



Tetra Tech NUS

INTERNAL CORRESPONDENCE

TO: J. ORIENT **DATE:** DECEMBER 20, 2010
FROM: A. COGNETTI **COPIES:** DV FILE
SUBJECT: ORGANIC DATA VALIDATION – PFOS, PFOA
NAS BRUNSWICK CTO WE49
SAMPLE DELIVERY GROUP (SDG) – GOK010468
SAMPLES: 2/Aqueous/PFOS/PFOA
NASB-AOPI-RB01-102910 NASB-FTA-MW08

Overview

The sample set for NAS BRUNSWICK, CTO WE49, SDG GOK010468 consisted of one (1) aqueous environmental sample and a rinsate blank. All samples were analyzed for perfluorooctanoic acid (PFOA) and perfluorooctanoesulfonate (PFOS).

The samples were collected by Tetra Tech NUS on October 29, 2010 and were analyzed by Test America, West Sacramento. All samples were analyzed in accordance with SAC WS-LC-0020 analytical method. A tier II validation was performed on the data in this SDG.

Data were evaluated based on the following parameters:

- * • Data Completeness
- * • Holding Times
- * • Blank Results
- * • Initial and Continuing Calibration
- * • Surrogate Spike Recoveries
- Matrix Spike / Matrix Spike Duplicate Results
- Laboratory Control Sample Recoveries
- * • Detection Limits
- * • Compound Identification and Quantification

The asterisk (*) indicates that all quality control criteria were met for this parameter. Qualified (if applicable) analytical results are summarized in Appendix A. Results as reported by the laboratory are presented in Appendix B. Appendix C contains the documentation to support the findings as discussed in this data validation report. The text of this report has been formulated to address only those problem areas affecting data quality.

MATRIX SPIKE (MS) / MATRIX SPIKE DUPLICATE (MSD)

The percent recoveries (%Rs) for PFOA and PFOS were outside quality control limits in the matrix spike/matrix spike duplicate (MS/MSD) of NASB-FTA-MW08. The relative percent difference (RPD) for PFOA and PFOS were outside quality control limits for PFOA and PFOS. The nondetected PFOA and PFOS results in sample NASB-FTA-MW08 were qualified as estimated (UJ).

TO: J. Orient
FROM: A. Cognetti
SDG: GOK010468
DATE: December 20, 2010

PAGE 2

LABORATORY CONTROL SAMPLE RECOVERIES

The %Rs of PFOA and PFOS were less than the lower quality control limit in laboratory control sample/laboratory control sample duplicate (LCS/LCSD) prep batch 0309404 analyzed on November 7, 2010. The positive and nondetected PFOA and PFOS results in the affected samples NASB-AOPI-RB01-102910 and NASB-FTA-MW08 were qualified as (J) and (UJ), respectively.

NOTES

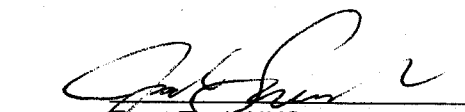
It was observed that the rinsate blank, NASB-AOPI-RB01-102910, had a positive PFOA detection. This positive detection was greater than 5X the limit of quantitation. The environmental sample in this SDG had a nondetected PFOA result.


EXECUTIVE SUMMARY

Laboratory Performance: LCS/LCSD % recoveries were outside quality control limits resulting in the qualification of data.

Other Factors Affecting Data Quality: MS/MSD % recoveries were outside the quality control limit resulting in data qualification of data.

The data for these analyses were reviewed with reference to the SOP criteria for Method SAC WS-LC-0020 and the (DOD) QSM document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (April 2009).


Tetra Tech NUS
Ann Cognetti
Chemist/ Data Validator


Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:

1. Appendix A - Qualified Analytical Results
2. Appendix B - Results as reported by the Laboratory
3. Appendix C - Support Documentation

APPENDIX A

QUALIFIED LABORATORY RESULTS

Data Validation Qualifier Codes:

- A = Lab Blank Contamination
- B = Field Blank Contamination
- C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
- C01 = GC/MS Tuning Noncompliance
- D = MS/MSD Recovery Noncompliance
- E = LCS/LCSD Recovery Noncompliance
- F = Lab Duplicate Imprecision
- G = Field Duplicate Imprecision
- H = Holding Time Exceedance
- I = ICP Serial Dilution Noncompliance
- J = GFAA PDS - GFAA MSA's $r < 0.995$
- K = ICP Interference - includes ICS % R Noncompliance
- L = Instrument Calibration Range Exceedance
- M = Sample Preservation Noncompliance
- N = Internal Standard Noncompliance
- N01 = Internal Standard Recovery Noncompliance Dioxins
- N02 = Recovery Standard Noncompliance Dioxins
- N03 = Clean-up Standard Noncompliance Dioxins
- O = Poor Instrument Performance (e.g. base-line drifting)
- P = Uncertainty near detection limit ($< 2 \times$ IDL for inorganics and $<$ CRQL for organics)
- Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
- R = Surrogates Recovery Noncompliance
- S = Pesticide/PCB Resolution
- T = % Breakdown Noncompliance for DDT and Endrin
- U = % Difference between columns/detectors $>25\%$ for positive results determined via GC/HPLC
- V = Non-linear calibrations; correlation coefficient $r < 0.995$
- W = EMPC result
- X = Signal to noise response drop
- Y = Percent solids $<30\%$
- Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02330	NASB-FOPI-RB01-102910	NASB-FTA-MM08				
SDG: G0K010468	G0K010468002	G0K010468001				
FRACTION: MISC	10/29/2010	10/29/2010				
MEDIA: WATER	NM	NM				
	NG/L	NG/L				
	0.0	0.0				
PARAMETER	RESULT	VQL	QLCD	RESULT	VQL	QLCD
PENTADECYLFLUOROOCTANOIC ACID	22 J	J	E	2 UJ	UJ	DE
PERFLUOROOCTANE SULFONIC ACID	2 UJ	UJ	E	2 UJ	UJ	DE

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: NASB-AOP1-RB01-102910

HPLC

Lot-Sample #....: GOK010468-002 Work Order #....: L9D751AA Matrix.....: WATER
Date Sampled....: 10/29/10 Date Received...: 10/30/10
Prep Date.....: 11/05/10 Analysis Date...: 11/17/10
Prep Batch #....: 0309404
Dilution Factor: 1 Method.....: SAC WS-LC-0020

<u>PARAMETER</u>	<u>RESULT</u>	<u>LOQ</u>	<u>UNITS</u>	<u>DL</u>
PFOS	2.0 U	4.0	ng/L	1.5
PFOA	22	4.0	ng/L	1.0

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	54	(50 - 200)
13C4 PFOS	62	(50 - 200)

Tetra Tech NUS, Inc

Client Sample ID: NASB-FTA-MW08

HPLC

Lot-Sample #...: G0K010468-001 Work Order #...: L9D741AA Matrix.....: WATER
Date Sampled...: 10/29/10 Date Received...: 10/30/10
Prep Date.....: 11/05/10 Analysis Date...: 11/17/10
Prep Batch #...: 0309404
Dilution Factor: 1 Method.....: SAC WS-LC-0020

<u>PARAMETER</u>	<u>RESULT</u>	<u>LOQ</u>	<u>UNITS</u>	<u>DL</u>
PFOS	2.0 U	4.0	ng/L	1.5
PFOA	2.0 U	4.0	ng/L	1.0

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	56	(50 - 200)
13C4 PFOS	64	(50 - 200)

Tetra Tech NUS, Inc

Client Sample ID: NASB-AOP1-RB01-102910

HPLC

Lot-Sample #....: GOK010468-002 Work Order #....: L9D752AA Matrix.....: WATER
Date Sampled....: 10/29/10 Date Received...: 10/30/10
Prep Date.....: 11/18/10 Analysis Date...: 11/21/10
Prep Batch #....: 0322246
Dilution Factor: 1.04 Method.....: SAC WS-LC-0020

<u>PARAMETER</u>	<u>RESULT</u>	<u>LOQ</u>	<u>UNITS</u>	<u>DL</u>
PFOS	2.1 U	4.2	ng/L	1.6
PFOA	22	4.2	ng/L	1.0

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	80	(50 - 200)
13C4 PFOS	66	(50 - 200)

Tetra Tech NUS, Inc

Client Sample ID: NASB-FTA-MW08

HPLC

Lot-Sample #....: GOK010468-001 Work Order #....: L9D742AA Matrix.....: WATER
Date Sampled....: 10/29/10 Date Received...: 10/30/10
Prep Date.....: 11/18/10 Analysis Date...: 11/21/10
Prep Batch #....: 0322246
Dilution Factor: 1.06 Method.....: SAC WS-LC-0020

<u>PARAMETER</u>	<u>RESULT</u>	<u>LOQ</u>	<u>UNITS</u>	<u>DL</u>
PFOS	2.1 U	4.2	ng/L	1.6
PFOA	2.1 J	4.2	ng/L	1.1

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	105	(50 - 200)
13C4 PFOS	99	(50 - 200)

NOTE(S) :

J Estimated result. Result is less than RL.

APPENDIX C

SUPPORT DOCUMENTATION

Case Narrative

TestAmerica West Sacramento Project Number G0K010468

General Comments

Contract Task Order –N62470-08-D-1001, CTO NO. WE49

Site Name – NAS Brunswick, Maine

Tetra Tech Project Manager – Jeff Orient

“U” definition: Analyte was not detected and is reported as less than the LOD.

WATER, PFOA/PFOS

Sample(s): 1, 2

As discussed, these samples were re-extracted outside of the recommended 7 day extraction holding time due to low recoveries in the laboratory control sample. Both sets of results have been reported. The original results may be biased low.

Sample(s): 1, 2 (batch 0309404)

The matrix spikes, which were performed on sample 1, have low matrix spike duplicate recoveries and high RPDs. These samples were re-extracted as discussed above.

There were no other anomalies associated with this project.



TETRA TECH NUS, INC.

CHAIN OF CUSTODY

NUMBER

PAGE 1 OF 1

PROJECT NO: 112G0234		SITE NAME: NASB		PROJECT MANAGER AND PHONE NUMBER J. Jorant 412-921-7090		LABORATORY NAME AND CONTACT: Test America; Nilo Ligi	
SAMPLERS (SIGNATURE) 		FIELD OPERATIONS LEADER AND PHONE NUMBER T. Rojahn ""		CARRIERWAYBILL NUMBER 87355965 9685		ADDRESS 880 Riverside PKY	
STANDARD TAT <input checked="" type="checkbox"/> RUSH TAT <input type="checkbox"/> <input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day		CONTAINER TYPE PLASTIC (P) or GLASS (G) PRESERVATIVE USED		CITY, STATE West Sacramento, CA 95605		TYPE OF ANALYSIS PFOS/PFOA (G321A) PL G	
DATE YEAR 10/20/10	TIME	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	COMMENTS		
10/21	1430	NASB-FTA-MW08	GLW	G	1		
↓	1200	NASB-ADP1-P301-102910	Ag	Q/for	1		
1. RELINQUISHED BY		DATE	TIME	RECEIVED BY		DATE	TIME
2. RELINQUISHED BY		DATE	TIME	2 RECEIVED BY		DATE	TIME
3. RELINQUISHED BY		DATE	TIME	3 RECEIVED BY		DATE	TIME
COMMENTS							

DISTRIBUTION:

WHITE (ACCOMPANIES SAMPLE)

YELLOW (FIELD COPY)

PINK (FILE COPY)

3/99
FORM NO. TINUS-001

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

LOT RECEIPT CHECKLIST TestAmerica West Sacramento

CLIENT Tetra Tech PM ED LOG# 67916

LOT# (QUANTIMS ID) G0K010468 QUOTE# 87448 LOCATION W9C

DATE RECEIVED 10-30-10 TIME RECEIVED 9:20 Checked (✓)

DELIVERED BY FEDEX ON TRAC CLIENT
 GOLDENSTATE UPS GO-GETTERS OTHER
 TAL COURIER TAL SF VALLEY LOGISTICS

CUSTODY SEAL STATUS INTACT BROKEN N/A

CUSTODY SEAL #(S) NA

SHIPPING CONTAINER(S) TAL CLIENT N/A

COC #(S) NA

TEMPERATURE BLANK Observed: NA Corrected: NA

SAMPLE TEMPERATURE - (TEMPERATURES ARE IN °C)

Observed: 56 Average 5 Corrected Average 5

LABORATORY THERMOMETER ID:

IR UNIT: #4 #5 OTHER

BJ
Initials Date 10-30-10

pH MEASURED YES ANOMALY N/A

LABELLED BY.....

LABELS CHECKED BY.....

PEER REVIEW NA

SHORT HOLD TEST NOTIFICATION

SAMPLE RECEIVING

WETCHEM N/A

VOA-ENCORES N/A

METALS NOTIFIED OF FILTER/PRESERVE VIA VERBAL & EMAIL N/A

COMPLETE SHIPMENT RECEIVED IN GOOD CONDITION WITH APPROPRIATE TEMPERATURES, CONTAINERS, PRESERVATIVES N/A

CLOUSEAU TEMPERATURE EXCEEDED (2 °C - 6 °C)*1 N/A

WET ICE BLUE ICE GEL PACK NO COOLING AGENTS USED PM NOTIFIED

JD
Initials Date 10-30-10

Notes _____

*1 Acceptable temperature range for State of Wisconsin samples is ≤4°C.

HOLDTIME

SDG G0K010468

SORT	UNITS	NSAMPLE	LAB ID	QC TYPE	SAMP DATE	EXTR DATE	ANAL DATE	SMP EXTR	EXTR ANL	SMP_ANL
ACID	NG/L	NASB-FTA-MW08	G0K010468001	NM	10/29/2010	11/18/2010	11/21/2010	20	3	23
ACID	NG/L	NASB-FTA-MW08	G0K010468001	NM	10/29/2010	11/05/2010	11/17/2010	7	12	19
ACID	NG/L	NASB-AOP1-RB01-10291	G0K010468002	NM	10/29/2010	11/18/2010	11/21/2010	20	3	23
ACID	NG/L	NASB-AOP1-RB01-10291	G0K010468002	NM	10/29/2010	11/05/2010	11/17/2010	7	12	19

QC DATA ASSOCIATION SUMMARY

GOK010468

Sample Preparation and Analysis Control Numbers

<u>SAMPLE#</u>	<u>MATRIX</u>	<u>ANALYTICAL METHOD</u>	<u>LEACH BATCH #</u>	<u>PREP BATCH #</u>	<u>MS RUN#</u>
001	WATER	SAC WS-LC-0020		0309404	0309215
	WATER	SAC WS-LC-0020		0322246	0322137
002	WATER	SAC WS-LC-0020		0309404	0309215
	WATER	SAC WS-LC-0020		0322246	0322137

Sample Summary

TestAmerica West Sacramento Project Number G0K010468

<u>WO#</u>	<u>Sample #</u>	<u>Client Sample ID</u>	<u>Sampling Date</u>	<u>Received Date</u>
L9D74	1	NASB-FTA-MW08	10/29/2010 02:30 PM	10/30/2010 09:20 AM
L9D75	2	NASB-AOP1-RB01-102910	10/29/2010 12:00 PM	10/30/2010 09:20 AM

Notes(s):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity, pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

Quantify Compound Summary Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Method: C:\MassLynx\JAN2010.PRO\MethDB\PFO.mdb 17 Nov 2010 22:34:49

Calibration: 18 Nov 2010 12:20:17

Compound name: Perfluorooctanoic acid

Response Factor: 1.0628

RRF SD: 0.0751679, Relative SD: 7.07265

Response type: Internal Std (Ref 2), Area * (IS Conc. / IS Area)

Curve type: RF

Test America West Sacramento (916) 373-5600

Acq. Date	Acq. Time	Name	ID	Sample Text	Type	Vial	Inj. Vol	Sample Size	F.V.	D.F.
17-Nov-10	09:58:57	16NO10A6C_086	BLK	E090824-BLK with IS	Analyte	1:2	10	1.00	1.0	0.0
17-Nov-10	10:12:02	16NO10A6C_087	ICAL-01	CS01 10LCMS0011 PFO Std 0.2ng/mL	Standard	1:3	10	1.00	1.0	1.0
17-Nov-10	10:25:09	16NO10A6C_088	ICAL-02	CS02 10LCMS0012 PFO Std 0.5ng/mL	Standard	1:4	10	1.00	1.0	1.0
17-Nov-10	10:38:15	16NO10A6C_089	ICAL-03	CS03 10LCMS0013 PFO Std 1.0ng/mL	Standard	1:5	10	1.00	1.0	1.0
17-Nov-10	10:51:21	16NO10A6C_090	ICAL-04	CS04 10LCMS0014 PFO Std 2.0ng/mL	Standard	1:6	10	1.00	1.0	1.0
17-Nov-10	11:04:27	16NO10A6C_091	ICAL-05	CS05 10LCMS0015 PFO Std 5.0ng/mL	Standard	1:7	10	1.00	1.0	1.0
17-Nov-10	11:17:33	16NO10A6C_092	ICAL-06	CS06 10LCMS0016 PFO Std 10ng/mL	Standard	1:8	10	1.00	1.0	1.0
17-Nov-10	11:30:39	16NO10A6C_093	ICAL-07	CS07 10LCMS0017 PFO Std 20ng/mL	Standard	1:9	10	1.00	1.0	1.0
17-Nov-10	11:43:45	16NO10A6C_094	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
17-Nov-10	11:56:52	16NO10A6C_095	ICV	10LCMS0342 PFO ICV Std 5.0ng/mL	QC	1:10	10	1.00	1.0	0.0
17-Nov-10	12:06:20	16NO10A6C_096	ICV 111710	10LCMSXXXX PFO ICV Std 5.0ng/mL	QC	1:16	10	1.00	1.0	0.0
17-Nov-10	12:23:03	16NO10A6C_097	CCV-01	10LCMS0011 PFO Std 0.2ng/mL, MRL	QC	1:3	10	1.00	1.0	0.0
17-Nov-10	12:36:13	16NO10A6C_098	L9MQM1AAB	GOK010000-MB, 0309406, 250mL/5.0mL	Analyte	2:17	10	0.25	5.0	1.0
17-Nov-10	12:49:23	16NO10A6C_099	L9MQM1ACC	GOK010000-LCS, 0309406, 250mL/5.0mL	QC	2:18	10	0.25	5.0	1.0
17-Nov-10	13:02:28	16NO10A6C_100	L9JPG1AA	AOK040500-1, 0309406, 248.33mL/5.0mL	Analyte	2:19	10	0.25	5.0	1.0
17-Nov-10	13:15:34	16NO10A6C_101	L9JPG1ADS	AOK040500-1MS, 0309406, 246.74mL/5.0mL	QC	2:20	10	0.25	5.0	1.0
17-Nov-10	13:28:40	16NO10A6C_102	L9JPG1AED	AOK040500-1SD, 0309406, 247.80mL/5.0mL	QC	2:21	10	0.25	5.0	1.0
17-Nov-10	13:41:46	16NO10A6C_103	L9JPI1AA	AOK040500-2, 0309406, 247.51mL/5.0mL, 20X	Analyte	2:33	10	0.25	5.0	1.0
17-Nov-10	13:54:52	16NO10A6C_104	L9JPK1AA	AOK040500-3, 0309406, 247.41mL/5.0mL, 2X	Analyte	2:34	10	0.25	5.0	1.0
17-Nov-10	14:07:58	16NO10A6C_105	L9JPL1AA	AOK040500-4, 0309406, 249.07mL/5.0mL	Analyte	2:24	10	0.25	5.0	1.0
17-Nov-10	14:21:05	16NO10A6C_106	CCV-04	10LCMS0014 PFO Std 2.0ng/mL	QC	1:6	10	1.00	1.0	0.0
17-Nov-10	14:34:10	16NO10A6C_107	L9W591AAB	GOK050000-MB, 0315333, 250mL/5.0mL	Analyte	2:25	10	0.25	5.0	1.0
17-Nov-10	14:47:16	16NO10A6C_108	L9W591ACC	GOK050000-LCS, 0315333, 250mL/5.0mL	QC	2:26	10	0.25	5.0	1.0
17-Nov-10	15:00:22	16NO10A6C_109	L9MNM1AA	AOK050602-1, 0315333, 239.69mL/5.0mL	Analyte	2:27	10	0.24	5.0	1.0
17-Nov-10	15:13:28	16NO10A6C_110	L9MNM1AA	AOK050602-1, 0315333, 239.69mL/5.0mL, 10X	Analyte	2:36	10	0.24	5.0	1.0
17-Nov-10	15:26:35	16NO10A6C_111	L9MNM1ADS	AOK050602-1MS, 0315333, 242.93mL/5.0mL	QC	2:28	10	0.24	5.0	1.0
17-Nov-10	15:39:41	16NO10A6C_112	L9MNM1ADS	AOK050602-1MS, 0315333, 242.93mL/5.0mL, ...	QC	2:37	10	0.24	5.0	1.0

