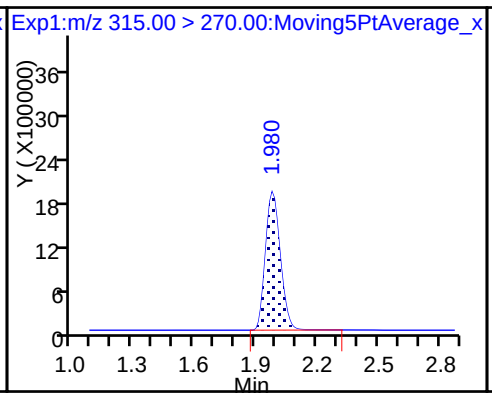
5 Perfluorobutanesulfonic acid



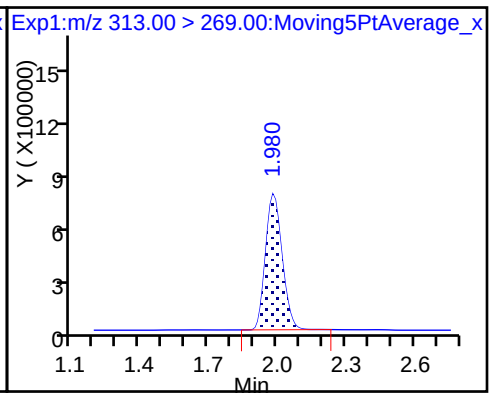
61 Sodium 1H,1H,2H,2H-perfluorohexa



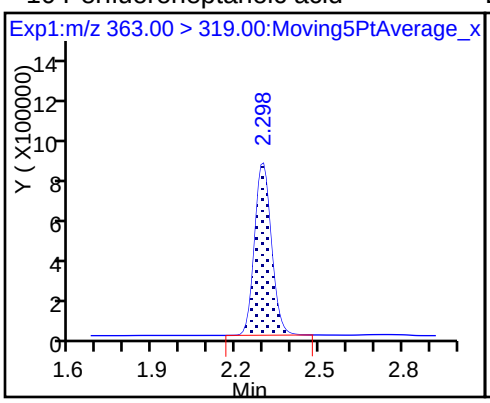
D 7 13C2 PFHxA



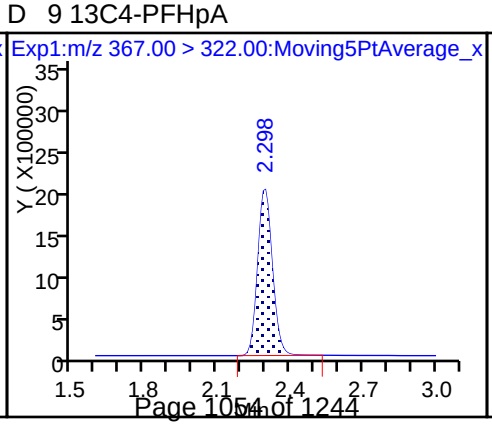
6 Perfluorohexanoic acid



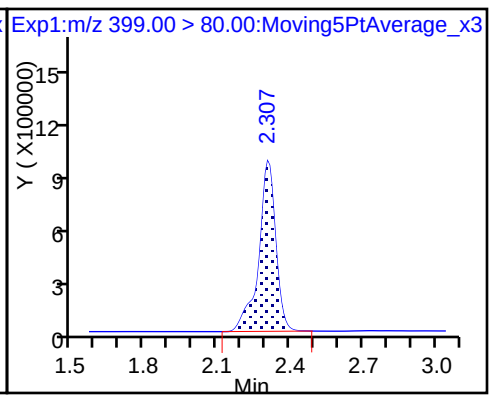
10 Perfluoroheptanoic acid



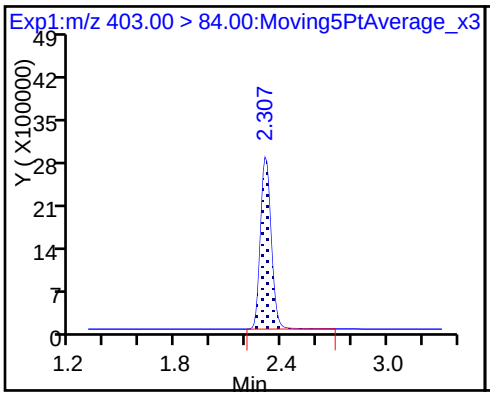
D 9 13C4-PFHpA



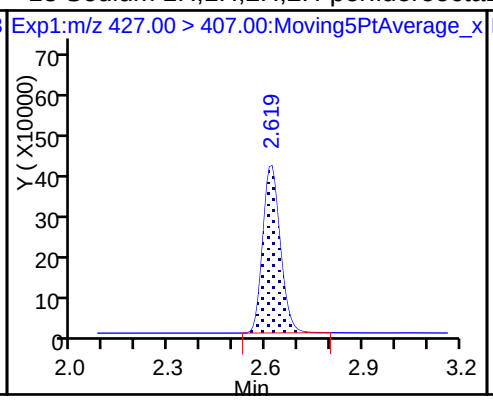
8 Perfluorohexanesulfonic acid



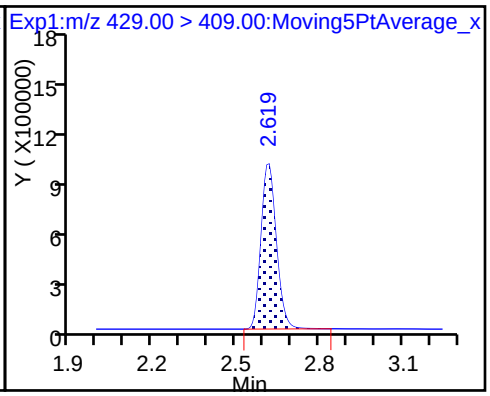
D 11 18O2 PFHxS



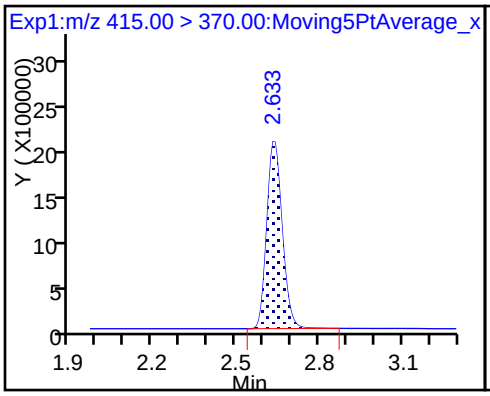
13 Sodium 1H,1H,2H,2H-perfluorooctane



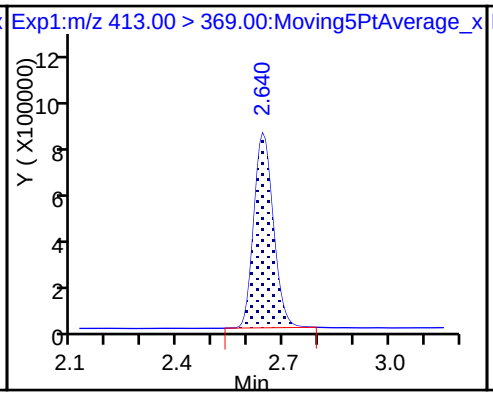
D 12 M2-6:2FTS



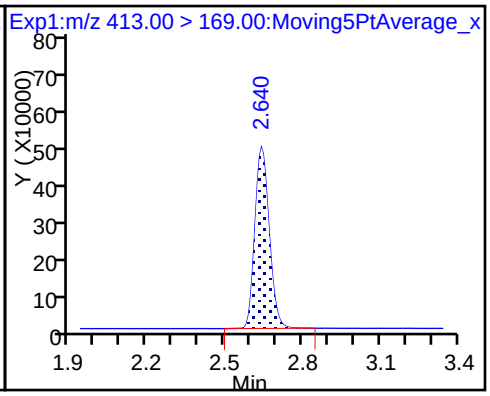
* 62 13C2-PFOA



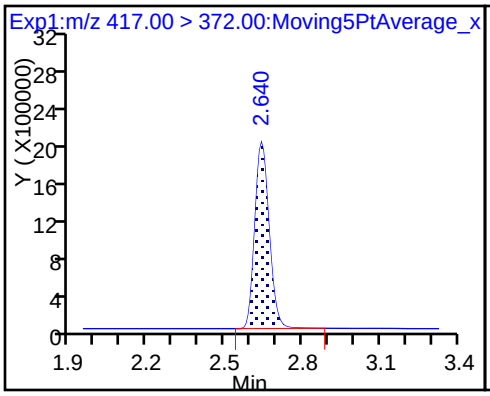
15 Perfluorooctanoic acid



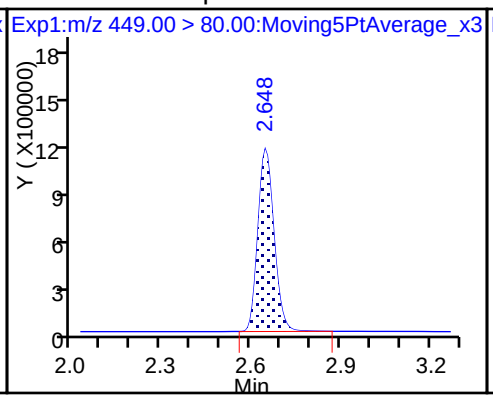
15 Perfluorooctanoic acid



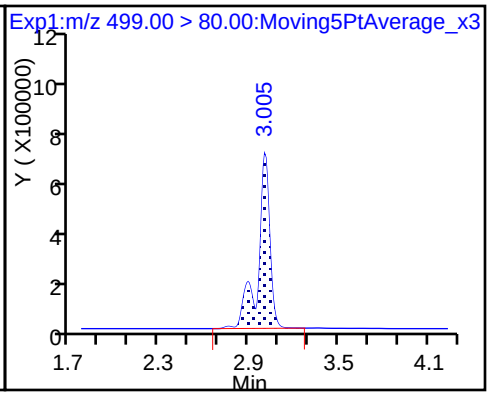
D 14 13C4 PFOA



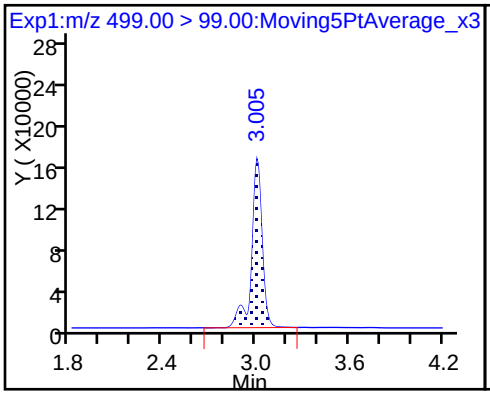
16 Perfluoroheptanesulfonic Acid



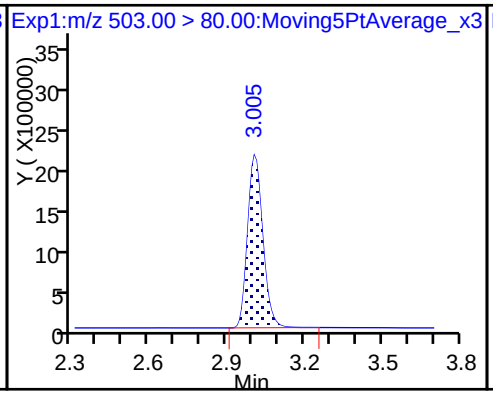
17 Perfluorooctane sulfonic acid



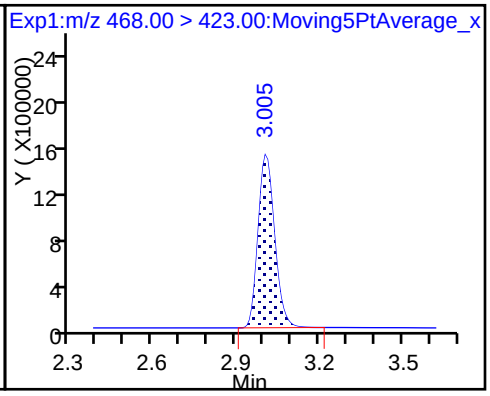
17 Perfluorooctane sulfonic acid



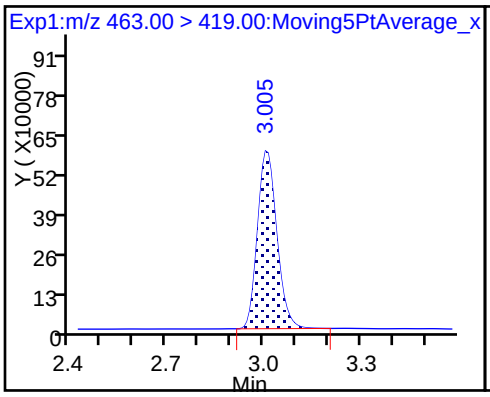
D 18 13C4 PFOS



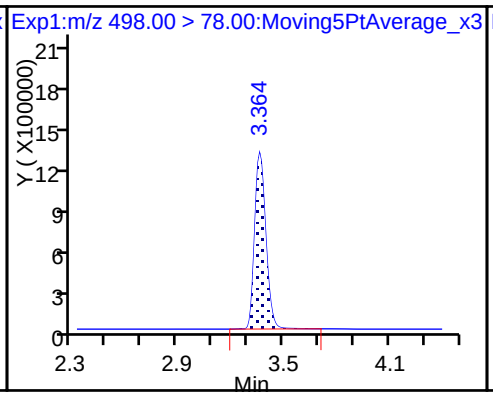
D 19 13C5 PFNA



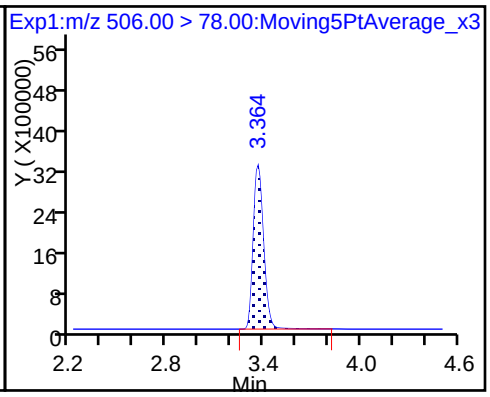
20 Perfluorononanoic acid



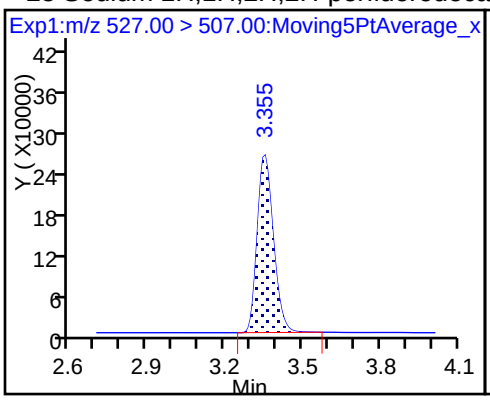
22 Perfluorooctane Sulfonamide



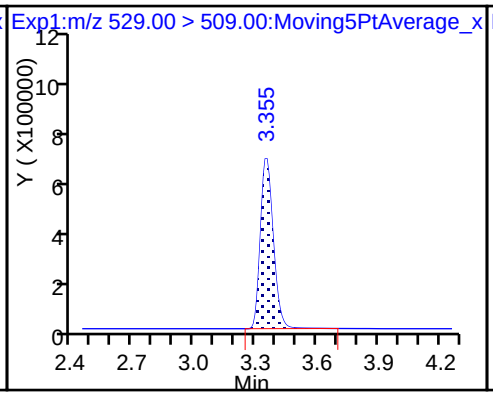
D 21 13C8 FOSA



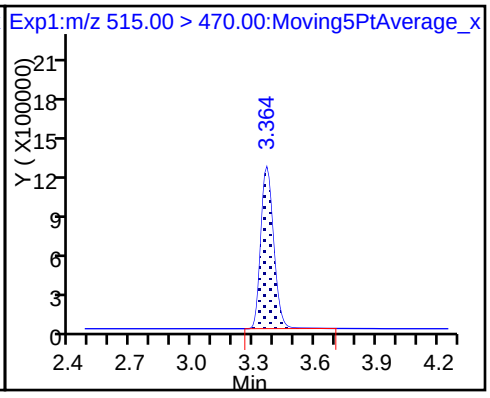
25 Sodium 1H,1H,2H,2H-perfluorodecane



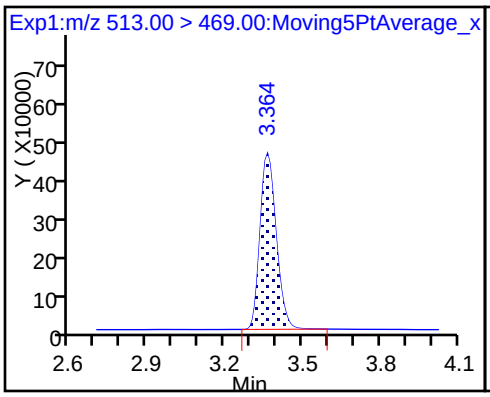
D 26 M2-8:2FTS



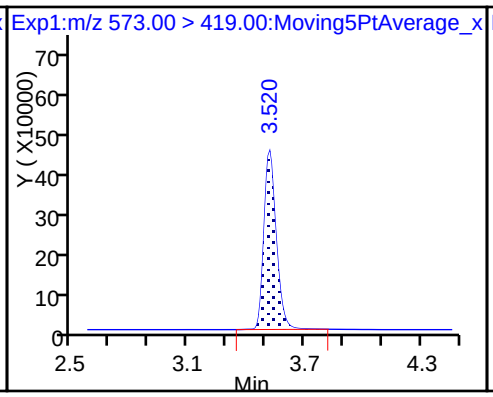
D 23 13C2 PFDA



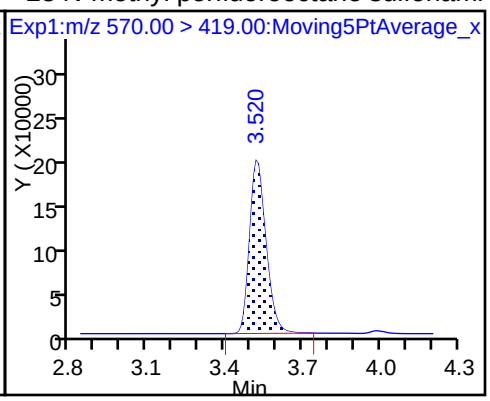
24 Perfluorodecanoic acid



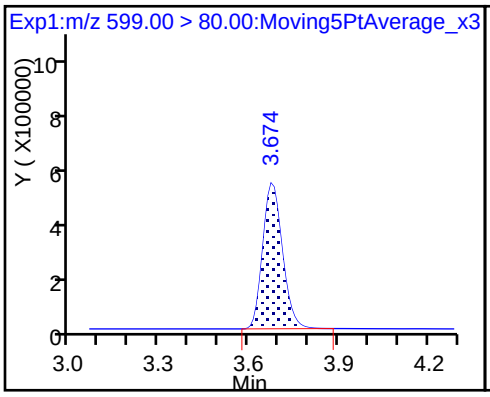
D 27 d3-NMeFOSAA



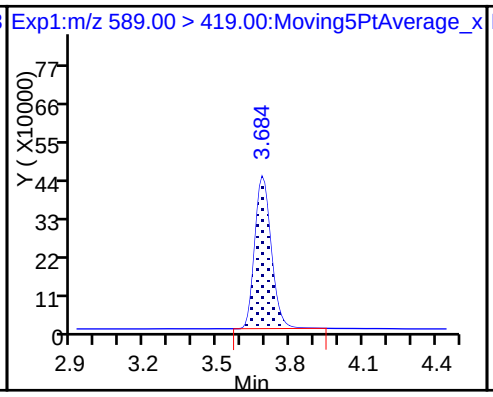
28 N-methyl perfluorooctane sulfonami



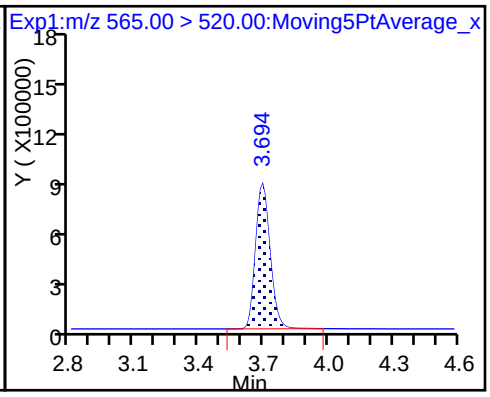
29 Perfluorodecane Sulfonic acid



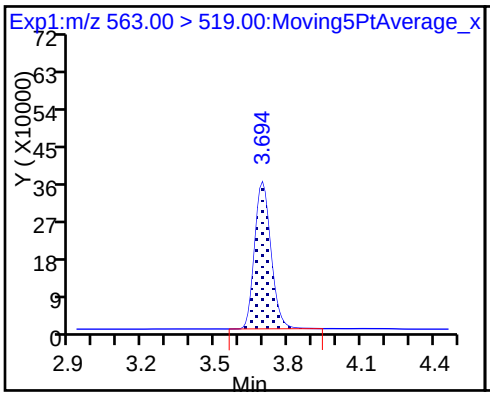
D 32 d5-NEtFOSAA



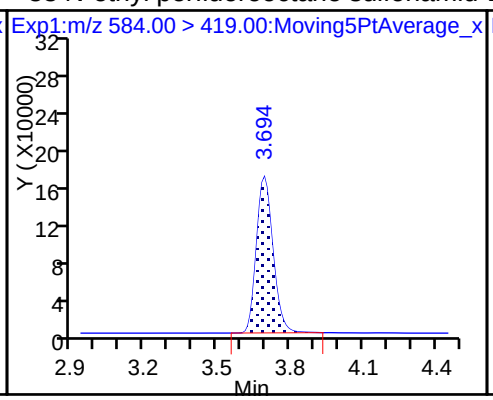
D 30 13C2 PFUnA



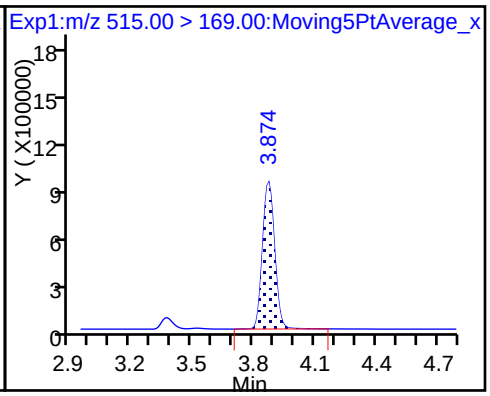
31 Perfluoroundecanoic acid



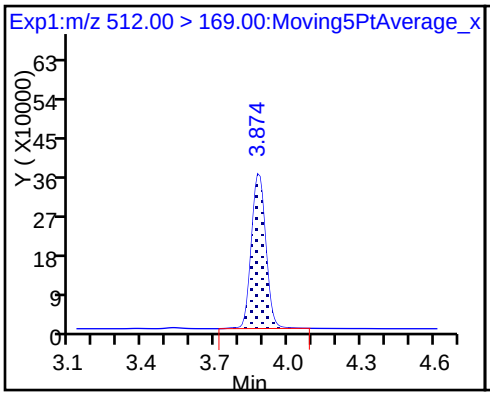
33 N-ethyl perfluorooctane sulfonamid



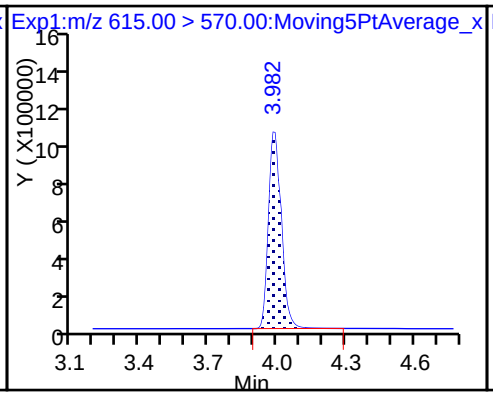
D 34 d-N-MeFOSA-M



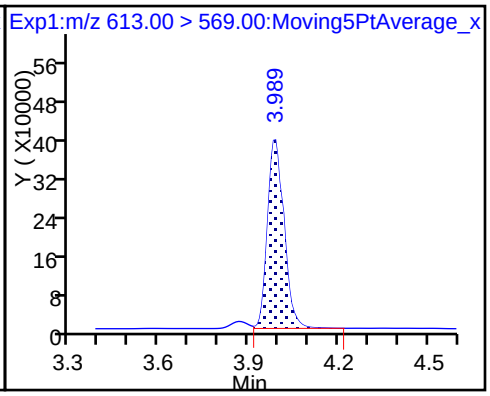
35 MeFOSA



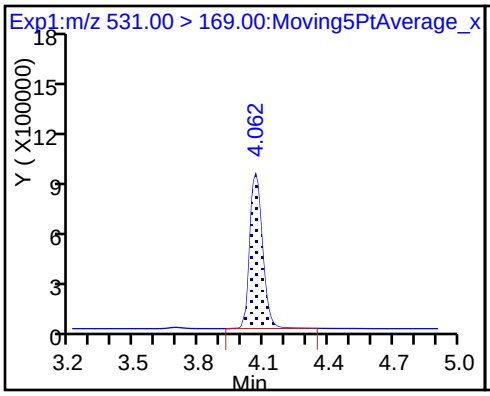
D 36 13C2 PFDoA



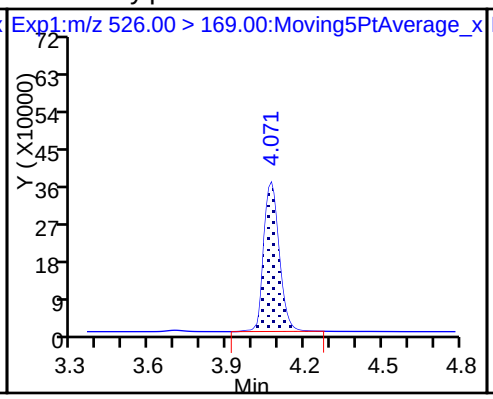
37 Perfluorododecanoic acid



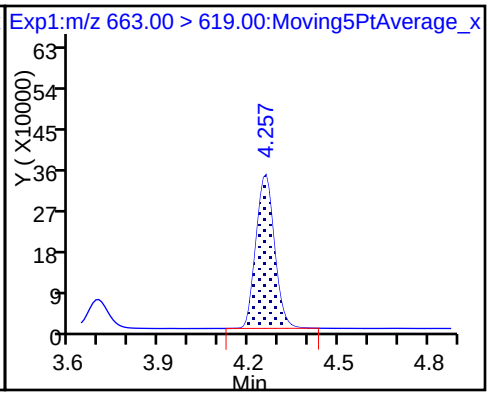
D 38 d-N-EtFOSA-M



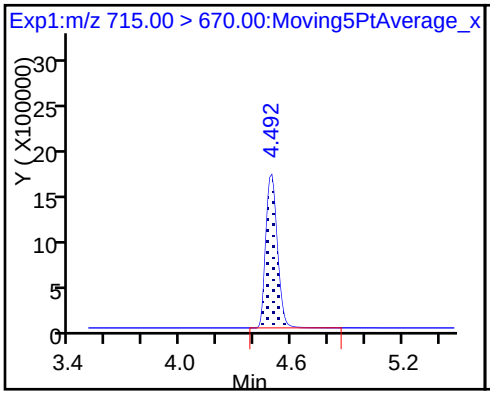
39 N-ethylperfluoro-1-octanesulfonami



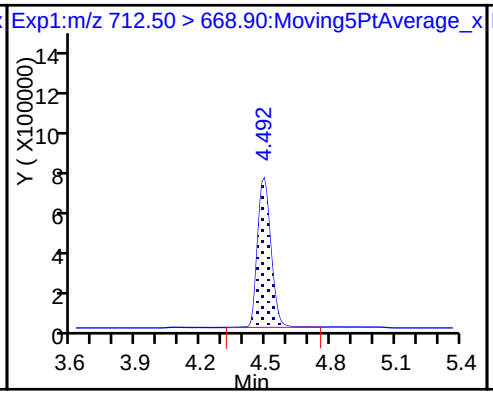
41 Perfluorotridecanoic acid



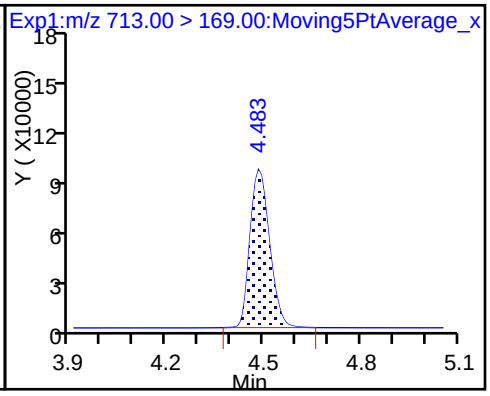
D 43 13C2-PFTeDA



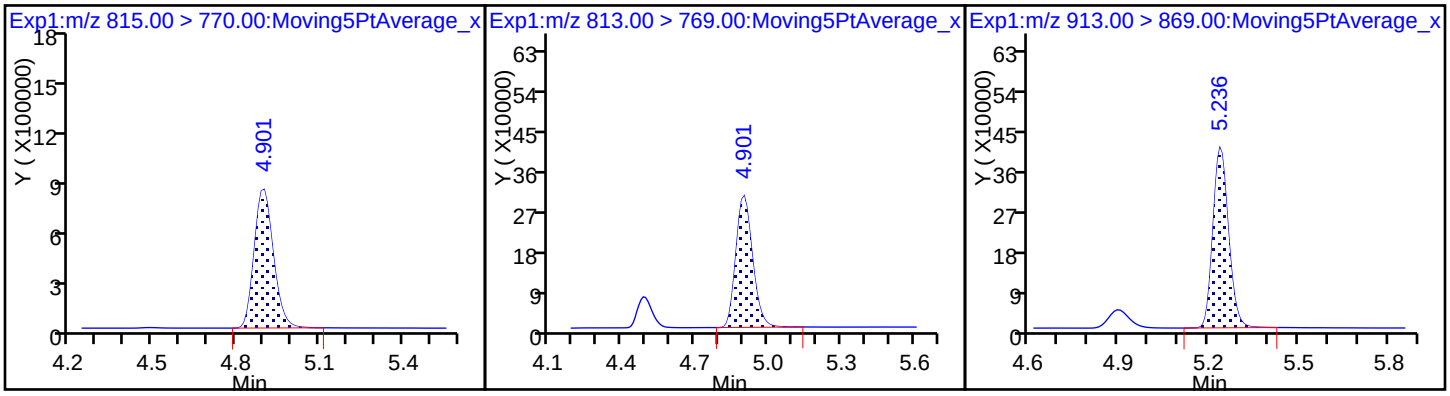
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171596/22 Calibration Date: 06/29/2017 04:44

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28B_048.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9007	0.9450		51.9	49.5	4.9	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.029	1.073		51.6	49.5	4.2	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.394	1.545		48.5	43.8	10.8	25.0
Perfluorohexanoic acid (PFHxA)	AveID	1.016	1.029		50.2	49.5	1.3	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.068	1.079		50.0	49.5	1.0	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.105	1.075		43.8	45.0	-2.7	25.0
6:2FTS	AveID	0.9859	0.9780		46.6	46.9	-0.8	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.060	1.097		51.2	49.5	3.5	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.151	1.187		48.6	47.1	3.2	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9921	1.008		50.3	49.5	1.7	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.049	1.096		48.0	45.9	4.5	25.0
8:2FTS	AveID	0.999	1.028		48.8	47.4	2.9	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9649	0.9718		49.9	49.5	0.7	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9739	1.009		51.3	49.5	3.6	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	1.043	1.090		51.8	49.5	4.6	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6377	0.6629		49.6	47.7	4.0	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.9747	1.058		53.8	49.5	8.6	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.064	1.020		47.4	49.5	-4.2	25.0
MeFOSA	AveID	0.9522	0.998		51.9	49.5	4.8	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9521	0.9663		50.2	49.5	1.5	25.0
N-EtFOSA-M	AveID	0.999	1.056		52.3	49.5	5.7	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9705	0.9709		49.5	49.5	0.0	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	2.333	2.044		43.4	49.5	-12.4	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8761		42.5	49.5	-14.1	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.078	0.9566		43.9	49.5	-11.3	25.0
13C4 PFBA	Ave	233991	320650		67.8	49.5	37.0	50.0
13C5-PFPeA	Ave	160811	215681		66.4	49.5	34.1	50.0
13C2 PFHxA	Ave	153401	213449		68.9	49.5	39.1	50.0
13C4-PFHpA	Ave	136899	180545		65.3	49.5	31.9	50.0
18O2 PFHxS	Ave	212697	279690		61.6	46.8	31.5	50.0
M2-6:2FTS	Ave	72814	95659		61.8	47.0	31.4	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-171596/22 Calibration Date: 06/29/2017 04:44

Instrument ID: A8_N Calib Start Date: 06/28/2017 00:13

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 06/28/2017 01:01

Lab File ID: 2017.06.28B_048.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	130539	166283		63.1	49.5	27.4	50.0
13C4 PFOS	Ave	162716	212908		61.9	47.3	30.8	50.0
13C5 PFNA	Ave	104991	135013		63.7	49.5	28.6	50.0
M2-8:2FTS	Ave	56620	66660		55.8	47.4	17.7	50.0
13C8 FOSA	Ave	263963	312503		58.6	49.5	18.4	50.0
13C2 PFDA	Ave	100020	113409		56.1	49.5	13.4	50.0
d3-NMeFOSAA	Ave	37033	50587		67.6	49.5	36.6	50.0
13C2 PFUnA	Ave	74302	90847		60.5	49.5	22.3	50.0
d5-NEtFOSAA	Ave	36944	43943		58.9	49.5	18.9	50.0
d-N-MeFOSA-M	Ave	74603	91566		60.8	49.5	22.7	50.0
13C2 PFDoA	Ave	73421	91072		61.4	49.5	24.0	50.0
d-N-EtFOSA-M	Ave	73544	86124		58.0	49.5	17.1	50.0
13C2-PFTeDA	Ave	151466	163419		53.4	49.5	7.9	50.0
13C2-PFHxDA	Ave	83886	87525		51.7	49.5	4.3	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_048.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 29-Jun-2017 04:44:12 ALS Bottle#: 32 Worklist Smp#: 22
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub20

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:15:51 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.533	1.533	0.0	1.000	14999844	51.9		105	3002	
D 1 13C4 PFBA										
217.00 > 172.00	1.533	1.533	0.0		15873763	67.8		137	15651	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.734	1.742	-0.008	1.000	11454975	51.6		104	4655	
D 3 13C5-PFPeA										
267.90 > 223.00	1.734	1.742	-0.008		10677281	66.4		134	26784	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.760	1.760	0.0	1.000	18912342	48.5		111	23873	
298.90 > 99.00	1.760	1.760	0.0	1.000	8398805		2.25(0.00-0.00)		21529	
D 47 13C3-PFBS										
301.90 > 83.00	1.751	1.760	-0.009		285736	NC			8263	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.947	1.958	-0.011	1.000	4412689	48.6		105	146864	
D 7 13C2 PFHxA										
315.00 > 270.00	1.991	1.992	-0.001		10566791	68.9		139	23646	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.991	2.003	-0.012	1.000	10877672	50.2		101	10195	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.306	2.312	-0.006	1.000	9640960	50.0		101	6165	
D 9 13C4-PFHpA										
367.00 > 322.00	2.306	2.312	-0.006		8937879	65.3		132	23384	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.316	2.329	-0.013	1.000	13547399	43.8		97.3	5248	
D 11 18O2 PFHxS										
403.00 > 84.00	2.316	2.329	-0.013		13098342	61.6		131	23532	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.625	2.634	-0.009	1.000	4390612	46.6		99.2	14410	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.625	2.634	-0.009		4498827	61.8		131	16064	
* 62 13C2-PFOA										
415.00 > 370.00	2.647	2.656	-0.009		8528962	49.5		100	15495	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.655	2.663	-0.008	1.000	9032737	51.2		104	1683	
413.00 > 169.00	2.655	2.663	-0.008	1.000	5458777		1.65(0.90-1.10)		6757	
D 14 13C4 PFOA										
417.00 > 372.00	2.655	2.663	-0.008		8231810	63.1		127	14377	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.662	2.671	-0.009	1.000	11908143	48.6		103	18381	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.017	3.026	-0.009	1.000	10717620	48.0		104	34021	
499.00 > 99.00	3.017	3.026	-0.009	1.000	2264065		4.73(0.90-1.10)		8156	
D 18 13C4 PFOS										
503.00 > 80.00	3.017	3.026	-0.009		10076231	61.9		131	33728	
D 19 13C5 PFNA										
468.00 > 423.00	3.017	3.026	-0.009		6683810	63.7		129	9708	
20 Perfluorononanoic acid										
463.00 > 419.00	3.017	3.026	-0.009	1.000	6740298	50.3		102	7858	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.377	3.379	-0.002	1.000	15613345	51.3		104	96181	
D 21 13C8 FOSA										
506.00 > 78.00	3.367	3.379	-0.012		15470469	58.6		118	496983	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.358	3.379	-0.021	1.000	3248573	48.8		103	11011	
D 26 M2-8:2FTS										
529.00 > 509.00	3.358	3.379	-0.021		3161407	55.8		118	23383	
D 23 13C2 PFDA										
515.00 > 470.00	3.377	3.388	-0.011		5614287	56.1		113	23551	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.377	3.388	-0.011	1.000	5455986	49.9		101	15151	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.522	3.542	-0.020		2504313	67.6		137	14195	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.531	3.542	-0.011	1.002	2730762	51.8		105	10122	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.688	3.700	-0.012	1.000	6735562	49.6		104	21530	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.697	3.710	-0.013		2175416	58.9		119	4561	
D 30 13C2 PFUnA										
565.00 > 520.00	3.697	3.710	-0.013		4497352	60.5		122	21858	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.697	3.710	-0.013	1.000	4585973	47.4		95.8	8455	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.697	3.720	-0.023	1.000	2302553	53.8		109	9439	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.878	3.889	-0.011		4532958	60.8		123	897	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.887	3.889	-0.002	1.000	4523506	51.9		105	6984	
D 36 13C2 PFDoA										
615.00 > 570.00	3.993	4.008	-0.015		4508530	61.4		124	13338	
37 Perfluorododecanoic acid										
613.00 > 569.00	3.993	4.008	-0.015	1.000	4356569	50.2		101	4504	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.065	4.078	-0.013		4263558	58.0		117	5514	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.074	4.078	-0.004	1.000	4501395	52.3		106	5121	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.260	4.273	-0.013	1.000	4377313	49.5		100	993	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.490	4.510	-0.020		8090036	53.4		108	27663	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.490	4.510	-0.020	1.000	9215546	43.4		87.6	4575	
713.00 > 169.00	4.490	4.510	-0.020	1.000	1146144		8.04(0.00-0.00)		15042	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.902	4.922	-0.020		4332916	51.7		104	5537	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.902	4.922	-0.020	1.000	3949964	42.5		85.9	533	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.237	5.265	-0.028	1.000	4312928	43.9		88.7	1032	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L5_00004 Amount Added: 1.00 Units: mL

Report Date: 29-Jun-2017 17:15:52 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_048.d

Injection Date: 29-Jun-2017 04:44:12 Instrument ID: A8_N

Lims ID: CCV L5

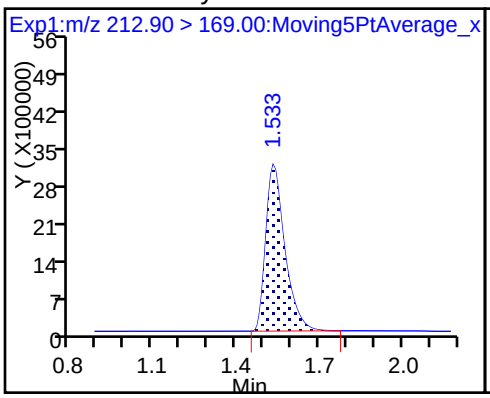
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 22

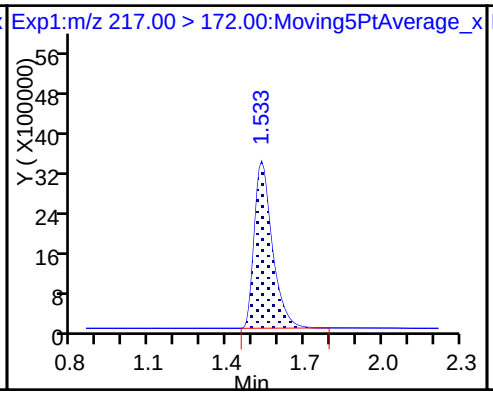
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

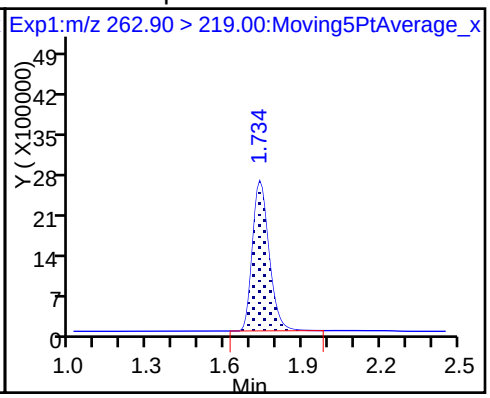
2 Perfluorobutyric acid



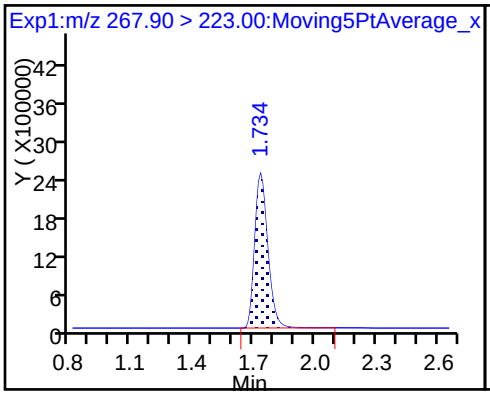
D 1 13C4 PFBA



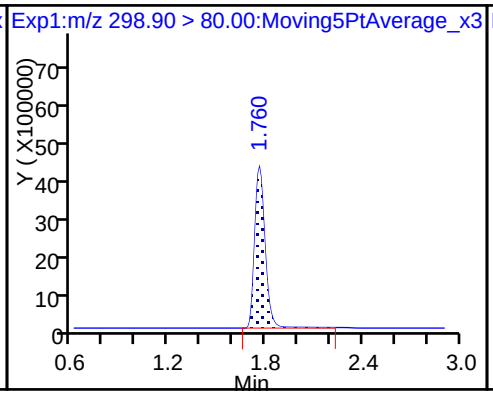
4 Perfluoropentanoic acid



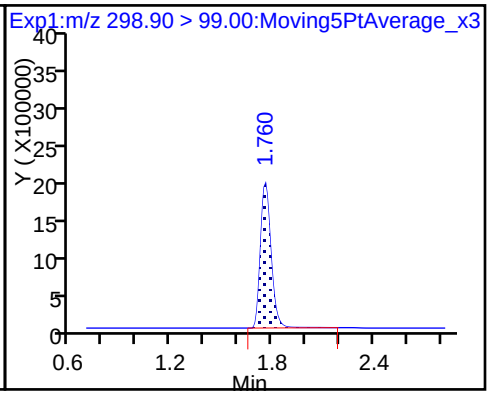
D 3 13C5-PFPeA



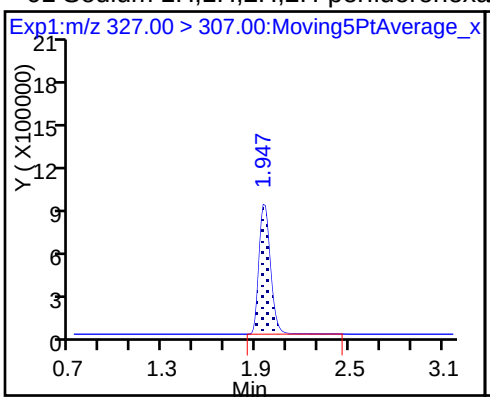
5 Perfluorobutanesulfonic acid



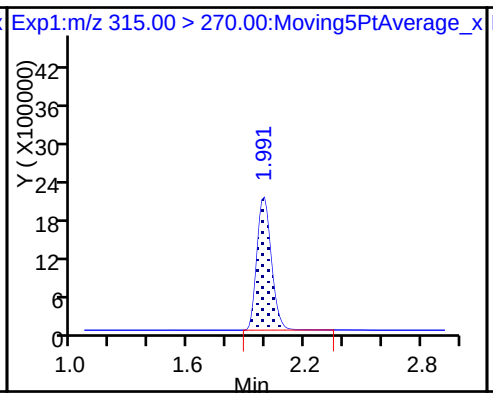
5 Perfluorobutanesulfonic acid



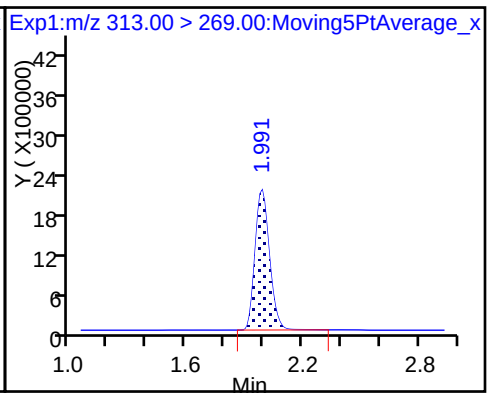
61 Sodium 1H,1H,2H,2H-perfluorohexa



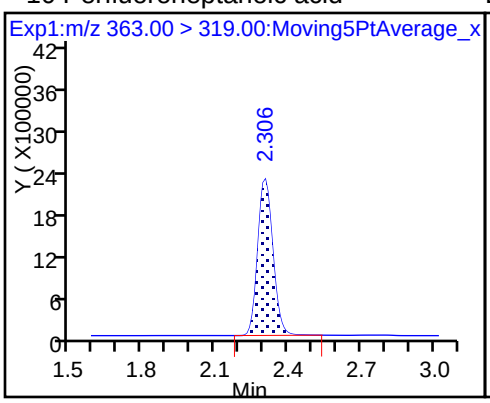
D 7 13C2 PFHxA



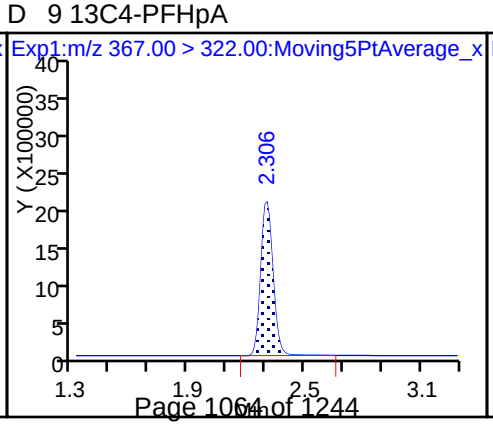
6 Perfluorohexanoic acid



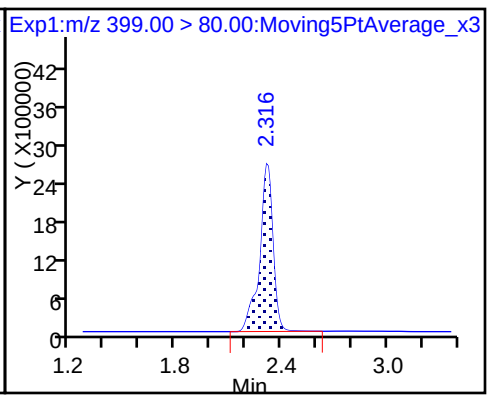
10 Perfluoroheptanoic acid



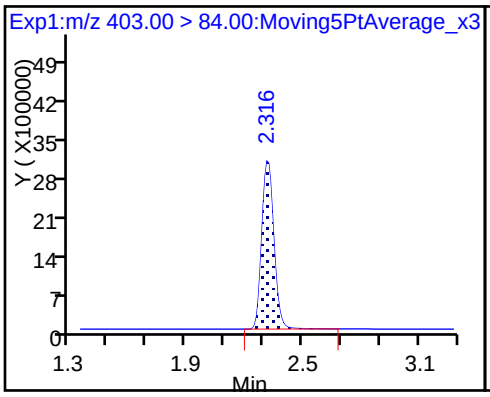
D 9 13C4-PFHpA



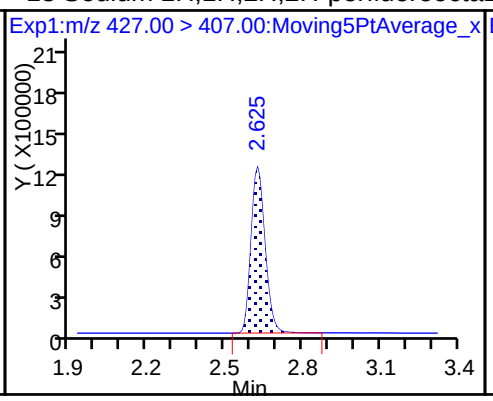
8 Perfluorohexanesulfonic acid



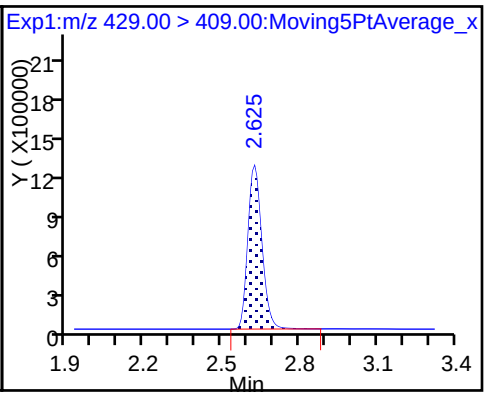
D 11 18O2 PFHxS



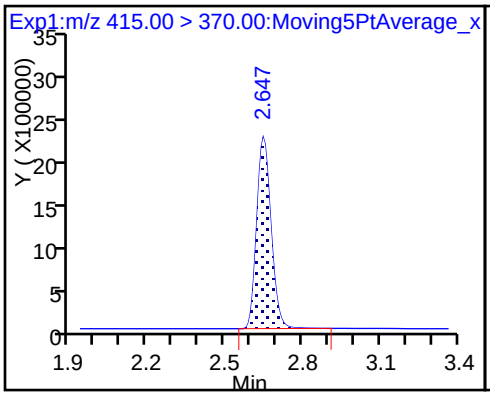
13 Sodium 1H,1H,2H,2H-perfluorooctane



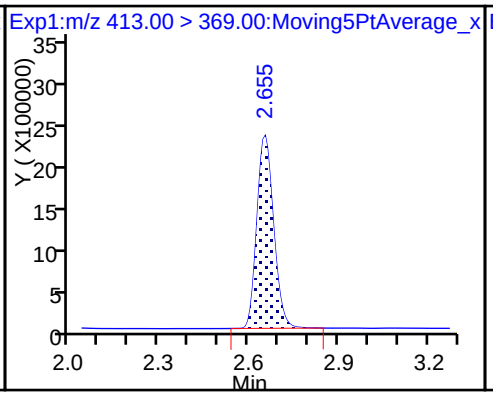
D 12 M2-6:2FTS



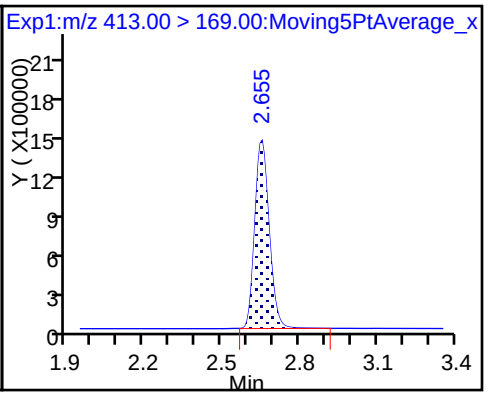
* 62 13C2-PFOA



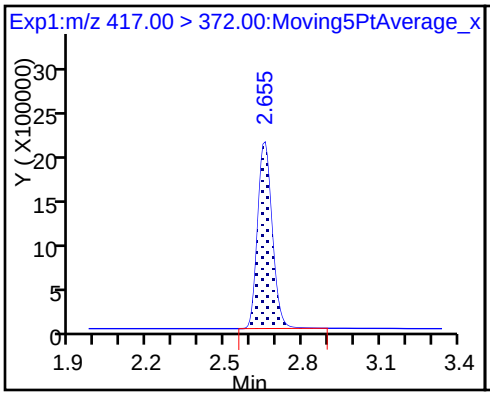
15 Perfluorooctanoic acid



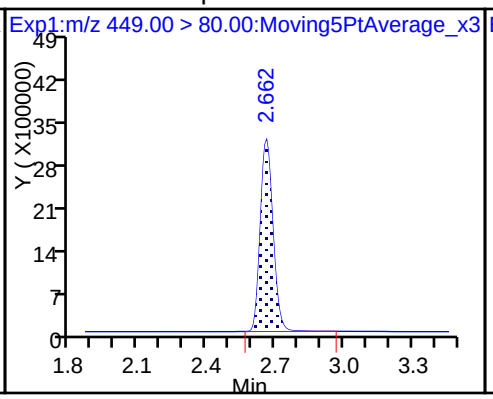
15 Perfluorooctanoic acid



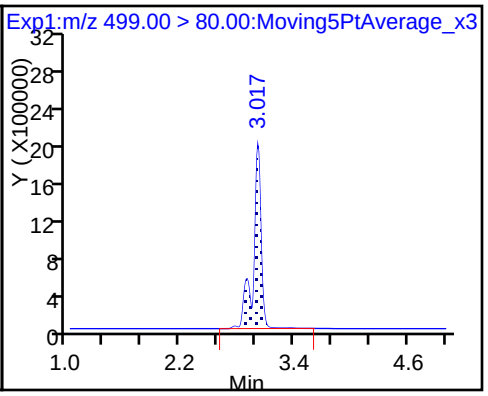
D 14 13C4 PFOA



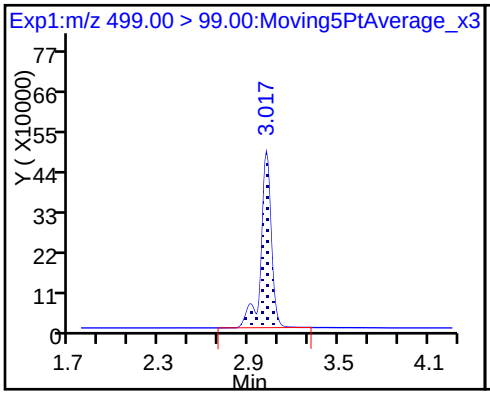
16 Perfluoroheptanesulfonic Acid



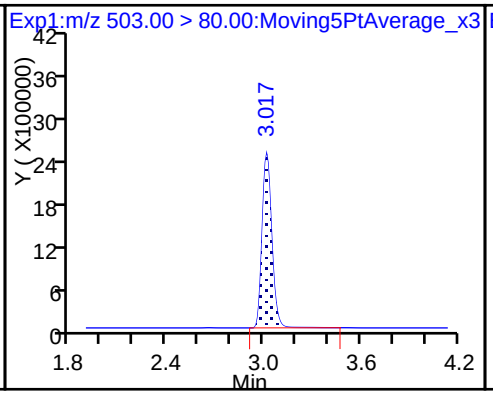
17 Perfluorooctane sulfonic acid



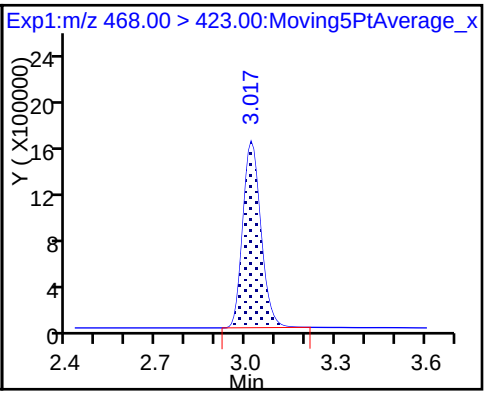
17 Perfluorooctane sulfonic acid



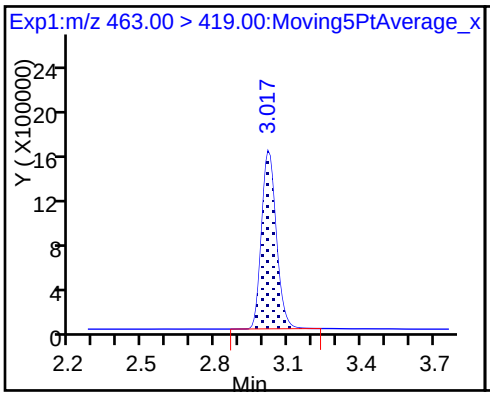
D 18 13C4 PFOS



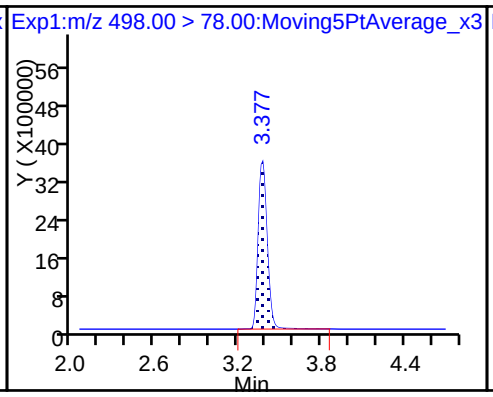
D 19 13C5 PFNA



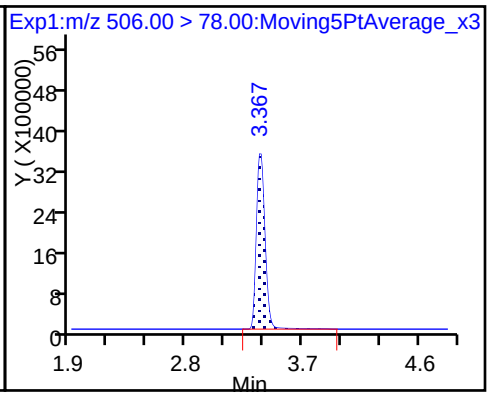
20 Perfluorononanoic acid



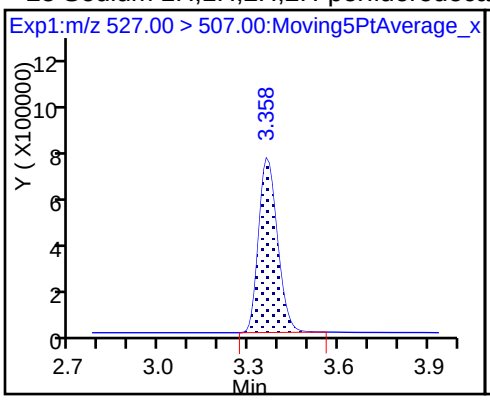
22 Perfluorooctane Sulfonamide



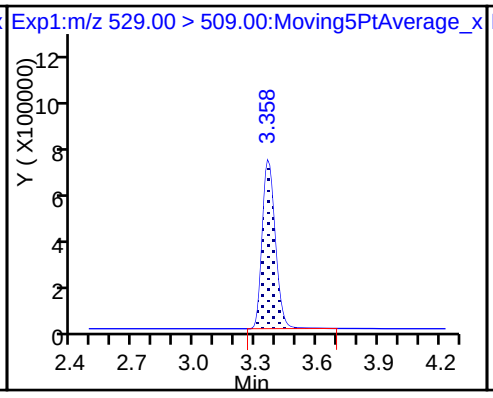
D 21 13C8 FOSA



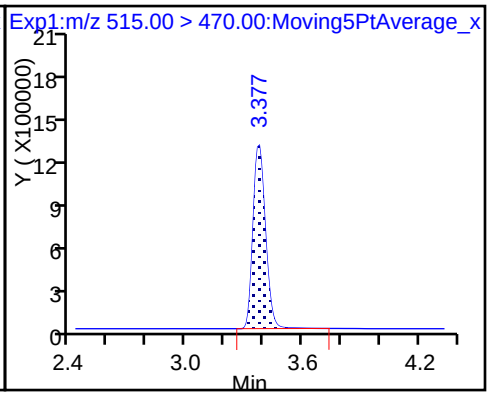
25 Sodium 1H,1H,2H,2H-perfluorodecane



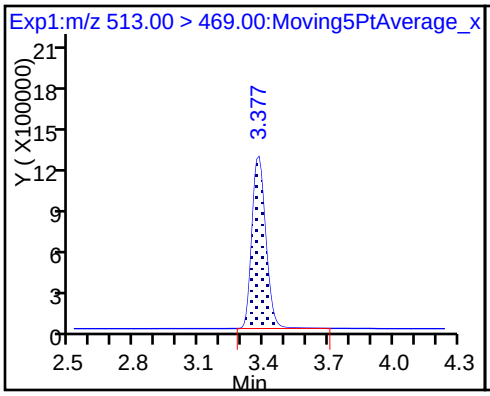
D 26 M2-8:2FTS



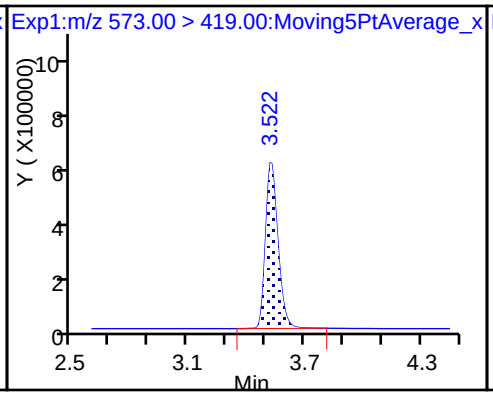
D 23 13C2 PFDA



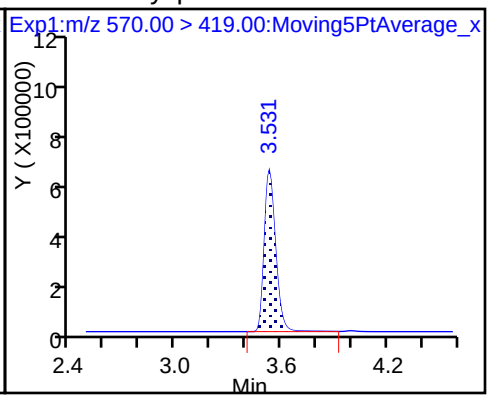
24 Perfluorodecanoic acid



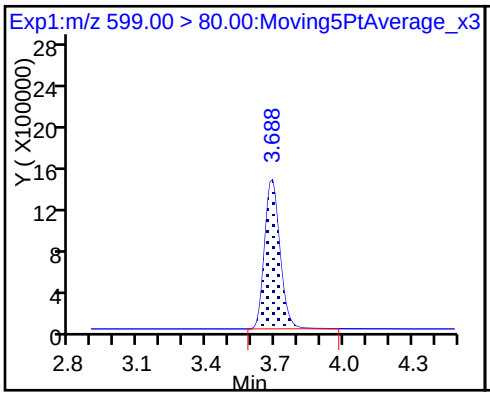
D 27 d3-NMeFOSAA



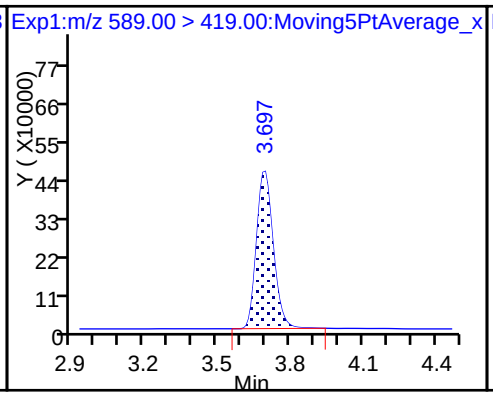
28 N-methyl perfluorooctane sulfonami



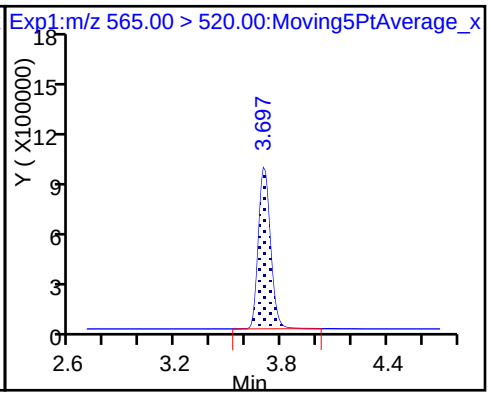
29 Perfluorodecane Sulfonic acid



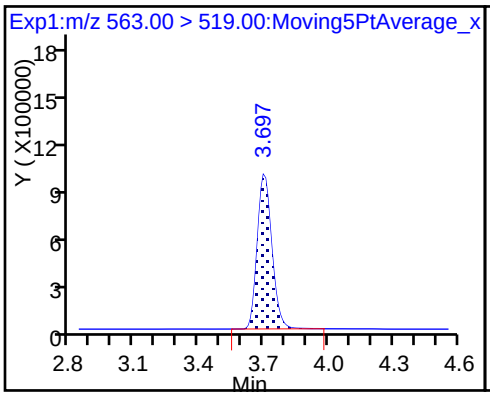
D 32 d5-NEtFOSAA



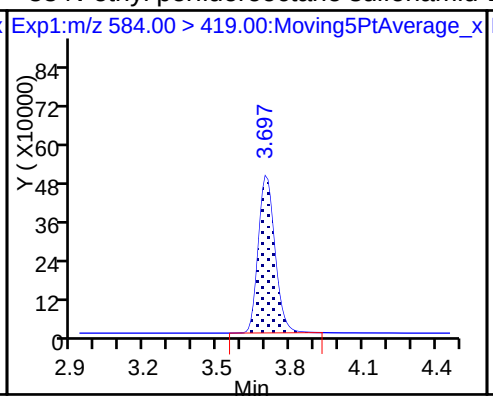
D 30 13C2 PFUnA



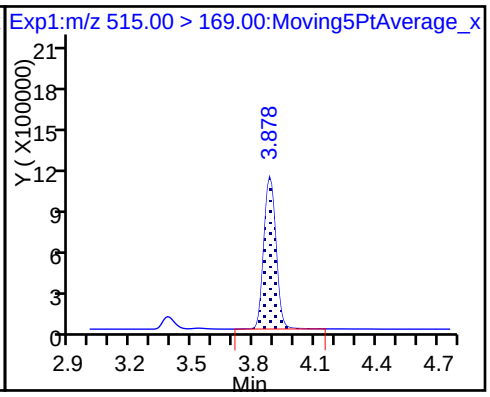
31 Perfluoroundecanoic acid



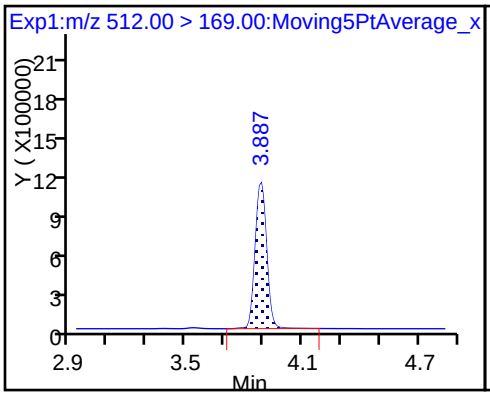
33 N-ethyl perfluorooctane sulfonamid



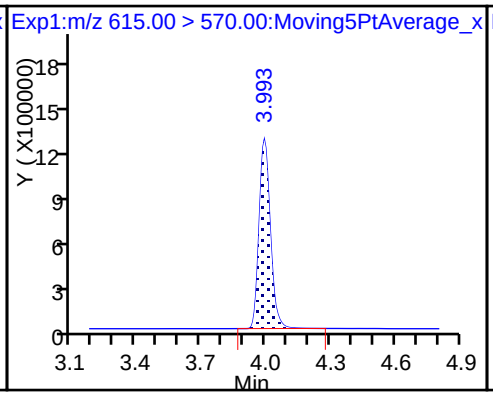
D 34 d-N-MeFOSA-M



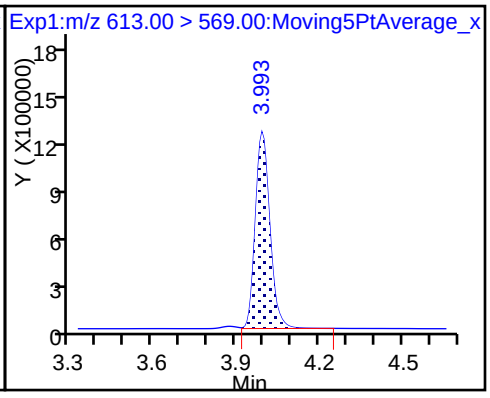
35 MeFOSA



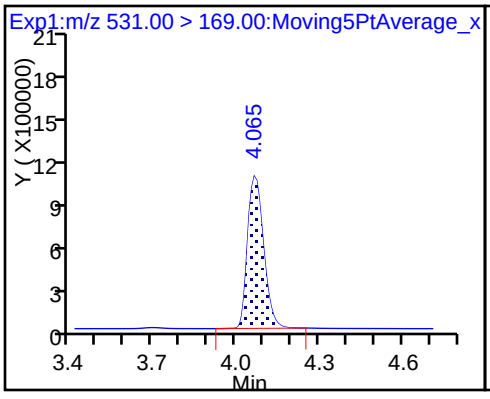
D 36 13C2 PFDoA



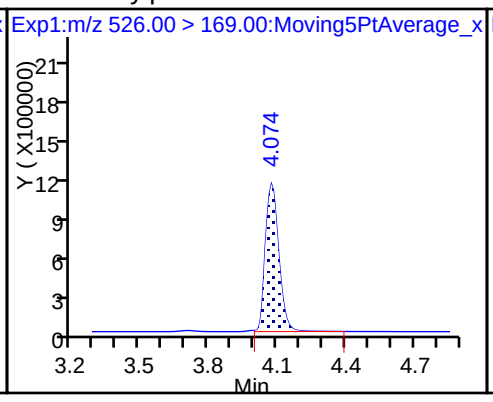
37 Perfluorododecanoic acid



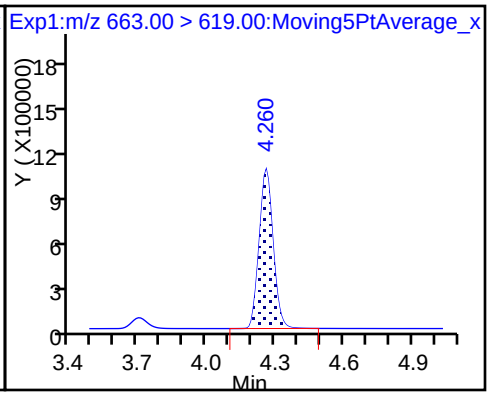
D 38 d-N-EtFOSA-M



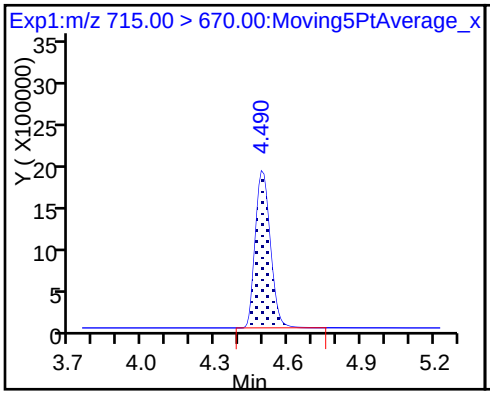
39 N-ethylperfluoro-1-octanesulfonami



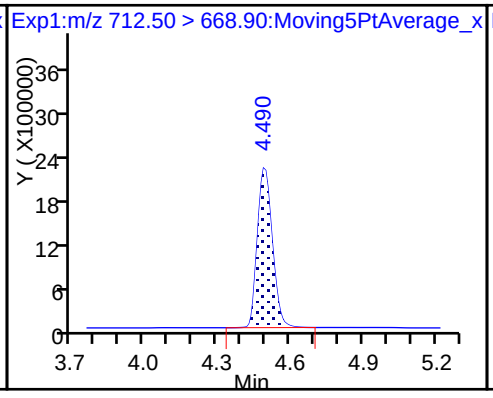
41 Perfluorotridecanoic acid



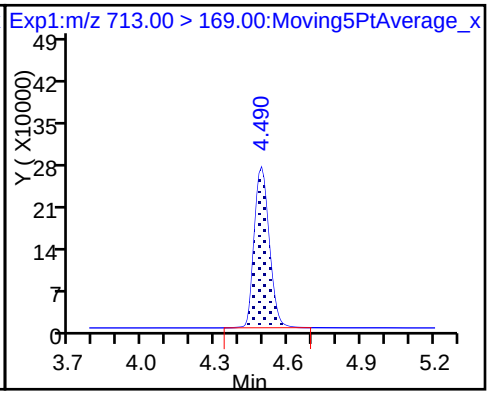
D 43 13C2-PFTeDA



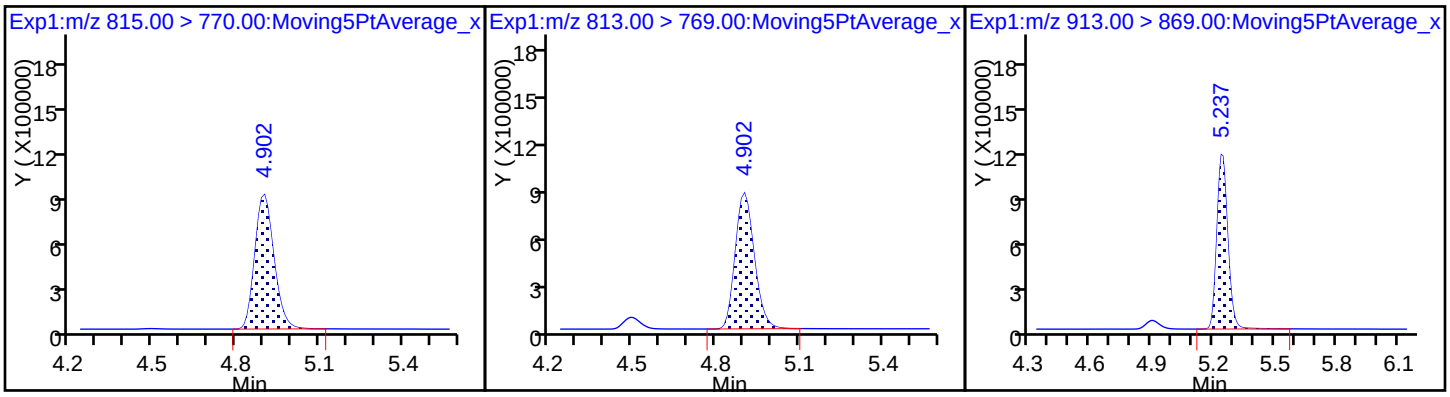
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: ICV 320-173619/12 Calibration Date: 07/11/2017 19:44

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 2017.07.11CURVE_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9173	0.9766		52.7	49.5	6.5	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.020	1.037		50.3	49.5	1.7	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.504	1.668		48.6	43.8	10.9	25.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9548	1.043		54.1	49.5	9.2	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.001	1.099		54.4	49.5	9.8	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.029	1.101		50.1	46.8	7.1	25.0
6:2FTS	AveID	0.8457	0.9539		52.9	46.9	12.8	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.069	1.048		48.5	49.5	-1.9	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.168	1.161		46.9	47.1	-0.6	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9792	1.075		54.3	49.5	9.8	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.097	0.9799		42.2	47.3	-10.7	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9190	0.9796		52.8	49.5	6.6	25.0
8:2FTS	AveID	0.9064	0.9653		50.5	47.4	6.5	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9528	1.001		52.0	49.5	5.0	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9099	0.9872		53.7	49.5	8.5	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6785	0.7272		51.2	47.8	7.2	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8552	0.8753		50.7	49.5	2.4	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.016	0.999		48.7	49.5	-1.7	25.0
MeFOSA	AveID	0.9154	0.9602		51.9	49.5	4.9	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9467	0.9787		51.2	49.5	3.4	25.0
N-EtFOSA-M	AveID	0.9341	1.016		53.8	49.5	8.7	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9058	0.9535		52.1	49.5	5.3	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	1.966	2.099		52.9	49.5	6.8	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		1.058		52.6	49.5	6.2	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.136	1.162		50.6	49.5	2.3	25.0
13C4 PFBA	Ave	173363	165236		47.2	49.5	-4.7	50.0
13C5-PFPeA	Ave	129088	124311		47.7	49.5	-3.7	50.0
13C2 PFHxA	Ave	128361	121405		46.8	49.5	-5.4	50.0
13C4-PFHpA	Ave	116324	114073		48.5	49.5	-1.9	50.0
18O2 PFHxS	Ave	160476	156026		45.5	46.8	-2.8	50.0
M2-6:2FTS	Ave	54032	52716		45.9	47.0	-2.4	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: ICV 320-173619/12 Calibration Date: 07/11/2017 19:44

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 2017.07.11CURVE_012.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	106081	99207		46.3	49.5	-6.5	50.0
13C4 PFOS	Ave	115052	113408		46.7	47.3	-1.4	50.0
13C5 PFNA	Ave	84294	79906		46.9	49.5	-5.2	50.0
13C8 FOSA	Ave	201890	185211		45.4	49.5	-8.3	50.0
M2-8:2FTS	Ave	43650	40844		44.4	47.4	-6.4	50.0
13C2 PFDA	Ave	75727	71162		46.5	49.5	-6.0	50.0
d3-NMeFOSAA	Ave	31425	29767		46.9	49.5	-5.3	50.0
13C2 PFUnA	Ave	57737	55622		47.7	49.5	-3.7	50.0
d5-NEtFOSAA	Ave	30669	30272		48.9	49.5	-1.3	50.0
d-N-MeFOSA-M	Ave	50411	49143		48.3	49.5	-2.5	50.0
13C2 PFDoA	Ave	59095	56181		47.1	49.5	-4.9	50.0
d-N-EtFOSA-M	Ave	50108	49393		48.8	49.5	-1.4	50.0
13C2-PFTeDA	Ave	111945	106844		47.2	49.5	-4.6	50.0
13C2-PFHxDA	Ave	68020	66959		48.7	49.5	-1.6	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_012.d
Lims ID: ICV Full
Client ID:
Sample Type: ICV
Inject. Date: 11-Jul-2017 19:44:32 ALS Bottle#: 36 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist:

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 12-Jul-2017 07:58:17 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK001

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.536	1.538	-0.002		8179976	47.2		95.3	13244	
2 Perfluorobutyric acid										
212.90 > 169.00	1.536	1.539	-0.003	1.000	7988724	52.7			3100	
D 3 13C5-PFPeA										
267.90 > 223.00	1.745	1.748	-0.003		6154031	47.7		96.3	26400	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.754	1.749	0.005	1.000	6383687	50.3			4588	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.772	1.775	-0.003	1.000	11402438	48.6			325597	
298.90 > 99.00	1.772	1.775	-0.003	1.000	4448377		2.56(0.00-0.00)		170680	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.982	1.980	0.002	1.000	2443331	52.9			22405	
D 7 13C2 PFHxA										
315.00 > 270.00	2.017	2.017	0.0		6010162	46.8		94.6	18113	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.017	2.017	0.0	1.000	6266085	54.1			7605	
D 9 13C4-PFHpA										
367.00 > 322.00	2.338	2.341	-0.003		5647156	48.5		98.1	13837	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.338	2.341	-0.003	1.000	6207478	54.4			5010	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.354	2.357	-0.003	1.000	8038808	50.1			5262	
D 11 18O2 PFHxS										
403.00 > 84.00	2.354	2.357	-0.003		7306945	45.5		97.2	17901	
D 12 M2-6:2FTS										
429.00 > 409.00	2.667	2.673	-0.006		2479206	45.9		97.6	15503	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.667	2.673	-0.006	1.000	2359841	52.9			17837	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 62 13C2-PFOA										
415.00 > 370.00	2.689	2.694	-0.005		4982132	49.5			15449	
D 14 13C4 PFOA										
417.00 > 372.00	2.696	2.698	-0.002		4911245	46.3		93.5	22424	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.696	2.700	-0.004	1.000	5148512	48.5			1354	
413.00 > 169.00	2.696	2.700	-0.004	1.000	3047066		1.69(0.90-1.10)		5854	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.703	2.706	-0.003	1.000	6205508	46.9			18340	
D 18 13C4 PFOS										
503.00 > 80.00	3.064	3.071	-0.007		5367218	46.7		98.6	15424	
20 Perfluorononanoic acid										
463.00 > 419.00	3.064	3.072	-0.008	1.000	4251551	54.3			7358	
D 19 13C5 PFNA										
468.00 > 423.00	3.064	3.072	-0.008		3955725	46.9		94.8	16498	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.064	3.072	-0.008	1.000	5254054	42.2			8983	
499.00 > 99.00	3.064	3.072	-0.008	1.000	1204932		4.36(0.90-1.10)		7751	
D 21 13C8 FOSA										
506.00 > 78.00	3.402	3.401	0.001		9168842	45.4		91.7	25455	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.402	3.405	-0.003	1.000	8982147	52.8			14423	
D 26 M2-8:2FTS										
529.00 > 509.00	3.420	3.424	-0.004		1937048	44.4		93.6	15845	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.420	3.425	-0.005	1.000	1869848	50.5			11853	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.430	3.435	-0.005	1.000	3524832	52.0			11660	
D 23 13C2 PFDA										
515.00 > 470.00	3.430	3.435	-0.005		3522852	46.5		94.0	16176	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.586	3.592	-0.006		1473635	46.9		94.7	5625	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.596	3.595	0.001	1.003	1454791	53.7			5309	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.752	3.749	0.003	1.000	3939985	51.2			11840	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.762	3.759	0.003		1498625	48.9		98.7	3169	
D 30 13C2 PFUnA										
565.00 > 520.00	3.762	3.768	-0.006		2753577	47.7		96.3	10188	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.762	3.768	-0.006	1.000	2750744	48.7			5380	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.762	3.768	-0.006	1.000	1311743	50.7			9059	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.900	3.894	0.006		2432832	48.3		97.5	666	
35 MeFOSA										
512.00 > 169.00	3.909	3.899	0.010	1.000	2335987	51.9			4674	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 36 13C2 PFDoA										
615.00 > 570.00	4.065	4.061	0.004		2781217	47.1		95.1	7563	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.065	4.062	0.003	1.000	2721860	51.2			3127	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.091	4.083	0.008		2445181	48.8		98.6	3983	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.100	4.090	0.010	1.000	2483476	53.8			3628	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.332	4.331	0.001	1.000	2651950	52.1			743	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.575	4.571	0.004		5289297	47.2		95.4	20888	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.575	4.573	0.002	1.000	5838505	52.9			394	
713.00 > 169.00	4.562	4.573	-0.011	0.997	776201		7.52(0.00-0.00)		6671	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.987	4.986	0.001		3314821	48.7		98.4	5081	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.987	4.988	-0.001	1.000	2942739	52.6			505	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.338	5.344	-0.006	1.000	3232508	50.6			725	

Reagents:

LCPFCIC_FULL_00003 Amount Added: 1.00 Units: mL

Report Date: 12-Jul-2017 07:58:18 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_012.d

Injection Date: 11-Jul-2017 19:44:32 Instrument ID: A8_N

Lims ID: ICV Full

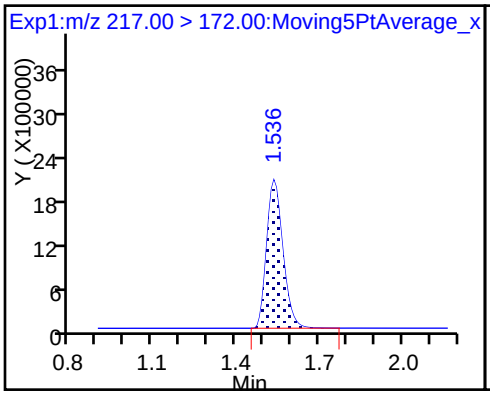
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 36 Worklist Smp#: 12

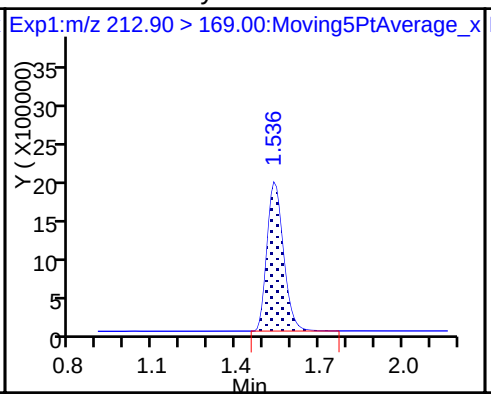
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

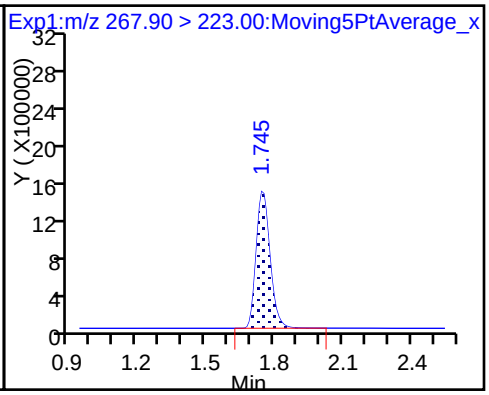
D 1 13C4 PFBA



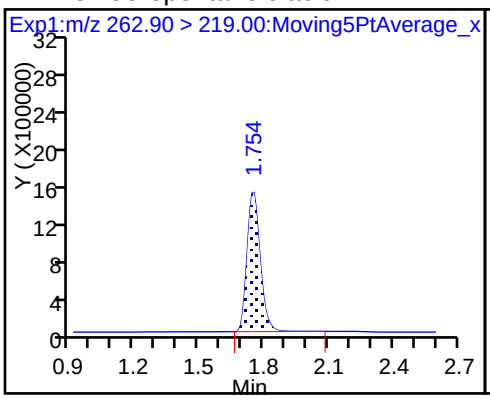
2 Perfluorobutyric acid



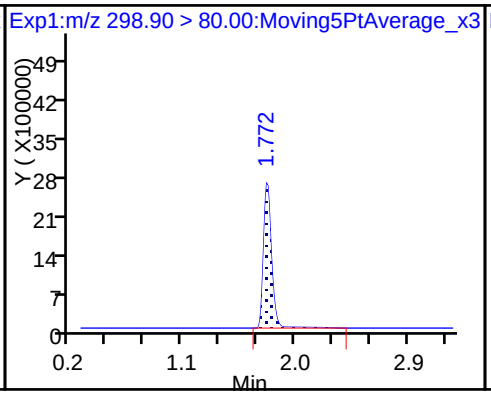
D 3 13C5-PFPeA



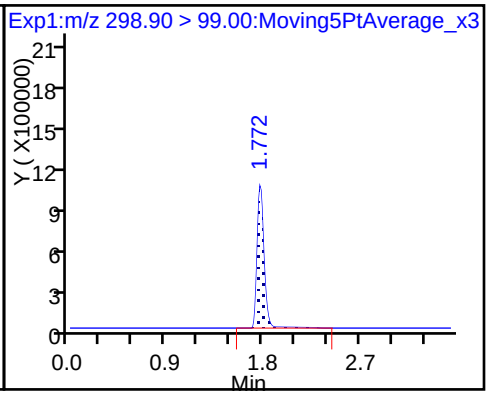
4 Perfluoropentanoic acid



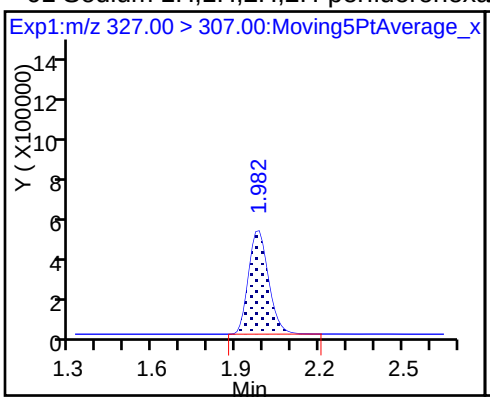
5 Perfluorobutanesulfonic acid



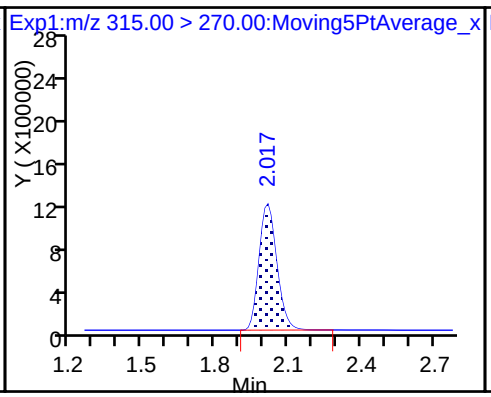
5 Perfluorobutanesulfonic acid



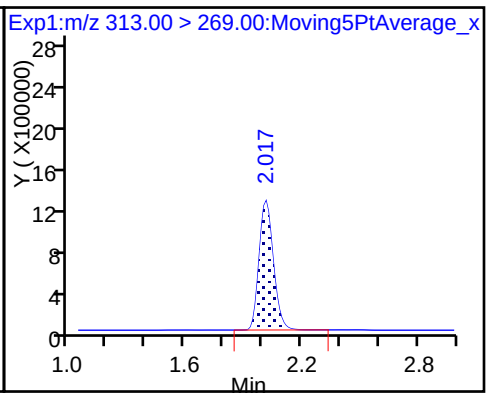
61 Sodium 1H,1H,2H,2H-perfluorohexa



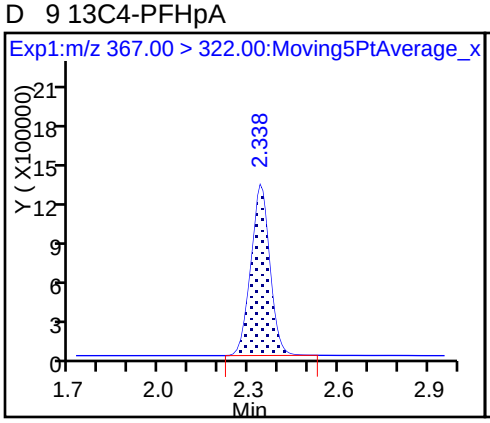
D 7 13C2 PFHxA



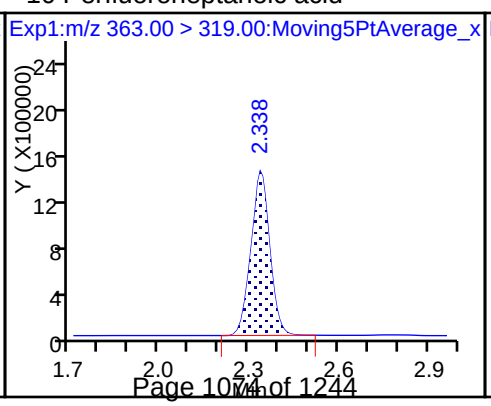
6 Perfluorohexanoic acid



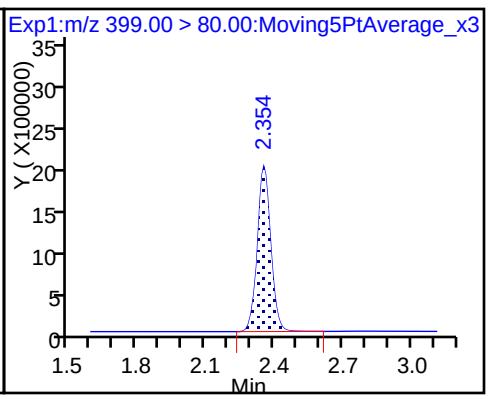
D 9 13C4-PFHpA



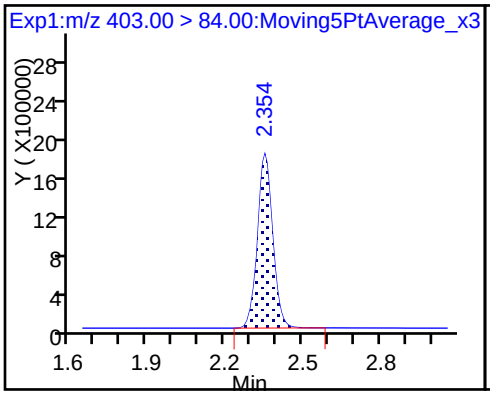
10 Perfluoroheptanoic acid



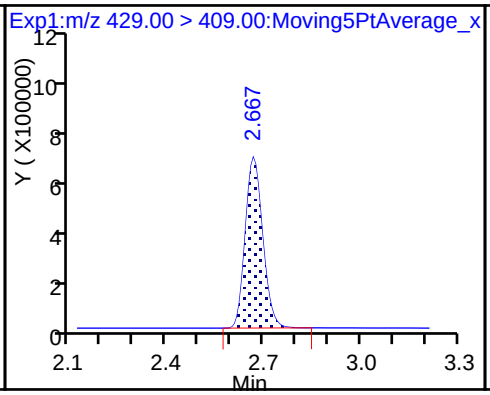
8 Perfluorohexanesulfonic acid



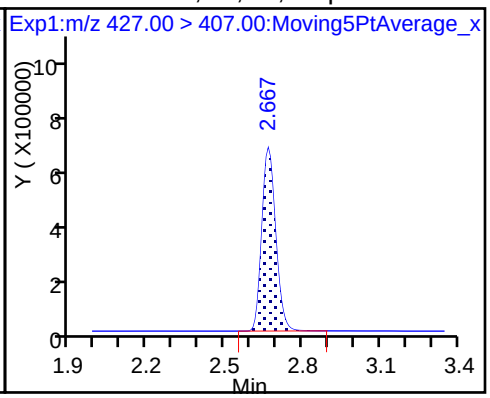
D 11 18O2 PFHxS



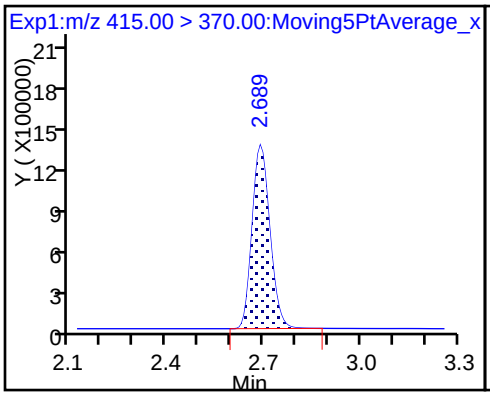
D 12 M2-6:2FTS



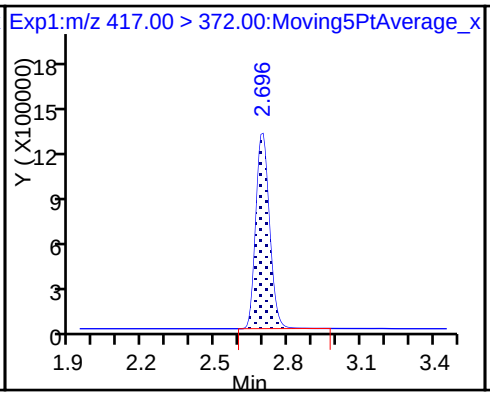
13 Sodium 1H,1H,2H,2H-perfluorooctane



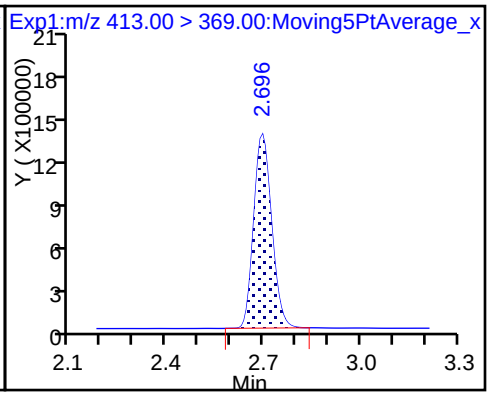
* 62 13C2-PFOA



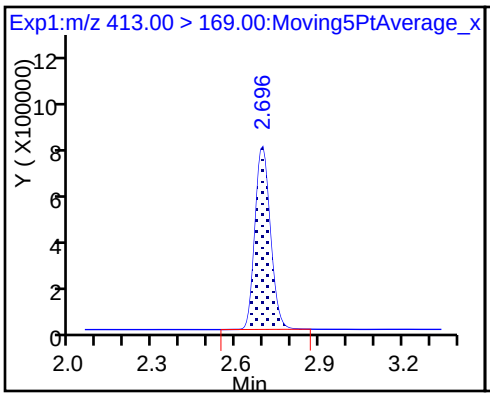
D 14 13C4 PFOA



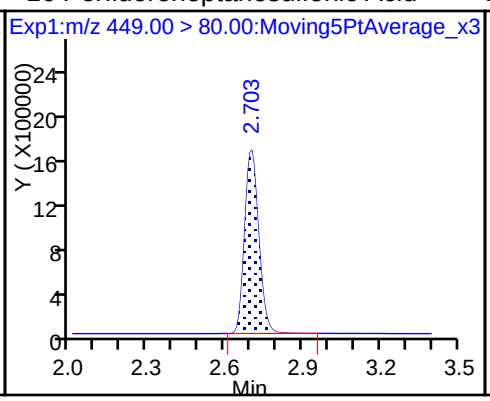
15 Perfluorooctanoic acid



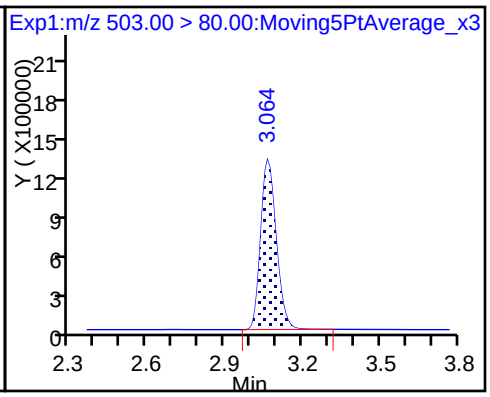
15 Perfluorooctanoic acid



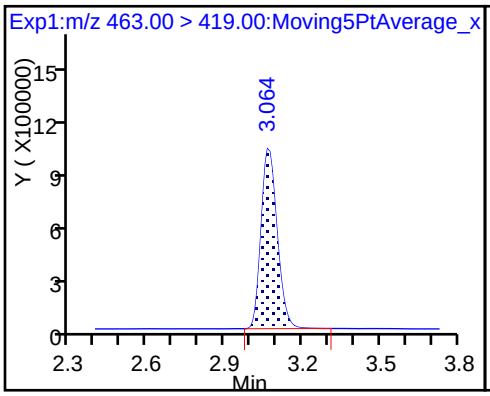
16 Perfluoroheptanesulfonic Acid



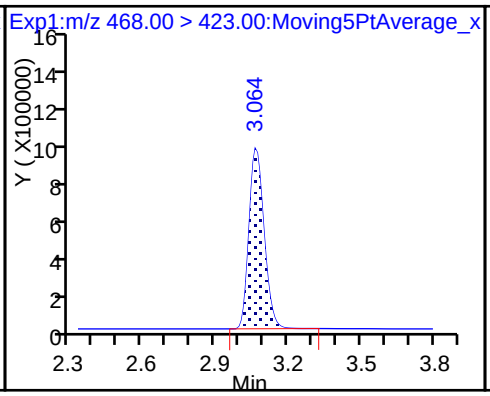
D 18 13C4 PFOS



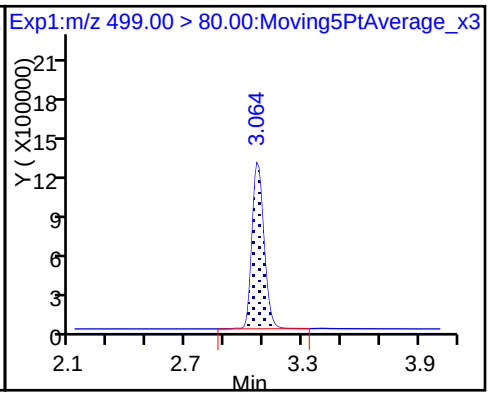
20 Perfluorononanoic acid



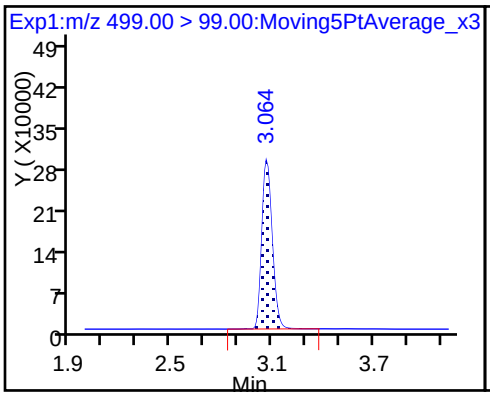
D 19 13C5 PFNA



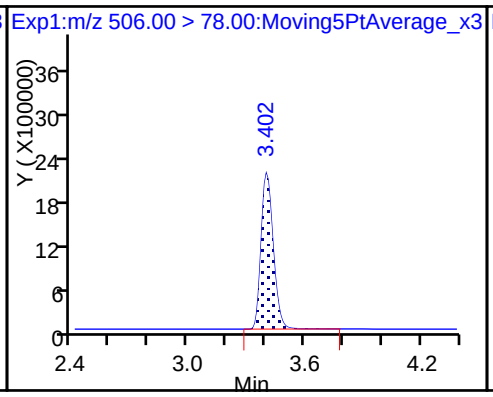
17 Perfluorooctane sulfonic acid



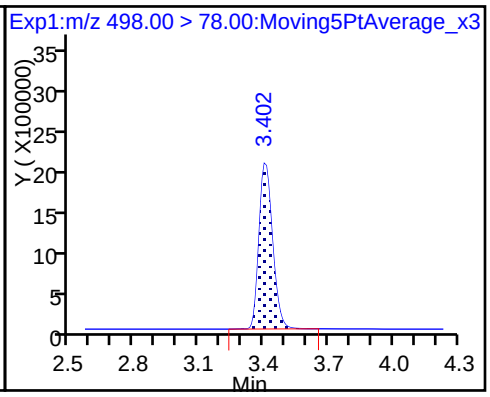
17 Perfluorooctane sulfonic acid



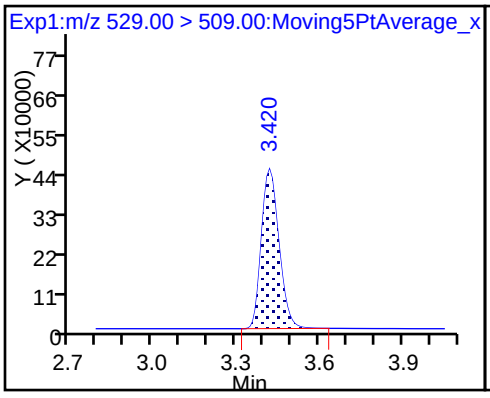
D 21 13C8 FOSA



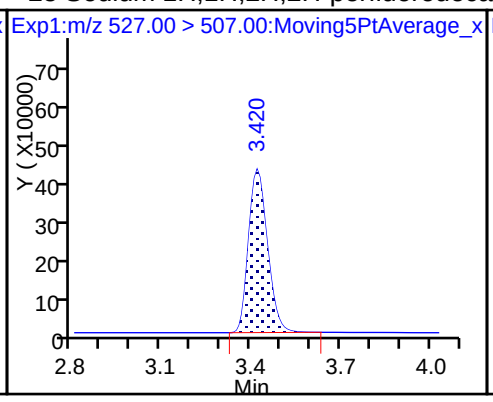
22 Perfluorooctane Sulfonamide



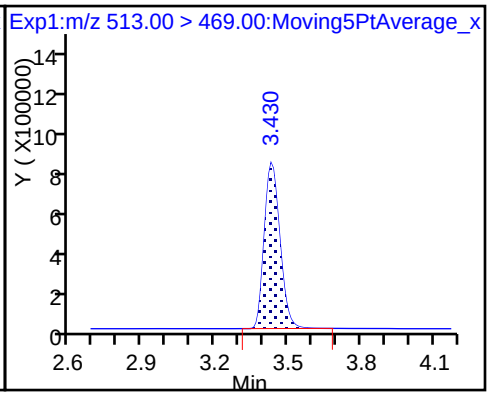
D 26 M2-8:2FTS



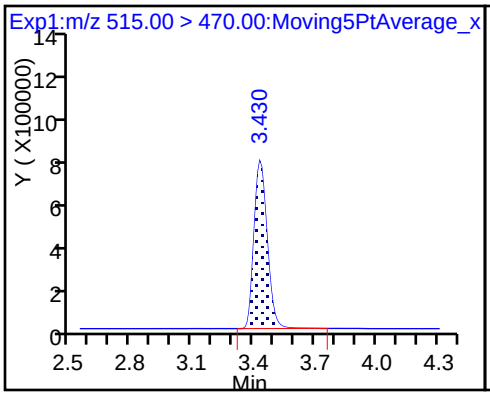
25 Sodium 1H,1H,2H,2H-perfluorodecan



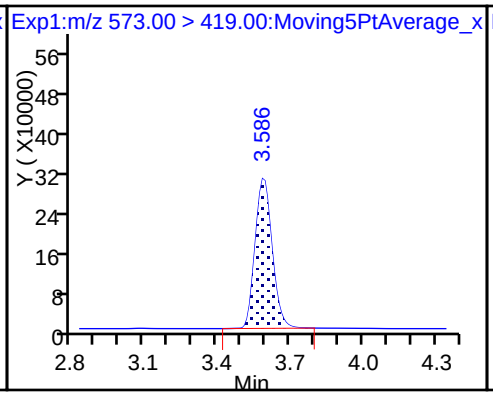
24 Perfluorodecanoic acid



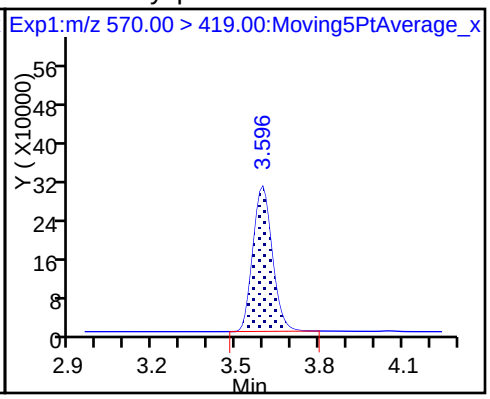
D 23 13C2 PFDA



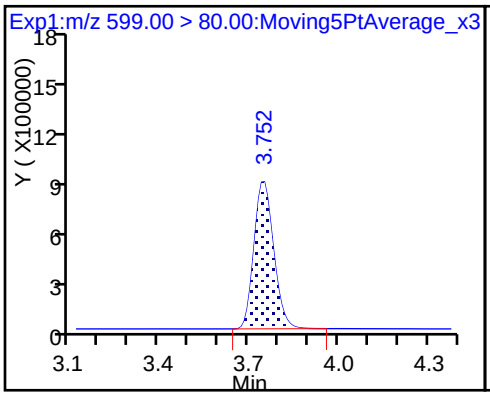
D 27 d3-NMeFOSAA



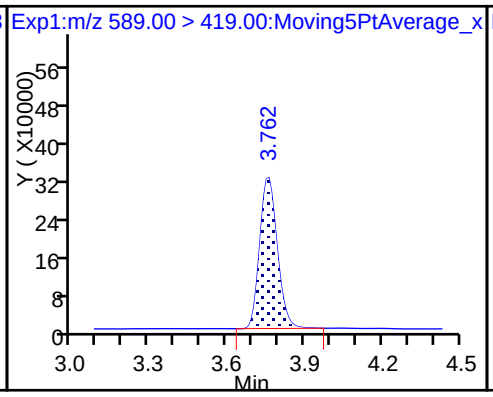
28 N-methyl perfluorooctane sulfonami



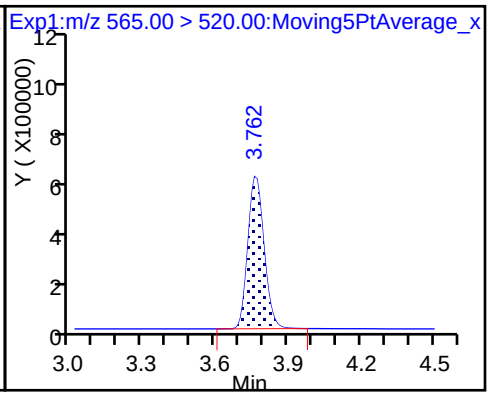
29 Perfluorodecane Sulfonic acid



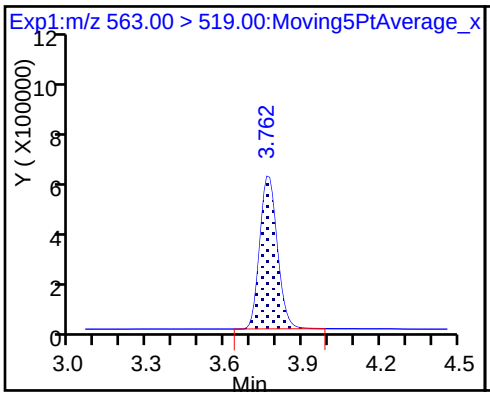
D 32 d5-NEtFOSAA



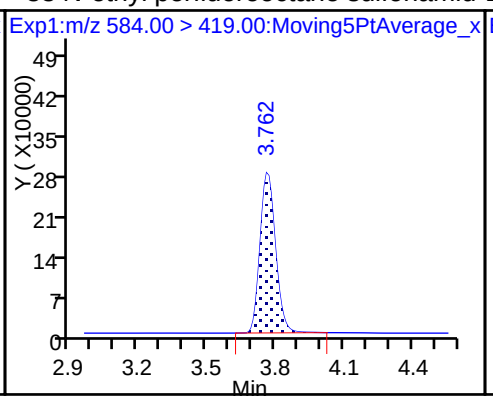
D 30 13C2 PFUnA



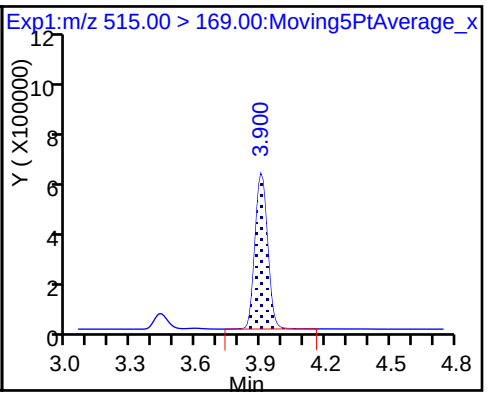
31 Perfluoroundecanoic acid



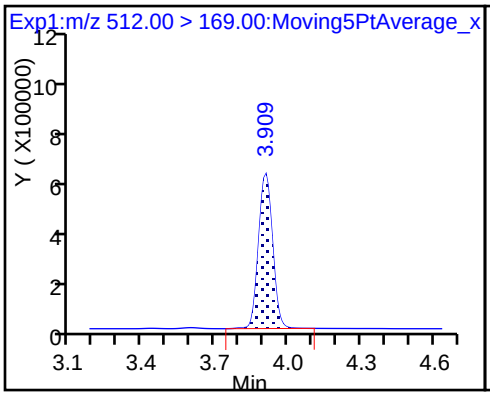
33 N-ethyl perfluorooctane sulfonamid



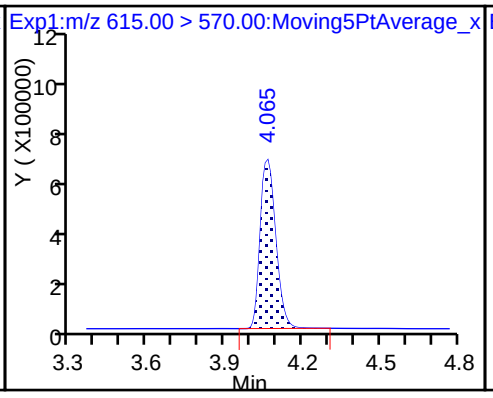
D 34 d-N-MeFOSA-M



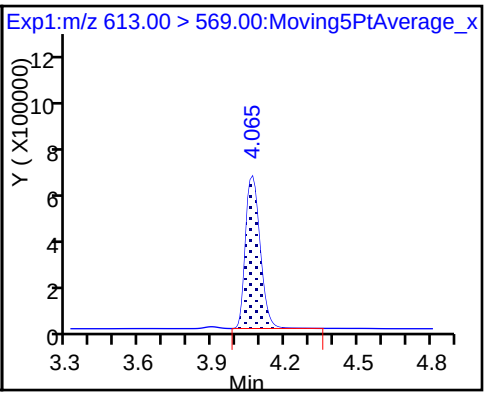
35 MeFOSA



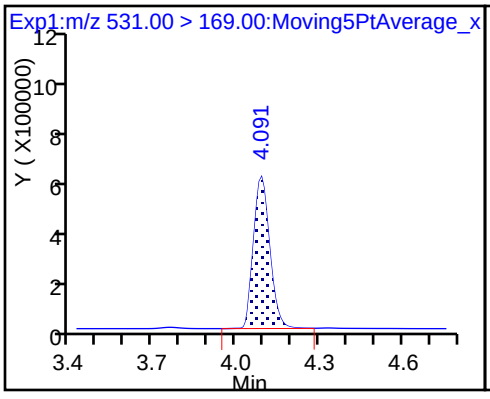
D 36 13C2 PFDoA



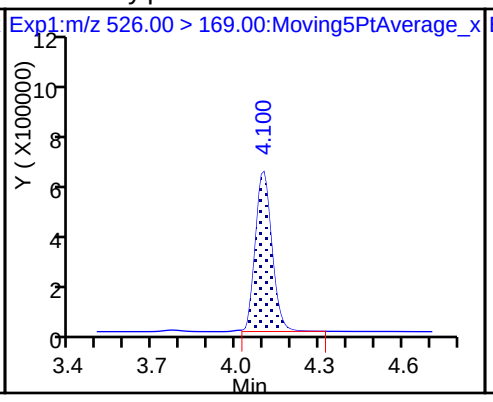
37 Perfluorododecanoic acid



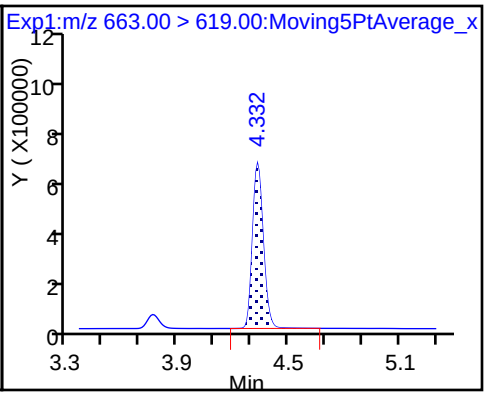
D 38 d-N-EtFOSA-M



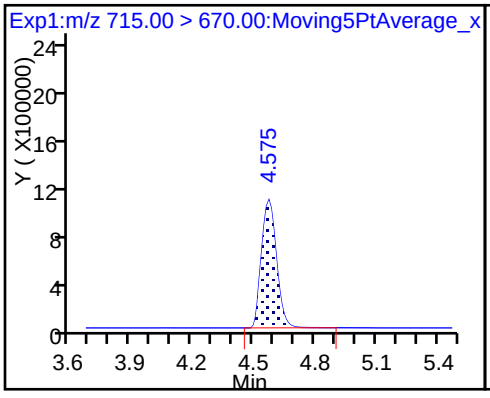
39 N-ethylperfluoro-1-octanesulfonami



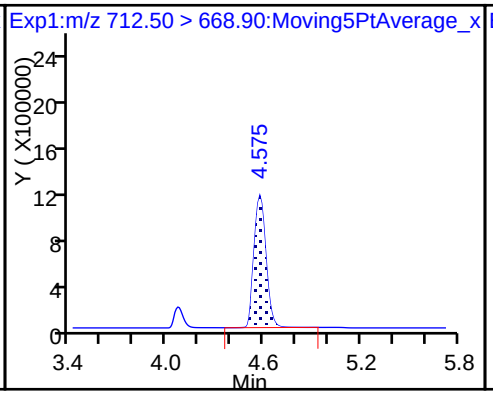
41 Perfluorotridecanoic acid



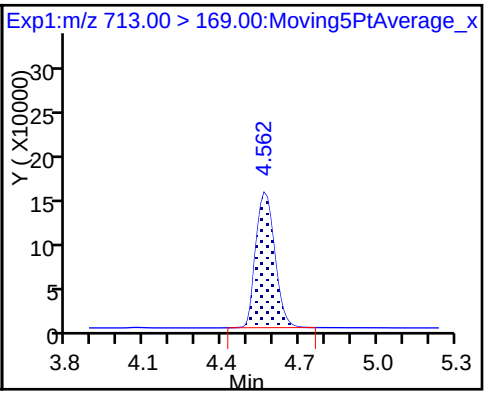
D 43 13C2-PFTeDA



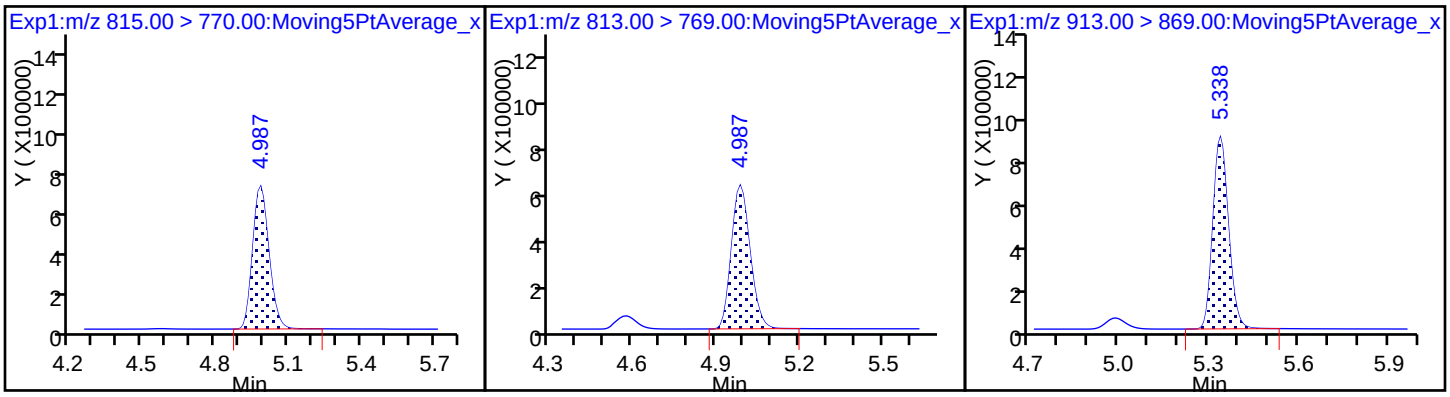
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-174335/1 Calibration Date: 07/15/2017 02:58

