MPI RESEARCH

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Analytical Report

PFOA and PFOS Analysis of Deer Muscle and Liver Samples by LC/MS/MS

MPI Report No. L0019346

Testing Laboratory

MPI Research, Inc.
3058 Research Drive
State College, PA 16801

Requester/Project Manager

Dena Haverland
Dalton Utilities
PO BOX 869
Dalton, GA 30722
Phone: 706-529-1010

2010 JAN -6 P 1:44

1 Introduction

Results are reported for the analysis of deer muscle and liver samples received at MPI Research from Dalton Utilities. The MPI Research study number assigned to the project is L0019346. Table I lists the target analytes quantitated for the samples.

Table I. Target Analytes for Quantitation

Compound Name	Acronym
Perfluorooctanoic Acid	C8 Acid or PFOA
Perfluorooctanesulfonate	C8 Sulfonate or PFOS

2 Sample Receipt

Four samples were received from Dena Haverland at Dalton Utilities for this study. The samples were collected on October 02, 2009. The samples arrived on October 06, 2009 via Fedex and were logged in under MPI Research login number L0019346. The shipment was received frozen on dry ice. The samples were stored frozen at approximately -20°C from receipt until analysis. Chain-of-custody information is presented in Attachment A.

3 Methods - Analytical and Preparatory

3.1 Muscle and Liver Sample Preparation

3.1.1. Weigh 1 g of muscle or liver sample into a 50 mL disposable centrifuge tube and fortify, if appropriate. Add 0.2 mL of a 100 ng/mL WIS for a final concentration of 1 ng/mL.

3.1.2 Add water to the sample for a final volume of 10 mL. Cap tightly.

3.1.3 Homogenize sample using a tissuemizer for ~1 minute.

3.1.4 Transfer 1 mL of the sample using a disposable pipette into 15 mL disposable centrifuge tubes. Add 5 mL of ACN and shake for ~20 minutes on a wrist action shaker.

3.1.5. Centrifuge tubes at ~3000 rpm for ~ 5 minutes. Carefully decant supernatant into a 50 mL disposable centrifuge tube and add 35 mL of water.

3.1.6 Place the unconditioned SPE columns on the vacuum manifold. Condition the SPE columns by passing ~ 10 mL of methanol through the column followed by ~ 5 mL of water. The washes may be pulled through the SPE column using vacuum at a flow rate of ~1 drop/sec or may be allowed to pass through the column unaided. Discard all washes. Do not allow the column to dry.

3.1.7 Load the sample onto a conditioned SPE column . Discard the eluate. Any analyte residues will be trapped on the SPE column at this point.

3.1.8 Elute with 2 mL of methanol. Collect 2 mL of elute into a graduated 15 mL centrifuge tube.

3.2 Sample Analysis by LC/MS/MS

In High Pressure Liquid Chromatography (HPLC), an aliquot of extract is injected and passed through a liquid-phase chromatographic column. Based on the affinity of the analyte for the stationary phase in the column relative to the liquid mobile phase, the analyte is retained for a characteristic amount of time. Following HPLC separation, mass spectrometry provides a rapid and accurate means for analyzing a wide range of organic compounds. Molecules are ionized, fragmented, and detected. The ions characteristic of the compounds are observed and quantitated against external calibration standards.

An HP1100 system interfaced to an Applied Biosystems API 4000 LC/MS/MS was used to analyze the sample extracts for quantitation. A gradient elution through a Phenomenex Luna 3µ C8(2) Mercury, 20 x 4.0 mm column was used for separation.

The following gradient was performed:

Mobile Phase (A): 2mM Ammonium Acetate in Water
Mobile Phase (B): Methanol

Time	%A	%B
0.0	90	10
0.5	90	10
2.0	10	90
5.0	10	90
5.1	0	100
6.0	0	100
6.1	90	10
10.0	90	10

The following parameters were used for operation of the mass spectrometer:

Parameter	Setting
Ionization Mode	Electrospray
Polarity	Negative
Transitions Monitored	413→369 (PFOA)
	499→80 (PFOS)
	415→370 (Internal Std. ^{13}C PFOA (m+2))
	503→80 (Internal Std. ^{13}C PFOS (m+4))
Gas Temperature	450°C

4 *Analysis by LCMSMS*

4.1 Calibration

For the muscle and liver sample analysis, a 6-point calibration curve was analyzed throughout the analytical sequence for PFOA and PFOS. The calibration points were prepared at 0.1, 0.2, 0.5, 1.0, 2.0, 5.0 ng/mL (ppb) each containing 1.0 ng/mL ^{13}C-PFOA (m+2) and ^{13}C-PFOS (m+4).

The ratio of the analyte concentration to the IS concentration versus the ratio of the analyte instrument response (area) to the IS response (area) was plotted for each point. Using linear regression with 1/x weighting, the slope, y-intercept and coefficient of determination (r^2) were determined. A calibration curve is acceptable if $r^2 \geq 0.985$.

For the results reported here, calibration criteria were met. The calibration curves are included in the raw data in Attachment C.

4.2 Laboratory Control Spikes

Laboratory control spikes in the analytical set were prepared during each extraction set by adding a known concentration of the analyte to deer muscle and liver controls. Laboratory control spikes are used to assess method accuracy. The laboratory control spikes must show recoveries between 70-130% or the data is rejected. For the results reported here, the laboratory control spikes were within the acceptable range. Laboratory control spike recoveries are given in Attachment B.

4.3 Matrix Spikes

A matrix spike was prepared for each sample by adding a known concentration of the target analyte to a sample. Matrix spikes are used to assess method accuracy in the matrix. The matrix spikes should show recoveries between 70-130%. For the results reported here, the matrix spike was within the acceptable range with the exceptions of:

L19346-4 (Deer # 7 3.5 yr male liver) Spk C at 2000 ng/g for PFOS, which gave low recovery of 59%.

4.4 Laboratory Duplicates

Each sample was prepared in duplicate and analyzed. Duplicate results are given along with the sample results in Attachment B.

5 Data Summary

Please see Attachment B for a detailed listing of the analytical results. For the muscle and liver samples the results are reported in parts per billion (ng/g) on an as-received basis.

6 Data/Sample Retention

Samples are disposed of 60 days after the report is issued unless otherwise specified by the project manager. All electronic data is archived on retrievable media and hard copy reports are stored in data folders maintained by MPI Research. Hardcopy data is stored for a minimum of five years. The client will be notified 30 days prior to the disposal of hardcopy data.

7 Attachments

7.1 Attachment A: Chain of Custody

7.2 Attachment B: Analytical Results

7.3 Attachment C: Raw Analytical Data for Water

8 Signatures

Mark Neeley, Research Chemist Associate II — Date: 11-6-09

Robert Zhu, Manager, Analytical — Date: 11/8/09

A

MPI RESEARCH

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Login

Login Group: L0019346

Login #:	19460	Conform COC Sample:	True
Project:	P0005196	Conform COC:	True
Company Name:	Dalton Utilities	Conform Sample:	True
Submitted By:	Dena Haverland	Conform Request:	True
Login Type:	Immediate Receipt of Samples		
Started:	True		
Date Start:	10/27/2009		
Due Date:	11/06/2009		
Login Initiated:	10/27/2009		
Received By:	Ammerman, Mark		
Spread Sample:			
Label:			
MPI SD/PI:	Zhu, Xiang		
Project Title/Type:	PFOA and PFOS Analysis of Animal Muscle and Liver by LC/MS/MS / ROUTINE		
Login Notes:			

Packages / Containers

Package	Carton	Date / Condition	Shipper / ID	Temp. Control/Temp.	Direction / Handled By
K0022042		Received Date: 10/27/09 10:25 Package & Contents Uncompromised	FEDEX 8694 2057 8178	Dry Ice -79.2	RECEIVED Ammerman, Mark

Container #	Gross Weight	pH	Container Type	Preservative	Mfg. Lot	Mfg. ID
C0457624	218.20 g		1/2 gallon ziplock bag	NONE		
C0457625	278.00 g		1/2 gallon ziplock bag	NONE		
C0457626	324.10 g		1 gallon ziploc bag	NONE		
C0457627	994.10 g		1 gallon ziploc bag	NONE		

Samples

Sample ID	Container	Matrix	System	System Matrix	Sample	Date Sampled	Date Due
L0019346-0001	C0457624	SOLID	Deer	Tissue	Deer #6 0.5 yr female-muscle	10/02/2009	11/06/2009
L0019346-0002	C0457626	SOLID	Deer	Liver	Deer #6 0.5 yr female-liver	10/02/2009	11/06/2009
L0019346-0003	C0457625	SOLID	Deer	Tissue	Deer #7 3.5 yr male-muscle	10/02/2009	11/06/2009
L0019346-0004	C0457627	SOLID	Deer	Liver	Deer #7 3.5 yr male-liver	10/02/2009	11/06/2009

Login

Login Reviewed By: _____ Date/Time: 10/28/09 1440

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Sample Submittal

Please fax this form before sending samples.

Please send samples to shipping and receiving:
3048 Research Drive, State College, PA 16801
T: (814) 272-1039 • F: (814) 272-1019

MPI Research Contact: Daniel Wright

Send Report To:

Company: Dalton Utilities
Address: 1200 VD Parrott JR Parkway, PO Box 869
City, State, ZIP: Dalton, GA 30722-0869
Attention: Dena Haverland
Phone #: 706-529-1010
Fax #: 706-529-1271
Email: dhaverland@dutil.com
Study/Job #:
Signature/Date:
Printed Name:

Turnaround time (TAT) requirements:

Results Due Date: 30 days
Preliminary Results Format: Verbal (Email) Fax
Report Due Date: 30 days

Storage Conditions

Room temperature
Refrigerator
(Freezer)
Ultra Low freezer
Desiccated
Lighting required

Stability (°C/%RH):

Stability time period:

Safety Information

Special handling:
MSDS attached
Controlled substance:
HAZARDS:

Please fill in the diamond HMIS/NFPA (0 4) if appropriate

	Client ID# Description	Lot/ Control #	Amt. Sent/ Weight	# of Bottles	Matrix	Date & Time	Tests Requested
1	Deer #6 0.5 yr Female-Serum		10 ml	10	deer	10/2/09 1:08AM	PFOA/PFOS
2	Deer #6 0.5 yr female-muscle		as requested	1 bag	deer	10/2/09 2:28AM	PFOA/PFOS
3	Deer #6 0.5 yr female-Liver		Whole	1 bag	deer	10/2/09 2:36AM	PFOA/PFOS
4	Deer #7 3.5 yr Male-Serum		10 ml	10	deer	10/2/09 1:45AM	PFOA/PFOS
5	Deer #7 3.5 yr Male-muscle		as requested	1 bag	deer	10/2/09 2:45AM	PFOA/PFOS
6	Deer #7 3.5 yr Male-Liver		Whole	1 bag	deer	10/2/09 2:48AM	PFOA/PFOS
7							
8							
9							
10							

PO #

Relinquished by	Date	Time	Received by	Date	Time
Darrell Kavanagh	10/5/09	6:30 AM		10/06/09	1025

Notes

"THIS IS AN EXACT COPY OF THE ORIGINAL DOCUMENT"
BY MLA DATE 10/27/09

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TEMPORARY SAMPLE STORAGE FORM

To be completed during ExyLIMS Login

Project #: P 5196

Login #: L 4346

Initials / Date: MCA 10/27/09

One form to be completed for each package

Date / Time Received: 10/26/09 1025

Received By: Mark Ammerman

Shipper: FedEx

Shipper Package ID: 8694 2057 8178

Temperature (deg C) / Thermometer ID: -79.2 / D0001771

Temperature Control Method: dry/ice-active

Temporary Storage Location: walk-in freezer 11

Condition of sample(s):

✓ Good – Package and contents uncompromised
___ Fair – Package damaged / contents uncompromised
___ Poor – Package and contents compromised

Notes:

FedEx Express — *US Airbill*

FedEx Tracking Number: 8694 2057 8178

Recipient's Copy

1 From

Date 10/5/07 [redacted]

Sender's Name Darrell Kendrick Phone 201 [illegible]

Company USDA W.H.H.C. Smith/[illegible]

Address 200 Pioneer Road

Dept./Floor/Suite/Room

City Athens State GA ZIP 30602

2 Your Internal Billing Reference

3 To

Recipient's Name David Weight Phone 814 [illegible]

Company MPI Research Labs

Recipient's Address 3048 Research Drive

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City State PA ZIP 16801

8694 2057 8178

4a Express Package Service — *Packages up to 150 lbs.*

- [x] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate.

* To most locations.

4b Express Freight Service — *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation:

** To most locations.

5 Packaging

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

* Declared value limit $500.

6 Special Handling — Include FedEx address in Section 3.

- [ ] SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [x] Dry Ice — Dry ice, 9, UN 1845 1 x 2.5 kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Obtain Recip. Acct. No. [ ]

[redacted]

Total Packages	Total Weight	Total Declared Value†
1		$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details.

Credit Card Auth.

8 Residential Delivery Signature Options — If you require a signature, check Direct or Indirect.

- [x] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. *Fee applies.*

520

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BY [illegible] DATE 10/27/07

B

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Analytical Report

Summary of Fluorochemical Residues in Muscle Samples

	PFOA Perfluorooctanoic Acid	PFOS Perfluorooctanesulfonate
Sample ID	Analyte Found (ng/g, ppb)	Analyte Found (ng/g, ppb)
Deer # 7 3.5 yr male-muscle	ND	88.4
Deer # 7 3.5 yr male-muscle*	ND	92.2
Deer # 6 0.5 yr female-muscle	ND	13.4
Deer # 6 0.5 yr female-muscle*	ND	11.9

*Laboratory Duplicate
ND = Not detected = Response is below the LOD of 1.0 ng/g (ppb).
NQ = Not quantifiable = Response is between the LOD and the LOQ of 10 ng/g (ppb).

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Analytical Report

Recovery Summary of Fluorochemical Residues in Muscle Samples

Sample Description	Amount Spiked (ng/g	PFOA Amt Found in Sample (ng/g)	PFOA Amount Recovered (ng/g	PFOA Recovery (%)	PFOS Amt Found in Sample (ng/g	PFOS Amount Recovered (ng/g	PFOS Recovery (%)
LCS A (Data set 110409A) 10 ng/g	10	ND	9.37	94	ND	8.78	88
LCS B (Data set 110409A) 50 ng/g	50	ND	47.1	94	ND	45.2	90
Deer # 7 3.5 yr male-muscle (L19346-3 Spk C, 50 ng/g Lab Spike)	50	ND	48.5	97	88	128	79
Deer # 6 0.5 yr female-muscle (L19346-1 Spk D, 50 ng/g Lab Spike)	50	ND	46.4	93	13.4	58.0	89

ND = Not detected = Response is below the LOD of 1.0 ng/g.
NQ = Not quantifiable = Response is between the LOD and the LOQ of 10 ng/g.

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Summary of Fluorochemical Residues in Liver Samples

	PFOA Perfluorooctanoic Acid	PFOS Perfluorooctanesulfonate
Sample ID	Analyte Found (ng/g, ppb)	Analyte Found (ng/g, ppb)
Deer # 7 3.5 yr male-liver	ND	2150^
Deer # 7 3.5 yr male-liver*	ND	2160^
Deer # 6 0.5 yr female-liver	ND	604
Deer # 6 0.5 yr female-liver*	ND	574

*Laboratory Duplicate
ND = Not detected = Response is below the LOD of 1.0 ng/g (ppb).
NQ = Not quantifiable = Response is between the LOD and the LOQ of 10 ng/g (ppb).

^ The corresponding Matrix Spike recovery was outside the acceptance criteria of 70-130%, therefore the sample values should be considered an estimate.

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Recovery Summary of Fluorochemical Residues in Liver Samples

		PFOA			PFOS		
Sample Description	Amount Spiked (ng/g	Amt Found in Sample (ng/g)	Amount Recovered (ng/g	Recovery (%)	Amt Found in Sample (ng/g	Amount Recovered (ng/g	Recovery (%)
LCS A (Data set 110409B) 10 ng/g	10	ND	10.0	100	16.5	26.3	98
LCS B (Data set 110409B) 50 ng/g	50	ND	50.3	101	16.5	61.6	90
LCS A (Data set 110509B) 10 ng/g	10	N/A	N/A	N/A	18.6	28.8	102
LCS B (Data set 110509B) 50 ng/g	50	N/A	N/A	N/A	18.6	67.9	99
Deer # 7 3.5 yr male-liver (L19346-4 Spk C, 50 ng/g Lab Spike)	50	ND	52.4	105	2150	**	**
Deer # 6 3.5 yr female-liver (L19346-2 Spk D, 50 ng/g Lab Spike)	50	ND	50.4	101	604	**	**
Deer # 7 3.5 yr male-liver (L19346-4 Spk C, 2000 ng/g Lab Spike)	2000	N/A	N/A	N/A	2150	3330	59*
Deer # 6 3.5 yr female-liver (L19346-2 Spk D, 250 ng/g Lab Spike)	250	N/A	N/A	N/A	604	817	85

ND = Not detected = Response is below the LOD of 1.0 ng/g.
NQ = Not quantifiable = Response is between the LOD and the LOQ of 10 ng/g.

* The Matrix Spike recovery was outside the acceptance criteria of 70-130%, therefore the sample values should be considered an estimate.
** The endogenous level of PFOS in the sample significantly exceeds the spiking level, therefore an accurate recovery cannot be calculated.

C

RAW DATA REPORT

Sponsor Study No:	NA	Limit of Quantitation:	10 ng/g	Set No:	110409A
MPI Study No:	L19345	Injection Volume:	15 µL	Analyst:	Mark Neeley
Analyte:	PFOA	Matrix:	Deer Muscle	Instrument Type:	LC/MS/MS Unit # 9
Ions Monitored:	413 -> 369	Sample Weight	1.0 g	Extraction Date:	11/04/09
Site:	NA			Analyzed on:	11/04/09

MPI Research ID	Sponsor ID	Sample Code	Sample Index No.	Std. Conc. (ng/mL)	Internal Std. Conc. (ng/mL)	Aliquot Factor (AF)	Dilution Factor (DF)	Peak Area	Internal Standard Peak Area	Analyte Found (ng/g)	Amount Analyte Added (ng/g)	Recovery (%)
SS33618	-	CS	1	0.100	1.0	-	-	55054	590483	-	-	-
SS33617	-	CS	2	0.200	1.0	-	-	104150	572151	-	-	-
SS33616	-	CS	3	0.500	1.0	-	-	253254	591894	-	-	-
SS33615	-	CS	4	1.00	1.0	-	-	512706	573466	-	-	-
SS33614	-	CS	5	2.00	1.0	-	-	1006687	578731	-	-	-
SS33613	-	CS	6	5.00	1.0	-	-	2362116	567936	-	-	-
Methanol Wash	-	W	7	-	-	-	-	1476	0	-	-	-
Methanol Wash	-	W	8	-	-	-	-	1517	0	-	-	-
Control	MC4314 Deer Muscle Control	C	9	-	1.0	20	1	12498	630414	ND	-	-
LCS A	MC4314 Deer Muscle Spike A	LCS	10	-	1.0	20	1	311604	765110	9.37	10	94
LCS B	MC4314 Deer Muscle Spike B	LCS	11	-	1.0	20	1	1418119	709162	47.1	50	94
L19346-3 Spk C	Deer # 7 3.5 yr male-muscle Spike C	LF	12	-	1.0	20	1	1437886	698422	48.5	50	97
L19346-1 Spk D	Deer # 6 0.5 yr female-muscle Spike D	LF	13	-	1.0	20	1	862089	438366	46.4	50	93
L19346-3	Deer # 7 3.5 yr male-muscle	S	14	-	1.0	20	1	5207	670093	ND	-	-
L19346-3 Dup	Deer # 7 3.5 yr male-muscle Duplicate	S	15	-	1.0	20	1	5129	649587	ND	-	-
L19346-1	Deer # 6 0.5 yr female-muscle	S	16	-	1.0	20	1	3752	506345	ND	-	-
L19346-1 Dup	Deer # 6 0.5 yr female-muscle Duplicate	S	17	-	1.0	20	1	3129	443379	ND	-	-
SS33615	-	CCV	18	1.00	1.0	-	-	525395	590143	1.04	1.0	104

Analyte Found (ng/g) = ((((analyte peak area/IS peak area) - intercept) / slope) x IS conc.) x AF x DF/Sample weight

Recovery (%) = $\frac{\text{[Analyte found (ng/g)-Analyte found in control (ng/g)]}}{\text{amount Analyte added (ng/g)}} \times 100$

Standard Curve : Linear (1/x weighted)
Intercept = 0.0125
Slope = 0.843
Coef. Of Det. = 0.9992

CS = Calibration standard
CCV = Continuing Calibration Verification
C = Control sample
S = Sample

LF = Lab fortified sample
FF = Field fortified sample
LCS = Laboratory Control Spike

W = Methanol Wash
ND = Not detected = Response between 0 and LOD
NQ = Not quantifiable = Response between LOD and LOQ

Spreadsheet prepared by: MN / 11-6-09

RAW DATA REPORT

Sponsor Study No:	NA	Limit of Quantitation:	10 ng/g	Set No:	110409A
MPI Study No:	L19345	Injection Volume:	15 µL	Analyst:	Mark Neeley
Analyte:	PFOS	Matrix:	Deer Muscle	Instrument Type:	LC/MS/MS Unit # 9
Ions Monitored:	499 -> 80	Sample Weight	1.0 g	Extraction Date:	11/04/09
Site:	NA			Analyzed on:	11/04/09

MPI Research ID	Sponsor ID	Sample Code	Sample Index No.	Std. Conc. (ng/mL)	Internal Std. Conc. (ng/mL)	Extraction Aliquot Factor	Dilution Factor	Peak Area	Internal Standard Peak Area	Analyte Found (ng/g)	Amount Analyte Added (ng/g)	Recovery (%)
SS33618	-	CS	1	0.100	1	-	-	39149	344167	-	-	-
SS33617	-	CS	2	0.200	1	-	-	75056	338773	-	-	-
SS33616	-	CS	3	0.500	1	-	-	187236	342440	-	-	-
SS33615	-	CS	4	1.00	1	-	-	369109	342687	-	-	-
SS33614	-	CS	5	2.00	1	-	-	747914	338050	-	-	-
SS33613	-	CS	6	5.00	1	-	-	1751107	332437	-	-	-
Methanol Wash	-	W	7	-	-	-	-	0	0	-	-	-
Methanol Wash	-	W	8	-	-	-	-	0	0	-	-	-
Control	MC4314 Deer Muscle Control	C	9	-	1	20	1	2080	301876	ND	-	-
LCS A	MC4314 Deer Muscle Spike A	LCS	10	-	1	20	1	182837	381538	8.78	10	88
LCS B	MC4314 Deer Muscle Spike B	LCS	11	-	1	20	1	852146	350892	45.2	50	90
L19346-3 Spk C	Deer # 7 3.5 yr male-muscle Spike C	LF	12	-	1	20	1	2466358	330184	*	50	*
L19346-1 Spk D	Deer # 6 0.5 yr female-muscle Spike D	LF	13	-	1	20	1	710987	228483	58.0	50	89
L19346-3	Deer # 7 3.5 yr male-muscle	S	14	-	1	20	1	1572929	332029	88.4	-	-
L19346-3 Dup	Deer # 7 3.5 yr male-muscle Duplicate	S	15	-	1	20	1	1534874	310563	92.2	-	-
L19346-1	Deer # 6 0.5 yr female-muscle	S	16	-	1	20	1	183224	251539	13.4	-	-
L19346-1 Dup	Deer # 6 0.5 yr female-muscle Duplicate	S	17	-	1	20	1	153884	237149	11.9	-	-
SS33615	-	CCV	18	1.00	1	-	-	369522	346418	0.988	1.00	99