X Not used.
 - OK (10LCMS)
 - OK
 - failed Low.
 MSB
 - OK
 - in control.
 MSB

Quantify Compound Summary Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Compound name: Perfluorooctanoic acid

Acq Date	Acq Time	Name	ID	Sample Text	Type	Vial	Inj Vol	SA Size	EV	D.F.	
28	17-Nov-10	15:52:46	16NO10A6C_113	L9MNM1AED	A0K050602-1SD, 0315333, 243.34mL/5.0mL	QC	2:29	10	0.24	5.0	1.0
29	17-Nov-10	16:05:53	16NO10A6C_114	L9MNM1AED	A0K050602-1SD, 0315333, 243.34mL/5.0mL, ...	QC	2:37	10	0.24	5.0	1.0
30	17-Nov-10	16:18:59	16NO10A6C_115	L9MNM1AA	A0K050602-2, 0315333, 239.79mL/5.0mL	Analyte	2:30	10	0.24	5.0	1.0
31	17-Nov-10	16:32:05	16NO10A6C_116	CCV-05	10LCMS0015 PFO Std 5.0ng/mL	QC	1:7	10	1.00	1.0	0.0
32	17-Nov-10	16:45:11	16NO10A6C_117	L9ECV1AAB	G0K010000-MB, 0305395, 250mL/5.0mL	Analyte	2:1	10	0.25	5.0	1.0
33	17-Nov-10	16:58:18	16NO10A6C_118	L9ECV1ACC	G0K010000-LCS, 0305395, 250mL/5.0mL	QC	2:2	10	0.25	5.0	1.0
34	17-Nov-10	17:11:24	16NO10A6C_119	L87161AA	A0J280428-1, 0305395, 246.27mL/5.0mL	Analyte	2:3	10	0.25	5.0	1.0
35	17-Nov-10	17:24:30	16NO10A6C_120	L87161ADS	A0J280428-1MS, 0305395, 247.56mL/5.0mL	QC	2:4	10	0.25	5.0	1.0
36	17-Nov-10	17:37:36	16NO10A6C_121	L87161AED	A0J280428-1SD, 0305395, 245.71mL/5.0mL	QC	2:5	10	0.25	5.0	1.0
37	17-Nov-10	17:50:42	16NO10A6C_122	L87191AA	A0J280428-2, 0305395, 245.18mL/5.0mL	Analyte	2:6	10	0.25	5.0	1.0
38	17-Nov-10	18:03:49	16NO10A6C_123	L9DED1AA	A0K010403-1, 0305395, 246.63mL/5.0mL	Analyte	2:7	10	0.25	5.0	1.0
39	17-Nov-10	18:16:55	16NO10A6C_124	L9DED1AA	A0K010403-1, 0305395, 246.63mL/5.0mL, 50X	Analyte	2:31	10	0.25	5.0	1.0
40	17-Nov-10	18:30:01	16NO10A6C_125	L9DEE1AA	A0K010403-2, 0305395, 245.13mL/5.0mL	Analyte	2:8	10	0.25	5.0	1.0
41	17-Nov-10	18:43:08	16NO10A6C_126	L9DEE1AA	A0K010403-2, 0305395, 245.13mL/5.0mL, 50X	Analyte	2:32	10	0.25	5.0	1.0
42	17-Nov-10	18:56:13	16NO10A6C_127	CCV-05	10LCMS0015 PFO Std 5.0ng/mL	QC	1:7	10	1.00	1.0	0.0
43	17-Nov-10	19:09:20	16NO10A6C_128	L9DEG1AA	A0K010403-3, 0305395, 244.55mL/5.0mL	Analyte	2:9	10	0.24	5.0	1.0
44	17-Nov-10	19:22:26	16NO10A6C_129	L9DEH1AA	A0K010403-4, 0305395, 243.88mL/5.0mL	Analyte	2:10	10	0.24	5.0	1.0
45	17-Nov-10	19:35:32	16NO10A6C_130	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
46	17-Nov-10	19:48:38	16NO10A6C_131	L9MQF1AAB	G0K010000-MB, 0309404, 250mL/5.0mL	Analyte	2:11	10	0.25	5.0	1.0
47	17-Nov-10	20:01:44	16NO10A6C_132	L9MQF1ACC	G0K010000-LCS, 0309404, 250mL/5.0mL	QC	2:12	10	0.25	5.0	1.0
48	17-Nov-10	20:14:49	16NO10A6C_133	L9D741AA	G0K010468-1, 0309404, 248.13mL/5.0mL	Analyte	2:13	10	0.25	5.0	1.0
49	17-Nov-10	20:27:56	16NO10A6C_134	L9D741ACS	G0K010468-1MS, 0309404, 248.21mL/5.0mL	QC	2:14	10	0.25	5.0	1.0
50	17-Nov-10	20:41:03	16NO10A6C_135	L9D741ADD	G0K010468-1SD, 0309404, 249.53mL/5.0mL	QC	2:15	10	0.25	5.0	1.0
51	17-Nov-10	20:54:09	16NO10A6C_136	L9D751AA	G0K010468-2, 0309404, 249.31mL/5.0mL	Analyte	2:16	10	0.25	5.0	1.0
52	17-Nov-10	21:07:14	16NO10A6C_137	CCV-06	10LCMS0016 PFO Std 10ng/mL	QC	1:8	10	1.00	1.0	0.0
53	17-Nov-10	21:20:20	16NO10A6C_138	Water blank	Water blank without IS	Analyte	1:11	10	1.00	1.0	0.0
54	17-Nov-10	21:33:26	16NO10A6C_139	Water blank	Water blank without IS	Analyte	1:12	10	1.00	1.0	0.0
55	17-Nov-10	21:46:33	16NO10A6C_140	end run	Water blank	Analyte	1:13	10	1.00	1.0	0.0
56	17-Nov-10	22:43:14	16NO10A6C_141	Std L-5	PFOA/PPOS Std ~5.0ng/mL	Analyte	1:1	10	1.00	1.0	0.0
57	17-Nov-10	22:56:21	16NO10A6C_142	Std L-5	PFOA/PPOS Std ~5.0ng/mL	Analyte	1:1	10	1.00	1.0	0.0
58	17-Nov-10	23:09:28	16NO10A6C_143	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
59	17-Nov-10	23:22:34	16NO10A6C_144	CCV-07	10LCMS0017 PFO Std 20ng/mL	QC	1:9	10	1.00	1.0	0.0
60	17-Nov-10	23:35:40	16NO10A6C_145	CCV-05	CS05 10LCMS0015 PFO Std 5.0ng/mL	QC	1:7	10	1.00	1.0	0.0
61	17-Nov-10	23:48:46	16NO10A6C_146	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
62	18-Nov-10	00:01:52	16NO10A6C_147	ICV	10LCMS0491 PFO ICV Std 5.0ng/mL	QC	1:16	10	1.00	1.0	0.0

MS3
 - OK
 - in control
 - Low
 - Low
 - Low IS
 - Low IS (PFO)
 - OK
 - Low
 - OK
 - Low
 - OK
 - NOT USED
 - OK
 - OK
 - OK

Test America West Sacramento (916) 373-5600

Box 11

Quantify Compound Summary Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\CV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Compound name: Perfluorooctanoic acid

	Acq Date	Acq Time	Name	ID	Sample Text	Type	Vial	Inj Vol	Sample Size	F.V.	D.F.	
63	18-Nov-10	00:14:58	16NO10A6C_148	CCV-01	10LCMS0011 PFO Std 0.2ng/mL, MRL	QC	1:3	10	1.00	1.0	0.0	-OK
64	18-Nov-10	00:28:05	16NO10A6C_149	L87161AA	AQJ280428-1, 0305395, 246.27mL/5.0mL, RI	Analyte	2:3	10	0.25	5.0	1.0	
65	18-Nov-10	00:41:11	16NO10A6C_150	L87161ADS	AQJ280428-1MS, 0305395, 247.56mL/5.0mL, RI	QC	2:4	10	0.25	5.0	1.0	
66	18-Nov-10	00:54:17	16NO10A6C_151	L87161AED	AQJ280428-1SD, 0305395, 245.71mL/5.0mL, RI	QC	2:5	10	0.25	5.0	1.0	
67	18-Nov-10	01:07:24	16NO10A6C_152	CCV-06	10LCMS0016 PFO Std 10ng/mL	QC	1:8	10	1.00	1.0	0.0	-OK

Quantify Compound Summary Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Compound name: Perfluorooctanesulfonate

Response Factor: 0.729499

RRF SD: 0.0376703, Relative SD: 5.16386

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

Curve type: RF

Acq Date	Acq Time	Name	ID	Sample Text	Type	Vial	Inj Vol	Sample Size	Conc	RF
17-Nov-10	09:58:57	16NO10A6C_086	BLK	E090824-BLK with IS	Analyte	1:2	10	1.00	1.0	0.0
17-Nov-10	10:12:02	16NO10A6C_087	ICAL-01	CS01 10LCMS0011 PFO Std 0.2ng/mL	Standard	1:3	10	1.00	1.0	1.0
17-Nov-10	10:25:09	16NO10A6C_088	ICAL-02	CS02 10LCMS0012 PFO Std 0.5ng/mL	Standard	1:4	10	1.00	1.0	1.0
17-Nov-10	10:38:15	16NO10A6C_089	ICAL-03	CS03 10LCMS0013 PFO Std 1.0ng/mL	Standard	1:5	10	1.00	1.0	1.0
17-Nov-10	10:51:21	16NO10A6C_090	ICAL-04	CS04 10LCMS0014 PFO Std 2.0ng/mL	Standard	1:6	10	1.00	1.0	1.0
17-Nov-10	11:04:27	16NO10A6C_091	ICAL-05	CS05 10LCMS0015 PFO Std 5.0ng/mL	Standard	1:7	10	1.00	1.0	1.0
17-Nov-10	11:17:33	16NO10A6C_092	ICAL-06	CS06 10LCMS0016 PFO Std 10ng/mL	Standard	1:8	10	1.00	1.0	1.0
17-Nov-10	11:30:39	16NO10A6C_093	ICAL-07	CS07 10LCMS0017 PFO Std 20ng/mL	Standard	1:9	10	1.00	1.0	1.0
17-Nov-10	11:43:45	16NO10A6C_094	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
17-Nov-10	11:56:52	16NO10A6C_095	ICV	10LCMS0342 PFO ICV Std 5.0ng/mL	QC	1:10	10	1.00	1.0	0.0
17-Nov-10	12:06:20	16NO10A6C_096	ICV 111710	10LCMSXXXX PFO ICV Std 5.0ng/mL	QC	1:16	10	1.00	1.0	0.0
17-Nov-10	12:23:03	16NO10A6C_097	CCV-01	10LCMS0011 PFO Std 0.2ng/mL, MRL	QC	1:3	10	1.00	1.0	0.0
17-Nov-10	12:36:13	16NO10A6C_098	L9MQM1AAB	G0K010000-MB, 0309406, 250mL/5.0mL	Analyte	2:17	10	0.25	5.0	1.0
17-Nov-10	12:49:23	16NO10A6C_099	L9MQM1ACC	G0K010000-LCS, 0309406, 250mL/5.0mL	QC	2:18	10	0.25	5.0	1.0
17-Nov-10	13:02:28	16NO10A6C_100	L9JPG1AA	A0K040500-1, 0309406, 248.33mL/5.0mL	Analyte	2:19	10	0.25	5.0	1.0
17-Nov-10	13:15:34	16NO10A6C_101	L9JPG1ADS	A0K040500-1MS, 0309406, 246.74mL/5.0mL	QC	2:20	10	0.25	5.0	1.0
17-Nov-10	13:28:40	16NO10A6C_102	L9JPG1AED	A0K040500-1SD, 0309406, 247.80mL/5.0mL	QC	2:21	10	0.25	5.0	1.0
17-Nov-10	13:41:46	16NO10A6C_103	L9JPJ1AA	A0K040500-2, 0309406, 247.51mL/5.0mL, 20X	Analyte	2:33	10	0.25	5.0	1.0
17-Nov-10	13:54:52	16NO10A6C_104	L9JPK1AA	A0K040500-3, 0309406, 247.41mL/5.0mL, 2X	Analyte	2:34	10	0.25	5.0	1.0
17-Nov-10	14:07:58	16NO10A6C_105	L9JPL1AA	A0K040500-4, 0309406, 249.07mL/5.0mL	Analyte	2:24	10	0.25	5.0	1.0
17-Nov-10	14:21:05	16NO10A6C_106	CCV-04	10LCMS0014 PFO Std 2.0ng/mL	QC	1:6	10	1.00	1.0	0.0
17-Nov-10	14:34:10	16NO10A6C_107	L9W591AAB	G0K050000-MB, 0315333, 250mL/5.0mL	Analyte	2:25	10	0.25	5.0	1.0
17-Nov-10	14:47:16	16NO10A6C_108	L9W591ACC	G0K050000-LCS, 0315333, 250mL/5.0mL	QC	2:26	10	0.25	5.0	1.0
17-Nov-10	15:00:22	16NO10A6C_109	L9MNM1AA	A0K050602-1, 0315333, 239.69mL/5.0mL	Analyte	2:27	10	0.24	5.0	1.0
17-Nov-10	15:13:28	16NO10A6C_110	L9MNM1AA	A0K050602-1, 0315333, 239.69mL/5.0mL, 10X	Analyte	2:36	10	0.24	5.0	1.0
17-Nov-10	15:26:35	16NO10A6C_111	L9MNM1ADS	A0K050602-1MS, 0315333, 242.93mL/5.0mL	QC	2:28	10	0.24	5.0	1.0
17-Nov-10	15:39:41	16NO10A6C_112	L9MNM1ADS	A0K050602-1MS, 0315333, 242.93mL/5.0mL, ...	QC	2:37	10	0.24	5.0	1.0
17-Nov-10	15:52:46	16NO10A6C_113	L9MNM1AED	A0K050602-1SD, 0315333, 243.34mL/5.0mL	QC	2:29	10	0.24	5.0	1.0
17-Nov-10	16:05:53	16NO10A6C_114	L9MNM1AED	A0K050602-1SD, 0315333, 243.34mL/5.0mL, ...	QC	2:37	10	0.24	5.0	1.0
17-Nov-10	16:18:59	16NO10A6C_115	L9MNM1AA	A0K050602-2, 0315333, 239.79mL/5.0mL	Analyte	2:30	10	0.24	5.0	1.0
17-Nov-10	16:32:05	16NO10A6C_116	CCV-05	10LCMS0015 PFO Std 5.0ng/mL	QC	1:7	10	1.00	1.0	0.0

Instr ID A6; Quattro Premier XE, SN VAB1006. PFOA/PFOS Analysis by LC/MS/MS, WS-LC-0020

Quantify Compound Summary Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Compound name: Perfluorooctanesulfonate