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 20170714C_057.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9173	0.9617		21.0	20.0	4.8	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.020	1.069		21.0	20.0	4.8	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.504	1.445		17.0	17.7	-3.9	25.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9548	0.9614		20.1	20.0	0.7	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.001	1.016		20.3	20.0	1.5	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.029	0.9860		17.4	18.2	-4.1	25.0
6:2FTS	AveID	0.8457	0.8527		19.1	19.0	0.8	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.069	1.078		20.2	20.0	0.8	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.168	1.179		19.2	19.0	0.9	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9792	0.9886		20.2	20.0	1.0	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.097	1.042		17.6	18.6	-5.0	25.0
8:2FTS	AveID	0.9064	0.9305		19.7	19.2	2.7	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9190	0.9192		20.0	20.0	0.0	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9528	0.9613		20.2	20.0	0.9	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9099	0.8877		19.5	20.0	-2.4	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6785	0.6339		18.0	19.3	-6.6	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8552	0.9030		21.1	20.0	5.6	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.016	1.004		19.8	20.0	-1.2	25.0
MeFOSA	AveID	0.9154	0.8941		19.5	20.0	-2.3	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9467	0.9480		20.0	20.0	0.1	25.0
N-EtFOSA-M	AveID	0.9341	0.9108		19.5	20.0	-2.5	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9058	0.8914		19.7	20.0	-1.6	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	1.966	2.182		22.2	20.0	11.0	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8644		16.8	20.0	-16.2	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.136	0.8632		15.2	20.0	-24.0	25.0
13C4 PFBA	Ave	173363	179730		51.8	50.0	3.7	50.0
13C5-PFPeA	Ave	129088	135959		52.7	50.0	5.3	50.0
13C2 PFHxA	Ave	128361	128128		49.9	50.0	-0.2	50.0
13C4-PFHpA	Ave	116324	128418		55.2	50.0	10.4	50.0
18O2 PFHxS	Ave	160476	193319		57.0	47.3	20.5	50.0
M2-6:2FTS	Ave	54032	62188		54.7	47.5	15.1	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-174335/1 Calibration Date: 07/15/2017 02:58

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 20170714C_057.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	106081	113748		53.6	50.0	7.2	50.0
13C4 PFOS	Ave	115052	135554		56.3	47.8	17.8	50.0
13C5 PFNA	Ave	84294	91861		54.5	50.0	9.0	50.0
13C8 FOSA	Ave	201890	220343		54.6	50.0	9.1	50.0
M2-8:2FTS	Ave	43650	43913		48.2	47.9	0.6	50.0
13C2 PFDA	Ave	75727	83063		54.8	50.0	9.7	50.0
d3-NMeFOSAA	Ave	31425	36428		58.0	50.0	15.9	50.0
d5-NEtFOSAA	Ave	30669	34806		56.7	50.0	13.5	50.0
13C2 PFUnA	Ave	57737	64628		56.0	50.0	11.9	50.0
d-N-MeFOSA-M	Ave	50411	53487		53.1	50.0	6.1	50.0
13C2 PFDoA	Ave	59095	62383		52.8	50.0	5.6	50.0
d-N-EtFOSA-M	Ave	50108	53801		53.7	50.0	7.4	50.0
13C2-PFTeDA	Ave	111945	131520		58.7	50.0	17.5	50.0
13C2-PFHxDA	Ave	68020	59574		43.8	50.0	-12.4	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714C_057.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 15-Jul-2017 02:58:23 ALS Bottle#: 31 Worklist Smp#: 1
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub18

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 17-Jul-2017 15:32:06 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK010

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.527	1.538	-0.011		8986518	51.8		104	23899	
2 Perfluorobutyric acid										
212.90 > 169.00	1.536	1.539	-0.003	1.000	3456885	21.0		105	1918	
D 3 13C5-PFPeA										
267.90 > 223.00	1.736	1.748	-0.012		6797943	52.7		105	46587	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.736	1.749	-0.013	1.000	2907613	21.0		105	1850	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.763	1.775	-0.012	1.000	4937883	17.0		96.1	3499	
298.90 > 99.00	1.763	1.775	-0.012	1.000	1912995		2.58(0.00-0.00)		3399	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.960	1.980	-0.020	1.000	945702	17.4		93.0	32013	
D 7 13C2 PFHxA										
315.00 > 270.00	1.994	2.017	-0.023		6406399	49.9		99.8	33467	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.994	2.017	-0.023	1.000	2463736	20.1		101	4713	
D 9 13C4-PFHpA										
367.00 > 322.00	2.313	2.341	-0.028		6420893	55.2		110	26302	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.313	2.341	-0.028	1.000	2609739	20.3		102	3150	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.321	2.357	-0.036	1.000	3468996	17.4		95.9	2436	
D 11 18O2 PFHxS										
403.00 > 84.00	2.321	2.357	-0.036		9144006	57.0		120	30077	
D 12 M2-6:2FTS										
429.00 > 409.00	2.625	2.673	-0.048		2953931	54.7		115	28946	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.632	2.673	-0.041	1.000	1005355	19.1		101	26766	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 62 13C2-PFOA										
415.00 > 370.00	2.654	2.694	-0.040		5832487	50.0		100	29108	
D 14 13C4 PFOA										
417.00 > 372.00	2.654	2.698	-0.044		5687403	53.6		107	21646	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.654	2.700	-0.046	1.000	2451592	20.2		101	780	
413.00 > 169.00	2.654	2.700	-0.046	1.000	1376786		1.78(0.90-1.10)		3606	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.661	2.706	-0.045	1.000	3041665	19.2		101	17068	
D 18 13C4 PFOS										
503.00 > 80.00	3.025	3.071	-0.046		6479465	56.3		118	20853	
20 Perfluorononanoic acid										
463.00 > 419.00	3.025	3.072	-0.047	1.000	1816271	20.2		101	4622	
D 19 13C5 PFNA										
468.00 > 423.00	3.025	3.072	-0.047		4593025	54.5		109	17174	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.025	3.072	-0.047	1.000	2621999	17.6		95.0	7546	
499.00 > 99.00	3.025	3.072	-0.047	1.000	567423		4.62(0.90-1.10)		5943	
D 21 13C8 FOSA										
506.00 > 78.00	3.373	3.401	-0.028		11017128	54.6		109	22967	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.373	3.405	-0.032	1.000	4050693	20.0		100	21094	
D 26 M2-8:2FTS										
529.00 > 509.00	3.373	3.424	-0.051		2103419	48.2		101	17042	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.373	3.425	-0.052	1.000	782862	19.7		103	10832	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.381	3.435	-0.054	1.000	1596934	20.2		101	7605	
D 23 13C2 PFDA										
515.00 > 470.00	3.381	3.435	-0.054		4153138	54.8		110	13109	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.533	3.592	-0.059		1821421	58.0		116	7777	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.543	3.595	-0.052	1.003	646745	19.5		97.6	2574	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.689	3.749	-0.060	1.000	1656752	18.0		93.4	9820	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.699	3.759	-0.060		1740311	56.7		113	3334	
D 30 13C2 PFUnA										
565.00 > 520.00	3.709	3.768	-0.059		3231396	56.0		112	13301	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.709	3.768	-0.059	1.000	1297895	19.8		98.8	3124	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.709	3.768	-0.059	1.003	628619	21.1		106	6407	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.877	3.894	-0.017		2674370	53.1		106	2600	
35 MeFOSA										
512.00 > 169.00	3.877	3.899	-0.022	1.000	956478	19.5		97.7	5529	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 36 13C2 PFDoA										
615.00 > 570.00	4.003	4.061	-0.058		3119140	52.8		106	8272	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.003	4.062	-0.059	1.000	1182809	20.0		100	1654	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.061	4.083	-0.022		2690034	53.7		107	5346	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.070	4.090	-0.020	1.000	979994	19.5		97.5	3736	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.273	4.331	-0.058	1.000	1112170	19.7		98.4	309	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.506	4.571	-0.065		6575988	58.7		117	25773	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.506	4.573	-0.067	1.000	2722639	22.2		111	1805	
713.00 > 169.00	4.506	4.573	-0.067	1.000	325780		8.36(0.00-0.00)		7290	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.917	4.986	-0.069		2978719	43.8		87.6	3558	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.917	4.988	-0.071	1.000	1078454	16.8		83.8	170	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.262	5.344	-0.082	1.000	1076989	15.2		76.0	290	

Reagents:

LCPFC_FULL-L4_00005 Amount Added: 1.00 Units: mL

Report Date: 17-Jul-2017 15:32:06 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714C_057.d

Injection Date: 15-Jul-2017 02:58:23 Instrument ID: A8_N

Lims ID: CCV L4

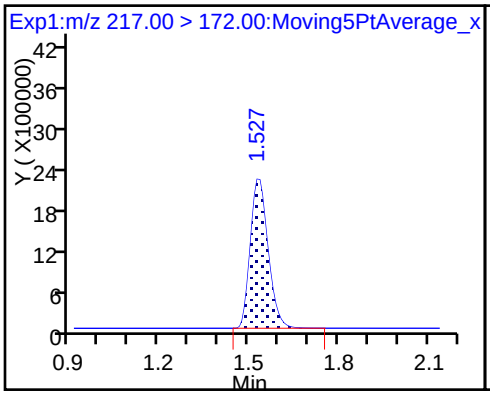
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 1

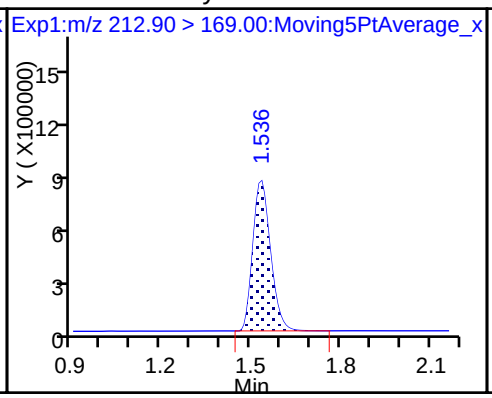
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

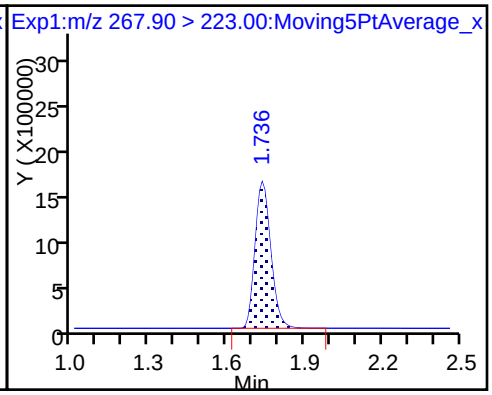
D 1 13C4 PFBA



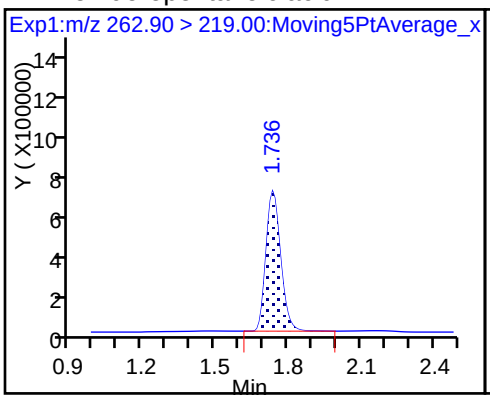
2 Perfluorobutyric acid



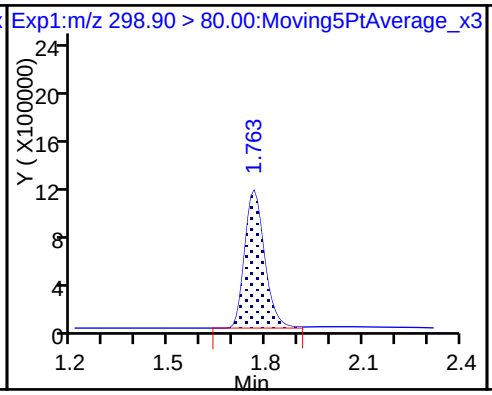
D 3 13C5-PFPeA



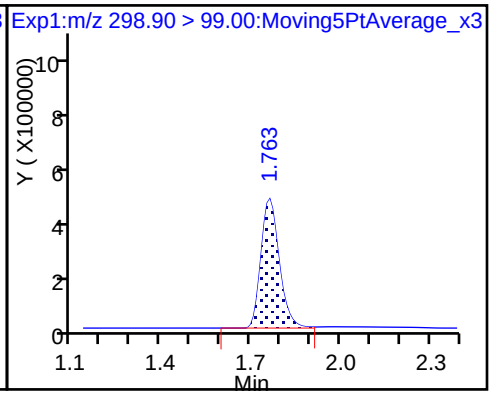
4 Perfluoropentanoic acid



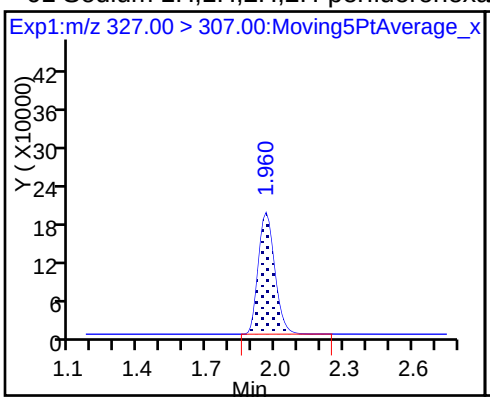
5 Perfluorobutanesulfonic acid



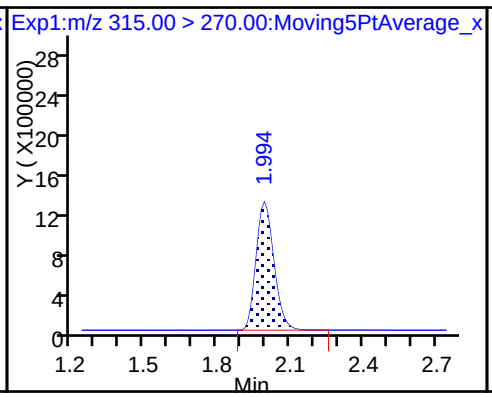
5 Perfluorobutanesulfonic acid



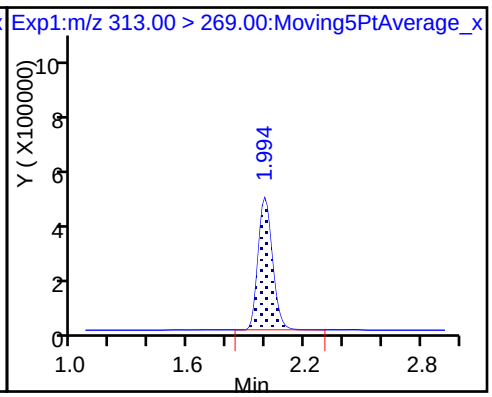
61 Sodium 1H,1H,2H,2H-perfluorohexa



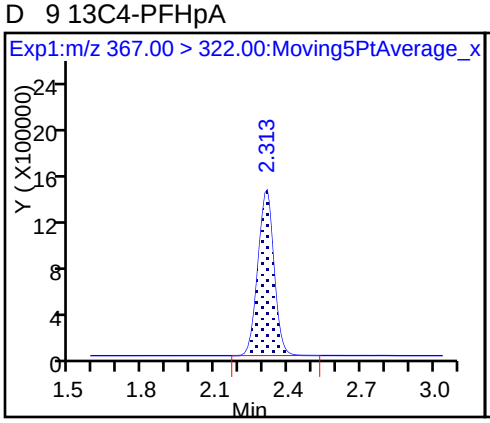
De 7 13C2 PFHxA



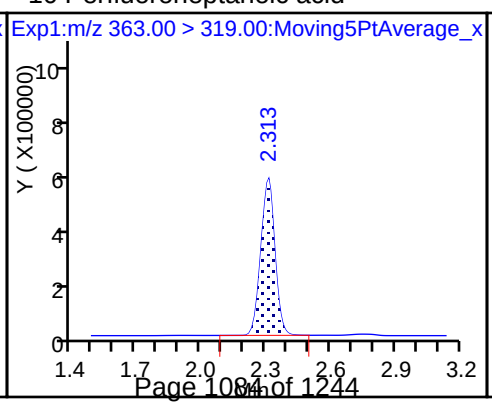
6 Perfluorohexanoic acid



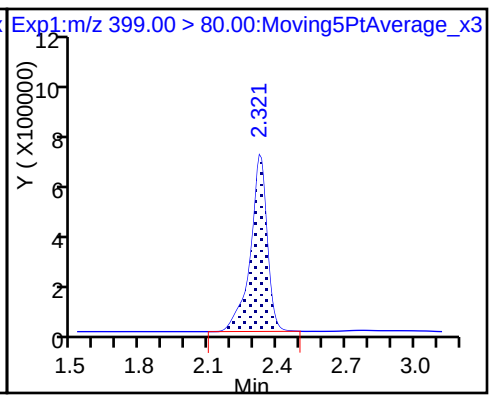
D 9 13C4-PFHpA



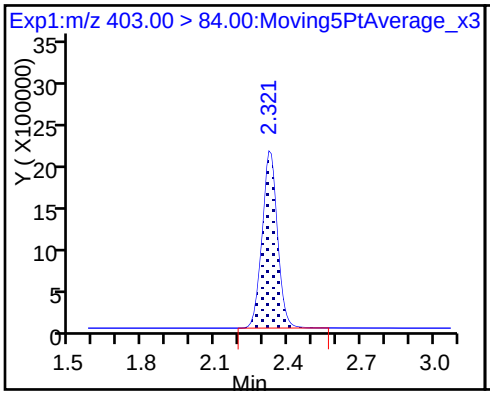
10 Perfluoroheptanoic acid



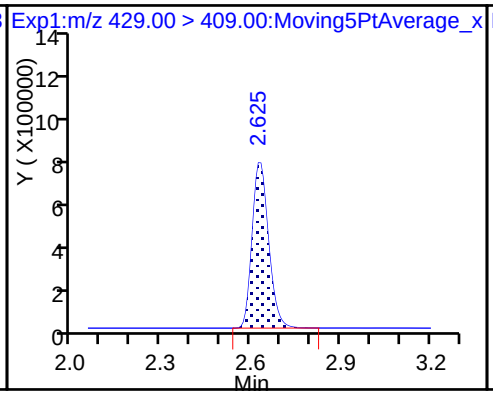
8 Perfluorohexanesulfonic acid



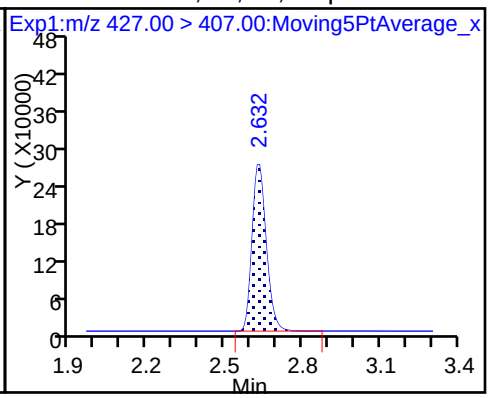
D 11 18O2 PFHxS



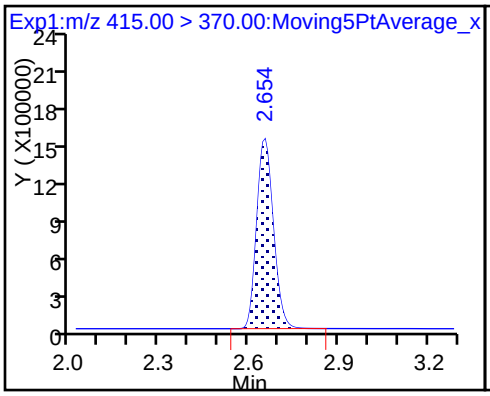
D 12 M2-6:2FTS



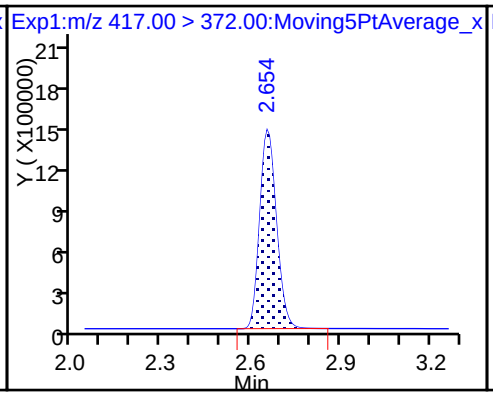
13 Sodium 1H,1H,2H,2H-perfluorooctane



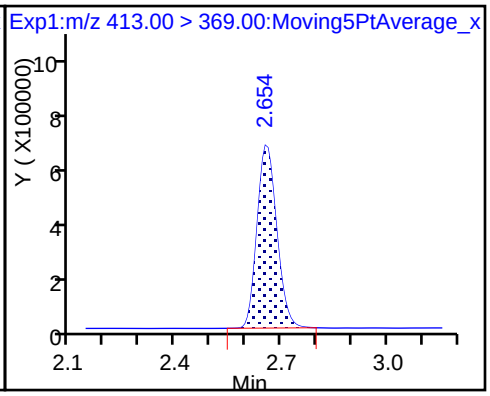
* 62 13C2-PFOA



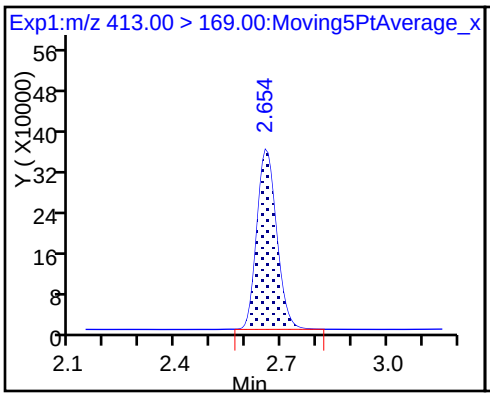
D 14 13C4 PFOA



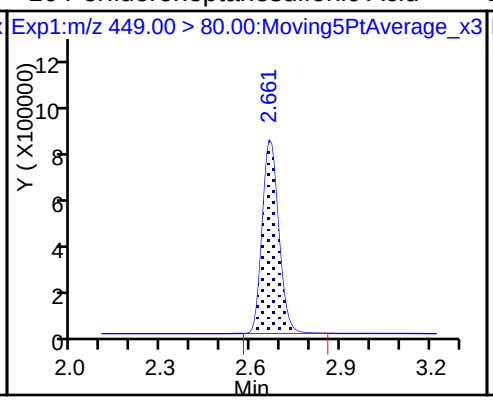
15 Perfluorooctanoic acid



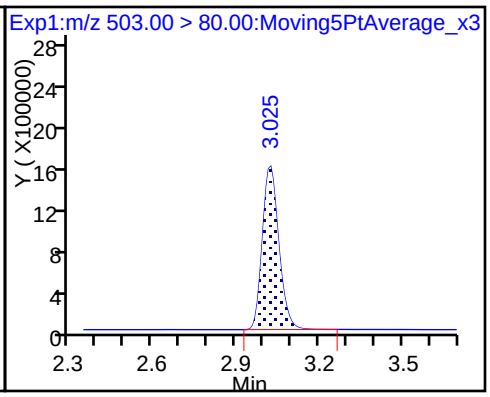
15 Perfluorooctanoic acid



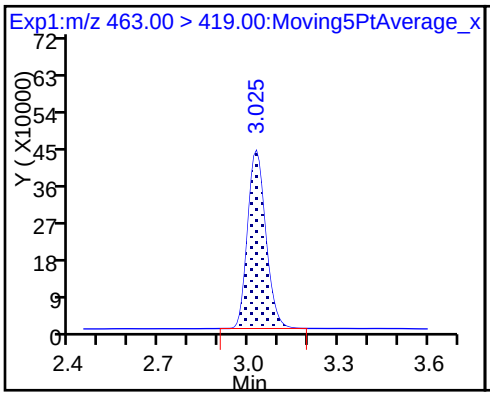
16 Perfluoroheptanesulfonic Acid



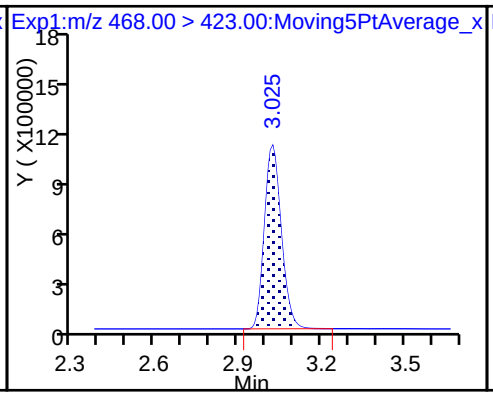
D 18 13C4 PFOS



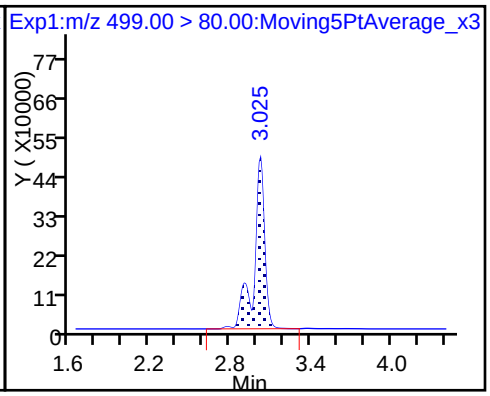
20 Perfluorononanoic acid



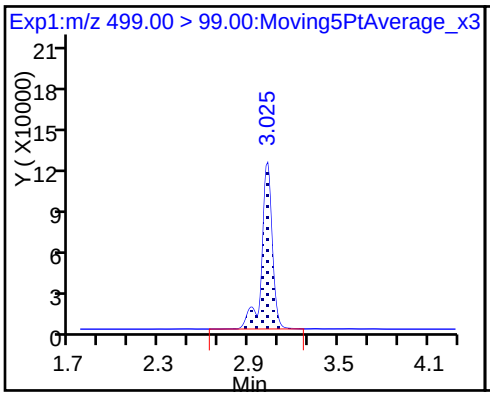
D 19 13C5 PFNA



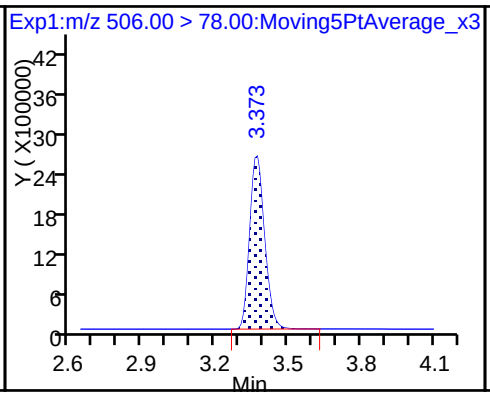
17 Perfluorooctane sulfonic acid



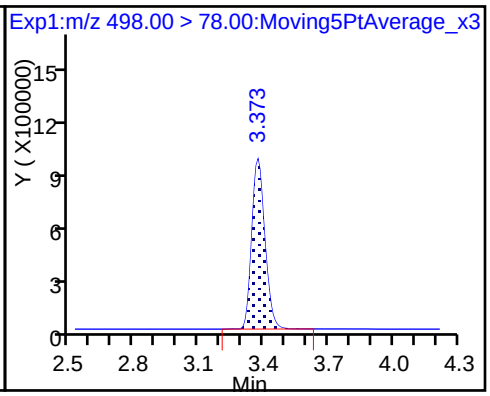
17 Perfluorooctane sulfonic acid



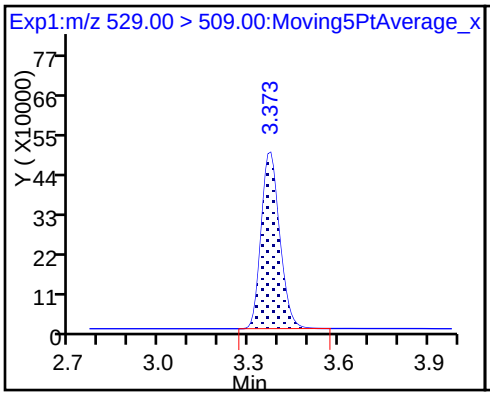
D 21 13C8 FOSA



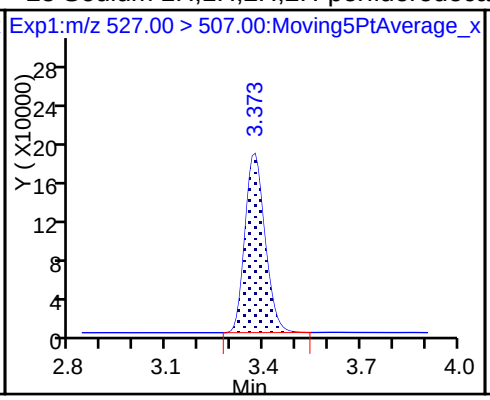
22 Perfluorooctane Sulfonamide



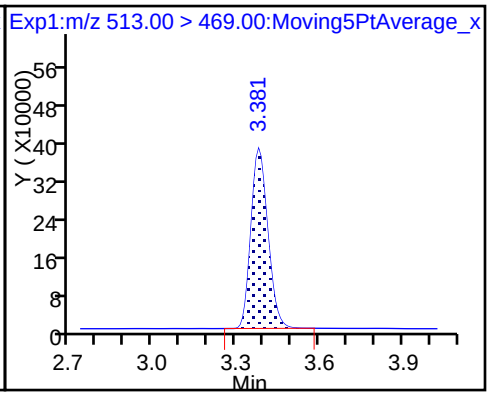
D 26 M2-8:2FTS



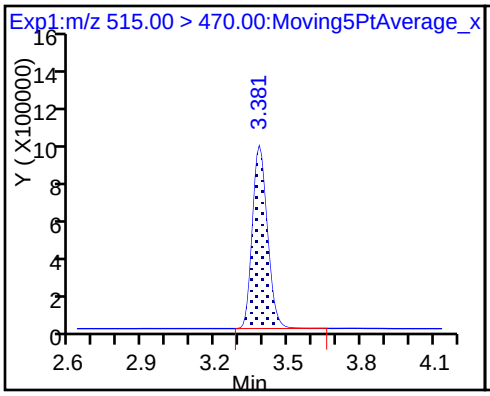
25 Sodium 1H,1H,2H,2H-perfluorodecan



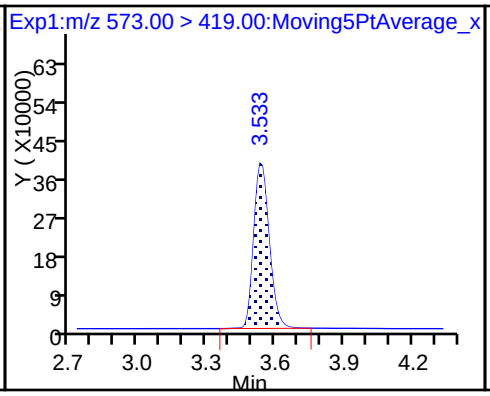
24 Perfluorodecanoic acid



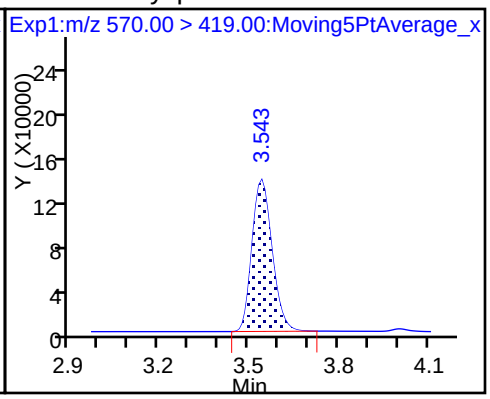
D 23 13C2 PFDA



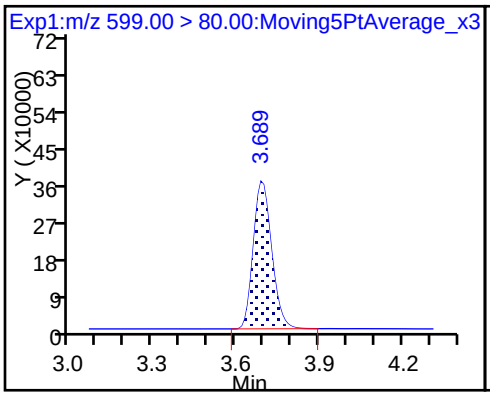
D 27 d3-NMeFOSAA



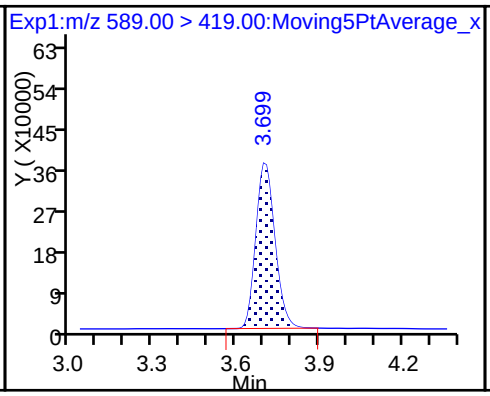
28 N-methyl perfluorooctane sulfonami



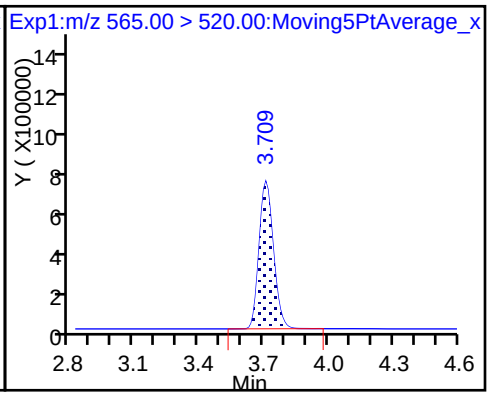
29 Perfluorodecane Sulfonic acid



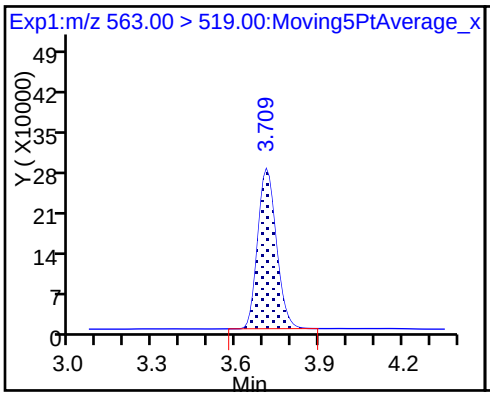
D 32 d5-NEtFOSAA



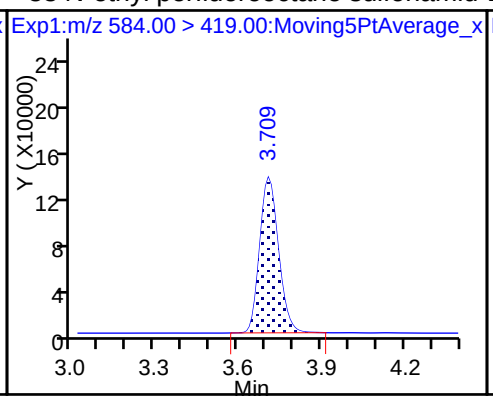
D 30 13C2 PFUnA



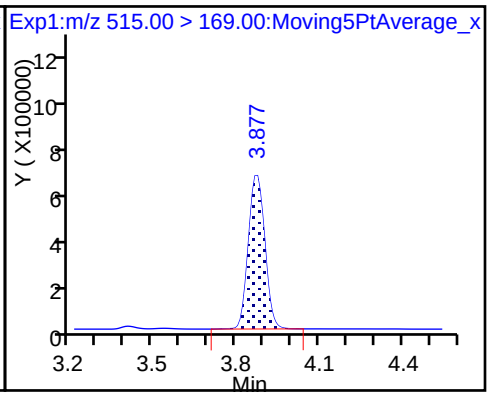
31 Perfluoroundecanoic acid



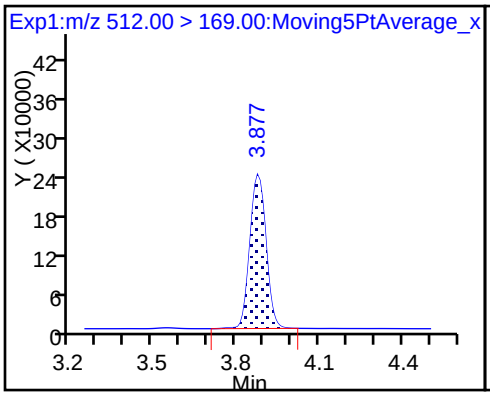
33 N-ethyl perfluorooctane sulfonamid



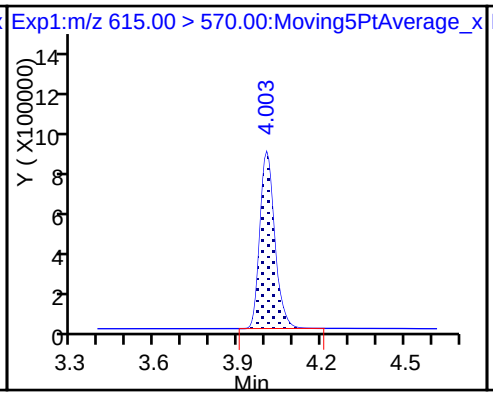
D 34 d-N-MeFOSA-M



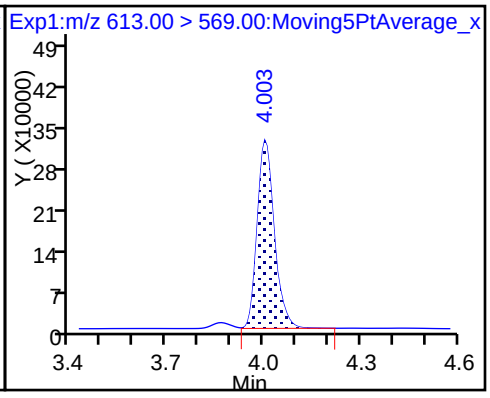
35 MeFOSA



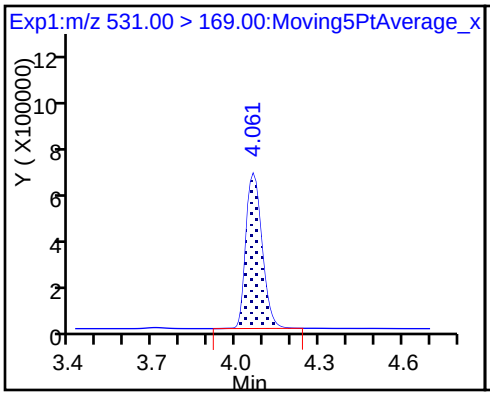
D 36 13C2 PFDoA



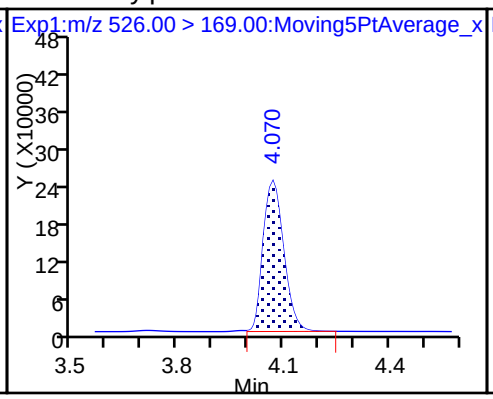
37 Perfluorododecanoic acid



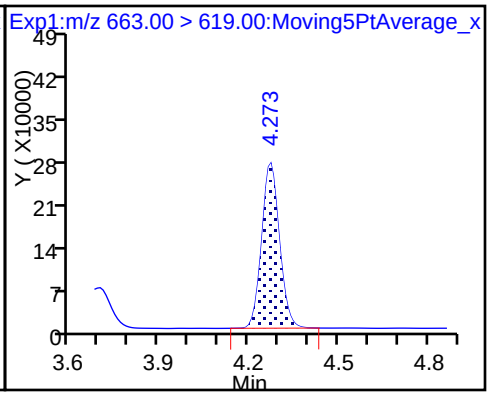
D 38 d-N-EtFOSA-M



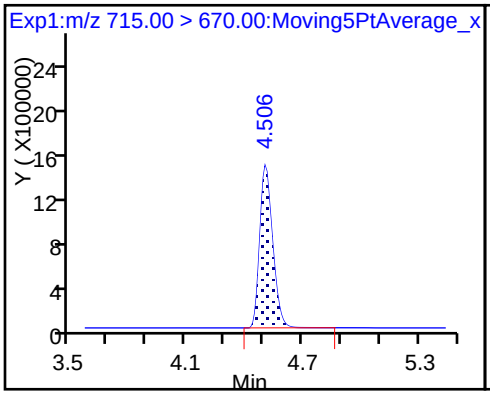
39 N-ethylperfluoro-1-octanesulfonami



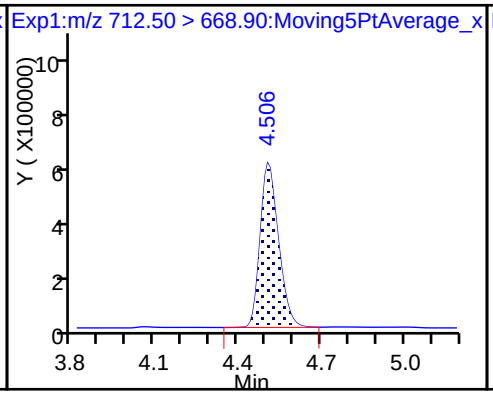
41 Perfluorotridecanoic acid



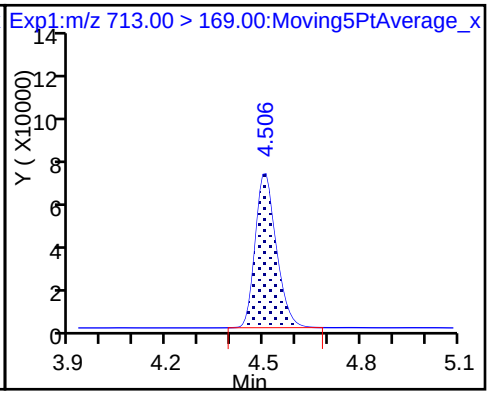
D 43 13C2-PFTeDA



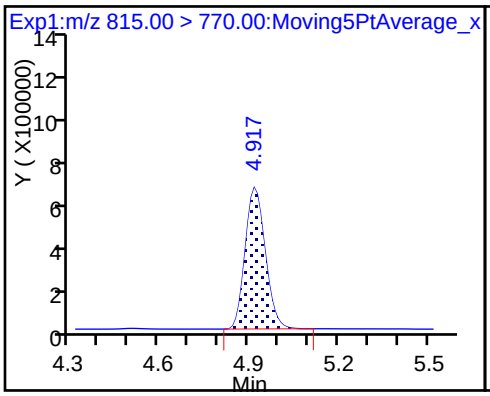
42 Perfluorotetradecanoic acid



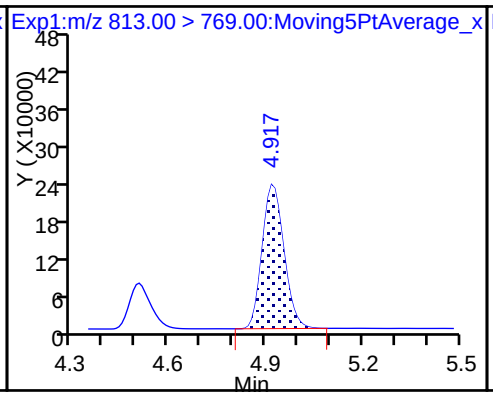
42 Perfluorotetradecanoic acid



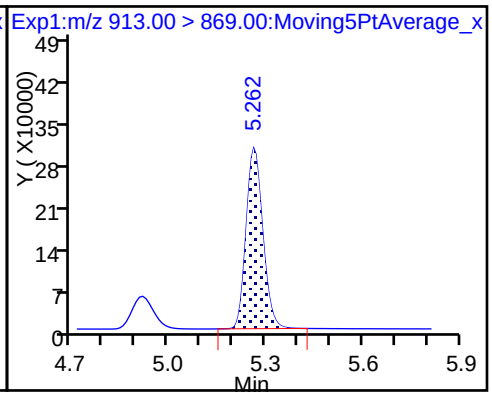
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-174335/12 Calibration Date: 07/15/2017 04:14

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 20170714D_011.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9173	0.9267		50.5	50.0	1.0	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.020	1.020		50.0	50.0	0.0	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.504	1.351		39.7	44.2	-10.2	25.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9548	0.9524		49.9	50.0	-0.3	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.001	0.9859		49.3	50.0	-1.5	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.029	1.004		44.4	45.5	-2.4	25.0
6:2FTS	AveID	0.8457	0.7977		44.7	47.4	-5.7	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.069	1.036		48.4	50.0	-3.1	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.168	1.135		46.3	47.6	-2.8	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9792	0.9643		49.2	50.0	-1.5	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.097	1.028		43.5	46.4	-6.3	25.0
8:2FTS	AveID	0.9064	0.8331		44.0	47.9	-8.1	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9190	0.9218		50.2	50.0	0.3	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9528	0.9430		49.5	50.0	-1.0	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9099	0.8358		45.9	50.0	-8.2	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6785	0.6350		45.1	48.2	-6.4	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8552	0.8363		48.9	50.0	-2.2	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.016	0.9688		47.7	50.0	-4.6	25.0
MeFOSA	AveID	0.9154	0.8618		47.1	50.0	-5.9	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9467	0.8791		46.4	50.0	-7.1	25.0
N-EtFOSA-M	AveID	0.9341	0.9042		48.4	50.0	-3.2	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9058	0.8452		46.7	50.0	-6.7	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	1.966	2.036		51.8	50.0	3.5	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.8064		40.3	50.0	-19.5	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.136	0.7731		34.0	50.0	-32.0*	25.0
13C4 PFBA	Ave	173363	174919		50.4	50.0	0.9	50.0
13C5-PFPeA	Ave	129088	130083		50.4	50.0	0.8	50.0
13C2 PFHxA	Ave	128361	124490		48.5	50.0	-3.0	50.0
13C4-PFHpA	Ave	116324	118119		50.8	50.0	1.5	50.0
18O2 PFHxS	Ave	160476	186245		54.9	47.3	16.1	50.0
M2-6:2FTS	Ave	54032	57784		50.8	47.5	6.9	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-174335/12 Calibration Date: 07/15/2017 04:14

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 20170714D_011.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	106081	111256		52.4	50.0	4.9	50.0
13C4 PFOS	Ave	115052	137138		57.0	47.8	19.2	50.0
13C5 PFNA	Ave	84294	90777		53.8	50.0	7.7	50.0
13C8 FOSA	Ave	201890	210052		52.0	50.0	4.0	50.0
M2-8:2FTS	Ave	43650	45339		49.8	47.9	3.9	50.0
13C2 PFDA	Ave	75727	81555		53.8	50.0	7.7	50.0
d3-NMeFOSAA	Ave	31425	38312		61.0	50.0	21.9	50.0
d5-NEtFOSAA	Ave	30669	36087		58.8	50.0	17.7	50.0
13C2 PFUnA	Ave	57737	61525		53.3	50.0	6.6	50.0
d-N-MeFOSA-M	Ave	50411	55227		54.8	50.0	9.6	50.0
13C2 PFDoA	Ave	59095	65463		55.4	50.0	10.8	50.0
d-N-EtFOSA-M	Ave	50108	55020		54.9	50.0	9.8	50.0
13C2-PFTeDA	Ave	111945	126915		56.7	50.0	13.4	50.0
13C2-PFHxDA	Ave	68020	64761		47.6	50.0	-4.8	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_011.d
Lims ID: CCV L5
Client ID:
Sample Type: CCV
Inject. Date: 15-Jul-2017 04:14:19 ALS Bottle#: 32 Worklist Smp#: 12
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L5
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub18

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 17-Jul-2017 14:32:02 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK010

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.536	1.538	-0.002		8745926	50.4		101	19934	
2 Perfluorobutyric acid										
212.90 > 169.00	1.536	1.539	-0.003	1.000	8104734	50.5		101	4244	
D 3 13C5-PFPeA										
267.90 > 223.00	1.736	1.748	-0.012		6504164	50.4		101	47163	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.736	1.749	-0.013	1.000	6636320	50.0		100	5003	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.764	1.775	-0.011	1.000	11119723	39.7		89.8	8864	
298.90 > 99.00	1.764	1.775	-0.011	1.000	3605208		3.08(0.00-0.00)		676	
D 47 13C3-PFBS										
301.90 > 83.00	1.764	1.764	0.0		157948	NC			9201	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.960	1.980	-0.020	1.000	1954599	38.6		82.7	65344	
D 7 13C2 PFHxA										
315.00 > 270.00	1.994	2.017	-0.023		6224497	48.5		97.0	31645	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.994	2.017	-0.023	1.000	5928222	49.9		99.7	8824	
D 9 13C4-PFHpA										
367.00 > 322.00	2.309	2.341	-0.032		5905974	50.8		102	19362	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.309	2.341	-0.032	1.000	5822465	49.3		98.5	6111	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.326	2.357	-0.031	1.000	8509103	44.4		97.6	4745	
D 11 18O2 PFHxS										
403.00 > 84.00	2.326	2.357	-0.031		8809387	54.9		116	38228	
D 12 M2-6:2FTS										
429.00 > 409.00	2.630	2.673	-0.043		2744741	50.8		107	25443	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.630	2.673	-0.043	1.000	2184757	44.7		94.3	38747	
* 62 13C2-PFOA										
415.00 > 370.00	2.651	2.694	-0.043		5251074	50.0		100	29407	
D 14 13C4 PFOA										
417.00 > 372.00	2.659	2.698	-0.039		5562794	52.4		105	21358	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.659	2.700	-0.041	1.000	5762069	48.4		96.9	1655	
413.00 > 169.00	2.659	2.700	-0.041	1.000	3287849		1.75(0.90-1.10)		7186	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.666	2.706	-0.040	1.000	7409596	46.3		97.2	29737	
D 18 13C4 PFOS										
503.00 > 80.00	3.023	3.071	-0.048		6555188	57.0		119	19059	
20 Perfluorononanoic acid										
463.00 > 419.00	3.023	3.072	-0.049	1.000	4376822	49.2		98.5	9274	
D 19 13C5 PFNA										
468.00 > 423.00	3.023	3.072	-0.049		4538826	53.8		108	16081	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.023	3.072	-0.049	1.000	6543293	43.5		93.7	9724	
499.00 > 99.00	3.023	3.072	-0.049	1.000	1382738		4.73(0.90-1.10)		9062	
D 21 13C8 FOSA										
506.00 > 78.00	3.373	3.401	-0.028		10502587	52.0		104	22261	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.373	3.405	-0.032	1.000	9681287	50.2		100	20878	
D 26 M2-8:2FTS										
529.00 > 509.00	3.373	3.424	-0.051		2171729	49.8		104	16499	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.373	3.425	-0.052	1.000	1809225	44.0		91.9	15115	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.382	3.435	-0.053	1.000	3845375	49.5		99.0	11972	
D 23 13C2 PFDA										
515.00 > 470.00	3.382	3.435	-0.053		4077753	53.8		108	11165	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.534	3.592	-0.058		1915613	61.0		122	9943	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.544	3.595	-0.051	1.003	1600993	45.9		91.8	4877	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.701	3.749	-0.048	1.000	4197038	45.1		93.6	11349	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.701	3.759	-0.058		1804336	58.8		118	3353	
D 30 13C2 PFUnA										
565.00 > 520.00	3.710	3.768	-0.058		3076232	53.3		107	13085	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.710	3.768	-0.058	1.000	2980119	47.7		95.4	6375	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.710	3.768	-0.058	1.003	1508961	48.9		97.8	7509	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.878	3.894	-0.016		2761349	54.8		110	2387	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
35 MeFOSA										
512.00 > 169.00	3.878	3.899	-0.021	1.000	2379720	47.1		94.1	5600	
D 36 13C2 PFDoA										
615.00 > 570.00	4.004	4.061	-0.057		3273133	55.4		111	8183	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.004	4.062	-0.058	1.000	2877280	46.4		92.9	3808	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.063	4.083	-0.020		2750999	54.9		110	4655	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.072	4.090	-0.018	1.000	2487576	48.4		96.8	3875	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.275	4.331	-0.056	1.000	2766355	46.7		93.3	890	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.508	4.571	-0.063		6345736	56.7		113	30304	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.508	4.573	-0.065	1.000	6663183	51.8		104	4526	
713.00 > 169.00	4.508	4.573	-0.065	1.000	789304		8.44(0.00-0.00)		9770	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.920	4.986	-0.066		3238043	47.6		95.2	3522	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.920	4.988	-0.068	1.000	2639400	40.3		80.5	339	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.267	5.344	-0.077	1.000	2530558	34.0		68.0	573	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L5_00005 Amount Added: 1.00 Units: mL

Report Date: 17-Jul-2017 14:32:03 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_011.d

Injection Date: 15-Jul-2017 04:14:19 Instrument ID: A8_N

Lims ID: CCV L5

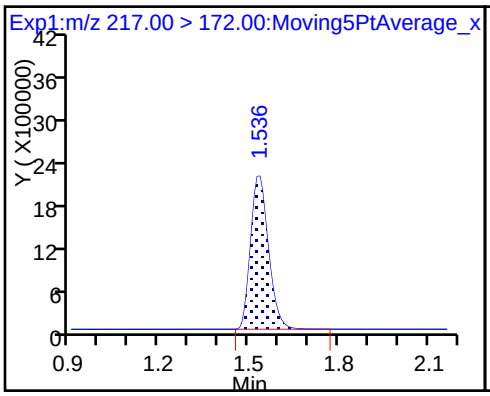
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 32 Worklist Smp#: 12

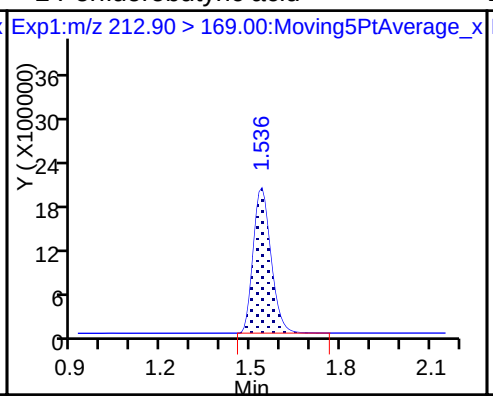
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

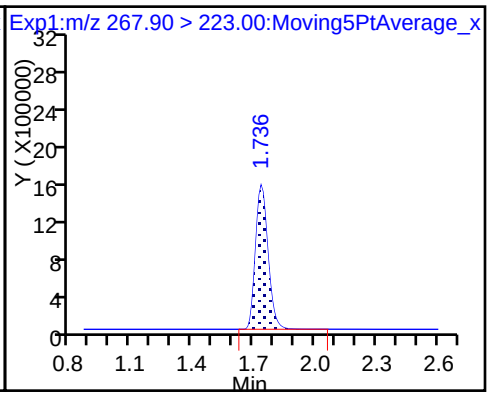
D 1 13C4 PFBA



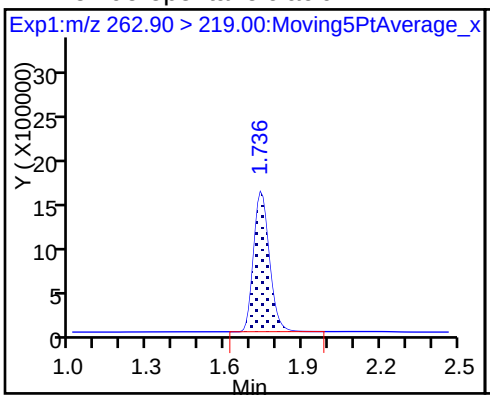
2 Perfluorobutyric acid



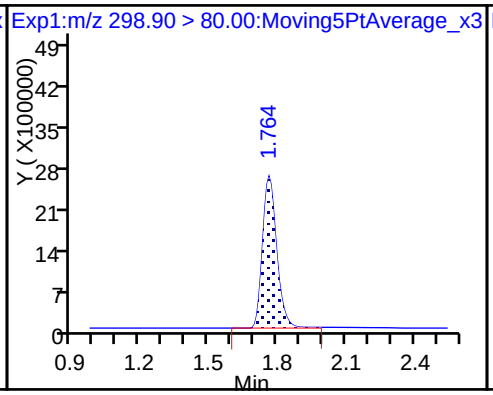
D 3 13C5-PFPeA



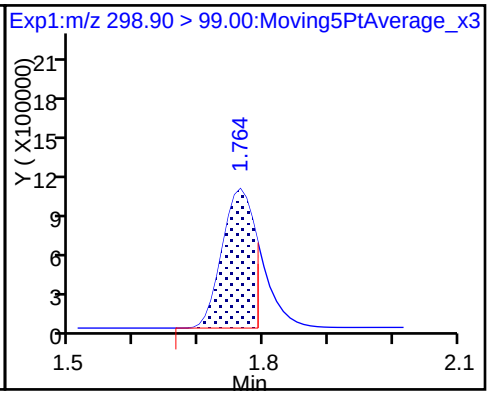
4 Perfluoropentanoic acid



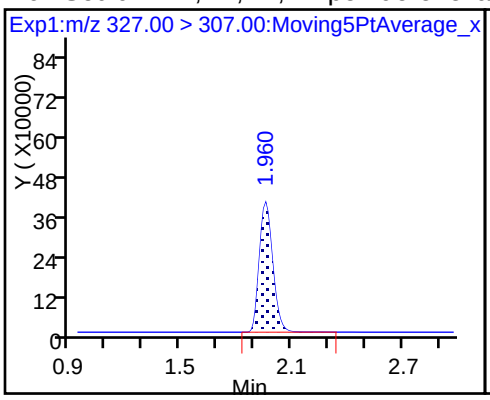
5 Perfluorobutanesulfonic acid



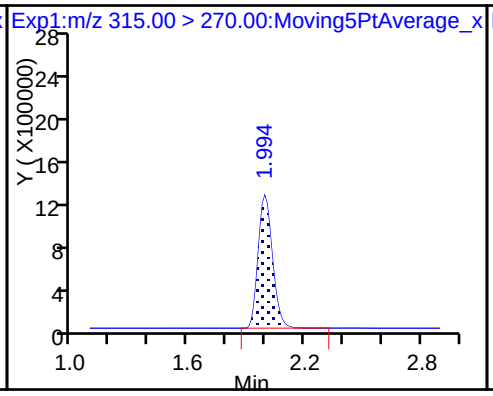
5 Perfluorobutanesulfonic acid



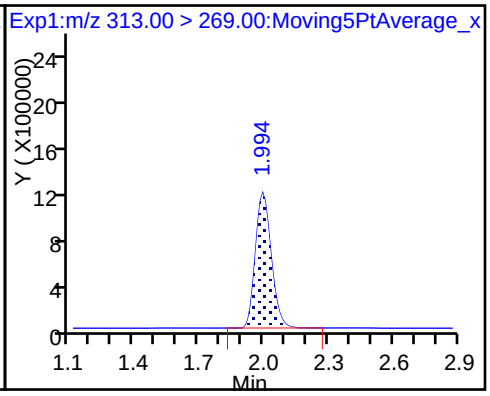
61 Sodium 1H,1H,2H,2H-perfluorohexa



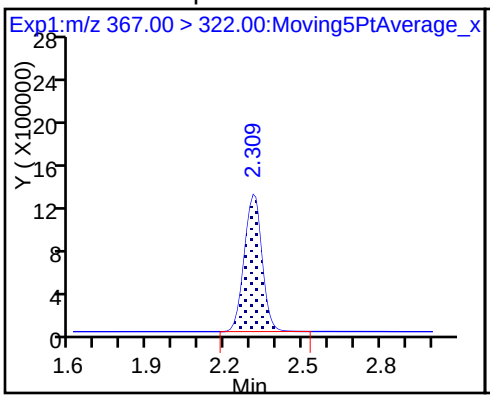
De 7 13C2 PFHxA



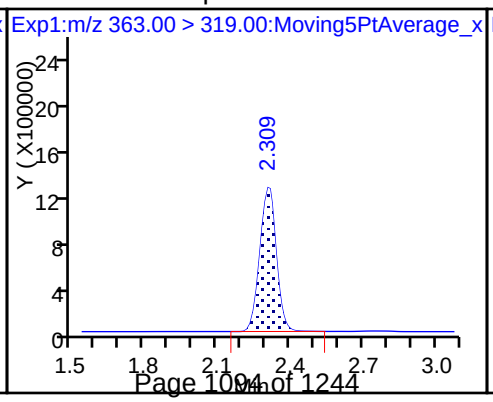
6 Perfluorohexanoic acid



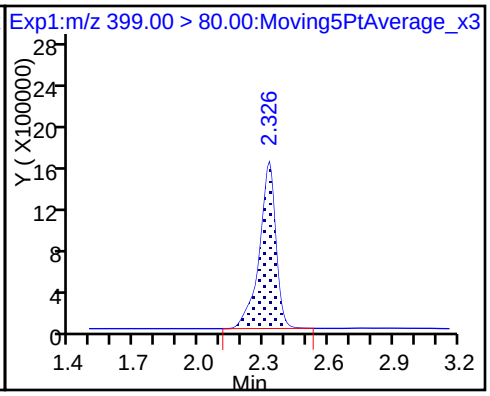
D 9 13C4-PFHpA



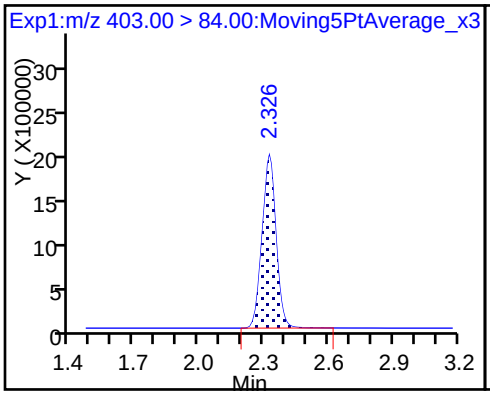
10 Perfluoroheptanoic acid



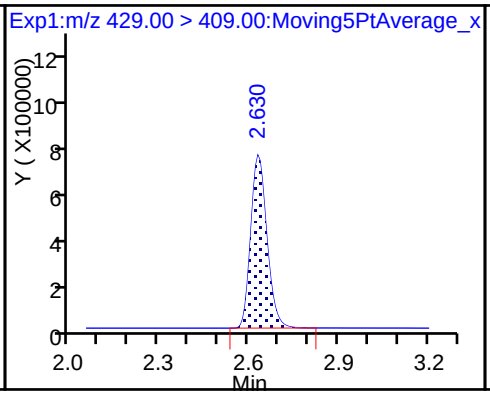
8 Perfluorohexanesulfonic acid



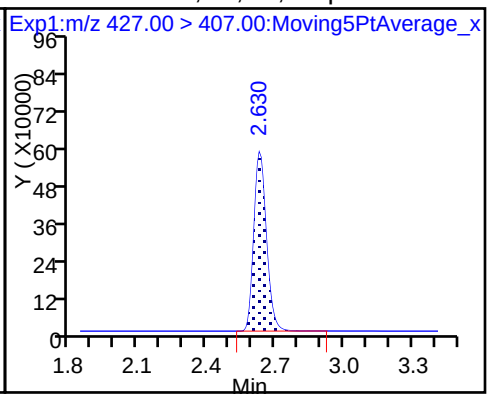
D 11 18O2 PFHxS



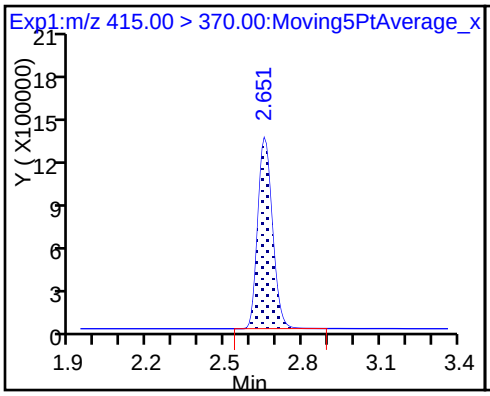
D 12 M2-6:2FTS



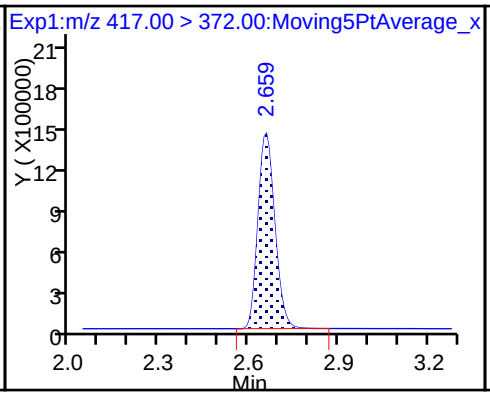
13 Sodium 1H,1H,2H,2H-perfluorooctane



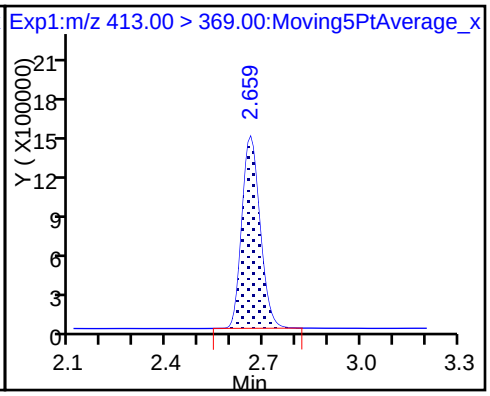
* 62 13C2-PFOA



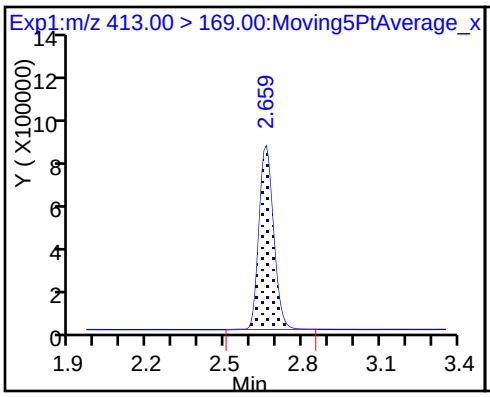
D 14 13C4 PFOA



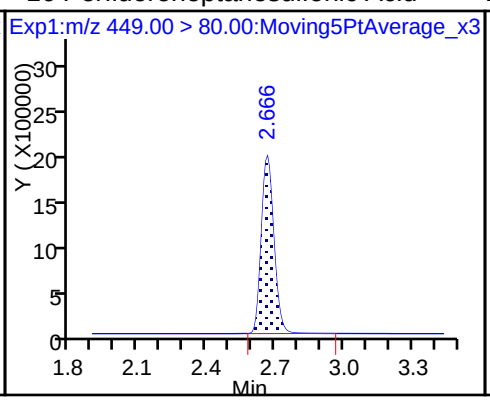
15 Perfluorooctanoic acid



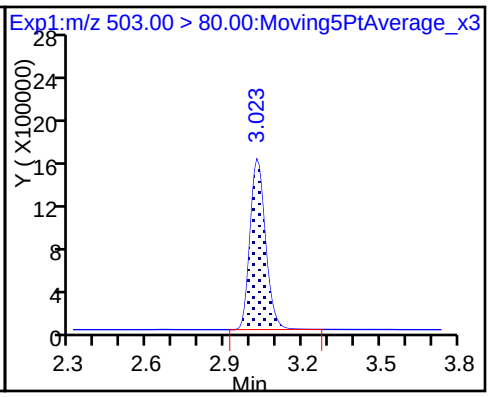
15 Perfluorooctanoic acid



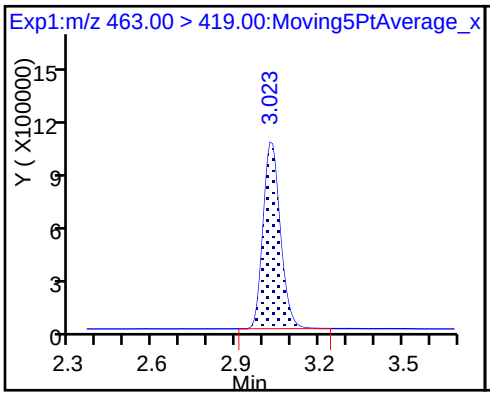
16 Perfluoroheptanesulfonic Acid



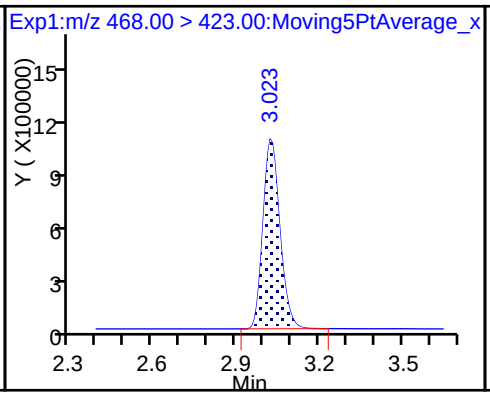
D 18 13C4 PFOS



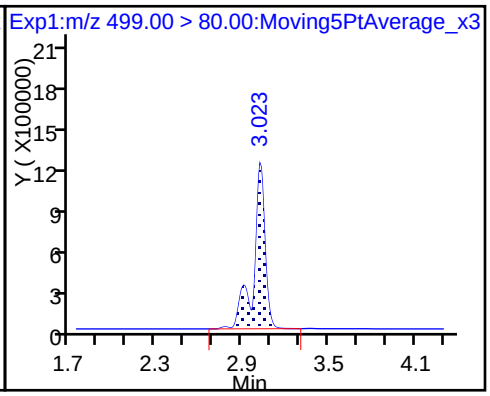
20 Perfluorononanoic acid



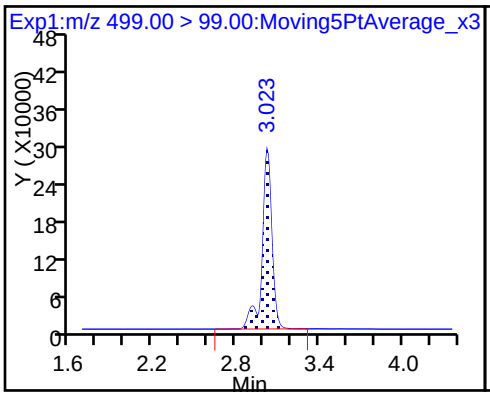
D 19 13C5 PFNA



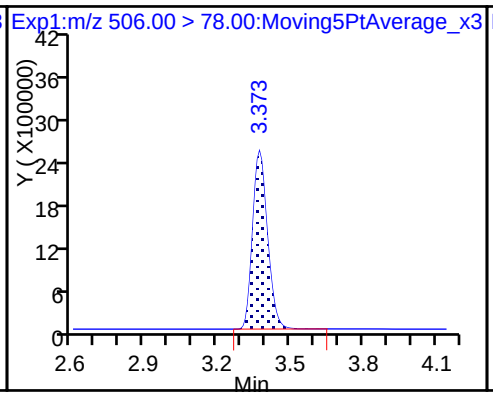
17 Perfluorooctane sulfonic acid



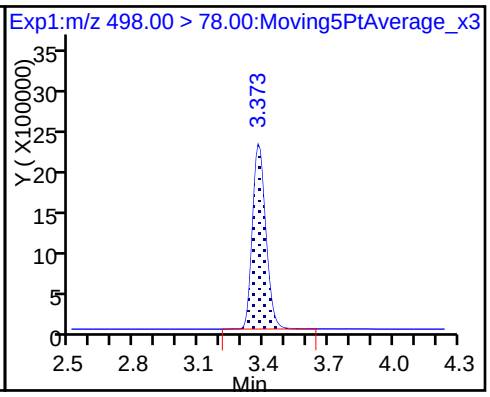
17 Perfluorooctane sulfonic acid



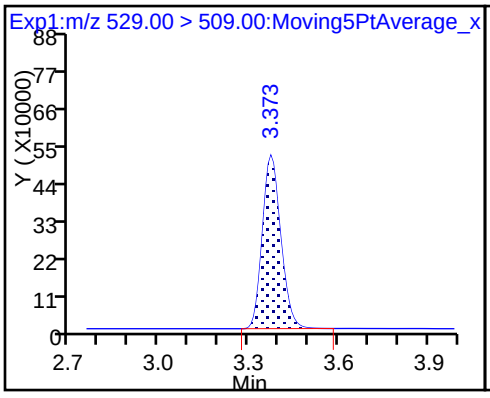
D 21 13C8 FOSA



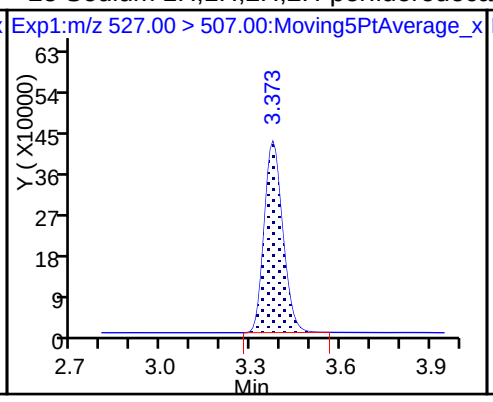
22 Perfluorooctane Sulfonamide



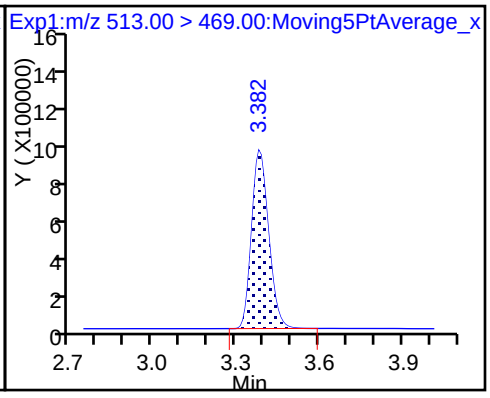
D 26 M2-8:2FTS



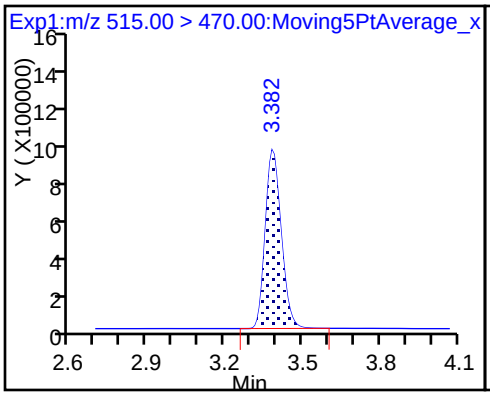
25 Sodium 1H,1H,2H,2H-perfluorodecan



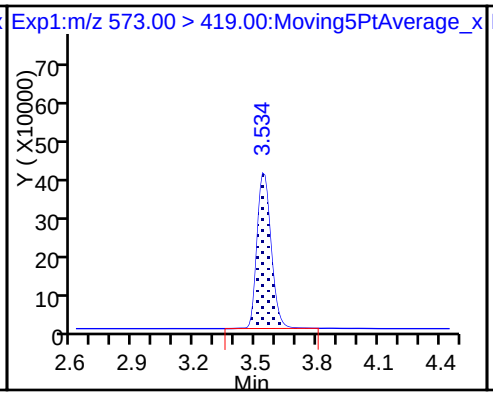
24 Perfluorodecanoic acid



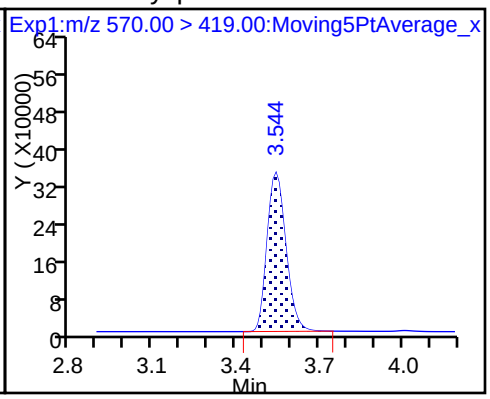
D 23 13C2 PFDA



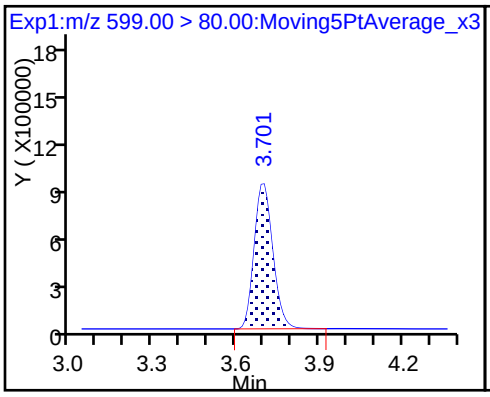
D 27 d3-NMeFOSAA



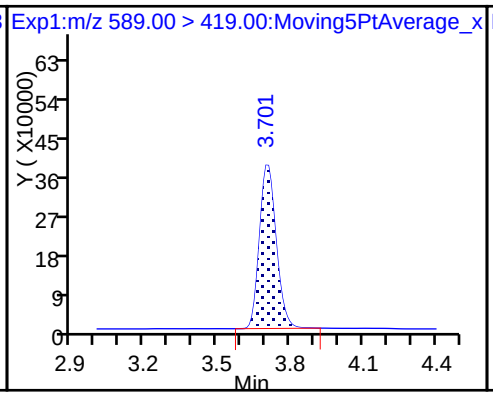
28 N-methyl perfluorooctane sulfonami



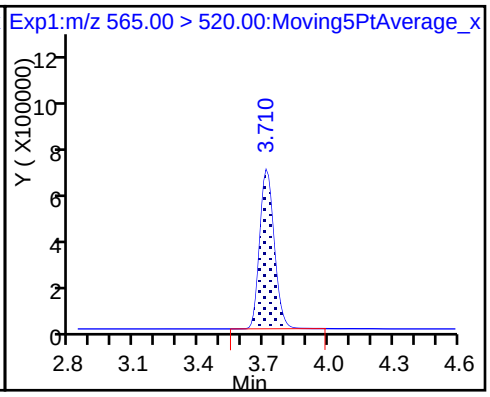
29 Perfluorodecane Sulfonic acid



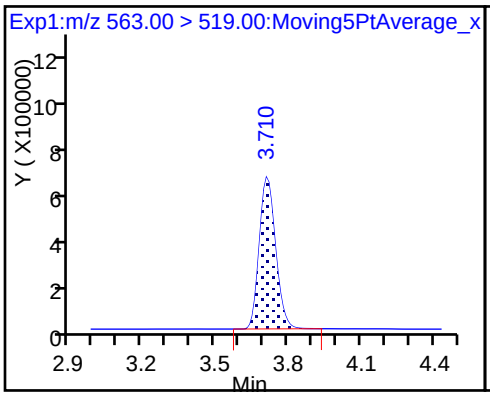
D 32 d5-NEtFOSAA



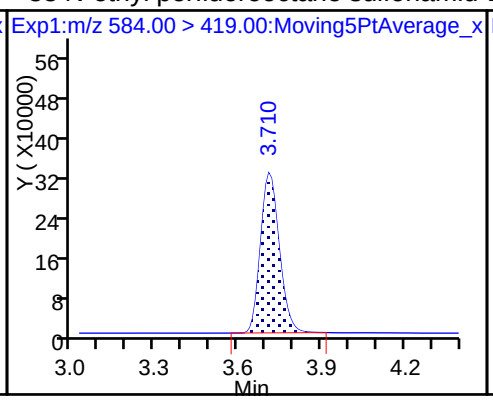
D 30 13C2 PFUnA



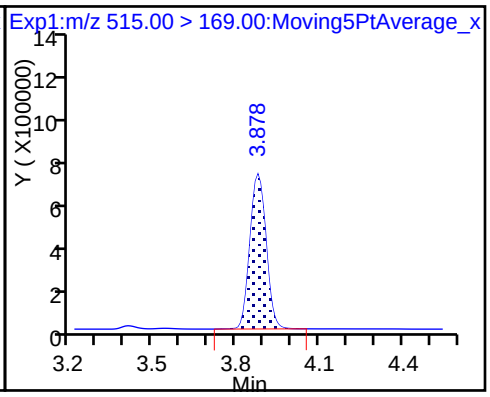
31 Perfluoroundecanoic acid



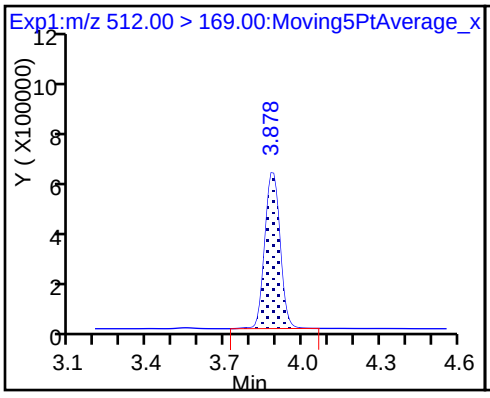
33 N-ethyl perfluorooctane sulfonamid



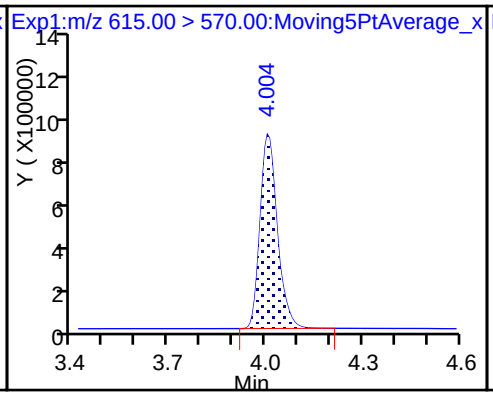
D 34 d-N-MeFOSA-M



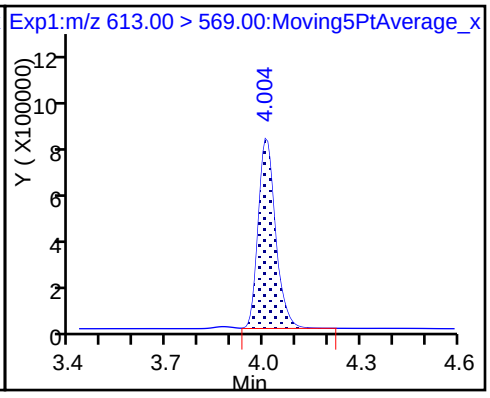
35 MeFOSA



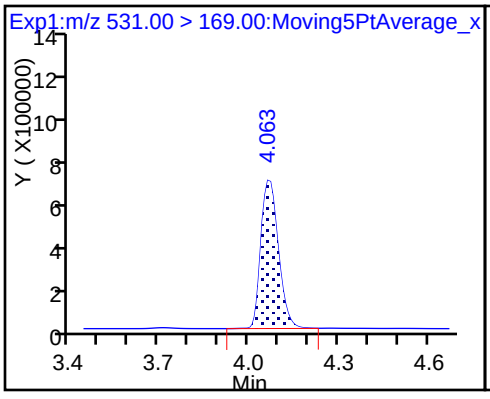
D 36 13C2 PFDoA



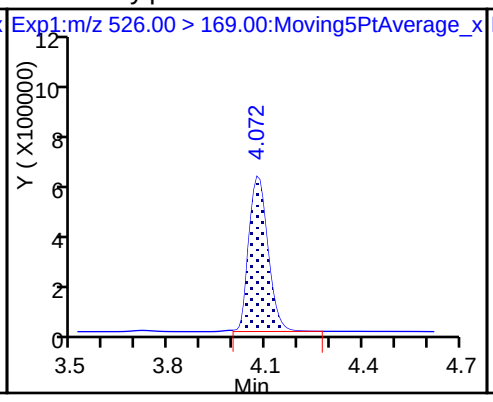
37 Perfluorododecanoic acid



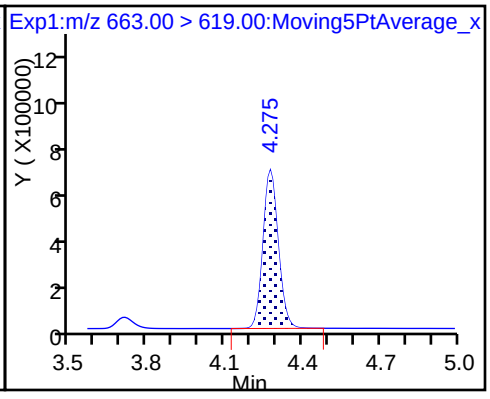
D 38 d-N-EtFOSA-M



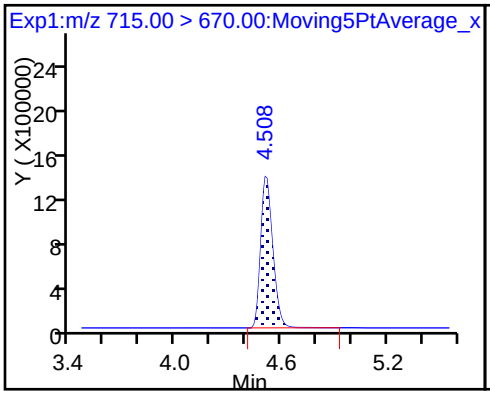
39 N-ethylperfluoro-1-octanesulfonami



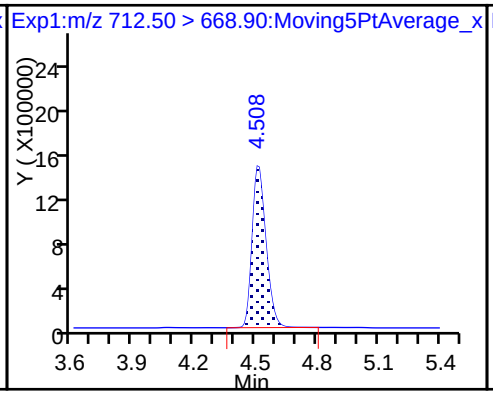
41 Perfluorotridecanoic acid



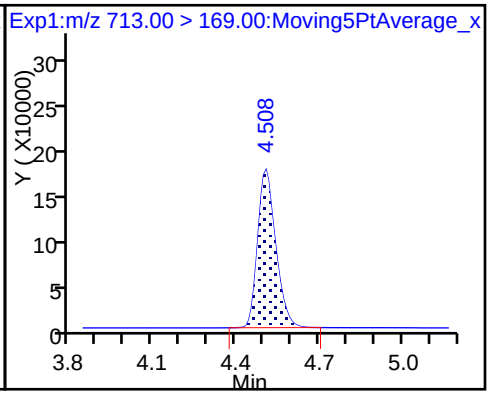
D 43 13C2-PFTeDA



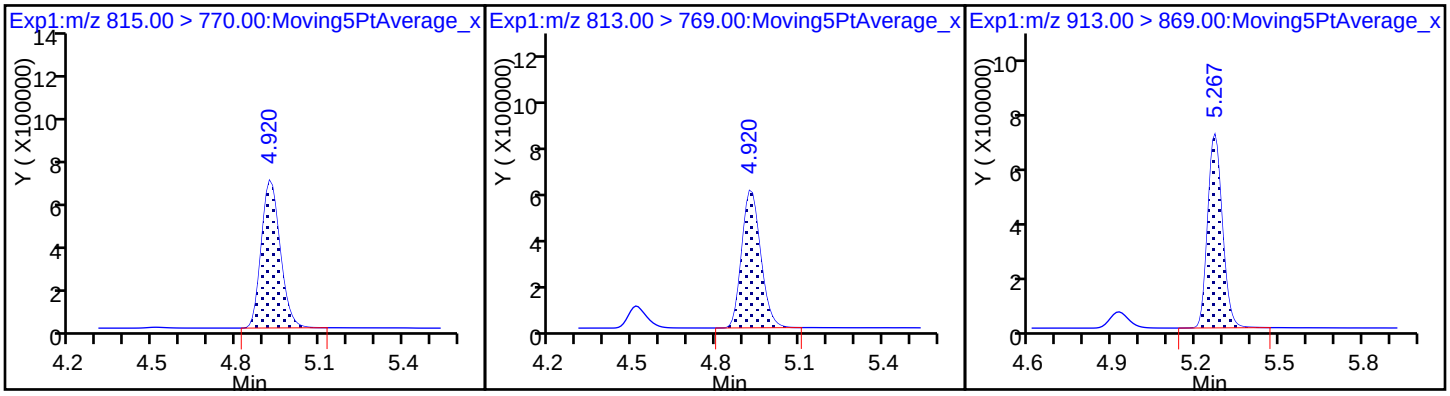
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-174335/18 Calibration Date: 07/15/2017 04:55

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 20170714D_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	AveID	0.9173	0.9448		20.6	20.0	3.0	25.0
Perfluoropentanoic acid (PFPeA)	AveID	1.020	1.029		20.2	20.0	0.9	25.0
Perfluorobutanesulfonic acid (PFBS)	AveID	1.504	1.448		17.0	17.7	-3.7	25.0
Perfluorohexanoic acid (PFHxA)	AveID	0.9548	0.9818		20.6	20.0	2.8	25.0
Perfluoroheptanoic acid (PFHpA)	AveID	1.001	1.025		20.5	20.0	2.5	25.0
Perfluorohexanesulfonic acid (PFHxS)	AveID	1.029	1.040		18.4	18.2	1.2	25.0
6:2FTS	AveID	0.8457	0.8575		19.2	19.0	1.4	25.0
Perfluorooctanoic acid (PFOA)	AveID	1.069	1.049		19.6	20.0	-1.9	25.0
Perfluoroheptanesulfonic Acid (PFHpS)	AveID	1.168	1.206		19.7	19.0	3.2	25.0
Perfluorononanoic acid (PFNA)	AveID	0.9792	1.004		20.5	20.0	2.5	25.0
Perfluorooctanesulfonic acid (PFOS)	AveID	1.097	1.053		17.8	18.6	-4.0	25.0
8:2FTS	AveID	0.9064	0.8568		18.1	19.2	-5.5	25.0
Perfluorooctane Sulfonamide (FOSA)	AveID	0.9190	0.9367		20.4	20.0	1.9	25.0
Perfluorodecanoic acid (PFDA)	AveID	0.9528	0.9342		19.6	20.0	-2.0	25.0
N-methyl perfluorooctane sulfonamidoacetic acid (NMeFOSAA)	AveID	0.9099	0.8310		18.3	20.0	-8.7	25.0
Perfluorodecanesulfonic acid (PFDS)	AveID	0.6785	0.6900		19.6	19.3	1.7	25.0
N-ethyl perfluorooctane sulfonamidoacetic acid (NEtFOSAA)	AveID	0.8552	0.8107		19.0	20.0	-5.2	25.0
Perfluoroundecanoic acid (PFUnA)	AveID	1.016	1.020		20.1	20.0	0.4	25.0
MeFOSA	AveID	0.9154	0.9228		20.2	20.0	0.8	25.0
Perfluorododecanoic acid (PFDoA)	AveID	0.9467	0.9340		19.7	20.0	-1.3	25.0
N-EtFOSA-M	AveID	0.9341	0.9593		20.5	20.0	2.7	25.0
Perfluorotridecanoic Acid (PFTriA)	AveID	0.9058	0.8693		19.2	20.0	-4.0	25.0
Perfluorotetradecanoic acid (PFTeA)	AveID	1.966	2.095		21.3	20.0	6.5	25.0
Perfluoro-n-hexadecanoic acid (PFHxDA)	L2ID		0.9180		17.9	20.0	-10.7	25.0
Perfluoro-n-octadecanoic acid (PFODA)	AveID	1.136	0.9931		17.5	20.0	-12.6	25.0
13C4 PFBA	Ave	173363	179037		51.6	50.0	3.3	50.0
13C5-PFPeA	Ave	129088	133468		51.7	50.0	3.4	50.0
13C2 PFHxA	Ave	128361	128481		50.0	50.0	0.0	50.0
13C4-PFHpA	Ave	116324	125889		54.1	50.0	8.2	50.0
18O2 PFHxS	Ave	160476	188544		55.6	47.3	17.5	50.0
M2-6:2FTS	Ave	54032	54922		48.3	47.5	1.6	50.0

FORM VII 537 (Modified)

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Lab Sample ID: CCV 320-174335/18 Calibration Date: 07/15/2017 04:55

Instrument ID: A8_N Calib Start Date: 07/11/2017 18:42

GC Column: GeminiC18 3x100 ID: 3.00(mm) Calib End Date: 07/11/2017 19:30

Lab File ID: 20170714D_017.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE CF	CF	MIN CF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C4 PFOA	Ave	106081	115839		54.6	50.0	9.2	50.0
13C4 PFOS	Ave	115052	133355		55.4	47.8	15.9	50.0
13C5 PFNA	Ave	84294	91184		54.1	50.0	8.2	50.0
M2-8:2FTS	Ave	43650	43666		47.9	47.9	0.0	50.0
13C8 FOSA	Ave	201890	214786		53.2	50.0	6.4	50.0
13C2 PFDA	Ave	75727	82161		54.2	50.0	8.5	50.0
d3-NMeFOSAA	Ave	31425	38311		61.0	50.0	21.9	50.0
d5-NEtFOSAA	Ave	30669	37743		61.5	50.0	23.1	50.0
13C2 PFUnA	Ave	57737	63206		54.7	50.0	9.5	50.0
d-N-MeFOSA-M	Ave	50411	52242		51.8	50.0	3.6	50.0
13C2 PFDoA	Ave	59095	64547		54.6	50.0	9.2	50.0
d-N-EtFOSA-M	Ave	50108	52397		52.3	50.0	4.6	50.0
13C2-PFTeDA	Ave	111945	126284		56.4	50.0	12.8	50.0
13C2-PFHxDA	Ave	68020	66679		49.0	50.0	-2.0	50.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_017.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 15-Jul-2017 04:55:43 ALS Bottle#: 31 Worklist Smp#: 18
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: CCV L4
Misc. Info.: Plate: 1 Rack: 1
Operator ID: SACINSTLCMS01 Instrument ID: A8_N
Sublist: chrom-A8_N*sub18

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 17-Jul-2017 14:32:12 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK010

First Level Reviewer: barnettj Date: 17-Jul-2017 14:31:26

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.530	1.536	-0.006		8951857	51.6		103	19289	
2 Perfluorobutyric acid										
212.90 > 169.00	1.539	1.536	0.003	1.000	3383042	20.6		103	1724	
D 3 13C5-PFPeA										
267.90 > 223.00	1.738	1.736	0.002		6673385	51.7		103	38243	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.738	1.736	0.002	1.000	2747495	20.2		101	1773	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.766	1.764	0.002	1.000	4826324	17.0		96.3	3308	
298.90 > 99.00	1.766	1.764	0.002	1.000	1871654		2.58(0.00-0.00)		2940	
D 47 13C3-PFBS										
301.90 > 83.00	1.757	1.764	-0.007		173071	NC			8076	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.964	1.960	0.004	1.000	851503	17.7		94.8	42491	
D 7 13C2 PFHxA										
315.00 > 270.00	1.998	1.994	0.004		6424065	50.0		100	28768	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.998	1.994	0.004	1.000	2522933	20.6		103	4119	
D 9 13C4-PFHpA										
367.00 > 322.00	2.309	2.309	0.0		6294455	54.1		108	22230	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.309	2.309	0.0	1.000	2581762	20.5		102	2901	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.326	2.326	0.0	1.000	3570190	18.4		101	2555	
D 11 18O2 PFHxS										
403.00 > 84.00	2.326	2.326	0.0		8918114	55.6		117	28765	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.628	2.630	-0.002		2608786	48.3		102	27724	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.628	2.630	-0.002	1.000	892970	19.2		101	16830	
* 62 13C2-PFOA										
415.00 > 370.00	2.650	2.651	-0.001		5514552	50.0		100	24831	
D 14 13C4 PFOA										
417.00 > 372.00	2.657	2.659	-0.002		5791937	54.6		109	22953	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.657	2.659	-0.002	1.000	2430946	19.6		98.1	728	
413.00 > 169.00	2.657	2.659	-0.002	1.000	1380707		1.76(0.90-1.10)		3323	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.664	2.666	-0.002	1.000	3061053	19.7		103	17019	
D 18 13C4 PFOS										
503.00 > 80.00	3.019	3.023	-0.004		6374373	55.4		116	24651	
20 Perfluorononanoic acid										
463.00 > 419.00	3.027	3.023	0.004	1.000	1831062	20.5		103	4232	
D 19 13C5 PFNA										
468.00 > 423.00	3.019	3.023	-0.004		4559176	54.1		108	13982	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.027	3.023	0.004	1.000	2607026	17.8		96.0	8088	
499.00 > 99.00	3.019	3.023	-0.004	0.997	561064		4.65(0.90-1.10)		5108	
D 21 13C8 FOSA										
506.00 > 78.00	3.376	3.373	0.003		10739295	53.2		106	22702	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.376	3.373	0.003	1.000	4023664	20.4		102	17997	
D 26 M2-8:2FTS										
529.00 > 509.00	3.368	3.373	-0.005		2091602	47.9		100	15171	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.368	3.373	-0.005	1.000	716790	18.1		94.5	12937	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.385	3.382	0.003	1.000	1535050	19.6		98.0	7218	
D 23 13C2 PFDA										
515.00 > 470.00	3.385	3.382	0.003		4108053	54.2		108	10098	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.537	3.534	0.003		1915542	61.0		122	8184	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.537	3.544	-0.007	1.000	636701	18.3		91.3	2434	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.693	3.701	-0.008	1.000	1774122	19.6		102	10274	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.703	3.701	0.002		1887155	61.5		123	3874	
D 30 13C2 PFUnA										
565.00 > 520.00	3.713	3.710	0.003		3160301	54.7		109	8796	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.713	3.710	0.003	1.000	1288938	20.1		100	3159	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.713	3.710	0.003	1.003	611941	19.0		94.8	5307	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.880	3.878	0.002		2612093	51.8		104	1780	
35 MeFOSA										
512.00 > 169.00	3.880	3.878	0.002	1.000	964222	20.2		101	5191	
D 36 13C2 PFDoA										
615.00 > 570.00	4.005	4.004	0.001		3227354	54.6		109	8056	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.005	4.004	0.001	1.000	1205685	19.7		98.7	1777	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.063	4.063	0.0		2619868	52.3		105	5144	
39 N-ethylperfluoro-1-octanesulfonami										
526.00 > 169.00	4.073	4.072	0.001	1.000	1005313	20.5		103	3804	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.276	4.275	0.001	1.000	1122205	19.2		96.0	360	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.508	4.508	0.0		6314197	56.4		113	12002	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.508	4.508	0.0	1.000	2704054	21.3		107	1739	
713.00 > 169.00	4.508	4.508	0.0	1.000	319330		8.47(0.00-0.00)		5974	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.920	4.920	0.0		3333952	49.0		98.0	3145	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.920	4.920	0.0	1.000	1185076	17.9		89.3	179	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.270	5.267	0.003	1.000	1282062	17.5		87.4	306	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

LCPFC_FULL-L4_00005 Amount Added: 1.00 Units: mL

Report Date: 17-Jul-2017 14:32:13 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_017.d

Injection Date: 15-Jul-2017 04:55:43 Instrument ID: A8_N

Lims ID: CCV L4

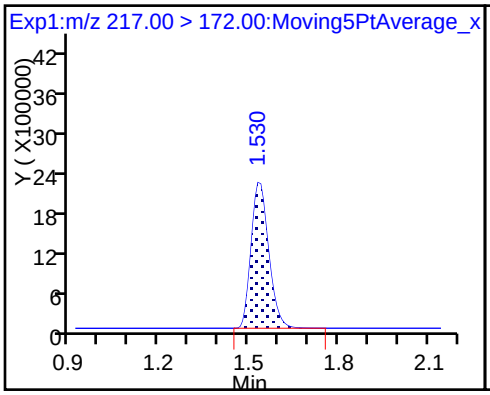
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 31 Worklist Smp#: 18

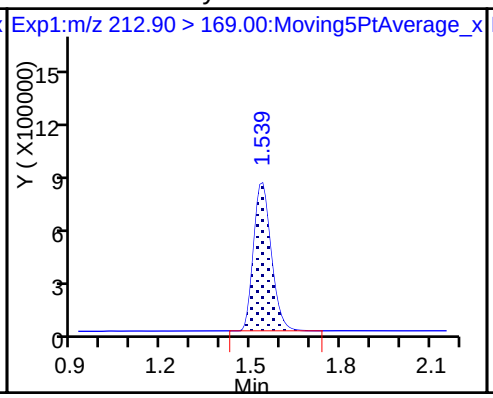
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