Analyte Found (ppb) = ((((analyte peak area/IS peak area) - intercept) / slope) x IS conc.) x DF

Standard Curve : Linear (1/x weighted)

Intercept = 0.00957

Slope = 1.07

Coef. Of Det. = 0.9996

$$\text{Recovery (\%)} = \frac{[\text{Analyte found (ng/g)} - \text{Analyte found in control (ng/g)}]}{\text{amount Analyte added (ng/g)}} \times 100$$

CS = Calibration standard
CCV = Continuing Calibration Verification
C = Control sample
S = Sample

LF = Lab fortified sample
FF = Field fortified sample
LCS = Laboratory Control Spike

W = Methanol Wash
ND = Not detected = Response between 0 and LOD
NQ = Not quantifiable = Response between LOD and LOQ

* Sample response exceeds the calibration range, dilution required, see set no 110409AD for analysis

Spreadsheet prepared by: MDN / 11-6-09

MPI RESEARCH

3058 Research Drive
State College, PA 16801

Phone: 814-272-1039
Fax: 814-231-1580

Internal Chain of Custody/Fortification Sheet

MPI Reseach Study Number: L19346
Sponsor Study/Protocol No: NA

Matrix: Deer Muscle

The samples listed below were removed from Freezer No. 36
Time 9:25 AM Date 11-4-09 Initials MDN

CLIENT SAMPLE ID	MPI RESEARCH ID NUMBER	WEIGHT (g)	FORTIFICATION (ng)
na	MC4314 Control	1.0	-
na	MC4314 LCS A	1.0	10
na	MC4314 LCS B	1.0	50
Deer #7 3.5 yr male-muscle	L19346-3 Spk C	1.0	50
Deer #6 0.5 yr female-muscle	L19346-1 Spk D	1.0	50
Deer #6 0.5 yr female-muscle	L19346-1	1.0	-
Deer #6 0.5 yr female-muscle	L19346-1 Dup	1.0	-
Deer #7 3.5 yr male-muscle	L19346-3	1.0	-
Deer #7 3.5 yr male-muscle	L19346-3 Dup	1.0	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

	Spiking Solution Used		Volume Used for Spiking	Initial/Date
MC4314 LCS A	SS0033620	(200 ng/mL)	50 µL (50-250µL auto-pipette)	MDN / 11-4-09
MC4314 LCS B	SS0033619	(1000 ng/mL)	50 µL (50-250µL auto-pipette)	MDN / 11-4-09
L19346-3 Spk C	SS0033619	(1000 ng/mL)	50 µL (50-250µL auto-pipette)	MDN / 11-4-09
L19346-1 Spk D	SS0033619	(1000 ng/mL)	50 µL (50-250µL auto-pipette)	MDN / 11-4-09
All Samples	SS0032652	(100 ng/mL)	200 µL (50-250µL auto-pipette)	MDN / 11-4-09

All samples were weighed on balance 20.
Time 9:26 AM Date 11-4-09 Initials MDN

After weighing samples were returned to Freezer No. 36
Time 9:39 AM Date 11-4-09 Initials MDN

Comments:

Analysis Summary:

Data Set: 110409A Initials/Date: MDN / 11-4-09
Data Set: 110409AD Initials/Date: MDN / 11-5-09
Data Set: - Initials/Date: - / -

Set extraction/analysis data verified by: AMB

Date: 11/09/09

MPI RESEARCH

3058 Research Drive
State College, PA 16801

Phone: 814-272-1039
Fax: 814-231-1580

SAMPLE EXTRACTION AND ANALYSIS TRACKING SHEET

MPI STUDY NUMBER: L19346
MATRIX: Deer Muscle

METHOD: V5821
ANALYTES: PFOA & PFOS

PROTOCOL NUMBER: NA

Client ID	MPI Research ID	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	Dilutions (mL/mL)	STEP 7	Dilutions (mL/mL)	STEP 8	Reagents/ Materials	ExyLims ID
na	MC4314 Control							—		—	—	Acetonitrile	RE47644
na	MC4314 LCS A							—		—	—	Water	RE47165
na	MC4314 LCS B							—		—	—	Methanol	RE47975
Deer #7 3.5 yr male-muscle	L19346-3 Spk C							—		0.1/1.0	↓	SPE Column	MA48843
Deer #6 0.5 yr female-muscle	L19346-1 Spk D							—		—	—	*Initials/Date*	MDN 11-4-09
Deer #6 0.5 yr female-muscle	L19346-1							—		—	—	-	-
Deer #6 0.5 yr female-muscle	L19346-1 Dup							—		—	—	-	-
Deer #7 3.5 yr male-muscle	L19346-3							—		—	—	-	-
Deer #7 3.5 yr male-muscle	L19346-3 Dup	↓	↓	↓	↓	↓	↓	—	↓	—	—	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	**HPLC**	
-	-	-	-	-	-	-	-	-	-	-	-	Methanol	RE47850
-	-	-	-	-	-	-	-	-	-	-	-	2 mM Ammonium Acetate in Water	SL45925
-	-	-	-	-	-	-	-	-	-	-	-		
**Initials/Date*	-	MDN 11-4-09	MDN 11-4-09	MDN 11-4-09	MDN 11-4-09	MDN 11-4-09	MDN 11-4-09	—	MDN 11-4-09	MDN 11-5-09	MDN 11-5-09	*Initials/Date*	MDN 11-4-09

STEP 1: Weigh 1 g of muscle into a 50 mL disposable centrifuge tube and fortify if appropriate. Add 0.2 mL of internal standard (100 ng/mL).
STEP 2: Add water to the sample for a final volume of 10 mL. Homogenize using a tissumizer for ~ 1 minute.
STEP 3: Transfer 1.0 mL of the sample to a 15 mL centrifuge tube. Add 5 mL of ACN and shake for ~20 minutes on a wrist action shaker.
STEP 4: Centrifuge tubes at ~3000 for ~5 minutes. Carefully decant supernatant into a 50 mL disposable centrifuge tube and add 35 mL of water.
STEP 5: SPE Cleanup: Condition column with ~10 mL of methanol followed by ~5 mL of water at a rate of ~1 drop/second. Discard all washes. Do not allow column to go dry.
STEP 6: Load the sample onto the SPE Column. Discard the eluate. Elute with 2 mL of methanol into a 15 mL centrifuge tube. Transfer the extract into autosampler vials.
STEP 7: LC/MS/MS analysis.
STEP 8: LC/MS/MS reanalysis.

*Initials and date under each step indicates the personnel that performed this step.

COMMENTS:

Final extracts stored in refrigerator 34 Initials: MDN Date: 11-4-09

MPI Study: L19346
MPI Set No.: 110409A

Operator: Mark Neeley
Instrument No.: LC/MS/MS #9

MDN 11-4-09

oject: \\sc1wp5556\mdrive\PE SCIEX DATA\Projects\P5195 Batch:09_110409A Muscle Tab:Sample Set:SET1 AcqMethod:P5195_102

Sa

	Sample Name	Sample ID	Vial Position	Data File
	SS33618	Calibration Standard, 0.1 ng/mL	1	09_110409A\110409A
–	SS33617	Calibration Standard, 0.2 ng/mL	2	09_110409A\110409A
3	SS33616	Calibration Standard, 0.5 ng/mL	3	09_110409A\110409A
	SS33615	Calibration Standard, 1.0 ng/mL	4	09_110409A\110409A
5	SS33614	Calibration Standard, 2.0 ng/mL	5	09_110409A\110409A
6	SS33613	Calibration Standard, 5.0 ng/mL	6	09_110409A\110409A
	Methanol Wash	Methanol Wash	91	09_110409A\110409A
8	Methanol Wash	Methanol Wash	91	09_110409A\110409A
9	Control	MC4314 Deer Muscle Control	51	09_110409A\110409A
0	LCS A	MC4314 Deer Muscle Spike A, 10 ng/mL	52	09_110409A\110409A
11	LCS B	MC4314 Deer Muscle Spike B, 50 ng/mL	53	09_110409A\110409A
12	L19346-3 Spk C	Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL	54	09_110409A\110409A
3	L19346-1 Spk D	Deer # 6 0.5 yr female-muscle Spike D, 50 ng/mL	55	09_110409A\110409A
14	L19346-3	Deer # 7 3.5 yr male-muscle	56	09_110409A\110409A
5	L19346-3 Dup	Deer # 7 3.5 yr male-muscle Duplicate	57	09_110409A\110409A
6	L19346-1	Deer # 6 0.5 yr female-muscle	58	09_110409A\110409A
17	L19346-1 Dup	Deer # 6 0.5 yr female-muscle Duplicate	59	09_110409A\110409A
8	SS33615	CCV, 1.0 ng/mL	4	09_110409A\110409A

LC/MS/MS SYSTEM AND OPERATING CONDITIONS

Protocol No: NA | MPI Study No: L19346

Instrument: AB API 4000 Biomolecular Mass Analyzer, **(LC/MS/MS #9)**
SCIEX Turbo Ion Spray Liquid Introduction Interface
Turbo Ion spray temperature = 450 °C

Computer: Dell OptiPlex GX 110

Software: PE Sciex Analyst 1.4

HPLC Equipment: Hewlett Packard (HP) Series 1100
HP Quat Pump
HP Vacuum Degasser
HP Autosampler
HP Column Oven

HPLC Column: Phenomenex Luna C8 (2) Mercury, 2cm x 4mm, 3 µm (ExyLIMS ID: MA0052622)

Column Temperature: 35°C

Mobile Phase (A): 2 mM Ammonium Acetate in Water (ExyLIMS ID: SL0045925)

Mobile Phase (B): Methanol (ExyLIMS ID: RE0047880)

Injected Volume: 15 µL

Time (min)	% A	% B	Flow Rate (µL/min)
0.0	90	10	750
0.5	90	10	750
2.0	10	90	750
5.0	10	90	750
5.1	0	100	750
6.0	0	100	750
6.1	90	10	750
10.0	90	10	750

Ions monitored:

Analyte	Parent ion	Daughter ion(s)	Dwell (secs)
PFOA	413	369	0.200
PFOS	499	80	0.200
^{13}C PFOA (m+2) Internal Standard	415	370	0.200
^{13}C PFOS (m+4) Internal Standard	503	80	0.200

Analyst: Mark Neeley MDN 11-4-09
MPI Research, Inc.
3058 Research Drive, State College, PA 16801
Phone: (814) 272-1039 FAX: (814) 231-1580

All Handwritten Peak ID's by: MDN 11-5-09

MDP 11-4-09

Acquisition Information:

cquisition Method:	P5195_102909.dam
reated:	Thursday October 29 2009 09: 35: 12 AM
Last Modified:	Friday October 30 2009 10: 56: 20 AM
omment:	PFOA PFOS
ynchronization Mode:	LC Sync
uto-Equilibration:	Off
Acquisition Duration:	10min0sec
umber Of Scans:	732
eriods In File:	1
cquisition Module:	Acquisition Method
Software version	Analyst 1.4.2

Period 1:
---

cans in Period:	732
elative Start Time:	0.00 msec
Experiments in Period:	1

eriod 1 Experiment 1:

Scan Type:	MRM (MRM)
olarity:	Negative
can Mode:	N/A
on Source:	Turbo Spray
Resolution Q1:	Unit
esolution Q3:	Unit
ntensity Thres.:	0.00 cps
ettling Time:	0.0000 msec
MR Pause:	5.0070 msec
CA:	No
tep Size:	0.00 amu

Q1 Mass (amu)	Q3 Mass (amu)	Dwell(msec)	Param	Start	Stop
13.00	369.00	200.00	DP	-32.00	-32.00
			CE	-18.00	-18.00
			CXP	-13.20	-13.20

Q1 Mass (amu)	Q3 Mass (amu)	Dwell(msec)	Param	Start	Stop
415.00	370.00	200.00	DP	-32.00	-32.00
			CE	-18.00	-18.00
			CXP	-13.20	-13.20

Q1 Mass (amu)	Q3 Mass (amu)	Dwell(msec)	Param	Start	Stop
499.00	80.00	200.00	DP	-83.00	-83.00
			CE	-88.00	-88.00
			CXP	-6.00	-6.00

Q1 Mass (amu)	Q3 Mass (amu)	Dwell(msec)	Param	Start	Stop
503.00	80.00	200.00	DP	-83.00	-83.00
			CE	-88.00	-88.00

MDH 11-4-09

CXF -6.00 -6.00

arameter Table(Period 1 Experiment 1):
AD: 7.00
CUR: 20.00
GS1: 50.00
S2: 40.00
S: -4500.00
TEM: 450.00
ihe: ON
F -10.00

Agilent LC Pump Method Properties
Pump Model: Agilent 1100 LC Quaternary Pump
inimum Pressure (psi): 0.0
aximum Pressure (psi): 5801.0
Compressibility: 100.0
Dead Volume (µl): 40.0
troke Volume (µl): -1.0
aximum Flow Ramp (ml/min²): 100.0
Maximum Pressure Ramp (psi/sec): 290.0

tep Table:

Step	Total Time(min)	Flow Rate(µl/min)	A (%)	B (%)	C (%)	D (%)	TE#1	TE#2	TE#3	TE#4
0	0.00	750	0.0	0.0	90.0	10.0	open	open	open	open
	0.50	750	0.0	0.0	90.0	10.0	open	open	open	open
	2.00	750	0.0	0.0	10.0	90.0	open	open	open	open
3	5.00	750	0.0	0.0	10.0	90.0	open	open	open	open
4	5.10	750	0.0	0.0	0.0	100.0	open	open	open	open
	6.00	750	0.0	0.0	0.0	100.0	open	open	open	open
	6.10	750	0.0	0.0	90.0	10.0	open	open	open	open
7	10.00	750	0.0	0.0	90.0	10.0	open	open	open	open

rimary Flow Rate (ul/min): 200.0
Flow Sensor Calibration Table Index: 0

gilent Column Oven Properties
eft Temperature (°C): 35.00
Right Temperature (°C): 35.00
emperature Tolerance +/- (°C): 1.00
tart Acquisition Tolerance +/- (°C): 0.50
ime Table (Not Used)
Column Switching Valve Installed
osition for first sample in the batch: Left
se same position for all samples in the batch

Agilent Autosampler Properties
utosampler Model: Agilent 1100 Wellplate Autosampler
yringe Size (µl): 100
Injection Volume (µl): 15.00
Draw Speed (µl/min): 200.0
ject Speed (µl/min): 200.0
eedle Level (mm): 0.00
Temperature Control Enabled
etpoint (4 - 40 C): 4
ash Location: Flush Port
ash Time (1 - 999 sec): 10

utomatic Delay Volume Reduction Not Used

MDH 11-4-09

Equilibration Time (sec):	2
Enable Vial/Well Bottom Sensing	No
Use Custom Injector Program	No

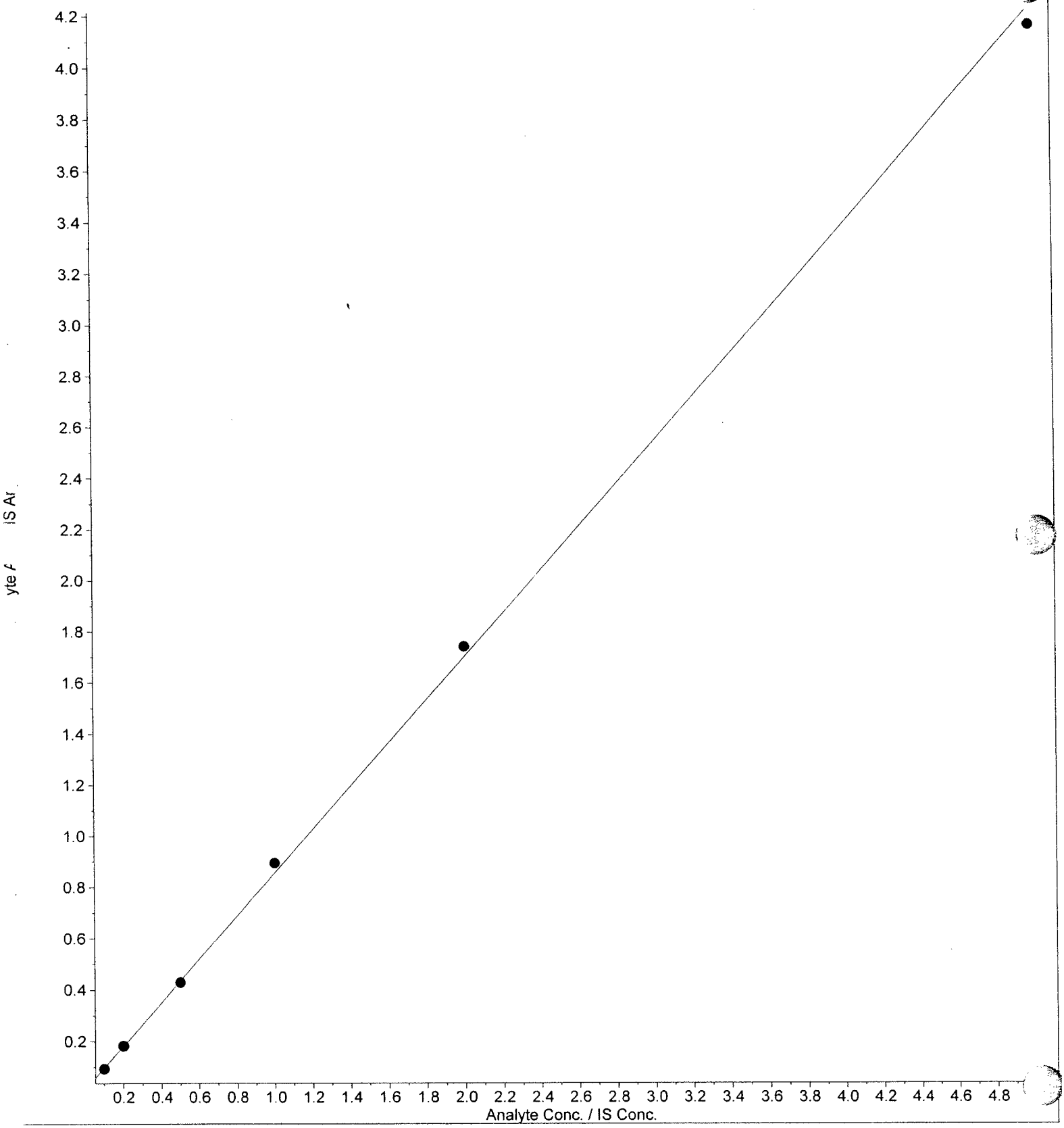
alyst Version: 1.4.2
Printing Time: 8:29:25 AM
Printing Date: Thursday, November 05, 2009

MPI Study: L19346
MPI Set No.: 110409A

Operator: Mark Neeley
Instrument No.: LC/MS/MS #9

MDN 11-5-09

09_110409A.rdb (PFOA): "Linear" Regression ("1 / x" weighting): y = 0.843 x + 0.0125 (r = 0.9996)



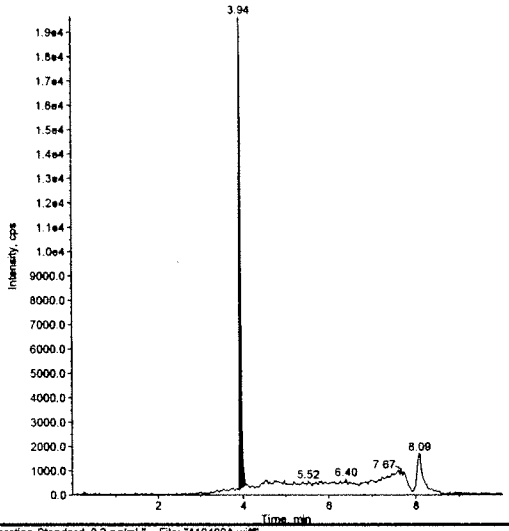
I Research, Inc.

alyst Version: 1.4.2 MPI Study: L19346 Operator: Mark Neeley
rinting Time: 8:30:11 AM MPI Set No.: 110409A Instrument No.: LC/MS/MS #9
rinting Date: Thursday, November 05, 2009

Sample Name: "SS33618" Sample ID: "Calibration Standard, 0.1 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 0.100 ng/mL
Calculated Conc: 0.0957 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 3:54:30 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 40.01 cps
Area Threshold: 200.04 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.99 min
Use Relative RT: No

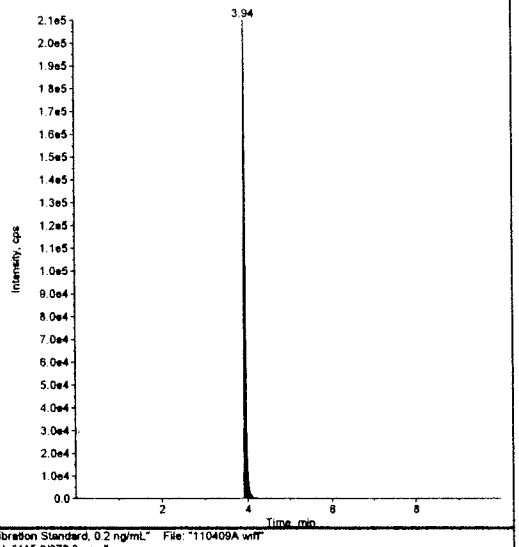
Int. Type: Base To Base
Retention Time: 3.94 min
Area: 55054 counts
Height: 19859 cps
Start Time: 3.88 min
End Time: 4.09 min



Sample Name: "SS33618" Sample ID: "Calibration Standard, 0.1 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""
Sample Index: 1
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 3:54:30 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 256.47 cps
Area Threshold: 1282.36 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.98 min
Use Relative RT: No