	Acq Date	Acq Time	Name	ID	Sample/Text	Type	Vial	Inj Vol	Sample Size	Fov	DFE
32	17-Nov-10	16:45:11	16NO10A6C_117	L9ECV1AAB	GOK010000-MB, 0305395, 250mL/5.0mL	Analyte	2:1	10	0.25	5.0	1.0
33	17-Nov-10	16:58:18	16NO10A6C_118	L9ECV1ACC	GOK010000-LCS, 0305395, 250mL/5.0mL	QC	2:2	10	0.25	5.0	1.0
34	17-Nov-10	17:11:24	16NO10A6C_119	L87161AA	A0J280428-1, 0305395, 246.27mL/5.0mL	Analyte	2:3	10	0.25	5.0	1.0
35	17-Nov-10	17:24:30	16NO10A6C_120	L87161ADS	A0J280428-1MS, 0305395, 247.56mL/5.0mL	QC	2:4	10	0.25	5.0	1.0
36	17-Nov-10	17:37:36	16NO10A6C_121	L87161AED	A0J280428-1SD, 0305395, 245.71mL/5.0mL	QC	2:5	10	0.25	5.0	1.0
37	17-Nov-10	17:50:42	16NO10A6C_122	L87191AA	A0J280428-2, 0305395, 245.18mL/5.0mL	Analyte	2:6	10	0.25	5.0	1.0
38	17-Nov-10	18:03:49	16NO10A6C_123	L9DED1AA	A0K010403-1, 0305395, 246.63mL/5.0mL	Analyte	2:7	10	0.25	5.0	1.0
39	17-Nov-10	18:16:55	16NO10A6C_124	L9DED1AA	A0K010403-1, 0305395, 246.63mL/5.0mL, 50X	Analyte	2:31	10	0.25	5.0	1.0
40	17-Nov-10	18:30:01	16NO10A6C_125	L9DEE1AA	A0K010403-2, 0305395, 245.13mL/5.0mL	Analyte	2:8	10	0.25	5.0	1.0
41	17-Nov-10	18:43:08	16NO10A6C_126	L9DEE1AA	A0K010403-2, 0305395, 245.13mL/5.0mL, 50X	Analyte	2:32	10	0.25	5.0	1.0
42	17-Nov-10	18:56:13	16NO10A6C_127	CCV-05	10LCMS0015 PFO Std 5.0ng/mL	QC	1:7	10	1.00	1.0	0.0
43	17-Nov-10	19:09:20	16NO10A6C_128	L9DEG1AA	A0K010403-3, 0305395, 244.55mL/5.0mL	Analyte	2:9	10	0.24	5.0	1.0
44	17-Nov-10	19:22:26	16NO10A6C_129	L9DEH1AA	A0K010403-4, 0305395, 243.88mL/5.0mL	Analyte	2:10	10	0.24	5.0	1.0
45	17-Nov-10	19:35:32	16NO10A6C_130	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
46	17-Nov-10	19:48:38	16NO10A6C_131	L9MQF1AAB	GOK010000-MB, 0309404, 250mL/5.0mL	Analyte	2:11	10	0.25	5.0	1.0
47	17-Nov-10	20:01:44	16NO10A6C_132	L9MQF1ACC	GOK010000-LCS, 0309404, 250mL/5.0mL	QC	2:12	10	0.25	5.0	1.0
48	17-Nov-10	20:14:49	16NO10A6C_133	L9D741AA	GOK010468-1, 0309404, 248.13mL/5.0mL	Analyte	2:13	10	0.25	5.0	1.0
49	17-Nov-10	20:27:56	16NO10A6C_134	L9D741ACS	GOK010468-1MS, 0309404, 248.21mL/5.0mL	QC	2:14	10	0.25	5.0	1.0
50	17-Nov-10	20:41:03	16NO10A6C_135	L9D741ADD	GOK010468-1SD, 0309404, 249.53mL/5.0mL	QC	2:15	10	0.25	5.0	1.0
51	17-Nov-10	20:54:09	16NO10A6C_136	L9D751AA	GOK010468-2, 0309404, 249.31mL/5.0mL	Analyte	2:16	10	0.25	5.0	1.0
52	17-Nov-10	21:07:14	16NO10A6C_137	CCV-06	10LCMS0016 PFO Std 10ng/mL	QC	1:8	10	1.00	1.0	0.0
53	17-Nov-10	21:20:20	16NO10A6C_138	Water blank	Water blank without IS	Analyte	1:11	10	1.00	1.0	0.0
54	17-Nov-10	21:33:26	16NO10A6C_139	Water blank	Water blank without IS	Analyte	1:12	10	1.00	1.0	0.0
55	17-Nov-10	21:46:33	16NO10A6C_140	end run	Water blank	Analyte	1:13	10	1.00	1.0	0.0
56	17-Nov-10	22:43:14	16NO10A6C_141	Std L-5	PFOA/PPOS Std ~5.0ng/mL	Analyte	1:1	10	1.00	1.0	0.0
57	17-Nov-10	22:56:21	16NO10A6C_142	Std L-5	PFOA/PPOS Std ~5.0ng/mL	Analyte	1:1	10	1.00	1.0	0.0
58	17-Nov-10	23:09:28	16NO10A6C_143	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
59	17-Nov-10	23:22:34	16NO10A6C_144	CCV-07	10LCMS0017 PFO Std 20ng/mL	QC	1:9	10	1.00	1.0	0.0
60	17-Nov-10	23:35:40	16NO10A6C_145	CCV-05	CS05 10LCMS0015 PFO Std 5.0ng/mL	QC	1:7	10	1.00	1.0	0.0
61	17-Nov-10	23:48:46	16NO10A6C_146	BLK	BLANK with IS	Analyte	1:2	10	1.00	1.0	0.0
62	18-Nov-10	00:01:52	16NO10A6C_147	ICV	10LCMS0491 PFO ICV Std 5.0ng/mL	QC	1:16	10	1.00	1.0	0.0
63	18-Nov-10	00:14:58	16NO10A6C_148	CCV-01	10LCMS0011 PFO Std 0.2ng/mL, MRL	QC	1:3	10	1.00	1.0	0.0
64	18-Nov-10	00:28:05	16NO10A6C_149	L87161AA	A0J280428-1, 0305395, 246.27mL/5.0mL, RI	Analyte	2:3	10	0.25	5.0	1.0
65	18-Nov-10	00:41:11	16NO10A6C_150	L87161ADS	A0J280428-1MS, 0305395, 247.56mL/5.0mL, RI	QC	2:4	10	0.25	5.0	1.0
66	18-Nov-10	00:54:17	16NO10A6C_151	L87161AED	A0J280428-1SD, 0305395, 245.71mL/5.0mL, RI	QC	2:5	10	0.25	5.0	1.0

Instr ID A6; Quattro Premier XE, SN VAB1006. PFOA/PFOS Analysis by LC/MS/MS, WS-LC-0020

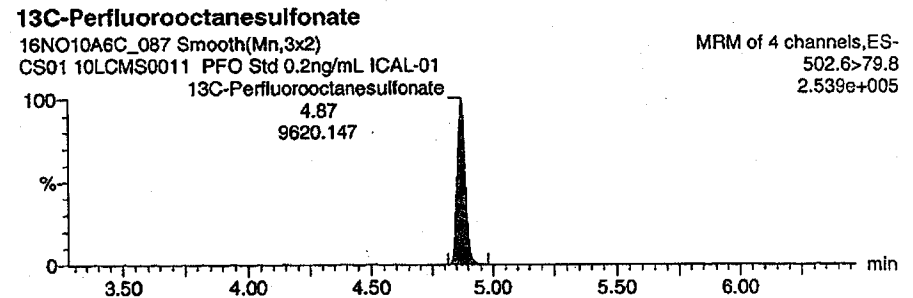
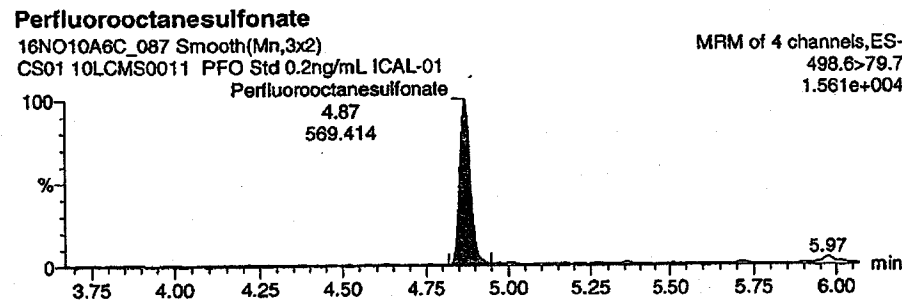
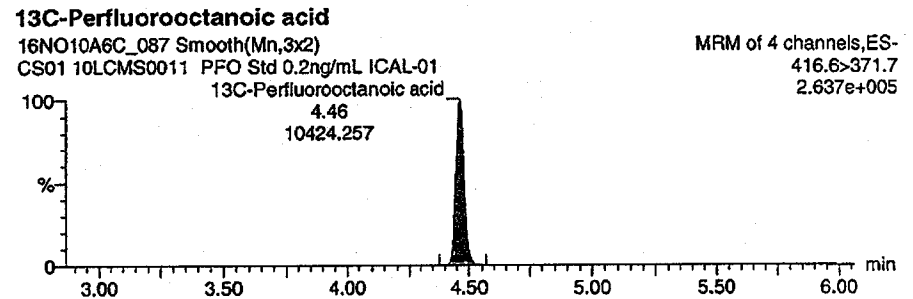
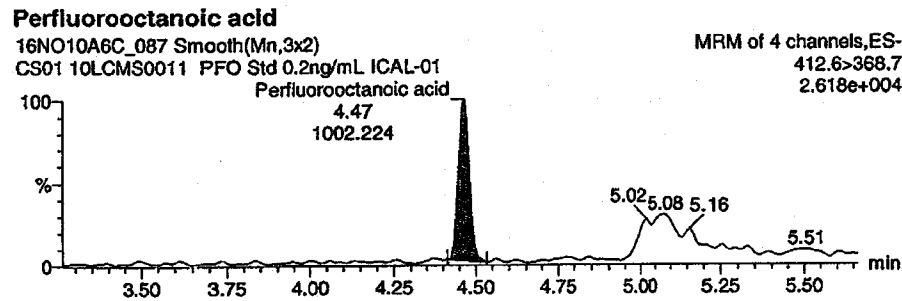
Quantify Compound Summary Report MassLynx 4.1 SCN 683
TestAmerica, West Sacramento
Dataset: C:\MassLynx\JAN2010.PROV\CV11162010BA6C_PFO.qld
Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Compound name: Perfluorooctanesulfonate

Acc. Date	Acc. Time	Name	ID	Sample Text	Type	Vial	Inj Vol	Sample Size	Flow	Time
18-Nov-10	01:07:24	16NO10A6C_152	CCV-06	10LCMS0016 PFO Std 10ng/mL	QC	1:8	10	1.00	1.0	0.0

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010\PROVICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

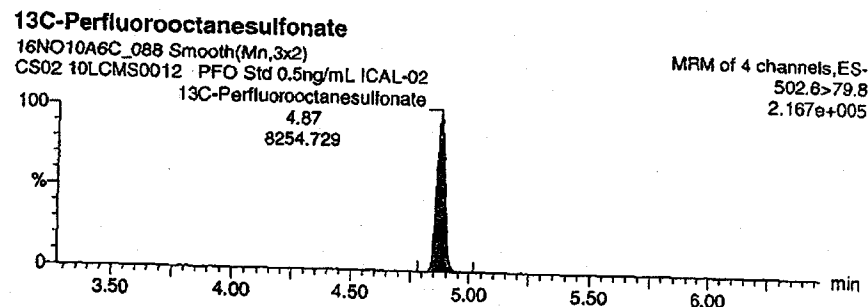
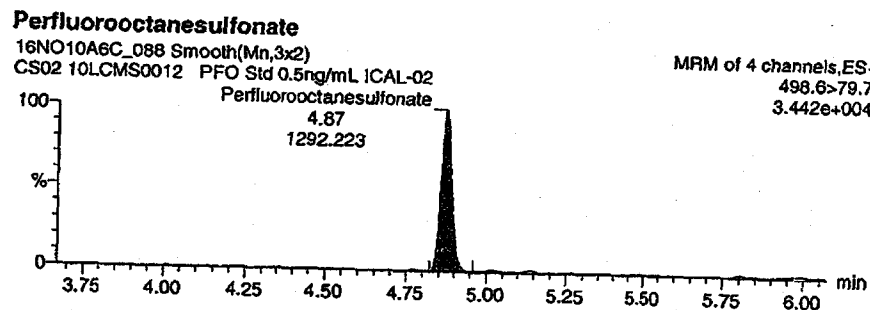
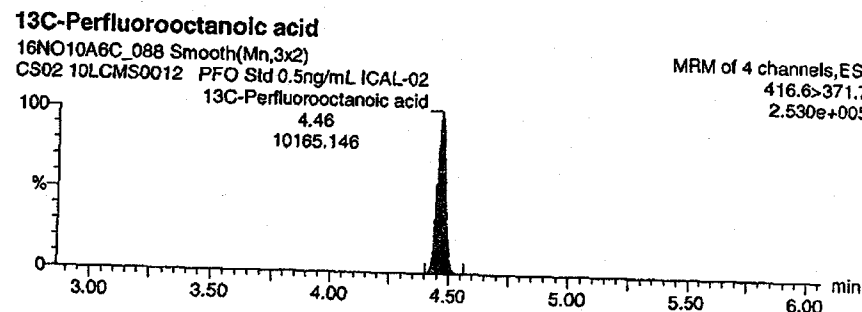
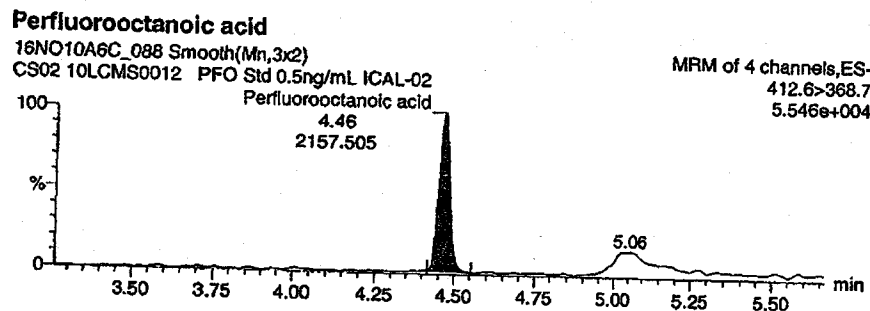
Date: 17-Nov-2010
Time: 10:12:02
Name: 16NO10A6C_087
ID: ICAL-01
Description: CS01 10LCMS0011 PFO Std 0.2ng/mL
Vial: 1:3
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
User: deg



#	Name	Trace	Prod	RT	Δ-RT	Size	Flow	DF	Area	S/N	Flags	IS#	IS/Area	Conc	%Dev	%Rec	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.467	0.00	1.00	1.0	1.0	1002.224	77.6	bb	2	10424.257	0.22616	13.1	113.1	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.463	4.463	-0.00	1.00	1.0	1.0	10424.257	3656.4	bb			2.62022	4.8	104.8	
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.870	-0.00	1.00	1.0	1.0	569.414	339.0	bb	4	9620.147	0.20284	1.4	101.4	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.870	-0.00	1.00	1.0	1.0	9620.147	5595.8	bb			2.66650	6.7	106.7	

Quantify Sample Report MassLynx 4.1 SCN 683
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010
 Time: 10:25:09
 Name: 16NO10A6C_088
 ID: ICAL-02
 Description: CS02 10LCMS0012 PFO Std 0.5ng/mL
 Vial: 1:4
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg

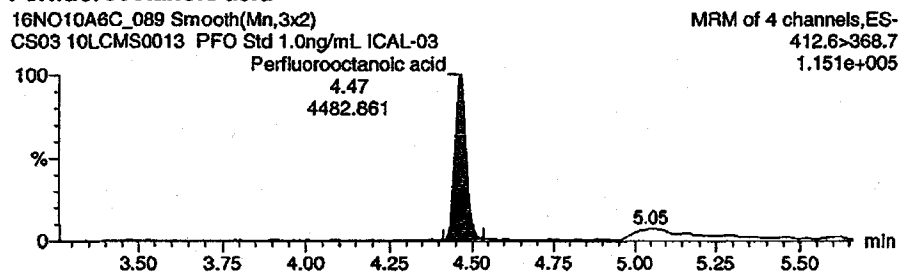


Name	Trace	PreID	RT	RT	RT	Size	Vol	Dil	Area	S/N	Flags	IS	IS Area	Conc	%Dev	%Rec	Mod Date
1 Perfluorooctanoic acid	412.6>368.7	4.463	4.463	-0.00	1.00	1.0	1.0	1.0	2157.505	158.9	bb	2	10165.146	0.49926	-0.1	99.9	
2 13C-Perfluorooctanoic acid	416.6>371.7	4.463	4.463	-0.00	1.00	1.0	1.0	1.0	10165.146	4546.0	bb			2.55509	2.2	102.2	
3 Perfluorooctanesulfonate	498.6>79.7	4.872	4.870	-0.00	1.00	1.0	1.0	1.0	1292.223	890.8	bb	4	8254.729	0.53648	7.3	107.3	
4 13C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.870	-0.00	1.00	1.0	1.0	1.0	8254.729	2927.7	bb			2.28803	-8.5	91.5	

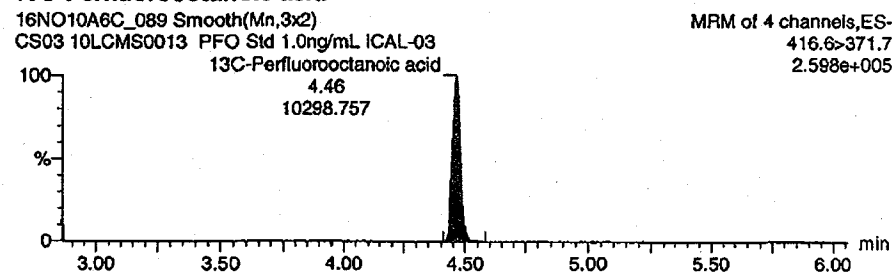
Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010
Time: 10:38:15
Name: 16NO10A6C_089
ID: ICAL-03
Description: CS03 10LCMS0013 PFO Std 1.0ng/mL
Vial: 1:5
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
User: deg