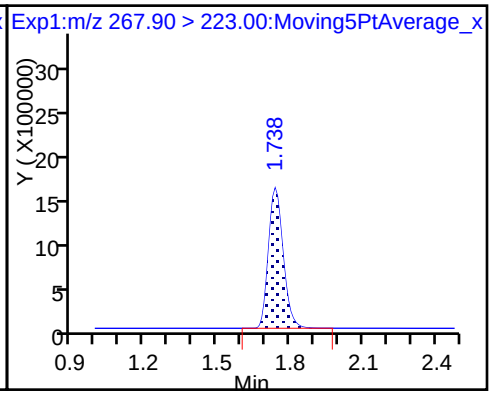
D 1 13C4 PFBA



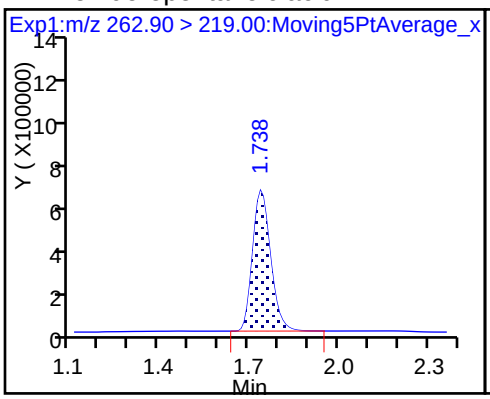
2 Perfluorobutyric acid



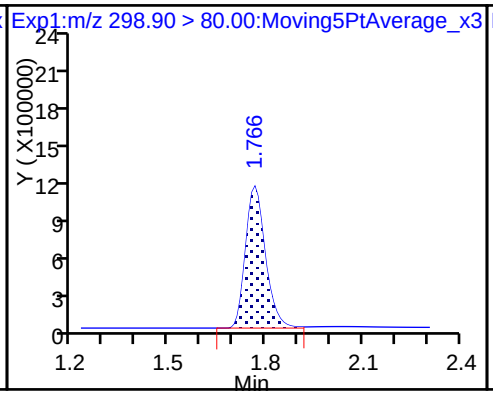
D 3 13C5-PFPeA



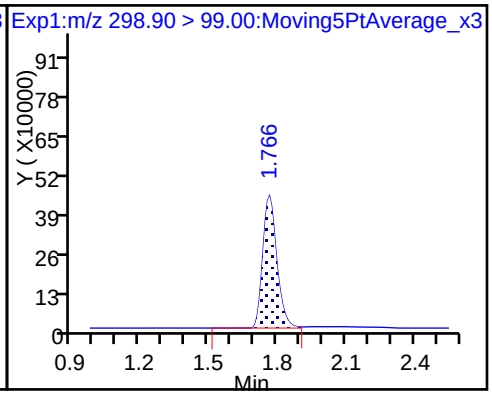
4 Perfluoropentanoic acid



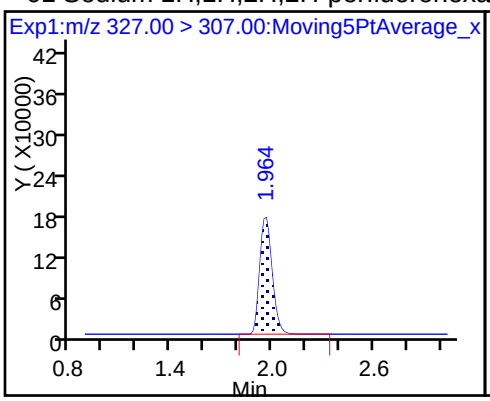
5 Perfluorobutanesulfonic acid



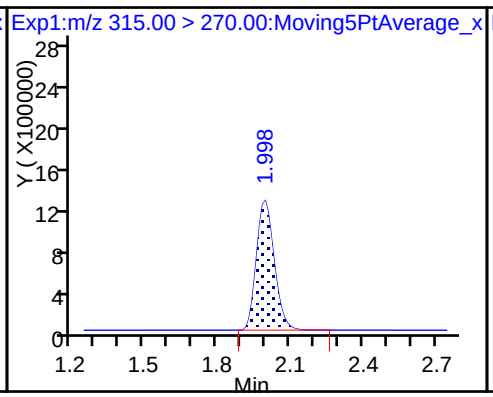
5 Perfluorobutanesulfonic acid



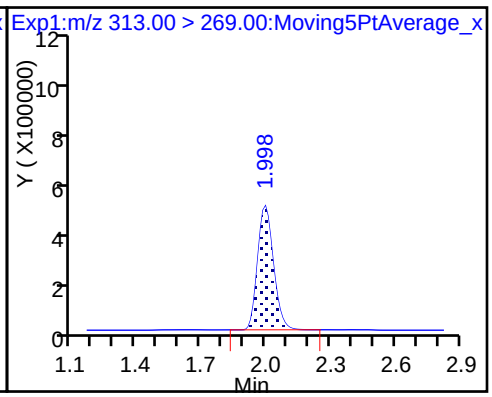
61 Sodium 1H,1H,2H,2H-perfluorohexa



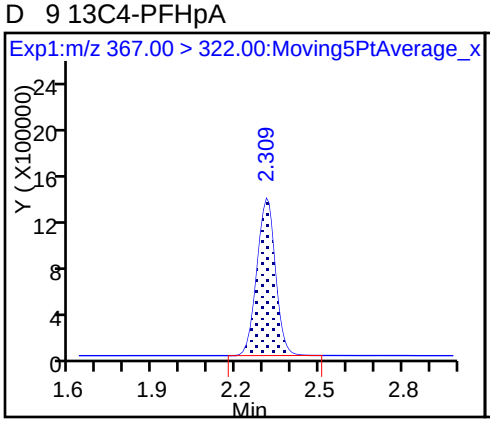
De 7 13C2 PFHxA



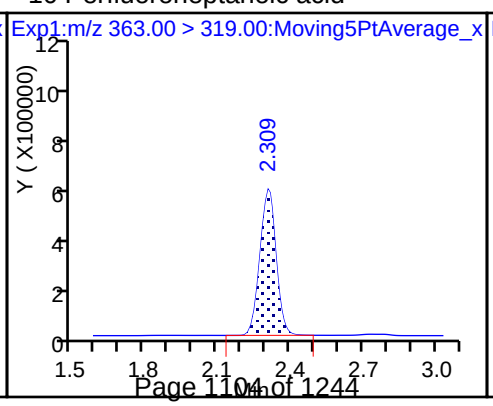
6 Perfluorohexanoic acid



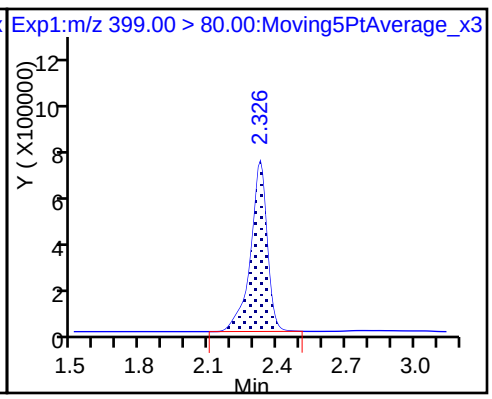
D 9 13C4-PFHpA



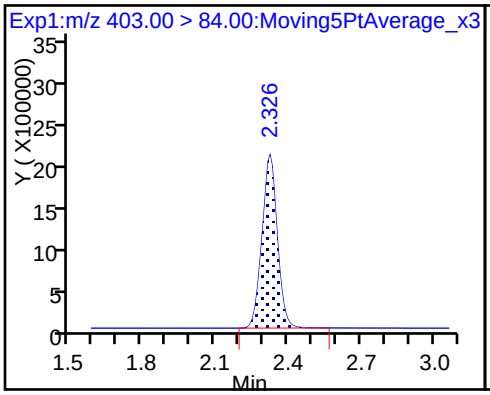
10 Perfluoroheptanoic acid



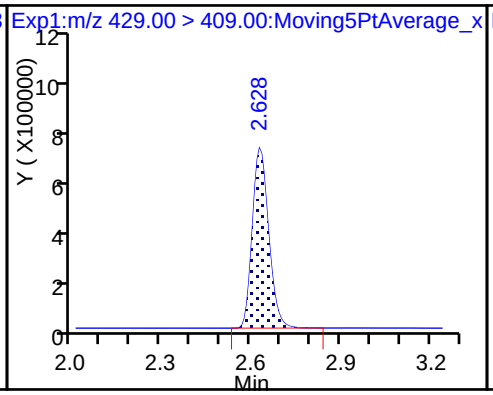
8 Perfluorohexanesulfonic acid



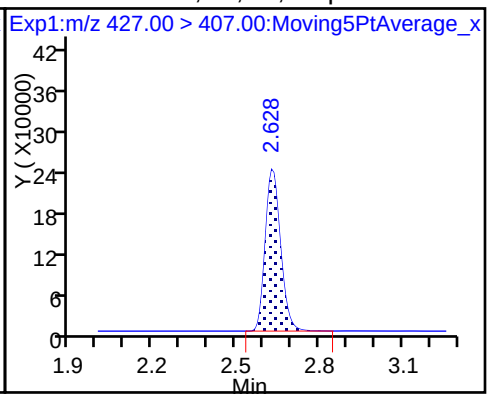
D 11 18O2 PFHxS



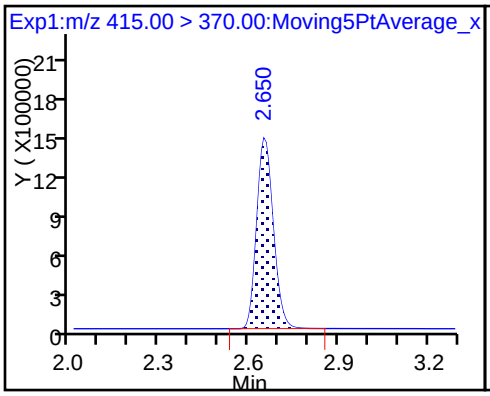
D 12 M2-6:2FTS



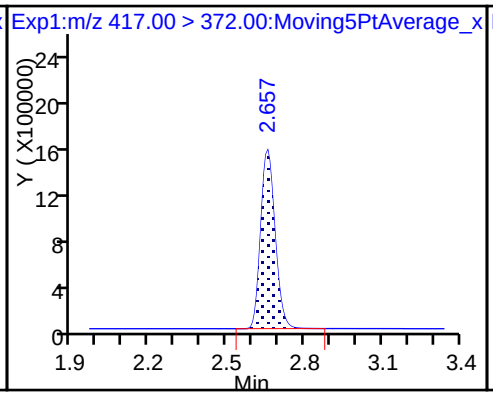
13 Sodium 1H,1H,2H,2H-perfluorooctane



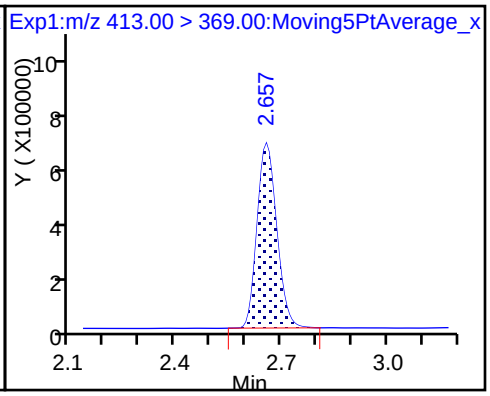
* 62 13C2-PFOA



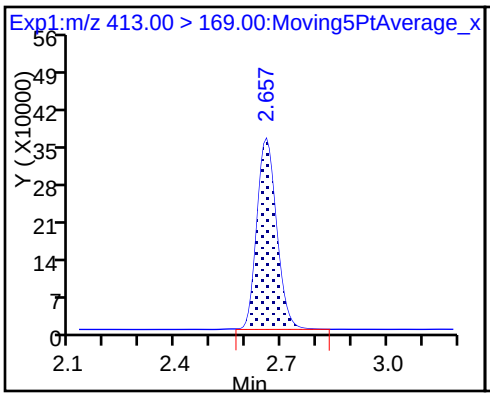
D 14 13C4 PFOA



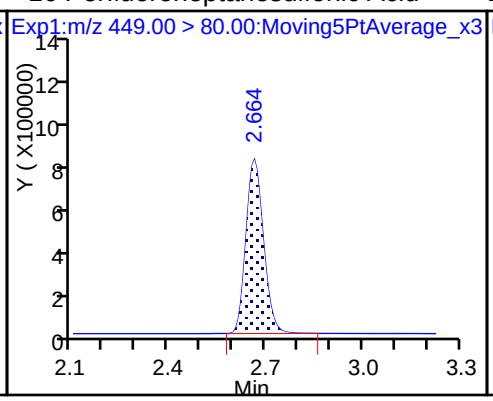
15 Perfluorooctanoic acid



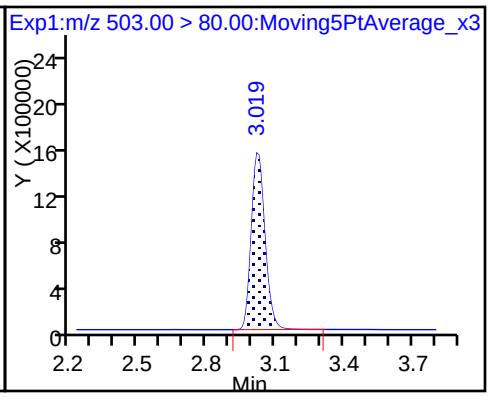
15 Perfluorooctanoic acid



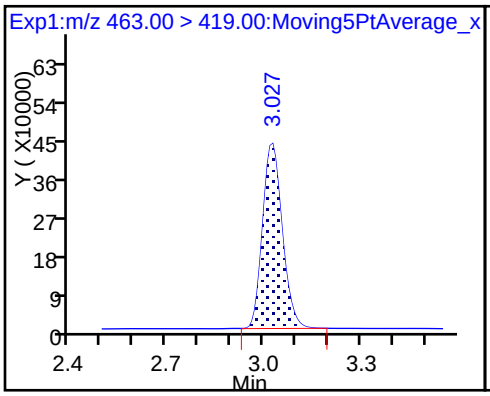
16 Perfluoroheptanesulfonic Acid



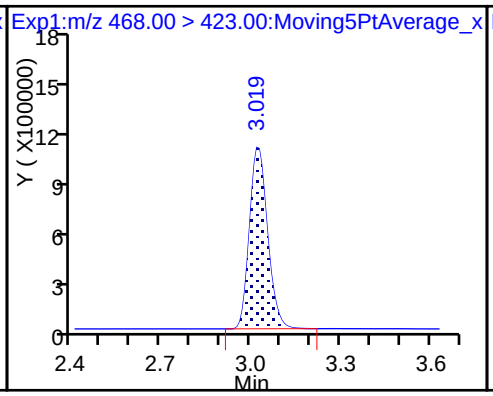
D 18 13C4 PFOS



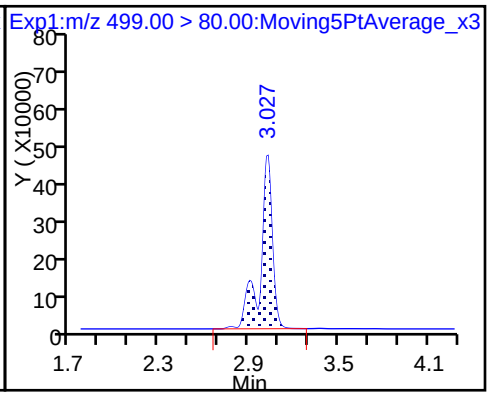
20 Perfluorononanoic acid



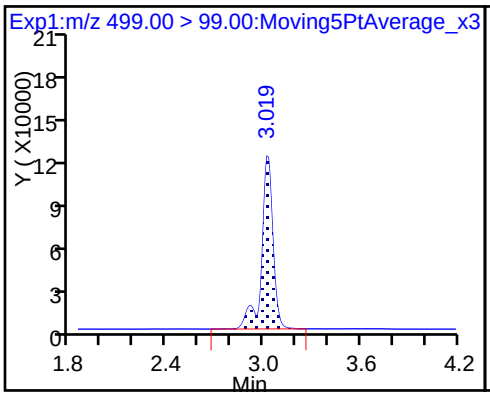
D 19 13C5 PFNA



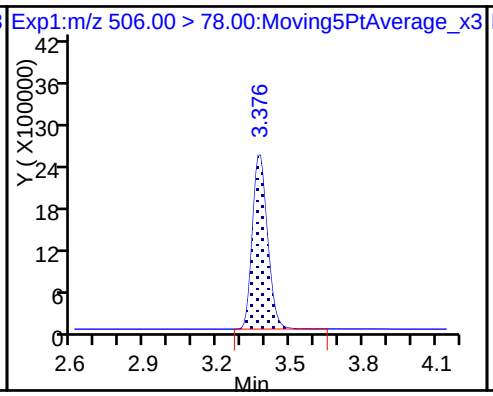
17 Perfluorooctane sulfonic acid



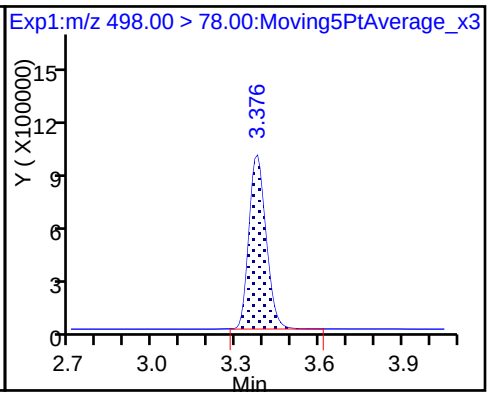
17 Perfluorooctane sulfonic acid



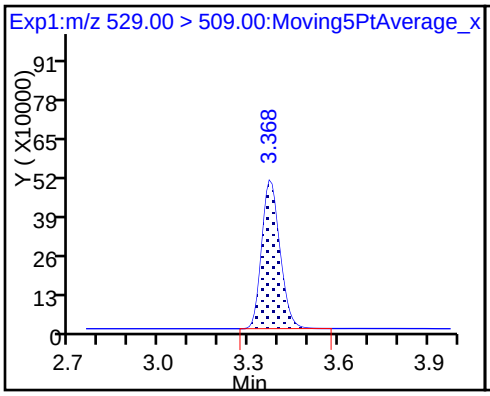
D 21 13C8 FOSA



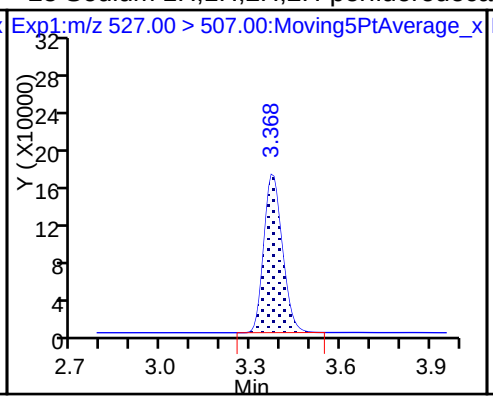
22 Perfluorooctane Sulfonamide



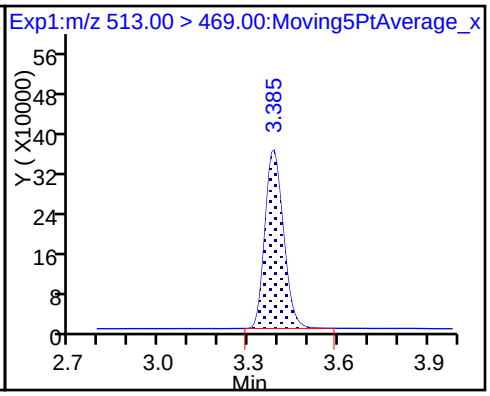
D 26 M2-8:2FTS



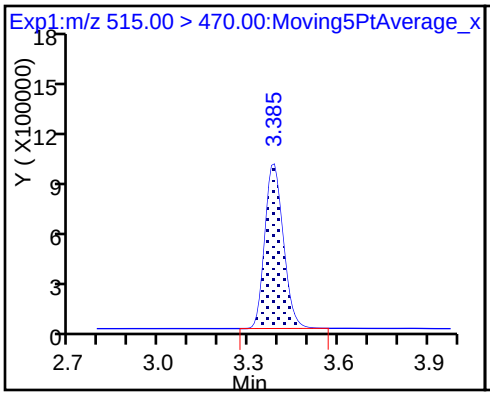
25 Sodium 1H,1H,2H,2H-perfluorodecan



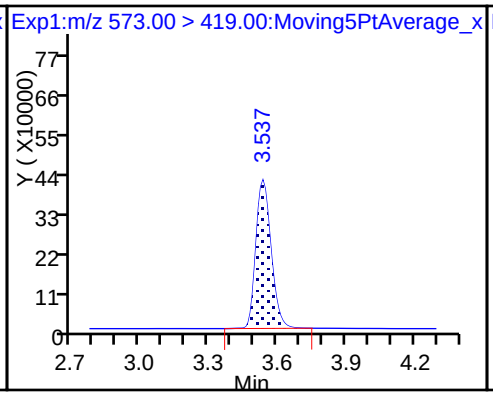
24 Perfluorodecanoic acid



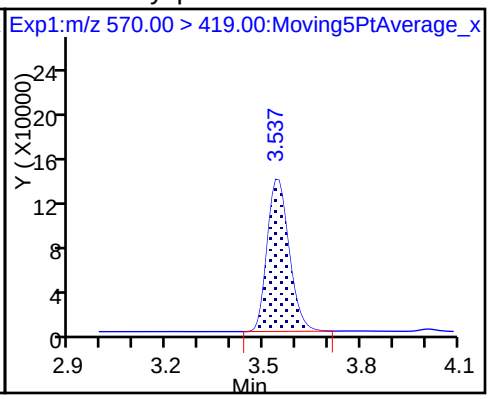
D 23 13C2 PFDA



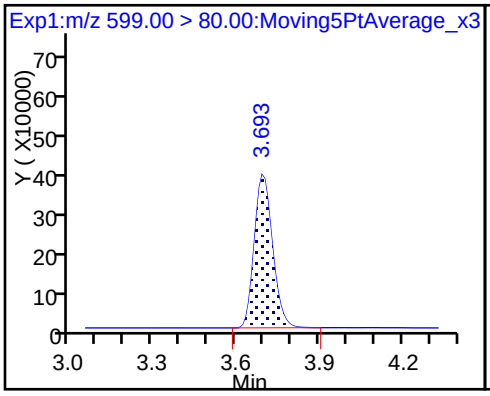
D 27 d3-NMeFOSAA



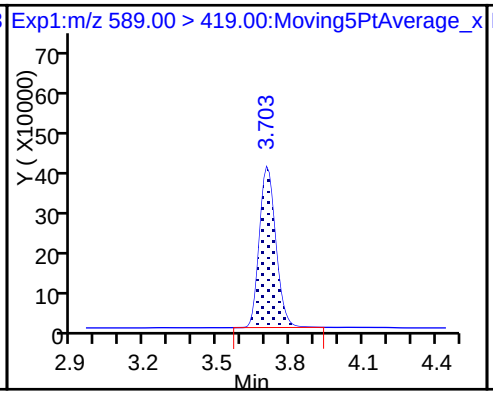
28 N-methyl perfluorooctane sulfonami



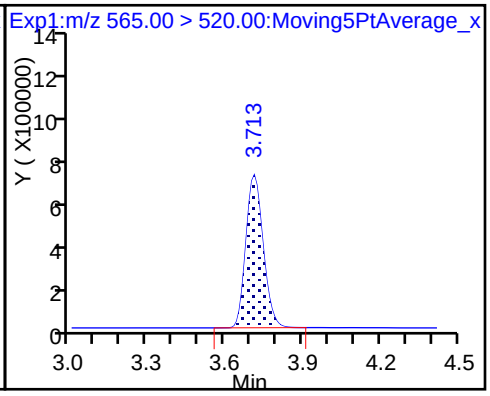
29 Perfluorodecane Sulfonic acid



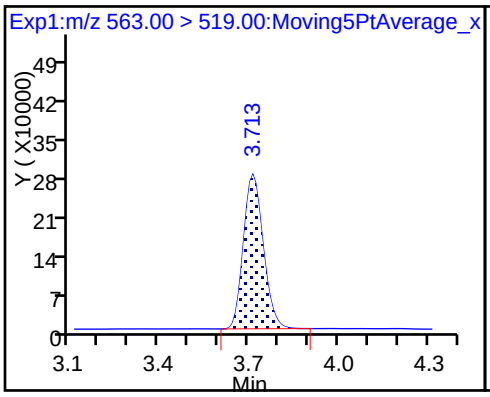
D 32 d5-NEtFOSAA



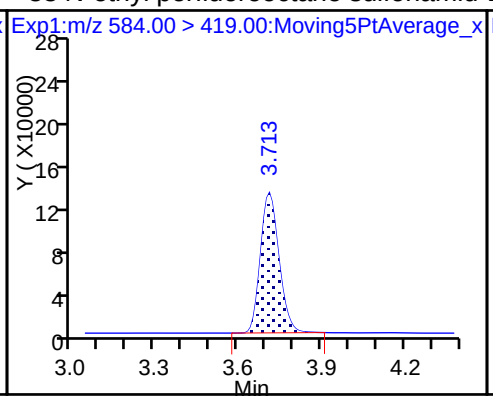
D 30 13C2 PFUnA



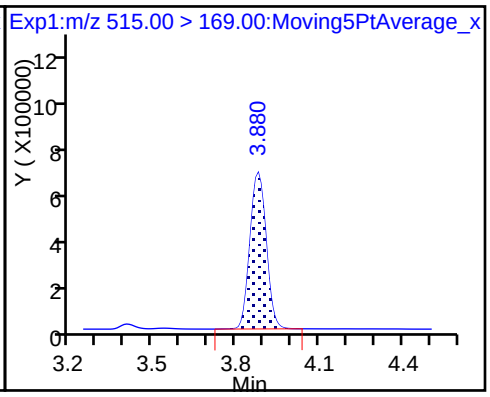
31 Perfluoroundecanoic acid



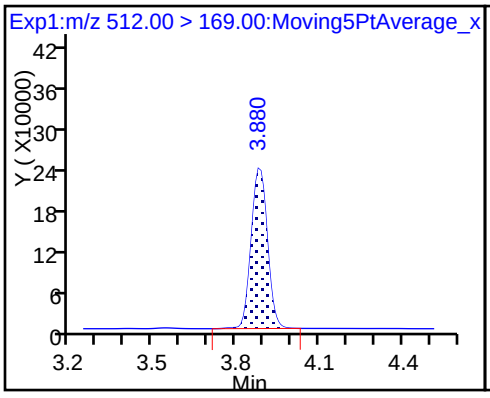
33 N-ethyl perfluorooctane sulfonamid



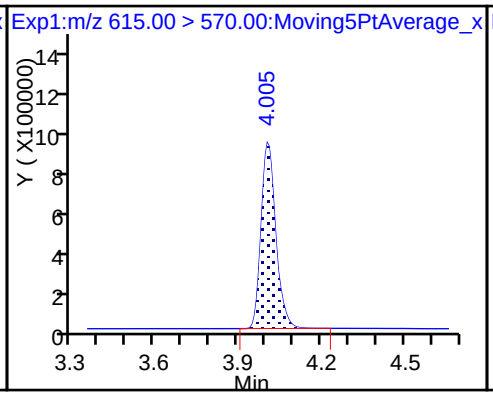
D 34 d-N-MeFOSA-M



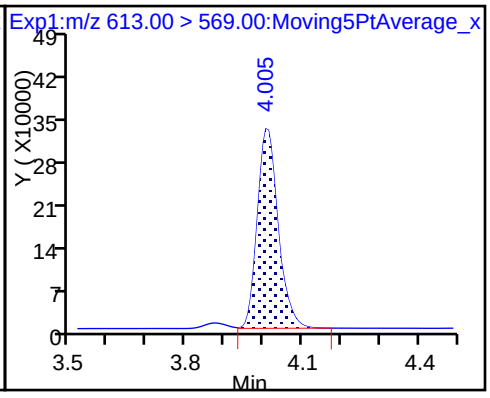
35 MeFOSA



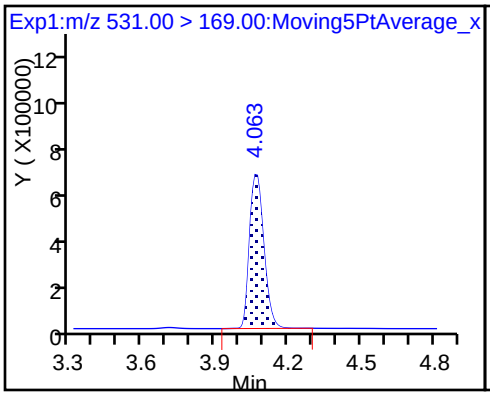
D 36 13C2 PFDoA



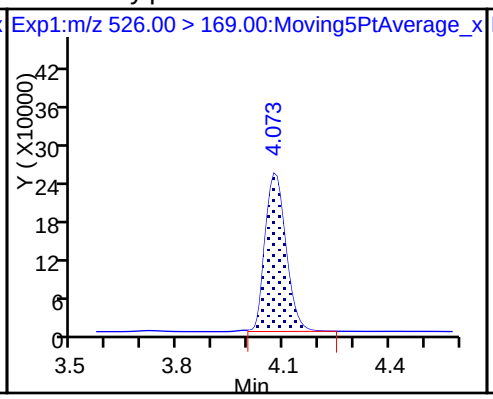
37 Perfluorododecanoic acid



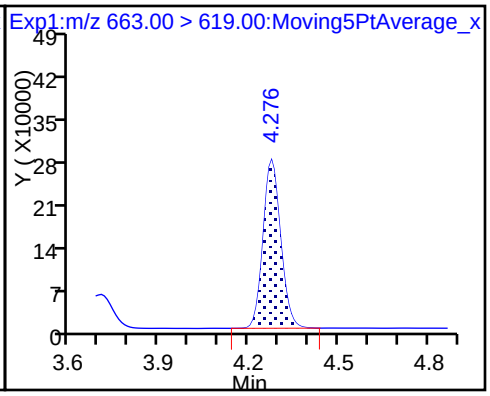
D 38 d-N-EtFOSA-M



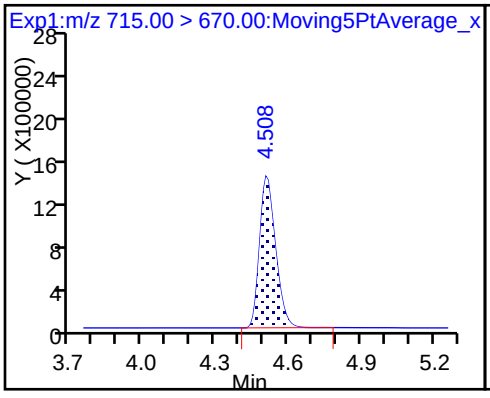
39 N-ethylperfluoro-1-octanesulfonami



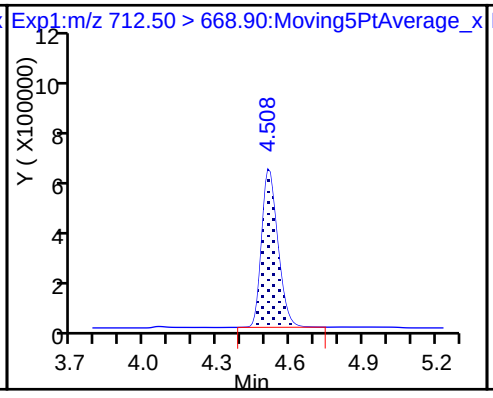
41 Perfluorotridecanoic acid



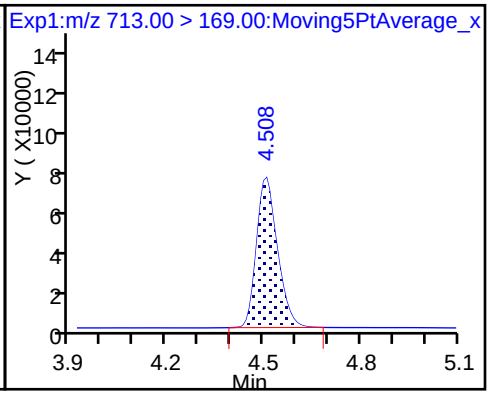
D 43 13C2-PFTeDA



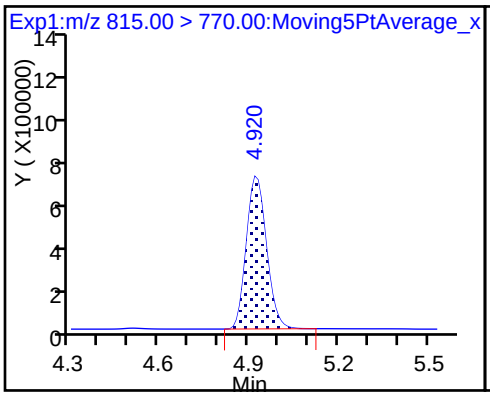
42 Perfluorotetradecanoic acid



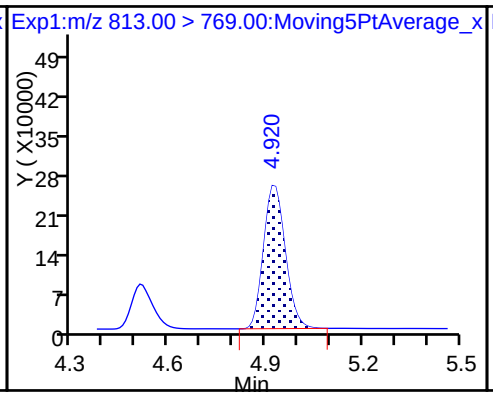
42 Perfluorotetradecanoic acid



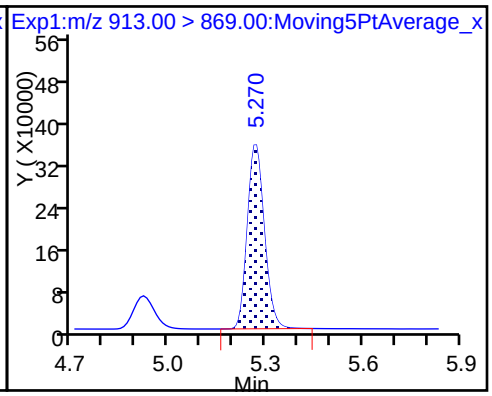
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 320-170434/1-A

Matrix: Water | Lab File ID: 2017.06.27ABC_003.d

Analysis Method: 537 (Modified) | Date Collected:

Extraction Method: 3535 | Date Extracted: 06/22/2017 08:27

Sample wt/vol: 250(mL) | Date Analyzed: 06/28/2017 11:29

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171405 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	2.0	U	2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	117		25-150
STL00991	13C4 PFOS	99		25-150
STL00994	18O2 PFHxS	102		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\2017.06.27ABC_003.d
Lims ID: MB 320-170434/1-A
Client ID:
Sample Type: MB
Inject. Date: 28-Jun-2017 11:29:45 ALS Bottle#: 40 Worklist Smp#: 15
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: mb 320-170434/1-a
Misc. Info.: Plate: 1 Rack: 4
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 28-Jun-2017 11:49:53 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK005

First Level Reviewer: chandrasenas Date: 28-Jun-2017 11:49:44

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.543	1.541	0.002		11927791	51.0		102	66630	
2 Perfluorobutyric acid										M
212.90 > 169.00	1.543	1.541	0.002	1.000	61964	0.2884			15.2	M
D 3 13C5-PFPeA										
267.90 > 223.00	1.744	1.751	-0.007		8437707	52.5		105	47264	
D 47 13C3-PFBS										
301.90 > 83.00	1.771	1.768	0.002		201649	NC			3678	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.771	1.777	-0.007	1.000	5708	0.0189			3.3	
298.90 > 99.00	1.779	1.777	0.002	1.005	7538		0.76(0.00-0.00)		5.2	
D 7 13C2 PFHxA										
315.00 > 270.00	2.004	2.013	-0.009		7636930	49.8		99.6	14788	
6 Perfluorohexanoic acid										
313.00 > 269.00	2.004	2.013	-0.009	1.000	5777	0.0372			7.5	
D 9 13C4-PFHpA										
367.00 > 322.00	2.317	2.331	-0.014		8379393	61.2		122	29006	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.317	2.331	-0.014	1.000	4162	0.0233			6.4	
D 11 18O2 PFHxS										
403.00 > 84.00	2.334	2.339	-0.005		10271464	48.3		102	38508	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.334	2.339	-0.005	1.000	34905	0.1455			39.5	
D 12 M2-6:2FTS										
429.00 > 409.00	2.638	2.646	-0.008		4380014	60.2		127	24393	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.638	2.646	-0.008	1.000	14309	0.1574			293	
D 14 13C4 PFOA										
417.00 > 372.00	2.660	2.668	-0.008		7638466	58.5		117	22194	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
* 62 13C2-PFOA										
415.00 > 370.00	2.660	2.668	-0.008		5076	50.0			236	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.667	2.675	-0.008	1.000	11145	0.0688			4.6	
413.00 > 169.00	2.660	2.675	-0.015	0.997	9316		1.20(0.90-1.10)		46.1	
D 19 13C5 PFNA										
468.00 > 423.00	3.033	3.034	-0.001		6089981	58.0		116	15852	
D 18 13C4 PFOS										
503.00 > 80.00	3.033	3.034	-0.001		7736765	47.5		99.5	81669	
20 Perfluorononanoic acid										
463.00 > 419.00	3.041	3.034	0.007	1.000	1564	0.0129			5.2	
D 26 M2-8:2FTS										
529.00 > 509.00	3.375	3.380	-0.005		3211615	56.7		118	36747	
D 21 13C8 FOSA										
506.00 > 78.00	3.384	3.389	-0.005		5927084	22.5		44.9	57345	
D 23 13C2 PFDA										
515.00 > 470.00	3.393	3.389	0.004		5358257	53.6		107	29862	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.384	3.389	-0.005	1.000	21630	0.1874			395	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.393	3.389	0.004	1.000	3364	0.0325			19.1	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.547	3.543	0.004		2118066	57.2		114	23492	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.715	3.712	0.003		1946360	52.7		105	6962	
D 30 13C2 PFUnA										
565.00 > 520.00	3.715	3.722	-0.007		4323006	58.2		116	18989	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.715	3.722	-0.007	1.000	12201	0.1326			36.4	
D 36 13C2 PFDoA										
615.00 > 570.00	4.017	4.017	0.0		4175453	56.9		114	12935	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.017	4.017	0.0	1.000	2188	0.0275			6.8	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.081	4.081	0.0		1868	0.0254		0.1	5.1	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.290	4.282	0.008	1.000	4133	0.0510			1.2	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.517	4.520	-0.003		9430974	62.3		125	111489	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.526	4.520	0.006	1.000	10713	0.0550			4.8	
713.00 > 169.00	4.517	4.520	-0.003	0.998	4451		2.41(0.00-0.00)		155	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.929	4.934	-0.005		4005749	47.8		95.5	6042	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.939	4.934	0.005	1.000	59617	0.0146			12.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Report Date: 28-Jun-2017 11:49:57 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b\2017.06.27ABC_003.d

Injection Date: 28-Jun-2017 11:29:45 Instrument ID: A8_N

Lims ID: MB 320-170434/1-A

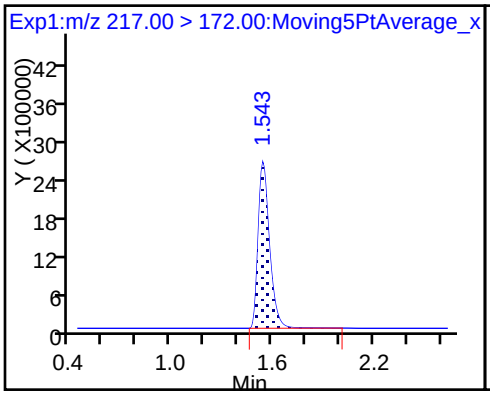
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 40 Worklist Smp#: 15

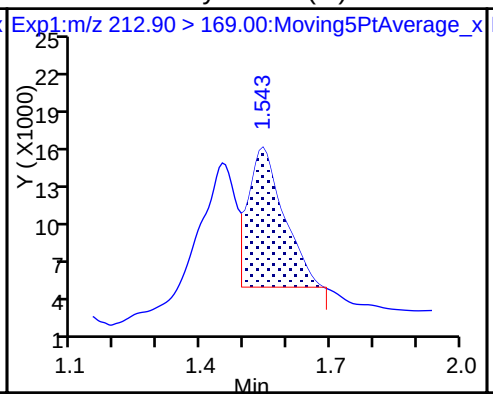
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

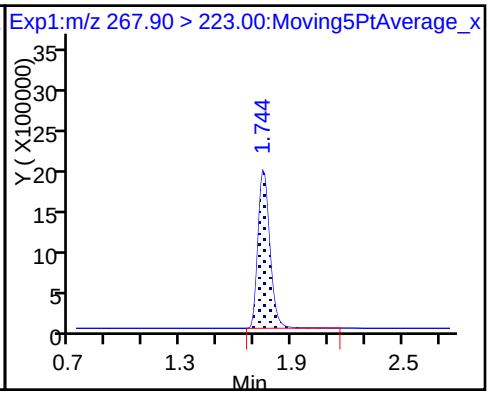
D 1 13C4 PFBA



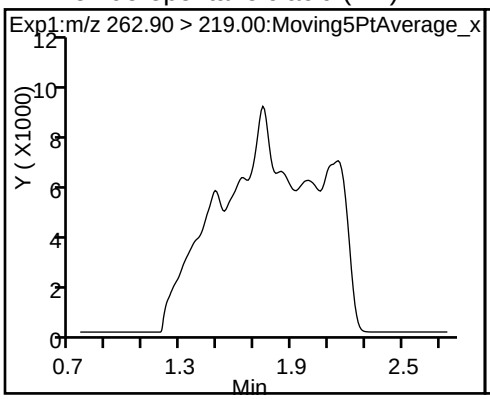
2 Perfluorobutyric acid (M)



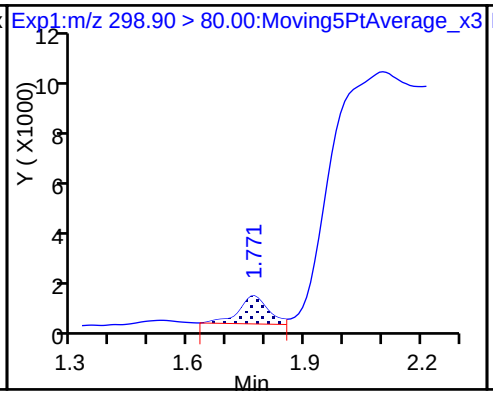
D 3 13C5-PFPeA



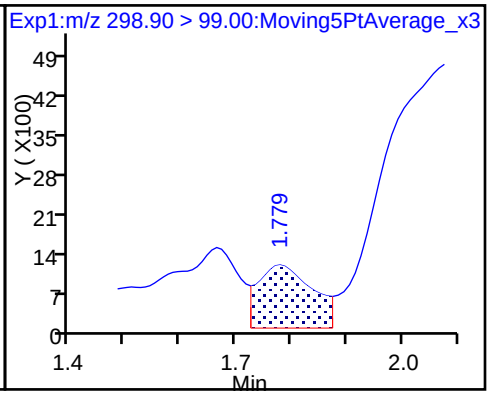
4 Perfluoropentanoic acid (ND)



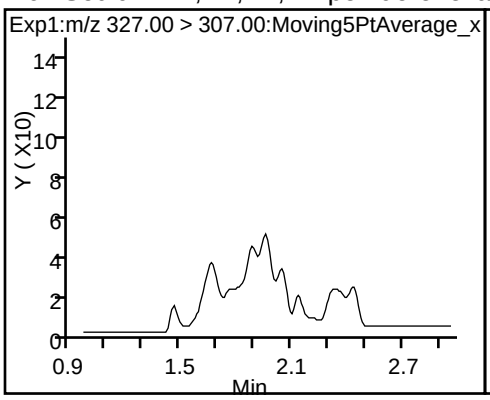
5 Perfluorobutanesulfonic acid



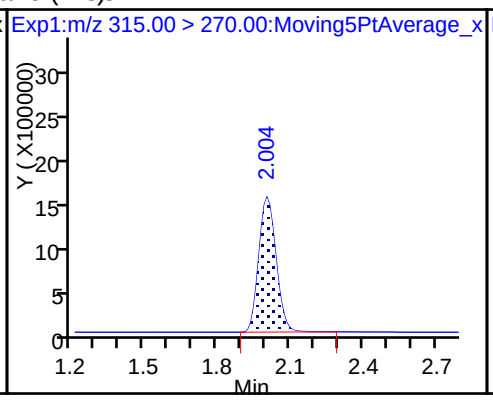
5 Perfluorobutanesulfonic acid



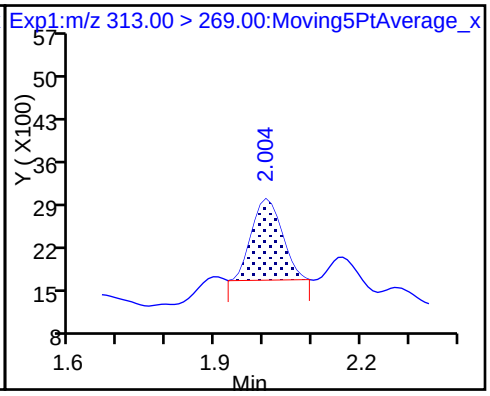
61 Sodium 1H,1H,2H,2H-perfluorohexane (ND)



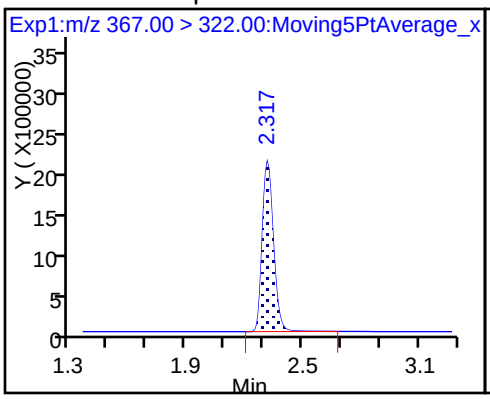
D 13C2 PFHxA



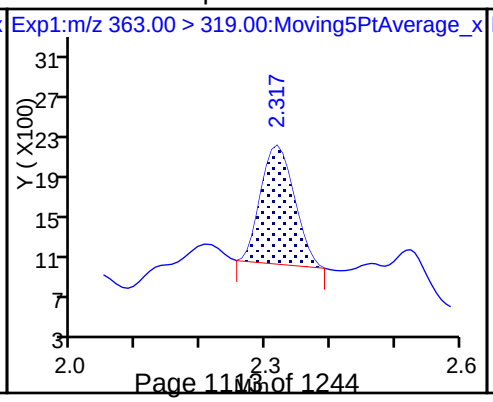
6 Perfluorohexanoic acid



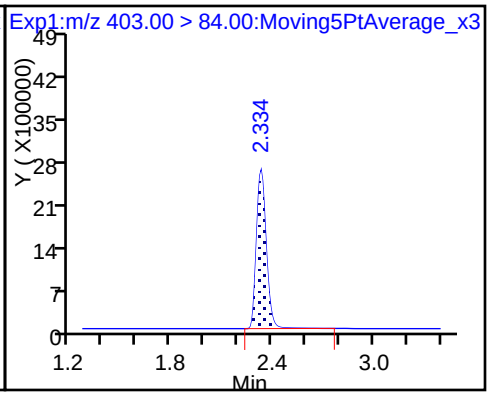
D 9 13C4-PFHpA



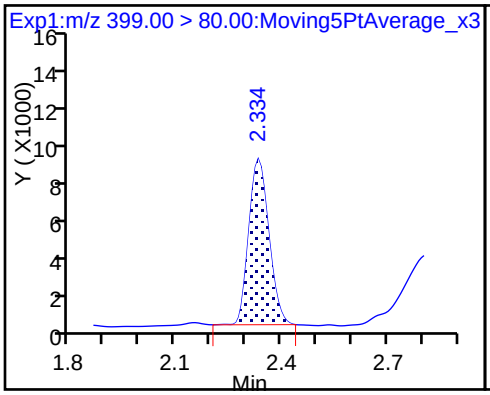
10 Perfluoroheptanoic acid



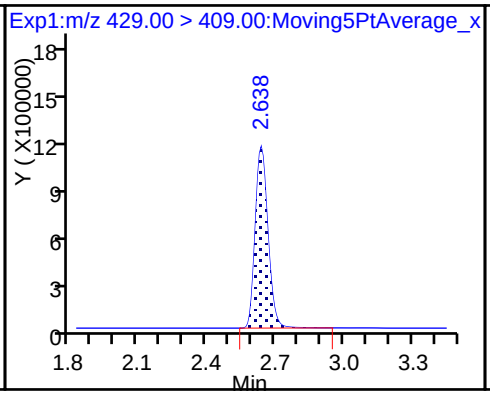
D 11 18O2 PFHxS



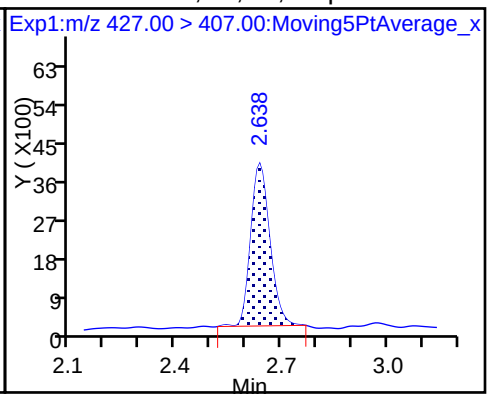
8 Perfluorohexanesulfonic acid



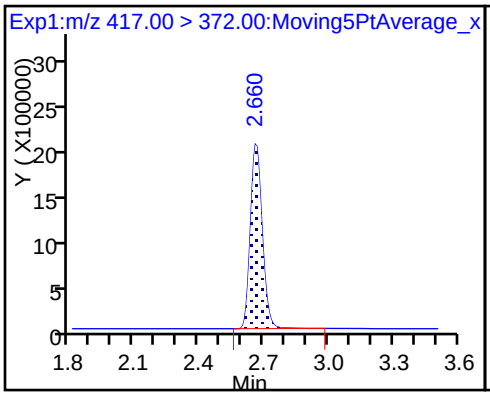
D 12 M2-6:2FTS



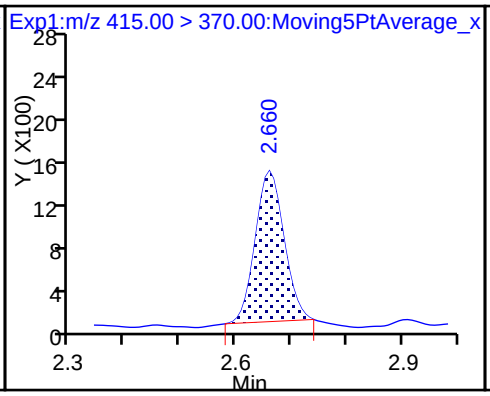
13 Sodium 1H,1H,2H,2H-perfluorooctane



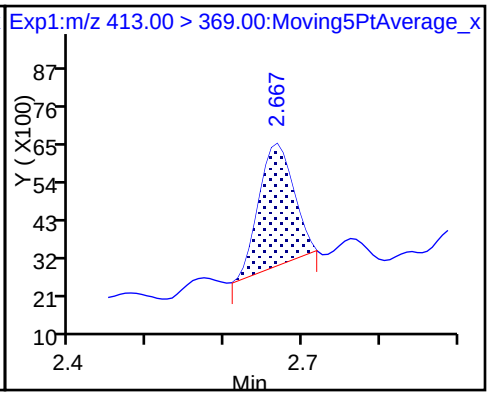
D 14 13C4 PFOA



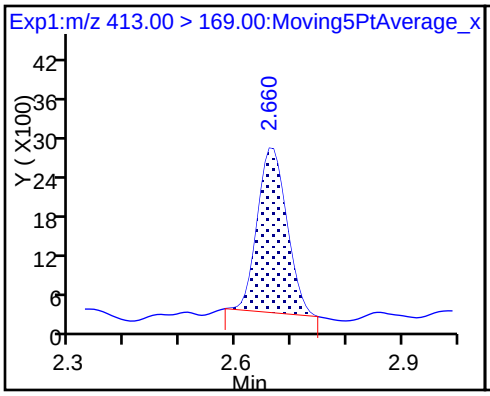
* 62 13C2-PFOA



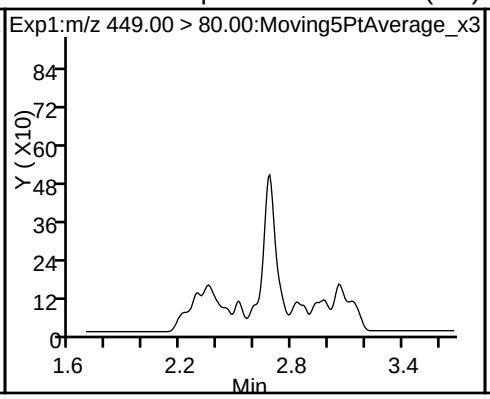
15 Perfluorooctanoic acid



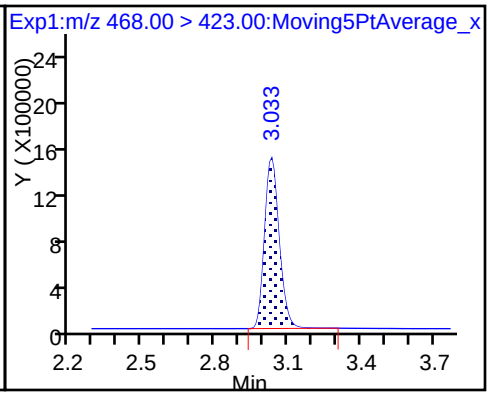
15 Perfluorooctanoic acid



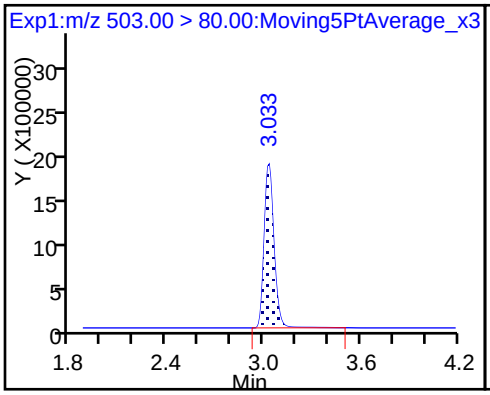
16 Perfluoroheptanesulfonic Acid (ND)



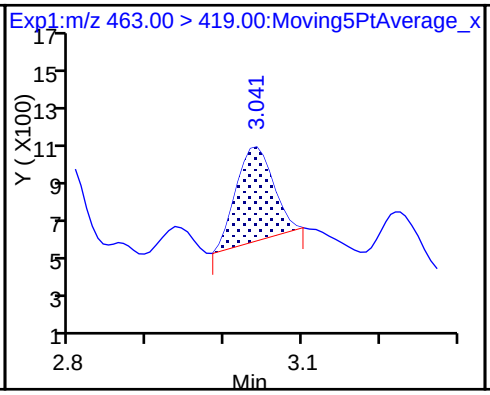
D 19 13C5 PFNA



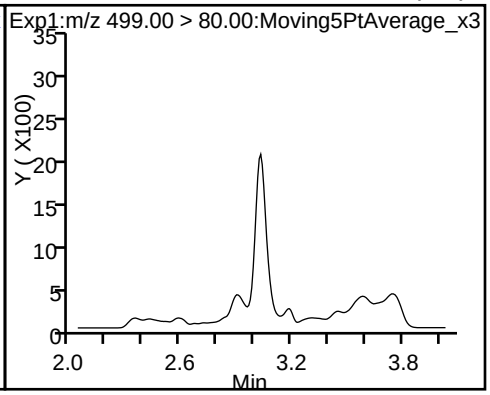
D 18 13C4 PFOS



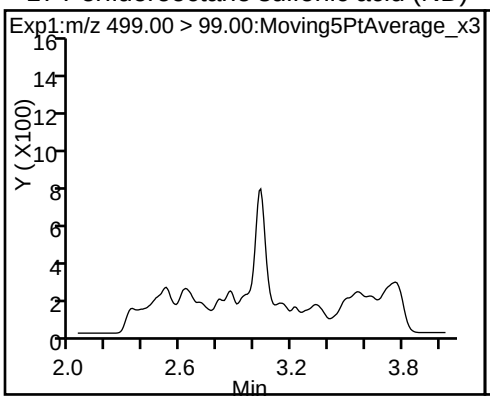
20 Perfluorononanoic acid



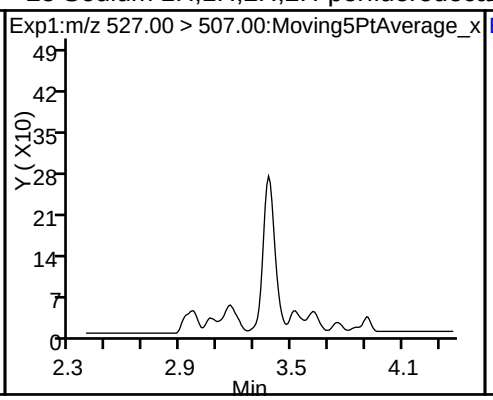
17 Perfluorooctane sulfonic acid (ND)



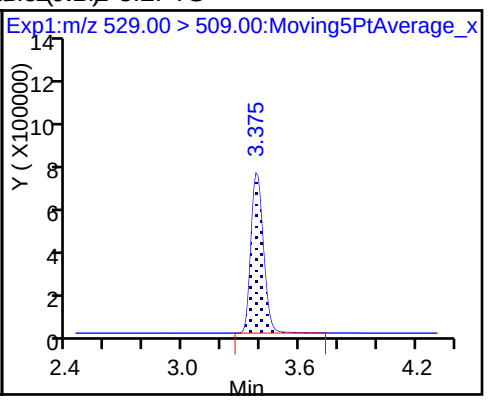
17 Perfluorooctane sulfonic acid (ND)



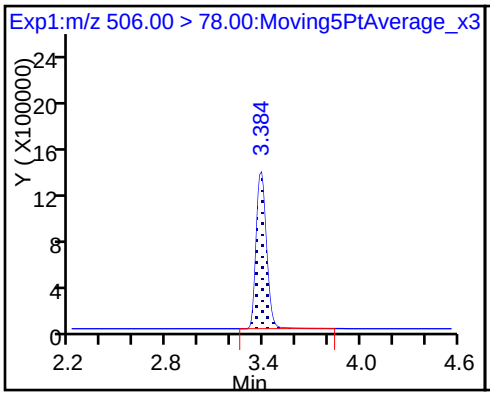
25 Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (ND)



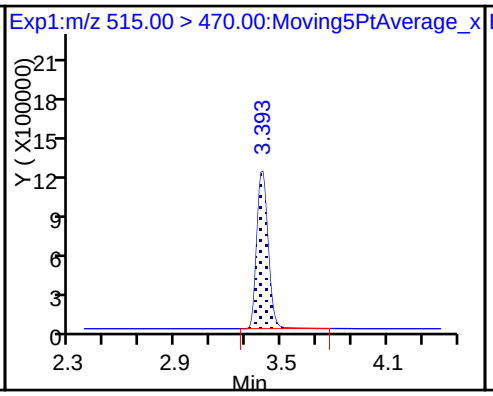
D 26 M2-8:2FTS



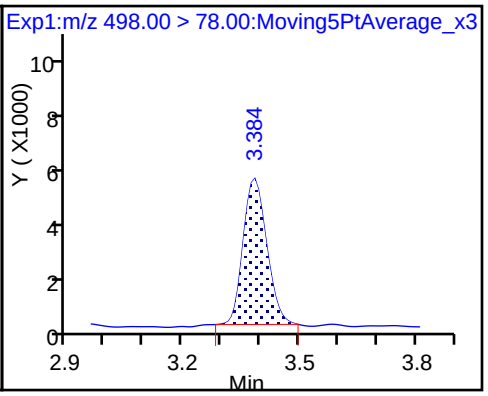
D 21 13C8 FOSA



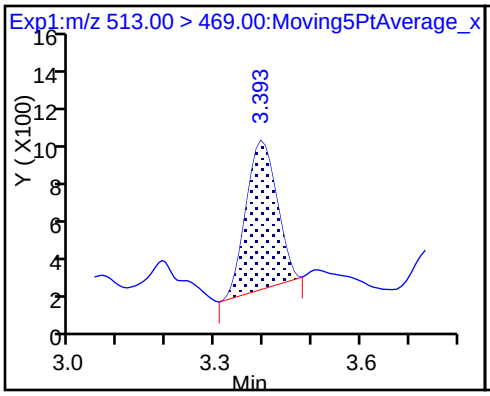
D 23 13C2 PFDA



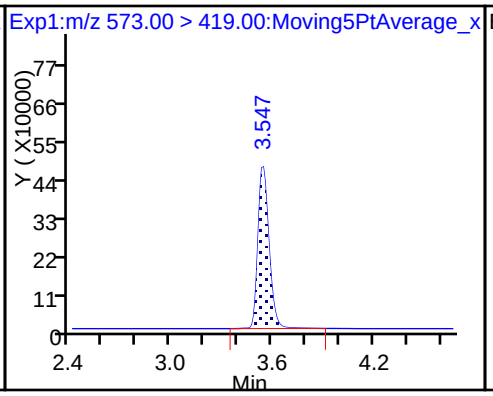
22 Perfluorooctane Sulfonamide



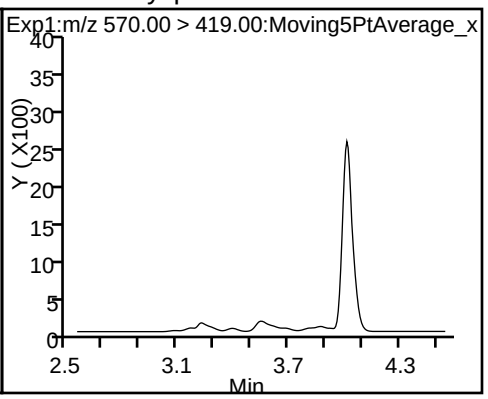
24 Perfluorodecanoic acid



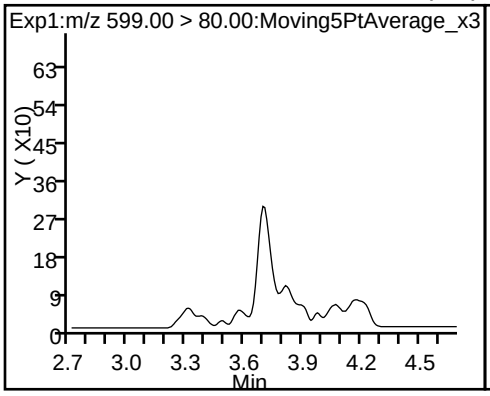
D 27 d3-NMeFOSAA



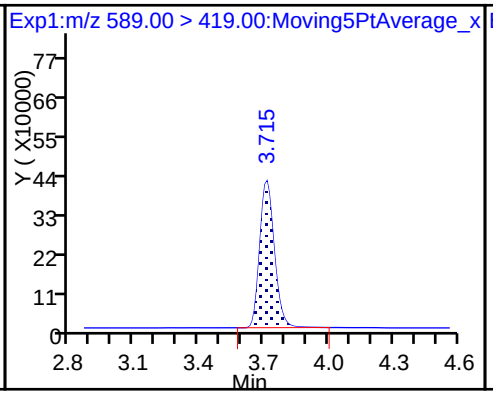
28 N-methyl perfluorooctane sulfonami (ND)



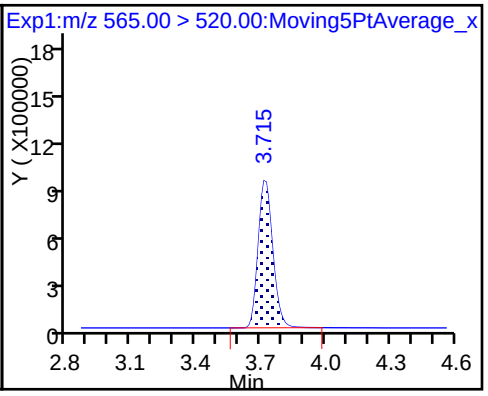
29 Perfluorodecane Sulfonic acid (ND)



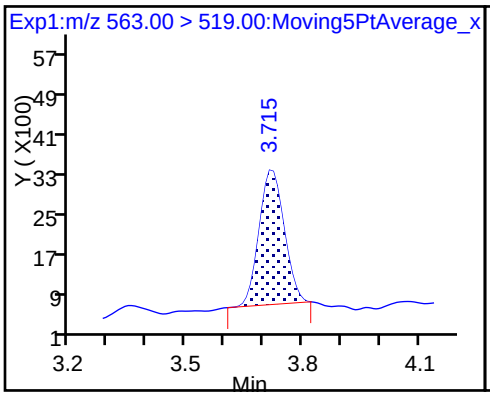
D 32 d5-NEtFOSAA



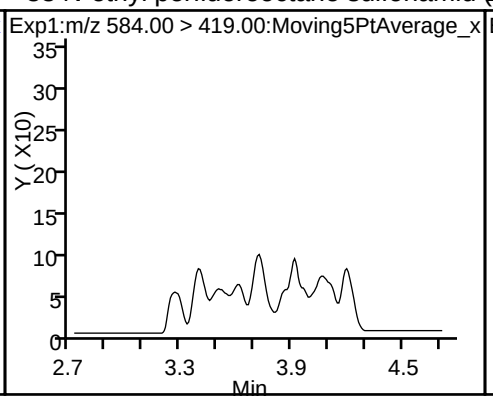
D 30 13C2 PFUnA



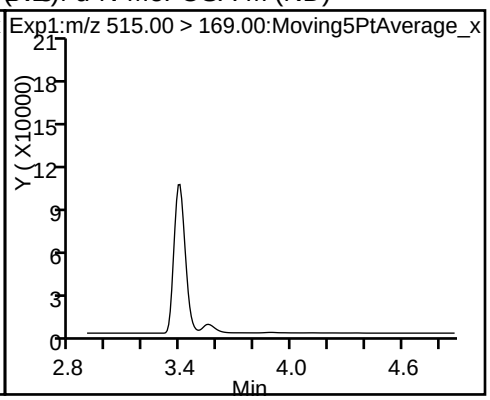
31 Perfluoroundecanoic acid



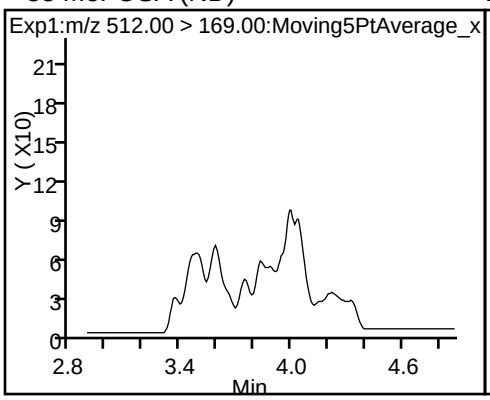
33 N-ethyl perfluorooctane sulfonamid (ND)



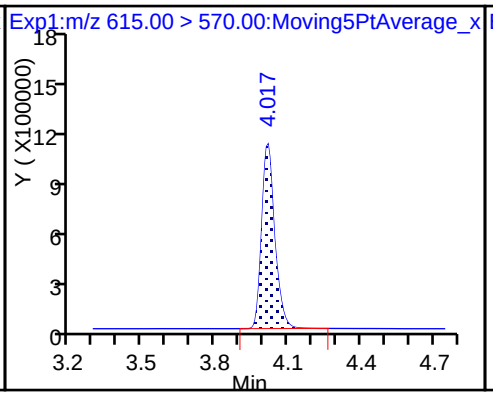
D 34 d-N-MeFOSA-M (ND)



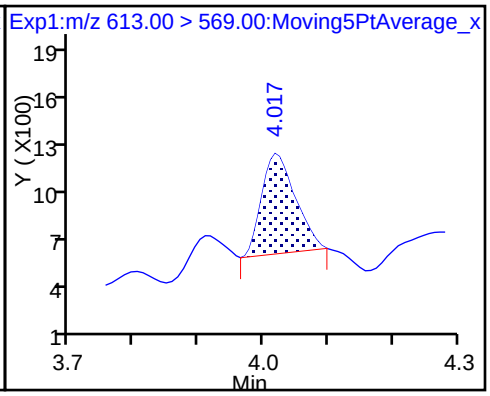
35 MeFOSA (ND)



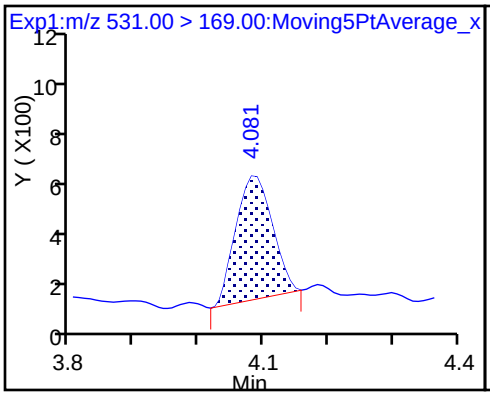
D 36 13C2 PFDoA



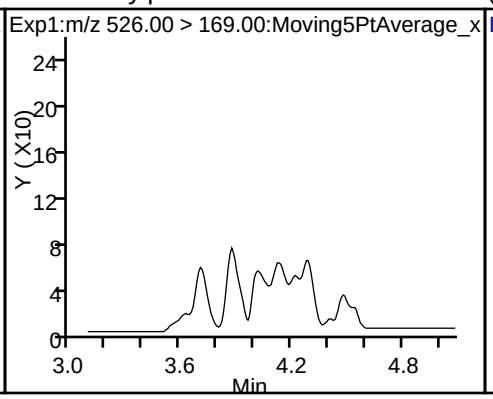
37 Perfluorododecanoic acid



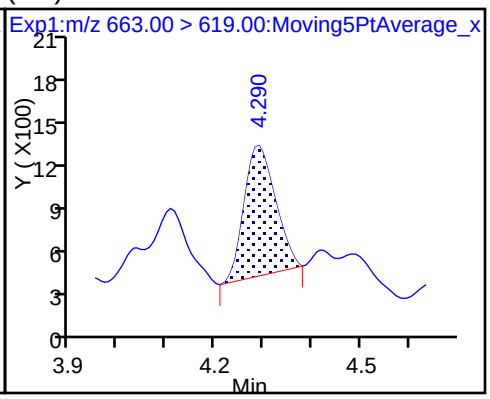
D 38 d-N-EtFOSA-M



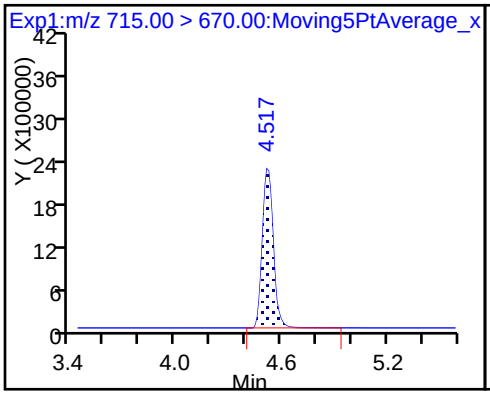
39 N-ethylperfluoro-1-octanesulfonami (ND)



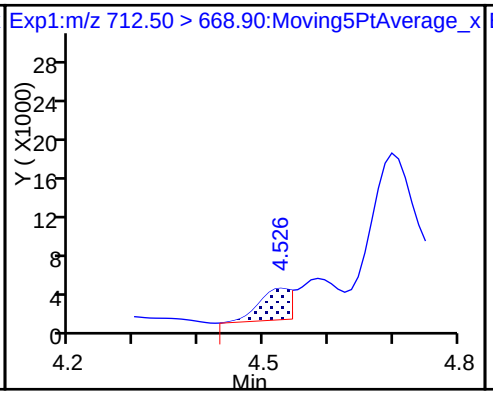
41 Perfluorotridecanoic acid



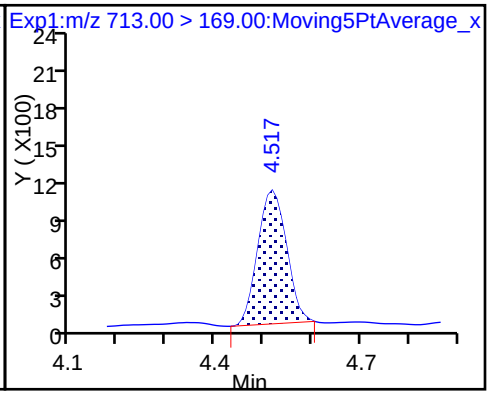
D 43 13C2-PFTeDA



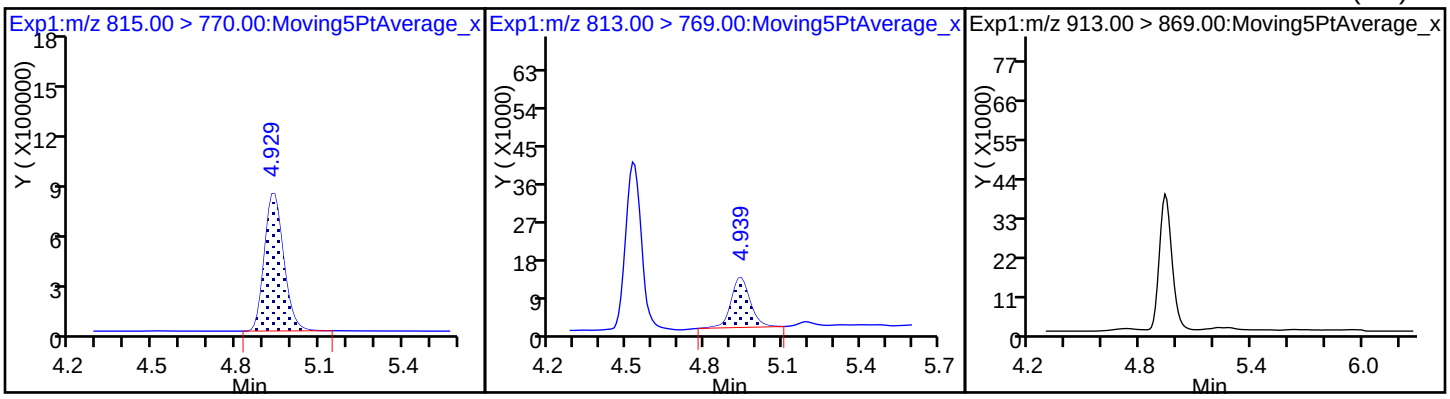
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 320-170613/1-A

Matrix: Water | Lab File ID: 2017.06.28B_028.d

Analysis Method: 537 (Modified) | Date Collected:

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 250(mL) | Date Analyzed: 06/29/2017 02:26

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	2.0	U	2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	122		25-150
STL00991	13C4 PFOS	100		25-150
STL00994	18O2 PFHxS	103		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_028.d
Lims ID: MB 320-170613/1-A
Client ID:
Sample Type: MB
Inject. Date: 29-Jun-2017 02:26:12 ALS Bottle#: 23 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: mb 320-170613/1-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:15:51 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK018

First Level Reviewer: barnettj Date: 29-Jun-2017 16:48:15

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.535	1.533	0.002	1.000	370085	1.65			78.0	
D 1 13C4 PFBA										
217.00 > 172.00	1.535	1.533	0.002		12424272	53.1		106	39191	
D 3 13C5-PFPeA										
267.90 > 223.00	1.735	1.742	-0.007		8721294	54.2		108	36872	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.753	1.760	-0.007	1.000	140297	0.4576			82.4	
298.90 > 99.00	1.753	1.760	-0.007	1.000	45474		3.09(0.00-0.00)		50.9	M
D 47 13C3-PFBS										
301.90 > 83.00	1.753	1.760	-0.007		239069	NC			3317	
D 7 13C2 PFHxA										
315.00 > 270.00	1.982	1.992	-0.010		8424637	54.9		110	32349	
6 Perfluorohexanoic acid										M
313.00 > 269.00	1.982	2.003	-0.021	1.000	14386	0.0840			11.8	M
10 Perfluoroheptanoic acid										M
363.00 > 319.00	2.299	2.312	-0.013	1.000	9814	0.0528			10.4	M
D 9 13C4-PFHpA										
367.00 > 322.00	2.299	2.312	-0.013		8708245	63.6		127	35724	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.308	2.329	-0.021	1.000	45375	0.1868			40.8	
D 11 18O2 PFHxS										
403.00 > 84.00	2.316	2.329	-0.013		10401882	48.9		103	12446	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.619	2.634	-0.015	1.000	12324	0.1121			270	
D 12 M2-6:2FTS										
429.00 > 409.00	2.619	2.634	-0.015		5294714	72.7		153	20009	
* 62 13C2-PFOA										
415.00 > 370.00	2.641	2.656	-0.015		7830	50.0			236	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.641	2.663	-0.022	1.000	17737	0.1051			5.7	
413.00 > 169.00	2.648	2.663	-0.015	1.003	12106		1.47(0.90-1.10)		42.3	
D 14 13C4 PFOA										
417.00 > 372.00	2.641	2.663	-0.022		7958406	61.0		122	18513	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.656	2.671	-0.015	1.000	5164	0.0277			91.0	
D 18 13C4 PFOS										
503.00 > 80.00	3.014	3.026	-0.012		7745952	47.6		99.6	20755	
D 19 13C5 PFNA										
468.00 > 423.00	3.014	3.026	-0.012		5685596	54.2		108	11384	
20 Perfluorononanoic acid										
463.00 > 419.00	3.014	3.026	-0.012	1.000	4604	0.0408			11.6	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.374	3.379	-0.005	1.000	17344	0.2353			178	
D 21 13C8 FOSA										
506.00 > 78.00	3.365	3.379	-0.014		3784789	14.3		28.7	10848	
D 26 M2-8:2FTS										
529.00 > 509.00	3.355	3.379	-0.024		3183829	56.2		117	28446	
D 23 13C2 PFDA										
515.00 > 470.00	3.365	3.388	-0.023		5000386	50.0		100.0	17043	
24 Perfluorodecanoic acid										M
513.00 > 469.00	3.365	3.388	-0.023	1.000	5430	0.0563			30.1	M
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.520	3.542	-0.022		2001829	54.1		108	14042	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.529	3.542	-0.013	1.002	6026	0.1444			33.1	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.685	3.700	-0.015	1.000	2685	0.0260			68.8	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.685	3.710	-0.025		1760308	47.6		95.3	4143	
D 30 13C2 PFUnA										
565.00 > 520.00	3.695	3.710	-0.016		3774214	50.8		102	13448	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.695	3.710	-0.016	1.000	11970	0.1490			28.4	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.695	3.720	-0.026	1.003	5518	0.1608			101	
D 36 13C2 PFDoA										
615.00 > 570.00	3.989	4.008	-0.019		3535073	48.1		96.3	13101	
37 Perfluorododecanoic acid										
613.00 > 569.00	3.989	4.008	-0.019	1.000	3372	0.0501			11.0	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.257	4.273	-0.016	1.000	4407	0.0642			1.4	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.490	4.510	-0.020		8175536	54.0		108	84952	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.490	4.510	-0.020	1.000	14847	0.0900			5.3	
713.00 > 169.00	4.481	4.510	-0.029	0.998	4741		3.13(0.00-0.00)		169	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.898	4.922	-0.024		3336116	39.8		79.5	5146	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.898	4.922	-0.024	1.000	58234	0.1240			11.1	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.240	5.265	-0.025	1.000	8551	0.1122			2.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Report Date: 30-Jun-2017 09:59:15 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_028.d

Injection Date: 29-Jun-2017 02:26:12 Instrument ID: A8_N

Lims ID: MB 320-170613/1-A

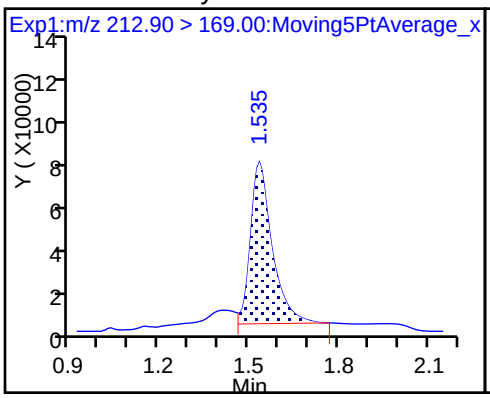
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 23 Worklist Smp#: 2

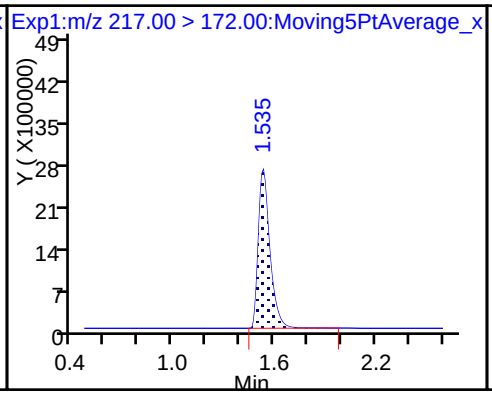
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

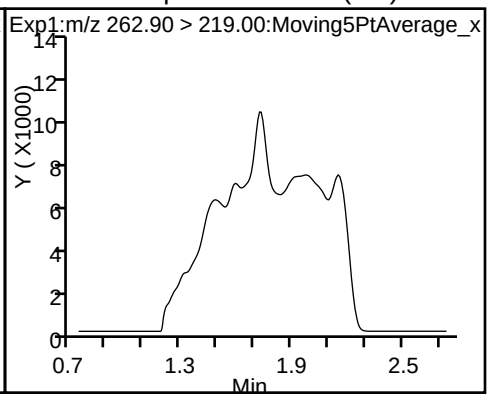
2 Perfluorobutyric acid



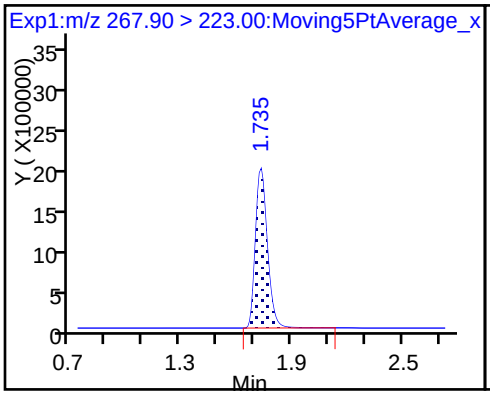
D 1 13C4 PFBA



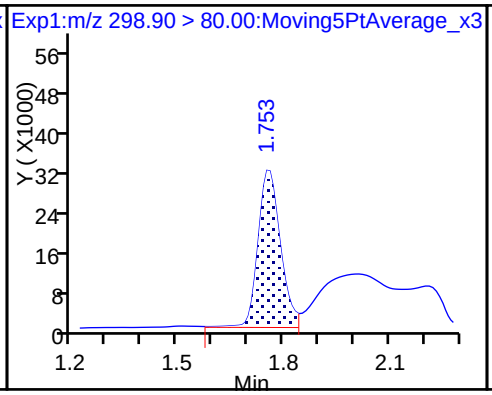
4 Perfluoropentanoic acid (ND)



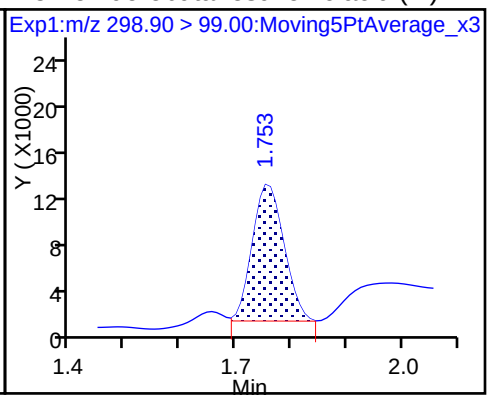
D 3 13C5-PFPeA



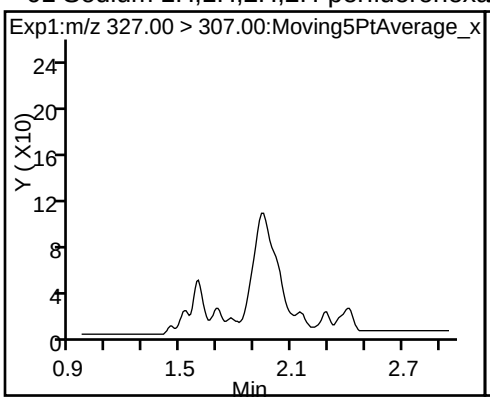
5 Perfluorobutanesulfonic acid



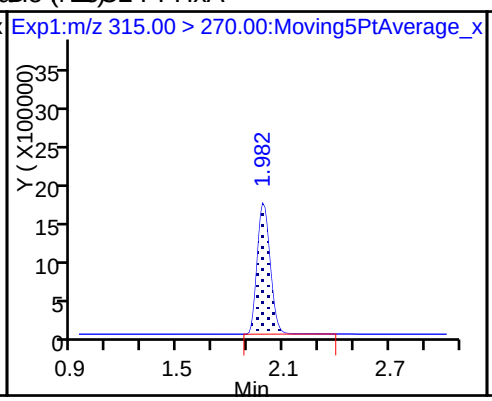
5 Perfluorobutanesulfonic acid (M)



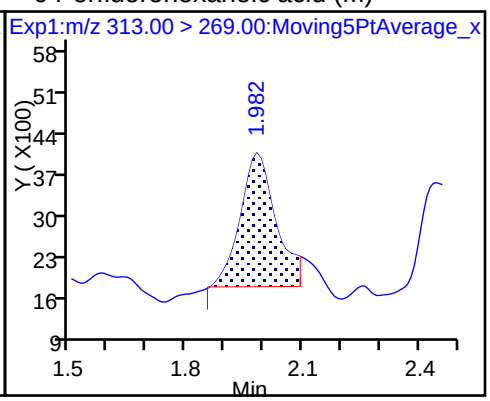
61 Sodium 1H,1H,2H,2H-perfluorohexane (ND)



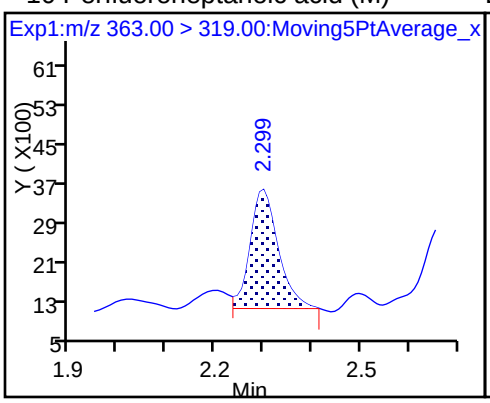
D 7 13C2 PFHxA



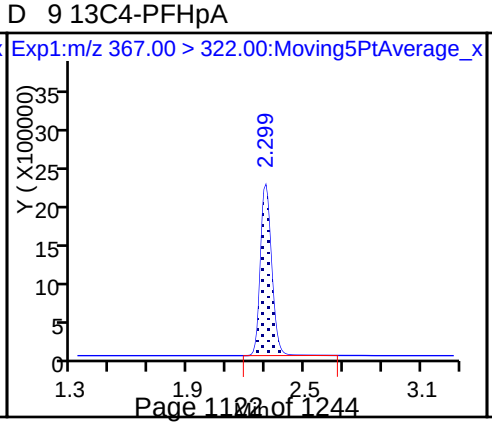
6 Perfluorohexanoic acid (M)



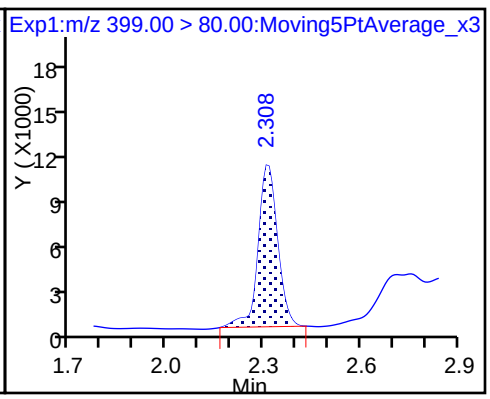
10 Perfluoroheptanoic acid (M)



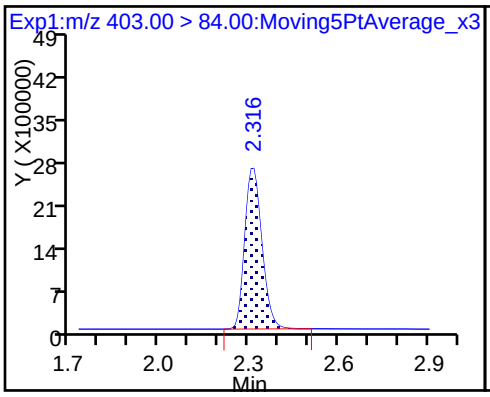
D 9 13C4-PFHpA



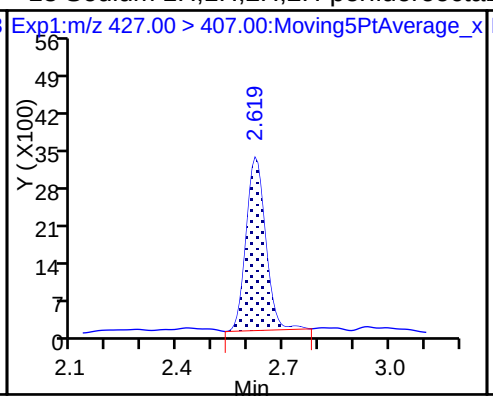
8 Perfluorohexanesulfonic acid



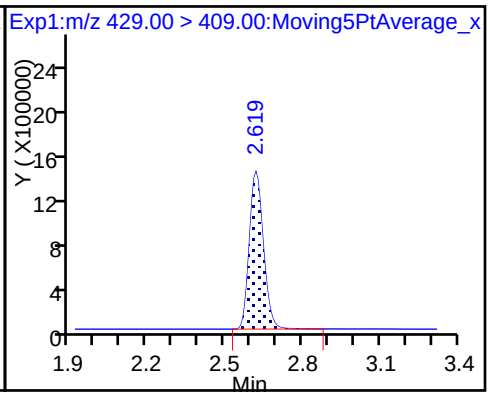
D 11 18O2 PFHxS



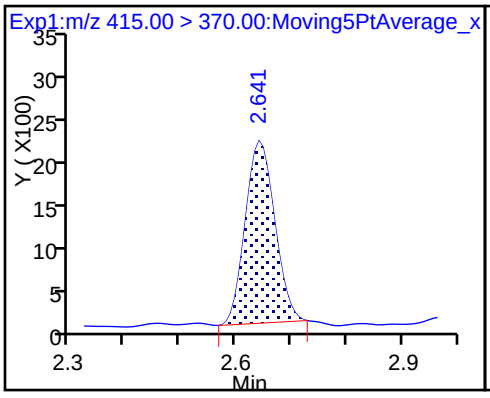
13 Sodium 1H,1H,2H,2H-perfluorooctane



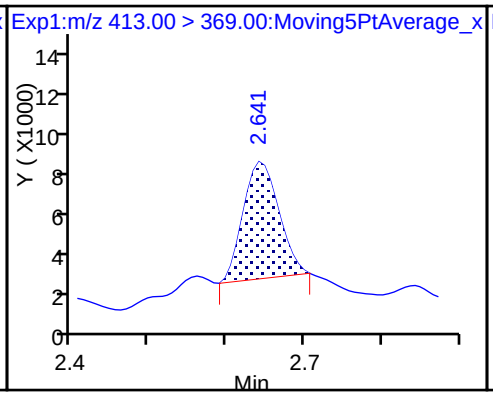
D 12 M2-6:2FTS



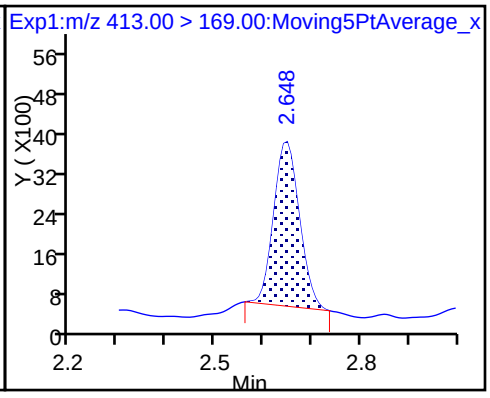
* 62 13C2-PFOA



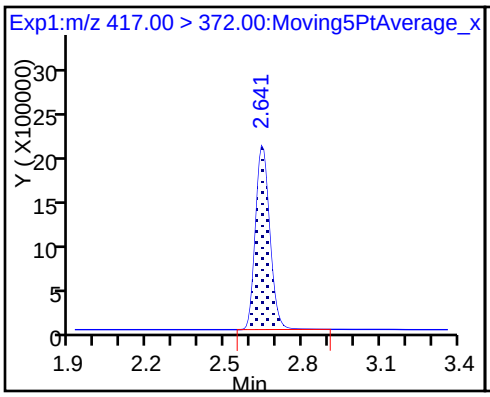
15 Perfluorooctanoic acid



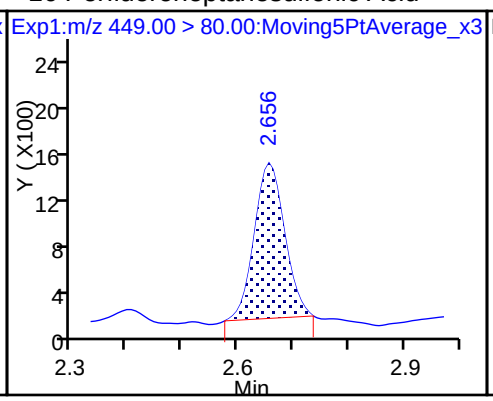
15 Perfluorooctanoic acid



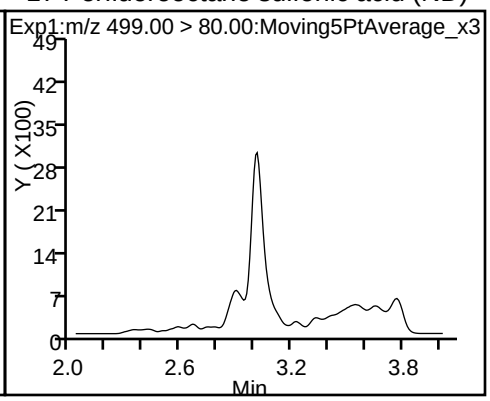
D 14 13C4 PFOA



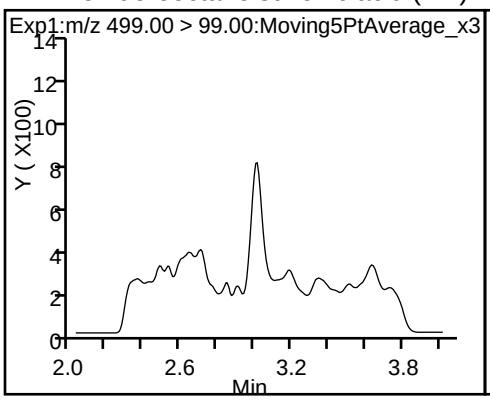
16 Perfluoroheptanesulfonic Acid



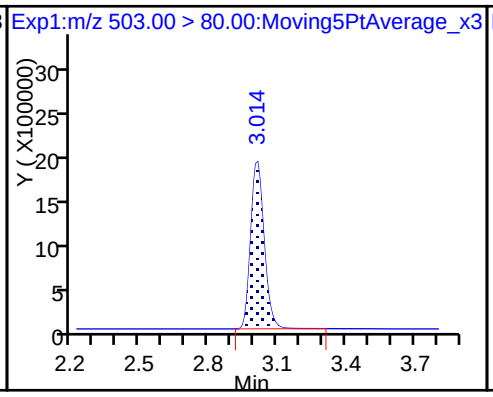
17 Perfluorooctane sulfonic acid (ND)



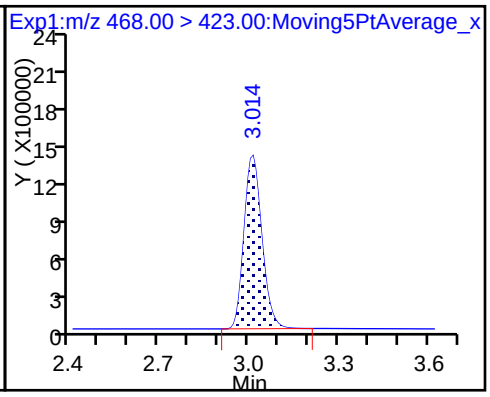
17 Perfluorooctane sulfonic acid (ND)



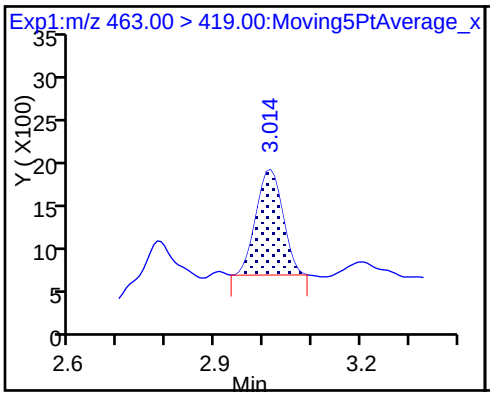
D 18 13C4 PFOS



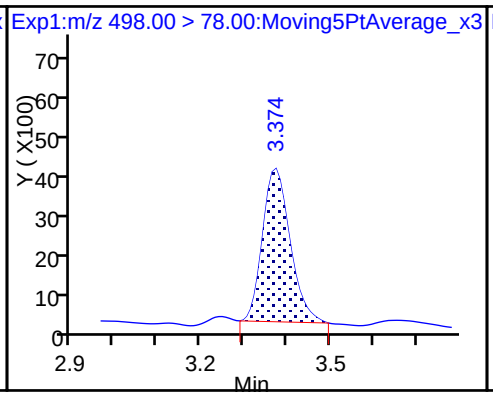
D 19 13C5 PFNA



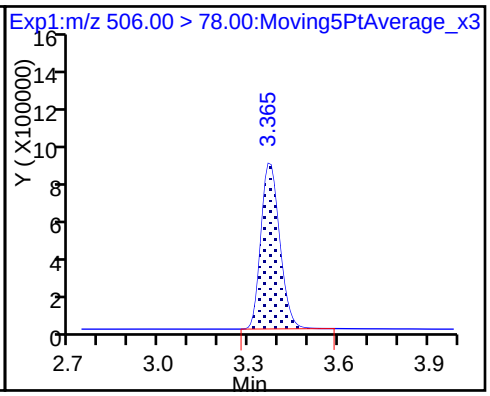
20 Perfluorononanoic acid



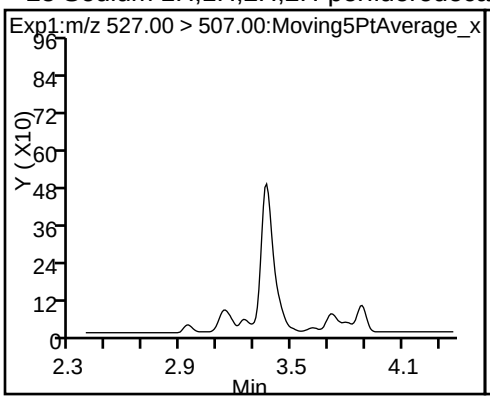
22 Perfluorooctane Sulfonamide



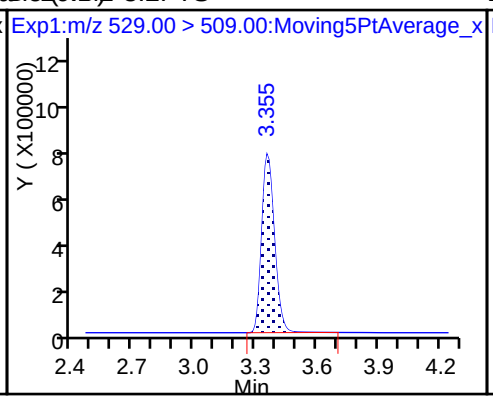
D 21 13C8 FOSA



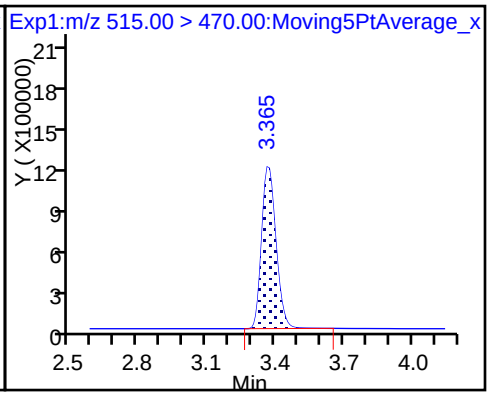
25 Sodium 1H,1H,2H,2H-perfluorodecane(6:2)



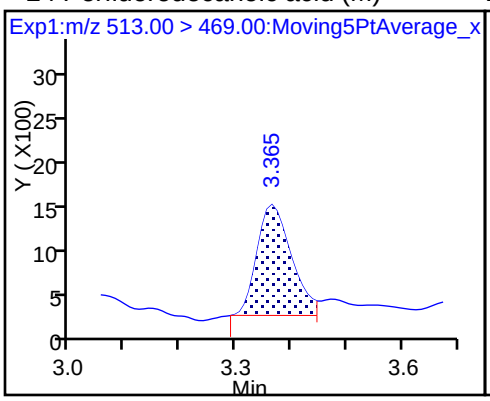
D 26 d3-8:2FTS



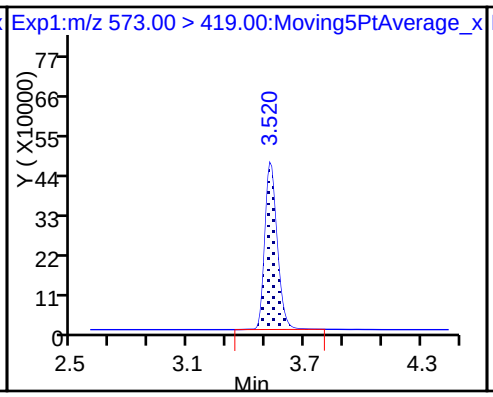
D 23 13C2 PFDA



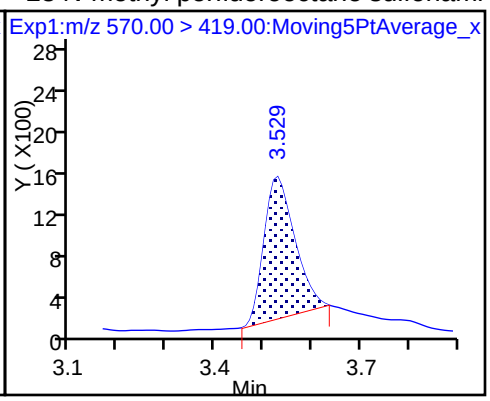
24 Perfluorodecanoic acid (M)



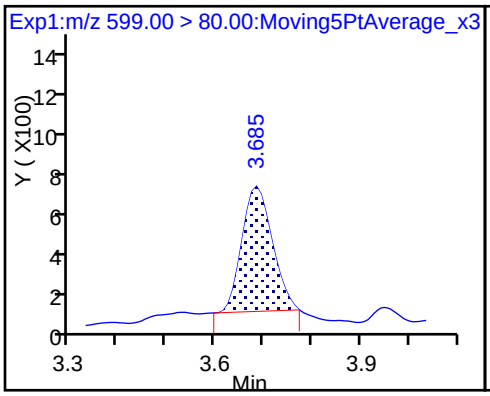
D 27 d3-NMeFOSAA



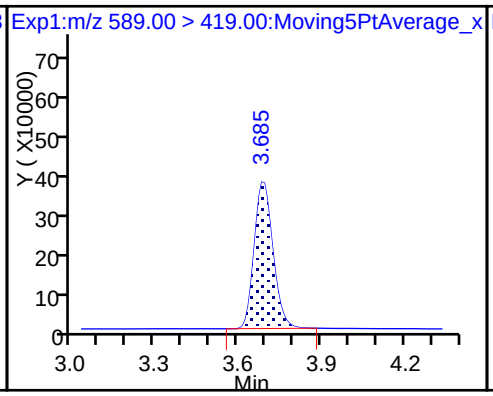
28 N-methyl perfluorooctane sulfonami



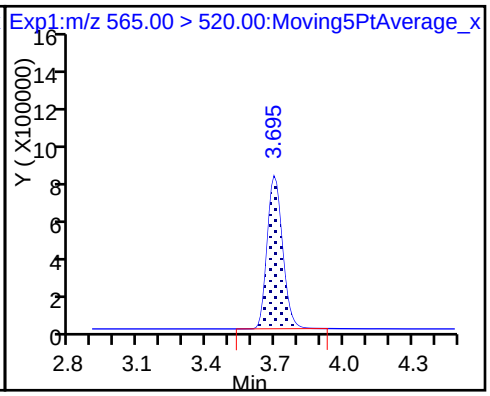
29 Perfluorodecane Sulfonic acid



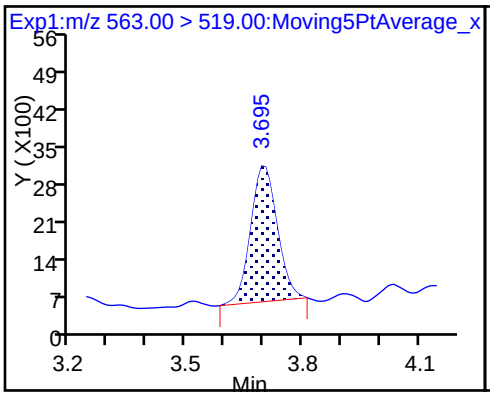
D 32 d5-NEtFOSAA



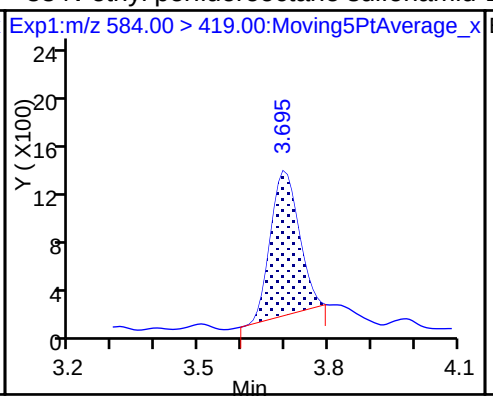
D 30 13C2 PFUnA



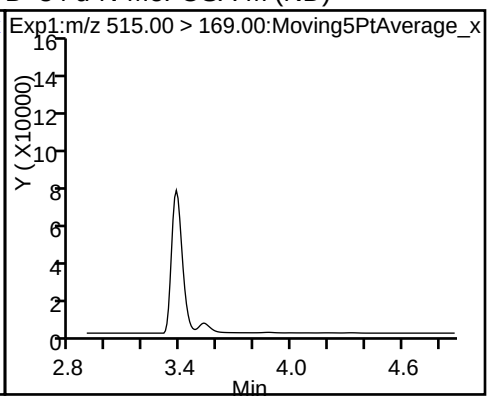
31 Perfluoroundecanoic acid



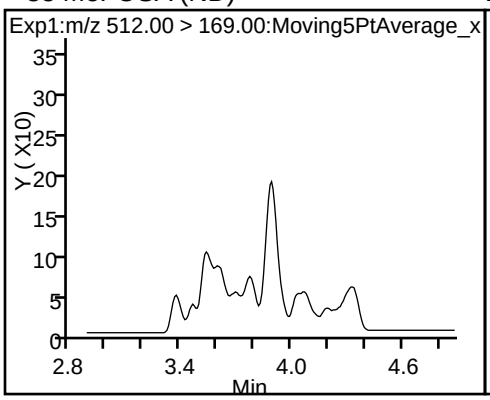
33 N-ethyl perfluorooctane sulfonamid



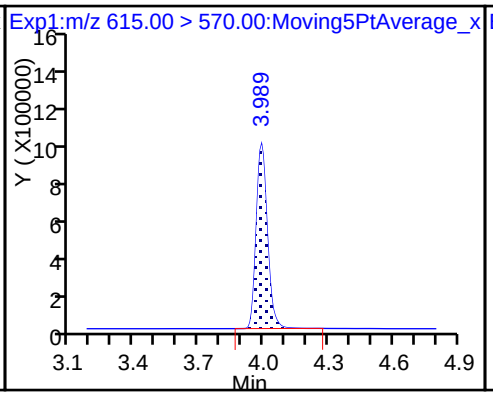
D 34 d-N-MeFOSA-M (ND)



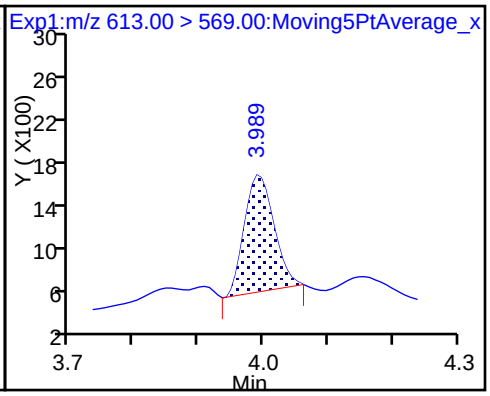
35 MeFOSA (ND)



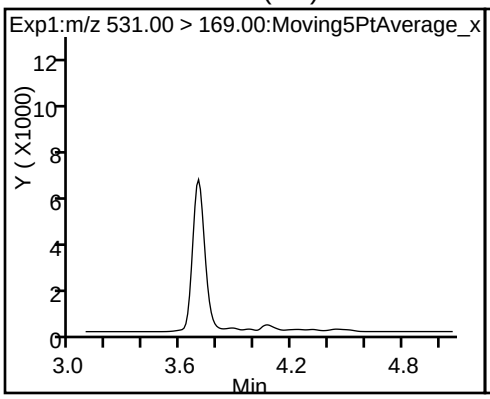
D 36 13C2 PFDoA



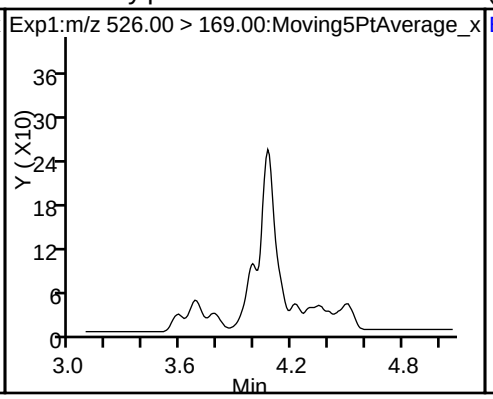
37 Perfluorododecanoic acid



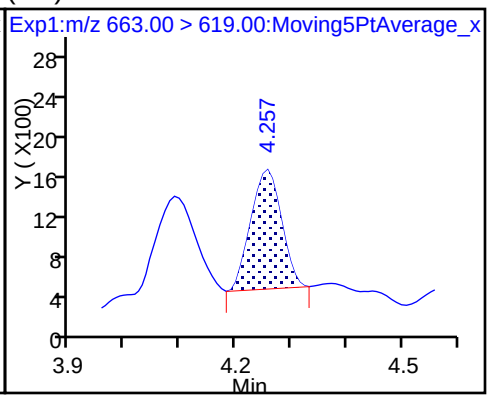
D 38 d-N-EtFOSA-M (ND)



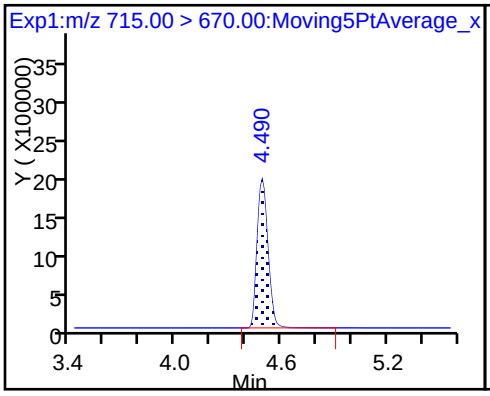
39 N-ethylperfluoro-1-octanesulfonami (ND)



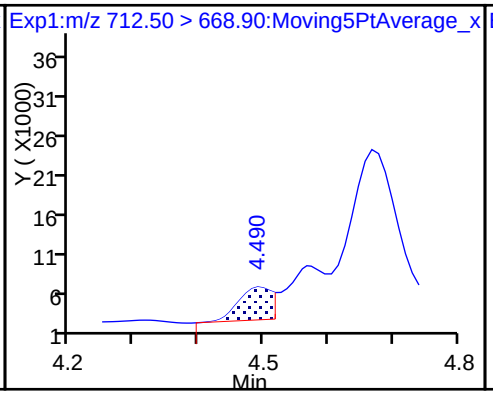
41 Perfluorotridecanoic acid



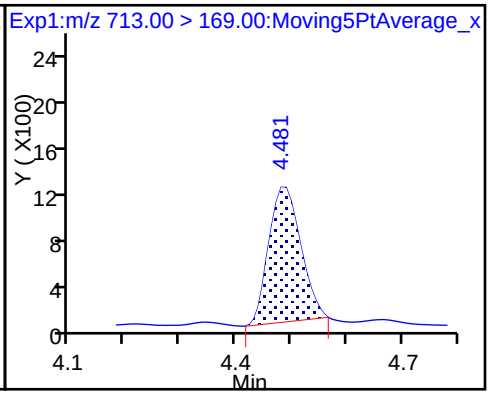
D 43 13C2-PFTeDA



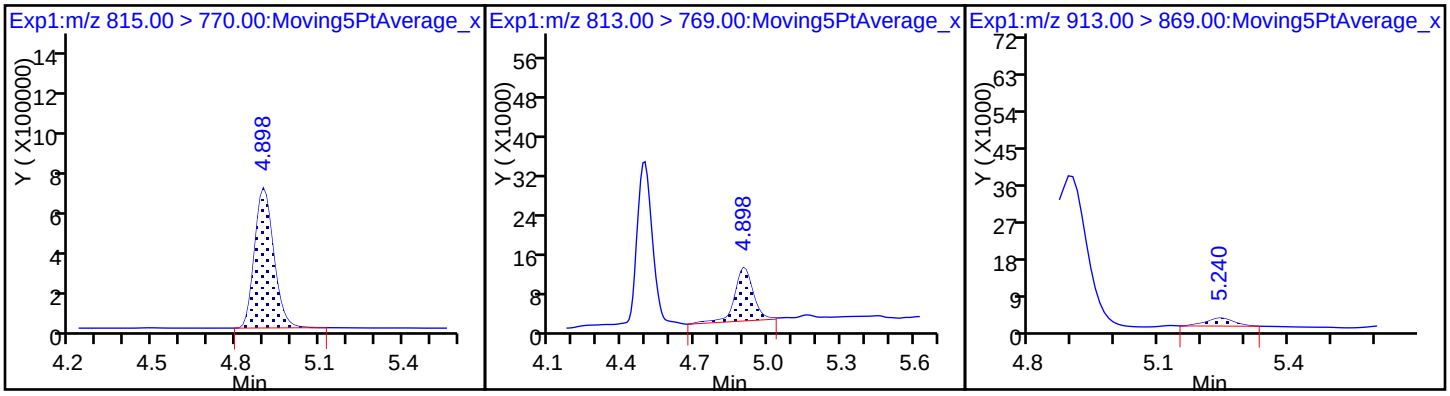
42 Perfluorotetradecanoic acid



42 Perfluorotetradecanoic acid



D 44 13C2-PFHxDA | 45 Perfluorohexadecanoic acid | 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

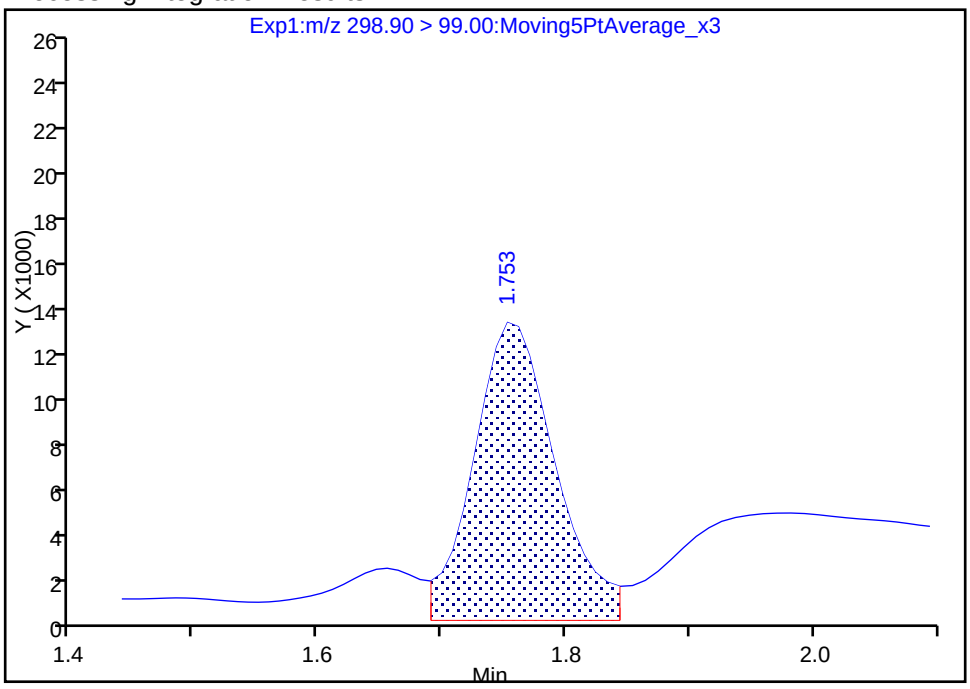
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_028.d
Injection Date: 29-Jun-2017 02:26:12 Instrument ID: A8_N
Lims ID: MB 320-170613/1-A
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 23 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

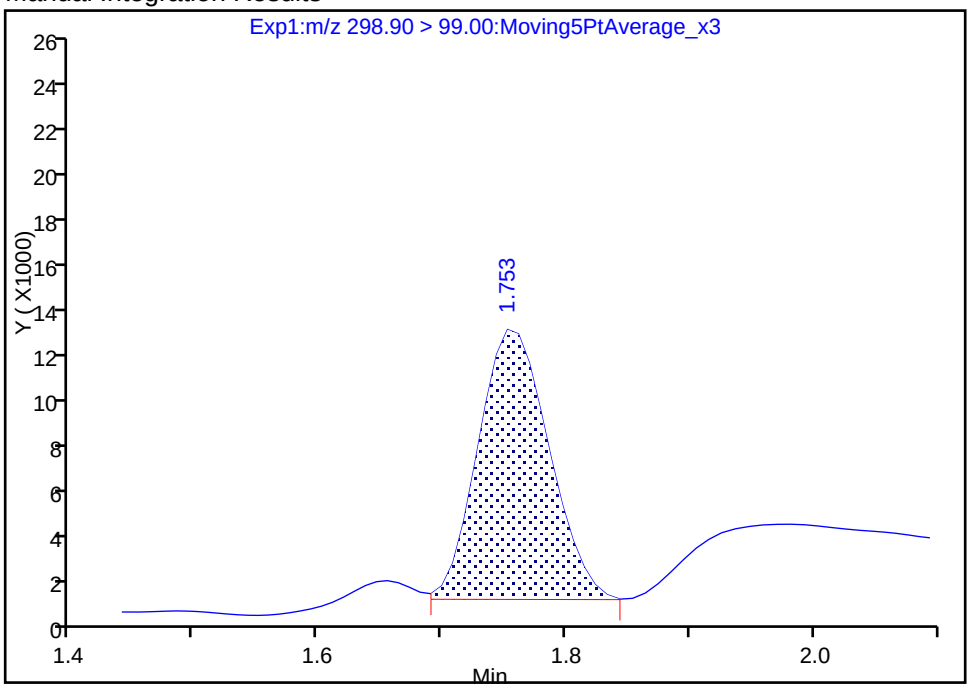
Processing Integration Results

RT: 1.75
Area: 58888
Amount: 0.457636
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 45474
Amount: 0.457636
Amount Units: ng/ml



Reviewer: barnettj, 29-Jun-2017 16:46:28
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 320-173923/1-A

Matrix: Water | Lab File ID: 20170714D_001.d

Analysis Method: 537 (Modified) | Date Collected:

Extraction Method: 3535 | Date Extracted: 07/13/2017 09:26

Sample wt/vol: 250(mL) | Date Analyzed: 07/15/2017 03:05

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	2.0	U M	2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.0	U	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	U M	2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	136		25-150
STL00991	13C4 PFOS	123		25-150
STL00994	18O2 PFHxS	125		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_001.d
Lims ID: MB 320-173923/1-A
Client ID:
Sample Type: MB
Inject. Date: 15-Jul-2017 03:05:17 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: mb 320-173923/1-a
Misc. Info.: Plate: 1 Rack: 4
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 18-Jul-2017 15:30:04 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK015

First Level Reviewer: barnettj Date: 18-Jul-2017 15:30:02

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.536	1.538	-0.002		10668235	61.5		123	23253	
2 Perfluorobutyric acid										
212.90 > 169.00	1.536	1.539	-0.003	1.000	66749	0.3410			23.3	
D 3 13C5-PFPeA										
267.90 > 223.00	1.736	1.748	-0.012		7593296	58.8		118	38788	
D 47 13C3-PFBS										
301.90 > 83.00	1.763	1.764	-0.001		192539	NC			9079	
5 Perfluorobutanesulfonic acid										M
298.90 > 80.00	1.754	1.775	-0.021	1.000	7570	0.0251			5.3	
298.90 > 99.00	1.754	1.775	-0.021	1.000	2216		3.42(0.00-0.00)		3.9	M
D 7 13C2 PFHxA										
315.00 > 270.00	1.994	2.017	-0.023		7544592	58.8		118	29951	
6 Perfluorohexanoic acid										M
313.00 > 269.00	1.994	2.017	-0.023	1.000	10834	0.0752			13.0	M
D 9 13C4-PFHpA										
367.00 > 322.00	2.307	2.341	-0.034		7435126	63.9		128	27657	
10 Perfluoroheptanoic acid										M
363.00 > 319.00	2.307	2.341	-0.034	1.000	6451	0.0433			7.2	M
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.325	2.357	-0.032	1.000	34805	0.1685			36.3	
D 11 18O2 PFHxS										
403.00 > 84.00	2.325	2.357	-0.032		9501089	59.2		125	28575	
D 12 M2-6:2FTS										
429.00 > 409.00	2.634	2.673	-0.039		3379	0.0625		0.0	242	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.634	2.673	-0.039	1.000	13926	NR			629	
* 62 13C2-PFOA										
415.00 > 370.00	2.649	2.694	-0.045		8582	50.0			259	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 14 13C4 PFOA										
417.00 > 372.00	2.656	2.698	-0.042		7190958	67.8		136	31931	
15 Perfluorooctanoic acid										M
413.00 > 369.00	2.656	2.700	-0.044	1.000	9472	0.0616			3.2	M
413.00 > 169.00	2.656	2.700	-0.044	1.000	7630		1.24(0.90-1.10)		26.5	
16 Perfluoroheptanesulfonic Acid										M
449.00 > 80.00	2.663	2.706	-0.043	1.000	2840	0.0171			86.4	M
D 18 13C4 PFOS										
503.00 > 80.00	3.019	3.071	-0.052		6788330	59.0		123	26122	
20 Perfluorononanoic acid										
463.00 > 419.00	3.019	3.072	-0.053	1.000	3169	0.0310			8.0	
D 19 13C5 PFNA										
468.00 > 423.00	3.027	3.072	-0.045		5216897	61.9		124	18170	
D 21 13C8 FOSA										
506.00 > 78.00	3.374	3.401	-0.027		3870126	19.2		38.3	18314	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.374	3.405	-0.031	1.000	5528	0.0777			139	
D 26 M2-8:2FTS										
529.00 > 509.00	3.374	3.424	-0.050		3467	0.0794		0.0	123	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.382	3.435	-0.053	1.000	4968	0.0444			37.0	
D 23 13C2 PFDA										
515.00 > 470.00	3.382	3.435	-0.053		5870915	77.5		155	17343	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.544	3.592	-0.048		8235	0.2621		0.0	103	
29 Perfluorodecane Sulfonic acid										M
599.00 > 80.00	3.690	3.749	-0.059	1.000	2747	0.0285			116	M
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.700	3.759	-0.059		12312	0.4015		0.0	34.0	
D 30 13C2 PFUnA										
565.00 > 520.00	3.710	3.768	-0.058		3741710	64.8		130	12043	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.710	3.768	-0.058	1.000	12344	0.1624			42.8	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.710	3.768	-0.058	1.003	2449	NR			47.1	
D 34 d-N-MeFOSA-M										
515.00 > 169.00	3.869	3.894	-0.025		2393	0.0475		0.0	3.0	
D 36 13C2 PFDoA										
615.00 > 570.00	4.004	4.061	-0.057		3197410	54.1		108	8297	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.004	4.062	-0.058	1.000	4376	0.0723			22.0	
D 38 d-N-EtFOSA-M										
531.00 > 169.00	4.062	4.083	-0.021		2491	0.0497		0.0	81.0	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.274	4.331	-0.057	1.000	3895	0.0672			1.3	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.507	4.571	-0.064		7648728	68.3		137	18666	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 44 13C2-PFHxDA										
815.00 > 770.00	4.917	4.986	-0.069		3119060	45.9		91.7	3605	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.928	4.988	-0.060	1.000	46852	-0.1323			9.8	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.269	5.344	-0.075	1.000	6301	0.0867			1.6	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

NC - Not Calibrated

Review Flags

M - Manually Integrated

Report Date: 18-Jul-2017 15:30:08 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_001.d

Injection Date: 15-Jul-2017 03:05:17 Instrument ID: A8_N

Lims ID: MB 320-173923/1-A

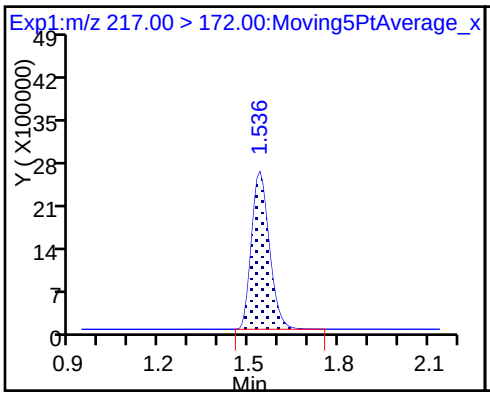
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 1 Worklist Smp#: 2

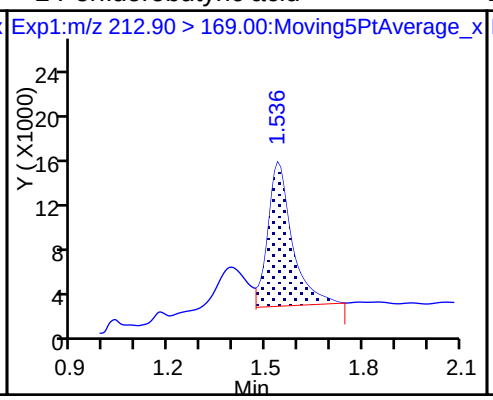
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