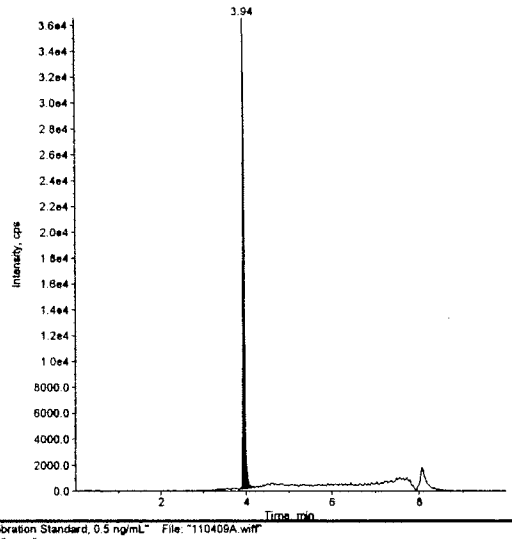
Int. Type: Base To Base
Retention Time: 3.94 min
Area: 590483 counts
Height: 210974 cps
Start Time: 3.88 min
End Time: 4.13 min



Sample Name: "SS33617" Sample ID: "Calibration Standard, 0.2 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""
Sample Index: 2
Sample Type: Standard
Concentration: 0.200 ng/mL
Calculated Conc: 0.201 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 4:05:26 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 40.01 cps
Area Threshold: 200.04 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.99 min
Use Relative RT: No

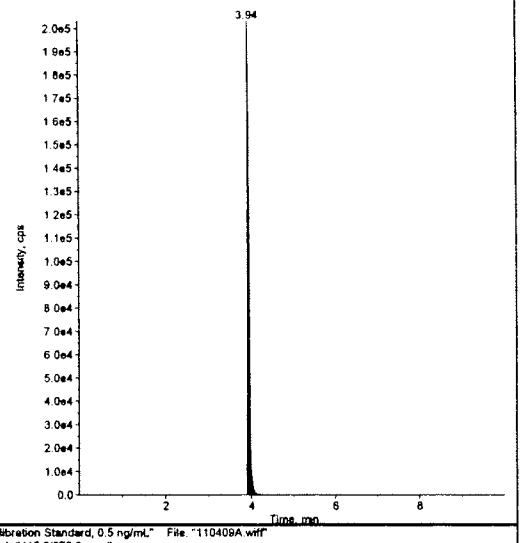
Int. Type: Base To Base
Retention Time: 3.94 min
Area: 104150 counts
Height: 16907 cps
Start Time: 3.83 min
End Time: 4.21 min



Sample Name: "SS33617" Sample ID: "Calibration Standard, 0.2 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""
Sample Index: 2
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 4:05:26 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 256.47 cps
Area Threshold: 1282.36 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.98 min
Use Relative RT: No

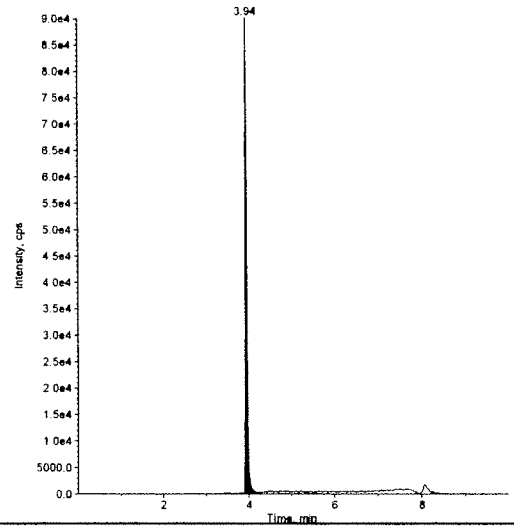
Int. Type: Base To Base
Retention Time: 3.94 min
Area: 572151 counts
Height: 203173 cps
Start Time: 3.88 min
End Time: 4.14 min



Sample Name: "SS33616" Sample ID: "Calibration Standard, 0.5 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""
Sample Index: 3
Sample Type: Standard
Concentration: 0.500 ng/mL
Calculated Conc: 0.493 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 4:16:22 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 40.01 cps
Area Threshold: 200.04 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.99 min
Use Relative RT: No

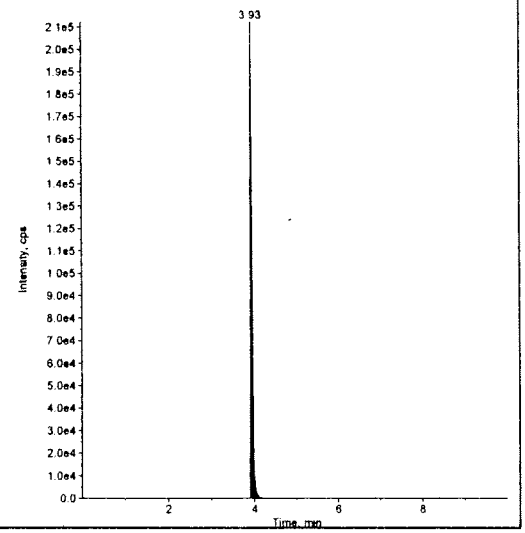
Int. Type: Base To Base
Retention Time: 3.94 min
Area: 253254 counts
Height: 90167 cps
Start Time: 3.81 min
End Time: 4.18 min



Sample Name: "SS33616" Sample ID: "Calibration Standard, 0.5 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""
Sample Index: 3
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 4:16:22 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 256.47 cps
Area Threshold: 1282.36 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.98 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.93 min
Area: 591894 counts
Height: 213280 cps
Start Time: 3.88 min
End Time: 4.13 min



I Research, Inc.

Initials MNN

Date 11-9-09

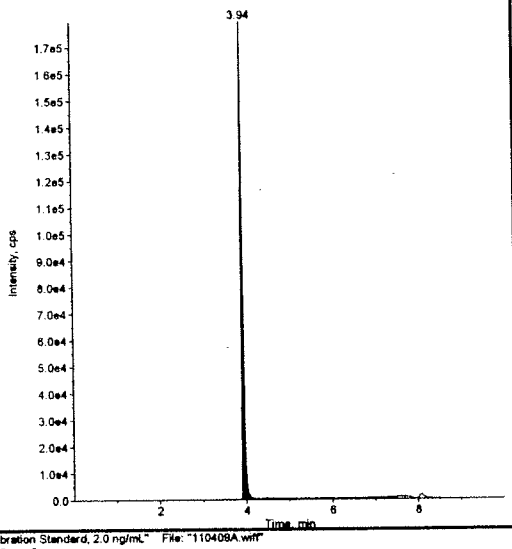
Sample Index 1 To 18

Sample Name: "SS33615" Sample ID: "Calibration Standard, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

```
Sample Index:        4
Sample Type:      Standard
Concentration:       1.00     ng/mL
Calculated Conc:     1.05     ng/mL
Acq. Date:        11/4/2009
Acq. Time:        4:27:18 PM

Modified:            No
Proc. Algorithm:  Analyst Classic
Bunching Factor:     1
Noise Threshold:    40.01    cps
Area Threshold:    200.04    cps
Num. Smooths:        1
Sep. Width:          0.20
Sep. Height:         0.01
Exp. Peak Ratio:     5.00
Exp. Adj. Ratio:     4.00
Exp. Val. Ratio:     3.00
RT Window:          30.0      sec
Expected RT:         3.99     min
Use Relative RT:     No

Int. Type:        Base To Base
Retention Time:      3.94     min
Area:            512706     counts
Height:          179695     cps
Start Time:          3.87     min
End Time:            4.29     min
```

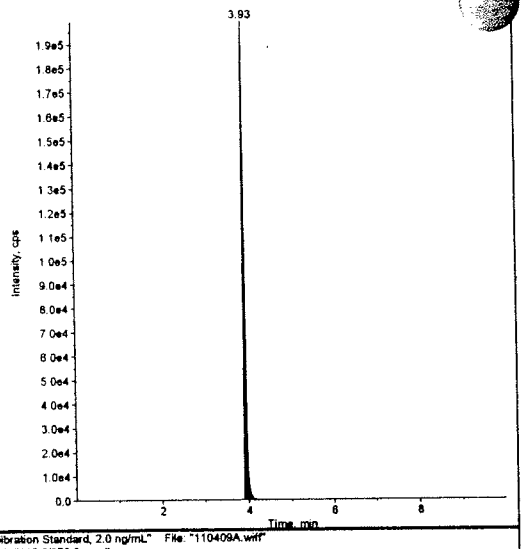


Sample Name: "SS33615" Sample ID: "Calibration Standard, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

```
Sample Index:        4
Sample Type:      Standard
Concentration:       1.00     ng/mL
Calculated Conc:     N/A
Acq. Date:        11/4/2009
Acq. Time:        4:27:18 PM

Modified:            No
Proc. Algorithm:  Analyst Classic
Bunching Factor:     1
Noise Threshold:   256.47    cps
Area Threshold:   1282.36    cps
Num. Smooths:        1
Sep. Width:          0.20
Sep. Height:         0.01
Exp. Peak Ratio:     5.00
Exp. Adj. Ratio:     4.00
Exp. Val. Ratio:     3.00
RT Window:          30.0      sec
Expected RT:         3.98     min
Use Relative RT:     No

Int. Type:        Base To Base
Retention Time:      3.93     min
Area:            573466     counts
Height:          202707     cps
Start Time:          3.87     min
End Time:            4.13     min
```

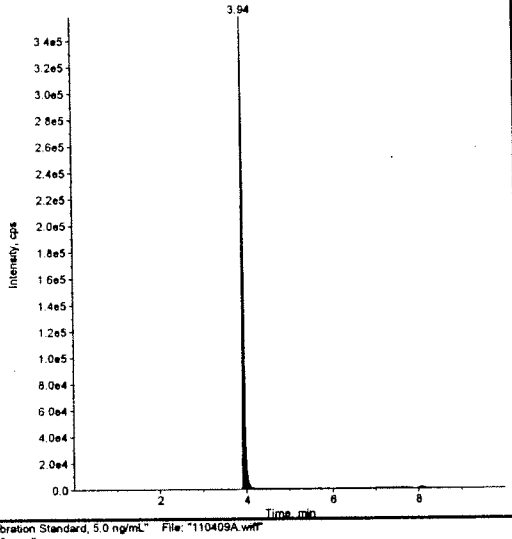


Sample Name: "SS33614" Sample ID: "Calibration Standard, 2.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

```
Sample Index:        5
Sample Type:      Standard
Concentration:       2.00     ng/mL
Calculated Conc:     2.05     ng/mL
Acq. Date:        11/4/2009
Acq. Time:        4:38:14 PM

Modified:            No
Proc. Algorithm:  Analyst Classic
Bunching Factor:     1
Noise Threshold:    40.01    cps
Area Threshold:    200.04    cps
Num. Smooths:        1
Sep. Width:          0.20
Sep. Height:         0.01
Exp. Peak Ratio:     5.00
Exp. Adj. Ratio:     4.00
Exp. Val. Ratio:     3.00
RT Window:          30.0      sec
Expected RT:         3.99     min
Use Relative RT:     No

Int. Type:        Base To Base
Retention Time:      3.94     min
Area:           1006687     counts
Height:          358187     cps
Start Time:          3.87     min
End Time:            4.22     min
```

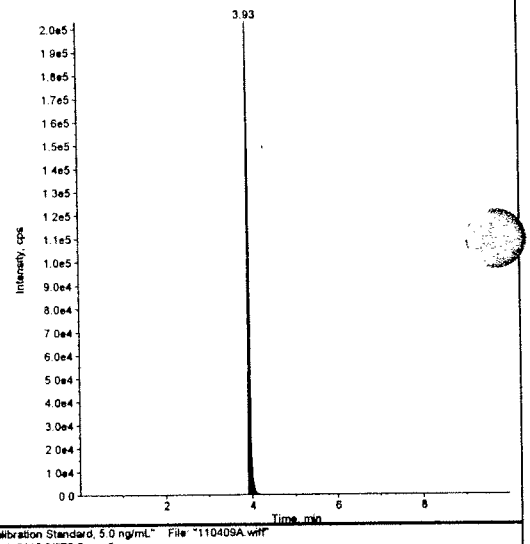


Sample Name: "SS33614" Sample ID: "Calibration Standard, 2.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

```
Sample Index:        5
Sample Type:      Standard
Concentration:       1.00     ng/mL
Calculated Conc:     N/A
Acq. Date:        11/4/2009
Acq. Time:        4:38:14 PM

Modified:            No
Proc. Algorithm:  Analyst Classic
Bunching Factor:     1
Noise Threshold:   256.47    cps
Area Threshold:   1282.36    cps
Num. Smooths:        1
Sep. Width:          0.20
Sep. Height:         0.01
Exp. Peak Ratio:     5.00
Exp. Adj. Ratio:     4.00
Exp. Val. Ratio:     3.00
RT Window:          30.0      sec
Expected RT:         3.98     min
Use Relative RT:     No

Int. Type:        Base To Base
Retention Time:      3.93     min
Area:            578731     counts
Height:          205632     cps
Start Time:          3.87     min
End Time:            4.13     min
```

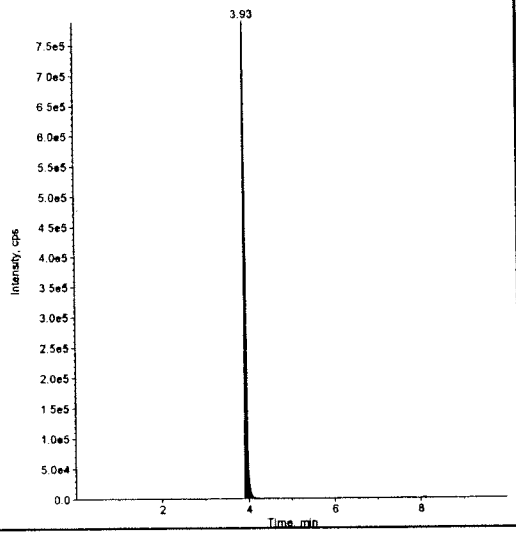


Sample Name: "SS33613" Sample ID: "Calibration Standard, 5.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

```
Sample Index:        6
Sample Type:      Standard
Concentration:       5.00     ng/mL
Calculated Conc:     4.92     ng/mL
Acq. Date:        11/4/2009
Acq. Time:        4:49:09 PM

Modified:            No
Proc. Algorithm:  Analyst Classic
Bunching Factor:     1
Noise Threshold:    40.01    cps
Area Threshold:    200.04    cps
Num. Smooths:        1
Sep. Width:          0.20
Sep. Height:         0.01
Exp. Peak Ratio:     5.00
Exp. Adj. Ratio:     4.00
Exp. Val. Ratio:     3.00
RT Window:          30.0      sec
Expected RT:         3.99     min
Use Relative RT:     No

Int. Type:        Base To Base
Retention Time:      3.93     min
Area:           2362116     counts
Height:          817984     cps
Start Time:          3.85     min
End Time:            4.31     min
```

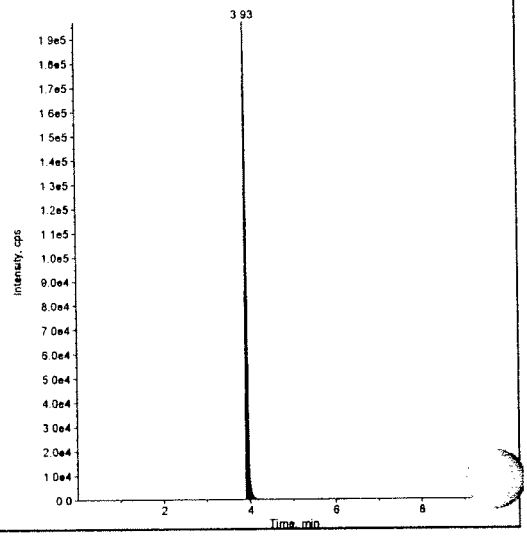


Sample Name: "SS33613" Sample ID: "Calibration Standard, 5.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

```
Sample Index:        6
Sample Type:      Standard
Concentration:       1.00     ng/mL
Calculated Conc:     N/A
Acq. Date:        11/4/2009
Acq. Time:        4:49:09 PM

Modified:            No
Proc. Algorithm:  Analyst Classic
Bunching Factor:     1
Noise Threshold:   256.47    cps
Area Threshold:   1282.36    cps
Num. Smooths:        1
Sep. Width:          0.20
Sep. Height:         0.01
Exp. Peak Ratio:     5.00
Exp. Adj. Ratio:     4.00
Exp. Val. Ratio:     3.00
RT Window:          30.0      sec
Expected RT:         3.98     min
Use Relative RT:     No

Int. Type:        Base To Base
Retention Time:      3.93     min
Area:            567936     counts
Height:          203164     cps
Start Time:          3.87     min
End Time:            4.11     min
```

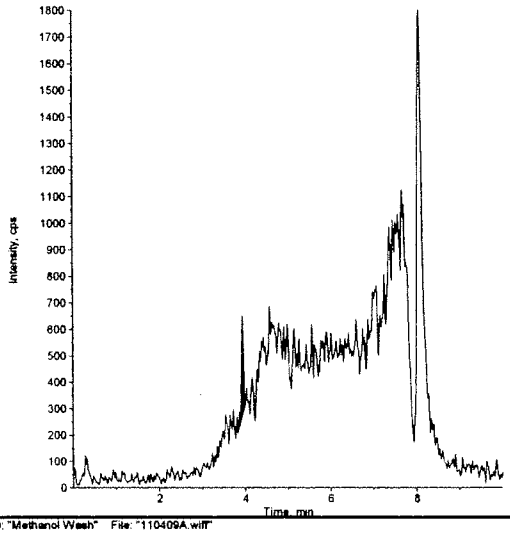


Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index: 7
Sample Type: Solvent
Concentration: 0.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:00:06 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 40.01 cps
Area Threshold: 200.04 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.99 min
Use Relative RT: No

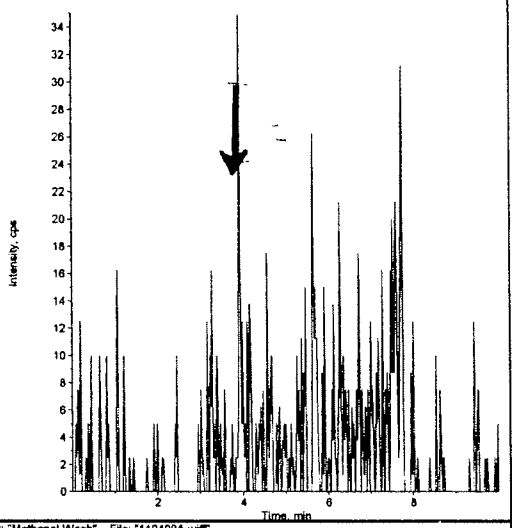
Int. Type: Base To Base
Retention Time: 3.94 min
Area: 1476 counts
Height: 378 cps
Start Time: 3.83 min
End Time: 4.00 min



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index: 7
Sample Type: Solvent
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:00:06 PM

Modified: No

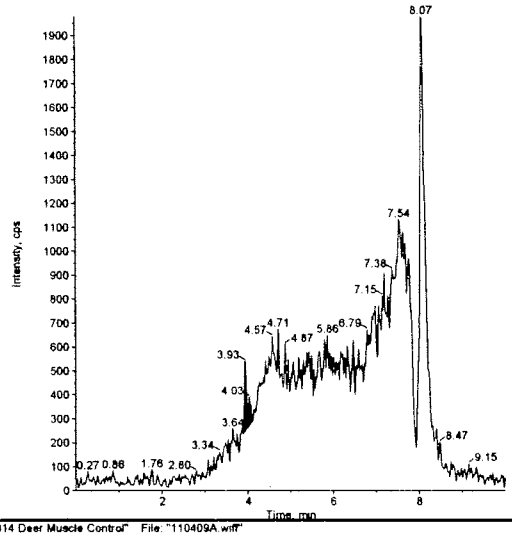


Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index: 8
Sample Type: Solvent
Concentration: 0.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:11:01 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 40.01 cps
Area Threshold: 200.04 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.99 min
Use Relative RT: No

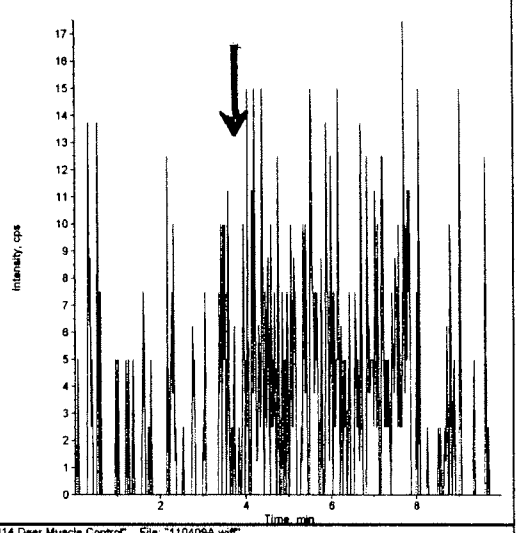
Int. Type: Base To Base
Retention Time: 3.93 min
Area: 1517 counts
Height: 302 cps
Start Time: 3.88 min
End Time: 4.11 min



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index: 8
Sample Type: Solvent
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:11:01 PM

Modified: No

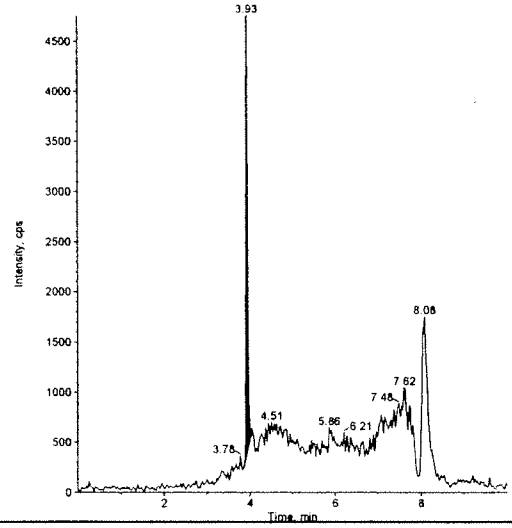


Sample Name: "Control" Sample ID: "MC4314 Deer Muscle Control" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index: 9
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 0.173 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 5:21:55 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 40.01 cps
Area Threshold: 200.04 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.99 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.93 min
Area: 12498 counts
Height: 4620 cps
Start Time: 3.87 min
End Time: 4.02 min

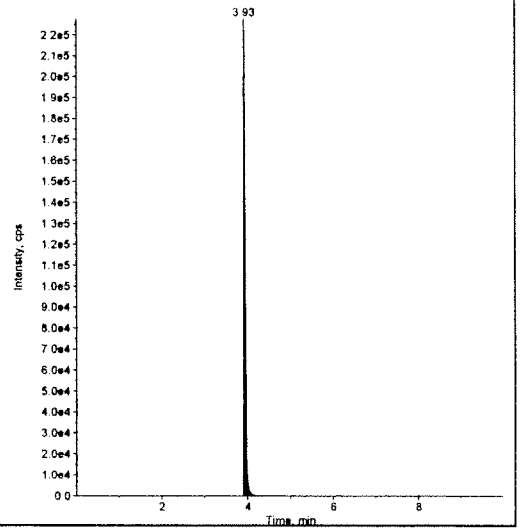


Sample Name: "Control" Sample ID: "MC4314 Deer Muscle Control" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index: 9
Sample Type: Unknown
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:21:55 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 256.47 cps
Area Threshold: 1282.36 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.98 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.93 min
Area: 630414 counts
Height: 235427 cps
Start Time: 3.87 min
End Time: 4.13 min



alyst Version: 1.4.2
rinting Time: 8:30:12 AM
rinting Date: Thursday, November 05, 2009