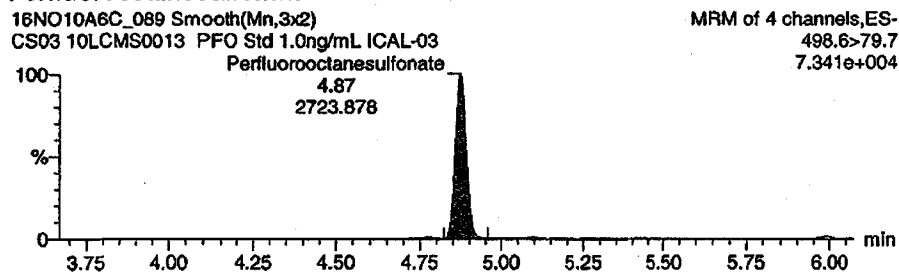
Perfluorooctanoic acid



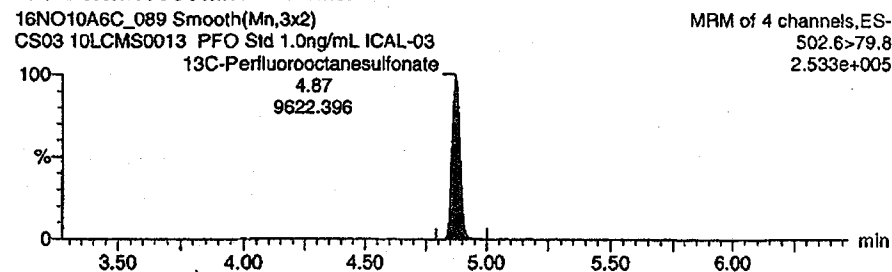
¹³C-Perfluorooctanoic acid



Perfluorooctanesulfonate



¹³C-Perfluorooctanesulfonate



#	Name	Trace	Pred	RT	Δ RT	Size	RF	DF	Area	S/N	Flags	IS#	IS-Area	Conc	%Dev	%Rec	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.467	0.00	1.00	1.0	1.0	4482.861	253.7	bb	2	10298.757	1.02391	2.4	102.4	
2	¹³ C-Perfluorooctanoic acid	416.6>371.7	4.463	4.463	-0.00	1.00	1.0	1.0	10298.757	2975.3	bb			2.58867	3.5	103.5	
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.874	0.00	1.00	1.0	1.0	2723.878	1553.2	bb	4	9622.396	0.97011	-3.0	97.0	
4	¹³ C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.870	-0.00	1.00	1.0	1.0	9622.396	4826.8	bb			2.66712	6.7	106.7	

Quantify Sample Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010

Time: 10:51:21

Name: 16NO10A6C_090

ID: ICAL-04

Description: CS04 10LCMS0014 PFO Std 2.0ng/mL

Vial: 1:6

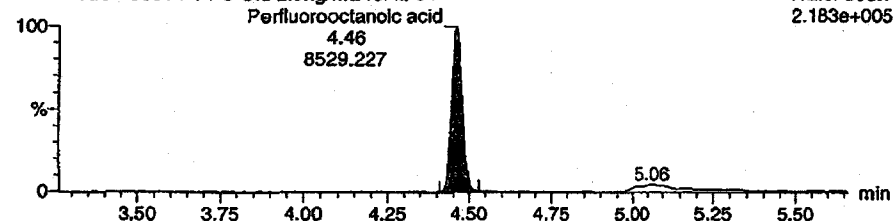
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C

User: deg

Perfluorooctanoic acid

16NO10A6C_090 Smooth(Mn,3x2)

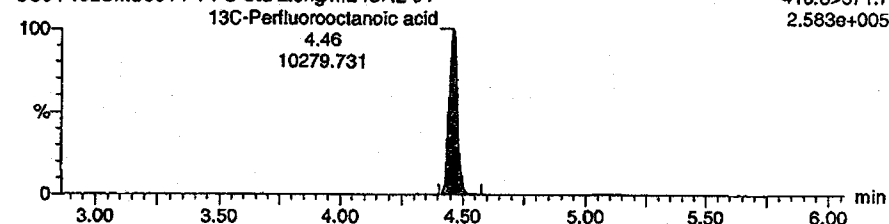
CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

MRM of 4 channels,ES-
412.6>368.7
2.183e+005

13C-Perfluorooctanoic acid

16NO10A6C_090 Smooth(Mn,3x2)

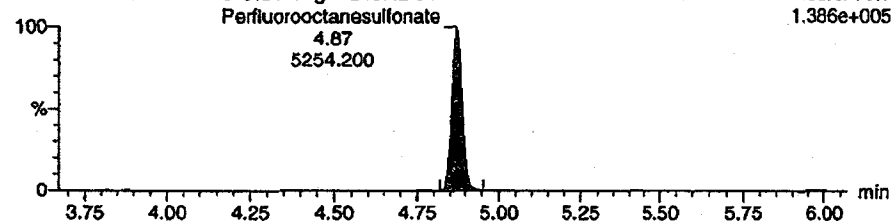
CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

MRM of 4 channels,ES-
416.6>371.7
2.583e+005

Perfluorooctanesulfonate

16NO10A6C_090 Smooth(Mn,3x2)

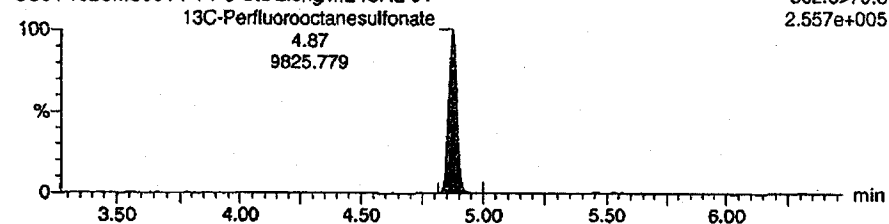
CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

MRM of 4 channels,ES-
498.6>79.7
1.386e+005

13C-Perfluorooctanesulfonate

16NO10A6C_090 Smooth(Mn,3x2)

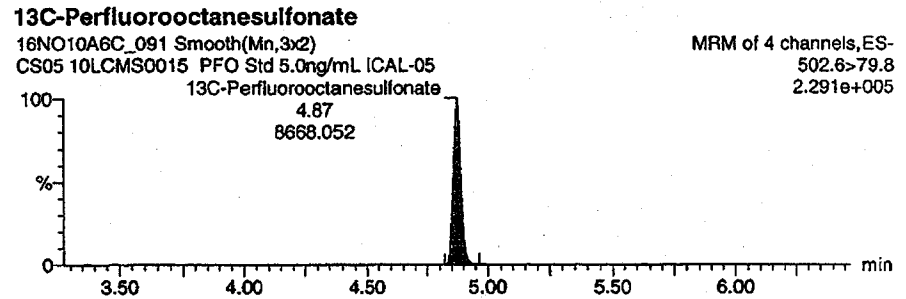
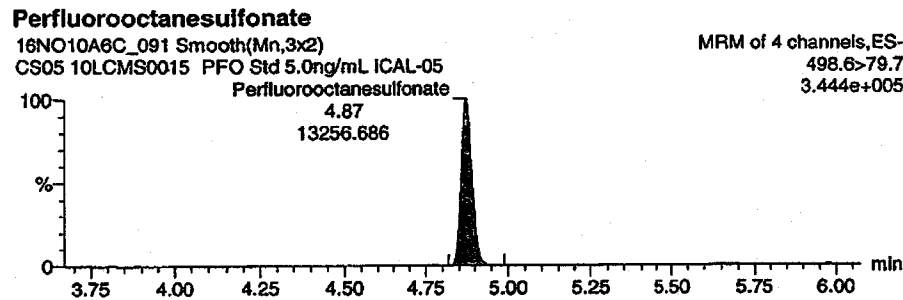
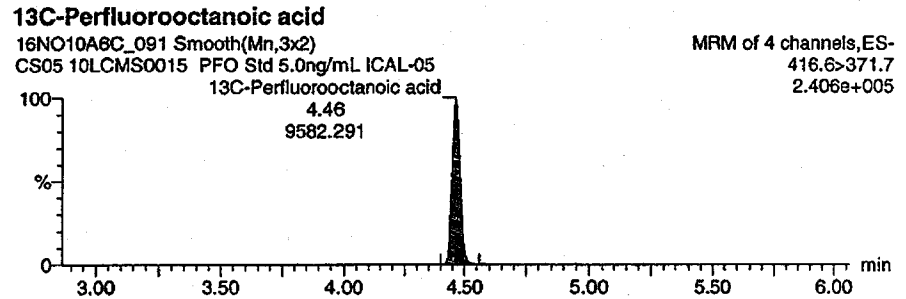
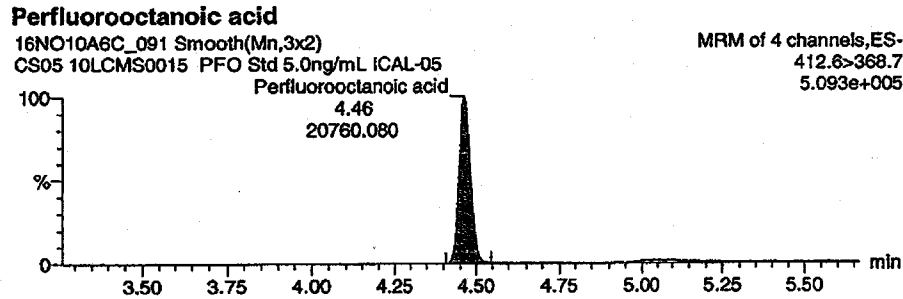
CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

MRM of 4 channels,ES-
502.6>79.8
2.557e+005

#	Name	Trace	Pred.	RT	RT	#Sa	Size	RFV	Dif	Area	S/N	Flags	IS#	ISArea	Conc	%Dev	%Rec	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.463	-0.00	1.00	1.0	1.0	1.0	8529.227	499.3	bb	2	10279.731	1.95172	-2.4	97.6	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.463	4.463	-0.00	1.00	1.0	1.0	1.0	10279.731	2837.3	bb			2.58389	3.4	103.4	
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.870	-0.00	1.00	1.0	1.0	1.0	5254.200	2647.0	bb	4	9825.779	1.83255	-8.4	91.6	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.870	-0.00	1.00	1.0	1.0	1.0	9825.779	4444.4	bb			2.72349	8.9	108.9	

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010
 Time: 11:04:27
 Name: 16NO10A6C_091
 ID: ICAL-05
 Description: CS05 10LCMS0015 PFO Std 5.0ng/mL
 Vial: 1:7
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg



#	Name	Trace	Pred.	RT	MRM	S/S	St	Area	S/N	Flags	IS#	IS Area	Conc.	%Dev.	%Rec.	Mod. Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.463	-0.00	1.00	1.0	20760.080	821.7	bb	2	9582.291	5.09624	1.9	101.9	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.463	4.463	-0.00	1.00	1.0	9582.291	2810.1	bb			2.40858	-3.7	96.3	
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.874	0.00	1.00	1.0	13256.686	6854.4	dd	4	8668.052	5.24118	4.8	104.8	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.874	0.00	1.00	1.0	8668.052	5080.0	bb			2.40260	-3.9	96.1	

Quantify Sample Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010

Time: 11:17:33

Name: 16NO10A6C_092

ID: ICAL-06

Description: CS06 10LCMS0016 PFO Std 10ng/mL

Vial: 1:8

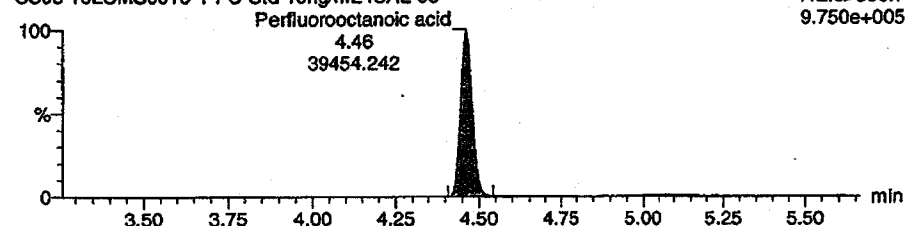
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C

User: deg

Perfluorooctanoic acid

16NO10A6C_092 Smooth(Mn,3x2)

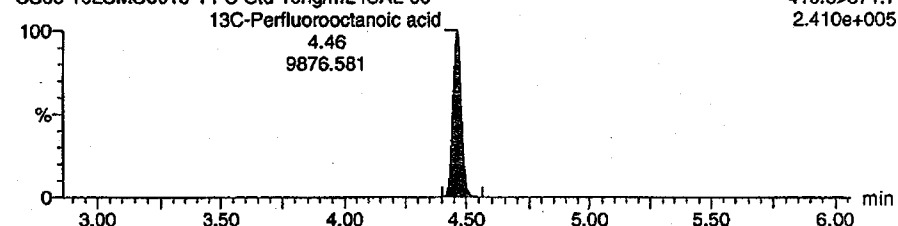
CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

MRM of 4 channels,ES-
412.6>368.7
9.750e+005

13C-Perfluorooctanoic acid

16NO10A6C_092 Smooth(Mn,3x2)

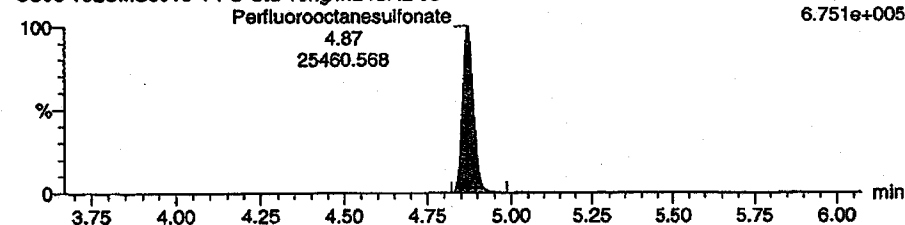
CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

MRM of 4 channels,ES-
416.6>371.7
2.410e+005

Perfluorooctanesulfonate

16NO10A6C_092 Smooth(Mn,3x2)

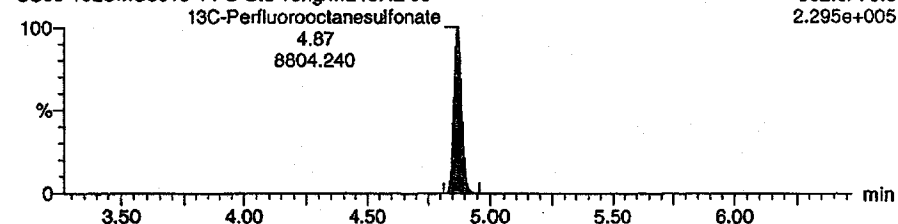
CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

MRM of 4 channels,ES-
498.6>79.7
6.751e+005

13C-Perfluorooctanesulfonate

16NO10A6C_092 Smooth(Mn,3x2)

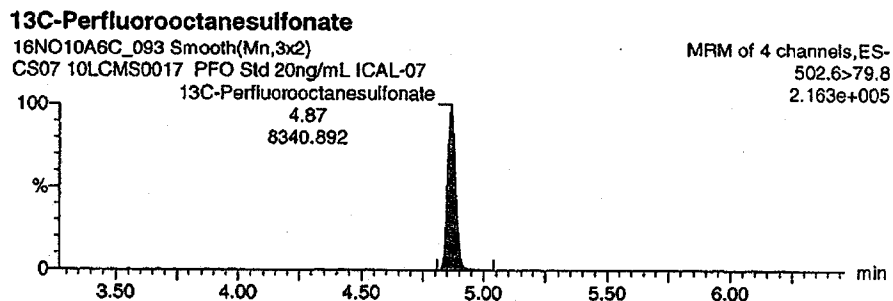
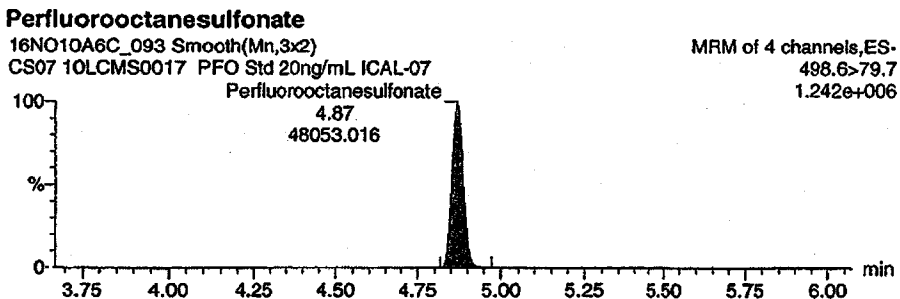
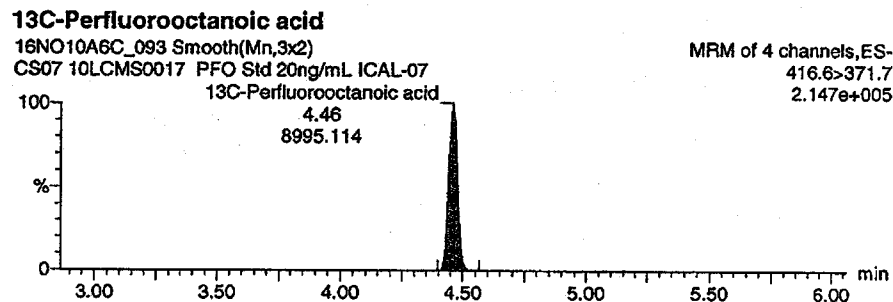
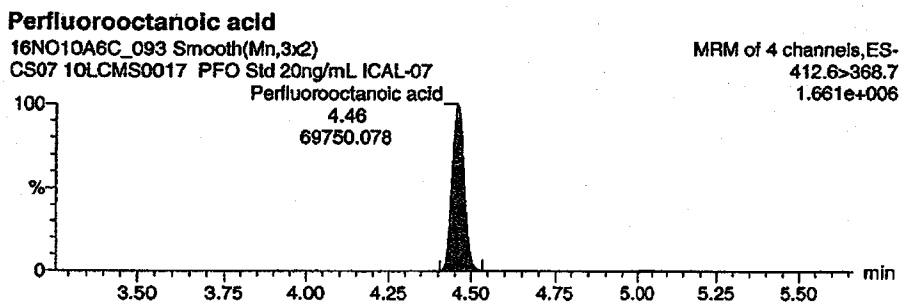
CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

MRM of 4 channels,ES-
502.6>79.8
2.295e+005

Name	Trace	Pred	RT	ART	Cal	Size	FW	DF	Area	S/N	Flags	Int	IS Area	Conc	%Dev	%Rec	Mod/Date
1 Perfluorooctanoic acid	412.6>368.7	4.463	4.463	-0.00	1.00	1.0	1.0	1.0	39454.242	2909.4	bb	2	9876.581	9.39673	-6.0	94.0	
2 13C-Perfluorooctanoic acid	416.6>371.7	4.463	4.463	-0.00	1.00	1.0	1.0	1.0	9876.581	3597.5	bb			2.48256	-0.7	99.3	
3 Perfluorooctanesulfonate	498.6>79.7	4.872	4.872	0.00	1.00	1.0	1.0	1.0	25460.568	11662.7	bb	4	8804.240	9.91041	-0.9	99.1	
4 13C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.872	0.00	1.00	1.0	1.0	1.0	8804.240	2344.9	bb			2.44035	-2.4	97.6	