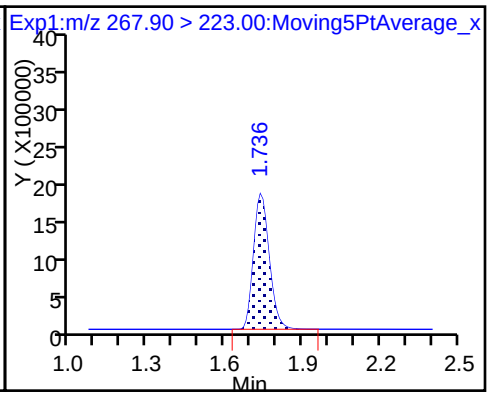
D 1 13C4 PFBA



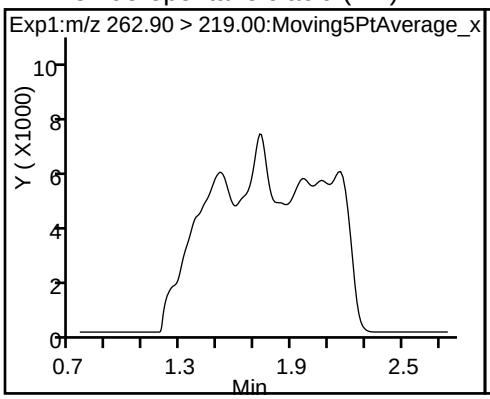
2 Perfluorobutyric acid



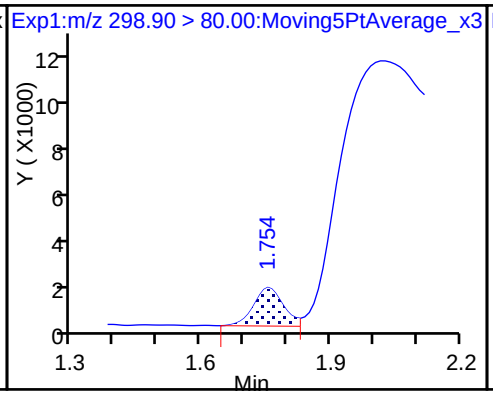
D 3 13C5-PFPeA



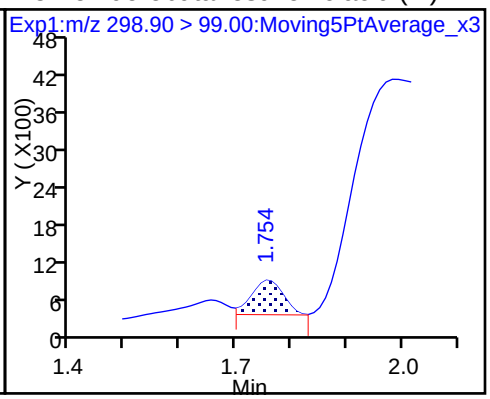
4 Perfluoropentanoic acid (ND)



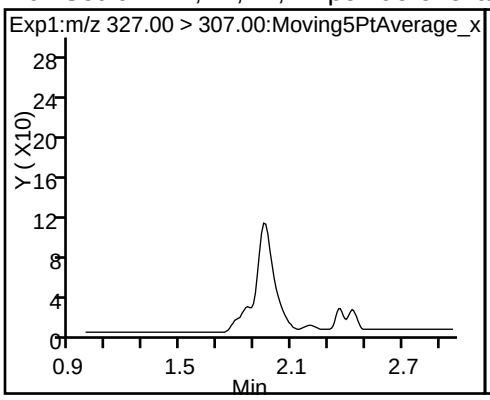
5 Perfluorobutanesulfonic acid



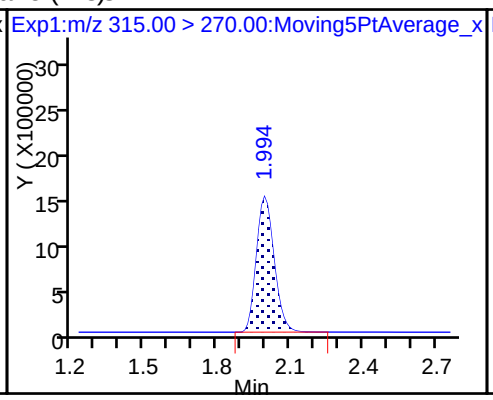
5 Perfluorobutanesulfonic acid (M)



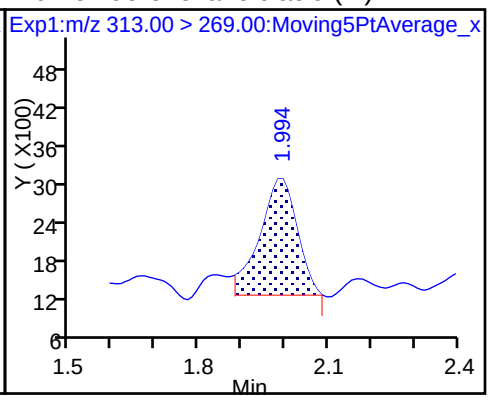
61 Sodium 1H,1H,2H,2H-perfluorohexane (NC)



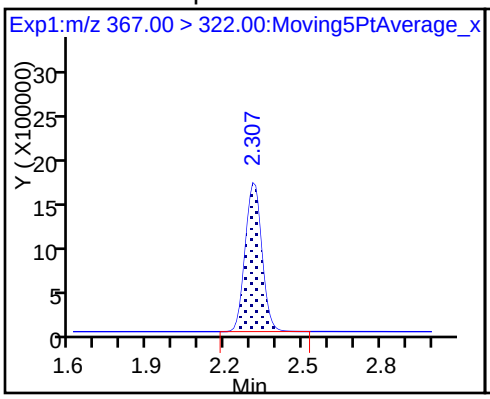
D 13C2 PFHxA



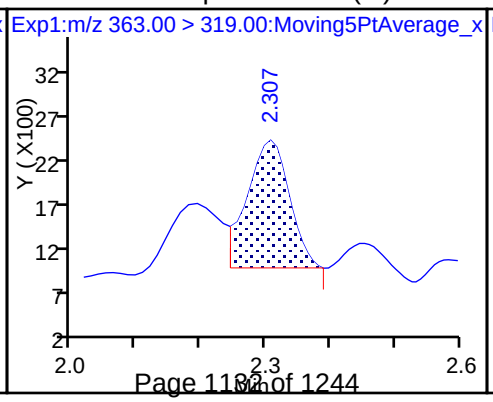
6 Perfluorohexanoic acid (M)



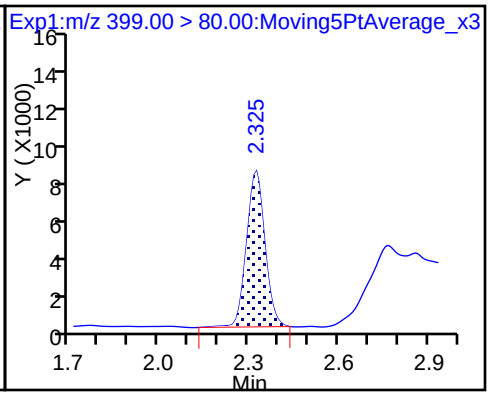
D 9 13C4-PFHpA



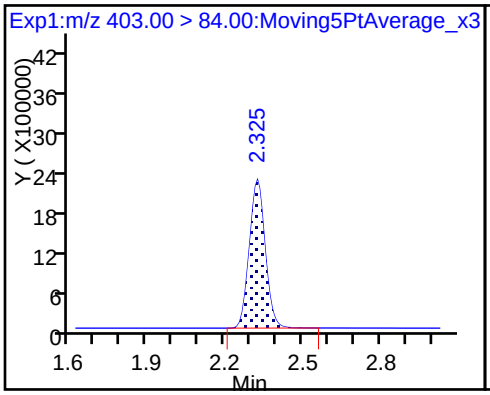
10 Perfluoroheptanoic acid (M)



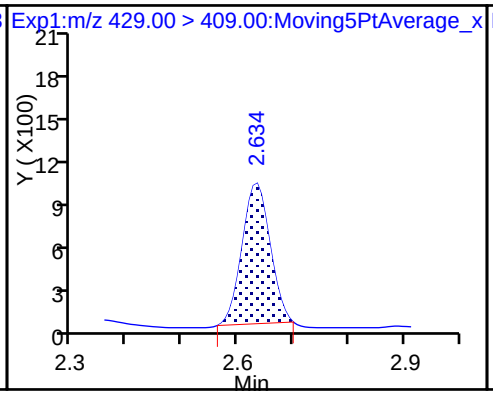
8 Perfluorohexanesulfonic acid



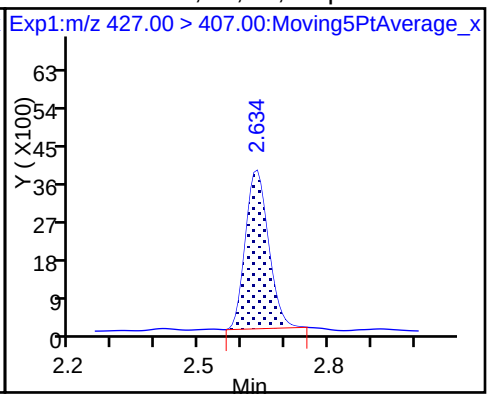
D 11 18O2 PFHxS



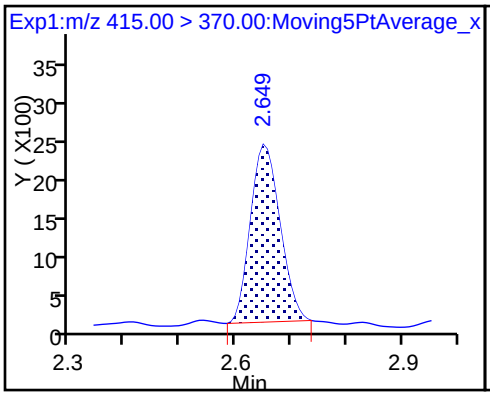
D 12 M2-6:2FTS



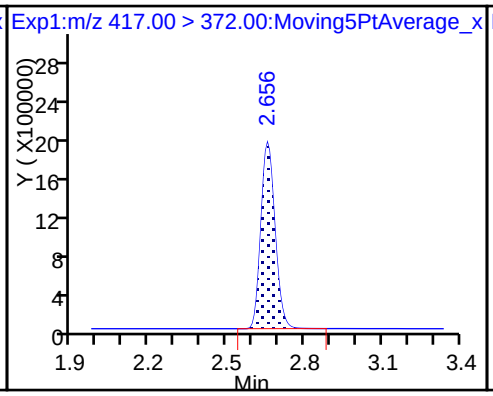
13 Sodium 1H,1H,2H,2H-perfluorooctane



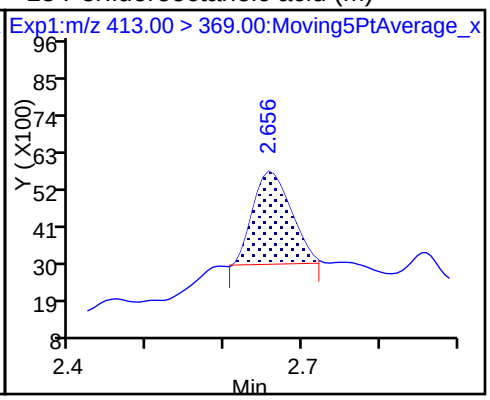
* 62 13C2-PFOA



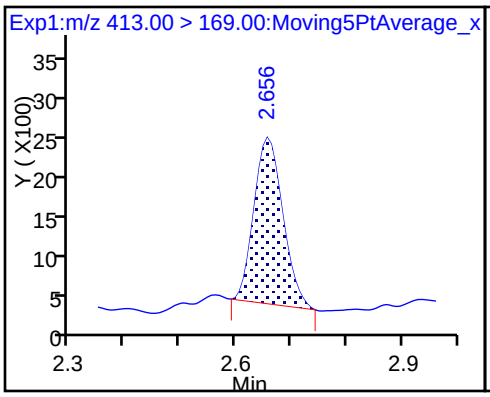
D 14 13C4 PFOA



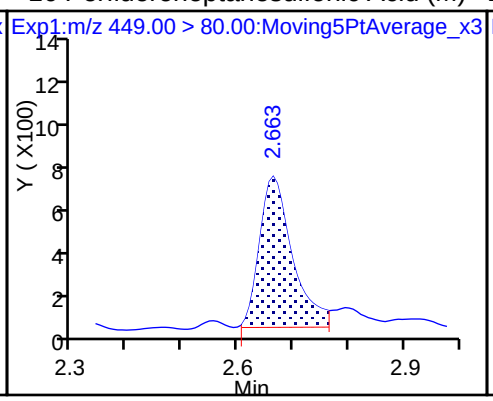
15 Perfluorooctanoic acid (M)



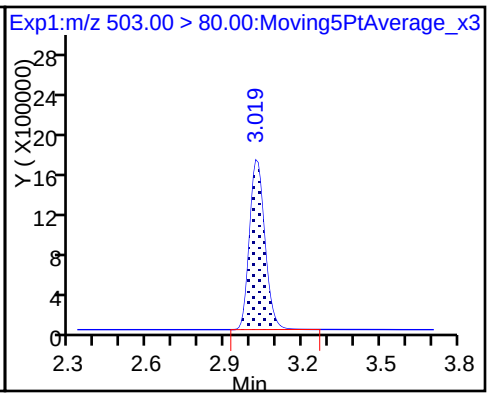
15 Perfluorooctanoic acid



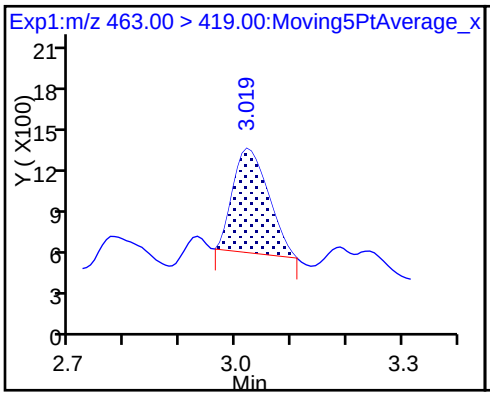
16 Perfluoroheptanesulfonic Acid (M)



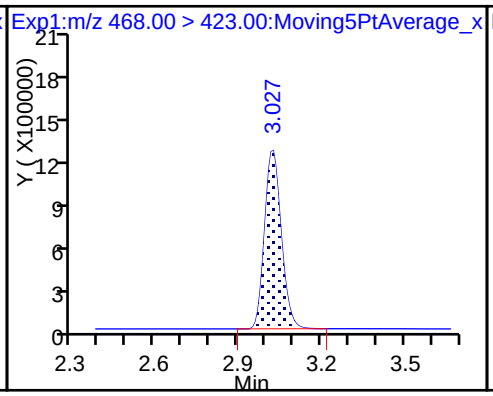
D 18 13C4 PFOS



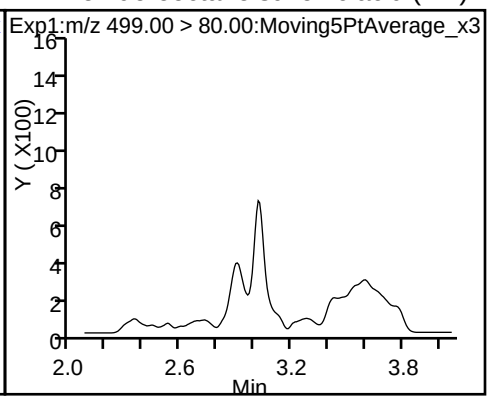
20 Perfluorononanoic acid



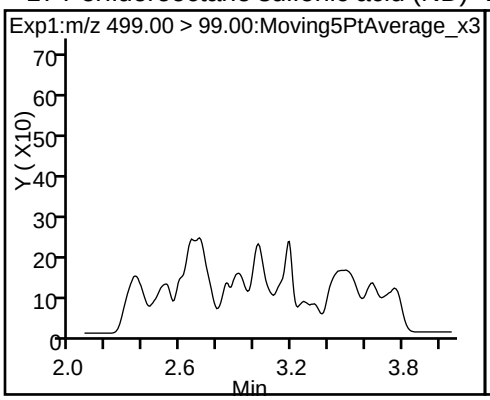
D 19 13C5 PFNA



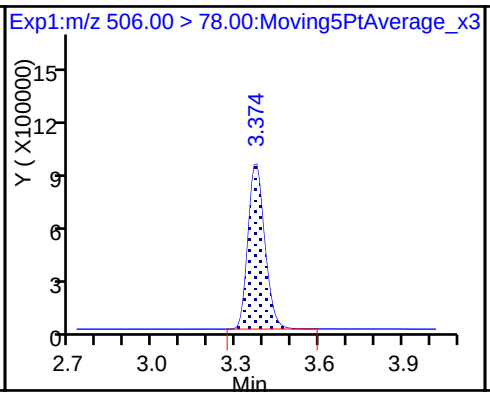
17 Perfluorooctane sulfonic acid (ND)



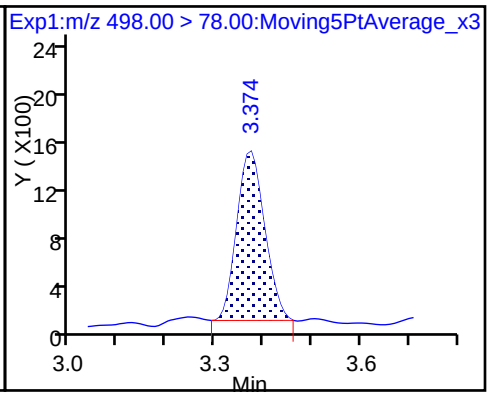
17 Perfluorooctane sulfonic acid (ND)



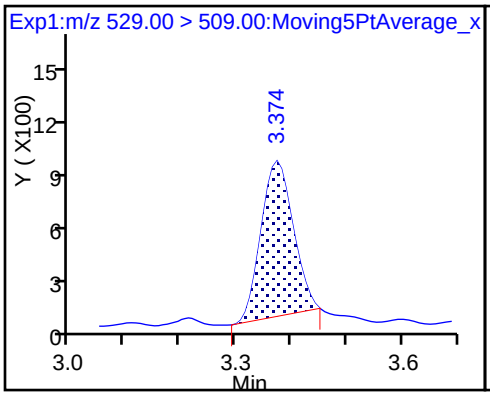
D 21 13C8 FOSA



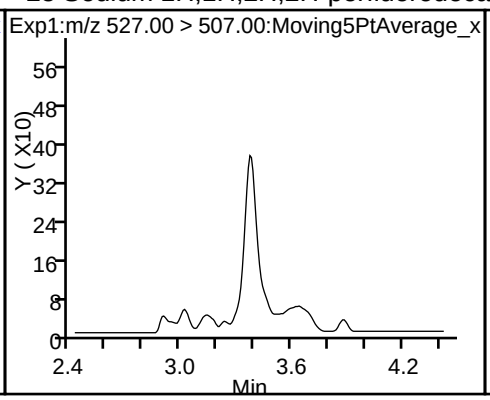
22 Perfluorooctane Sulfonamide



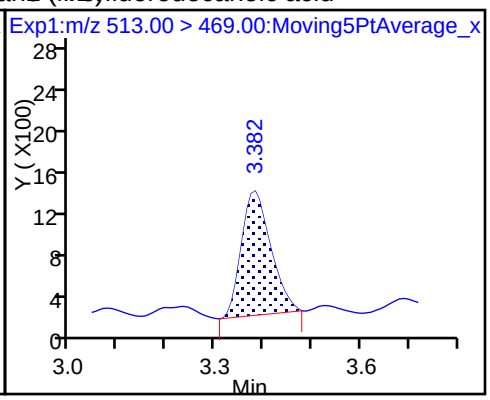
D 26 M2-8:2FTS



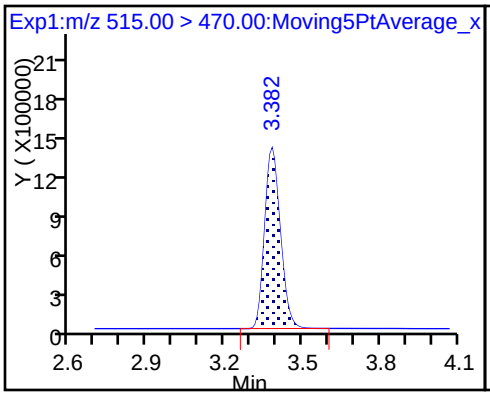
25 Sodium 1H,1H,2H,2H-perfluorodecane sulfonate (ND)



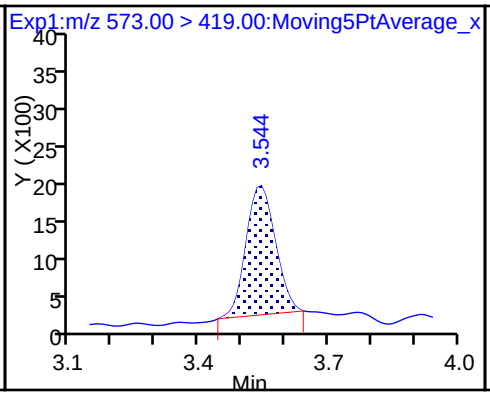
24 Perfluorodecanoic acid



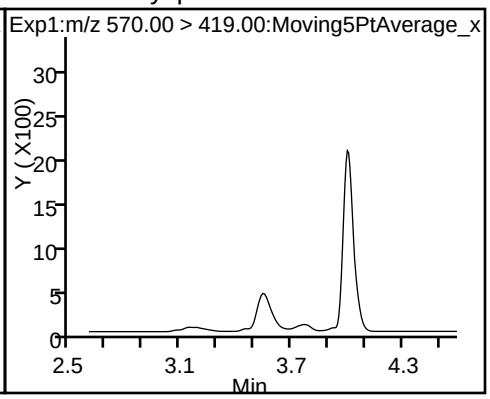
D 23 13C2 PFDA



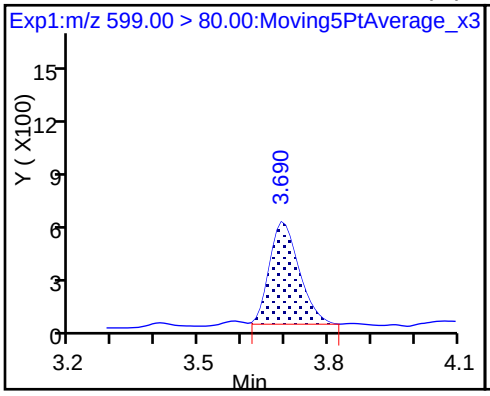
D 27 d3-NMeFOSAA



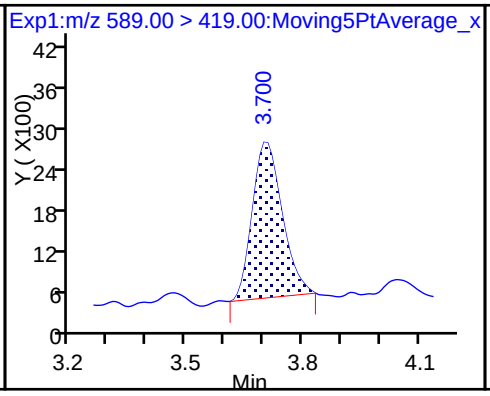
28 N-methyl perfluorooctane sulfonami (ND)



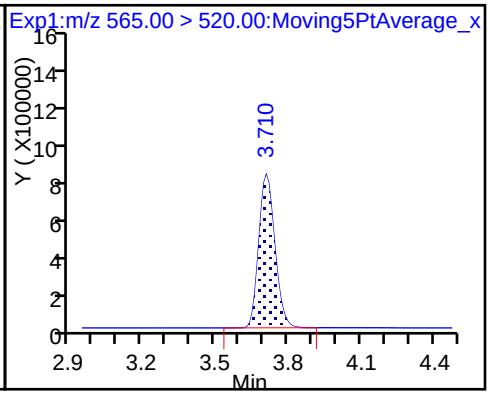
29 Perfluorodecane Sulfonic acid (M)



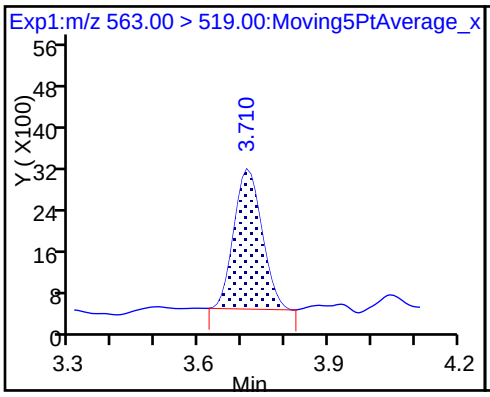
D 32 d5-NEtFOSAA



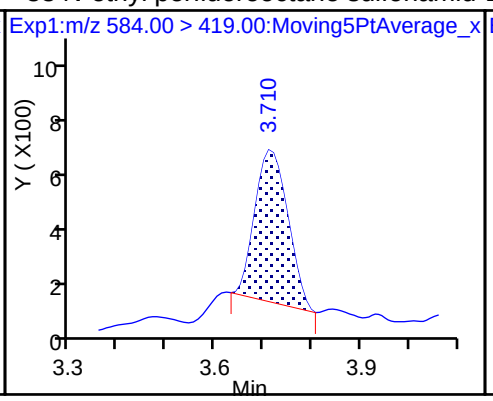
D 30 13C2 PFUnA



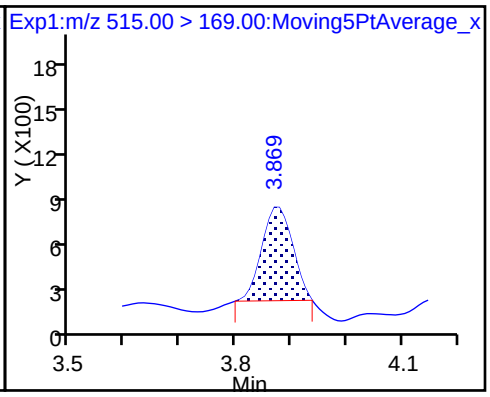
31 Perfluoroundecanoic acid



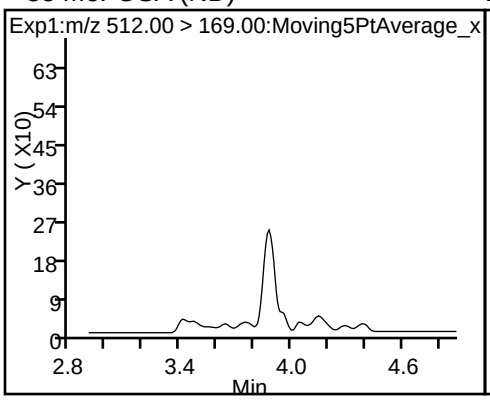
33 N-ethyl perfluorooctane sulfonamid



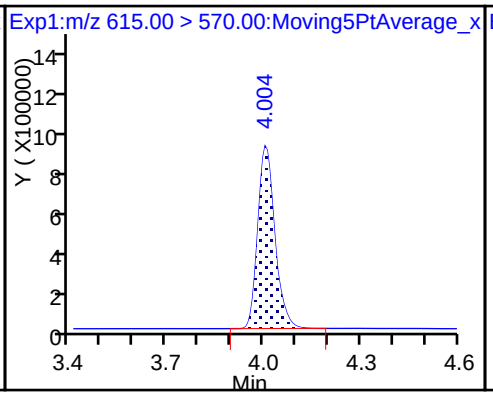
D 34 d-N-MeFOSA-M



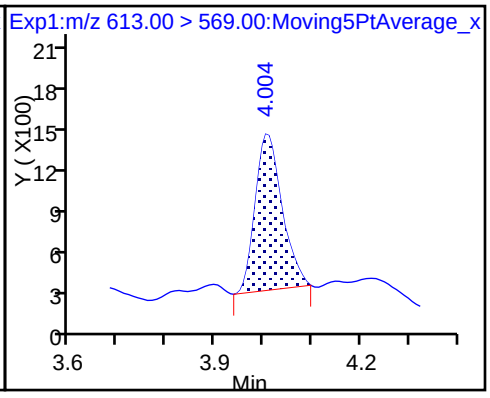
35 MeFOSA (ND)



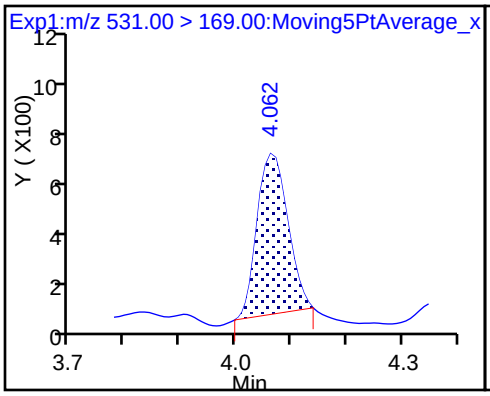
D 36 13C2 PFDoA



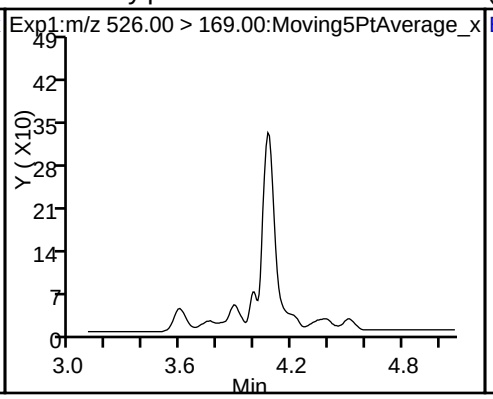
37 Perfluorododecanoic acid



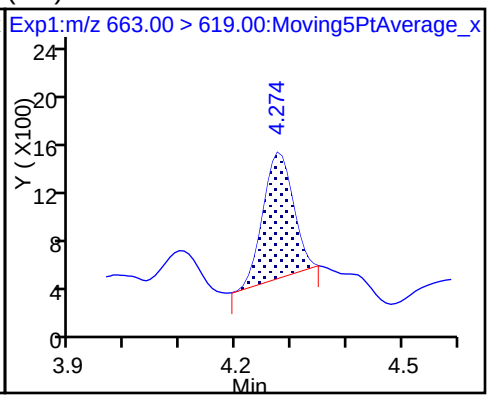
D 38 d-N-EtFOSA-M



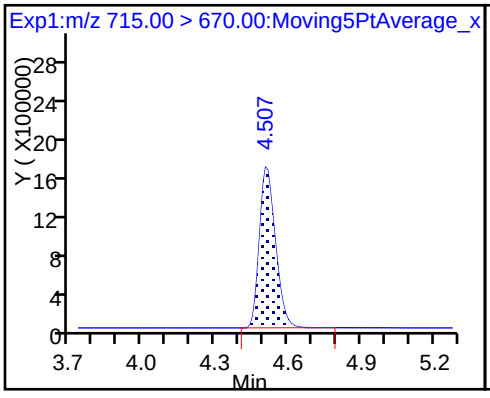
39 N-ethylperfluoro-1-octanesulfonami (ND)



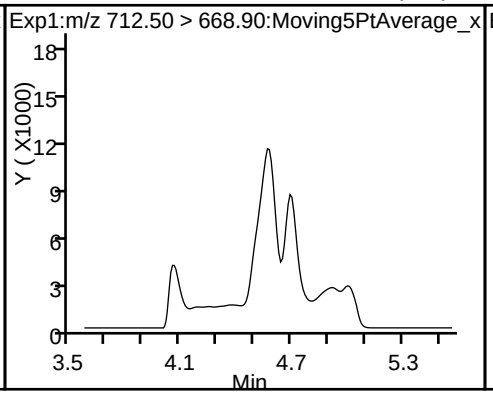
41 Perfluorotridecanoic acid



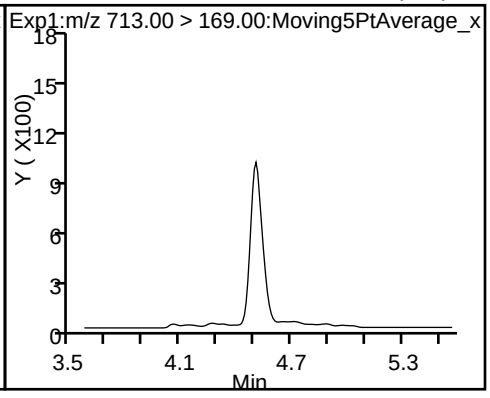
D 43 13C2-PFTeDA



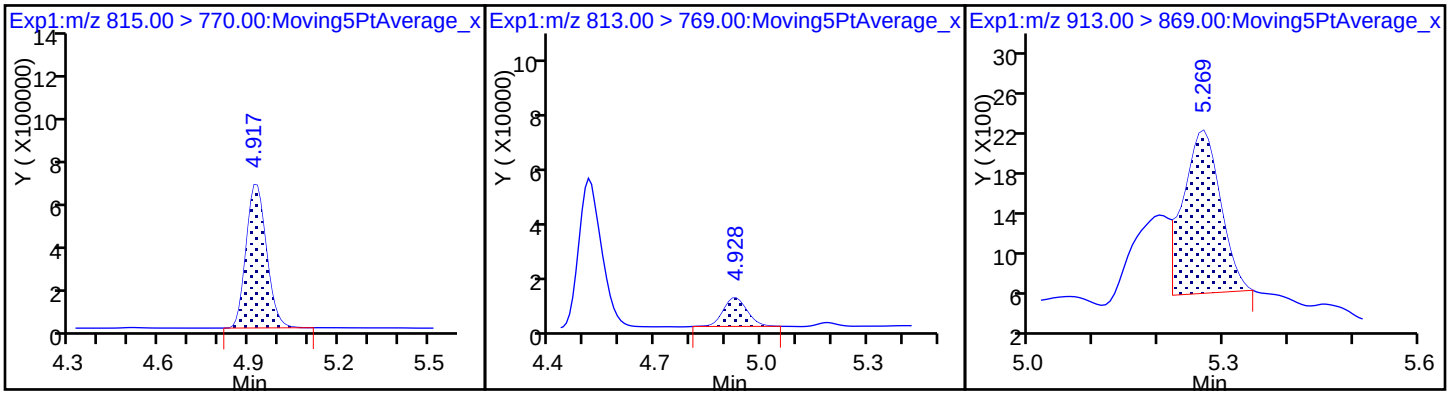
42 Perfluorotetradecanoic acid (ND)



42 Perfluorotetradecanoic acid (ND)



D 44 13C2-PFHxDA 45 Perfluorohexadecanoic acid 46 Perfluorooctadecanoic acid



Manual Integration/User Assign Peak Report

TestAmerica Sacramento

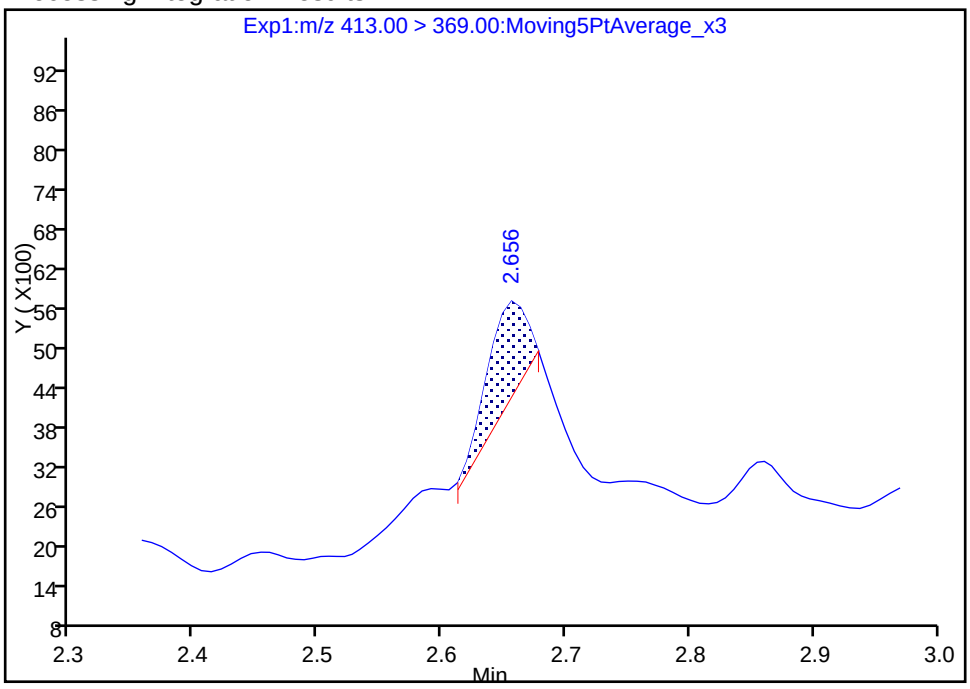
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_001.d
Injection Date: 15-Jul-2017 03:05:17 Instrument ID: A8_N
Lims ID: MB 320-173923/1-A
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

15 Perfluorooctanoic acid, CAS: 335-67-1

Signal: 1

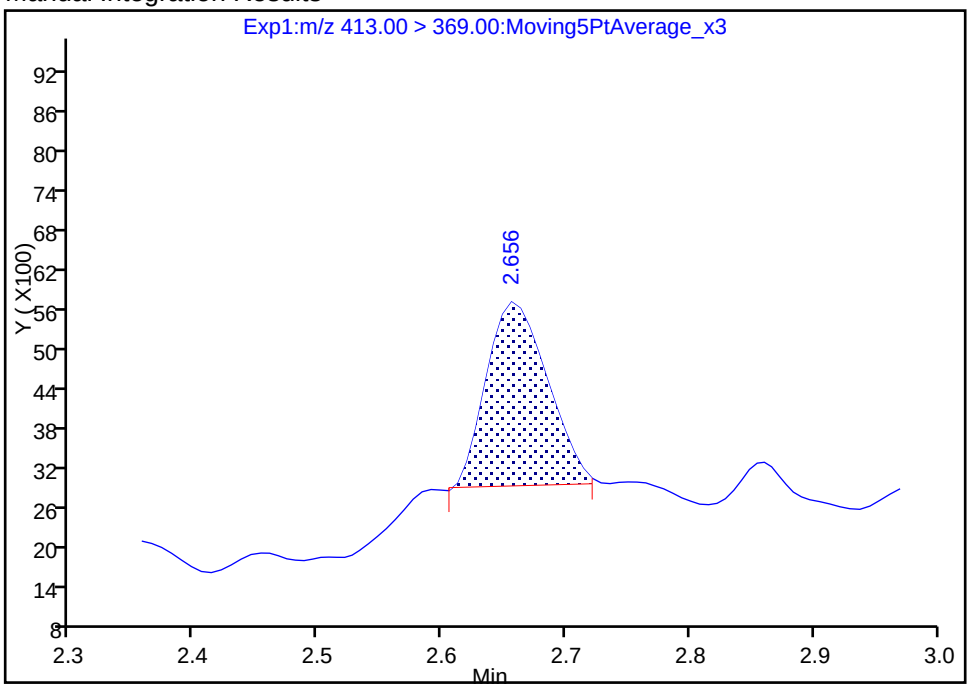
Processing Integration Results

RT: 2.66
Area: 3302
Amount: 0.021476
Amount Units: ng/ml



Manual Integration Results

RT: 2.66
Area: 9472
Amount: 0.061605
Amount Units: ng/ml



Reviewer: barnettj, 17-Jul-2017 15:36:23
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Sacramento

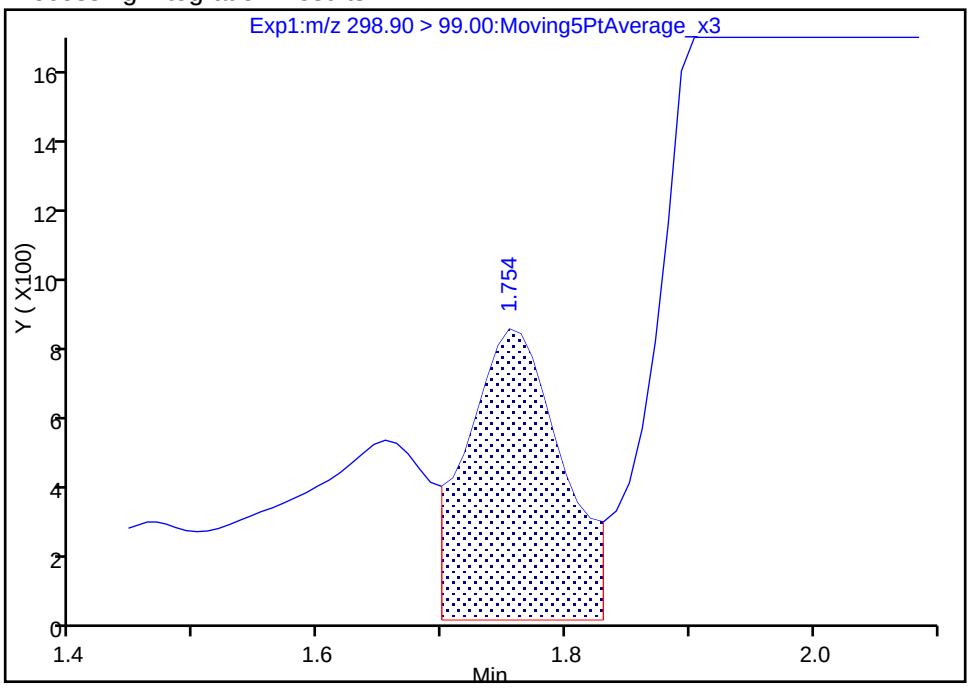
Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_001.d
Injection Date: 15-Jul-2017 03:05:17 Instrument ID: A8_N
Lims ID: MB 320-173923/1-A
Client ID:
Operator ID: SACINSTLCMS01 ALS Bottle#: 1 Worklist Smp#: 2
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Method: A8_N Limit Group: LC PFC_DOD ICAL
Column: Detector EXP1

5 Perfluorobutanesulfonic acid, CAS: 375-73-5

Signal: 2

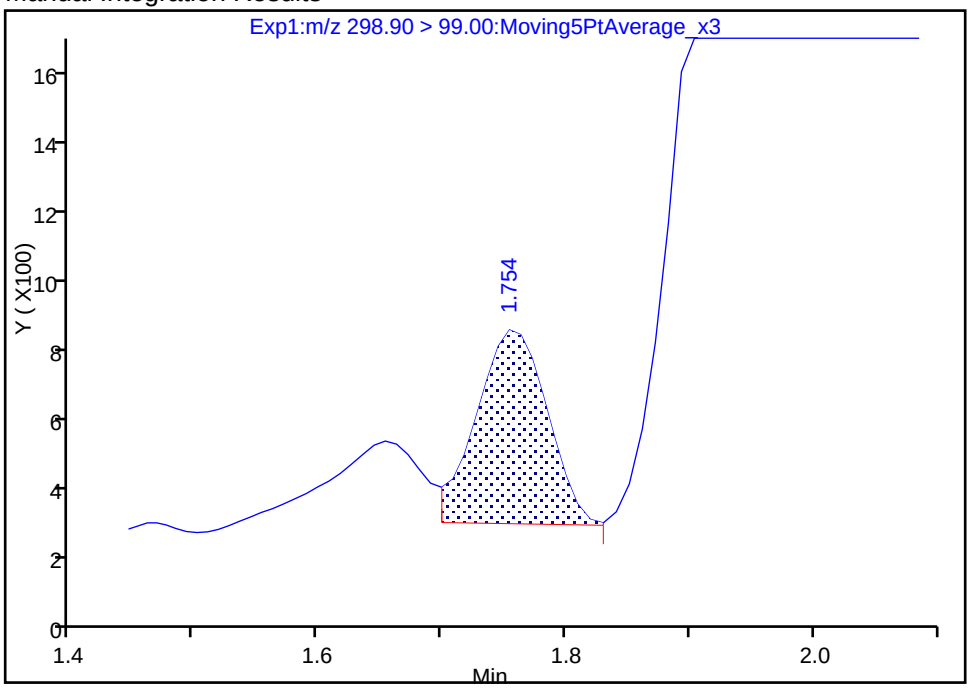
Processing Integration Results

RT: 1.75
Area: 4417
Amount: 0.025061
Amount Units: ng/ml



Manual Integration Results

RT: 1.75
Area: 2216
Amount: 0.025061
Amount Units: ng/ml



Reviewer: barnettj, 17-Jul-2017 13:56:26
Audit Action: Manually Integrated Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 320-170434/2-A

Matrix: Water | Lab File ID: 2017.06.24B_055.d

Analysis Method: 537 (Modified) | Date Collected:

Extraction Method: 3535 | Date Extracted: 06/22/2017 08:27

Sample wt/vol: 250(mL) | Date Analyzed: 06/25/2017 01:14

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 170860 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	39.5		2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	40.4		4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	42.8		2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	88		25-150
STL00991	13C4 PFOS	101		25-150
STL00994	18O2 PFHxS	107		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\2017.06.24B_055.d
Lims ID: LCS 320-170434/2-A
Client ID:
Sample Type: LCS
Inject. Date: 25-Jun-2017 01:14:01 ALS Bottle#: 46 Worklist Smp#: 29
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: lcs 320-170434/2-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 26-Jun-2017 13:48:13 Calib Date: 20-Jun-2017 00:17:25
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170620-44451.b\2017.06.19_PFCICAL_010.d

Column 1 : Det: EXP1
Process Host: XAWRK012

First Level Reviewer: chandrasenas Date: 26-Jun-2017 13:35:30

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	2.296	2.439	-0.143		21504636	46.0		92.1	110586	
2 Perfluorobutyric acid										
212.90 > 169.00	2.296	2.439	-0.143	1.000	8976701	23.1		115	575	
D 3 13C5-PFPeA										
267.90 > 223.00	2.695	2.853	-0.158		16162584	48.4		96.7	92598	
4 Perfluoropentanoic acid										
262.90 > 219.00	2.695	2.853	-0.158	1.000	6579162	19.8		99.2	1635	
D 47 13C3-PFBS										
301.90 > 83.00	2.728	2.725	0.003		416053	NC			6832	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	2.739	2.900	-0.161	1.000	11895997	21.4		121	144473	
298.90 > 99.00	2.728	2.900	-0.172	0.996	4709224		2.53(0.00-0.00)		18594	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	3.061	3.240	-0.179	1.000	2948295	18.7		100	29315	
D 7 13C2 PFHxA										
315.00 > 270.00	3.105	3.284	-0.179		13543974	40.6		81.2	79035	
6 Perfluorohexanoic acid										
313.00 > 269.00	3.105	3.284	-0.179	1.000	5548019	20.3		101	5956	
D 9 13C4-PFHpA										
367.00 > 322.00	3.525	3.714	-0.189		13958873	48.0		95.9	77234	
10 Perfluoroheptanoic acid										
363.00 > 319.00	3.525	3.714	-0.189	1.000	5840644	19.8		99.1	3000	
D 11 18O2 PFHxS										
403.00 > 84.00	3.534	3.714	-0.180		16474163	50.6		107	81695	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	3.534	3.714	-0.180	1.000	7197447	19.2		106	3272	
D 12 M2-6:2FTS										
429.00 > 409.00	3.909	4.102	-0.193		8216924	65.2		137	87627	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	3.909	4.102	-0.193	1.000	3271585	19.6		103	74427	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	3.926	4.110	-0.184	1.000	6632656	23.5		124	36166	
15 Perfluorooctanoic acid										
413.00 > 369.00	3.934	4.119	-0.185	1.000	5314384	19.7		98.7	1255	
413.00 > 169.00	3.934	4.119	-0.185	1.000	3100184		1.71(0.90-1.10)		7748	
D 14 13C4 PFOA										
417.00 > 372.00	3.934	4.119	-0.185		12726293	43.9		87.8	59399	
D 18 13C4 PFOS										
503.00 > 80.00	4.292	4.474	-0.182		11290893	48.4		101	43352	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	4.292	4.474	-0.182	1.000	5081652	20.2		109	6848	
499.00 > 99.00	4.292	4.474	-0.182	1.000	1083424		4.69(0.90-1.10)		4923	
D 19 13C5 PFNA										
468.00 > 423.00	4.309	4.495	-0.186		9274403	37.5		75.0	45173	
20 Perfluorononanoic acid										
463.00 > 419.00	4.309	4.495	-0.186	1.000	3887776	21.0		105	5174	
D 21 13C8 FOSA										
506.00 > 78.00	4.639	4.821	-0.182		11649709	33.1		66.2	41434	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	4.639	4.821	-0.182	1.000	4533615	20.4		102	21789	
24 Perfluorodecanoic acid										
513.00 > 469.00	4.639	4.821	-0.182	1.000	3266941	20.9		105	12067	
D 23 13C2 PFDA										
515.00 > 470.00	4.639	4.821	-0.182		8334352	38.2		76.3	22256	
D 26 M2-8:2FTS										
529.00 > 509.00	4.639	4.831	-0.192		6213517	58.5		122	41743	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	4.639	4.831	-0.192	1.000	2693444	21.2		111	19192	
D 27 d3-NMeFOSAA										
573.00 > 419.00	4.786	4.976	-0.190		3407173	26.4		52.7	21207	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	4.796	4.976	-0.180	1.002	1298935	18.6		92.8	3555	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	4.907	5.085	-0.178	1.000	2689809	17.7		91.6	17451	
D 30 13C2 PFUnA										
565.00 > 520.00	4.933	5.112	-0.179		6084130	35.6		71.2	34668	
31 Perfluoroundecanoic acid										
563.00 > 519.00	4.933	5.112	-0.179	1.000	2583699	20.8		104	7229	
D 32 d5-NEtFOSAA										
589.00 > 419.00	4.942	5.121	-0.179		2949050	23.3		46.6	8955	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	4.942	5.130	-0.188	1.000	1102829	19.9		99.4	6529	
D 36 13C2 PFDoA										
615.00 > 570.00	5.190	5.376	-0.186		5706640	30.6		61.2	15016	
37 Perfluorododecanoic acid										
613.00 > 569.00	5.190	5.376	-0.186	1.000	2055980	18.8		93.9	4110	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 38 d-N-EtFOSA-M										
531.00 > 169.00	5.428	5.409	0.020		9241	0.0798		0.2	12.0	
41 Perfluorotridecanoic acid										
663.00 > 619.00	5.428	5.608	-0.180	1.000	1927956	17.2		85.8	2150	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	5.637	5.819	-0.182	1.000	4548833	19.2		96.2	358	
713.00 > 169.00	5.637	5.819	-0.182	1.000	561327		8.10(0.00-0.00)		6872	
D 43 13C2-PFTeDA										
715.00 > 670.00	5.637	5.819	-0.182		10572843	30.5		61.0	34815	
D 44 13C2-PFHxDA										
815.00 > 770.00	6.029	6.218	-0.189		4762221	23.1		46.1	10368	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	6.040	6.218	-0.178	1.000	1746867	14.9		74.7	342	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	6.422	6.640	-0.218	1.000	1559829	14.3		71.5	247	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 26-Jun-2017 13:48:36 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b\2017.06.24B_055.d

Injection Date: 25-Jun-2017 01:14:01 Instrument ID: A8_N

Lims ID: LCS 320-170434/2-A

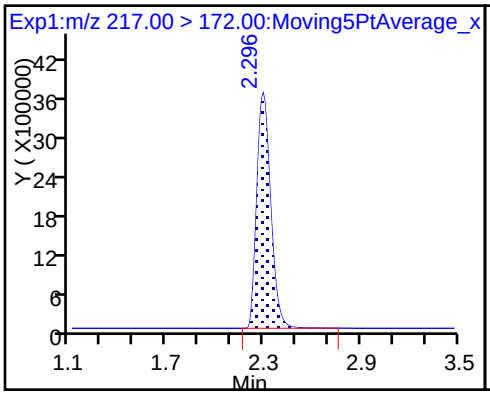
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 46 Worklist Smp#: 29

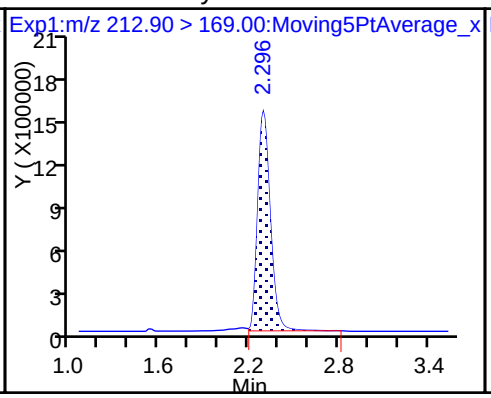
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

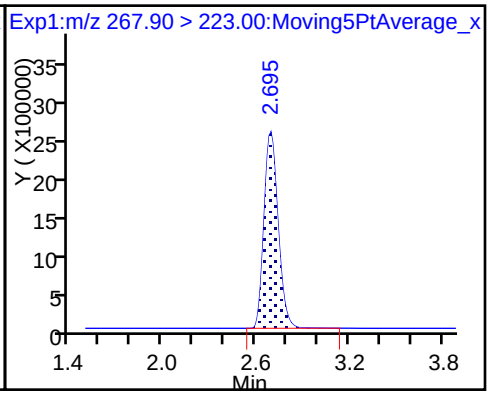
D 1 13C4 PFBA



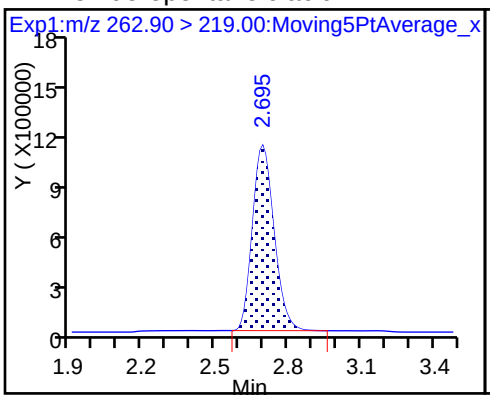
2 Perfluorobutyric acid



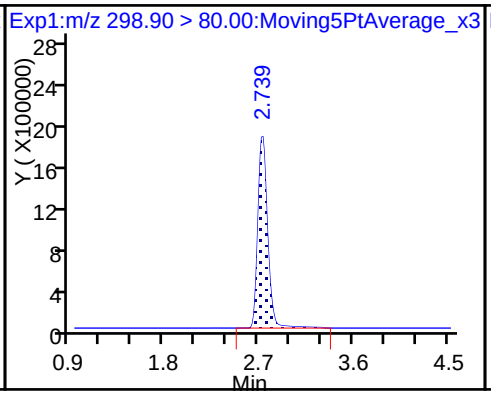
D 3 13C5-PFPeA



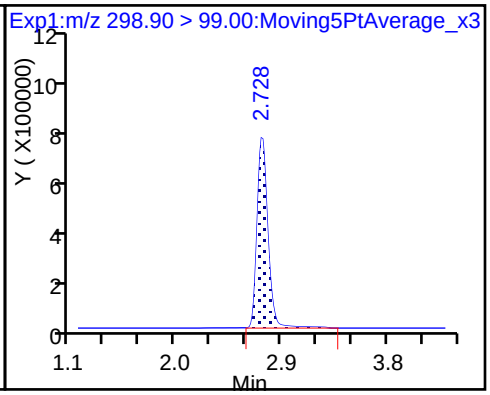
4 Perfluoropentanoic acid



5 Perfluorobutanesulfonic acid

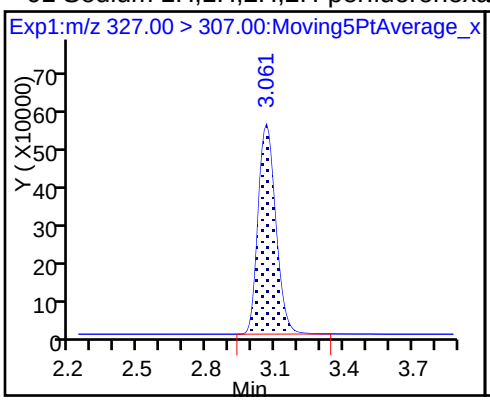


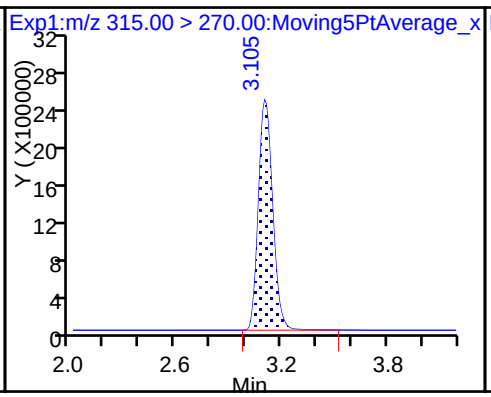
5 Perfluorobutanesulfonic acid



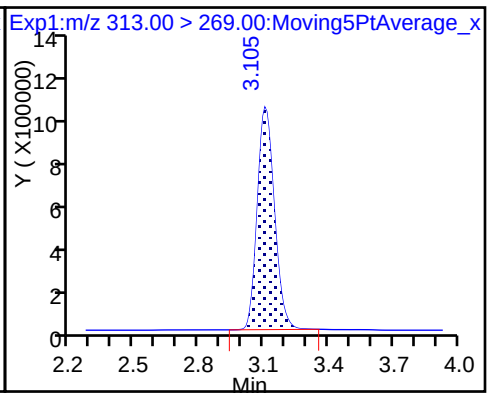
61 Sodium 1H,1H,2H,2H-perfluorohexa

D 7 13C2 PFHxA

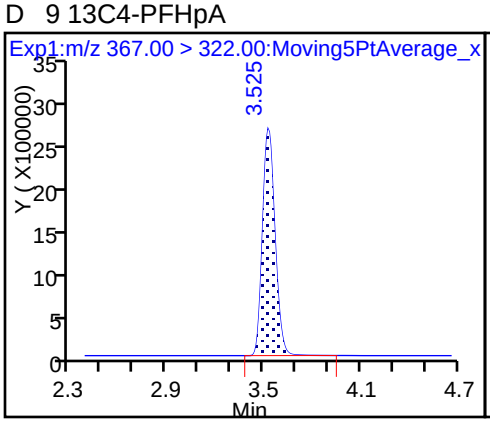




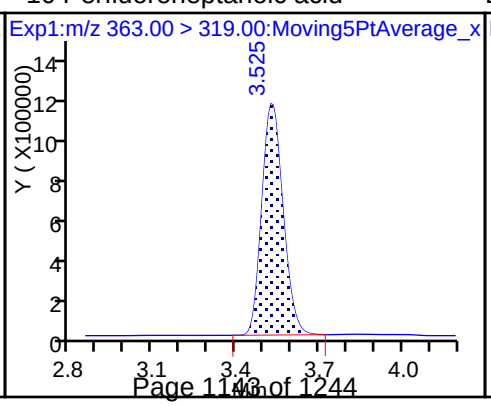
6 Perfluorohexanoic acid



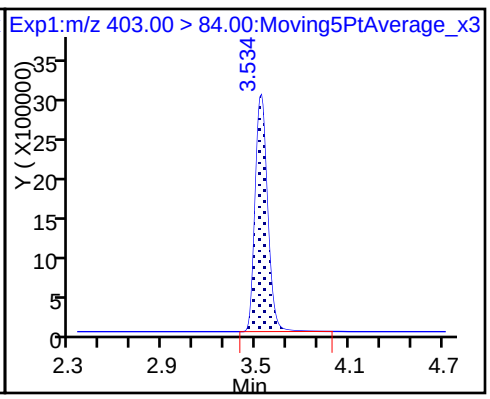
D 9 13C4-PFHpA



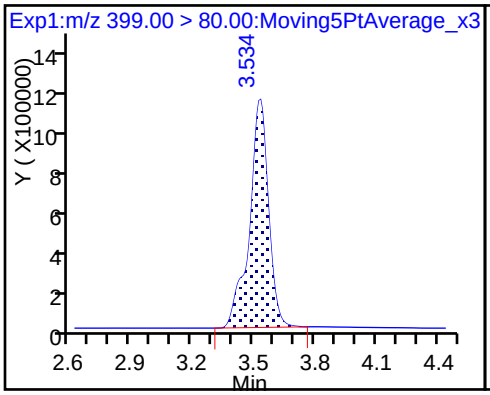
10 Perfluoroheptanoic acid



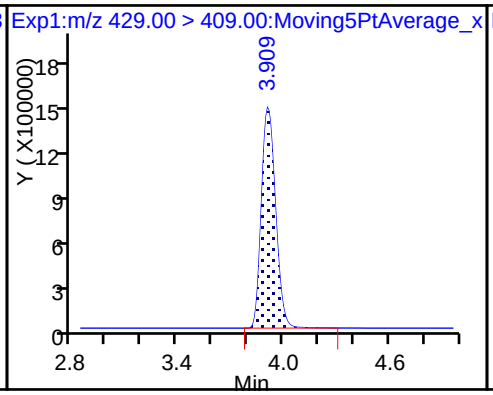
D 11 18O2 PFHxS



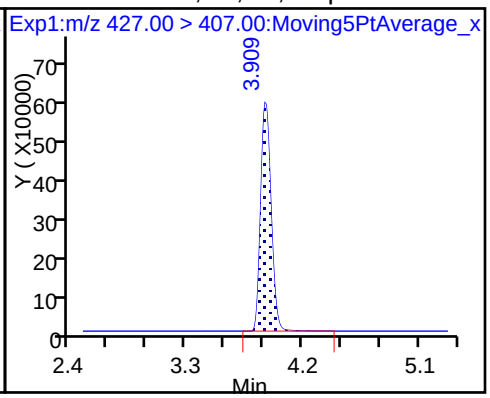
8 Perfluorohexanesulfonic acid



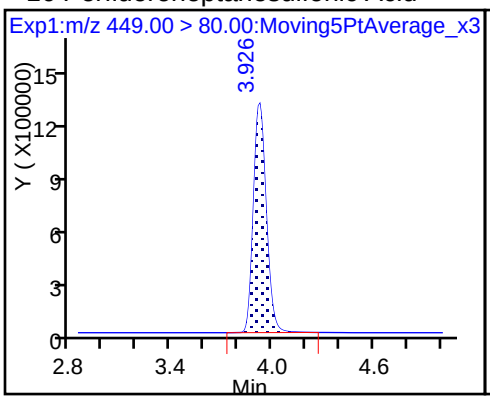
D 12 M2-6:2FTS



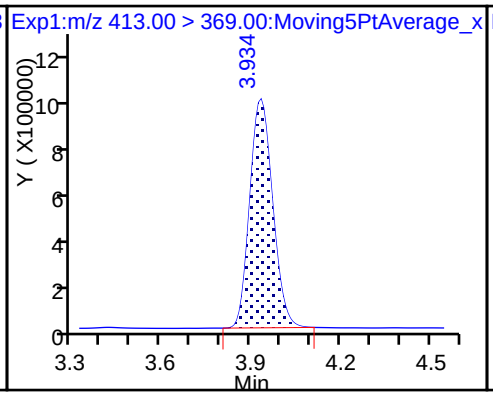
13 Sodium 1H,1H,2H,2H-perfluorooctane



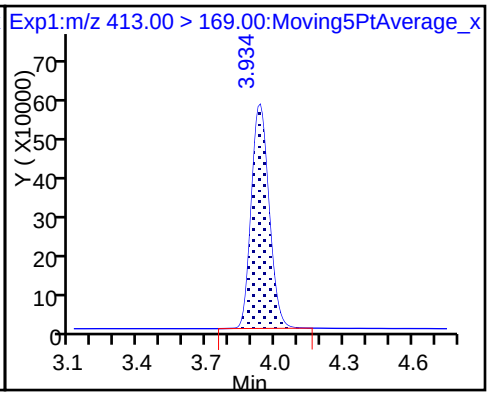
16 Perfluoroheptanesulfonic Acid



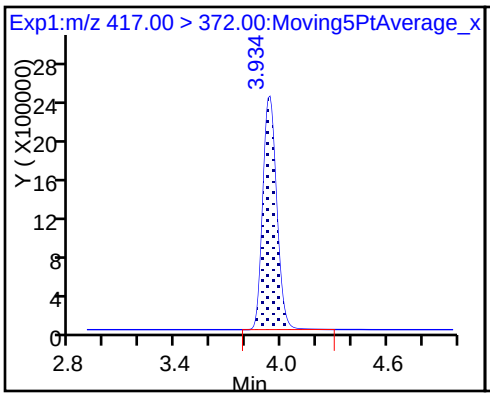
15 Perfluorooctanoic acid



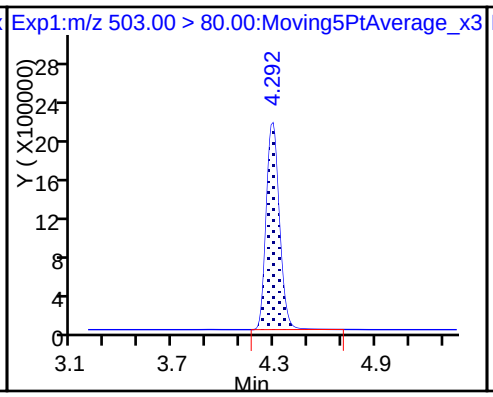
15 Perfluorooctanoic acid



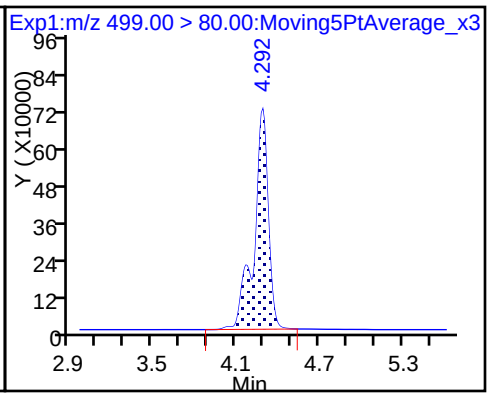
D 14 13C4 PFOA



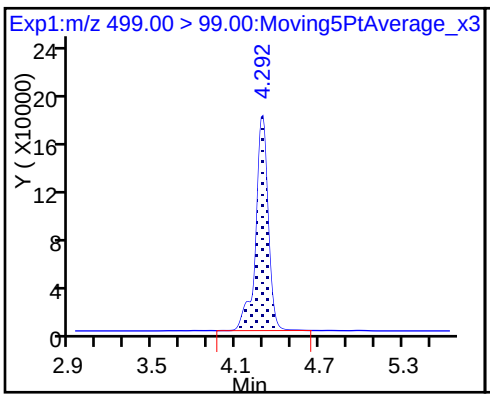
D 18 13C4 PFOS



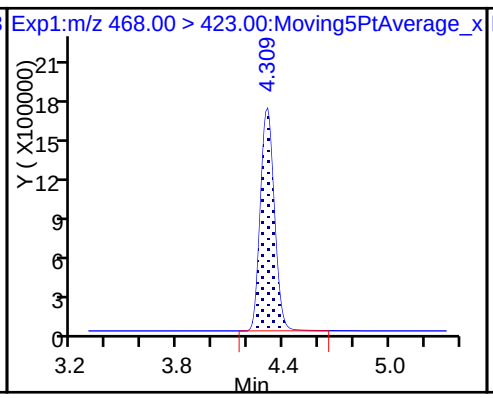
17 Perfluorooctane sulfonic acid



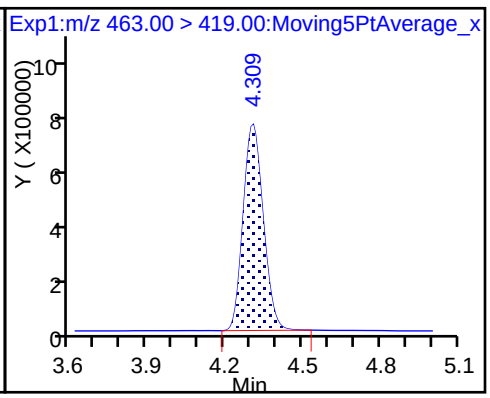
17 Perfluorooctane sulfonic acid



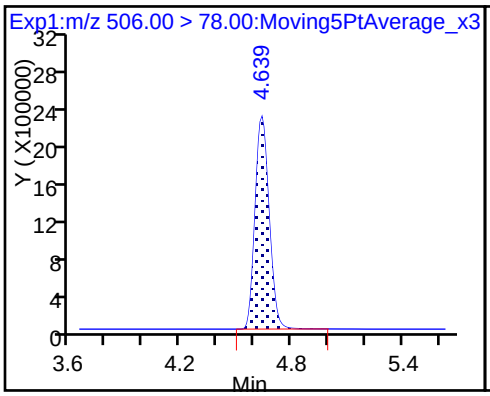
D 19 13C5 PFNA



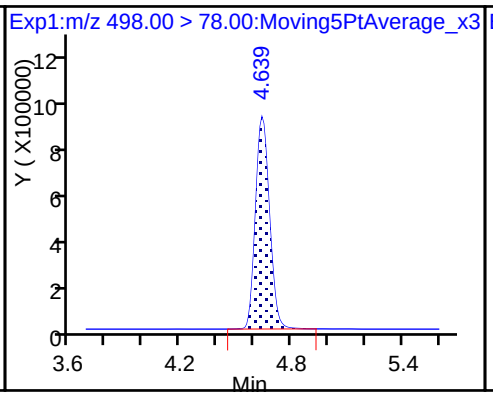
20 Perfluorononanoic acid



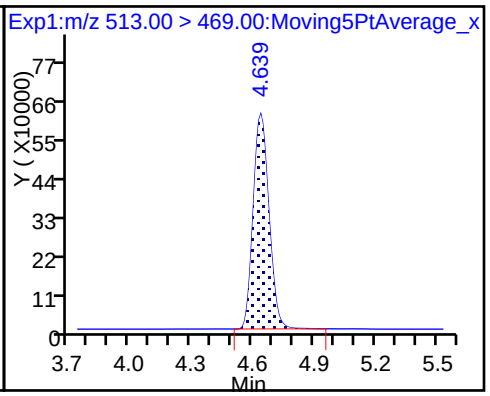
D 21 13C8 FOSA



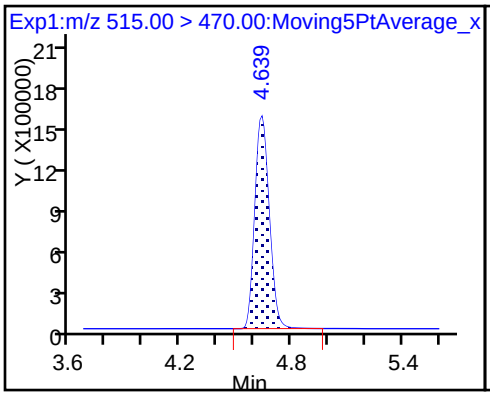
22 Perfluorooctane Sulfonamide



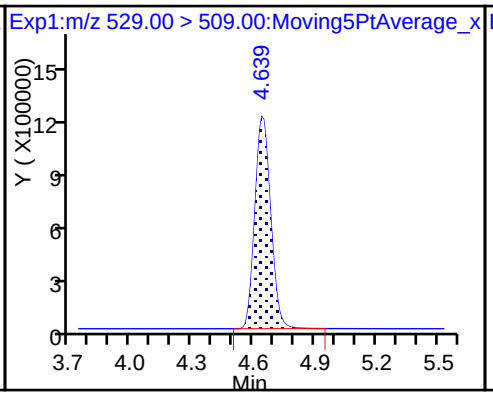
24 Perfluorodecanoic acid



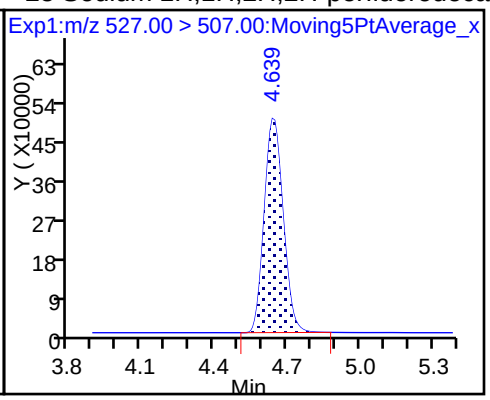
D 23 13C2 PFDA



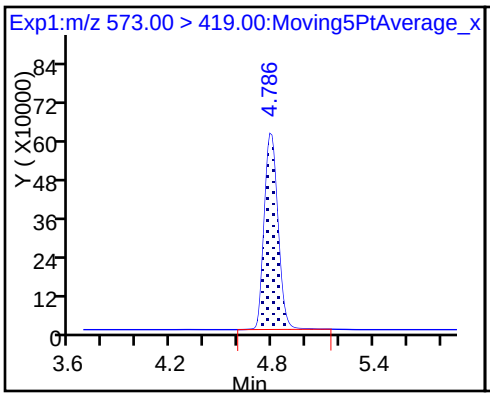
D 26 M2-8:2FTS



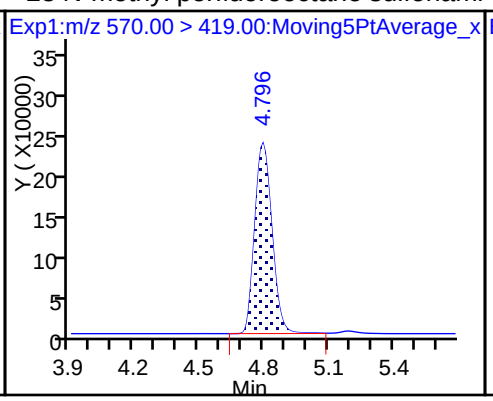
25 Sodium 1H,1H,2H,2H-perfluorodecane



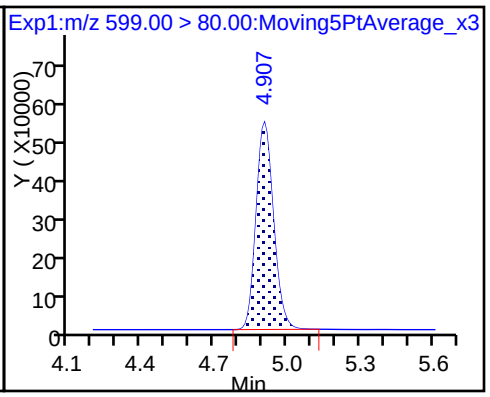
D 27 d3-NMeFOSAA



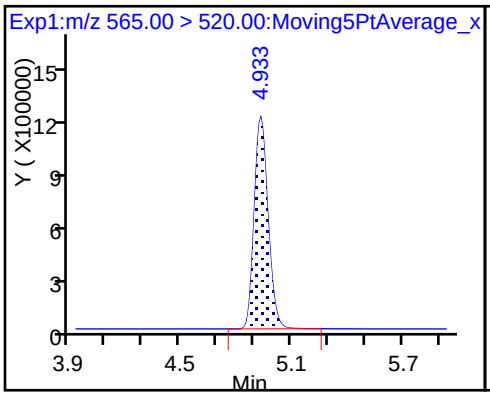
28 N-methyl perfluorooctane sulfonami



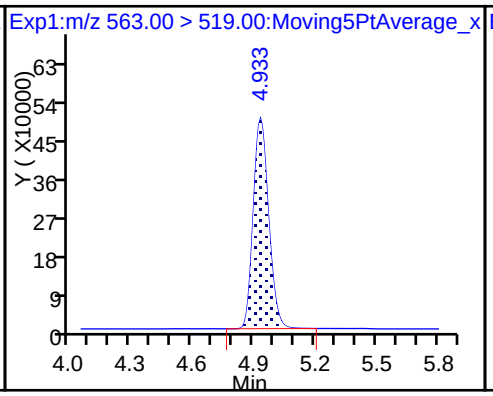
29 Perfluorodecane Sulfonic acid



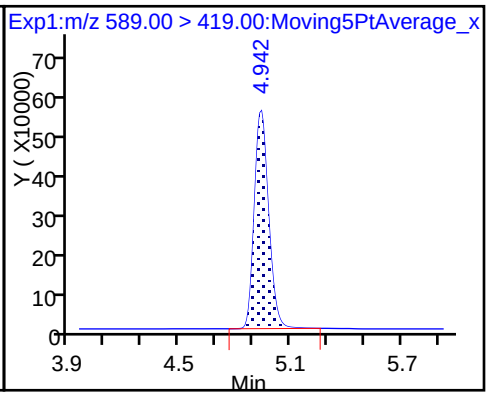
D 30 13C2 PFUnA



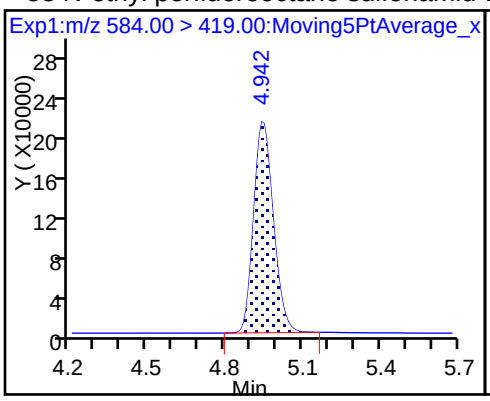
31 Perfluoroundecanoic acid



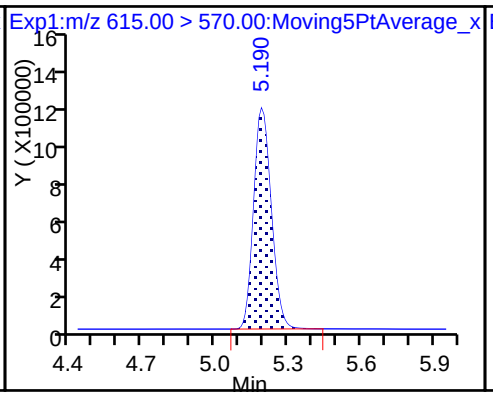
D 32 d5-NEtFOSAA



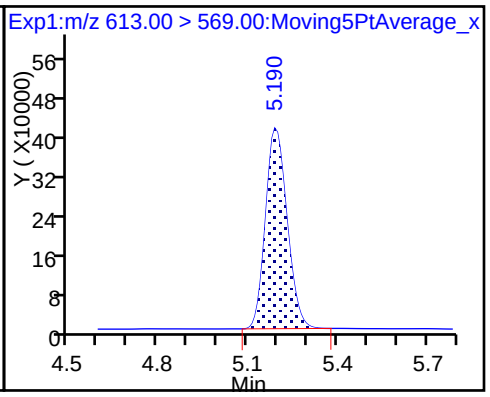
33 N-ethyl perfluorooctane sulfonamid



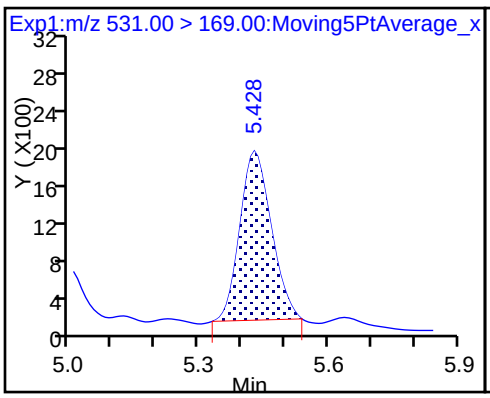
D 36 13C2 PFDoA



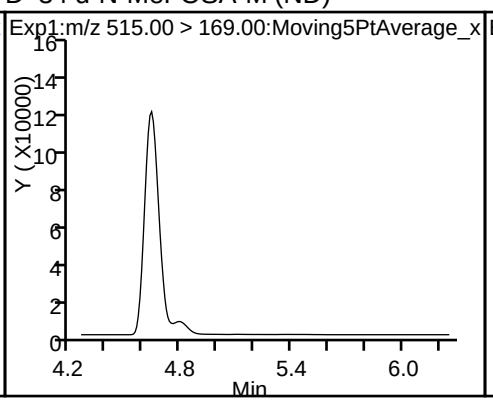
37 Perfluorododecanoic acid



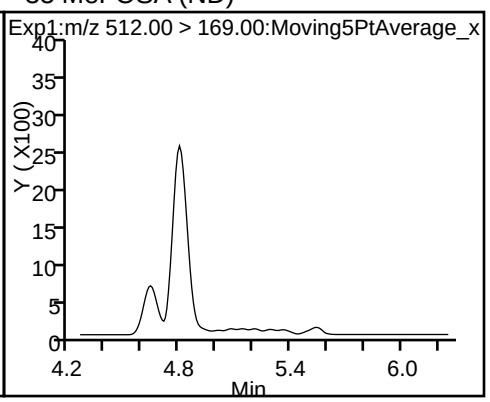
D 38 d-N-EtFOSA-M



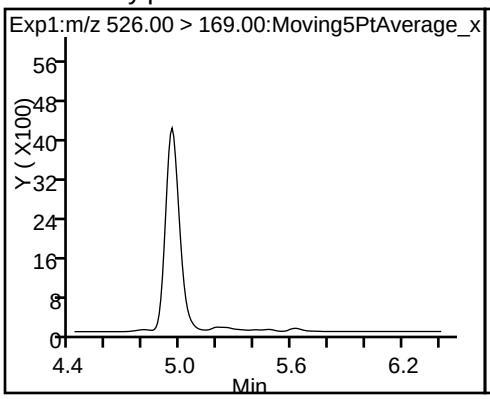
D 34 d-N-MeFOSA-M (ND)



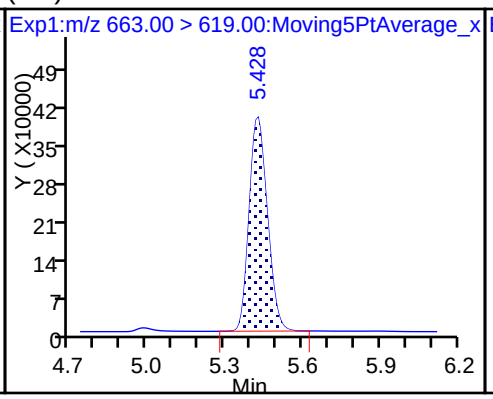
35 MeFOSA (ND)



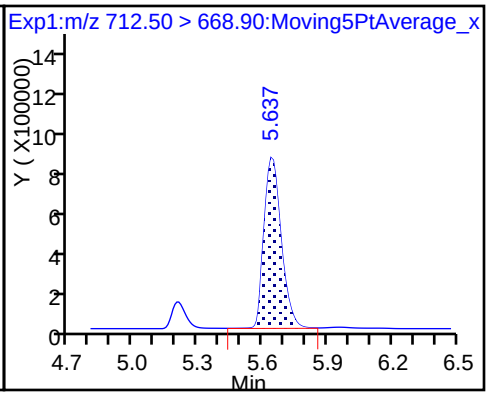
39 N-ethylperfluoro-1-octanesulfonami (ND)



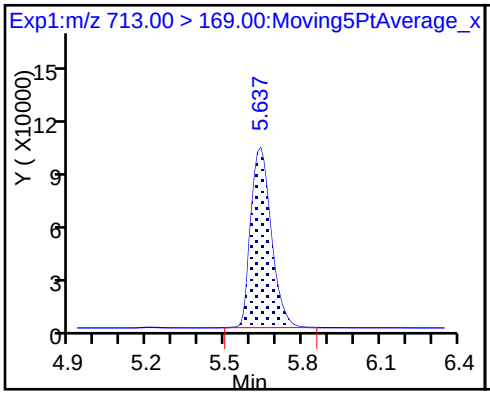
41 Perfluorotridecanoic acid



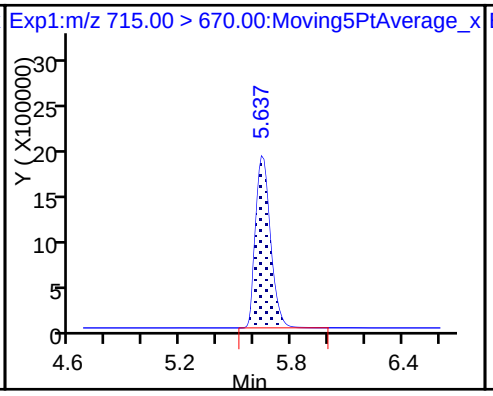
42 Perfluorotetradecanoic acid



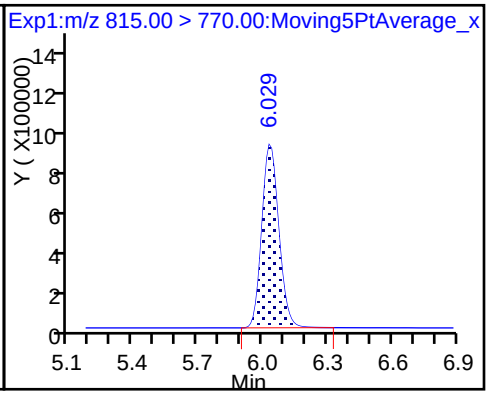
42 Perfluorotetradecanoic acid



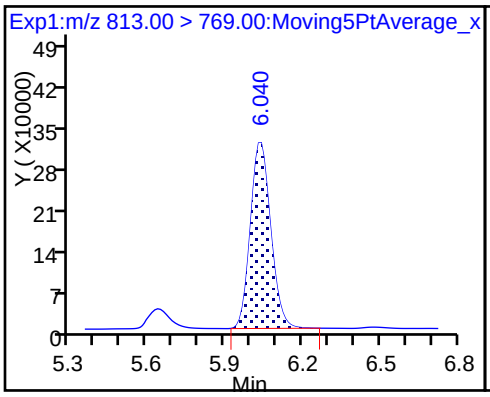
D 43 13C2-PFTeDA



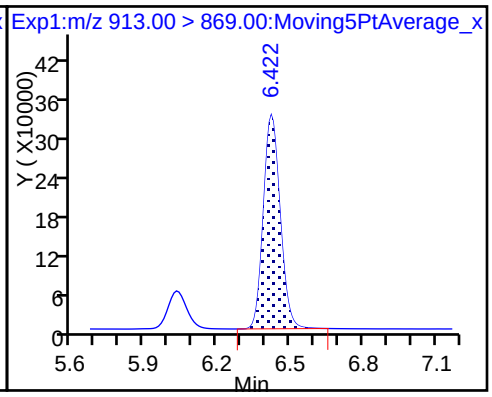
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 320-170613/2-A

Matrix: Water | Lab File ID: 2017.06.28B_029.d

Analysis Method: 537 (Modified) | Date Collected:

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 250(mL) | Date Analyzed: 06/29/2017 02:33

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	41.8		2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	55.9	Q	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	42.0		2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	123		25-150
STL00991	13C4 PFOS	101		25-150
STL00994	18O2 PFHxS	106		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_029.d
Lims ID: LCS 320-170613/2-A
Client ID:
Sample Type: LCS
Inject. Date: 29-Jun-2017 02:33:06 ALS Bottle#: 24 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: lcs 320-170613/2-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

First Level Reviewer: barnettj Date: 29-Jun-2017 16:49:42

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.527	1.533	-0.006	1.000	5474994	23.2		116	1320	
D 1 13C4 PFBA										
217.00 > 172.00	1.527	1.533	-0.006		13112977	56.0		112	22899	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.727	1.742	-0.015	1.000	4137801	21.3		107	1876	
D 3 13C5-PFPeA										
267.90 > 223.00	1.727	1.742	-0.015		9420531	58.6		117	27159	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.753	1.760	-0.007	1.000	6629462	21.0		119	3204	
298.90 > 99.00	1.753	1.760	-0.007	1.000	2732028		2.43(0.00-0.00)		3388	
D 47 13C3-PFBS										
301.90 > 83.00	1.744	1.760	-0.016		241518	NC			6259	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.937	1.958	-0.021	1.000	1682771	16.6		88.8	14286	
D 7 13C2 PFHxA										
315.00 > 270.00	1.982	1.992	-0.010		8667756	56.5		113	36455	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.982	2.003	-0.021	1.000	3763294	21.4		107	3419	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.291	2.312	-0.021	1.000	4035536	21.2		106	3532	
D 9 13C4-PFHpA										
367.00 > 322.00	2.291	2.312	-0.021		8927852	65.2		130	16754	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.308	2.329	-0.021	1.000	5012732	20.0		110	2733	
D 11 18O2 PFHxS										
403.00 > 84.00	2.308	2.329	-0.021		10708114	50.3		106	31111	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.612	2.634	-0.022	1.000	1929000	18.3		96.6	12404	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.612	2.634	-0.022		5073843	69.7		147	20303	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.642	2.663	-0.021	1.000	3543435	20.9		104	951	
413.00 > 169.00	2.642	2.663	-0.021	1.000	2044360		1.73(0.90-1.10)		4664	
D 14 13C4 PFOA										
417.00 > 372.00	2.634	2.663	-0.029		7999589	61.3		123	16177	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.642	2.671	-0.029	1.000	4828705	25.6		134	12896	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.008	3.026	-0.018	1.000	4808565	28.0		151	7493	
499.00 > 99.00	3.008	3.026	-0.018	1.000	1075671		4.47(0.90-1.10)		4858	
D 18 13C4 PFOS										
503.00 > 80.00	3.008	3.026	-0.018		7839253	48.2		101	12014	
D 19 13C5 PFNA										
468.00 > 423.00	3.008	3.026	-0.018		5934988	56.5		113	12618	
20 Perfluorononanoic acid										
463.00 > 419.00	3.008	3.026	-0.018	1.000	2526860	21.5		107	4215	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.370	3.379	-0.009	1.000	2843650	21.8		109	1598	
D 21 13C8 FOSA										
506.00 > 78.00	3.370	3.379	-0.009		6682331	25.3		50.6	38421	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.351	3.379	-0.028	1.000	1246562	18.6		97.3	14351	
D 26 M2-8:2FTS										
529.00 > 509.00	3.351	3.379	-0.028		3207772	56.7		118	28582	
D 23 13C2 PFDA										
515.00 > 470.00	3.370	3.388	-0.018		5118423	51.2		102	23529	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.370	3.388	-0.018	1.000	2118925	21.5		107	9766	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.516	3.542	-0.026		2018261	54.5		109	12069	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.525	3.542	-0.017	1.002	784566	18.6		93.2	3401	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.681	3.700	-0.019	1.000	2192509	21.0		109	12075	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.691	3.710	-0.019		1841105	49.8		99.7	4941	
D 30 13C2 PFUnA										
565.00 > 520.00	3.700	3.710	-0.010		3974007	53.5		107	15011	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.700	3.710	-0.010	1.000	1784317	21.1		105	3634	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.700	3.720	-0.020	1.003	686400	19.1		95.6	6107	
D 36 13C2 PFDoA										
615.00 > 570.00	3.987	4.008	-0.021		3666228	49.9		99.9	11631	
37 Perfluorododecanoic acid										
613.00 > 569.00	3.987	4.008	-0.021	1.000	1480069	21.2		106	3523	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.253	4.273	-0.020	1.000	1616563	22.7		114	482	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.494	4.510	-0.016		7372405	48.7		97.3	58336	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.494	4.510	-0.016	1.000	3090661	18.1		90.3	1075	
713.00 > 169.00	4.485	4.510	-0.025	0.998	402303		7.68(0.00-0.00)		8012	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.901	4.922	-0.021		2693237	32.1		64.2	2112	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.901	4.922	-0.021	1.000	1103886	14.3		71.5	221	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.244	5.265	-0.021	1.000	1005064	12.7		63.6	225	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 29-Jun-2017 17:01:15 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_029.d

Injection Date: 29-Jun-2017 02:33:06 Instrument ID: A8_N

Lims ID: LCS 320-170613/2-A

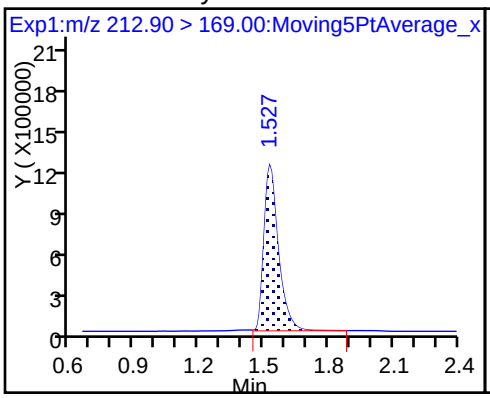
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 24 Worklist Smp#: 3

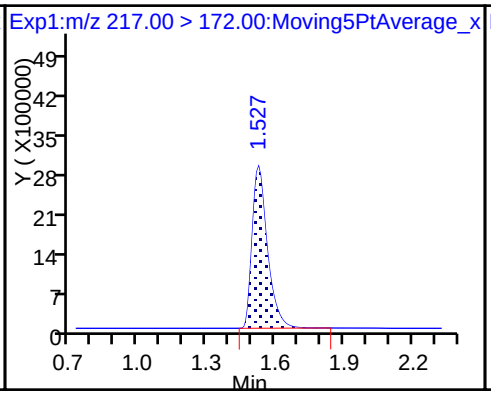
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

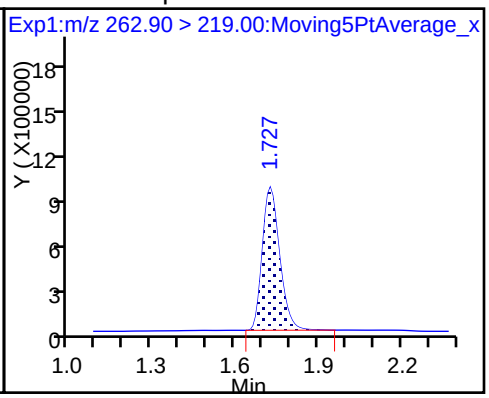
2 Perfluorobutyric acid



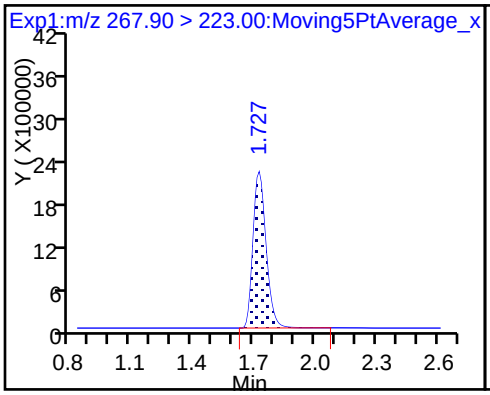
D 1 13C4 PFBA



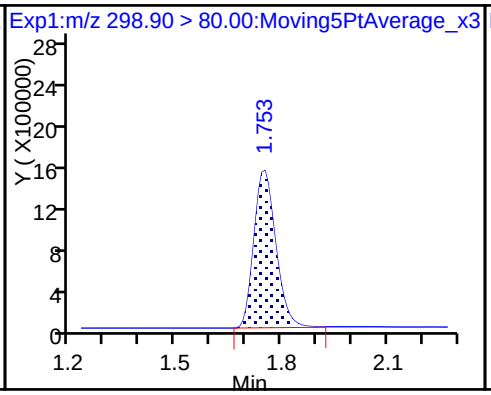
4 Perfluoropentanoic acid



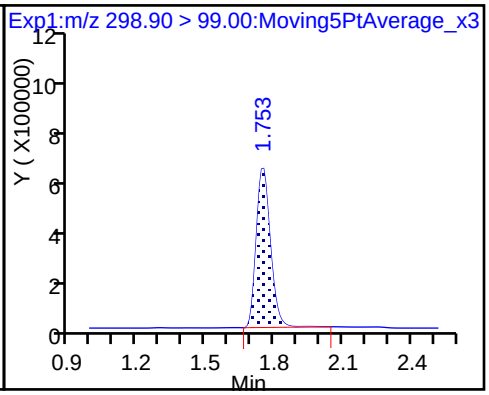
D 3 13C5-PFPeA



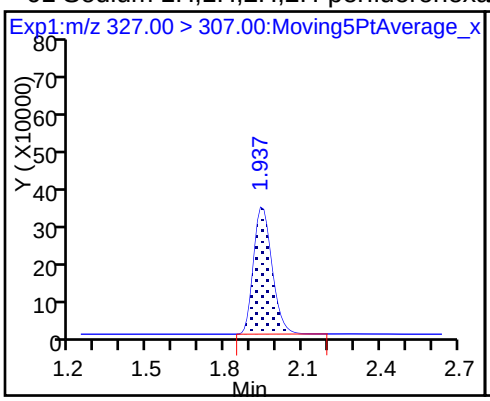
5 Perfluorobutanesulfonic acid



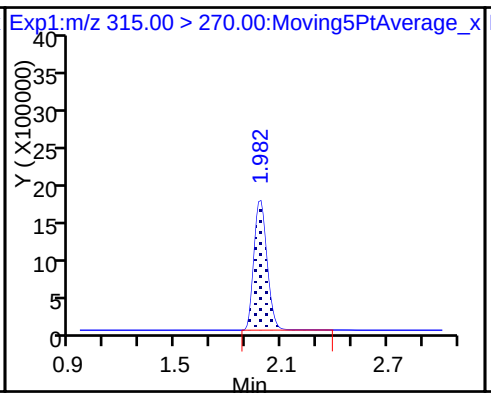
5 Perfluorobutanesulfonic acid



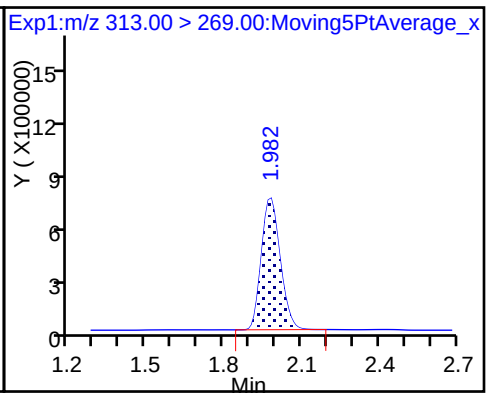
61 Sodium 1H,1H,2H,2H-perfluorohexa



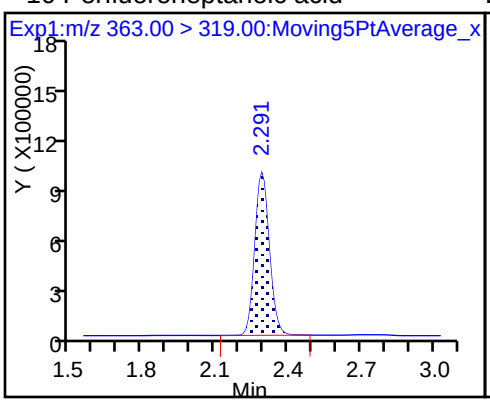
D 7 13C2 PFHxA



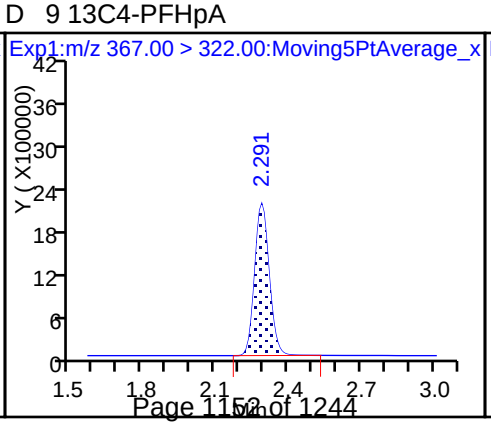
6 Perfluorohexanoic acid



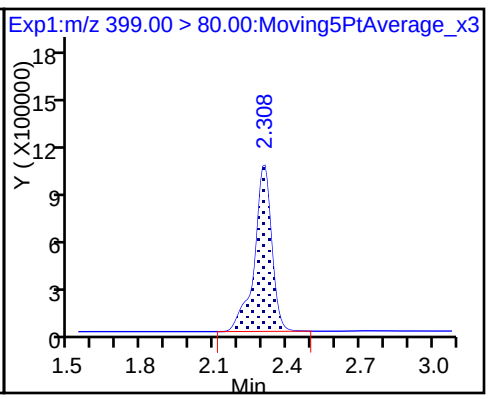
10 Perfluoroheptanoic acid



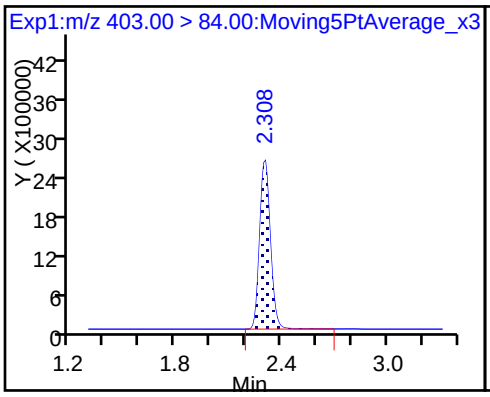
D 9 13C4-PFHpA



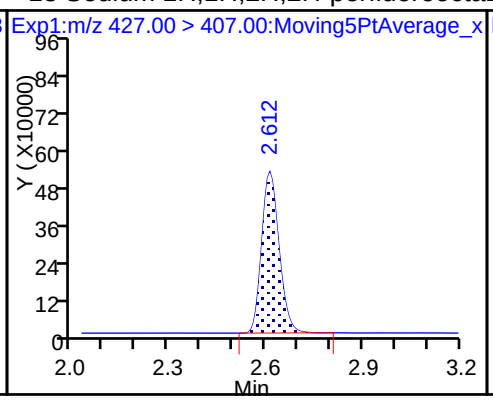
8 Perfluorohexanesulfonic acid



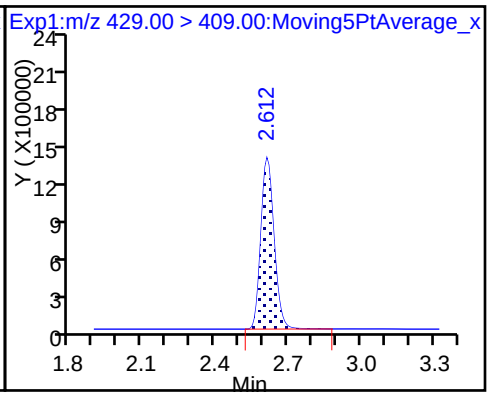
D 11 18O2 PFHxS



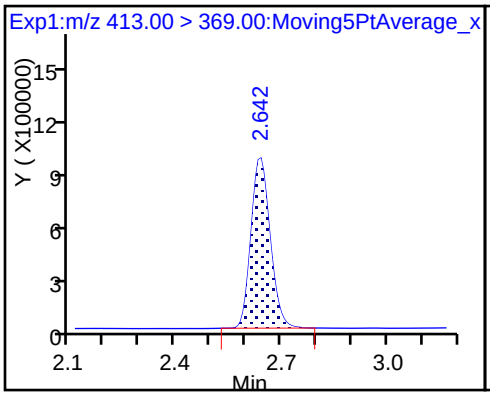
13 Sodium 1H,1H,2H,2H-perfluorooctane



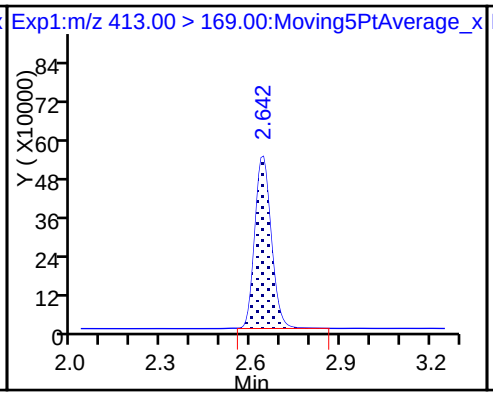
D 12 M2-6:2FTS



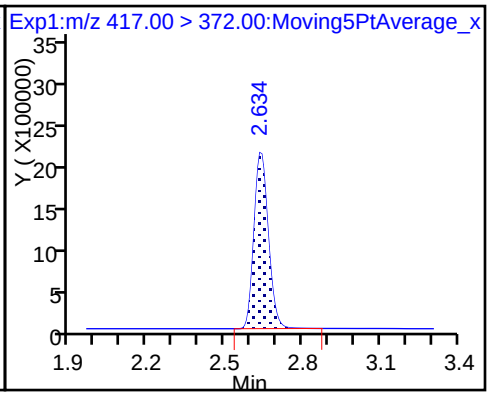
15 Perfluorooctanoic acid



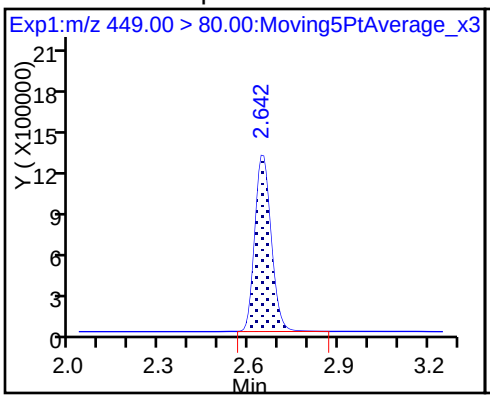
15 Perfluorooctanoic acid



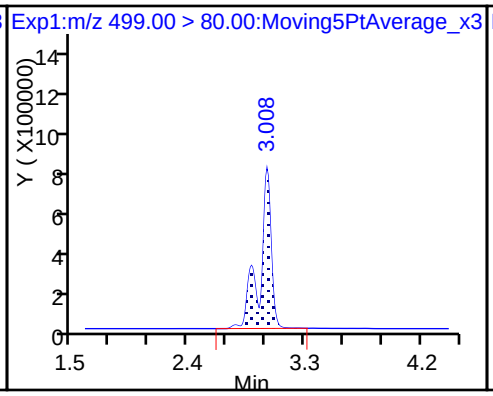
D 14 13C4 PFOA



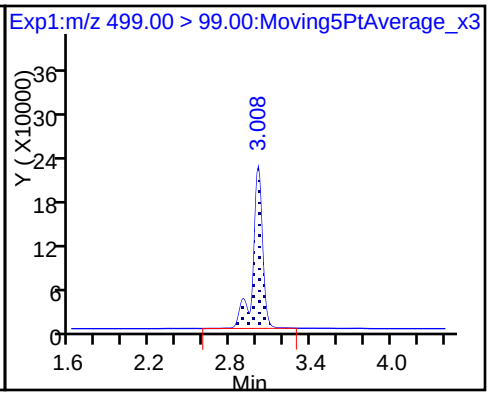
16 Perfluoroheptanesulfonic Acid



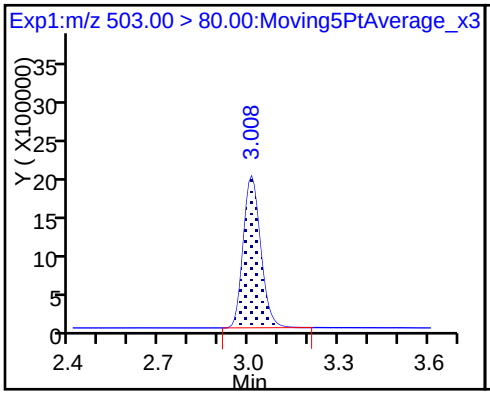
17 Perfluorooctane sulfonic acid



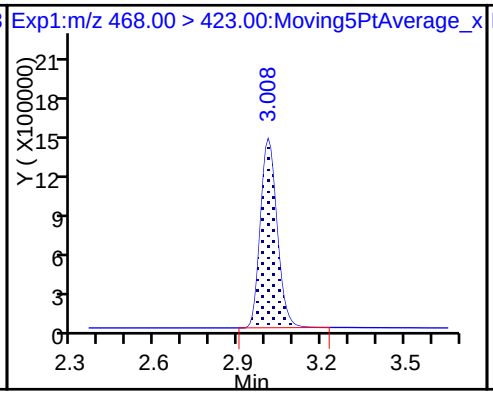
17 Perfluorooctane sulfonic acid



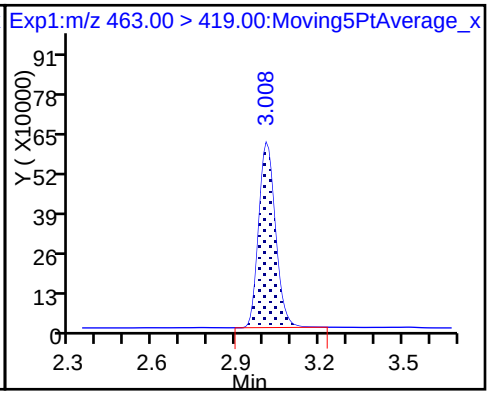
D 18 13C4 PFOS



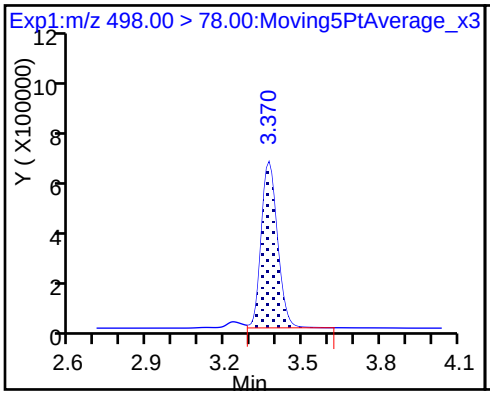
D 19 13C5 PFNA



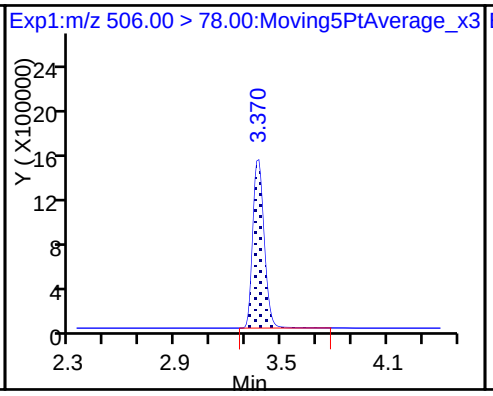
20 Perfluorononanoic acid



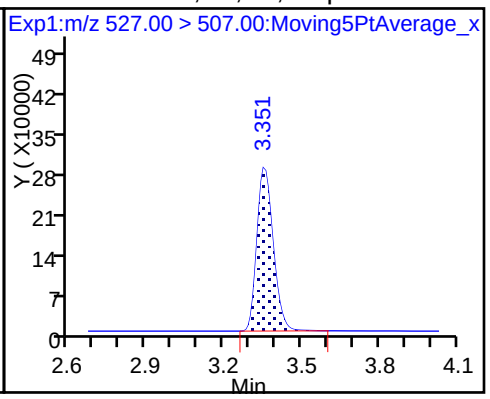
22 Perfluorooctane Sulfonamide



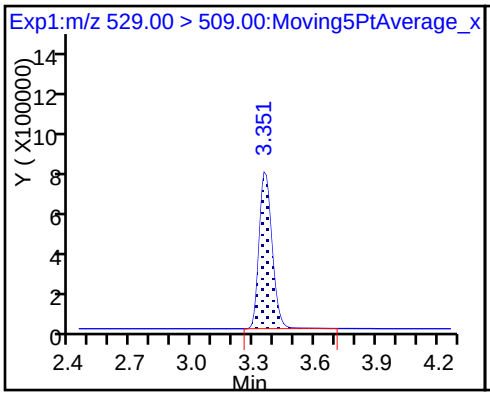
D 21 13C8 FOSA



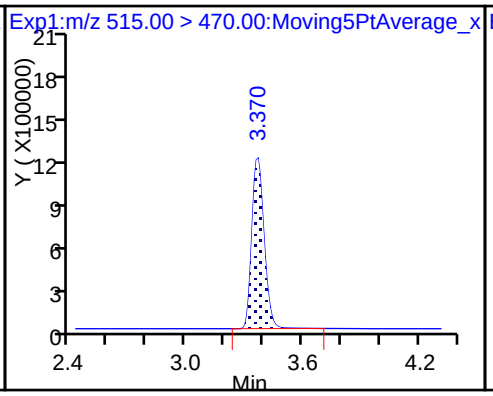
25 Sodium 1H,1H,2H,2H-perfluorodecane



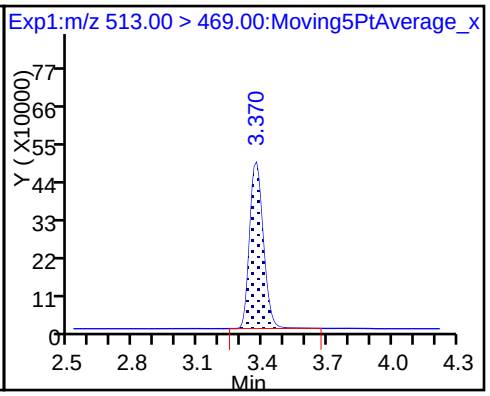
D 26 M2-8:2FTS



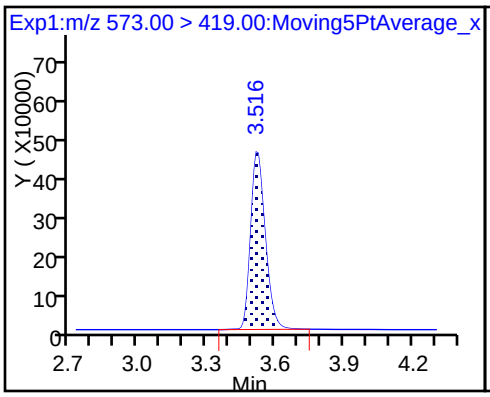
D 23 13C2 PFDA



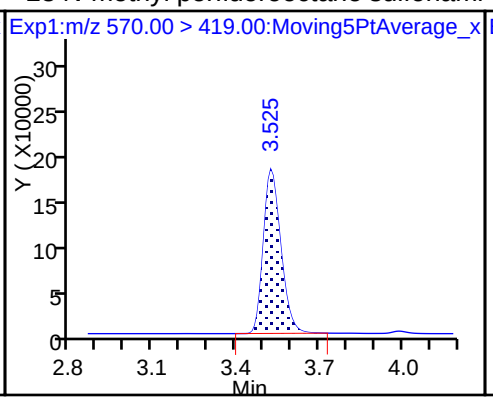
24 Perfluorodecanoic acid



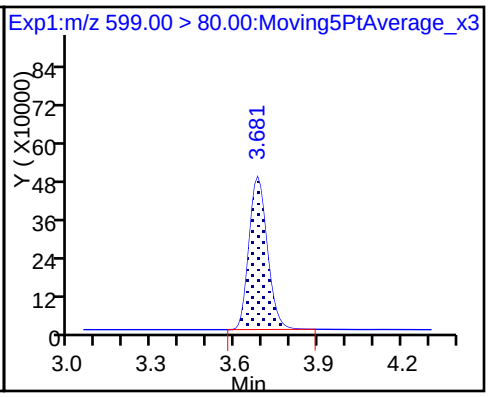
D 27 d3-NMeFOSAA



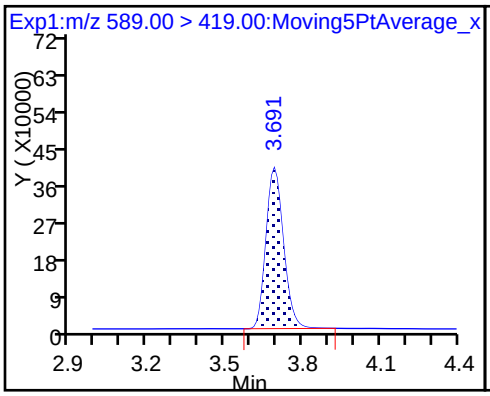
28 N-methyl perfluorooctane sulfonami



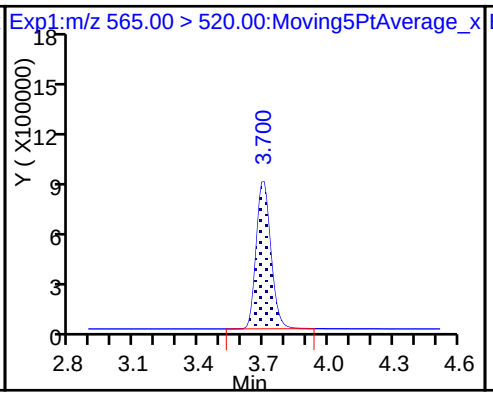
29 Perfluorodecane Sulfonic acid



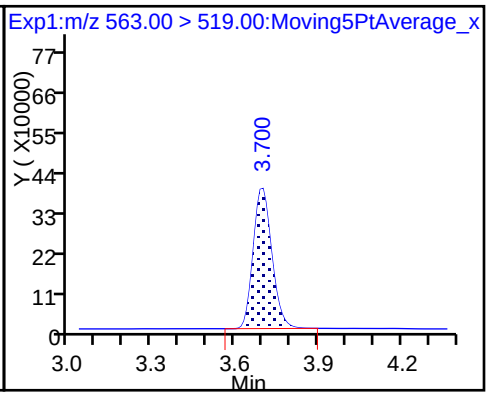
D 32 d5-NEtFOSAA



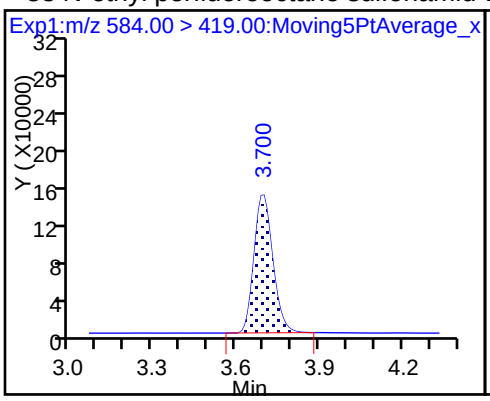
D 30 13C2 PFUnA



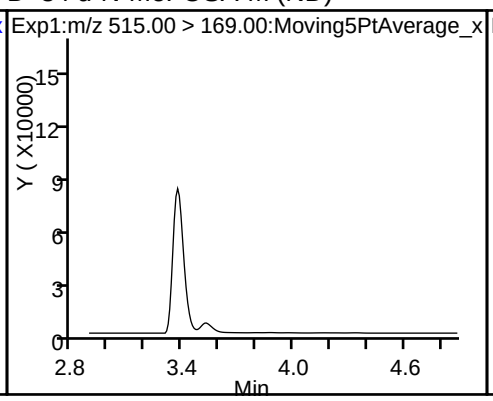
31 Perfluoroundecanoic acid



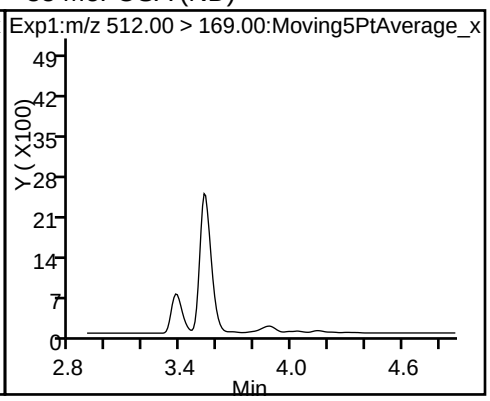
33 N-ethyl perfluorooctane sulfonamid



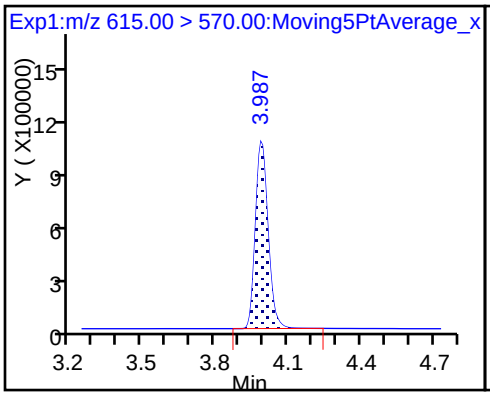
D 34 d-N-MeFOSA-M (ND)