MPI Study: L19346
MPI Set No.: 110409A

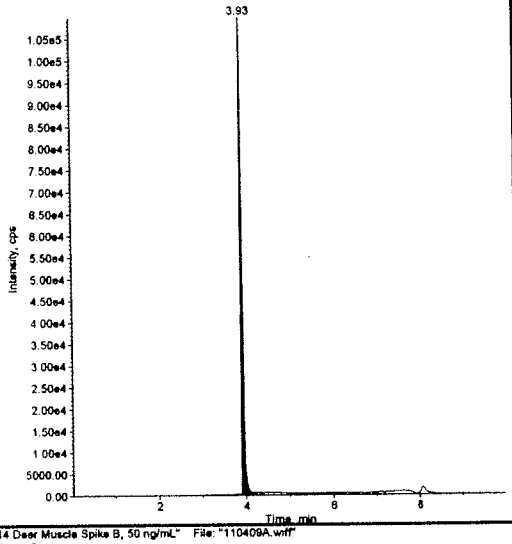
Operator: Mark Neeley
Instrument No.: LC/MS/MS #9

Sample Name: "LCS A" Sample ID: "MC4314 Deer Muscle Spike A, 10 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index: 10
Sample Type: QC
Concentration: 10.0 ng/mL
lculated Conc: 9.36 ng/mL
d. Date: 11/4/2009
d. Time: 5:32:53 PM

lified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 40.01 cps
rea Threshold: 200.04 cps
. Smooths: 1
). Width: 0.20
). Height: 0.01
). Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.99 min
Relative RT: No

. Type: Base To Base
ention Time: 3.93 min
ea: 311604 counts
Height: 114798 cps
Start Time: 3.87 min
End Time: 4.11 min

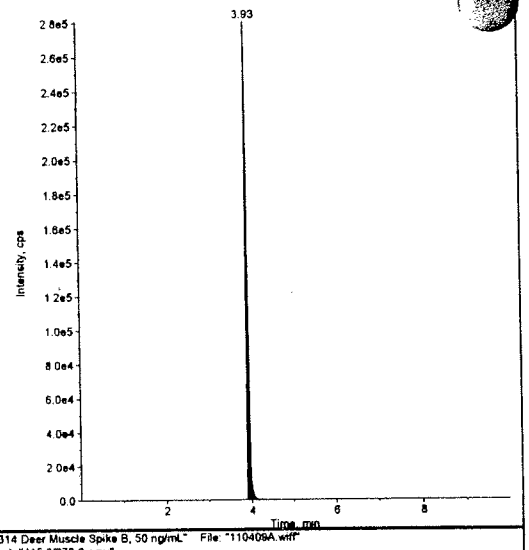


Sample Name: "LCS A" Sample ID: "MC4314 Deer Muscle Spike A, 10 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index: 10
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:32:53 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 256.47 cps
Area Threshold: 1282.36 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.98 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.93 min
Area: 765110 counts
Height: 284507 cps
Start Time: 3.87 min
End Time: 4.14 min

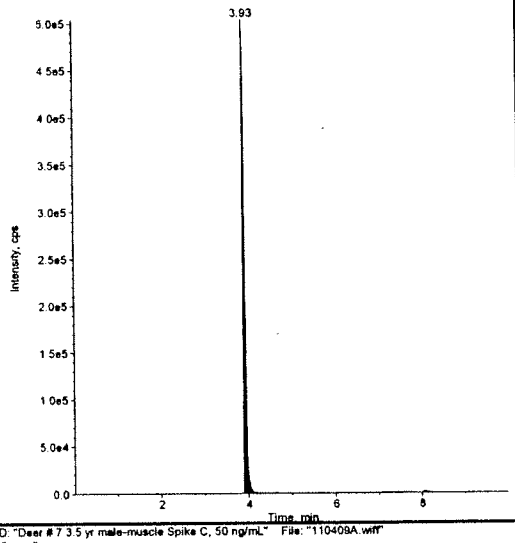


Sample Name: "LCS B" Sample ID: "MC4314 Deer Muscle Spike B, 50 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

nple Index: 11
nple Type: QC
ncentration: 50.0 ng/mL
culated Conc: 47.1 ng/mL
d. Date: 11/4/2009
Acq. Time: 5:43:51 PM

Modified: No
Proc. Algorithm: Analyst Classic
nching Factor: 1
se Threshold: 40.01 cps
a Threshold: 200.04 cps
. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
). Val. Ratio: 3.00
Window: 30.0 sec
ected RT: 3.99 min
Relative RT: No

Int. Type: Base To Base
Retention Time: 3.93 min
Area: 1418119 counts
ght: 520421 cps
rt Time: 3.85 min
Time: 4.22 min

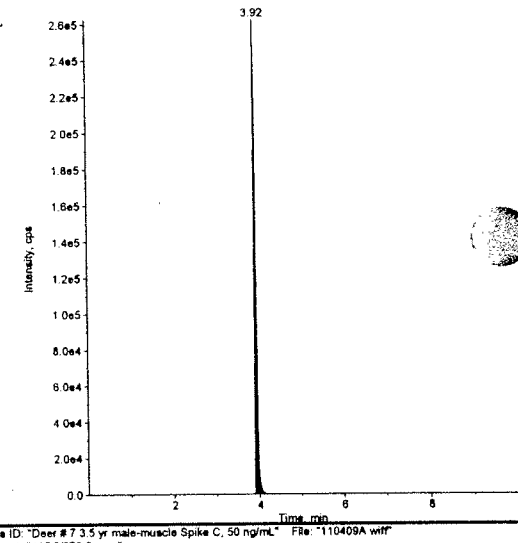


Sample Name: "LCS B" Sample ID: "MC4314 Deer Muscle Spike B, 50 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index: 11
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:43:51 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 256.47 cps
Area Threshold: 1282.36 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.98 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.92 min
Area: 709162 counts
Height: 263777 cps
Start Time: 3.87 min
End Time: 4.13 min

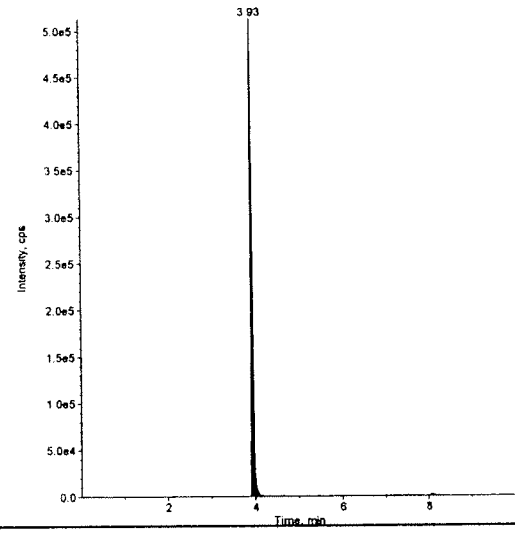


Sample Name: "L19346-3 Spk C" Sample ID: "Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

nple Index: 12
nple Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 49.5 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 5:54:48 PM

lified: No
c. Algorithm: Analyst Classic
ching Factor: 1
oise Threshold: 40.01 cps
Area Threshold: 200.04 cps
Num. Smooths: 1
Sep. Width: 0.20
. Height: 0.01
. Peak Ratio: 5.00
. Adj. Ratio: 4.00
. Val. Ratio: 3.00
Window: 30.0 sec
Expected RT: 3.99 min
Use Relative RT: No

. Type: Base To Base
ention Time: 3.93 min
a: 1437886 counts
ght: 525845 cps
rt Time: 3.87 min
End Time: 4.18 min

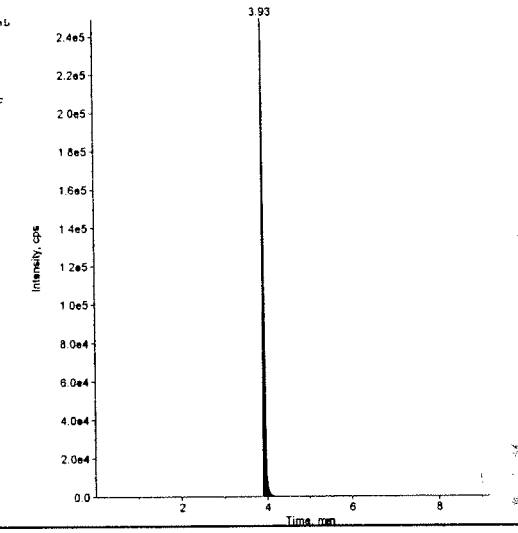


Sample Name: "L19346-3 Spk C" Sample ID: "Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index: 12
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:54:48 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 256.47 cps
Area Threshold: 1282.36 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 3.98 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.93 min
Area: 698422 counts
Height: 260425 cps
Start Time: 3.87 min
End Time: 4.13 min



Research, Inc.

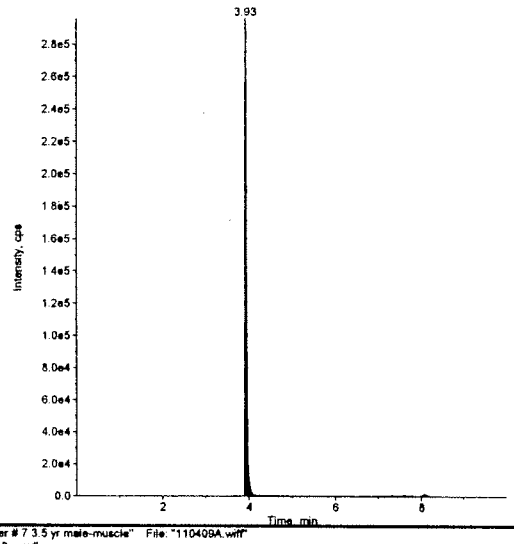
alyst Version: 1.4.2
Printing Time: 8:30:12 AM
Printing Date: Thursday, November 05, 2009

MPI Study: L19346
MPI Set No.: 110409A

Operator: Mark Neeley
Instrument No.: LC/MS/MS #9

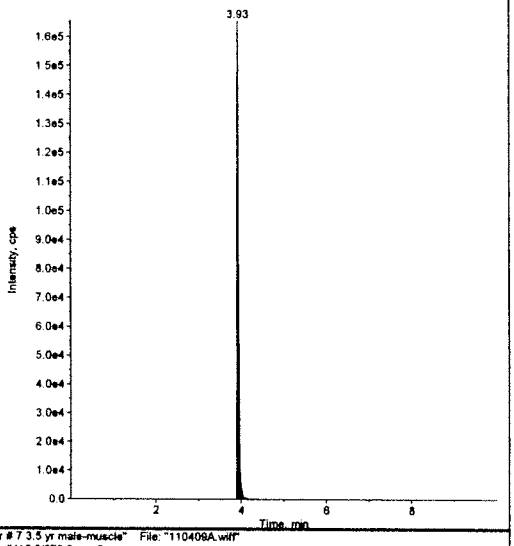
Sample Name: "L19346-1 Spk D" Sample ID: "Deer # 6 0.5 yr female-muscle Spike D, 50 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index:	13
Sample Type:	QC
Concentration:	50.0 ng/mL
Calculated Conc:	46.3 ng/mL
Acq. Date:	11/4/2009
Acq. Time:	6:05:45 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	40.01 cps
Area Threshold:	200.04 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.99 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.93 min
Area:	862089 counts
Height:	313777 cps
Start Time:	3.87 min
End Time:	4.22 min



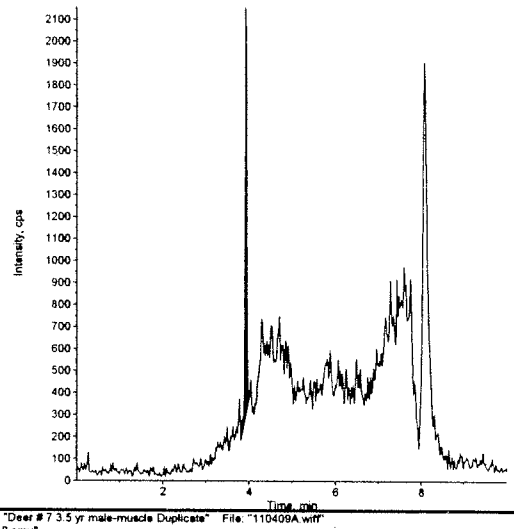
Sample Name: "L19346-1 Spk D" Sample ID: "Deer # 6 0.5 yr female-muscle Spike D, 50 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index:	13
Sample Type:	QC
Concentration:	1.00 ng/mL
Calculated Conc:	N/A
Acq. Date:	11/4/2009
Acq. Time:	6:05:45 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	256.47 cps
Area Threshold:	1282.36 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.98 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.93 min
Area:	438366 counts
Height:	167744 cps
Start Time:	3.87 min
End Time:	4.10 min



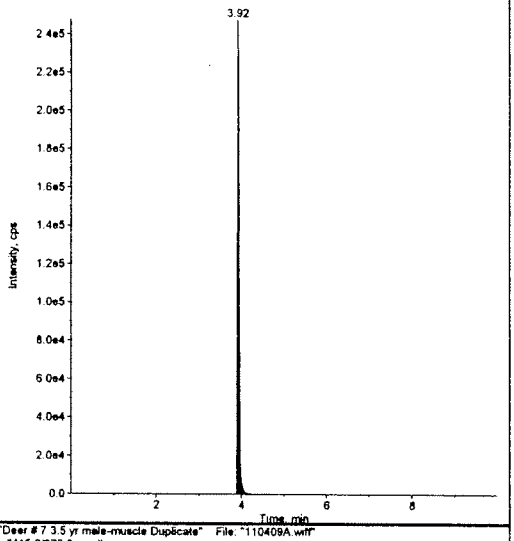
Sample Name: "L19346-3" Sample ID: "Deer # 7 3.5 yr male-muscle" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index:	14
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	< 0
Acq. Date:	11/4/2009
Acq. Time:	6:16:42 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	40.01 cps
Area Threshold:	200.04 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.99 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.93 min
Area:	5207 counts
Height:	1940 cps
Start Time:	3.81 min
End Time:	4.00 min



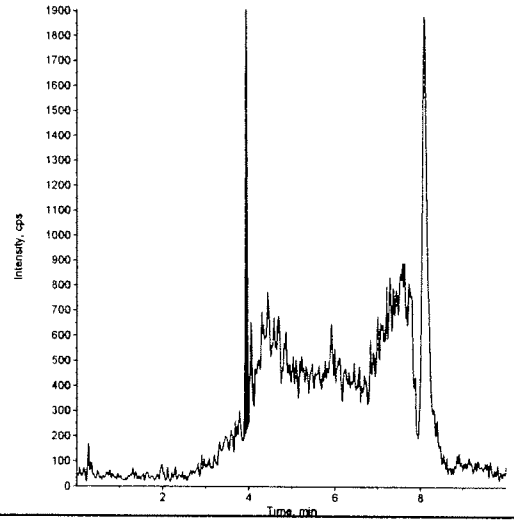
Sample Name: "L19346-3" Sample ID: "Deer # 7 3.5 yr male-muscle" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index:	14
Sample Type:	Unknown
Concentration:	1.00 ng/mL
Calculated Conc:	N/A
Acq. Date:	11/4/2009
Acq. Time:	6:16:42 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	256.47 cps
Area Threshold:	1282.36 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.98 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.92 min
Area:	670093 counts
Height:	248042 cps
Start Time:	3.87 min
End Time:	4.11 min



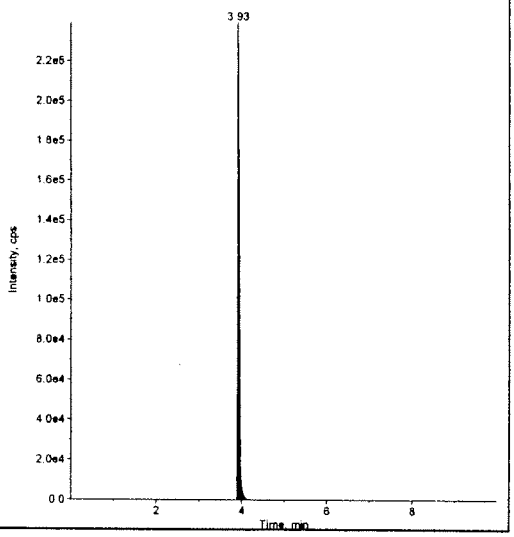
Sample Name: "L19346-3 Dup" Sample ID: "Deer # 7 3.5 yr male-muscle Duplicate" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index:	15
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	< 0
Acq. Date:	11/4/2009
Acq. Time:	6:27:39 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	40.01 cps
Area Threshold:	200.04 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.99 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	3.93 min
Area:	5129 counts
Height:	1774 cps
Start Time:	3.87 min
End Time:	4.00 min



Sample Name: "L19346-3 Dup" Sample ID: "Deer # 7 3.5 yr male-muscle Duplicate" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

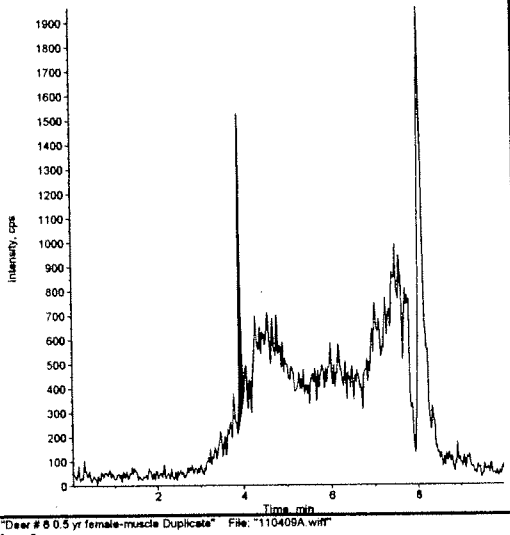
Sample Index:	15
Sample Type:	Unknown
Concentration:	1.00 ng/mL
Calculated Conc:	N/A
Acq. Date:	11/4/2009
Acq. Time:	6:27:39 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	256.47 cps
Area Threshold:	1282.36 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.98 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.93 min
Area:	649587 counts
Height:	243258 cps
Start Time:	3.87 min
End Time:	4.13 min



Research, Inc.

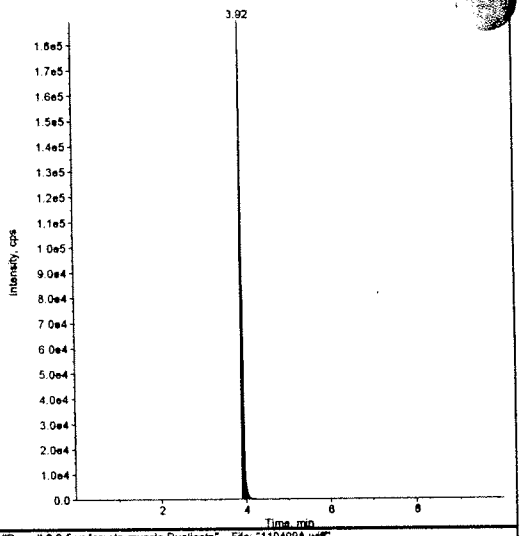
Sample Name: "L19346-1" Sample ID: "Deer # 6 0.5 yr female-muscle" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index:	16
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	< 0
Acq. Date:	11/4/2009
Acq. Time:	6:38:37 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	40.01 cps
Area Threshold:	200.04 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.99 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.93 min
Area:	3752 counts
Height:	1297 cps
Start Time:	3.87 min
End Time:	4.02 min



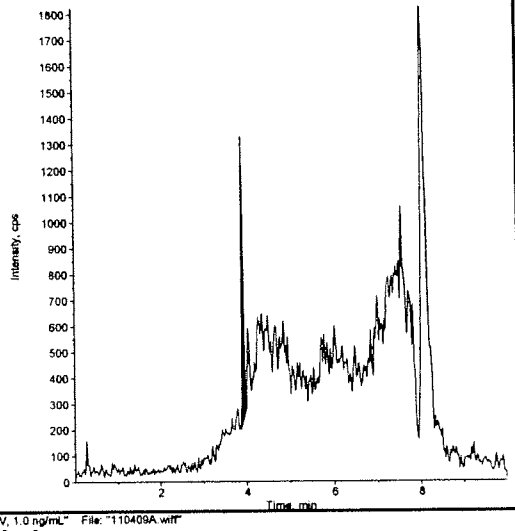
Sample Name: "L19346-1" Sample ID: "Deer # 6 0.5 yr female-muscle" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index:	16
Sample Type:	Unknown
Concentration:	1.00 ng/mL
Calculated Conc:	N/A
Acq. Date:	11/4/2009
Acq. Time:	6:38:37 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	256.47 cps
Area Threshold:	1282.36 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.98 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.92 min
Area:	506345 counts
Height:	189717 cps
Start Time:	3.87 min
End Time:	4.11 min



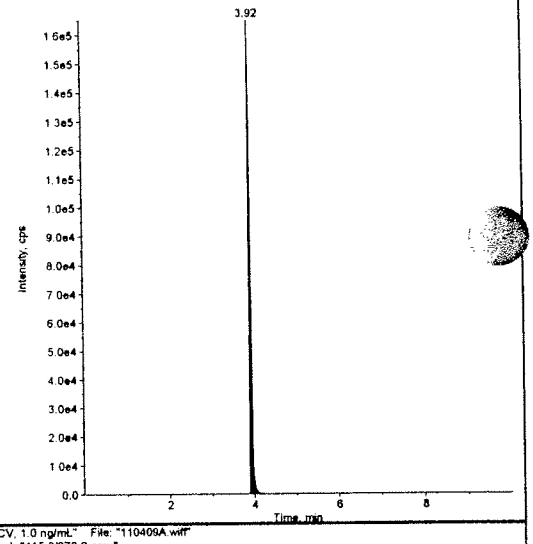
Sample Name: "L19346-1 Dup" Sample ID: "Deer # 6 0.5 yr female-muscle Duplicate" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index:	17
Sample Type:	Unknown
Concentration:	N/A
Calculated Conc:	< 0
Acq. Date:	11/4/2009
Acq. Time:	6:49:35 PM
Modified:	Yes
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	40.01 cps
Area Threshold:	200.04 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.92 min
Use Relative RT:	No
Int. Type:	Valley
Retention Time:	3.93 min
Area:	3129 counts
Height:	1109 cps
Start Time:	3.88 min
End Time:	4.00 min