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010
 Time: 11:30:39
 Name: 16NO10A6C_093
 ID: ICAL-07
 Description: CS07 10LCMS0017 PFO Std 20ng/mL
 Vial: 1:9
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg



#	Name	Trace	Pred.	RI	RT	Size	FW	DF	Area	S/N	Flags	IS#	IS:Area	Concn	%Dev	%Rec	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.459	-0.00	1.00	1.0	1.0	69750.078	5233.4	bb	2	8995.114	18.24013	-8.8	91.2	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.463	4.459	-0.00	1.00	1.0	1.0	8995.114	2873.6	bb			2.28099	-9.6	90.4	
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.870	-0.00	1.00	1.0	1.0	48053.016	20435.9	bb	4	8340.892	19.74347	-1.3	98.7	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.866	-0.01	1.00	1.0	1.0	8340.892	3550.8	bb			2.31192	-7.5	92.5	

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\MethCV11162010BA6C_PFO.qld

Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time

Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Method: C:\MassLynx\JAN2010.PRO\MethDB\PFO.mdb 17 Nov 2010 22:34:49

Calibration: 18 Nov 2010 12:20:17

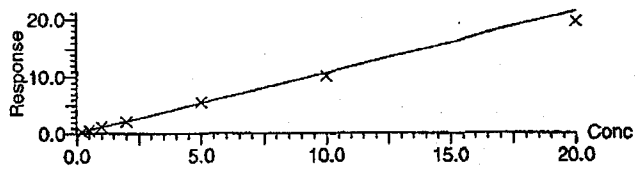
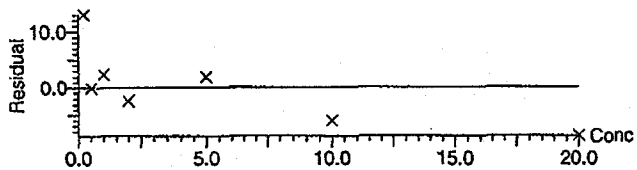
Compound name: Perfluorooctanoic acid

Response Factor: 1.0628

RRF SD: 0.0751679, % Relative SD: 7.07265 ✓

Response type: Internal Std (Ref 2), Area * (IS Conc. / IS Area)

Curve type: RF



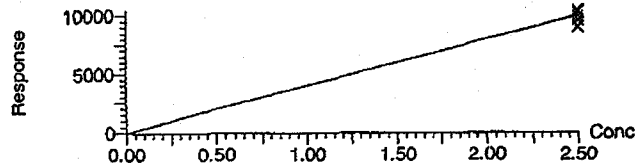
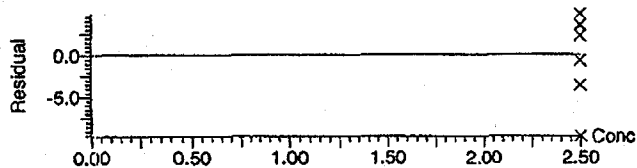
Compound name: 13C-Perfluorooctanoic acid

Response Factor: 3978.39

RRF SD: 203.559, % Relative SD: 5.11661 ✓

Response type: External Std, Area

Curve type: RF



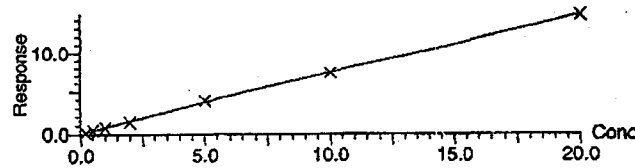
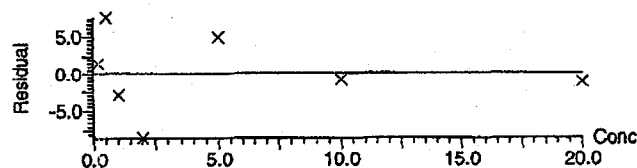
Compound name: Perfluorooctanesulfonate

Response Factor: 0.729499

RRF SD: 0.0376703, % Relative SD: 5.16386 ✓

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

Curve type: RF



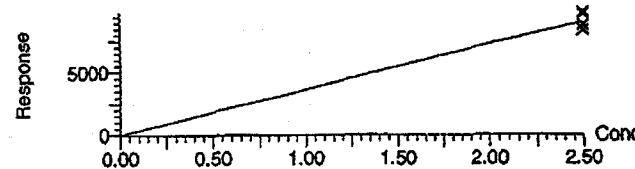
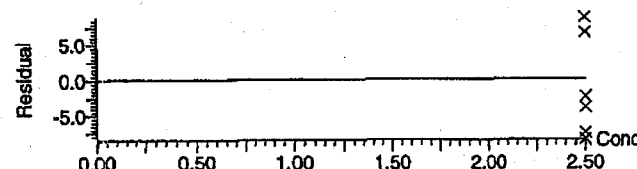
Compound name: 13C-Perfluorooctanesulfonate

Response Factor: 3607.78

RRF SD: 262.784, % Relative SD: 7.28381 ✓

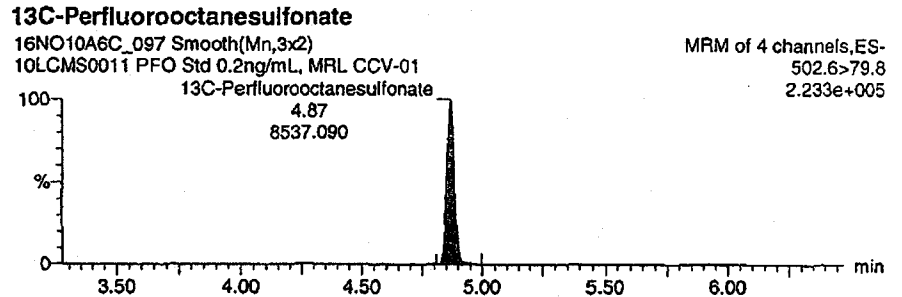
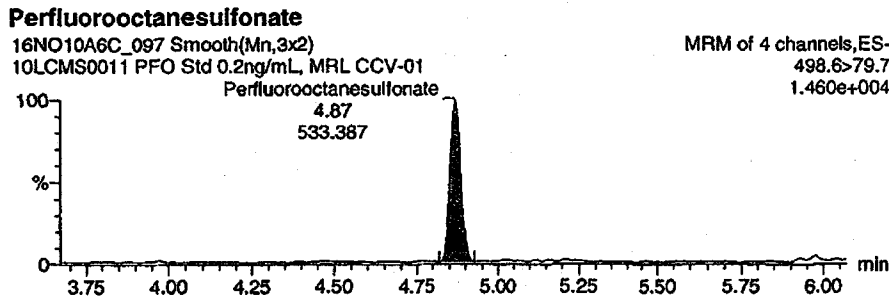
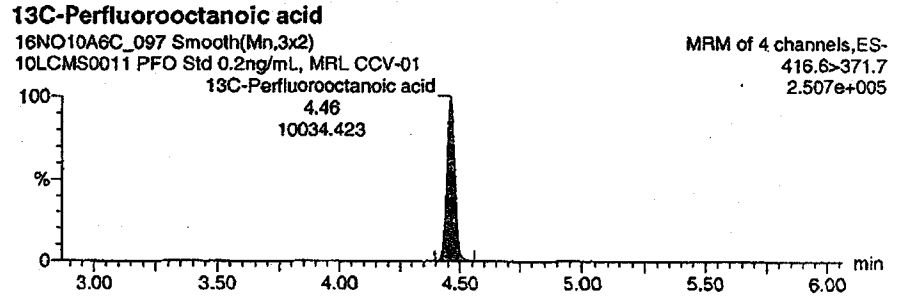
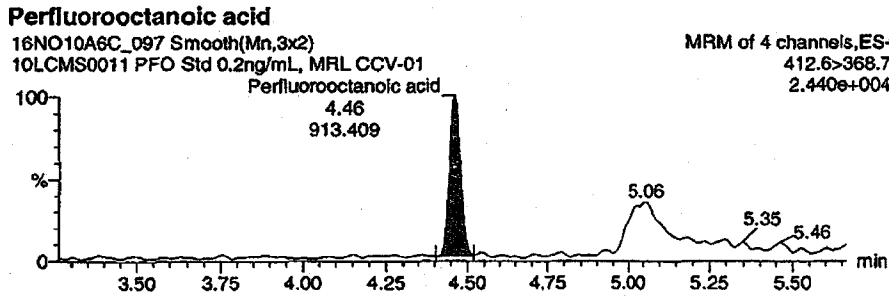
Response type: External Std, Area

Curve type: RF



Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010
 Time: 12:23:03
 Name: 16NO10A6C_097
 ID: CCV-01
 Description: 10LCMS0011 PFO Std 0.2ng/mL, MRL
 Vial: 1:3
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg

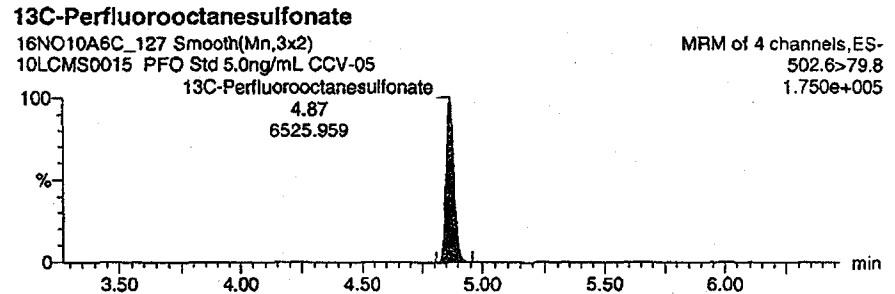
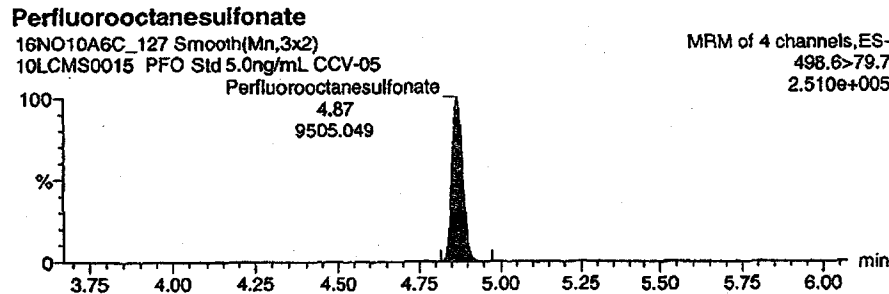
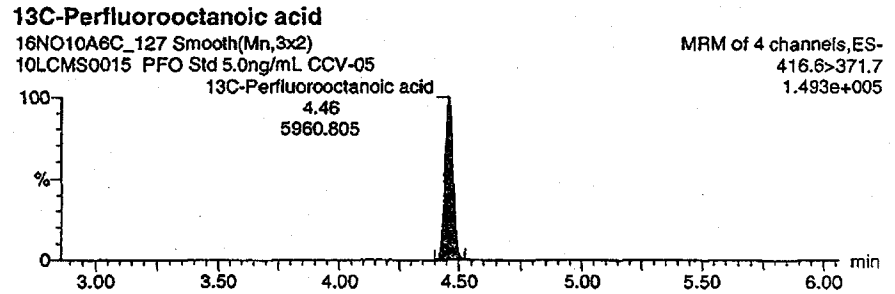
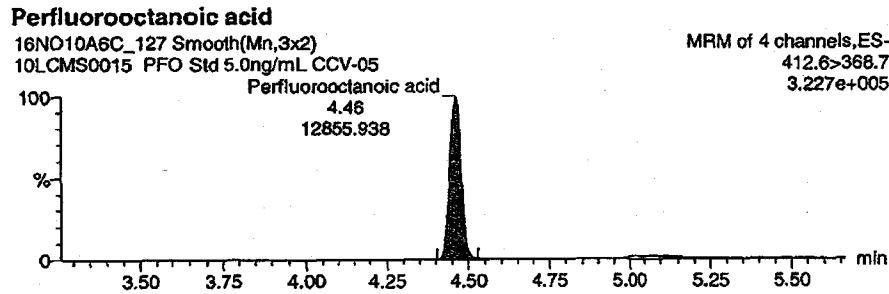


#	Name	Trace	Pred	RT	A-RT	Size	F.V.	D.F.	Area	SN	Flags	IS#	IS Area	Conc	%Dev	%Rec	Mod.Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.463	-0.00	1.00	1.0	0.0	913.409	64.9	bb	2	10034.423	0.21412	7.1	107.1	
2	¹³ C-Perfluorooctanoic acid	416.6>371.7	4.463	4.459	-0.00	1.00	1.0	1.0	10034.423	2890.7	bb			2.52223	0.9	100.9	
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.870	-0.00	1.00	1.0	0.0	533.387	97.4	bb	4	8537.090	0.21412	7.1	107.1	
4	¹³ C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.866	-0.01	1.00	1.0	1.0	8537.090	3112.0	bb			2.36630	-5.3	94.7	

CCV @ RL in control
 DEG 11-18-10

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010
Time: 18:56:13
Name: 16NO10A6C_127
ID: CCV-05
Description: 10LCMS0015 PFO Std 5.0ng/mL
Vial: 1:7
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
User: deg

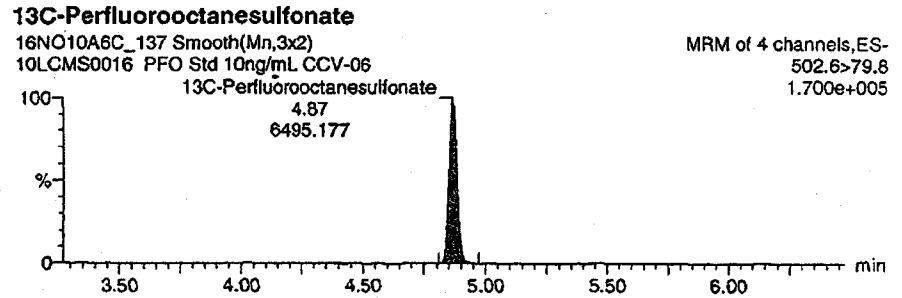
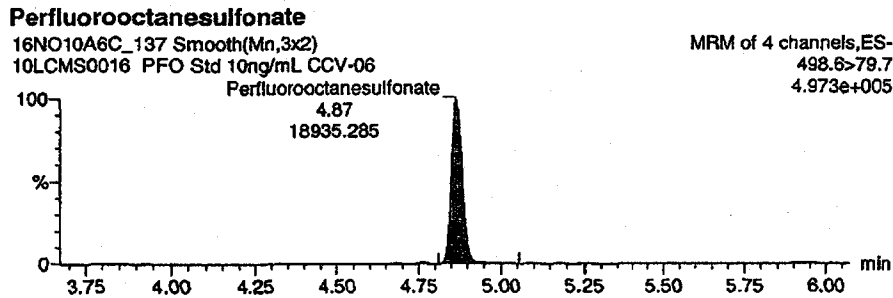
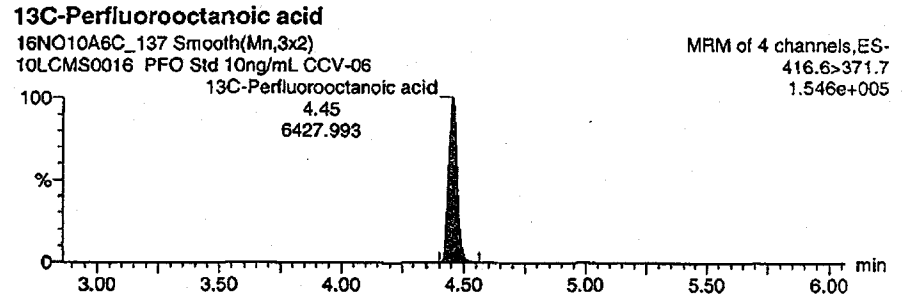
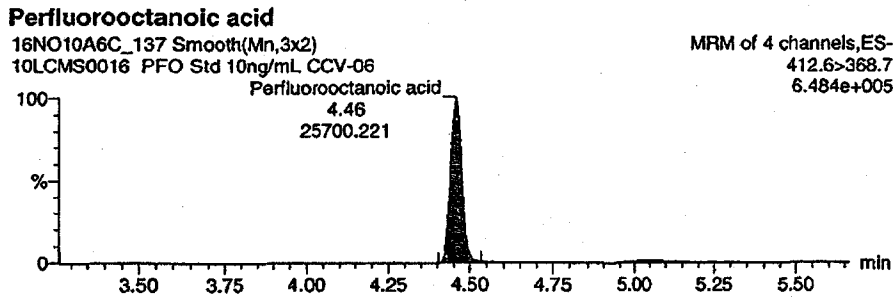


#	Name	Trace	Product	RT	WRT	Size	EV	Diff	Area	S/N	Flags	IS	ISArea	Cond	%Dev	%Rec	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.459	-0.00	1.00	1.0	0.0	12855.938	1035.9	bb	2	5960.805	5.07328	1.5	101.5	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.463	4.459	-0.00	1.00	1.0	1.0	5960.805	1578.1	bb			1.49829	-40.1	59.9	
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.866	-0.01	1.00	1.0	0.0	9505.049	3926.8	dd	4	6525.959	4.99143	-0.2	99.8	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.866	-0.01	1.00	1.0	1.0	6525.959	1529.6	bb			1.80885	-27.6	72.4	

CCV in control del 11-18-2010

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11162010BA6C_PFO.qld
 Last Altered: Thursday, November 18, 2010 14:12:37 Pacific Standard Time
 Printed: Thursday, November 18, 2010 14:14:47 Pacific Standard Time

Date: 17-Nov-2010
 Time: 21:07:14
 Name: 16NO10A6C_137
 ID: CCV-06
 Description: 10LCMS0016 PFO Std 10ng/mL
 Vial: 1:8
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg



#	Name	Trace	Ret	Pred	RT	ΔRT	Size	F.V.	D.F.	Area	S/N	Flags	IS1	IS1Area	Conc	%Dev	%Rec	Mod/Date
1	Perfluorooctanoic acid	412.6>368.7	4.463	4.458	-0.00	1.00	1.0	0.0	25700.221	1757.2	bb	2	6427.993	9.40484	-6.0	94.0		
2	¹³ C-Perfluorooctanoic acid	416.6>371.7	4.463	4.455	-0.01	1.00	1.0	1.0	6427.993	3010.8	bb			1.61573	-35.4	64.6		
3	Perfluorooctanesulfonate	498.6>79.7	4.872	4.866	-0.01	1.00	1.0	0.0	18935.285	8973.4	dd	4	6495.177	9.99071	-0.1	99.9		
4	¹³ C-Perfluorooctanesulfonate	502.6>79.8	4.872	4.866	-0.01	1.00	1.0	1.0	6495.177	3046.1	bb			1.80032	-28.0	72.0		

