



**Groundwater Sample Results,  
Level 2 Laboratory Report, Level 4 Laboratory Report,  
Electronic Data Deliverable, Data Validation Report,  
and the Sample Location Report, SDG 1700263**

*Naval Air Station Oceana  
Virginia Beach, Virginia*

July 2019

March 09, 2017

**Vista Work Order No. 1700263**

Ms. Tiffany Hill  
CH2M Hill  
1100 NE Circle Blvd. Suite 300  
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 24, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'NAS Oceana PFC'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](mailto:mmaier@vista-analytical.com).

Thank you for choosing Vista as part of your analytical support team.

Sincerely,



Martha Maier  
Laboratory Director



*Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.*

## Vista Work Order No. 1700263

### Case Narrative

#### Sample Condition on Receipt:

Eight groundwater samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

#### Analytical Notes:

##### Modified EPA Method 537

Samples "OW2E-MW09R-0217", "OW2E-MW09RP-0217", "OW2C-MW05-0217", "OW2C-MW25-0217", "OW2C-MW19-0217" and "OW2C-MW24-0217" contained particulate and were centrifuged prior to extraction.

The aqueous samples were extracted and analyzed for a selected list of 6 PFAS using Modified EPA Method 537.

##### Holding Times

The samples were extracted and analyzed within the method hold times.

##### Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria

As requested, an MS/MSD was performed on sample "OW2C-MW19-0217".

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

##### QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1700263-04	OW2C-MW25-0217	Modified EPA Method 537	13C3-PFBS	H	152
1700263-04	OW2C-MW25-0217	Modified EPA Method 537	13C8-PFOS	H	157
B7B0129-MS1	B7B0129-MS1	Modified EPA Method 537	13C8-PFOS	H	58.0

H = Recovery was outside laboratory acceptance criteria.

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# Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1700263-01	OW2E-MW09R-0217		23-Feb-17 10:10	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-02	OW2E-MW09RP-0217		23-Feb-17 10:15	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-03	OW2C-MW05-0217		23-Feb-17 10:20	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-04	OW2C-MW25-0217		23-Feb-17 12:40	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-05	OW2C-MW19-0217	MS/MSD MS/MSD MS/MSD MS/MSD MS/MSD MS/MSD	23-Feb-17 14:30	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-06	OW2C-MW24-0217		23-Feb-17 15:30	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-07	OW2C-EB-0217		23-Feb-17 16:00	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-08	OW2C-FB-0217		23-Feb-17 16:15	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL

## **ANALYTICAL RESULTS**

Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous		QC Batch: B7B0129		Lab Sample: B7B0129-BLK1		Date Analyzed: 01-Mar-17 21:38 Column: BEH C18			
Sample Size: 0.125 L		Date Extracted: 28-Feb-2017 9:01							
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.79	4.00	2.00		IS 13C3-PFBS	129	60 - 150	
PFHpA	ND	0.591	2.00	2.00		IS 13C4-PFHpA	117	60 - 150	
PFHxS	ND	0.947	2.00	2.00		IS 18O2-PFHxS	109	60 - 150	
PFOA	ND	0.651	2.00	2.00		IS 13C2-PFOA	111	60 - 150	
PFOS	ND	0.807	0.900	2.00		IS 13C8-PFOS	97.9	60 - 150	
PFNA	ND	0.810	2.00	2.00		IS 13C5-PFNA	94.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OPR**

**Modified EPA Method 537**

Matrix: Aqueous	QC Batch: B7B0129	Lab Sample: B7B0129-BS1					
Sample Size: 0.125 L	Date Extracted: 28-Feb-2017 9:01	Date Analyzed: 01-Mar-17 21:13 Column: BEH C18					
Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
PFBS	86.1	80.0	108	60 - 130	IS 13C3-PFBS	126	60 - 150
PFHpA	82.9	80.0	104	70 - 130	IS 13C4-PFHpA	116	60 - 150
PFHxS	89.7	80.0	112	70 - 130	IS 18O2-PFHxS	102	60 - 150
PFOA	81.4	80.0	102	70 - 130	IS 13C2-PFOA	113	60 - 150
PFOS	92.0	80.0	115	70 - 130	IS 13C8-PFOS	89.7	60 - 150
PFNA	94.0	80.0	117	50 - 130	IS 13C5-PFNA	98.2	50 - 150

LCL-UCL - Lower control limit - upper control limit



Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous		QC Batch: B7C0015				Lab Sample: B7C0015-BLK1			
Sample Size: 0.0100 L		Date Extracted: 06-Mar-2017 8:12				Date Analyzed: 06-Mar-17 17:05	Column: BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFOS	ND	10.1	11.3	313		IS 13C8-PFOS	90.8	60 - 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL.  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.  
 Only the linear isomer is reported for all other analytes.

**Sample ID: OPR**

**Modified EPA Method 537**

Matrix: Aqueous  
Sample Size: 0.0100 L

QC Batch: B7C0015  
Date Extracted: 06-Mar-2017 8:12

Lab Sample: B7C0015-BS1  
Date Analyzed: 06-Mar-17 16:15 Column: BEH C18

<b>Analyte</b>	<b>Amt Found (ng/L)</b>	<b>Spike Amt</b>	<b>%R</b>	<b>Limits</b>	<b>Labeled Standard</b>	<b>%R</b>	<b>LCL-UCL</b>
PFOS	898	1000	89.8	70 - 130	IS 13C8-PFOS	87.0	60 - 150

LCL-UCL - Lower control limit - upper control limit

**Sample ID: OW2E-MW09R-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-01	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 10:10			Date Analyzed:	01-Mar-17 22:28	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	48.3	1.78	3.97	1.99		IS 13C3-PFBS	106	60 - 150	
PFHpA	41.5	0.587	1.98	1.99		IS 13C4-PFHpA	110	60 - 150	
PFHxS	406	0.941	1.98	1.99		IS 18O2-PFHxS	106	60 - 150	
PFOA	134	0.647	1.98	1.99		IS 13C2-PFOA	119	60 - 150	
PFOS	103	0.802	0.893	1.99		IS 13C8-PFOS	94.3	60 - 150	
PFNA	4.66	0.805	1.98	1.99		IS 13C5-PFNA	77.4	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2E-MW09RP-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-02	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.130 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 10:15			Date Analyzed:	01-Mar-17 22:41	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	48.2	1.72	3.85	1.92		IS 13C3-PFBS	94.0	60 - 150	
PFHpA	39.1	0.569	1.92	1.92		IS 13C4-PFHpA	101	60 - 150	
PFHxS	389	0.911	1.92	1.92		IS 18O2-PFHxS	95.0	60 - 150	
PFOA	130	0.626	1.92	1.92		IS 13C2-PFOA	120	60 - 150	
PFOS	95.7	0.776	0.865	1.92		IS 13C8-PFOS	86.6	60 - 150	
PFNA	3.16	0.779	1.92	1.92		IS 13C5-PFNA	92.3	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-MW05-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-03	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.132 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 10:20			Date Analyzed:	01-Mar-17 22:53	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	9.86	1.70	3.79	1.90		IS 13C3-PFBS	85.4	60 - 150	
PFHpA	26.3	0.561	1.89	1.90		IS 13C4-PFHpA	89.8	60 - 150	
PFHxS	78.8	0.899	1.89	1.90		IS 18O2-PFHxS	96.6	60 - 150	
PFOA	42.9	0.618	1.89	1.90		IS 13C2-PFOA	117	60 - 150	
PFOS	249	0.766	0.852	1.90		IS 13C8-PFOS	103	60 - 150	
PFNA	108	0.769	1.89	1.90		IS 13C5-PFNA	91.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-MW25-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-04	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.125 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 12:40			Date Analyzed:	01-Mar-17 23:06	Column:	BEH C18
Location:					07-Mar-17 09:39	Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	310	1.79	4.00	1.99		IS 13C3-PFBS	152	60 - 150	H
PFHpA	531	0.589	2.00	1.99		IS 13C4-PFHpA	145	60 - 150	
PFHxS	3580	9.44	20.0	19.9	D	IS 18O2-PFHxS	96.0	60 - 150	D
PFOA	1100	6.49	20.0	19.9	D	IS 13C2-PFOA	106	60 - 150	D
PFOS	44500	96.7	108	959	D	IS 13C8-PFOS	157	60 - 150	D, H
PFNA	248	0.808	2.00	1.99		IS 13C5-PFNA	93.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-MW19-0217**

**Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-05	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.124 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 14:30			Date Analyzed:	01-Mar-17 23:19	Column:	BEH C18
Location:					03-Mar-17 10:54	Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	97.9	1.80	4.03	2.01		IS 13C3-PFBS	102	60 - 150	
PFHpA	52.8	0.594	2.02	2.01		IS 13C4-PFHpA	114	60 - 150	
PFHxS	489	0.952	2.02	2.01		IS 18O2-PFHxS	101	60 - 150	
PFOA	268	0.654	2.02	2.01		IS 13C2-PFOA	118	60 - 150	
PFOS	1340	4.06	4.54	10.0	D	IS 13C8-PFOS	74.0	60 - 150	D
PFNA	29.2	0.814	2.02	2.01		IS 13C5-PFNA	82.1	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

Matrix Spike Results

Modified EPA Method 537

Source Client ID: OW2C-MW19-0217	QC Batch: B7B0129	Lab Sample: B7B0129-MS1/B7B0129-MSD1
Source LabNumber: 1700263-05	Date Extracted: 28-Feb-2017 9:01	Date Analyzed: 02-Mar-17 16:48 Column: BEH C18
Matrix: Aqueous		02-Mar-17 17:01 Column: BEH C18
Sample Size: 0.128/0.126 L		

Analyte	Spike-MS (ng/L)	MS %R	MS Qual.	Spike-MSD (ng/L)	MSD %R	MSD RPD	MSD Qual.	%R Limit	%RPD Limit	Labeled Standard	MS %R	MS Qualifiers	MSD %R	MS Qual.
PFBS	78.4	108		79.1	121	11.4		60 - 130	25	IS 13C3-PFBS	93.9		96.3	
PFHpA	78.4	101		79.1	108	6.70		70 - 130	25	IS 13C4-PFHpA	106		103	
PFHxS	78.4	78.1		79.1	143	58.7	H	70 - 130	25	IS 18O2-PFHxS	99.1		91.4	
PFOA	78.4	105		79.1	89.8	15.6		70 - 130	25	IS 13C2-PFOA	121		136	
PFOS	78.4	1090	D, H	79.1	222	132	D, H	70 - 130	25	IS 13C8-PFOS	58.0	D, H	83.1	D
PFNA	78.4	112		79.1	122	8.55		50 - 130	25	IS 13C5-PFNA	84.6		95.7	

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers. Only the linear isomer is reported for all other analytes.



**Sample ID: OW2C-MW24-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-06	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 15:30			Date Analyzed:	01-Mar-17 23:56	Column:	BEH C18
Location:					08-Mar-17 21:26	Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	16.1	1.78	3.97	1.99		IS 13C3-PFBS	81.5	60 - 150	
PFHpA	40.3	0.588	1.98	1.99		IS 13C4-PFHpA	90.6	60 - 150	
PFHxS	87.1	0.942	1.98	1.99		IS 18O2-PFHxS	103	60 - 150	
PFOA	1540	3.24	9.92	39.8	D	IS 13C2-PFOA	75.0	60 - 150	D
PFOS	78.7	0.803	0.893	1.99		IS 13C8-PFOS	90.4	60 - 150	
PFNA	9.82	0.805	1.98	1.99		IS 13C5-PFNA	95.4	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-EB-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-07	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 16:00			Date Analyzed:	02-Mar-17 00:09	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.77	3.97	1.98		IS 13C3-PFBS	90.8	60 - 150	
PFHpA	0.910	0.584	1.98	1.98	J	IS 13C4-PFHpA	89.0	60 - 150	
PFHxS	ND	0.936	1.98	1.98		IS 18O2-PFHxS	102	60 - 150	
PFOA	3.91	0.643	1.98	1.98		IS 13C2-PFOA	126	60 - 150	
PFOS	ND	0.798	0.893	1.98		IS 13C8-PFOS	110	60 - 150	
PFNA	1.27	0.801	1.98	1.98	J	IS 13C5-PFNA	93.2	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-FB-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-08	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.130 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 16:15			Date Analyzed:	02-Mar-17 00:21	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.72	3.85	1.92		IS 13C3-PFBS	85.4	60 - 150	
PFHpA	0.847	0.568	1.92	1.92	J	IS 13C4-PFHpA	85.1	60 - 150	
PFHxS	ND	0.910	1.92	1.92		IS 18O2-PFHxS	94.8	60 - 150	
PFOA	3.69	0.625	1.92	1.92		IS 13C2-PFOA	128	60 - 150	
PFOS	ND	0.775	0.865	1.92		IS 13C8-PFOS	90.9	60 - 150	
PFNA	1.64	0.778	1.92	1.92	J	IS 13C5-PFNA	79.6	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

## **DATA QUALIFIERS & ABBREVIATIONS**

<b>B</b>	<b>This compound was also detected in the method blank.</b>
<b>D</b>	<b>Dilution</b>
<b>E</b>	<b>The associated compound concentration exceeded the calibration range of the instrument.</b>
<b>H</b>	<b>Recovery and/or RPD was outside laboratory acceptance limits.</b>
<b>I</b>	<b>Chemical Interference</b>
<b>J</b>	<b>The amount detected is below the Reporting Limit/LOQ.</b>
<b>M</b>	<b>Estimated Maximum Possible Concentration. (CA Region 2 projects only)</b>
<b>*</b>	<b>See Cover Letter</b>
<b>Conc.</b>	<b>Concentration</b>
<b>NA</b>	<b>Not applicable</b>
<b>ND</b>	<b>Not Detected</b>
<b>TEQ</b>	<b>Toxic Equivalency</b>

**Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.**

**CERTIFICATIONS**

<b>Accrediting Authority</b>	<b>Certificate Number</b>
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request*

## NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A


WAS OCEANIA  
PFC

**EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD**

SHIP TO: 621 Mainstream Drive, Suite 270 ♦ Nashville, TN 37228 ♦ 877-345-1113 ♦ (fax) 866-417-0548

31585

1700263 0.1°C

<b>Send Results to:</b>		<b>Send Invoice to:</b>		<b>Analysis Requirements:</b>												<b>Lab Use Only:</b>			
Name <u>T. S. S. Hill</u>		Name _____		PFC SST MOD												VOA Headspace	Y	N	NA
Company <u>CITIZEN Hill</u>		Company _____														Field Filtered	Y	N	NA
Address <u>5701 CLEVELAND ST</u>		Address _____														Correct Containers	Y	N	NA
City <u>Virginia Beach</u>		City _____														Discrepancies	Y	N	NA
State, Zip <u>VA 23462</u>		State, Zip _____														Cust. Seals Intact	Y	N	NA
Phone <u>757 671 6247</u>		Phone _____														Containers Intact	Y	N	NA
Fax _____		Fax _____		Airbill #: _____				CAR #: _____											
E-mail _____		E-mail _____																	
<b>Project No./Name:</b> <u>PFC WAS OCEANIA</u>		<b>Sampler's (Signature):</b> 																	

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix	2	3	4	5	6	7	8	9	10	11	12	Comments	No. of Bottles	Lab Use Only Containers/Pres.
	2/23/17 10:10	OWZE-MW09R-0217	GW	2												2	
	2/23/17 10:15	OWZE-MW09RP-0217	GW	2												2	
	2/23/17 10:20	OWZE-MW09S-0217	GW	2												2	
	2/23/17 12:40	OWZE-MW25-0217	GW	2												2	
	2/23/17 14:30	OWZE-MW19-0217	GW	2												2	
	2/23/17 14:30	OWZE-MW19-0217 MS	MS	2												2	
	2/23/17 14:30	OWZE-MW19-0217 SD	SD	2												2	
	2/23/17 15:30	OWZE-MW24-0217	GW	2												2	
	2/23/17 16:00	OWZE-FB-0217	FB	2												2	
	2/23/17 16:15	OWZE-FB-0217	FB	2												2	

<b>Sample Kit Prep'd by: (Signature)</b>		<b>Date/Time</b>	<b>Received By: (Signature)</b>		<b>REMARKS:</b> PFC UCMR3 list, 6 PFC SST MOD	<b>Details:</b>	
<b>Relinquished by: (Signature)</b>		<b>Date/Time</b>	<b>Received By: (Signature)</b>			Page <u>1</u> of <u>1</u>	
<b>Relinquished by: (Signature)</b>		<b>Date/Time</b>	<b>Received By: (Signature)</b>			Cooler No. <u>1</u> of <u>1</u>	
<b>Received for Laboratory by: (Signature)</b>		<b>Date/Time</b>	<b>Temperature</b>			Date Shipped <u>2/23/17</u>	
						Shipped By <u>Froese</u>	
						Turnaround <u>Per Contract</u>	

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.



# SAMPLE LOG-IN CHECKLIST



Vista Project #: 1700263 TAT Std

Samples Arrival:	Date/Time <u>2/24/17 0909</u>	Initials: <u>SR</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>
Logged In:	Date/Time <u>02/24/17 1038</u>	Initials: <u>Bob SR</u>	Location: <u>WR-2</u> Shelf/Rack: <u>A5</u>
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac
	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C: <u>0.4</u> (uncorrected)	Time: <u>0918</u>	Thermometer ID: IR-2	
Temp °C: <u>0.1</u> (corrected)	Probe used: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill	Trk # <u>7856 9873 7044</u>	✓	
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓
Preservation Documented:	<input type="checkbox"/> Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	<input type="checkbox"/> Trizma	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain <input type="checkbox"/> <input checked="" type="checkbox"/> Return <input type="checkbox"/> Dispose

Comments:



March 09, 2017

**Vista Work Order No. 1700263**

Ms. Tiffany Hill  
CH2M Hill  
1100 NE Circle Blvd. Suite 300  
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on February 24, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'NAS Oceana PFC'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at [mmaier@vista-analytical.com](mailto:mmaier@vista-analytical.com).

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

A handwritten signature in black ink that reads "Karen Lopez" followed by the word "for" in a smaller, lighter script.

Martha Maier  
Laboratory Director



*Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.*

Vista Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 [www.vista-analytical.com](http://www.vista-analytical.com)

## Vista Work Order No. 1700263

### Case Narrative

#### Sample Condition on Receipt:

Eight groundwater samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

#### Analytical Notes:

##### Modified EPA Method 537

Samples "OW2E-MW09R-0217", "OW2E-MW09RP-0217", "OW2C-MW05-0217", "OW2C-MW25-0217", "OW2C-MW19-0217" and "OW2C-MW24-0217" contained particulate and were centrifuged prior to extraction.

The aqueous samples were extracted and analyzed for a selected list of 6 PFAS using Modified EPA Method 537.

##### Holding Times

The samples were extracted and analyzed within the method hold times.

##### Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria

As requested, an MS/MSD was performed on sample "OW2C-MW19-0217".

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

##### QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1700263-04	OW2C-MW25-0217	Modified EPA Method 537	13C3-PFBS	H	152
1700263-04	OW2C-MW25-0217	Modified EPA Method 537	13C8-PFOS	H	157
B7B0129-MS1	B7B0129-MS1	Modified EPA Method 537	13C8-PFOS	H	58.0

H = Recovery was outside laboratory acceptance criteria.

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# Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1700263-01	OW2E-MW09R-0217		23-Feb-17 10:10	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-02	OW2E-MW09RP-0217		23-Feb-17 10:15	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-03	OW2C-MW05-0217		23-Feb-17 10:20	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-04	OW2C-MW25-0217		23-Feb-17 12:40	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-05	OW2C-MW19-0217	MS/MSD MS/MSD MS/MSD MS/MSD MS/MSD MS/MSD	23-Feb-17 14:30	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-06	OW2C-MW24-0217		23-Feb-17 15:30	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-07	OW2C-EB-0217		23-Feb-17 16:00	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL
1700263-08	OW2C-FB-0217		23-Feb-17 16:15	24-Feb-17 09:09	HDPE Bottle, 125 mL HDPE Bottle, 125 mL

## **ANALYTICAL RESULTS**

Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous		QC Batch: B7B0129		Lab Sample: B7B0129-BLK1					
Sample Size: 0.125 L		Date Extracted: 28-Feb-2017 9:01		Date Analyzed: 01-Mar-17 21:38 Column: BEH C18					
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.79	4.00	2.00		IS 13C3-PFBS	129	60 - 150	
PFHpA	ND	0.591	2.00	2.00		IS 13C4-PFHpA	117	60 - 150	
PFHxS	ND	0.947	2.00	2.00		IS 18O2-PFHxS	109	60 - 150	
PFOA	ND	0.651	2.00	2.00		IS 13C2-PFOA	111	60 - 150	
PFOS	ND	0.807	0.900	2.00		IS 13C8-PFOS	97.9	60 - 150	
PFNA	ND	0.810	2.00	2.00		IS 13C5-PFNA	94.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OPR**

**Modified EPA Method 537**

Matrix: Aqueous	QC Batch: B7B0129	Lab Sample: B7B0129-BS1
Sample Size: 0.125 L	Date Extracted: 28-Feb-2017 9:01	Date Analyzed: 01-Mar-17 21:13 Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
PFBS	86.1	80.0	108	60 - 130	IS 13C3-PFBS	126	60 - 150
PFHpA	82.9	80.0	104	70 - 130	IS 13C4-PFHpA	116	60 - 150
PFHxS	89.7	80.0	112	70 - 130	IS 18O2-PFHxS	102	60 - 150
PFOA	81.4	80.0	102	70 - 130	IS 13C2-PFOA	113	60 - 150
PFOS	92.0	80.0	115	70 - 130	IS 13C8-PFOS	89.7	60 - 150
PFNA	94.0	80.0	117	50 - 130	IS 13C5-PFNA	98.2	50 - 150

LCL-UCL - Lower control limit - upper control limit



Sample ID: Method Blank						Modified EPA Method 537			
Matrix: Aqueous		QC Batch: B7C0015		Lab Sample: B7C0015-BLK1					
Sample Size: 0.0100 L		Date Extracted: 06-Mar-2017 8:12		Date Analyzed: 06-Mar-17 17:05	Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFOS	ND	10.1	11.3	313		IS 13C8-PFOS	90.8	60 - 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL.  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.  
 Only the linear isomer is reported for all other analytes.

**Sample ID: OPR**

**Modified EPA Method 537**

Matrix: Aqueous  
Sample Size: 0.0100 L

QC Batch: B7C0015  
Date Extracted: 06-Mar-2017 8:12

Lab Sample: B7C0015-BS1  
Date Analyzed: 06-Mar-17 16:15 Column: BEH C18

<b>Analyte</b>	<b>Amt Found (ng/L)</b>	<b>Spike Amt</b>	<b>%R</b>	<b>Limits</b>	<b>Labeled Standard</b>	<b>%R</b>	<b>LCL-UCL</b>
PFOS	898	1000	89.8	70 - 130	IS 13C8-PFOS	87.0	60 - 150

LCL-UCL - Lower control limit - upper control limit

**Sample ID: OW2E-MW09R-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-01	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 10:10			Date Analyzed:	01-Mar-17 22:28	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	48.3	1.78	3.97	1.99		IS 13C3-PFBS	106	60 - 150	
PFHpA	41.5	0.587	1.98	1.99		IS 13C4-PFHpA	110	60 - 150	
PFHxS	406	0.941	1.98	1.99		IS 18O2-PFHxS	106	60 - 150	
PFOA	134	0.647	1.98	1.99		IS 13C2-PFOA	119	60 - 150	
PFOS	103	0.802	0.893	1.99		IS 13C8-PFOS	94.3	60 - 150	
PFNA	4.66	0.805	1.98	1.99		IS 13C5-PFNA	77.4	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2E-MW09RP-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-02	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.130 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 10:15			Date Analyzed:	01-Mar-17 22:41	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	48.2	1.72	3.85	1.92		IS 13C3-PFBS	94.0	60 - 150	
PFHpA	39.1	0.569	1.92	1.92		IS 13C4-PFHpA	101	60 - 150	
PFHxS	389	0.911	1.92	1.92		IS 18O2-PFHxS	95.0	60 - 150	
PFOA	130	0.626	1.92	1.92		IS 13C2-PFOA	120	60 - 150	
PFOS	95.7	0.776	0.865	1.92		IS 13C8-PFOS	86.6	60 - 150	
PFNA	3.16	0.779	1.92	1.92		IS 13C5-PFNA	92.3	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-MW05-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-03	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.132 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 10:20			Date Analyzed:	01-Mar-17 22:53	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	9.86	1.70	3.79	1.90		IS 13C3-PFBS	85.4	60 - 150	
PFHpA	26.3	0.561	1.89	1.90		IS 13C4-PFHpA	89.8	60 - 150	
PFHxS	78.8	0.899	1.89	1.90		IS 18O2-PFHxS	96.6	60 - 150	
PFOA	42.9	0.618	1.89	1.90		IS 13C2-PFOA	117	60 - 150	
PFOS	249	0.766	0.852	1.90		IS 13C8-PFOS	103	60 - 150	
PFNA	108	0.769	1.89	1.90		IS 13C5-PFNA	91.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-MW25-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-04	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.125 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 12:40			Date Analyzed:	01-Mar-17 23:06	Column:	BEH C18
Location:					07-Mar-17 09:39	Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	310	1.79	4.00	1.99		IS 13C3-PFBS	152	60 - 150	H
PFHpA	531	0.589	2.00	1.99		IS 13C4-PFHpA	145	60 - 150	
PFHxS	3580	9.44	20.0	19.9	D	IS 18O2-PFHxS	96.0	60 - 150	D
PFOA	1100	6.49	20.0	19.9	D	IS 13C2-PFOA	106	60 - 150	D
PFOS	44500	96.7	108	959	D	IS 13C8-PFOS	157	60 - 150	D, H
PFNA	248	0.808	2.00	1.99		IS 13C5-PFNA	93.9	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-MW19-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-05	Date Received:	24-Feb-2017 9:09		
Project:	NAS Oceana PFC	Sample Size:	0.124 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01		
Date Collected:	23-Feb-2017 14:30			Date Analyzed:	01-Mar-17 23:19	Column:	BEH C18		
Location:					03-Mar-17 10:54	Column:	BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	97.9	1.80	4.03	2.01		IS 13C3-PFBS	102	60 - 150	
PFHpA	52.8	0.594	2.02	2.01		IS 13C4-PFHpA	114	60 - 150	
PFHxS	489	0.952	2.02	2.01		IS 18O2-PFHxS	101	60 - 150	
PFOA	268	0.654	2.02	2.01		IS 13C2-PFOA	118	60 - 150	
PFOS	1340	4.06	4.54	10.0	D	IS 13C8-PFOS	74.0	60 - 150	D
PFNA	29.2	0.814	2.02	2.01		IS 13C5-PFNA	82.1	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Matrix Spike Results**

**Modified EPA Method 537**

Source Client ID: OW2C-MW19-0217	QC Batch: B7B0129	Lab Sample: B7B0129-MS1/B7B0129-MSD1
Source LabNumber: 1700263-05	Date Extracted: 28-Feb-2017 9:01	Date Analyzed: 02-Mar-17 16:48 Column: BEH C18
Matrix: Aqueous		02-Mar-17 17:01 Column: BEH C18
Sample Size: 0.128/0.126 L		

Analyte	Spike-MS (ng/L)	MS %R	MS Qual.	Spike-MSD (ng/L)	MSD %R	MSD RPD	MSD Qual.	%R Limit	%RPD Limit	Labeled Standard	MS %R	MS Qualifiers	MSD %R	MS Qual.
PFBS	78.4	108		79.1	121	11.4		60 - 130	25	IS 13C3-PFBS	93.9		96.3	
PFHpA	78.4	101		79.1	108	6.70		70 - 130	25	IS 13C4-PFHpA	106		103	
PFHxS	78.4	78.1		79.1	<b>143</b>	<b>58.7</b>	H	70 - 130	25	IS 18O2-PFHxS	99.1		91.4	
PFOA	78.4	105		79.1	89.8	15.6		70 - 130	25	IS 13C2-PFOA	121		136	
PFOS	78.4	<b>1090</b>	D, H	79.1	<b>222</b>	<b>132</b>	D, H	70 - 130	25	IS 13C8-PFOS	58.0	D, H	83.1	D
PFNA	78.4	112		79.1	122	8.55		50 - 130	25	IS 13C5-PFNA	84.6		95.7	

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.  
Only the linear isomer is reported for all other analytes.



**Sample ID: OW2C-MW24-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-06	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 15:30			Date Analyzed:	01-Mar-17 23:56	Column:	BEH C18
Location:					08-Mar-17 21:26	Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	16.1	1.78	3.97	1.99		IS 13C3-PFBS	81.5	60 - 150	
PFHpA	40.3	0.588	1.98	1.99		IS 13C4-PFHpA	90.6	60 - 150	
PFHxS	87.1	0.942	1.98	1.99		IS 18O2-PFHxS	103	60 - 150	
PFOA	1540	3.24	9.92	39.8	D	IS 13C2-PFOA	75.0	60 - 150	D
PFOS	78.7	0.803	0.893	1.99		IS 13C8-PFOS	90.4	60 - 150	
PFNA	9.82	0.805	1.98	1.99		IS 13C5-PFNA	95.4	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-EB-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-07	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 16:00			Date Analyzed:	02-Mar-17 00:09	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.77	3.97	1.98		IS 13C3-PFBS	90.8	60 - 150	
PFHpA	0.910	0.584	1.98	1.98	J	IS 13C4-PFHpA	89.0	60 - 150	
PFHxS	ND	0.936	1.98	1.98		IS 18O2-PFHxS	102	60 - 150	
PFOA	3.91	0.643	1.98	1.98		IS 13C2-PFOA	126	60 - 150	
PFOS	ND	0.798	0.893	1.98		IS 13C8-PFOS	110	60 - 150	
PFNA	1.27	0.801	1.98	1.98	J	IS 13C5-PFNA	93.2	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

**Sample ID: OW2C-FB-0217****Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data			
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-08	Date Received:	24-Feb-2017 9:09
Project:	NAS Oceana PFC	Sample Size:	0.130 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01
Date Collected:	23-Feb-2017 16:15			Date Analyzed:	02-Mar-17 00:21	Column:	BEH C18
Location:							

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.72	3.85	1.92		IS 13C3-PFBS	85.4	60 - 150	
PFHpA	0.847	0.568	1.92	1.92	J	IS 13C4-PFHpA	85.1	60 - 150	
PFHxS	ND	0.910	1.92	1.92		IS 18O2-PFHxS	94.8	60 - 150	
PFOA	3.69	0.625	1.92	1.92		IS 13C2-PFOA	128	60 - 150	
PFOS	ND	0.775	0.865	1.92		IS 13C8-PFOS	90.9	60 - 150	
PFNA	1.64	0.778	1.92	1.92	J	IS 13C5-PFNA	79.6	50 - 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers.

Only the linear isomer is reported for all other analytes.

## **DATA QUALIFIERS & ABBREVIATIONS**

<b>B</b>	<b>This compound was also detected in the method blank.</b>
<b>D</b>	<b>Dilution</b>
<b>E</b>	<b>The associated compound concentration exceeded the calibration range of the instrument.</b>
<b>H</b>	<b>Recovery and/or RPD was outside laboratory acceptance limits.</b>
<b>I</b>	<b>Chemical Interference</b>
<b>J</b>	<b>The amount detected is below the Reporting Limit/LOQ.</b>
<b>M</b>	<b>Estimated Maximum Possible Concentration. (CA Region 2 projects only)</b>
<b>*</b>	<b>See Cover Letter</b>
<b>Conc.</b>	<b>Concentration</b>
<b>NA</b>	<b>Not applicable</b>
<b>ND</b>	<b>Not Detected</b>
<b>TEQ</b>	<b>Toxic Equivalency</b>

**Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.**

**CERTIFICATIONS**

<b>Accrediting Authority</b>	<b>Certificate Number</b>
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2014022
Nevada Division of Environmental Protection	CA004132015-1
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-004
Pennsylvania Department of Environmental Protection	012
South Carolina Department of Health	87002001
Texas Commission on Environmental Quality	T104704189-15-6
Virginia Department of General Services	7923
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

*Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request*

## NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	Method
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23

MATRIX: Biological Tissue	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Drinking Water	
Description of Test	Method
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537

MATRIX: Non-Potable Water	
Description of Test	Method
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613B
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Pesticides in Water, Soil, Sediment, Biosolids, and Tissue by HRGC/HRMS	EPA 1699
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Dioxin by GC/HRMS	EPA 613
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A

MATRIX: Solids	
Description of Test	Method
Tetra-Octa Chlorinated Dioxins and Furans by Isotope Dilution GC/HRMS	EPA 1613
Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope	EPA 1613B

Dilution GC/HRMS	
Brominated Diphenyl Ethers by HRGC/HRMS	EPA 1614A
Chlorinated Biphenyl Congeners in Water, Soil, Sediment, and Tissue by GC/HRMS	EPA 1668A/C
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans by GC/HRMS	EPA 8280A/B
Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by GC/HRMS	EPA 8290/8290A


WAS OCEANIA  
PFC

**EMPIRICAL LABORATORIES, LLC - CHAIN OF CUSTODY RECORD**

SHIP TO: 621 Mainstream Drive, Suite 270 ♦ Nashville, TN 37228 ♦ 877-345-1113 ♦ (fax) 866-417-0548

31585

1700263 0.1°C

<b>Send Results to:</b>		<b>Send Invoice to:</b>		<b>Analysis Requirements:</b>								<b>Lab Use Only:</b>						
Name <u>T. S. ... Hill</u>		Name _____		PFC SST MOD											VOA Headspace	Y	N	NA
Company <u>CITIZEN Hill</u>		Company _____													Field Filtered	Y	N	NA
Address <u>5701 CLEVELAND ST</u>		Address _____													Correct Containers	Y	N	NA
City <u>Virginia Beach</u>		City _____													Discrepancies	Y	N	NA
State, Zip <u>VA 23462</u>		State, Zip _____													Cust. Seals Intact	Y	N	NA
Phone <u>757 671 6247</u>		Phone _____													Containers Intact	Y	N	NA
Fax _____		Fax _____													Airbill #: _____			
E-mail _____		E-mail _____		CAR #: _____														
<b>Project No./Name:</b> <u>PFC WAS OCEANIA</u>		<b>Sampler's (Signature):</b> 																

Lab Use Only Lab #	Date/Time Sampled	Sample Description	Sample Matrix															Comments	No. of Bottles	Lab Use Only Containers/Pres.
	2/23/17 10:10	OWZE-MW09R-0217	GW	2															2	
	2/23/17 10:15	OWZE-MW09RP-0217	GW	2															2	
	2/23/17 10:20	OWZE-MW09S-0217	GW	2															2	
	2/23/17 12:40	OWZE-MW12S-0217	GW	2															2	
	2/23/17 14:30	OWZE-MW19-0217	GW	2															2	
	2/23/17 14:30	OWZE-MW19-0217 MS	MS	2															2	
	2/23/17 14:30	OWZE-MW19-0217 SD	SD	2															2	
	2/23/17 15:30	OWZE-MW24-0217	GW	2															2	
	2/23/17 16:00	OWZE-FB-0217	FB	2															2	
	2/23/17 16:15	OWZE-FB-0217	FB	2															2	

<b>Sample Kit Prep'd by: (Signature)</b>		<b>Date/Time</b>		<b>Received By: (Signature)</b>		<b>REMARKS:</b> PFC UCMR3 list, 6 PFC SST MOD	<b>Details:</b>		
<b>Relinquished by: (Signature)</b>		<b>Date/Time</b>		<b>Received By: (Signature)</b>			Page <u>1</u> of <u>1</u>		
<b>Relinquished by: (Signature)</b>		<b>Date/Time</b>		<b>Received By: (Signature)</b>			Cooler No. <u>1</u> of <u>1</u>		
<b>Received for Laboratory by: (Signature)</b>		<b>Date/Time</b>		<b>Temperature</b>			Date Shipped <u>2/23/17</u>		
							Shipped By <u>Froese</u>		
							Turnaround <u>Per Customer</u>		

Distribution: Original and yellow copies accompany sample shipment to laboratory; Pink retained by samplers.



# SAMPLE LOG-IN CHECKLIST



Vista Project #: 1700263 TAT Std

<b>Samples Arrival:</b>	Date/Time <u>2/24/17 0909</u>	Initials: <u>SR</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>
<b>Logged In:</b>	Date/Time <u>02/24/17 1038</u>	Initials: <u>Bob SR</u>	Location: <u>WR-2</u> Shelf/Rack: <u>A5</u>
<b>Delivered By:</b>	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac
	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
<b>Preservation:</b>	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
<b>Temp °C:</b> <u>0.4</u> (uncorrected)	<b>Time:</b> <u>0918</u>	<b>Thermometer ID:</b> IR-2	
<b>Temp °C:</b> <u>0.1</u> (corrected)	<b>Probe used:</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill	Trk # <u>7856 9873 7044</u>	✓	
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓
Preservation Documented:	<input type="checkbox"/> Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	<input type="checkbox"/> Trizma	Yes <input type="checkbox"/> <input checked="" type="checkbox"/> No <input type="checkbox"/> NA
Shipping Container	Vista	<input checked="" type="checkbox"/> Client	Retain <input type="checkbox"/> <input checked="" type="checkbox"/> Return <input type="checkbox"/> Dispose

Comments:

## **EXTRACTION INFORMATION**

RX

Process Sheet  
Workorder: 1700263

Prep Expiration: 2017-Mar-09  
Client: CH2M Hill

Workorder Due: 10-Mar-17 00:00  
TAT: 14

Method: 537 PFAS DOD (LOQ as mRL)  
Matrix: Aqueous  
Client Matrix: Groundwater  
Version: UCMR 3 (6 Analyte)

Prep Batch: B7 COOLIS  
Prep Data Entered: BP 3.7.17  
Date and Initials  
Initial Sequence: \_\_\_\_\_

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1700263-01	<input type="checkbox"/>	OW2E-MW09R-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-02	<input type="checkbox"/>	OW2E-MW09RP-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-03	<input type="checkbox"/>	OW2C-MW05-0217	24-Feb-17 09:09	WR-2 A-5	
<u>1700263-04</u>	<input checked="" type="checkbox"/>	OW2C-MW25-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-05	<input type="checkbox"/>	OW2C-MW19-0217	24-Feb-17 09:09	WR-2 A-5	MS/MSD
1700263-06	<input type="checkbox"/>	OW2C-MW24-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-07	<input type="checkbox"/>	OW2C-EB-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-08	<input type="checkbox"/>	OW2C-FB-0217	24-Feb-17 09:09	WR-2 A-5	

10mls, 1x spike, for PFOS only.

WO Comments: List of 6, include Total PFOA.

Vista PM: Martha Maier

Vial Box ID: The Oka  
Work Order: 1700263

Sample Reconciled By: B. Parker

3/6/17  
Page 26 of 418

# Percent Solids



Project: B7C0015

Balance ID: NA

Sample ID	Chemist: <u>NA</u> Date: _____ Time: _____		Chemist: <u>NA</u> Date: _____ Time: _____		Chemist/Date BP 3.6.17	
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl
1700263-04Rel <sup>Ⓐ</sup>			BP 3.6.17	6	2	0

- Procedure:**
- Tare the balance.
  - Record Boat Weight.
  - Add 2 - 10 g of sample.
  - Record Wet Wt. + Boat Wt.
  - Dry in oven overnight at 107°C.
  - Tare the balance.
  - Record Residue + Boat Wt.

**Notes:**

Ⓐ Added 2 drops of HCl to adjust pH to 2  
BP 3.6.17

- Methods 8280, 613, 1613, 8290, 1614 - pH < 9
- Methods 1668/PCN - pH 2-3
- NCASI 551 - pH 1

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DOD (LOO as mL)

B7C0015

Chemist: E. Schmidt

Prep Date/Time: 06-Mar-17 08:12

Prepared using: LCMS - SPE Extraction-LCMS

C	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
<input type="checkbox"/>	B7C0015-BLKI	NA	NA	0.125 (0.010) <sup>AC</sup> 3/9/17	BP 3/6/17	BP 3.6.17	BP 3/6/17
<input type="checkbox"/>	B7C0015-BSI	↓	↓	↓ ↓	↓	↓	↓
<input type="checkbox"/>	1700263-04REI <sup>(A)</sup>	37.03	26.60	0.01043	↓	↓	↓

C7C0024

<sup>(A)</sup> Centrifuged to remove particulate BP 3.6.17

IS Name <u>U3</u> 16L1920, 10 mL	NS Name <u>U</u> 16I2405, 10 mL	RS Name <u>U4</u> 17A201, 10 mL	SPE Chem: <u>Strato X-AW 33um 700mg/mL</u> BP 3.6.17 Ele SOLV: <u>0.5% NH4OH in MeOH/MeOH</u> Final Volume(s): <u>1 mL</u>	Check Out: Chemist/Date: <u>BP 3.6.17</u> Check In: Chemist/Date: <u>BP 3.6.17</u> Balance ID: <u>HAMS-8</u>
--	---------------------------------------	---------------------------------------	---	--

Comments: Assume 1 g = 1 mL

Process Sheet  
Workorder: 1700263

Prep Expiration: 2017-Mar-09  
Client: CH2M Hill

Workorder Due: 10-Mar-17 00:00  
TAT: 14

Method: 537 PFAS DOD (LOQ as mRL)  
Matrix: Aqueous

Prep Batch: B7B0129

Prep Data Entered: BP 3.1.17  
Date and Initials

Version: UCMR 3 (6 Analyte)

Initial Sequence: S1C0001

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1700263-01	<input checked="" type="checkbox"/>	OW2E-MW09R-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-02	<input checked="" type="checkbox"/>	OW2E-MW09RP-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-03	<input checked="" type="checkbox"/>	OW2C-MW05-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-04	<input checked="" type="checkbox"/>	OW2C-MW25-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-05	<input checked="" type="checkbox"/>	OW2C-MW19-0217	24-Feb-17 09:09	WR-2 A-5	MS/MSD
1700263-06	<input checked="" type="checkbox"/>	OW2C-MW24-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-07	<input checked="" type="checkbox"/>	OW2C-EB-0217	24-Feb-17 09:09	WR-2 A-5	
1700263-08	<input checked="" type="checkbox"/>	OW2C-FB-0217	24-Feb-17 09:09	WR-2 A-5	

WO Comments: List of 6, include Total PFOA.

Vista PM:Martha Maier

Vial Box ID: Bodger

Sample Reconciled By: B. Parker 2/18/17

# Percent Solids



Project: B7B0129

Balance ID: HRMS-8

Sample ID	Chemist: <u>MA</u>		Chemist: <u>MA</u>		Chemist/Date	
	Boat Wt.	Sample + Boat Wt.	Residue + Boat Wt.	pH before	pH* after	Cl
1700263-1 (A)				7	2	0
- 2				7	2	0
- 3				7	2	0
- 4				7	2	0
- SA				7	2	0
- SB				7	2	0
- SC				7	2	0
- 6				6	2	0
- 7				6	2	0
- 8				6	2	0

BP 2-28-17

- Procedure:**
- Tare the balance.
  - Record Boat Weight.
  - Add 2 - 10 g of sample.
  - Record Wet Wt. + Boat Wt.
  - Dry in oven overnight at 107°C.
  - Tare the balance.
  - Record Residue + Boat Wt.