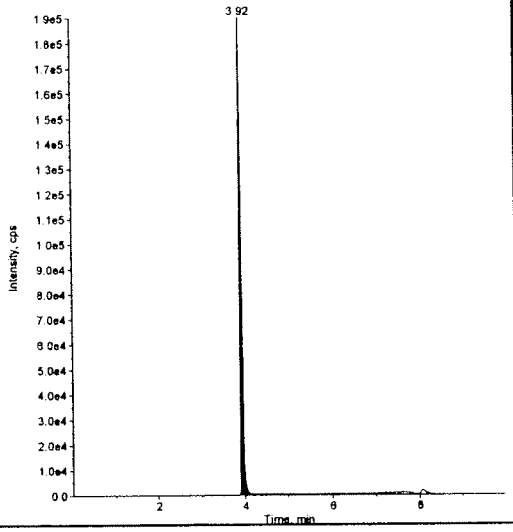
Sample Name: "L19346-1 Dup" Sample ID: "Deer # 6 0.5 yr female-muscle Duplicate" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index:	17
Sample Type:	Unknown
Concentration:	1.00 ng/mL
Calculated Conc:	N/A
Acq. Date:	11/4/2009
Acq. Time:	6:49:35 PM
Modified:	Yes
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	256.47 cps
Area Threshold:	1282.36 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.98 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.92 min
Area:	443379 counts
Height:	165260 cps
Start Time:	3.87 min
End Time:	4.10 min



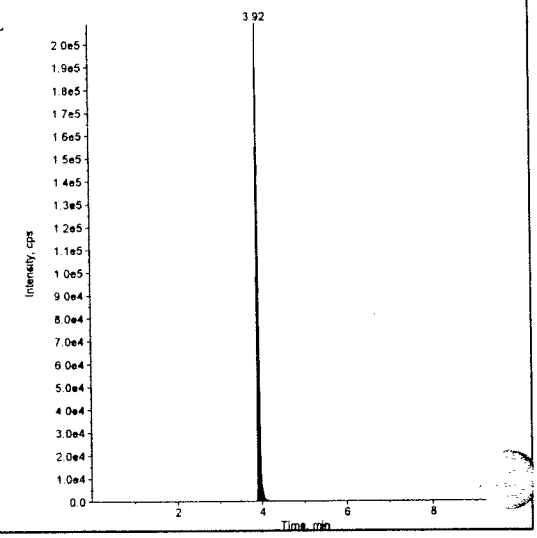
Sample Name: "SS33815" Sample ID: "CCV, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOA" Mass(es): "413.0/369.0 amu"
Comment: "" Annotation: ""

Sample Index:	18
Sample Type:	QC
Concentration:	1.00 ng/mL
Calculated Conc:	1.04 ng/mL
Acq. Date:	11/4/2009
Acq. Time:	7:00:33 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	40.01 cps
Area Threshold:	200.04 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.99 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.92 min
Area:	525395 counts
Height:	189948 cps
Start Time:	3.85 min
End Time:	4.20 min



Sample Name: "SS33815" Sample ID: "CCV, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOA(M+2)(IS)" Mass(es): "415.0/370.0 amu"
Comment: "" Annotation: ""

Sample Index:	18
Sample Type:	QC
Concentration:	1.00 ng/mL
Calculated Conc:	N/A
Acq. Date:	11/4/2009
Acq. Time:	7:00:33 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	256.47 cps
Area Threshold:	1282.36 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	3.98 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	3.92 min
Area:	590143 counts
Height:	212171 cps
Start Time:	3.85 min
End Time:	4.11 min

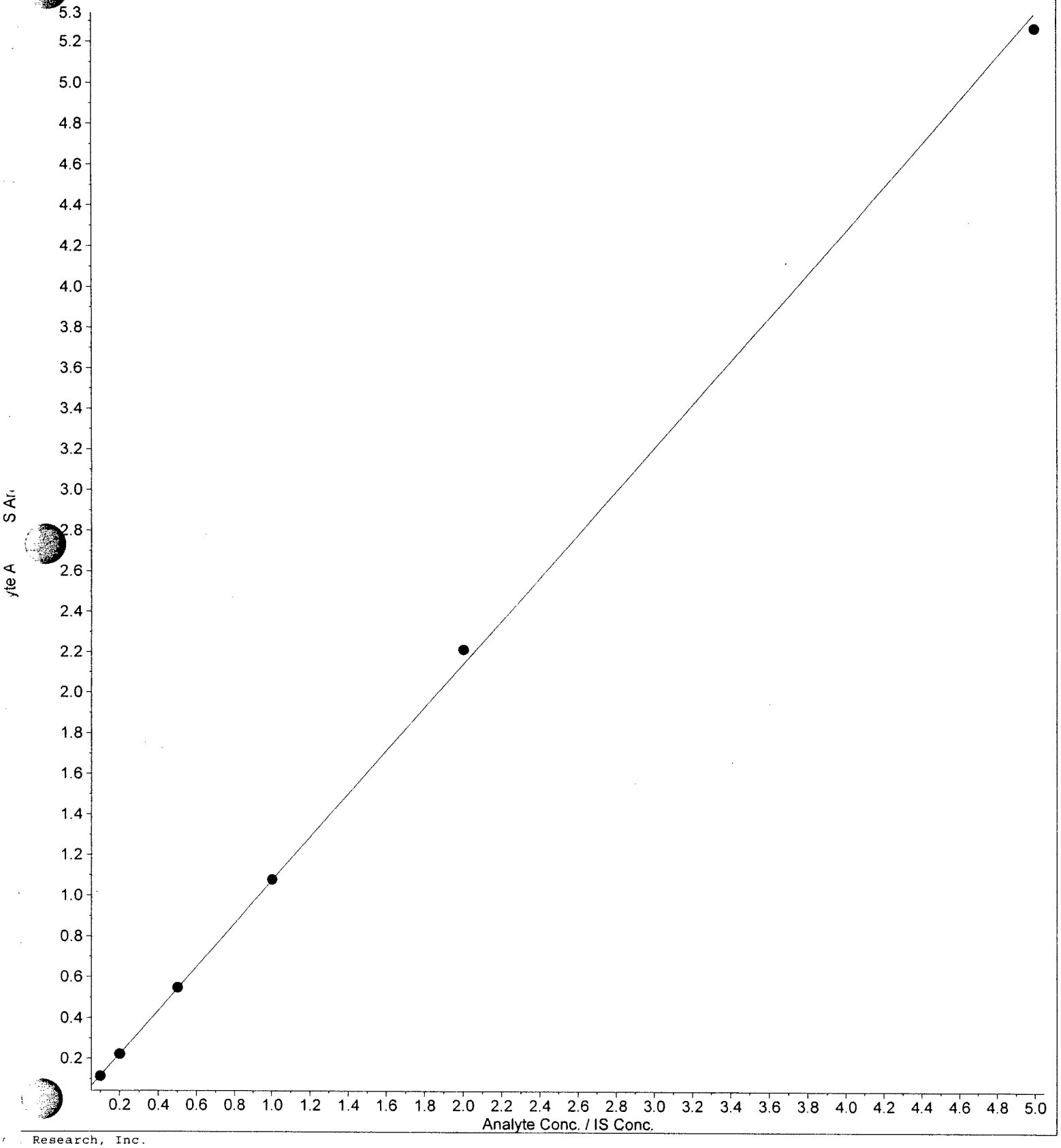


MPI Study: L19346
MPI Set No.: 110409A

Operator: Mark Neeley
Instrument No.: LC/MS/MS #9

MDN 11-5-09

09_110409A.rdb (PFOS): "Linear" Regression ("1 / x" weighting): y = 1.07 x + 0.00957 (r = 0.9998)



alyst Version: 1.4.2
rinting Time: 8:30:30 AM
rinting Date: Thursday, November 05, 2009

MPI Study: L19346
MPI Set No.: 110409A

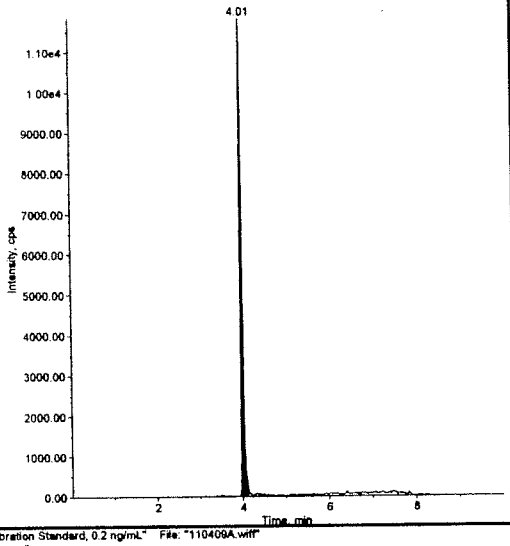
Operator: Mark Neeley
Instrument No.: LC/MS/MS #9

Sample Name: "SS33618" Sample ID: "Calibration Standard, 0.1 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 0.100 ng/mL
Calculated Conc: 0.0977 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 3:54:30 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 39149 counts
Height: 12108 cps
Start Time: 3.90 min
End Time: 4.20 min

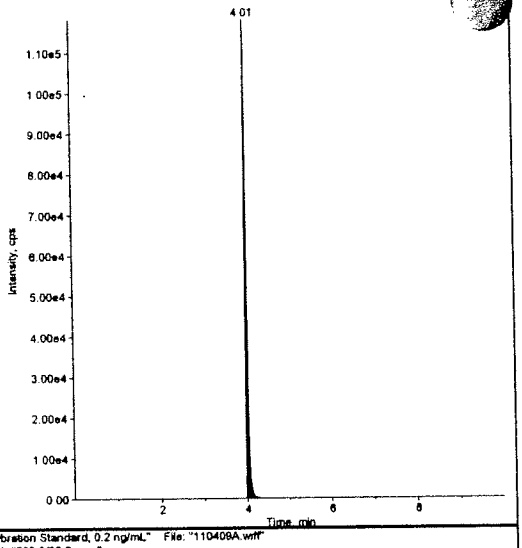


Sample Name: "SS33618" Sample ID: "Calibration Standard, 0.1 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 3:54:30 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 344167 counts
Height: 122875 cps
Start Time: 3.95 min
End Time: 4.22 min

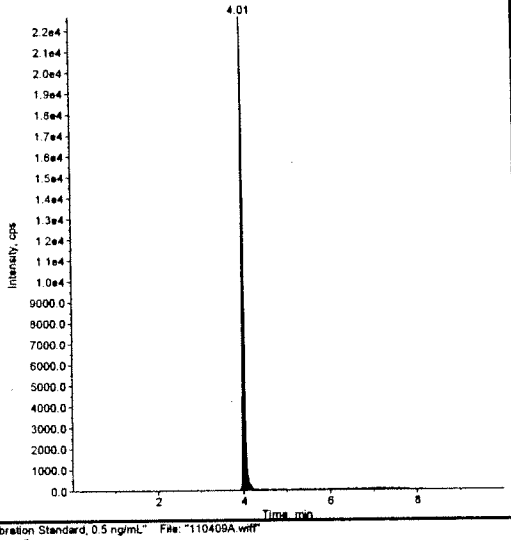


Sample Name: "SS33617" Sample ID: "Calibration Standard, 0.2 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 2
Sample Type: Standard
Concentration: 0.200 ng/mL
Calculated Conc: 0.199 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 4:05:26 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 75056 counts
Height: 23059 cps
Start Time: 3.88 min
End Time: 4.24 min

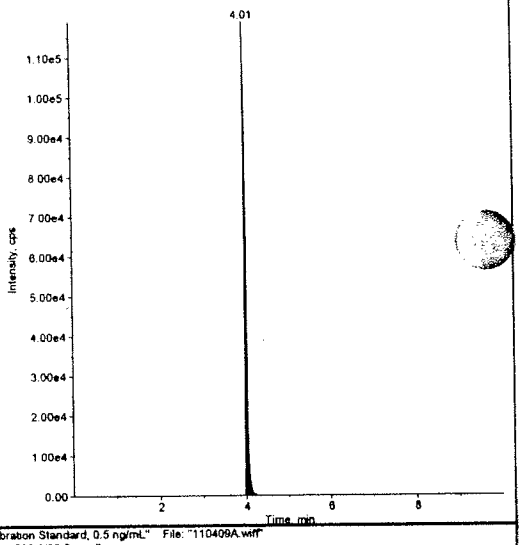


Sample Name: "SS33617" Sample ID: "Calibration Standard, 0.2 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 2
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 4:05:26 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 338773 counts
Height: 122020 cps
Start Time: 3.95 min
End Time: 4.24 min

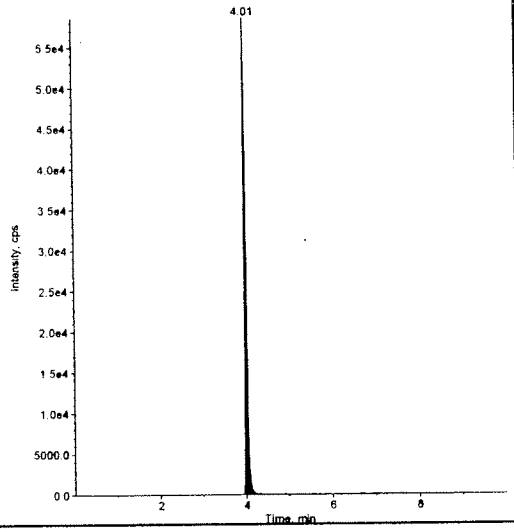


Sample Name: "SS33616" Sample ID: "Calibration Standard, 0.5 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 3
Sample Type: Standard
Concentration: 0.500 ng/mL
Calculated Conc: 0.504 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 4:16:22 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.01 min
Area: 187236 counts
Height: 58834 cps
Start Time: 3.85 min
End Time: 4.28 min

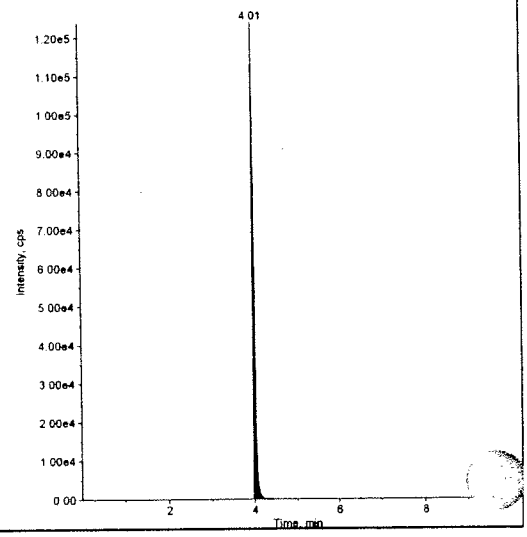


Sample Name: "SS33616" Sample ID: "Calibration Standard, 0.5 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 3
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 4:16:22 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 342440 counts
Height: 124612 cps
Start Time: 3.95 min
End Time: 4.22 min



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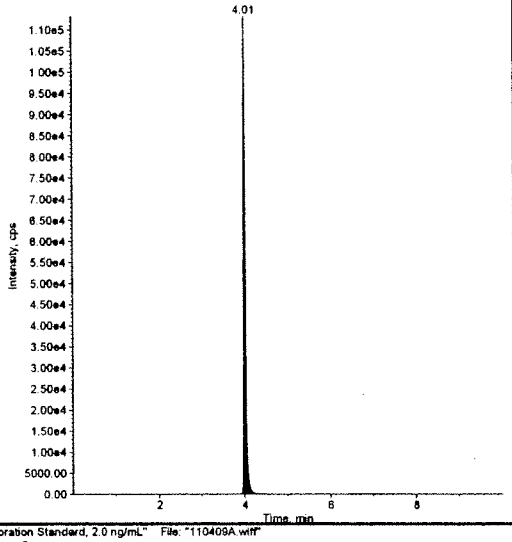
Initials Mnt
Date 11-5-09
Sample Index 1 To 16

Sample Name: "SS33615" Sample ID: "Calibration Standard, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""
Sample Index: 4
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: 1.00 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 4:27:18 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

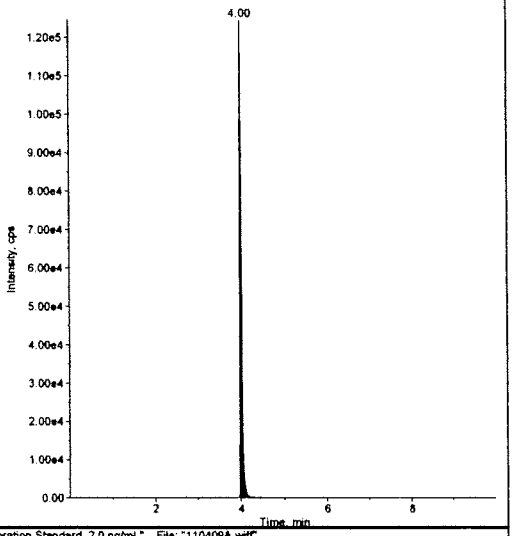
Int. Type: Base To Base
Retention Time: 4.01 min
Area: 369109 counts
Height: 113187 cps
Start Time: 3.90 min
End Time: 4.25 min



Sample Name: "SS33615" Sample ID: "Calibration Standard, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""
Sample Index: 4
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 4:27:18 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

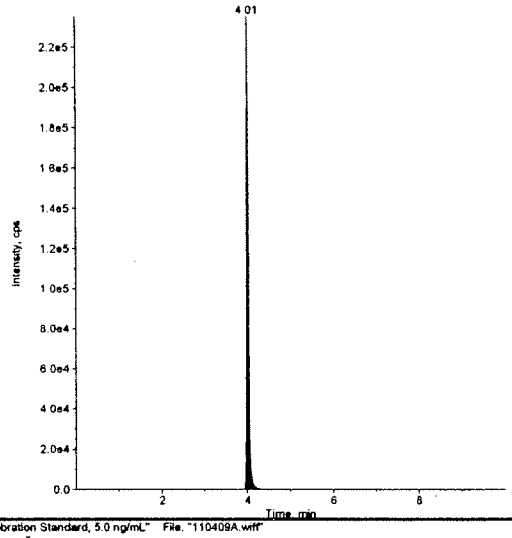
Int. Type: Base To Base
Retention Time: 4.00 min
Area: 342687 counts
Height: 124540 cps
Start Time: 3.94 min
End Time: 4.20 min



Sample Name: "SS33614" Sample ID: "Calibration Standard, 2.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""
Sample Index: 5
Sample Type: Standard
Concentration: 2.00 ng/mL
Calculated Conc: 2.07 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 4:38:14 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

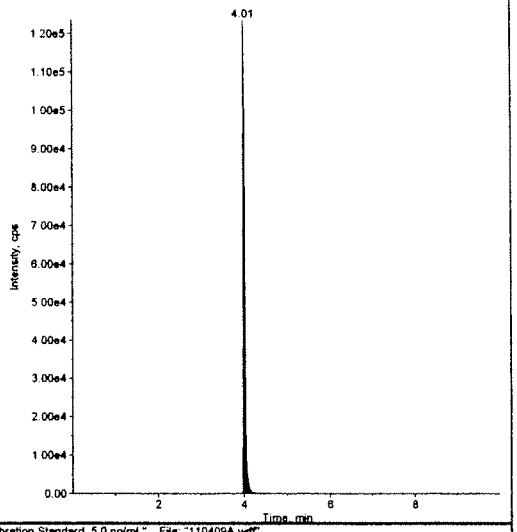
Int. Type: Base To Base
Retention Time: 4.01 min
Area: 747914 counts
Height: 235561 cps
Start Time: 3.91 min
End Time: 4.29 min



Sample Name: "SS33614" Sample ID: "Calibration Standard, 2.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""
Sample Index: 5
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 4:38:14 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

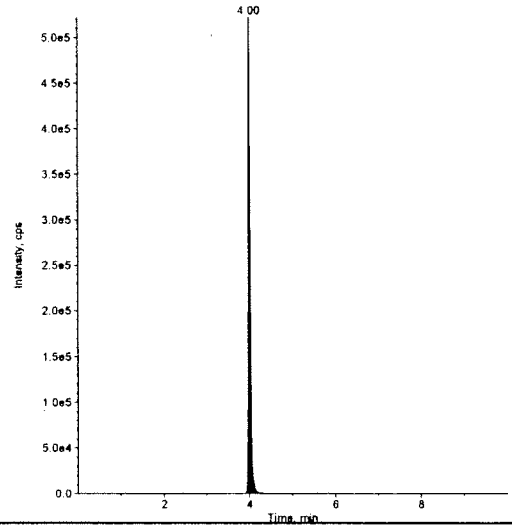
Int. Type: Base To Base
Retention Time: 4.01 min
Area: 338050 counts
Height: 123612 cps
Start Time: 3.95 min
End Time: 4.21 min



Sample Name: "SS33613" Sample ID: "Calibration Standard, 5.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""
Sample Index: 6
Sample Type: Standard
Concentration: 5.00 ng/mL
Calculated Conc: 4.93 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 4:49:09 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

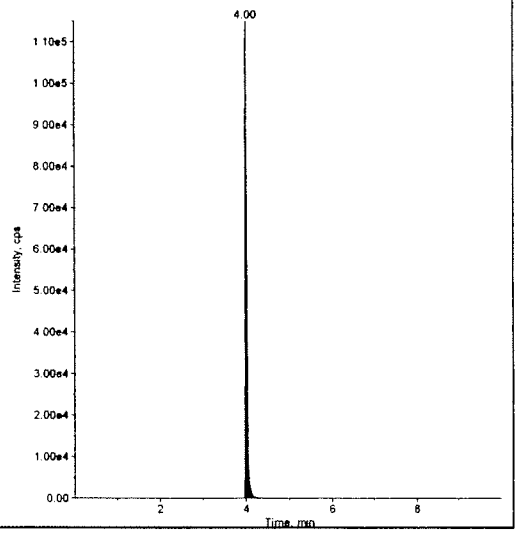
Int. Type: Base To Base
Retention Time: 4.00 min
Area: 1751107 counts
Height: 539144 cps
Start Time: 3.90 min
End Time: 4.29 min



Sample Name: "SS33613" Sample ID: "Calibration Standard, 5.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""
Sample Index: 6
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 4:49:09 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

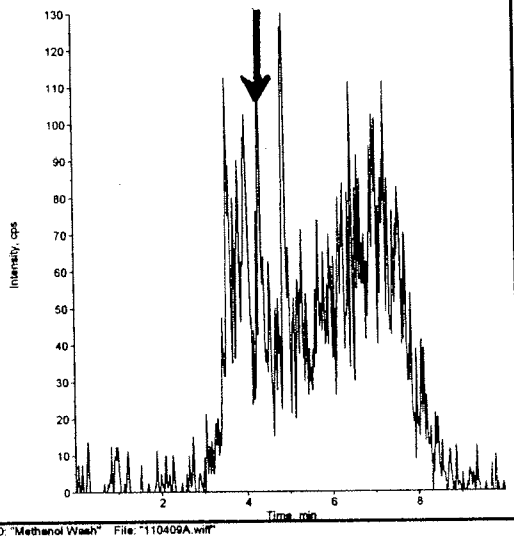
Int. Type: Base To Base
Retention Time: 4.00 min
Area: 332437 counts
Height: 119161 cps
Start Time: 3.94 min
End Time: 4.21 min