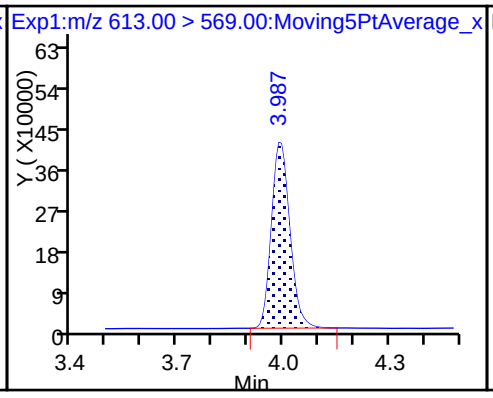
35 MeFOSA (ND)



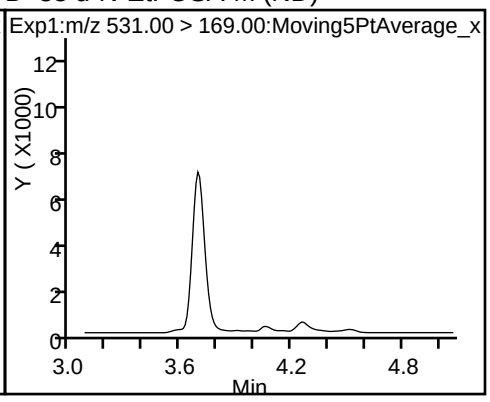
D 36 13C2 PFDoA



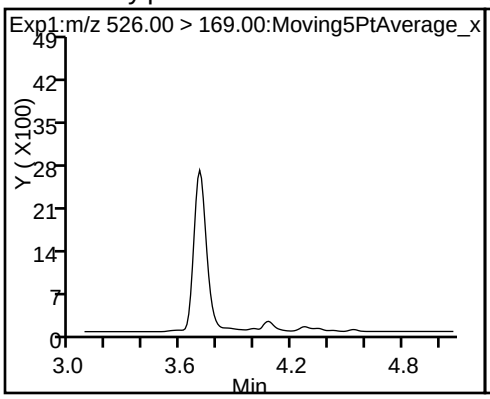
37 Perfluorododecanoic acid



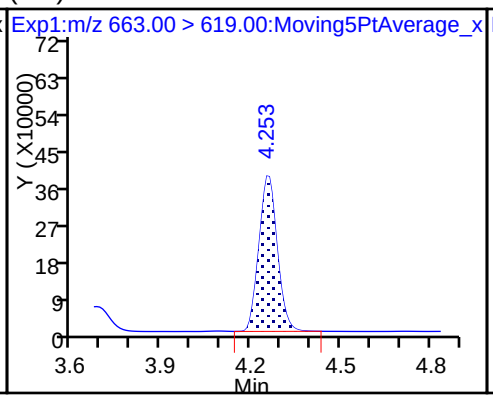
D 38 d-N-EtFOSA-M (ND)



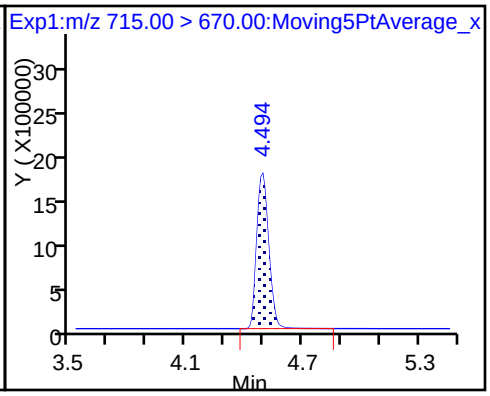
39 N-ethylperfluoro-1-octanesulfonami (ND)



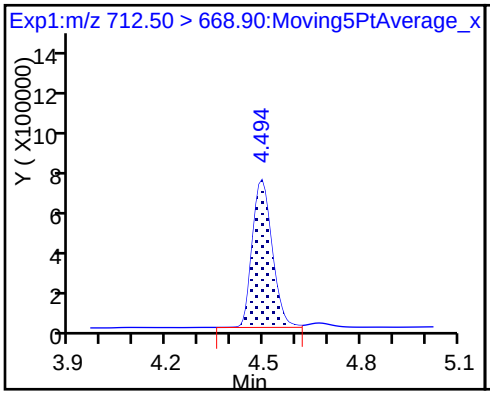
41 Perfluorotridecanoic acid



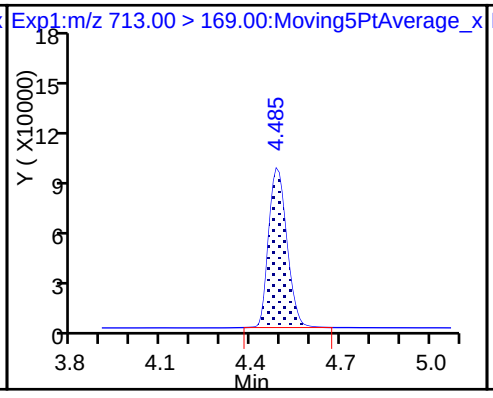
D 43 13C2-PFTeDA



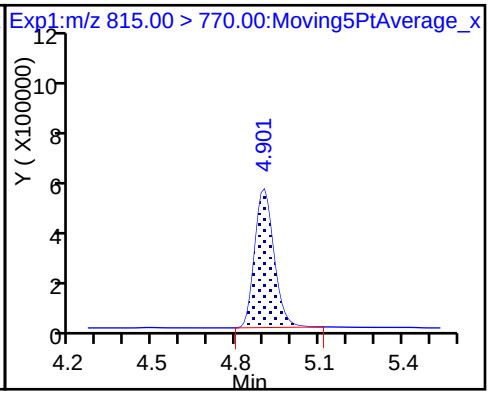
42 Perfluorotetradecanoic acid



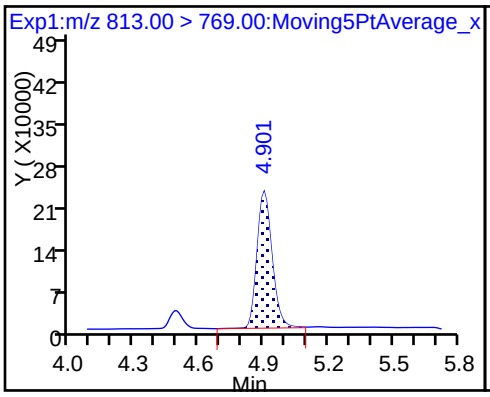
42 Perfluorotetradecanoic acid



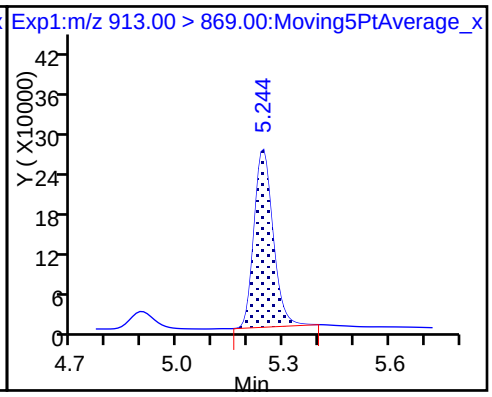
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 320-173923/2-A

Matrix: Water | Lab File ID: 20170714D_002.d

Analysis Method: 537 (Modified) | Date Collected:

Extraction Method: 3535 | Date Extracted: 07/13/2017 09:26

Sample wt/vol: 250(mL) | Date Analyzed: 07/15/2017 03:12

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	39.1		2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	34.7		4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	35.6		2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	125		25-150
STL00991	13C4 PFOS	122		25-150
STL00994	18O2 PFHxS	124		25-150

Report Date: 17-Jul-2017 14:31:46 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_002.d
Lims ID: LCS 320-173923/2-A
Client ID:
Sample Type: LCS
Inject. Date: 15-Jul-2017 03:12:11 ALS Bottle#: 2 Worklist Smp#: 3
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: lcs 320-173923/2-a
Misc. Info.: Plate: 1 Rack: 4
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 17-Jul-2017 14:31:39 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK010

First Level Reviewer: barnettj Date: 17-Jul-2017 14:02:17

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.528	1.538	-0.010		10158196	58.6		117	24738	
2 Perfluorobutyric acid										
212.90 > 169.00	1.536	1.539	-0.003	1.000	3908130	21.0		105	1499	
D 3 13C5-PFPeA										
267.90 > 223.00	1.736	1.748	-0.012		6827196	52.9		106	41997	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.736	1.749	-0.013	1.000	2923107	21.0		105	1802	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.763	1.775	-0.012	1.000	5346100	17.8		101	3780	
298.90 > 99.00	1.763	1.775	-0.012	1.000	2032956		2.63(0.00-0.00)		3068	
D 47 13C3-PFBS										
301.90 > 83.00	1.754	1.929	-0.175		179177	NC			6996	
D 7 13C2 PFHxA										
315.00 > 270.00	1.994	2.017	-0.023		7050901	54.9		110	34971	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.994	2.017	-0.023	1.000	2554986	19.0		94.9	4711	
D 9 13C4-PFHpA										
367.00 > 322.00	2.306	2.341	-0.035		7342684	63.1		126	27610	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.306	2.341	-0.035	1.000	2865479	19.5		97.5	3489	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.322	2.357	-0.035	1.000	3628161	17.7		97.0	2585	
D 11 18O2 PFHxS										
403.00 > 84.00	2.322	2.357	-0.035		9448259	58.9		124	33574	
D 14 13C4 PFOA										
417.00 > 372.00	2.652	2.698	-0.046		6619113	62.4		125	24447	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.652	2.700	-0.048	1.000	2769550	19.6		97.8	873	
413.00 > 169.00	2.652	2.700	-0.048	1.000	1625182		1.70(0.90-1.10)		4692	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.659	2.706	-0.047	1.000	3221865	19.7		103	21404	
D 18 13C4 PFOS										
503.00 > 80.00	3.022	3.071	-0.049		6703637	58.3		122	22492	
20 Perfluorononanoic acid										
463.00 > 419.00	3.022	3.072	-0.050	1.000	2003656	19.9		99.3	5335	
D 19 13C5 PFNA										
468.00 > 423.00	3.022	3.072	-0.050		5149375	61.1		122	16224	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.022	3.072	-0.050	1.000	2666339	17.3		93.4	8851	
499.00 > 99.00	3.022	3.072	-0.050	1.000	585797		4.55(0.90-1.10)		5364	
D 21 13C8 FOSA										
506.00 > 78.00	3.372	3.401	-0.029		6370386	31.6		63.1	18682	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.372	3.405	-0.033	1.000	2322828	19.8		99.2	17873	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.380	3.435	-0.055	1.000	2271884	20.8		104	13609	
D 23 13C2 PFDA										
515.00 > 470.00	3.380	3.435	-0.055		5742617	75.8		152	17312	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.698	3.749	-0.051	1.000	1738280	18.3		94.8	10562	
D 30 13C2 PFUnA										
565.00 > 520.00	3.708	3.768	-0.060		3567215	61.8		124	10078	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.708	3.768	-0.060	1.000	1372714	18.9		94.7	3788	
D 36 13C2 PFDoA										
615.00 > 570.00	4.009	4.061	-0.052		3348653	56.7		113	7655	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.009	4.062	-0.053	1.000	1309695	20.7		103	4879	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.272	4.331	-0.059	1.000	1256220	20.7		104	373	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.514	4.571	-0.057		8733333	78.0		156	15342	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.514	4.573	-0.059	1.000	3383082	25.7		128	1825	
713.00 > 169.00	4.505	4.573	-0.068	0.998	419712		8.06(0.00-0.00)		9422	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.925	4.986	-0.061		3491764	51.3		103	3936	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.925	4.988	-0.063	1.000	1261255	18.3		91.7	273	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.266	5.344	-0.078	1.000	1078332	14.2		70.8	291	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 17-Jul-2017 14:31:46 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_002.d

Injection Date: 15-Jul-2017 03:12:11 Instrument ID: A8_N

Lims ID: LCS 320-173923/2-A

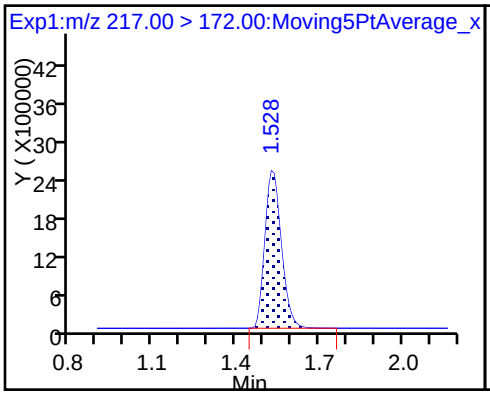
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 2 Worklist Smp#: 3

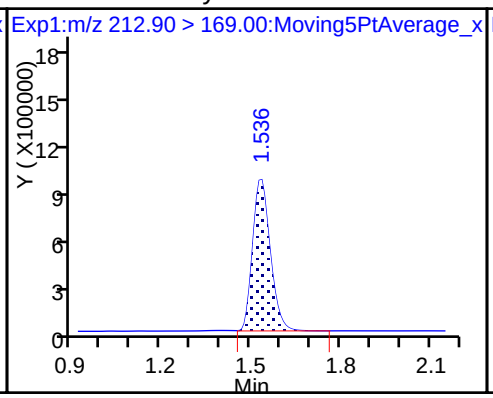
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

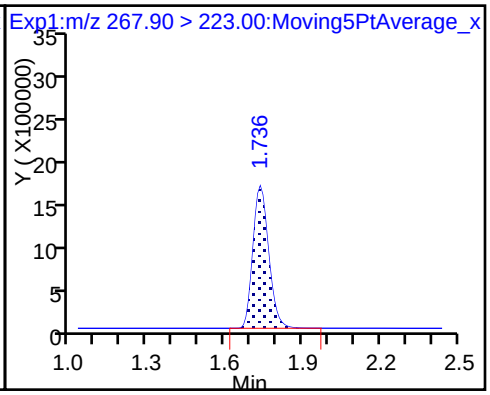
D 1 13C4 PFBA



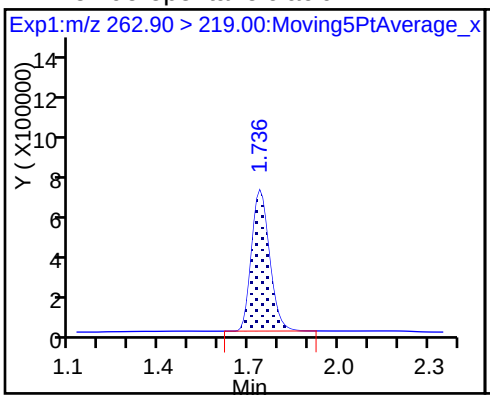
2 Perfluorobutyric acid



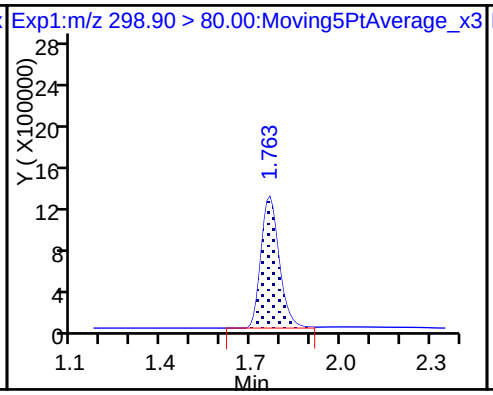
D 3 13C5-PFPeA



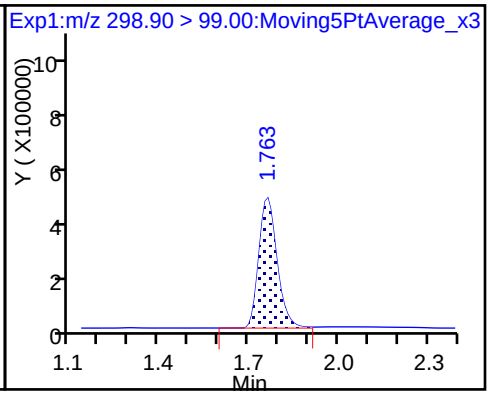
4 Perfluoropentanoic acid



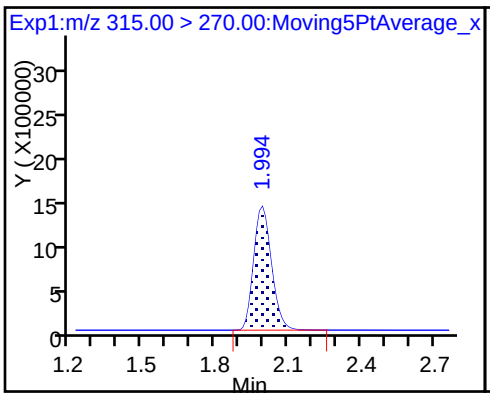
5 Perfluorobutanesulfonic acid



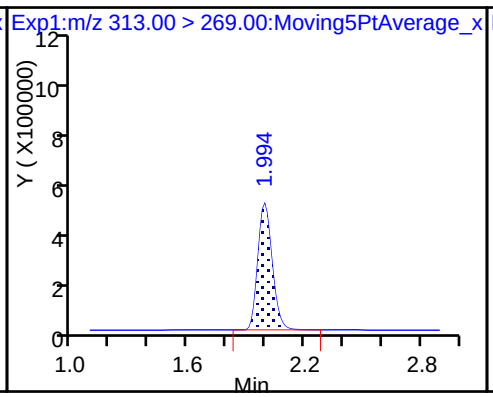
5 Perfluorobutanesulfonic acid



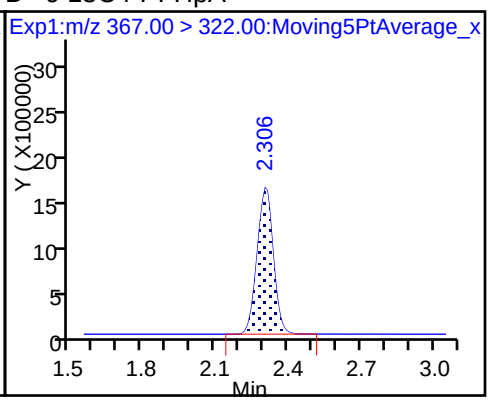
D 7 13C2 PFHxA



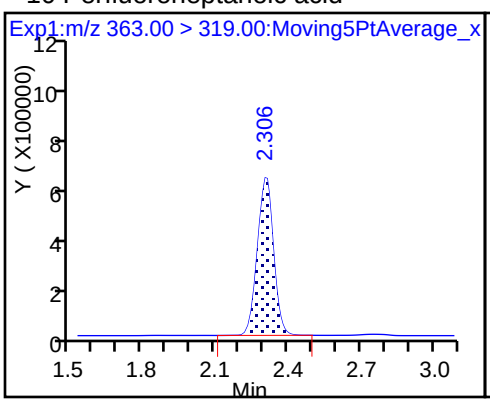
6 Perfluorohexanoic acid



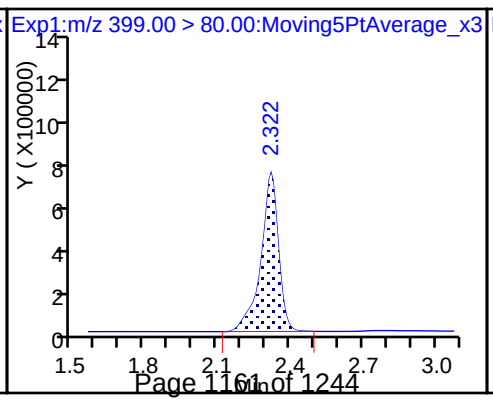
D 9 13C4-PFHpA



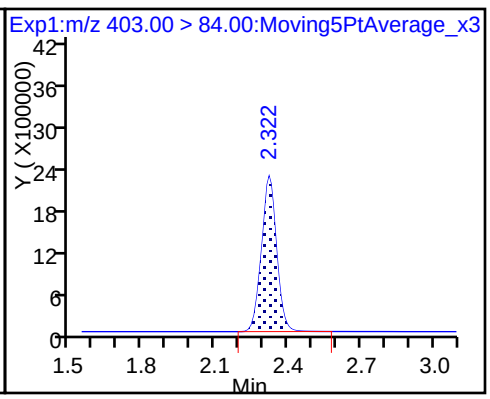
10 Perfluoroheptanoic acid



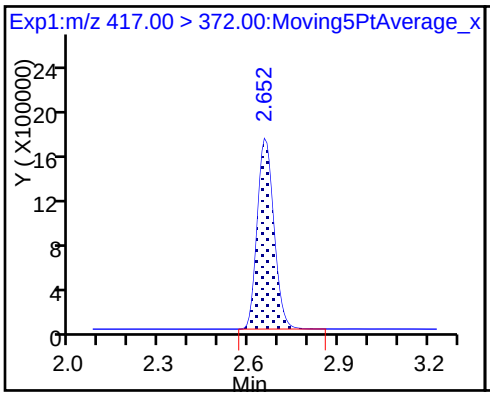
8 Perfluorohexanesulfonic acid



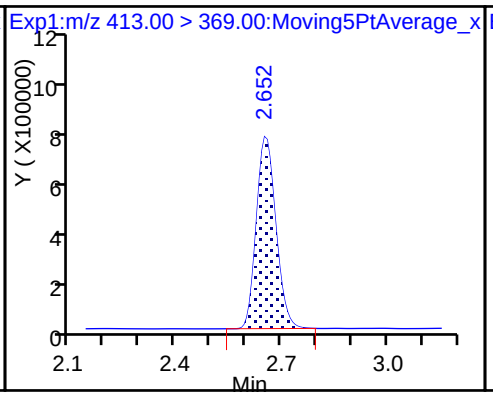
D 11 18O2 PFHxS



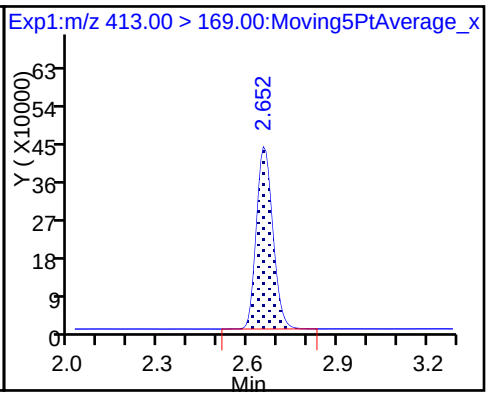
D 14 13C4 PFOA



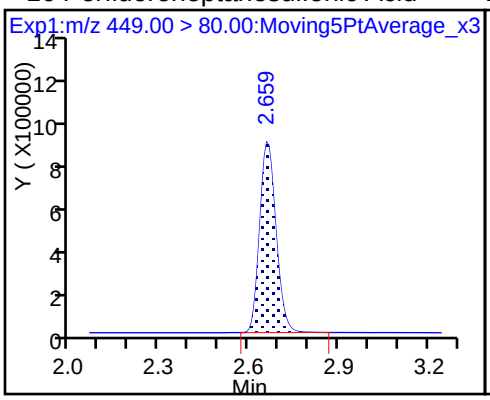
15 Perfluorooctanoic acid



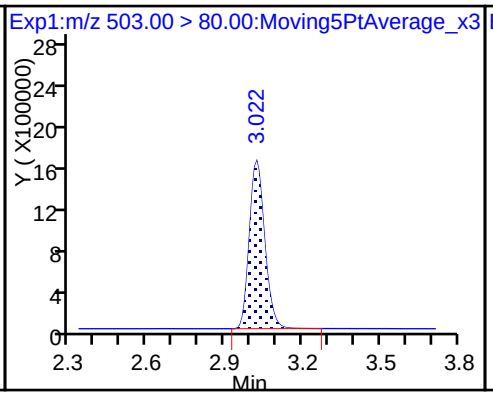
15 Perfluorooctanoic acid



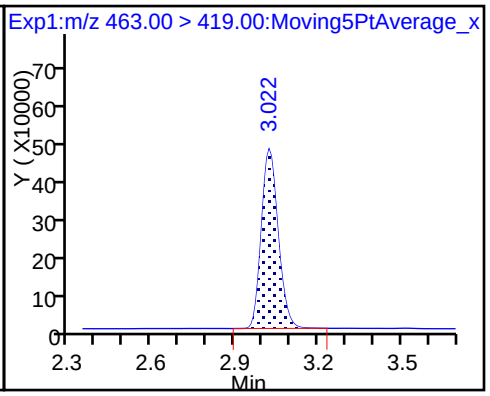
16 Perfluoroheptanesulfonic Acid



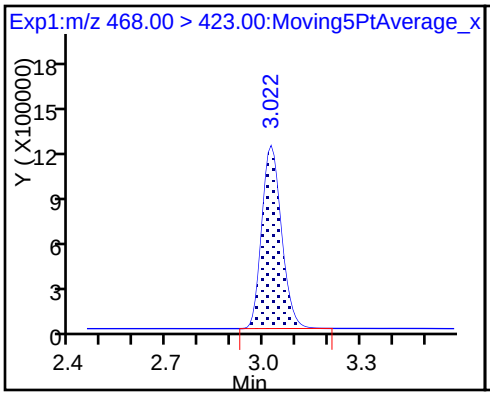
D 18 13C4 PFOS



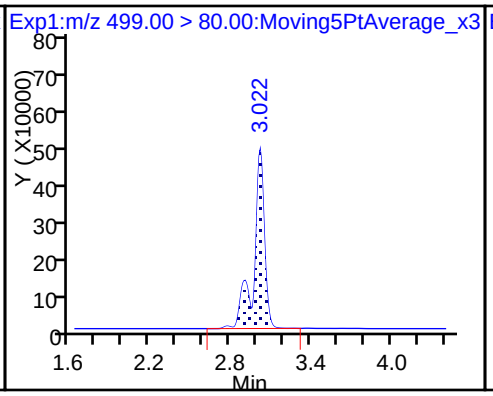
20 Perfluorononanoic acid



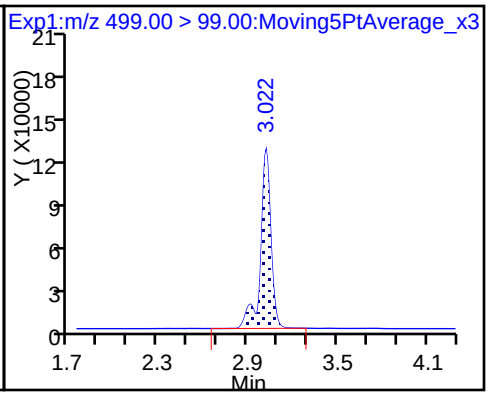
D 19 13C5 PFNA



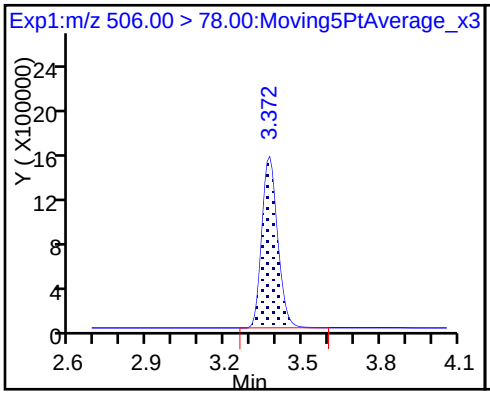
17 Perfluorooctane sulfonic acid



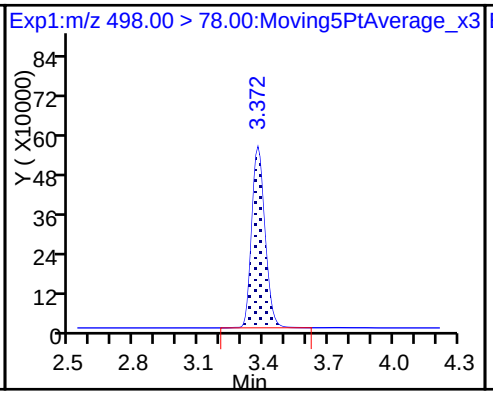
17 Perfluorooctane sulfonic acid



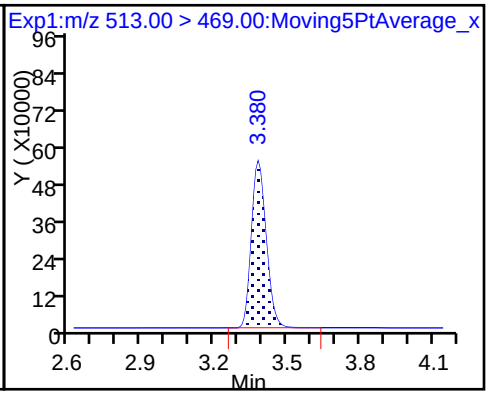
D 21 13C8 FOSA



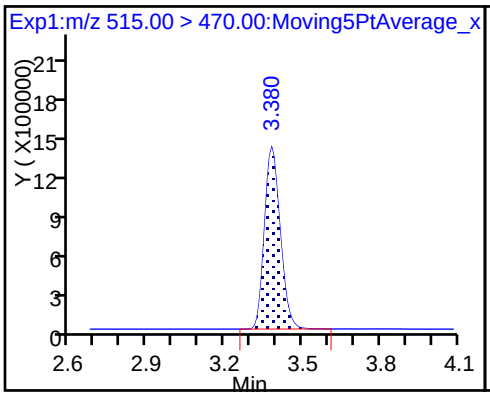
22 Perfluorooctane Sulfonamide



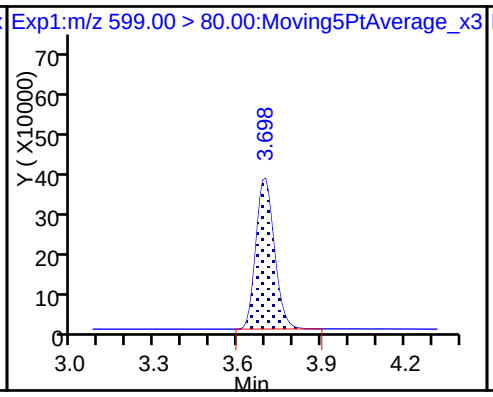
24 Perfluorodecanoic acid



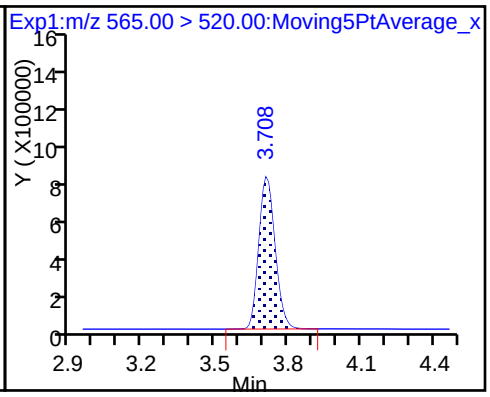
D 23 13C2 PFDA



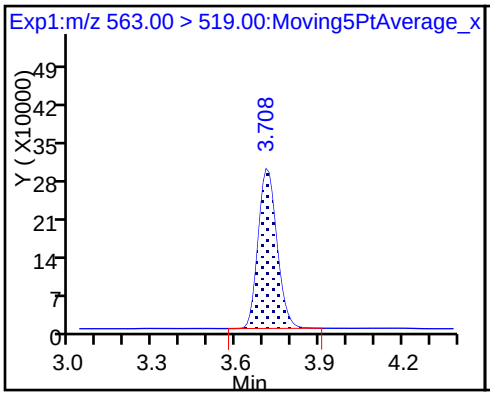
29 Perfluorodecane Sulfonic acid



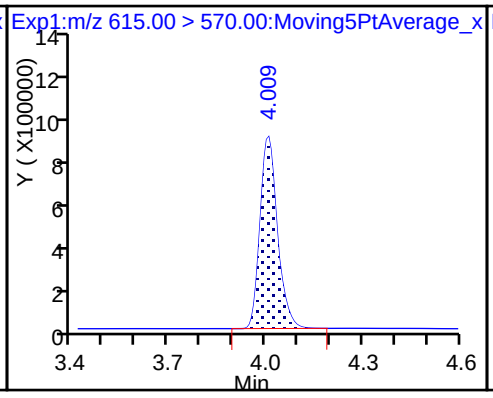
D 30 13C2 PFUnA



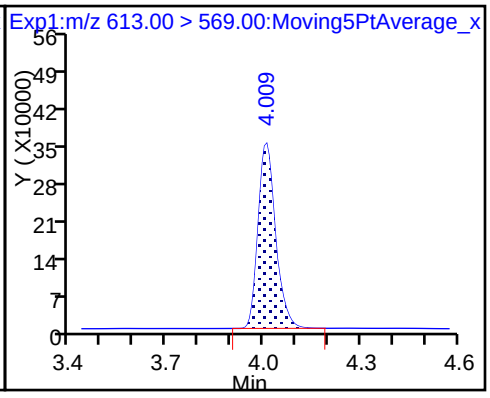
31 Perfluoroundecanoic acid



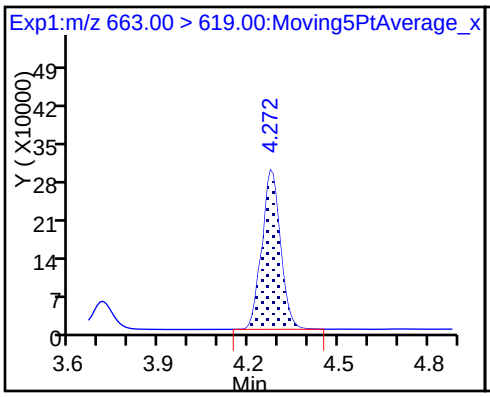
D 36 13C2 PFDoA



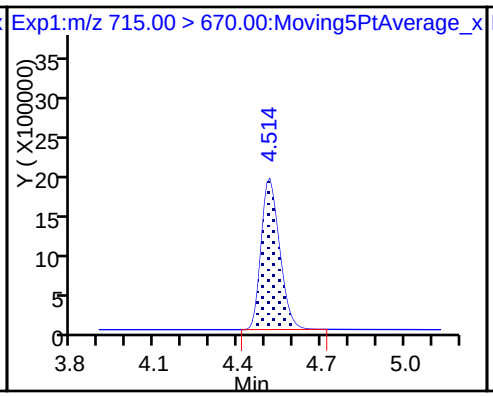
37 Perfluorododecanoic acid



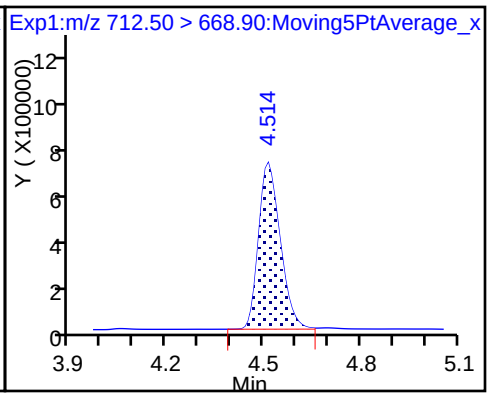
41 Perfluorotridecanoic acid



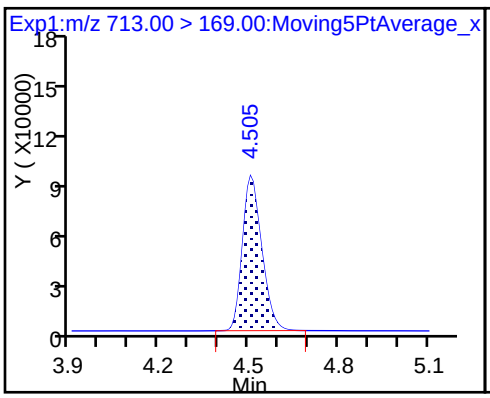
D 43 13C2-PFTeDA



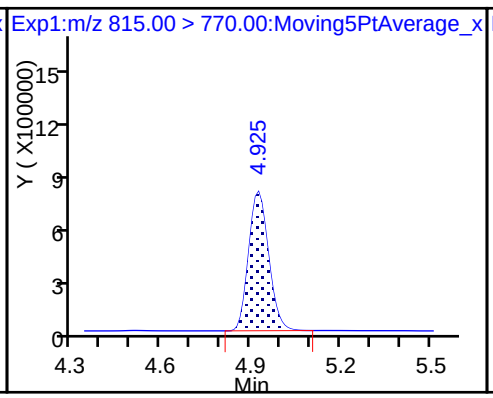
42 Perfluorotetradecanoic acid



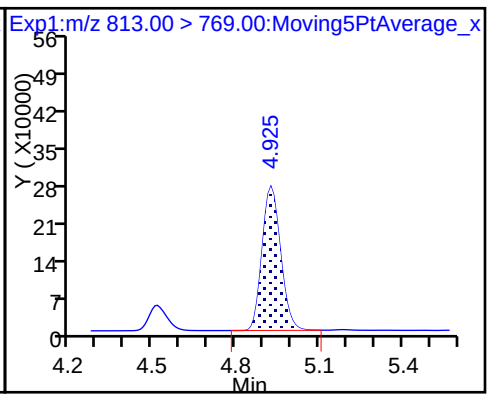
42 Perfluorotetradecanoic acid



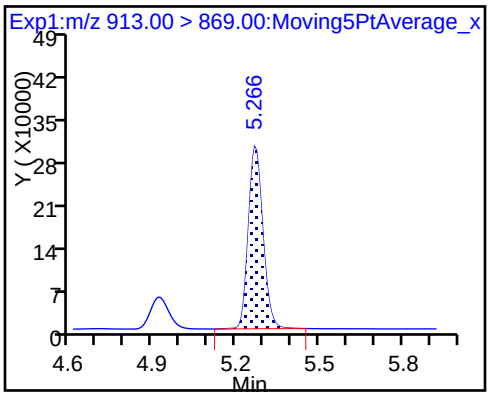
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 320-170613/3-A

Matrix: Water Lab File ID: 2017.06.28B_030.d

Analysis Method: 537 (Modified) Date Collected:

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 250(mL) Date Analyzed: 06/29/2017 02:39

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	41.0		2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	41.5		4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	43.3		2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	122		25-150
STL00991	13C4 PFOS	105		25-150
STL00994	18O2 PFHxS	110		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_030.d
Lims ID: LCSD 320-170613/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 29-Jun-2017 02:39:59 ALS Bottle#: 25 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: lcsd 320-170613/3-a
Misc. Info.: Plate: 1 Rack: 3
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 29-Jun-2017 17:01:05 Calib Date: 28-Jun-2017 01:01:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170628-44788.b\2017.06.27_PFC_CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK033

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
2 Perfluorobutyric acid										
212.90 > 169.00	1.535	1.533	0.002	1.000	5693047	23.7		119	1362	
D 1 13C4 PFBA										
217.00 > 172.00	1.527	1.533	-0.006		13325416	56.9		114	18604	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.735	1.742	-0.007	1.000	4096640	20.9		105	1949	
D 3 13C5-PFPeA										
267.90 > 223.00	1.735	1.742	-0.007		9509570	59.1		118	25022	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.753	1.760	-0.007	1.000	7079022	21.7		123	9537	
298.90 > 99.00	1.753	1.760	-0.007	1.000	2904133		2.44(0.00-0.00)		6098	
D 47 13C3-PFBS										
301.90 > 83.00	1.753	1.760	-0.007		240342	NC			4387	
61 Sodium 1H,1H,2H,2H-perfluorohexane										
327.00 > 307.00	1.949	1.958	-0.009	1.000	1966537	20.0		107	14341	
D 7 13C2 PFHxA										
315.00 > 270.00	1.982	1.992	-0.010		9043512	59.0		118	16280	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.982	2.003	-0.021	1.000	3823102	20.8		104	3633	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.302	2.312	-0.010	1.000	4101624	21.5		107	3555	
D 9 13C4-PFHpA										
367.00 > 322.00	2.302	2.312	-0.010		8936596	65.3		131	26401	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.311	2.329	-0.018	1.000	5083696	19.6		108	2592	
D 11 18O2 PFHxS										
403.00 > 84.00	2.311	2.329	-0.018		11084241	52.1		110	20425	
13 Sodium 1H,1H,2H,2H-perfluorooctane										
427.00 > 407.00	2.616	2.634	-0.018	1.000	1988706	19.5		103	14598	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 12 M2-6:2FTS										
429.00 > 409.00	2.616	2.634	-0.018		4925893	67.6		142	14617	
15 Perfluorooctanoic acid										
413.00 > 369.00	2.645	2.663	-0.018	1.000	3465620	20.5		103	898	
413.00 > 169.00	2.645	2.663	-0.018	1.000	2058767		1.68(0.90-1.10)		4208	
D 14 13C4 PFOA										
417.00 > 372.00	2.645	2.663	-0.018		7964526	61.0		122	16875	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.652	2.671	-0.019	1.000	4753308	24.1		127	13599	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.011	3.026	-0.015	1.000	3734913	20.8		112	7453	
499.00 > 99.00	3.011	3.026	-0.015	1.000	823382		4.54(0.90-1.10)		3625	
D 18 13C4 PFOS										
503.00 > 80.00	3.011	3.026	-0.015		8194730	50.4		105	10876	
D 19 13C5 PFNA										
468.00 > 423.00	3.011	3.026	-0.015		5965853	56.8		114	10607	
20 Perfluorononanoic acid										
463.00 > 419.00	3.011	3.026	-0.015	1.000	2621110	22.1		111	4028	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.370	3.379	-0.009	1.000	1444897	21.7		108	9912	
D 21 13C8 FOSA										
506.00 > 78.00	3.370	3.379	-0.009		3422614	13.0		25.9	13739	
25 Sodium 1H,1H,2H,2H-perfluorodecane										
527.00 > 507.00	3.361	3.379	-0.018	1.000	1347202	19.8		104	8933	
D 26 M2-8:2FTS										
529.00 > 509.00	3.361	3.379	-0.018		3257161	57.5		120	34536	
D 23 13C2 PFDA										
515.00 > 470.00	3.370	3.388	-0.018		5191812	51.9		104	17487	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.370	3.388	-0.018	1.000	2183332	21.8		109	8352	
D 27 d3-NMeFOSAA										
573.00 > 419.00	3.525	3.542	-0.017		2092741	56.5		113	10427	
28 N-methyl perfluorooctane sulfonami										
570.00 > 419.00	3.525	3.542	-0.017	1.000	850315	19.5		97.4	3400	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.681	3.700	-0.019	1.000	2248184	20.6		107	16342	
D 32 d5-NEtFOSAA										
589.00 > 419.00	3.691	3.710	-0.019		1899626	51.4		103	5633	
D 30 13C2 PFUnA										
565.00 > 520.00	3.701	3.710	-0.009		3867030	52.0		104	19040	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.701	3.710	-0.009	1.000	1785096	21.7		108	3827	
33 N-ethyl perfluorooctane sulfonamid										
584.00 > 419.00	3.701	3.720	-0.019	1.003	721594	19.5		97.4	5583	
D 36 13C2 PFDoA										
615.00 > 570.00	3.993	4.008	-0.015		3757357	51.2		102	12781	
37 Perfluorododecanoic acid										
613.00 > 569.00	3.993	4.008	-0.015	1.000	1498042	20.9		105	4550	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.261	4.273	-0.012	1.000	1611537	22.1		110	587	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.493	4.510	-0.017		7653336	50.5		101	72246	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.493	4.510	-0.017	1.000	3449329	19.7		98.4	1226	
713.00 > 169.00	4.493	4.510	-0.017	1.000	427385		8.07(0.00-0.00)		9263	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.901	4.922	-0.021		3734701	44.5		89.0	4313	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.911	4.922	-0.011	1.000	1493616	19.1		95.5	235	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.250	5.265	-0.015	1.000	1510212	18.6		93.2	422	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 29-Jun-2017 17:01:18 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b\2017.06.28B_030.d

Injection Date: 29-Jun-2017 02:39:59 Instrument ID: A8_N

Lims ID: LCSD 320-170613/3-A

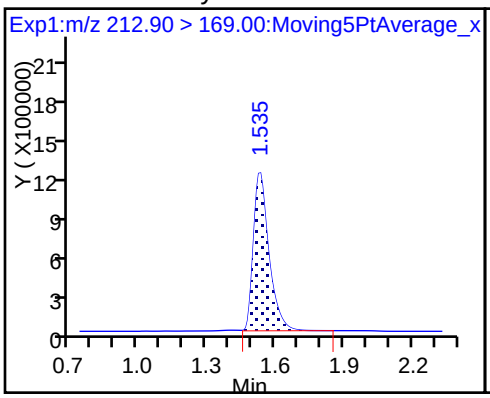
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 25 Worklist Smp#: 4

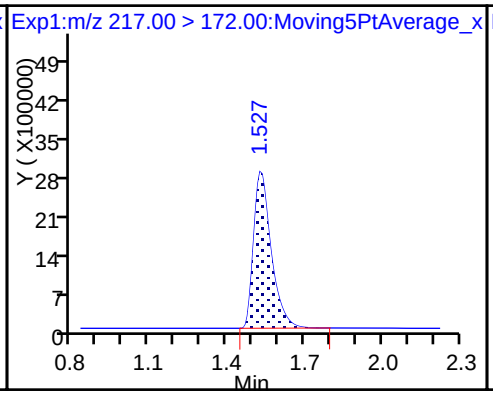
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

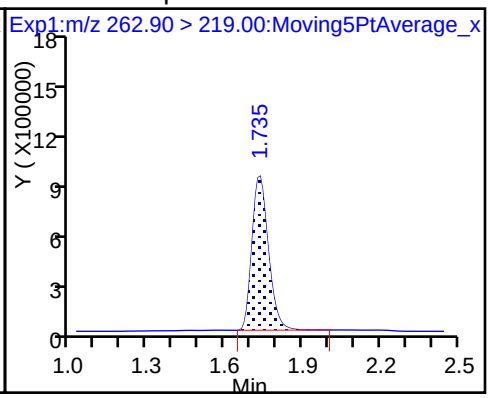
2 Perfluorobutyric acid



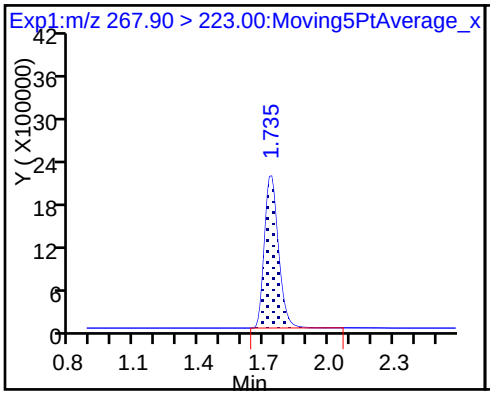
D 1 13C4 PFBA



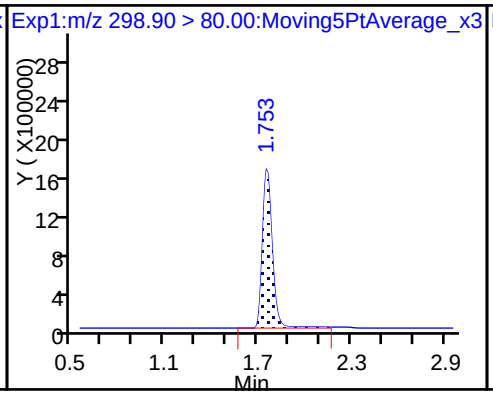
4 Perfluoropentanoic acid



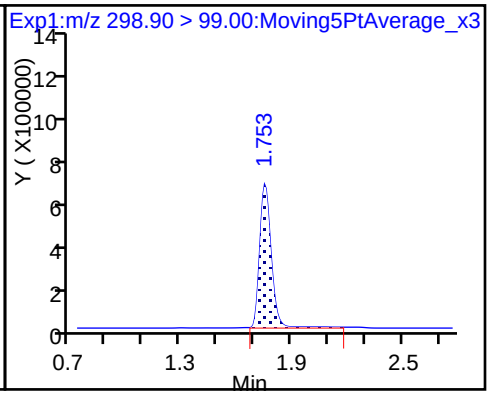
D 3 13C5-PFPeA



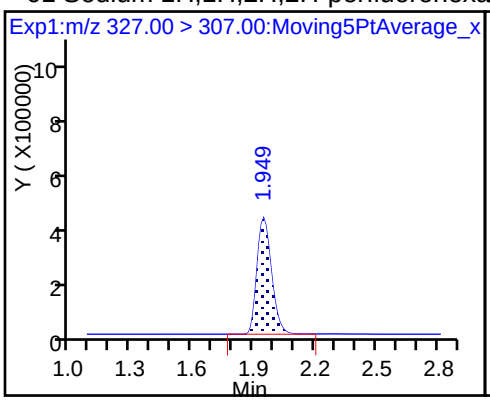
5 Perfluorobutanesulfonic acid



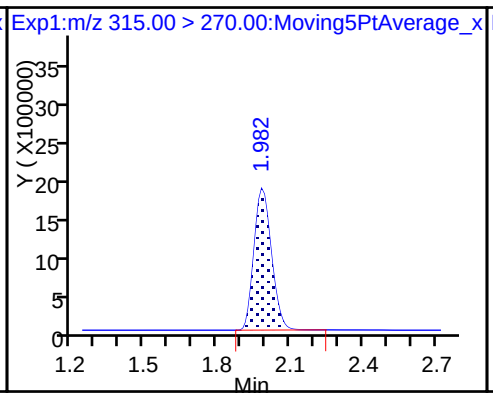
5 Perfluorobutanesulfonic acid



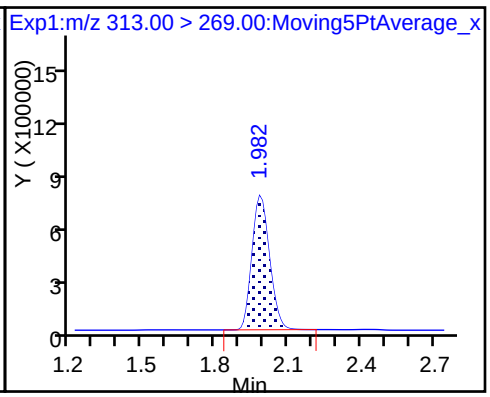
61 Sodium 1H,1H,2H,2H-perfluorohexa



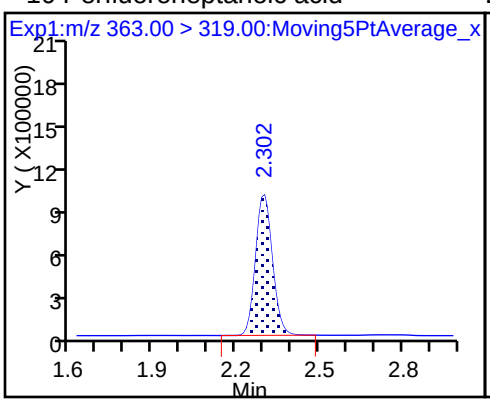
D 7 13C2 PFHxA



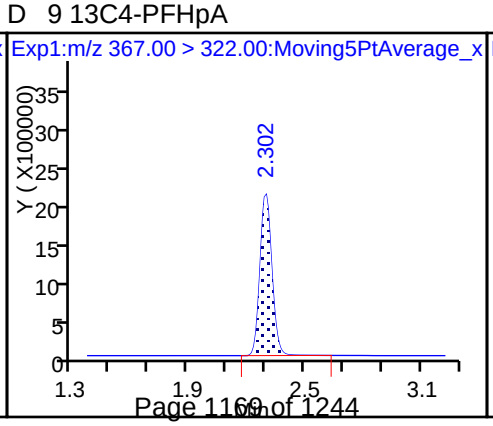
6 Perfluorohexanoic acid



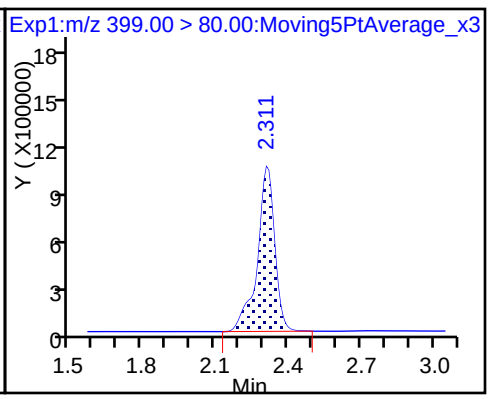
10 Perfluoroheptanoic acid



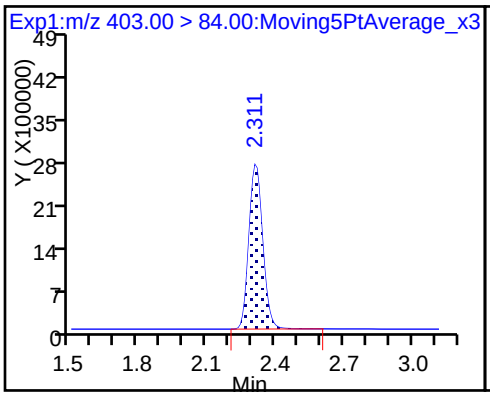
D 9 13C4-PFHpA



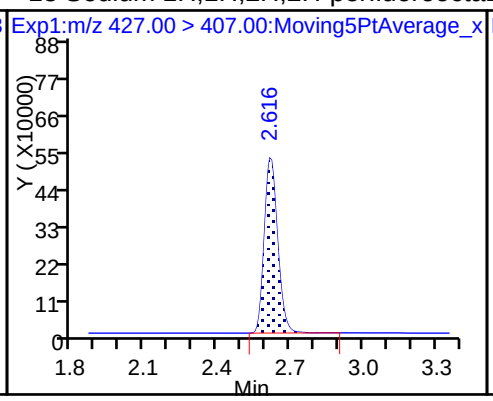
8 Perfluorohexanesulfonic acid



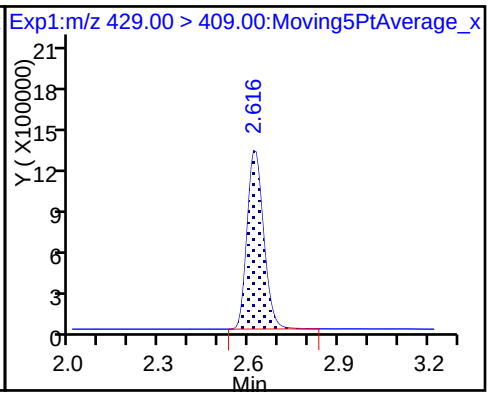
D 11 18O2 PFHxS



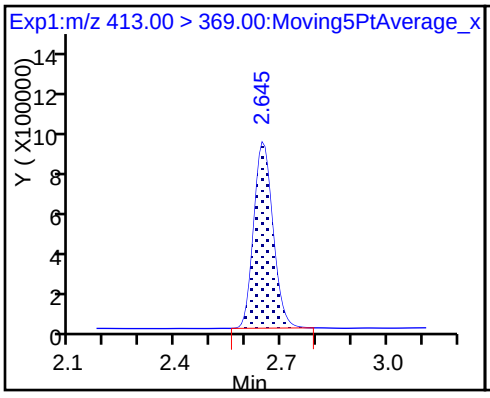
13 Sodium 1H,1H,2H,2H-perfluorooctane



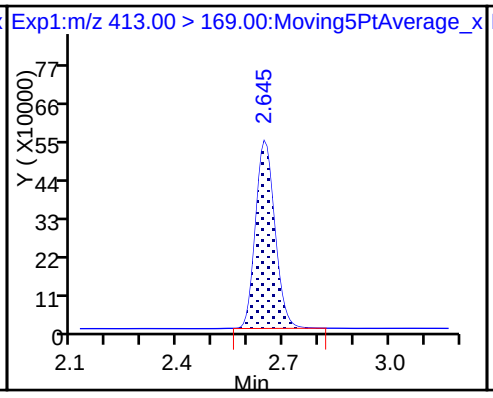
D 12 M2-6:2FTS



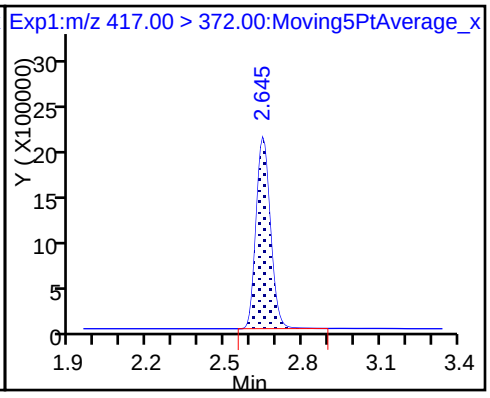
15 Perfluorooctanoic acid



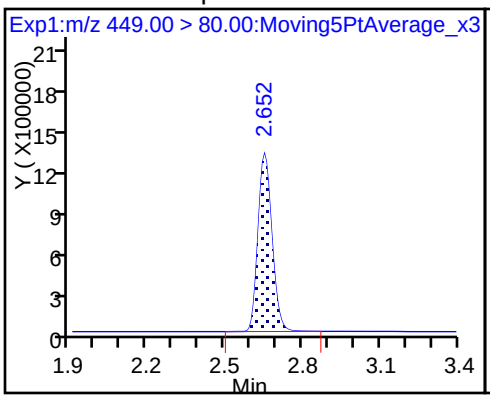
15 Perfluorooctanoic acid



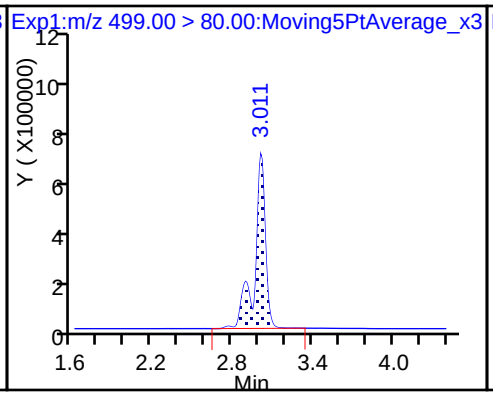
D 14 13C4 PFOA



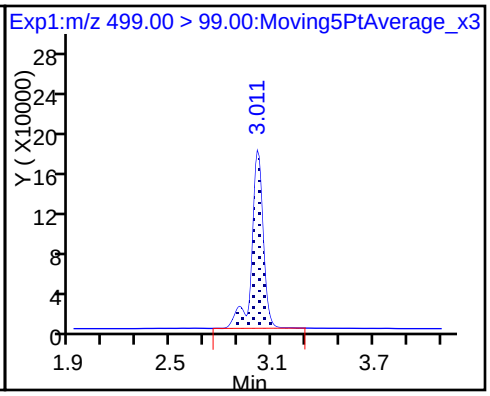
16 Perfluoroheptanesulfonic Acid



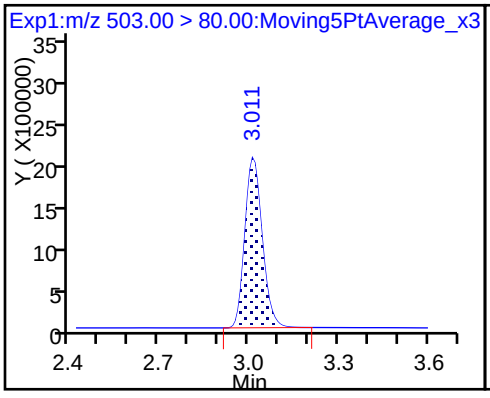
17 Perfluorooctane sulfonic acid



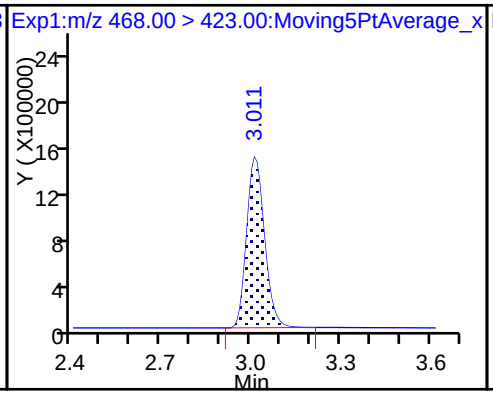
17 Perfluorooctane sulfonic acid



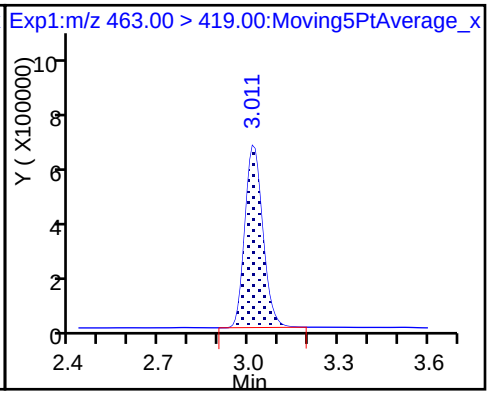
D 18 13C4 PFOS



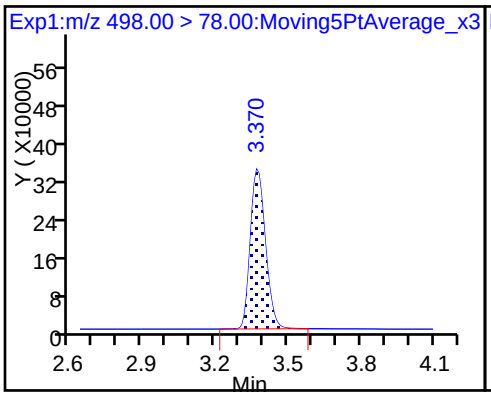
D 19 13C5 PFNA



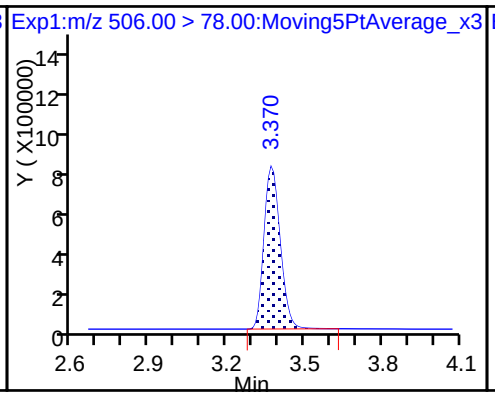
20 Perfluorononanoic acid



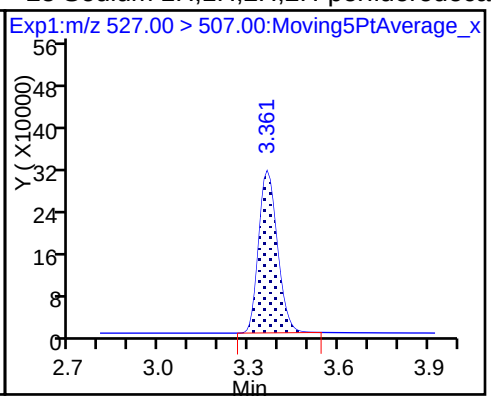
22 Perfluorooctane Sulfonamide



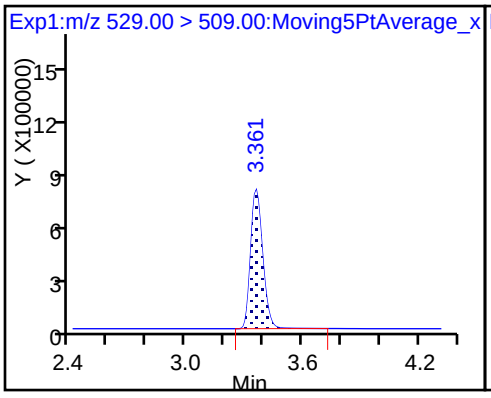
D 21 13C8 FOSA



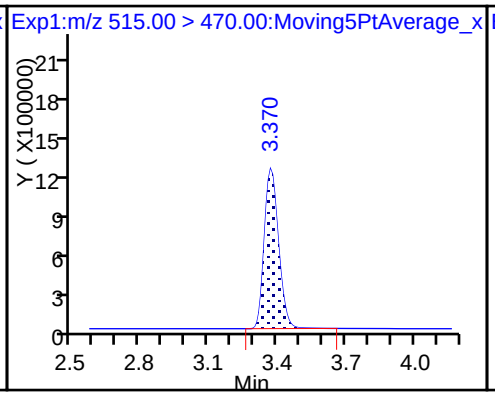
25 Sodium 1H,1H,2H,2H-perfluorodecane



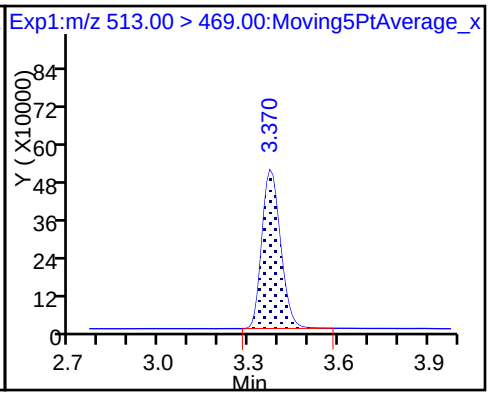
D 26 M2-8:2FTS



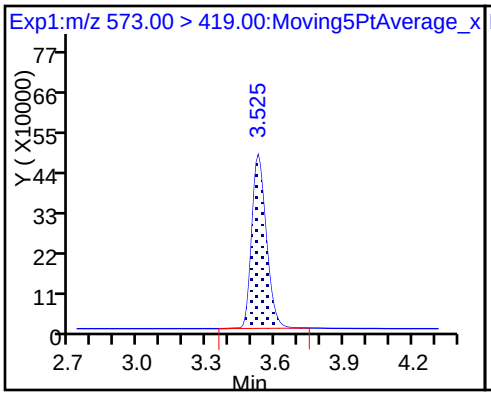
D 23 13C2 PFDA



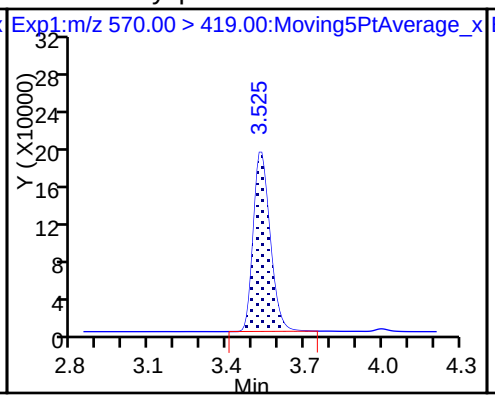
24 Perfluorodecanoic acid



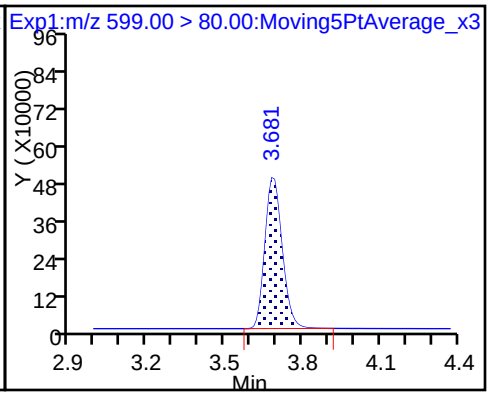
D 27 d3-NMeFOSAA



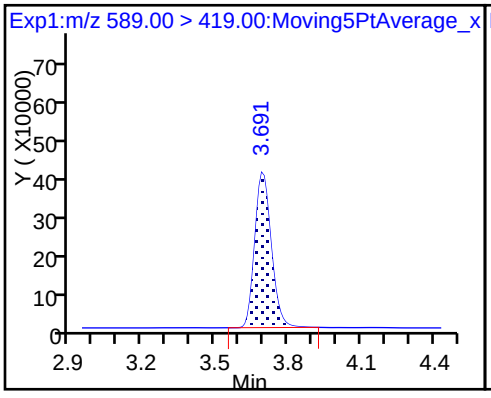
28 N-methyl perfluorooctane sulfonami



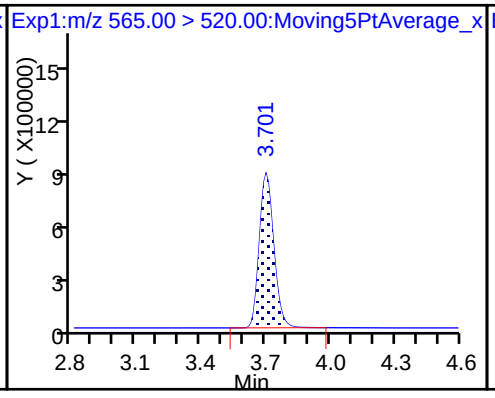
29 Perfluorodecane Sulfonic acid



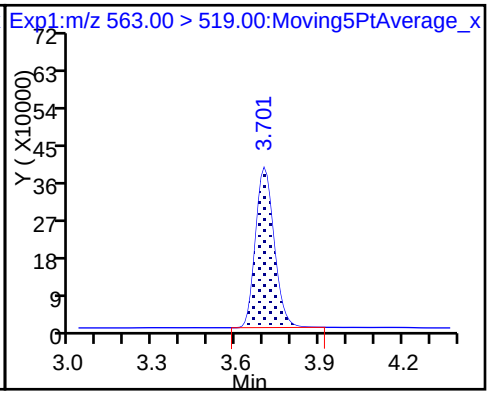
D 32 d5-NEtFOSAA



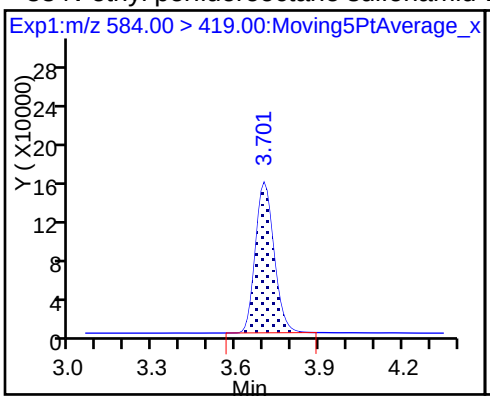
D 30 13C2 PFUnA



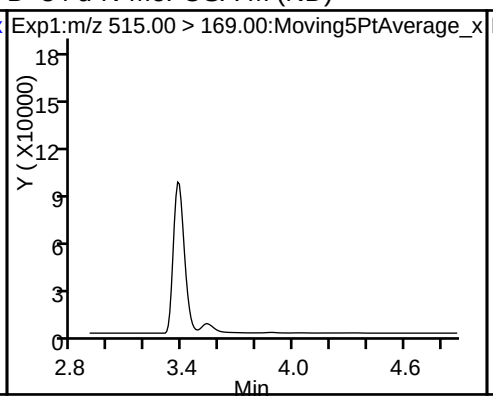
31 Perfluoroundecanoic acid



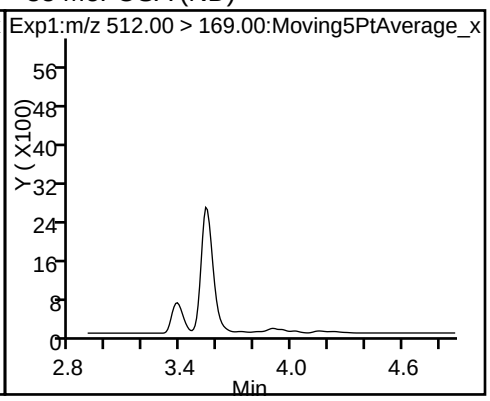
33 N-ethyl perfluorooctane sulfonamid



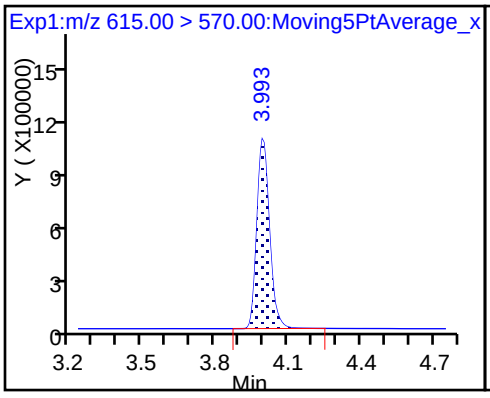
D 34 d-N-MeFOSA-M (ND)



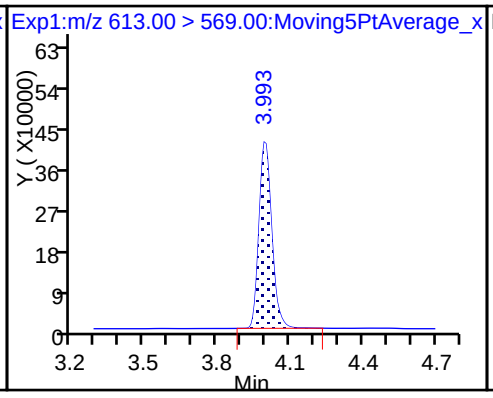
35 MeFOSA (ND)



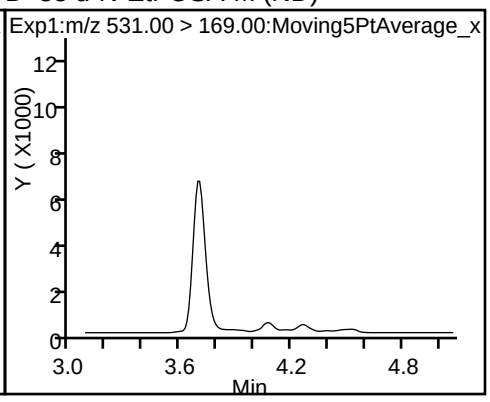
D 36 13C2 PFDoA



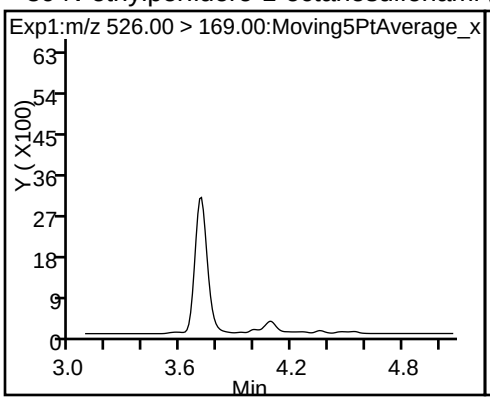
37 Perfluorododecanoic acid



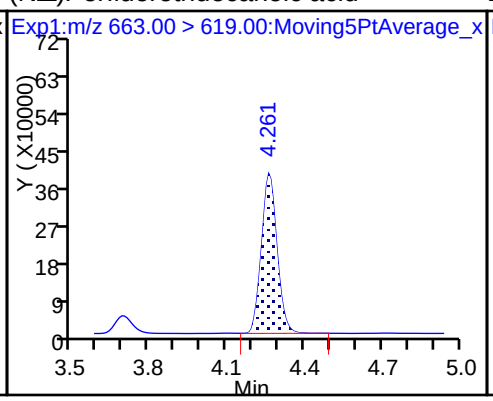
D 38 d-N-EtFOSA-M (ND)



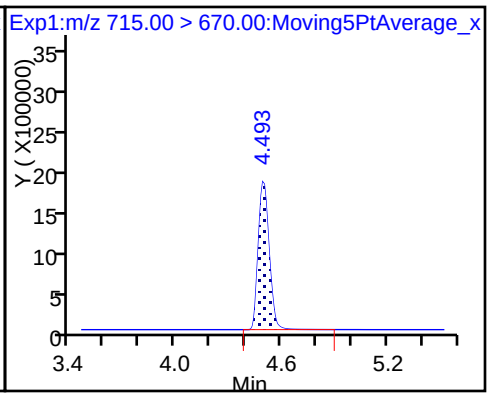
39 N-ethylperfluoro-1-octanesulfonami (ND)



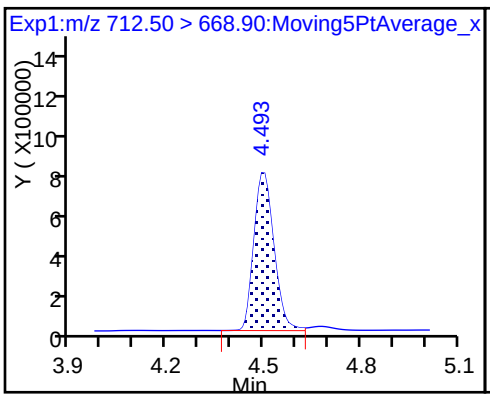
41 Perfluorotridecanoic acid



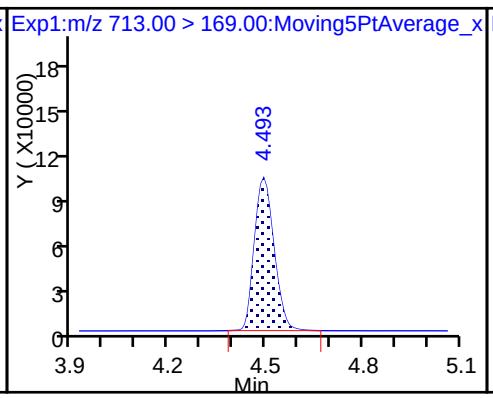
D 43 13C2-PFTeDA



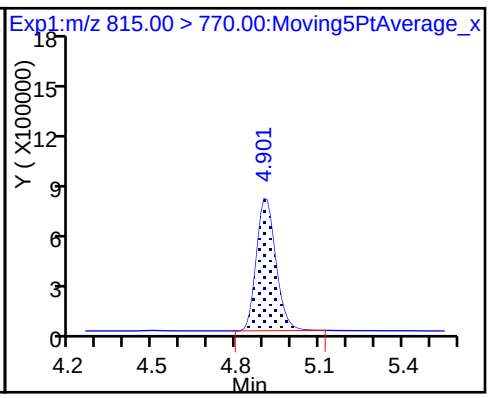
42 Perfluorotetradecanoic acid



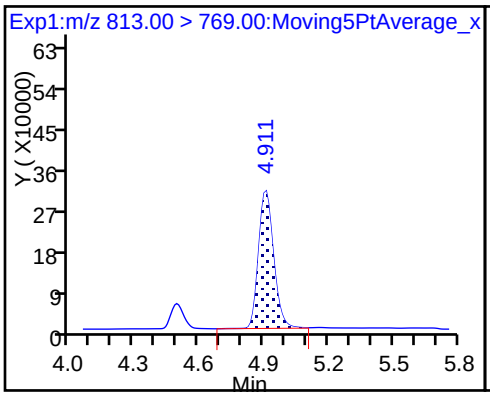
42 Perfluorotetradecanoic acid



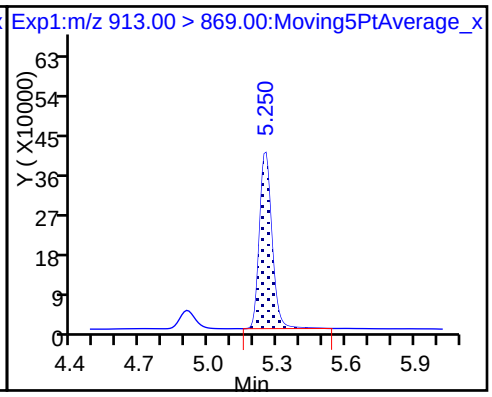
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 320-173923/3-A

Matrix: Water Lab File ID: 20170714D_003.d

Analysis Method: 537 (Modified) Date Collected:

Extraction Method: 3535 Date Extracted: 07/13/2017 09:26

Sample wt/vol: 250(mL) Date Analyzed: 07/15/2017 03:19

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	38.5		2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	36.3		4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	32.7		2.5	2.0	0.92

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	131		25-150
STL00991	13C4 PFOS	128		25-150
STL00994	18O2 PFHxS	130		25-150

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_003.d
Lims ID: LCSD 320-173923/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 15-Jul-2017 03:19:05 ALS Bottle#: 3 Worklist Smp#: 4
Injection Vol: 2.0 ul Dil. Factor: 1.0000
Sample Info: lcsd 320-173923/3-a
Misc. Info.: Plate: 1 Rack: 4
Operator ID: SACINSTLCMS01 Instrument ID: A8_N

Method: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\A8_N.m
Limit Group: LC PFC_DOD ICAL
Last Update: 17-Jul-2017 14:31:39 Calib Date: 11-Jul-2017 19:30:43
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\ChromNA\Sacramento\ChromData\A8_N\20170712-45318.b\2017.07.11CURVE_010.d

Column 1 : Det: EXP1
Process Host: XAWRK010

First Level Reviewer: barnettj Date: 17-Jul-2017 14:03:08

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
D 1 13C4 PFBA										
217.00 > 172.00	1.528	1.538	-0.010		10273951	59.3		119	26848	
2 Perfluorobutyric acid										
212.90 > 169.00	1.528	1.539	-0.011	1.000	4080234	21.6		108	1833	
D 3 13C5-PFPeA										
267.90 > 223.00	1.736	1.748	-0.012		7111314	55.1		110	43585	
4 Perfluoropentanoic acid										
262.90 > 219.00	1.736	1.749	-0.013	1.000	2994408	20.6		103	1970	
5 Perfluorobutanesulfonic acid										
298.90 > 80.00	1.764	1.775	-0.011	1.000	5134488	16.4		92.5	3452	
298.90 > 99.00	1.764	1.775	-0.011	1.000	2097571		2.45(0.00-0.00)		3206	
D 47 13C3-PFBS										
301.90 > 83.00	1.755	1.929	-0.174		194725	NC			7697	
D 7 13C2 PFHxA										
315.00 > 270.00	1.994	2.017	-0.023		7277947	56.7		113	43728	
6 Perfluorohexanoic acid										
313.00 > 269.00	1.994	2.017	-0.023	1.000	2745371	19.8		98.8	4937	
D 9 13C4-PFHpA										
367.00 > 322.00	2.306	2.341	-0.035		7689839	66.1		132	35413	
10 Perfluoroheptanoic acid										
363.00 > 319.00	2.306	2.341	-0.035	1.000	3090276	20.1		100	3788	
8 Perfluorohexanesulfonic acid										
399.00 > 80.00	2.322	2.357	-0.035	1.000	3731068	17.4		95.5	2605	
D 11 18O2 PFHxS										
403.00 > 84.00	2.322	2.357	-0.035		9872575	61.5		130	36044	
D 14 13C4 PFOA										
417.00 > 372.00	2.652	2.698	-0.046		6970128	65.7		131	32322	

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	Ratio(Limits)	%Rec	S/N	Flags
15 Perfluorooctanoic acid										
413.00 > 369.00	2.652	2.700	-0.048	1.000	2868542	19.2		96.2	919	
413.00 > 169.00	2.652	2.700	-0.048	1.000	1663965		1.72(0.90-1.10)		4921	
16 Perfluoroheptanesulfonic Acid										
449.00 > 80.00	2.660	2.706	-0.046	1.000	3373694	19.6		103	21116	
D 18 13C4 PFOS										
503.00 > 80.00	3.023	3.071	-0.048		7039730	61.2		128	21427	
20 Perfluorononanoic acid										
463.00 > 419.00	3.023	3.072	-0.049	1.000	2124803	20.8		104	5721	
D 19 13C5 PFNA										
468.00 > 423.00	3.023	3.072	-0.049		5225415	62.0		124	19919	
17 Perfluorooctane sulfonic acid										
499.00 > 80.00	3.023	3.072	-0.049	1.000	2931229	18.1		97.7	9035	
499.00 > 99.00	3.023	3.072	-0.049	1.000	641397		4.57(0.90-1.10)		5688	
D 21 13C8 FOSA										
506.00 > 78.00	3.372	3.401	-0.029		4527359	22.4		44.8	17212	
22 Perfluorooctane Sulfonamide										
498.00 > 78.00	3.372	3.405	-0.033	1.000	1664278	20.0		100	13964	
24 Perfluorodecanoic acid										
513.00 > 469.00	3.381	3.435	-0.054	1.000	2406644	21.6		108	13731	
D 23 13C2 PFDA										
515.00 > 470.00	3.381	3.435	-0.054		5840262	77.1		154	17205	
29 Perfluorodecane Sulfonic acid										
599.00 > 80.00	3.690	3.749	-0.059	1.000	1792439	17.9		93.0	11187	
D 30 13C2 PFUnA										
565.00 > 520.00	3.709	3.768	-0.059		3709661	64.3		129	15334	
31 Perfluoroundecanoic acid										
563.00 > 519.00	3.709	3.768	-0.059	1.000	1451886	19.3		96.3	3521	
D 36 13C2 PFDoA										
615.00 > 570.00	4.003	4.061	-0.058		3537395	59.9		120	9534	
37 Perfluorododecanoic acid										
613.00 > 569.00	4.003	4.062	-0.059	1.000	1335596	19.9		99.7	5013	
41 Perfluorotridecanoic acid										
663.00 > 619.00	4.274	4.331	-0.057	1.000	1272238	19.9		99.3	371	
D 43 13C2-PFTeDA										
715.00 > 670.00	4.506	4.571	-0.065		7981189	71.3		143	18465	
42 Perfluorotetradecanoic acid										
712.50 > 668.90	4.506	4.573	-0.067	1.000	3136836	22.6		113	1648	
713.00 > 169.00	4.506	4.573	-0.067	1.000	377985		8.30(0.00-0.00)		7065	
D 44 13C2-PFHxDA										
815.00 > 770.00	4.917	4.986	-0.069		3533101	51.9		104	3580	
45 Perfluorohexadecanoic acid										
813.00 > 769.00	4.927	4.988	-0.061	1.000	1258806	17.3		86.4	269	
46 Perfluorooctadecanoic acid										
913.00 > 869.00	5.268	5.344	-0.076	1.000	1106957	13.8		68.8	315	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Report Date: 17-Jul-2017 14:31:47 Chrom Revision: 2.2 26-Jun-2017 08:09:44

TestAmerica Sacramento

Data File: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b\20170714D_003.d

Injection Date: 15-Jul-2017 03:19:05 Instrument ID: A8_N

Lims ID: LCSD 320-173923/3-A

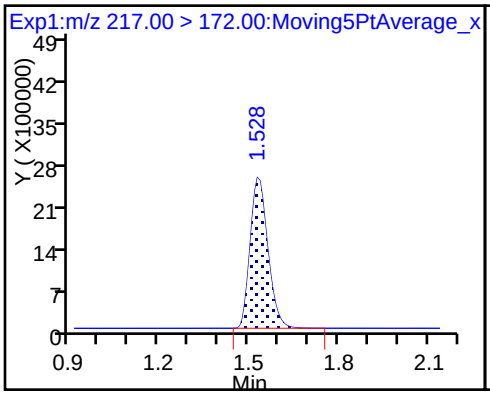
Client ID:

Operator ID: SACINSTLCMS01 ALS Bottle#: 3 Worklist Smp#: 4

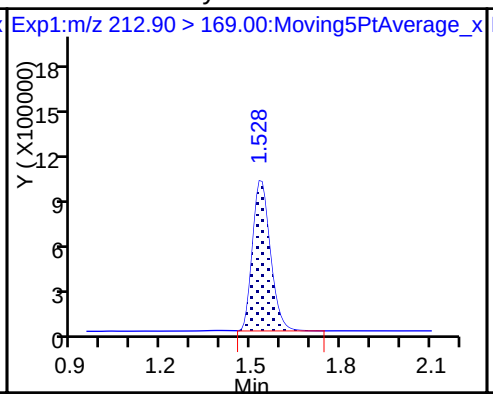
Injection Vol: 2.0 ul Dil. Factor: 1.0000

Method: A8_N Limit Group: LC PFC_DOD ICAL

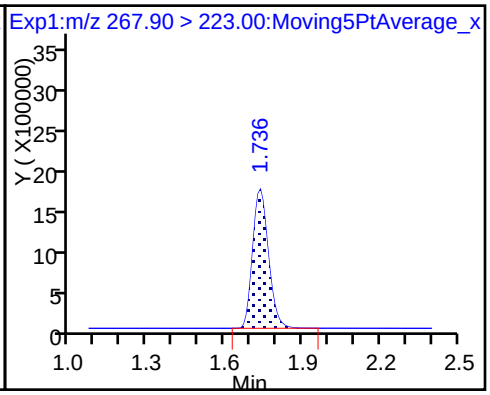
D 1 13C4 PFBA



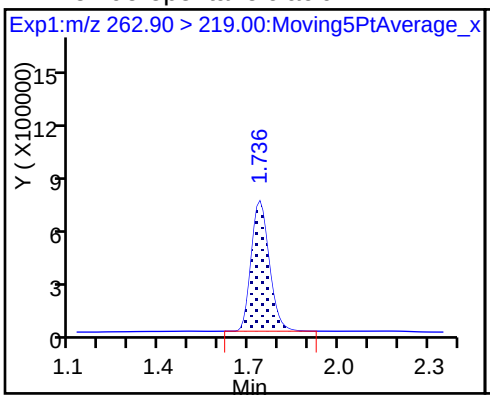
2 Perfluorobutyric acid



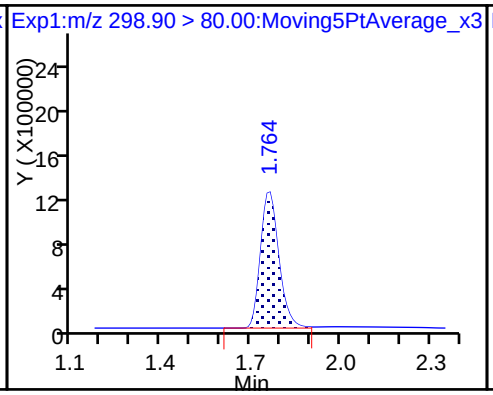
D 3 13C5-PFPeA



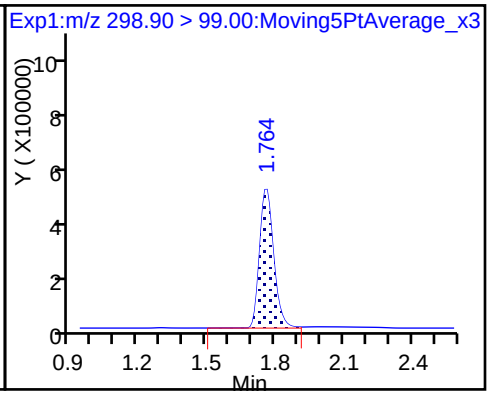
4 Perfluoropentanoic acid



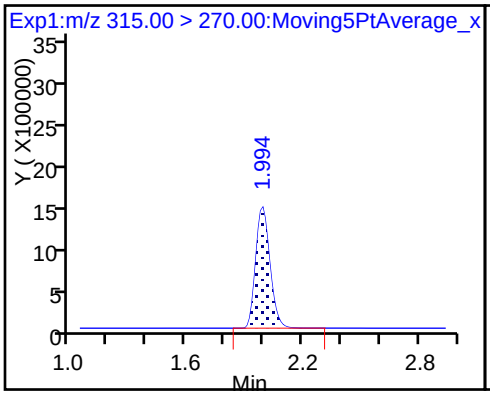
5 Perfluorobutanesulfonic acid



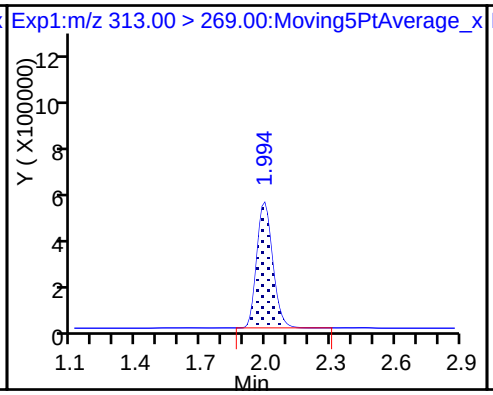
5 Perfluorobutanesulfonic acid



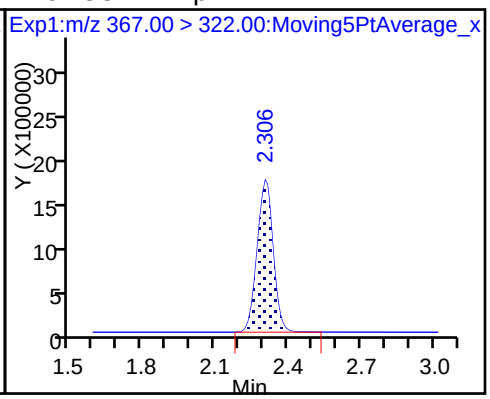
D 7 13C2 PFHxA



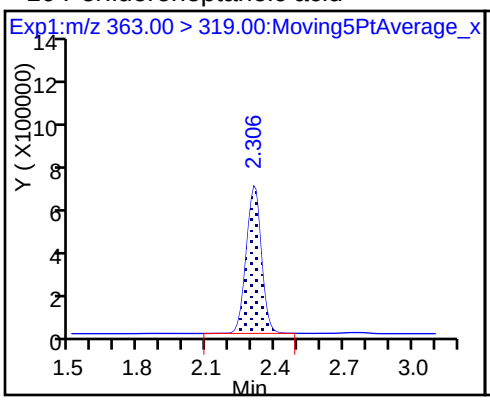
6 Perfluorohexanoic acid



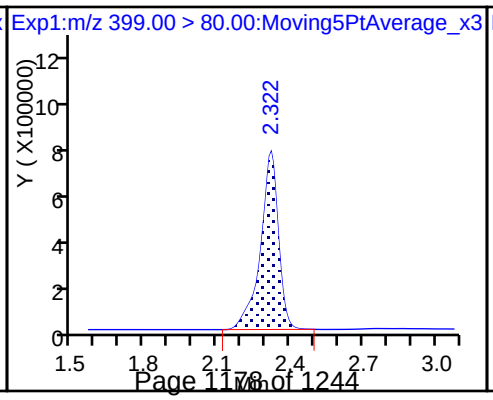
D 9 13C4-PFHpA



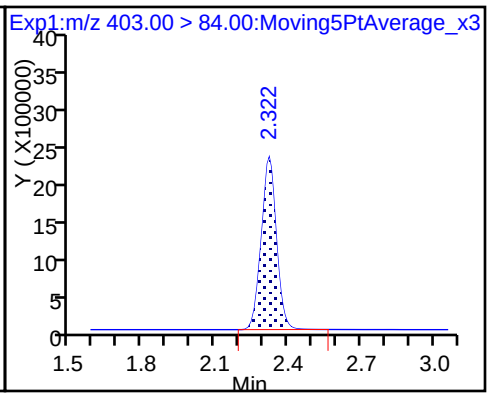
10 Perfluoroheptanoic acid



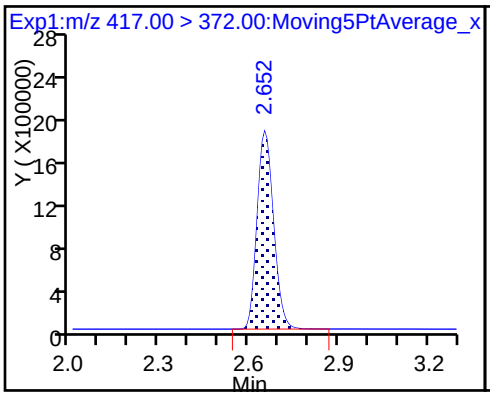
8 Perfluorohexanesulfonic acid



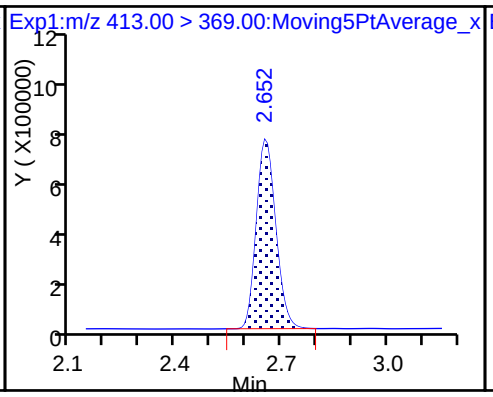
D 11 18O2 PFHxS



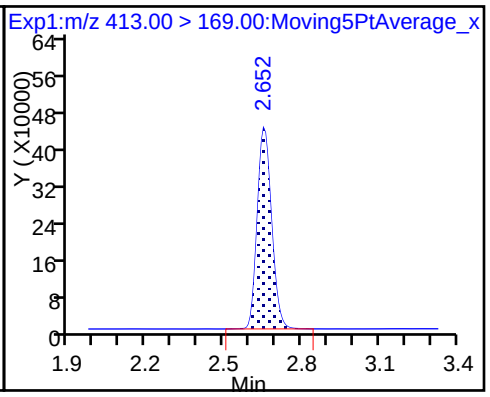
D 14 13C4 PFOA



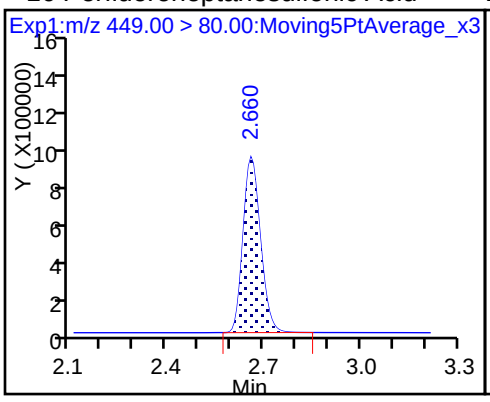
15 Perfluorooctanoic acid



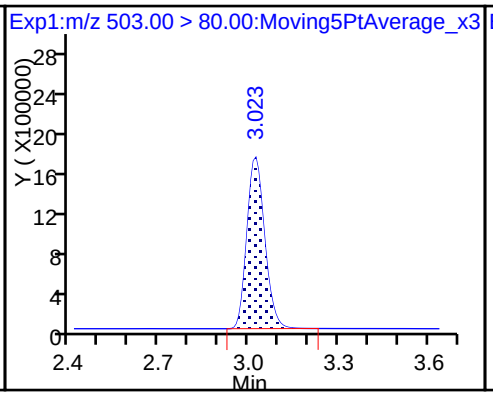
15 Perfluorooctanoic acid



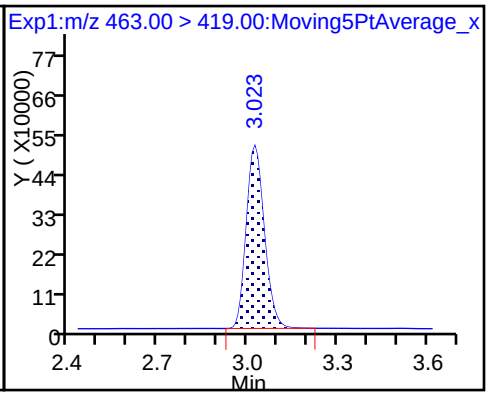
16 Perfluoroheptanesulfonic Acid



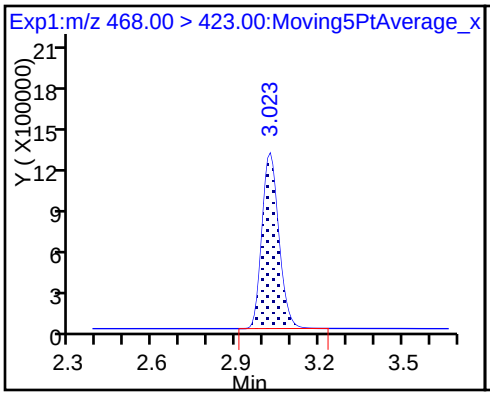
D 18 13C4 PFOS



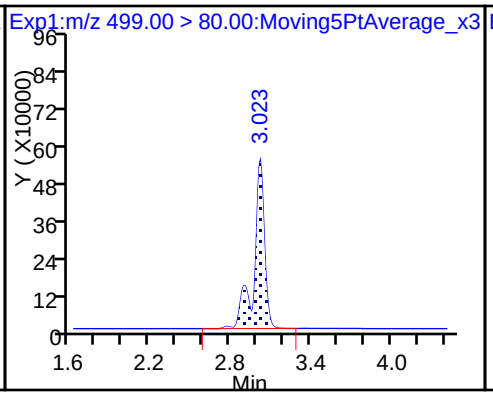
20 Perfluorononanoic acid



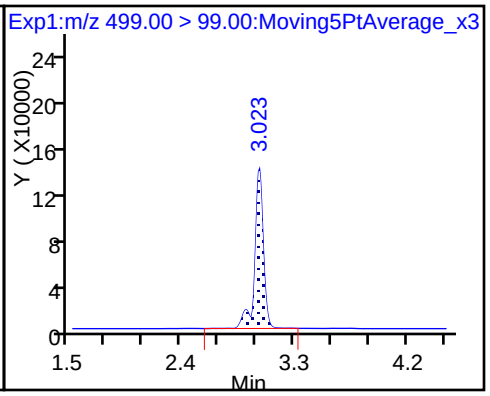
D 19 13C5 PFNA



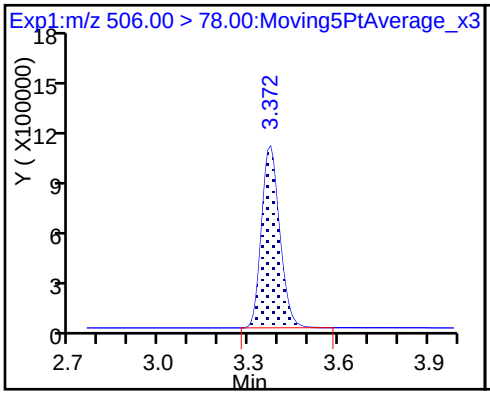
17 Perfluorooctane sulfonic acid



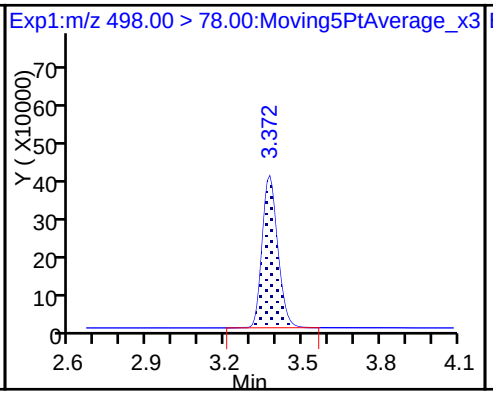
17 Perfluorooctane sulfonic acid



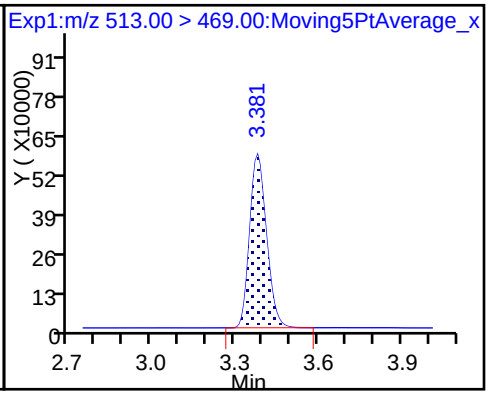
D 21 13C8 FOSA



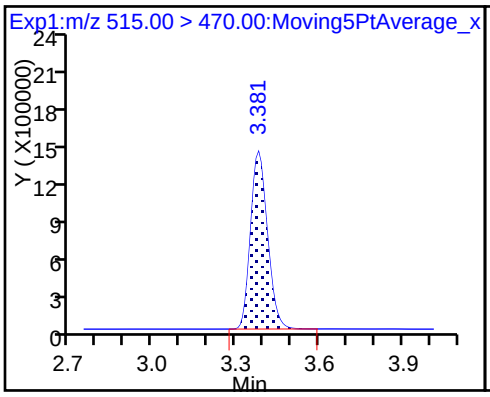
22 Perfluorooctane Sulfonamide



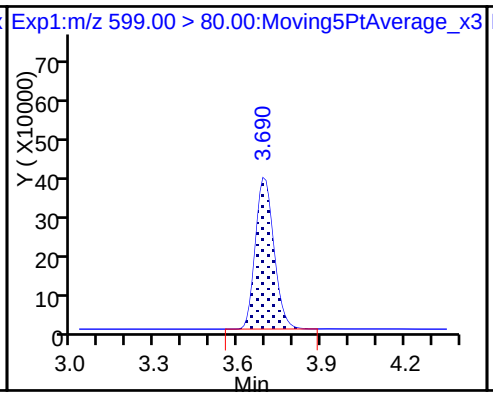
24 Perfluorodecanoic acid



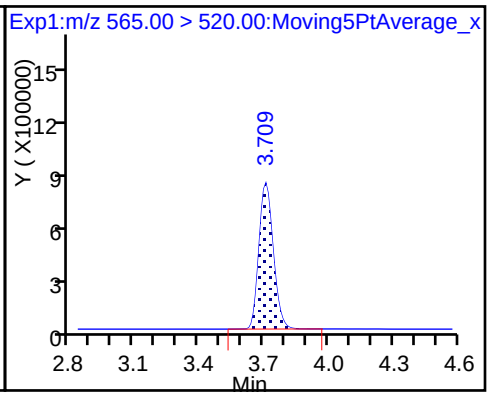
D 23 13C2 PFDA



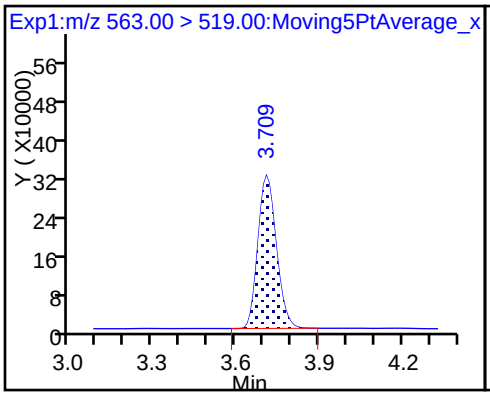
29 Perfluorodecane Sulfonic acid



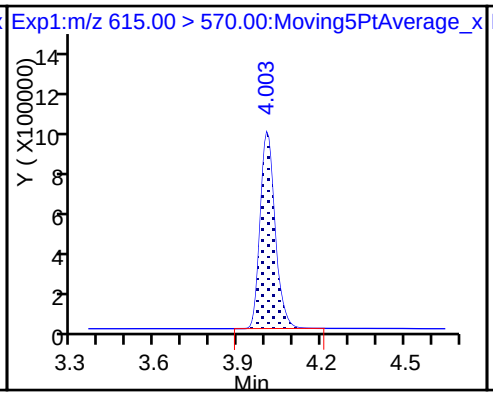
D 30 13C2 PFUnA



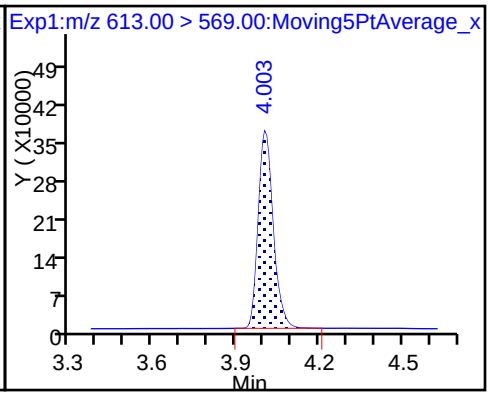
31 Perfluoroundecanoic acid



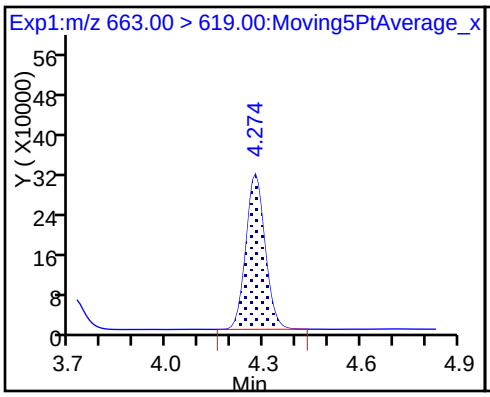
D 36 13C2 PFDoA



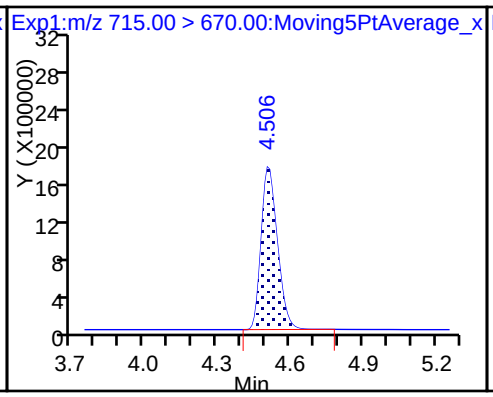
37 Perfluorododecanoic acid



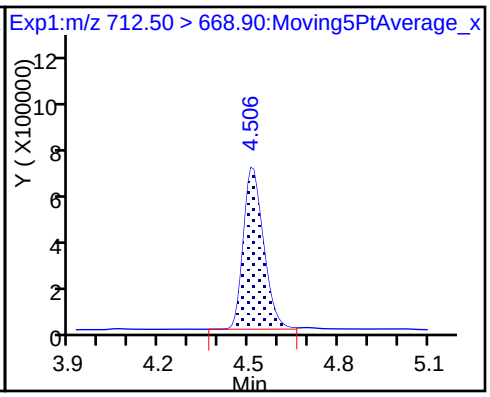
41 Perfluorotridecanoic acid



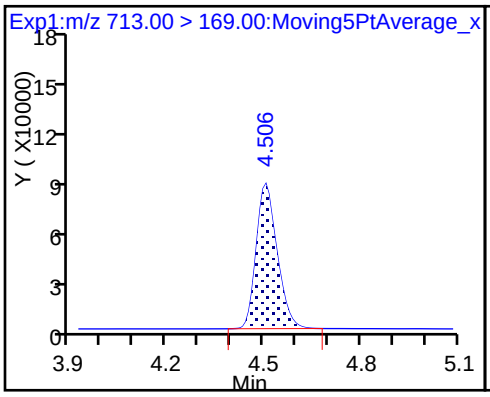
D 43 13C2-PFTeDA



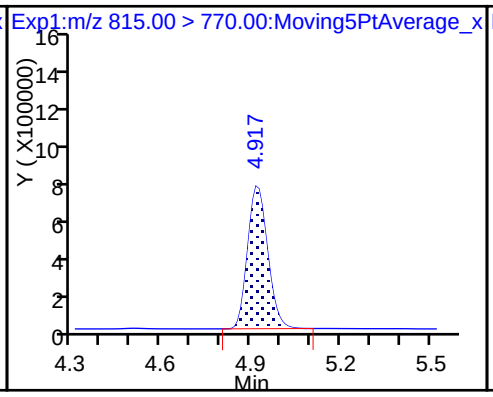
42 Perfluorotetradecanoic acid



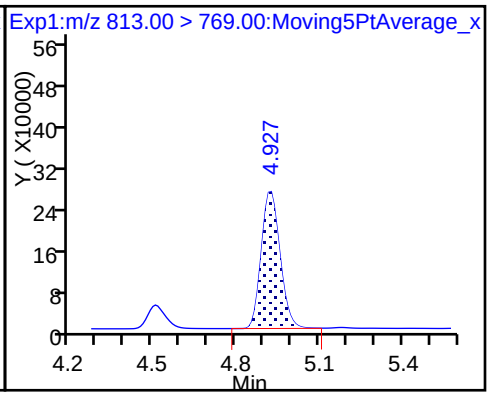
42 Perfluorotetradecanoic acid



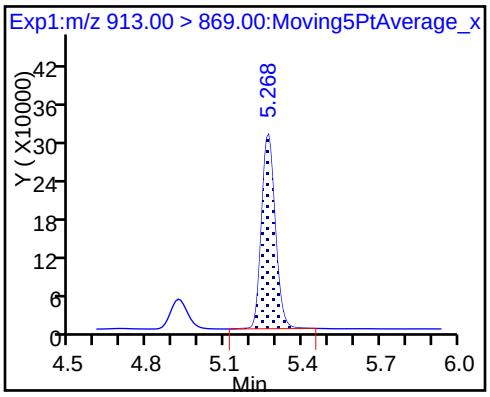
D 44 13C2-PFHxDA



45 Perfluorohexadecanoic acid



46 Perfluorooctadecanoic acid



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/19/2017 23:23

Analysis Batch Number: 169970 End Date: 06/20/2017 00:32

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-169970/3		06/19/2017 23:23	1	2017.06.19_PFCI CAL 003.d	GeminiC18 3x100 3(mm)
IC 320-169970/4		06/19/2017 23:31	1	2017.06.19_PFCI CAL 004.d	GeminiC18 3x100 3(mm)
IC 320-169970/5		06/19/2017 23:38	1	2017.06.19_PFCI CAL 005.d	GeminiC18 3x100 3(mm)
IC 320-169970/6		06/19/2017 23:46	1	2017.06.19_PFCI CAL 006.d	GeminiC18 3x100 3(mm)
IC 320-169970/7		06/19/2017 23:54	1	2017.06.19_PFCI CAL 007.d	GeminiC18 3x100 3(mm)
IC 320-169970/8		06/20/2017 00:02	1	2017.06.19_PFCI CAL 008.d	GeminiC18 3x100 3(mm)
IC 320-169970/9		06/20/2017 00:09	1	2017.06.19_PFCI CAL 009.d	GeminiC18 3x100 3(mm)
IC 320-169970/10		06/20/2017 00:17	1	2017.06.19_PFCI CAL 010.d	GeminiC18 3x100 3(mm)
ICB 320-169970/11		06/20/2017 00:25	1		GeminiC18 3x100 3(mm)
ICV 320-169970/12		06/20/2017 00:32	1	2017.06.19_PFCI CAL 012.d	GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/24/2017 11:29

Analysis Batch Number: 170803 End Date: 06/24/2017 14:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		06/24/2017 11:29	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 11:38	1		GeminiC18 3x100 3(mm)
CCVL 320-170803/4		06/24/2017 11:47	1	2017.06.24A_004.d	GeminiC18 3x100 3(mm)
CCV 320-170803/5		06/24/2017 11:56	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 12:05	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 12:14	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 12:23	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 12:32	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 12:41	1		GeminiC18 3x100 3(mm)
CCV 320-170803/6		06/24/2017 12:49	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 12:58	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 13:07	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 13:16	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 13:25	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 13:34	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 13:43	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 13:52	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 14:01	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 14:10	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 14:19	1		GeminiC18 3x100 3(mm)
CCV 320-170803/23		06/24/2017 14:27	1		GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/24/2017 21:04