- Notes:**
- Ⓐ Added 3 drops HCl to adjust pH to 2  
BP 2-28-17
  - Methods 8280, 613, 1613, 8290, 1614 - pH < 9
  - Methods 1668/PCN - pH 2-3
  - NCASI 551 - pH 1

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DOD (LOO as mRL)

B7B0129

Chemist: G. Mendola

Prep Date/Time: 28-Feb-17 09:01

Prepared using: LCMS - SPE Extraction-LCMS

C	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	C7C0001 SPE	RS CHEM/WIT DATE
<input type="checkbox"/>	B7B0129-BLK1	NA	NA	(0.125)	Om BP 2/28/17	BP 2-28-17	Om BP 2/28/17
<input type="checkbox"/>	B7B0129-BS1	↓	↓	↓	-----		
<input type="checkbox"/>	B7B0129-MS1 1700263-05 (A)	154.45	26.89	0.12756			
<input type="checkbox"/>	B7B0129-MSD1 1700263-05 (A)	153.05	26.68	0.12637			
<input type="checkbox"/>	1700263-01 (A)	152.73	26.95	0.12578			
<input type="checkbox"/>	1700263-02 (B)	156.84	26.90	0.12994			
<input type="checkbox"/>	1700263-03 (N)	158.42	26.81	0.13161			
<input type="checkbox"/>	1700263-04 (A)	152.13	26.79	0.12534			
<input type="checkbox"/>	1700263-05 (A)	151.02	26.64	0.12438			
<input type="checkbox"/>	1700263-06 (A)	152.51	26.81	0.12570			
<input type="checkbox"/>	1700263-07	153.49	27.02	0.12647			
<input type="checkbox"/>	1700263-08	157.15	27.04	0.13011			

(A) Sample contained particulate; centrifuged to remove BP 2-28-17

IS Name <u>16L1920, 10uL</u> (V3)	NS Name <u>1612905, 10uL</u> (V1)	RS Name <u>1617A1201, 10uL</u> (V4) BP 2-28-17	SPE Chem: <u>Strata-X AW33 um 200um/gmL</u> Ele SOLV: <u>0.5% MeOH in MeOH/MeOH</u> Final Volume(s) <u>1mL</u>	Check Out: <u>BP 2-28-17</u> Chemist/Date: Check In: <u>NA</u> Chemist/Date: Balance ID: <u>HRMS-8</u>
--------------------------------------	--------------------------------------	--	--	--

Comments: Assume 1 g = 1 mL



**SAMPLE DATA – MODIFIED EPA METHOD 537**

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-33.qld

Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:43:20 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170301G1\_33, Date: 01-Mar-2017, Time: 21:38:38

#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7		6.307e3		0.125			
2	2 PFHpA	363 > 318.9		1.447e4		0.125			
3	3 PFHxS	398.9 > 79.6	3.335e1	5.077e3		0.125	3.99		
4	4 PFOA	413 > 368.7	1.765e2	2.289e4		0.125	4.28		
5	5 PFNA	463 > 418.8		6.933e3		0.125			
6	6 PFOS	499 > 79.9		5.423e3		0.125			
7	7 13C3-PFBS	302.0 > 98.8	6.307e3	1.109e4	0.442	0.125	2.99	129	129
8	8 13C4-PFHpA	367.2 > 321.8	1.447e4	1.109e4	1.117	0.125	3.87	117	117
9	9 18O2-PFHxS	403 > 102.6	5.077e3	1.109e4	0.420	0.125	3.99	109	109
10	10 13C2-PFOA	414.9 > 369.7	2.289e4	7.426e3	2.782	0.125	4.28	111	111
11	11 13C5-PFNA	468.2 > 422.9	6.933e3	8.632e3	0.846	0.125	4.61	94.9	94.9
12	12 13C8-PFOS	507.0 > 79.9	5.423e3	5.887e3	0.941	0.125	4.67	97.9	97.9
13	13 13C5-PFHxA	318>272.9	2.508e4	2.508e4	1.000	0.125	3.36	100	100
14	14 13C3-PFHxS	401.9 > 79.9	1.109e4	1.109e4	1.000	0.125	3.99	100	100
15	15 13C8-PFOA	421.3 > 376	7.426e3	7.426e3	1.000	0.125	4.28	100	100
16	16 13C9-PFNA	472.2 > 426.9	8.632e3	8.632e3	1.000	0.125	4.61	100	100
17	17 13C4-PFOS	503.0 > 79.9	5.887e3	5.887e3	1.000	0.125	4.67	100	100
18	18 Total PFBS	299 > 79.7		5.077e3		0.125			
19	19 Total PFHxS	398.9 > 79.6		5.077e3		0.125			
20	20 Total PFOA	413 > 368.7		2.289e4		0.125			
21	21 Total PFOS	499 > 79.9		5.423e3		0.125			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-33.qld

Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:43:20 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170301G1\_33, Date: 01-Mar-2017, Time: 21:38:38

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1						

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	33.351	5076.544	

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	176.548	22889.191	
2	20 Total PFOA	413 > 368.7	4.19	7.857	22889.191	

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-33.qld

Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

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Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

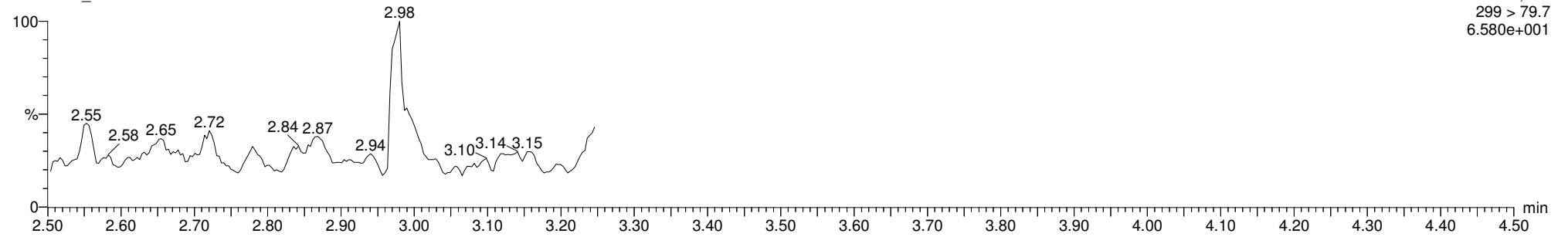
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ID: B7B0129-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170301G1\_33, Date: 01-Mar-2017, Time: 21:38:38, Instrument: , Lab: , User:

**Total PFBS**

170301G1\_33

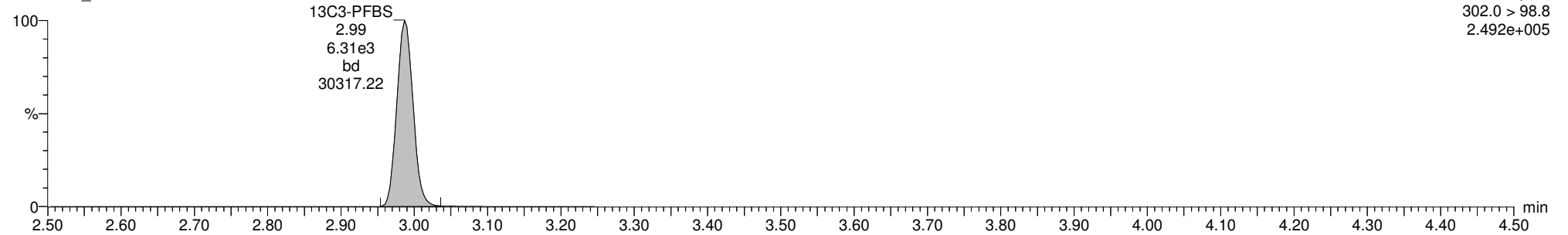
F2:MRM of 3 channels,ES-  
299 > 79.7  
6.580e+001



**13C3-PFBS**

170301G1\_33

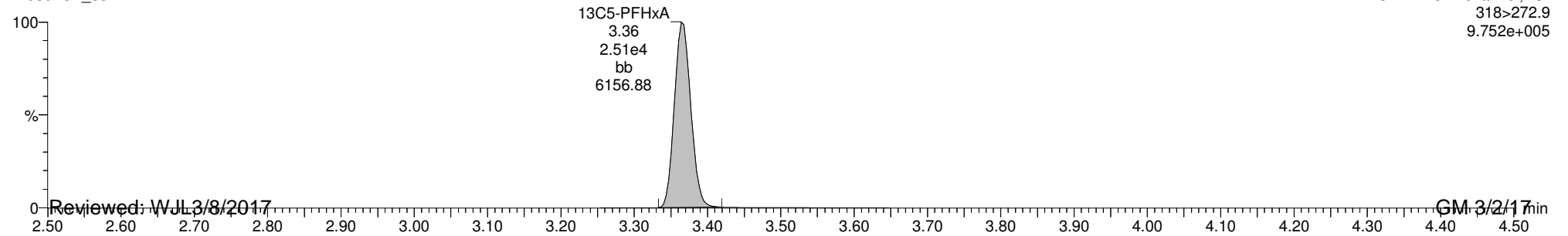
F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.492e+005



**13C5-PFHxA**

170301G1\_33

F3:MRM of 1 channel,ES-  
318>272.9  
9.752e+005



Reviewed: WJL 3/8/2017

GM 3/2/17 min

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-33.qld

Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

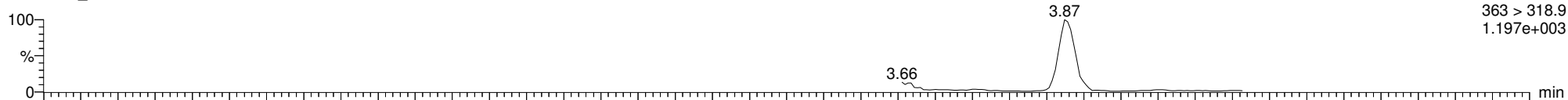
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ID: B7B0129-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170301G1\_33, Date: 01-Mar-2017, Time: 21:38:38, Instrument: , Lab: , User:

**PFHpA**

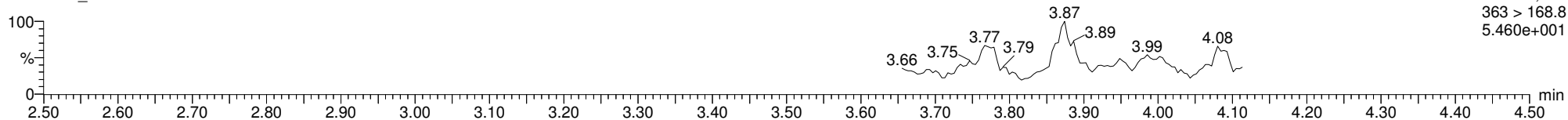
170301G1\_33

F4:MRM of 7 channels,ES-  
363 > 318.9  
1.197e+003



170301G1\_33

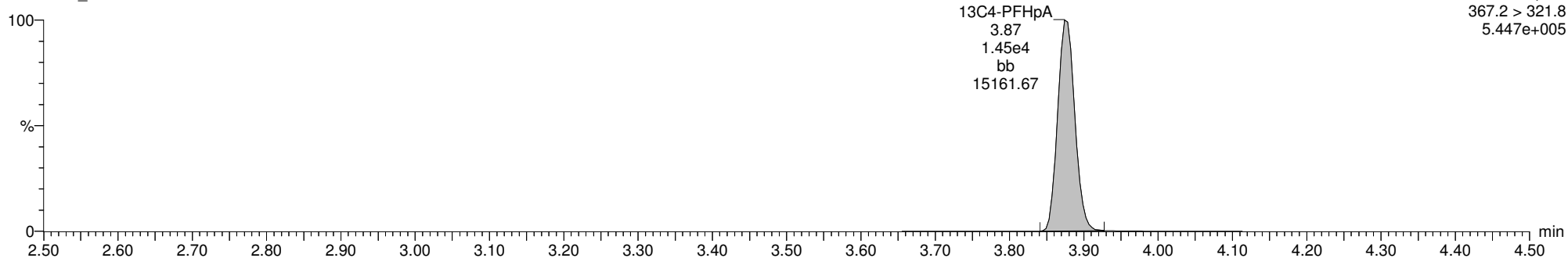
F4:MRM of 7 channels,ES-  
363 > 168.8  
5.460e+001



**13C4-PFHpA**

170301G1\_33

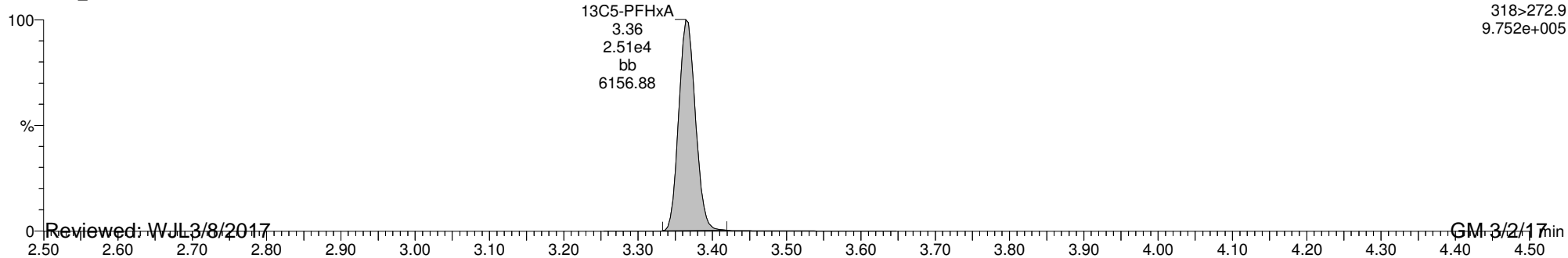
F4:MRM of 7 channels,ES-  
367.2 > 321.8  
5.447e+005



**13C5-PFHxA**

170301G1\_33

F3:MRM of 1 channel,ES-  
318>272.9  
9.752e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

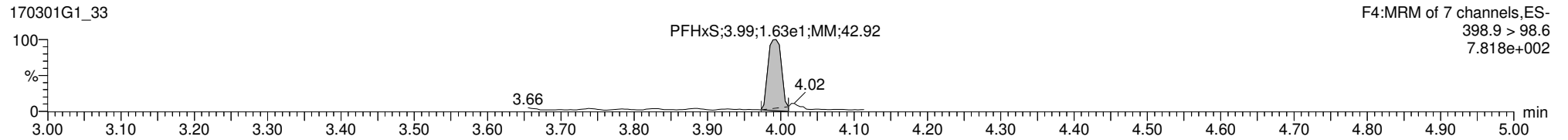
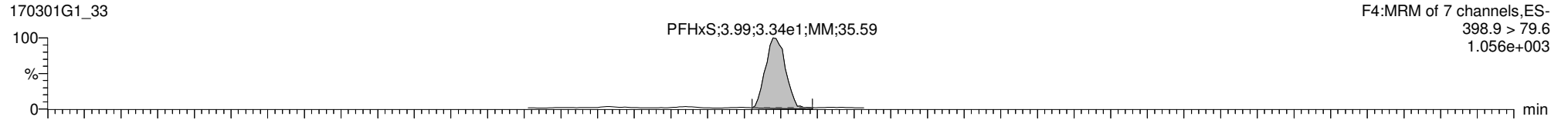
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Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

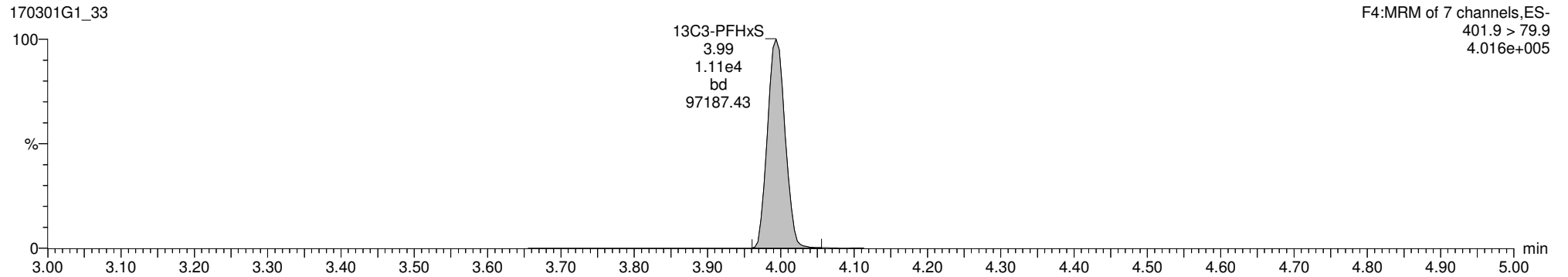
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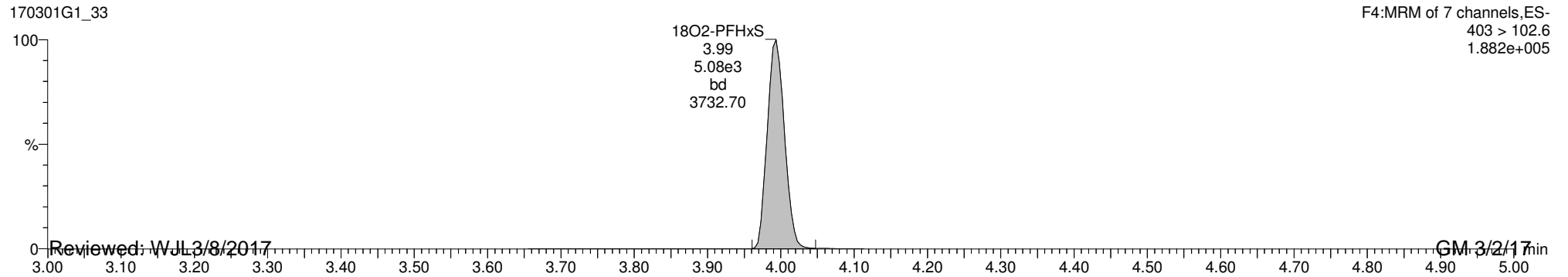
**Total PFHxS**



**13C3-PFHxS**



**18O2-PFHxS**



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-33.qld

Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

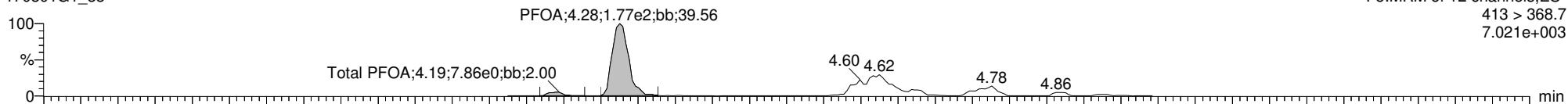
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ID: B7B0129-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170301G1\_33, Date: 01-Mar-2017, Time: 21:38:38, Instrument: , Lab: , User:

**Total PFOA**

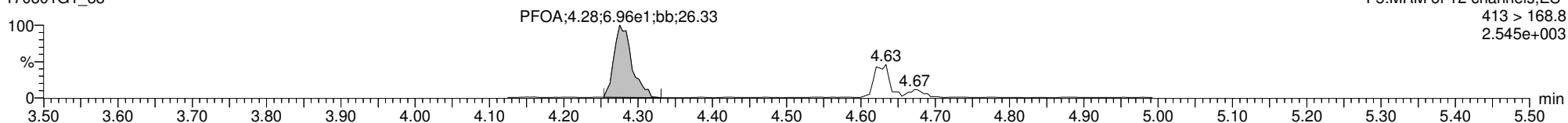
170301G1\_33

F5:MRM of 12 channels,ES-  
413 > 368.7  
7.021e+003



170301G1\_33

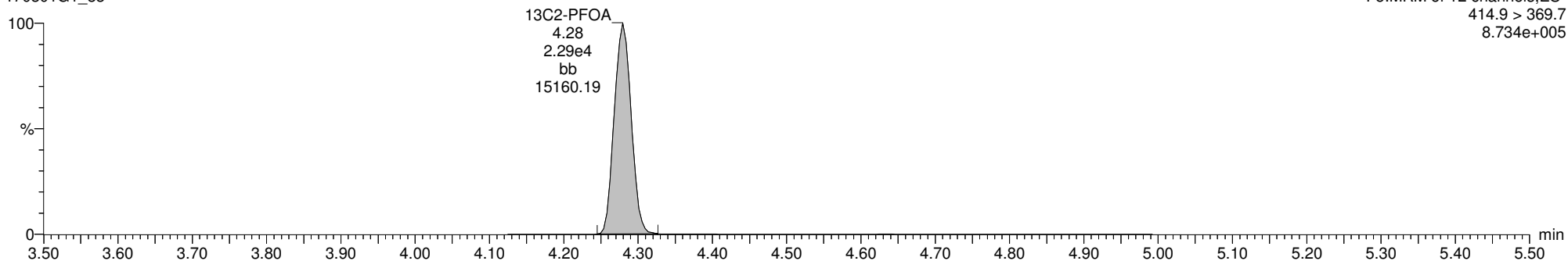
F5:MRM of 12 channels,ES-  
413 > 168.8  
2.545e+003



**13C2-PFOA**

170301G1\_33

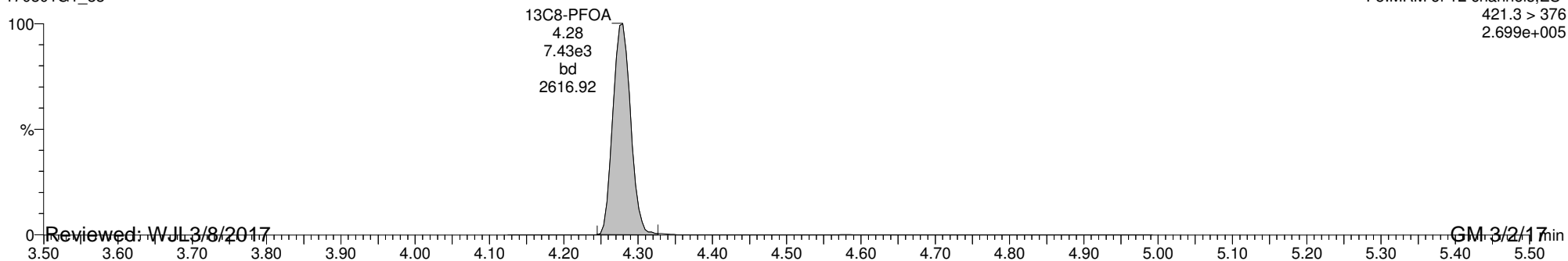
F5:MRM of 12 channels,ES-  
414.9 > 369.7  
8.734e+005



**13C8-PFOA**

170301G1\_33

F5:MRM of 12 channels,ES-  
421.3 > 376  
2.699e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-33.qld

Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

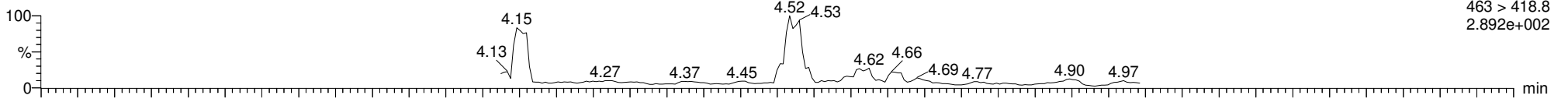
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ID: B7B0129-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170301G1\_33, Date: 01-Mar-2017, Time: 21:38:38, Instrument: , Lab: , User:

PFNA

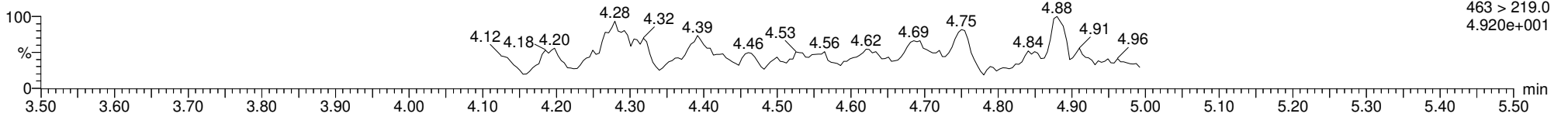
170301G1\_33

F5:MRM of 12 channels,ES-  
463 > 418.8  
2.892e+002



170301G1\_33

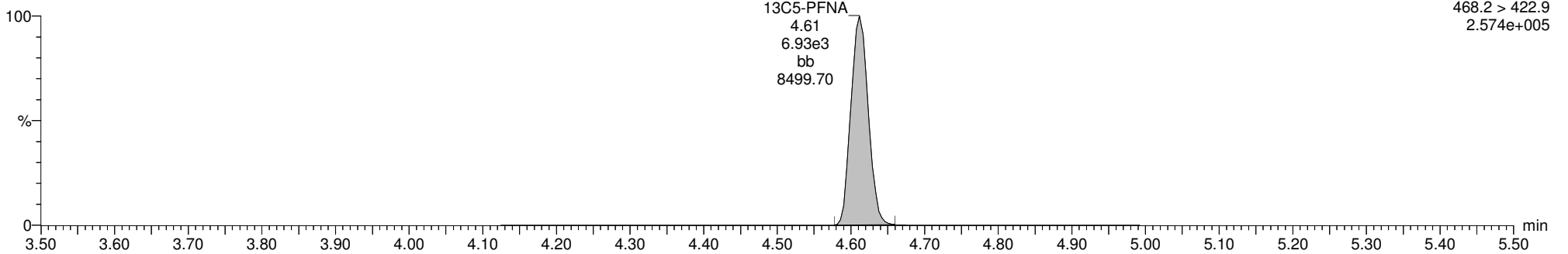
F5:MRM of 12 channels,ES-  
463 > 219.0  
4.920e+001



13C5-PFNA

170301G1\_33

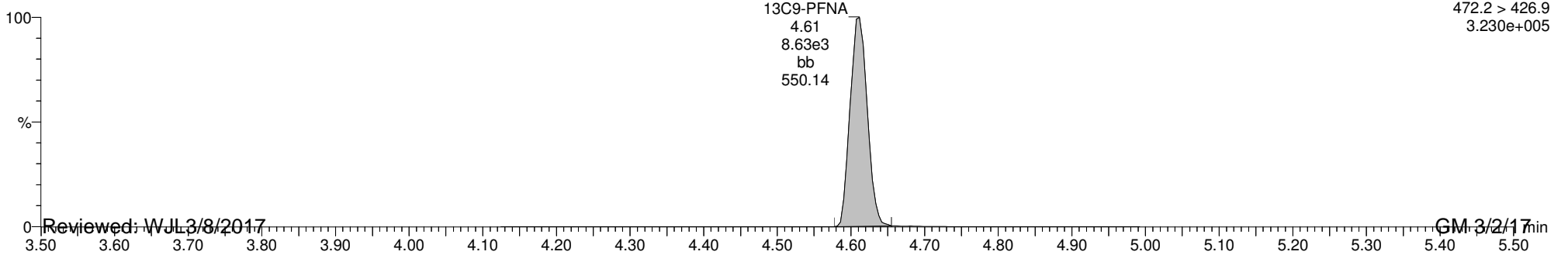
F5:MRM of 12 channels,ES-  
468.2 > 422.9  
2.574e+005



13C9-PFNA

170301G1\_33

F5:MRM of 12 channels,ES-  
472.2 > 426.9  
3.230e+005



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-33.qld

Last Altered: Thursday, March 02, 2017 11:43:03 Pacific Standard Time

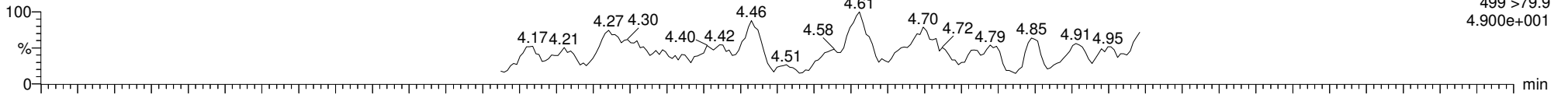
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ID: B7B0129-BLK1 Method Blank 0.125, Description: Method Blank, Name: 170301G1\_33, Date: 01-Mar-2017, Time: 21:38:38, Instrument: , Lab: , User:

**Total PFOS**

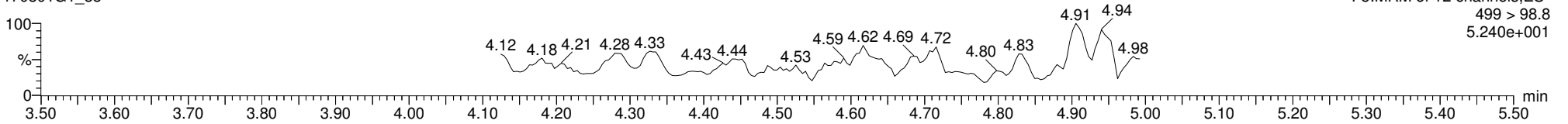
170301G1\_33

F5:MRM of 12 channels,ES-  
499 >79.9  
4.900e+001



170301G1\_33

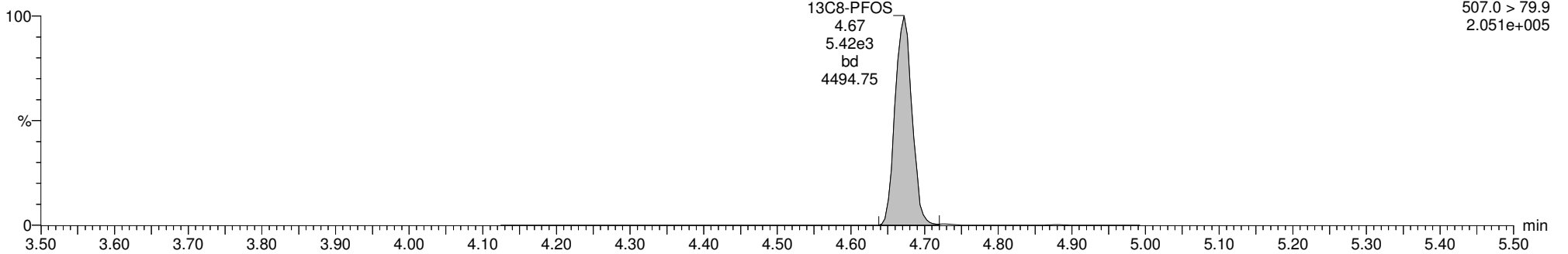
F5:MRM of 12 channels,ES-  
499 > 98.8  
5.240e+001



**13C8-PFOS**

170301G1\_33

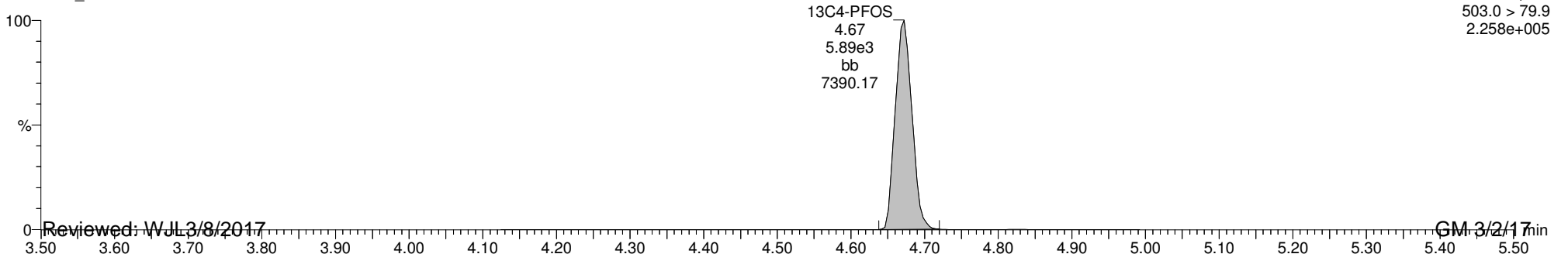
F5:MRM of 12 channels,ES-  
507.0 > 79.9  
2.051e+005



**13C4-PFOS**

170301G1\_33

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
2.258e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

Last Altered: Thursday, March 02, 2017 11:34:01 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:34:46 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-BS1 OPR 0.125, Description: OPR, Name: 170301G1\_31, Date: 01-Mar-2017, Time: 21:13:33

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.081e4	5.832e3		0.125	2.99	86.1	108
2	2 PFHpA	363 > 318.9	2.074e4	1.361e4		0.125	3.88	82.9	104
3	3 PFHxS	398.9 > 79.6	7.101e3	4.482e3		0.125	3.99	89.7	112
4	4 PFOA	413 > 368.7	1.654e4	2.204e4		0.125	4.28	81.4	102
5	5 PFNA	463 > 418.8	1.376e4	6.787e3		0.125	4.61	94.0	117
6	6 PFOS	499 > 79.9	2.443e3	5.094e3		0.125	4.67	92.0	115
7	7 13C3-PFBS	302.0 > 98.8	5.832e3	1.048e4	0.442	0.125	2.99	126	126
8	8 13C4-PFHpA	367.2 > 321.8	1.361e4	1.048e4	1.117	0.125	3.87	116	116
9	9 18O2-PFHxS	403 > 102.6	4.482e3	1.048e4	0.420	0.125	3.99	102	102
10	10 13C2-PFOA	414.9 > 369.7	2.204e4	7.024e3	2.782	0.125	4.28	113	113
11	11 13C5-PFNA	468.2 > 422.9	6.787e3	8.170e3	0.846	0.125	4.61	98.2	98.2
12	12 13C8-PFOS	507.0 > 79.9	5.094e3	6.036e3	0.941	0.125	4.67	89.7	89.7
13	13 13C5-PFHxA	318 > 272.9	2.443e4	2.443e4	1.000	0.125	3.36	100	100
14	14 13C3-PFHxS	401.9 > 79.9	1.048e4	1.048e4	1.000	0.125	3.99	100	100
15	15 13C8-PFOA	421.3 > 376	7.024e3	7.024e3	1.000	0.125	4.28	100	100
16	16 13C9-PFNA	472.2 > 426.9	8.170e3	8.170e3	1.000	0.125	4.61	100	100
17	17 13C4-PFOS	503.0 > 79.9	6.036e3	6.036e3	1.000	0.125	4.67	100	100
18	18 Total PFBS	299 > 79.7		4.482e3		0.125		86.1	
19	19 Total PFHxS	398.9 > 79.6		4.482e3		0.125		89.7	
20	20 Total PFOA	413 > 368.7		2.204e4		0.125		81.4	
21	21 Total PFOS	499 > 79.9		5.094e3		0.125		92.0	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

Last Altered: Thursday, March 02, 2017 11:34:01 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:34:46 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-BS1 OPR 0.125, Description: OPR, Name: 170301G1\_31, Date: 01-Mar-2017, Time: 21:13:33

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.99	10814.683	5831.619	86.1

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	7101.213	4482.038	89.7

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	20 Total PFOA	413 > 368.7	4.69	28.549	22042.330	
2	20 Total PFOA	413 > 368.7	4.62	42.334	22042.330	
3	20 Total PFOA	413 > 368.7	4.55	5.515	22042.330	
4	20 Total PFOA	413 > 368.7	4.48	10.850	22042.330	
5	20 Total PFOA	413 > 368.7	4.42	9.656	22042.330	
6	20 Total PFOA	413 > 368.7	4.40	16.808	22042.330	
7	20 Total PFOA	413 > 368.7	4.36	8.866	22042.330	
8	4 PFOA	413 > 368.7	4.28	16543.828	22042.330	81.4

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.67	2442.664	5094.110	92.0

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

Last Altered: Thursday, March 02, 2017 11:34:01 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:34:46 Pacific Standard Time

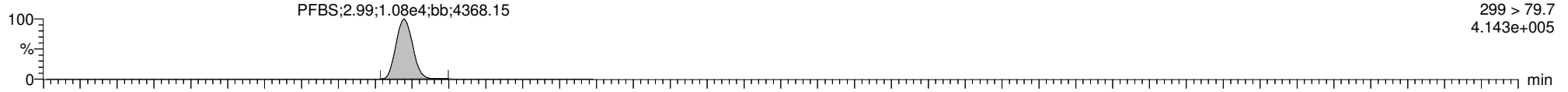
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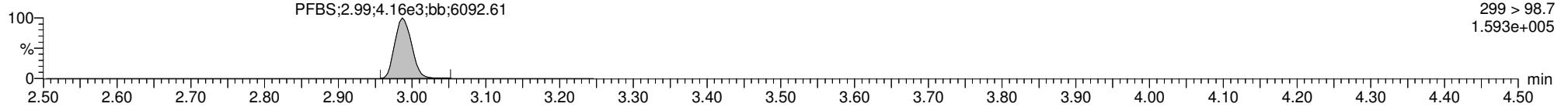
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**Total PFBS**

170301G1\_31

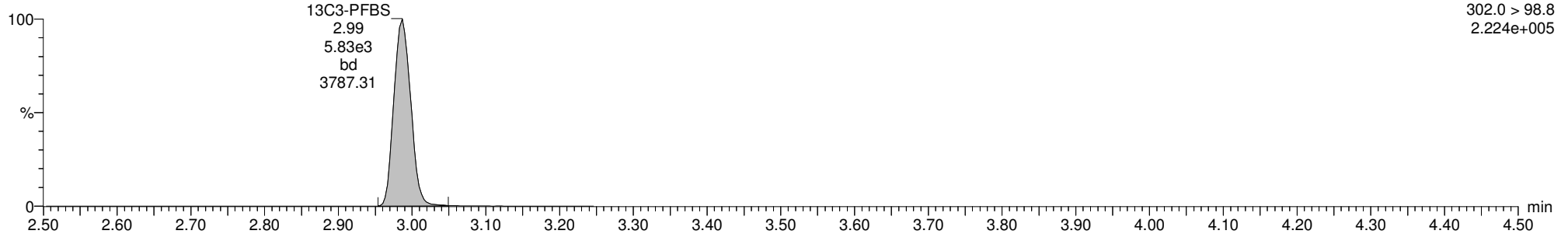


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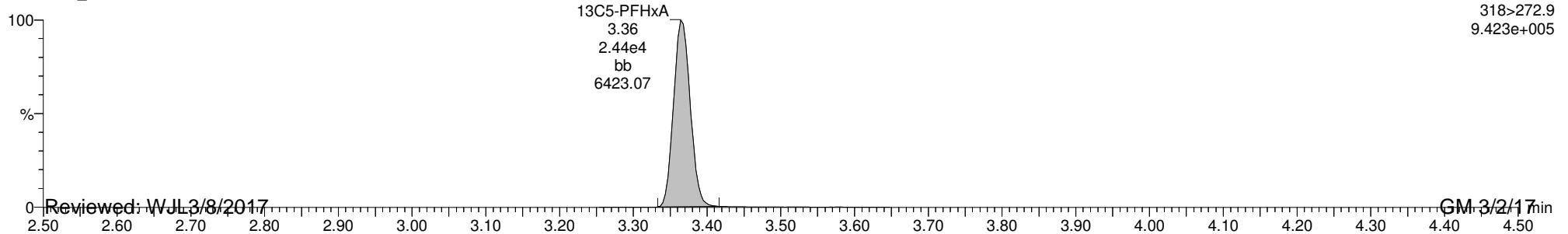
**13C3-PFBS**

170301G1\_31



**13C5-PFHxA**

170301G1\_31



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

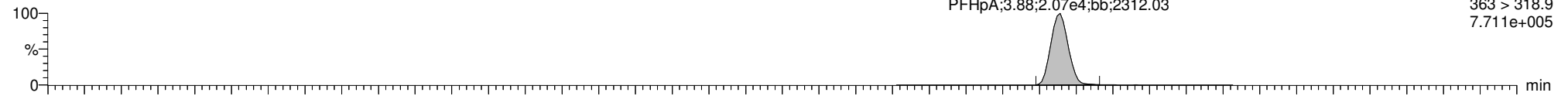
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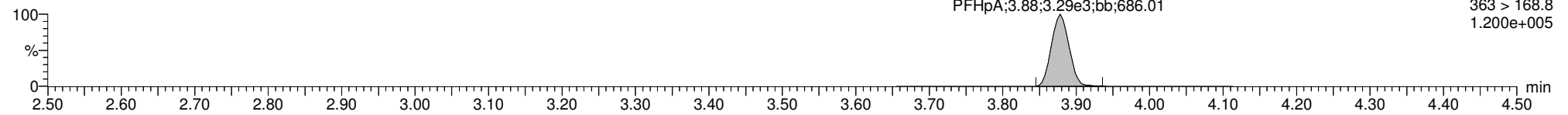
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**PFHpA**

170301G1\_31

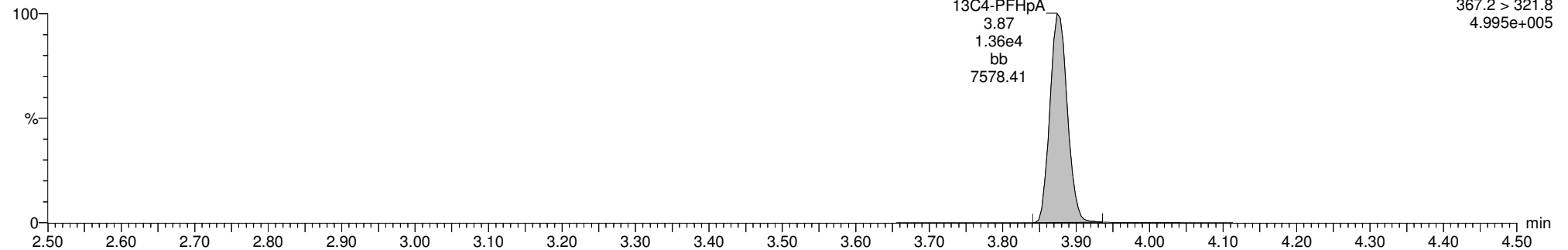


170301G1\_31



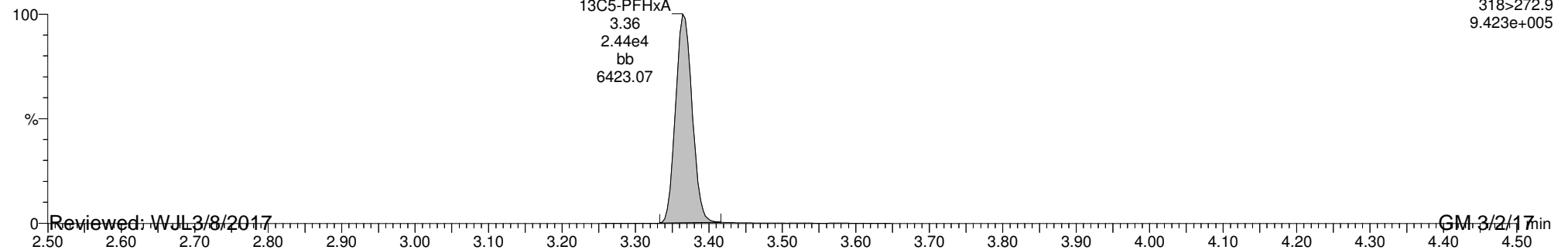
**13C4-PFHpA**

170301G1\_31



**13C5-PFHxA**

170301G1\_31



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

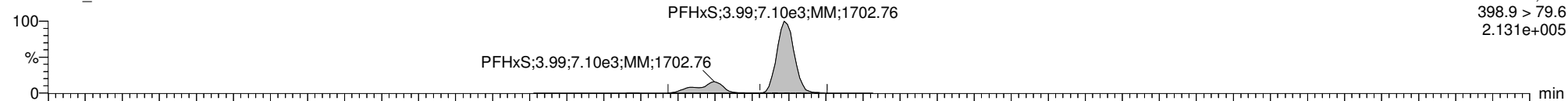
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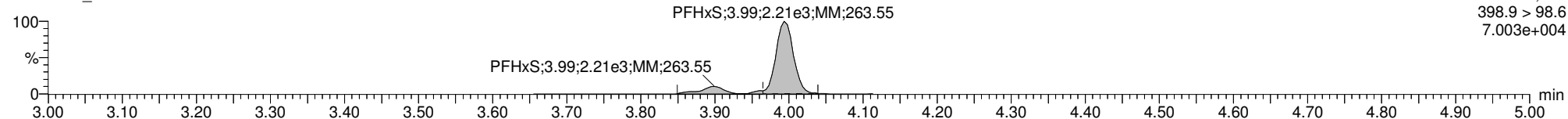
ID: B7B0129-BS1 OPR 0.125, Description: OPR, Name: 170301G1\_31, Date: 01-Mar-2017, Time: 21:13:33, Instrument: , Lab: , User:

### Total PFHxS

170301G1\_31

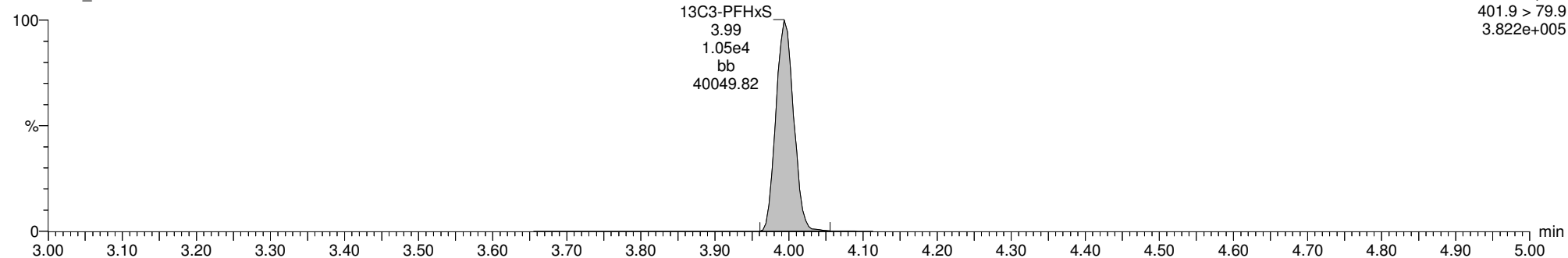


170301G1\_31



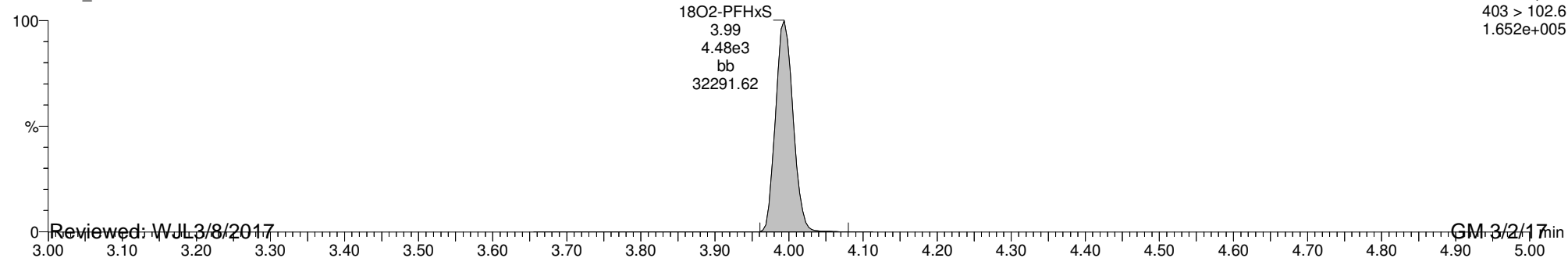
### 13C3-PFHxS

170301G1\_31



### 18O2-PFHxS

170301G1\_31



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

Last Altered: Thursday, March 02, 2017 11:34:01 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:34:46 Pacific Standard Time

ID: B7B0129-BS1 OPR 0.125, Description: OPR, Name: 170301G1\_31, Date: 01-Mar-2017, Time: 21:13:33, Instrument: , Lab: , User:

**Total PFOA**

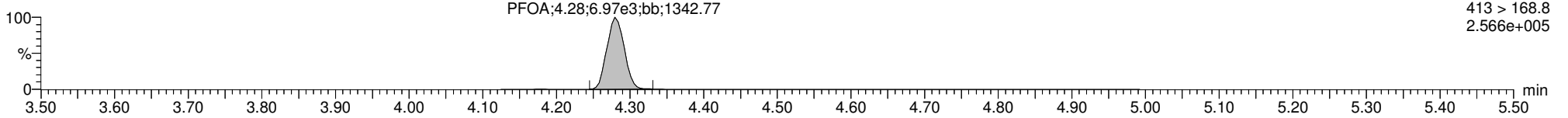
170301G1\_31

F5:MRM of 12 channels,ES-  
413 > 368.7  
6.124e+005



170301G1\_31

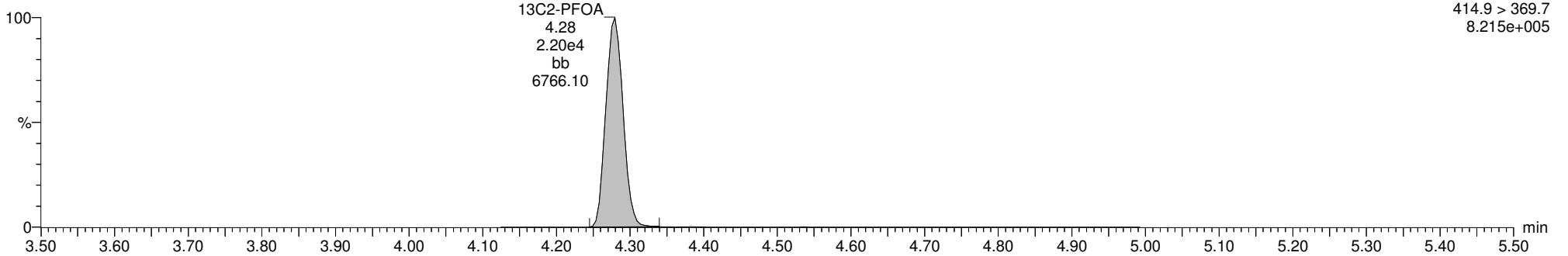
F5:MRM of 12 channels,ES-  
413 > 168.8  
2.566e+005



**13C2-PFOA**

170301G1\_31

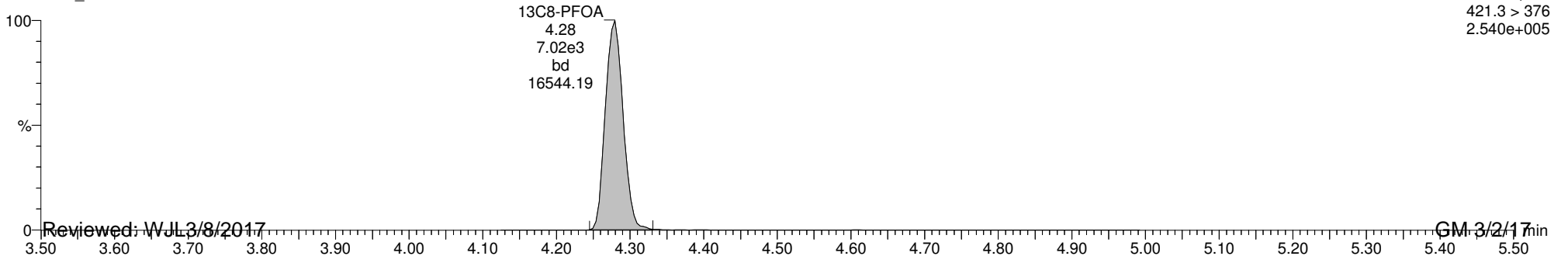
F5:MRM of 12 channels,ES-  
414.9 > 369.7  
8.215e+005



**13C8-PFOA**

170301G1\_31

F5:MRM of 12 channels,ES-  
421.3 > 376  
2.540e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

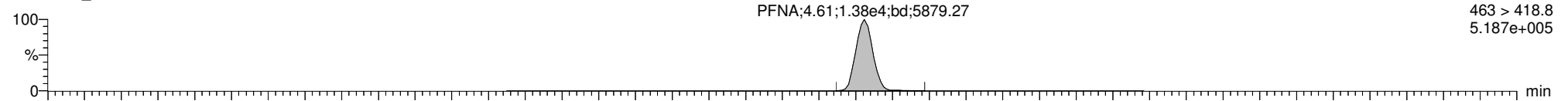
Last Altered: Thursday, March 02, 2017 11:34:01 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:34:46 Pacific Standard Time

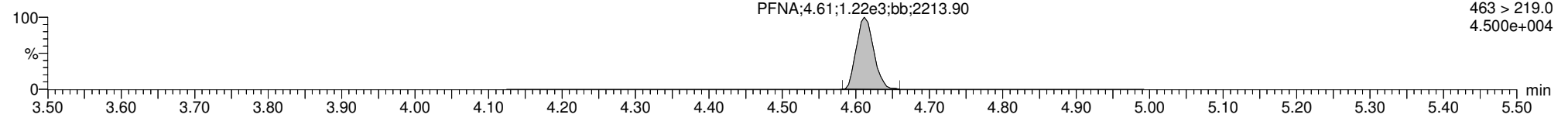
ID: B7B0129-BS1 OPR 0.125, Description: OPR, Name: 170301G1\_31, Date: 01-Mar-2017, Time: 21:13:33, Instrument: , Lab: , User:

**PFNA**

170301G1\_31

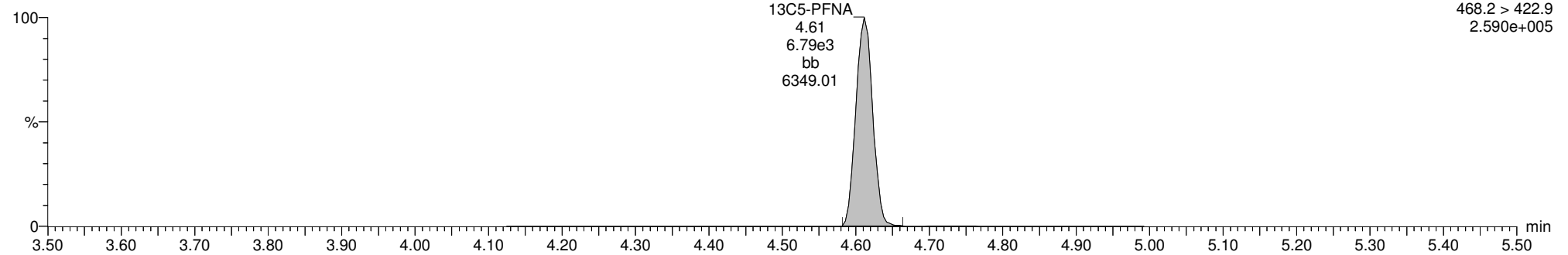


170301G1\_31



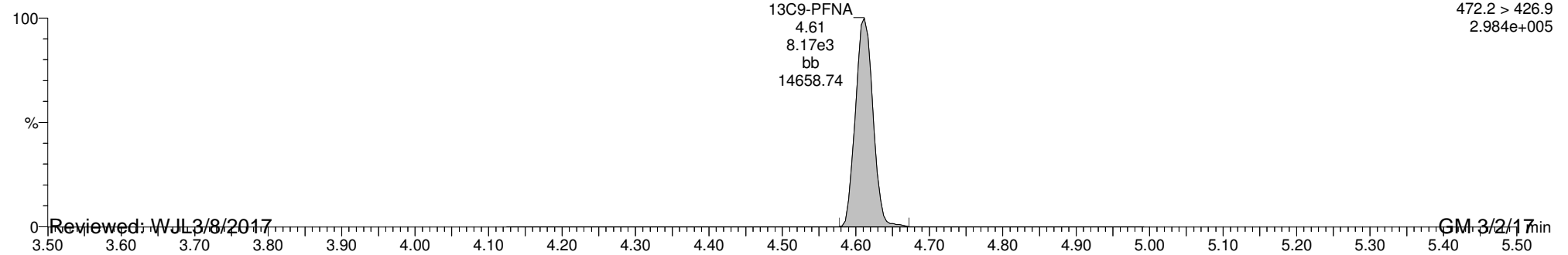
**13C5-PFNA**

170301G1\_31



**13C9-PFNA**

170301G1\_31



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-31.qld

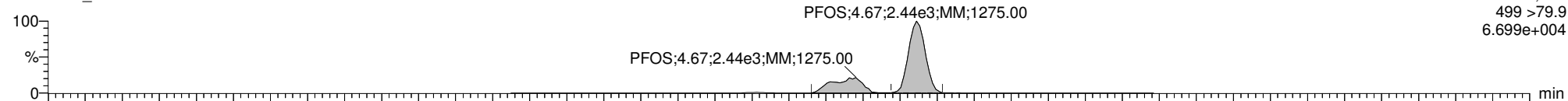
Last Altered: Thursday, March 02, 2017 11:34:01 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:34:46 Pacific Standard Time

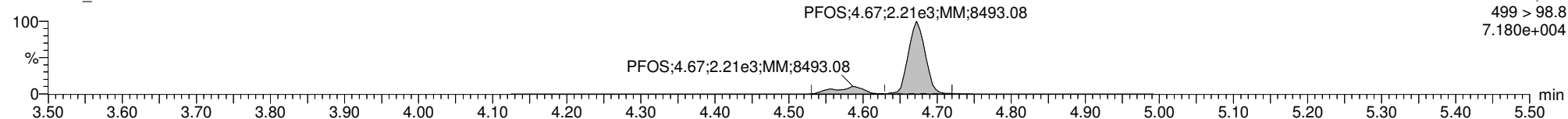
ID: B7B0129-BS1 OPR 0.125, Description: OPR, Name: 170301G1\_31, Date: 01-Mar-2017, Time: 21:13:33, Instrument: , Lab: , User:

**Total PFOS**

170301G1\_31

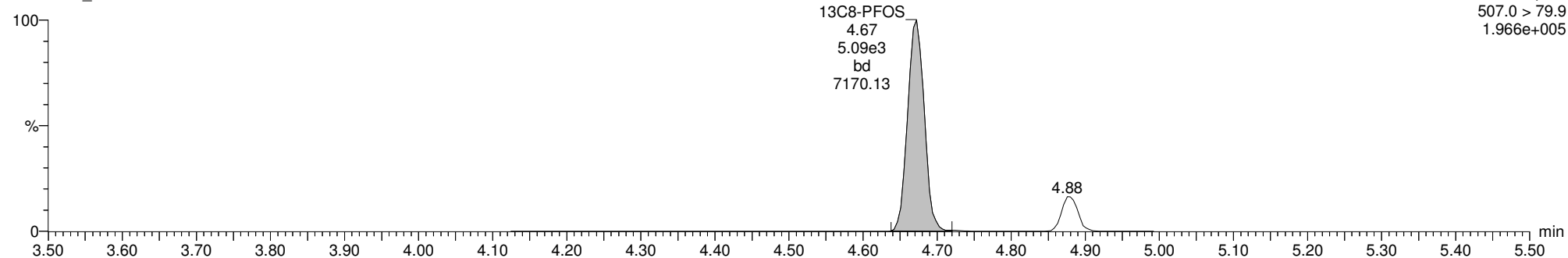


170301G1\_31



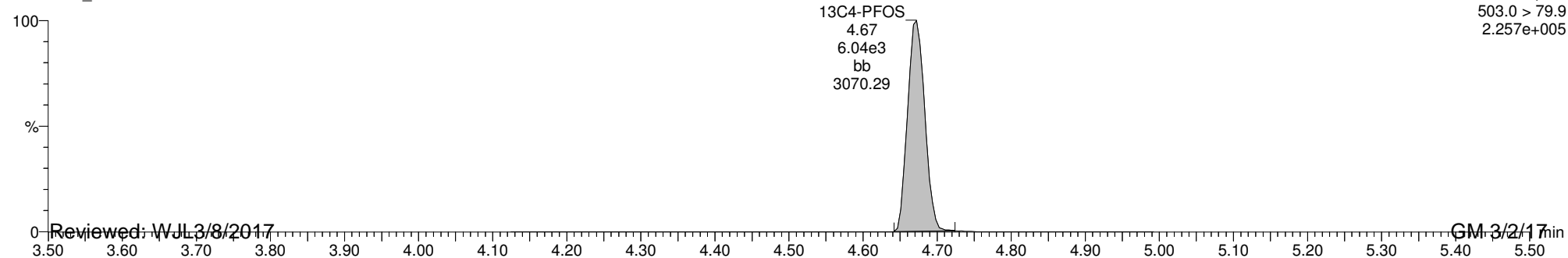
**13C8-PFOS**

170301G1\_31



**13C4-PFOS**

170301G1\_31



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-9.qld

Last Altered: Tuesday, March 07, 2017 10:45:21 AM Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:46:14 AM Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2\_NEW.mdb 07 Mar 2017 09:58:54

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170306G1\_9, Date: 06-Mar-2017, Time: 17:05:23, ID: B7C0015-BLK1 Method Blank 0.125, Description: Method Blank

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9		6.72e3		0.010			
2	12 13C8-PFOS	507.0 > 79.9	6.72e3	7.72e3	0.958	0.010	4.67	1140	90.8
3	17 13C4-PFOS	503.0 > 79.9	7.72e3	7.72e3	1.000	0.010	4.67	1250	100.0

Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-9.qld

Last Altered: Tuesday, March 07, 2017 10:45:21 AM Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:46:14 AM Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2\_NEW.mdb 07 Mar 2017 09:58:54

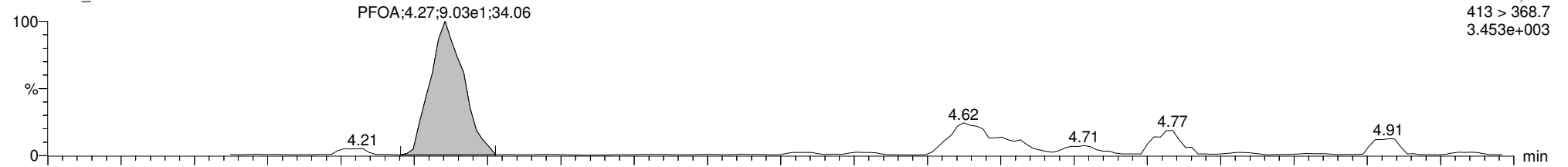
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170306G1\_9, Date: 06-Mar-2017, Time: 17:05:23, ID: B7C0015-BLK1 Method Blank 0.125, Description: Method Blank

**PFOA**

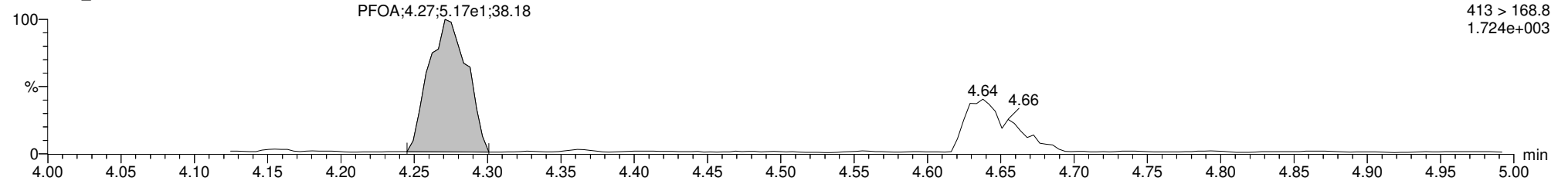
170306G1\_9

F5:MRM of 12 channels,ES-  
413 > 368.7  
3.453e+003



170306G1\_9

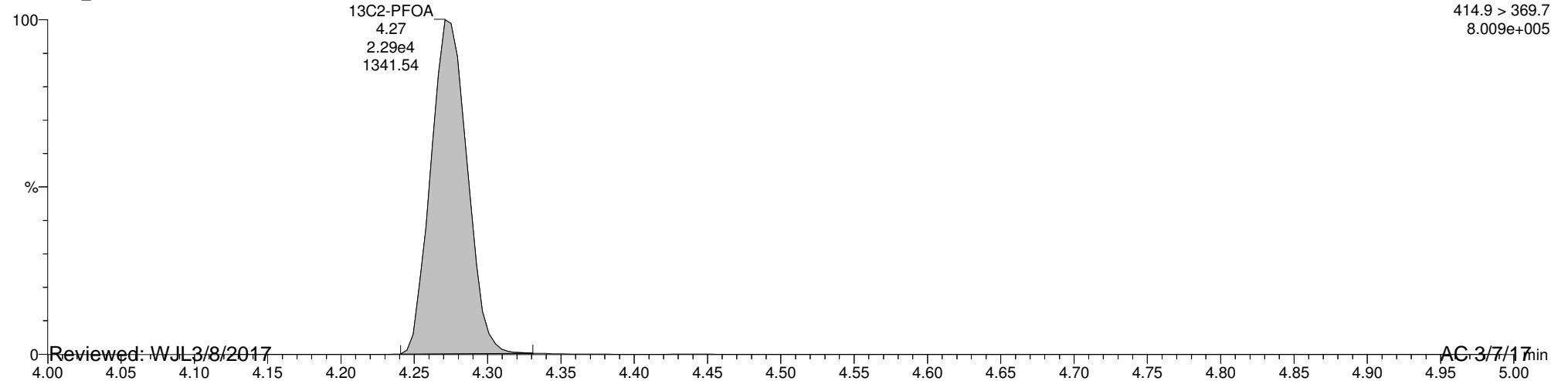
F5:MRM of 12 channels,ES-  
413 > 168.8  
1.724e+003



**13C2-PFOA**

170306G1\_9

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
8.009e+005



Reviewed: WJL 3/8/2017

AC-3/7/17 min

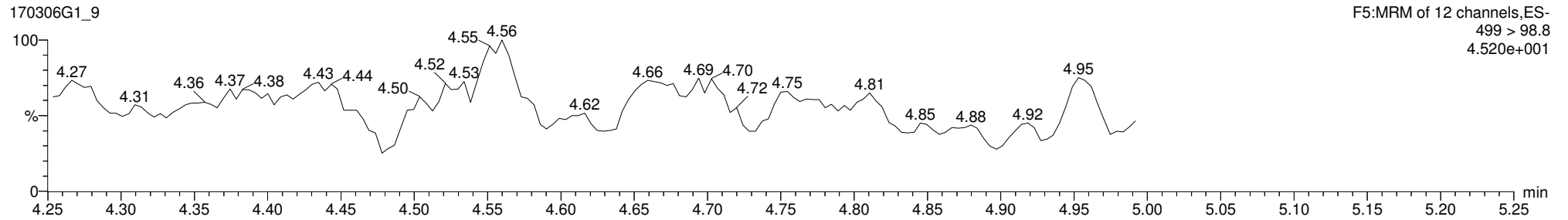
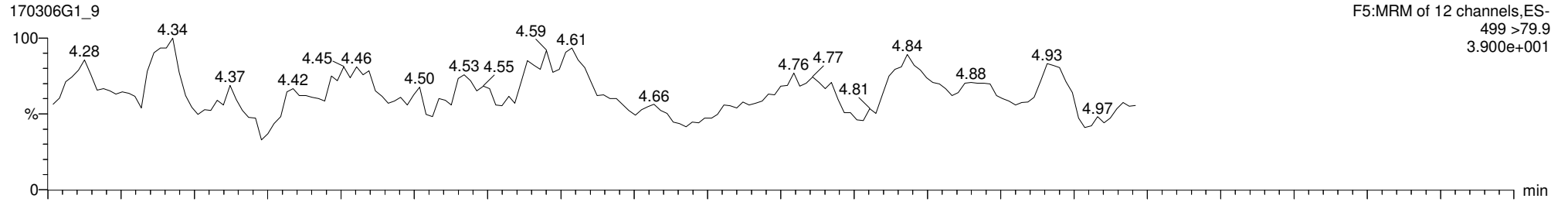
Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-9.qld

Last Altered: Tuesday, March 07, 2017 10:45:21 AM Pacific Standard Time

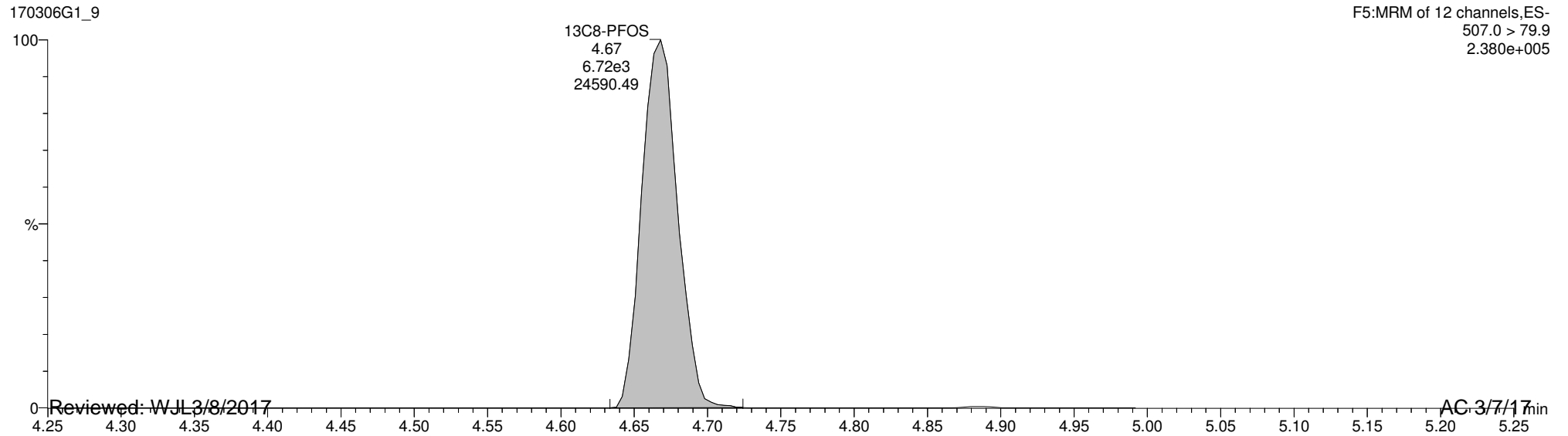
Printed: Tuesday, March 07, 2017 10:46:14 AM Pacific Standard Time

Name: 170306G1\_9, Date: 06-Mar-2017, Time: 17:05:23, ID: B7C0015-BLK1 Method Blank 0.125, Description: Method Blank

PFOS



13C8-PFOS



Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-9.qld

Last Altered: Tuesday, March 07, 2017 10:45:21 AM Pacific Standard Time

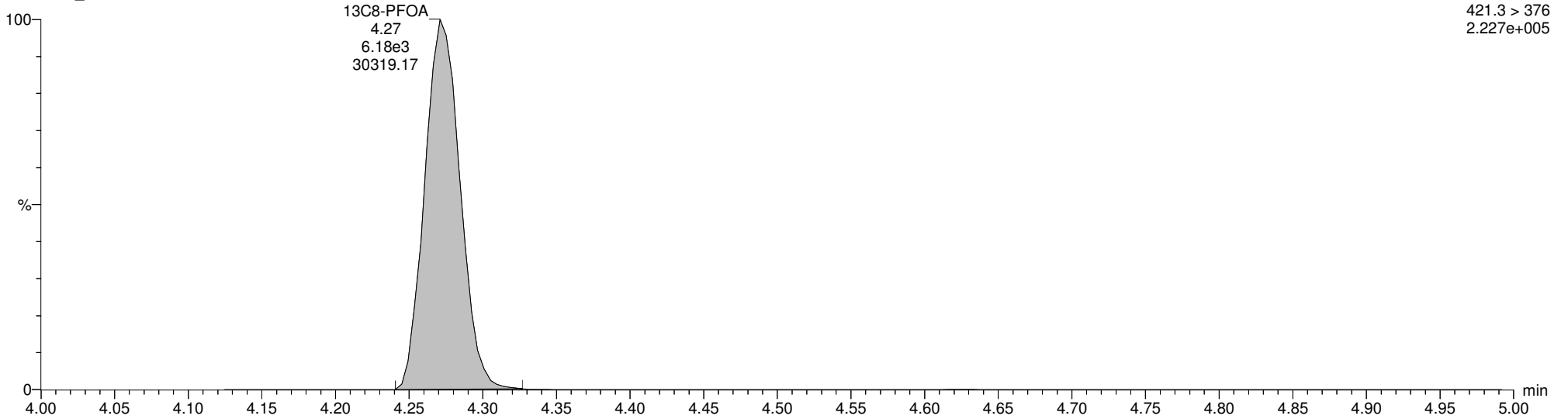
Printed: Tuesday, March 07, 2017 10:46:14 AM Pacific Standard Time

Name: 170306G1\_9, Date: 06-Mar-2017, Time: 17:05:23, ID: B7C0015-BLK1 Method Blank 0.125, Description: Method Blank

**13C8-PFOA**

170306G1\_9

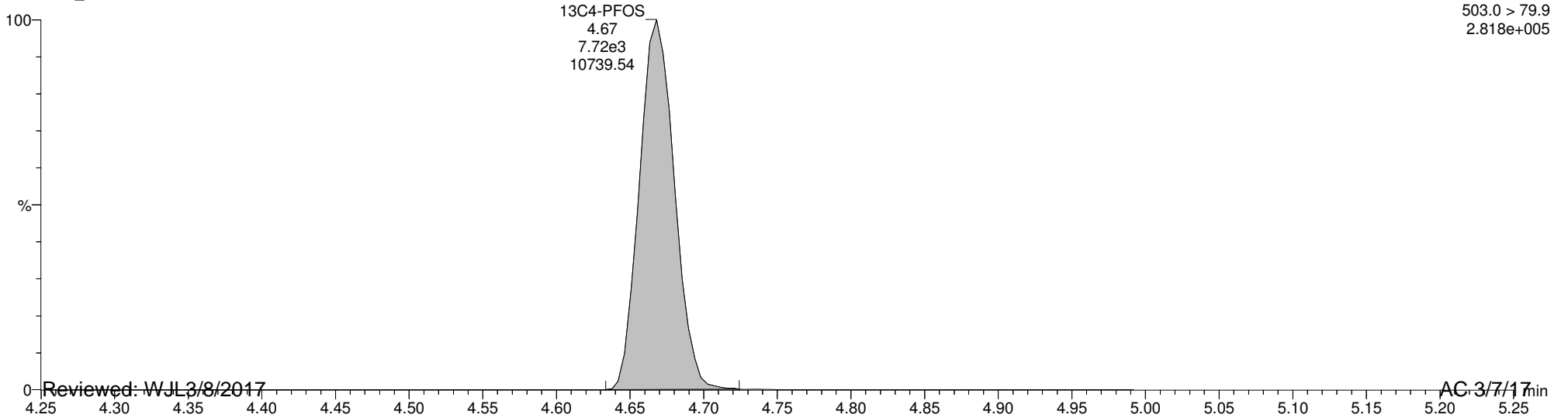
F5:MRM of 12 channels,ES-  
421.3 > 376  
2.227e+005



**13C4-PFOS**

170306G1\_9

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
2.818e+005



Reviewed: WJL 3/8/2017

AC: 3/7/17 min

Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-5.qld

Last Altered: Tuesday, March 07, 2017 10:42:06 AM Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:42:51 AM Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2\_NEW.mdb 07 Mar 2017 09:58:54

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170306G1\_5, Date: 06-Mar-2017, Time: 16:15:10, ID: B7C0015-BS1 OPR 0.125, Description: OPR

	# Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	2.60e3	6.78e3		0.010	4.70	898	89.8
2	12 13C8-PFOS	507.0 > 79.9	6.78e3	8.13e3	0.958	0.010	4.70	1090	87.0
3	17 13C4-PFOS	503.0 > 79.9	8.13e3	8.13e3	1.000	0.010	4.70	1250	100.0

Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-5.qld

Last Altered: Tuesday, March 07, 2017 10:42:06 AM Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:42:51 AM Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2\_NEW.mdb 07 Mar 2017 09:58:54

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

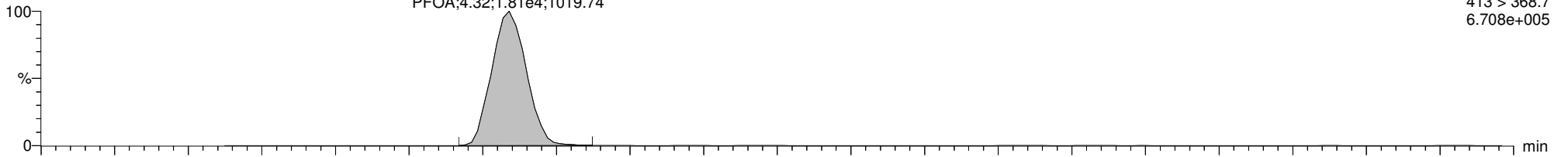
Name: 170306G1\_5, Date: 06-Mar-2017, Time: 16:15:10, ID: B7C0015-BS1 OPR 0.125, Description: OPR

**PFOA**

170306G1\_5

PFOA;4.32;1.81e4;1019.74

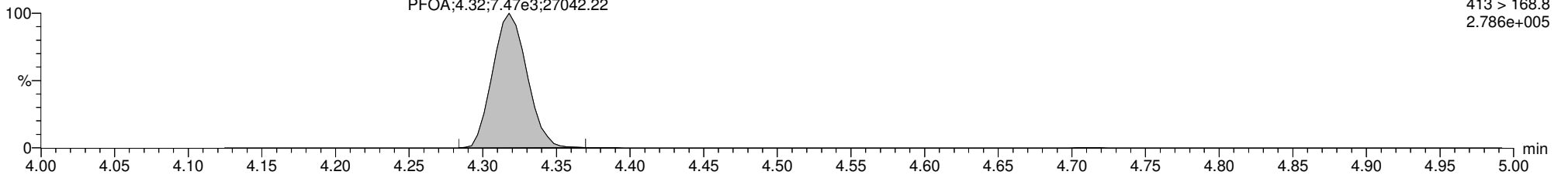
F5:MRM of 12 channels,ES-  
413 > 368.7  
6.708e+005



170306G1\_5

PFOA;4.32;7.47e3;27042.22

F5:MRM of 12 channels,ES-  
413 > 168.8  
2.786e+005

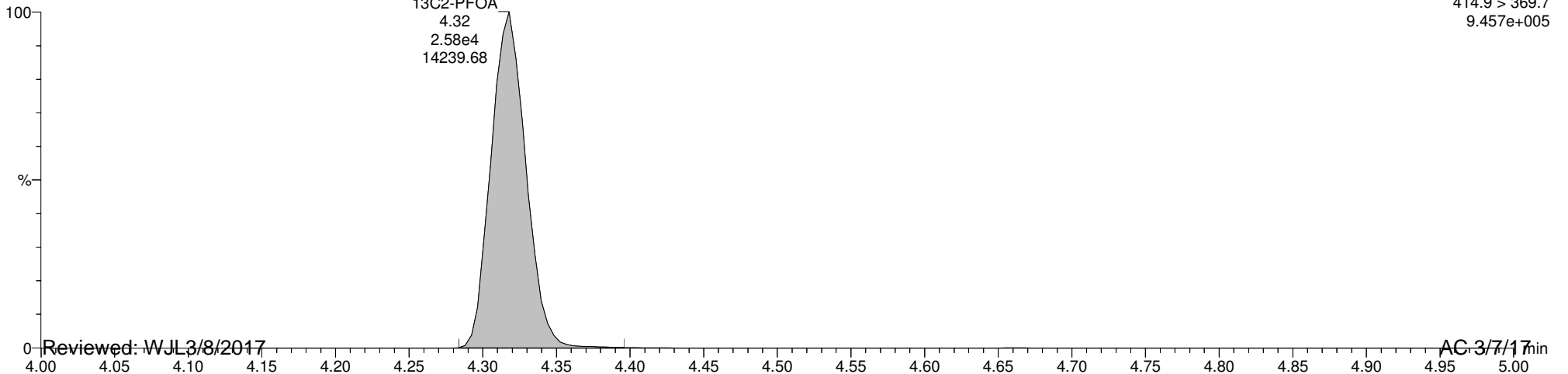


**13C2-PFOA**

170306G1\_5

13C2-PFOA  
4.32  
2.58e4  
14239.68

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
9.457e+005



Reviewed: WJL 3/8/2017

AC-3/7/17 min

Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-5.qld

Last Altered: Tuesday, March 07, 2017 10:42:06 AM Pacific Standard Time

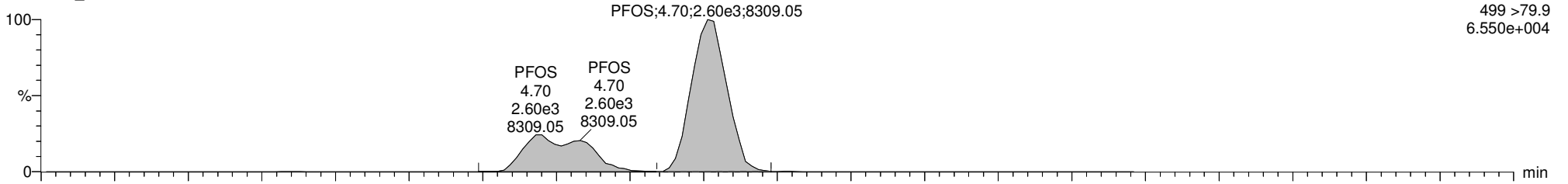
Printed: Tuesday, March 07, 2017 10:42:51 AM Pacific Standard Time

Name: 170306G1\_5, Date: 06-Mar-2017, Time: 16:15:10, ID: B7C0015-BS1 OPR 0.125, Description: OPR

PFOS

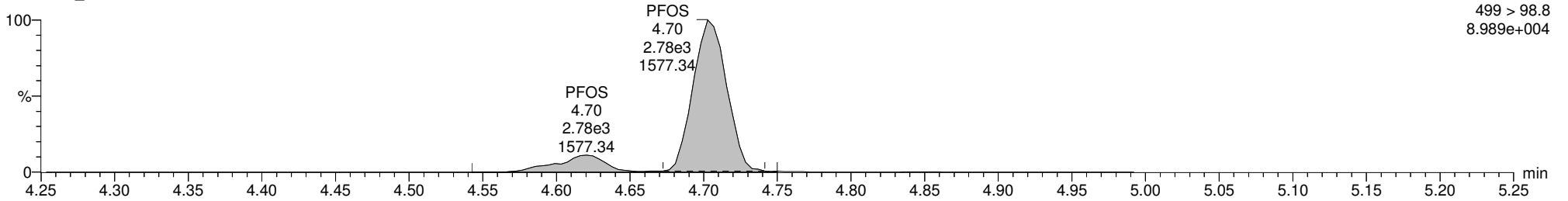
170306G1\_5

F5:MRM of 12 channels,ES-  
499 > 79.9  
6.550e+004



170306G1\_5

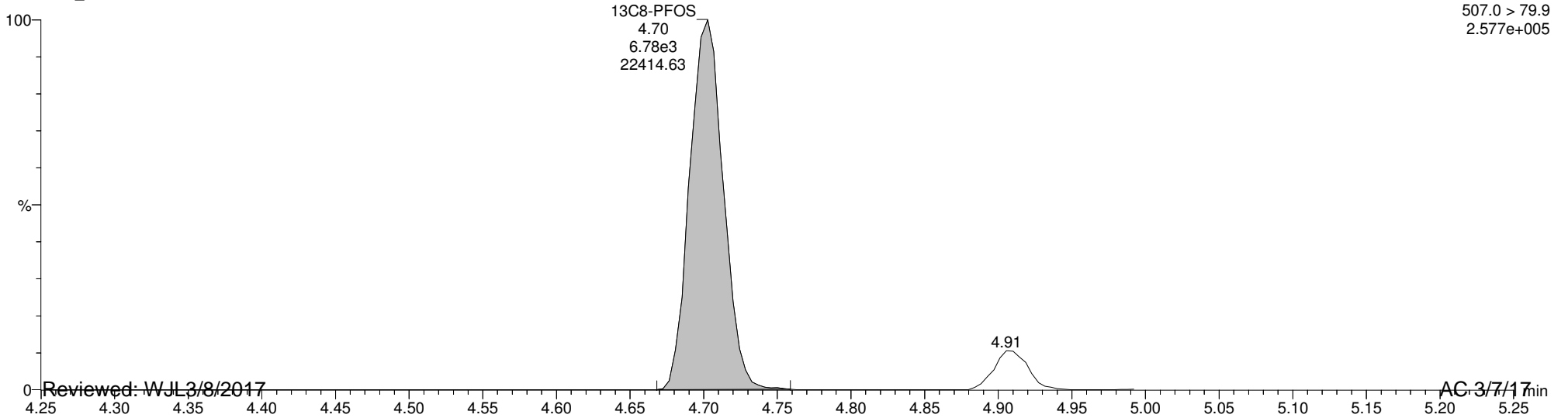
F5:MRM of 12 channels,ES-  
499 > 98.8  
8.989e+004



13C8-PFOS

170306G1\_5

F5:MRM of 12 channels,ES-  
507.0 > 79.9  
2.577e+005



Reviewed: WJL 3/8/2017

AC 3/7/17 min



Dataset: U:\G1.PRO\Results\2017\170306G1\170306G1-5.qld

Last Altered: Tuesday, March 07, 2017 10:42:06 AM Pacific Standard Time

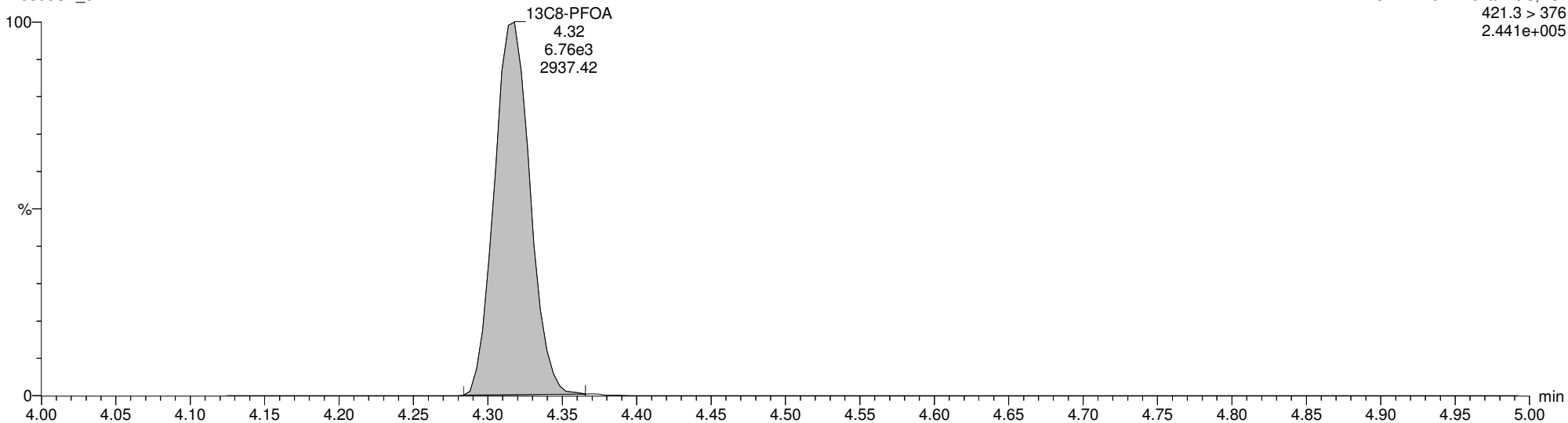
Printed: Tuesday, March 07, 2017 10:42:51 AM Pacific Standard Time