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 7
Sample Type: Solvent
Concentration: 0.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:00:06 PM

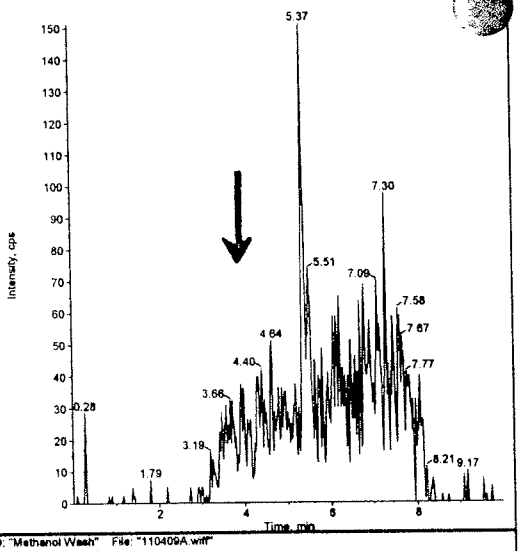
Modified: No



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 7
Sample Type: Solvent
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:00:06 PM

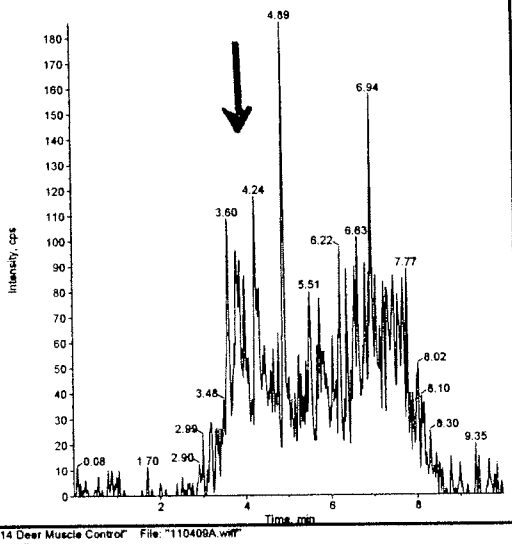
Modified: No



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 8
Sample Type: Solvent
Concentration: 0.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:11:01 PM

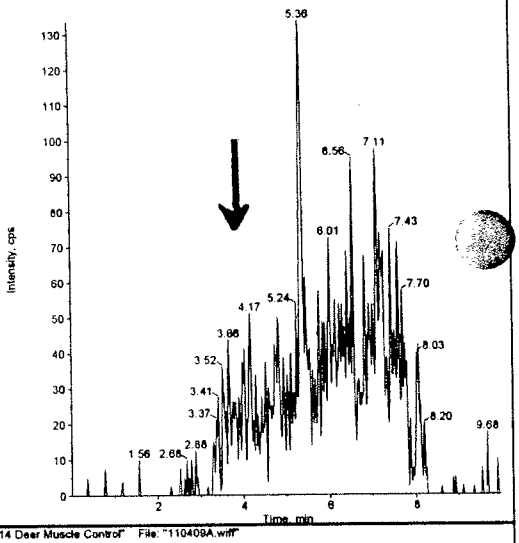
Modified: Yes



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 8
Sample Type: Solvent
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:11:01 PM

Modified: Yes

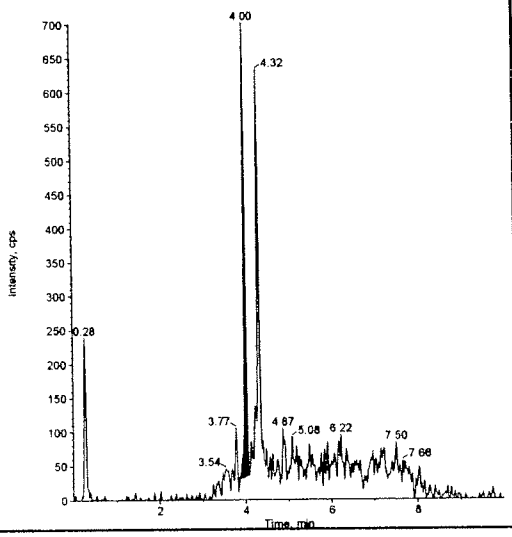


Sample Name: "Control" Sample ID: "MC4314 Deer Muscle Control" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 9
Sample Type: Unknown
Concentration: N/A
Calculated Conc: < 0
Acq. Date: 11/4/2009
Acq. Time: 5:21:55 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Valley
Retention Time: 4.00 min
Area: 2080 counts
Height: 671 cps
Start Time: 3.88 min
End Time: 4.09 min

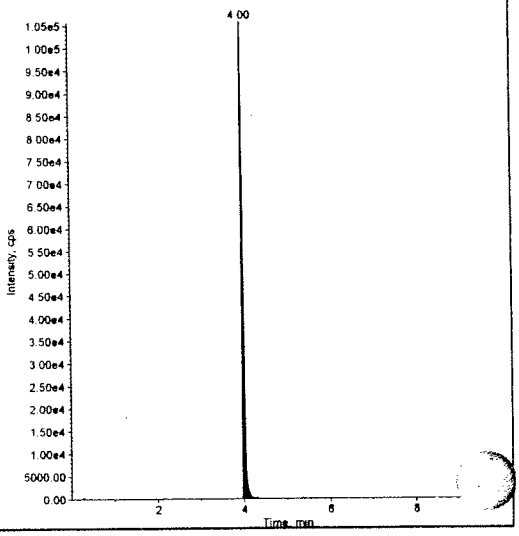


Sample Name: "Control" Sample ID: "MC4314 Deer Muscle Control" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 9
Sample Type: Unknown
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:21:55 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 301876 counts
Height: 110051 cps
Start Time: 3.95 min
End Time: 4.20 min

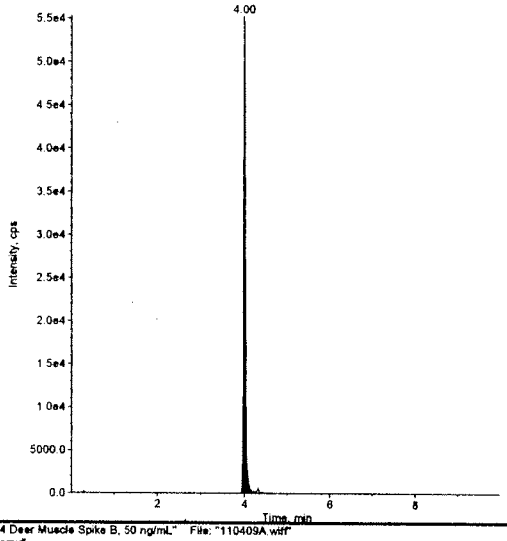


Sample Name: "LCS A" Sample ID: "MC4314 Deer Muscle Spike A, 10 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 10
Sample Type: QC
Concentration: 10.0 ng/mL
Calculated Conc: 8.81 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 5:32:53 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 182837 counts
Height: 57247 cps
Start Time: 3.91 min
End Time: 4.20 min

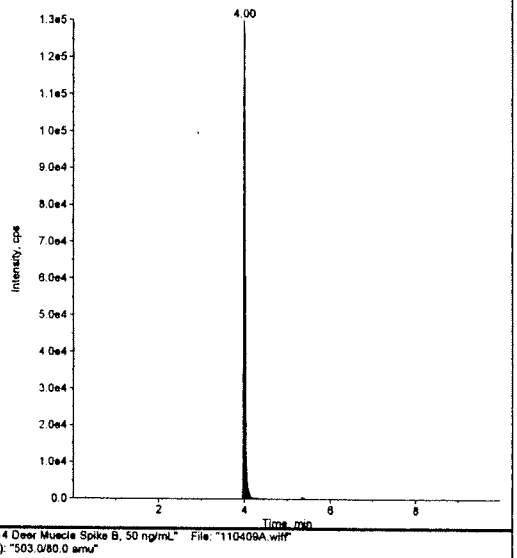


Sample Name: "LCS A" Sample ID: "MC4314 Deer Muscle Spike A, 10 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 10
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:32:53 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 381538 counts
Height: 137759 cps
Start Time: 3.94 min
End Time: 4.20 min

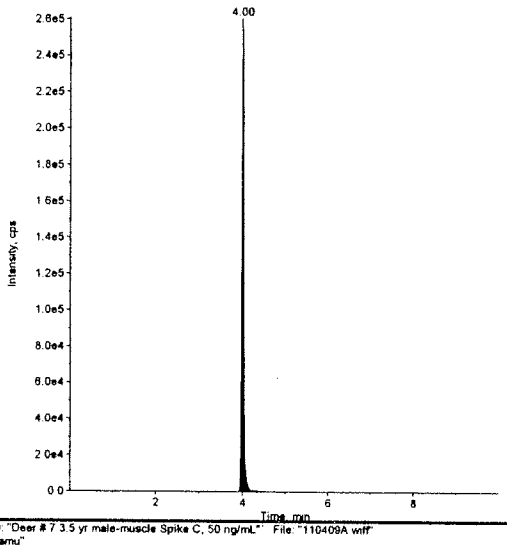


Sample Name: "LCS B" Sample ID: "MC4314 Deer Muscle Spike B, 50 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 11
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 45.4 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 5:43:51 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Exponential Skim
Retention Time: 4.00 min
Area: 852146 counts
Height: 265770 cps
Start Time: 3.85 min
End Time: 4.10 min

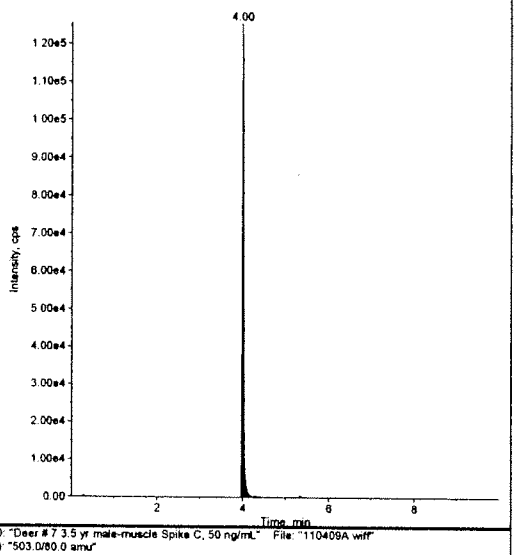


Sample Name: "LCS B" Sample ID: "MC4314 Deer Muscle Spike B, 50 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 11
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:43:51 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 350892 counts
Height: 129585 cps
Start Time: 3.94 min
End Time: 4.18 min

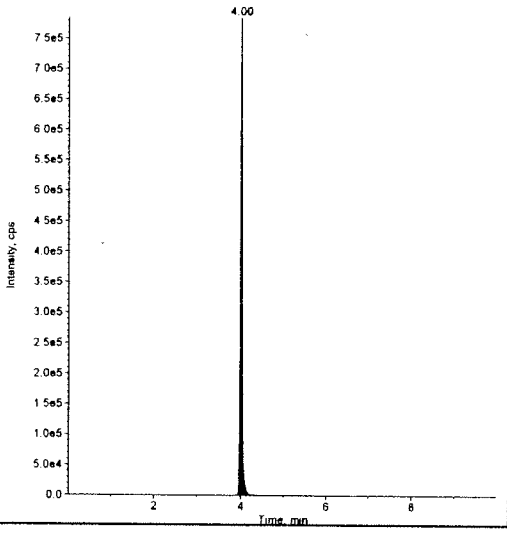


Sample Name: "L19346-3 Spk C" Sample ID: "Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 12
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 140. ng/mL
Acq. Date: 11/4/2009
Acq. Time: 5:54:48 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Exponential Skim
Retention Time: 4.00 min
Area: 2466358 counts
Height: 793757 cps
Start Time: 3.88 min
End Time: 4.18 min

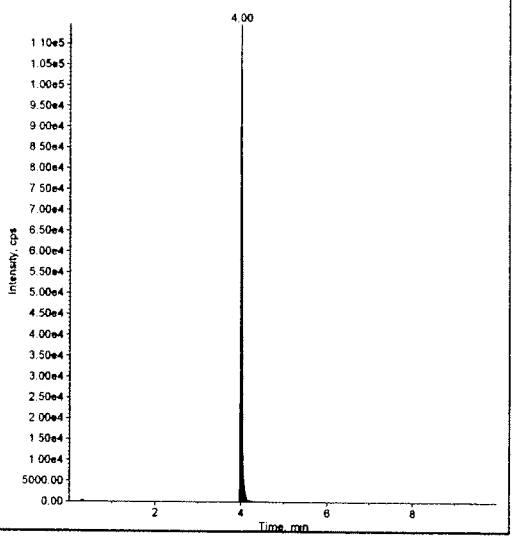


Sample Name: "L19346-3 Spk C" Sample ID: "Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 12
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 5:54:48 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 330184 counts
Height: 117834 cps
Start Time: 3.95 min
End Time: 4.20 min



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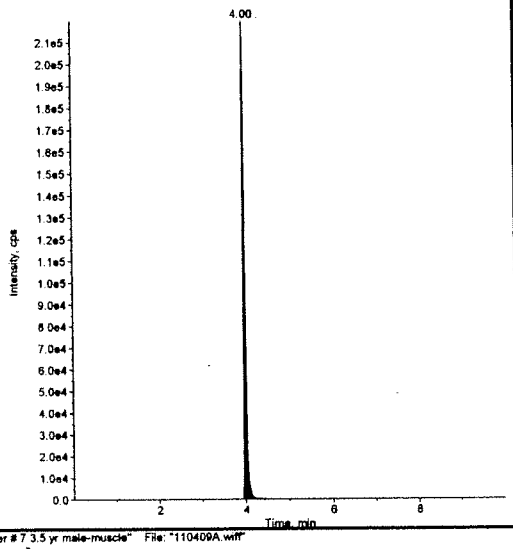
Sample Name: "L19346-1 Spk D" Sample ID: "Deer # 6 0.5 yr female-muscle Spike D, 50 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 13
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 58.2 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 6:05:45 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 710987 counts
Height: 227682 cps
Start Time: 3.90 min
End Time: 4.26 min

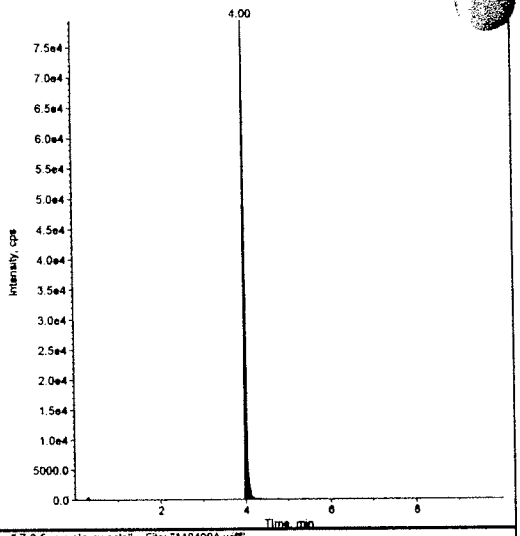


Sample Name: "L19346-1 Spk D" Sample ID: "Deer # 6 0.5 yr female-muscle Spike D, 50 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 13
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 6:05:45 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 228483 counts
Height: 82918 cps
Start Time: 3.90 min
End Time: 4.21 min

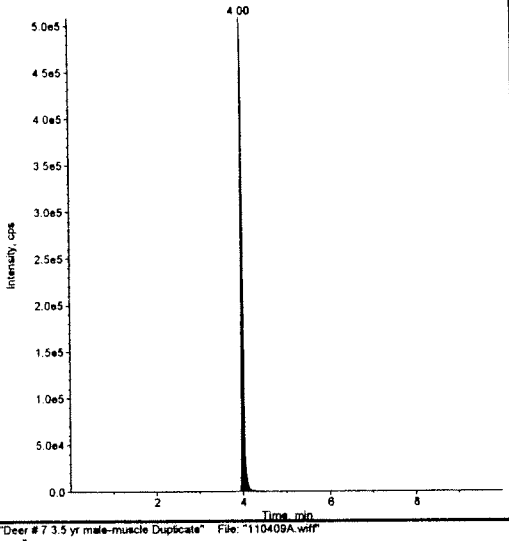


Sample Name: "L19346-3" Sample ID: "Deer # 7 3.5 yr male-muscle" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 14
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 88.7 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 6:16:42 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 1572929 counts
Height: 527880 cps
Start Time: 3.83 min
End Time: 4.41 min

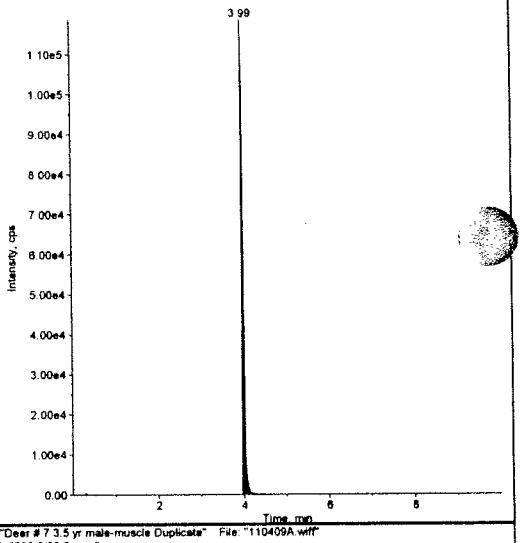


Sample Name: "L19346-3" Sample ID: "Deer # 7 3.5 yr male-muscle" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 14
Sample Type: Unknown
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 6:16:42 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.99 min
Area: 332029 counts
Height: 120747 cps
Start Time: 3.94 min
End Time: 4.18 min

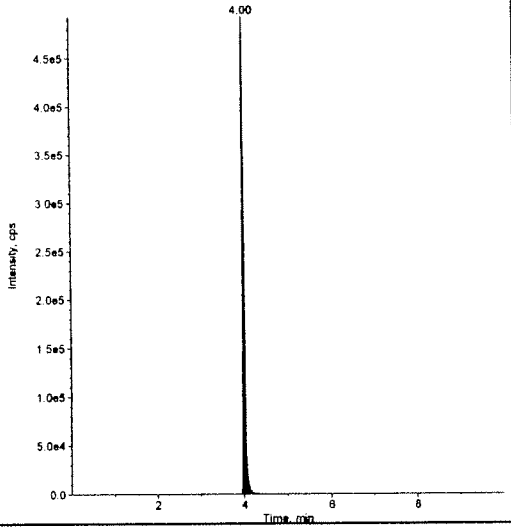


Sample Name: "L19346-3 Dup" Sample ID: "Deer # 7 3.5 yr male-muscle Duplicate" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 15
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 92.5 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 6:27:39 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Exponential Skim
Retention Time: 4.00 min
Area: 1534874 counts
Height: 509228 cps
Start Time: 3.87 min
End Time: 4.17 min

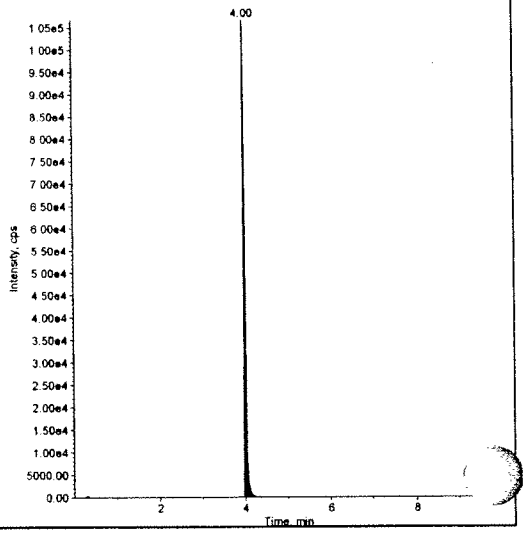


Sample Name: "L19346-3 Dup" Sample ID: "Deer # 7 3.5 yr male-muscle Duplicate" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 15
Sample Type: Unknown
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 6:27:39 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 310563 counts
Height: 112842 cps
Start Time: 3.90 min
End Time: 4.20 min

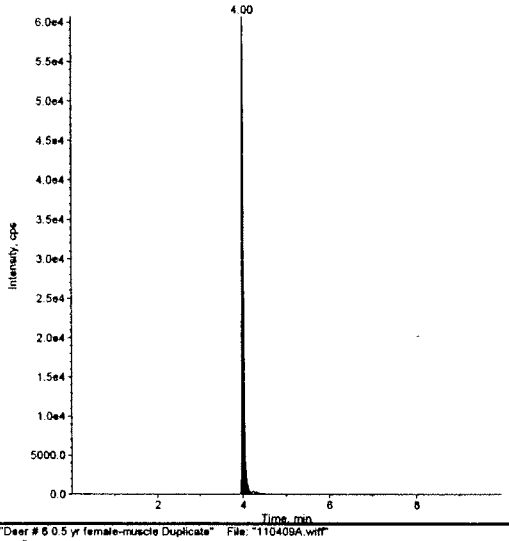


Sample Name: "L19346-1" Sample ID: "Deer # 6 0.5 yr female-muscle" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 16
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 13.5 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 6:38:37 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Exponential Skim
Retention Time: 4.00 min
Area: 183224 counts
Height: 62651 cps
Start Time: 3.84 min
End Time: 4.10 min

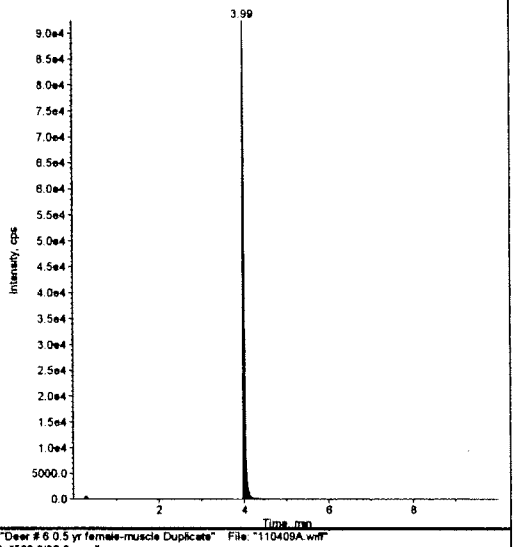


Sample Name: "L19346-1" Sample ID: "Deer # 6 0.5 yr female-muscle" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 16
Sample Type: Unknown
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 6:38:37 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.99 min
Area: 251539 counts
Height: 93880 cps
Start Time: 3.94 min
End Time: 4.18 min