Analysis Batch Number: 170860 End Date: 06/25/2017 02:43

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-170860/1		06/24/2017 21:04	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 22:16	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 22:24	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 22:33	1		GeminiC18 3x100 3(mm)
CCV 320-170860/12		06/24/2017 22:42	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 22:51	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 23:00	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 23:09	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 23:18	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 23:27	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 23:36	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 23:45	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/24/2017 23:53	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 00:02	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 00:11	1		GeminiC18 3x100 3(mm)
CCV 320-170860/23		06/25/2017 00:20	1	2017.06.24B_049 .d	GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 01:05	1		GeminiC18 3x100 3(mm)
LCS 320-170434/2-A		06/25/2017 01:14	1	2017.06.24B_055 .d	GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 01:22	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 01:31	10		GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 01:49	1		GeminiC18 3x100 3(mm)
CCV 320-170860/34		06/25/2017 01:58	1	2017.06.24B_060 .d	GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 02:07	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 02:16	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 02:25	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/25/2017 02:34	1		GeminiC18 3x100 3(mm)
CCV 320-170860/39		06/25/2017 02:43	1		GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/28/2017 00:13

Analysis Batch Number: 171299 End Date: 06/28/2017 01:15

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-171299/3		06/28/2017 00:13	1	2017.06.27_PFC_CURVE_003.d	GeminiC18 3x100 3(mm)
IC 320-171299/4		06/28/2017 00:20	1	2017.06.27_PFC_CURVE_004.d	GeminiC18 3x100 3(mm)
IC 320-171299/5		06/28/2017 00:27	1	2017.06.27_PFC_CURVE_005.d	GeminiC18 3x100 3(mm)
IC 320-171299/6		06/28/2017 00:34	1	2017.06.27_PFC_CURVE_006.d	GeminiC18 3x100 3(mm)
IC 320-171299/7		06/28/2017 00:41	1	2017.06.27_PFC_CURVE_007.d	GeminiC18 3x100 3(mm)
IC 320-171299/8		06/28/2017 00:47	1	2017.06.27_PFC_CURVE_008.d	GeminiC18 3x100 3(mm)
IC 320-171299/9		06/28/2017 00:54	1	2017.06.27_PFC_CURVE_009.d	GeminiC18 3x100 3(mm)
IC 320-171299/10		06/28/2017 01:01	1	2017.06.27_PFC_CURVE_010.d	GeminiC18 3x100 3(mm)
ICB 320-171299/11		06/28/2017 01:08	1		GeminiC18 3x100 3(mm)
ICV 320-171299/12		06/28/2017 01:15	1	2017.06.27_PFC_CURVE_012.d	GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/28/2017 01:22

Analysis Batch Number: 171325 End Date: 06/28/2017 04:42

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-171325/2		06/28/2017 01:22	1	2017.06.27_PFC_A 001.d	GeminiC18 3x100 3(mm)
320-29198-1		06/28/2017 01:56	1	2017.06.27_PFC_A 006.d	GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 02:03	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 02:10	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 02:17	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 02:24	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 02:31	1		GeminiC18 3x100 3(mm)
CCV 320-171325/13		06/28/2017 02:38	1	2017.06.27_PFC_A 012.d	GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 02:45	1		GeminiC18 3x100 3(mm)
CCV 320-171325/24		06/28/2017 03:54	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 04:08	100		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 04:14	100		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 04:21	20		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 04:28	100		GeminiC18 3x100 3(mm)
CCV 320-171325/31		06/28/2017 04:42	1		GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/28/2017 09:46

Analysis Batch Number: 171405 End Date: 06/28/2017 11:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-171405/1		06/28/2017 09:46	1		GeminiC18 3x100 3(mm)
CCV 320-171405/12		06/28/2017 11:09	1	2017.06.27_PFC_B1B_012.d	GeminiC18 3x100 3(mm)
MB 320-170434/1-A		06/28/2017 11:29	1	2017.06.27ABC_003.d	GeminiC18 3x100 3(mm)
CCV 320-171405/16		06/28/2017 11:36	1	2017.06.27ABC_004.d	GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/28/2017 21:43

Analysis Batch Number: 171592 End Date: 06/28/2017 23:12

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCVL 320-171592/1		06/28/2017 21:43	1	2017.06.28A_003.d	GeminiC18 3x100 3(mm)
CCV 320-171592/2		06/28/2017 21:50	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 21:57	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:03	10		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:10	10		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:17	5		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:24	5		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:31	5		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:38	5		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:45	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:52	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 22:59	1		GeminiC18 3x100 3(mm)
ZZZZZ		06/28/2017 23:06	1		GeminiC18 3x100 3(mm)
CCV 320-171592/14		06/28/2017 23:12	1		GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 06/29/2017 02:19

Analysis Batch Number: 171596 End Date: 06/29/2017 04:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-171596/1		06/29/2017 02:19	1	2017.06.28B_027.d	GeminiC18 3x100 3(mm)
MB 320-170613/1-A		06/29/2017 02:26	1	2017.06.28B_028.d	GeminiC18 3x100 3(mm)
LCS 320-170613/2-A		06/29/2017 02:33	1	2017.06.28B_029.d	GeminiC18 3x100 3(mm)
LCSD 320-170613/3-A		06/29/2017 02:39	1	2017.06.28B_030.d	GeminiC18 3x100 3(mm)
320-29198-2		06/29/2017 02:46	1	2017.06.28B_031.d	GeminiC18 3x100 3(mm)
320-29198-3		06/29/2017 02:53	1	2017.06.28B_032.d	GeminiC18 3x100 3(mm)
320-29198-4		06/29/2017 03:00	1	2017.06.28B_033.d	GeminiC18 3x100 3(mm)
320-29198-5		06/29/2017 03:07	1	2017.06.28B_034.d	GeminiC18 3x100 3(mm)
320-29198-6		06/29/2017 03:14	1	2017.06.28B_035.d	GeminiC18 3x100 3(mm)
320-29198-7		06/29/2017 03:21	1	2017.06.28B_036.d	GeminiC18 3x100 3(mm)
320-29198-8		06/29/2017 03:28	1	2017.06.28B_037.d	GeminiC18 3x100 3(mm)
CCV 320-171596/12		06/29/2017 03:35	1	2017.06.28B_038.d	GeminiC18 3x100 3(mm)
320-29198-9		06/29/2017 03:42	1	2017.06.28B_039.d	GeminiC18 3x100 3(mm)
320-29198-10		06/29/2017 03:48	1	2017.06.28B_040.d	GeminiC18 3x100 3(mm)
ZZZZZ		06/29/2017 04:37	1		GeminiC18 3x100 3(mm)
CCV 320-171596/22		06/29/2017 04:44	1	2017.06.28B_048.d	GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 07/11/2017 18:42

Analysis Batch Number: 173619 End Date: 07/11/2017 19:44

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 320-173619/3		07/11/2017 18:42	1	2017.07.11CURVE 003.d	GeminiC18 3x100 3(mm)
IC 320-173619/4		07/11/2017 18:49	1	2017.07.11CURVE 004.d	GeminiC18 3x100 3(mm)
IC 320-173619/5		07/11/2017 18:56	1	2017.07.11CURVE 005.d	GeminiC18 3x100 3(mm)
IC 320-173619/6		07/11/2017 19:03	1	2017.07.11CURVE 006.d	GeminiC18 3x100 3(mm)
IC 320-173619/7		07/11/2017 19:10	1	2017.07.11CURVE 007.d	GeminiC18 3x100 3(mm)
IC 320-173619/8		07/11/2017 19:16	1	2017.07.11CURVE 008.d	GeminiC18 3x100 3(mm)
IC 320-173619/9		07/11/2017 19:23	1	2017.07.11CURVE 009.d	GeminiC18 3x100 3(mm)
IC 320-173619/10		07/11/2017 19:30	1	2017.07.11CURVE 010.d	GeminiC18 3x100 3(mm)
ICB 320-173619/11		07/11/2017 19:37	1		GeminiC18 3x100 3(mm)
ICV 320-173619/12		07/11/2017 19:44	1	2017.07.11CURVE 012.d	GeminiC18 3x100 3(mm)

537 (Modified)

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Instrument ID: A8_N Start Date: 07/15/2017 02:58

Analysis Batch Number: 174335 End Date: 07/15/2017 04:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 320-174335/1		07/15/2017 02:58	1	20170714C_057.d	GeminiC18 3x100 3(mm)
MB 320-173923/1-A		07/15/2017 03:05	1	20170714D_001.d	GeminiC18 3x100 3(mm)
LCS 320-173923/2-A		07/15/2017 03:12	1	20170714D_002.d	GeminiC18 3x100 3(mm)
LCSD 320-173923/3-A		07/15/2017 03:19	1	20170714D_003.d	GeminiC18 3x100 3(mm)
CCV 320-174335/12		07/15/2017 04:14	1	20170714D_011.d	GeminiC18 3x100 3(mm)
ZZZZZ		07/15/2017 04:28	1		GeminiC18 3x100 3(mm)
320-29198-5 RE		07/15/2017 04:35	1	20170714D_014.d	GeminiC18 3x100 3(mm)
320-29198-6 RE		07/15/2017 04:41	1	20170714D_015.d	GeminiC18 3x100 3(mm)
320-29198-8 RE		07/15/2017 04:48	1	20170714D_016.d	GeminiC18 3x100 3(mm)
CCV 320-174335/18		07/15/2017 04:55	1	20170714D_017.d	GeminiC18 3x100 3(mm)

537 (Modified)

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Batch Number: 170434 Batch Start Date: 06/22/17 08:26 Batch Analyst: Santos, Jonathan

Batch Method: 3535 Batch End Date: 06/23/17 19:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFC2SU 00018	LCMPFCSU 00074
MB 320-170434/1		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	500 uL
LCS 320-170434/2		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	500 uL
320-29198-A-1	MEAFF-T45C-2004M W01-0617	3535, 537 (Modified)	T	283.64 g	26.40 g	257.2 mL	0.50 mL	500 uL	500 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC2SP 00033	LCPFCSP 00095				
MB 320-170434/1		3535, 537 (Modified)							
LCS 320-170434/2		3535, 537 (Modified)		500 uL	500 uL				
320-29198-A-1	MEAFF-T45C-2004M W01-0617	3535, 537 (Modified)	T						

Batch Notes	
Balance ID	QA-070
H2O ID	6/19/17
Hexane ID	958899
Manifold ID	16
Methanol ID	959493
Sodium Hydroxide ID	0.1N NaOH/H2O: 958836
Pipette ID	N32655F
Analyst ID - Reagent Drop	CCB
Analyst ID - SU Reagent Drop	CCB
Analyst ID - SU Reagent Drop Witness	JNS
Solvent Lot #	962378
Solvent Name	0.3% NH4OH/MeOH
SOP Number	WS-LC-0025
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003036333A

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Batch Number: 170434 Batch Start Date: 06/22/17 08:26 Batch Analyst: Santos, Jonathan

Batch Method: 3535 Batch End Date: 06/23/17 19:02

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.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Batch Number: 170613 Batch Start Date: 06/23/17 08:09 Batch Analyst: Santos, Jonathan

Batch Method: 3535 Batch End Date: 06/27/17 22:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFC2SU 00017	LCMPFCSU 00075
MB 320-170613/1		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	500 uL
LCS 320-170613/2		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	500 uL
LCSD 320-170613/3		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	500 uL
320-29198-B-2	MEAFF-EB05-0617	3535, 537 (Modified)	T	288.05 g	27.79 g	260.3 mL	0.50 mL		500 uL
320-29198-A-3	MEAFF-T45C-03-2008MW01-0617	3535, 537 (Modified)	T	276.66 g	26.63 g	250 mL	0.50 mL		500 uL
320-29198-A-4	MEAFF-UNKN16MW01-0617	3535, 537 (Modified)	T	287.36 g	26.46 g	260.9 mL	0.50 mL		500 uL
320-29198-A-5	MEAFF-TA4-UNKNMW01-0617	3535, 537 (Modified)	T	283.41 g	27.35 g	256.1 mL	0.50 mL		500 uL
320-29198-A-6	MEAFF-UNKN17MW01-0617	3535, 537 (Modified)	T	285.99 g	26.75 g	259.2 mL	0.50 mL		500 uL
320-29198-B-7	MEAFF-EB06-0617	3535, 537 (Modified)	T	283.09 g	27.37 g	255.7 mL	0.50 mL		500 uL
320-29198-A-8	MEAFF-TA4J-1992MW01-0617	3535, 537 (Modified)	T	279.49 g	26.92 g	252.6 mL	0.50 mL		500 uL
320-29198-A-9	MEAFF-T45C-2005MW01-0617	3535, 537 (Modified)	T	283.75 g	26.64 g	257.1 mL	0.50 mL		500 uL
320-29198-A-10	MEAFF-EB07-0617	3535, 537 (Modified)	T	287.39 g	26.99 g	260.4 mL	0.50 mL		500 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC2SP 00032	LCPFCSP 00095				
MB 320-170613/1		3535, 537 (Modified)							
LCS 320-170613/2		3535, 537 (Modified)		500 uL	500 uL				
LCSD 320-170613/3		3535, 537 (Modified)		500 uL	500 uL				
320-29198-B-2	MEAFF-EB05-0617	3535, 537 (Modified)	T						
320-29198-A-3	MEAFF-T45C-03-2008MW01-0617	3535, 537 (Modified)	T						
320-29198-A-4	MEAFF-UNKN16MW01-0617	3535, 537 (Modified)	T						
320-29198-A-5	MEAFF-TA4-UNKNMW01-0617	3535, 537 (Modified)	T						
320-29198-A-6	MEAFF-UNKN17MW01-0617	3535, 537 (Modified)	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Batch Number: 170613 Batch Start Date: 06/23/17 08:09 Batch Analyst: Santos, Jonathan

Batch Method: 3535 Batch End Date: 06/27/17 22:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	LCPFC2SP 00032	LCPFCSP 00095				
320-29198-B-7	MEAFF-EB06-0617	3535, 537 (Modified)	T						
320-29198-A-8	MEAFF-TA4J-1992M W01-0617	3535, 537 (Modified)	T						
320-29198-A-9	MEAFF-T45C-2005M W01-0617	3535, 537 (Modified)	T						
320-29198-A-10	MEAFF-EB07-0617	3535, 537 (Modified)	T						

Batch Notes	
Balance ID	QA-070
H2O ID	6/19/17
Hexane ID	958899
Manifold ID	16, 12
Methanol ID	959497
Sodium Hydroxide ID	0.1N NaOH/H2O: 958836
Pipette ID	N32655F
Analyst ID - Reagent Drop	NSH
Analyst ID - SU Reagent Drop	NSH
Analyst ID - SU Reagent Drop Witness	JNS
Solvent Lot #	962378
Solvent Name	0.3% NH4OH/MeOH
SOP Number	WS-LC-0025
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003036333A

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.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Batch Number: 173923 Batch Start Date: 07/13/17 09:26 Batch Analyst: Sharifi, Nooshin

Batch Method: 3535 Batch End Date: 07/14/17 13:37

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LCMPFCSU 00078	LCPFCSP 00100
MB 320-173923/1		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	
LCS 320-173923/2		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	0.5 mL
LCSD 320-173923/3		3535, 537 (Modified)				250 mL	0.50 mL	500 uL	0.5 mL
320-29198-B-5	MEAFF-TA4-UNKNMW 01-0617	3535, 537 (Modified)	T	376.53 g	27.56 g	349 mL	0.50 mL	500 uL	
320-29198-B-6	MEAFF-UNKN17MW01 -0617	3535, 537 (Modified)	T	280.27 g	26.59 g	253.7 mL	0.50 mL	500 uL	
320-29198-B-8	MEAFF-TA4J-1992M W01-0617	3535, 537 (Modified)	T	279.04 g	27.04 g	252 mL	0.50 mL	500 uL	

Batch Notes	
Balance ID	QA-070
H2O ID	7/10/17
Hexane ID	958901
Manifold ID	11, 8
Methanol ID	973171
Sodium Hydroxide ID	977629
Pipette ID	N32728F
Analyst ID - Reagent Drop	NSH
Analyst ID - SU Reagent Drop	NSH
Analyst ID - SU Reagent Drop Witness	CCB
Solvent Lot #	981395
Solvent Name	0.3% NH4OH/MeOH
SOP Number	WS-LC-0025
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003036333A

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): 28971; 29198; 28958; 28989 Work List ID(s): 44684; 44794; 44811

Extraction Batch: 170434; 170021 Analysis Batch(es): 170860; 171325; 171405

Delivery Rank 4 Due Date: 6/23/17; 6/25/17; 6/22/17

A. Calibration/Instrument Run QC SBC 6/28/17	1st Level	2nd Level	N/A
1. ICAL locked in Chrom and TALS? ICAL Batch# 169970; 46 171299	✓	✓	
2. ICAL, CCV Frequency & Criteria met.	✓	✓	
• $RF_{average}$ criteria appropriate for the method.	✓	✓	
• Linear Regression criteria appropriate if required ($r \geq 0.995$).	✓	✓	
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).			✓
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?	✓	✓	
• 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.	✓	✓	
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?	•	✓	✓
4. Manual Integrations reviewed and appropriate.	✓	✓	
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#	✓	✓	
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): SC Date: 6/28/17

2nd Level Reviewer: MWay Date: 6/28/2017

NCMs: 92082; 92066; 92089; 92074

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 24JUN2017C_PFC Worklist Number: 44684
Instrument Name: A8_N Chrom Method: A8_N
Data Directory: \\ChromNa\Sacramento\ChromData\A8_N\20170625-44684.b
QC Batching: Disabled Limit Group Batching: Enabled

QC Batch: 1	LC PFC_DOD ICAL Raw Batch: 170860	LC PFC ICAL Raw Batch: 170861	LC PFAS ICAL Raw Batch: 170862
# 1 CCV L5	# 1 CCV L5 MS/MSD %R 91793 %RPD 91794 Report from DL	# 1 CCV L5	
# 2 320-27003-A-2-C		# 2 320-27003-A-2-C 10x	# 2 320-27003-A-2-C
# 3 320-27003-A-3-C		# 3 320-27003-A-3-C 10x	# 3 320-27003-A-3-C
# 4 480-115622-B-1-G		# 4 480-115622-B-1-G 5x	# 4 480-115622-B-1-G
# 5 480-115622-B-1-H MS		# 5 480-115622-B-1-H MS 5x	# 5 480-115622-B-1-H MS
# 6 480-115622-B-1-I MSD		# 6 480-115622-B-1-I MSD 5x	# 6 480-115622-B-1-I MSD
# 7 480-115622-B-2-C		# 7 480-115622-B-2-C 5x	# 7 480-115622-B-2-C
# 8 480-115622-B-3-C		# 8 480-115622-B-3-C 5x	# 8 480-115622-B-3-C
# 9 MB 320-170231/1-A	# 9 MB 320-170231/1-A	# 9 MB 320-170231/1-A	
#10 LCS 320-170231/2-A	#10 LCS 320-170231/2-A	#10 LCS 320-170231/2-A	
#11 LCSD 320-170231/3-A	#11 LCSD 320-170231/3-A	#11 LCSD 320-170231/3-A	
#12 CCV L5	#12 CCV L5	#12 CCV L5	
#13 320-28989-A-1-A	#13 320-28989-A-1-A	IDA low 91791 91794 SBC 6/28/17	Report from DL SBC 6/28/17
#14 320-28989-A-2-A	#14 320-28989-A-2-A		
#15 320-28989-A-7-A	#15 320-28989-A-7-A 100x		
#16 320-28989-A-8-A	#16 320-28989-A-8-A 100x		
#17 320-28989-A-9-A	#17 320-28989-A-9-A 20x		
#18 320-28989-A-11-A	#18 320-28989-A-11-A 100x		
#19 320-28989-A-12-A	#19 320-28989-A-12-A RI		
#20 320-28989-A-13-A	#20 320-28989-A-13-A		
#21 320-28989-A-14-A	#21 320-28989-A-14-A		
#22 320-28989-A-15-A	#22 320-28989-A-15-A		
#23 CCV L4	#23 CCV L4	#23 CCV L4	
#24 320-28993-A-1-A	Eflag 92082	#24 320-28993-A-1-A 5x	#24 320-28993-A-1-A
#25 320-28993-A-2-A		#25 320-28993-A-2-A	#25 320-28993-A-2-A
#26 320-28993-A-3-A		#26 320-28993-A-3-A	#26 320-28993-A-3-A
#27 320-28993-A-4-A	use RA in 171405	#27 320-28993-A-4-A ~~CI PFBS~~	#27 320-28993-A-4-A
#28 MB 320-170434/1-A	#28 MB 320-170434/1-A	#28 MB 320-170434/1-A SBC 6/26/17	
#29 LCS 320-170434/2-A	#29 LCS 320-170434/2-A	#29 LCS 320-170434/2-A	
#30 320-28971-A-33-A	#30 320-28971-A-33-A		
#31 320-29198-A-1-A	#31 320-29198-A-1-A (1x)		
#32 480-119437-K-1-A		#32 480-119437-K-1-A	#32 480-119437-K-1-A
#33 320-28958-A-7-A	#33 320-28958-A-7-A RI IDA		
#34 CCV L5	#34 CCV L5	#34 CCV L5 → PM says report even though FOSA IDA <1%. NCM 91908	
#35 320-28958-A-8-A	#35 320-28958-A-8-A RI IDA		
#36 320-28958-A-8-B MS	#36 320-28958-A-8-B MS RI		
#37 320-28958-A-8-C MSD	#37 320-28958-A-8-C MSD RI IDA		
#38 320-28958-A-9-A	#38 320-28958-A-9-A RI IDA		
#39 CCV L4	#39 CCV L4	#39 CCV L4	

CCVL 170803 170802

Report from RA

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 27JUN2017B_PFC Worklist Number: 44794
Instrument Name: A8_N Chrom Method: A8_N
Data Directory: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44794.b
QC Batching: Disabled Limit Group Batching: Enabled

QC Batch: 1	LC PFC_DOD ICAL Raw Batch: 171325	LC PFC ICAL Raw Batch: 171326	LC PFAS ICAL Raw Batch: 171327
# 1 RB	# 1 RB	# 1 RB	
# 2 CCV L4	# 2 CCV L4	# 2 CCV L4	
# 3 MB 320-170669/1-A		# 3 MB 320-170669/1-A	
# 4 QC Reverse Surrogate	# 4 QC Reverse Surrogate	# 4 QC Reverse Surrogate	
# 5 320-29062-A-13-A		# 5 320-29062-A-13-A → IDA low PFOA/PFNA 91809	# 5 320-29062-A-13-A
# 6 320-29062-A-15-A		# 6 320-29062-A-15-A	# 6 320-29062-A-15-A
# 7 320-29198-A-1-A	# 7 320-29198-A-1-A	RL, DL target 92066	
# 8 320-28958-A-7-A	# 8 320-28958-A-7-A	RL, DL Matrix 92069	
# 9 320-28958-A-8-A	# 9 320-28958-A-8-A		
#10 320-28958-A-8-B MS	#10 320-28958-A-8-B MS	MS/MSD %R 91793	
#11 320-28958-A-8-C MSD	#11 320-28958-A-8-C MSD		
#12 320-28958-A-9-A	#12 320-28958-A-9-A		
#13 CCV L5	#13 CCV L5	#13 CCV L5	
#14 320-28989-A-12-A	#14 320-28989-A-12-A		
#15 320-27003-A-1-G		#15 320-27003-A-1-G	#15 320-27003-A-1-G
#16 320-27003-A-1-H MS		#16 320-27003-A-1-H MS	#16 320-27003-A-1-H MS
#17 320-27003-A-1-I MSD		#17 320-27003-A-1-I MSD	#17 320-27003-A-1-I MSD
#18 320-27003-A-2-C	Tune 92089	#18 320-27003-A-2-C	#18 320-27003-A-2-C
#19 320-27003-A-3-C		#19 320-27003-A-3-C	#19 320-27003-A-3-C
#20 480-115622-B-1-G		#20 480-115622-B-1-G	#20 480-115622-B-1-G
#21 480-115622-B-1-H MS		#21 480-115622-B-1-H MS	#21 480-115622-B-1-H MS
#22 480-115622-B-1-I MSD		#22 480-115622-B-1-I MSD	#22 480-115622-B-1-I MSD
#23 480-115622-B-2-C		#23 480-115622-B-2-C	#23 480-115622-B-2-C
#24 CCV L4	#24 CCV L4	#24 CCV L4	
#25 480-115622-B-3-C		#25 480-115622-B-3-C	#25 480-115622-B-3-C
#26 320-28989-A-7-A	#26 320-28989-A-7-A	IDA low PFOA 92070	
#27 320-28989-A-8-A	#27 320-28989-A-8-A		
#28 320-28989-A-9-A	#28 320-28989-A-9-A		
#29 320-28989-A-11-A	#29 320-28989-A-11-A		
#30 320-28993-A-1-A	EFlag 92074	#30 320-28993-A-1-A	#30 320-28993-A-1-A
#31 CCV L5	#31 CCV L5	#31 CCV L5	

29062-13 170893
-15 171299

Same days as ICAL 171302

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 27JUN2017E_PFC Worklist Number: 44811
Instrument Name: A8_N Chrom Method: A8_N
Data Directory: \\ChromNa\Sacramento\ChromData\A8_N\20170628-44811.b
QC Batching: Disabled Limit Group Batching: Enabled

QC Batch: 1	LC PFC_DOD ICAL Raw Batch: 171405	LC PFC ICAL Raw Batch: 171406	LC PFAS ICAL Raw Batch: 171407
# 1 CCV L5	# 1 CCV L5	# 1 CCV L5	
# 2 MB 320-170618/1-A		# 2 MB 320-170618/1-A	
# 3 LCS 320-170618/2-A		# 3 LCS 320-170618/2-A	
# 4 LCSD 320-170618/3-A		# 4 LCSD 320-170618/3-A	
# 5 480-119440-A-1-A		# 5 480-119440-A-1-A	# 5 480-119440-A-1-A
# 6 480-119440-A-2-A		# 6 480-119440-A-2-A	# 6 480-119440-A-2-A
# 7 480-119440-A-3-A		# 7 480-119440-A-3-A	# 7 480-119440-A-3-A
# 8 480-119440-A-4-A		# 8 480-119440-A-4-A	# 8 480-119440-A-4-A
# 9 480-119440-B-5-A		# 9 480-119440-B-5-A	# 9 480-119440-B-5-A
#10 480-119440-A-6-A		#10 480-119440-A-6-A	#10 480-119440-A-6-A
#11 480-119440-A-7-A		#11 480-119440-A-7-A	#11 480-119440-A-7-A
#12 CCV L4	#12 CCV L4	#12 CCV L4	
#13 QC LCMPFC2SU_00023	#13 QC LCMPFC2SU_00023	#13 QC LCMPFC2SU_00023	
#14 LCMPFC2SU_00024	#14 LCMPFC2SU_00024	#14 LCMPFC2SU_00024	
#15 MB 320-170434/1-A	#15 MB 320-170434/1-A		
#16 CCV L4	#16 CCV L4	#16 CCV L4	

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Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170434

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/22/2017 8:26:00AM

Batch End: 6/23/2017 7:02:00PM

Solid-Phase Extraction (SPE)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB-320-170434/1 N/A	N/A		250 mL 0.50 mL				N/A	N/A	N/A	RI	MB 320-170434/1-A
2	LCS-320-170434/2 N/A	N/A		250 mL 0.50 mL				N/A	N/A	N/A		LCS 320-170434/2-A
3	320-28971-A-33 (PFC_IDA_DOD5)	N/A (320-28971-1)	284.92 g 26.35 g	258.6 mL 0.50 mL				6/25/17	16_Days	4		320-28971-A-33-A
4	320-29198-A-1 (PFC_IDA_DOD5)	N/A (320-29198-1)	283.64 g 26.40 g	257.2 mL 0.50 mL				6/23/17	23_Days	4	IX	320-29198-A-1-A
5	480-119437-K-1 (PFC_IDA)	N/A (480-119437-1)	283.31 g 26.71 g	256.6 mL 0.50 mL				6/26/17	8_Days	2		480-119437-K-1-A
6	320-28958-A-7 (PFC_IDA_DOD5)	N/A (320-28958-1)	282.49 g 26.78 g	255.7 mL 0.50 mL				6/25/17	16_Days	4	RI	320-28958-A-7-A
7	320-28958-A-8 (PFC_IDA_DOD5)	N/A (320-28958-1)	289.05 g 26.46 g	262.6 mL 0.50 mL				6/25/17	16_Days	4	RI	320-28958-A-8-A
8	320-28958-A-8-MS (PFC_IDA_DOD5)	N/A (320-28958-1)	289.34 g 27.06 g	262.3 mL 0.50 mL				6/25/17	16_Days	4	RI	320-28958-A-8-B MS
9	320-28958-A-8-MSD (PFC_IDA_DOD5)	N/A (320-28958-1)	289.50 g 26.57 g	262.9 mL 0.50 mL				6/25/17	16_Days	4	RI	320-28958-A-8-C MSD
10	320-28958-A-9 (PFC_IDA_DOD5)	N/A (320-28958-1)	283.98 g 26.83 g	257.2 mL 0.50 mL				6/25/17	16_Days	4	RI	320-28958-A-9-A

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170434

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/22/2017 8:26:00AM

Batch End:

Batch Notes

Manifold ID	16
Methanol ID	959493
Hexane ID	958899
Sodium Hydroxide ID	0.1N NaOH/H2O: 958836
First Start time	NA
First End time	NA
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003036333A
Balance ID	QA-070
H2O ID	6/19/17
Pipette ID	N32655F
Solvent Name	0.3% NH4OH/MeOH
Solvent Lot #	962378
Analyst ID - Reagent Drop	CeB
Analyst ID - SU Reagent Drop	CeB
Analyst ID - SU Reagent Drop Witness	JNS
Acid Name	NA
Acid ID	NA
Reagent ID	NA
Reagent Lot Number	NA
SOP Number	WS-LC-0025

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170434

Analyst: Santos, Jonathan

Method Code: 320-3535_PFC-320

Batch Open: 6/22/2017 8:26:00AM

Batch End:

Batch Comment

Comments

320-29198-A-1	Method Comments:	DOD site, Screen-caution
320-28958-A-7	Method Comments:	include add on spikes
320-28958-A-8	Method Comments:	include add on spikes
320-28958-A-8~MS	Method Comments:	include add on spikes
320-28958-A-8~MSD	Method Comments:	include add on spikes
320-28958-A-9	Method Comments:	include add on spikes

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170434

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/22/2017 8:26:00AM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-170434/1	LCMPFC2SU_00018	500 uL	0.5 mL	dcB 6-22-17	JNS 6/22/17
MB 320-170434/1	LCMPFCSU_00074	500 uL	0.5 mL		
LCS 320-170434/2	LCMPFC2SU_00018	500 uL	0.5 mL		
LCS 320-170434/2	LCMPFCSU_00074	500 uL	0.5 mL		
LCS 320-170434/2	LCPFC2SP_00033	500 uL	0.5 mL		
LCS 320-170434/2	LCPFCSP_00095	500 uL	0.5 mL		
320-28971-A-33	LCMPFC2SU_00018	500 uL	0.5 mL		
320-28971-A-33	LCMPFCSU_00074	500 uL	0.5 mL		
320-29198-A-1	LCMPFC2SU_00018	500 uL	0.5 mL		
320-29198-A-1	LCMPFCSU_00074	500 uL	0.5 mL		
480-119437-K-1	LCMPFC2SU_00018	500 uL	0.5 mL		
480-119437-K-1	LCMPFCSU_00074	500 uL	0.5 mL		
320-28958-A-7	LCMPFC2SU_00018	500 uL	0.5 mL		
320-28958-A-7	LCMPFCSU_00074	500 uL	0.5 mL		
320-28958-A-8	LCMPFC2SU_00018	500 uL	0.5 mL		
320-28958-A-8	LCMPFCSU_00074	500 uL	0.5 mL		
320-28958-A-8 MS	LCMPFC2SU_00018	500 uL	0.5 mL		
320-28958-A-8 MS	LCMPFCSU_00074	500 uL	0.5 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170434

Analyst: Santos, Jonathan

Batch Open: 6/22/2017 8:26:00AM

Method Code: 320-3535_PFC-320

Batch End:

320-28958-A-8 MS	LCPFC2SP_00033	500 uL	0.5 mL	QB 6-22-17	JNS 6/22/17
320-28958-A-8 MS	LCPFCSP_00095	500 uL	0.5 mL		
320-28958-A-8 MSD	LCMPFC2SU_00018	500 uL	0.5 mL		
320-28958-A-8 MSD	LCMPFCSU_00074	500 uL	0.5 mL		
320-28958-A-8 MSD	LCPFC2SP_00033	500 uL	0.5 mL		
320-28958-A-8 MSD	LCPFCSP_00095	500 uL	0.5 mL		
320-28958-A-9	LCMPFC2SU_00018	500 uL	0.5 mL		
320-28958-A-9	LCMPFCSU_00074	500 uL	0.5 mL		

Other Reagents:

Reagent	Amount/Units	Lot#:

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Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 170434 Test: 3535-PFC

Earliest Holding Time: 6/22/17

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	N/A	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: TH Date: 06/23/17

2nd Level Reviewer: VM Date: 6/23/17

Comments:

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Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170231

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/21/2017 8:33:00AM

Batch End: 6/22/2017 10:00:00PM

Solid-Phase Extraction (SPE)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~320-170231/1 N/A	N/A		250 mL 0.5 mL				N/A	N/A	N/A		MB 320-170231/1-A
2	LCS~320-170231/2 N/A	N/A		250 mL 0.5 mL				N/A	N/A	N/A		LCS 320-170231/2-A
3	LCSD~320-170231/3 N/A	N/A		250 mL 0.5 mL				N/A	N/A	N/A		LCSD 320-170231/3-A
4	320-28989-A-1 (PFC_IDA_DOD5)	N/A (320-28989-1)	284.39 g 27.19 g	257.2 mL 0.5 mL				6/22/17	8_Days	4		320-28989-A-1-A
5	320-28989-A-2 (PFC_IDA_DOD5)	N/A (320-28989-1)	282.80 g 26.39 g	256.4 mL 0.5 mL				6/22/17	8_Days	4		320-28989-A-2-A
6	320-28989-A-7 (PFC_IDA_DOD5)	N/A (320-28989-1)	286.14 g 26.27 g	259.9 mL 0.5 mL				6/22/17	8_Days	4	100x	320-28989-A-7-A
7	320-28989-A-8 (PFC_IDA_DOD5)	N/A (320-28989-1)	283.39 g 26.39 g	257 mL 0.5 mL				6/22/17	8_Days	4	100x	320-28989-A-8-A
8	320-28989-A-9 (PFC_IDA_DOD5)	N/A (320-28989-1)	281.46 g 27.14 g	254.3 mL 0.5 mL				6/22/17	8_Days	4	20x	320-28989-A-9-A
9	320-28989-A-11 (PFC_IDA_DOD5)	N/A (320-28989-1)	281.67 g 26.60 g	255.1 mL 0.5 mL				6/22/17	8_Days	4	100x	320-28989-A-11-A
10	320-28989-A-12 (PFC_IDA_DOD5)	N/A (320-28989-1)	290.45 g 27.56 g	262.9 mL 0.5 mL				6/22/17	8_Days	4	RI	320-28989-A-12-A

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170231

Analyst: Santos, Jonathan

Batch Open: 6/21/2017 8:33:00AM

Method Code: 320-3535_PFC-320

Batch End: 6/22/2017 10:00:00PM

11	320-28989-A-13 (PFC_IDA_DOD5)	N/A (320-28989-1)	287.55 g 26.56 g	261 mL 0.5 mL				6/22/17	8_Days	4		
12	320-28989-A-14 (PFC_IDA_DOD5)	N/A (320-28989-1)	291.14 g 26.65 g	264.5 mL 0.5 mL				6/22/17	8_Days	4		
13	320-28989-A-15 (PFC_IDA_DOD5)	N/A (320-28989-1)	279.87 g 26.59 g	253.3 mL 0.5 mL				6/22/17	8_Days	4		
14	320-28993-A-1 (PFC_IDA)	N/A (320-28993-1)	288.63 g 27.34 g	261.3 mL 0.5 mL				6/22/17	8_Days	2	5x	
15	320-28993-A-2 (PFC_IDA)	N/A (320-28993-1)	281.81 g 27.00 g	254.8 mL 0.5 mL				6/22/17	8_Days	2		
16	320-28993-A-3 (PFC_IDA)	N/A (320-28993-1)	284.77 g 27.75 g	257 mL 0.5 mL				6/22/17	8_Days	2		
17	320-28993-A-4 (PFC_IDA)	N/A (320-28993-1)	286.94 g 26.69 g	260.3 mL 0.5 mL				6/22/17	8_Days	2		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170231

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/21/2017 8:33:00AM

Batch End:

Batch Notes

Manifold ID	2, 16
Methanol ID	
Hexane ID	958899
Sodium Hydroxide ID	958836
First Start time	NA
First End time	NA
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003137033A
Balance ID	QA-070
H2O ID	6-19-17
Pipette ID	J33469D
Solvent Name	0.3% NH4OH/MeOH
Solvent Lot #	958931
Analyst ID - Reagent Drop	HJA
Analyst ID - SU Reagent Drop	HJA
Analyst ID - SU Reagent Drop Witness	JNS
Acid Name	NA
Acid ID	NA
Reagent ID	NA
Reagent Lot Number	NA
SOP Number	WS-LC-0025

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170231

Analyst: Santos, Jonathan

Batch Open: 6/21/2017 8:33:00AM

Method Code: 320-3535_PFC-320

Batch End:

Batch Comment

Comments

320-28989-A-1	Method Comments:	Samples from a base
320-28989-A-2	Method Comments:	Samples from a base
320-28989-A-7	Method Comments:	Samples from a base
320-28989-A-8	Method Comments:	Samples from a base
320-28989-A-9	Method Comments:	Samples from a base
320-28989-A-11	Method Comments:	Samples from a base
320-28989-A-12	Method Comments:	Samples from a base
320-28989-A-13	Method Comments:	Samples from a base
320-28989-A-14	Method Comments:	Samples from a base
320-28989-A-15	Method Comments:	Samples from a base

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170231

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/21/2017 8:33:00AM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-170231/1	LCMPFCSU_00074	500 uL	0.5 mL	HJA 6-21-17	JNS 6/21/17
LCS 320-170231/2	LCMPFCSU_00074	500 uL	0.5 mL		
LCS 320-170231/2	LCPFCSP_00095	500 uL	0.5 mL		
LCSD 320-170231/3	LCMPFCSU_00074	500 uL	0.5 mL		
LCSD 320-170231/3	LCPFCSP_00095	500 uL	0.5 mL		
320-28989-A-1	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-2	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-7	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-8	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-9	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-11	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-12	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-13	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-14	LCMPFCSU_00074	500 uL	0.5 mL		
320-28989-A-15	LCMPFCSU_00074	500 uL	0.5 mL		
320-28993-A-1	LCMPFCSU_00074	500 uL	0.5 mL		
320-28993-A-2	LCMPFCSU_00074	500 uL	0.5 mL		
320-28993-A-3	LCMPFCSU_00074	500 uL	0.5 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170231

Analyst: Santos, Jonathan

Batch Open: 6/21/2017 8:33:00AM

Method Code: 320-3535_PFC-320

Batch End:

320-28993-A-4	LCMPFCSU_00074	500 uL	0.5 mL	HSA 6-21-17	JDS 6/21/17

Other Reagents:

Reagent	Amount/Units	Lot#:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 170231 Test: PFC-IDA-DOD5

Earliest Holding Time: 06/21/17

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA ✓
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	NA	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: TM Date: 06/22/17

2nd Level Reviewer: [signature] Date: 6/28/2017

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Test America – Sacramento

Sample Dilution Record

Method ID PFC_DOD, PFC_IDA **Job #** 480-115622, 27003, 28987, 28994

Analyst (Print Name) Shane Reaney **Analyst Initials** SEK

Date 6/27/17

Sample#	Original F.V. (uL)	Aliquot (uL)	Dilution F.V. (uL)	Dilution Factor
27003-1	500	20	200	10X
27003-1 MS	500	20	200	
27003-1 MSD	500	20	200	
27003-2	500	20	200	
27003-3	500	20	200	
480-115622-1	↓	40	200	5X
115622-1 MS		↓	↓	↓
115622-1 MSD				
115622-2				
115622-3				
28993-1				
28989-1		50	1,000	20X
28989-7		10	↓	100X
28989-8		↓		↓
28989-11	↓			

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

HPLC/LCMS Data Review Checklist

Job Number(s): 29198, 29025 Work List ID(s): 44859

Extraction Batch: 170613 Analysis Batch(es): 171596

Delivery Rank 4 Due Date: 6-23-17

A. Calibration/Instrument Run QC	1st Level	2nd Level	N/A
1. ICAL locked in Chrom and TALS? ICAL Batch# 171299	✓	✓	
2. ICAL, CCV Frequency & Criteria met.	✓	✓	
• $RF_{average}$ criteria appropriate for the method.	✓	✓	
• Linear Regression criteria appropriate if required ($r \geq 0.995$).	✓	✓	
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).			✓
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?	✓	✓	
• 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.	✓	✓	
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?			✓
4. Manual Integrations reviewed and appropriate.	✓	✓	
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# 92478, 92470	✓	✓	
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: 6-30-17

2nd Level Reviewer: MWay Date: 7/3/2017

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 28JUN2017C_PFC Worklist Number: 44859
Instrument Name: A8_N Chrom Method: A8_N
Data Directory: \\ChromNa\Sacramento\ChromData\A8_N\20170629-44859.b
QC Batching: Disabled Limit Group Batching: Enabled

QC Batch: 1	LC PFC_DOD ICAL Raw Batch: 171596	LC PFC ICAL Raw Batch: 171597	LC PFAS ICAL Raw Batch: 171598
# 1 CCV L5	# 1 CCV L5	# 1 CCV L5	
# 2 MB 320-170613/1-A	# 2 MB 320-170613/1-A	# 2 MB 320-170613/1-A	
# 3 LCS 320-170613/2-A	# 3 LCS 320-170613/2-A	# 3 LCS 320-170613/2-A	
# 4 LCSD 320-170613/3-A	# 4 LCSD 320-170613/3-A	# 4 LCSD 320-170613/3-A	
# 5 320-29198-B-2-A	# 5 320-29198-B-2-A		
# 6 320-29198-A-3-A	# 6 320-29198-A-3-A		
# 7 320-29198-A-4-A	# 7 320-29198-A-4-A		
# 8 320-29198-A-5-A	# 8 320-29198-A-5-A		
# 9 320-29198-A-6-A	# 9 320-29198-A-6-A		
#10 320-29198-B-7-A	#10 320-29198-B-7-A		
#11 320-29198-A-8-A	#11 320-29198-A-8-A		
#12 CCV L4	#12 CCV L4	#12 CCV L4	
#13 320-29198-A-9-A	#13 320-29198-A-9-A		
#14 320-29198-A-10-A	#14 320-29198-A-10-A		
#15 320-29173-A-18-A		#15 320-29173-A-18-A	#15 320-29173-A-18-A
#16 320-29173-A-19-A		#16 320-29173-A-19-A	#16 320-29173-A-19-A
#17 320-29173-A-20-A		#17 320-29173-A-20-A	#17 320-29173-A-20-A
#18 320-29173-A-21-A		#18 320-29173-A-21-A	#18 320-29173-A-21-A
#19 320-29173-A-22-A		#19 320-29173-A-22-A	#19 320-29173-A-22-A
#20 480-119320-Z-14-A		#20 480-119320-Z-14-A	#20 480-119320-Z-14-A
#21 320-29025-A-6-A	#21 320-29025-A-6-A		
#22 CCV L5	#22 CCV L5	#22 CCV L5	

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Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170613

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/23/2017 8:09:00AM

Batch End: 6/27/2017 10:02:00PM

Solid-Phase Extraction (SPE)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB-320-170613/1 N/A	N/A		250 mL				N/A	N/A	N/A		MB 320-170613/1-A
				0.50 mL								
2	LCS-320-170613/2 N/A	N/A		250 mL				N/A	N/A	N/A		LCS 320-170613/2-A
				0.50 mL								
3	LCSD-320-170613/3 N/A	N/A		250 mL				N/A	N/A	N/A		LCSD 320-170613/3-A
				0.50 mL								
4	320-29198-B-2 (PFC_IDA_DOD5)	N/A (320-29198-1)	288.05 g	260.3 mL				6/23/17	23_Days	4		320-29198-B-2-A
			27.79 g	0.50 mL								
5	320-29198-A-3 (PFC_IDA_DOD5)	N/A (320-29198-1)	276.66 g	250 mL				6/23/17	23_Days	4		320-29198-A-3-A
			26.63 g	0.50 mL								
6	320-29198-A-4 (PFC_IDA_DOD5)	N/A (320-29198-1)	287.36 g	260.9 mL				6/23/17	23_Days	4		320-29198-A-4-A
			26.46 g	0.50 mL								
7	320-29198-A-5 (PFC_IDA_DOD5)	N/A (320-29198-1)	283.41 g	256.1 mL				6/23/17	23_Days	4		320-29198-A-5-A
			27.35 g	0.50 mL								
8	320-29198-A-6 (PFC_IDA_DOD5)	N/A (320-29198-1)	285.99 g	259.2 mL				6/23/17	23_Days	4		320-29198-A-6-A
			26.75 g	0.50 mL								
9	320-29198-B-7 (PFC_IDA_DOD5)	N/A (320-29198-1)	283.09 g	255.7 mL				6/23/17	23_Days	4		320-29198-B-7-A
			27.37 g	0.50 mL								
10	320-29198-A-8 (PFC_IDA_DOD5)	N/A (320-29198-1)	279.49 g	252.6 mL				6/23/17	23_Days	4		320-29198-A-8-A
			26.92 g	0.50 mL								

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170613

Analyst: Santos, Jonathan

Batch Open: 6/23/2017 8:09:00AM

Method Code: 320-3535_PFC-320

Batch End:

11	320-29198-A-9 (PFC_IDA_DOD5)	N/A (320-29198-1)	283.75 g 26.64 g	257.1 mL 0.5 mL				6/23/17	23_Days	4	
12	320-29198-A-10 (PFC_IDA_DOD5)	N/A (320-29198-1)	287.39 g 26.99 g	260.4 mL 0.5 mL				6/23/17	23_Days	4	
13	320-29173-A-18 (PFC_IDA)	N/A (320-29173-1)	156.07 g 27.58 g	128.5 mL 0.5 mL				6/28/17	8_Days	2	
14	320-29173-A-19 (PFC_IDA)	N/A (320-29173-1)	278.85 g 27.68 g	251.2 mL 0.5 mL				6/28/17	8_Days	2	
15	320-29173-A-20 (PFC_IDA)	N/A (320-29173-1)	160.32 g 27.76 g	132.6 mL 0.5 mL				6/28/17	8_Days	2	
16	320-29173-A-21 (PFC_IDA)	N/A (320-29173-1)	274.70 g 27.74 g	247 mL 0.5 mL				6/28/17	8_Days	2	
17	320-29173-A-22 (PFC_IDA)	N/A (320-29173-1)	290.82 g 41.28 g	249.5 mL 0.5 mL				6/28/17	8_Days	2	
18	480-119320-Z-14 (PFC_IDA)	N/A (480-119320-1)	288.07 g 26.59 g	261.5 mL 0.5 mL				6/21/17	8_Day_Rush	4	
19	320-29025-A-6 (PFC_IDA_DOD5)	N/A (320-29025-1)	287.19 g 27.16 g	260 mL 0.5 mL				7/2/17	16_Days	4	

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170613

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/23/2017 8:09:00AM

Batch End:

Batch Notes

Manifold ID	1612
Methanol ID	959497
Hexane ID	958899
Sodium Hydroxide ID	0.1N NaOH/H2O: 958836
First Start time	NA
First End time	NA
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003036333A
Balance ID	QA-070
H2O ID	6/19/17
Pipette ID	N32655F
Solvent Name	0.3% NH4OH/MeOH
Solvent Lot #	962378
Analyst ID - Reagent Drop	NSH
Analyst ID - SU Reagent Drop	NSH
Analyst ID - SU Reagent Drop Witness	JNS
Acid Name	NA
Acid ID	NA
Reagent ID	NA
Reagent Lot Number	NA
SOP Number	WS-LC-0025

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170613

Method Code: 320-3535_PFC-320

Analyst: Santos, Jonathan

Batch Open: 6/23/2017 8:09:00AM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-170613/1	LCMPFC2SU_00017	500 uL	0.5 mL	NSH 6-23-17	~~NS~~ JNS 6/23/17
MB 320-170613/1	LCMPFCSU_00075	500 uL	0.5 mL		
LCS 320-170613/2	LCMPFC2SU_00017	500 uL	0.5 mL		
LCS 320-170613/2	LCMPFCSU_00075	500 uL	0.5 mL		
LCS 320-170613/2	LCPFC2SP_00032	500 uL	0.5 mL		
LCS 320-170613/2	LCPFCSP_00095	500 uL	0.5 mL		
LCSD 320-170613/3	LCMPFC2SU_00017	500 uL	0.5 mL		
LCSD 320-170613/3	LCMPFCSU_00075	500 uL	0.5 mL		
LCSD 320-170613/3	LCPFC2SP_00032	500 uL	0.5 mL		
LCSD 320-170613/3	LCPFCSP_00095	500 uL	0.5 mL		
320-29198-B-2	LCMPFCSU_00075	500 uL	0.5 mL		
320-29198-A-3	LCMPFCSU_00075	500 uL	0.5 mL		
320-29198-A-4	LCMPFCSU_00075	500 uL	0.5 mL		
320-29198-A-5	LCMPFCSU_00075	500 uL	0.5 mL		
320-29198-A-6	LCMPFCSU_00075	500 uL	0.5 mL		
320-29198-B-7	LCMPFCSU_00075	500 uL	0.5 mL		
320-29198-A-8	LCMPFCSU_00075	500 uL	0.5 mL		
320-29198-A-9	LCMPFCSU_00075	500 uL	0.5 mL	✓	✓

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170613

Analyst: Santos, Jonathan

Batch Open: 6/23/2017 8:09:00AM

Method Code: 320-3535_PFC-320

Batch End:

320-29198-A-10	LCMPFCSU_00075	500 uL	0.5 mL	NSH 6-23-17	JNS 6/23/17
320-29173-A-18	LCMPFCSU_00075	500 uL	0.5 mL		
320-29173-A-19	LCMPFCSU_00075	500 uL	0.5 mL		
320-29173-A-20	LCMPFCSU_00075	500 uL	0.5 mL		
320-29173-A-21	LCMPFCSU_00075	500 uL	0.5 mL		
320-29173-A-22	LCMPFCSU_00075	500 uL	0.5 mL		
480-119320-Z-14	LCMPFCSU_00075	500 uL	0.5 mL		
320-29025-A-6	LCMPFC2SU_00017	500 uL	0.5 mL		
320-29025-A-6	LCMPFCSU_00075	500 uL	0.5 mL		

Other Reagents:

Reagent	Amount/Units	Lot#:

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-170613

Analyst: Santos, Jonathan

Batch Open: 6/23/2017 8:09:00AM

Method Code: 320-3535_PFC-320

Batch End:

Batch Comment

Comments

320-29198-B-2	Method Comments:	DOD site, Screen-caution
320-29198-A-3	Method Comments:	DOD site, Screen-caution
320-29198-A-4	Method Comments:	DOD site, Screen-caution
320-29198-A-5	Method Comments:	DOD site, Screen-caution
320-29198-A-6	Method Comments:	DOD site, Screen-caution
320-29198-B-7	Method Comments:	DOD site, Screen-caution
320-29198-A-8	Method Comments:	DOD site, Screen-caution
320-29198-A-9	Method Comments:	DOD site, Screen-caution
320-29198-A-10	Method Comments:	DOD site, Screen-caution
Login Comments for Job 119320:		L4Reviewed(Bflo):MB(mtm),RSK_175(mtm),me(Lisa) ~Sub methods:8260C,8260C_SIM,PFC_IDA,RSK175_CO2.~
320-29025-A-6	Method Comments:	include add on spikes

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 170613 Test: PFC-TDA-DoD5

Earliest Holding Time: 6/23/17

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	NA	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: TM Date: 06/27/17

2nd Level Reviewer: VPM Date: 6/28/17

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

HPLC/LCMS Data Review Checklist

Job Number(s): 29254, 29198 Work List ID(s): 45485

Extraction Batch: 173923 Analysis Batch(es): 174335

Delivery Rank 4 Due Date: 6-23-17

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 ($r \geq 0.995$).	✓	✓	
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).			✓
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?	✓	✓	
• 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.	✓	✓	
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. NCM	✓	✓	
6. IS/Surrogate recoveries meet criteria or properly noted. RI	✓	✓	
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?		✓	✓
4. Manual Integrations reviewed and appropriate.	✓	✓	
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# 94372 94220	✓	✓	
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: 7-17-17

2nd Level Reviewer: MKWay Date: 7/18/17

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 14JUL2017E_PFC Worklist Number: 45485
Instrument Name: A8_N Chrom Method: A8_N
Data Directory: \\ChromNa\Sacramento\ChromData\A8_N\20170715-45485.b
QC Batching: Disabled Limit Group Batching: Enabled

QC Batch: 1	LC PFC_DOD ICAL Raw Batch: 174335	LC PFC ICAL Raw Batch: 174336
# 1 CCV L4	# 1 CCV L4	
# 2 MB 320-173923/1-A	# 2 MB 320-173923/1-A	# 2 MB 320-173923/1-A
# 3 LCS 320-173923/2-A	# 3 LCS 320-173923/2-A	# 3 LCS 320-173923/2-A
# 4 LCSD 320-173923/3-A	# 4 LCSD 320-173923/3-A	# 4 LCSD 320-173923/3-A
# 5 480-120221-B-7-A		# 5 480-120221-B-7-A
# 6 480-120221-B-8-A		# 6 480-120221-B-8-A
# 7 480-120221-B-10-A		# 7 480-120221-B-10-A
# 8 480-120221-B-11-A		# 8 480-120221-B-11-A
# 9 460-136657-A-1-A		# 9 460-136657-A-1-A
#10 460-136657-A-2-A		#10 460-136657-A-2-A
#11 480-119320-Y-14-A		#11 480-119320-Y-14-A
#12 CCV L5	#12 CCV L5	#12 CCV L5
#13 460-136655-L-1-A		#13 460-136655-L-1-A
#14 320-29254-B-5-A	#14 320-29254-B-5-A	
#15 320-29198-B-5-A	#15 320-29198-B-5-A	
#16 320-29198-B-6-A	#16 320-29198-B-6-A	
#17 320-29198-B-8-A	#17 320-29198-B-8-A	
#18 CCV L4	#18 CCV L4	#18 CCV L4

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End: 7/14/2017 1:37:00PM

Solid-Phase Extraction (SPE)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB-320-173923/1 N/A	N/A		250 mL				N/A	N/A	N/A		
				0.50 mL								
2	LCS-320-173923/2 N/A	N/A		250 mL				N/A	N/A	N/A		
				0.50 mL								
3	LCSD-320-173923/3 N/A	N/A		250 mL				N/A	N/A	N/A		
				0.50 mL								
4	480-120221-B-7 (PFC_IDA)	N/A (480-120221-1)	282.51 g	256.1 mL				7/12/17	12_Days	2		
			26.43 g	0.50 mL								
5	480-120221-B-8 (PFC_IDA)	N/A (480-120221-1)	274.75 g	248.2 mL				7/12/17	12_Days	2		
			26.52 g	0.50 mL								
6	480-120221-B-10 (PFC_IDA)	N/A (480-120221-1)	282.63 g	255.5 mL				7/12/17	12_Days	2		
			27.11 g	0.50 mL								
7	480-120221-B-11 (PFC_IDA)	N/A (480-120221-1)	272.16 g	245.3 mL				7/12/17	12_Days	2		
			26.90 g	0.50 mL								
8	460-136657-A-1 (PFC_IDA)	N/A (460-136657-1)	291.97 g	263.7 mL				7/12/17	4_Day_RUSH	4		
			28.30 g	0.50 mL								
9	460-136657-A-2 (PFC_IDA)	N/A (460-136657-1)	293.06 g	265.6 mL				7/12/17	4_Day_RUSH	4		
			27.48 g	0.50 mL								
0	480-119320-Y-14 (PFC_IDA)	N/A (480-119320-1)	289.33 g	263.1 mL				6/21/17	8_Day_Rush	4		
			26.20 g	0.50 mL								

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Method Code: 320-3535_PFC-320

Batch End:

11	460-136655-L-1 (PFC_IDA) ✓	N/A (460-136655-1)	289.36 g 27.48 g	261.9 mL 0.50 mL				7/12/17	4_Day_RUSH	4	
12	320-29254-B-5 (PFC_IDA_DOD5) ✓	N/A (320-29254-1)	296.29 g 26.69 g	269.6 mL 0.50 mL				6/30/17	8_Days	4	
13	320-29198-B-5 (PFC_IDA_DOD5)	N/A (320-29198-1)	376.53 g 27.56 g	349 mL 0.50 mL				6/23/17	23_Days	4	
4	320-29198-B-6 (PFC_IDA_DOD5)	N/A (320-29198-1)	280.27 g 26.59 g	253.7 mL 0.50 mL				6/23/17	23_Days	4	
5	320-29198-B-8 (PFC_IDA_DOD5)	N/A (320-29198-1)	279.04 g 27.04 g	252 mL 0.50 mL				6/23/17	23_Days	4	

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

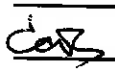
Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End:

Batch Notes

Manifold ID	11, 8
Methanol ID	973171
Hexane ID	958901
Sodium Hydroxide ID	977629
First Start time	NA
First End time	NA
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003036333A
Balance ID	QA-070
H2O ID	7/10/17
Pipette ID	N32728F
Solvent Name	0.3% NH4OH/MeOH
Solvent Lot #	981395
Analyst ID - Reagent Drop	NSH
Analyst ID - SU Reagent Drop	NSH
Analyst ID - SU Reagent Drop Witness	
Acid Name	NA
Acid ID	NA
Reagent ID	NA
Reagent Lot Number	NA
SOP Number	WS-LC-0025

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Method Code: 320-3535_PFC-320

Batch End:

Batch Comment

Comments

480-120221-B-7	Rework Comments:	Extremely low FOSA IDA recoveries
480-120221-B-8	Rework Comments:	Extremely low FOSA IDA recoveries
480-120221-B-10	Rework Comments:	Extremely low FOSA IDA recoveries
480-120221-B-11	Rework Comments:	Extremely low FOSA IDA recoveries
460-136657-A-1	Method Comments:	probably high level; runoff samples from highway fire
460-136657-A-2	Method Comments:	probably high level; runoff samples from highway fire
Login Comments for Job 119320:		L4Reviewed(Bflo):MB(mtm),RSK_175(mtm),me(Lisa),WC(MMB),GC(8081/8082) Gsr *ALL*7/11/17 ~Sub methods:8260C,8260C_SIM,PFC_IDA,RSK175_CO2.~
480-119320-Y-14	Rework Comments:	LCS out high and MB contamination.
460-136655-L-1	Method Comments:	probably high level; runoff samples from highway fire
320-29198-B-5	Method Comments:	DOD site, Screen-caution
	Rework Comments:	LCS out high and MB contamination.
320-29198-B-6	Method Comments:	DOD site, Screen-caution
	Rework Comments:	LCS out high and MB contamination.
320-29198-B-8	Method Comments:	DOD site, Screen-caution
	Rework Comments:	LCS out high and MB contamination.

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-173923/1	LCMPFCSU_00078	500 uL	0.50 mL	NSH 7-13-17	CAR 7-13-17
LCS 320-173923/2	LCMPFCSU_00078	500 uL	0.50 mL		
LCS 320-173923/2	LCPFCSP_00100	0.50 mL	0.50 mL		
LCSD 320-173923/3	LCMPFCSU_00078	500 uL	0.50 mL		
LCSD 320-173923/3	LCPFCSP_00100	0.50 mL	0.50 mL		
480-120221-B-7	LCMPFCSU_00078	500 uL	0.50 mL		
480-120221-B-8	LCMPFCSU_00078	500 uL	0.50 mL		
480-120221-B-10	LCMPFCSU_00078	500 uL	0.50 mL		
480-120221-B-11	LCMPFCSU_00078	500 uL	0.50 mL		
460-136657-A-1	LCMPFCSU_00078	500 uL	0.50 mL		
460-136657-A-2	LCMPFCSU_00078	500 uL	0.50 mL		
480-119320-Y-14	LCMPFCSU_00078	500 uL	0.50 mL		
460-136655-L-1	LCMPFCSU_00078	500 uL	0.50 mL		
320-29254-B-5	LCMPFCSU_00078	500 uL	0.50 mL		
320-29198-B-5	LCMPFCSU_00078	500 uL	0.50 mL		
320-29198-B-6	LCMPFCSU_00078	500 uL	0.50 mL		
320-29198-B-8	LCMPFCSU_00078	500 uL	0.50 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End:

Other Reagents:

Reagent	Amount/Units	Lot#:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 320-173923 Test: PFC-1

Earliest Holding Time: 6-23-17

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and CI Check)	✓	✓
The pH is transcribed correctly in TALS	NA	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: CeS Date: 7-14-17

2nd Level Reviewer: VM Date: 7/14/17

Comments:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

HPLC/LCMS Data Review Checklist

Job Number(s): 29198; 29254 Work List ID(s): 45595

Extraction Batch: 173923 Analysis Batch(es): 174782; 174335

Delivery Rank 4 Due Date: Various

A. Calibration/Instrument Run QC	1st Level	2nd Level	N/A
1. ICAL locked in Chrom and TALS? ICAL Batch# 174348	✓	✓	
2. ICAL, CCV Frequency & Criteria met.	✓	✓	
• $RF_{average}$ criteria appropriate for the method.	✓	✓	
• Linear Regression criteria appropriate if required ($r \geq 0.995$).	✓	✓	
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).			✓
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?	✓	✓	
• 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.	✓	✓	
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?			✓
4. Manual Integrations reviewed and appropriate.	✓	✓	
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# 94980	✓	✓	
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): [signature] Date: 7/24/17

2nd Level Reviewer: Mway Date: 7/25/2017

TestAmerica Laboratories
Worklist QC Batch Report

Worklist Name: 17JUL2017I_PFC Worklist Number: 45595
Instrument Name: A8_N Chrom Method: A8_N
Data Directory: \\ChromNa\Sacramento\ChromData\A8_N\20170718-45595.b
QC Batching: Disabled Limit Group Batching: Enabled

QC Batch: 1	LC PFC_DOD ICAL Raw Batch: 174782	LC PFC ICAL Raw Batch: 174783
# 1 CCV L5	# 1 CCV L5	# 1 CCV L5
# 2 320-29254-A-15-A	# 2 320-29254-A-15-A	
# 3 320-29254-A-16-A	# 3 320-29254-A-16-A	
# 4 320-29336-A-4-A	# 4 320-29336-A-4-A	
# 5 320-29336-A-6-A	# 5 320-29336-A-6-A	
# 6 320-29517-A-2-A	# 6 320-29517-A-2-A	
# 7 MB 320-173923/1-A	# 7 MB 320-173923/1-A	
# 8 LCS 320-173923/2-A	# 8 LCS 320-173923/2-A	
# 9 LCSD 320-173923/3-A	# 9 LCSD 320-173923/3-A	
#10 320-29254-B-5-A	#10 320-29254-B-5-A	
#11 CCV L4	#11 CCV L4	#11 CCV L4

originally in 174335 GDC 7/24/17

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RX

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End: 7/14/2017 1:37:00PM

Solid-Phase Extraction (SPE)

	Input Sample Lab ID (Analytical Method)	SDG (Job #)	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB-320-173923/1 N/A	N/A		250 mL				N/A	N/A	N/A	RI	MB 320-173923/1-A
				0.50 mL								
2	LCS-320-173923/2 N/A	N/A		250 mL				N/A	N/A	N/A	RI	LCS 320-173923/2-A
				0.50 mL								
3	LCSD-320-173923/3 N/A	N/A		250 mL				N/A	N/A	N/A	RI	LCSD 320-173923/3-A
				0.50 mL								
4	480-120221-B-7 (PFC_IDA)	N/A (480-120221-1)	282.51 g	256.1 mL				7/12/17	12_Days	2		480-120221-B-7-A
			26.43 g	0.50 mL								
5	480-120221-B-8 (PFC_IDA)	N/A (480-120221-1)	274.75 g	248.2 mL				7/12/17	12_Days	2		480-120221-B-8-A
			26.52 g	0.50 mL								
6	480-120221-B-10 (PFC_IDA)	N/A (480-120221-1)	282.63 g	255.5 mL				7/12/17	12_Days	2		480-120221-B-10-A
			27.11 g	0.50 mL								
7	480-120221-B-11 (PFC_IDA)	N/A (480-120221-1)	272.16 g	245.3 mL				7/12/17	12_Days	2		480-120221-B-11-A
			26.90 g	0.50 mL								
8	460-136657-A-1 (PFC_IDA)	N/A (460-136657-1)	291.97 g	263.7 mL				7/12/17	4_Day_RUSH	4		460-136657-A-1-A
			28.30 g	0.50 mL								
9	460-136657-A-2 (PFC_IDA)	N/A (460-136657-1)	293.06 g	265.6 mL				7/12/17	4_Day_RUSH	4		460-136657-A-2-A
			27.48 g	0.50 mL								
10	480-119320-Y-14 (PFC_IDA)	N/A (480-119320-1)	289.33 g	263.1 mL				6/21/17	8_Day_Rush	4		480-119320-Y-14-A
			26.20 g	0.50 mL								

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Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Method Code: 320-3535_PFC-320

Batch End:

11	460-136655-L-1 (PFC_IDA)	N/A (460-136655-1)	289.36 g 27.48 g	261.9 mL 0.50 mL				7/12/17	4_Day_RUSH	4	
12	320-29254-B-5 (PFC_IDA_DOD5)	N/A (320-29254-1)	296.29 g 26.69 g	269.6 mL 0.50 mL				6/30/17	8_Days	4	RI
13	320-29198-B-5 (PFC_IDA_DOD5)	N/A (320-29198-1)	376.53 g 27.56 g	349 mL 0.50 mL				6/23/17	23_Days	4	
14	320-29198-B-6 (PFC_IDA_DOD5)	N/A (320-29198-1)	280.27 g 26.59 g	253.7 mL 0.50 mL				6/23/17	23_Days	4	
15	320-29198-B-8 (PFC_IDA_DOD5)	N/A (320-29198-1)	279.04 g 27.04 g	252 mL 0.50 mL				6/23/17	23_Days	4	

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End:

Batch Notes

Manifold ID	11, 8
Methanol ID	973171
Hexane ID	958901
Sodium Hydroxide ID	977629
First Start time	NA
First End time	NA
SPE Cartridge Type	WAX 500mg
Solid Phase Extraction Disk ID	003036333A
Balance ID	QA-070
H2O ID	7/10/17
Pipette ID	N32728F
Solvent Name	0.3% NH4OH/MeOH
Solvent Lot #	981395
Analyst ID - Reagent Drop	NSH
Analyst ID - SU Reagent Drop	NSH
Analyst ID - SU Reagent Drop Witness	
Acid Name	NA
Acid ID	NA
Reagent ID	NA
Reagent Lot Number	NA
SOP Number	WS-LC-0025

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Method Code: 320-3535_PFC-320

Batch End:

Batch Comment

Comments

480-120221-B-7	Rework Comments:	Extremely low FOSA IDA recoveries
480-120221-B-8	Rework Comments:	Extremely low FOSA IDA recoveries
480-120221-B-10	Rework Comments:	Extremely low FOSA IDA recoveries
480-120221-B-11	Rework Comments:	Extremely low FOSA IDA recoveries
460-136657-A-1	Method Comments:	probably high level; runoff samples from highway fire
460-136657-A-2	Method Comments:	probably high level; runoff samples from highway fire
Login Comments for Job 119320:		L4Reviewed(Bflo):MB(mtm),RSK_175(mtm),me(Lisa),WC(MMB),GC(8081/8082) Gsr *ALL*7/11/17 ~Sub methods:8260C,8260C_SIM,PFC_IDA,RSK175_CO2.~
480-119320-Y-14	Rework Comments:	LCS out high and MB contamination.
460-136655-L-1	Method Comments:	probably high level; runoff samples from highway fire
320-29198-B-5	Method Comments:	DOD site, Screen-caution
	Rework Comments:	LCS out high and MB contamination.
320-29198-B-6	Method Comments:	DOD site, Screen-caution
	Rework Comments:	LCS out high and MB contamination.
320-29198-B-8	Method Comments:	DOD site, Screen-caution
	Rework Comments:	LCS out high and MB contamination.

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-173923/1	LCMPFCSU_00078	500 uL	0.50 mL	NSH 7-13-17	COB 7-13-17
LCS 320-173923/2	LCMPFCSU_00078	500 uL	0.50 mL		
LCS 320-173923/2	LCPFCSP_00100	0.50 mL	0.50 mL		
LCSD 320-173923/3	LCMPFCSU_00078	500 uL	0.50 mL		
LCSD 320-173923/3	LCPFCSP_00100	0.50 mL	0.50 mL		
480-120221-B-7	LCMPFCSU_00078	500 uL	0.50 mL		
480-120221-B-8	LCMPFCSU_00078	500 uL	0.50 mL		
480-120221-B-10	LCMPFCSU_00078	500 uL	0.50 mL		
480-120221-B-11	LCMPFCSU_00078	500 uL	0.50 mL		
460-136657-A-1	LCMPFCSU_00078	500 uL	0.50 mL		
460-136657-A-2	LCMPFCSU_00078	500 uL	0.50 mL		
480-119320-Y-14	LCMPFCSU_00078	500 uL	0.50 mL		
460-136655-L-1	LCMPFCSU_00078	500 uL	0.50 mL		
320-29254-B-5	LCMPFCSU_00078	500 uL	0.50 mL		
320-29198-B-5	LCMPFCSU_00078	500 uL	0.50 mL		
320-29198-B-6	LCMPFCSU_00078	500 uL	0.50 mL		
320-29198-B-8	LCMPFCSU_00078	500 uL	0.50 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-173923

Method Code: 320-3535_PFC-320

Analyst: Sharifi, Nooshin

Batch Open: 7/13/2017 9:26:00AM

Batch End:

Other Reagents:

Reagent	Amount/Units	Lot#:

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 320-173923 Test: PFC-1

Earliest Holding Time: 6-23-17

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	NA	NA
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	NA	NA
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: CS Date: 7-14-17

2nd Level Reviewer: VM Date: 7/14/17

Comments:

Shipping and Receiving Documents

TestAmerica Sacramento
880 Riverside Parkway

West Sacramento, CA 95605-1500
phone 916.373.5600 fax 303.467.7248

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

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

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Bryan Burkingstock	Site Contact: Ryan Brown	Date: 6/16/17	COC No: 5 12
Company Name CH2M	Tel/Fax: 603-736-4111	Lab Contact: Jill Kellmann	Carrier: FedEx	1 of 1 COCs
6600 Peachtree Dunwoody Road, 400 Embassy Row, Suite 600	Analysis Turnaround Time			Sampler: J. McCann
Atlanta GA 30328	☒CALENDAR DAYS ☐WORKING DAYS			For Lab Use Only:
(678) 530-4060 Phone	TAT if different from Below 28 Days			Walk-in Client:
(770) 604-9153 Fax	☐ 2 weeks			Lab Sampling:
Project Name: Meridian 10006-7-105420 JM01 Navy CLEAN	☐ 1 week			Job / SDG No.:
Site: NAS Meridian	☐ 2 days			
P O # 10006-7-105420	☐ 1 day			

320-29198 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	EPA 537M (DOC)	Sample Specific Notes:
MEAFF-T45C-2004MW01-0617	6/15/17	1445	G	GW	2	N	N	X	
MEAFF-EB05-0617	6/16/17	0740			2				equipment blank
MEAFF-T45C-03-2008MW01-0617		0955							
MEAFF-UNKN16MW01-0617		1125							
MEAFF-TA4-UNKNMW01-0617		1225							
MEAFF-UNKN17MW01-0617		1410							
MEAFF-EB06-0617		1455							
MEAFF-TA4J-1992MW01-0617		1530							
MEAFF-T45C-2005MW01-0617		1700							
MEAFF-EB07-0617	↓	1645	↓	↓	↓	↓	↓	↓	

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

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

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

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

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

Special Instructions/QC Requirements & Comments: Send results to Mike Zamboni - address on file

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:		Cooler Temp. (°C): Obs'd: 0.4	Corr'd: —	Therm ID No.: AK-1
Relinquished by: Justine McCann	Company: CH2M HILL	Date/Time: 6/16/17 1830	Received by:	Company: FedEx	Date/Time: 6-17-17 945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.8, dated 11/04/2015

Login Sample Receipt Checklist

Client: CH2M Hill, Inc.

Job Number: 320-29198-1

Login Number: 29198
List Number: 1
Creator: Nelson, Kym D

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 (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Contract_ID	QQ_CTQ_Number	Phase	Installation_ID	Sample_Name	CYANC_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_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	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	EDM_Version	SIL	LOQ	LOQ	Analyte_Batch	Validator_Name	Val_Date
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFP-MRD-1A01-0217		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NONE	SW			02/21/2017 15:55	02/22/2017		02/21/2017 15:55	02/22/2017	2017/02/28	14:44:00	320-25982-1	1	1			2,4-Dioxane	5000	0.48	0.48	UG/L							20000000	SW			0.35	0.48	0.97	320-25982.1	320-15339	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFP-MRD-1A01-0217		NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/21/2017 15:55	02/22/2017		2017/02/24	15:44:00	2017/03/06	16:12:00	320-25982-1	1	1			Nitrobenzene-D5	4545-60-0	81	81				PR	SURR	SVSA	51	42	30000000	SW			5.0			320-25982.1	320-15339	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFP-MRD-1A01F-0217		NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W	F	02/21/2017 15:55	02/22/2017		2017/02/24	15:44:00	2017/03/06	16:34:00	320-25982-2	1	1			2,4-Dioxane	5000	0.48	0.48	UG/L			PR	TRG				30000000	SW			0.35	0.48	0.97	320-25982.1	320-15339	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFP-MRD-1A01F-0217		NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W	F	02/21/2017 15:55	02/22/2017		2017/02/24	15:44:00	2017/03/06	16:34:00	320-25982-2	1	1			Nitrobenzene-D5	4545-60-0	83	83				PR	SURR	SVSA	51	42	30000000	SW			5.0			320-25982.1	320-15339	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-EBD-0221T-SO		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W	F	02/21/2017 13:25	02/22/2017		2017/02/28	14:42:00	2017/03/02	11:12:00	320-25982-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0027	0.0027	UG/L			PR	TRG				30000000	SO			5.0	0.0011	0.0027	0.0036	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-EBD-0221T-SO		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/21/2017 13:25	02/22/2017		2017/02/28	14:42:00	2017/03/02	11:12:00	320-25982-3	1	1			1-DC4 PFOA	335-67-1	312	312	NG/L			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-EBD-0221T-SO		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/21/2017 13:25	02/22/2017		2017/02/28	14:42:00	2017/03/02	11:12:00	320-25982-3	1	1			13C4 PFOA	335-95-5	135	135	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-EBD-0221T-SO		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/21/2017 13:25	02/22/2017		2017/02/28	14:42:00	2017/03/02	11:12:00	320-25982-3	1	1			Perfluorohexanoic acid (PFHxA)	307-24-4	0.0018	0.0018	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.00092	0.0018	0.0022	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-EBD-0221T-SO		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/21/2017 13:25	02/22/2017		2017/02/28	14:42:00	2017/03/02	11:12:00	320-25982-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0011	0.0011	UG/L			PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/28/2017 13:35	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:20:00	320-25982-4	1	1	13.1		Perfluorohexanoic acid (PFHxA)	307-24-4	0.14	0.14	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.14	0.34	0.57	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/28/2017 13:35	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:20:00	320-25982-4	1	1	13.1		13C4 PFOA	335-95-5	135	135	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	W		02/28/2017 13:35	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:20:00	320-25982-4	1	1	13.1		Perfluorohexanoic acid (PFHxA)	307-24-4	0.14	0.14	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.14	0.34	0.57	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:45:00	320-25982-4	1	1	13.3		Perfluorohexanoic acid (PFHxA)	307-24-4	0.13	0.13	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.34	0.46	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:45:00	320-25982-4	1	1	13.3		13C4 PFOA	335-95-5	2.0	2.0	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0	0.12	0.34	0.46	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:45:00	320-25982-4	1	1	13.3		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15236	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:53:00	320-25982-4	10	2	13.3		1-DC4 PFOA	335-67-1	38	38	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0	1.2	4.4	5.7	320-25982.1	320-15320	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:53:00	320-25982-4	10	2	13.3		Perfluorooctane Sulfonate (PFOS)	1763-23-1	270	270	UG/L			PR	TRG				30000000	SO			5.0	1.4	4.4	5.7	320-25982.1	320-15320	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:53:00	320-25982-4	10	2	13.3		13C4 PFOA	335-95-5	190	190	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15320	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:53:00	320-25982-4	10	2	13.3		Perfluorooctane Sulfonate (PFOS)	1763-23-1	1.9	1.9	UG/L			PR	TRG				30000000	SO			5.0			320-25982.1	320-15320	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:35	02/22/2017		2017/02/23	17:22:00	2017/03/03	09:53:00	320-25982-4	10	2	13.3		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15320	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:40	02/22/2017		2017/02/23	17:22:00	2017/03/01	00:00:00	320-25982-5	1	1	14.7		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.35	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.35	0.47	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:40	02/22/2017		2017/02/23	17:22:00	2017/03/01	00:00:00	320-25982-5	1	1	14.7		13C4 PFOA	335-95-5	2.0	2.0	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:40	02/22/2017		2017/02/23	17:22:00	2017/03/01	00:00:00	320-25982-5	1	1	14.7		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.35	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.35	0.47	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:40	02/22/2017		2017/02/23	17:22:00	2017/03/01	00:00:00	320-25982-5	1	1	14.7		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:40	02/22/2017		2017/02/23	17:22:00	2017/03/01	00:00:00	320-25982-5	1	1	14.7		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-PWMA-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/21/2017 13:40	02/22/2017		2017/02/23	17:22:00	2017/03/01	00:00:00	320-25982-5	1	1	14.7		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:31	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-6	1	1	14.1		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.35	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.35	0.47	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:31	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-6	1	1	14.1		13C4 PFOA	335-95-5	98	98	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:31	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-6	1	1	14.1		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:31	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-6	1	1	14.1		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:39	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:36:00	320-25982-7	1	1	14.9		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.35	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.35	0.47	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:39	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:36:00	320-25982-7	1	1	14.9		13C4 PFOA	335-95-5	2.0	2.0	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:39	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:36:00	320-25982-7	1	1	14.9		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4A-SB01-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:39	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:36:00	320-25982-7	1	1	14.9		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:43	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:44:00	320-25982-8	1	1	14.9		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.35	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.35	0.47	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:43	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:44:00	320-25982-8	1	1	14.9		13C4 PFOA	335-95-5	2.0	2.0	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:43	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:44:00	320-25982-8	1	1	14.9		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0001		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:43	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:44:00	320-25982-8	1	1	14.9		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:47	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-9	1	1	14.8		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.34	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.34	0.46	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:47	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-9	1	1	14.8		13C4 PFOA	335-95-5	2.0	2.0	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:47	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-9	1	1	14.8		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-SDA4B-SB02-0204		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:47	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-9	1	1	14.8		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB01-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/23/2017 11:25	02/24/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-10	1	1	17.5		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.34	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.34	0.46	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB01-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/23/2017 11:25	02/24/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-10	1	1	17.5		13C4 PFOA	335-95-5	51	51	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB01-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/23/2017 11:25	02/24/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-10	1	1	17.5		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB01-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/23/2017 11:25	02/24/2017		2017/02/28	14:42:00	2017/03/02	11:52:00	320-25982-10	1	1	17.5		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB03-0608		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:55	02/23/2017		2017/02/28	14:42:00	2017/03/02	12:00:00	320-25982-11	1	1	14.2		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.34	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.34	0.46	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB03-0608		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:55	02/23/2017		2017/02/28	14:42:00	2017/03/02	12:00:00	320-25982-11	1	1	14.2		13C4 PFOA	335-95-5	1.4	1.4	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB03-0608		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:55	02/23/2017		2017/02/28	14:42:00	2017/03/02	12:00:00	320-25982-11	1	1	14.2		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB03-0608		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 15:55	02/23/2017		2017/02/28	14:42:00	2017/03/02	12:00:00	320-25982-11	1	1	14.2		18O2 PFHS	1652-63-7	222	222	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB02-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 14:30	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-12	1	1	16.5		Perfluorohexanoic acid (PFHxA)	307-24-4	0.12	0.34	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.12	0.34	0.46	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB02-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 14:30	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-12	1	1	16.5		13C4 PFOA	335-95-5	107	107	ACT_REC			PR	SURR	SUSA	150	25	30000000	SO			5.0			320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB02-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 14:30	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-12	1	1	16.5		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0025	0.0025	UG/L	J	J	PR	TRG				30000000	SO			5.0	0.0011	0.0029	0.0036	320-25982.1	320-15325	
NL24701S019000	AK01		MERIDIAN_NAS	MR-AFT-WWTP-SB02-1012		NONS	SVOA	517_MOD	ERG	TAMER	Test America	NONE	NA	04/05/10C	000	REG	S		02/22/2017 14:30	02/23/2017		2017/02/28	14:42:00	2017/03/02	11:28:00	320-25982-12	1	1	16.5		18O2 PFHS	1652-63-7	222	222

Contract_ID	OD_CTO_Number	Phase	Installation_ID	Sample_Name	CHEM_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	GenerTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	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	EDM_Version	SDL	LOQ	LOQC	EDQ	Analysis_Batch	Validator_Name	Val_Date
NEA2470100900	AW01		MERIDIAN_NAS	1,4-DIOXANE-D8	17060	SVOA	517_MOD	SRG	TRAMER	Test America	NONE	NA	SW5035	1000	RSD	W	A	02/28/2017 16:42	02/28/2017			03/02/2017	16:42:00	17060	104	104	UG/L			PE	TRG										5.0									

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:15	02/25/2017			20170302	17:04:00	20170311	17:35:00	320-26105-6	1	1	12.8		Perfluorooctanoic acid (PFOA)	335-67-1	6.3	6.3	UG_KG	M	M	PR	TRG					00000000	SO			5.0	0.12	0.35	0.58	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:15	02/25/2017			20170302	17:04:00	20170311	17:35:00	320-26105-6	1	1	12.8		Perfluorooctane Sulfonate (PFOS)	1763-23-1	21	21	UG_KG	M	M	PR	TRG					00000000	SO			5.0	0.15	0.35	0.58	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:15	02/25/2017			20170302	17:04:00	20170311	17:35:00	320-26105-6	1	1	12.8		13C4 PFOA	13C4 PFOA	95	95	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:15	02/25/2017			20170302	17:04:00	20170311	17:35:00	320-26105-6	1	1	12.8		13C4 PFOS	13C4 PFOS	61	61	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:15	02/25/2017			20170302	17:04:00	20170311	17:35:00	320-26105-6	1	1	12.8		Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.35	0.35	UG_KG	UM	UM	PR	TRG					00000000	SO			5.0	0.12	0.35	0.46	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:15	02/25/2017			20170302	17:04:00	20170311	17:35:00	320-26105-6	1	1	12.8		18O2 PFHXS	18O2 PFHXS	92	92	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:20	02/25/2017			20170302	17:04:00	20170311	17:42:00	320-26105-7	1	1	13.7		Perfluorooctanoic acid (PFOA)	335-67-1	0.15	0.15	UG_KG	JM	JM	PR	TRG					00000000	SO			5.0	0.12	0.35	0.58	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:20	02/25/2017			20170302	17:04:00	20170311	17:42:00	320-26105-7	1	1	13.7		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.35	0.35	UG_KG	UM	UM	PR	TRG					00000000	SO			5.0	0.15	0.35	0.58	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:20	02/25/2017			20170302	17:04:00	20170311	17:42:00	320-26105-7	1	1	13.7		13C4 PFOA	13C4 PFOA	104	104	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:20	02/25/2017			20170302	17:04:00	20170311	17:42:00	320-26105-7	1	1	13.7		13C4 PFOS	13C4 PFOS	56	56	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:20	02/25/2017			20170302	17:04:00	20170311	17:42:00	320-26105-7	1	1	13.7		Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.35	0.35	UG_KG	U	U	PR	TRG					00000000	SO			5.0	0.12	0.35	0.46	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD002-SB02-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 09:20	02/25/2017			20170302	17:04:00	20170311	17:42:00	320-26105-7	1	1	13.7		18O2 PFHXS	18O2 PFHXS	95	95	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:10	02/25/2017			20170302	17:04:00	20170311	17:50:00	320-26105-8	1	1	16.7		Perfluorooctanoic acid (PFOA)	335-67-1	5.1	5.1	UG_KG	M	M	PR	TRG					00000000	SO			5.0	0.12	0.36	0.60	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:10	02/25/2017			20170302	17:04:00	20170311	17:50:00	320-26105-8	1	1	16.7		Perfluorooctane Sulfonate (PFOS)	1763-23-1	15	15	UG_KG	M	M	PR	TRG					00000000	SO			5.0	0.15	0.36	0.60	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:10	02/25/2017			20170302	17:04:00	20170311	17:50:00	320-26105-8	1	1	16.7		13C4 PFOA	13C4 PFOA	107	107	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:10	02/25/2017			20170302	17:04:00	20170311	17:50:00	320-26105-8	1	1	16.7		13C4 PFOS	13C4 PFOS	72	72	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:10	02/25/2017			20170302	17:04:00	20170311	17:50:00	320-26105-8	1	1	16.7		Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.36	0.36	UG_KG	UM	UM	PR	TRG					00000000	SO			5.0	0.12	0.36	0.48	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:10	02/25/2017			20170302	17:04:00	20170311	17:50:00	320-26105-8	1	1	16.7		18O2 PFHXS	18O2 PFHXS	100	100	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:15	02/25/2017			20170302	17:04:00	20170311	17:57:00	320-26105-9	1	1	20.7		Perfluorooctanoic acid (PFOA)	335-67-1	0.28	0.28	UG_KG	J	J	PR	TRG					00000000	SO			5.0	0.13	0.38	0.64	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:15	02/25/2017			20170302	17:04:00	20170311	17:57:00	320-26105-9	1	1	20.7		Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.40	0.40	UG_KG	JM	JM	PR	TRG					00000000	SO			5.0	0.16	0.38	0.64	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:15	02/25/2017			20170302	17:04:00	20170311	17:57:00	320-26105-9	1	1	20.7		13C4 PFOA	13C4 PFOA	119	119	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:15	02/25/2017			20170302	17:04:00	20170311	17:57:00	320-26105-9	1	1	20.7		13C4 PFOS	13C4 PFOS	78	78	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:15	02/25/2017			20170302	17:04:00	20170311	17:57:00	320-26105-9	1	1	20.7		Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.38	0.38	UG_KG	U	U	PR	TRG					00000000	SO			5.0	0.13	0.38	0.51	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-BLD192-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:15	02/25/2017			20170302	17:04:00	20170311	17:57:00	320-26105-9	1	1	20.7		18O2 PFHXS	18O2 PFHXS	108	108	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170311	18:05:00	320-26105-10	1	1	13.9		Perfluorooctanoic acid (PFOA)	335-67-1	38	38	UG_KG	M	M	PR	TRG					00000000	SO			5.0	0.12	0.35	0.58	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170311	18:05:00	320-26105-10	1	1	13.9		Perfluorooctane Sulfonate (PFOS)	1763-23-1	65	65	UG_KG	EM	EM	PR	TRG					00000000	SO			5.0	0.15	0.35	0.58	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170311	18:05:00	320-26105-10	1	1	13.9		13C4 PFOA	13C4 PFOA	85	85	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170311	18:05:00	320-26105-10	1	1	13.9		13C4 PFOS	13C4 PFOS	56	56	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170311	18:05:00	320-26105-10	1	1	13.9		Perfluorobutanesulfonic acid (PFBS)	375-73-5	3.0	3.0	UG_KG			PR	TRG					00000000	SO			5.0	0.12	0.35	0.46	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170311	18:05:00	320-26105-10	1	1	13.9		18O2 PFHXS	18O2 PFHXS	59	59	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	DL1	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170313	17:01:00	320-26105-10	10	2	13.9		Perfluorooctanoic acid (PFOA)	335-67-1	42	42	UG_KG	DM	DM	PR	TRG					00000000	SO			5.0	1.2	3.5	5.8	320-26105-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	DL1	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170313	17:01:00	320-26105-10	10	2	13.9		Perfluorooctane Sulfonate (PFOS)	1763-23-1	64	64	UG_KG	DM	DM	PR	TRG					00000000	SO			5.0	1.5	3.5	5.8	320-26105-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	DL1	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170313	17:01:00	320-26105-10	10	2	13.9		13C4 PFOA	13C4 PFOA	94	94	PCT_REC	M	M	PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	DL1	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170313	17:01:00	320-26105-10	10	2	13.9		13C4 PFOS	13C4 PFOS	52	52	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	DL1	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170313	17:01:00	320-26105-10	10	2	13.9		Perfluorobutanesulfonic acid (PFBS)	375-73-5	1.8	1.8	UG_KG	JD	JD	PR	TRG					00000000	SO			5.0	1.2	3.5	4.6	320-26105-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	DL1	REG	S	4	02/24/2017 11:35	02/25/2017			20170302	17:04:00	20170313	17:01:00	320-26105-10	10	2	13.9		18O2 PFHXS	18O2 PFHXS	81	81	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:40	02/25/2017			20170302	17:04:00	20170311	18:20:00	320-26105-11	1	1	13.6		Perfluorooctanoic acid (PFOA)	335-67-1	8.3	8.3	UG_KG	M	M	PR	TRG					00000000	SO			5.0	0.12	0.35	0.59	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:40	02/25/2017			20170302	17:04:00	20170311	18:20:00	320-26105-11	1	1	13.6		Perfluorooctane Sulfonate (PFOS)	1763-23-1	8.3	8.3	UG_KG	M	M	PR	TRG					00000000	SO			5.0	0.15	0.35	0.59	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:40	02/25/2017			20170302	17:04:00	20170311	18:20:00	320-26105-11	1	1	13.6		13C4 PFOA	13C4 PFOA	108	108	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:40	02/25/2017			20170302	17:04:00	20170311	18:20:00	320-26105-11	1	1	13.6		13C4 PFOS	13C4 PFOS	53	53	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:40	02/25/2017			20170302	17:04:00	20170311	18:20:00	320-26105-11	1	1	13.6		Perfluorobutanesulfonic acid (PFBS)	375-73-5	1.6	1.6	UG_KG			PR	TRG					00000000	SO			5.0	0.12	0.35	0.47	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-SWON-SB03-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	02/24/2017 11:40	02/25/2017			20170302	17:04:00	20170311	18:20:00	320-26105-11	1	1	13.6		18O2 PFHXS	18O2 PFHXS	82	82	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	13:45:00	20170314	19:35:00	320-26105-12	1	1			1,4-Dioxane	123-91-1	14	14	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.19	0.48	0.97	320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	13:45:00	20170314	19:35:00	320-26105-12	1	1			Nitrobenzene-D5	4165-60-0	69	69	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	14:24:00	20170306	02:49:00	320-26105-12	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.0039	0.0039	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00067	0.0018	0.0022	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	14:24:00	20170306	02:49:00	320-26105-12	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0027	0.0027	UG_L	UM	UM	PR	TRG					00000000	GW			5.0	0.0011	0.0027	0.0036	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	14:24:00	20170306	02:49:00	320-26105-12	1	1			13C4 PFOA	13C4 PFOA	68	68	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	14:24:00	20170306	02:49:00	320-26105-12	1	1			13C4 PFOS	13C4 PFOS	131	131	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	14:24:00	20170306	02:49:00	320-26105-12	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0055	0.0055	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00082	0.0018	0.0022	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 11:30	02/25/2017			20170302	14:24:00	20170306	02:49:00	320-26105-12	1	1			18O2 PFHXS	18O2 PFHXS	141	141	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	13:45:00	20170314	19:58:00	320-26105-13	1	1			1,4-Dioxane	123-91-1	1.4	1.4	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.19	0.48	0.96	320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	13:45:00	20170314	19:58:00	320-26105-13	1	1			Nitrobenzene-D5	4165-60-0	74	74	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	14:24:00	20170306	02:56:00	320-26105-13	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.13	0.13	UG_L			PR	TRG					00000000	GW			5.0	0.00069	0.0018	0.0023	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	14:24:00	20170306	02:56:00	320-26105-13	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.055	0.055	UG_L			PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0037	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	14:24:00	20170306	02:56:00	320-26105-13	1	1			13C4 PFOA	13C4 PFOA	59	59	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	14:24:00	20170306	02:56:00	320-26105-13	1	1			13C4 PFOS	13C4 PFOS	120	120	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	14:24:00	20170306	02:56:00	320-26105-13	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.022	0.022	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00085	0.0018	0.0023	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-08MW06-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 13:15	02/25/2017			20170302	14:24:00	20170306	02:56:00	320-26105-13	1	1			18O2 PFHXS	18O2 PFHXS	128	128	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	13:45:00	20170314	20:21:00	320-26105-14	1	1			1,4-Dioxane	123-91-1	1.4	1.4	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.19	0.48	0.96	320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	13:45:00	20170314	20:21:00	320-26105-14	1	1			Nitrobenzene-D5	4165-60-0	62	62	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:11:00	320-26105-14	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.13	0.13	UG_L			PR	TRG					00000000	GW			5.0	0.00063	0.0017	0.0021	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:11:00	320-26105-14	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.054	0.054	UG_L			PR	TRG					00000000	GW			5.0	0.0011	0.0025	0.0033	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:11:00	320-26105-14	1	1			13C4 PFOA	13C4 PFOA	65	65	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:11:00	320-26105-14	1	1			13C4 PFOS	13C4 PFOS	124	124	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:11:00	320-26105-14	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.02	0.02	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00077	0.0017	0.0021	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD02-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:11:00	320-26105-14	1	1			18O2 PFHXS	18O2 PFHXS	132	132	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-1A01-0217A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 15:30	02/25/2017			20170302	14:24:00	20170306	03:19:00	320-26105-15	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.12	0.12	UG_L			PR	TRG					00000000	GW			5.0	0.00071	0.0019	0.0024	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-1A01-0217A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 15:30	02/25/2017			20170302	14:24:00	20170306	03:19:00	320-26105-15	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.003	0.003	UG_L	JM	JM	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0038	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-1A01-0217A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 15:30	02/25/2017			20170302	14:24:00	20170306	03:19:00	320-26105-15	1	1			13C4 PFOA	13C4 PFOA	79	79	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-1A01-0217A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 15:30	02/25/2017			20170302	14:24:00	20170306	03:19:00	320-26105-15	1	1			13C4 PFOS	13C4 PFOS	115	115	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-1A01-0217A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 15:30	02/25/2017			20170302	14:24:00	20170306	03:19:00	320-26105-15	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0069	0.0069	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00087	0.0019	0.0024	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-1A01-0217A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 15:30	02/25/2017			20170302	14:24:00	20170306	03:19:00	320-26105-15	1	1			18O2 PFHXS	18O2 PFHXS	107	107	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:26:00	320-26105-16	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.12	0.12	UG_L			PR	TRG					00000000	GW			5.0	0.00072	0.0019	0.0024	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:26:00	320-26105-16	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.003	0.003	UG_L	JM	JM	PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0038	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:26:00	320-26105-16	1	1			13C4 PFOA	13C4 PFOA	83	83	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:26:00	320-26105-16	1	1			13C4 PFOS	13C4 PFOS	133	133	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:26:00	320-26105-16	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0052	0.0052	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00088	0.0019	0.0024	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD03-0217	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	02/24/2017 00:00	02/25/2017			20170302	14:24:00	20170306	03:26:00	320-26105-16	1	1			18O2 PFHXS	18O2 PFHXS	124	124	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152910/2-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BS	W	4	03/02/2017 13:45	03/02/2017			20170302	13:45:00	20170314	15:27:00	LCS 320-152910/2-A	1	1			1,4-Dioxane	123-91-1	32	32	PCT_REC	M	M	PR	TRG		LSA	52	12	00000000				5.0	0.20	0.50	1.0	320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152910/2-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BS	W	4	03/02/2017 13:45	03/02/2017			20170302	13:45:00	20170314	15:27:00	LCS 320-152910/2-A	1	1			Nitrobenzene-D5	4165-60-0	73	73	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152929/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:56:00	LCS 320-152929/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	109	109	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.75	2.0	2.5	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152929/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:56:00	LCS 320-152929/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	104	104	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	1.3	3.0	4.0	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152929/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:56:00	LCS 320-152929/2-A	1	1			13C4 PFOA	13C4 PFOA	140	140	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152929/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:56:00	LCS 320-152929/2-A	1	1			13C4 PFOS	13C4 PFOS	125	125	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152929/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:56:00	LCS 320-152929/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	126	126	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.92	2.0	2.5	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152929/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:56:00	LCS 320-152929/2-A	1	1			18O2 PFHXS	18O2 PFHXS	128	128	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152961/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:50:00	LCS 320-152961/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	106	106	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.10	0.30	0.50	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152961/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:50:00	LCS 320-152961/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	105	105	PCT_REC	M	M	PR	TRG		LSA	140	60	00000000				5.0	0.13	0.30	0.50	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152961/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:50:00	LCS 320-152961/2-A	1	1			13C4 PFOA	13C4 PFOA	113	113	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152961/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:50:00	LCS 320-152961/2-A	1	1			13C4 PFOS	13C4 PFOS	100	100	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152961/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:50:00	LCS 320-152961/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	114	114	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.10	0.30	0.40	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-152961/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:50:00	LCS 320-152961/2-A	1	1			18O2 PFHXS	18O2 PFHXS	108	108	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-152910/3-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BSD	W	4	03/02/2017 13:45	03/02/2017			20170302	13:45:00	20170314	15:49:00	LCSD 320-152910/3-A	1	1			1,4-Dioxane	123-91-1	30	30	PCT_REC	M	M	PR	TRG		LSP	52	12	00000000				5.0	0.20	0.50	1.0	320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-152910/3-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BSD	W	4	03/02/2017 13:45	03/02/2017			20170302	13:45:00	20170314	15:49:00	LCSD 320-152910/3-A	1	1			Nitrobenzene-D5	4165-60-0	74	74	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152910/1-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	LB1	W	4	03/02/2017 13:45	03/02/2017			20170302	13:45:00	20170314	15:04:00	MB 320-152910/1-A	1	1			1,4-Dioxane	123-91-1	0.50	0.50	UG_L	U	U	PR	TRG					00000000				5.0	0.20	0.50	1.0	320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152910/1-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	LB1	W	4	03/02/2017 13:45	03/02/2017			20170302	13:45:00	20170314	15:04:00	MB 320-152910/1-A	1	1			Nitrobenzene-D5	4165-60-0	69	69	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26105-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152929/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:49:00	MB 320-152929/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.002	0.002	UG_L	UM	UM	PR	TRG					00000000				5.0	0.00075	0.002	0.0025	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152929/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:49:00	MB 320-152929/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.003	0.003	UG_L	U	U	PR	TRG					00000000				5.0	0.0013	0.003	0.004	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152929/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:49:00	MB 320-152929/1-A	1	1			13C4 PFOA	13C4 PFOA	158	158	PCT_REC	Q	Q	PR	SURR		SMSA	150	25	00000000				5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152929/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:49:00	MB 320-152929/1-A	1	1			13C4 PFOS	13C4 PFOS	128	128	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152929/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:49:00	MB 320-152929/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002	0.002	UG_L	U	U	PR	TRG					00000000				5.0	0.00092	0.002	0.0025	320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152929/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/02/2017 14:24	03/02/2017			20170302	14:24:00	20170306	01:49:00	MB 320-152929/1-A	1	1			18O2 PFHXS	18O2 PFHXS	134	134	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26105-1	320-153421		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152961/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:42:00	MB 320-152961/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.30	0.30	UG_KG	UM	UM	PR	TRG					00000000				5.0	0.10	0.30	0.50	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152961/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:42:00	MB 320-152961/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.30	0.30	UG_KG	U	U	PR	TRG					00000000				5.0	0.13	0.30	0.50	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152961/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:42:00	MB 320-152961/1-A	1	1			13C4 PFOA	13C4 PFOA	122	122	PCT_REC	M	M	PR	SURR		SMSA	150	25	00000000				5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152961/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:42:00	MB 320-152961/1-A	1	1			13C4 PFOS	13C4 PFOS	99	99	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152961/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:42:00	MB 320-152961/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.30	0.30	UG_KG	U	U	PR	TRG					00000000				5.0	0.10	0.30	0.40	320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-152961/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	03/02/2017 17:04	03/02/2017			20170302	17:04:00	20170311	15:42:00	MB 320-152961/1-A	1	1			18O2 PFHXS	18O2 PFHXS	113	113	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26105-1	320-154503		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170310	22:52:00	320-26263-1	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.26	0.26	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00072	0.0019	0.0024	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170310	22:52:00	320-26263-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.37	0.37	UG_L	ME	ME	PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0038	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170310	22:52:00	320-26263-1	1	1			13C4 PFOA	13C4 PFOA	85	85	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170310	22:52:00	320-26263-1	1	1			13C4 PFOS	13C4 PFOS	107	107	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170310	22:52:00	320-26263-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.025	0.025	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00088	0.0019	0.0024	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170310	22:52:00	320-26263-1	1	1			18O2 PFHXS	18O2 PFHXS	110	110	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170313	17:16:00	320-26263-1	5	2			Perfluorooctanoic acid (PFOA)	335-67-1	0.27	0.27	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.0036	0.0096	0.012	320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170313	17:16:00	320-26263-1	5	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.38	0.38	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.0061	0.014	0.019	320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170313	17:16:00	320-26263-1	5	2			13C4 PFOA	13C4 PFOA	81	81	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170313	17:16:00	320-26263-1	5	2			13C4 PFOS	13C4 PFOS	98	98	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170313	17:16:00	320-26263-1	5	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.018	0.018	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.0044	0.0096	0.012	320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-WWTP-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 12:40	03/02/2017			20170306	16:19:00	20170313	17:16:00	320-26263-1	5	2			18O2 PFHXS	18O2 PFHXS	116	116	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170310	23:00:00	320-26263-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	2.5	2.5	UG_L	ME	ME	PR	TRG					00000000	GW			5.0	0.00069	0.0018	0.0023	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170310	23:00:00	320-26263-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	1.3	1.3	UG_L	ME	ME	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0037	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170310	23:00:00	320-26263-2	1	1			13C4 PFOA	13C4 PFOA	48	48	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170310	23:00:00	320-26263-2	1	1			13C4 PFOS	13C4 PFOS	99	99	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170310	23:00:00	320-26263-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.65	0.65	UG_L	ME	ME	PR	TRG					00000000	GW			5.0	0.00084	0.0018	0.0023	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170310	23:00:00	320-26263-2	1	1			18O2 PFHXS	18O2 PFHXS	46	46	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170313	17:23:00	320-26263-2	10	2			Perfluorooctanoic acid (PFOA)	335-67-1	4.4	4.4	UG_L	DME	DME	PR	TRG					00000000	GW			5.0	0.0069	0.018	0.023	320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170313	17:23:00	320-26263-2	10	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1	1.6	1.6	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.012	0.028	0.037	320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170313	17:23:00	320-26263-2	10	2			13C4 PFOA	13C4 PFOA	83	83	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170313	17:23:00	320-26263-2	10	2			13C4 PFOS	13C4 PFOS	112	112	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170313	17:23:00	320-26263-2	10	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.83	0.83	UG_L	D	D	PR	TRG					00000000	GW			5.0	0.0084	0.018	0.023	320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170313	17:23:00	320-26263-2	10	2			18O2 PFHXS	18O2 PFHXS	97	97	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL2	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170314	15:13:00	320-26263-2	25	3			Perfluorooctanoic acid (PFOA)	335-67-1	4.5	4.5	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.017	0.046	0.057	320-26263-1	320-155009		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL2	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170314	15:13:00	320-26263-2	25	3			Perfluorooctane Sulfonate (PFOS)	1763-23-1	1.5	1.5	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.029	0.069	0.092	320-26263-1	320-155009		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL2	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170314	15:13:00	320-26263-2	25	3			13C4 PFOA	13C4 PFOA	108	108	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-155009		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL2	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170314	15:13:00	320-26263-2	25	3			13C4 PFOS	13C4 PFOS	112	112	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-155009		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL2	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170314	15:13:00	320-26263-2	25	3			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.73	0.73	UG_L	D	D	PR	TRG					00000000	GW			5.0	0.021	0.046	0.057	320-26263-1	320-155009		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-PWMA-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL2	REG	W	4	03/01/2017 14:00	03/02/2017			20170306	16:19:00	20170314	15:13:00	320-26263-2	25	3			18O2 PFHXS	18O2 PFHXS	108	108	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-155009		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKNOWN22-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 15:05	03/02/2017			20170306	16:19:00	20170310	23:07:00	320-26263-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.009	0.009	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00069	0.0019	0.0023	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKNOWN22-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 15:05	03/02/2017			20170306	16:19:00	20170310	23:07:00	320-26263-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.002	0.002	UG_L	JM	JM	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0037	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKNOWN22-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 15:05	03/02/2017			20170306	16:19:00	20170310	23:07:00	320-26263-3	1	1			13C4 PFOA	13C4 PFOA	87	87	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKNOWN22-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 15:05	03/02/2017			20170306	16:19:00	20170310	23:07:00	320-26263-3	1	1			13C4 PFOS	13C4 PFOS	118	118	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKNOWN22-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 15:05	03/02/2017			20170306	16:19:00	20170310	23:07:00	320-26263-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0037	0.0037	UG_L			PR	TRG					00000000	GW			5.0	0.00085	0.0019	0.0023	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKNOWN22-MW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 15:05	03/02/2017			20170306	16:19:00	20170310	23:07:00	320-26263-3	1	1			18O2 PFHXS	18O2 PFHXS	125	125	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD04-030117	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 00:00	03/02/2017			20170306	16:19:00	20170310	23:15:00	320-26263-4	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.0081	0.0081	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00069	0.0018	0.0023	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD04-030117	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 00:00	03/02/2017			20170306	16:19:00	20170310	23:15:00	320-26263-4	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0012	0.0012	UG_L	JM	JM	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0037	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD04-030117	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 00:00	03/02/2017			20170306	16:19:00	20170310	23:15:00	320-26263-4	1	1			13C4 PFOA	13C4 PFOA	83	83	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD04-030117	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 00:00	03/02/2017			20170306	16:19:00	20170310	23:15:00	320-26263-4	1	1			13C4 PFOS	13C4 PFOS	134	134	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD04-030117	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 00:00	03/02/2017			20170306	16:19:00	20170310	23:15:00	320-26263-4	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0036	0.0036	UG_L			PR	TRG					00000000	GW			5.0	0.00085	0.0018	0.0023	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD04-030117	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/01/2017 00:00	03/02/2017			20170306	16:19:00	20170310	23:15:00	320-26263-4	1	1			18O2 PFHXS	18O2 PFHXS	137	137	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	100	100	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.75	2.0	2.5	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	102	102	PCT_REC	M	M	PR	TRG		LSA	140	60	00000000				5.0	1.3	3.0	4.0	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			13C4 PFOA	13C4 PFOA	148	148	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			13C4 PFOS	13C4 PFOS	132	132	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	113	113	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.92	2.0	2.5	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			18O2 PFHXS	18O2 PFHXS	137	137	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	99	99	PCT_REC			PR	TRG		LSP	140	60	00000000				5.0	0.75	2.0	2.5	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	106	106	PCT_REC	M	M	PR	TRG		LSP	140	60	00000000				5.0	1.3	3.0	4.0	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			13C4 PFOA	13C4 PFOA	140	140	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			13C4 PFOS	13C4 PFOS	123	123	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	118	118	PCT_REC			PR	TRG		LSP	150	50	00000000				5.0	0.92	2.0	2.5	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			18O2 PFHXS	18O2 PFHXS	128	128	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.002	0.002	UG_L	UM	UM	PR	TRG					00000000				5.0	0.00075	0.002	0.0025	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.003	0.003	UG_L	UM	UM	PR	TRG					00000000				5.0	0.0013	0.003	0.004	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			13C4 PFOA	13C4 PFOA	130	130	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			13C4 PFOS	13C4 PFOS	116	116	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002	0.002	UG_L	U	U	PR	TRG					00000000				5.0	0.00092	0.002	0.0025	320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			18O2 PFHXS	18O2 PFHXS	124	124	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26263-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170308	08:41:00	20170314	21:50:00	320-26273-1	1	1			1,4-Dioxane	123-91-1	0.48	0.48	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.19	0.48	0.95	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170308	08:41:00	20170314	21:50:00	320-26273-1	1	1			Nitrobenzene-D5	4165-60-0	66	66	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170310	23:22:00	320-26273-1	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.46	0.46	UG_L	ME	ME	PR	TRG					00000000	GW			5.0	0.00068	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170310	23:22:00	320-26273-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.093	0.093	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.0012	0.0027	0.0037	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170310	23:22:00	320-26273-1	1	1			13C4 PFOA	13C4 PFOA	64	64	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170310	23:22:00	320-26273-1	1	1			13C4 PFOS	13C4 PFOS	108	108	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170310	23:22:00	320-26273-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.075	0.075	UG_L			PR	TRG					00000000	GW			5.0	0.00084	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170310	23:22:00	320-26273-1	1	1			18O2 PFHXS	18O2 PFHXS	75	75	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170313	17:38:00	320-26273-1	5	2			Perfluorooctanoic acid (PFOA)	335-67-1	0.5	0.5	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.0034	0.0092	0.011	320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170313	17:38:00	320-26273-1	5	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.09	0.09	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.0058	0.014	0.018	320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170313	17:38:00	320-26273-1	5	2			13C4 PFOA	13C4 PFOA	78	78	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170313	17:38:00	320-26273-1	5	2			13C4 PFOS	13C4 PFOS	111	111	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170313	17:38:00	320-26273-1	5	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.064	0.064	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.0042	0.0092	0.011	320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/02/2017 12:25	03/03/2017			20170306	16:19:00	20170313	17:38:00	320-26273-1	5	2			18O2 PFHXS	18O2 PFHXS	112	112	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170308	08:41:00	20170314	22:13:00	320-26273-2	1	1			1,4-Dioxane	123-91-1	0.76	0.76	UG_L	JM	JM	PR	TRG					00000000	GW			5.0	0.19	0.48	0.97	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170308	08:41:00	20170314	22:13:00	320-26273-2	1	1			Nitrobenzene-D5	4165-60-0	72	72	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170306	16:19:00	20170310	23:30:00	320-26273-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.063	0.063	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00073	0.0019	0.0024	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170306	16:19:00	20170310	23:30:00	320-26273-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.1	0.1	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0039	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170306	16:19:00	20170310	23:30:00	320-26273-2	1	1			13C4 PFOA	13C4 PFOA	94	94	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170306	16:19:00	20170310	23:30:00	320-26273-2	1	1			13C4 PFOS	13C4 PFOS	115	115	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170306	16:19:00	20170310	23:30:00	320-26273-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.23	0.23	UG_L			PR	TRG					00000000	GW			5.0	0.00089	0.0019	0.0024	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-MRD-0630-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 10:40	03/03/2017			20170306	16:19:00	20170310	23:30:00	320-26273-2	1	1			18O2 PFHXS	18O2 PFHXS	101	101	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170308	08:41:00	20170314	22:35:00	320-26273-3	1	1			1,4-Dioxane	123-91-1	0.48	0.48	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.19	0.48	0.96	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170308	08:41:00	20170314	22:35:00	320-26273-3	1	1			Nitrobenzene-D5	4165-60-0	70	70	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170306	16:19:00	20170313	17:46:00	320-26273-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.017	0.017	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00069	0.0018	0.0023	320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170306	16:19:00	20170313	17:46:00	320-26273-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0068	0.0068	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0037	320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170306	16:19:00	20170313	17:46:00	320-26273-3	1	1			13C4 PFOA	13C4 PFOA	26	26	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170306	16:19:00	20170313	17:46:00	320-26273-3	1	1			13C4 PFOS	13C4 PFOS	100	100	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170306	16:19:00	20170313	17:46:00	320-26273-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.03	0.03	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00084	0.0018	0.0023	320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4AMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 13:10	03/03/2017			20170306	16:19:00	20170313	17:46:00	320-26273-3	1	1			18O2 PFHXS	18O2 PFHXS	128	128	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154808		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170308	08:41:00	20170314	22:57:00	320-26273-4	1	1			1,4-Dioxane	123-91-1	0.48	0.48	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.19	0.48	0.95	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170308	08:41:00	20170314	22:57:00	320-26273-4	1	1			Nitrobenzene-D5	4165-60-0	64	64	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170306	16:19:00	20170310	23:52:00	320-26273-4	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.17	0.17	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00068	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170306	16:19:00	20170310	23:52:00	320-26273-4	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.044	0.044	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.0012	0.0027	0.0036	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170306	16:19:00	20170310	23:52:00	320-26273-4	1	1			13C4 PFOA	13C4 PFOA	78	78	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170306	16:19:00	20170310	23:52:00	320-26273-4	1	1			13C4 PFOS	13C4 PFOS	129	129	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170306	16:19:00	20170310	23:52:00	320-26273-4	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0035	0.0035	UG_L			PR	TRG					00000000	GW			5.0	0.00083	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:30	03/03/2017			20170306	16:19:00	20170310	23:52:00	320-26273-4	1	1			18O2 PFHXS	18O2 PFHXS	126	126	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170308	08:41:00	20170314	23:20:00	320-26273-5	1	1			1,4-Dioxane	123-91-1	0.49	0.49	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.20	0.49	0.98	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170308	08:41:00	20170314	23:20:00	320-26273-5	1	1			Nitrobenzene-D5	4165-60-0	73	73	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170306	16:19:00	20170311	00:00:00	320-26273-5	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.044	0.044	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00069	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170306	16:19:00	20170311	00:00:00	320-26273-5	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0082	0.0082	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0037	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170306	16:19:00	20170311	00:00:00	320-26273-5	1	1			13C4 PFOA	13C4 PFOA	75	75	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170306	16:19:00	20170311	00:00:00	320-26273-5	1	1			13C4 PFOS	13C4 PFOS	118	118	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170306	16:19:00	20170311	00:00:00	320-26273-5	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0026	0.0026	UG_L			PR	TRG					00000000	GW			5.0	0.00085	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4CMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 15:50	03/03/2017			20170306	16:19:00	20170311	00:00:00	320-26273-5	1	1			18O2 PFHXS	18O2 PFHXS	116	116	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170308	08:41:00	20170314	23:42:00	320-26273-6	1	1			1,4-Dioxane	123-91-1	0.48	0.48	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.19	0.48	0.96	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170308	08:41:00	20170314	23:42:00	320-26273-6	1	1			Nitrobenzene-D5	4165-60-0	63	63	PCT_REC			PR	SURR		SLSA	91	42	00000000	GW			5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170306	16:19:00	20170311	00:07:00	320-26273-6	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.16	0.16	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00068	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170306	16:19:00	20170311	00:07:00	320-26273-6	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.042	0.042	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.0012	0.0027	0.0036	320-26273-1	320-154459		