Name: 170306G1\_5, Date: 06-Mar-2017, Time: 16:15:10, ID: B7C0015-BS1 OPR 0.125, Description: OPR

13C8-PFOA

170306G1\_5

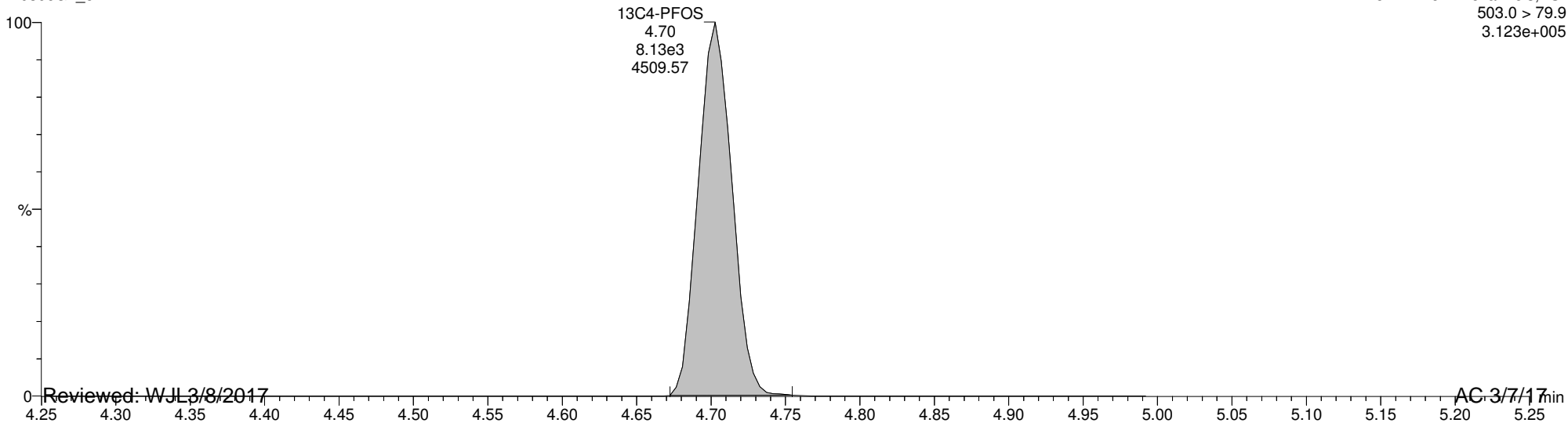
F5:MRM of 12 channels,ES-  
421.3 > 376  
2.441e+005



13C4-PFOS

170306G1\_5

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.123e+005



Reviewed: WJL 3/8/2017

AC: 3/7/17 min

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-37.qld

Last Altered: Thursday, March 02, 2017 11:31:04 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:45:21 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-01 OW2E-MW09R-0217 0.12578, Description: OW2E-MW09R-0217, Name: 170301G1\_37, Date: 01-Mar-2017, Time: 22:28:46

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	6.330e3	6.042e3		0.126	2.98	48.3	
2	2 PFHpA	363 > 318.9	1.219e4	1.585e4		0.126	3.87	41.5	
3	3 PFHxS	398.9 > 79.6	4.239e4	5.736e3		0.126	3.98	406	
4	4 PFOA	413 > 368.7	2.868e4	2.714e4		0.126	4.27	114	
5	5 PFNA	463 > 418.8	8.646e2	7.521e3		0.126	4.60	4.66	
6	6 PFOS	499 > 79.9	4.007e3	7.440e3		0.126	4.55	103	
7	7 13C3-PFBS	302.0 > 98.8	6.042e3	1.292e4	0.442	0.126	2.97	105	106
8	8 13C4-PFHpA	367.2 > 321.8	1.585e4	1.292e4	1.117	0.126	3.87	109	110
9	9 18O2-PFHxS	403 > 102.6	5.736e3	1.292e4	0.420	0.126	3.98	105	106
10	10 13C2-PFOA	414.9 > 369.7	2.714e4	8.211e3	2.782	0.126	4.27	118	119
11	11 13C5-PFNA	468.2 > 422.9	7.521e3	1.148e4	0.846	0.126	4.60	76.9	77.4
12	12 13C8-PFOS	507.0 > 79.9	7.440e3	8.380e3	0.941	0.126	4.66	93.7	94.3
13	13 13C5-PFHxA	318 > 272.9	2.440e4	2.440e4	1.000	0.126	3.36	99.4	100
14	14 13C3-PFHxS	401.9 > 79.9	1.292e4	1.292e4	1.000	0.126	3.98	99.4	100
15	15 13C8-PFOA	421.3 > 376	8.211e3	8.211e3	1.000	0.126	4.27	99.4	100
16	16 13C9-PFNA	472.2 > 426.9	1.148e4	1.148e4	1.000	0.126	4.60	99.4	100
17	17 13C4-PFOS	503.0 > 79.9	8.380e3	8.380e3	1.000	0.126	4.66	99.4	100
18	18 Total PFBS	299 > 79.7		5.736e3		0.126		48.3	
19	19 Total PFHxS	398.9 > 79.6		5.736e3		0.126		406	
20	20 Total PFOA	413 > 368.7		2.714e4		0.126		134	
21	21 Total PFOS	499 > 79.9		7.440e3		0.126		103	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-37.qld

Last Altered: Thursday, March 02, 2017 11:31:04 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:45:21 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-01 OW2E-MW09R-0217 0.12578, Description: OW2E-MW09R-0217, Name: 170301G1\_37, Date: 01-Mar-2017, Time: 22:28:46

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.98	6329.666	6042.295	48.3

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.98	42390.363	5736.484	405.7

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.27	28676.328	27142.357	114.3
2	20 Total PFOA	413 > 368.7	4.18	5155.715	27142.357	19.8

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.55	4006.638	7439.958	102.7

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-37.qld

Last Altered: Thursday, March 02, 2017 11:31:04 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:45:21 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

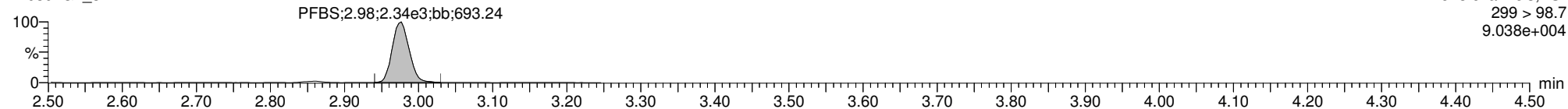
ID: 1700263-01 OW2E-MW09R-0217 0.12578, Description: OW2E-MW09R-0217, Name: 170301G1\_37, Date: 01-Mar-2017, Time: 22:28:46, Instrument: , Lab: , User:

**Total PFBS**

170301G1\_37

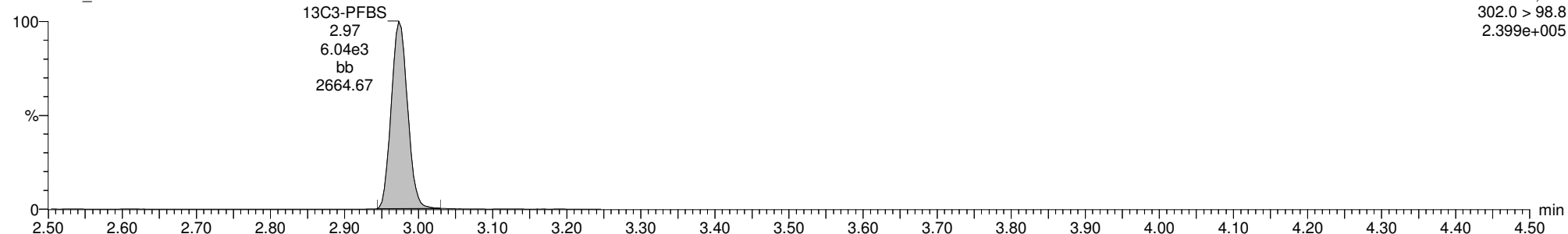


170301G1\_37



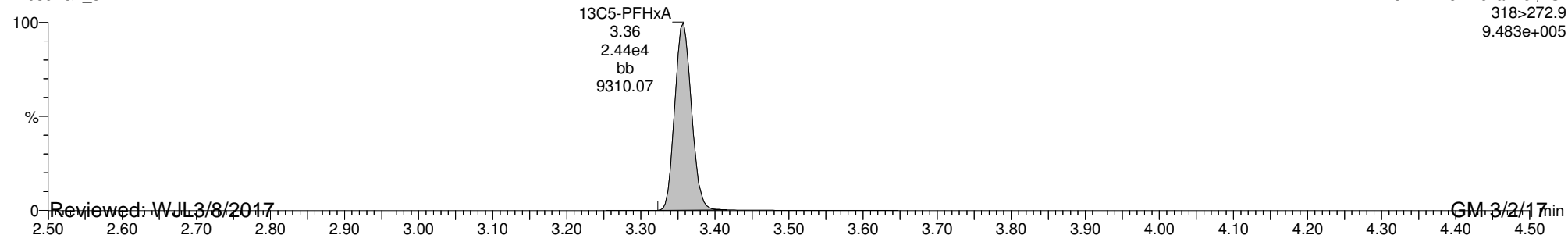
**13C3-PFBS**

170301G1\_37



**13C5-PFHxA**

170301G1\_37



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-37.qld

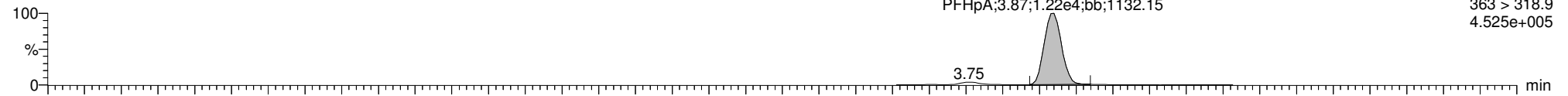
Last Altered: Thursday, March 02, 2017 11:31:04 Pacific Standard Time

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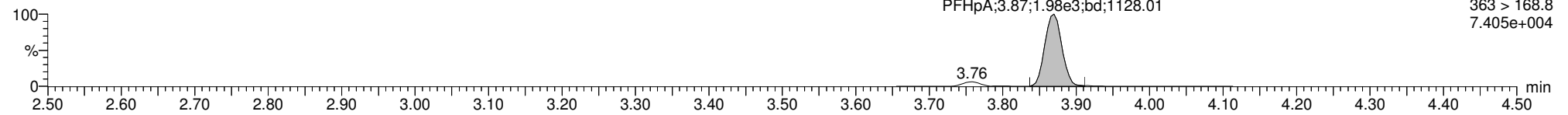
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**PFHpA**

170301G1\_37

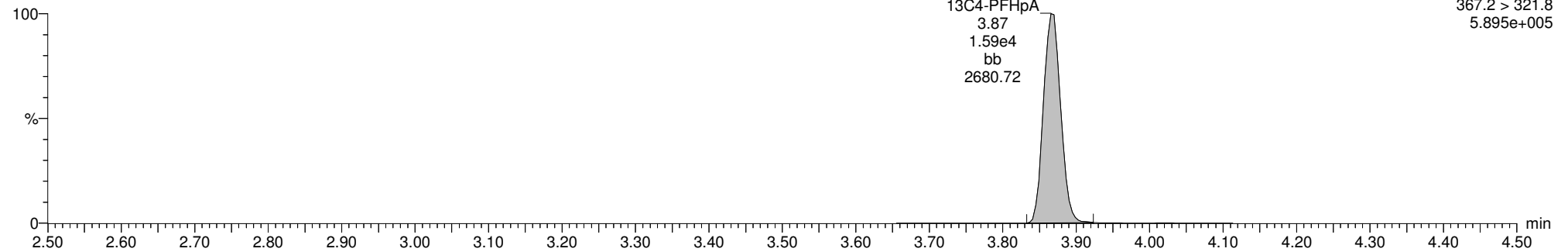


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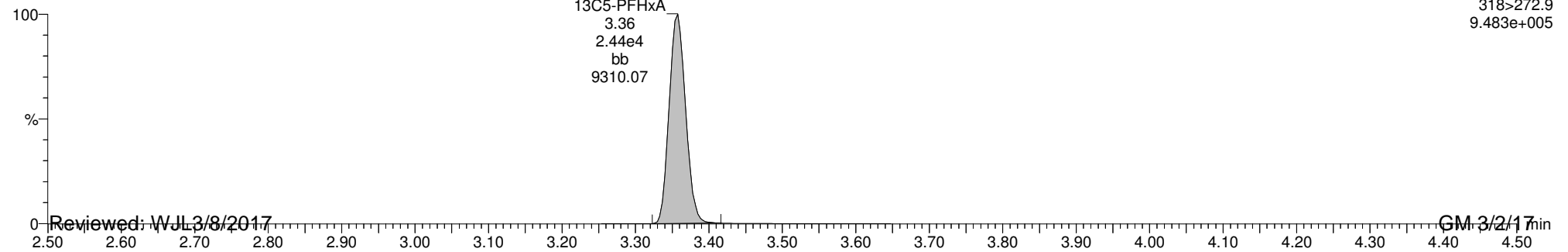
**13C4-PFHpA**

170301G1\_37



**13C5-PFHxA**

170301G1\_37



Reviewed: WJL 3/8/2017

GM 3/2/17

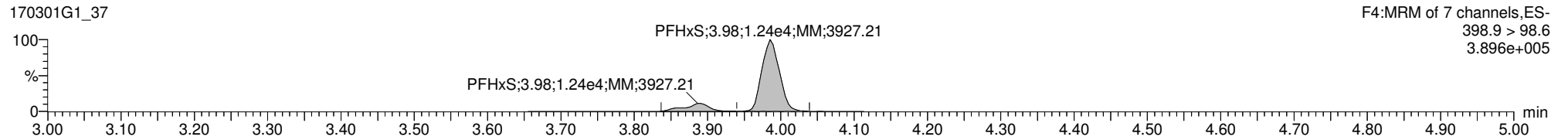
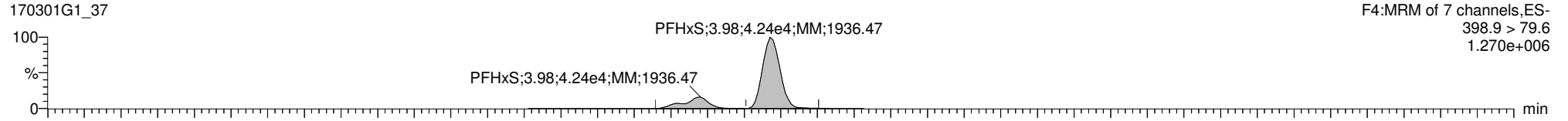
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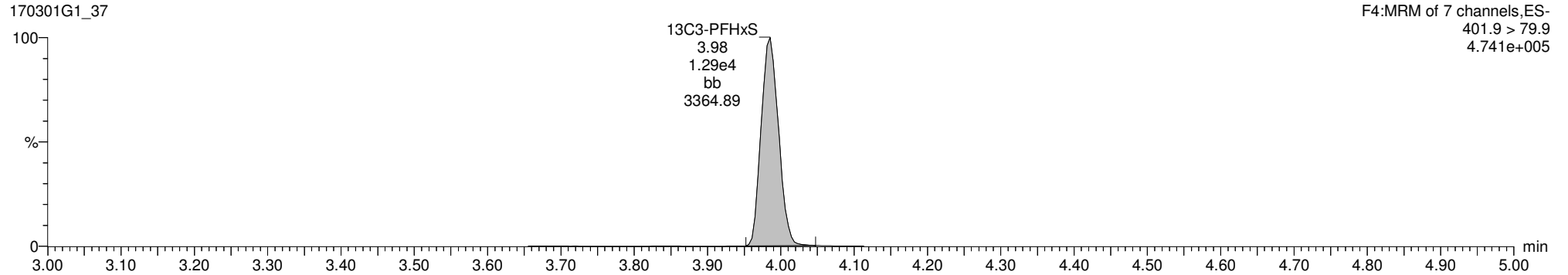
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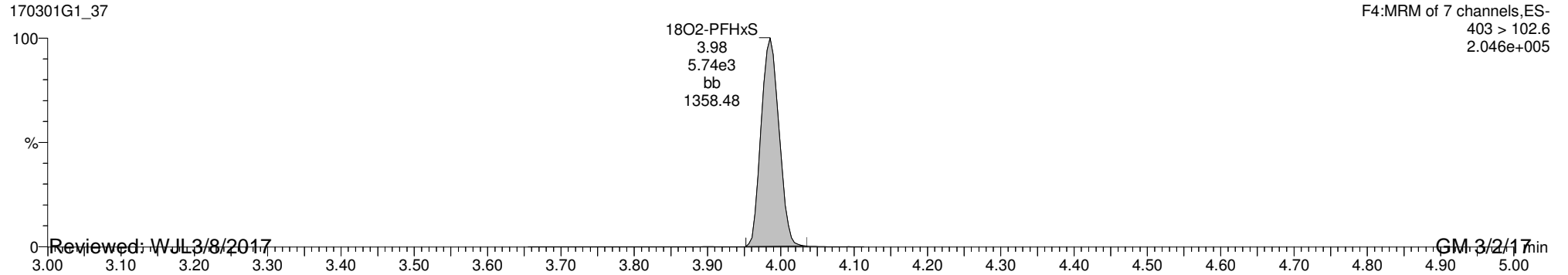
**Total PFHxS**



**13C3-PFHxS**



**18O2-PFHxS**



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-37.qld

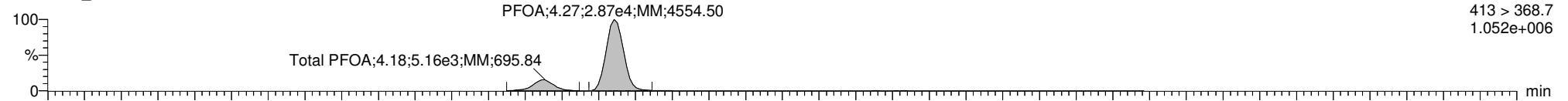
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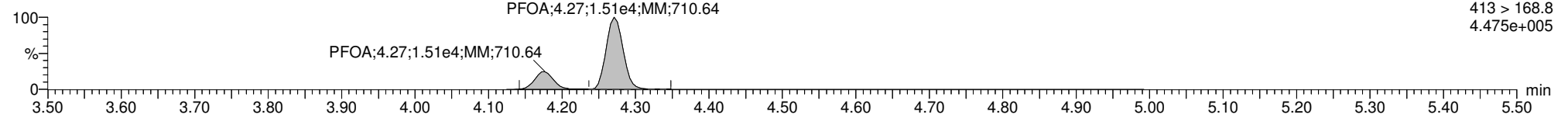
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**Total PFOA**

170301G1\_37

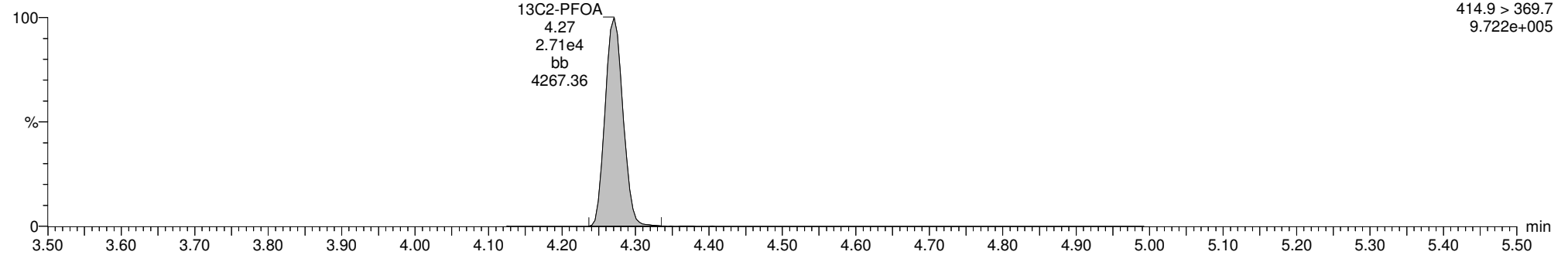


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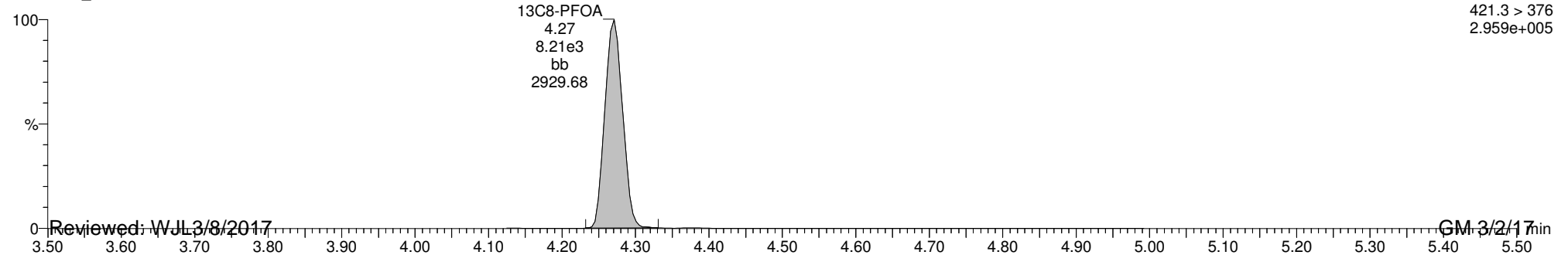
**13C2-PFOA**

170301G1\_37



**13C8-PFOA**

170301G1\_37



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-37.qld

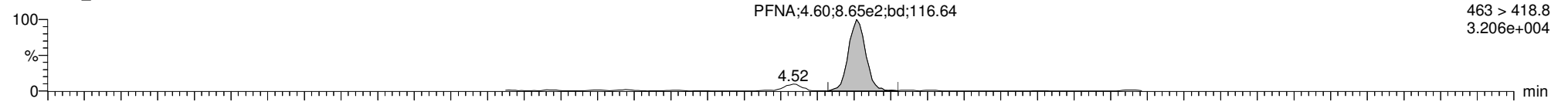
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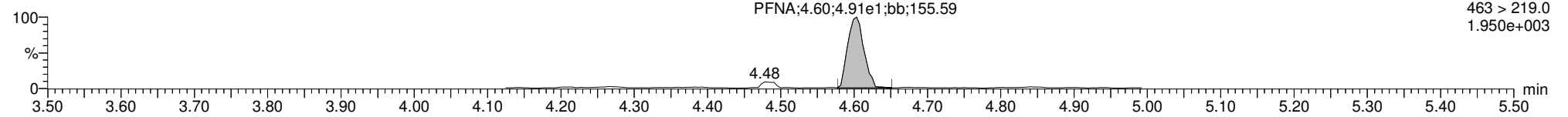
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**PFNA**

170301G1\_37

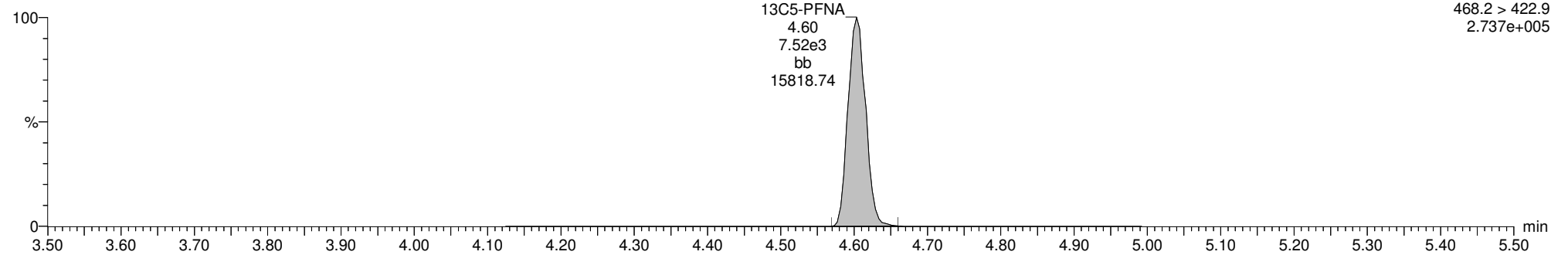


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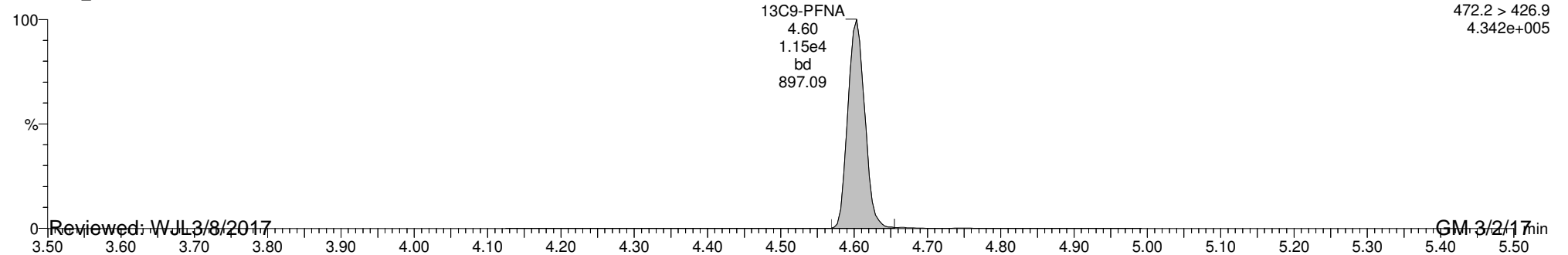
**13C5-PFNA**

170301G1\_37



**13C9-PFNA**

170301G1\_37



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-37.qld

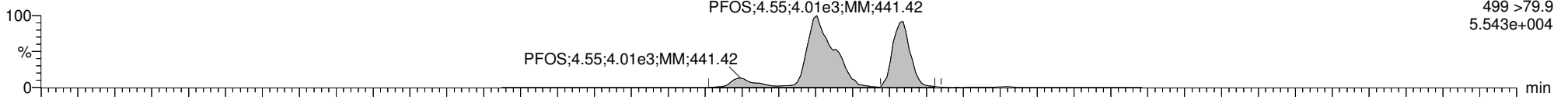
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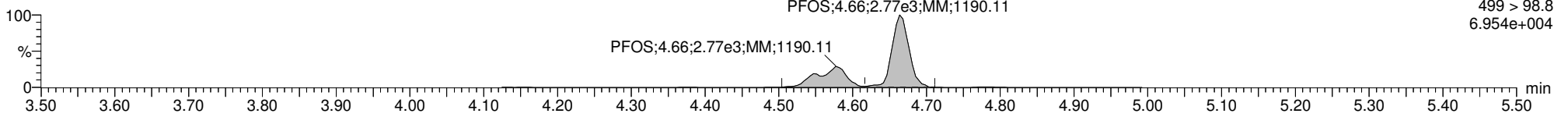
**Total PFOS**

170301G1\_37



F5:MRM of 12 channels,ES-  
499 >79.9  
5.543e+004

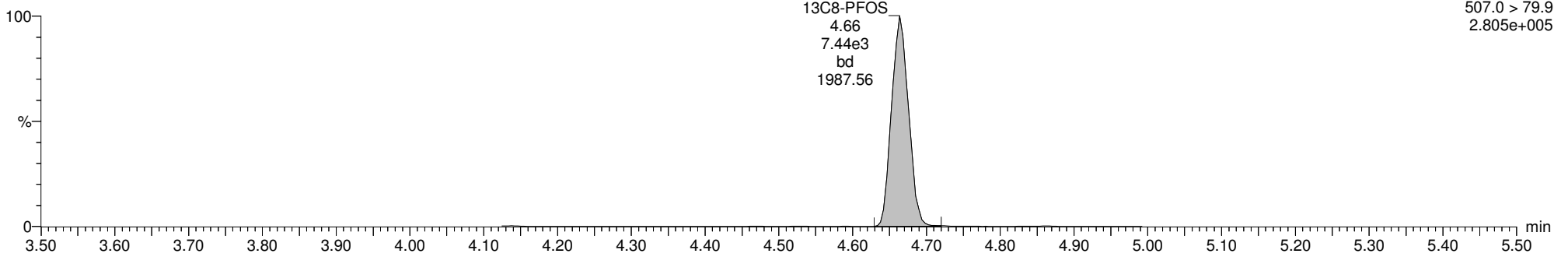
170301G1\_37



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6.954e+004

**13C8-PFOS**

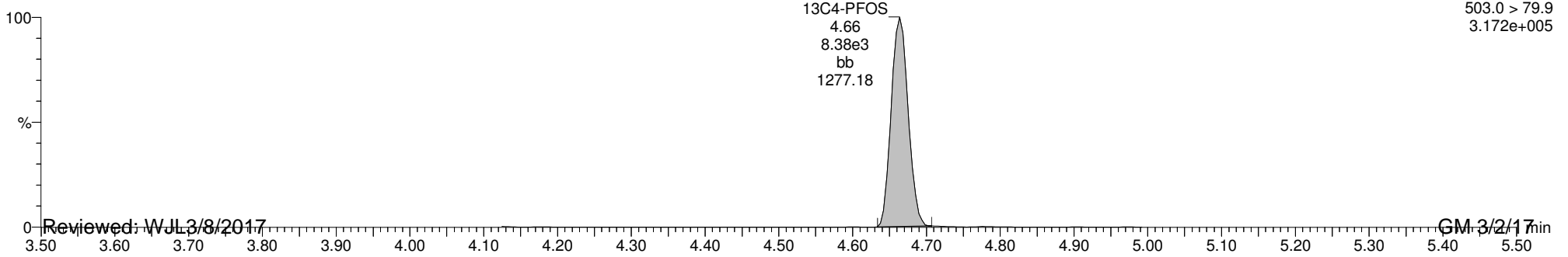
170301G1\_37



F5:MRM of 12 channels,ES-  
507.0 > 79.9  
2.805e+005

**13C4-PFOS**

170301G1\_37



F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.172e+005

Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-38.qld

Last Altered: Thursday, March 02, 2017 11:57:53 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:58:07 Pacific Standard Time

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Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-02 OW2E-MW09RP-0217 0.12994, Description: OW2E-MW09RP-0217, Name: 170301G1\_38, Date: 01-Mar-2017, Time: 22:41:20

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	6.475e3	5.994e3		0.130	2.98	48.2	
2	2 PFHpA	363 > 318.9	1.214e4	1.621e4		0.130	3.87	39.1	
3	3 PFHxS	398.9 > 79.6	4.216e4	5.756e3		0.130	3.98	389	
4	4 PFOA	413 > 368.7	2.992e4	2.865e4		0.130	4.27	109	
5	5 PFNA	463 > 418.8	7.166e2	8.450e3		0.130	4.61	3.16	
6	6 PFOS	499 > 79.9	3.793e3	7.314e3		0.130	4.66	95.7	
7	7 13C3-PFBS	302.0 > 98.8	5.994e3	1.442e4	0.442	0.130	2.97	90.3	94.0
8	8 13C4-PFHpA	367.2 > 321.8	1.621e4	1.442e4	1.117	0.130	3.87	96.8	101
9	9 18O2-PFHxS	403 > 102.6	5.756e3	1.442e4	0.420	0.130	3.98	91.3	95.0
10	10 13C2-PFOA	414.9 > 369.7	2.865e4	8.609e3	2.782	0.130	4.27	115	120
11	11 13C5-PFNA	468.2 > 422.9	8.450e3	1.081e4	0.846	0.130	4.60	88.8	92.3
12	12 13C8-PFOS	507.0 > 79.9	7.314e3	8.970e3	0.941	0.130	4.66	83.3	86.6
13	13 13C5-PFHxA	318 > 272.9	2.469e4	2.469e4	1.000	0.130	3.36	96.2	100
14	14 13C3-PFHxS	401.9 > 79.9	1.442e4	1.442e4	1.000	0.130	3.98	96.2	100
15	15 13C8-PFOA	421.3 > 376	8.609e3	8.609e3	1.000	0.130	4.27	96.2	100
16	16 13C9-PFNA	472.2 > 426.9	1.081e4	1.081e4	1.000	0.130	4.60	96.2	100
17	17 13C4-PFOS	503.0 > 79.9	8.970e3	8.970e3	1.000	0.130	4.67	96.2	100
18	18 Total PFBS	299 > 79.7		5.756e3		0.130		48.2	
19	19 Total PFHxS	398.9 > 79.6		5.756e3		0.130		389	
20	20 Total PFOA	413 > 368.7		2.865e4		0.130		130	
21	21 Total PFOS	499 > 79.9		7.314e3		0.130		95.7	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-38.qld

Last Altered: Thursday, March 02, 2017 11:57:53 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:58:07 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-02 OW2E-MW09RP-0217 0.12994, Description: OW2E-MW09RP-0217, Name: 170301G1\_38, Date: 01-Mar-2017, Time: 22:41:20

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.98	6475.195	5993.973	48.2

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.98	42162.273	5756.158	389.2

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.27	29924.770	28654.016	109.3
2	20 Total PFOA	413 > 368.7	4.18	5980.104	28654.016	21.1

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.66	3793.266	7313.900	95.7

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Printed: Thursday, March 02, 2017 11:58:07 Pacific Standard Time

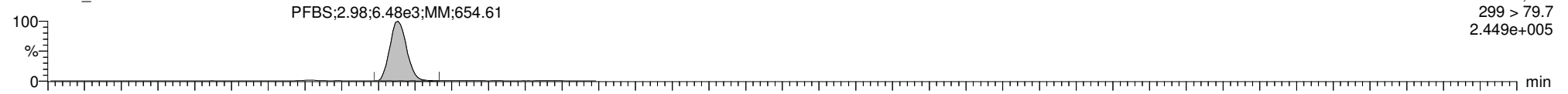
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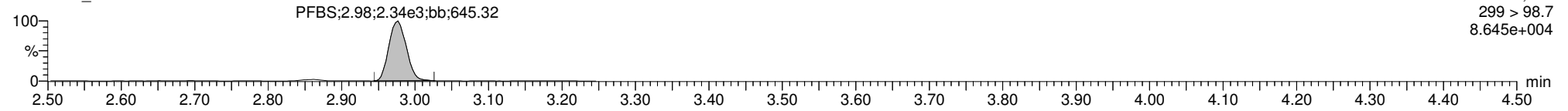
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**Total PFBS**

170301G1\_38

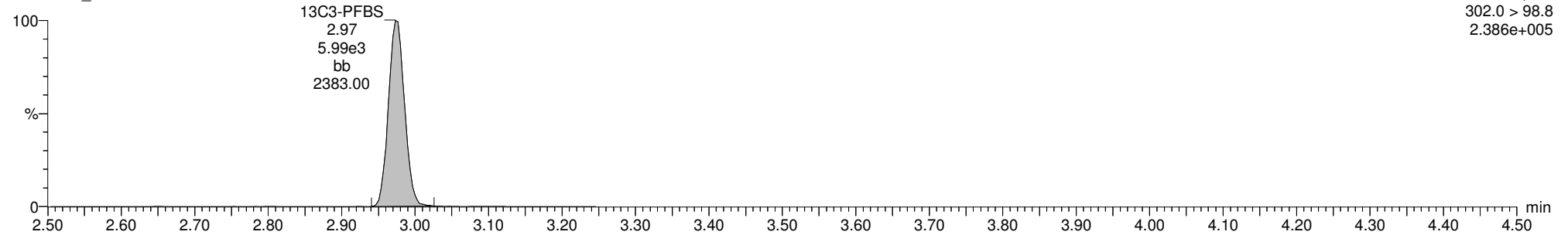


170301G1\_38



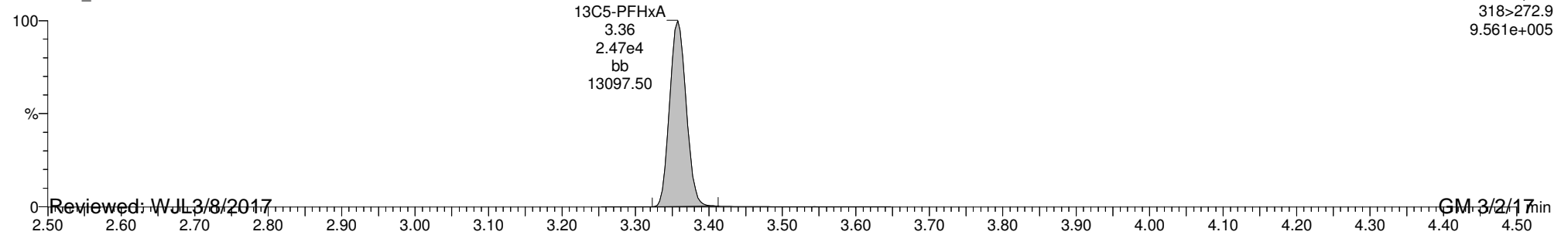
**13C3-PFBS**

170301G1\_38



**13C5-PFHxA**

170301G1\_38



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-38.qld

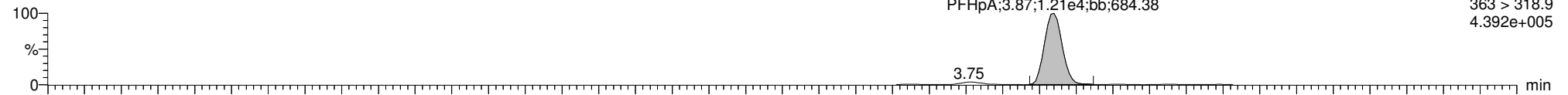
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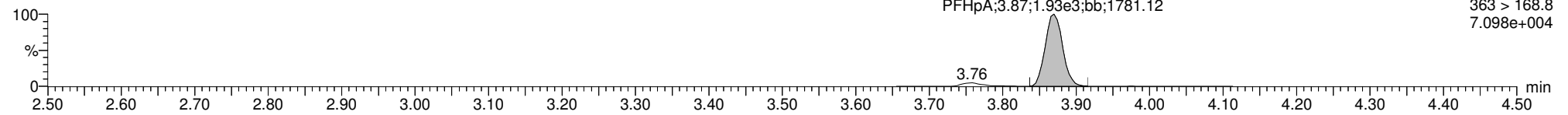
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**PFHpA**

170301G1\_38

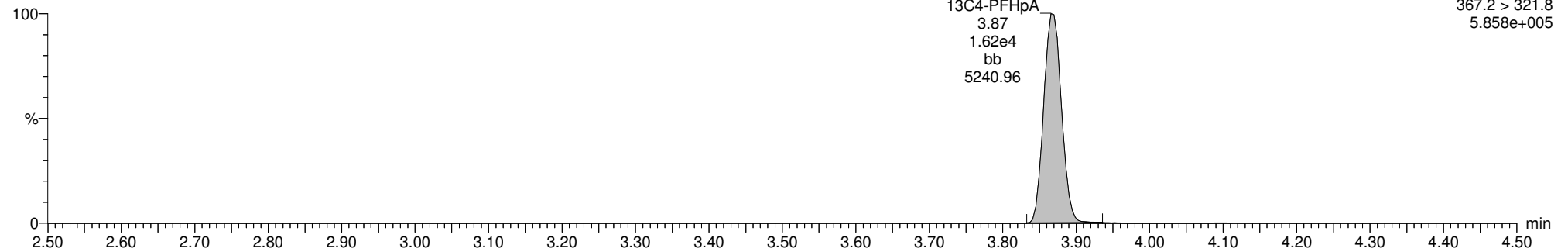


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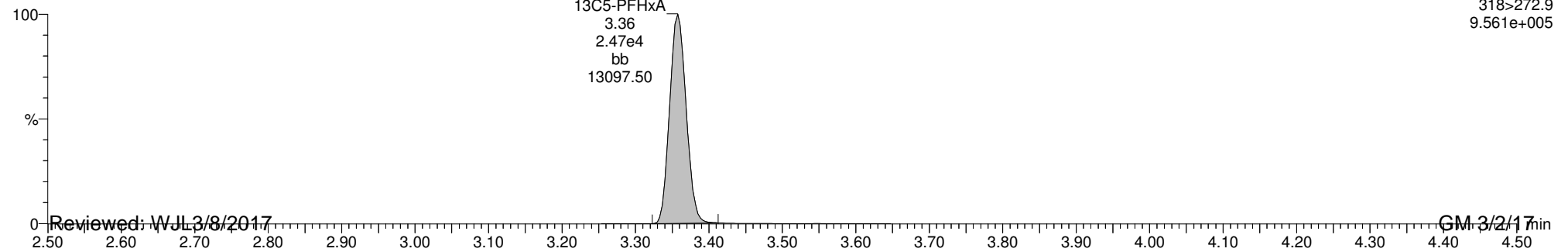
**13C4-PFHpA**