CCV in control

1/18/11-18-2010

METHOD BLANK REPORT

HPLC

Client Lot #...: G0K010468
MB Lot-Sample #: G0K050000-404
Analysis Date...: 11/17/10
Dilution Factor: 1

Work Order #...: L9MQF1AA
Prep Date.....: 11/05/10
Prep Batch #...: 0309404

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>LOQ</u>	<u>UNITS</u>	<u>METHOD</u>
PFOA	2.0 U	4.0	ng/L	SAC WS-LC-0020
PFOS	2.0 U	4.0	ng/L	SAC WS-LC-0020

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	56	(50 - 200)
13C4 PFOS	57	(50 - 200)

NOTE (S) :

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

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: G0K010468 Work Order #...: L9MQF1AC Matrix.....: WATER
 LCS Lot-Sample#: G0K050000-404
 Prep Date.....: 11/05/10 Analysis Date...: 11/17/10
 Prep Batch #...: 0309404
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE AMOUNT</u>	<u>MEASURED AMOUNT</u>	<u>UNITS</u>	<u>PERCENT RECOVERY</u>	<u>METHOD</u>
PFOA	20.0	13.0 a	ng/L	65	SAC WS-LC-002
PFOS	20.0	13.2 a	ng/L	66	SAC WS-LC-002
<u>SURROGATE</u>				<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA				52	(50 - 200)
13C4 PFOS				63	(50 - 200)

NOTE(S) :

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #....: G0K010468 Work Order #....: L9MQF1AC Matrix.....: WATER
 LCS Lot-Sample#: G0K050000-404
 Prep Date.....: 11/05/10 Analysis Date...: 11/17/10
 Prep Batch #....: 0309404
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
PFOA	65 a	(70 - 130)	SAC WS-LC-0020
PFOS	66 a	(70 - 130)	SAC WS-LC-0020

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	52	(50 - 200)
13C4 PFOS	63	(50 - 200)

NOTE (S) :

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: GOK010468 Work Order #...: L9D741AC-MS Matrix.....: WATER
 MS Lot-Sample #: GOK010468-001 L9D741AD-MSD
 Date Sampled...: 10/29/10 Date Received...: 10/30/10
 Prep Date.....: 11/05/10 Analysis Date...: 11/17/10
 Prep Batch #...: 0309404
 Dilution Factor: 1

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
PFOA	2.0 U	20.0	16.0	ng/L	75		SAC WS-LC-0020
	2.0 U	20.0	11.8	ng/L	54 a, p	30	SAC WS-LC-0020
PFOS	2.0 U	20.0	15.8	ng/L	74		SAC WS-LC-0020
	2.0 U	20.0	10.4	ng/L	47 a, p	42	SAC WS-LC-0020

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
13C4 PFOA	55	(50 - 200)
	55	(50 - 200)
13C4 PFOS	68	(50 - 200)
	69	(50 - 200)

NOTE (S) :

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #....: G0K010468 Work Order #....: L9D741AC-MS Matrix.....: WATER
 MS Lot-Sample #: G0K010468-001 L9D741AD-MSD
 Date Sampled...: 10/29/10 Date Received...: 10/30/10
 Prep Date.....: 11/05/10 Analysis Date...: 11/17/10
 Prep Batch #....: 0309404
 Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	RPD	RPD LIMITS	METHOD
PFOA	75	(70 - 130)			SAC WS-LC-0020
	54 a,p	(70 - 130)	30	(0-20)	SAC WS-LC-0020
PFOS	74	(70 - 130)			SAC WS-LC-0020
	47 a,p	(70 - 130)	42	(0-20)	SAC WS-LC-0020

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
13C4 PFOA	55	(50 - 200)
	55	(50 - 200)
13C4 PFOS	68	(50 - 200)
	69	(50 - 200)

NOTE(S):

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

Bold print denotes control parameters

a Spiked analyte recovery is outside stated control limits.

p Relative percent difference (RPD) is outside stated control limits.

Quantify Compound Summary Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld
Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time
Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Method: C:\MassLynx\JAN2010.PRO\MethDB\PFO.mdb 22 Nov 2010 12:34:39
Calibration: 22 Nov 2010 12:34:39

Compound name: Perfluorooctanoic acid
Response Factor: 1.07768
RRF SD: 0.0442582, Relative SD: 4.10681
Response type: Internal Std (Ref 2), Area * (IS Conc. / IS Area)
Curve type: RF

Table with columns: Acq Date, Acq Time, Name, ID, Sample Text, Type, Vial, Inj Vol, SA Size, FA, D.F. containing 27 rows of analytical data.

- OK

- OK

Quantify Compound Summary Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010\PROV\CV11212010AA6C_PFO.qld

Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time

Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

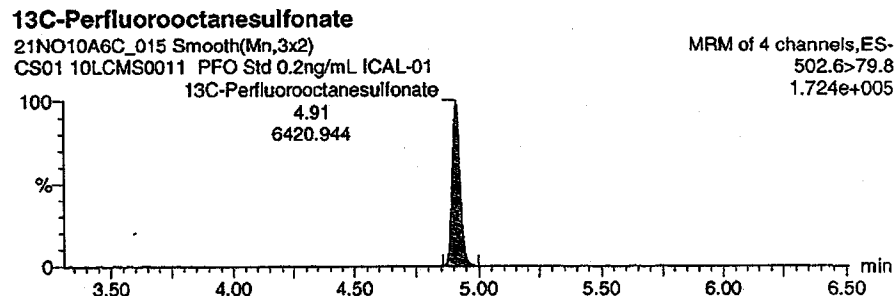
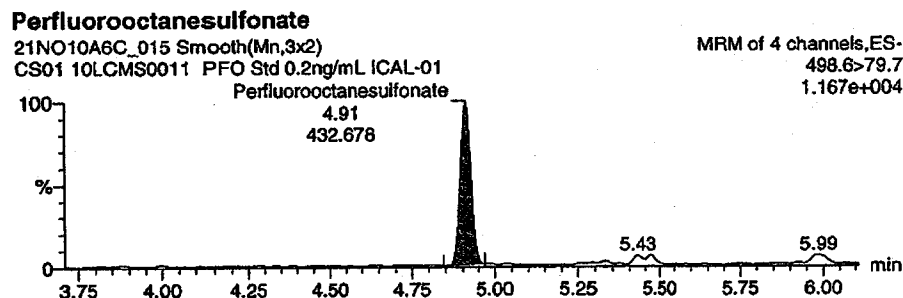
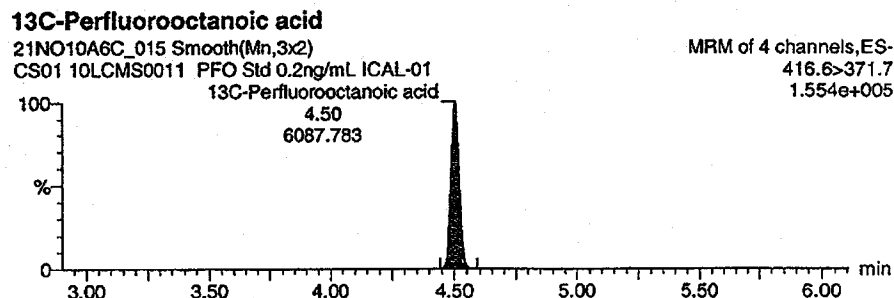
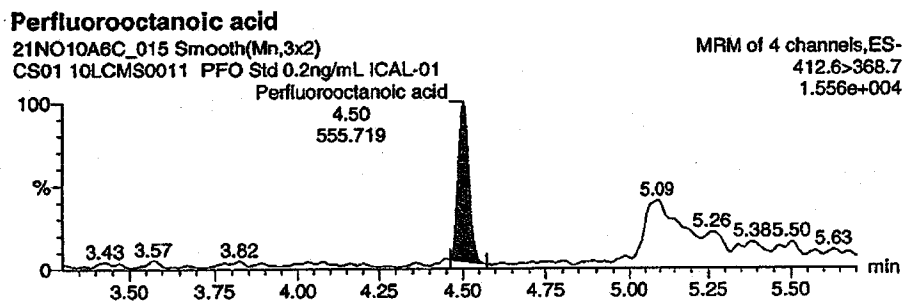
Compound name: Perfluorooctanoic acid

	Acq. Date	Acq. Time	Name	ID	Sample Text	Type	Vial	Inj. Vol	Sample Size	F.A.V.	Dil.
28	21-Nov-10	22:36:44	21NO10A6C_041	L9JPK2AA	A0K040500-3, 0322239, 235.16mL/5.0mL, 2X	Analyte	2:15	10	0.24	5.0	1.0
29	21-Nov-10	22:49:50	21NO10A6C_042	L9JPL2AA	A0K040500-4, 0322239, 236.81mL/5.0mL	Analyte	2:16	10	0.24	5.0	1.0
30	21-Nov-10	23:02:56	21NO10A6C_043	CCV-04	10LCMS0014 PFO Std 2.0ng/mL	QC	1:8	10	1.00	1.0	0.0

-ok

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld
 Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time
 Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010
 Time: 16:56:03
 Name: 21NO10A6C_015
 ID: ICAL-01
 Description: CS01 10LCMS0011 PFO Std 0.2ng/mL
 Vial: 1:3
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg



#	Name	Trace	Prod.	RT	RT	St	Size	F/V	D/F	Area	S/N	Flags	IS	IS Area	Conc.	%Dev	%Rec	Mod	Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	1.0	1.0	555.719	40.6	bb	2	6087.783	0.21176	5.9	105.9		
2	13C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	1.0	6087.783	3410.9	bb			2.57752	3.1	103.1		
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.910	0.00	1.00	1.0	1.0	1.0	432.678	248.0	bb	4	6420.944	0.21132	5.7	105.7		
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	1.0	6420.944	2979.8	bb			2.53113	1.2	101.2		

Quantify Sample Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld

Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time

Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010

Time: 17:09:09

Name: 21NO10A6C_016

ID: ICAL-02

Description: CS02 10LCMS0012 PFO Std 0.5ng/mL

Vial: 1:4

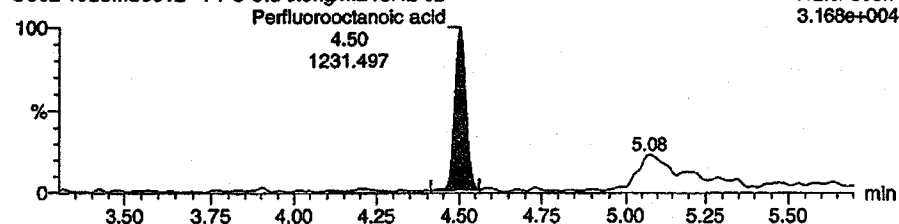
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C

User: deg

Perfluorooctanoic acid

21NO10A6C_016 Smooth(Mn,3x2)
CS02 10LCMS0012 PFO Std 0.5ng/mL ICAL-02

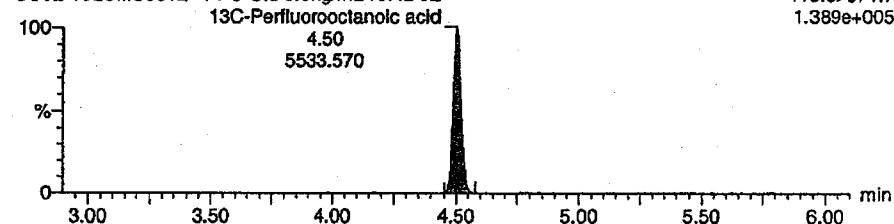
MRM of 4 channels,ES-
412.6>368.7
3.168e+004



13C-Perfluorooctanoic acid

21NO10A6C_016 Smooth(Mn,3x2)
CS02 10LCMS0012 PFO Std 0.5ng/mL ICAL-02

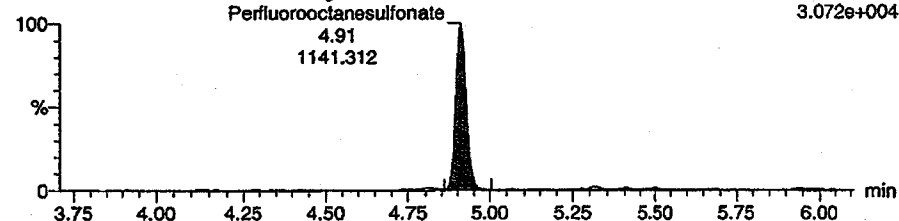
MRM of 4 channels,ES-
416.6>371.7
1.389e+005



Perfluorooctanesulfonate

21NO10A6C_016 Smooth(Mn,3x2)
CS02 10LCMS0012 PFO Std 0.5ng/mL ICAL-02

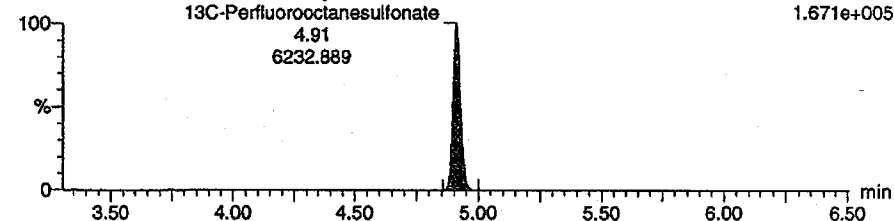
MRM of 4 channels,ES-
498.6>79.7
3.072e+004



13C-Perfluorooctanesulfonate

21NO10A6C_016 Smooth(Mn,3x2)
CS02 10LCMS0012 PFO Std 0.5ng/mL ICAL-02

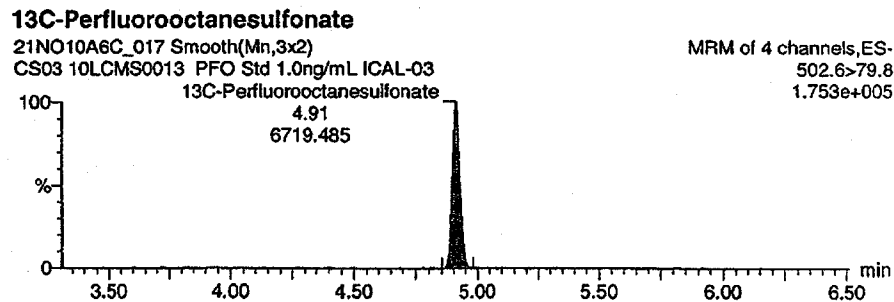
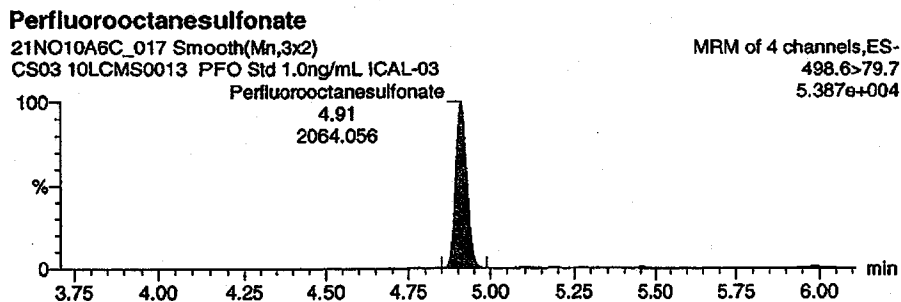
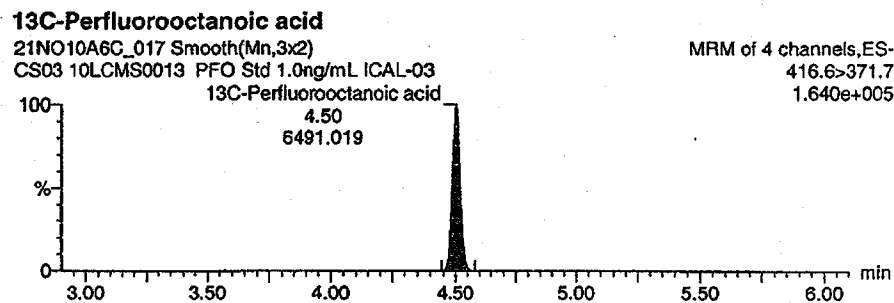
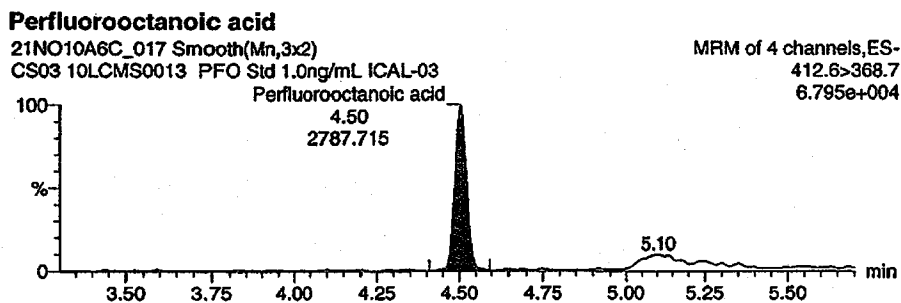
MRM of 4 channels,ES-
502.6>79.8
1.671e+005



#	Name	Ratio	Pred.	RT	RT	Size	EV	D	Area	S/N	Flag	IS#	IS:Area	Conc	%Dev	%Rec	Mod.Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	1.0	1231.497	65.8	bb	2	5533.570	0.51627	3.3	103.3	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	5533.570	879.5	bb			2.34287	-6.3	93.7	
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.910	0.00	1.00	1.0	1.0	1141.312	588.8	db	4	6232.889	0.57422	14.8	114.8	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	6232.889	3595.6	bb			2.45700	-1.7	98.3	

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld
 Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time
 Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010
Time: 17:22:15
Name: 21NO10A6C_017
ID: ICAL-03
Description: CS03 10LCMS0013 PFO Std 1.0ng/mL
Vial: 1:5
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
User: deg



#	Name	Trace	Pred.	RT	WRT	Size	F.V.	D.F.	Area	S/N	Flags	IS#	IS Area	Conc	%Dev	%Rec	Mod.Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	1.0	2787.715	341.2	bb	2	6491.019	0.99629	-0.4	99.6	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	6491.019	1285.8	bb			2.74825	9.9	109.9	
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.910	0.00	1.00	1.0	1.0	2064.056	856.5	bb	4	6719.485	0.96328	-3.7	98.3	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	6719.485	2629.6	bb			2.64881	6.0	106.0	