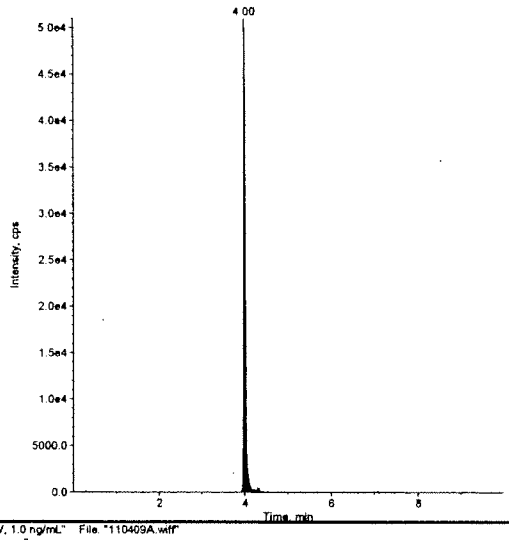


Sample Name: "L19346-1 Dup" Sample ID: "Deer # 6 0.5 yr female-muscle Duplicate" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 17
Sample Type: Unknown
Concentration: N/A
Calculated Conc: 12.0 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 6:49:35 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Exponential Skim
Retention Time: 4.00 min
Area: 153884 counts
Height: 52485 cps
Start Time: 3.91 min
End Time: 4.11 min

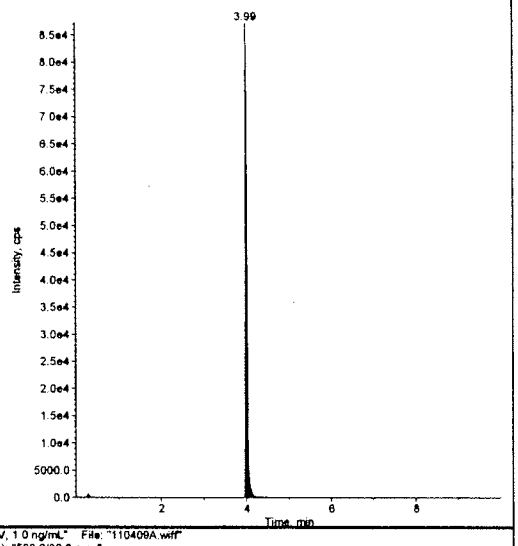


Sample Name: "L19346-1 Dup" Sample ID: "Deer # 6 0.5 yr female-muscle Duplicate" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 17
Sample Type: Unknown
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 6:49:35 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.99 min
Area: 237149 counts
Height: 88005 cps
Start Time: 3.92 min
End Time: 4.20 min

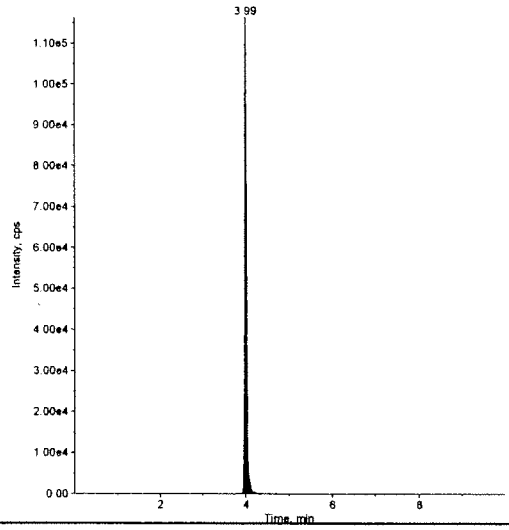


Sample Name: "SS33615" Sample ID: "CCV, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 18
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: 0.992 ng/mL
Acq. Date: 11/4/2009
Acq. Time: 7:00:33 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.99 min
Area: 369522 counts
Height: 116415 cps
Start Time: 3.85 min
End Time: 4.25 min

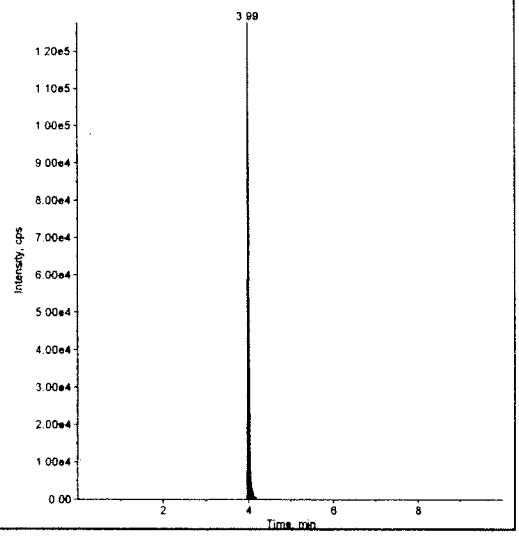


Sample Name: "SS33615" Sample ID: "CCV, 1.0 ng/mL" File: "110409A.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 18
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/4/2009
Acq. Time: 7:00:33 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 3.99 min
Area: 346418 counts
Height: 127801 cps
Start Time: 3.94 min
End Time: 4.20 min



RAW DATA REPORT

Sponsor Study No:	NA	Limit of Quantitation:	10 ng/g	Set No:	110409AD
MPI Study No:	L19345	Injection Volume:	15 µL	Analyst:	Mark Neeley
Analyte:	PFOS	Matrix:	Deer Muscle	Instrument Type:	LC/MS/MS Unit # 9
Ions Monitored:	499 -> 80	Sample Weight	1.0 g	Extraction Date:	11/04/09
Site:	NA			Analyzed on:	11/05/09

MPI Research ID	Sponsor ID	Sample Code	Sample Index No.	Std. Conc. (ng/mL)	Internal Std. Conc. (ng/mL)	Aliquot Factor (AF)	Dilution Factor (DF)	Peak Area	Internal Standard Peak Area	Analyte Found (ng/g)	Amount Analyte Added (ng/g)	Recovery (%)
SS33618	-	CS	1	0.100	1.0	-	-	37091	326346	-	-	-
SS33617	-	CS	2	0.200	1.0	-	-	71080	310927	-	-	-
SS33616	-	CS	3	0.500	1.0	-	-	172764	318796	-	-	-
SS33615	-	CS	4	1.00	1.0	-	-	344831	319636	-	-	-
SS33614	-	CS	5	2.00	1.0	-	-	702604	319828	-	-	-
SS33613	-	CS	6	5.00	1.0	-	-	1728169	318164	-	-	-
Methanol Wash	-	W	7	-	-	-	-	315	0	-	-	-
Methanol Wash	-	W	8	-	-	-	-	198	0	-	-	-
L19346-3 Spk C	Deer # 7 3.5 yr male-muscle Spike C	S	9	-	1.0	20	10	243599	345013	128	50	79
SS33615	-	CCV	10	1.00	1.0	-	-	365129	333224	1.00	1.0	100

Analyte Found (ng/g) = ((((analyte peak area/IS peak area) - intercept) / slope) x IS conc.) x AF x DF/Sample weight

Recovery (%) = [Analyte found (ng/g)-Analyte found in control (ng/g)] / amount Analyte added (ng/g) x 100

Standard Curve : Linear (1/x weighted)
Intercept = 0.00598
Slope = 1.09
Coef. Of Det. = 1.00000

CS = Calibration standard
CCV = Continuing Calibration Verification
C = Control sample
S = Sample

LF = Lab fortified sample
FF = Field fortified sample
LCS = Laboratory Control Spike

W = Methanol Wash
ND = Not detected = Response between 0 and LOD
NQ = Not quantifiable = Response between LOD and LOQ

Spreadsheet prepared by: MDN / 11-6-09

alyst Version: 1.4.2
Printing Time: 2:00:54 PM
Printing Date: Thursday, November 05, 2009

MPI Study: L19346
MPI Set No.: 110409AD

Operator: Mark Neeley
Instrument No.: LC/MS/MS #9

MDN 11-5-09

oject: \\sc1wp5556\mdrive\PE SCIEX DATA\Projects\P5195 Batch:09_110409AD Muscle Tab:Sample Set:SET1 AcqMethod:P5195_10
Sart

	Sample Name	Sample ID	Vial Position	Data File
	SS33618	Calibration Standard, 0.1 ng/mL	1	09_110409AD\110409AD
_	SS33617	Calibration Standard, 0.2 ng/mL	2	09_110409AD\110409AD
3	SS33616	Calibration Standard, 0.5 ng/mL	3	09_110409AD\110409AD
	SS33615	Calibration Standard, 1.0 ng/mL	4	09_110409AD\110409AD
5	SS33614	Calibration Standard, 2.0 ng/mL	5	09_110409AD\110409AD
6	SS33613	Calibration Standard, 5.0 ng/mL	6	09_110409AD\110409AD
	Methanol Wash	Methanol Wash	91	09_110409AD\110409AD
8	Methanol Wash	Methanol Wash	91	09_110409AD\110409AD
9	L19346-3 Spk C	Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL, DF=~~50~~ 10	90	09_110409AD\110409AD
0	SS33615	CCV, 1.0 ng/mL (10) MDN 11-5-09	4	09_110409AD\110409AD

LC/MS/MS SYSTEM AND OPERATING CONDITIONS

Protocol No: NA

MPI Study No: L19346

Instrument: AB API 4000 Biomolecular Mass Analyzer, **(LC/MS/MS #9)**
SCIEX Turbo Ion Spray Liquid Introduction Interface
Turbo Ion spray temperature = 450 °C

Computer: Dell OptiPlex GX 110

Software: PE Sciex Analyst 1.4

HPLC Equipment: Hewlett Packard (HP) Series 1100
HP Quat Pump — HP Vacuum Degasser
HP Autosampler — HP Column Oven

HPLC Column: Phenomenex Luna C8 (2) Mercury, 2cm x 4mm, 3 µm (ExyLIMS ID: MA0052622)

Column Temperature: 35°C

Mobile Phase (A): 2 mM Ammonium Acetate in Water (ExyLIMS ID: SL0045925)

Mobile Phase (B): Methanol (ExyLIMS ID: RE0047880)

Injected Volume: 15 µL

Time (min)	% A	% B	Flow Rate (µL/min)
0.0	90	10	750
0.5	90	10	750
2.0	10	90	750
5.0	10	90	750
5.1	0	100	750
6.0	0	100	750
6.1	90	10	750
10.0	90	10	750

Ions monitored:

Analyte	Parent ion	Daughter ion(s)	Dwell (secs)
PFOA	413	369	0.200
PFOS	499	80	0.200
^{13}C PFOA (m+2) Internal Standard	415	370	0.200
^{13}C PFOS (m+4) Internal Standard	503	80	0.200

Analyst: Mark Neeley MNN 11-5-09
MPI Research, Inc.
3058 Research Drive, State College, PA 16801
Phone: (814) 272-1039 FAX: (814) 231-1580

All Handwritten Peak ID's by: MNN 11-6-09

MDN 11-5-09

Ac[illegible]ion Information:

cquisition Method:	P5195_102909.dam
reated:	Thursday October 29 2009 09: 35: 12 AM
Last Modified:	Friday October 30 2009 10: 56: 20 AM
omment:	PFOA PFOS
ynchronization Mode:	LC Sync
Auto-Equilibration:	Off
Acquisition Duration:	10min0sec
umber Of Scans:	732
eriods In File:	1
Acquisition Module:	Acquisition Method
Software version	Analyst 1.4.2

Period 1:
---

cans in Period:	732
elative Start Time:	0.00 msec
Experiments in Period:	1

eriod 1 Experiment 1:

Scan Type:	MRM (MRM)
olarity:	Negative
can Mode:	N/A
Ion Source:	Turbo Spray
Resolution Q1:	Unit
Re[illegible]tion Q3:	Unit
In[illegible]ty Thres.:	0.00 cps
Settling Time:	0.0000 msec
MR Pause:	5.0070 msec
MCA:	No
Step Size:	0.00 amu

Q1 Mass (amu)	Q3 Mass (amu)	Dwell (msec)	Param	Start	Stop
413.00	369.00	200.00	DF	-32.00	-32.00
			CE	-18.00	-18.00
			CXF	-13.20	-13.20

Q1 Mass (amu)	Q3 Mass (amu)	Dwell (msec)	Param	Start	Stop
415.00	370.00	200.00	DF	-32.00	-32.00
			CE	-18.00	-18.00
			CXF	-13.20	-13.20

Q1 Mass (amu)	Q3 Mass (amu)	Dwell (msec)	Param	Start	Stop
499.00	80.00	200.00	DF	-83.00	-83.00
			CE	-88.00	-88.00
			CXF	-6.00	-6.00

Q1 Mass (amu)	Q3 Mass (amu)	Dwell (msec)	Param	Start	Stop
50[illegible]	80.00	200.00	DF	-83.00	-83.00
			CE	-88.00	-88.00

MDN 11-5-09

CXP -6.00 -6.00

arameter Table(Period 1 Experiment 1):
AD: 7.00
CUR: 20.00
CS1: 50.00
S2: 40.00
_S: -4500.00
TEM: 450.00
he: ON
P -10.00

Agilent LC Pump Method Properties
ump Model: Agilent 1100 LC Quaternary Pump
linimum Pressure (psi): 0.0
Maximum Pressure (psi): 5801.0
Compressibility: 100.0
ead Volume (µl): 40.0
troke Volume (µl): -1.0
Maximum Flow Ramp (ml/min²): 100.0
Maximum Pressure Ramp (psi/sec): 290.0

Step Table:

Step	Total Time(min)	Flow Rate(µl/min)	A (%)	B (%)	C (%)	D (%)	TE#1	TE#2	TE#3	TE#4
0	0.00	750	0.0	0.0	90.0	10.0	open	open	open	open
1	0.50	750	0.0	0.0	90.0	10.0	open	open	open	open
2	2.00	750	0.0	0.0	10.0	90.0	open	open	open	open
3	5.00	750	0.0	0.0	10.0	90.0	open	open	open	open
4	5.10	750	0.0	0.0	0.0	100.0	open	open	open	open
5	6.00	750	0.0	0.0	0.0	100.0	open	open	open	open
6	6.10	750	0.0	0.0	90.0	10.0	open	open	open	open
7	10.00	750	0.0	0.0	90.0	10.0	open	open	open	open

Primary Flow Rate (ul/min): 200.0
Flow Sensor Calibration Table Index: 0

Agilent Column Oven Properties
Left Temperature (°C): 35.00
Right Temperature (°C): 35.00
Temperature Tolerance +/- (°C): 1.00
Start Acquisition Tolerance +/- (°C): 0.50
Time Table (Not Used)
Column Switching Valve Installed
Position for first sample in the batch: Left
Use same position for all samples in the batch

Agilent Autosampler Properties
Autosampler Model: Agilent 1100 Wellplate Autosampler
Syringe Size (µl): 100
Injection Volume (µl): 15.00
Draw Speed (µl/min): 200.0
Eject Speed (µl/min): 200.0
Needle Level (mm): 0.00
Temperature Control Enabled
Setpoint (4 - 40 C): 4
Wash Location: Flush Port
Wash Time (1 - 999 sec): 10

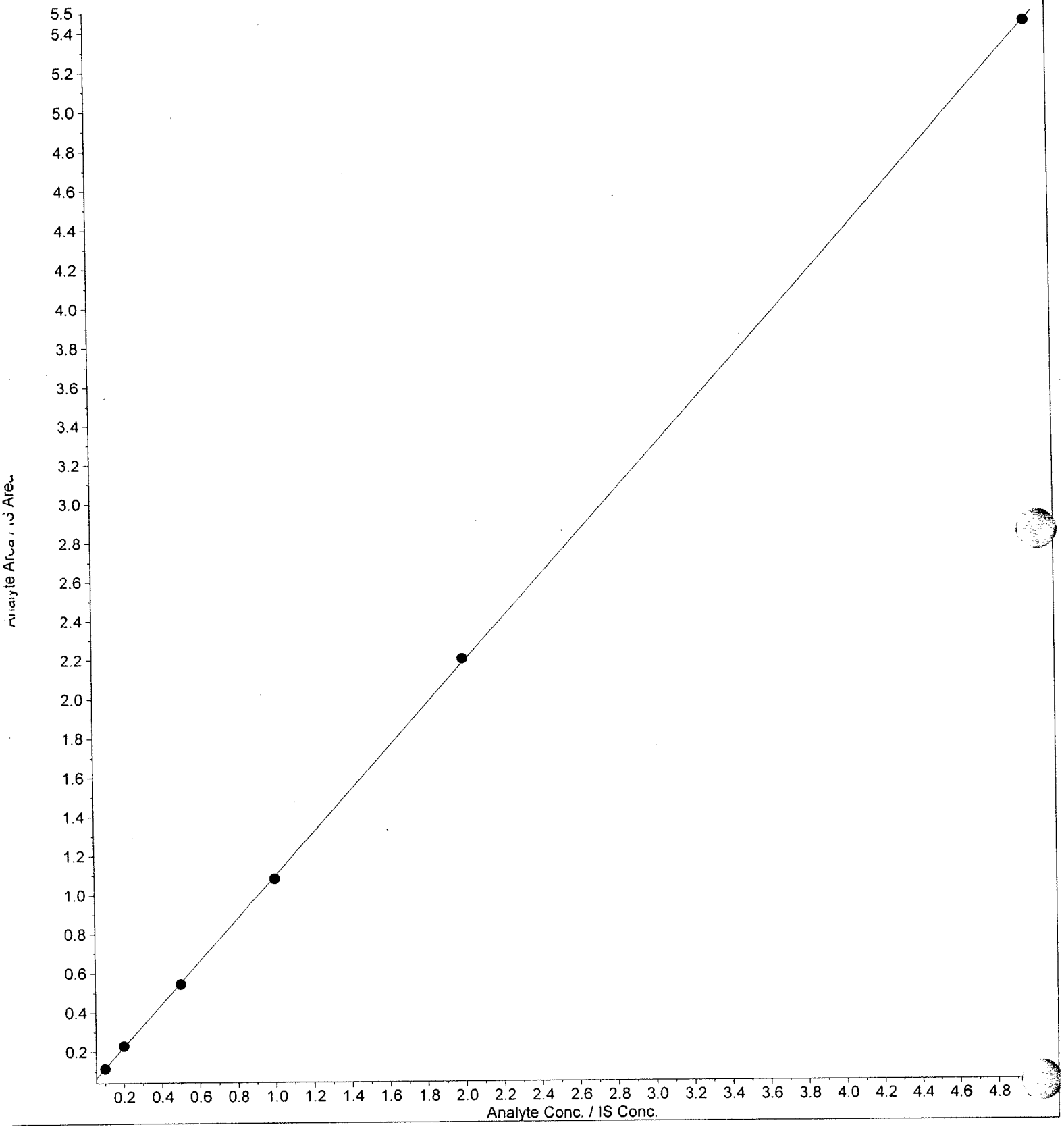
Automatic Delay Volume Reduction Not Used

MDN 11-5-09

Equilibration Time (sec):	2
Enable Vial/Well Bottom Sensing	No
Use Custom Injector Program	No

MDP 11-6-09

09_110409AD.rdb (PFOS): "Linear" Regression ("1 / x" weighting): y = 1.09 x + 0.00598 (r = 1.0000)

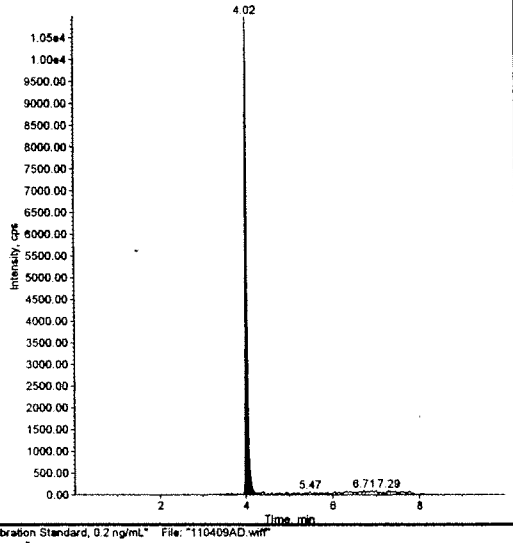


Sample Name: "SS33618" Sample ID: "Calibration Standard, 0.1 ng/mL" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 0.100 ng/mL
Calculated Conc: 0.0992 ng/mL
Acq. Date: 11/5/2009
Acq. Time: 3:25:44 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.02 min
Area: 37091 counts
Height: 11030 cps
Start Time: 3.92 min
End Time: 4.21 min

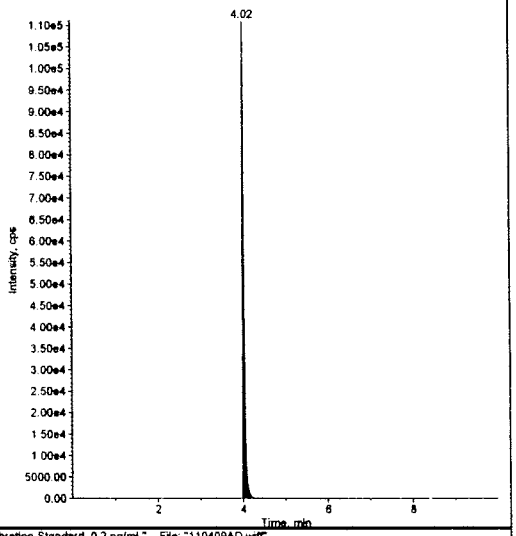


Sample Name: "SS33618" Sample ID: "Calibration Standard, 0.1 ng/mL" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 3:25:44 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.02 min
Area: 326346 counts
Height: 112017 cps
Start Time: 3.96 min
End Time: 4.24 min

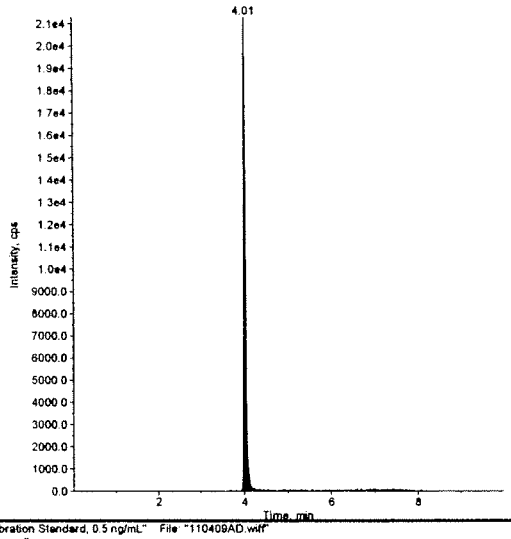


Sample Name: "SS33617" Sample ID: "Calibration Standard, 0.2 ng/mL" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 2
Sample Type: Standard
Concentration: 0.200 ng/mL
Calculated Conc: 0.205 ng/mL
Acq. Date: 11/5/2009
Acq. Time: 3:36:38 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 71080 counts
Height: 21632 cps
Start Time: 3.87 min
End Time: 4.31 min