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170306	16:19:00	20170311	00:07:00	320-26273-6	1	1			13C4 PFOA	13C4 PFOA	70	70	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170306	16:19:00	20170311	00:07:00	320-26273-6	1	1			13C4 PFOS	13C4 PFOS	116	116	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170306	16:19:00	20170311	00:07:00	320-26273-6	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0035	0.0035	UG_L			PR	TRG					00000000	GW			5.0	0.00083	0.0018	0.0023	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD05-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/02/2017 00:00	03/03/2017			20170306	16:19:00	20170311	00:07:00	320-26273-6	1	1			18O2 PFHXS	18O2 PFHXS	114	114	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	100	100	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.75	2.0	2.5	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	102	102	PCT_REC	M	M	PR	TRG		LSA	140	60	00000000				5.0	1.3	3.0	4.0	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			13C4 PFOA	13C4 PFOA	148	148	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			13C4 PFOS	13C4 PFOS	132	132	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	113	113	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.92	2.0	2.5	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153501/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:37:00	LCS 320-153501/2-A	1	1			18O2 PFHXS	18O2 PFHXS	137	137	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153806/2-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BS	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:06:00	LCS 320-153806/2-A	1	1			1,4-Dioxane	123-91-1	32	32	PCT_REC	M	M	PR	TRG		LSA	52	12	00000000				5.0	0.20	0.50	1.0	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153806/2-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BS	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:06:00	LCS 320-153806/2-A	1	1			Nitrobenzene-D5	4165-60-0	75	75	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	99	99	PCT_REC			PR	TRG		LSP	140	60	00000000				5.0	0.75	2.0	2.5	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	106	106	PCT_REC	M	M	PR	TRG		LSP	140	60	00000000				5.0	1.3	3.0	4.0	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			13C4 PFOA	13C4 PFOA	140	140	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			13C4 PFOS	13C4 PFOS	123	123	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	118	118	PCT_REC			PR	TRG		LSP	150	50	00000000				5.0	0.92	2.0	2.5	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153501/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:45:00	LCSD 320-153501/3-A	1	1			18O2 PFHXS	18O2 PFHXS	128	128	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153806/3-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BSD	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:28:00	LCSD 320-153806/3-A	1	1			1,4-Dioxane	123-91-1	31	31	PCT_REC	M	M	PR	TRG		LSP	52	12	00000000				5.0	0.20	0.50	1.0	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153806/3-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BSD	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:28:00	LCSD 320-153806/3-A	1	1			Nitrobenzene-D5	4165-60-0	71	71	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.002	0.002	UG_L	UM	UM	PR	TRG					00000000				5.0	0.00075	0.002	0.0025	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.003	0.003	UG_L	UM	UM	PR	TRG					00000000				5.0	0.0013	0.003	0.004	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			13C4 PFOA	13C4 PFOA	130	130	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			13C4 PFOS	13C4 PFOS	116	116	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002	0.002	UG_L	U	U	PR	TRG					00000000				5.0	0.00092	0.002	0.0025	320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153501/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/06/2017 16:19	03/06/2017			20170306	16:19:00	20170310	22:30:00	MB 320-153501/1-A	1	1			18O2 PFHXS	18O2 PFHXS	124	124	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26273-1	320-154459		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153806/1-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	LB1	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	20:43:00	MB 320-153806/1-A	1	1			1,4-Dioxane	123-91-1	0.50	0.50	UG_L	U	U	PR	TRG					00000000				5.0	0.20	0.50	1.0	320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153806/1-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	LB1	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	20:43:00	MB 320-153806/1-A	1	1			Nitrobenzene-D5	4165-60-0	69	69	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26273-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:00	03/04/2017			20170309	10:15:00	20170312	03:43:00	320-26324-1	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.22	0.22	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00073	0.002	0.0025	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:00	03/04/2017			20170309	10:15:00	20170312	03:43:00	320-26324-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.21	0.21	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.0013	0.0029	0.0039	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:00	03/04/2017			20170309	10:15:00	20170312	03:43:00	320-26324-1	1	1			13C4 PFOA	13C4 PFOA	67	67	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:00	03/04/2017			20170309	10:15:00	20170312	03:43:00	320-26324-1	1	1			13C4 PFOS	13C4 PFOS	90	90	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:00	03/04/2017			20170309	10:15:00	20170312	03:43:00	320-26324-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.011	0.011	UG_L			PR	TRG					00000000	GW			5.0	0.0009	0.002	0.0025	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW01-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:00	03/04/2017			20170309	10:15:00	20170312	03:43:00	320-26324-1	1	1			18O2 PFHXS	18O2 PFHXS	91	91	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170312	03:50:00	320-26324-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.36	0.36	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00072	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170312	03:50:00	320-26324-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	1.1	1.1	UG_L	ME	ME	PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0038	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170312	03:50:00	320-26324-2	1	1			13C4 PFOA	13C4 PFOA	69	69	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170312	03:50:00	320-26324-2	1	1			13C4 PFOS	13C4 PFOS	76	76	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170312	03:50:00	320-26324-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.015	0.015	UG_L	M	M	PR	TRG					00000000	GW			5.0	0.00088	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170312	03:50:00	320-26324-2	1	1			18O2 PFHXS	18O2 PFHXS	83	83	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170315	20:16:00	320-26324-2	10	2			Perfluorooctanoic acid (PFOA)	335-67-1	0.39	0.39	UG_L	DM	DM	PR	TRG					00000000	GW			5.0	0.0072	0.019	0.024	320-26324-1	320-155237		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170315	20:16:00	320-26324-2	10	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1	1.1	1.1	UG_L	D	D	PR	TRG					00000000	GW			5.0	0.012	0.029	0.038	320-26324-1	320-155237		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170315	20:16:00	320-26324-2	10	2			13C4 PFOA	13C4 PFOA	93	93	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-155237		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170315	20:16:00	320-26324-2	10	2			13C4 PFOS	13C4 PFOS	100	100	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-155237		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170315	20:16:00	320-26324-2	10	2			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.016	0.016	UG_L	JDM	JDM	PR	TRG					00000000	GW			5.0	0.0088	0.019	0.024	320-26324-1	320-155237		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4DMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	DL1	REG	W	4	03/03/2017 10:50	03/04/2017			20170309	10:15:00	20170315	20:16:00	320-26324-2	10	2			18O2 PFHXS	18O2 PFHXS	113	113	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-155237		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	03:58:00	320-26324-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.0019	0.0019	UG_L	UM	UM	PR	TRG					00000000	GW			5.0	0.0007	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	03:58:00	320-26324-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0028	0.0028	UG_L	UM	UM	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0038	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	03:58:00	320-26324-3	1	1			13C4 PFOA	13C4 PFOA	38	38	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	03:58:00	320-26324-3	1	1			13C4 PFOS	13C4 PFOS	93	93	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	03:58:00	320-26324-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0019	0.0019	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.00086	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	03:58:00	320-26324-3	1	1			18O2 PFHXS	18O2 PFHXS	102	102	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MS	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:05:00	320-26324-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	109	109	PCT_REC			PR	TRG		MSA	140	60	00000000				5.0	0.70	1.9	2.3	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MS	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:05:00	320-26324-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	116	116	PCT_REC	M	M	PR	TRG		MSA	140	60	00000000				5.0	1.2	2.8	3.7	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MS	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:05:00	320-26324-3	1	1			13C4 PFOA	13C4 PFOA	40	40	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MS	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:05:00	320-26324-3	1	1			13C4 PFOS	13C4 PFOS	91	91	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MS	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:05:00	320-26324-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	117	117	PCT_REC			PR	TRG		MSA	150	50	00000000				5.0	0.86	1.9	2.3	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MS	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:05:00	320-26324-3	1	1			18O2 PFHXS	18O2 PFHXS	100	100	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MSD	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:13:00	320-26324-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	109	109	PCT_REC			PR	TRG		MSP	140	60	00000000				5.0	0.70	1.9	2.3	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MSD	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:13:00	320-26324-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	115	115	PCT_REC	M	M	PR	TRG		MSP	140	60	00000000				5.0	1.2	2.8	3.7	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MSD	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:13:00	320-26324-3	1	1			13C4 PFOA	13C4 PFOA	49	49	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MSD	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:13:00	320-26324-3	1	1			13C4 PFOS	13C4 PFOS	90	90	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MSD	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:13:00	320-26324-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	125	125	PCT_REC			PR	TRG		MSP	150	50	00000000				5.0	0.85	1.9	2.3	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW02-0317-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	MSD	W	4	03/03/2017 13:05	03/04/2017			20170309	10:15:00	20170312	04:13:00	320-26324-3	1	1			18O2 PFHXS	18O2 PFHXS	96	96	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:15	03/04/2017			20170309	10:15:00	20170312	04:20:00	320-26324-4	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.0019	0.0019	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.0007	0.0019	0.0023	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:15	03/04/2017			20170309	10:15:00	20170312	04:20:00	320-26324-4	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0028	0.0028	UG_L	U	U	PR	TRG					00000000	GW			5.0	0.0012	0.0028	0.0037	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:15	03/04/2017			20170309	10:15:00	20170312	04:20:00	320-26324-4	1	1			13C4 PFOA	13C4 PFOA	37	37	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:15	03/04/2017			20170309	10:15:00	20170312	04:20:00	320-26324-4	1	1			13C4 PFOS	13C4 PFOS	89	89	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:15	03/04/2017			20170309	10:15:00	20170312	04:20:00	320-26324-4	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0043	0.0043	UG_L			PR	TRG					00000000	GW			5.0	0.00086	0.0019	0.0023	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-4BMW03-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:15	03/04/2017			20170309	10:15:00	20170312	04:20:00	320-26324-4	1	1			18O2 PFHXS	18O2 PFHXS	97	97	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170308	08:41:00	20170315	00:04:00	320-26324-5	1	1			1,4-Dioxane	123-91-1	0.57	0.57	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.23	0.57	1.1	320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170308	08:41:00	20170315	00:04:00	320-26324-5	1	1			Nitrobenzene-D5	4165-60-0	76	76	PCT_REC			PR	SURR		SLSA	91	42	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170309	10:15:00	20170312	04:28:00	320-26324-5	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.0019	0.0019	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00071	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170309	10:15:00	20170312	04:28:00	320-26324-5	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0028	0.0028	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.0012	0.0028	0.0038	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170309	10:15:00	20170312	04:28:00	320-26324-5	1	1			13C4 PFOA	13C4 PFOA	106	106	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170309	10:15:00	20170312	04:28:00	320-26324-5	1	1			13C4 PFOS	13C4 PFOS	90	90	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170309	10:15:00	20170312	04:28:00	320-26324-5	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0019	0.0019	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00087	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB03-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 14:00	03/04/2017			20170309	10:15:00	20170312	04:28:00	320-26324-5	1	1			18O2 PFHXS	18O2 PFHXS	99	99	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170308	08:41:00	20170315	00:27:00	320-26324-6	1	1			1,4-Dioxane	123-91-1	0.54	0.54	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.21	0.54	1.1	320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170308	08:41:00	20170315	00:27:00	320-26324-6	1	1			Nitrobenzene-D5	4165-60-0	74	74	PCT_REC			PR	SURR		SLSA	91	42	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170309	10:15:00	20170312	04:35:00	320-26324-6	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.0019	0.0019	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00072	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170309	10:15:00	20170312	04:35:00	320-26324-6	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0029	0.0029	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.0012	0.0029	0.0038	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170309	10:15:00	20170312	04:35:00	320-26324-6	1	1			13C4 PFOA	13C4 PFOA	101	101	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170309	10:15:00	20170312	04:35:00	320-26324-6	1	1			13C4 PFOS	13C4 PFOS	90	90	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170309	10:15:00	20170312	04:35:00	320-26324-6	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.0019	0.0019	UG_L	U	U	PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00088	0.0019	0.0024	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB04-GW-0317	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	03/03/2017 15:35	03/04/2017			20170309	10:15:00	20170312	04:35:00	320-26324-6	1	1			18O2 PFHXS	18O2 PFHXS	95	95	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153806/2-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BS	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:06:00	LCS 320-153806/2-A	1	1			1,4-Dioxane	123-91-1	32	32	PCT_REC	M	M	PR	TRG		LSA	52	12	00000000				5.0	0.20	0.50	1.0	320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-153806/2-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BS	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:06:00	LCS 320-153806/2-A	1	1			Nitrobenzene-D5	4165-60-0	75	75	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-154076/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:35:00	LCS 320-154076/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	113	113	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.75	2.0	2.5	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-154076/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:35:00	LCS 320-154076/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	113	113	PCT_REC	M	M	PR	TRG		LSA	140	60	00000000				5.0	1.3	3.0	4.0	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-154076/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:35:00	LCS 320-154076/2-A	1	1			13C4 PFOA	13C4 PFOA	100	100	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-154076/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:35:00	LCS 320-154076/2-A	1	1			13C4 PFOS	13C4 PFOS	91	91	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-154076/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:35:00	LCS 320-154076/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	126	126	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.92	2.0	2.5	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-154076/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:35:00	LCS 320-154076/2-A	1	1			18O2 PFHXS	18O2 PFHXS	95	95	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153806/3-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BSD	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:28:00	LCSD 320-153806/3-A	1	1			1,4-Dioxane	123-91-1	31	31	PCT_REC	M	M	PR	TRG		LSP	52	12	00000000				5.0	0.20	0.50	1.0	320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-153806/3-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	BSD	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	21:28:00	LCSD 320-153806/3-A	1	1			Nitrobenzene-D5	4165-60-0	71	71	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153806/1-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	LB1	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	20:43:00	MB 320-153806/1-A	1	1			1,4-Dioxane	123-91-1	0.50	0.50	UG_L	U	U	PR	TRG					00000000				5.0	0.20	0.50	1.0	320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-153806/1-A	NONS	SVOA	8270_SIM	SVOA	TAMER	Test America	NONE	NA	SW3510C	000	LB1	W	4	03/08/2017 08:41	03/08/2017			20170308	08:41:00	20170314	20:43:00	MB 320-153806/1-A	1	1			Nitrobenzene-D5	4165-60-0	69	69	PCT_REC			PR	SURR		SLSA	91	42	00000000				5.0				320-26324-1	320-154875		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-154076/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:28:00	MB 320-154076/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.002	0.002	UG_L	UM	UM	PR	TRG					00000000				5.0	0.00075	0.002	0.0025	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-154076/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:28:00	MB 320-154076/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.003	0.003	UG_L	U	U	PR	TRG					00000000				5.0	0.0013	0.003	0.004	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-154076/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:28:00	MB 320-154076/1-A	1	1			13C4 PFOA	13C4 PFOA	105	105	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-154076/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:28:00	MB 320-154076/1-A	1	1			13C4 PFOS	13C4 PFOS	88	88	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-154076/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:28:00	MB 320-154076/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002	0.002	UG_L	U	U	PR	TRG					00000000				5.0	0.00092	0.002	0.0025	320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-154076/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	03/09/2017 10:15	03/09/2017			20170309	10:15:00	20170312	03:28:00	MB 320-154076/1-A	1	1			18O2 PFHXS	18O2 PFHXS	95	95	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0				320-26324-1	320-154520		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-EB01-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	REG	W	4	03/03/2017 11:05	03/06/2017			20170314	11:49:00	20170314	11:49:00	SK1680-4	1	1			4-Bromofluorobenzene	460-00-4	93.3	93.3	PCT				SURR		SLSA	120	75	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-EB01-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	REG	W	4	03/03/2017 11:05	03/06/2017			20170314	11:49:00	20170314	11:49:00	SK1680-4	1	1			Toluene-D8	2037-26-5	102.	102.	PCT				SURR		SLSA	120	85	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-EB01-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	REG	W	4	03/03/2017 11:05	03/06/2017			20170314	11:49:00	20170314	11:49:00	SK1680-4	1	1			1,2-Dichloroethane-d4	17060-07-0	118.	118.	PCT				SURR		SLSA	120	70	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-EB01-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	REG	W	4	03/03/2017 11:05	03/06/2017			20170314	11:49:00	20170314	11:49:00	SK1680-4	1	1			Dibromofluoromethane	1868-53-7	110.	110.	PCT				SURR		SLSA	115	85	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 00:00	03/06/2017			20170310	15:45:00	20170310	15:45:00	SK1680-2	1	1	34.445		4-Bromofluorobenzene	460-00-4	67.9	67.9	PCT	*	*		SURR		SLSA	120	85	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 00:00	03/06/2017			20170317	15:17:00	20170317	15:17:00	SK1680-2RA	1	2	34.445		4-Bromofluorobenzene	460-00-4	54.1	54.1	PCT	*	*		SURR		SLSA	120	85	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 00:00	03/06/2017			20170317	15:17:00	20170317	15:17:00	SK1680-2RA	1	2	34.445		Toluene-D8	2037-26-5	95.2	95.2	PCT				SURR		SLSA	115	85	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 00:00	03/06/2017			20170310	15:45:00	20170310	15:45:00	SK1680-2	1	1	34.445		Toluene-D8	2037-26-5	93.7	93.7	PCT				SURR		SLSA	115	85	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 00:00	03/06/2017			20170317	15:17:00	20170317	15:17:00	SK1680-2RA	1	2	34.445		1,2-Dichloroethane-d4	17060-07-0	88.5	88.5	PCT				SURR		SLSA	134	58	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 00:00	03/06/2017			20170310	15:45:00	20170310	15:45:00	SK1680-2	1	1	34.445		1,2-Dichloroethane-d4	17060-07-0	100.	100.	PCT				SURR		SLSA	134	58	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 00:00	03/06/2017			20170310	15:45:00	20170310	15:45:00	SK1680-2	1	1	34.445		Dibromofluoromethane	1868-53-7	100.	100.	PCT				SURR		SLSA	130	64	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-FD04-0217A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 00:00	03/06/2017			20170317	15:17:00	20170317	15:17:00	SK1680-2RA	1	2	34.445		Dibromofluoromethane	1868-53-7	97.1	97.1	PCT				SURR		SLSA	130	64	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 09:25	03/06/2017			20170317	14:39:00	20170317	14:39:00	SK1680-1RA	1	2	34.371		4-Bromofluorobenzene	460-00-4	66.5	66.5	PCT	*	*		SURR		SLSA	120	85	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 09:25	03/06/2017			20170310	15:08:00	20170310	15:08:00	SK1680-1	1	1	34.371		4-Bromofluorobenzene	460-00-4	57.5	57.5	PCT	*	*		SURR		SLSA	120	85	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 09:25	03/06/2017			20170317	14:39:00	20170317	14:39:00	SK1680-1RA	1	2	34.371		Toluene-D8	2037-26-5	98.5	98.5	PCT				SURR		SLSA	115	85	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 09:25	03/06/2017			20170310	15:08:00	20170310	15:08:00	SK1680-1	1	1	34.371		Toluene-D8	2037-26-5	91.6	91.6	PCT				SURR		SLSA	115	85	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 09:25	03/06/2017			20170310	15:08:00	20170310	15:08:00	SK1680-1	1	1	34.371		1,2-Dichloroethane-d4	17060-07-0	100.	100.	PCT				SURR		SLSA	134	58	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 09:25	03/06/2017			20170317	14:39:00	20170317	14:39:00	SK1680-1RA	1	2	34.371		1,2-Dichloroethane-d4	17060-07-0	110.	110.	PCT				SURR		SLSA	134	58	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 09:25	03/06/2017			20170310	15:08:00	20170310	15:08:00	SK1680-1	1	1	34.371		Dibromofluoromethane	1868-53-7	100.	100.	PCT				SURR		SLSA	130	64	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB20-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	RA0	REG	S	4	03/03/2017 09:25	03/06/2017			20170317	14:39:00	20170317	14:39:00	SK1680-1RA	1	2	34.371		Dibromofluoromethane	1868-53-7	107.	107.	PCT				SURR		SLSA	130	64	20091101	SO			4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		4-Bromofluorobenzene	460-00-4	91.6	91.6	PCT				SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Toluene-D8	2037-26-5	95.3	95.3	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,2-Dichloroethane-d4	17060-07-0	98.0	98.0	PCT				SURR		SLSA	134	58	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Dibromofluoromethane	1868-53-7	99.7	99.7	PCT				SURR		SLSA	130	64	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		4-Bromofluorobenzene	460-00-4	51.8	51.8	PCT	*	*		SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Toluene-D8	2037-26-5	87.2	87.2	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2-Dichloroethane-d4	17060-07-0	100.	100.	PCT				SURR		SLSA	134	58	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Dibromofluoromethane	1868-53-7	105.	105.	PCT				SURR		SLSA	130	64	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		4-Bromofluorobenzene	460-00-4	53.6	53.6	PCT	*	*		SURR		SLSA	120	85	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Toluene-D8	2037-26-5	94.5	94.5	PCT				SURR		SLSA	115	85	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2-Dichloroethane-d4	17060-07-0	122.	122.	PCT				SURR		SLSA	134	58	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Dibromofluoromethane	1868-53-7	106.	106.	PCT				SURR		SLSA	130	64	20091101	SO			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			4-Bromofluorobenzene	460-00-4	97.2	97.2	PCT				SURR		SLSA	120	85	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Toluene-D8	2037-26-5	99.7	99.7	PCT				SURR		SLSA	115	85	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2-Dichloroethane-d4	17060-07-0	103.	103.	PCT				SURR		SLSA	134	58	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Dibromofluoromethane	1868-53-7	99.0	99.0	PCT				SURR		SLSA	130	64	20091101	AQ (Field Blanks)			4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			4-Bromofluorobenzene	460-00-4	97.6	97.6	PCT				SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Toluene-D8	2037-26-5	99.4	99.4	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,2-Dichloroethane-d4	17060-07-0	98.4	98.4	PCT				SURR		SLSA	134	58	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Dibromofluoromethane	1868-53-7	99.7	99.7	PCT				SURR		SLSA	130	64	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/10/2017 09:44	03/10/2017			20170310	09:44:00	20170310	09:44:00	WG201121-1	1	1			4-Bromofluorobenzene	460-00-4	94.9	94.9	PCT				SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/10/2017 09:44	03/10/2017			20170310	09:44:00	20170310	09:44:00	WG201121-1	1	1			Toluene-D8	2037-26-5	95.0	95.0	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/10/2017 09:44	03/10/2017			20170310	09:44:00	20170310	09:44:00	WG201121-1	1	1			1,2-Dichloroethane-d4	17060-07-0	94.3	94.3	PCT				SURR		SLSA	134	58	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/10/2017 09:44	03/10/2017			20170310	09:44:00	20170310	09:44:00	WG201121-1	1	1			Dibromofluoromethane	1868-53-7	96.7	96.7	PCT				SURR		SLSA	130	64	20091101				4.2	0	0	0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	03/14/2017 10:37	03/14/2017			20170314	10:37:00	20170314	10:37:00	WG201342-2	1	1			4-Bromofluorobenzene	460-00-4	93.5	93.5	PCT				SURR		SLSA	120	75	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	03/14/2017 10:37	03/14/2017			20170314	10:37:00	20170314	10:37:00	WG201342-2	1	1			Toluene-D8	2037-26-5	102.	102.	PCT				SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	03/14/2017 10:37	03/14/2017			20170314	10:37:00	20170314	10:37:00	WG201342-2	1	1			1,2-Dichloroethane-d4	17060-07-0	115.	115.	PCT				SURR		SLSA	120	70	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	03/14/2017 10:37	03/14/2017			20170314	10:37:00	20170314	10:37:00	WG201342-2	1	1			Dibromofluoromethane	1868-53-7	107.	107.	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	03/14/2017 09:21	03/14/2017			20170314	09:21:00	20170314	09:21:00	WG201342-1	1	1			4-Bromofluorobenzene	460-00-4	95.9	95.9	PCT				SURR		SLSA	120	75	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	03/14/2017 09:21	03/14/2017			20170314	09:21:00	20170314	09:21:00	WG201342-1	1	1			Toluene-D8	2037-26-5	101.	101.	PCT				SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	03/14/2017 09:21	03/14/2017			20170314	09:21:00	20170314	09:21:00	WG201342-1	1	1			1,2-Dichloroethane-d4	17060-07-0	102.	102.	PCT				SURR		SLSA	120	70	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201342-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	03/14/2017 09:21	03/14/2017			20170314	09:21:00	20170314	09:21:00	WG201342-1	1	1			Dibromofluoromethane	1868-53-7	99.3	99.3	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201342		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/17/2017 11:45	03/17/2017			20170317	11:45:00	20170317	11:45:00	WG201539-2	1	1			4-Bromofluorobenzene	460-00-4	101.	101.	PCT				SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/17/2017 11:45	03/17/2017			20170317	11:45:00	20170317	11:45:00	WG201539-2	1	1			Toluene-D8	2037-26-5	103.	103.	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/17/2017 11:45	03/17/2017			20170317	11:45:00	20170317	11:45:00	WG201539-2	1	1			1,2-Dichloroethane-d4	17060-07-0	112.	112.	PCT				SURR		SLSA	134	58	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/17/2017 11:45	03/17/2017			20170317	11:45:00	20170317	11:45:00	WG201539-2	1	1			Dibromofluoromethane	1868-53-7	106.	106.	PCT				SURR		SLSA	130	64	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/17/2017 09:38	03/17/2017			20170317	09:38:00	20170317	09:38:00	WG201539-1	1	1			4-Bromofluorobenzene	460-00-4	104.	104.	PCT				SURR		SLSA	120	85	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/17/2017 09:38	03/17/2017			20170317	09:38:00	20170317	09:38:00	WG201539-1	1	1			Toluene-D8	2037-26-5	102.	102.	PCT				SURR		SLSA	115	85	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/17/2017 09:38	03/17/2017			20170317	09:38:00	20170317	09:38:00	WG201539-1	1	1			1,2-Dichloroethane-d4	17060-07-0	110.	110.	PCT				SURR		SLSA	134	58	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	WG201539-LCS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BS	S	4	03/17/2017 09:38	03/17/2017			20170317	09:38:00	20170317	09:38:00	WG201539-1	1	1			Dibromofluoromethane	1868-53-7	106.	106.	PCT				SURR		SLSA	130	64	20091101				4.2	0	0	0	SK1680	WG201539		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	11:00:00	20170314	16:55:00	SK1681-2	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	96.0	96.0	PCT				SURR		SLSA	140	25	20091101	IDW			4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	11:00:00	20170314	16:55:00	SK1681-2	1	1			Decachlorobiphenyl (209)	2051-24-3	69.2	69.2	PCT				SURR		SLSA	135	30	20091101	IDW			4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW01-SO-0317	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	11:00:00	20170314	16:36:00	SK1681-1	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	95.2	95.2	PCT				SURR		SLSA	140	25	20091101	IDW			4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW01-SO-0317	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	11:00:00	20170314	16:36:00	SK1681-1	1	1			Decachlorobiphenyl (209)	2051-24-3	86.4	86.4	PCT				SURR		SLSA	135	30	20091101	IDW			4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 13:03	03/14/2017			20170314	11:00:00	20170314	14:20:00	WG201356-1	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	88.3	88.3	PCT				SURR		SLSA	140	25	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 13:03	03/14/2017			20170314	11:00:00	20170314	14:20:00	WG201356-1	1	1			Decachlorobiphenyl (209)	2051-24-3	72.6	72.6	PCT				SURR		SLSA	135	30	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 13:04	03/14/2017			20170314	11:00:00	20170314	14:39:00	WG201356-2	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	86.5	86.5	PCT				SURR		SLSA	140	25	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 13:04	03/14/2017			20170314	11:00:00	20170314	14:39:00	WG201356-2	1	1			Decachlorobiphenyl (209)	2051-24-3	68.8	68.8	PCT				SURR		SLSA	135	30	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCS1	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 13:06	03/14/2017			20170314	11:00:00	20170314	15:18:00	WG201356-4	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	92.0	92.0	PCT				SURR		SLSA	140	25	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCS1	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 13:06	03/14/2017			20170314	11:00:00	20170314	15:18:00	WG201356-4	1	1			Decachlorobiphenyl (209)	2051-24-3	53.6	53.6	PCT				SURR		SLSA	135	30	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCS2	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 13:07	03/14/2017			20170314	11:00:00	20170315	15:10:00	WG201356-5RA	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	112.	112.	PCT				SURR		SLSA	140	25	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCS2	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 13:07	03/14/2017			20170314	11:00:00	20170315	15:10:00	WG201356-5RA	1	1			Decachlorobiphenyl (209)	2051-24-3	62.1	62.1	PCT				SURR		SLSA	135	30	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCSD	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 13:05	03/14/2017			20170314	11:00:00	20170314	14:59:00	WG201356-3	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	87.9	87.9	PCT				SURR		SLSA	140	25	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201356-LCSD	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 13:05	03/14/2017			20170314	11:00:00	20170314	14:59:00	WG201356-3	1	1			Decachlorobiphenyl (209)	2051-24-3	72.5	72.5	PCT				SURR		SLSA	135	30	20091101				4.2	0	0	0	SK1681	WG201356	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201038-TCLP BLK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	03/08/2017 00:00	03/08/2017	20170308	08:05:00	20170309	13:00:00	20170310	10:52:00	WG201038-4	1	1			2,4,5,6-Tetrachloro-meta-xylene	877-09-8	93.2	93.2	PCT				SURR		SLSA	140	25	20091101				4.2	0	0	0	SK1681	WG201038	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201038-TCLP BLK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	03/08/2017 00:00	03/08/2017	20170308	08:05:00	20170309	13:00:00	20170310	10:52:00	WG201038-4	1	1			Decachlorobiphenyl (209)	2051-24-3	96.2	96.2	PCT				SURR		SLSA	135	30	20091101				4.2	0	0	0	SK1681	WG201038	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201405-BLANK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/15/2017 12:03	03/15/2017			20170315	10:45:00	20170316	17:43:00	WG201405-1	1	1			2,4-DICHLOROPHENYLACETIC ACID	19719-28-9	79.0	79.0	PCT				SURR		SLSA	126	35	20091101				4.2	0	0	0	SK1681	WG201405	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201405-LCS	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/15/2017 12:04	03/15/2017			20170315	10:45:00	20170316	18:07:00	WG201405-2	1	1			2,4-DICHLOROPHENYLACETIC ACID	19719-28-9	82.2	82.2	PCT				SURR		SLSA	126	35	20091101				4.2	0	0	0	SK1681	WG201405	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201405-LCSD	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/15/2017 12:05	03/15/2017			20170315	10:45:00	20170316	18:30:00	WG201405-3	1	1			2,4-DICHLOROPHENYLACETIC ACID	19719-28-9	84.0	84.0	PCT				SURR		SLSA	126	35	20091101				4.2	0	0	0	SK1681	WG201405	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 10:03	03/14/2017			20170314	15:00:00	20170316	16:08:00	WG201353-1	1	1			2-Fluorophenol	367-12-4	0.00	0.00	PCT	*			SURR		SLSA	110	20	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 10:03	03/14/2017			20170314	15:00:00	20170316	16:08:00	WG201353-1	1	1			Phenol-D6	13127-88-3	9.96	9.96	PCT	*			SURR		SLSA	115	10	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 10:03	03/14/2017			20170314	15:00:00	20170316	16:08:00	WG201353-1	1	1			Nitrobenzene-D5	4165-60-0	91.5	91.5	PCT				SURR		SLSA	110	40	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 10:03	03/14/2017			20170314	15:00:00	20170316	16:08:00	WG201353-1	1	1			2-Fluorobiphenyl	321-60-8	88.9	88.9	PCT				SURR		SLSA	110	50	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 10:03	03/14/2017			20170314	15:00:00	20170316	16:08:00	WG201353-1	1	1			2,4,6-Tribromophenol	118-79-6	10.1	10.1	PCT	*			SURR		SLSA	125	40	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	03/14/2017 10:03	03/14/2017			20170314	15:00:00	20170316	16:08:00	WG201353-1	1	1			Terphenyl-D14	1718-51-0	117.	117.	PCT				SURR		SLSA	135	50	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG201353-2	1	1			2-Fluorophenol	367-12-4	0.00	0.00	PCT	*			SURR		SLSA	110	20	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG201353-2	1	1			Phenol-D6	13127-88-3	8.71	8.71	PCT	*			SURR		SLSA	115	10	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG201353-2	1	1			Nitrobenzene-D5	4165-60-0	76.2	76.2	PCT				SURR		SLSA	110	40	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG201353-2	1	1			2-Fluorobiphenyl	321-60-8	79.5	79.5	PCT				SURR		SLSA	110	50	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG201353-2	1	1			2,4,6-Tribromophenol	118-79-6	12.8	12.8	PCT	*			SURR		SLSA	125	40	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG201353-2	1	1			Terphenyl-D14	1718-51-0	106.	106.	PCT				SURR		SLSA	135	50	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCSD	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG201353-3	1	1			2-Fluorophenol	367-12-4	37.8	37.8	PCT				SURR		SLSA	110	20	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCSD	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG201353-3	1	1			Phenol-D6	13127-88-3	24.5	24.5	PCT				SURR		SLSA	115	10	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCSD	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG201353-3	1	1			Nitrobenzene-D5	4165-60-0	80.3	80.3	PCT				SURR		SLSA	110	40	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCSD	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG201353-3	1	1			2-Fluorobiphenyl	321-60-8	78.5	78.5	PCT				SURR		SLSA	110	50	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCSD	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG201353-3	1	1			2,4,6-Tribromophenol	118-79-6	103.	103.	PCT				SURR		SLSA	125	40	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201353-LCSD	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BSD	W	4	03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG201353-3	1	1			Terphenyl-D14	1718-51-0	117.	117.	PCT				SURR		SLSA	135	50	20091101				4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	WG201127-TCLP BLK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	03/08/2017 00:00	03/08/2017	20170308	08:05:00	20170310	12:00:00	20170316	00:57:00	WG201127-4	1	1			2,4-DICHLOROPHENYLACETIC ACID	19719-28-9	84.0	84.0	PCT				SURR		SLSA	126	35	20091101				4.2	0	0	0	SK1681	WG201127	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170315	10:45:00	20170316	19:42:00	SK1681-2	1	1			2,4-DICHLOROPHENYLACETIC ACID	19719-28-9	80.0	80.0	PCT				SURR		SLSA	126	35	20091101	IDW			4.2	0	0	0	SK1681	WG201405	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW01-SO-0317	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170315	10:45:00	20170316	19:18:00	SK1681-1	1	1			2,4-DICHLOROPHENYLACETIC ACID	19719-28-9	65.2	65.2	PCT				SURR		SLSA	126	35	20091101	IDW			4.2	0	0	0	SK1681	WG201405	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	E1	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170324	11:30:00	20170327	16:38:00	SK1681-2RE	1	2			2-Fluorophenol	367-12-4	31.5	31.5	PCT				SURR		SLSA	110	20	20091101	IDW			4.2	0	0	0	SK1681	WG201936	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170317	00:26:00	SK1681-2	1	1			2-Fluorophenol	367-12-4	1.85	1.85	PCT	*			SURR		SLSA	110	20	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	E1	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170324	11:30:00	20170327	16:38:00	SK1681-2RE	1	2			Phenol-D6	13127-88-3	20.1	20.1	PCT				SURR		SLSA	115	10	20091101	IDW			4.2	0	0	0	SK1681	WG201936	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170317	00:26:00	SK1681-2	1	1			Phenol-D6	13127-88-3	5.78	5.78	PCT	*			SURR		SLSA	115	10	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170317	00:26:00	SK1681-2	1	1			Nitrobenzene-D5	4165-60-0	79.1	79.1	PCT				SURR		SLSA	110	40	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	E1	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170324	11:30:00	20170327	16:38:00	SK1681-2RE	1	2			Nitrobenzene-D5	4165-60-0	89.3	89.3	PCT				SURR		SLSA	110	40	20091101	IDW			4.2	0	0	0	SK1681	WG201936	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	E1	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170324	11:30:00	20170327	16:38:00	SK1681-2RE	1	2			2-Fluorobiphenyl	321-60-8	86.4	86.4	PCT				SURR		SLSA	110	50	20091101	IDW			4.2	0	0	0	SK1681	WG201936	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170317	00:26:00	SK1681-2	1	1			2-Fluorobiphenyl	321-60-8	88.3	88.3	PCT				SURR		SLSA	110	50	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	E1	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170324	11:30:00	20170327	16:38:00	SK1681-2RE	1	2			2,4,6-Tribromophenol	118-79-6	79.7	79.7	PCT				SURR		SLSA	125	40	20091101	IDW			4.2	0	0	0	SK1681	WG201936	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170317	00:26:00	SK1681-2	1	1			2,4,6-Tribromophenol	118-79-6	2.75	2.75	PCT	*			SURR		SLSA	125	40	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	E1	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170324	11:30:00	20170327	16:38:00	SK1681-2RE	1	2			Terphenyl-D14	1718-51-0	85.2	85.2	PCT				SURR		SLSA	135	50	20091101	IDW			4.2	0	0	0	SK1681	WG201936	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW02-GW-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170317	00:26:00	SK1681-2	1	1			Terphenyl-D14	1718-51-0	128.	128.	PCT				SURR		SLSA	135	50	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW01-SO-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170316	23:56:00	SK1681-1	1	1			2-Fluorophenol	367-12-4	34.1	34.1	PCT				SURR		SLSA	110	20	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW01-SO-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	03/03/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:00:00	20170316	23:56:00	SK1681-1	1	1			Phenol-D6	13127-88-3	21.4	21.4	PCT				SURR		SLSA	115	10	20091101	IDW			4.2	0	0	0	SK1681	WG201353	Preload Check mjz	20170331

Contract_ID	QQ_CTO_Number	Phase	Installation_ID	Sample_Name	CHEM_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	GreenTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	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	DSM_Version	SIL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247501D090003	AK01		MERIDIAN_NAS	MP-APT-IW01-SD-0317	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW5030C	0000	RSG	W	e	03/01/2017 14:05	03/04/2017	20170310	08:04:00	20170314	15:50:00	20170316	15:56:00	SV1681-1	0.7		UG/L			SURR	SSA		110	80	20091101																

Contract_ID	QQ_CTO_Number	Phase	Installation_ID	Sample_Name	CHAIN_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	GrabTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	QC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	RRS	Detection_Limit	EDM_Version	SIL	LOQ	LOQ	Analysis_Batch	Validator_Name	Val_Date
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		75-35-4	1,1-Dichloroethene	4	0.0	0.0	UG_KG	U	J		TRG								0.2	1.4	3.6	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		75-34-3	1,1-Dichloroethane	5	0.0	3.0	UG_KG	U	J		TRG								0.2	1.1	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		75-15-0	Carbon disulfide	6	0.0	2.5	UG_KG	U	J		TRG								0.2	0.56	2.5	5.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		75-15-0	Carbon disulfide	6	0.0	0.0	UG_KG				TRG								0.2	1.2	3.6	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	7	0.0	3.0	UG_KG	U	J		TRG								0.2	1.8	3.6	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	7	0.0	0.0	UG_KG				TRG								0.2	2.1	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		75-09-2	Methylene chloride	8	0.0	19	UG_KG	U	J		TRG								0.2	12	19	38	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		75-09-2	Methylene chloride	8	0.0	0.0	UG_KG				TRG								0.2	6.5	19	38	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		67-64-1	Acetone	9	0.0	10	UG_KG	U	J		TRG								0.2	7.6	10	38	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		67-64-1	Acetone	9	0.0	0.0	UG_KG				TRG								0.2	6.5	19	38	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		78-93-3	2-Butanone	10	0.0	0.0	UG_KG	U	J		TRG								0.2	7.1	15	38	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		78-93-3	2-Butanone	10	0.0	0.0	UG_KG				TRG								0.2	6.5	15	38	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		71-43-2	Benzene	11	0.0	3.0	UG_KG	U	J		TRG								0.2	1.4	3.6	7.5	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		71-43-2	Benzene	11	0.0	0.0	UG_KG				TRG								0.2	1.1	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		1634-04-4	Methyl-tert-butyl ether (MTBE)	12	0.0	0.0	UG_KG	U	J		TRG								0.2	1.4	3.6	7.5	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		1634-04-4	Methyl-tert-butyl ether (MTBE)	12	0.0	0.0	UG_KG				TRG								0.2	1.1	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		75-34-3	1,1-Dichloroethane	5	0.0	0.0	UG_KG				TRG								0.2	2.6	3.8	7.5	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		156-59-2	cis-1,2-Dichloroethene	13	0.0	3.0	UG_KG	U	J		TRG								0.2	1.2	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		156-59-2	cis-1,2-Dichloroethene	13	0.0	0.0	UG_KG				TRG								0.2	1.1	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		67-66-3	Chloroform	14	0.0	3.0	UG_KG	U	J		TRG								0.2	0.52	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		67-66-3	Chloroform	14	0.0	0.0	UG_KG				TRG								0.2	0.42	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		56-23-5	Carbon tetrachloride	15	0.0	3.0	UG_KG	U	J		TRG								0.2	0.36	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		56-23-5	Carbon tetrachloride	15	0.0	0.0	UG_KG				TRG								0.2	0.28	3.8	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		71-55-6	1,1,1-Trichloroethane	16	0.0	3.0	UG_KG	U	J		TRG								0.2	0.30	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		71-55-6	1,1,1-Trichloroethane	16	0.0	0.0	UG_KG				TRG								0.2	0.33	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		56-23-5	Carbon tetrachloride	15	0.0	0.0	UG_KG				TRG								0.2	0.33	3.8	7.5	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		71-55-6	1,1,1-Trichloroethane	16	0.0	0.0	UG_KG				TRG								0.2	0.28	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		78-93-3	2-Butanone	10	0.0	0.0	UG_KG				TRG								0.2	7.7	15	38	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		71-43-2	Benzene	11	0.0	0.0	UG_KG				TRG								0.2	1.2	3.2	6.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		108-88-3	Toluene	17	0.0	0.0	UG_KG				TRG								0.2	1.8	3.6	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		108-90-7	Chlorobenzene	18	0.0	3.0	UG_KG	U	J		TRG								0.2	0.78	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		108-90-7	Chlorobenzene	18	0.0	0.0	UG_KG				TRG								0.2	0.33	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		100-41-4	Ethylbenzene	19	0.0	3.0	UG_KG	U	J		TRG								0.2	0.88	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		1330-20-7	Xylene, total	20	0.0	3.0	UG_KG	U	J		TRG								0.2	1.7	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		1330-20-7	Xylene, total	20	0.0	0.0	UG_KG				TRG								0.2	2.6	7.5	15	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		m,p-Xylene	21	0.0	3.0	UG_KG	U	J		TRG								0.2	1.7	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		m,p-Xylene	21	0.0	0.0	UG_KG				TRG								0.2	1.3	3.8	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		o-Xylene	22	0.0	3.0	UG_KG	U	J		TRG								0.2	0.66	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		o-Xylene	22	0.0	0.0	UG_KG				TRG								0.2	0.76	3.8	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		Styrene	23	0.0	3.0	UG_KG	U	J		TRG								0.2	0.66	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		Styrene	23	0.0	0.0	UG_KG				TRG								0.2	0.76	3.8	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		Bromoform	24	0.0	3.0	UG_KG	U	J		TRG								0.2	0.84	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		Isopropylbenzene	25	0.0	3.0	UG_KG	U	J		TRG								0.2	1.1	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		Isopropylbenzene	25	0.0	0.0	UG_KG				TRG								0.2	0.33	3.8	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		1,1,2,2-Tetrachloroethane	26	0.0	3.0	UG_KG	U	J		TRG								0.2	1.4	3.6	7.5	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		1,1,2,2-Tetrachloroethane	26	0.0	0.0	UG_KG				TRG								0.2	1.1	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		1,3-Dichlorobenzene	27	0.0	3.0	UG_KG	U	J		TRG								0.2	0.85	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		541-73-1	1,3-Dichlorobenzene	27	0.0	0.0	UG_KG				TRG								0.2	0.57	3.8	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		106-46-7	1,4-Dichlorobenzene	28	0.0	3.0	UG_KG	U	J		TRG								0.2	0.85	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		106-46-7	1,4-Dichlorobenzene	28	0.0	0.0	UG_KG				TRG								0.2	0.88	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		95-50-1	1,2-Dichlorobenzene	29	0.0	3.0	UG_KG	U	J		TRG								0.2	1.2	3.8	7.5	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		95-50-1	1,2-Dichlorobenzene	29	0.0	0.0	UG_KG				TRG								0.2	0.88	3.0	6.0	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		96-12-8	1,2-Dibromo-3-chloropropane	30	0.0	3.0	UG_KG	U	J		TRG								0.2	1.2	3.6	7.5	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		96-12-8	1,2-Dibromo-3-chloropropane	30	0.0	0.0	UG_KG				TRG								0.2	0.28	3.8	7.5	SK1680	WQ20121		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		120-82-1	1,2,4-Trichlorobenzene	31	0.0	3.0	UG_KG	U	J		TRG								0.2	0.95	3.0	6.0	SK1680	WQ20139		
NEA247D1609D001	AM01		MERIDIAN_NAS	MT.508.1820.0708A	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	5030	REG	L	S	4	01/01/2017 00:00	01/06/2017			01/06/2017	15:45:00	01/06/2017	15:45:00	SK1680-2	1	1	14.445		120-82-

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Trichloroethene	79-01-6	59.	59.	UG_KG				TRG		MSA	125	75	20091101				4.2	0.77	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,2-Dichloropropane	78-87-5	61.	61.	UG_KG				TRG		MSA	120	70	20091101				4.2	1.8	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Bromodichloromethane	75-27-4	58.	58.	UG_KG				TRG		MSA	130	70	20091101				4.2	0.78	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		cis-1,3-Dichloropropene	10061-01-5	52.	52.	UG_KG				TRG		MSA	125	70	20091101				4.2	0.94	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Toluene	108-88-3	53.	53.	UG_KG				TRG		MSA	125	70	20091101				4.2	1.8	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		4-Methyl-2-pentanone	108-10-1	52.	52.	UG_KG				TRG		MSA	145	45	20091101				4.2	7.7	16.	32.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Tetrachloroethene	127-18-4	57.	57.	UG_KG				TRG		MSA	140	65	20091101				4.2	1.6	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		trans-1,3-Dichloropropene	10061-02-6	50.	50.	UG_KG				TRG		MSA	125	65	20091101				4.2	1.1	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,1,2-Trichloroethane	79-00-5	55.	55.	UG_KG				TRG		MSA	125	60	20091101				4.2	1.3	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Dibromochloromethane	124-48-1	54.	54.	UG_KG				TRG		MSA	130	65	20091101				4.2	1.3	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,2-Dibromoethane	106-93-4	50.	50.	UG_KG				TRG		MSA	125	70	20091101				4.2	1.6	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		2-Hexanone	591-78-6	50.	50.	UG_KG				TRG		MSA	145	45	20091101				4.2	6.2	16.	32.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Chlorobenzene	108-90-7	48.	48.	UG_KG	*	*		TRG		MSA	125	75	20091101				4.2	0.66	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Ethylbenzene	100-41-4	48.	48.	UG_KG	*	*		TRG		MSA	125	75	20091101				4.2	0.84	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Xylene, total	1330-20-7	140	140	UG_KG	*	*		TRG		MSA	114	81	20091101				4.2	1.7	9.8	20.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		m- and p-Xylene	m&pXYLENE	93.	93.	UG_KG	*	*		TRG		MSA	125	80	20091101				4.2	2.2	6.5	13.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		o-Xylene	95-47-6	46.	46.	UG_KG	*	*		TRG		MSA	125	75	20091101				4.2	1.7	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Styrene	100-42-5	26.	26.	UG_KG	*	*		TRG		MSA	125	75	20091101				4.2	0.66	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Bromoform	75-25-2	46.	46.	UG_KG				TRG		MSA	135	55	20091101				4.2	0.91	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Isopropylbenzene	98-82-8	52.	52.	UG_KG				TRG		MSA	130	75	20091101				4.2	1.2	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,1,2,2-Tetrachloroethane	79-34-5	52.	52.	UG_KG				TRG		MSA	130	55	20091101				4.2	1.1	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,3-Dichlorobenzene	541-73-1	36.	36.	UG_KG	*	*		TRG		MSA	125	70	20091101				4.2	0.81	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,4-Dichlorobenzene	106-46-7	36.	36.	UG_KG	*	*		TRG		MSA	125	70	20091101				4.2	0.57	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,2-Dichlorobenzene	95-50-1	34.	34.	UG_KG	*	*		TRG		MSA	120	75	20091101				4.2	1.0	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,2-Dibromo-3-chloropropane	96-12-8	42.	42.	UG_KG				TRG		MSA	135	40	20091101				4.2	2.0	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,2,4-Trichlorobenzene	120-82-1	20.	20.	UG_KG	*	*		TRG		MSA	130	65	20091101				4.2	1.0	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		1,2,3-Trichlorobenzene	87-61-6	19.	19.	UG_KG	*	*		TRG		MSA	135	60	20091101				4.2	0.99	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Bromochloromethane	74-97-5	65.	65.	UG_KG				TRG		MSA	125	70	20091101				4.2	1.2	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Methyl acetate	79-20-9	54.	54.	UG_KG				TRG		MSA	133	72	20091101				4.2	3.5	3.9	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-MS	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MS	S	4	03/03/2017 10:45	03/06/2017			20170310	19:28:00	20170310	19:28:00	WG201121-7	1	1	24.344		Methylcyclohexane	108-87-2	69.	69.	UG_KG				TRG		MSA	127	71	20091101				4.2	1.2	3.2	6.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Dichlorodifluoromethane (Freon-12)	75-71-8	68.	68.	UG_KG				TRG		MSA	135	35	20091101				4.2	1.4	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Chloromethane	74-87-3	70.	70.	UG_KG				TRG		MSA	130	50	20091101				4.2	2.1	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Vinyl chloride	75-01-4	73.	73.	UG_KG				TRG		MSA	125	60	20091101				4.2	1.3	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Bromomethane	74-83-9	72.	72.	UG_KG				TRG		MSA	160	30	20091101				4.2	1.6	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Chloroethane	75-00-3	75.	75.	UG_KG				TRG		MSA	155	40	20091101				4.2	2.0	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Trichlorofluoromethane (Freon-11)	75-69-4	75.	75.	UG_KG				TRG		MSA	185	25	20091101				4.2	1.4	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,1-Dichloroethene	75-35-4	90.	90.	UG_KG				TRG		MSA	135	65	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Carbon disulfide	75-15-0	98.	98.	UG_KG				TRG		MSA	160	45	20091101				4.2	1.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	97.	97.	UG_KG				TRG		MSA	135	67	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Methylene chloride	75-09-2	84.	84.	UG_KG				TRG		MSA	140	55	20091101				4.2	12.	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Acetone	67-64-1	110	110	UG_KG	*	*		TRG		MSA	160	20	20091101				4.2	7.6	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		trans-1,2-Dichloroethene	156-60-5	87.	87.	UG_KG				TRG		MSA	135	65	20091101				4.2	1.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Methyl-tert-butyl ether (MTBE)	1634-04-4	170	170	UG_KG				TRG		MSA	125	81	20091101				4.2	1.6	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,1-Dichloroethane	75-34-3	91.	91.	UG_KG				TRG		MSA	125	75	20091101				4.2	2.6	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		cis-1,2-Dichloroethene	156-59-2	78.	78.	UG_KG				TRG		MSA	125	65	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Chloroform	67-66-3	83.	83.	UG_KG				TRG		MSA	125	70	20091101				4.2	0.52	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Carbon tetrachloride	56-23-5	80.	80.	UG_KG				TRG		MSA	135	65	20091101				4.2	2.0	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,1,1-Trichloroethane	71-55-6	82.	82.	UG_KG				TRG		MSA	135	70	20091101				4.2	0.63	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		2-Butanone	78-93-3	68.	68.	UG_KG				TRG		MSA	160	30	20091101				4.2	8.8	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Benzene	71-43-2	77.	77.	UG_KG				TRG		MSA	125	75	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Cyclohexane	110-82-7	84.	84.	UG_KG				TRG		MSA	128	75	20091101				4.2	2.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2-Dichloroethane	107-06-2	75.	75.	UG_KG				TRG		MSA	135	70	20091101				4.2	1.5	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Trichloroethene	79-01-6	76.	76.	UG_KG				TRG		MSA	125	75	20091101				4.2	0.88	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2-Dichloropropane	78-87-5	74.	74.	UG_KG				TRG		MSA	120	70	20091101				4.2	2.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Bromodichloromethane	75-27-4	71.	71.	UG_KG				TRG		MSA	130	70	20091101				4.2	0.90	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		cis-1,3-Dichloropropene	10061-01-5	63.	63.	UG_KG				TRG		MSA	125	70	20091101				4.2	1.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Toluene	108-88-3	62.	62.	UG_KG				TRG		MSA	125	70	20091101				4.2	2.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		4-Methyl-2-pentanone	108-10-1	60.	60.	UG_KG				TRG		MSA	145	45	20091101				4.2	8.8	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Tetrachloroethene	127-18-4	91.	91.	UG_KG				TRG		MSA	140	65	20091101				4.2	1.8	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		trans-1,3-Dichloropropene	10061-02-6	58.	58.	UG_KG				TRG		MSA	125	65	20091101				4.2	1.3	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,1,2-Trichloroethane	79-00-5	65.	65.	UG_KG				TRG		MSA	125	60	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Dibromochloromethane	124-48-1	83.	83.	UG_KG				TRG		MSA	130	65	20091101				4.2	1.5	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2-Dibromoethane	106-93-4	57.	57.	UG_KG				TRG		MSA	125	70	20091101				4.2	1.8	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		2-Hexanone	591-78-6	73.	73.	UG_KG				TRG		MSA	145	45	20091101				4.2	7.2	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Chlorobenzene	108-90-7	72.	72.	UG_KG				TRG		MSA	125	75	20091101				4.2	0.76	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Ethylbenzene	100-41-4	74.	74.	UG_KG				TRG		MSA	125	75	20091101				4.2	0.98	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Xylene, total	1330-20-7	210	210	UG_KG				TRG		MSA	114	81	20091101				4.2	2.0	11.	22.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		m- and p-Xylene	m&pXYLENE	140	140	UG_KG				TRG		MSA	125	80	20091101				4.2	2.6	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		o-Xylene	95-47-6	67.	67.	UG_KG				TRG		MSA	125	75	20091101				4.2	2.0	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Styrene	100-42-5	44.	44.	UG_KG	*	*		TRG		MSA	125	75	20091101				4.2	0.76	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Bromoform	75-25-2	62.	62.	UG_KG				TRG		MSA	135	55	20091101				4.2	1.0	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Isopropylbenzene	98-82-8	140	140	UG_KG	*	*		TRG		MSA	130	75	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,1,2,2-Tetrachloroethane	79-34-5	120	120	UG_KG	*	*		TRG		MSA	130	55	20091101				4.2	1.3	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,3-Dichlorobenzene	541-73-1	79.	79.	UG_KG				TRG		MSA	125	70	20091101				4.2	0.93	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,4-Dichlorobenzene	106-46-7	74.	74.	UG_KG				TRG		MSA	125	70	20091101				4.2	0.66	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2-Dichlorobenzene	95-50-1	72.	72.	UG_KG				TRG		MSA	120	75	20091101				4.2	1.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2-Dibromo-3-chloropropane	96-12-8	77.	77.	UG_KG				TRG		MSA	135	40	20091101				4.2	2.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2,4-Trichlorobenzene	120-82-1	42.	42.	UG_KG	*	*		TRG		MSA	130	65	20091101				4.2	1.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		1,2,3-Trichlorobenzene	87-61-6	37.	37.	UG_KG	*	*		TRG		MSA	135	60	20091101				4.2	1.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Bromochloromethane	74-97-5	83.	83.	UG_KG				TRG		MSA	125	70	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Methyl acetate	79-20-9	74.	74.	UG_KG				TRG		MSA	133	72	20091101				4.2	4.0	4.5	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A-SD	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	MSD	S	4	03/03/2017 10:45	03/06/2017			20170310	20:06:00	20170310	20:06:00	WG201121-8	1	1	24.344		Methylcyclohexane	108-87-2	85.	85.	UG_KG				TRG		MSA	127	71	20091101				4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Dichlorodifluoromethane (Freon-12)	75-71-8	7.5	7.5	UG_KG	U	U		TRG						SO			4.2	1.4	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Chloromethane	74-87-3	7.5	7.5	UG_KG	U	U		TRG						SO			4.2	2.1	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Vinyl chloride	75-01-4	7.5	7.5	UG_KG	U	U		TRG						SO			4.2	1.3	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Bromomethane	74-83-9	7.5	7.5	UG_KG	U	U		TRG						SO			4.2	1.6	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Chloroethane	75-00-3	7.5	7.5	UG_KG	U	U		TRG						SO			4.2	2.0	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Trichlorofluoromethane (Freon-11)	75-69-4	7.5	7.5	UG_KG	U	U		TRG						SO			4.2	1.4	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,1-Dichloroethene	75-35-4	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Carbon disulfide	75-15-0	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Methylene chloride	75-09-2	19	19	UG_KG	U	U		TRG						SO			4.2	12.	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Acetone	67-64-1	120	120	UG_KG	MM	MM		TRG						SO			4.2	7.6	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		trans-1,2-Dichloroethene	156-60-5	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Methyl-tert-butyl ether (MTBE)	1634-04-4	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.6	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,1-Dichloroethane	75-34-3	9.4	9.4	UG_KG				TRG						SO			4.2	2.6	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		cis-1,2-Dichloroethene	156-59-2	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Chloroform	67-66-3	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	0.52	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Carbon tetrachloride	56-23-5	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	2.0	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,1,1-Trichloroethane	71-55-6	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	0.63	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		2-Butanone	78-93-3	19	19	UG_KG	U	U		TRG						SO			4.2	8.8	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Benzene	71-43-2	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Cyclohexane	110-82-7	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	2.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2-Dichloroethane	107-06-2	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.5	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Trichloroethene	79-01-6	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	0.88	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2-Dichloropropane	78-87-5	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	2.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Bromodichloromethane	75-27-4	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	0.90	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		cis-1,3-Dichloropropene	10061-01-5	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Toluene	108-88-3	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	2.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		4-Methyl-2-pentanone	108-10-1	19	19	UG_KG	U	U		TRG						SO			4.2	8.8	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Tetrachloroethene	127-18-4	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.8	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		trans-1,3-Dichloropropene	10061-02-6	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.3	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,1,2-Trichloroethane	79-00-5	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Dibromochloromethane	124-48-1	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.5	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2-Dibromoethane	106-93-4	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.8	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		2-Hexanone	591-78-6	19	19	UG_KG	U	U		TRG						SO			4.2	7.2	19.	38.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Chlorobenzene	108-90-7	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	0.76	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Ethylbenzene	100-41-4	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	0.98	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Xylene, total	1330-20-7	11	11	UG_KG	UM	UM		TRG						SO			4.2	2.0	11.	22.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		m- and p-Xylene	m&pXYLENE	7.5	7.5	UG_KG	UM	UM		TRG						SO			4.2	2.6	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		o-Xylene	95-47-6	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	2.0	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Styrene	100-42-5	3.8	3.8	UG_KG	UMM	UMM		TRG						SO			4.2	0.76	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Bromoform	75-25-2	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.0	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Isopropylbenzene	98-82-8	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,1,2,2-Tetrachloroethane	79-34-5	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	1.3	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,3-Dichlorobenzene	541-73-1	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	0.93	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,4-Dichlorobenzene	106-46-7	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	0.66	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2-Dichlorobenzene	95-50-1	3.8	3.8	UG_KG	UM	UM		TRG						SO			4.2	1.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2-Dibromo-3-chloropropane	96-12-8	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	2.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2,4-Trichlorobenzene	120-82-1	3.8	3.8	UG_KG	UMM	UMM		TRG						SO			4.2	1.2	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		1,2,3-Trichlorobenzene	87-61-6	3.8	3.8	UG_KG	UMM	UMM		TRG						SO			4.2	1.1	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Bromochloromethane	74-97-5	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Methyl acetate	79-20-9	4.5	4.5	UG_KG	U	U		TRG						SO			4.2	4.0	4.5	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-SB21-0708A	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 10:45	03/06/2017			20170310	16:22:00	20170310	16:22:00	SK1680-3	1	1	24.344		Methylcyclohexane	108-87-2	3.8	3.8	UG_KG	U	U		TRG						SO			4.2	1.4	3.8	7.5	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Dichlorodifluoromethane (Freon-12)	75-71-8	5.0	5.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.92	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Chloromethane	74-87-3	5.0	5.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.4	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Vinyl chloride	75-01-4	5.0	5.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.87	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Bromomethane	74-83-9	5.0	5.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.1	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Chloroethane	75-00-3	5.0	5.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.3	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Trichlorofluoromethane (Freon-11)	75-69-4	5.0	5.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.91	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,1-Dichloroethene	75-35-4	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.93	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Carbon disulfide	75-15-0	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.78	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.90	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Methylene chloride	75-09-2	12	12	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	7.9	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Acetone	67-64-1	12	12	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	5.1	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			trans-1,2-Dichloroethene	156-60-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.71	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Methyl-tert-butyl ether (MTBE)	1634-04-4	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.1	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,1-Dichloroethane	75-34-3	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.7	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			cis-1,2-Dichloroethene	156-59-2	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.91	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Chloroform	67-66-3	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.35	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Carbon tetrachloride	56-23-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.3	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,1,1-Trichloroethane	71-55-6	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.42	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			2-Butanone	78-93-3	12	12	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	5.9	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Benzene	71-43-2	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.92	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Cyclohexane	110-82-7	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.4	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2-Dichloroethane	107-06-2	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.0	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Trichloroethene	79-01-6	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.59	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2-Dichloropropane	78-87-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.4	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Bromodichloromethane	75-27-4	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.60	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			cis-1,3-Dichloropropene	10061-01-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.72	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Toluene	108-88-3	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.4	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			4-Methyl-2-pentanone	108-10-1	12	12	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	5.9	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Tetrachloroethene	127-18-4	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.2	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			trans-1,3-Dichloropropene	10061-02-6	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.86	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,1,2-Trichloroethane	79-00-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.97	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Dibromochloromethane	124-48-1	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.0	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2-Dibromoethane	106-93-4	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.2	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			2-Hexanone	591-78-6	12	12	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	4.8	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Chlorobenzene	108-90-7	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.51	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Ethylbenzene	100-41-4	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.65	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Xylene, total	1330-20-7	7.5	7.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.3	7.5	15.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			m- and p-Xylene	m&pXYLENE	5.0	5.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.7	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			o-Xylene	95-47-6	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.3	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Styrene	100-42-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.51	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Bromoform	75-25-2	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.70	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Isopropylbenzene	98-82-8	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.92	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,1,2,2-Tetrachloroethane	79-34-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.84	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,3-Dichlorobenzene	541-73-1	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.62	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,4-Dichlorobenzene	106-46-7	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.44	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2-Dichlorobenzene	95-50-1	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.78	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2-Dibromo-3-chloropropane	96-12-8	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	1.5	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2,4-Trichlorobenzene	120-82-1	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.79	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			1,2,3-Trichlorobenzene	87-61-6	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.76	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Bromochloromethane	74-97-5	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.91	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Methyl acetate	79-20-9	3.0	3.0	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	2.7	3.0	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	MES08-TB02-0317	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	REG	S	4	03/03/2017 08:00	03/06/2017			20170310	12:02:00	20170310	12:02:00	SK1680-5	1	1			Methylcyclohexane	108-87-2	2.5	2.5	UG_KG	U	U		TRG						AQ (Field Blanks)			4.2	0.96	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Dichlorodifluoromethane (Freon-12)	75-71-8	5.0	5.0	UG_KG	U	U		TRG									4.2	0.92	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Chloromethane	74-87-3	5.0	5.0	UG_KG	U	U		TRG									4.2	1.4	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Vinyl chloride	75-01-4	5.0	5.0	UG_KG	U	U		TRG									4.2	0.87	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Bromomethane	74-83-9	5.0	5.0	UG_KG	U	U		TRG									4.2	1.1	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Chloroethane	75-00-3	5.0	5.0	UG_KG	U	U		TRG									4.2	1.3	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Trichlorofluoromethane (Freon-11)	75-69-4	5.0	5.0	UG_KG	U	U		TRG									4.2	0.91	5.0	10.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,1-Dichloroethene	75-35-4	2.5	2.5	UG_KG	U	U		TRG									4.2	0.93	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Carbon disulfide	75-15-0	2.5	2.5	UG_KG	U	U		TRG									4.2	0.78	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	2.5	2.5	UG_KG	U	U		TRG									4.2	0.90	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Methylene chloride	75-09-2	12	12	UG_KG	U	U		TRG									4.2	7.9	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Acetone	67-64-1	12	12	UG_KG	U	U		TRG									4.2	5.1	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			trans-1,2-Dichloroethene	156-60-5	2.5	2.5	UG_KG	U	U		TRG									4.2	0.71	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Methyl-tert-butyl ether (MTBE)	1634-04-4	2.5	2.5	UG_KG	U	U		TRG									4.2	1.1	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,1-Dichloroethane	75-34-3	2.5	2.5	UG_KG	U	U		TRG									4.2	1.7	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			cis-1,2-Dichloroethene	156-59-2	2.5	2.5	UG_KG	U	U		TRG									4.2	0.91	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Chloroform	67-66-3	2.5	2.5	UG_KG	U	U		TRG									4.2	0.35	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Carbon tetrachloride	56-23-5	2.5	2.5	UG_KG	U	U		TRG									4.2	1.3	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,1,1-Trichloroethane	71-55-6	2.5	2.5	UG_KG	U	U		TRG									4.2	0.42	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			2-Butanone	78-93-3	12	12	UG_KG	U	U		TRG									4.2	5.9	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Benzene	71-43-2	2.5	2.5	UG_KG	U	U		TRG									4.2	0.92	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Cyclohexane	110-82-7	2.5	2.5	UG_KG	U	U		TRG									4.2	1.4	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,2-Dichloroethane	107-06-2	2.5	2.5	UG_KG	U	U		TRG									4.2	1.0	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Trichloroethene	79-01-6	2.5	2.5	UG_KG	U	U		TRG									4.2	0.59	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,2-Dichloropropane	78-87-5	2.5	2.5	UG_KG	U	U		TRG									4.2	1.4	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Bromodichloromethane	75-27-4	2.5	2.5	UG_KG	U	U		TRG									4.2	0.60	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			cis-1,3-Dichloropropene	10061-01-5	2.5	2.5	UG_KG	U	U		TRG									4.2	0.72	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Toluene	108-88-3	2.5	2.5	UG_KG	U	U		TRG									4.2	1.4	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			4-Methyl-2-pentanone	108-10-1	12	12	UG_KG	U	U		TRG									4.2	5.9	12.	25.	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Tetrachloroethene	127-18-4	2.5	2.5	UG_KG	U	U		TRG									4.2	1.2	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			trans-1,3-Dichloropropene	10061-02-6	2.5	2.5	UG_KG	U	U		TRG									4.2	0.86	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			1,1,2-Trichloroethane	79-00-5	2.5	2.5	UG_KG	U	U		TRG									4.2	0.97	2.5	5.0	SK1680	WG201121		
N6247016D9000	JM01		MERIDIAN_NAS	WG201121-BLANK	NONE	VOA	8260C	VOA	KAS	KATAHDIN ANALYTICAL		DRY	SW5035	000	BLK	S	4	03/10/2017 11:16	03/10/2017			20170310	11:16:00	20170310	11:16:00	WG201121-2	1	1			Dibromochloromethane	124-48-1	2.5	2.5	UG_KG	U	U		TRG									4.2	1.0	2.5	5.0	SK1680	WG201121		

Contract_ID	QQ_CTO_Number	Phase	Installation_ID	Sample_Name	CHAIN_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	GoldTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	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	EDM_Version	SIL	LOQ	LOQC	EDQ	Analysis_Batch	Validator_Name	Val_Date
NE247010109001	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			106-93-4	1,2-Dibromoethane		5	U			TRG									0.2	0.2	0.5	5	U	0.5	5.0	SK1660	WI201121		
NE247010109002	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			591-78-6	2-Hexanone		12	U			TRG									4.2	4.8	12	25	U	4.8	5.0	SK1660	WI201121		
NE247010109003	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			108-90-7	Chlorobenzene		2.5	U			TRG									0.2	0.51	2.5	5.0	U	0.51	5.0	SK1660	WI201121		
NE247010109004	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			100-41-4	Ethylbenzene		2.5	U			TRG									0.2	0.65	2.5	5.0	U	0.65	5.0	SK1660	WI201121		
NE247010109005	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			1330-20-7	Xylene, total		2.5	U			TRG									1.3	1.5	2.5	15	U	1.5	5.0	SK1660	WI201121		
NE247010109006	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			m&p-XYLENE	m-&p-Xylene		5.0	U			TRG									4.2	1.7	5.0	10	U	1.7	5.0	SK1660	WI201121		
NE247010109007	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			95-47-6	o-Xylene		2.5	U			TRG									0.2	0.51	2.5	5.0	U	0.51	5.0	SK1660	WI201121		
NE247010109008	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			100-42-5	Styrene		2.5	U			TRG									0.2	0.51	2.5	5.0	U	0.51	5.0	SK1660	WI201121		
NE247010109009	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			75-25-2	Bromoform		2.5	U			TRG									0.2	0.79	2.5	5.0	U	0.79	5.0	SK1660	WI201121		
NE247010109010	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			98-82-8	Isopropylbenzene		2.5	U			TRG									0.2	0.92	2.5	5.0	U	0.92	5.0	SK1660	WI201121		
NE247010109011	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			79-34-5	1,1,2,2-Tetrachloroethane		2.5	U			TRG									0.2	0.3	2.5	5.0	U	0.3	5.0	SK1660	WI201121		
NE247010109012	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			96-18-4	1,2,3-Trichloropropane		2.5	U			TRG									0.2	0.46	2.5	5.0	U	0.46	5.0	SK1660	WI201121		
NE247010109013	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			1,3,5-TMB	1,3,5-Trimethylbenzene		2.5	U			TRG									0.2	0.36	2.5	5.0	U	0.36	5.0	SK1660	WI201121		
NE247010109014	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			1,2-DCB	1,2-Dichlorobenzene		2.5	U			TRG									0.2	0.46	2.5	5.0	U	0.46	5.0	SK1660	WI201121		
NE247010109015	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			95-50-1	1,2-Dichloro-3-chloropropane		2.5	U			TRG									0.2	0.78	2.5	5.0	U	0.78	5.0	SK1660	WI201121		
NE247010109016	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			120-82-1	1,2,4-Trichlorobenzene		2.5	U			TRG									0.2	0.79	2.5	5.0	U	0.79	5.0	SK1660	WI201121		
NE247010109017	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			87-61-6	1,2,3-Trichlorobenzene		2.5	U			TRG									0.2	0.76	2.5	5.0	U	0.76	5.0	SK1660	WI201121		
NE247010109018	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			108-67-8	1,3,5-Trichlorobenzene		2.5	U			TRG									0.2	0.93	2.5	5.0	U	0.93	5.0	SK1660	WI201121		
NE247010109019	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			95-63-6	1,2,4-Trimethylbenzene		2.5	U			TRG									0.2	0.79	2.5	5.0	U	0.79	5.0	SK1660	WI201121		
NE247010109020	AK01		MERIDIAN_NAS	NAS201121-BLANK	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BLK	S		01/10/2017 11:16	01/10/2017			20170110	11:16:00	20170110	11:16:00	WI201121-2	1	1			75-09-2	Methylene chloride		5.0	U			TRG									0.2	0.93	5.0	10	U	0.93	5.0	SK1660	WI201121		
NE247010109021	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			67-64-1	Acetone		50				TRG									4.2	4.2	50	100		4.2	5.0	SK1660	WI201121		
NE247010109022	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			71-43-2	Benzene		25				TRG									0.2	0.92	25	50		0.92	5.0	SK1660	WI201121		
NE247010109023	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			108-86-1	Bromobenzene		25				TRG									0.2	1.28	25	50		1.28	5.0	SK1660	WI201121		
NE247010109024	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			107-06-2	1,2-Dichloroethane		25				TRG									0.2	1.0	2.5	5.0		1.0	5.0	SK1660	WI201121		
NE247010109025	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			79-01-6	Trichloroethene		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109026	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			74-87-3	Chloromethane		25				TRG									0.2	0.87	2.5	5.0		0.87	5.0	SK1660	WI201121		
NE247010109027	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			74-83-9	Bromomethane		25				TRG									0.2	1.3	5.0	10		1.3	5.0	SK1660	WI201121		
NE247010109028	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			67-66-3	Trichloromethane (Freon-11)		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109029	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			156-59-2	1,2-Dichloroethene		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109030	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1,1-DCE	1,1-Dichloroethene		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109031	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1,1,1-TCA	1,1,1-Trichloroethane		25				TRG									0.2	0.42	2.5	5.0		0.42	5.0	SK1660	WI201121		
NE247010109032	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			75-15-0	Carbon disulfide		50				TRG									0.2	0.53	2.5	5.0		0.53	5.0	SK1660	WI201121		
NE247010109033	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1634-04-4	Methyl tert-butyl ether (MTBE)		125				TRG									0.2	1.1	5.0	10		1.1	5.0	SK1660	WI201121		
NE247010109034	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			75-27-4	Bromodichloromethane		25				TRG									0.2	0.92	2.5	5.0		0.92	5.0	SK1660	WI201121		
NE247010109035	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIN ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			10061-01-5	cis-1,3-Dichloropropene		25				TRG									0.2	0.51	2.5	5.0		0.51	5.0	SK1660	WI201121		
NE247010109036	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			108-88-3	Toluene		25				TRG									0.2	1.4	2.5	5.0		1.4	5.0	SK1660	WI201121		
NE247010109037	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			108-10-1	4-Methyl-2-pentanone		125				TRG									0.2	0.51	2.5	5.0		0.51	5.0	SK1660	WI201121		
NE247010109038	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			127-18-4	Tetrachloroethene		25				TRG									0.2	1.2	2.5	5.0		1.2	5.0	SK1660	WI201121		
NE247010109039	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			trans-1,3-DCP	trans-1,3-Dichloropropene		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109040	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			79-00-5	1,1,2-Trichloroethane		25				TRG									0.2	0.87	2.5	5.0		0.87	5.0	SK1660	WI201121		
NE247010109041	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			124-48-1	Dibromochloromethane		25				TRG									0.2	0.57	2.5	5.0		0.57	5.0	SK1660	WI201121		
NE247010109042	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			106-93-4	1,2-Dibromoethane		25				TRG									0.2	0.2	2.5	5.0		0.2	5.0	SK1660	WI201121		
NE247010109043	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			591-78-6	2-Hexanone		125				TRG									4.2	4.8	12	25		4.8	5.0	SK1660	WI201121		
NE247010109044	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			108-90-7	Chlorobenzene		25				TRG									0.2	0.51	2.5	5.0		0.51	5.0	SK1660	WI201121		
NE247010109045	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			100-41-4	Ethylbenzene		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109046	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1330-20-7	Xylene, total		25				TRG									1.3	1.5	2.5	15		1.5	5.0	SK1660	WI201121		
NE247010109047	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			m&p-XYLENE	m- and p-Xylene		50				TRG									4.2	1.7	5.0	10		1.7	5.0	SK1660	WI201121		
NE247010109048	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			95-47-6	o-Xylene		25				TRG									0.2	0.51	2.5	5.0		0.51	5.0	SK1660	WI201121		
NE247010109049	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			100-42-5	Styrene		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109050	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			75-25-2	Bromoform		25				TRG									0.2	0.79	2.5	5.0		0.79	5.0	SK1660	WI201121		
NE247010109051	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			98-82-8	Isopropylbenzene		25				TRG									0.2	0.92	2.5	5.0		0.92	5.0	SK1660	WI201121		
NE247010109052	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			79-34-5	1,1,2,2-Tetrachloroethane		25				TRG									0.2	0.3	2.5	5.0		0.3	5.0	SK1660	WI201121		
NE247010109053	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			96-18-4	1,2,3-Trichloropropane		25				TRG									0.2	0.46	2.5	5.0		0.46	5.0	SK1660	WI201121		
NE247010109054	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1,3,5-TMB	1,3,5-Trimethylbenzene		25				TRG									0.2	0.36	2.5	5.0		0.36	5.0	SK1660	WI201121		
NE247010109055	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1,2-DCB	1,2-Dichlorobenzene		25				TRG									0.2	0.46	2.5	5.0		0.46	5.0	SK1660	WI201121		
NE247010109056	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1,4-DCB	1,4-Dichlorobenzene		25				TRG									0.2	0.46	2.5	5.0		0.46	5.0	SK1660	WI201121		
NE247010109057	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			95-50-1	1,2-Dichlorobenzene		25				TRG									0.2	0.78	2.5	5.0		0.78	5.0	SK1660	WI201121		
NE247010109058	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			1,2-DCP	1,2-Dichloropropane		25				TRG									0.2	0.65	2.5	5.0		0.65	5.0	SK1660	WI201121		
NE247010109059	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44:00	20170110	09:44:00	WI201121-1	1	1			10061-02-6	trans-1,3-Dichloropropene		25				TRG									0.2	0.51	2.5	5.0		0.51	5.0	SK1660	WI201121		
NE247010109060	AK01		MERIDIAN_NAS	NAS201121-CLS	NONE	VOA	8260C	KOA	KAS	KATAHDIT ANALYTICAL		SRY	SW5035	1000	BS	L		01/10/2017 09:44	01/10/2017			20170110	09:44

Contract_ID	QQ_CTO_Number	Phase	Installation_ID	Sample_Name	CYGNet_Code	Analysis_Group	Analytical_Method	PSC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	Date_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analyzed_Date	Analyzed_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	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	EDM_Version	SIL	LOQ	LOQC	Analyte_Batch	Validator_Name	Val_Date
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-T-2C_1996-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 14:07	05/15/2017			20170518	10:15:00	20170526	00:16:00	120-28275-19	1	1	11.1		13C4 PFOS		1.1	1.1	PPB			SURR		SUSA	150	25	00000000			5.0	5.7	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-T-2C_1996-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 14:07	05/15/2017			20170518	10:15:00	20170526	00:16:00	120-28275-19	1	1	11.1		13C4 PFOS		1.1	1.1	PPB			SURR		SUSA	150	25	00000000			5.0	5.7	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-T-2C_1996-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 14:07	05/15/2017			20170518	10:15:00	20170526	00:16:00	120-28275-19	1	1	11.1		1802 PFHXS		77	77	PPT			SURR		SUSA	150	25	00000000			5.0	5.7	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0001	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:24:00	120-28275-20	1	1	12.5		Perfluorooctanesulfonic acid (PFOS)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.12	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0001	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:24:00	120-28275-20	1	1	12.5		13C4 PFOA		58	58	PPT			SURR		SUSA	150	25	00000000			5.0	5.7	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0001	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:24:00	120-28275-20	1	1	12.5		Perfluorooctanesulfonic acid (PFOS)		3.39	3.39	PPB			TRG		MSA	140	80	00000000			5.0	6.12	3.39	3.86	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0001	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:24:00	120-28275-20	1	1	12.5		Perfluorooctanoic acid (PFOA)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.12	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		13C4 PFOA		63	63	PPT			SURR		SUSA	150	25	00000000			5.0	5.5	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		13C4 PFOS		63	63	PPT			SURR		SUSA	150	25	00000000			5.0	5.5	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorooctanesulfonic acid (PFOS)		3.39	3.39	PPB			TRG		MSA	140	80	00000000			5.0	6.13	3.39	3.68	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorooctanoic acid (PFOA)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.13	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorohexanesulfonic acid (PFHxS)		0.15	0.15	PPB			TRG		MSA	140	80	00000000			5.0	6.13	0.15	0.46	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorooctanesulfonic acid (PFOS)		3.39	3.39	PPB			TRG		MSA	140	80	00000000			5.0	6.13	3.39	3.68	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-TA-4L_1984-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorooctanoic acid (PFOA)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.13	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-T-2C_1996-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorooctanesulfonic acid (PFOS)		3.39	3.39	PPB			TRG		MSA	140	80	00000000			5.0	6.13	3.39	3.68	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-T-2C_1996-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorooctanoic acid (PFOA)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.13	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-T-2C_1996-1801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 15:05	05/15/2017			20170518	10:15:00	20170526	00:30:00	120-28275-21	1	1	8.9		Perfluorohexanesulfonic acid (PFHxS)		0.15	0.15	PPB			TRG		MSA	140	80	00000000			5.0	6.13	0.15	0.46	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-FOOS-051217	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 00:00	05/15/2017			20170518	10:15:00	20170526	00:46:00	120-28275-22	1	1	7.9		Perfluorooctanesulfonic acid (PFOS)		3.31	3.31	PPB			TRG		MSA	140	80	00000000			5.0	6.33	3.31	3.54	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-FOOS-051217	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 00:00	05/15/2017			20170518	10:15:00	20170526	00:46:00	120-28275-22	1	1	7.9		Perfluorooctanoic acid (PFOA)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.33	3.14	3.54	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-FOOS-051217	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 00:00	05/15/2017			20170518	10:15:00	20170526	00:46:00	120-28275-22	20	1	7.9		13C4 PFOA		88	88	PPT			SURR		SUSA	150	25	00000000			5.0	5.4	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-FOOS-051217	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 00:00	05/15/2017			20170518	10:15:00	20170526	00:46:00	120-28275-22	1	1	7.9		13C4 PFOS		88	88	PPT			SURR		SUSA	150	25	00000000			5.0	5.4	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-FOOS-051217	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 00:00	05/15/2017			20170518	10:15:00	20170526	00:46:00	120-28275-22	1	1	7.9		Perfluorohexanesulfonic acid (PFHxS)		0.15	0.15	PPB			TRG		MSA	140	80	00000000			5.0	6.33	0.15	0.43	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-FOOS-051217	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	REG	S		05/12/2017 00:00	05/15/2017			20170518	10:15:00	20170526	00:46:00	120-28275-22	1	1	7.9		1802 PFHXS		80	80	PPT			SURR		SUSA	150	25	00000000			5.0	5.4	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-MS	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MS	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:24:00	120-28275-2	1	1	18.8		Perfluorooctanesulfonic acid (PFOS)		335.67-1	34	PPT			RT_REC		MSA	140	80	00000000			5.0	6.12	3.37	3.61	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-MS	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MS	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:24:00	120-28275-2	1	1	18.8		Perfluorooctanesulfonic acid (PFOS)		1763.23-1	165	PPT			RT_REC		MSA	140	80	00000000			5.0	6.12	3.37	3.61	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-MS	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MS	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:24:00	120-28275-2	1	1	18.8		13C4 PFOA		75	75	PPT			RT_REC		SUSA	150	25	00000000			5.0	6.1	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-MS	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MS	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:24:00	120-28275-2	1	1	18.8		13C4 PFOS		75	75	PPT			SURR		SUSA	150	25	00000000			5.0	6.1	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-MS	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MS	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:24:00	120-28275-2	1	1	18.8		Perfluorohexanesulfonic acid (PFHxS)		0.15	0.15	PPB			TRG		MSA	140	80	00000000			5.0	6.12	0.15	0.43	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-MS	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MS	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:24:00	120-28275-2	1	1	18.8		Perfluorooctanoic acid (PFOA)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.12	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-SD	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MSD	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:31:00	120-28275-2	1	1	18.8		Perfluorooctanesulfonic acid (PFOS)		335.67-1	34	PPT			RT_REC		MSA	140	80	00000000			5.0	6.12	3.37	3.61	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-SD	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MSD	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:31:00	120-28275-2	1	1	18.8		Perfluorooctanesulfonic acid (PFOS)		1763.23-1	165	PPT			RT_REC		MSA	140	80	00000000			5.0	6.12	3.37	3.61	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-SD	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MSD	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:31:00	120-28275-2	1	1	18.8		13C4 PFOA		75	75	PPT			RT_REC		SUSA	150	25	00000000			5.0	6.1	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-SD	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MSD	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:31:00	120-28275-2	1	1	18.8		13C4 PFOS		75	75	PPT			SURR		SUSA	150	25	00000000			5.0	6.1	11	11	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-SD	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MSD	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:31:00	120-28275-2	1	1	18.8		Perfluorohexanesulfonic acid (PFHxS)		0.15	0.15	PPB			TRG		MSA	140	80	00000000			5.0	6.12	0.15	0.43	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-Unknown1-5801-0204-SD	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	SRY	METHOD	1000	MSD	S		05/11/2017 11:23	05/15/2017			20170518	10:15:00	20170525	22:31:00	120-28275-2	1	1	18.8		Perfluorooctanoic acid (PFOA)		3.14	3.14	PPB			TRG		MSA	140	80	00000000			5.0	6.12	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164981/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BS	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	06:59:00	120-28275-3	1	1			Perfluorooctanesulfonic acid (PFOS)		335.67-1	34	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164981/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BS	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	06:59:00	120-28275-3	1	1			13C3 PFBS		92	92	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164981/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BS	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	06:59:00	120-28275-3	1	1			13C4 PFOA		106	106	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164981/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BS	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	06:59:00	120-28275-3	1	1			Perfluorooctanesulfonic acid (PFOS)		335.67-1	34	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164981/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BS	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	06:59:00	120-28275-3	1	1			1802 PFHXS		93	93	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-165081/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	MAT	METHOD	1000	BS	S		05/18/2017 10:15	05/18/2017			20170518	10:15:00	20170525	22:01:00	120-28275-4	1	1			13C4 PFOA		102	102	PPT			RT_REC		SUSA	150	25	00000000			5.0	6.32	3.36	3.68	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-165081/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	MAT	METHOD	1000	BS	S		05/18/2017 10:15	05/18/2017			20170518	10:15:00	20170525	22:01:00	120-28275-4	1	1			Perfluorooctanesulfonic acid (PFOS)		335.67-1	34	PPT			RT_REC		SUSA	150	25	00000000			5.0	6.32	3.36	3.68	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-165081/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	MAT	METHOD	1000	BS	S		05/18/2017 10:15	05/18/2017			20170518	10:15:00	20170525	22:01:00	120-28275-4	1	1			Perfluorooctanoic acid (PFOA)		3.14	3.14	PPT			RT_REC		SUSA	150	25	00000000			5.0	6.32	3.14	3.57	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-165081/2-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	MAT	METHOD	1000	BS	S		05/18/2017 10:15	05/18/2017			20170518	10:15:00	20170525	22:01:00	120-28275-4	1	1			Perfluorohexanesulfonic acid (PFHxS)		0.15	0.15	PPT			TRG		MSA	150	80	00000000			5.0	6.32	0.15	0.46	520-28275-1	320-166165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164983/3-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BSD	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	07:06:00	120-28275-5	1	1			Perfluorooctanesulfonic acid (PFOS)		335.67-1	34	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164983/3-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BSD	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	07:06:00	120-28275-5	1	1			13C3 PFBS		116	116	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164983/3-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BSD	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	07:06:00	120-28275-5	1	1			13C4 PFOA		104	104	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164983/3-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BSD	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	07:06:00	120-28275-5	1	1			Perfluorooctanesulfonic acid (PFOS)		335.67-1	34	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164983/3-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BSD	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	07:06:00	120-28275-5	1	1			Perfluorooctanoic acid (PFOA)		3.14	3.14	PPT			TRG		MSA	140	80	00000000			5.0	6.32	3.14	3.57	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	323.320-164983/3-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BSD	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	07:06:00	120-28275-5	1	1			Perfluorohexanesulfonic acid (PFHxS)		0.15	0.15	PPT			TRG		MSA	140	80	00000000			5.0	6.32	0.15	0.46	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-AFF-T-2C-2008FW01-0617	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	1000	BSD	W		05/17/2017 14:18	05/17/2017			20170517	14:16:00	20170519	07:06:00	120-28275-5	1	1			1802 PFHXS		104	104	PPT			RT_REC		SUSA	150	25	00000000			50	100	100	100	520-28275-1	320-165165																											
NL247C01609D001	AK01		MERIDIAN_NAS	MR-320-164981/3-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	N

Contract_ID	QQ_CYQ_Number	Phase	Installation_ID	Sample_Name	CYGNI_Code	Analysis_Group	Analytical_Method	PSC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	GoneTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	QC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	REG	Detection_Limit	EDM_Version	SIL	LOQ	EDQ	Analysis_Batch	Validator_Name	Val_Date
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0004	U	UG_L		PE	TRG					20000000	SW		5.0	0.00078	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorooctanoic acid (PFOA)	335-67-1	0.0004	U	UG_L		PE	TRG					20000000	SW		5.0	0.00078	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			11Cl-PF3OUdS	763051-92-9	0.0004	U	UG_L		PE	TRG					20000000	SW		5.0	0.00078	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			13C4 PFOA	68			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			13C4 PFOS	69			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorohexanesulfonic acid (PFHS)	355-46-4	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorononanoic acid (PFNA)	375-95-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorotetradecanoic acid (PFTA)	376-06-7	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-170765/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 09:50	06/20/2017			06/19/2017	15:37:00	120-25027-15	1	1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			13C4 PFOA	68			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			13C4 PFOS	69			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			Perfluorohexanesulfonic acid (PFHS)	355-46-4	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			Perfluorononanoic acid (PFNA)	375-95-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			Perfluorotetradecanoic acid (PFTA)	376-06-7	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MB-320-172026/1-A	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	07/01/2017 09:40	07/01/2017			06/30/2017	16:44:00	120-25107-16	1	1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-MSC_2005-3801-0005	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 08:45	05/16/2017			05/13/2017	16:39:00	120-25267-1	1	1.1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0018		UG_L	UM		PE	TRG					20000000	SO		5.6	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-MSC_2005-3801-0005	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 08:45	05/16/2017			05/13/2017	16:39:00	120-25267-1	1	1.1			Perfluorotetradecanoic acid (PFTA)	376-06-7	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.6	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-MSC_2005-3801-0005	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 08:45	05/16/2017			05/13/2017	16:39:00	120-25267-1	1	1.1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.6	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-MSC_2005-3801-0005	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 08:45	05/16/2017			05/13/2017	16:39:00	120-25267-1	1	1.1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.6	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-MSC_2005-3801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 08:50	05/16/2017			05/13/2017	16:54:00	120-25267-2	1	1.1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0018		UG_L	UM		PE	TRG					20000000	SO		5.7	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-MSC_2005-3801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 08:50	05/16/2017			05/13/2017	16:54:00	120-25267-2	1	1.1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.7	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-MSC_2005-3801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 08:50	05/16/2017			05/13/2017	16:54:00	120-25267-2	1	1.1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.7	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-Unknown-11-3801-0001	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 10:54	05/16/2017			05/13/2017	17:04:00	120-25267-3	1	1.1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0018		UG_L	UM		PE	TRG					20000000	SO		5.7	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-Unknown-11-3801-0001	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 10:54	05/16/2017			05/13/2017	17:04:00	120-25267-3	1	1.1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.7	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-Unknown-11-3801-0001	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 10:54	05/16/2017			05/13/2017	17:04:00	120-25267-3	1	1.1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.7	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-Unknown-11-3801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 10:58	05/16/2017			05/13/2017	17:24:00	120-25267-4	1	1.1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0018		UG_L	UM		PE	TRG					20000000	SO		5.6	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-Unknown-11-3801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 10:58	05/16/2017			05/13/2017	17:24:00	120-25267-4	1	1.1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.6	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-Unknown-11-3801-0204	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	05/13/2017 10:58	05/16/2017			05/13/2017	17:24:00	120-25267-4	1	1.1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SO		5.6	11	11	320-26196-1	320-168107		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0018		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00097	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00097	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00097	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			13C4 PFOA	68			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			13C4 PFOS	69			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorohexanesulfonic acid (PFHS)	355-46-4	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorononanoic acid (PFNA)	375-95-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorotetradecanoic acid (PFTA)	376-06-7	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB02-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/18/2017 11:40	06/20/2017			06/18/2017	22:12:00	120-25027-9	1	1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0018		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00097	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00097	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.0018	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00097	0.0019	0.0022	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			13C4 PFOA	68			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			13C4 PFOS	69			PCT_REC		PE	SURR		SUSA	150	25	20000000	SW		50	100	100	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorohexanesulfonic acid (PFHS)	355-46-4	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorononanoic acid (PFNA)	375-95-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.002		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorotetradecanoic acid (PFTA)	376-06-7	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB04-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 12:20	06/20/2017			06/19/2017	00:15:00	120-25027-20	1	1			Perfluoroundecanoic acid (PFUnA)	2058-94-8	0.002	U	UG_L	UM		PE	TRG					20000000	SW		5.0	0.00095	0.002	0.0025	320-25267-1	320-171596		
NEA2470100900	AK01		MERIDIAN_NAS	MAT-F-FB07-0017	NONS	SVOA	537_MOD	SRG	TAMER	Test America	NONE	NA	SW535	000	RSG	W	A	06/19/2017 16:59	06/20/2017			06/19/2017	00:59:00	120-25027-21	1	1			Perfluorooctanesulfonic acid (PFOS)	1763-23-1	0.0018		UG_L	UM		PE	TRG					20000000	SW		5.0	0.00097

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1987-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 08:45	05/16/2017			20170519	08:07:00	20170607	18:49:00	320-28286-15	1	1	12.4		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.34	UG_KG	UM		PR	TRG						00000000	SO			5.0	0.14	0.34	0.57	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1987-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 08:45	05/16/2017			20170519	08:07:00	20170607	18:49:00	320-28286-15	1	1	12.4		13C4 PFOA	13C4 PFOA		106	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1987-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 08:45	05/16/2017			20170519	08:07:00	20170607	18:49:00	320-28286-15	1	1	12.4		13C4 PFOS	13C4 PFOS		91	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1987-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 08:45	05/16/2017			20170519	08:07:00	20170607	18:49:00	320-28286-15	1	1	12.4		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.45	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1987-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 08:45	05/16/2017			20170519	08:07:00	20170607	18:49:00	320-28286-15	1	1	12.4		18O2 PFHXS	18O2 PFHXS		98	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:26	05/16/2017			20170519	08:07:00	20170607	18:56:00	320-28286-16	1	1	8.0		Perfluorooctanoic acid (PFOA)	335-67-1		0.34	UG_KG	JM		PR	TRG					00000000	SO			5.0	0.11	0.32	0.54	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:26	05/16/2017			20170519	08:07:00	20170607	18:56:00	320-28286-16	1	1	8.0		Perfluorooctane Sulfonate (PFOS)	1763-23-1		15	UG_KG			PR	TRG					00000000	SO			5.0	0.14	0.32	0.54	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:26	05/16/2017			20170519	08:07:00	20170607	18:56:00	320-28286-16	1	1	8.0		13C4 PFOA	13C4 PFOA		106	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.4	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:26	05/16/2017			20170519	08:07:00	20170607	18:56:00	320-28286-16	1	1	8.0		13C4 PFOS	13C4 PFOS		77	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.4	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:26	05/16/2017			20170519	08:07:00	20170607	18:56:00	320-28286-16	1	1	8.0		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.32	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.11	0.32	0.43	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:26	05/16/2017			20170519	08:07:00	20170607	18:56:00	320-28286-16	1	1	8.0		18O2 PFHXS	18O2 PFHXS		89	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.4	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:28	05/16/2017			20170519	08:07:00	20170607	19:04:00	320-28286-17	1	1	13.0		Perfluorooctanoic acid (PFOA)	335-67-1		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.34	0.57	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:28	05/16/2017			20170519	08:07:00	20170607	19:04:00	320-28286-17	1	1	13.0		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.34	0.57	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:28	05/16/2017			20170519	08:07:00	20170607	19:04:00	320-28286-17	1	1	13.0		13C4 PFOA	13C4 PFOA		87	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:28	05/16/2017			20170519	08:07:00	20170607	19:04:00	320-28286-17	1	1	13.0		13C4 PFOS	13C4 PFOS		41	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:28	05/16/2017			20170519	08:07:00	20170607	19:04:00	320-28286-17	1	1	13.0		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.46	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown20-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 09:28	05/16/2017			20170519	08:07:00	20170607	19:04:00	320-28286-17	1	1	13.0		18O2 PFHXS	18O2 PFHXS		71	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:42	05/16/2017			20170519	08:07:00	20170607	19:12:00	320-28286-18	1	1	11.4		Perfluorooctanoic acid (PFOA)	335-67-1		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.11	0.34	0.56	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:42	05/16/2017			20170519	08:07:00	20170607	19:12:00	320-28286-18	1	1	11.4		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.34	0.56	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:42	05/16/2017			20170519	08:07:00	20170607	19:12:00	320-28286-18	1	1	11.4		13C4 PFOA	13C4 PFOA		87	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:42	05/16/2017			20170519	08:07:00	20170607	19:12:00	320-28286-18	1	1	11.4		13C4 PFOS	13C4 PFOS		42	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:42	05/16/2017			20170519	08:07:00	20170607	19:12:00	320-28286-18	1	1	11.4		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.45	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:42	05/16/2017			20170519	08:07:00	20170607	19:12:00	320-28286-18	1	1	11.4		18O2 PFHXS	18O2 PFHXS		81	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:49	05/16/2017			20170519	08:07:00	20170607	19:20:00	320-28286-19	1	1	16.3		Perfluorooctanoic acid (PFOA)	335-67-1		0.36	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.36	0.60	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:49	05/16/2017			20170519	08:07:00	20170607	19:20:00	320-28286-19	1	1	16.3		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.36	UG_KG	U		PR	TRG					00000000	SO			5.0	0.15	0.36	0.60	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:49	05/16/2017			20170519	08:07:00	20170607	19:20:00	320-28286-19	1	1	16.3		13C4 PFOA	13C4 PFOA		90	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.0	12	12	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:49	05/16/2017			20170519	08:07:00	20170607	19:20:00	320-28286-19	1	1	16.3		13C4 PFOS	13C4 PFOS		48	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.0	12	12	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:49	05/16/2017			20170519	08:07:00	20170607	19:20:00	320-28286-19	1	1	16.3		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.36	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.36	0.48	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-ArrestingGearArea-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 10:49	05/16/2017			20170519	08:07:00	20170607	19:20:00	320-28286-19	1	1	16.3		18O2 PFHXS	18O2 PFHXS		80	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.0	12	12	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:23	05/16/2017			20170519	08:07:00	20170607	19:35:00	320-28286-20	1	1	9.9		Perfluorooctanoic acid (PFOA)	335-67-1		0.33	UG_KG	U		PR	TRG					00000000	SO			5.0	0.11	0.33	0.54	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:23	05/16/2017			20170519	08:07:00	20170607	19:35:00	320-28286-20	1	1	9.9		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.33	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.33	0.54	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:23	05/16/2017			20170519	08:07:00	20170607	19:35:00	320-28286-20	1	1	9.9		13C4 PFOA	13C4 PFOA		92	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.4	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:23	05/16/2017			20170519	08:07:00	20170607	19:35:00	320-28286-20	1	1	9.9		13C4 PFOS	13C4 PFOS		46	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.4	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:23	05/16/2017			20170519	08:07:00	20170607	19:35:00	320-28286-20	1	1	9.9		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.33	UG_KG	U		PR	TRG					00000000	SO			5.0	0.11	0.33	0.44	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:23	05/16/2017			20170519	08:07:00	20170607	19:35:00	320-28286-20	1	1	9.9		18O2 PFHXS	18O2 PFHXS		79	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.4	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:25	05/16/2017			20170519	08:07:00	20170607	19:43:00	320-28286-21	1	1	13.5		Perfluorooctanoic acid (PFOA)	335-67-1		0.35	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.35	0.58	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:25	05/16/2017			20170519	08:07:00	20170607	19:43:00	320-28286-21	1	1	13.5		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.35	UG_KG	U		PR	TRG					00000000	SO			5.0	0.15	0.35	0.58	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:25	05/16/2017			20170519	08:07:00	20170607	19:43:00	320-28286-21	1	1	13.5		13C4 PFOA	13C4 PFOA		72	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.8	12	12	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:25	05/16/2017			20170519	08:07:00	20170607	19:43:00	320-28286-21	1	1	13.5		13C4 PFOS	13C4 PFOS		40	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.8	12	12	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:25	05/16/2017			20170519	08:07:00	20170607	19:43:00	320-28286-21	1	1	13.5		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.35	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.35	0.46	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown16-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 12:25	05/16/2017			20170519	08:07:00	20170607	19:43:00	320-28286-21	1	1	13.5		18O2 PFHXS	18O2 PFHXS		65	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.8	12	12	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD06-051417	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 00:00	05/16/2017			20170519	08:07:00	20170607	19:50:00	320-28286-22	1	1	11.0		Perfluorooctanoic acid (PFOA)	335-67-1		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.11	0.34	0.56	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD06-051417	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 00:00	05/16/2017			20170519	08:07:00	20170607	19:50:00	320-28286-22	1	1	11.0		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.34	0.56	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD06-051417	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 00:00	05/16/2017			20170519	08:07:00	20170607	19:50:00	320-28286-22	1	1	11.0		13C4 PFOA	13C4 PFOA		77	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD06-051417	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 00:00	05/16/2017			20170519	08:07:00	20170607	19:50:00	320-28286-22	1	1	11.0		13C4 PFOS	13C4 PFOS		38	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD06-051417	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 00:00	05/16/2017			20170519	08:07:00	20170607	19:50:00	320-28286-22	1	1	11.0		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.34	0.45	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-FD06-051417	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 00:00	05/16/2017			20170519	08:07:00	20170607	19:50:00	320-28286-22	1	1	11.0		18O2 PFHXS	18O2 PFHXS		66	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:44	05/16/2017			20170519	08:07:00	20170607	19:58:00	320-28286-23	1	1	12.6		Perfluorooctanoic acid (PFOA)	335-67-1		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.57	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:44	05/16/2017			20170519	08:07:00	20170607	19:58:00	320-28286-23	1	1	12.6		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.34	0.57	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:44	05/16/2017			20170519	08:07:00	20170607	19:58:00	320-28286-23	1	1	12.6		13C4 PFOA	13C4 PFOA		80	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:44	05/16/2017			20170519	08:07:00	20170607	19:58:00	320-28286-23	1	1	12.6		13C4 PFOS	13C4 PFOS		38	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:44	05/16/2017			20170519	08:07:00	20170607	19:58:00	320-28286-23	1	1	12.6		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.46	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:44	05/16/2017			20170519	08:07:00	20170607	19:58:00	320-28286-23	1	1	12.6		18O2 PFHXS	18O2 PFHXS		69	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	21:58:00	320-28286-24	1	1	11.6		Perfluorooctanoic acid (PFOA)	335-67-1		0.33	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.11	0.33	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	21:58:00	320-28286-24	1	1	11.6		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.33	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.33	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	21:58:00	320-28286-24	1	1	11.6		13C4 PFOA	13C4 PFOA		94	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	21:58:00	320-28286-24	1	1	11.6		13C4 PFOS	13C4 PFOS		57	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	21:58:00	320-28286-24	1	1	11.6		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.33	UG_KG	U		PR	TRG					00000000	SO			5.0	0.11	0.33	0.44	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C_03_2008-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	21:58:00	320-28286-24	1	1	11.6		18O2 PFHXS	18O2 PFHXS		68	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:35	05/16/2017			20170519	09:45:00	20170524	22:20:00	320-28286-25	1	1	19.1		Perfluorooctanoic acid (PFOA)	335-67-1		0.95	UG_KG	M		PR	TRG					00000000	SO			5.0	0.12	0.36	0.61	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:35	05/16/2017			20170519	09:45:00	20170524	22:20:00	320-28286-25	1	1	19.1		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.78	UG_KG	M		PR	TRG					00000000	SO			5.0	0.15	0.36	0.61	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:35	05/16/2017			20170519	09:45:00	20170524	22:20:00	320-28286-25	1	1	19.1		13C4 PFOA	13C4 PFOA		83	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.1	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:35	05/16/2017			20170519	09:45:00	20170524	22:20:00	320-28286-25	1	1	19.1		13C4 PFOS	13C4 PFOS		65	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.1	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:35	05/16/2017			20170519	09:45:00	20170524	22:20:00	320-28286-25	1	1	19.1		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.36	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.36	0.48	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:35	05/16/2017			20170519	09:45:00	20170524	22:20:00	320-28286-25	1	1	19.1		18O2 PFHXS	18O2 PFHXS		74	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.1	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:38	05/16/2017			20170519	09:45:00	20170524	22:28:00	320-28286-26	1	1	26.4		Perfluorooctanoic acid (PFOA)	335-67-1		0.33	UG_KG	JM		PR	TRG					00000000	SO			5.0	0.14	0.41	0.68	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:38	05/16/2017			20170519	09:45:00	20170524	22:28:00	320-28286-26	1	1	26.4		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.17	UG_KG	JM		PR	TRG					00000000	SO			5.0	0.17	0.41	0.68	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:38	05/16/2017			20170519	09:45:00	20170524	22:28:00	320-28286-26	1	1	26.4		13C4 PFOA	13C4 PFOA		108	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.8	14	14	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:38	05/16/2017			20170519	09:45:00	20170524	22:28:00	320-28286-26	1	1	26.4		13C4 PFOS	13C4 PFOS		83	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.8	14	14	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:38	05/16/2017			20170519	09:45:00	20170524	22:28:00	320-28286-26	1	1	26.4		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.41	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.41	0.54	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4_Unknown-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/14/2017 14:38	05/16/2017			20170519	09:45:00	20170524	22:28:00	320-28286-26	1	1	26.4		18O2 PFHXS	18O2 PFHXS		88	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.8	14	14	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:18	05/16/2017			20170519	09:45:00	20170524	22:35:00	320-28286-27	1	1	11.6		Perfluorooctanoic acid (PFOA)	335-67-1		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.57	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:18	05/16/2017			20170519	09:45:00	20170524	22:35:00	320-28286-27	1	1	11.6		Perfluorooctane Sulfonate (PFOS)	1763-23-1		1.1	UG_KG			PR	TRG					00000000	SO			5.0	0.14	0.34	0.57	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:18	05/16/2017			20170519	09:45:00	20170524	22:35:00	320-28286-27	1	1	11.6		13C4 PFOA	13C4 PFOA		100	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:18	05/16/2017			20170519	09:45:00	20170524	22:35:00	320-28286-27	1	1	11.6		13C4 PFOS	13C4 PFOS		83	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:18	05/16/2017			20170519	09:45:00	20170524	22:35:00	320-28286-27	1	1	11.6		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.45	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:18	05/16/2017			20170519	09:45:00	20170524	22:35:00	320-28286-27	1	1	11.6		18O2 PFHXS	18O2 PFHXS		90	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:20	05/16/2017			20170519	09:45:00	20170524	22:43:00	320-28286-28	1	1	11.7		Perfluorooctanoic acid (PFOA)	335-67-1		0.80	UG_KG			PR	TRG					00000000	SO			5.0	0.11	0.34	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:20	05/16/2017			20170519	09:45:00	20170524	22:43:00	320-28286-28	1	1	11.7		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.65	UG_KG			PR	TRG					00000000	SO			5.0	0.14	0.34	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:20	05/16/2017			20170519	09:45:00	20170524	22:43:00	320-28286-28	1	1	11.7		13C4 PFOA	13C4 PFOA		74	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:20	05/16/2017			20170519	09:45:00	20170524	22:43:00	320-28286-28	1	1	11.7		13C4 PFOS	13C4 PFOS		51	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:20	05/16/2017			20170519	09:45:00	20170524	22:43:00	320-28286-28	1	1	11.7		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.34	0.45	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-Unknown17-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:20	05/16/2017			20170519	09:45:00	20170524	22:43:00	320-28286-28	1	1	11.7		18O2 PFHXS	18O2 PFHXS		60	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:44	05/16/2017			20170519	09:45:00	20170524	22:50:00	320-28286-29	1	1	20.6		Perfluorooctanoic acid (PFOA)	335-67-1		0.37	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.13	0.37	0.62	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:44	05/16/2017			20170519	09:45:00	20170524	22:50:00	320-28286-29	1	1	20.6		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.37	UG_KG	U		PR	TRG					00000000	SO			5.0	0.16	0.37	0.62	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:44	05/16/2017			20170519	09:45:00	20170524	22:50:00	320-28286-29	1	1	20.6		13C4 PFOA	13C4 PFOA		77	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.2	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:44	05/16/2017			20170519	09:45:00	20170524	22:50:00	320-28286-29	1	1	20.6		13C4 PFOS	13C4 PFOS		60	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.2	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:44	05/16/2017			20170519	09:45:00	20170524	22:50:00	320-28286-29	1	1	20.6		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.37	UG_KG	U		PR	TRG					00000000	SO			5.0	0.13	0.37	0.50	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:44	05/16/2017			20170519	09:45:00	20170524	22:50:00	320-28286-29	1	1	20.6		18O2 PFHXS	18O2 PFHXS		64	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	6.2	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:46	05/16/2017			20170519	09:45:00	20170524	23:05:00	320-28286-30	1	1	14.7		Perfluorooctanoic acid (PFOA)	335-67-1		0.35	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.35	0.59	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:46	05/16/2017			20170519	09:45:00	20170524	23:05:00	320-28286-30	1	1	14.7		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.35	UG_KG	U		PR	TRG					00000000	SO			5.0	0.15	0.35	0.59	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:46	05/16/2017			20170519	09:45:00	20170524	23:05:00	320-28286-30	1	1	14.7		13C4 PFOA	13C4 PFOA		95	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.9	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:46	05/16/2017			20170519	09:45:00	20170524	23:05:00	320-28286-30	1	1	14.7		13C4 PFOS	13C4 PFOS		60	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.9	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:46	05/16/2017			20170519	09:45:00	20170524	23:05:00	320-28286-30	1	1	14.7		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.35	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.35	0.47	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1992-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 09:46	05/16/2017			20170519	09:45:00	20170524	23:05:00	320-28286-30	1	1	14.7		18O2 PFHXS	18O2 PFHXS		77	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.9	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB08-051517	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	05/15/2017 10:16	05/16/2017			20170518	17:41:00	20170520	07:12:00	320-28286-31	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.0018	UG_L	U		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00068	0.0018	0.0023	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB08-051517	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	05/15/2017 10:16	05/16/2017			20170518	17:41:00	20170520	07:12:00	320-28286-31	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.0027	UG_L	U		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.0012	0.0027	0.0037	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB08-051517	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	05/15/2017 10:16	05/16/2017			20170518	17:41:00	20170520	07:12:00	320-28286-31	1	1			13C4 PFOA	13C4 PFOA		129	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	46	91	91	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB08-051517	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	05/15/2017 10:16	05/16/2017			20170518	17:41:00	20170520	07:12:00	320-28286-31	1	1			13C4 PFOS	13C4 PFOS		108	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	46	91	91	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB08-051517	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	05/15/2017 10:16	05/16/2017			20170518	17:41:00	20170520	07:12:00	320-28286-31	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.0018	UG_L	U		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00084	0.0018	0.0023	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB08-051517	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	05/15/2017 10:16	05/16/2017			20170518	17:41:00	20170520	07:12:00	320-28286-31	1	1			18O2 PFHXS	18O2 PFHXS		112	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	46	91	91	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:50	05/16/2017			20170519	09:45:00	20170524	23:13:00	320-28286-32	1	1	14.5		Perfluorooctanoic acid (PFOA)	335-67-1		0.35	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.35	0.58	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:50	05/16/2017			20170519	09:45:00	20170524	23:13:00	320-28286-32	1	1	14.5		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.35	UG_KG	U		PR	TRG					00000000	SO			5.0	0.15	0.35	0.58	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:50	05/16/2017			20170519	09:45:00	20170524	23:13:00	320-28286-32	1	1	14.5		13C4 PFOA	13C4 PFOA		91	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.8	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:50	05/16/2017			20170519	09:45:00	20170524	23:13:00	320-28286-32	1	1	14.5		13C4 PFOS	13C4 PFOS		51	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.8	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:50	05/16/2017			20170519	09:45:00	20170524	23:13:00	320-28286-32	1	1	14.5		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.35	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.35	0.46	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0001	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:50	05/16/2017			20170519	09:45:00	20170524	23:13:00	320-28286-32	1	1	14.5		18O2 PFHXS	18O2 PFHXS		69	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.8	12	12	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:52	05/16/2017			20170519	09:45:00	20170524	23:20:00	320-28286-33	1	1	13.1		Perfluorooctanoic acid (PFOA)	335-67-1		0.34	UG_KG	UM		PR	TRG					00000000	SO			5.0	0.12	0.34	0.57	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:52	05/16/2017			20170519	09:45:00	20170524	23:20:00	320-28286-33	1	1	13.1		Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.14	0.34	0.57	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:52	05/16/2017			20170519	09:45:00	20170524	23:20:00	320-28286-33	1	1	13.1		13C4 PFOA	13C4 PFOA		94	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:52	05/16/2017			20170519	09:45:00	20170524	23:20:00	320-28286-33	1	1	13.1		13C4 PFOS	13C4 PFOS		58	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:52	05/16/2017			20170519	09:45:00	20170524	23:20:00	320-28286-33	1	1	13.1		Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.34	UG_KG	U		PR	TRG					00000000	SO			5.0	0.12	0.34	0.45	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA-4J_1985-SB01-0204	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	REG	S	4	05/15/2017 11:52	05/16/2017			20170519	09:45:00	20170524	23:20:00	320-28286-33	1	1	13.1		18O2 PFHXS	18O2 PFHXS		71	PCT_REC			PR	SURR		SLSA	150	25	00000000	SO			5.0	5.7	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MS	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:05:00	320-28286-24	1	1	11.6		Perfluorooctanoic acid (PFOA)	335-67-1		97	PCT_REC			PR	TRG		MSA	140	60	00000000				5.0	0.11	0.34	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MS	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:05:00	320-28286-24	1	1	11.6		Perfluorooctane Sulfonate (PFOS)	1763-23-1		101	PCT_REC			PR	TRG		MSA	140	60	00000000				5.0	0.14	0.34	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MS	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:05:00	320-28286-24	1	1	11.6		13C4 PFOA	13C4 PFOA		88	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MS	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:05:00	320-28286-24	1	1	11.6		13C4 PFOS	13C4 PFOS		51	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MS	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:05:00	320-28286-24	1	1	11.6		Perfluorobutanesulfonic acid (PFBS)	375-73-5		100	PCT_REC			PR	TRG		MSA	150	50	00000000				5.0	0.12	0.34	0.45	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-MS	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MS	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:05:00	320-28286-24	1	1	11.6		18O2 PFHXS	18O2 PFHXS		68	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MSD	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:13:00	320-28286-24	1	1	11.6		Perfluorooctanoic acid (PFOA)	335-67-1		97	PCT_REC			PR	TRG		MSP	140	60	00000000				5.0	0.11	0.34	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MSD	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:13:00	320-28286-24	1	1	11.6		Perfluorooctane Sulfonate (PFOS)	1763-23-1		98	PCT_REC			PR	TRG		MSP	140	60	00000000				5.0	0.14	0.34	0.56	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MSD	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:13:00	320-28286-24	1	1	11.6		13C4 PFOA	13C4 PFOA		99	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MSD	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:13:00	320-28286-24	1	1	11.6		13C4 PFOS	13C4 PFOS		59	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MSD	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:13:00	320-28286-24	1	1	11.6		Perfluorobutanesulfonic acid (PFBS)	375-73-5		103	PCT_REC			PR	TRG		MSP	150	50	00000000				5.0	0.12	0.34	0.45	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T-45C-03-2008-SB01-0204-SD	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	DRY	METHOD	000	MSD	S	4	05/14/2017 13:47	05/16/2017			20170519	09:45:00	20170524	22:13:00	320-28286-24	1	1	11.6		18O2 PFHXS	18O2 PFHXS		77	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.6	11	11	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165207/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:57:00	LCS 320-165207/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		96	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.75	2.0	2.5	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165207/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:57:00	LCS 320-165207/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		95	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	1.3	3.0	4.0	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165207/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:57:00	LCS 320-165207/2-A	1	1			13C4 PFOA	13C4 PFOA		117	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165207/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:57:00	LCS 320-165207/2-A	1	1			13C4 PFOS	13C4 PFOS		106	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165207/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:57:00	LCS 320-165207/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		103	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.92	2.0	2.5	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165207/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BS	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:57:00	LCS 320-165207/2-A	1	1			18O2 PFHXS	18O2 PFHXS		107	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165234/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:53:00	LCS 320-165234/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		104	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.10	0.30	0.50	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165234/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:53:00	LCS 320-165234/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		110	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.13	0.30	0.50	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165234/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:53:00	LCS 320-165234/2-A	1	1			13C4 PFOA	13C4 PFOA		95	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165234/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:53:00	LCS 320-165234/2-A	1	1			13C4 PFOS	13C4 PFOS		74	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165234/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:53:00	LCS 320-165234/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		113	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.10	0.30	0.40	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165234/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:53:00	LCS 320-165234/2-A	1	1			18O2 PFHXS	18O2 PFHXS		87	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165287/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:50:00	LCS 320-165287/2-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		100	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.10	0.30	0.50	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165287/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:50:00	LCS 320-165287/2-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		93	PCT_REC			PR	TRG		LSA	140	60	00000000				5.0	0.13	0.30	0.50	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165287/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:50:00	LCS 320-165287/2-A	1	1			13C4 PFOA	13C4 PFOA		95	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165287/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:50:00	LCS 320-165287/2-A	1	1			13C4 PFOS	13C4 PFOS		86	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165287/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:50:00	LCS 320-165287/2-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		102	PCT_REC			PR	TRG		LSA	150	50	00000000				5.0	0.10	0.30	0.40	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	LCS 320-165287/2-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	BS	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:50:00	LCS 320-165287/2-A	1	1			18O2 PFHXS	18O2 PFHXS		83	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-165207/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	06:04:00	LCSD 320-165207/3-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		95	PCT_REC			PR	TRG		LSP	140	60	00000000				5.0	0.75	2.0	2.5	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-165207/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	06:04:00	LCSD 320-165207/3-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		93	PCT_REC			PR	TRG		LSP	140	60	00000000				5.0	1.3	3.0	4.0	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-165207/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	06:04:00	LCSD 320-165207/3-A	1	1			13C4 PFOA	13C4 PFOA		114	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-165207/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	06:04:00	LCSD 320-165207/3-A	1	1			13C4 PFOS	13C4 PFOS		102	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-165207/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	06:04:00	LCSD 320-165207/3-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		105	PCT_REC			PR	TRG		LSP	150	50	00000000				5.0	0.92	2.0	2.5	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	LCSD 320-165207/3-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	BSD	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	06:04:00	LCSD 320-165207/3-A	1	1			18O2 PFHXS	18O2 PFHXS		101	PCT_REC			PR	SURR		SLSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165207/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:49:00	MB 320-165207/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.002	UG_L	U		PR	TRG					00000000				5.0	0.00075	0.002	0.0025	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165207/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:49:00	MB 320-165207/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.003	UG_L	U		PR	TRG					00000000				5.0	0.0013	0.003	0.004	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165207/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:49:00	MB 320-165207/1-A	1	1			13C4 PFOA	13C4 PFOA		124	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165207/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:49:00	MB 320-165207/1-A	1	1			13C4 PFOS	13C4 PFOS		114	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165207/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:49:00	MB 320-165207/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.002	UG_L	U		PR	TRG					00000000				5.0	0.00092	0.002	0.0025	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165207/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	LB1	W	4	05/18/2017 17:41	05/18/2017			20170518	17:41:00	20170520	05:49:00	MB 320-165207/1-A	1	1			18O2 PFHXS	18O2 PFHXS		110	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	50	100	100	320-28286-1	320-165487		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165234/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:45:00	MB 320-165234/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.30	UG_KG	U		PR	TRG					00000000				5.0	0.10	0.30	0.50	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165234/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:45:00	MB 320-165234/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.30	UG_KG	U		PR	TRG					00000000				5.0	0.13	0.30	0.50	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165234/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:45:00	MB 320-165234/1-A	1	1			13C4 PFOA	13C4 PFOA		99	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165234/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:45:00	MB 320-165234/1-A	1	1			13C4 PFOS	13C4 PFOS		75	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165234/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:45:00	MB 320-165234/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.30	UG_KG	U		PR	TRG					00000000				5.0	0.10	0.30	0.40	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165234/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 08:07	05/19/2017			20170519	08:07:00	20170607	16:45:00	MB 320-165234/1-A	1	1			18O2 PFHXS	18O2 PFHXS		91	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-168107		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165287/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:43:00	MB 320-165287/1-A	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.30	UG_KG	U		PR	TRG					00000000				5.0	0.10	0.30	0.50	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165287/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:43:00	MB 320-165287/1-A	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.30	UG_KG	U		PR	TRG					00000000				5.0	0.13	0.30	0.50	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165287/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:43:00	MB 320-165287/1-A	1	1			13C4 PFOA	13C4 PFOA		103	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165287/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:43:00	MB 320-165287/1-A	1	1			13C4 PFOS	13C4 PFOS		83	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165287/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:43:00	MB 320-165287/1-A	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.30	UG_KG	U		PR	TRG					00000000				5.0	0.10	0.30	0.40	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MB 320-165287/1-A	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	WET	METHOD	000	LB1	S	4	05/19/2017 09:45	05/19/2017			20170519	09:45:00	20170524	21:43:00	MB 320-165287/1-A	1	1			18O2 PFHXS	18O2 PFHXS		84	PCT_REC			PR	SURR		SMSA	150	25	00000000				5.0	5.0	10	10	320-28286-1	320-166071		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-2004MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/15/2017 14:45	06/17/2017			20170622	08:27:00	20170628	01:56:00	320-29198-1	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.0058	UG_L	M		PR	TRG					00000000	GW			5.0	0.00073	0.0019	0.0024	320-29198-1	320-171325		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-2004MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/15/2017 14:45	06/17/2017			20170622	08:27:00	20170628	01:56:00	320-29198-1	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.01	UG_L			PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0039	320-29198-1	320-171325		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-2004MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/15/2017 14:45	06/17/2017			20170622	08:27:00	20170628	01:56:00	320-29198-1	1	1			13C4 PFOA	13C4 PFOA		43	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	97	97	320-29198-1	320-171325		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-2004MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/15/2017 14:45	06/17/2017			20170622	08:27:00	20170628	01:56:00	320-29198-1	1	1			13C4 PFOS	13C4 PFOS		92	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	97	97	320-29198-1	320-171325		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-2004MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/15/2017 14:45	06/17/2017			20170622	08:27:00	20170628	01:56:00	320-29198-1	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.002	UG_L	J		PR	TRG					00000000	GW			5.0	0.00089	0.0019	0.0024	320-29198-1	320-171325		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-2004MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/15/2017 14:45	06/17/2017			20170622	08:27:00	20170628	01:56:00	320-29198-1	1	1			18O2 PFHXS	18O2 PFHXS		95	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	97	97	320-29198-1	320-171325		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB05-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 07:40	06/17/2017			20170623	08:10:00	20170629	02:46:00	320-29198-2	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.0019	UG_L	U		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00072	0.0019	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB05-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 07:40	06/17/2017			20170623	08:10:00	20170629	02:46:00	320-29198-2	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.0029	UG_L	UQ		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.0012	0.0029	0.0038	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB05-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 07:40	06/17/2017			20170623	08:10:00	20170629	02:46:00	320-29198-2	1	1			13C4 PFOA	13C4 PFOA		129	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB05-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 07:40	06/17/2017			20170623	08:10:00	20170629	02:46:00	320-29198-2	1	1			13C4 PFOS	13C4 PFOS		104	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB05-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 07:40	06/17/2017			20170623	08:10:00	20170629	02:46:00	320-29198-2	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.0019	UG_L	UM		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00088	0.0019	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB05-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 07:40	06/17/2017			20170623	08:10:00	20170629	02:46:00	320-29198-2	1	1			18O2 PFHXS	18O2 PFHXS		106	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-03-2008MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 09:55	06/17/2017			20170623	08:10:00	20170629	02:53:00	320-29198-3	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.002	UG_L	U		PR	TRG					00000000	GW			5.0	0.00075	0.002	0.0025	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-03-2008MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 09:55	06/17/2017			20170623	08:10:00	20170629	02:53:00	320-29198-3	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.002	UG_L	JQ		PR	TRG					00000000	GW			5.0	0.0013	0.003	0.004	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-03-2008MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 09:55	06/17/2017			20170623	08:10:00	20170629	02:53:00	320-29198-3	1	1			13C4 PFOA	13C4 PFOA		91	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	50	100	100	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-03-2008MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 09:55	06/17/2017			20170623	08:10:00	20170629	02:53:00	320-29198-3	1	1			13C4 PFOS	13C4 PFOS		107	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	50	100	100	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-03-2008MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 09:55	06/17/2017			20170623	08:10:00	20170629	02:53:00	320-29198-3	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.002	UG_L	UM		PR	TRG					00000000	GW			5.0	0.00092	0.002	0.0025	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-T45C-03-2008MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 09:55	06/17/2017			20170623	08:10:00	20170629	02:53:00	320-29198-3	1	1			18O2 PFHXS	18O2 PFHXS		109	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	50	100	100	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN16MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 11:25	06/17/2017			20170623	08:10:00	20170629	03:00:00	320-29198-4	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.0019	UG_L	UM		PR	TRG					00000000	GW			5.0	0.00072	0.0019	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN16MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 11:25	06/17/2017			20170623	08:10:00	20170629	03:00:00	320-29198-4	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.0029	UG_L	UMQ		PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0038	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN16MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 11:25	06/17/2017			20170623	08:10:00	20170629	03:00:00	320-29198-4	1	1			13C4 PFOA	13C4 PFOA		63	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN16MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 11:25	06/17/2017			20170623	08:10:00	20170629	03:00:00	320-29198-4	1	1			13C4 PFOS	13C4 PFOS		103	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN16MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 11:25	06/17/2017			20170623	08:10:00	20170629	03:00:00	320-29198-4	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.0019	UG_L	U		PR	TRG					00000000	GW			5.0	0.00088	0.0019	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN16MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 11:25	06/17/2017			20170623	08:10:00	20170629	03:00:00	320-29198-4	1	1			18O2 PFHXS	18O2 PFHXS		107	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 12:25	06/17/2017			20170623	08:10:00	20170629	03:07:00	320-29198-5	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.0047	UG_L	M		PR	TRG					00000000	GW			5.0	0.00073	0.002	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 12:25	06/17/2017			20170623	08:10:00	20170629	03:07:00	320-29198-5	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.0038	UG_L	JQ		PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0039	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 12:25	06/17/2017			20170623	08:10:00	20170629	03:07:00	320-29198-5	1	1			13C4 PFOA	13C4 PFOA		82	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	98	98	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 12:25	06/17/2017			20170623	08:10:00	20170629	03:07:00	320-29198-5	1	1			13C4 PFOS	13C4 PFOS		94	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	98	98	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 12:25	06/17/2017			20170623	08:10:00	20170629	03:07:00	320-29198-5	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.0024	UG_L	M		PR	TRG					00000000	GW			5.0	0.0009	0.002	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 12:25	06/17/2017			20170623	08:10:00	20170629	03:07:00	320-29198-5	1	1			18O2 PFHXS	18O2 PFHXS		90	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	98	98	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	E1	REG	W	4	06/16/2017 12:25	06/17/2017			20170713	09:26:00	20170715	04:35:00	320-29198-5	1	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.0024	UG_L	JH		PR	TRG					00000000	GW			5.0	0.00091	0.0021	0.0029	320-29198-1	320-174335		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4-UNKNMW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	E1	REG	W	4	06/16/2017 12:25	06/17/2017			20170713	09:26:00	20170715	04:35:00	320-29198-5	1	2			13C4 PFOS	13C4 PFOS		131	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	36	72	72	320-29198-1	320-174335		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:10	06/17/2017			20170623	08:10:00	20170629	03:14:00	320-29198-6	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.0052	UG_L	M		PR	TRG					00000000	GW			5.0	0.00072	0.0019	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:10	06/17/2017			20170623	08:10:00	20170629	03:14:00	320-29198-6	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.038	UG_L	Q		PR	TRG					00000000	GW			5.0	0.0012	0.0029	0.0039	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:10	06/17/2017			20170623	08:10:00	20170629	03:14:00	320-29198-6	1	1			13C4 PFOA	13C4 PFOA		59	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:10	06/17/2017			20170623	08:10:00	20170629	03:14:00	320-29198-6	1	1			13C4 PFOS	13C4 PFOS		107	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:10	06/17/2017			20170623	08:10:00	20170629	03:14:00	320-29198-6	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.002	UG_L	J		PR	TRG					00000000	GW			5.0	0.00089	0.0019	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:10	06/17/2017			20170623	08:10:00	20170629	03:14:00	320-29198-6	1	1			18O2 PFHXS	18O2 PFHXS		113	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	48	96	96	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	E1	REG	W	4	06/16/2017 14:10	06/17/2017			20170713	09:26:00	20170715	04:41:00	320-29198-6	1	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.032	UG_L	H		PR	TRG					00000000	GW			5.0	0.0013	0.003	0.0039	320-29198-1	320-174335		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-UNKN17MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	E1	REG	W	4	06/16/2017 14:10	06/17/2017			20170713	09:26:00	20170715	04:41:00	320-29198-6	1	2			13C4 PFOS	13C4 PFOS		127	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	99	99	320-29198-1	320-174335		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB06-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:55	06/17/2017			20170623	08:10:00	20170629	03:21:00	320-29198-7	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.002	UG_L	U		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.00073	0.002	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB06-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:55	06/17/2017			20170623	08:10:00	20170629	03:21:00	320-29198-7	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.0029	UG_L	UMQ		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.0012	0.0029	0.0039	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB06-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:55	06/17/2017			20170623	08:10:00	20170629	03:21:00	320-29198-7	1	1			13C4 PFOA	13C4 PFOA		140	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	49	98	98	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB06-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:55	06/17/2017			20170623	08:10:00	20170629	03:21:00	320-29198-7	1	1			13C4 PFOS	13C4 PFOS		109	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	49	98	98	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB06-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:55	06/17/2017			20170623	08:10:00	20170629	03:21:00	320-29198-7	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.002	UG_L	U		PR	TRG					00000000	AQ (Field Blanks)			5.0	0.0009	0.002	0.0024	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-EB06-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 14:55	06/17/2017			20170623	08:10:00	20170629	03:21:00	320-29198-7	1	1			18O2 PFHXS	18O2 PFHXS		112	PCT_REC			PR	SURR		SLSA	150	25	00000000	AQ (Field Blanks)			5.0	49	98	98	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4J-1992MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 15:30	06/17/2017			20170623	08:10:00	20170629	03:28:00	320-29198-8	1	1			Perfluorooctanoic acid (PFOA)	335-67-1		0.24	UG_L	M		PR	TRG					00000000	GW			5.0	0.00074	0.002	0.0025	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4J-1992MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 15:30	06/17/2017			20170623	08:10:00	20170629	03:28:00	320-29198-8	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1		0.18	UG_L	Q		PR	TRG					00000000	GW			5.0	0.0013	0.003	0.004	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4J-1992MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 15:30	06/17/2017			20170623	08:10:00	20170629	03:28:00	320-29198-8	1	1			13C4 PFOA	13C4 PFOA		66	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	99	99	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4J-1992MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 15:30	06/17/2017			20170623	08:10:00	20170629	03:28:00	320-29198-8	1	1			13C4 PFOS	13C4 PFOS		89	PCT_REC			PR	SURR		SLSA	150	25	00000000	GW			5.0	49	99	99	320-29198-1	320-171596		
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-TA4J-1992MW01-0617	NONS	SVOA	537_MOD	ORG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 15:30	06/17/2017			20170623	08:10:00	20170629	03:28:00	320-29198-8	1	1			Perfluorobutanesulfonic acid (PFBS)	375-73-5		0.047	UG_L			PR	TRG					00000000	GW			5.0	0.00091	0.002	0.0025	320-29198-1	320-171596		