Quantify Sample Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld

Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time

Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010

Time: 17:35:21

Name: 21NO10A6C_018

ID: ICAL-04

Description: CS04 10LCMS0014 PFO Std 2.0ng/mL

Vial: 1:6

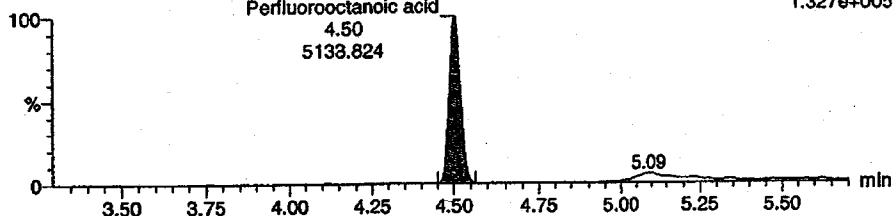
Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C

User: deg

Perfluorooctanoic acid

21NO10A6C_018 Smooth(Mn,3x2)

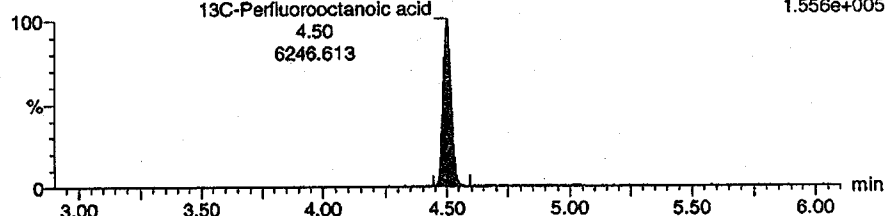
CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

Perfluorooctanoic acid
4.50
5133.824MRM of 4 channels,ES-
412.6>368.7
1.327e+005

13C-Perfluorooctanoic acid

21NO10A6C_018 Smooth(Mn,3x2)

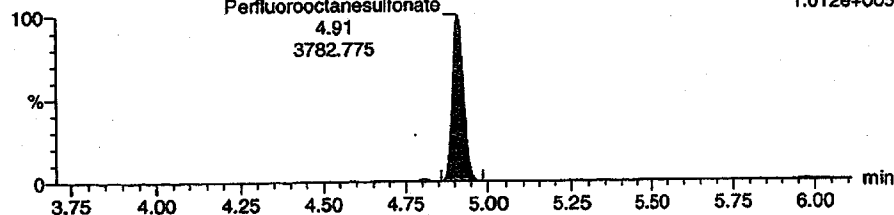
CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

13C-Perfluorooctanoic acid
4.50
6246.613MRM of 4 channels,ES-
416.6>371.7
1.556e+005

Perfluorooctanesulfonate

21NO10A6C_018 Smooth(Mn,3x2)

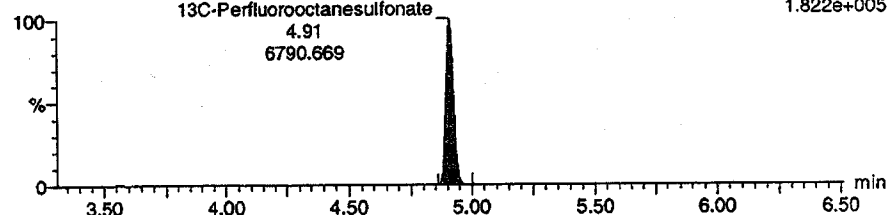
CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

Perfluorooctanesulfonate
4.91
3782.775MRM of 4 channels,ES-
498.6>79.7
1.012e+005

13C-Perfluorooctanesulfonate

21NO10A6C_018 Smooth(Mn,3x2)

CS04 10LCMS0014 PFO Std 2.0ng/mL ICAL-04

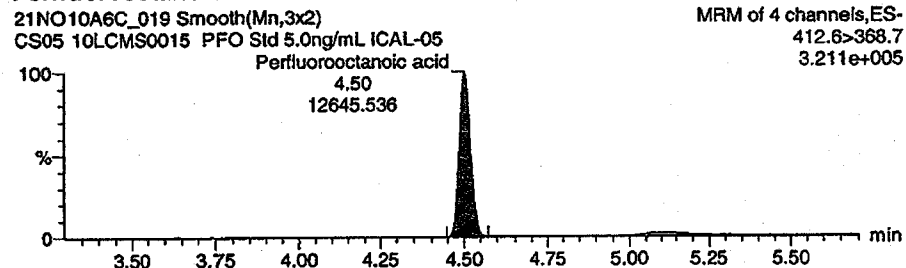
13C-Perfluorooctanesulfonate
4.91
6790.669MRM of 4 channels,ES-
502.6>79.8
1.822e+005

#	Name	Trace	Pred	RT	ABT	Size	EV	D	Area	S/N	Flags	IS#	IS-Area	Conc	%Dev	%Rec	Mod	Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	1.0	5133.824	559.2	db	2	6246.613	1.90655	-4.7	95.3		
2	13C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	6246.613	1886.7	bb			2.64477	5.8	105.8		
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.910	0.00	1.00	1.0	1.0	3782.775	1508.5	bb	4	6790.669	1.74689	-12.7	87.3		
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	6790.669	3098.8	bb			2.67687	7.1	107.1		

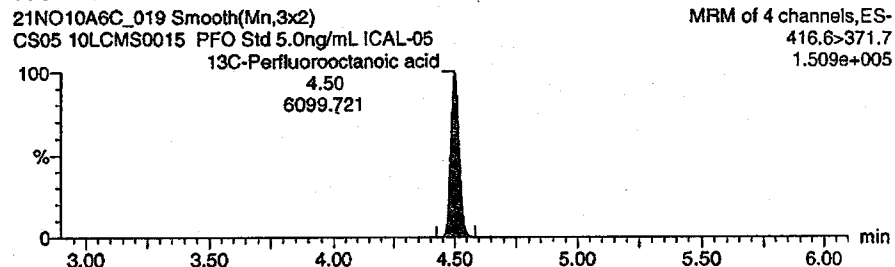
Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld
 Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time
 Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010
 Time: 17:48:28
 Name: 21NO10A6C_019
 ID: ICAL-05
 Description: CS05 10LCMS0015 PFO Std 5.0ng/mL
 Vial: 1:7
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg

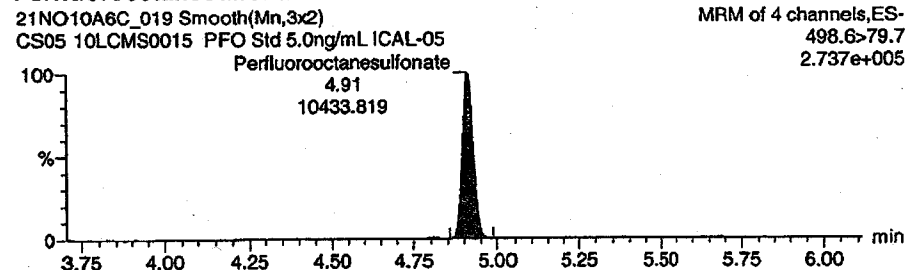
Perfluorooctanoic acid



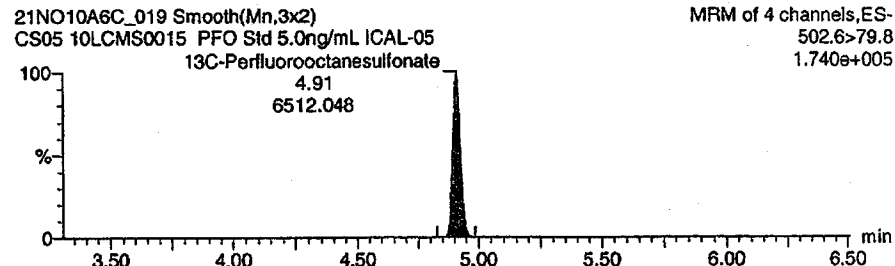
¹³C-Perfluorooctanoic acid



Perfluorooctanesulfonate



¹³C-Perfluorooctanesulfonate



#	Name	Trace	Pred	RT	Y/RT	Size	F/V	D/F	Area	S/N	Flags	IS1	IS Area	Conc	%Dev	%Rec	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	1.0	12645.536	815.3	bb	2	6099.721	4.80926	-3.8	96.2	
2	¹³ C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	6099.721	1297.5	bb			2.58258	3.3	103.3	
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.910	0.00	1.00	1.0	1.0	10433.819	4006.3	bb	4	6512.048	5.02449	0.5	100.5	
4	¹³ C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	6512.048	2115.5	bb			2.56704	2.7	102.7	

Quantify Sample Report **MassLynx 4.1 SCN 683**

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld

Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time

Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010

Time: 18:01:34

Name: 21NO10A6C_020

ID: ICAL-06

Description: CS06 10LCMS0016 PFO Std 10ng/mL

Vial: 1:8

Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C

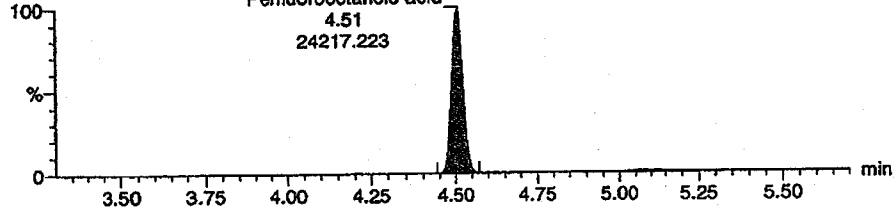
User: deg

Perfluorooctanoic acid

21NO10A6C_020 Smooth(Mn,3x2)

CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

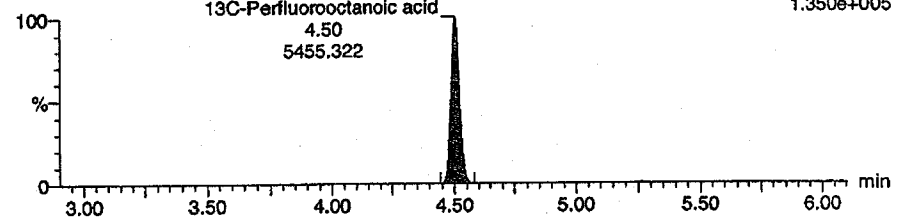
Perfluorooctanoic acid

MRM of 4 channels,ES-
412.6>368.7
6.032e+005**13C-Perfluorooctanoic acid**

21NO10A6C_020 Smooth(Mn,3x2)

CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

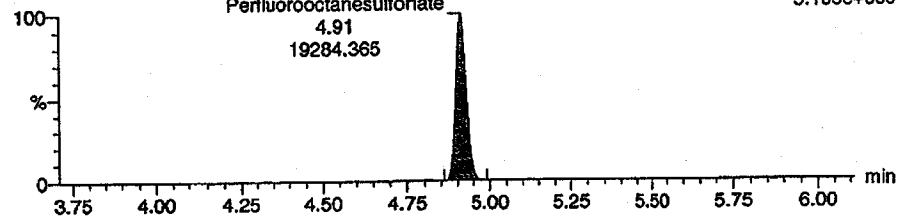
13C-Perfluorooctanoic acid

MRM of 4 channels,ES-
416.6>371.7
1.350e+005**Perfluorooctanesulfonate**

21NO10A6C_020 Smooth(Mn,3x2)

CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

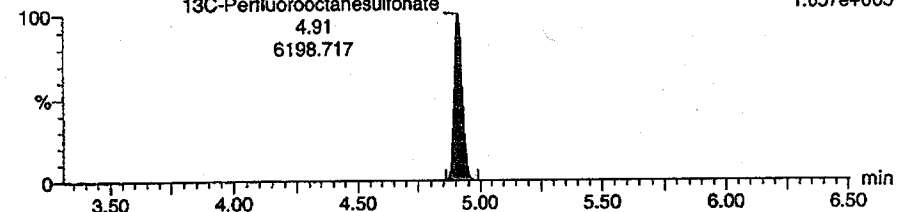
Perfluorooctanesulfonate

MRM of 4 channels,ES-
498.6>79.7
5.105e+005**13C-Perfluorooctanesulfonate**

21NO10A6C_020 Smooth(Mn,3x2)

CS06 10LCMS0016 PFO Std 10ng/mL ICAL-06

13C-Perfluorooctanesulfonate

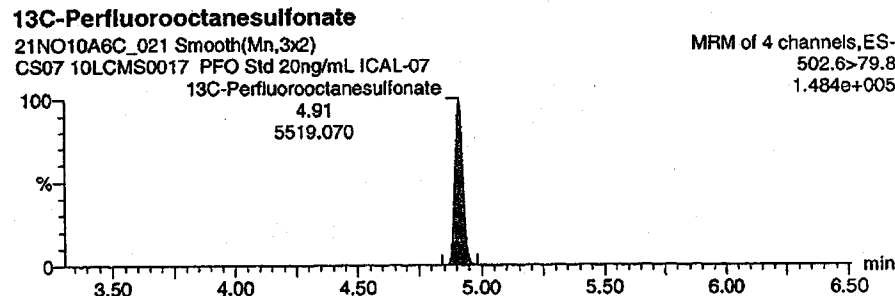
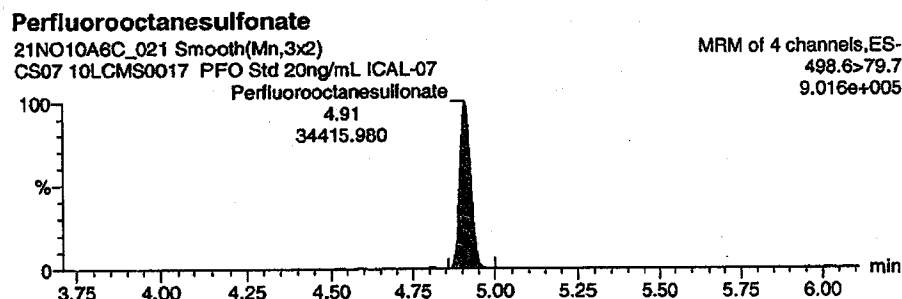
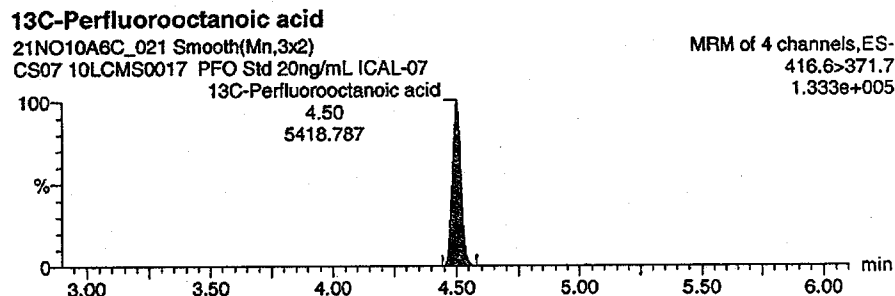
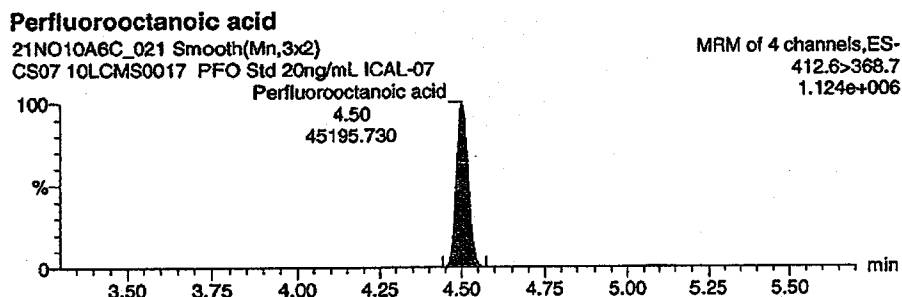
MRM of 4 channels,ES-
502.6>79.8
1.657e+005

#	Name	Trace	Prod	MRM	RT	Size	F/V	D.F	Area	S/N	Flags	IS#	IS Area	Conc	Dev	Rec	Mod	Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.506	0.00	1.00	1.0	1.0	24217.223	3045.5	bb	2	5455.322	10.29805	3.0	103.0		
2	13C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	5455.322	1423.5	bb			2.30974	-7.6	92.4		
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.914	0.00	1.00	1.0	1.0	19284.365	12550.4	bb	4	6198.717	9.75596	-2.4	97.6		
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	6198.717	2727.6	bb			2.44353	-2.3	97.7		

Quantify Sample Report MassLynx 4.1 SCN 683

TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld
 Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time
 Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010
 Time: 18:14:41
 Name: 21NO10A6C_021
 ID: ICAL-07
 Description: CS07 10LCMS0017 PFO Std 20ng/mL
 Vial: 1:9
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg



#	Name	Trace	Pred	RT	A-RT	Size	F.V.	D.F.	Area	S/N	Flags	IS	IS:Area	Conc	%Dev	%Rec	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	1.0	45195.730	2729.1	bb	2	5418.787	19.34846	-3.3	96.7	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	5418.787	2253.8	bb			2.29427	-8.2	91.8	
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.910	0.00	1.00	1.0	1.0	34415.980	19282.8	bb	4	5519.070	19.55513	-2.2	97.8	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	5519.070	3032.4	bb			2.17561	-13.0	87.0	

TestAmerica, West Sacramento

Dataset: C:\MassLynx\JAN2010.PROM\CV11212010AA6C_PFO.qld

Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time

Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

ICAL in control

Method: C:\MassLynx\JAN2010.PROM\MethDB\PFO.mdb 22 Nov 2010 12:34:39

Calibration: 22 Nov 2010 12:34:39

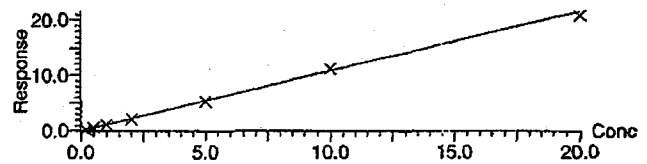
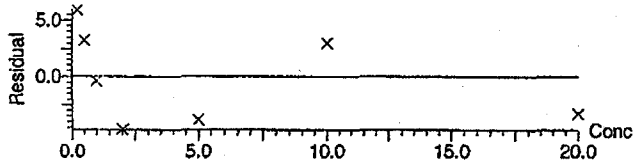
Compound name: Perfluorooctanoic acid