170301G1\_38



**13C5-PFHxA**

170301G1\_38



Reviewed: WJL 3/8/2017

GM 3/2/17

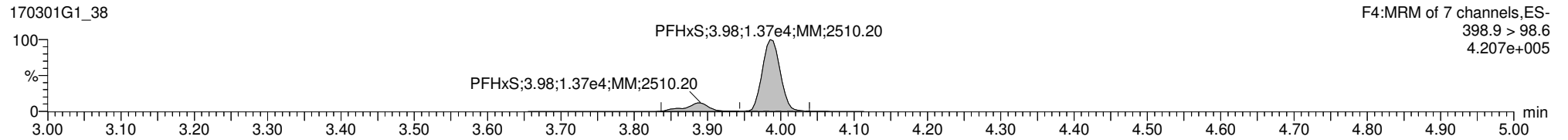
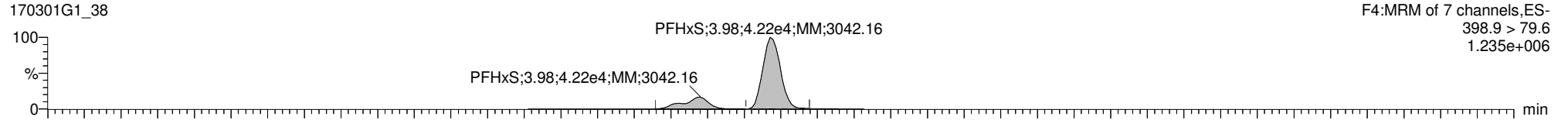
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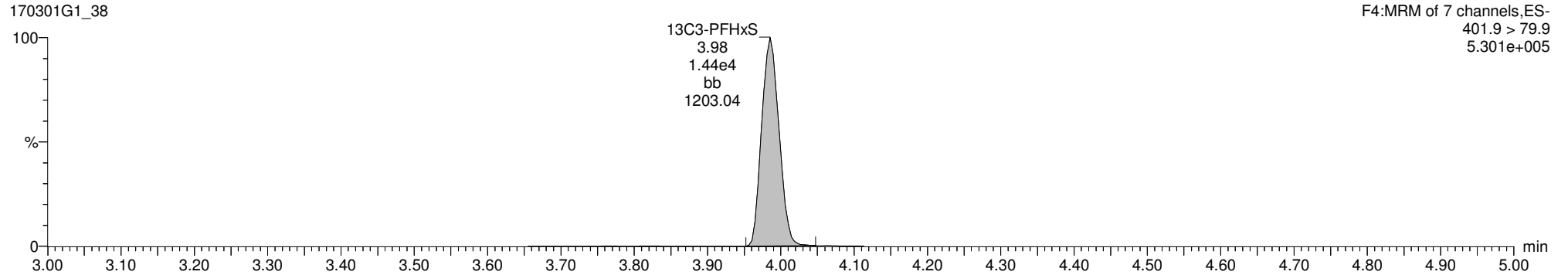
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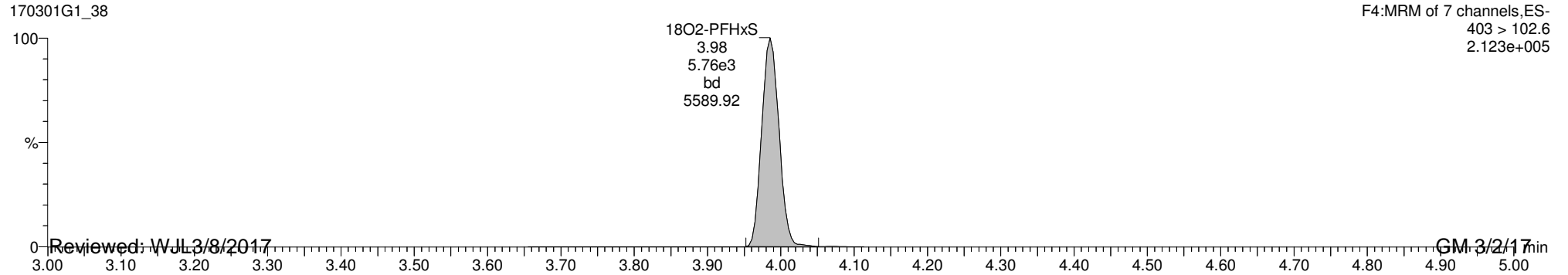
**Total PFHxS**



**13C3-PFHxS**



**18O2-PFHxS**



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-38.qld

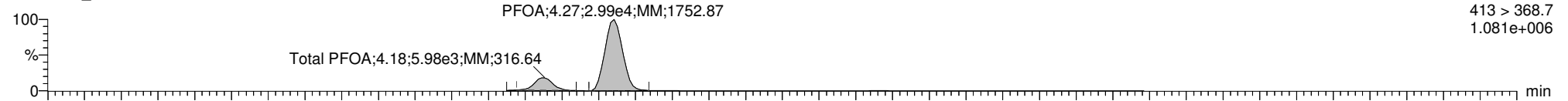
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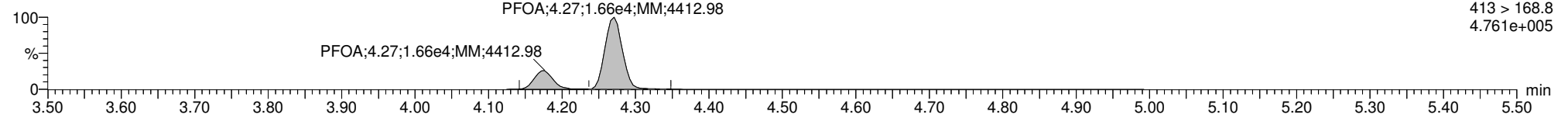
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**Total PFOA**

170301G1\_38

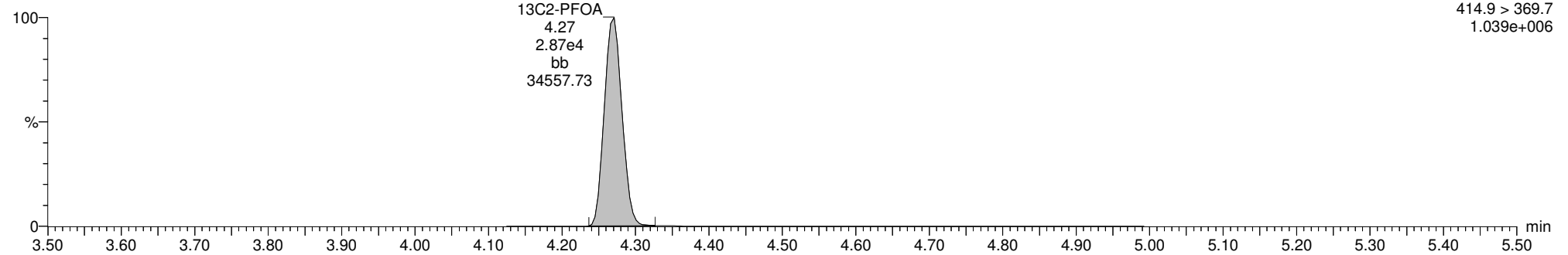


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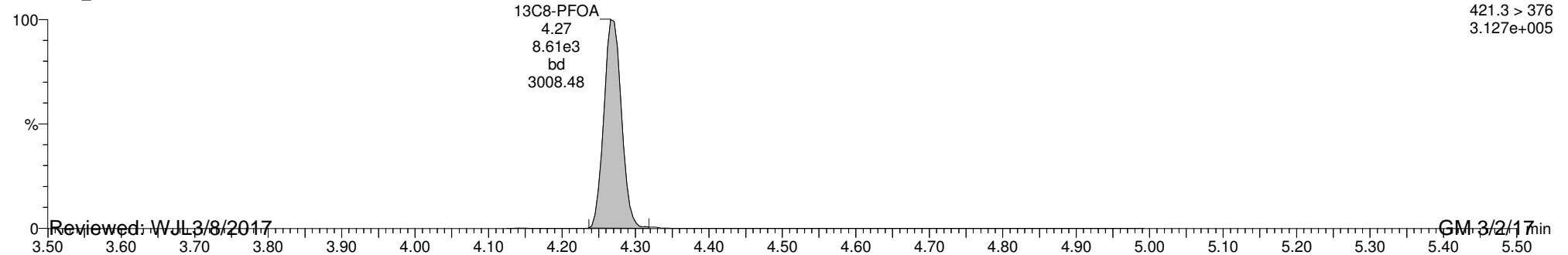
**13C2-PFOA**

170301G1\_38



**13C8-PFOA**

170301G1\_38



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-38.qld

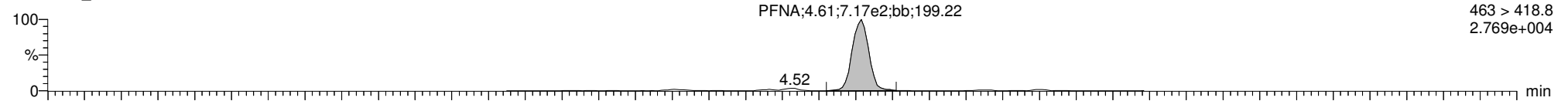
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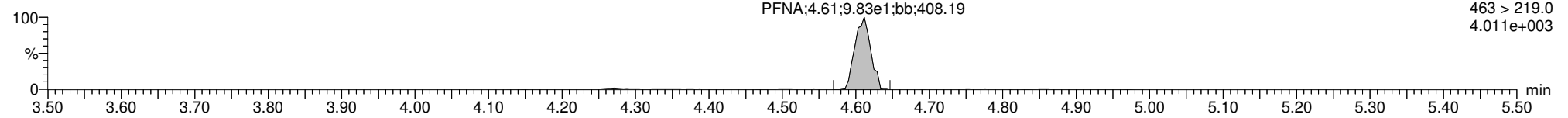
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**PFNA**

170301G1\_38

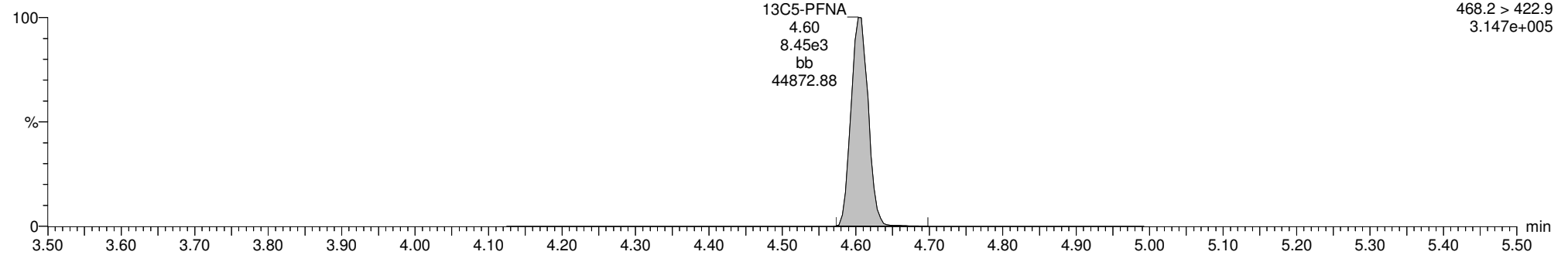


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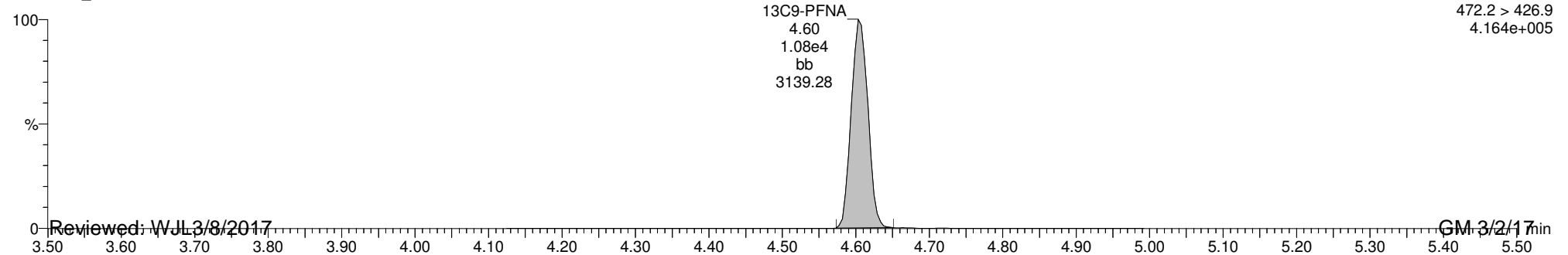
**13C5-PFNA**

170301G1\_38



**13C9-PFNA**

170301G1\_38



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-38.qld

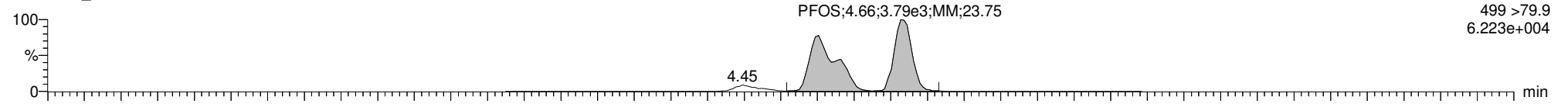
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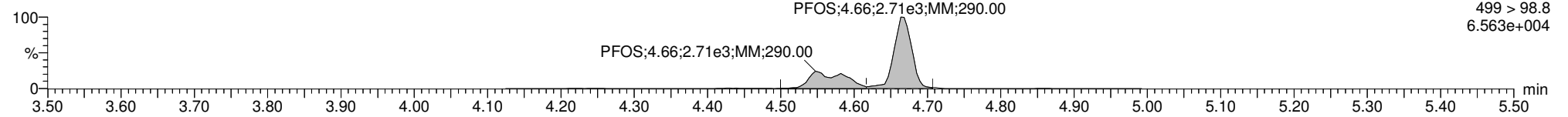
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**Total PFOS**

170301G1\_38

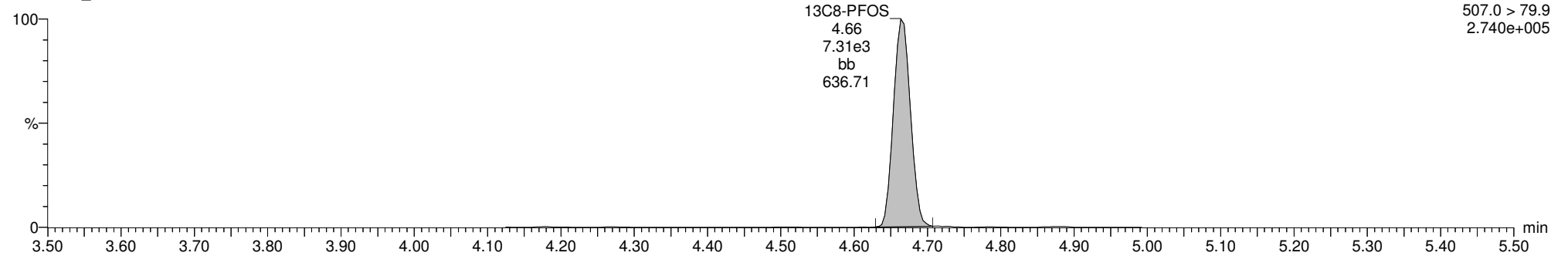


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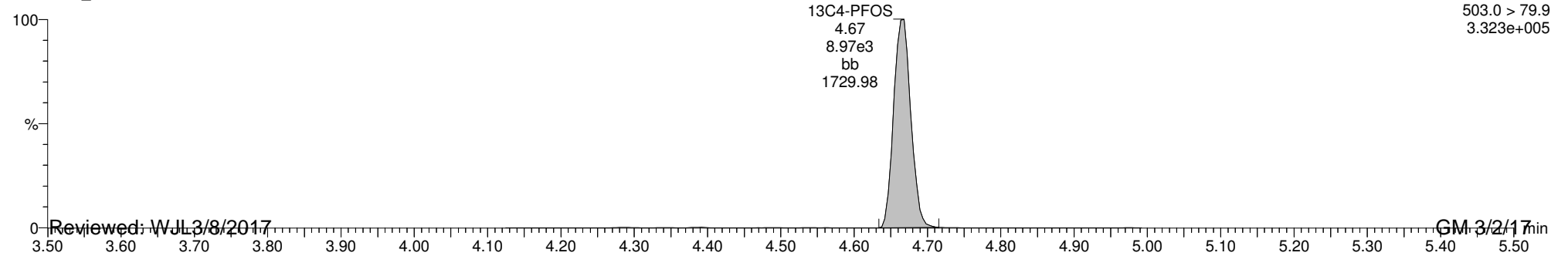
**13C8-PFOS**

170301G1\_38



**13C4-PFOS**

170301G1\_38



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

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ID: 1700263-03 OW2C-MW05-0217 0.13161, Description: OW2C-MW05-0217, Name: 170301G1\_39, Date: 01-Mar-2017, Time: 22:53:54

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.390e3	6.236e3		0.132	2.98	9.86	
2	2 PFHpA	363 > 318.9	8.455e3	1.655e4		0.132	3.87	26.3	
3	3 PFHxS	398.9 > 79.6	9.819e3	6.697e3		0.132	3.99	78.8	
4	4 PFOA	413 > 368.7	1.324e4	3.327e4		0.132	4.28	40.6	
5	5 PFNA	463 > 418.8	2.133e4	8.713e3		0.132	4.61	108	
6	6 PFOS	499 > 79.9	1.153e4	8.439e3		0.132	4.67	249	
7	7 13C3-PFBS	302.0 > 98.8	6.236e3	1.651e4	0.442	0.132	2.98	81.1	85.4
8	8 13C4-PFHpA	367.2 > 321.8	1.655e4	1.651e4	1.117	0.132	3.87	85.3	89.8
9	9 18O2-PFHxS	403 > 102.6	6.697e3	1.651e4	0.420	0.132	3.99	91.7	96.6
10	10 13C2-PFOA	414.9 > 369.7	3.327e4	1.024e4	2.782	0.132	4.27	111	117
11	11 13C5-PFNA	468.2 > 422.9	8.713e3	1.120e4	0.846	0.132	4.61	87.3	91.9
12	12 13C8-PFOS	507.0 > 79.9	8.439e3	8.692e3	0.941	0.132	4.67	98.0	103
13	13 13C5-PFHxA	318>272.9	2.540e4	2.540e4	1.000	0.132	3.36	95.0	100
14	14 13C3-PFHxS	401.9 > 79.9	1.651e4	1.651e4	1.000	0.132	3.99	95.0	100
15	15 13C8-PFOA	421.3 > 376	1.024e4	1.024e4	1.000	0.132	4.27	95.0	100
16	16 13C9-PFNA	472.2 > 426.9	1.120e4	1.120e4	1.000	0.132	4.61	95.0	100
17	17 13C4-PFOS	503.0 > 79.9	8.692e3	8.692e3	1.000	0.132	4.67	95.0	100
18	18 Total PFBS	299 > 79.7		6.697e3		0.132		9.86	
19	19 Total PFHxS	398.9 > 79.6		6.697e3		0.132		78.8	
20	20 Total PFOA	413 > 368.7		3.327e4		0.132		42.9	
21	21 Total PFOS	499 > 79.9		8.439e3		0.132		249	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

Last Altered: Thursday, March 02, 2017 11:55:44 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:56:21 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-03 OW2C-MW05-0217 0.13161, Description: OW2C-MW05-0217, Name: 170301G1\_39, Date: 01-Mar-2017, Time: 22:53:54

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.98	1390.423	6236.319	9.9

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	9819.048	6696.576	78.8

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	13238.771	33272.008	40.6
2	20 Total PFOA	413 > 368.7	4.18	1014.811	33272.008	2.3

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.67	11534.501	8438.769	248.9

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

Last Altered: Thursday, March 02, 2017 11:55:44 Pacific Standard Time

Printed: Thursday, March 02, 2017 11:56:21 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

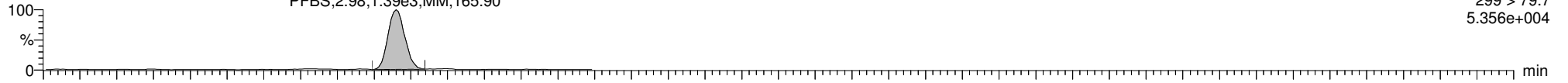
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**Total PFBS**

170301G1\_39

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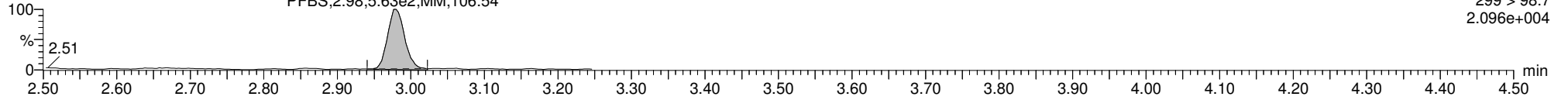
F2:MRM of 3 channels,ES-  
299 > 79.7  
5.356e+004



170301G1\_39

PFBS;2.98;5.63e2;MM;106.54

F2:MRM of 3 channels,ES-  
299 > 98.7  
2.096e+004

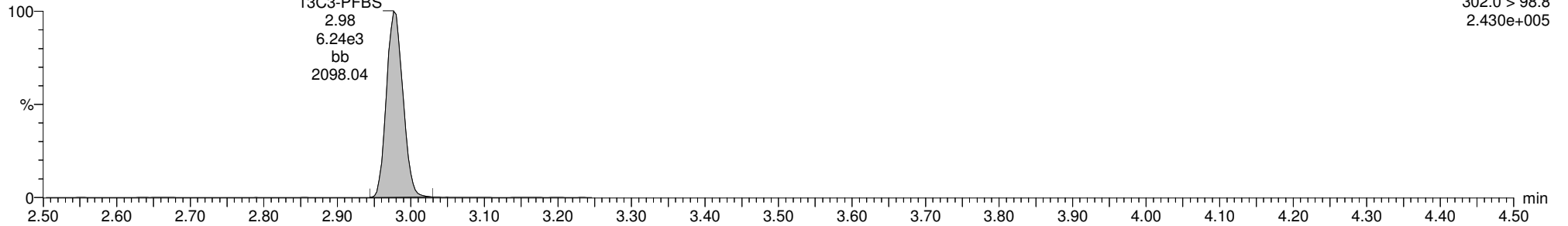


**13C3-PFBS**

170301G1\_39

13C3-PFBS  
2.98  
6.24e3  
bb  
2098.04

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.430e+005

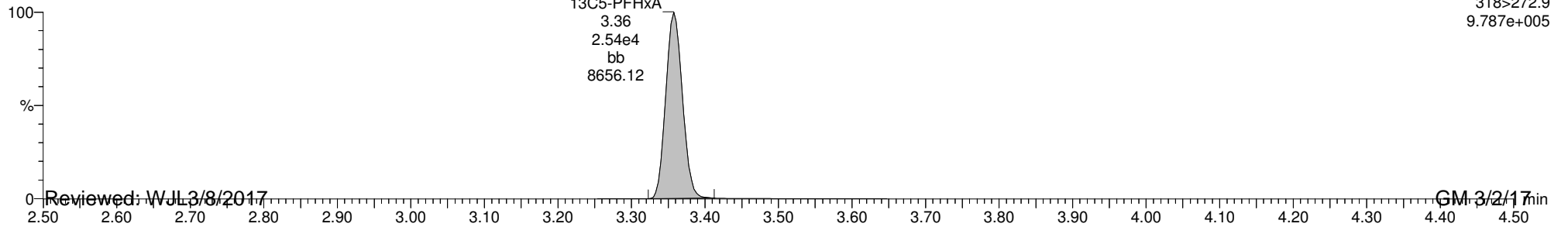


**13C5-PFHxA**

170301G1\_39

13C5-PFHxA  
3.36  
2.54e4  
bb  
8656.12

F3:MRM of 1 channel,ES-  
318>272.9  
9.787e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

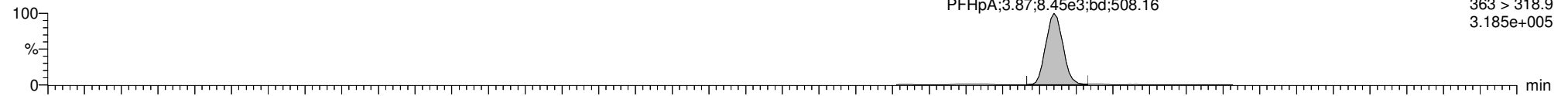
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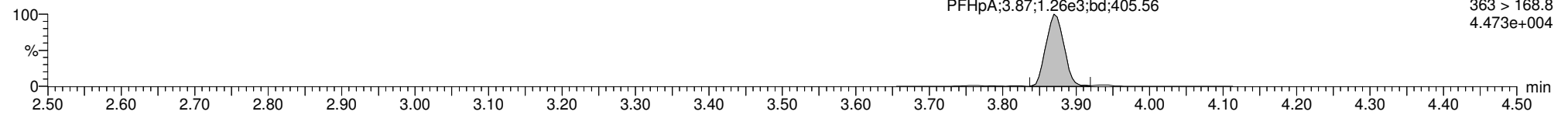
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**PFHpA**

170301G1\_39

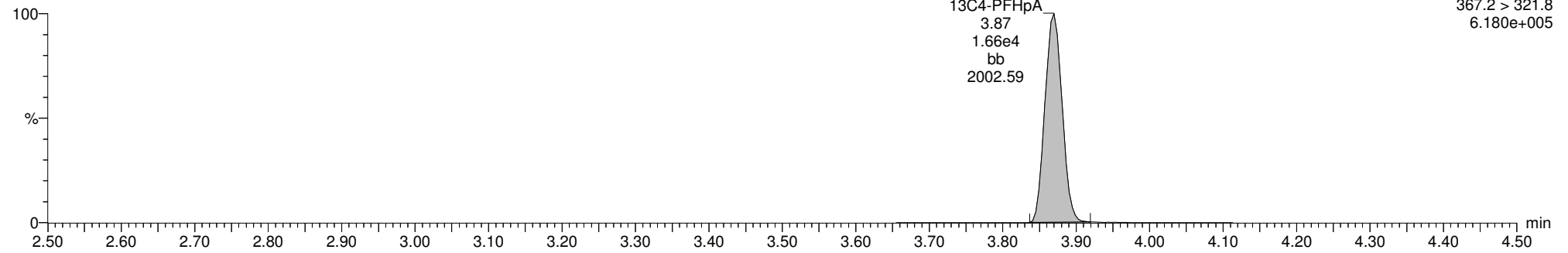


170301G1\_39



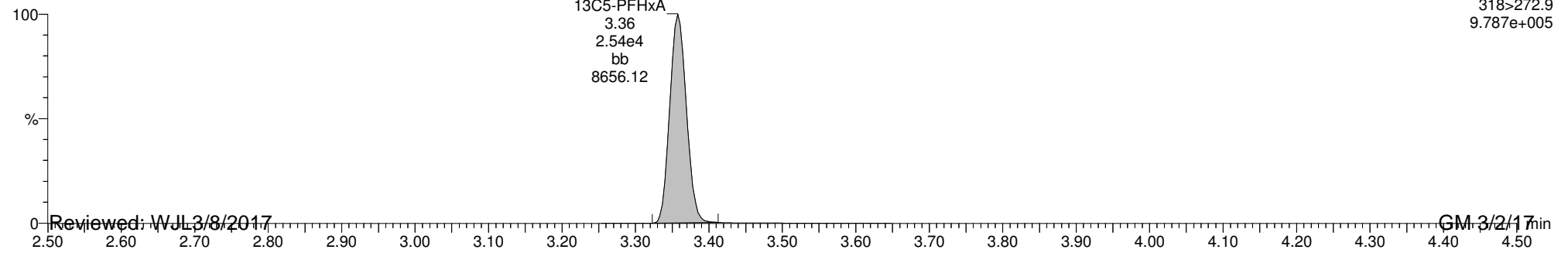
**13C4-PFHpA**

170301G1\_39



**13C5-PFHxA**

170301G1\_39



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

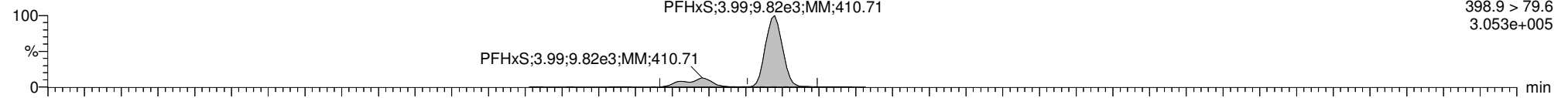
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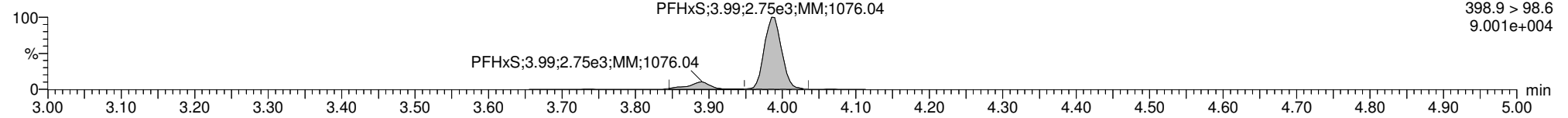
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**Total PFHxS**

170301G1\_39

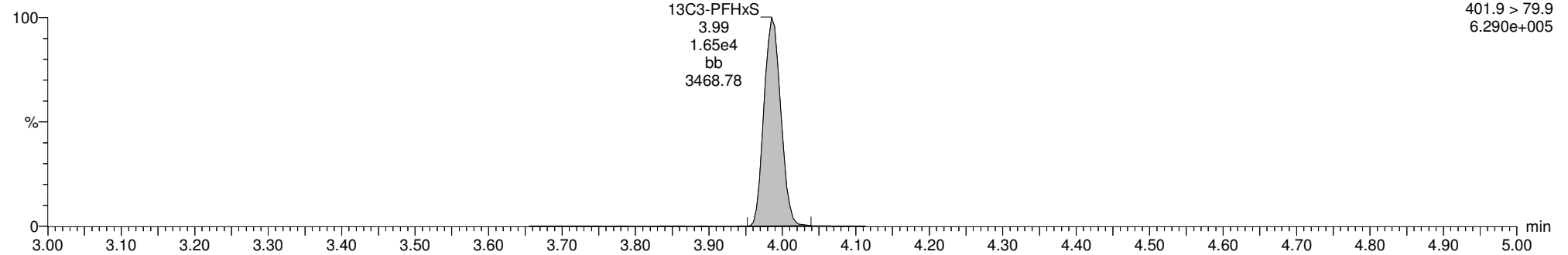


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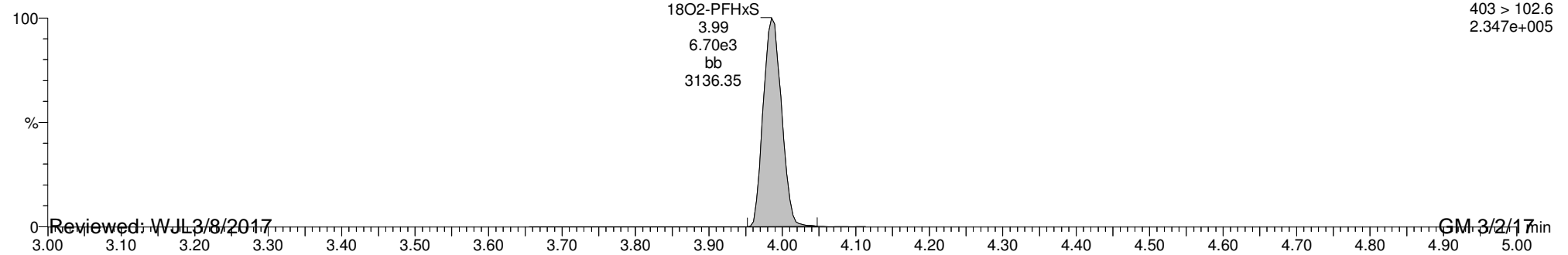
**13C3-PFHxS**

170301G1\_39



**18O2-PFHxS**

170301G1\_39



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

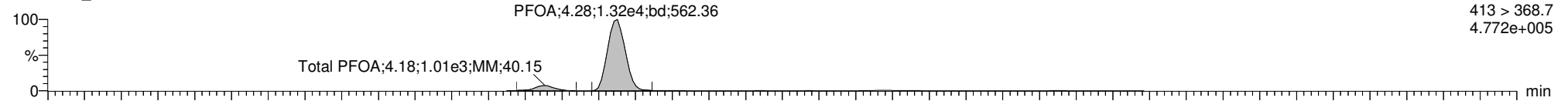
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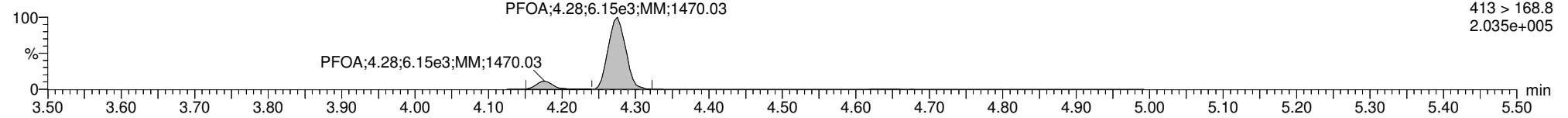
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**Total PFOA**

170301G1\_39

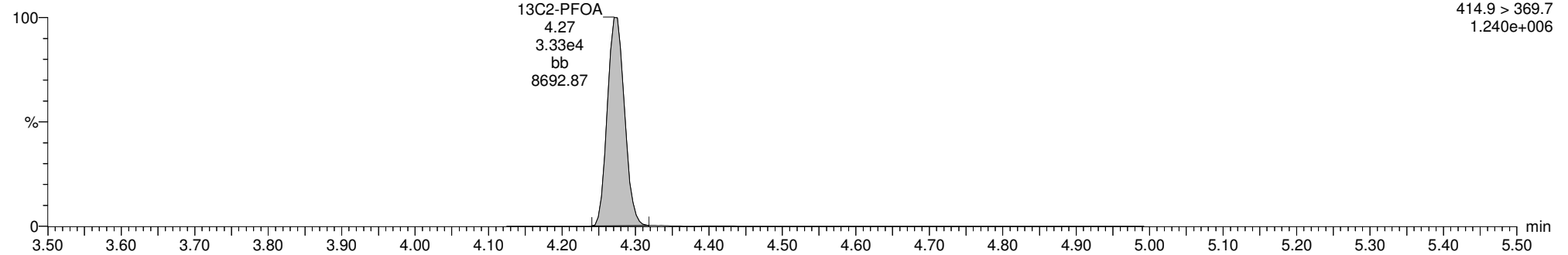


170301G1\_39



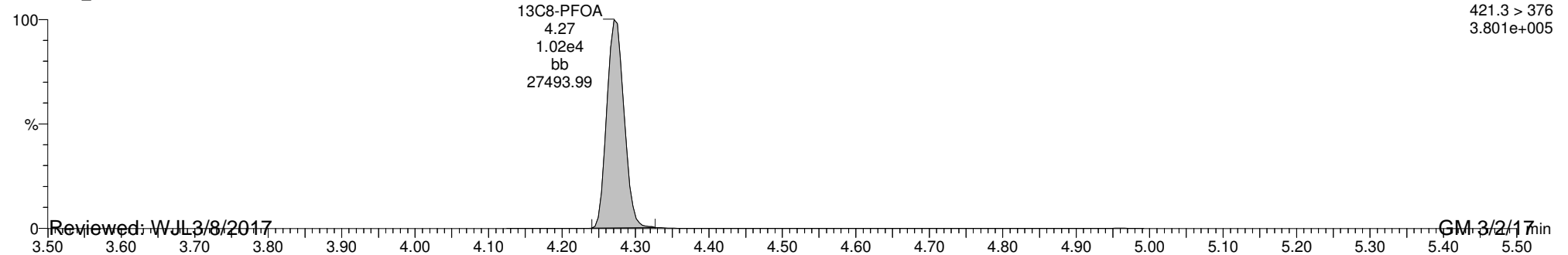
**13C2-PFOA**

170301G1\_39



**13C8-PFOA**

170301G1\_39



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

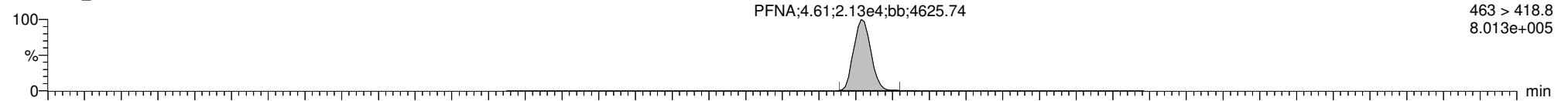
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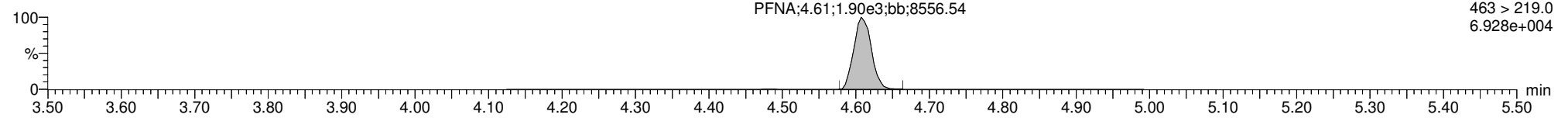
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**PFNA**

170301G1\_39

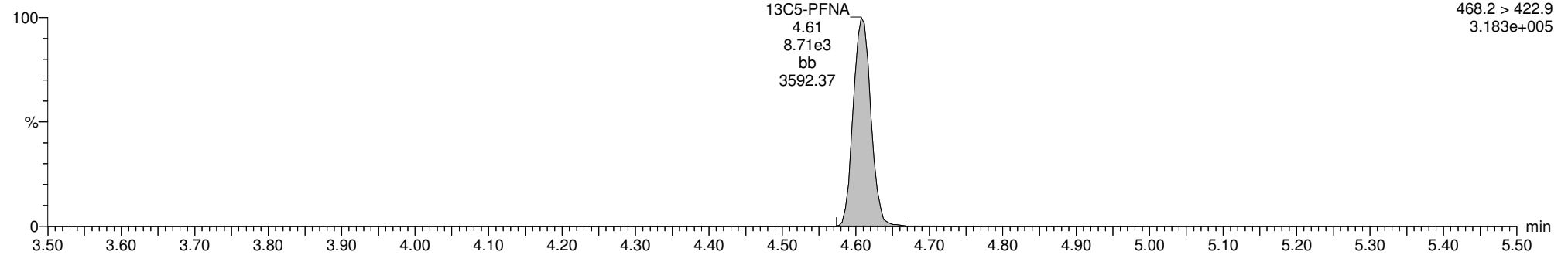


170301G1\_39



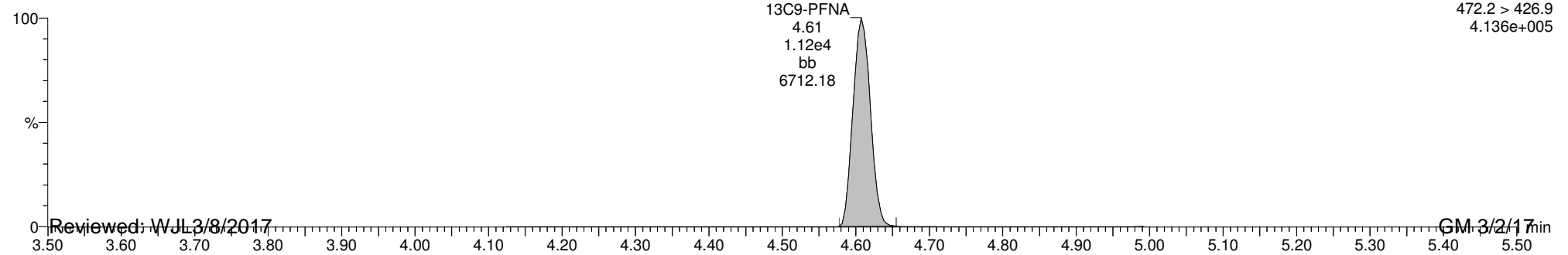
**13C5-PFNA**

170301G1\_39



**13C9-PFNA**

170301G1\_39



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-39.qld

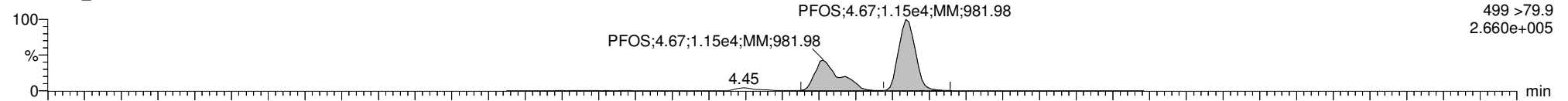
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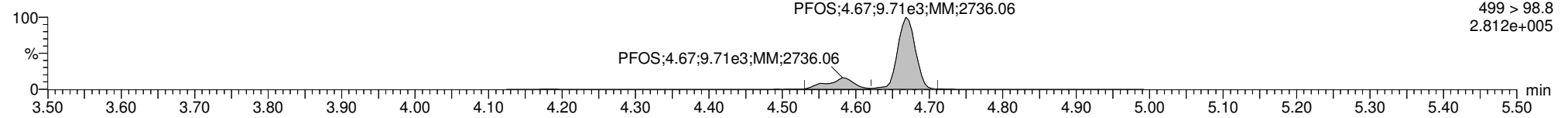
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**Total PFOS**

170301G1\_39

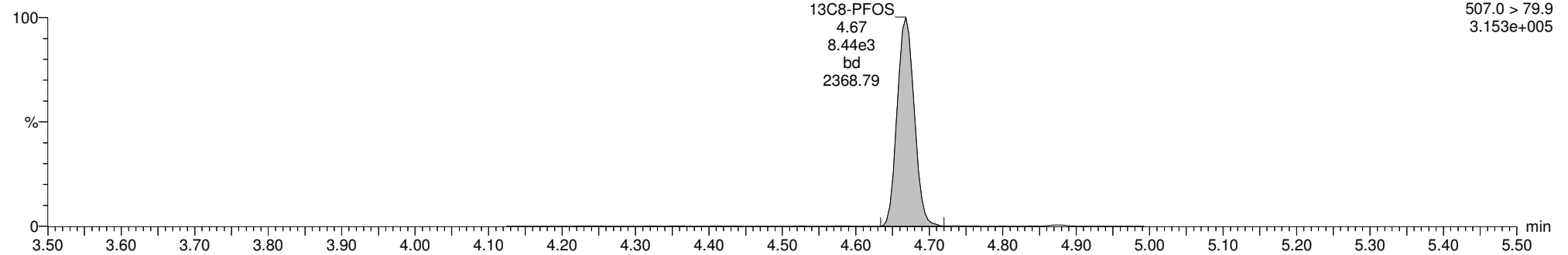


170301G1\_39



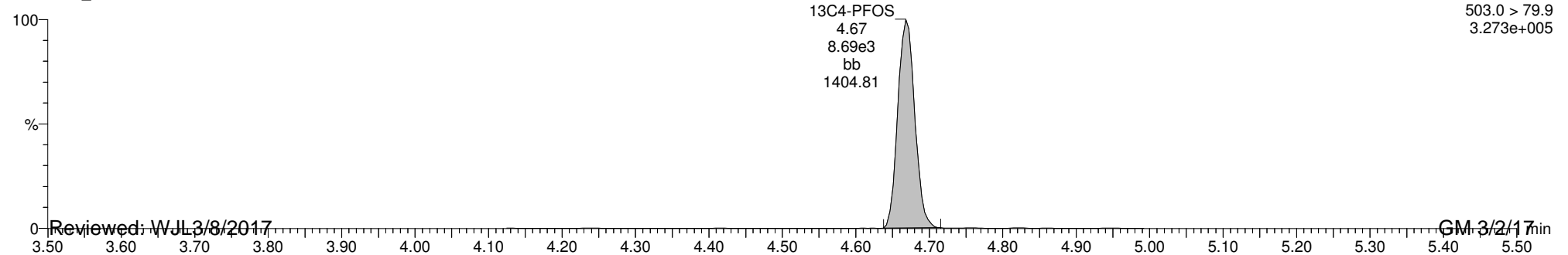
**13C8-PFOS**

170301G1\_39



**13C4-PFOS**

170301G1\_39



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

Last Altered: Thursday, March 02, 2017 12:08:00 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:08:12 Pacific Standard Time

Method: Untitled 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-04 OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170301G1\_40, Date: 01-Mar-2017, Time: 23:06:27