Contract_ID	QQ_CTO_Number	Phase	Installation_ID	Sample_Name	CHEM_Code	Analysis_Group	Analytical_Method	PRL_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	GenerTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	QC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	REG_	Detection_Limit	EDM_Version	SIL	LOQ	LOQ	Analysis_Batch	Validator_Name	Val_Date
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAG-191DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	E1	REG	W	4	06/16/2017 15:30	06/17/2017			06/16/2017 15:30	06/17/2017	20170713	09:26:00	20170725	04:48:00	120:29198-8	1	2			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.16		UG_L			TRG		SUR				20000000	GW		5.0	0.0016	0.008	0.004	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAG-191DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	E1	REG	W	4	06/16/2017 15:30	06/17/2017			06/16/2017 15:30	06/17/2017	20170713	09:26:00	20170725	04:48:00	120:29198-8	1	2			1324 PFOS	1324 PFOS	0.16		UG_L			TRG		SUR		LSA	150	25	20000000	GW		5.0	0.0016	0.008	0.004	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAG-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 15:30	06/17/2017			06/16/2017 17:00	06/17/2017	20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			Perfluorooctanesulfonic acid (PFOA)	335-67-1	0.0019		UG_L	UM		TRG									5.0	0.0007	0.0019	0.0004	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAG-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			06/16/2017 17:00	06/17/2017	20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			Perfluorooctane Sulfonate (PFOS)	1763-23-1	0.0019		UG_L	UM		TRG									5.0	0.0012	0.0029	0.0009	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAYSC-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			1324 PFOA	1324 PFOA	96		PCT_REC			TRG		SUR		LSA	150	25	20000000	GW		5.0	69	97	97	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAYSC-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			1324 PFOS	1324 PFOS	96		PCT_REC			TRG		SUR		LSA	150	25	20000000	GW		5.0	69	97	97	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAYSC-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			Perfluorooctanesulfonic acid (PFOA)	335-67-1	0.0019		UG_L			TRG									5.0	0.0009	0.0019	0.0004	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAYSC-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			1802 PFHS	1802 PFHS	140		PCT_REC			TRG		SUR		LSA	150	25	20000000	GW		5.0	69	97	97	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAYSC-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			Perfluorooctanesulfonic acid (PFOA)	335-67-1	0.0019		UG_L			TRG									5.0	0.0009	0.0019	0.0004	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAYSC-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			1802 PFHS	1802 PFHS	140		PCT_REC			TRG		SUR		LSA	150	25	20000000	GW		5.0	69	97	97	320:29198.1	320:173596			
NE247010GN900	AK01		MERIDIAN_NAS	NB:AFF-TAYSC-200DNM01-0617	NONS	SVOA	517_MOD	SRG	TAMER	Test America	NONE	NA	SW3535	000	REG	W	4	06/16/2017 17:00	06/17/2017			20170623	08:10:00	20170629	03:42:00	120:29198-9	1	1			Perfluorooctanesulfonic acid (PFOS)	375-73-5

Contract_ID	QQ_VTO_Number	Phase	Installation_ID	Sample_Name	CHAIN_Code	Analysis_Group	Analytical_Method	PBC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	GrabTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	QC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Data	QC_Narrative	MDL	Detection_Limit	EDM_Version	SIL	LOQ	LOQC	EDQ	Analysis_Batch	Validator_Name	Val_Date
NEA2470100900	AK01		MERIDIAN_NAS	NEG08-0805-02774	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		15/01/2017 11:05	20/06/2017			20/07/0114	11:45:00	20/07/0114	10:37:00	WG81648-2	1	1			Xylene, total	1330-20-7	3.3	3.3	ug/L	U	J		TRG					[R2-Field Blanks]					0.25	1.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Dichlorodifluoromethane (Freon-12)	75-71-8	1.0	1.0	ug/L	U	J		TRG										0.24	1.0	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Chloromethane	74-87-3	0.5	0.5	ug/L	U	J		TRG										0.30	0.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Vinyl chloride	75-01-4	1.0	1.0	ug/L	U	J		TRG										0.25	1.0	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Bromomethane	74-83-9	1.0	1.0	ug/L	U	J		TRG										0.49	1.0	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Chloroethane	75-00-3	1.0	1.0	ug/L	U	J		TRG										0.55	1.0	2.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Trichlorofluoromethane (Freon-11)	75-69-4	0.5	0.5	ug/L	U	J		TRG										0.24	1.0	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1-Dichloroethene	75-35-4	0.50	0.50	ug/L	U	J		TRG										0.35	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Carbon disulfide	75-15-0	0.50	0.50	ug/L	U	J		TRG										0.25	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	0.50	0.50	ug/L	U	J		TRG										0.31	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Methylene chloride	75-09-2	1.5	1.5	ug/L	U	J		TRG										0.24	1.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Acetone	67-64-1	2.5	2.5	ug/L	U	J		TRG										1.2	2.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			trans-1,2-Dichloroethene	156-60-5	0.50	0.50	ug/L	U	J		TRG										0.25	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Methyl tert-butyl ether (MTBE)	1634-04-4	0.50	0.50	ug/L	U	J		TRG										0.36	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1-Dichloroethane	75-34-3	0.50	0.50	ug/L	U	J		TRG										0.23	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			2,2-Dichloropropane	594-20-7	0.50	0.50	ug/L	U	J		TRG										0.32	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Chloroform	67-66-3	0.50	0.50	ug/L	U	J		TRG										0.25	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1,1-Trichloroethane	71-55-6	0.50	0.50	ug/L	U	J		TRG										0.31	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			2-Butanone	78-93-3	2.5	2.5	ug/L	U	J		TRG										1.3	2.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Cyclohexane	110-82-7	0.50	0.50	ug/L	U	J		TRG										0.31	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Carbon tetrachloride	56-23-5	0.50	0.50	ug/L	U	J		TRG										0.22	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Benzene	71-43-2	0.50	0.50	ug/L	U	J		TRG										0.26	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,2-Dichloroethane	107-06-2	0.50	0.50	ug/L	U	J		TRG										0.20	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Trichloroethene	79-01-6	0.50	0.50	ug/L	U	J		TRG										0.25	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Bromodichloromethane	75-27-4	0.50	0.50	ug/L	U	J		TRG										0.31	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			cis-1,3-Dichloropropene	10061-01-5	0.50	0.50	ug/L	U	J		TRG										0.19	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			4-Methyl-2-pentanone	108-10-1	2.5	2.5	ug/L	U	J		TRG										1.3	2.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			trans-1,3-Dichloropropene	10061-02-6	0.50	0.50	ug/L	U	J		TRG										0.20	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1,2-Trichloroethane	79-00-5	0.50	0.50	ug/L	U	J		TRG										0.33	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Tetrachloroethene	127-18-4	0.50	0.50	ug/L	U	J		TRG										0.40	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Dibromochloromethane	124-48-1	0.50	0.50	ug/L	U	J		TRG										0.30	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,2-Dibromoethane	106-93-4	0.50	0.50	ug/L	U	J		TRG										0.22	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			2-Hexanone	591-78-6	2.5	2.5	ug/L	U	J		TRG										1.7	2.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Chlorobenzene	108-90-7	0.50	0.50	ug/L	U	J		TRG										0.22	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Ethylbenzene	100-41-4	0.50	0.50	ug/L	U	J		TRG										0.21	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Styrene	100-42-5	0.50	0.50	ug/L	U	J		TRG										0.23	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Bromoform	75-25-2	0.50	0.50	ug/L	U	J		TRG										0.23	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Isopropylbenzene	98-82-8	0.50	0.50	ug/L	U	J		TRG										0.23	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1,2,2-Tetrachloroethane	79-34-5	0.50	0.50	ug/L	U	J		TRG										0.38	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,3-Dichlorobenzene	541-73-1	0.50	0.50	ug/L	U	J		TRG										0.26	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,4-Dichlorobenzene	106-46-7	0.50	0.50	ug/L	U	J		TRG										0.24	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,2-Dichloro-1,1,2-trifluoroethane	354-23-4	0.50	0.50	ug/L	U	J		TRG										0.36	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,2,4-Trichlorobenzene	120-82-1	0.50	0.50	ug/L	U	J		TRG										0.34	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Methyl acetate	79-20-9	0.75	0.75	ug/L	U	J		TRG										0.53	0.75	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Methylcyclohexane	108-87-2	0.50	0.50	ug/L	U	J		TRG										0.30	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Bromochloromethane	74-97-5	0.50	0.50	ug/L	U	J		TRG										0.23	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			o-Xylene	95-47-6	0.50	0.50	ug/L	U	J		TRG										0.25	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			m- and p-Xylene	1330-20-7	0.50	0.50	ug/L	U	J		TRG										0.29	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,2,3-Trichlorobenzene	87-61-6	0.50	0.50	ug/L	U	J		TRG										0.27	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Xylene, total	1330-20-7	1.5	1.5	ug/L	U	J		TRG										0.25	1.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Dichlorodifluoromethane (Freon-12)	75-71-8	3.3	3.3	ug/L	U	J		TRG										0.24	1.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Chloromethane	74-87-3	0.5	0.5	ug/L	U	J		TRG										0.30	0.5	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Vinyl chloride	75-01-4	1.0	1.0	ug/L	U	J		TRG										0.25	1.0	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Bromomethane	74-83-9	1.0	1.0	ug/L	U	J		TRG										0.49	1.0	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Chloroethane	75-00-3	1.0	1.0	ug/L	U	J		TRG										0.55	1.0	2.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			Trichlorofluoromethane (Freon-11)	75-69-4	0.5	0.5	ug/L	U	J		TRG										0.24	1.0	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1-Dichloroethene	75-35-4	0.50	0.50	ug/L	U	J		TRG										0.35	0.50	1.0	1.0	SK1680	WG201162		
NEA2470100900	AK01		MERIDIAN_NAS	NFLD1042-BLANK	NONE	VOA	8260C	KAS	KATAHDIN ANALYTICAL		NA	SW5030	1000	BLK	W	A		03/14/2017 10:37	03/14/2017			20/07/0114	10:37:00	20/07/0114	10:37:00	WG81342-2	1	1			1,1,2-Trichloro-1,2,2-trifluoroethane (Freon-113)	76-13-1	0.

Contract_ID	QQ_CYQ_Number	Phase	Installation_ID	Sample_Name	CHAIN_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	GoneTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_SDG_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	QC_Column_Type	Analysis_Result_Type	Result_Narrative	QQ_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	RRS	Detection_Limit	EDM_Version	DL	LOQ	LOQ	SDG	Validation_Name	Val_Date
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCS	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BS	W		03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG20151513-2	1	1			2,4,5-Trichlorophenol	95-95-4	52	52	UG_L			TRG		LSA	110	50	20091101				A2	2.1	7.5	10	10	7.5	10	WG151	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCS	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BS	W		03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG20151513-2	1	1			2,4,6-Trichlorophenol	95-95-4	52.7	52.7	UG_L			TRG		LSA	110	50	20091101				A2	3.6	15	25	50	WG151	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCS	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BS	W		03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG20151513-2	1	1			2,4-Dinitrotoluene	121-14-2	56.1	56.1	UG_L			TRG		LSA	110	50	20091101				A2	2.7	7.5	10	50	WG151	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCS	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BS	W		03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG20151513-2	1	1			Hexachlorobenzene	118-74-1	45.3	45.3	UG_L			TRG		LSA	110	50	20091101				A2	2.1	7.5	10	10	WG151	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCS	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BS	W		03/14/2017 10:04	03/14/2017			20170314	15:00:00	20170316	17:36:00	WG20151513-2	1	1			Pentachlorophenol	87-86-5	110	110	UG_L			TRG		LSA	110	40	20091101				A2	2.1	15	25	40	WG151	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			Pyridine	110-86-1	7.99	7.99	UG_L			TRG		LSA	96	32	20091101				A2	2.5	10	50	50	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			4,6-Dinitro-2-methylphenol	534-52-1	85.5	85.5	UG_L			TRG		LSA	130	50	20091101				A2	4.2	7.5	10	50	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			2-Methylphenol	95-48-7	54.6	54.6	UG_L			TRG		LSA	110	40	20091101				A2	1.8	7.5	10	40	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			3- and 4-Methylphenol	m&pCRESOL	34.2	34.2	UG_L			TRG		LSA	110	40	20091101				A2	9.5	7.5	10	40	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			Hexachloroethane	67-72-1	34.0	34.0	UG_L			TRG		LSA	110	40	20091101				A2	1.5	7.5	10	40	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			Nitrobenzene	98-95-3	37.2	37.2	UG_L			TRG		LSA	110	40	20091101				A2	1.8	7.5	10	40	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			Hexachlorobutadiene	87-68-3	38.4	38.4	UG_L			TRG		LSA	105	25	20091101				A2	1.8	7.5	10	25	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			2,4,5-Trichlorophenol	95-95-4	60.7	60.7	UG_L			TRG		LSA	115	50	20091101				A2	2.1	7.5	10	50	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			2,4-Dinitrotoluene	121-14-2	44.8	44.8	UG_L			TRG		LSA	120	50	20091101				A2	2.7	7.5	10	50	WG161	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	NONE	REACT	7.3.3.2	IND	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	MS	L		03/07/2017 14:05	03/07/2017			20170307	09:56:00	20170314	09:56:00	WG161683-1	1.083	1			Reactive cyanide	57-12-5	0.5	0.5	MG_KG			REACT-CN									A2	0.37	1	1	1	WG161	WG201407	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	NONE	REACT	7.3.3.2	IND	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	MSD	L		03/07/2017 14:05	03/07/2017			20170307	09:56:00	20170314	09:56:00	WG161683-1	1.1	1			Reactive cyanide	57-12-5	0.5	0.5	MG_KG			REACT-CN									A2	0.37	1	1	1	WG161	WG201407	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20160407-BLANK	NONE	REACT	7.3.3.2	IND	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BLK	L		03/07/2017 09:59	03/07/2017			20170307	09:59:00	20170314	09:59:00	WG160407-1	1	1			Reactive cyanide	57-12-5	0.5	0.5	MG_KG			REACT-CN									A2	0.37	1	1	1	WG161	WG201407	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20160407-LCS	NONE	REACT	7.3.3.2	IND	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BS	L		03/07/2017 10:25	03/07/2017			20170307	10:25:00	20170314	10:25:00	WG160407-2	1	1			Reactive cyanide	57-12-5	8.2	8.2	MG_KG			REACT-CN					20091101				A2	0.31	20	40	40	WG161	WG201407	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20160407-LCSD	NONE	REACT	7.3.3.2	IND	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	L		03/07/2017 10:25	03/07/2017			20170307	10:25:00	20170314	10:25:00	WG160407-3	1	1			Reactive cyanide	57-12-5	8.3	8.3	MG_KG			REACT-CN					20091101				A2	0.31	20	40	40	WG161	WG201407	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	NONE	REACT	7.3.4.1	IND	KAS	KATAHDIN ANALYTICAL		NA	SW7470A	0000	MS	W		03/01/2017 14:05	03/04/2017			20170307	14:00:00	20170307	14:50:00	WG161681-2	1	1			Reactive sulfide	18496-25-8	25	25	MG_KG			REACT-S				SW					A2	16.39	25	50	50	WG161	WG200937	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	NONE	REACT	7.3.4.1	IND	KAS	KATAHDIN ANALYTICAL		NA	SW7470A	0000	MSD	W		03/01/2017 14:05	03/04/2017			20170307	14:00:00	20170307	14:50:00	WG161681-1	1	1			Reactive sulfide	18496-25-8	25	25	MG_KG			REACT-S				SW					A2	16	25	50	50	WG161	WG200937	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20160718-BLANK	NONE	REACT	7.3.4.1	IND	KAS	KATAHDIN ANALYTICAL		NA	SW7470A	0000	BLK	L		03/07/2017 14:03	03/07/2017			20170307	14:03:00	20170307	14:50:00	WG160718-1	1	1			Reactive sulfide	18496-25-8	25	25	MG_KG			REACT-S									A2	16.39	25	50	50	WG161	WG200937	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20160718-LCS	NONE	REACT	7.3.4.1	IND	KAS	KATAHDIN ANALYTICAL		NA	SW7470A	0000	BS	W		03/07/2017 14:04	03/07/2017			20170307	14:04:00	20170307	14:50:00	WG160718-2	1	1			Reactive sulfide	18496-25-8	25	25	MG_KG			REACT-S				SW					A2	16.39	25	50	50	WG161	WG200937	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	NONE	IGN	5210A	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	BS	S		03/01/2017 14:05	03/04/2017			20170309	16:57:00	20170309	16:57:00	WG1685-1	1	1			Ignitability	IGN	71	71	DEG_C			IGNITABILITY				SW					A2	71	71	71	1667	WG201095	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	NONE	IGN	5210A	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	MSD	S		03/01/2017 14:05	03/04/2017			20170309	16:57:00	20170309	16:57:00	WG1685-2	1	1			Ignitability	IGN	71	71	DEG_C			IGNITABILITY				SW					A2	71	71	71	1667	WG201095	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	NONE	IGN	5210A	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	BS	S		03/09/2017 12:05	03/09/2017			20170309	16:57:00	20170309	16:57:00	WG160905-1	1	1			Ignitability	IGN	71	71	DEG_C			IGNITABILITY				SW					A2	71	71	71	1667	WG201095	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	NONE	IGN	5210A	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	MSD	S		03/09/2017 12:05	03/09/2017			20170309	16:57:00	20170309	16:57:00	WG160905-2	1	1			Ignitability	IGN	71	71	DEG_C			IGNITABILITY				SW					A2	71	71	71	1667	WG201095	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317-CLR	NONE	CORR	9040C	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	BS	S		03/01/2017 14:05	03/04/2017			20170309	16:54:00	20170309	16:54:00	WG161657-1	1	1			Corrosivity (pH units)	CORR	8.3	8.3	PH			CORROSIVITY				SW					A2	8.33	10	10	10	WG161	WG201057	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	NONE	CORR	9040C	POWR	KAS	KATAHDIN ANALYTICAL		NA	NONE	0000	BS	W		03/01/2017 14:05	03/04/2017			20170309	16:10:00	20170309	16:10:00	WG1685-2	1	1			Corrosivity (pH units)	CORR	6.2	6.2	PH			CORROSIVITY				SW					A2	8.33	10	10	10	WG161	WG201057	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20160718-LCS	NONE	CORR	9040C	POWR	KAS	KATAHDIN ANALYTICAL		NA	NONE	0000	BS	W		03/06/2017 14:03	03/06/2017			20170309	16:05:00	20170309	16:05:00	WG160707-2	1	1			Corrosivity (pH units)	CORR	7.9	7.9	PH			CORROSIVITY				SW					A2	8.33	10	10	10	WG161	WG201057	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	NONE	CORR	9040C	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	MSD	W		03/06/2017 14:03	03/06/2017			20170309	16:03:00	20170309	16:03:00	WG161681-3	1	1			Corrosivity (pH units)	CORR	5.6	5.6	PH			CORROSIVITY				SW					A2	8.33	10	10	10	WG161	WG201057	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCS	NONE	CORR	9040C	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	BS	W		03/09/2017 11:02	03/09/2017			20170309	16:37:00	20170309	16:37:00	WG160911-1	1	1			Corrosivity (pH units)	CORR	7.1	7.1	PH			CORROSIVITY				SW	20091101				A2	8.33	10	10	10	WG161	WG201134	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	NONE	CORR	9040C	POWR	KAS	KATAHDIN ANALYTICAL		NA	SW846	0000	BSD	W		03/09/2017 11:02	03/09/2017			20170309	16:37:00	20170309	16:37:00	WG160911-2	1	1			Corrosivity (pH units)	CORR	7.1	7.1	PH			CORROSIVITY				SW	20091101				A2	8.33	10	10	10	WG161	WG201134	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151513-LCSD	TGLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW5510C	0000	BSD	W		03/14/2017 10:05	03/14/2017			20170314	15:00:00	20170316	18:05:00	WG20151513-3	1	1			Pentachlorophenol	87-86-5	107	107	UG_L			TRG		LSA	115	40	20091101				A2	2.1	15	25	40	WG151	WG201353	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151217-TCLP BLK	TGLP	TCLPS	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW5510C	0000	BLK	W		01/09/2017 00:00	01/09/2017	20170308	08:05:00	20170310		20170316	16:57:00	WG161127-4	1	1			2,4-D	94-75-7	0.5	0.5	UG_L	U		TRG		LSA							A2	0.85	7.1	14	14	WG161	WG201127	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS20151217-TCLP BLK	TGLP	TCLPS	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW5510C	0000	BLK	W		01/09/2017 00:00	01/09/2017	20170308	08:05:00	20170310	12:00:00	20170316	16:57:00	WG161127-4	1	1			2,4,5-TP (Silvex)	93-72-1	0.5	0.5	UG_L	U		TRG		LSA							A2	0.85	7.1	14	14	WG161	WG201127	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW5510C	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:45:00	20170316	19:42:00	WG161683-2	1	1			2,4-D	94-75-7	0.5	0.5	UG_L	U		TRG		LSA						SW	A2	0.85	7.1	14	14	WG161	WG201405	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW5510C	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:45:00	20170316	19:42:00	WG161683-2	1	1			2,4,5-TP (Silvex)	93-72-1	0.5	0.5	UG_L	U		TRG		LSA						SW	A2	0.85	7.1	14	14	WG161	WG201405	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW5510C	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:45:00	20170316	19:42:00	WG161683-1	1	1			2,4,5-TP (Silvex)	93-72-1	0.5	0.5	UG_L	U		TRG		LSA						SW	A2	0.85	7.1	14	14	WG161	WG201405	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW5510C	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:45:00	20170316	19:42:00	WG161683-2	1	1			2,4,5-TP (Silvex)	93-72-1	0.5	0.5	UG_L	U		TRG		LSA						SW	A2	0.85	7.1	14	14	WG161	WG201405	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:39:00	20170316	15:39:00	WG161-002	1	1			Chromium	7440-47-3	10	10	UG_L			TRG		LSA						SW	A2	1.8	20	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:39:00	20170316	15:39:00	WG161-002	1	1			Lead	7439-92-1	20	20	UG_L			TRG		LSA						SW	A2	1.4	20	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:39:00	20170316	15:39:00	WG161-002	1	1			Silver	7440-22-4	10	10	UG_L			TRG		LSA						SW	A2	1.4	10	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:39:00	20170316	15:39:00	WG161-002	1	1			Selenium	7782-49-2	25	25	UG_L	U		TRG		LSA						SW	A2	12	25	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:39:00	20170316	15:39:00	WG161-002	1	1			Arsenic	7440-38-2	10	10	UG_L			TRG		LSA						SW	A2	7.0	10	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:39:00	20170316	15:39:00	WG161-002	1	1			Barium	7440-39-3	245	245	UG_L			TRG		LSA						SW	A2	1.2	15	25	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W02-SW-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BS	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:39:00	20170316	15:39:00	WG161-002	1	1			Silver	7440-22-4	10	10	UG_L			TRG		LSA						SW	A2	1.4	10	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:34:00	20170316	15:34:00	WG161-001	1	1			Selenium	7782-49-2	25	25	UG_L	U		TRG		LSA						SW	A2	12	25	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:34:00	20170316	15:34:00	WG161-001	1	1			Arsenic	7440-38-2	10	10	UG_L			TRG		LSA						SW	A2	7.0	10	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:34:00	20170316	15:34:00	WG161-001	1	1			Barium	7440-39-3	328	328	UG_L			TRG		LSA						SW	A2	1.2	15	25	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:34:00	20170316	15:34:00	WG161-001	1	1			Lead	7439-92-1	20	20	UG_L			TRG		LSA						SW	A2	1.4	20	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:34:00	20170316	15:34:00	WG161-001	1	1			Chromium	7440-47-3	10	10	UG_L			TRG		LSA						SW	A2	1.8	20	50	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-8202	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170315	10:34:00	20170316	15:34:00	WG161-001	1	1			Cadmium	7440-43-9	5.0	5.0	UG_L	U		TRG		LSA						SW	A2	0.25	5.0	10	50	WG161	KC150W2	Preload Check.mpr	20170331
NEA2470100900	AM01		MERIDIAN_NAS	MS-MT-W01-SD-0317	TGLP	TCLPS	1311-7470	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW7470A	0000	BSD	W		01/03/2017 14:05	01/04/2017	20170310	08:04:00	20170314	12:47:00	20170316	15:01:00	WG161-002	1	1			Mercury	7439-97-6	0.10	0.10	UG_L	U		TRG		LSA						SW	A2	0.013	0.10	0.20	50	WG161	KC140W2	Preload Check.mpr	20170331
NEA2470100900	A

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170627	11:03:00	20170627	19:50:00	SK5275-3	1	1			Endrin	72-20-8		0.25	UG_L	U			TRG						IDW			4.2	0.042	0.25	0.50	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170627	11:03:00	20170627	19:50:00	SK5275-3	1	1			Methoxychlor	72-43-5		1.2	UG_L	U			TRG						IDW			4.2	0.042	1.2	2.5	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170627	11:03:00	20170627	19:50:00	SK5275-3	1	1			technical-Chlordane	12789-03-6		1.2	UG_L	U			TRG						IDW			4.2	0.42	1.2	2.5	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170627	11:03:00	20170627	19:50:00	SK5275-3	1	1			Toxaphene	8001-35-2		2.5	UG_L	U			TRG						IDW			4.2	0.85	2.5	5.0	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170703	11:01:00	20170703	15:32:00	SK5275-4RE	1	1			gamma-BHC (Lindane)	58-89-9		0.19	UG_L	U			TRG						IDW			4.2	0.055	0.19	0.38	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170703	11:01:00	20170703	15:32:00	SK5275-4RE	1	1			Heptachlor	76-44-8		0.19	UG_L	U			TRG						IDW			4.2	0.062	0.19	0.38	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170703	11:01:00	20170703	15:32:00	SK5275-4RE	1	1			Heptachlor epoxide	1024-57-3		0.19	UG_L	U			TRG						IDW			4.2	0.057	0.19	0.38	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170703	11:01:00	20170703	15:32:00	SK5275-4RE	1	1			Endrin	72-20-8		0.38	UG_L	U			TRG						IDW			4.2	0.065	0.38	0.77	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170703	11:01:00	20170703	15:32:00	SK5275-4RE	1	1			Methoxychlor	72-43-5		1.9	UG_L	U			TRG						IDW			4.2	0.065	1.9	3.8	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170703	11:01:00	20170703	15:32:00	SK5275-4RE	1	1			technical-Chlordane	12789-03-6		1.9	UG_L	U			TRG						IDW			4.2	0.64	1.9	3.8	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170703	11:01:00	20170703	15:32:00	SK5275-4RE	1	1			Toxaphene	8001-35-2		3.8	UG_L	U			TRG						IDW			4.2	1.3	3.8	7.7	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	11:04:00	20170627	20:29:00	SK5275-5	1	1			gamma-BHC (Lindane)	58-89-9		0.12	UG_L	U			TRG						IDW			4.2	0.036	0.12	0.25	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	11:04:00	20170627	20:29:00	SK5275-5	1	1			Heptachlor	76-44-8		0.12	UG_L	U			TRG						IDW			4.2	0.040	0.12	0.25	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	11:04:00	20170627	20:29:00	SK5275-5	1	1			Heptachlor epoxide	1024-57-3		0.12	UG_L	U			TRG						IDW			4.2	0.037	0.12	0.25	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	11:04:00	20170627	20:29:00	SK5275-5	1	1			Endrin	72-20-8		0.25	UG_L	U			TRG						IDW			4.2	0.042	0.25	0.50	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	11:04:00	20170627	20:29:00	SK5275-5	1	1			Methoxychlor	72-43-5		1.2	UG_L	U			TRG						IDW			4.2	0.042	1.2	2.5	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	11:04:00	20170627	20:29:00	SK5275-5	1	1			technical-Chlordane	12789-03-6		1.2	UG_L	U			TRG						IDW			4.2	0.42	1.2	2.5	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	11:04:00	20170627	20:29:00	SK5275-5	1	1			Toxaphene	8001-35-2		2.5	UG_L	U			TRG						IDW			4.2	0.85	2.5	5.0	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	11:05:00	20170627	20:48:00	SK5275-6	1	1			gamma-BHC (Lindane)	58-89-9		0.12	UG_L	U			TRG						IDW			4.2	0.036	0.12	0.25	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	11:05:00	20170627	20:48:00	SK5275-6	1	1			Heptachlor	76-44-8		0.12	UG_L	U			TRG						IDW			4.2	0.040	0.12	0.25	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	11:05:00	20170627	20:48:00	SK5275-6	1	1			Heptachlor epoxide	1024-57-3		0.12	UG_L	U			TRG						IDW			4.2	0.037	0.12	0.25	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	11:05:00	20170627	20:48:00	SK5275-6	1	1			Endrin	72-20-8		0.25	UG_L	U			TRG						IDW			4.2	0.042	0.25	0.50	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	11:05:00	20170627	20:48:00	SK5275-6	1	1			Methoxychlor	72-43-5		1.2	UG_L	U			TRG						IDW			4.2	0.042	1.2	2.5	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	11:05:00	20170627	20:48:00	SK5275-6	1	1			technical-Chlordane	12789-03-6		1.2	UG_L	U			TRG						IDW			4.2	0.42	1.2	2.5	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	11:05:00	20170627	20:48:00	SK5275-6	1	1			Toxaphene	8001-35-2		2.5	UG_L	U			TRG						IDW			4.2	0.85	2.5	5.0	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207830-TCLPBLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170623	07:01:00	20170626	19:04:00	WG207830-5	1	1			gamma-BHC (Lindane)	58-89-9		0.12	UG_L	U			TRG									4.2	0.036	0.12	0.25	SK5275	WG207830	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207830-TCLPBLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170623	07:01:00	20170626	19:04:00	WG207830-5	1	1			Heptachlor	76-44-8		0.12	UG_L	U			TRG									4.2	0.040	0.12	0.25	SK5275	WG207830	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207830-TCLPBLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170623	07:01:00	20170626	19:04:00	WG207830-5	1	1			Heptachlor epoxide	1024-57-3		0.12	UG_L	U			TRG									4.2	0.037	0.12	0.25	SK5275	WG207830	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207830-TCLPBLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170623	07:01:00	20170626	19:04:00	WG207830-5	1	1			Endrin	72-20-8		0.25	UG_L	U			TRG									4.2	0.042	0.25	0.50	SK5275	WG207830	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207830-TCLPBLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170623	07:01:00	20170626	19:04:00	WG207830-5	1	1			Methoxychlor	72-43-5		1.2	UG_L	U			TRG									4.2	0.042	1.2	2.5	SK5275	WG207830	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207830-TCLPBLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170623	07:01:00	20170626	19:04:00	WG207830-5	1	1			technical-Chlordane	12789-03-6		1.2	UG_L	U			TRG									4.2	0.42	1.2	2.5	SK5275	WG207830	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207830-TCLPBLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170623	07:01:00	20170626	19:04:00	WG207830-5	1	1			Toxaphene	8001-35-2		2.5	UG_L	U			TRG									4.2	0.85	2.5	5.0	SK5275	WG207830	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 11:06	06/27/2017			20170627	11:06:00	20170627	14:00:00	WG208064-1	1	1			gamma-BHC (Lindane)	58-89-9		0.025	UG_L	U			TRG									4.2	0.0072	0.025	0.050	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 11:06	06/27/2017			20170627	11:06:00	20170627	14:00:00	WG208064-1	1	1			Heptachlor	76-44-8		0.025	UG_L	U			TRG									4.2	0.0080	0.025	0.050	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 11:06	06/27/2017			20170627	11:06:00	20170627	14:00:00	WG208064-1	1	1			Heptachlor epoxide	1024-57-3		0.025	UG_L	U			TRG									4.2	0.0074	0.025	0.050	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 11:06	06/27/2017			20170627	11:06:00	20170627	14:00:00	WG208064-1	1	1			Endrin	72-20-8		0.050	UG_L	U			TRG									4.2	0.0084	0.050	0.10	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 11:06	06/27/2017			20170627	11:06:00	20170627	14:00:00	WG208064-1	1	1			Methoxychlor	72-43-5		0.25	UG_L	U			TRG									4.2	0.0084	0.25	0.50	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 11:06	06/27/2017			20170627	11:06:00	20170627	14:00:00	WG208064-1	1	1			technical-Chlordane	12789-03-6		0.25	UG_L	U			TRG									4.2	0.083	0.25	0.50	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 11:06	06/27/2017			20170627	11:06:00	20170627	14:00:00	WG208064-1	1	1			Toxaphene	8001-35-2		0.50	UG_L	U			TRG									4.2	0.17	0.50	1.0	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 11:07	06/27/2017			20170627	11:07:00	20170627	14:20:00	WG208064-2	1	1			gamma-BHC (Lindane)	58-89-9		0.473	UG_L				TRG		LSA	135	25	20091101				4.2	0.0072	0.025	0.050	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 11:07	06/27/2017			20170627	11:07:00	20170627	14:20:00	WG208064-2	1	1			Heptachlor	76-44-8		0.537	UG_L				TRG		LSA	130	40	20091101				4.2	0.0080	0.025	0.050	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 11:07	06/27/2017			20170627	11:07:00	20170627	14:20:00	WG208064-2	1	1			Heptachlor epoxide	1024-57-3		0.453	UG_L				TRG		LSA	130	60	20091101				4.2	0.0074	0.025	0.050	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 11:07	06/27/2017			20170627	11:07:00	20170627	14:20:00	WG208064-2	1	1			Endrin	72-20-8		0.453	UG_L				TRG		LSA	135	55	20091101				4.2	0.0084	0.050	0.10	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 11:07	06/27/2017			20170627	11:07:00	20170627	14:20:00	WG208064-2	1	1			Methoxychlor	72-43-5		0.449	UG_L				TRG		LSA	150	55	20091101				4.2	0.0084	0.25	0.50	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-LCS1	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 11:08	06/27/2017			20170627	11:08:00	20170627	14:39:00	WG208064-3	1	1			Toxaphene	8001-35-2		7.59	UG_L				TRG		LSA	110	32	20091101				4.2	0.17	0.50	1.0	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208064-LCS2	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 11:09	06/27/2017			20170627	11:09:00	20170627	14:58:00	WG208064-4	1	1			technical-Chlordane	12789-03-6		7.08	UG_L				TRG		LSA	115	47	20091101				4.2	0.083	0.25	0.50	SK5275	WG208064	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	07/03/2017 11:02	07/03/2017			20170703	11:02:00	20170703	13:36:00	WG208464-1	1	1			gamma-BHC (Lindane)	58-89-9		0.025	UG_L	U			TRG									4.2	0.0072	0.025	0.050	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	07/03/2017 11:02	07/03/2017			20170703	11:02:00	20170703	13:36:00	WG208464-1	1	1			Heptachlor	76-44-8		0.025	UG_L	U			TRG									4.2	0.0080	0.025	0.050	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	07/03/2017 11:02	07/03/2017			20170703	11:02:00	20170703	13:36:00	WG208464-1	1	1			Heptachlor epoxide	1024-57-3		0.025	UG_L	U			TRG									4.2	0.0074	0.025	0.050	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	07/03/2017 11:02	07/03/2017			20170703	11:02:00	20170703	13:36:00	WG208464-1	1	1			Endrin	72-20-8		0.050	UG_L	U			TRG									4.2	0.0084	0.050	0.10	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	07/03/2017 11:02	07/03/2017			20170703	11:02:00	20170703	13:36:00	WG208464-1	1	1			Methoxychlor	72-43-5		0.25	UG_L	U			TRG									4.2	0.0084	0.25	0.50	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	07/03/2017 11:02	07/03/2017			20170703	11:02:00	20170703	13:36:00	WG208464-1	1	1			technical-Chlordane	12789-03-6		0.25	UG_L	U			TRG									4.2	0.083	0.25	0.50	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-BLANK	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	07/03/2017 11:02	07/03/2017			20170703	11:02:00	20170703	13:36:00	WG208464-1	1	1			Toxaphene	8001-35-2		0.50	UG_L	U			TRG									4.2	0.17	0.50	1.0	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	07/03/2017 11:03	07/03/2017			20170703	11:03:00	20170703	13:55:00	WG208464-2	1	1			gamma-BHC (Lindane)	58-89-9		0.430	UG_L				TRG		LSA	135	25	20091101				4.2	0.0072	0.025	0.050	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	07/03/2017 11:03	07/03/2017			20170703	11:03:00	20170703	13:55:00	WG208464-2	1	1			Heptachlor	76-44-8		0.490	UG_L				TRG		LSA	130	40	20091101				4.2	0.0080	0.025	0.050	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	07/03/2017 11:03	07/03/2017			20170703	11:03:00	20170703	13:55:00	WG208464-2	1	1			Heptachlor epoxide	1024-57-3		0.430	UG_L				TRG		LSA	130	60	20091101				4.2	0.0074	0.025	0.050	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	07/03/2017 11:03	07/03/2017			20170703	11:03:00	20170703	13:55:00	WG208464-2	1	1			Endrin	72-20-8		0.448	UG_L				TRG		LSA	135	55	20091101				4.2	0.0084	0.050	0.10	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-LCS	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	07/03/2017 11:03	07/03/2017			20170703	11:03:00	20170703	13:55:00	WG208464-2	1	1			Methoxychlor	72-43-5		0.423	UG_L				TRG		LSA	150	55	20091101				4.2	0.0084	0.25	0.50	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-LCS1	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	07/03/2017 11:04	07/03/2017			20170703	11:04:00	20170703	14:15:00	WG208464-3	1	1			Toxaphene	8001-35-2		8.26	UG_L				TRG		LSA	110	32	20091101				4.2	0.17	0.50	1.0	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208464-LCS2	TCLP	TCLPP	1311-8081	P_A	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	07/03/2017 11:05	07/03/2017			20170703	11:05:00	20170703	14:34:00	WG208464-4	1	1			technical-Chlordane	12789-03-6		11.3	UG_L				TRG		LSA	115	47	20091101				4.2	0.083	0.25	0.50	SK5275	WG208464	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208066-BLANK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 13:07	06/27/2017			20170627	13:07:00	20170628	16:01:00	WG208066-1	1	1			2,4-D	94-75-7		1.4	UG_L	U			TRG									4.2	0.28	1.4	2.8	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208066-BLANK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/27/2017 13:07	06/27/2017			20170627	13:07:00	20170628	16:01:00	WG208066-1	1	1			2,4,5-TP (Silvex)	93-72-1		1.4	UG_L	U			TRG									4.2	0.19	1.4	2.8	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208066-LCS	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 13:08	06/27/2017			20170627	13:08:00	20170628	16:25:00	WG208066-2	1	1			2,4-D	94-75-7		4.89	UG_L				TRG		LSA	115	35	20091101				4.2	0.28	1.4	2.8	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208066-LCS	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/27/2017 13:08	06/27/2017			20170627	13:08:00	20170628	16:25:00	WG208066-2	1	1			2,4,5-TP (Silvex)	93-72-1		4.96	UG_L				TRG		LSA	115	50	20091101				4.2	0.19	1.4	2.8	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/19/2017 08:03	06/19/2017			20170619	08:03:00	20170619	18:58:00	PBWKF19ICW1	1	1			Arsenic	7440-38-2		25	UG_L	U			TRG									4.2	7.1	25	40	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170630	10:03:00	20170630	23:19:00	PBT1403A	1	1			Arsenic	7440-38-2		25	UG_L	U			TRG									4.2	7.1	25	40	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170619	08:04:00	20170619	19:14:00	PBT1402A	1	1			Arsenic	7440-38-2		7.7	UG_L	J			TRG									4.2	7.1	25	40	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 09:02	06/30/2017			20170630	09:02:00	20170630	17:49:00	PBWKF30ICW2	1	1			Arsenic	7440-38-2		5.0	UG_L	U			TRG									4.2	1.4	5.0	8.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 10:02	06/30/2017			20170630	10:02:00	20170630	23:11:00	PBWKF30ICW3	1	1			Arsenic	7440-38-2		5.0	UG_L	U			TRG									4.2	1.4	5.0	8.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 09:02	06/30/2017			20170630	09:02:00	20170630	17:49:00	PBWKF30ICW2	1	1			Barium	7440-39-3		3.0	UG_L	U			TRG									4.2	0.23	3.0	5.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 10:02	06/30/2017			20170630	10:02:00	20170630	23:11:00	PBWKF30ICW3	1	1			Barium	7440-39-3		3.0	UG_L	U			TRG									4.2	0.23	3.0	5.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170619	08:04:00	20170619	19:14:00	PBT1402A	1	1			Barium	7440-39-3		44.5	UG_L	B			TRG									4.2	1.2	15	25	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/19/2017 08:03	06/19/2017			20170619	08:03:00	20170619	18:58:00	PBWKF19ICW1	1	1			Barium	7440-39-3		15	UG_L	U			TRG									4.2	1.2	15	25	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170630	10:03:00	20170630	23:19:00	PBT1403A	1	1			Barium	7440-39-3		20.8	UG_L	B			TRG									4.2	1.2	15	25	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/19/2017 08:03	06/19/2017			20170619	08:03:00	20170619	18:58:00	PBWKF19ICW1	1	1			Cadmium	7440-43-9		15	UG_L	U			TRG									4.2	0.24	15	25	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170630	10:03:00	20170630	23:19:00	PBT1403A	1	1			Cadmium	7440-43-9		15	UG_L	U			TRG									4.2	0.24	15	25	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 10:02	06/30/2017			20170630	10:02:00	20170630	23:11:00	PBWKF30ICW3	1	1			Cadmium	7440-43-9		3.0	UG_L	U			TRG									4.2	0.049	3.0	5.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 09:02	06/30/2017			20170630	09:02:00	20170630	17:49:00	PBWKF30ICW2	1	1			Cadmium	7440-43-9		3.0	UG_L	U			TRG									4.2	0.049	3.0	5.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170619	08:04:00	20170619	19:14:00	PBT1402A	1	1			Cadmium	7440-43-9		0.44	UG_L	J			TRG									4.2	0.24	15	25	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170630	10:03:00	20170630	23:19:00	PBT1403A	1	1			Chromium	7440-47-3		20	UG_L	U			TRG									4.2	1.8	20	50	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 09:02	06/30/2017			20170630	09:02:00	20170630	17:49:00	PBWKF30ICW2	1	1			Chromium	7440-47-3		4.0	UG_L	U			TRG									4.2	0.36	4.0	10	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170619	08:04:00	20170619	19:14:00	PBT1402A	1	1			Chromium	7440-47-3		2.6	UG_L	J			TRG									4.2	1.8	20	50	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 10:02	06/30/2017			20170630	10:02:00	20170630	23:11:00	PBWKF30ICW3	1	1			Chromium	7440-47-3		4.0	UG_L	U			TRG									4.2	0.36	4.0	10	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/19/2017 08:03	06/19/2017			20170619	08:03:00	20170619	18:58:00	PBWKF19ICW1	1	1			Chromium	7440-47-3		20	UG_L	U			TRG									4.2	1.8	20	50	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170619	08:04:00	20170619	19:14:00	PBT1402A	1	1			Lead	7439-92-1		20	UG_L	U			TRG									4.2	5.4	20	25	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 10:02	06/30/2017			20170630	10:02:00	20170630	23:11:00	PBWKF30ICW3	1	1			Lead	7439-92-1		4.0	UG_L	U			TRG									4.2	1.1	4.0	5.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170630	10:03:00	20170630	23:19:00	PBT1403A	1	1			Lead	7439-92-1		5.5	UG_L	J			TRG									4.2	5.4	20	25	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 09:02	06/30/2017			20170630	09:02:00	20170630	17:49:00	PBWKF30ICW2	1	1			Lead	7439-92-1		4.0	UG_L	U			TRG									4.2	1.1	4.0	5.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/19/2017 08:03	06/19/2017			20170619	08:03:00	20170619	18:58:00	PBWKF19ICW1	1	1			Lead	7439-92-1		20	UG_L	U			TRG									4.2	5.4	20	25	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170630	10:03:00	20170630	23:19:00	PBT1403A	1	1			Selenium	7782-49-2		35	UG_L	U			TRG									4.2	12	35	50	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 09:02	06/30/2017			20170630	09:02:00	20170630	17:49:00	PBWKF30ICW2	1	1			Selenium	7782-49-2		7.0	UG_L	U			TRG									4.2	2.4	7.0	10	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/19/2017 08:03	06/19/2017			20170619	08:03:00	20170619	18:58:00	PBWKF19ICW1	1	1			Selenium	7782-49-2		35	UG_L	U			TRG									4.2	12	35	50	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170619	08:04:00	20170619	19:14:00	PBT1402A	1	1			Selenium	7782-49-2		35	UG_L	U			TRG									4.2	12	35	50	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 10:02	06/30/2017			20170630	10:02:00	20170630	23:11:00	PBWKF30ICW3	1	1			Selenium	7782-49-2		7.0	UG_L	U			TRG									4.2	2.4	7.0	10	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170619	08:04:00	20170619	19:14:00	PBT1402A	1	1			Silver	7440-22-4		20	UG_L	U			TRG									4.2	1.3	20	50	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 10:02	06/30/2017			20170630	10:02:00	20170630	23:11:00	PBWKF30ICW3	1	1			Silver	7440-22-4		4.0	UG_L	U			TRG									4.2	0.27	4.0	10	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/19/2017 08:03	06/19/2017			20170619	08:03:00	20170619	18:58:00	PBWKF19ICW1	1	1			Silver	7440-22-4		20	UG_L	U			TRG									4.2	1.3	20	50	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170630	10:03:00	20170630	23:19:00	PBT1403A	1	1			Silver	7440-22-4		20	UG_L	U			TRG									4.2	1.3	20	50	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BLK	W	4	06/30/2017 09:02	06/30/2017			20170630	09:02:00	20170630	17:49:00	PBWKF30ICW2	1	1			Silver	7440-22-4		4.0	UG_L	U			TRG									4.2	0.27	4.0	10	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 09:01	06/30/2017			20170630	09:01:00	20170630	17:53:00	LCSWKF30ICW2	1	1			Arsenic	7440-38-2		103	UG_L				TRG		LSA	120	80	20091101				4.2	1.4	5.0	8.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 10:01	06/30/2017			20170630	10:01:00	20170630	23:15:00	LCSWKF30ICW3	1	1			Arsenic	7440-38-2		104	UG_L				TRG		LSA	120	80	20091101				4.2	1.4	5.0	8.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/19/2017 08:02	06/19/2017			20170619	08:02:00	20170619	19:02:00	LCSWKF19ICW1	1	1			Arsenic	7440-38-2		112	UG_L				TRG		LSA	120	80	20091101				4.2	1.4	5.0	8.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/19/2017 08:02	06/19/2017			20170619	08:02:00	20170619	19:02:00	LCSWKF19ICW1	1	1			Barium	7440-39-3		2010	UG_L				TRG		LSA	120	80	20091101				4.2	0.23	3.0	5.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 10:01	06/30/2017			20170630	10:01:00	20170630	23:15:00	LCSWKF30ICW3	1	1			Barium	7440-39-3		1990	UG_L				TRG		LSA	120	80	20091101				4.2	0.23	3.0	5.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 09:01	06/30/2017			20170630	09:01:00	20170630	17:53:00	LCSWKF30ICW2	1	1			Barium	7440-39-3		2130	UG_L				TRG		LSA	120	80	20091101				4.2	0.23	3.0	5.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 09:01	06/30/2017			20170630	09:01:00	20170630	17:53:00	LCSWKF30ICW2	1	1			Cadmium	7440-43-9		258	UG_L				TRG		LSA	120	80	20091101				4.2	0.049	3.0	5.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 10:01	06/30/2017			20170630	10:01:00	20170630	23:15:00	LCSWKF30ICW3	1	1			Cadmium	7440-43-9		266	UG_L				TRG		LSA	120	80	20091101				4.2	0.049	3.0	5.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/19/2017 08:02	06/19/2017			20170619	08:02:00	20170619	19:02:00	LCSWKF19ICW1	1	1			Cadmium	7440-43-9		266	UG_L				TRG		LSA	120	80	20091101				4.2	0.049	3.0	5.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/19/2017 08:02	06/19/2017			20170619	08:02:00	20170619	19:02:00	LCSWKF19ICW1	1	1			Chromium	7440-47-3		200	UG_L				TRG		LSA	120	80	20091101				4.2	0.36	4.0	10	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 09:01	06/30/2017			20170630	09:01:00	20170630	17:53:00	LCSWKF30ICW2	1	1			Chromium	7440-47-3		208	UG_L				TRG		LSA	120	80	20091101				4.2	0.36	4.0	10	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 10:01	06/30/2017			20170630	10:01:00	20170630	23:15:00	LCSWKF30ICW3	1	1			Chromium	7440-47-3		209	UG_L				TRG		LSA	120	80	20091101				4.2	0.36	4.0	10	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/19/2017 08:02	06/19/2017			20170619	08:02:00	20170619	19:02:00	LCSWKF19ICW1	1	1			Lead	7439-92-1		111	UG_L				TRG		LSA	120	80	20091101				4.2	1.1	4.0	5.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 09:01	06/30/2017			20170630	09:01:00	20170630	17:53:00	LCSWKF30ICW2	1	1			Lead	7439-92-1		105	UG_L				TRG		LSA	120	80	20091101				4.2	1.1	4.0	5.0	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 10:01	06/30/2017			20170630	10:01:00	20170630	23:15:00	LCSWKF30ICW3	1	1			Lead	7439-92-1		108	UG_L				TRG		LSA	120	80	20091101				4.2	1.1	4.0	5.0	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 10:01	06/30/2017			20170630	10:01:00	20170630	23:15:00	LCSWKF30ICW3	1	1			Selenium	7782-49-2		105	UG_L				TRG		LSA	120	80	20091101				4.2	2.4	7.0	10	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/19/2017 08:02	06/19/2017			20170619	08:02:00	20170619	19:02:00	LCSWKF19ICW1	1	1			Selenium	7782-49-2		119	UG_L				TRG		LSA	120	80	20091101				4.2	2.4	7.0	10	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 09:01	06/30/2017			20170630	09:01:00	20170630	17:53:00	LCSWKF30ICW2	1	1			Selenium	7782-49-2		101	UG_L				TRG		LSA	120	80	20091101				4.2	2.4	7.0	10	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/19/2017 08:02	06/19/2017			20170619	08:02:00	20170619	19:02:00	LCSWKF19ICW1	1	1			Silver	7440-22-4		49.5	UG_L				TRG		LSA	120	80	20091101				4.2	0.27	4.0	10	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW2	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 09:01	06/30/2017			20170630	09:01:00	20170630	17:53:00	LCSWKF30ICW2	1	1			Silver	7440-22-4		49.0	UG_L				TRG		LSA	120	80	20091101				4.2	0.27	4.0	10	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF30ICW3	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BS	W	4	06/30/2017 10:01	06/30/2017			20170630	10:01:00	20170630	23:15:00	LCSWKF30ICW3	1	1			Silver	7440-22-4		50.0	UG_L				TRG		LSA	120	80	20091101				4.2	0.27	4.0	10	SK5275	KF30ICW3	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BSD	W	4	06/19/2017 08:01	06/19/2017			20170619	08:01:00	20170619	19:06:00	LC2WKF19ICW1	1	1			Arsenic	7440-38-2		111	UG_L				TRG		LSA	120	80	20091101				4.2	1.4	5.0	8.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BSD	W	4	06/19/2017 08:01	06/19/2017			20170619	08:01:00	20170619	19:06:00	LC2WKF19ICW1	1	1			Barium	7440-39-3		1970	UG_L				TRG		LSA	120	80	20091101				4.2	0.23	3.0	5.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BSD	W	4	06/19/2017 08:01	06/19/2017			20170619	08:01:00	20170619	19:06:00	LC2WKF19ICW1	1	1			Cadmium	7440-43-9		263	UG_L				TRG		LSA	120	80	20091101				4.2	0.049	3.0	5.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BSD	W	4	06/19/2017 08:01	06/19/2017			20170619	08:01:00	20170619	19:06:00	LC2WKF19ICW1	1	1			Chromium	7440-47-3		199	UG_L				TRG		LSA	120	80	20091101				4.2	0.36	4.0	10	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BSD	W	4	06/19/2017 08:01	06/19/2017			20170619	08:01:00	20170619	19:06:00	LC2WKF19ICW1	1	1			Lead	7439-92-1		109	UG_L				TRG		LSA	120	80	20091101				4.2	1.1	4.0	5.0	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BSD	W	4	06/19/2017 08:01	06/19/2017			20170619	08:01:00	20170619	19:06:00	LC2WKF19ICW1	1	1			Selenium	7782-49-2		118	UG_L				TRG		LSA	120	80	20091101				4.2	2.4	7.0	10	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF19ICW1	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL		NA	SW3010A	000	BSD	W	4	06/19/2017 08:01	06/19/2017			20170619	08:01:00	20170619	19:06:00	LC2WKF19ICW1	1	1			Silver	7440-22-4		48.8	UG_L				TRG		LSA	120	80	20091101				4.2	0.27	4.0	10	SK5275	KF19ICW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF27HGW1	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BLK	W	4	06/27/2017 08:02	06/27/2017			20170627	08:02:00	20170627	15:59:00	PBWKF27HGW1	1	1			Mercury	7439-97-6		0.10	UG_L	U			TRG									4.2	0.013	0.10	0.20	SK5275	KF27HGW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF21HGW2	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BLK	W	4	06/21/2017 09:03	06/21/2017			20170621	09:03:00	20170621	14:34:00	PBWKF21HGW2	1	1			Mercury	7439-97-6		0.10	UG_L	U			TRG									4.2	0.013	0.10	0.20	SK5275	KF21HGW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1403A	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	METHOD	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170627	08:03:00	20170627	17:11:00	PBT1403A	1	1			Mercury	7439-97-6		0.10	UG_L	U			TRG									4.2	0.013	0.10	0.20	SK5275	KF27HGW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBWKF28HGW2	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BLK	W	4	06/28/2017 09:03	06/28/2017			20170628	09:03:00	20170630	12:41:00	PBWKF28HGW2	1	1			Mercury	7439-97-6		0.10	UG_L	U			TRG									4.2	0.013	0.10	0.20	SK5275	KF28HGW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	PBT1402A	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	METHOD	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170621	09:04:00	20170621	14:43:00	PBT1402A	1	1			Mercury	7439-97-6		0.10	UG_L	U			TRG									4.2	0.013	0.10	0.20	SK5275	KF21HGW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF27HGW1	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BS	W	4	06/27/2017 08:01	06/27/2017			20170627	08:01:00	20170627	16:01:00	LCSWKF27HGW1	1	1			Mercury	7439-97-6		5.11	UG_L				TRG		LSA	120	80	20091101				4.2	0.013	0.10	0.20	SK5275	KF27HGW1	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF28HGW2	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BS	W	4	06/28/2017 09:02	06/28/2017			20170628	09:02:00	20170630	12:43:00	LCSWKF28HGW2	1	1			Mercury	7439-97-6		4.90	UG_L				TRG		LSA	120	80	20091101				4.2	0.013	0.10	0.20	SK5275	KF28HGW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LCSWKF21HGW2	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BS	W	4	06/21/2017 09:02	06/21/2017			20170621	09:02:00	20170621	14:37:00	LCSWKF21HGW2	1	1			Mercury	7439-97-6		4.93	UG_L				TRG		LSA	120	80	20091101				4.2	0.013	0.10	0.20	SK5275	KF21HGW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF21HGW2	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BSD	W	4	06/21/2017 09:01	06/21/2017			20170621	09:01:00	20170621	14:39:00	LC2WKF21HGW2	1	1			Mercury	7439-97-6		5.00	UG_L				TRG		LSA	120	80	20091101				4.2	0.013	0.10	0.20	SK5275	KF21HGW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	LC2WKF28HGW2	TCLP	TCLPM	1311-7470	MET	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BSD	W	4	06/28/2017 09:01	06/28/2017			20170628	09:01:00	20170630	12:45:00	LC2WKF28HGW2	1	1			Mercury	7439-97-6		5.12	UG_L				TRG		LSA	120	80	20091101				4.2	0.013	0.10	0.20	SK5275	KF28HGW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			Pyridine	110-86-1		38	UG_L	U			TRG									4.2	1.5	38.	50.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			1,4-Dichlorobenzene	106-46-7		7.5	UG_L	U			TRG									4.2	2.2	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			2-Methylphenol	95-48-7		7.5	UG_L	U			TRG									4.2	3.8	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			3- and 4-Methylphenol	m&pCRESOL		7.5	UG_L	U			TRG									4.2	5.6	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			Hexachloroethane	67-72-1		7.5	UG_L	U			TRG									4.2	2.3	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			Nitrobenzene	98-95-3		7.5	UG_L	U			TRG									4.2	3.1	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			Hexachlorobutadiene	87-68-3		7.5	UG_L	U			TRG									4.2	1.8	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			2,4,6-Trichlorophenol	88-06-2		7.5	UG_L	U			TRG									4.2	2.7	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			2,4,5-Trichlorophenol	95-95-4		19	UG_L	U			TRG									4.2	3.6	19.	25.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			2,4-Dinitrotoluene	121-14-2		7.5	UG_L	U			TRG									4.2	2.2	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			Hexachlorobenzene	118-74-1		7.5	UG_L	U			TRG									4.2	2.1	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/28/2017 07:06	06/28/2017			20170628	07:06:00	20170629	09:01:00	WG208160-1	1	1			Pentachlorophenol	87-86-5		19	UG_L	U			TRG									4.2	2.3	19.	25.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			Pyridine	110-86-1		11.6	UG_L				TRG		LSA	96	10	20091101				4.2	1.5	38.	50.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			1,4-Dichlorobenzene	106-46-7		39.4	UG_L				TRG		LSA	100	30	20091101				4.2	2.2	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			2-Methylphenol	95-48-7		51.5	UG_L				TRG		LSA	110	40	20091101				4.2	3.8	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			3- and 4-Methylphenol	m&pCRESOL		45.0	UG_L				TRG		LSA	110	30	20091101				4.2	5.6	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			Hexachloroethane	67-72-1		39.4	UG_L				TRG		LSA	100	30	20091101				4.2	2.3	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			Nitrobenzene	98-95-3		40.4	UG_L				TRG		LSA	110	45	20091101				4.2	3.1	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			Hexachlorobutadiene	87-68-3		37.9	UG_L				TRG		LSA	105	25	20091101				4.2	1.8	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			2,4,6-Trichlorophenol	88-06-2		64.4	UG_L				TRG		LSA	115	50	20091101				4.2	2.7	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			2,4,5-Trichlorophenol	95-95-4		69.8	UG_L				TRG		LSA	110	50	20091101				4.2	3.6	19.	25.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			2,4-Dinitrotoluene	121-14-2		36.7	UG_L				TRG		LSA	120	50	20091101				4.2	2.2	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			Hexachlorobenzene	118-74-1		45.6	UG_L				TRG		LSA	110	50	20091101				4.2	2.1	7.5	10.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208160-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/28/2017 07:07	06/28/2017			20170628	07:07:00	20170629	10:04:00	WG208160-2	1	1			Pentachlorophenol	87-86-5		97.3	UG_L				TRG		LSA	115	40	20091101				4.2	2.3	19.	25.	SK5275	WG208160	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			Pyridine	110-86-1		38	UG_L	U			TRG									4.2	1.5	38.	50.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			1,4-Dichlorobenzene	106-46-7		7.5	UG_L	U			TRG									4.2	2.2	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			2-Methylphenol	95-48-7		7.5	UG_L	U			TRG									4.2	3.8	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			3- and 4-Methylphenol	m&pCRESOL		7.5	UG_L	U			TRG									4.2	5.6	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			Hexachloroethane	67-72-1		7.5	UG_L	U			TRG									4.2	2.3	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			Nitrobenzene	98-95-3		7.5	UG_L	U			TRG									4.2	3.1	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			Hexachlorobutadiene	87-68-3		7.5	UG_L	U			TRG									4.2	1.8	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			2,4,6-Trichlorophenol	88-06-2		7.5	UG_L	U			TRG									4.2	2.7	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			2,4,5-Trichlorophenol	95-95-4		19	UG_L	U			TRG									4.2	3.6	19.	25.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			2,4-Dinitrotoluene	121-14-2		7.5	UG_L	U			TRG									4.2	2.2	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			Hexachlorobenzene	118-74-1		7.5	UG_L	U			TRG									4.2	2.1	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-BLANK	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BLK	W	4	06/30/2017 11:02	06/30/2017			20170630	11:02:00	20170703	15:35:00	WG208304-1	1	1			Pentachlorophenol	87-86-5		19	UG_L	U			TRG									4.2	2.3	19.	25.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			Pyridine	110-86-1		14.1	UG_L				TRG		LSA	96	10	20091101				4.2	1.5	38.	50.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			1,4-Dichlorobenzene	106-46-7		39.5	UG_L				TRG		LSA	100	30	20091101				4.2	2.2	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			2-Methylphenol	95-48-7		57.3	UG_L				TRG		LSA	110	40	20091101				4.2	3.8	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			3- and 4-Methylphenol	m&pCRESOL		52.7	UG_L				TRG		LSA	110	30	20091101				4.2	5.6	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			Hexachloroethane	67-72-1		41.2	UG_L				TRG		LSA	100	30	20091101				4.2	2.3	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			Nitrobenzene	98-95-3		42.7	UG_L				TRG		LSA	110	45	20091101				4.2	3.1	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			Hexachlorobutadiene	87-68-3		37.1	UG_L				TRG		LSA	105	25	20091101				4.2	1.8	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			2,4,6-Trichlorophenol	88-06-2		73.2	UG_L				TRG		LSA	115	50	20091101				4.2	2.7	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			2,4,5-Trichlorophenol	95-95-4		72.4	UG_L				TRG		LSA	110	50	20091101				4.2	3.6	19.	25.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			2,4-Dinitrotoluene	121-14-2		40.3	UG_L				TRG		LSA	120	50	20091101				4.2	2.2	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			Hexachlorobenzene	118-74-1		48.6	UG_L				TRG		LSA	110	50	20091101				4.2	2.1	7.5	10.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208304-LCS	TCLP	TCLPS	1311-8270	SVOA	KAS	KATAHDIN ANALYTICAL		NA	SW3510C	000	BS	W	4	06/30/2017 11:03	06/30/2017			20170630	11:03:00	20170703	16:07:00	WG208304-2	1	1			Pentachlorophenol	87-86-5		131.	UG_L	*			TRG		LSA	115	40	20091101				4.2	2.3	19.	25.	SK5275	WG208304	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207744-TCLPBLANK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170622	11:01:00	20170623	18:09:00	WG207744-3	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG									4.2	1.4	7.0	14.	SK5275	WG207744	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207744-TCLPBLANK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/06/2017 00:00	06/06/2017	20170606	07:52:00	20170622	11:01:00	20170623	18:09:00	WG207744-3	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG									4.2	0.95	7.1	14.	SK5275	WG207744	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170627	13:01:00	20170628	17:12:00	SK5275-1	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG						IDW			4.2	1.4	7.0	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170627	13:01:00	20170628	17:12:00	SK5275-1	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG						IDW			4.2	0.95	7.1	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208066-TCLPBLANK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170627	13:09:00	20170628	16:49:00	WG208066-3	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG									4.2	1.4	7.0	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208066-TCLPBLANK	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	BLK	W	4	06/27/2017 00:00	06/27/2017	20170627	08:56:00	20170627	13:09:00	20170628	16:49:00	WG208066-3	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG									4.2	0.95	7.1	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170627	13:02:00	20170628	17:36:00	SK5275-2	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG						IDW			4.2	1.4	7.0	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170627	13:02:00	20170628	17:36:00	SK5275-2	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG						IDW			4.2	0.95	7.1	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170627	13:03:00	20170628	18:00:00	SK5275-3	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG						IDW			4.2	1.4	7.0	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170627	13:03:00	20170628	18:00:00	SK5275-3	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG						IDW			4.2	0.95	7.1	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170627	13:04:00	20170628	18:23:00	SK5275-4	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG						IDW			4.2	1.4	7.0	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:40	06/20/2017	20170627	08:56:00	20170627	13:04:00	20170628	18:23:00	SK5275-4	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG						IDW			4.2	0.95	7.1	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	13:05:00	20170628	18:47:00	SK5275-5	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG						IDW			4.2	1.4	7.0	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 12:50	06/20/2017	20170627	08:56:00	20170627	13:05:00	20170628	18:47:00	SK5275-5	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG						IDW			4.2	0.95	7.1	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	13:06:00	20170628	19:11:00	SK5275-6	1	1			2,4-D	94-75-7		7.0	UG_L	U			TRG						IDW			4.2	1.4	7.0	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	TCLP	TCLPH	1311-8151	HERB	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3510C	000	REG	W	4	06/18/2017 13:00	06/20/2017	20170627	08:56:00	20170627	13:06:00	20170628	19:11:00	SK5275-6	1	1			2,4,5-TP (Silvex)	93-72-1		7.1	UG_L	U			TRG						IDW			4.2	0.95	7.1	14.	SK5275	WG208066	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170630	09:03:00	20170630	17:57:00	SK5275-001	1	1			Lead	7439-92-1		20	UG_L	U			TRG						IDW			4.2	5.5	20	25	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170630	09:03:00	20170630	17:57:00	SK5275-001	1	1			Chromium	7440-47-3		4.0	UG_L	J			TRG						IDW			4.2	1.8	20	50	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170630	09:03:00	20170630	17:57:00	SK5275-001	1	1			Cadmium	7440-43-9		15	UG_L	U			TRG						IDW			4.2	0.25	15	25	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170630	09:03:00	20170630	17:57:00	SK5275-001	1	1			Arsenic	7440-38-2		25	UG_L	U			TRG						IDW			4.2	7.0	25	40	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170630	09:03:00	20170630	17:57:00	SK5275-001	1	1			Silver	7440-22-4		20	UG_L	U			TRG						IDW			4.2	1.4	20	50	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170630	09:03:00	20170630	17:57:00	SK5275-001	1	1			Selenium	7782-49-2		35	UG_L	U			TRG						IDW			4.2	12	35	50	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:05	06/20/2017	20170623	14:20:00	20170630	09:03:00	20170630	17:57:00	SK5275-001	1	1			Barium	7440-39-3		55.8	UG_L				TRG						IDW			4.2	1.2	15	25	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170630	09:04:00	20170630	18:01:00	SK5275-002	1	1			Barium	7440-39-3		108	UG_L				TRG						IDW			4.2	1.2	15	25	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170630	09:04:00	20170630	18:01:00	SK5275-002	1	1			Cadmium	7440-43-9		15	UG_L	U			TRG						IDW			4.2	0.25	15	25	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170630	09:04:00	20170630	18:01:00	SK5275-002	1	1			Chromium	7440-47-3		2.3	UG_L	J			TRG						IDW			4.2	1.8	20	50	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170630	09:04:00	20170630	18:01:00	SK5275-002	1	1			Arsenic	7440-38-2		25	UG_L	U			TRG						IDW			4.2	7.0	25	40	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170630	09:04:00	20170630	18:01:00	SK5275-002	1	1			Silver	7440-22-4		20	UG_L	U			TRG						IDW			4.2	1.4	20	50	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170630	09:04:00	20170630	18:01:00	SK5275-002	1	1			Selenium	7782-49-2		35	UG_L	U			TRG						IDW			4.2	12	35	50	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:20	06/20/2017	20170627	08:56:00	20170630	09:04:00	20170630	18:01:00	SK5275-002	1	1			Lead	7439-92-1		20	UG_L	U			TRG						IDW			4.2	5.5	20	25	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170630	09:05:00	20170630	18:06:00	SK5275-003	1	1			Silver	7440-22-4		20	UG_L	U			TRG						IDW			4.2	1.4	20	50	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170630	09:05:00	20170630	18:06:00	SK5275-003	1	1			Barium	7440-39-3		314	UG_L				TRG						IDW			4.2	1.2	15	25	SK5275	KF30ICW2	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	TCLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	000	REG	W	4	06/18/2017 12:30	06/20/2017	20170627	08:56:00	20170630	09:05:00	20170630	18:06:00	SK5275-003	1	1			Arsenic	7440-38-2		25	UG_L	U			TRG						IDW			4.2	7.0	25	40	SK5275	KF30ICW2	Preload Check JCD	20170801

Contract_ID	CO_CTO_Number	Phase	Installation_ID	Sample_Name	CHAIN_Code	Analysis_Group	Analytical_Method	PBC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	QC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	REG	Detection_Limit	DSM_Version	DL	LOQ	LOQ	Analyte_Batch	Validator_Name	Val_Date
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			Chromium	7440-47-3	20		UG_L												0.8	20	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			Selenium	7782-49-2	25		UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			Cadmium	7440-43-9	15		UG_L												2.25	15	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			Lead	7439-92-1	5.7		UG_L												0.5	30	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Arsenic	7440-38-2	7.5		UG_L												7.5	25	40	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Selenium	7782-49-2	25		UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Barium	7440-39-3	388		UG_L												0.8	305	1,000	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Cadmium	7440-43-9	15		UG_L												0.25	15	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Lead	7439-92-1	10		UG_L												0.5	30	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Silver	7440-22-4	10		UG_L												1.6	30	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Chromium	7440-47-3	20		UG_L												0.8	20	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:50	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:16:00	2017/06/20	08:18:00	SK1275-005	1	1			Barium	7440-39-3	196		UG_L												0.8	153	500	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:50	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:16:00	2017/06/20	08:18:00	SK1275-005	1	1			Arsenic	7440-38-2	7.5		UG_L												7.5	25	40	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:50	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:16:00	2017/06/20	08:18:00	SK1275-005	1	1			Chromium	7440-47-3	20		UG_L												0.8	20	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:50	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:16:00	2017/06/20	08:18:00	SK1275-005	1	1			Lead	7439-92-1	11		UG_L												0.5	30	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:50	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:16:00	2017/06/20	08:18:00	SK1275-005	1	1			Selenium	7782-49-2	35		UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:50	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:16:00	2017/06/20	08:18:00	SK1275-005	1	1			Silver	7440-22-4	10		UG_L												1.6	30	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Arsenic	7440-38-2	80	2000/101	UG_L												7.5	25	40	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Selenium	7782-49-2	80	2000/101	UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Barium	7440-39-3	4300	2000/101	UG_L												0.8	305	1,000	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Cadmium	7440-43-9	80	2000/101	UG_L												0.25	15	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Chromium	7440-47-3	420	2000/101	UG_L												0.8	20	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Lead	7439-92-1	296	2000/101	UG_L												0.5	30	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Selenium	7782-49-2	205	2000/101	UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-MS	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MS	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Silver	7440-22-4	53	2000/101	UG_L												1.6	30	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Arsenic	7440-38-2	130		UG_L												7.5	25	40	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Selenium	7782-49-2	82		UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Barium	7440-39-3	1,000		UG_L												0.8	153	500	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Cadmium	7440-43-9	39		UG_L												0.25	15	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Chromium	7440-47-3	265		UG_L												0.8	20	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Lead	7439-92-1	279		UG_L												0.5	30	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Selenium	7782-49-2	182		UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017-SD	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	MSD	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006F	1	1			Barium	7440-39-3	1,100		UG_L												0.8	153	500	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Silver	7440-22-4	20		UG_L	UN											1.6	30	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Selenium	7782-49-2	25		UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Silver	7440-22-4	10		UG_L												1.6	30	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Chromium	7440-47-3	20		UG_L												0.8	20	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Lead	7439-92-1	81		UG_L												0.5	30	25	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Selenium	7782-49-2	35		UG_L												12	35	50	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Barium	7440-39-3	107		UG_L												0.8	153	500	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6010	MET	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 13:00	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:18:00	2017/06/20	08:20:00	SK1275-006	1	1			Arsenic	7440-38-2	25		UG_L												7.5	25	40	SK1275	KF30CSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			2,4-Dinitrotoluene	121-14-2	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			Hexachlorobenzene	118-74-1	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			Pentachlorophenol	87-86-5	94		UG_L	LN											12	94	1,180	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:30	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:05:00	2017/06/20	08:06:00	SK1275-003	1	1			Pyridine	110-86-1	190		UG_L												7.5	190	250	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			1,4-Dichlorobenzene	106-46-7	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			2-Methylphenol	95-48-7	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			3- and 4-Methylphenol	m&pCRESOL	38		UG_L												3.8	20	50	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Hexachloroethane	67-72-1	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Nitrobenzene	98-95-3	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			Hexachlorobutadiene	87-68-3	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			2,4,6-Trichlorophenol	88-06-2	19		UG_L												1.9	10	25	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM	1311-6270	SVOA	KAS	KATAHDIN ANALYTICAL	SW1311	NA	SW3010A	0000	REG	W	4	06/18/2017 12:40	06/20/2017	2017/06/27	08:56:00	2017/06/20	08:11:00	2017/06/20	08:13:00	SK1275-004	1	1			2,4,5-Trichlorophenol	95-95-4	94		UG_L												1.9	94	120	SK1275	WF28WSK2	Preload Check JCO	20170801
NE247010109000	AK01		MERIDIAN_NAS	MP-MFF-(W05-SD-0017	TOLP	TCLPM

Contract_ID	DO_CTO_Number	Phase	Installation_ID	Sample_Name	CH2M_Code	Analysis_Group	Analytical_Method	PRC_Code	Lab_Code	Lab_Name	Leachate_Method	Sample_Basis	Extraction_Method	Result_Type	Lab_QC_Type	Sample_Medium	QC_Level	DateTime_Collected	Date_Received	Leachate_Date	Leachate_Time	Extraction_Date	Extraction_Time	Analysis_Date	Analysis_Time	Lab_Sample_ID	Dilution	Run_Number	Percent_Moisture	Percent_Lipid	Chem_Name	Analyte_ID	Analyte_Value	Original_Analyte_Value	Result_Units	Lab_Qualifier	Validator_Qualifier	GC_Column_Type	Analysis_Result_Type	Result_Narrative	QC_Control_Limit_Code	QC_Accuracy_Upper	QC_Accuracy_Lower	Control_Limit_Date	QC_Narrative	MDL	Detection_Limit	QSM_Version	DL	LOD	LOQ	SDG	Analysis_Batch	Validator_Name	Val_Date
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	06/30/2017 12:04	06/30/2017			20170630	12:04:00	20170630	12:04:00	WG208296-2	1	1			1,1-Dichloroethene	75-35-4		0.50	UG_L	U			TRG									4.2	0.35	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	06/30/2017 12:04	06/30/2017			20170630	12:04:00	20170630	12:04:00	WG208296-2	1	1			2-Butanone	78-93-3		2.5	UG_L	U			TRG									4.2	1.3	2.5	15.	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	06/30/2017 12:04	06/30/2017			20170630	12:04:00	20170630	12:04:00	WG208296-2	1	1			Tetrachloroethene	127-18-4		0.50	UG_L	U			TRG									4.2	0.40	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	06/30/2017 12:04	06/30/2017			20170630	12:04:00	20170630	12:04:00	WG208296-2	1	1			Trichloroethene	79-01-6		0.50	UG_L	U			TRG									4.2	0.28	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	06/30/2017 12:04	06/30/2017			20170630	12:04:00	20170630	12:04:00	WG208296-2	1	1			Vinyl chloride	75-01-4		1.0	UG_L	U			TRG									4.2	0.25	1.0	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			Benzene	71-43-2		48.1	UG_L				TRG		LSA	120	80	20091101				4.2	0.26	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			Carbon tetrachloride	56-23-5		48.1	UG_L				TRG		LSA	140	65	20091101				4.2	0.22	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			Chlorobenzene	108-90-7		49.9	UG_L				TRG		LSA	120	80	20091101				4.2	0.22	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			Chloroform	67-66-3		47.3	UG_L				TRG		LSA	135	65	20091101				4.2	0.32	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			1,2-Dichloroethane	107-06-2		51.9	UG_L				TRG		LSA	130	70	20091101				4.2	0.20	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			1,1-Dichloroethene	75-35-4		42.4	UG_L				TRG		LSA	130	70	20091101				4.2	0.35	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			2-Butanone	78-93-3		25.7	UG_L				TRG		LSA	150	30	20091101				4.2	1.3	2.5	15.	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			Tetrachloroethene	127-18-4		44.3	UG_L				TRG		LSA	150	45	20091101				4.2	0.40	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			Trichloroethene	79-01-6		46.2	UG_L				TRG		LSA	125	70	20091101				4.2	0.28	0.50	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208296-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	06/30/2017 10:41	06/30/2017			20170630	10:41:00	20170630	10:41:00	WG208296-1	1	1			Vinyl chloride	75-01-4		49.7	UG_L				TRG		LSA	145	50	20091101				4.2	0.25	1.0	5.0	SK5275	WG208296	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			Benzene	71-43-2		0.50	UG_L	U			TRG									4.2	0.26	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			Carbon tetrachloride	56-23-5		0.50	UG_L	U			TRG									4.2	0.22	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			Chlorobenzene	108-90-7		0.50	UG_L	U			TRG									4.2	0.22	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			Chloroform	67-66-3		0.50	UG_L	U			TRG									4.2	0.32	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			1,2-Dichloroethane	107-06-2		0.50	UG_L	U			TRG									4.2	0.20	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			1,1-Dichloroethene	75-35-4		0.50	UG_L	U			TRG									4.2	0.35	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			2-Butanone	78-93-3		2.5	UG_L	U			TRG									4.2	1.3	2.5	15.	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			Tetrachloroethene	127-18-4		0.50	UG_L	U			TRG									4.2	0.40	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			Trichloroethene	79-01-6		0.50	UG_L	U			TRG									4.2	0.28	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-BLANK	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BLK	W	4	07/05/2017 12:41	07/05/2017			20170705	12:41:00	20170705	12:41:00	WG208608-2	1	1			Vinyl chloride	75-01-4		1.0	UG_L	U			TRG									4.2	0.25	1.0	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			Benzene	71-43-2		45.7	UG_L				TRG		LSA	120	80	20091101				4.2	0.26	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			Carbon tetrachloride	56-23-5		46.1	UG_L				TRG		LSA	140	65	20091101				4.2	0.22	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			Chlorobenzene	108-90-7		44.2	UG_L				TRG		LSA	120	80	20091101				4.2	0.22	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			Chloroform	67-66-3		44.7	UG_L				TRG		LSA	135	65	20091101				4.2	0.32	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			1,2-Dichloroethane	107-06-2		46.0	UG_L				TRG		LSA	130	70	20091101				4.2	0.20	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			1,1-Dichloroethene	75-35-4		41.4	UG_L				TRG		LSA	130	70	20091101				4.2	0.35	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			2-Butanone	78-93-3		42.0	UG_L				TRG		LSA	150	30	20091101				4.2	1.3	2.5	15.	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			Tetrachloroethene	127-18-4		42.2	UG_L				TRG		LSA	150	45	20091101				4.2	0.40	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			Trichloroethene	79-01-6		43.4	UG_L				TRG		LSA	125	70	20091101				4.2	0.28	0.50	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208608-LCS	TCLP	TCLPV	1311-8260	VOA	KAS	KATAHDIN ANALYTICAL		NA	SW5030	000	BS	W	4	07/05/2017 11:18	07/05/2017			20170705	11:18:00	20170705	11:18:00	WG208608-1	1	1			Vinyl chloride	75-01-4		54.8	UG_L				TRG		LSA	145	50	20091101				4.2	0.25	1.0	5.0	SK5275	WG208608	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617-LR	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	LR	W	4	06/18/2017 12:05	06/20/2017			20170623	07:09:00	20170628	10:27:00	WG208490-3	0.987	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG									4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617-MS	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	MS	W	4	06/18/2017 12:05	06/20/2017			20170623	07:10:00	20170628	10:50:00	WG208490-4	1.99	1			Reactive cyanide	REACT-CN		4.2	MG_KG	J			TRG		MSA	100	0	20091101				4.2	0.31	20.	40.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	REG	W	4	06/18/2017 12:05	06/20/2017			20170623	07:01:00	20170628	10:27:00	SK5275-1	0.942	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG						IDW			4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:20	06/20/2017			20170623	07:02:00	20170628	10:27:00	SK5275-2	0.988	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG						IDW			4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:30	06/20/2017			20170623	07:03:00	20170628	10:27:00	SK5275-3	0.986	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG						IDW			4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:40	06/20/2017			20170623	07:04:00	20170628	10:27:00	SK5275-4	0.978	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG						IDW			4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:50	06/20/2017			20170623	07:05:00	20170628	10:31:00	SK5275-5	0.95	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG						IDW			4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 13:00	06/20/2017			20170623	07:06:00	20170628	10:31:00	SK5275-6	0.933	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG						IDW			4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208490-BLANK	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BLK	W	4	06/23/2017 07:07	06/23/2017			20170623	07:07:00	20170628	10:27:00	WG208490-1	1	1			Reactive cyanide	REACT-CN		10.	MG_KG	U			TRG									4.2	0.16	10.	20.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG208490-LCS	NONE	REACT	7.3.3.2	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BS	W	4	06/23/2017 07:08	06/23/2017			20170623	07:08:00	20170628	10:50:00	WG208490-2	2	1			Reactive cyanide	REACT-CN		3.9	MG_KG	J			TRG		LSA	100	0	20091101				4.2	0.31	20.	40.	SK5275	WG208490	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617-LR	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	LR	W	4	06/18/2017 12:05	06/20/2017			20170623	12:09:00	20170623	17:33:00	WG207995-3	0.99	1			Reactive sulfide	REACT-S		25.	MG_KG	U			TRG									4.2	16.39	25.	50.	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617-MS	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	MS	W	4	06/18/2017 12:05	06/20/2017			20170623	12:10:00	20170623	17:33:00	WG207995-4	0.99	1			Reactive sulfide	REACT-S		930	MG_KG				TRG		MSA	120	30	20091101				4.2	16.39	25.	50.	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	REG	W	4	06/18/2017 12:05	06/20/2017			20170623	12:01:00	20170623	17:33:00	SK5275-1	0.94	1			Reactive sulfide	REACT-S		25	MG_KG	U			TRG						IDW			4.2	16	25	50	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:20	06/20/2017			20170623	12:02:00	20170623	17:33:00	SK5275-2	0.99	1			Reactive sulfide	REACT-S		25	MG_KG	U			TRG						IDW			4.2	16	25	50.	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:30	06/20/2017			20170623	12:03:00	20170623	17:33:00	SK5275-3	0.98	1			Reactive sulfide	REACT-S		25	MG_KG	U			TRG						IDW			4.2	16	25	50	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:40	06/20/2017			20170623	12:04:00	20170623	17:33:00	SK5275-4	0.98	1			Reactive sulfide	REACT-S		25	MG_KG	U			TRG						IDW			4.2	16	25	50	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:50	06/20/2017			20170623	12:05:00	20170623	17:33:00	SK5275-5	0.95	1			Reactive sulfide	REACT-S		25	MG_KG	U			TRG						IDW			4.2	16	25	50	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 13:00	06/20/2017			20170623	12:06:00	20170623	17:33:00	SK5275-6	0.93	1			Reactive sulfide	REACT-S		25	MG_KG	U			TRG						IDW			4.2	16	25	50	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207995-BLANK	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BLK	W	4	06/23/2017 12:07	06/23/2017			20170623	12:07:00	20170623	17:33:00	WG207995-1	1	1			Reactive sulfide	REACT-S		25.	MG_KG	U			TRG									4.2	16.39	25.	50.	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207995-LCS	NONE	REACT	7.3.4.1	INO	KAS	KATAHDIN ANALYTICAL		NA	METHOD	000	BS	W	4	06/23/2017 12:08	06/23/2017			20170623	12:08:00	20170623	17:33:00	WG207995-2	1	1			Reactive sulfide	REACT-S		1000	MG_KG				TRG		LSA	120	30	20091101				4.2	16.39	25.	50.	SK5275	WG207995	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		NA	NONE	000	REG	W	4	06/18/2017 12:05	06/20/2017					20170622	11:25:00	SK5275-1	1	1			Ignitability	IGN		71.	DEG_C	NI			TRG	>					IDW			4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	NONE	000	REG	S	4	06/18/2017 12:20	06/20/2017					20170622	11:25:00	SK5275-2	1	1			Ignitability	IGN		71.	DEG_C	NI			TRG	>					IDW			4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	NONE	000	REG	S	4	06/18/2017 12:30	06/20/2017					20170622	11:25:00	SK5275-3	1	1			Ignitability	IGN		71.	DEG_C	NI			TRG	>					IDW			4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	NONE	000	REG	S	4	06/18/2017 12:40	06/20/2017					20170622	11:25:00	SK5275-4	1	1			Ignitability	IGN		71.	DEG_C	NI			TRG	>					IDW			4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	NONE	000	REG	S	4	06/18/2017 12:50	06/20/2017					20170622	11:25:00	SK5275-5	1	1			Ignitability	IGN		71.	DEG_C	NI			TRG	>					IDW			4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	NONE	000	REG	S	4	06/18/2017 13:00	06/20/2017					20170622	11:25:00	SK5275-6	1	1			Ignitability	IGN		71.	DEG_C	NI			TRG	>					IDW			4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207763-BLANK	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		NA	NONE	000	BLK	W	4	06/22/2017 10:09	06/22/2017					20170622	11:25:00	WG207763-3	1	1			Ignitability	IGN		71.	DEG_C	NI			TRG	>								4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207763-LCS	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		NA	NONE	000	BS	W	4	06/22/2017 10:07	06/22/2017					20170622	11:25:00	WG207763-1	1	1			Ignitability	IGN		27.	DEG_C				TRG		LSA	120	80	20091101				4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207763-LCSD	NONE	IGN	1010A	PCHAR	KAS	KATAHDIN ANALYTICAL		NA	NONE	000	BSD	W	4	06/22/2017 10:08	06/22/2017					20170622	11:25:00	WG207763-2	1	1			Ignitability	IGN		27.	DEG_C				TRG		LSA	120	80	20091101				4.2	71.	71	71.	SK5275	WG207763	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617-LR	NONE	CORR	9040C	PCHAR	KAS	KATAHDIN ANALYTICAL		NA	NONE	000	LR	W	4	06/18/2017 12:05	06/20/2017					20170620	17:27:00	WG207695-2	1	1			Corrosivity (pH units)	CORR		6.4	PH				TRG									4.2	0.10	0.10	0.10	SK5275	WG207695	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW03-GW-0617	NONE	CORR	9040C	PCHAR	KAS	KATAHDIN ANALYTICAL		NA	NONE	000	REG	W	4	06/18/2017 12:05	06/20/2017					20170620	17:23:00	SK5275-1	1	1			Corrosivity (pH units)	CORR		6.3	PH				TRG						IDW			4.2	0.10	0.10	0.10	SK5275	WG207695	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207695-LCS	NONE	CORR	9040C	PCHAR	KAS	KATAHDIN ANALYTICAL		NA	NONE	000	BS	W	4	06/20/2017 12:02	06/20/2017					20170620	17:18:00	WG207695-1	1	1			Corrosivity (pH units)	CORR		7.0	PH				TRG		LSA	110	90	20091101				4.2	0.10	0.10	0.10	SK5275	WG207695	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW04-SO-0617	NONE	CORR	9045D	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:20	06/20/2017			20170621	11:43:00	20170621	11:43:00	SK5275-2	1	1			Corrosivity (pH units)	CORR		5.6	PH				TRG						IDW			4.2	0.10	0.10	0.10	SK5275	WG207698	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW05-SO-0617	NONE	CORR	9045D	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:30	06/20/2017			20170621	11:43:00	20170621	11:43:00	SK5275-3	1	1			Corrosivity (pH units)	CORR		5.3	PH				TRG						IDW			4.2	0.10	0.10	0.10	SK5275	WG207698	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW06-SO-0617	NONE	CORR	9045D	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:40	06/20/2017			20170621	11:43:00	20170621	11:43:00	SK5275-4	1	1			Corrosivity (pH units)	CORR		6.2	PH				TRG						IDW			4.2	0.10	0.10	0.10	SK5275	WG207698	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW07-SO-0617	NONE	CORR	9045D	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 12:50	06/20/2017			20170621	11:43:00	20170621	11:43:00	SK5275-5	1	1			Corrosivity (pH units)	CORR		5.1	PH				TRG						IDW			4.2	0.10	0.10	0.10	SK5275	WG207698	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	MEAFF-IW08-SO-0617	NONE	CORR	9045D	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	REG	S	4	06/18/2017 13:00	06/20/2017			20170621	11:43:00	20170621	11:43:00	SK5275-6	1	1			Corrosivity (pH units)	CORR		5.2	PH				TRG						IDW			4.2	0.10	0.10	0.10	SK5275	WG207698	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207698-LCS	NONE	CORR	9045D	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	BS	S	4	06/21/2017 11:43	06/21/2017			20170621	11:43:00	20170621	11:43:00	WG207698-2	1	1			Corrosivity (pH units)	CORR		7.0	PH				TRG		LSA	110	90	20091101				4.2	0.10	0.10	0.10	SK5275	WG207698	Preload Check JCD	20170801
N6247016D9000	JM01		MERIDIAN_NAS	WG207698-LCSD	NONE	CORR	9045D	PCHAR	KAS	KATAHDIN ANALYTICAL		DRY	METHOD	000	BSD	S	4	06/21/2017 11:43	06/21/2017			20170621	11:43:00	20170621	11:43:00	WG207698-3	1	1			Corrosivity (pH units)	CORR		7.0	PH				TRG		LSA	110	90	20091101				4.2	0.10	0.10	0.10	SK5275	WG207698	Preload Check JCD	20170801

ENVIRONMENTAL
Data Services, Inc.

DATA VALIDATION SUMMARY REPORT
NAVAL AIR STATION MERIDIAN, MISSISSIPPI

Client: CH2M HILL, Inc., Virginia Beach, Virginia
SDG: 320-29198-1
Laboratory: Test America Laboratories, West Sacramento, California
Site: Naval Air Station Meridian, JM01, Meridian, Mississippi
Date: October 30, 2017

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	MEAFF-T45C-2004MW01-0617	320-29198-1	Water
2	MEAFF-EB05-0617	320-29198-2	Water
3	MEAFF-T45C-03-2008MW01-0617	320-29198-3	Water
4	MEAFF-UNKN16MW01-0617	320-29198-4	Water
5	MEAFF-TA4-UNKNMW01-0617	320-29198-5	Water
5RE	MEAFF-TA4-UNKNMW01-0617RE	320-29198-5RE	Water
6	MEAFF-UNKN17MW01-0617	320-29198-6	Water
6RE	MEAFF-UNKN17MW01-0617RE	320-29198-6RE	Water
7	MEAFF-EB06-0617	320-29198-7	Water
8	MEAFF-TA4J-1992MW01-0617	320-29198-8	Water
8RE	MEAFF-TA4J-1992MW01-0617RE	320-29198-8RE	Water
9	MEAFF-T45C-2005MW01-0617	320-29198-9	Water
10	MEAFF-EB07-0617	320-29198-10	Water

A full data validation was performed on the analytical data for seven water samples and three aqueous equipment blank samples collected on June 15-16, 2017 by CH2M HILL at the NAS Meridian site in Mississippi. The samples were analyzed under the EPA Method "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)".

Specific method references are as follows:

Analysis	*Method References*
PFCs	USEPA Method 537 Modified

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the Draft Sampling and Analysis Plan, Perfluorinated Compounds Site Inspection, Naval Air Station Meridian, Task Order JM01, August 2016, and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA "Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review," January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Holding times and sample preservation
- Liquid Chromatography/Mass Spectrometry (LC/MS) Tuning
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Perfluorinated Compounds (PFCs)

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days except for the following.

EDS Sample ID	Sample Date	Analysis Date	Number of Days	Qualifier
5RE	6/16/17	7/13/17	27	J
6RE	6/16/17	7/13/17	27	J
8RE	6/16/17	7/13/17	27	J

LC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- The field blank samples were free of contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
MEAFF-EB05-0617	None - ND	-	-	-
MEAFF-EB06-0617	None - ND	-	-	-
MEAFF-EB07-0617	None - ND	-	-	-
MEAFF-FB02-0617	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD samples were not analyzed.

Laboratory Control Sample/Laboratory Control Sample (LCS/LCSD)

- The LCS/LCSD samples exhibited acceptable percent recoveries (%R) and RPD values except for the following.

LCS ID	Compound	%R/%R/RPD	Qualifier	Affected Samples
320-170613/2-A	PFOS	151%/OK/OK	J	3, 5, 6, 8

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

- Several samples results were flagged (M) by the laboratory indicating manual integration. These flags were removed by the reviewer.
- EDS Sample ID #s 5, 6, and 8 were reanalyzed outside holding time due to LCS deficiencies. The original analysis results should be used for reporting purposes.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed: Nancy Weaver Dated: 11/2/17

Nancy Weaver
Senior Chemist

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

1

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-T45C-2004MW01-0617 Lab Sample ID: 320-29198-1

Matrix: Water Lab File ID: 2017.06.27_PFC_A_006.d

Analysis Method: 537 (Modified) Date Collected: 06/15/2017 14:45

Extraction Method: 3535 Date Extracted: 06/22/2017 08:27

Sample wt/vol: 257.2(mL) Date Analyzed: 06/28/2017 01:56

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171325 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	5.8	M	2.4	1.9	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	10		3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	1.9	0.89

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	43		25-150
STL00991	13C4 PFOS	92		25-150
STL00994	18O2 PFHxS	95		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

2

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-EB05-0617 Lab Sample ID: 320-29198-2

Matrix: Water Lab File ID: 2017.06.28B_031.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 07:40

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 260.3(mL) Date Analyzed: 06/29/2017 02:46

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U Q	3.8	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U N	2.4	1.9	0.88

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	129		25-150
STL00991	13C4 PFOS	104		25-150
STL00994	18O2 PFHxS	106		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

3

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-T45C-03-2008MW01-0617 Lab Sample ID: 320-29198-3

Matrix: Water Lab File ID: 2017.06.28B_032.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 09:55

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 250(mL) Date Analyzed: 06/29/2017 02:53

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	2.0	U	2.5	2.0	0.75
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.0	~~J~~ J	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.5	2.0	0.92

BSH

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	91		25-150
STL00991	13C4 PFOS	107		25-150
STL00994	18O2 PFHxS	109		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

4

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-UNKN16MW01-0617 Lab Sample ID: 320-29198-4

Matrix: Water Lab File ID: 2017.06.28B_033.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 11:25

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 260.9(mL) Date Analyzed: 06/29/2017 03:00

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U M Q	3.8	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	1.9	0.88

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	63		25-150
STL00991	13C4 PFOS	103		25-150
STL00994	18O2 PFHxS	107		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

5

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4-UNKNMW01-0617 | Lab Sample ID: 320-29198-5

Matrix: Water | Lab File ID: 2017.06.28B_034.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 12:25

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 256.1(mL) | Date Analyzed: 06/29/2017 03:07

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	4.7	M	2.4	2.0	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	3.8	P Q J	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.4	M	2.4	2.0	0.90

BSH

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	82		25-150
STL00991	13C4 PFOS	94		25-150
STL00994	18O2 PFHxS	90		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

SRE

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4-UNKNMW01-0617 RE | Lab Sample ID: 320-29198-5 RE

Matrix: Water | Lab File ID: 20170714D_014.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 12:25

Extraction Method: 3535 | Date Extracted: 07/13/2017 09:26

Sample wt/vol: 349(mL) | Date Analyzed: 07/15/2017 04:35

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 | Units: ng/L

use orig. wet results

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	*Perfluorooctanesulfonic acid (PFOS)*	*2.4*	~~J #~~ J	*2.9*	*2.1*	*0.91*

HT

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	131		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

6

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-UNKN17MW01-0617 | Lab Sample ID: 320-29198-6

Matrix: Water | Lab File ID: 2017.06.28B_035.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 14:10

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 259.2(mL) | Date Analyzed: 06/29/2017 03:14

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	5.2	M	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	38	J	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	J	2.4	1.9	0.89

BSH

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	59		25-150
STL00991	13C4 PFOS	107		25-150
STL00994	1802 PFHxS	113		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

6RE

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-UNKN17MW01-0617 RE | Lab Sample ID: 320-29198-6 RE

Matrix: Water | Lab File ID: 20170714D_015.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 14:10

Extraction Method: 3535 | Date Extracted: 07/13/2017 09:26

Sample wt/vol: 253.7(mL) | Date Analyzed: 07/15/2017 04:41

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 | Units: ng/L

use orig. val results

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	*Perfluorooctanesulfonic acid (PFOS)*	*32*	~~H~~ J	*3.9*	3.0	*1.3*

HT

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00991	13C4 PFOS	127		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

7

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-EB06-0617 | Lab Sample ID: 320-29198-7

Matrix: Water | Lab File ID: 2017.06.28B_036.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 14:55

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 255.7(mL) | Date Analyzed: 06/29/2017 03:21

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	2.0	U	2.4	2.0	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U ~~M Q~~	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	2.0	U	2.4	2.0	0.90

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	140		25-150
STL00991	13C4 PFOS	109		25-150
STL00994	18O2 PFHxS	112		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

8

Lab Name: TestAmerica Sacramento | Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4J-1992MW01-0617 | Lab Sample ID: 320-29198-8

Matrix: Water | Lab File ID: 2017.06.28B_037.d

Analysis Method: 537 (Modified) | Date Collected: 06/16/2017 15:30

Extraction Method: 3535 | Date Extracted: 06/23/2017 08:10

Sample wt/vol: 252.6(mL) | Date Analyzed: 06/29/2017 03:28

Con. Extract Vol.: 0.50(mL) | Dilution Factor: 1

Injection Volume: 2(uL) | GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 | Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	240	M	2.5	2.0	0.74
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	180	J	4.0	3.0	1.3
375-73-5	Perfluorobutanesulfonic acid (PFBS)	47		2.5	2.0	0.91

BSH

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	66		25-150
STL00991	13C4 PFOS	89		25-150
STL00994	18O2 PFHxS	83		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

8 RE

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-TA4J-1992MW01-0617 RE Lab Sample ID: 320-29198-8 RE

Matrix: Water Lab File ID: 20170714D_016.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 15:30

Extraction Method: 3535 Date Extracted: 07/13/2017 09:26

Sample wt/vol: 252(mL) Date Analyzed: 07/15/2017 04:48

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: Gemini C18 3x100 ID: 3(mm)

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

Analysis Batch No.: 174335 Units: ng/L

use original results

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
1763-23-1	*Perfluorooctanesulfonic acid (PFOS)*	*160*	~~#~~ J	*4.0*	3.0	*1.3*

HT

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

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

9

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-T45C-2005MW01-0617 Lab Sample ID: 320-29198-9

Matrix: Water Lab File ID: 2017.06.28B_039.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 17:00

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 257.1(mL) Date Analyzed: 06/29/2017 03:42

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U M	2.4	1.9	0.73
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U M q	3.9	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	1.9	0.89

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	86		25-150
STL00991	13C4 PFOS	99		25-150
STL00994	18O2 PFHxS	106		25-150

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

10

Lab Name: TestAmerica Sacramento Job No.: 320-29198-1

SDG No.:

Client Sample ID: MEAFF-EB07-0617 Lab Sample ID: 320-29198-10

Matrix: Water Lab File ID: 2017.06.28B_040.d

Analysis Method: 537 (Modified) Date Collected: 06/16/2017 16:45

Extraction Method: 3535 Date Extracted: 06/23/2017 08:10

Sample wt/vol: 260.4(mL) Date Analyzed: 06/29/2017 03:48

Con. Extract Vol.: 0.50(mL) Dilution Factor: 1

Injection Volume: 2(uL) GC Column: GeminiC18 3x100 ID: 3(mm)

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

Analysis Batch No.: 171596 Units: ng/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
335-67-1	Perfluorooctanoic acid (PFOA)	1.9	U	2.4	1.9	0.72
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	2.9	U	3.8	2.9	1.2
375-73-5	Perfluorobutanesulfonic acid (PFBS)	1.9	U	2.4	1.9	0.88

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL00990	13C4 PFOA	137		25-150
STL00991	13C4 PFOS	113		25-150
STL00994	1802 PFHxS	109		25-150