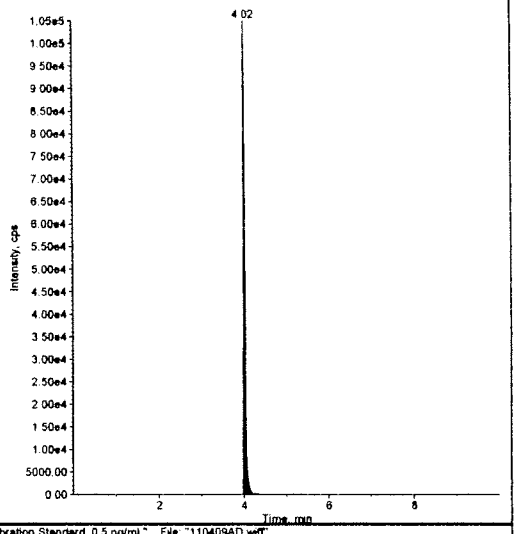


Sample Name: "SS33617" Sample ID: "Calibration Standard, 0.2 ng/mL" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 2
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 3:36:38 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.02 min
Area: 310927 counts
Height: 106643 cps
Start Time: 3.95 min
End Time: 4.21 min

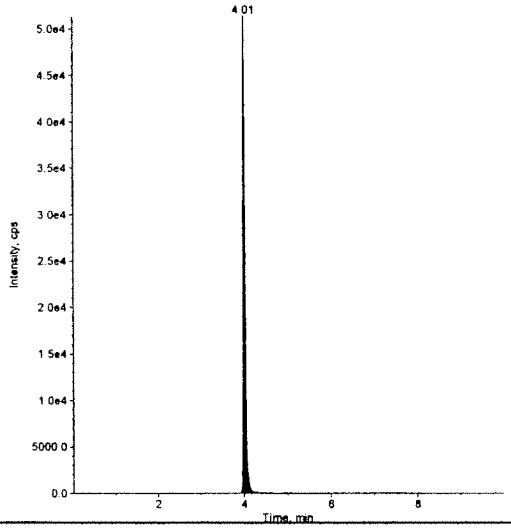


Sample Name: "SS33616" Sample ID: "Calibration Standard, 0.5 ng/mL" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 1
Sample Type: Standard
Concentration: 0.500 ng/mL
Calculated Conc: 0.494 ng/mL
Acq. Date: 11/5/2009
Acq. Time: 3:47:31 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 172764 counts
Height: 51839 cps
Start Time: 3.88 min
End Time: 4.26 min

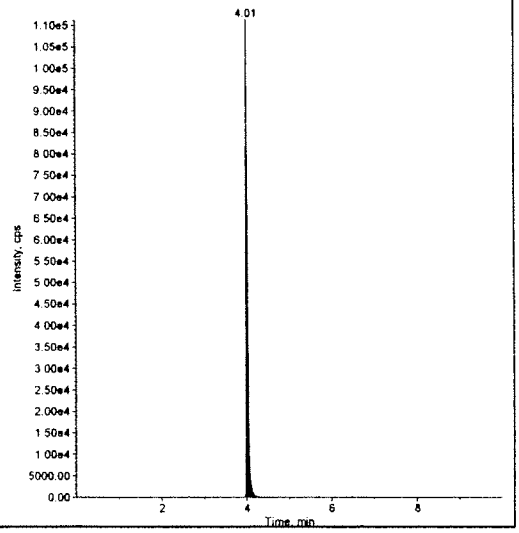


Sample Name: "SS33616" Sample ID: "Calibration Standard, 0.5 ng/mL" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 3
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 3:47:31 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 318796 counts
Height: 112025 cps
Start Time: 3.95 min
End Time: 4.20 min



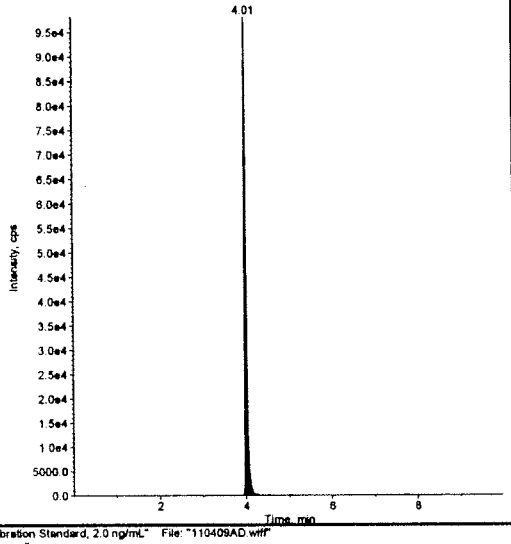
Mod
11-6-09
Box 1 To 10

Sample Name: "SS33615" Sample ID: "Calibration Standard, 1.0 ng/mL" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 4
Sample Type: Standard
Concentration: 1.00 ng/mL
culated Conc: 0.988 ng/mL
ı. Date: 11/5/2009
ı. Time: 3:58:25 PM

odified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
ea Threshold: 78.65 cps
s. Smooths: 1
). Width: 0.20
). Height: 0.01
p. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
pected RT: 4.06 min
e Relative RT: No

c. Type: Base To Base
tention Time: 4.01 min
Area: 344831 counts
Height: 102159 cps
Start Time: 3.91 min
End Time: 4.26 min

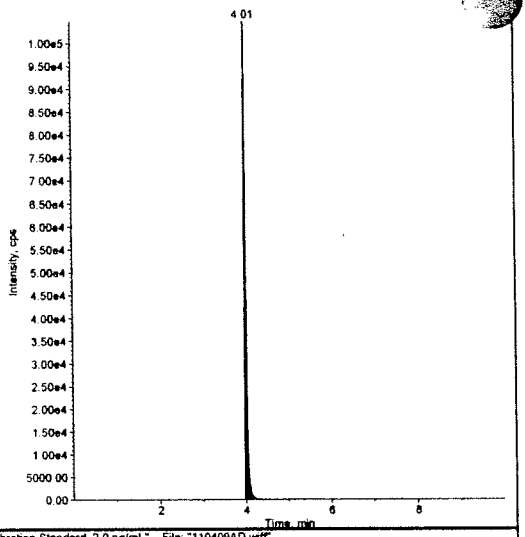


Sample Name: "SS33615" Sample ID: "Calibration Standard, 1.0 ng/mL" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 4
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 3:58:25 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 319636 counts
Height: 110884 cps
Start Time: 3.95 min
End Time: 4.20 min

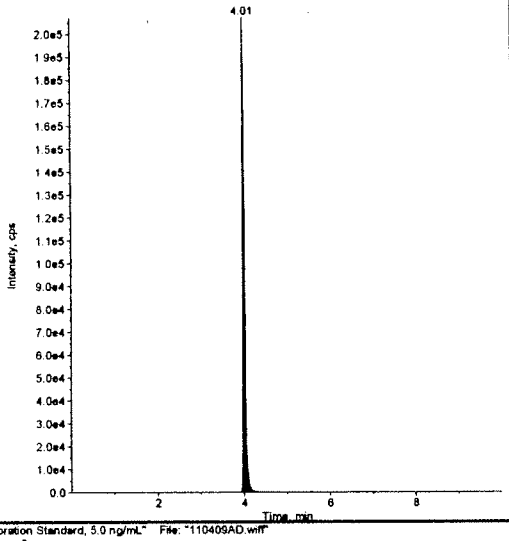


Sample Name: "SS33614" Sample ID: "Calibration Standard, 2.0 ng/mL" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

ample Index: 5
mple Type: Standard
ncentration: 2.00 ng/mL
lculated Conc: 2.02 ng/mL
cq. Date: 11/5/2009
Acq. Time: 4:09:19 PM

Modified: No
oc. Algorithm: Analyst Classic
unching Factor: 1
oise Threshold: 15.73 cps
ea Threshold: 78.65 cps
um. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
xp. Adj. Ratio: 4.00
xp. Val. Ratio: 3.00
T Window: 30.0 sec
xpected RT: 4.06 min
se Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 702604 counts
eight: 210047 cps
tart Time: 3.91 min
nd Time: 4.39 min

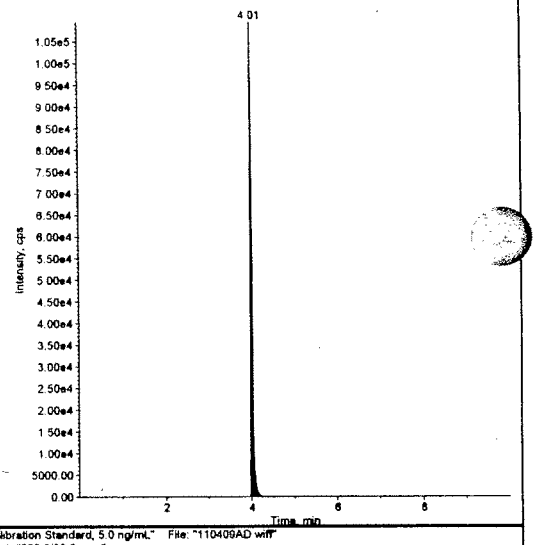


Sample Name: "SS33614" Sample ID: "Calibration Standard, 2.0 ng/mL" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 5
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 4:09:19 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 319828 counts
Height: 111219 cps
Start Time: 3.95 min
End Time: 4.22 min

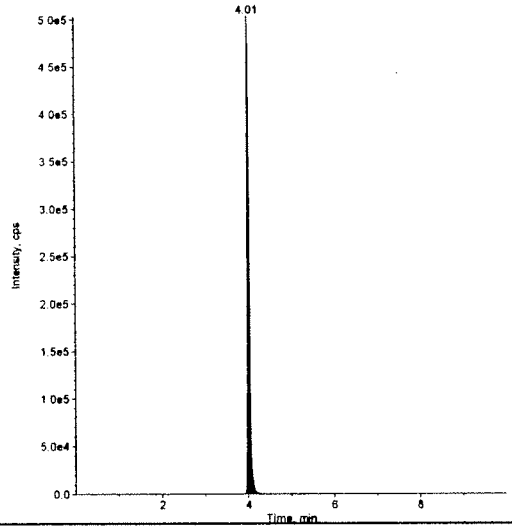


Sample Name: "SS33613" Sample ID: "Calibration Standard, 5.0 ng/mL" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

ample Index: 6
Sample Type: Standard
Concentration: 5.00 ng/mL
Calculated Conc: 5.00 ng/mL
Acq. Date: 11/5/2009
cq. Time: 4:20:14 PM

odified: No
roc. Algorithm: Analyst Classic
unching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
ep. Height: 0.01
xp. Peak Ratio: 5.00
xp. Adj. Ratio: 4.00
xp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

nt. Type: Base To Base
etention Time: 4.01 min
rea: 1728169 counts
eight: 514006 cps
tart Time: 3.90 min
End Time: 4.55 min

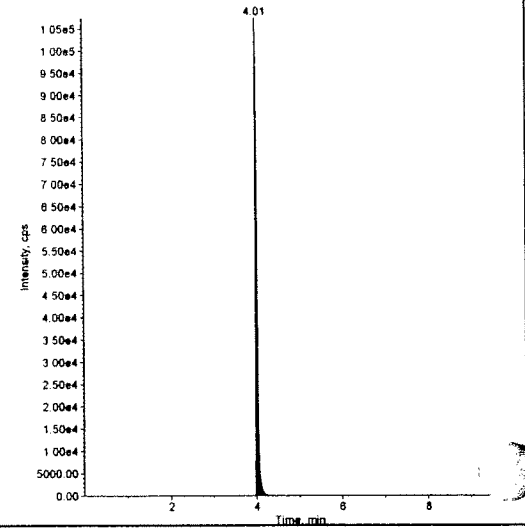


Sample Name: "SS33613" Sample ID: "Calibration Standard, 5.0 ng/mL" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 6
Sample Type: Standard
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 4:20:14 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.01 min
Area: 318164 counts
Height: 110291 cps
Start Time: 3.95 min
End Time: 4.21 min

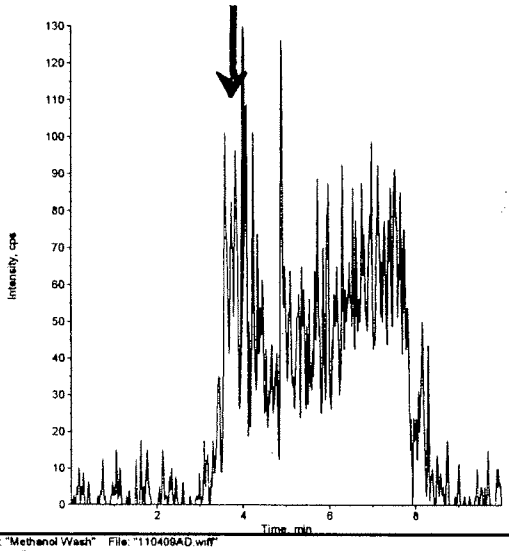


Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 7
Sample Type: Solvent
Concentration: 0.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 4:31:09 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

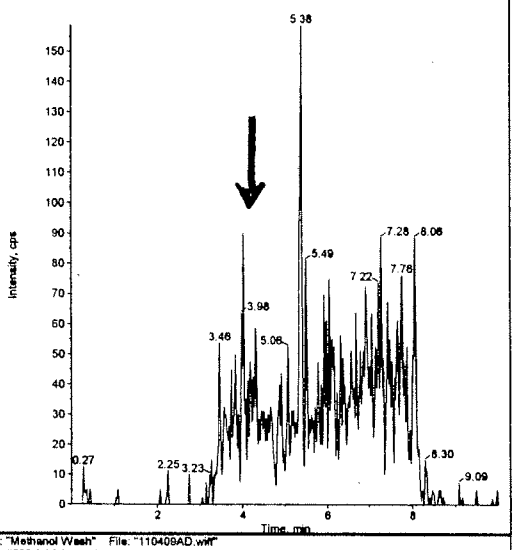
Int. Type: Base To Base
Retention Time: 4.00 min
Area: 315 counts
Height: 71 cps
Start Time: 3.92 min
End Time: 4.06 min



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 7
Sample Type: Solvent
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 4:31:09 PM

Modified: No

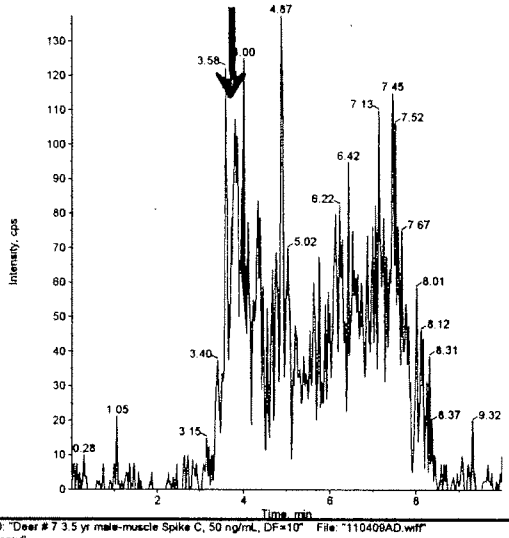


Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 8
Sample Type: Solvent
Concentration: 0.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 4:42:02 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

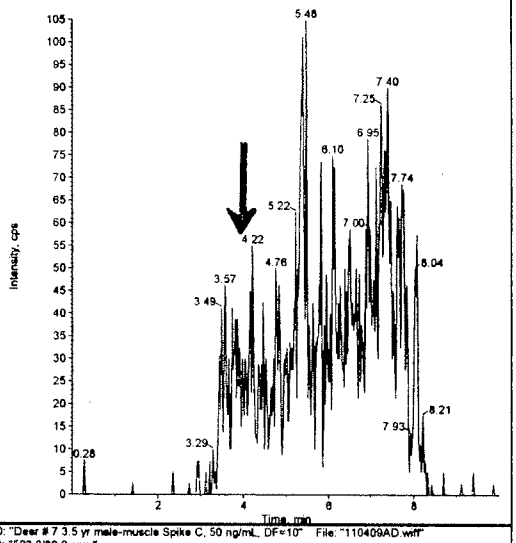
Int. Type: Base To Base
Retention Time: 4.00 min
Area: 198 counts
Height: 71 cps
Start Time: 3.92 min
End Time: 4.07 min



Sample Name: "Methanol Wash" Sample ID: "Methanol Wash" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 8
Sample Type: Solvent
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 4:42:02 PM

Modified: No

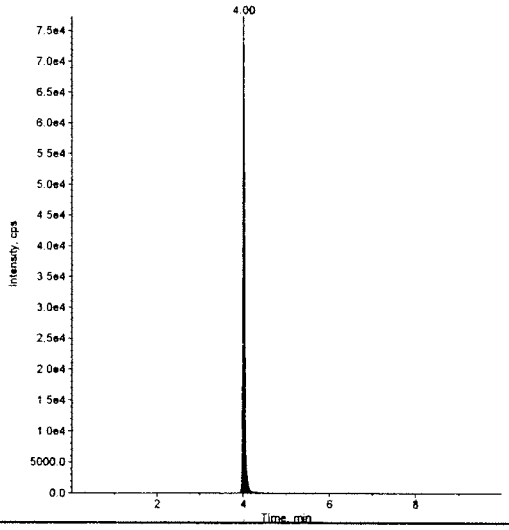


Sample Name: "L19346-3 Spk C" Sample ID: "Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL, DF=10" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 9
Sample Type: QC
Concentration: 50.0 ng/mL
Calculated Conc: 129. ng/mL
Acq. Date: 11/5/2009
Acq. Time: 4:52:56 PM

Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 15.73 cps
Area Threshold: 78.65 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

Int. Type: Base To Base
Retention Time: 4.00 min
Area: 243599 counts
Height: 77313 cps
Start Time: 3.91 min
End Time: 4.31 min

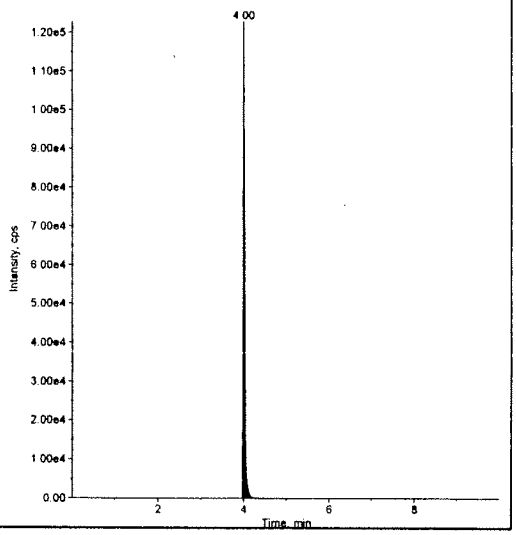


Sample Name: "L19346-3 Spk C" Sample ID: "Deer # 7 3.5 yr male-muscle Spike C, 50 ng/mL, DF=10" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index: 9
Sample Type: QC
Concentration: 1.00 ng/mL
Calculated Conc: N/A
Acq. Date: 11/5/2009
Acq. Time: 4:52:56 PM

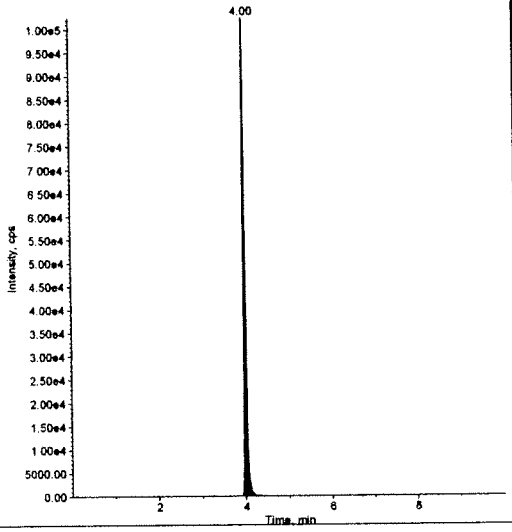
Modified: No
Proc. Algorithm: Analyst Classic
Bunching Factor: 1
Noise Threshold: 140.21 cps
Area Threshold: 701.07 cps
Num. Smooths: 1
Sep. Width: 0.20
Sep. Height: 0.01
Exp. Peak Ratio: 5.00
Exp. Adj. Ratio: 4.00
Exp. Val. Ratio: 3.00
RT Window: 30.0 sec
Expected RT: 4.06 min
Use Relative RT: No

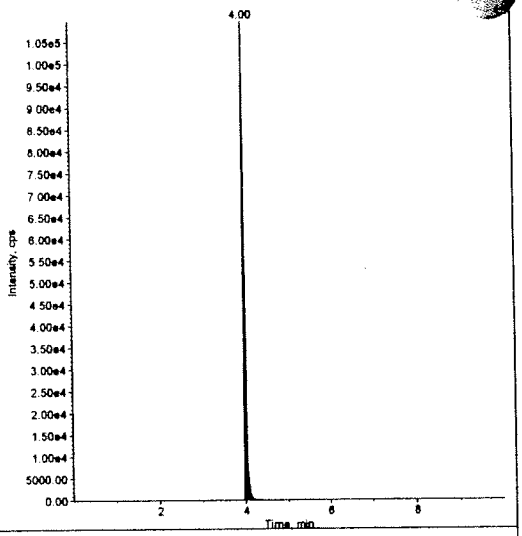
Int. Type: Base To Base
Retention Time: 4.00 min
Area: 345013 counts
Height: 123004 cps
Start Time: 3.95 min
End Time: 4.20 min



Sample Name: "SS33615" Sample ID: "CCV, 1.0 ng/mL" File: "110409AD.wiff"
Peak Name: "PFOS" Mass(es): "499.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index:	10
Sample Type:	QC
Concentration:	1.00 ng/mL
culated Conc:	1.00 ng/mL
. Date:	11/5/2009
. Time:	5:03:50 PM
odified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	15.73 cps
a Threshold:	78.65 cps
. Smooths:	1
. Width:	0.20
. Height:	0.01
p. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
pected RT:	4.06 min
e Relative RT:	No
. Type:	Base To Base
ention Time:	4.00 min
Area:	365129 counts
Height:	107000 cps
Start Time:	3.88 min
End Time:	4.40 min



Sample Name: "SS33615" Sample ID: "CCV, 1.0 ng/mL" File: "110409AD.wiff"
Peak Name: "13CPFOS(M+4)(IS)" Mass(es): "503.0/80.0 amu"
Comment: "" Annotation: ""

Sample Index:	10
Sample Type:	QC
Concentration:	1.00 ng/mL
Calculated Conc:	N/A
Acq. Date:	11/5/2009
Acq. Time:	5:03:50 PM
Modified:	No
Proc. Algorithm:	Analyst Classic
Bunching Factor:	1
Noise Threshold:	140.21 cps
Area Threshold:	701.07 cps
Num. Smooths:	1
Sep. Width:	0.20
Sep. Height:	0.01
Exp. Peak Ratio:	5.00
Exp. Adj. Ratio:	4.00
Exp. Val. Ratio:	3.00
RT Window:	30.0 sec
Expected RT:	4.06 min
Use Relative RT:	No
Int. Type:	Base To Base
Retention Time:	4.00 min
Area:	333224 counts
Height:	116407 cps
Start Time:	3.94 min
End Time:	4.20 min