Response Factor: 1.07768

RRF SD: 0.0442582, % Relative SD: 4.10681 ✓

Response type: Internal Std (Ref 2), Area * (IS Conc. / IS Area)

Curve type: RF



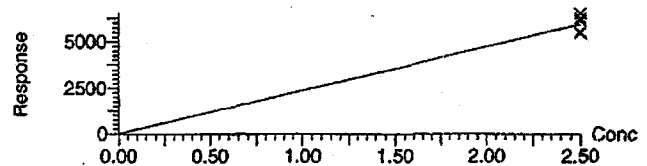
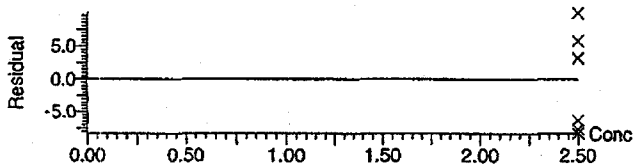
Compound name: 13C-Perfluorooctanoic acid

Response Factor: 2361.88

RRF SD: 171.893, % Relative SD: 7.27781 ✓

Response type: External Std, Area

Curve type: RF



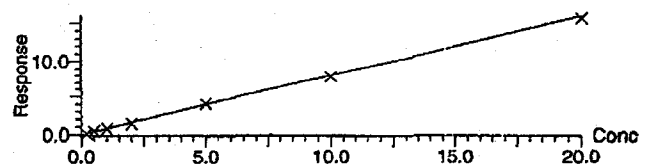
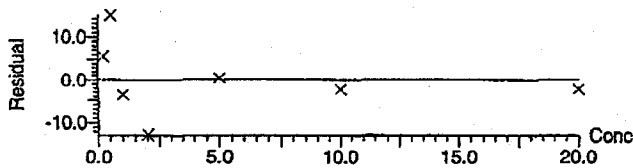
Compound name: Perfluorooctanesulfonate

Response Factor: 0.797212

RRF SD: 0.0680498, % Relative SD: 8.53598 ✓

Response type: Internal Std (Ref 4), Area * (IS Conc. / IS Area)

Curve type: RF



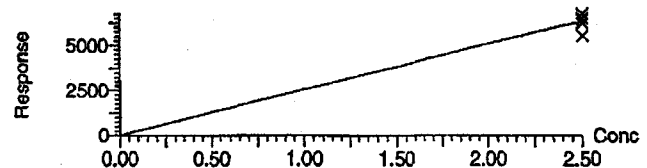
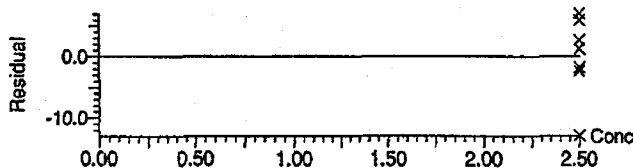
Compound name: 13C-Perfluorooctanesulfonate

Response Factor: 2536.79

RRF SD: 170.38, % Relative SD: 6.71635 ✓

Response type: External Std, Area

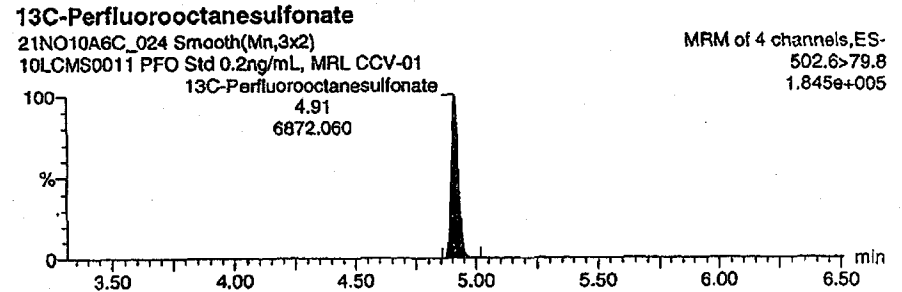
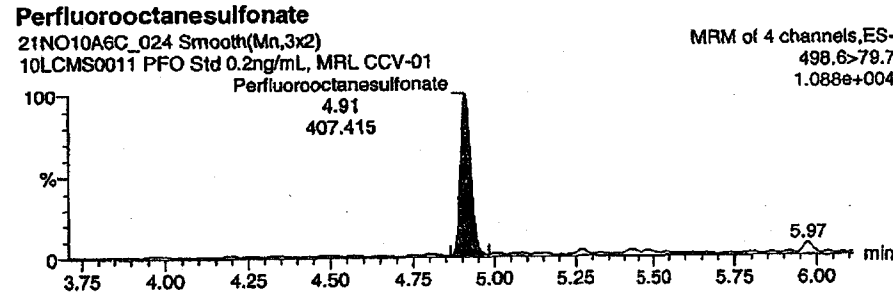
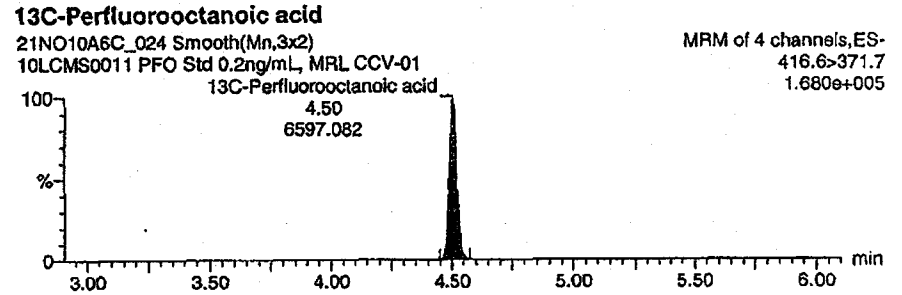
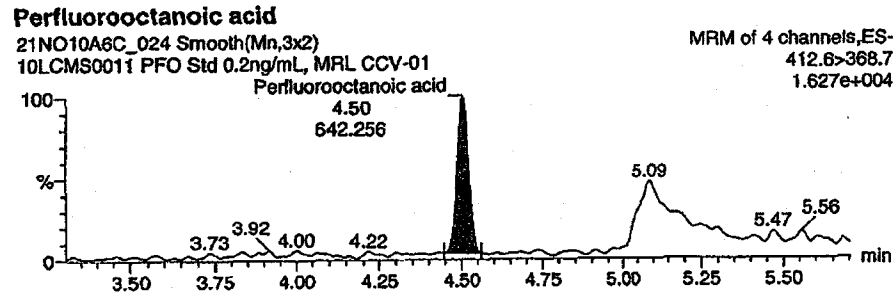
Curve type: RF



Instr ID A6; Quattro Premier XE, SN VAB1006. PFOA/PFOS Analysis by LC/MS/MS, WS-LC-0020

Quantify Sample Report **MassLynx 4.1 SCN 683**
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRONCV11212010AA6C_PFO.qid
 Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time
 Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010
 Time: 18:53:59
 Name: 21NO10A6C_024
 ID: CCV-01
 Description: 10LCMS0011 PFO Std 0.2ng/mL, MRL
 Vial: 1:3
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg



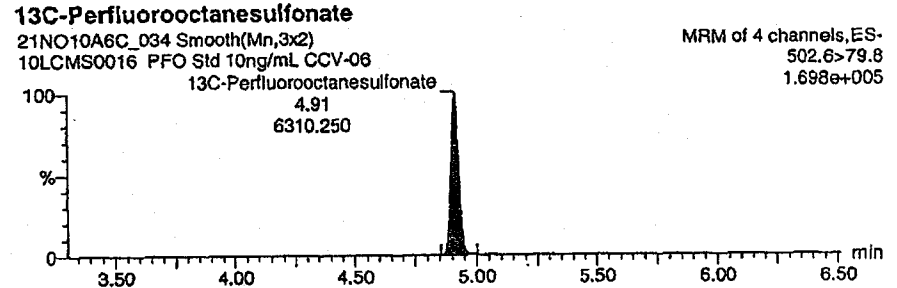
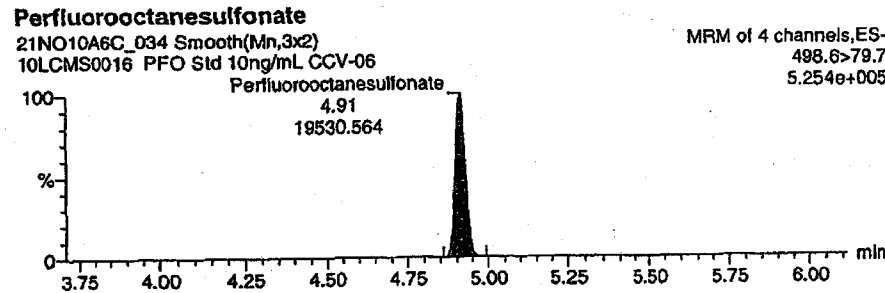
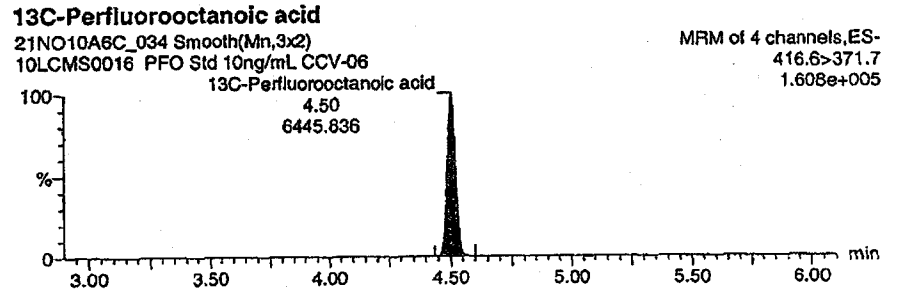
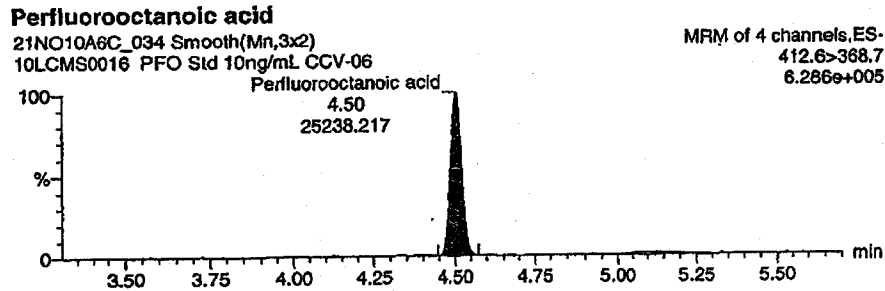
Name	Trace	RT (min)	RT (min)	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area	Area
1 Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	0.0	642.256	57.2	bb	2	6597.082	0.22584	12.9	112.9				
2 ¹³ C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	6597.082	2883.5	bb			2.79315	11.7	111.7				
3 Perfluorooctanesulfonate	498.6>79.7	4.910	4.910	0.00	1.00	1.0	0.0	407.415	119.0	bb	4	6872.060	0.18592	-7.0	93.0				
4 ¹³ C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	6872.060	3166.9	bb			2.70896	8.4	108.4				

CCV e RL is control (MRL)
 JH 11-22-10

Quantify Sample Report MassLynx 4.1 SCN 683
 TestAmerica, West Sacramento
 Dataset: C:\MassLynx\JAN2010.PRO\ICV11212010AA6C_PFO.qld
 Last Altered: Monday, November 22, 2010 12:48:45 Pacific Standard Time
 Printed: Monday, November 22, 2010 12:49:43 Pacific Standard Time

Date: 21-Nov-2010
 Time: 21:05:01
 Name: 21NO10A6C_034
 ID: CCV-06
 Description: 10LCMS0016 PFO Std 10ng/mL
 Vial: 1:8
 Conditions: Acquity C18 BEH 1.7um, 50x2.1mm, 50°C
 User: deg

Test America West Sacramento (916) 373-5600



#	Name	Trace	RT	WRT	SA	Size	FI	MD	Area	S/N	Flags	IS#	IS:Area	Conc	%Dev	%Rsc	Mod Date
1	Perfluorooctanoic acid	412.6>368.7	4.502	4.502	0.00	1.00	1.0	0.0	25238.217	2301.7	bb	2	6445.836	9.08303	-9.2	90.8	
2	13C-Perfluorooctanoic acid	416.6>371.7	4.502	4.502	0.00	1.00	1.0	1.0	6445.836	2566.7	bb			2.72912	9.2	109.2	
3	Perfluorooctanesulfonate	498.6>79.7	4.910	4.914	0.00	1.00	1.0	0.0	19530.564	1373.3	bb	4	6310.250	9.70587	-2.9	97.1	
4	13C-Perfluorooctanesulfonate	502.6>79.8	4.910	4.910	0.00	1.00	1.0	1.0	6310.250	2665.3	bb			2.48749	-0.5	99.5	

CCV in control 2/6 11-22-2010

METHOD BLANK REPORT

HPLC

Client Lot #...: G0K010468
MB Lot-Sample #: G0K180000-246
Analysis Date...: 11/21/10
Dilution Factor: 1

Work Order #...: L98K81AA
Prep Date.....: 11/18/10
Prep Batch #...: 0322246

Matrix.....: WATER

<u>PARAMETER</u>	<u>RESULT</u>	<u>LOQ</u>	<u>UNITS</u>	<u>METHOD</u>
PFOA	2.0 U	4.0	ng/L	SAC WS-LC-0020
PFOS	2.0 U	4.0	ng/L	SAC WS-LC-0020

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	80	(50 - 200)
13C4 PFOS	68	(50 - 200)

NOTE (S) :

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

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #....: G0K010468 Work Order #....: L98K81AC Matrix.....: WATER
 LCS Lot-Sample#: G0K180000-246
 Prep Date.....: 11/18/10 Analysis Date...: 11/21/10
 Prep Batch #....: 0322246
 Dilution Factor: 1

<u>PARAMETER</u>	<u>SPIKE</u> <u>AMOUNT</u>	<u>MEASURED</u> <u>AMOUNT</u>	<u>UNITS</u>	<u>PERCENT</u> <u>RECOVERY</u>	<u>METHOD</u>
PFOA	20.0	21.2	ng/L	106	SAC WS-LC-002
PFOS	20.0	20.5	ng/L	103	SAC WS-LC-002
<u>SURROGATE</u>		<u>PERCENT</u> <u>RECOVERY</u>	<u>RECOVERY</u> <u>LIMITS</u>		
13C4 PFOA		76	(50 - 200)		
13C4 PFOS		70	(50 - 200)		

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results
 Bold print denotes control parameters

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: GOK010468 Work Order #...: L98K81AC Matrix.....: WATER
 LCS Lot-Sample#: GOK180000-246
 Prep Date.....: 11/18/10 Analysis Date...: 11/21/10
 Prep Batch #...: 0322246
 Dilution Factor: 1

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>METHOD</u>
PFOA	106	(70 - 130)	SAC WS-LC-0020
PFOS	103	(70 - 130)	SAC WS-LC-0020

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	76	(50 - 200)
13C4 PFOS	70	(50 - 200)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE DATA REPORT

HPLC

Client Lot #...: G0K010468 Work Order #...: L9D751AC-MS Matrix.....: WATER
 MS Lot-Sample #: G0K010468-002 L9D751AD-MSD
 Date Sampled...: 10/29/10 Date Received...: 10/30/10
 Prep Date.....: 11/18/10 Analysis Date...: 11/21/10
 Prep Batch #...: 0322246
 Dilution Factor: 1.06

PARAMETER	SAMPLE	SPIKE	MEASRD	UNITS	PERCNT		METHOD
	AMOUNT	AMT	AMOUNT		RECVRY	RPD	
PFOA	22	21.2	44.2	ng/L	103		SAC WS-LC-0020
	22	21.1	46.3	ng/L	113	4.6	SAC WS-LC-0020
PFOS	2.1 U	21.2	21.8	ng/L	99		SAC WS-LC-0020
	2.1 U	21.1	20.9	ng/L	96	4.1	SAC WS-LC-0020

SURROGATE	PERCENT	RECOVERY
	RECOVERY	LIMITS
13C4 PFOA	91	(50 - 200)
	85	(50 - 200)
13C4 PFOS	77	(50 - 200)
	90	(50 - 200)

NOTE (S) :

Calculations are performed before rounding to avoid round-off errors in calculated results
 Bold print denotes control parameters

MATRIX SPIKE SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: G0K010468 Work Order #...: L9D751AC-MS Matrix.....: WATER
 MS Lot-Sample #: G0K010468-002 L9D751AD-MSD
 Date Sampled...: 10/29/10 Date Received...: 10/30/10
 Prep Date.....: 11/18/10 Analysis Date...: 11/21/10
 Prep Batch #...: 0322246
 Dilution Factor: 1.06

<u>PARAMETER</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>	<u>RPD</u>	<u>RPD LIMITS</u>	<u>METHOD</u>
PFOA	103	(70 - 130)			SAC WS-LC-0020
	113	(70 - 130)	4.6	(0-20)	SAC WS-LC-0020
PFOS	99	(70 - 130)			SAC WS-LC-0020
	96	(70 - 130)	4.1	(0-20)	SAC WS-LC-0020

<u>SURROGATE</u>	<u>PERCENT RECOVERY</u>	<u>RECOVERY LIMITS</u>
13C4 PFOA	91	(50 - 200)
	85	(50 - 200)
13C4 PFOS	77	(50 - 200)
	90	(50 - 200)

NOTE(S) :

Calculations are performed before rounding to avoid round-off errors in calculated results.
 Bold print denotes control parameters

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	NORM_SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	CONTRACT_ID	DO_CTO_NUMBER	CONTR_NAME	SAMPLE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD	ANALYTICAL_METHOD_GRP_DESC
MID_ATLANTIC	BRUNSWICK_NAS	GOK010468							N6247008D1001	WE49	TETRA TECH NUS, INC.	NASB-AOPI-RB01-102910	Water for QC samples	Equipment blank	29-Oct-10	TA_WS-LC-0025	Perfluoroalkyl Compounds
MID_ATLANTIC	BRUNSWICK_NAS	GOK010468	FTA		FTA-MW08	Monitoring well	3012125.52	384076.14	N6247008D1001	WE49	TETRA TECH NUS, INC.	NASB-FTA-MW08	Ground water	Normal (Regular)	29-Oct-10	TA_WS-LC-0025	Perfluoroalkyl Compounds