#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.553e4	5.302e3		0.125	2.98	310	
2	2 PFHpA	363 > 318.9	1.250e5	1.281e4		0.125	3.87	531	
3	3 PFHxS	398.9 > 79.6	3.188e5	3.198e3		0.125	3.99	4090	E
4	4 PFOA	413 > 368.7	2.341e5	2.347e4		0.125	4.28	1090	E
5	5 PFNA	463 > 418.8	3.564e4	6.685e3		0.125	4.61	248	
6	6 PFOS	499 > 79.9	5.440e5	1.964e3		0.125	4.67	53000	E*
7	7 13C3-PFBS	302.0 > 98.8	5.302e3	7.892e3	0.442	0.125	2.97	151	152 H
8	8 13C4-PFHpA	367.2 > 321.8	1.281e4	7.892e3	1.117	0.125	3.87	145	145
9	9 18O2-PFHxS	403 > 102.6	3.198e3	7.892e3	0.420	0.125	3.99	96.2	96.5 *
10	10 13C2-PFOA	414.9 > 369.7	2.347e4	6.828e3	2.782	0.125	4.28	123	124 *
11	11 13C5-PFNA	468.2 > 422.9	6.685e3	8.411e3	0.846	0.125	4.61	93.7	93.9
12	12 13C8-PFOS	507.0 > 79.9	1.964e3	2.085e3	0.941	0.125	4.67	99.8	100 **
13	13 13C5-PFHxA	318>272.9	1.397e4	1.397e4	1.000	0.125	3.35	99.7	100 *see dil
14	14 13C3-PFHxS	401.9 > 79.9	7.892e3	7.892e3	1.000	0.125	3.99	99.7	100 **see RE
15	15 13C8-PFOA	421.3 > 376	6.828e3	6.828e3	1.000	0.125	4.27	99.7	100
16	16 13C9-PFNA	472.2 > 426.9	8.411e3	8.411e3	1.000	0.125	4.61	99.7	100
17	17 13C4-PFOS	503.0 > 79.9	2.085e3	2.085e3	1.000	0.125	4.67	99.7	100
18	18 Total PFBS	299 > 79.7		3.198e3		0.125		310	
19	19 Total PFHxS	398.9 > 79.6		3.198e3		0.125		4090	
20	20 Total PFOA	413 > 368.7		2.347e4		0.125		1240	
21	21 Total PFOS	499 > 79.9		1.964e3		0.125		53000	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

Last Altered: Thursday, March 02, 2017 12:08:00 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:08:12 Pacific Standard Time

Method: Untitled 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-04 OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170301G1\_40, Date: 01-Mar-2017, Time: 23:06:27

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.98	35525.723	5301.774	310.2

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	318832.688	3198.287	4091.3

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	234074.156	23468.338	1090.2
2	20 Total PFOA	413 > 368.7	4.18	32274.807	23468.338	149.5

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.67	543985.375	1963.724	52958.3

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

Last Altered: Thursday, March 02, 2017 12:08:00 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:08:12 Pacific Standard Time

Method: Untitled 02 Mar 2017 11:26:53

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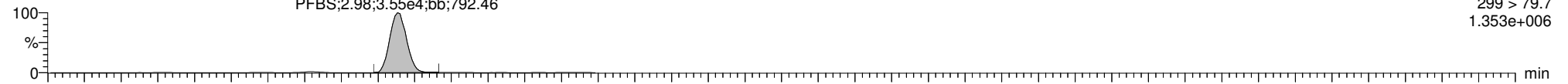
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**Total PFBS**

170301G1\_40

PFBS;2.98;3.55e4;bb;792.46

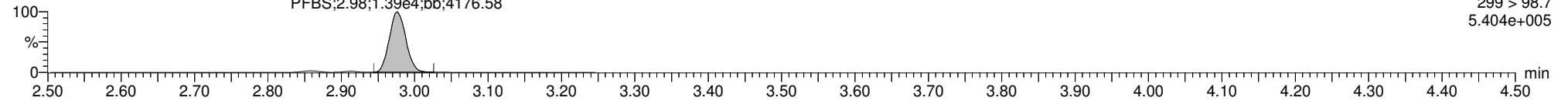
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299 > 79.7  
1.353e+006



170301G1\_40

PFBS;2.98;1.39e4;bb;4176.58

F2:MRM of 3 channels,ES-  
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5.404e+005

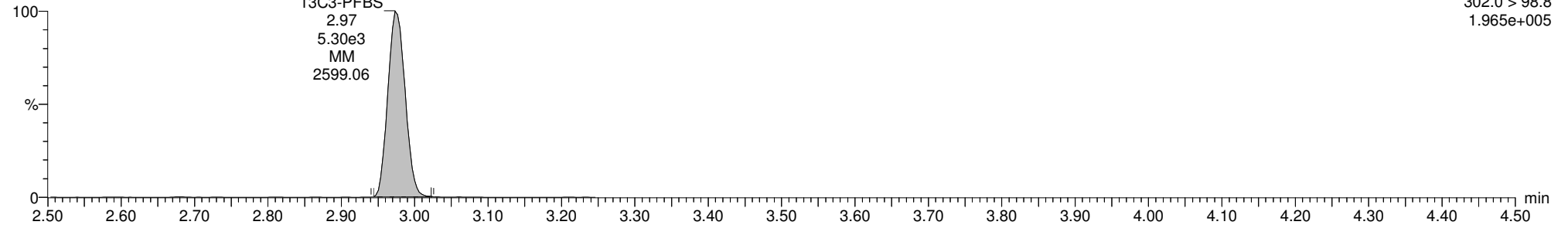


**13C3-PFBS**

170301G1\_40

13C3-PFBS  
2.97  
5.30e3  
MM  
2599.06

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
1.965e+005

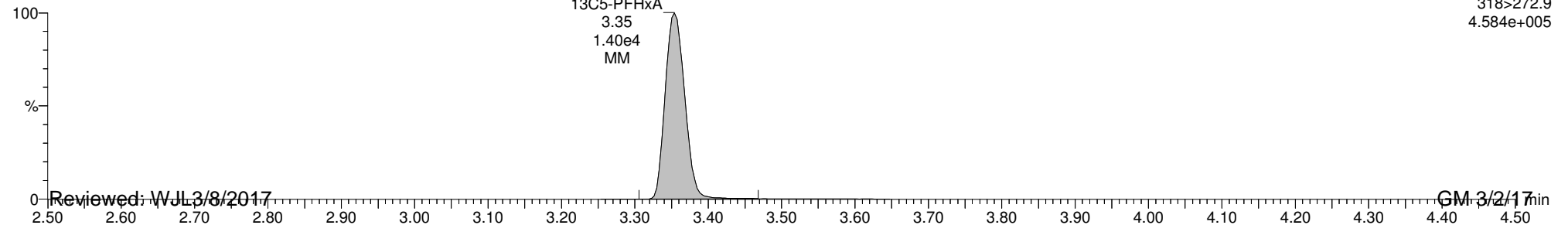


**13C5-PFHxA**

170301G1\_40

13C5-PFHxA  
3.35  
1.40e4  
MM

F3:MRM of 1 channel,ES-  
318>272.9  
4.584e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

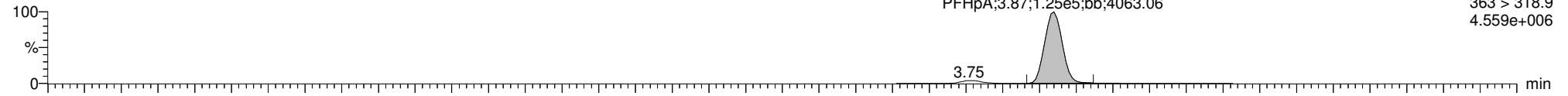
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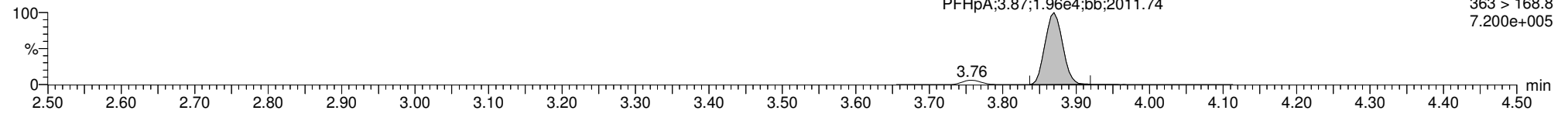
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**PFHpA**

170301G1\_40

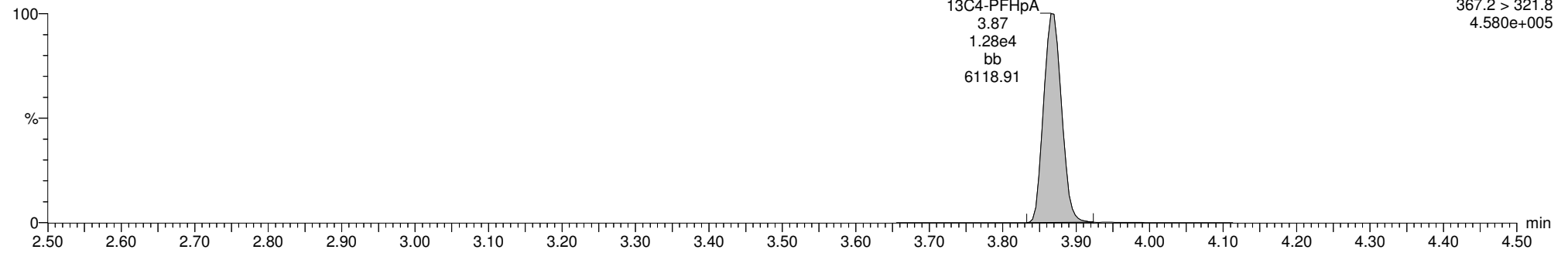


170301G1\_40



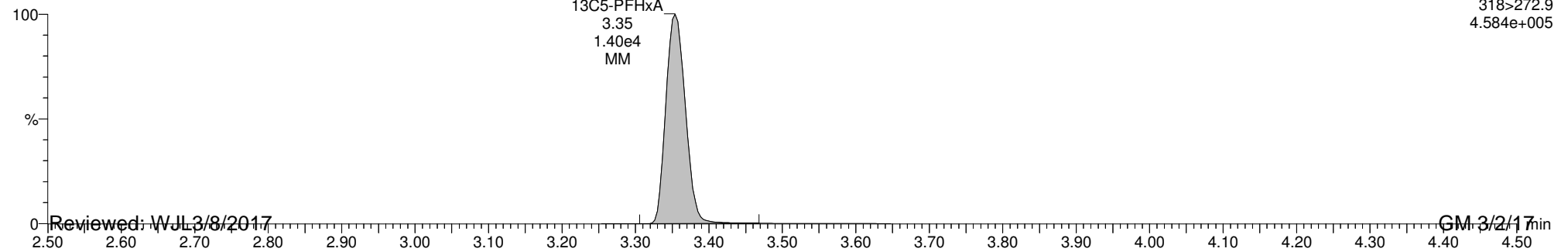
**13C4-PFHpA**

170301G1\_40



**13C5-PFHxA**

170301G1\_40



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

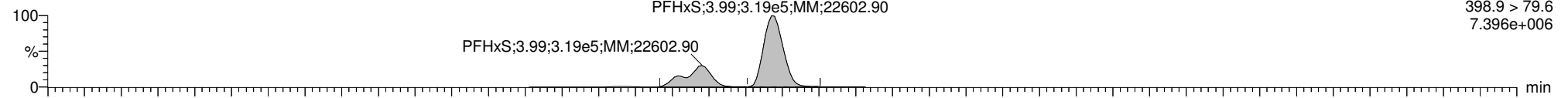
Last Altered: Thursday, March 02, 2017 12:08:00 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:08:12 Pacific Standard Time

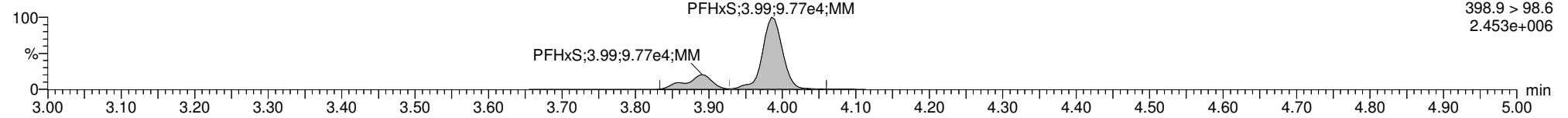
ID: 1700263-04 OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170301G1\_40, Date: 01-Mar-2017, Time: 23:06:27, Instrument: , Lab: , User:

**Total PFHxS**

170301G1\_40

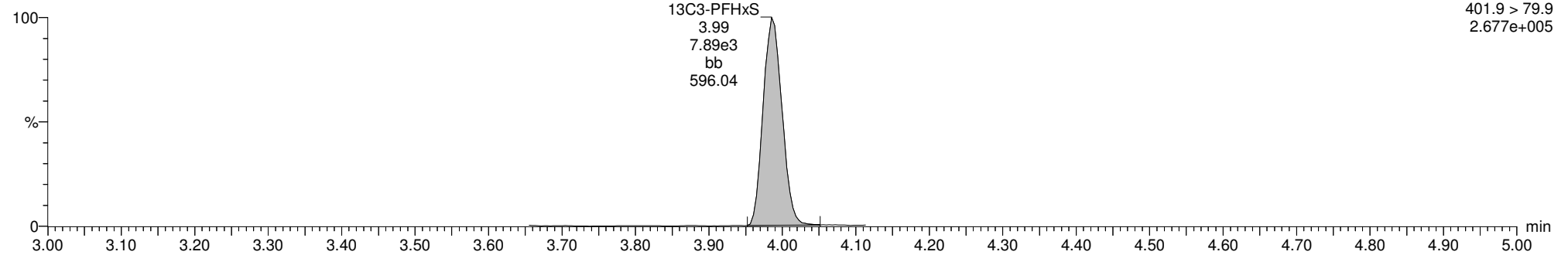


170301G1\_40



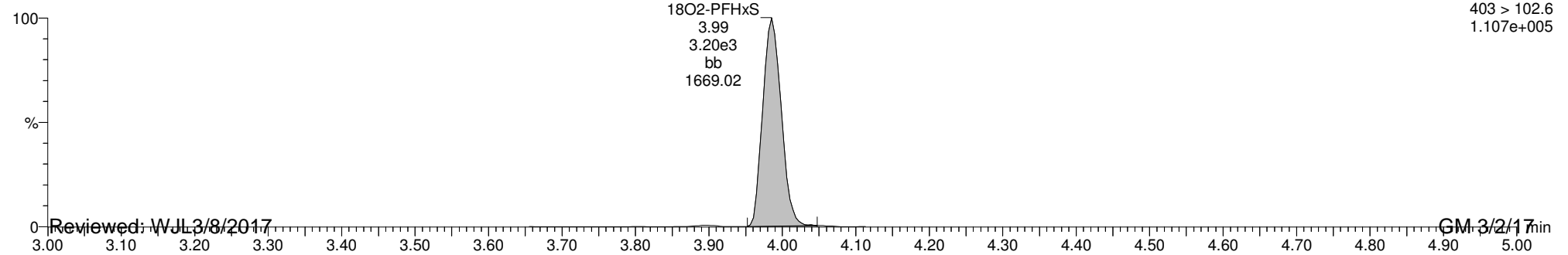
**13C3-PFHxS**

170301G1\_40



**18O2-PFHxS**

170301G1\_40



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

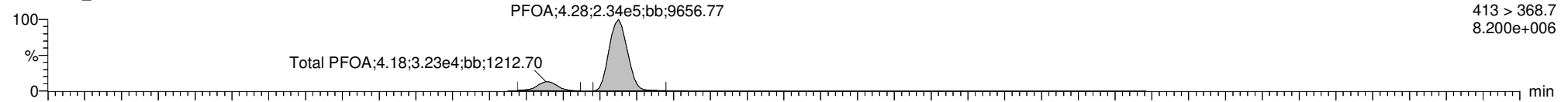
Last Altered: Thursday, March 02, 2017 12:08:00 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:08:12 Pacific Standard Time

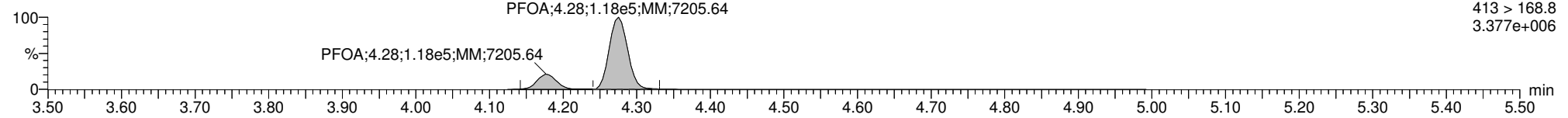
ID: 1700263-04 OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170301G1\_40, Date: 01-Mar-2017, Time: 23:06:27, Instrument: , Lab: , User:

**Total PFOA**

170301G1\_40

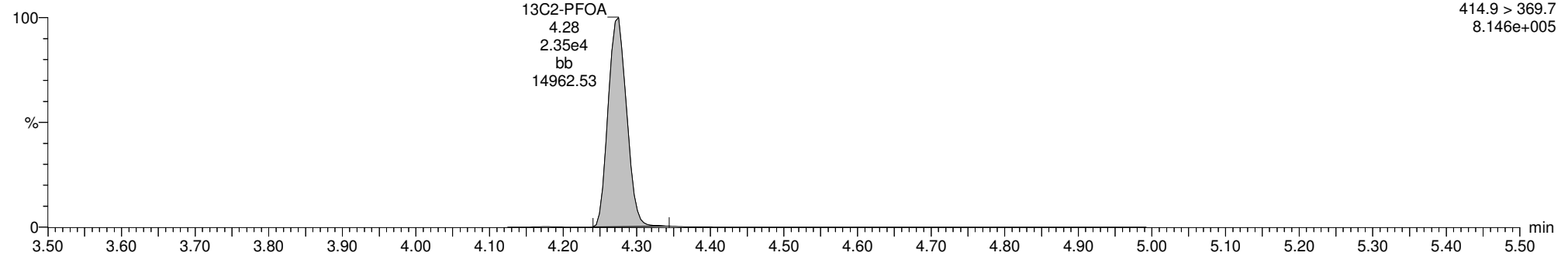


170301G1\_40



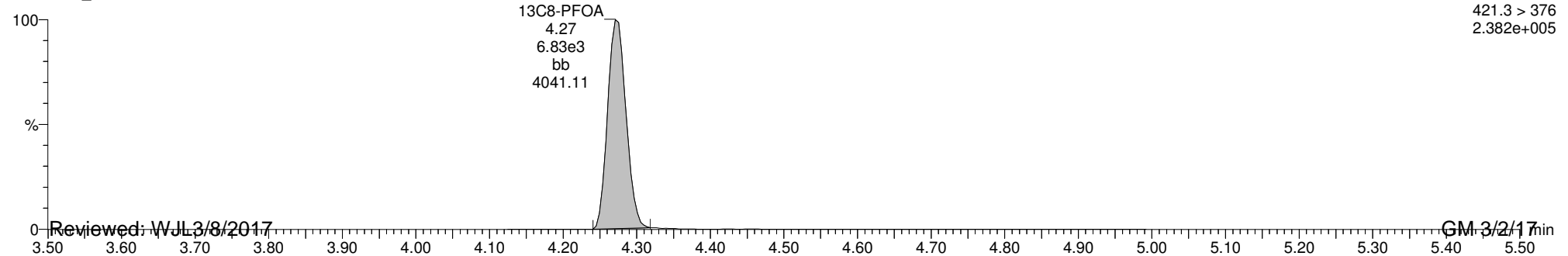
**13C2-PFOA**

170301G1\_40



**13C8-PFOA**

170301G1\_40



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

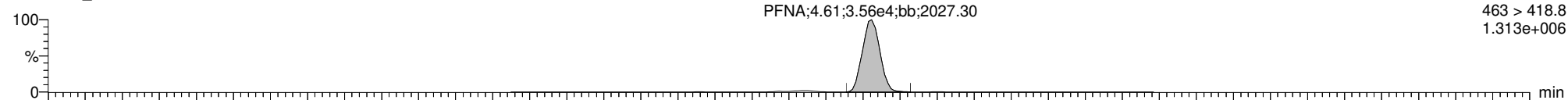
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Printed: Thursday, March 02, 2017 12:08:12 Pacific Standard Time

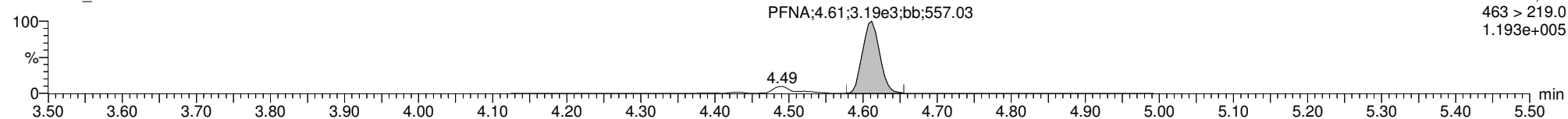
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**PFNA**

170301G1\_40

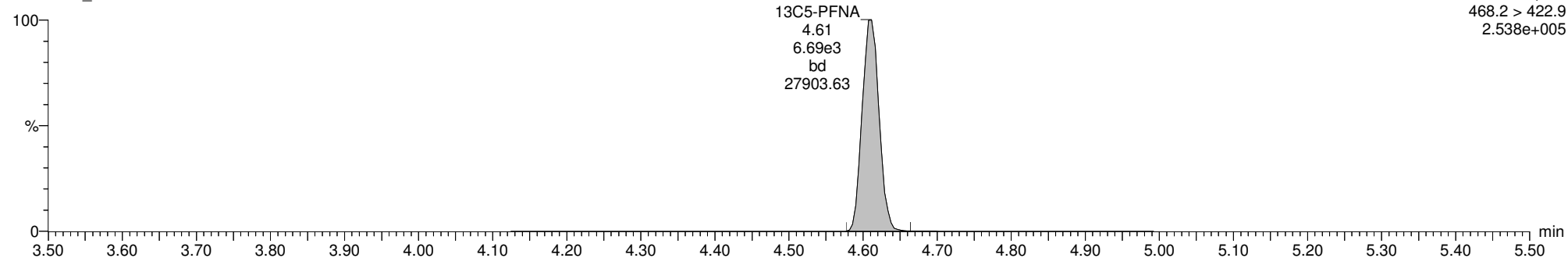


170301G1\_40



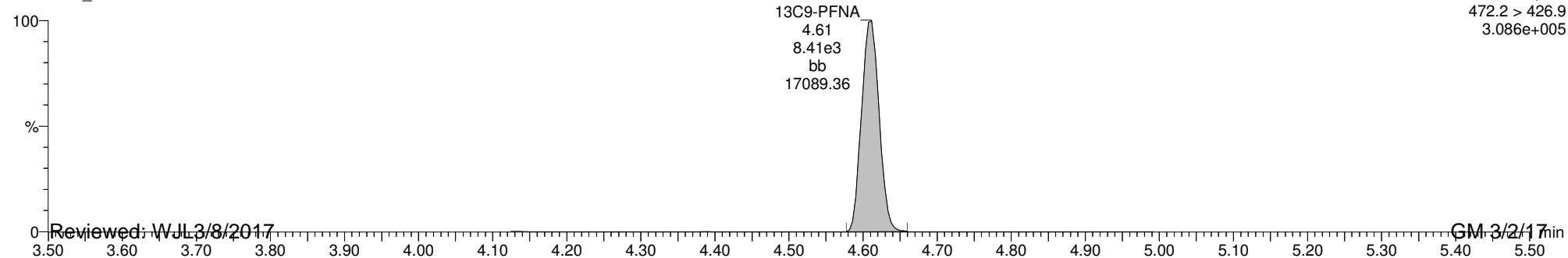
**13C5-PFNA**

170301G1\_40



**13C9-PFNA**

170301G1\_40



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-40.qld

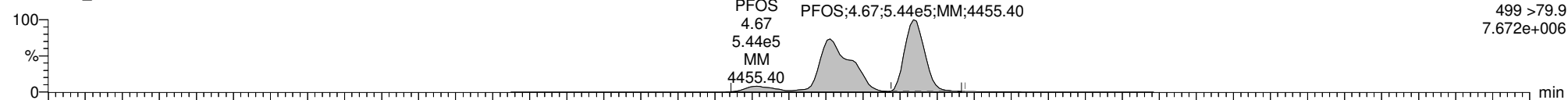
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Printed: Thursday, March 02, 2017 12:08:12 Pacific Standard Time

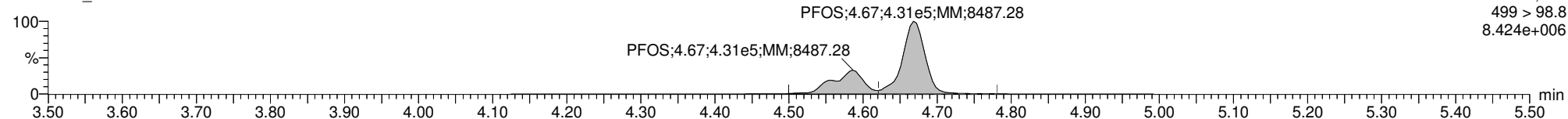
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### Total PFOS

170301G1\_40

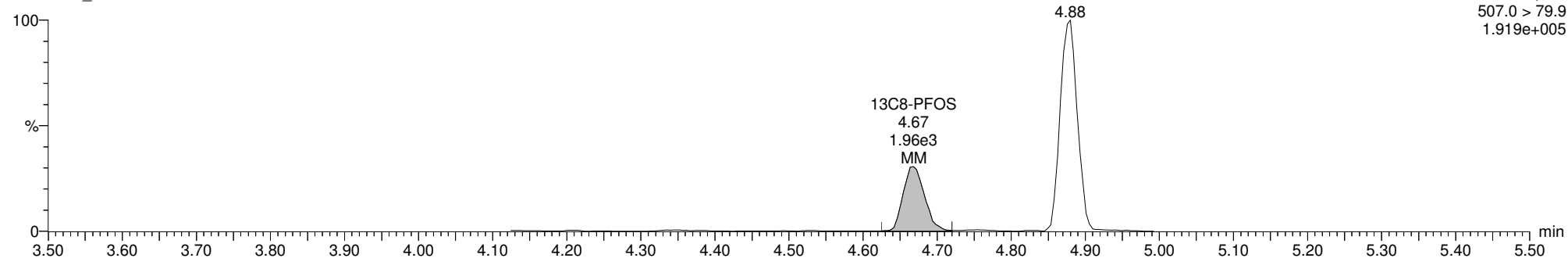


170301G1\_40



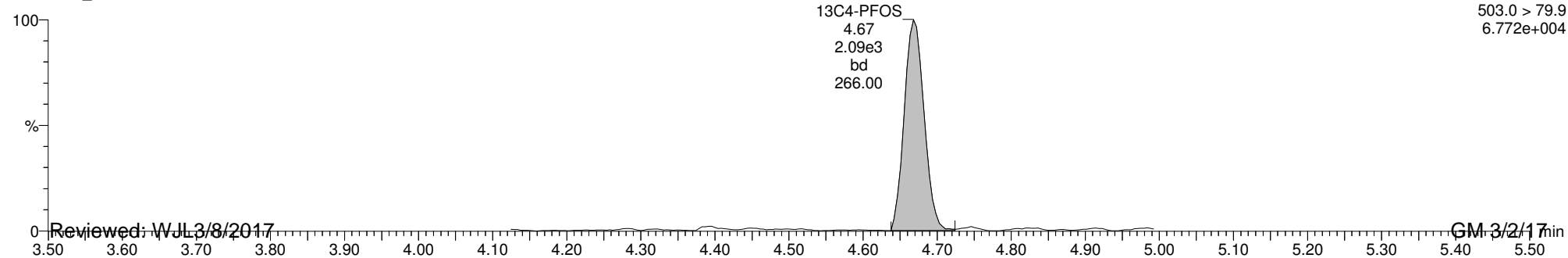
### 13C8-PFOS

170301G1\_40



### 13C4-PFOS

170301G1\_40



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-4.qld

Last Altered: Friday, March 03, 2017 09:34:59 Pacific Standard Time

Printed: Friday, March 03, 2017 09:37:20 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-04@10X OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170302G1\_4, Date: 02-Mar-2017, Time: 16:23:19

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	3 PFHxS	398.9 > 79.6	4.552e4	5.406e2		0.125	4.01	3580	
2	4 PFOA	413 > 368.7	2.458e4	2.750e3		0.125	4.29	977	
3	9 18O2-PFHxS	403 > 102.6	5.406e2	1.340e3	0.420	0.125	4.01	95.8	96.0
4	10 13C2-PFOA	414.9 > 369.7	2.750e3	9.326e2	2.782	0.125	4.29	106	106
5	13 13C5-PFHxA	318>272.9	2.316e3	2.316e3	1.000	0.125	3.39	99.7	100
6	15 13C8-PFOA	421.3 > 376	9.326e2	9.326e2	1.000	0.125	4.29	99.7	100
7	19 Total PFHxS	398.9 > 79.6		5.406e2		0.125		3580	
8	20 Total PFOA	413 > 368.7		2.750e3		0.125		1100	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-4.qld

Last Altered: Friday, March 03, 2017 09:34:59 Pacific Standard Time

Printed: Friday, March 03, 2017 09:37:20 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-04@10X OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170302G1\_4, Date: 02-Mar-2017, Time: 16:23:19

**Total PFBS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	18 Total PFBS	299 > 79.7	3.09	5.843	540.567	0.5
2	1 PFBS	299 > 79.7	3.01	3910.078	530.486	341.2
3	18 Total PFBS	299 > 79.7	2.89	82.001	540.567	7.1

**Total PFHxS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	4.01	45523.523	540.567	3582.8

**Total PFOA**

	# Name	Trace	RT	Area	IS Area	Conc.
1	20 Total PFOA	413 > 368.7	4.64	145.922	2750.103	4.9
2	4 PFOA	413 > 368.7	4.29	24580.092	2750.103	976.9
3	20 Total PFOA	413 > 368.7	4.19	3114.715	2750.103	123.0

**Total PFOS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.68	71914.078	278.061	49442.6
2	21 Total PFOS	499 > 79.9	4.60	8195.340	278.061	5634.6

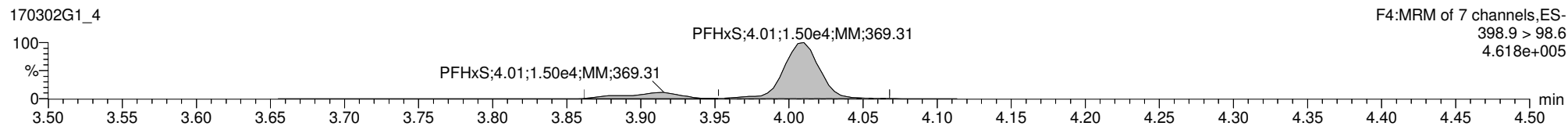
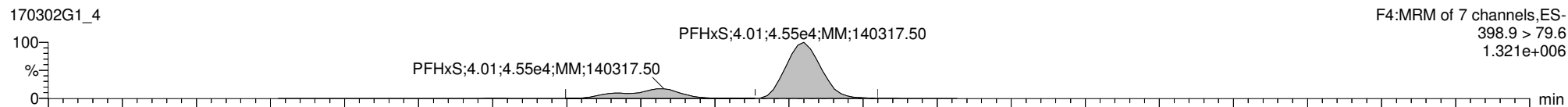
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Last Altered: Friday, March 03, 2017 09:34:59 Pacific Standard Time

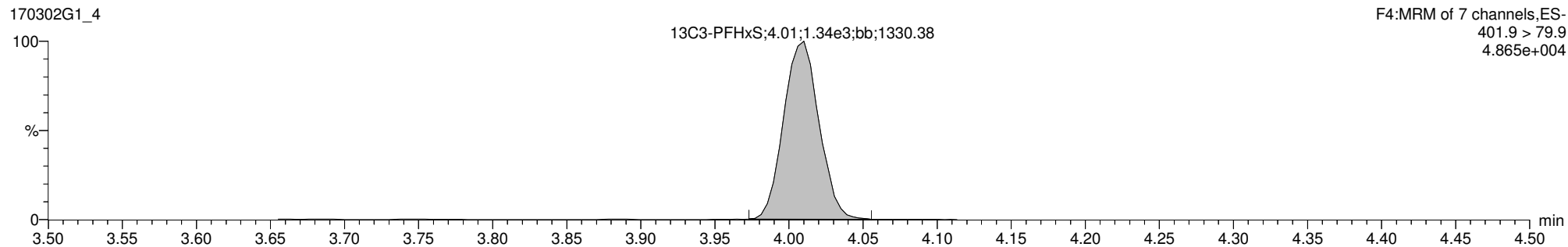
Printed: Friday, March 03, 2017 09:37:20 Pacific Standard Time

ID: 1700263-04@10X OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170302G1\_4, Date: 02-Mar-2017, Time: 16:23:19, Instrument: , Lab: , User:

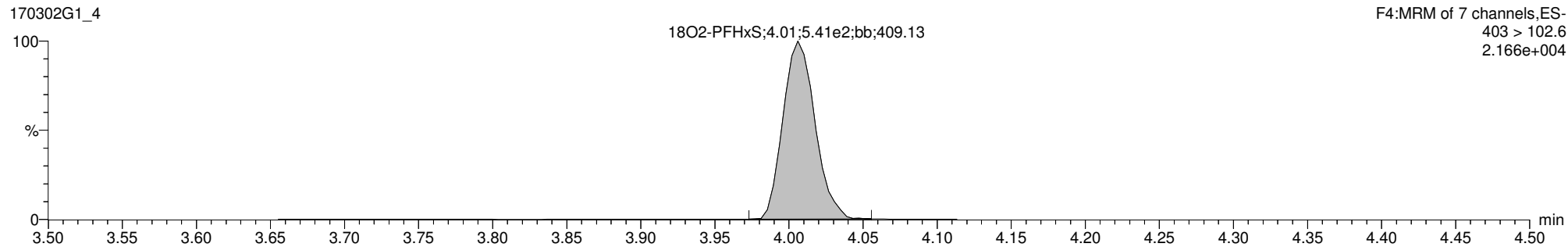
**Total PFHxS**



**13C3-PFHxS**



**18O2-PFHxS**



Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-4.qld

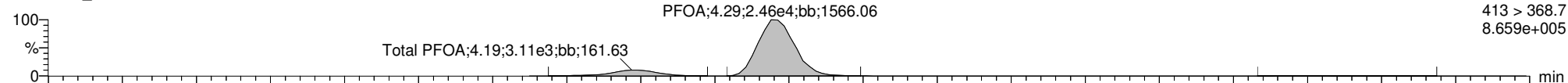
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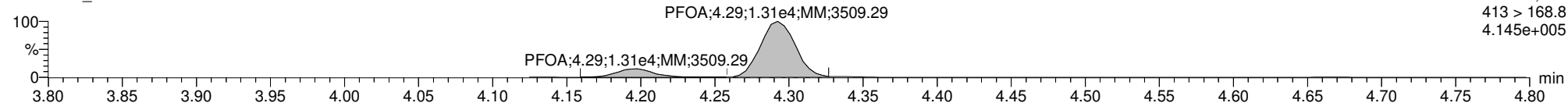
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### Total PFOA

170302G1\_4

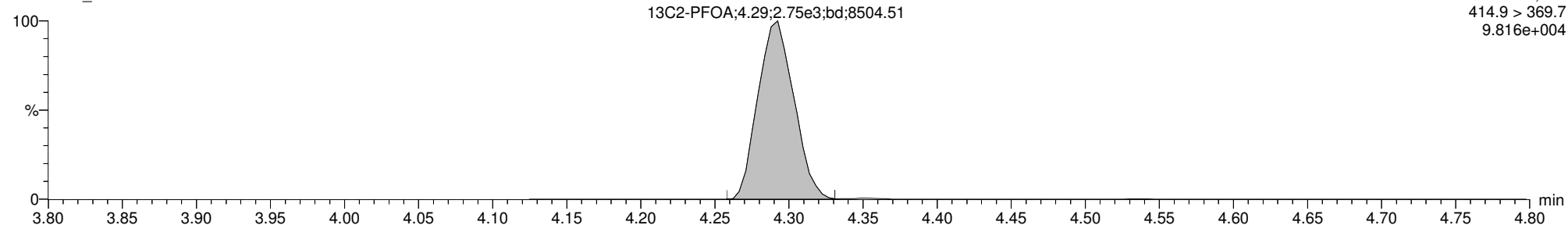


170302G1\_4



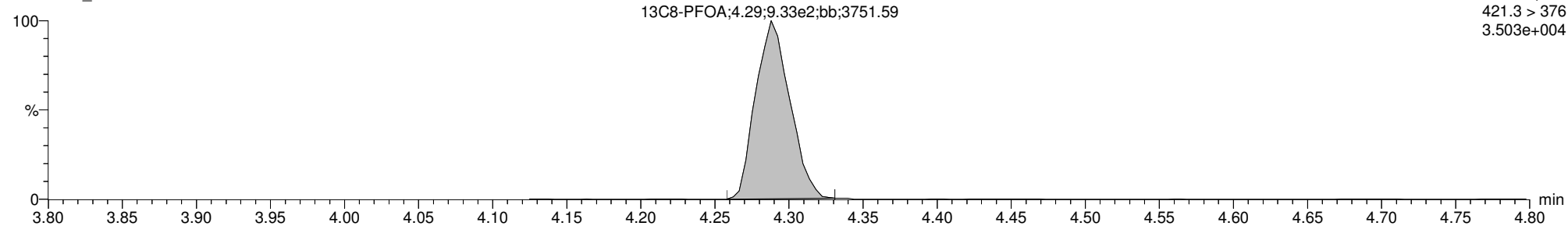
### 13C2-PFOA

170302G1\_4



### 13C8-PFOA

170302G1\_4



Dataset: U:\G1.PRO\Results\2017\New folder\170307G1-4.qld

Last Altered: Tuesday, March 07, 2017 10:51:53 Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:52:40 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

ID: 1700263-04RE1@10X OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170307G1\_4, Date: 07-Mar-2017, Time: 09:39:38

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	9.331e3	5.726e2		0.0100	4.67	44500	
2	12 13C8-PFOS	507.0 > 79.9	5.726e2	3.806e2	0.958	0.0100	4.67	1960	157
3	17 13C4-PFOS	503.0 > 79.9	3.806e2	3.806e2	1.000	0.0100	4.67	1250	100
4	21 Total PFOS	499 > 79.9		5.726e2		0.0100		44500	

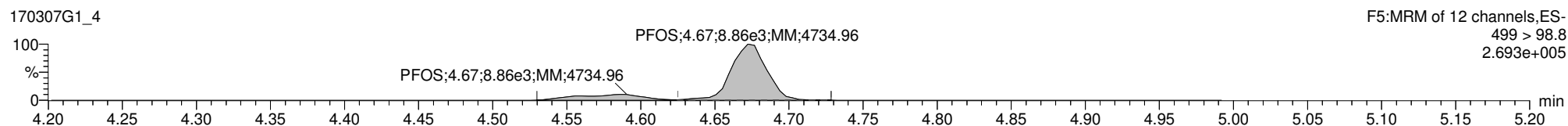
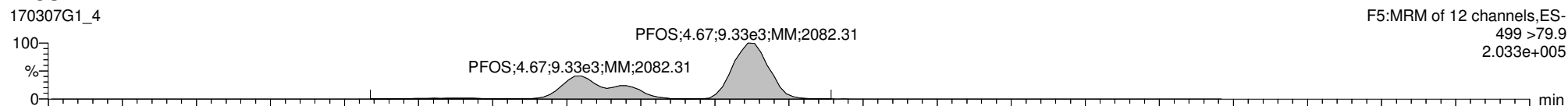
Dataset: U:\G1.PRO\Results\2017\New folder\170307G1-4.qld

Last Altered: Tuesday, March 07, 2017 10:51:53 Pacific Standard Time

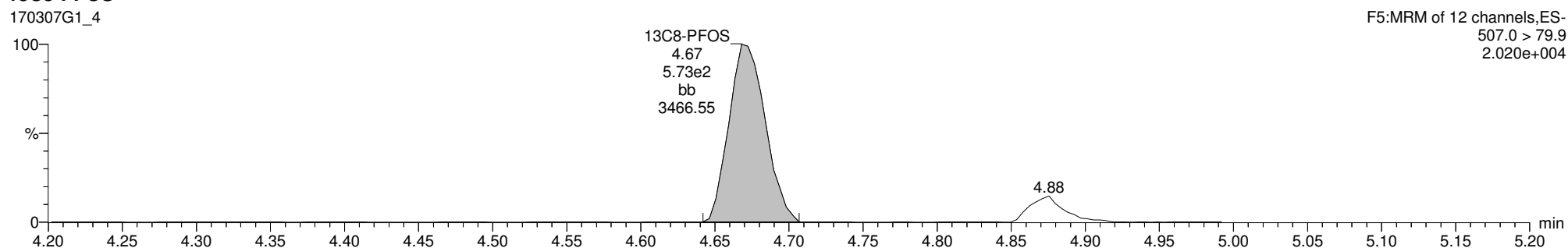
Printed: Tuesday, March 07, 2017 10:52:40 Pacific Standard Time

ID: 1700263-04RE1@10X OW2C-MW25-0217 0.12534, Description: OW2C-MW25-0217, Name: 170307G1\_4, Date: 07-Mar-2017, Time: 09:39:38, Instrument: , Lab: , User:

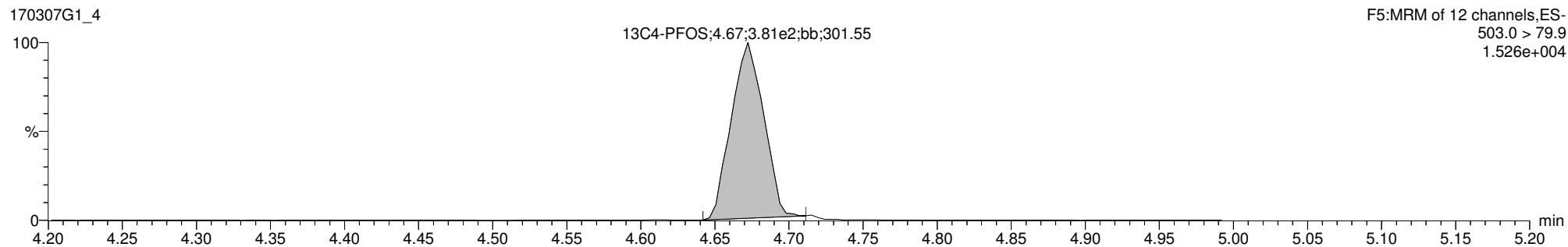
### PFOS



### 13C8-PFOS



### 13C4-PFOS



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

Last Altered: Thursday, March 02, 2017 12:12:02 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:12:36 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-05 OW2C-MW19-0217 0.12438, Description: OW2C-MW19-0217, Name: 170301G1\_41, Date: 01-Mar-2017, Time: 23:19:00

#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.282e4	6.108e3		0.124	2.98	97.9	
2	2 PFHpA	363 > 318.9	1.658e4	1.713e4		0.124	3.87	52.8	
3	3 PFHxS	398.9 > 79.6	5.082e4	5.728e3		0.124	3.99	489	
4	4 PFOA	413 > 368.7	5.787e4	2.818e4		0.124	4.28	225	
5	5 PFNA	463 > 418.8	4.795e3	7.530e3		0.124	4.61	29.2	
6	6 PFOS	499 > 79.9	4.647e4	6.586e3		0.124	4.67	1360	E*
7	7 13C3-PFBS	302.0 > 98.8	6.108e3	1.350e4	0.442	0.124	2.98	103	102
8	8 13C4-PFHpA	367.2 > 321.8	1.713e4	1.350e4	1.117	0.124	3.87	114	114
9	9 18O2-PFHxS	403 > 102.6	5.728e3	1.350e4	0.420	0.124	3.99	101	101
10	10 13C2-PFOA	414.9 > 369.7	2.818e4	8.578e3	2.782	0.124	4.28	119	118
11	11 13C5-PFNA	468.2 > 422.9	7.530e3	1.084e4	0.846	0.124	4.61	82.5	82.1
12	12 13C8-PFOS	507.0 > 79.9	6.586e3	6.993e3	0.941	0.124	4.67	101	100
13	13 13C5-PFHxA	318 > 272.9	2.568e4	2.568e4	1.000	0.124	3.36	100	100
14	14 13C3-PFHxS	401.9 > 79.9	1.350e4	1.350e4	1.000	0.124	3.99	100	100
15	15 13C8-PFOA	421.3 > 376	8.578e3	8.578e3	1.000	0.124	4.27	100	100
16	16 13C9-PFNA	472.2 > 426.9	1.084e4	1.084e4	1.000	0.124	4.61	100	100
17	17 13C4-PFOS	503.0 > 79.9	6.993e3	6.993e3	1.000	0.124	4.67	100	100
18	18 Total PFBS	299 > 79.7		5.728e3		0.124		97.9	
19	19 Total PFHxS	398.9 > 79.6		5.728e3		0.124		489	
20	20 Total PFOA	413 > 368.7		2.818e4		0.124		268	
21	21 Total PFOS	499 > 79.9		6.586e3		0.124		1360	

\*see dil



Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

Last Altered: Thursday, March 02, 2017 12:12:02 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:12:36 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-05 OW2C-MW19-0217 0.12438, Description: OW2C-MW19-0217, Name: 170301G1\_41, Date: 01-Mar-2017, Time: 23:19:00

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.98	12822.160	6107.705	97.9

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	50824.414	5728.440	489.1

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	57872.949	28184.371	225.4
2	20 Total PFOA	413 > 368.7	4.18	11137.950	28184.371	42.6

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.67	46468.387	6586.039	1359.3

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

Last Altered: Thursday, March 02, 2017 12:12:02 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:12:36 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

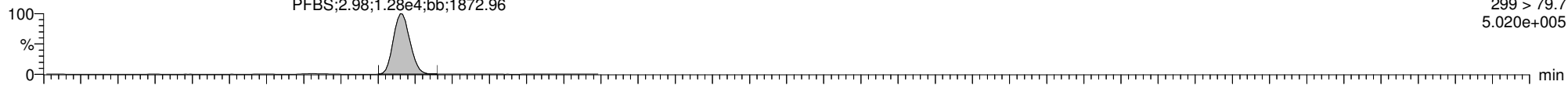
ID: 1700263-05 OW2C-MW19-0217 0.12438, Description: OW2C-MW19-0217, Name: 170301G1\_41, Date: 01-Mar-2017, Time: 23:19:00, Instrument: , Lab: , User:

**Total PFBS**

170301G1\_41

PFBS;2.98;1.28e4;bb;1872.96

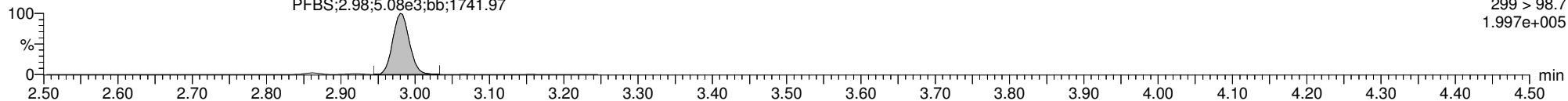
F2:MRM of 3 channels,ES-  
299 > 79.7  
5.020e+005



170301G1\_41

PFBS;2.98;5.08e3;bb;1741.97

F2:MRM of 3 channels,ES-  
299 > 98.7  
1.997e+005

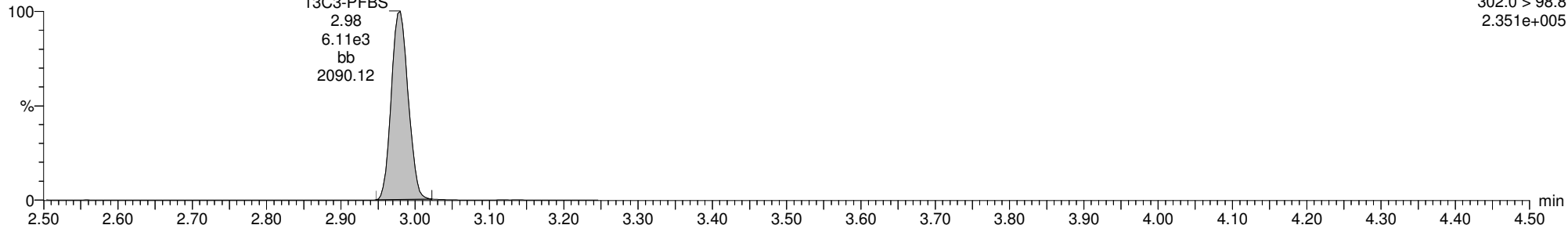


**13C3-PFBS**

170301G1\_41

13C3-PFBS  
2.98  
6.11e3  
bb  
2090.12

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.351e+005

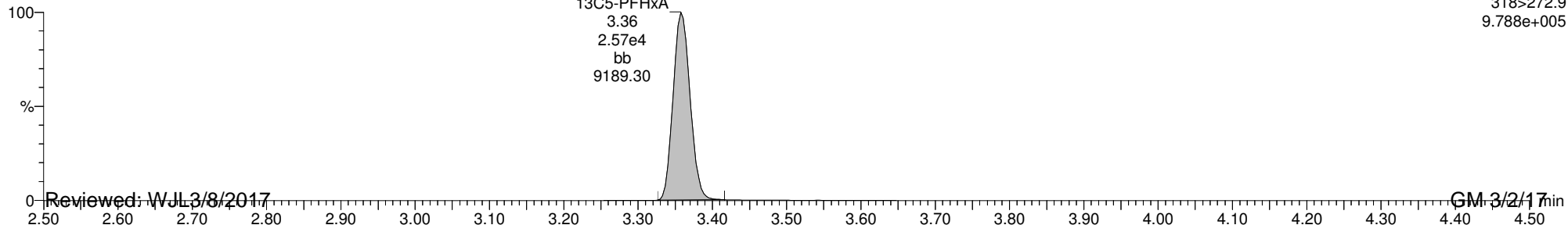


**13C5-PFHxA**

170301G1\_41

13C5-PFHxA  
3.36  
2.57e4  
bb  
9189.30

F3:MRM of 1 channel,ES-  
318>272.9  
9.788e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

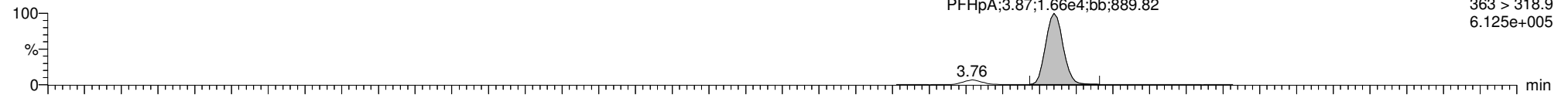
Last Altered: Thursday, March 02, 2017 12:12:02 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:12:36 Pacific Standard Time

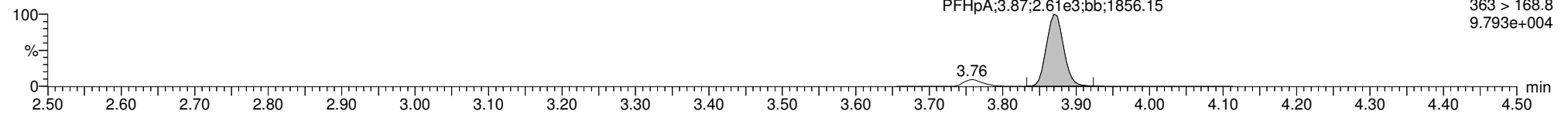
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**PFHpA**

170301G1\_41

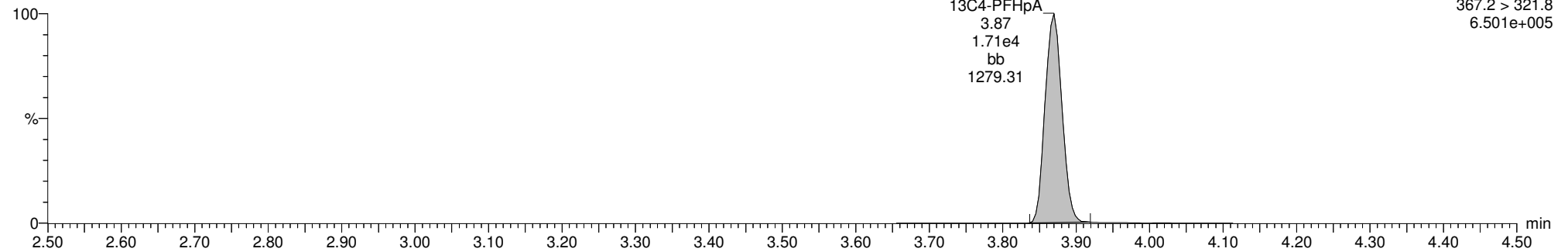


170301G1\_41



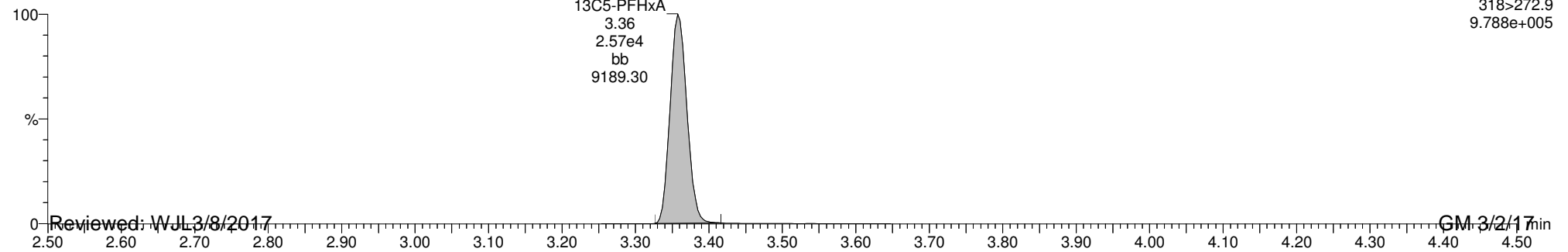
**13C4-PFHpA**

170301G1\_41



**13C5-PFHxA**

170301G1\_41



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

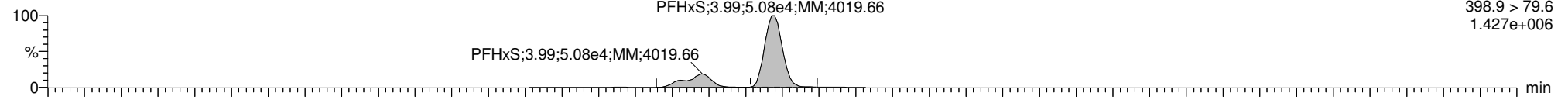
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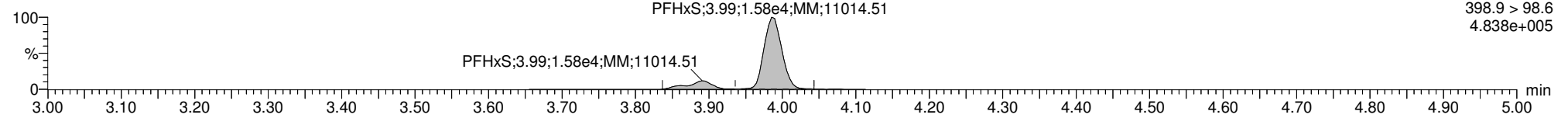
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**Total PFHxS**

170301G1\_41

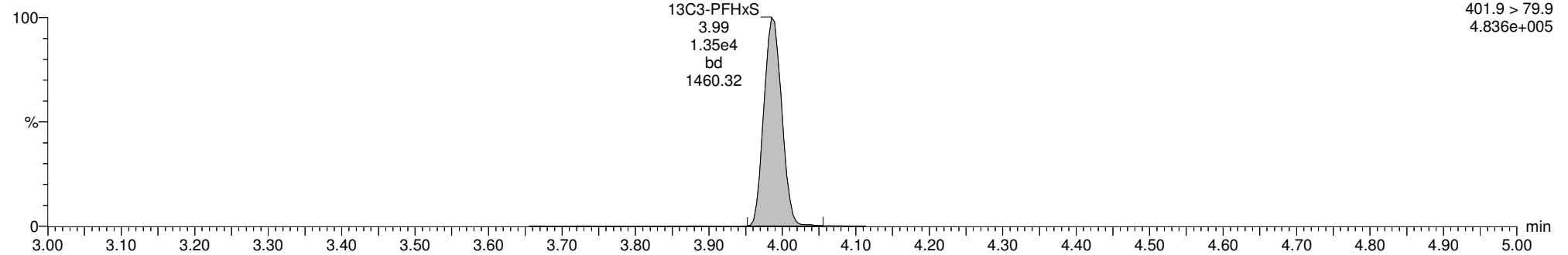


170301G1\_41



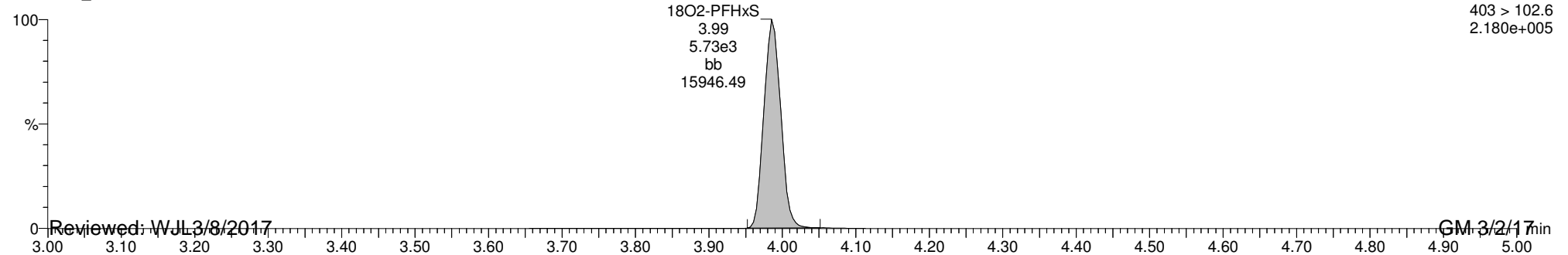
**13C3-PFHxS**

170301G1\_41



**18O2-PFHxS**

170301G1\_41



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

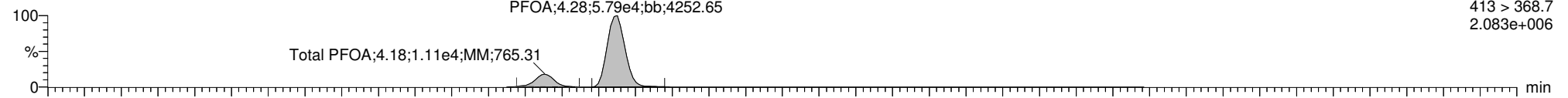
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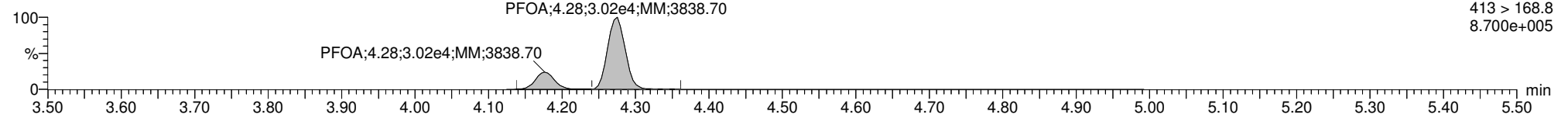
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**Total PFOA**

170301G1\_41

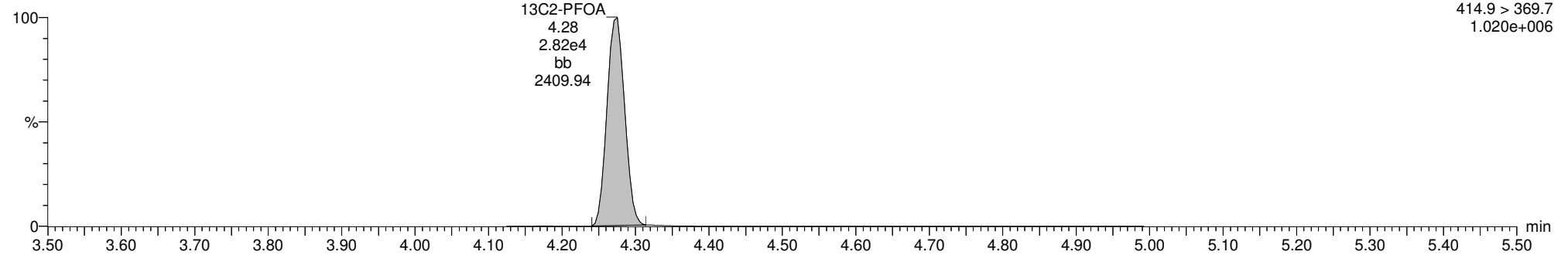


170301G1\_41



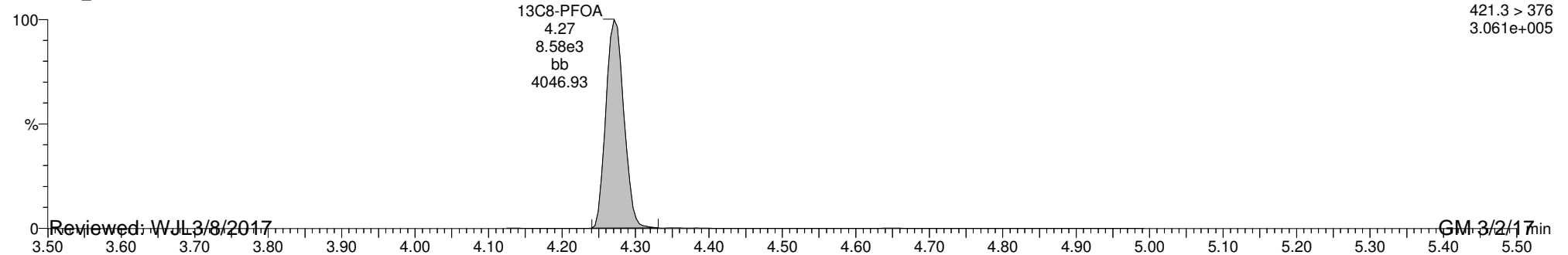
**13C2-PFOA**

170301G1\_41



**13C8-PFOA**

170301G1\_41



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

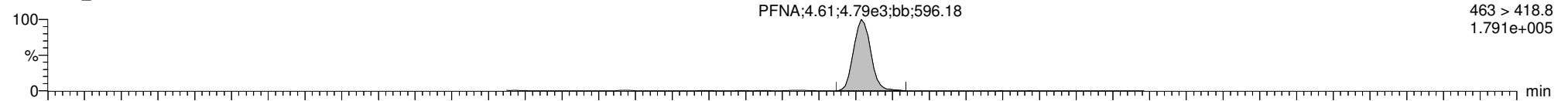
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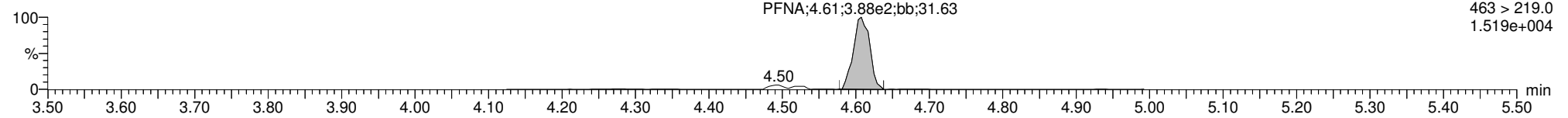
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**PFNA**

170301G1\_41

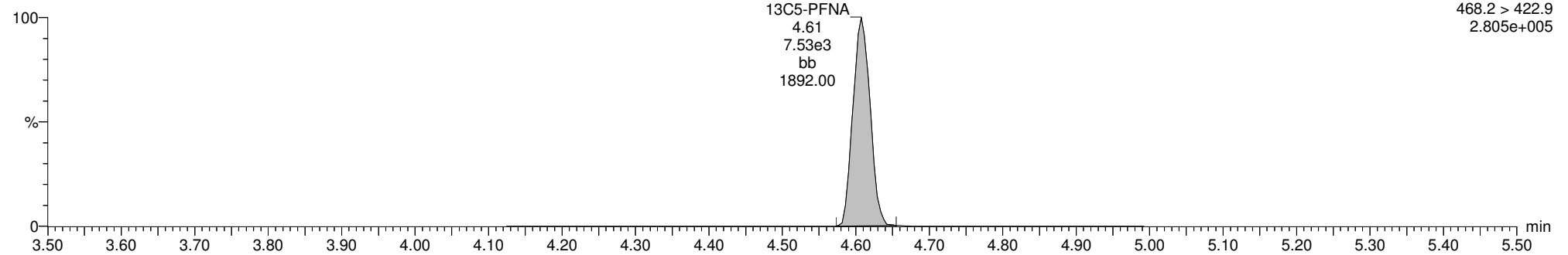


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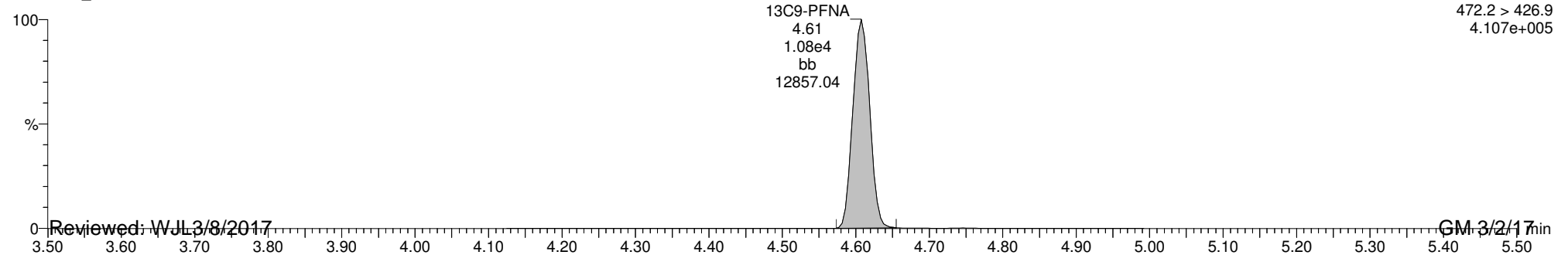
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170301G1\_41



**13C9-PFNA**

170301G1\_41



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-41.qld

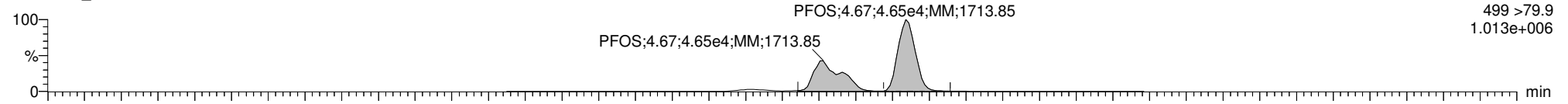
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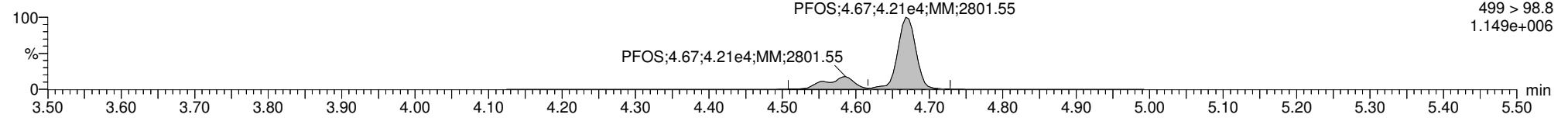
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**Total PFOS**

170301G1\_41

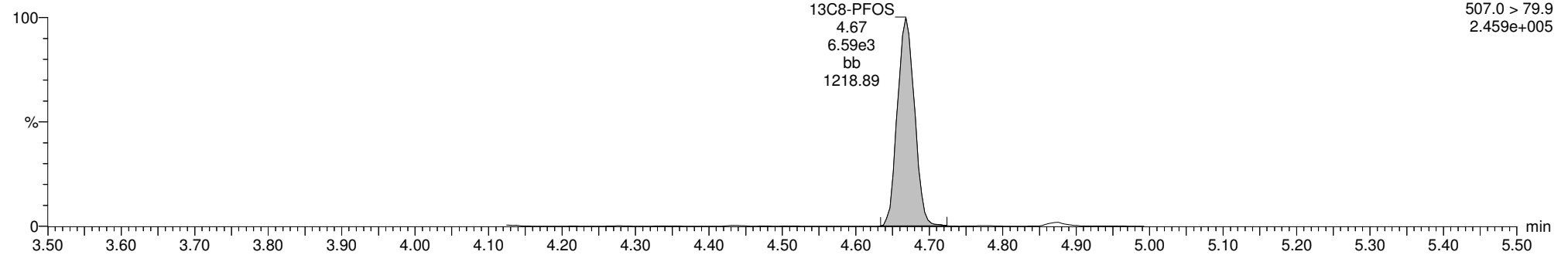


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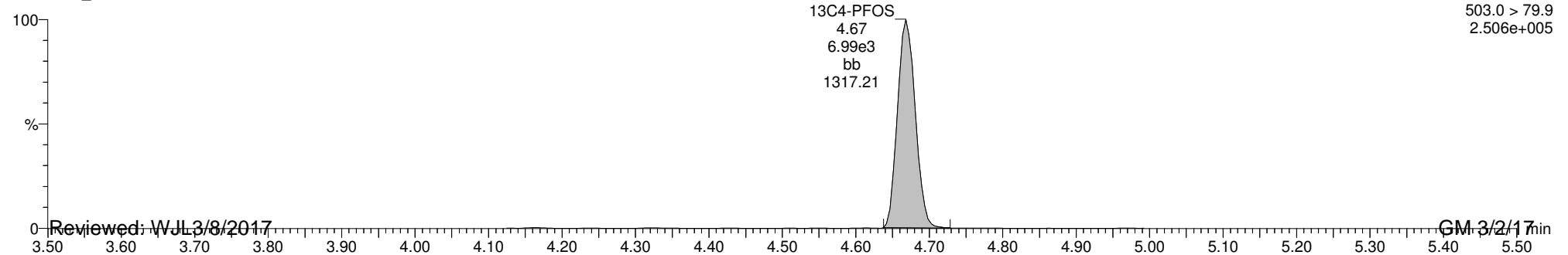
**13C8-PFOS**

170301G1\_41



**13C4-PFOS**

170301G1\_41



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\New folder\170303G1-6.qld

Last Altered: Friday, March 03, 2017 12:28:26 Pacific Standard Time

Printed: Friday, March 03, 2017 12:29:53 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-05@5X OW2C-MW19-0217 0.12438, Description: OW2C-MW19-0217, Name: 170303G1\_6, Date: 03-Mar-2017, Time: 10:54:51

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	3.306e3	4.764e2		0.124	4.69	1340	
2	12 13C8-PFOS	507.0 > 79.9	4.764e2	6.840e2	0.941	0.124	4.69	74.4	74.0
3	17 13C4-PFOS	503.0 > 79.9	6.840e2	6.840e2	1.000	0.124	4.69	100	100
4	21 Total PFOS	499 > 79.9		4.764e2		0.124		1340	



Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\New folder\170303G1-6.qld

Last Altered: Friday, March 03, 2017 12:28:26 Pacific Standard Time

Printed: Friday, March 03, 2017 12:29:53 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-05@5X OW2C-MW19-0217 0.12438, Description: OW2C-MW19-0217, Name: 170303G1\_6, Date: 03-Mar-2017, Time: 10:54:51

**Total PFBS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	18 Total PFBS	299 > 79.7	3.14	9.525	865.485	0.5
2	18 Total PFBS	299 > 79.7	3.08	12.930	865.485	0.7
3	1 PFBS	299 > 79.7	3.02	2191.123	974.157	104.9
4	18 Total PFBS	299 > 79.7	2.94	5.673	865.485	0.3
5	18 Total PFBS	299 > 79.7	2.90	31.354	865.485	1.7

**Total PFHxS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	4.02	5780.018	865.485	372.0
2	19 Total PFHxS	398.9 > 79.6	3.92	1037.604	865.485	68.2
3	19 Total PFHxS	398.9 > 79.6	3.89	292.088	865.485	18.8

**Total PFOA**

	# Name	Trace	RT	Area	IS Area	Conc.
1	20 Total PFOA	413 > 368.7	4.69	7.530	4159.429	
2	20 Total PFOA	413 > 368.7	4.66	22.155	4159.429	
3	4 PFOA	413 > 368.7	4.30	7068.583	4159.429	186.4
4	20 Total PFOA	413 > 368.7	4.20	1225.761	4159.429	31.6

**Total PFOS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.69	3306.145	476.395	1337.1

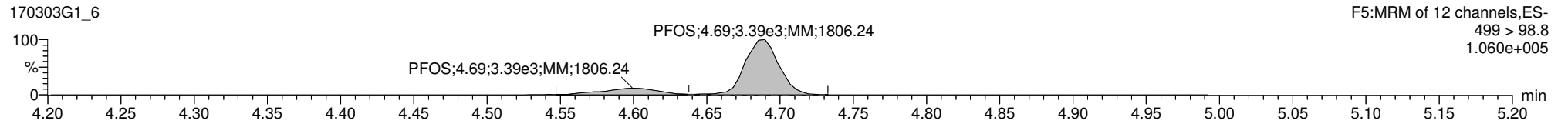
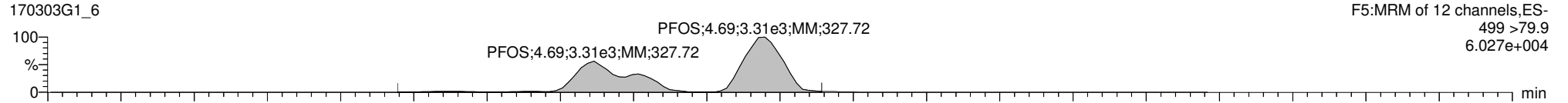
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Last Altered: Friday, March 03, 2017 12:28:26 Pacific Standard Time

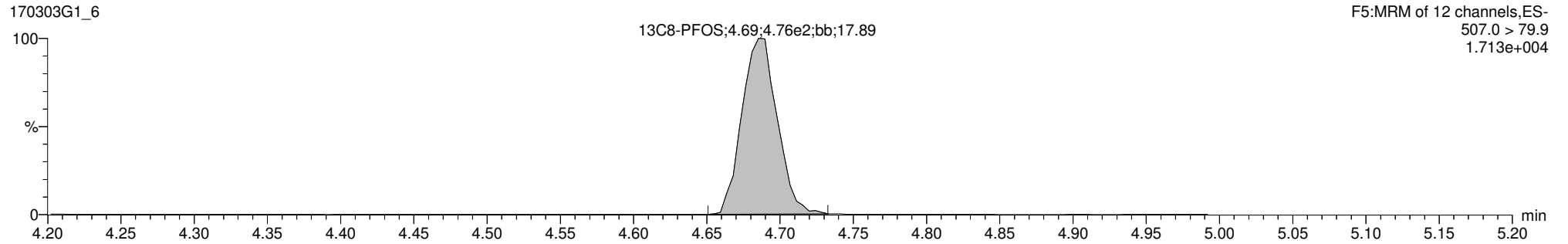
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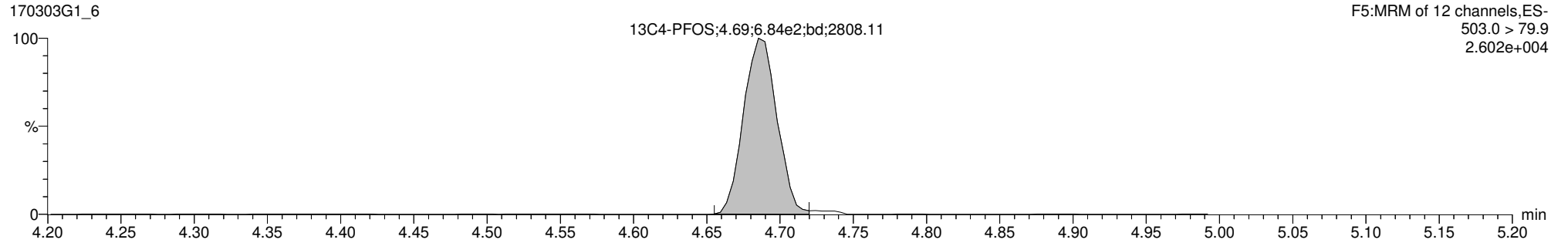
**Total PFOS**



**13C8-PFOS**



**13C4-PFOS**



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

Last Altered: Thursday, March 02, 2017 12:15:33 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:17:36 Pacific Standard Time

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Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-MS1 Matrix Spike 0.12756, Description: Matrix Spike, Name: 170301G1\_42, Date: 01-Mar-2017, Time: 23:31:30

#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.123e4	5.293e3		0.128	2.98	182	
2	2 PFHpA	363 > 318.9	3.731e4	1.510e4		0.128	3.87	132	
3	3 PFHxS	398.9 > 79.6	5.464e4	5.302e3		0.128	3.99	550	
4	4 PFOA	413 > 368.7	7.497e4	2.618e4		0.128	4.28	307	
5	5 PFNA	463 > 418.8	1.976e4	7.704e3		0.128	4.61	117	
6	6 PFOS	499 > 79.9	4.816e4	5.604e3		0.128	4.67	1610	
7	7 13C3-PFBS	302.0 > 98.8	5.293e3	1.274e4	0.442	0.128	2.98	92.1	93.9
8	8 13C4-PFHpA	367.2 > 321.8	1.510e4	1.274e4	1.117	0.128	3.87	104	106
9	9 18O2-PFHxS	403 > 102.6	5.302e3	1.274e4	0.420	0.128	3.99	97.1	99.1
10	10 13C2-PFOA	414.9 > 369.7	2.618e4	7.808e3	2.782	0.128	4.28	118	121
11	11 13C5-PFNA	468.2 > 422.9	7.704e3	1.076e4	0.846	0.128	4.61	82.9	84.6
12	12 13C8-PFOS	507.0 > 79.9	5.604e3	6.376e3	0.941	0.128	4.67	91.5	93.4
13	13 13C5-PFHxA	318>272.9	2.312e4	2.312e4	1.000	0.128	3.36	98.0	100
14	14 13C3-PFHxS	401.9 > 79.9	1.274e4	1.274e4	1.000	0.128	3.99	98.0	100
15	15 13C8-PFOA	421.3 > 376	7.808e3	7.808e3	1.000	0.128	4.28	98.0	100
16	16 13C9-PFNA	472.2 > 426.9	1.076e4	1.076e4	1.000	0.128	4.61	98.0	100
17	17 13C4-PFOS	503.0 > 79.9	6.376e3	6.376e3	1.000	0.128	4.67	98.0	100
18	18 Total PFBS	299 > 79.7		5.302e3		0.128		182	
19	19 Total PFHxS	398.9 > 79.6		5.302e3		0.128		550	
20	20 Total PFOA	413 > 368.7		2.618e4		0.128		350	
21	21 Total PFOS	499 > 79.9		5.604e3		0.128		1610	

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Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

Last Altered: Thursday, March 02, 2017 12:15:33 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:17:36 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

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**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.98	21228.988	5293.131	182.4

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	54643.395	5301.625	550.3

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	74965.711	26178.010	306.9
2	20 Total PFOA	413 > 368.7	4.18	10829.080	26178.010	43.6

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.67	48159.445	5603.754	1614.5

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

Last Altered: Thursday, March 02, 2017 12:15:33 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:17:36 Pacific Standard Time

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Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

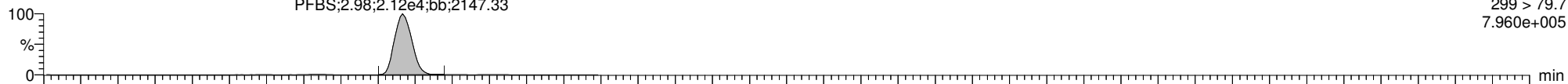
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**Total PFBS**

170301G1\_42

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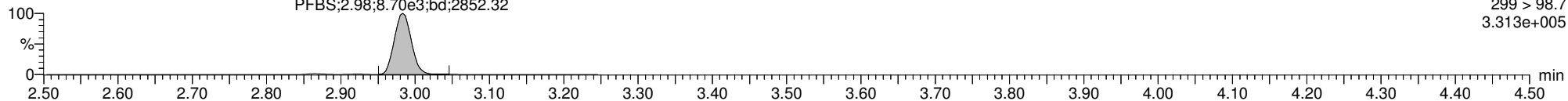
F2:MRM of 3 channels,ES-  
299 > 79.7  
7.960e+005



170301G1\_42

PFBS;2.98;8.70e3;bd;2852.32

F2:MRM of 3 channels,ES-  
299 > 98.7  
3.313e+005

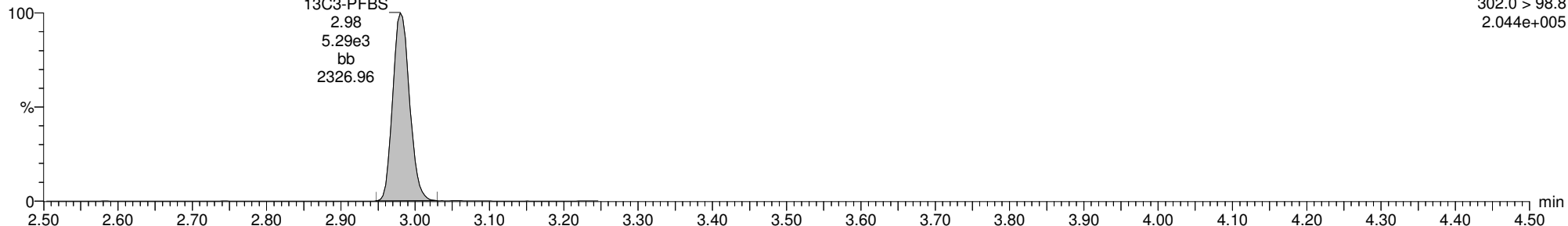


**13C3-PFBS**

170301G1\_42

13C3-PFBS  
2.98  
5.29e3  
bb  
2326.96

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.044e+005

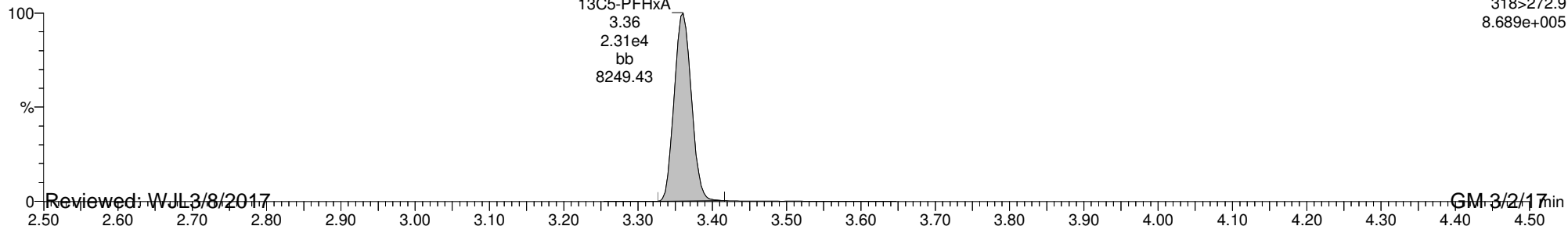


**13C5-PFHxA**

170301G1\_42

13C5-PFHxA  
3.36  
2.31e4  
bb  
8249.43

F3:MRM of 1 channel,ES-  
318>272.9  
8.689e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

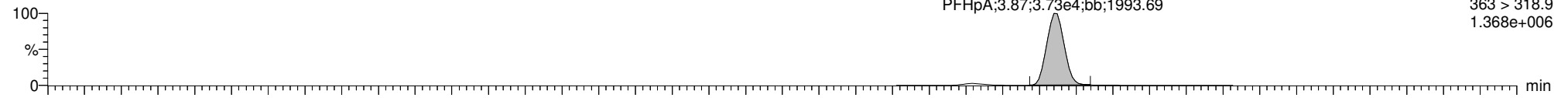
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Printed: Thursday, March 02, 2017 12:17:36 Pacific Standard Time

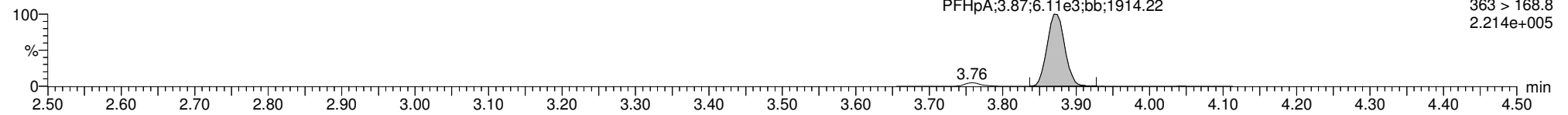
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**PFHpA**

170301G1\_42

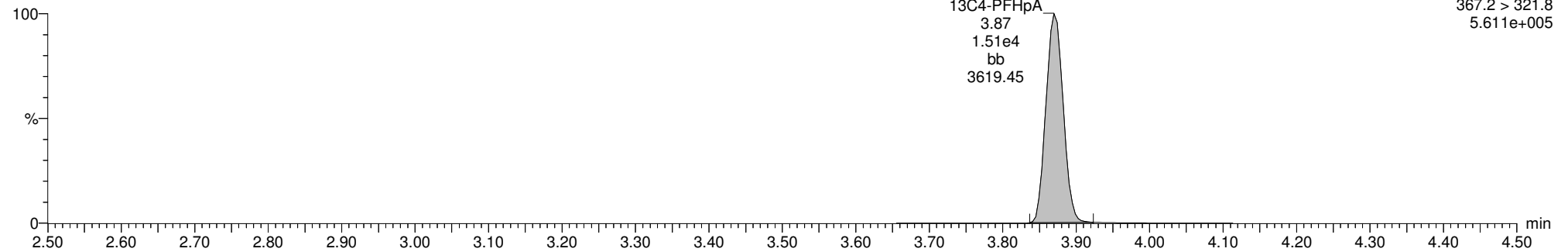


170301G1\_42



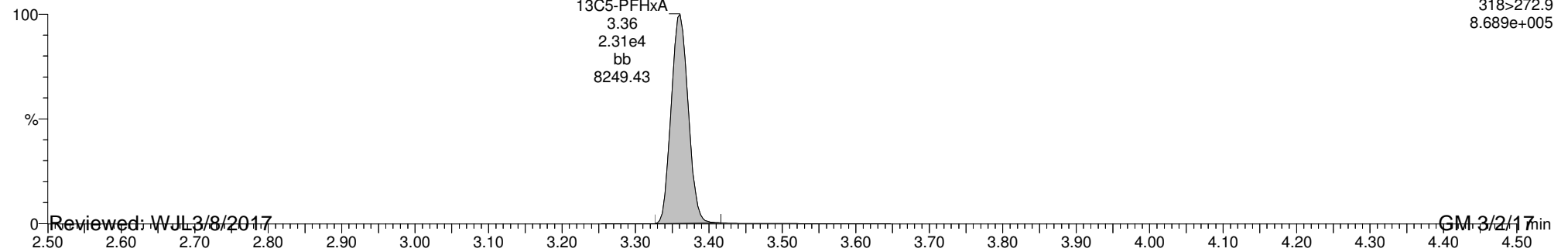
**13C4-PFHpA**

170301G1\_42



**13C5-PFHxA**

170301G1\_42



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

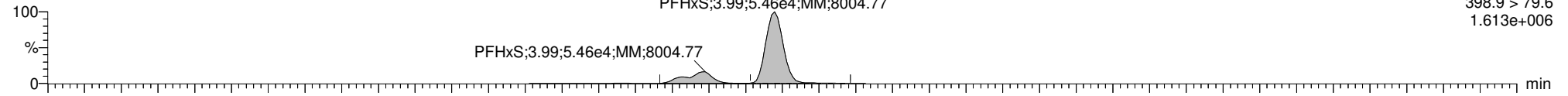
Last Altered: Thursday, March 02, 2017 12:15:33 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:17:36 Pacific Standard Time

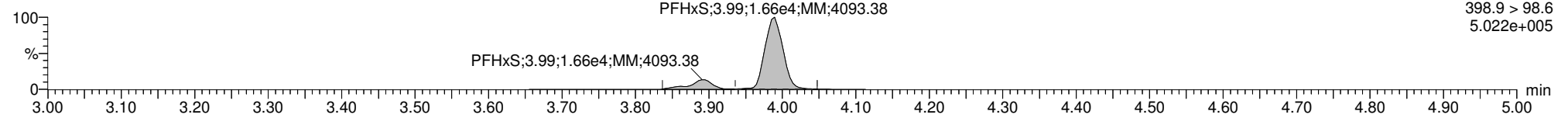
ID: B7B0129-MS1 Matrix Spike 0.12756, Description: Matrix Spike, Name: 170301G1\_42, Date: 01-Mar-2017, Time: 23:31:30, Instrument: , Lab: , User:

**Total PFHxS**

170301G1\_42

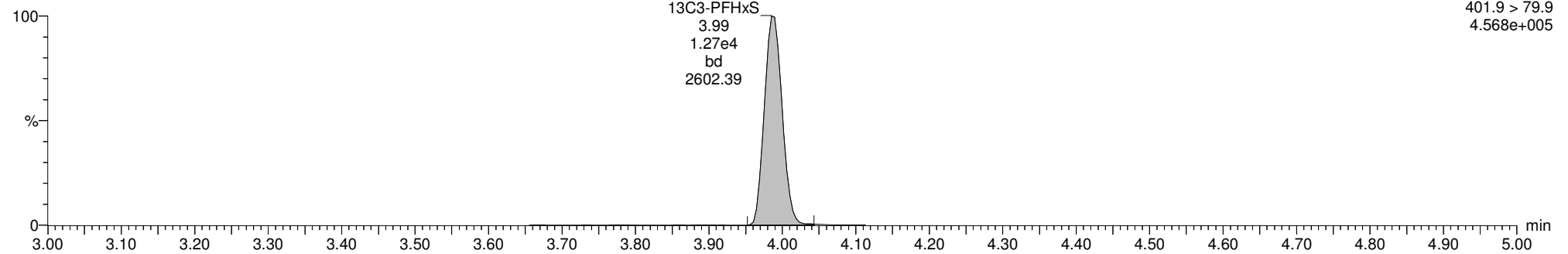


170301G1\_42



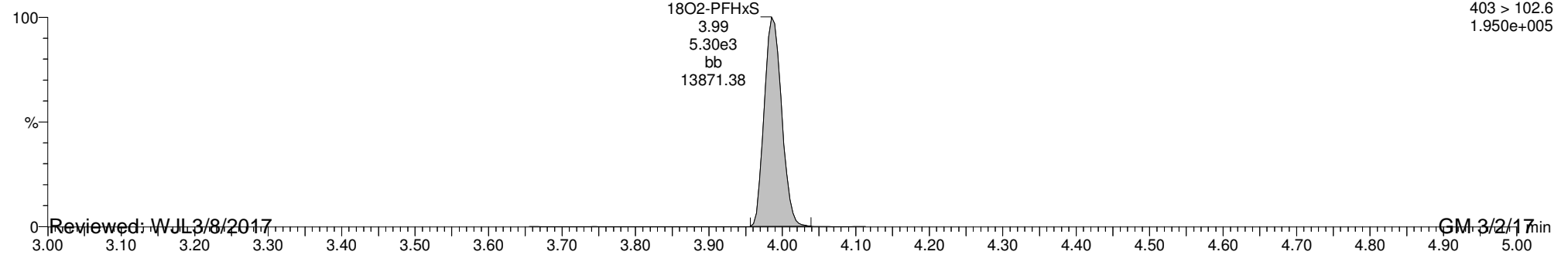
**13C3-PFHxS**

170301G1\_42



**18O2-PFHxS**

170301G1\_42



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

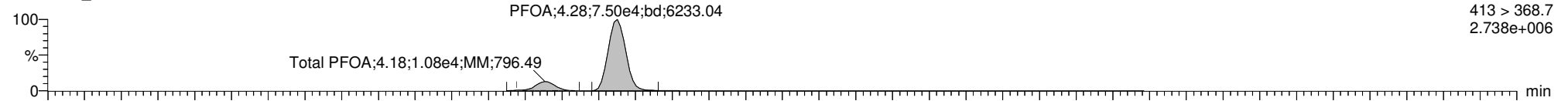
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Printed: Thursday, March 02, 2017 12:17:36 Pacific Standard Time

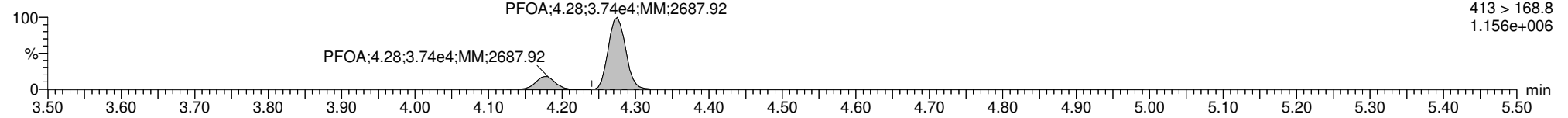
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**Total PFOA**

170301G1\_42

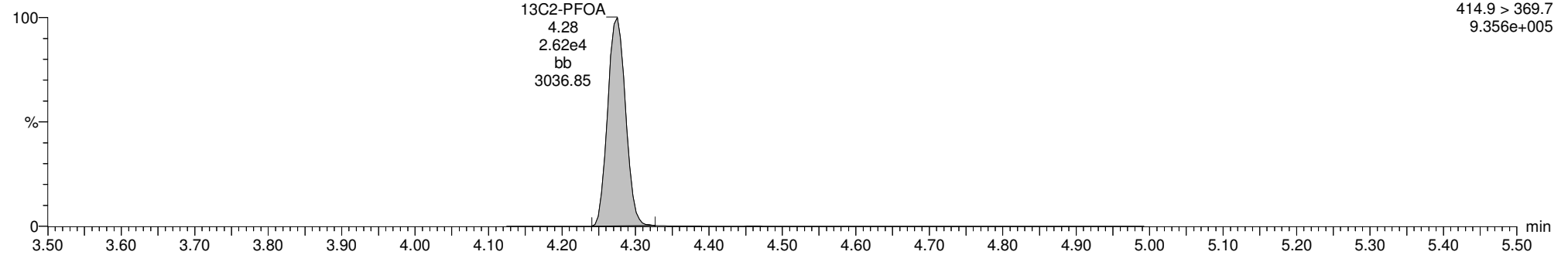


170301G1\_42



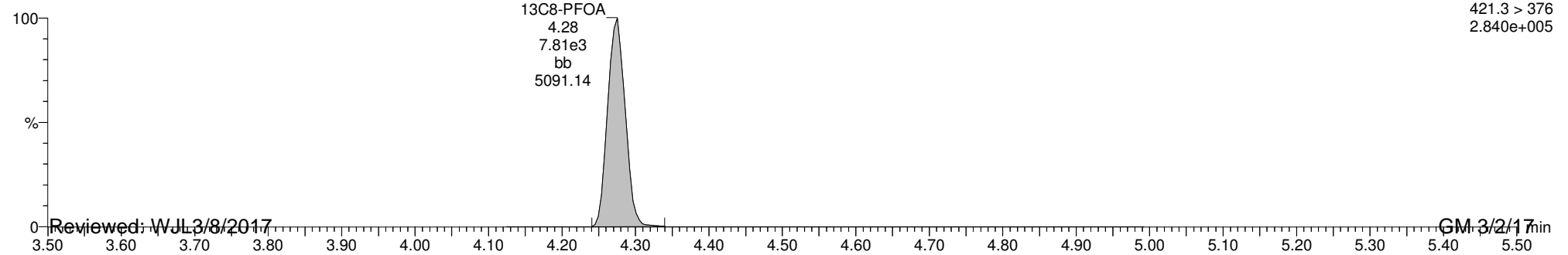
**13C2-PFOA**

170301G1\_42



**13C8-PFOA**

170301G1\_42



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

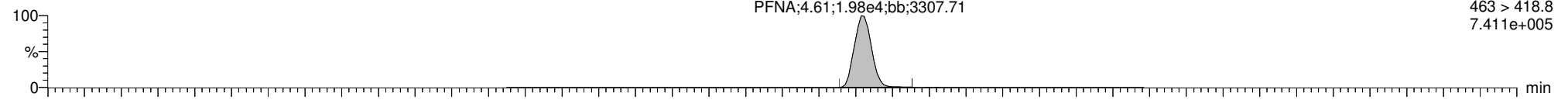
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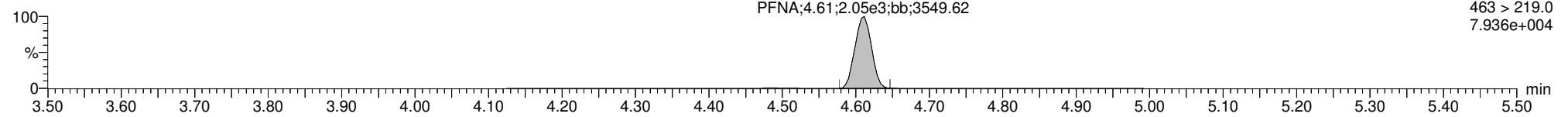
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**PFNA**

170301G1\_42

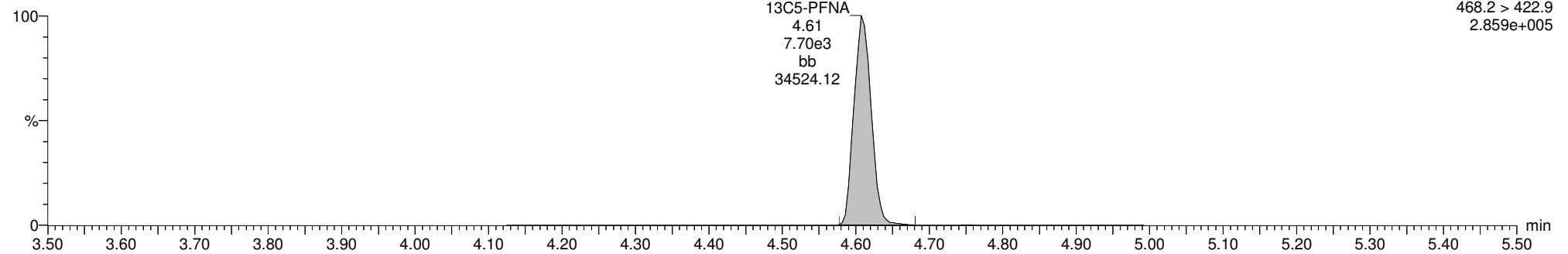


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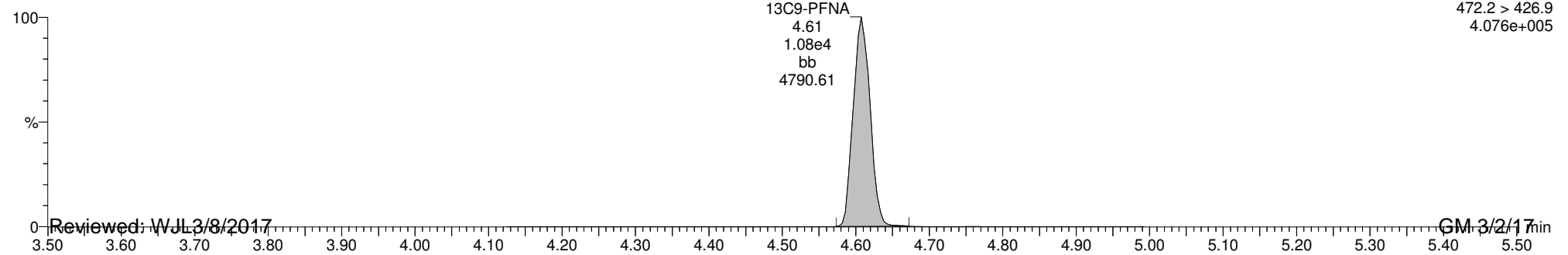
**13C5-PFNA**

170301G1\_42



**13C9-PFNA**

170301G1\_42



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-42.qld

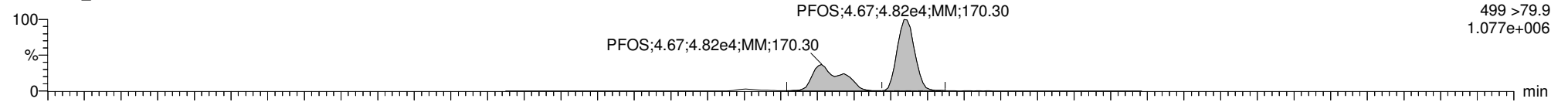
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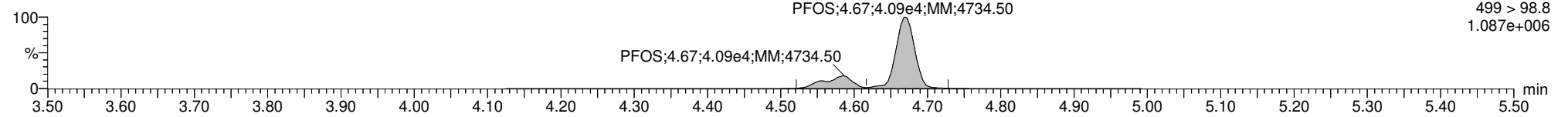
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**Total PFOS**

170301G1\_42

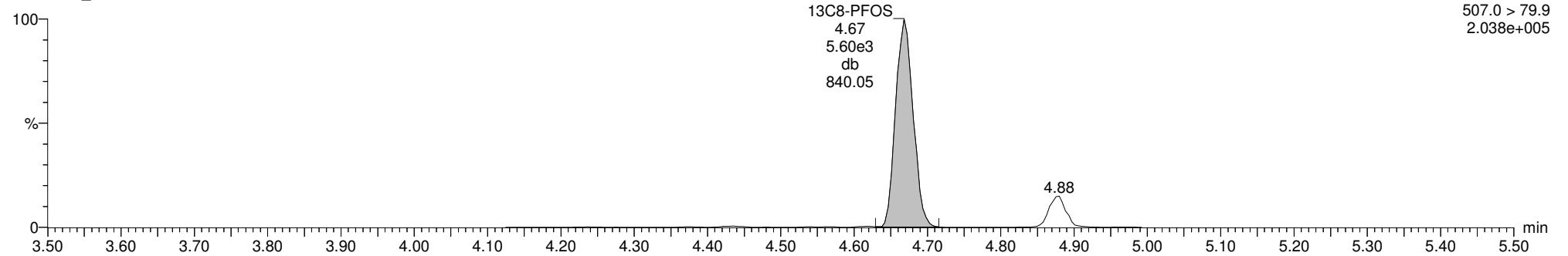


170301G1\_42



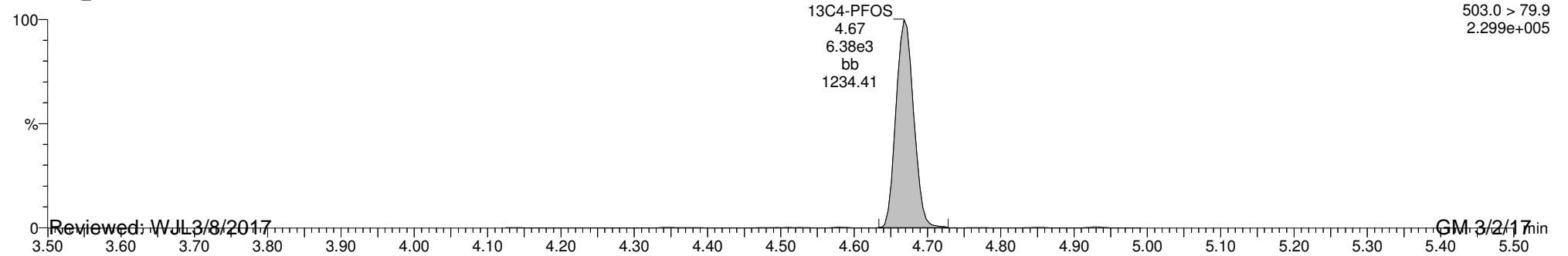
**13C8-PFOS**

170301G1\_42



**13C4-PFOS**

170301G1\_42



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-6.qld

Last Altered: Friday, March 03, 2017 09:42:30 Pacific Standard Time

Printed: Friday, March 03, 2017 09:42:52 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-MS1@5X Matrix Spike 0.12756, Description: Matrix Spike, Name: 170302G1\_6, Date: 02-Mar-2017, Time: 16:48:25

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	3.460e3	2.962e2		0.128	4.69	2190	
2	12 13C8-PFOS	507.0 > 79.9	2.962e2	5.423e2	0.941	0.128	4.69	56.9	58.0
3	17 13C4-PFOS	503.0 > 79.9	5.423e2	5.423e2	1.000	0.128	4.68	98.0	100
4	21 Total PFOS	499 > 79.9		2.962e2		0.128		2190	

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Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-6.qld

Last Altered: Friday, March 03, 2017 09:42:30 Pacific Standard Time

Printed: Friday, March 03, 2017 09:42:52 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-MS1@5X Matrix Spike 0.12756, Description: Matrix Spike, Name: 170302G1\_6, Date: 02-Mar-2017, Time: 16:48:25

**Total PFBS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	3.01	3745.870	890.112	191.4
2	18 Total PFBS	299 > 79.7	2.90	35.129	697.078	2.3

**Total PFHxS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	4.01	5613.233	697.078	434.6
2	19 Total PFHxS	398.9 > 79.6	3.91	1044.224	697.078	83.1
3	19 Total PFHxS	398.9 > 79.6	3.88	343.432	697.078	27.0
4	19 Total PFHxS	398.9 > 79.6	3.82	7.974	697.078	
5	19 Total PFHxS	398.9 > 79.6	3.80	5.197	697.078	

**Total PFOA**

	# Name	Trace	RT	Area	IS Area	Conc.
1	20 Total PFOA	413 > 368.7	4.67	89.103	3339.807	2.0
2	4 PFOA	413 > 368.7	4.29	9735.700	3339.807	312.4
3	20 Total PFOA	413 > 368.7	4.19	1346.990	3339.807	42.4

**Total PFOS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.69	3460.138	296.226	2194.3

Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-6.qld

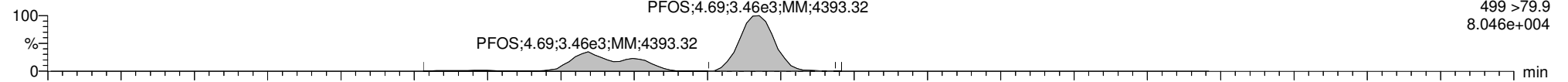
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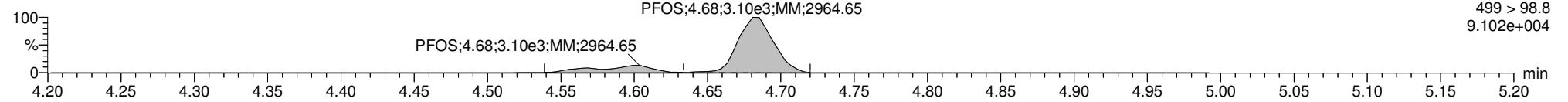
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**Total PFOS**

170302G1\_6

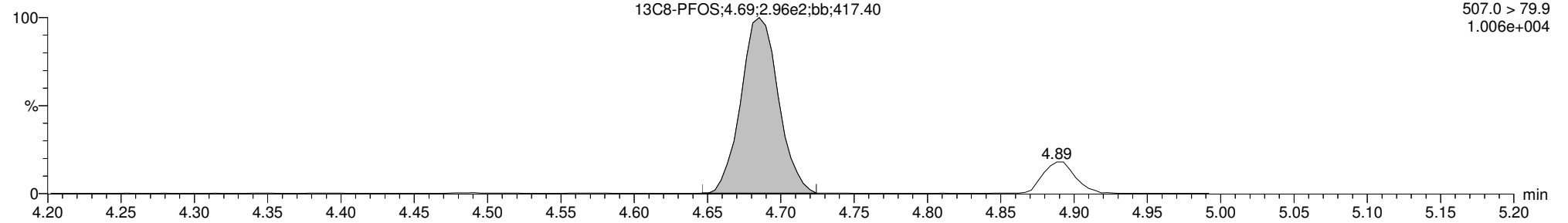


170302G1\_6



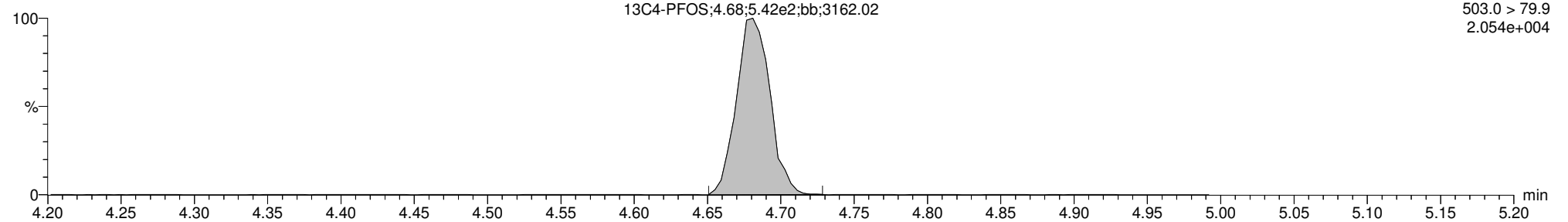
**13C8-PFOS**

170302G1\_6



**13C4-PFOS**

170302G1\_6



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-43.qld

Last Altered: Thursday, March 02, 2017 12:21:24 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:22:15 Pacific Standard Time

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Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-MSD1 Matrix Spike Dup 0.12637, Description: Matrix Spike Dup, Name: 170301G1\_43, Date: 01-Mar-2017, Time: 23:44:02

#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.502e4	5.934e3		0.126	2.98	194	
2	2 PFHpA	363 > 318.9	4.105e4	1.595e4		0.126	3.87	139	
3	3 PFHxS	398.9 > 79.6	6.007e4	5.350e3		0.126	3.99	603	
4	4 PFOA	413 > 368.7	8.444e4	3.058e4		0.126	4.28	299	
5	5 PFNA	463 > 418.8	2.433e4	8.905e3		0.126	4.61	125	
6	6 PFOS	499 > 79.9	5.169e4	6.302e3		0.126	4.67	1560	
7	7 13C3-PFBS	302.0 > 98.8	5.934e3	1.394e4	0.442	0.126	2.98	95.2	96.3
8	8 13C4-PFHpA	367.2 > 321.8	1.595e4	1.394e4	1.117	0.126	3.87	101	102
9	9 18O2-PFHxS	403 > 102.6	5.350e3	1.394e4	0.420	0.126	3.99	90.4	91.4
10	10 13C2-PFOA	414.9 > 369.7	3.058e4	8.101e3	2.782	0.126	4.28	134	136
11	11 13C5-PFNA	468.2 > 422.9	8.905e3	1.100e4	0.846	0.126	4.61	94.6	95.7
12	12 13C8-PFOS	507.0 > 79.9	6.302e3	6.914e3	0.941	0.126	4.67	95.8	96.8
13	13 13C5-PFHxA	318 > 272.9	2.411e4	2.411e4	1.000	0.126	3.36	98.9	100
14	14 13C3-PFHxS	401.9 > 79.9	1.394e4	1.394e4	1.000	0.126	3.99	98.9	100
15	15 13C8-PFOA	421.3 > 376	8.101e3	8.101e3	1.000	0.126	4.28	98.9	100
16	16 13C9-PFNA	472.2 > 426.9	1.100e4	1.100e4	1.000	0.126	4.61	98.9	100
17	17 13C4-PFOS	503.0 > 79.9	6.914e3	6.914e3	1.000	0.126	4.67	98.9	100
18	18 Total PFBS	299 > 79.7		5.350e3		0.126		194	
19	19 Total PFHxS	398.9 > 79.6		5.350e3		0.126		603	
20	20 Total PFOA	413 > 368.7		3.058e4		0.126		339	
21	21 Total PFOS	499 > 79.9		6.302e3		0.126		1560	

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Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-43.qld

Last Altered: Thursday, March 02, 2017 12:21:24 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:22:15 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-MSD1 Matrix Spike Dup 0.12637, Description: Matrix Spike Dup, Name: 170301G1\_43, Date: 01-Mar-2017, Time: 23:44:02

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.98	25024.885	5934.472	193.6

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	60070.293	5350.497	602.6

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	84435.320	30584.814	298.6
2	20 Total PFOA	413 > 368.7	4.18	11613.947	30584.814	40.3

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.67	51685.434	6302.347	1555.1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-43.qld

Last Altered: Thursday, March 02, 2017 12:21:24 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:22:15 Pacific Standard Time

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Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

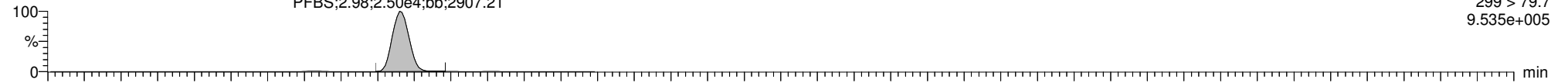
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**Total PFBS**

170301G1\_43

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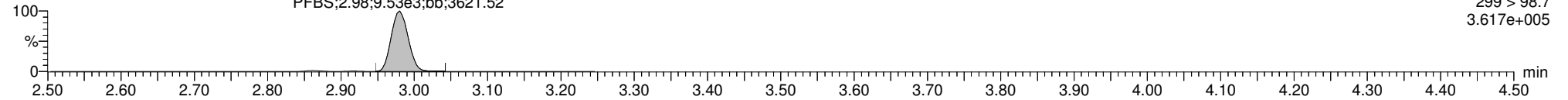
F2:MRM of 3 channels,ES-  
299 > 79.7  
9.535e+005



170301G1\_43

PFBS;2.98;9.53e3;bb;3621.52

F2:MRM of 3 channels,ES-  
299 > 98.7  
3.617e+005

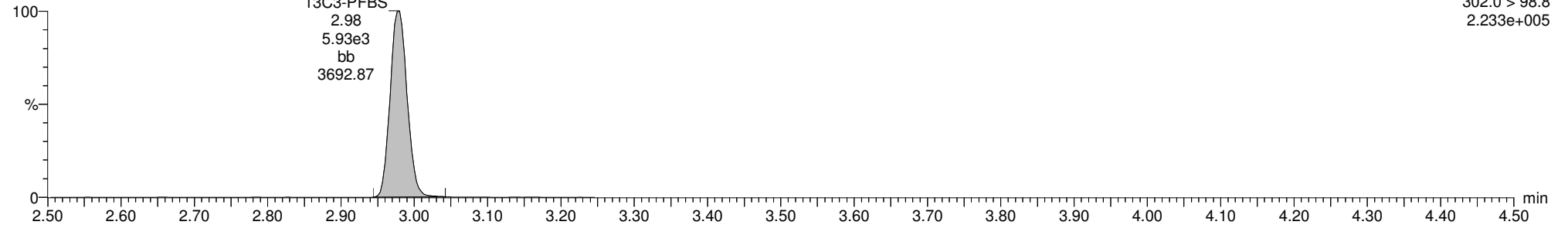


**13C3-PFBS**

170301G1\_43

13C3-PFBS  
2.98  
5.93e3  
bb  
3692.87

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.233e+005

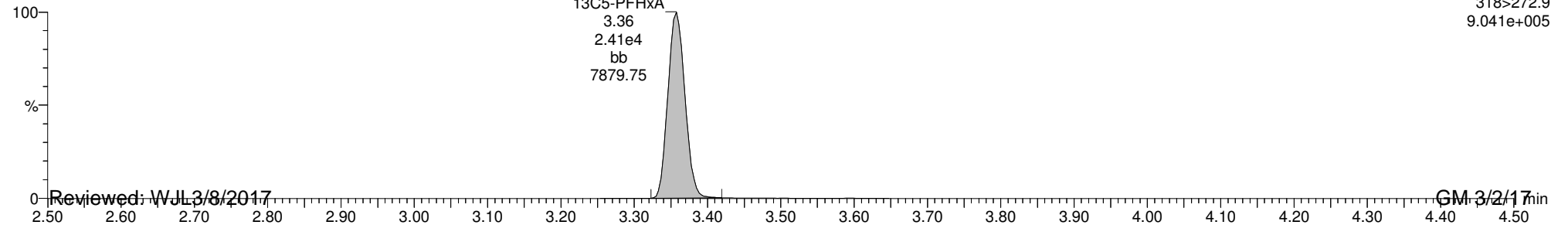


**13C5-PFHxA**

170301G1\_43

13C5-PFHxA  
3.36  
2.41e4  
bb  
7879.75

F3:MRM of 1 channel,ES-  
318>272.9  
9.041e+005



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-43.qld

Last Altered: Thursday, March 02, 2017 12:21:24 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:22:15 Pacific Standard Time

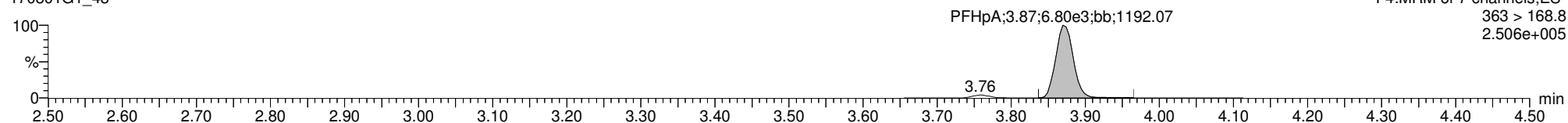
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**PFHpA**

170301G1\_43

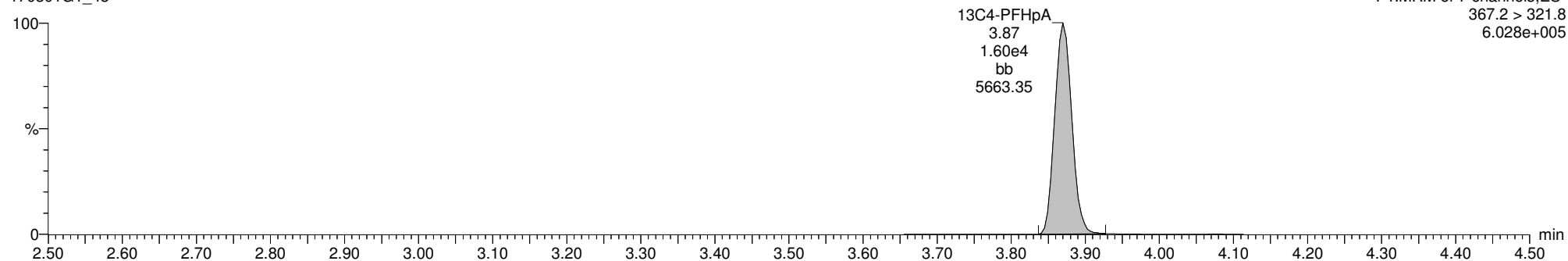


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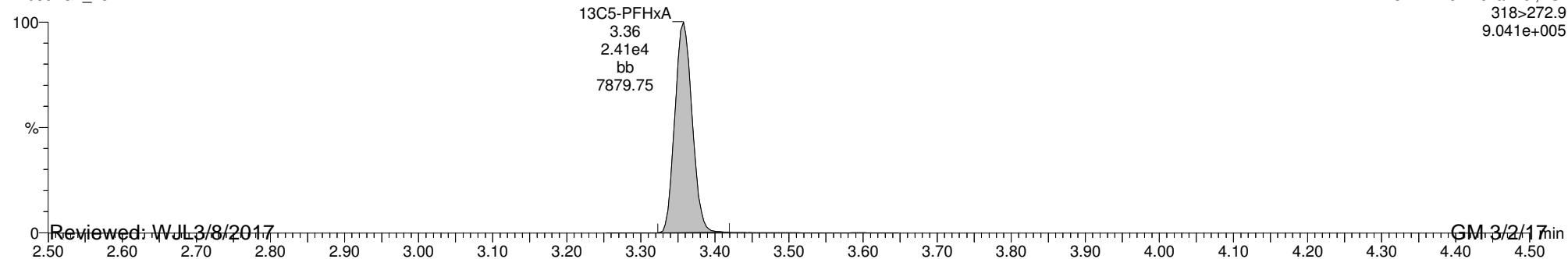
**13C4-PFHpA**

170301G1\_43



**13C5-PFHxA**

170301G1\_43



Reviewed: WJL 3/8/2017

GM 3/2/17

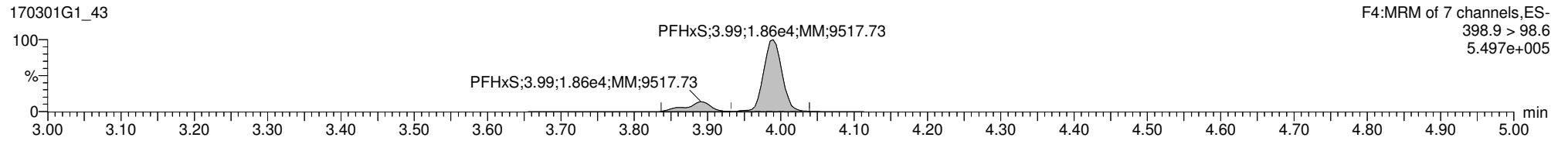
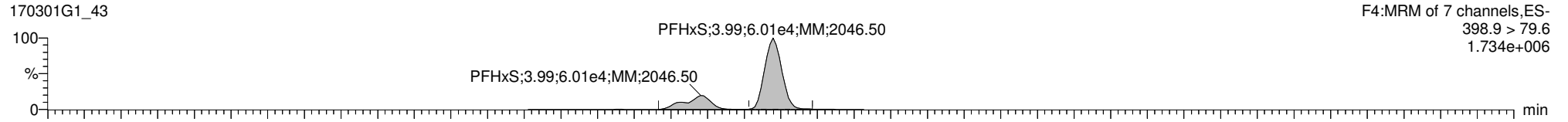
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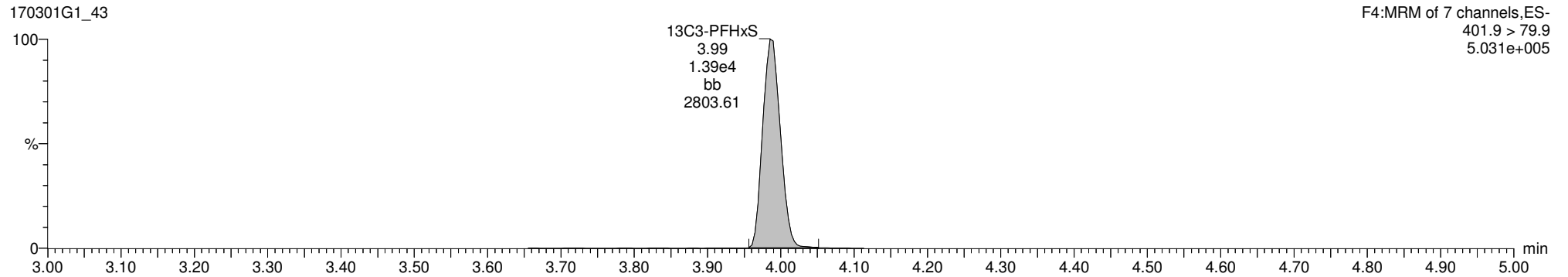
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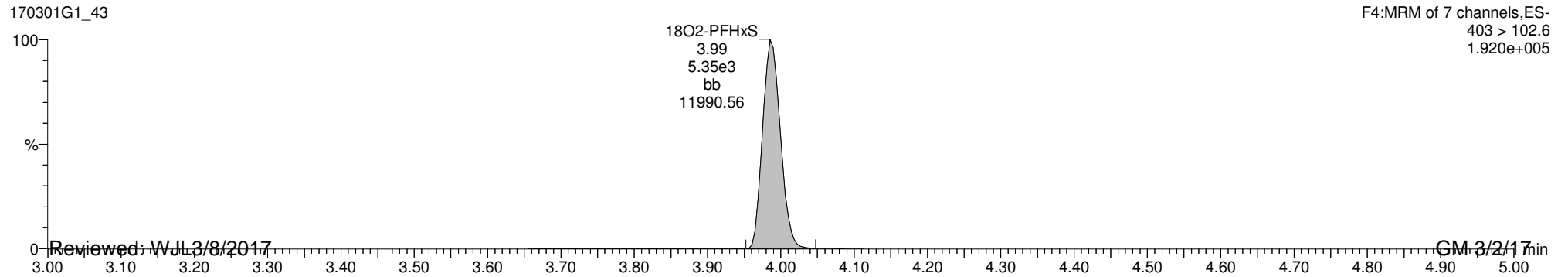
**Total PFHxS**



**13C3-PFHxS**



**18O2-PFHxS**



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-43.qld

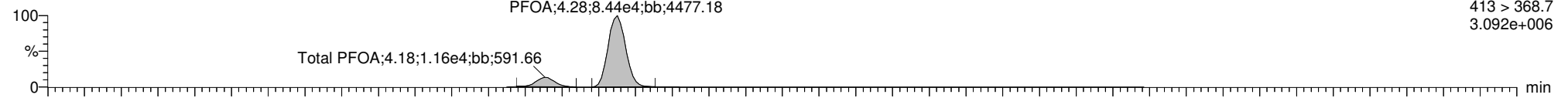
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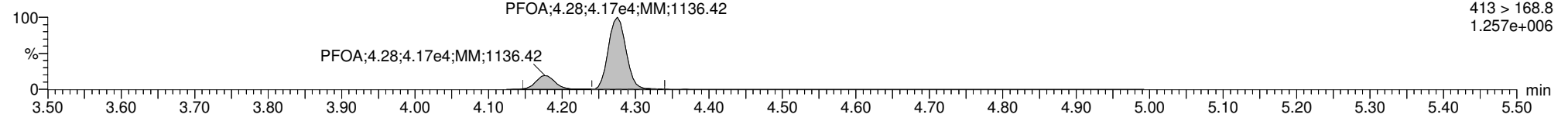
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**Total PFOA**

170301G1\_43

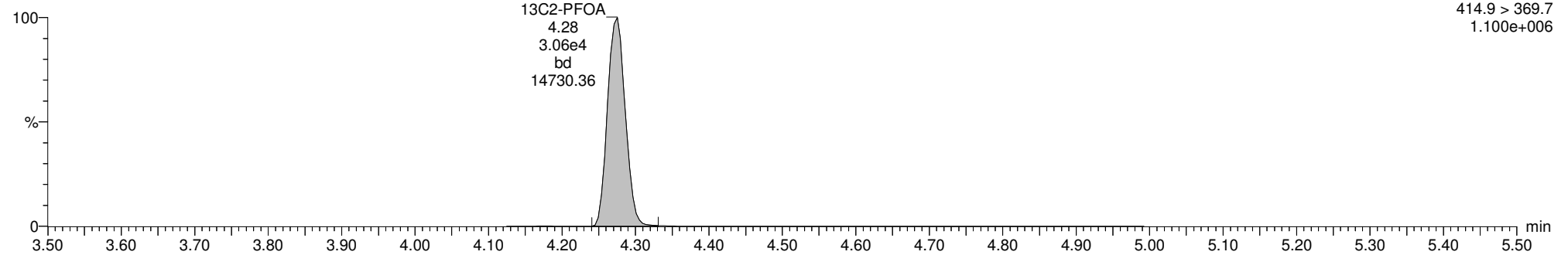


170301G1\_43



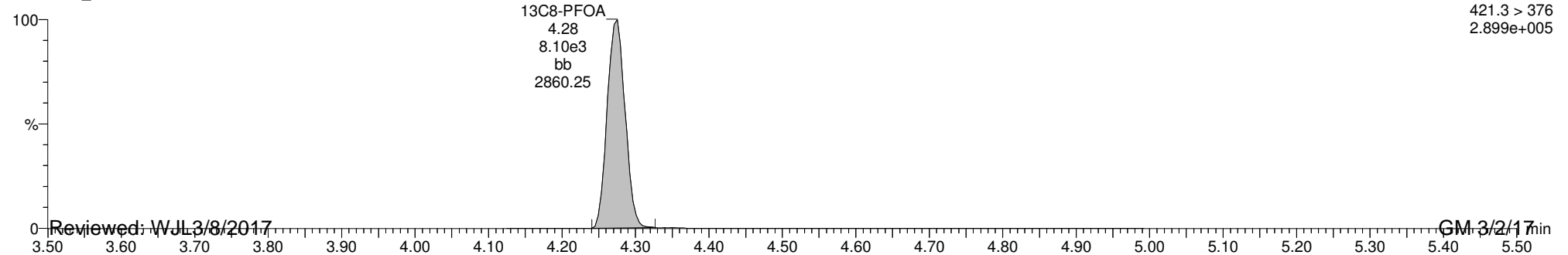
**13C2-PFOA**

170301G1\_43



**13C8-PFOA**

170301G1\_43



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-43.qld

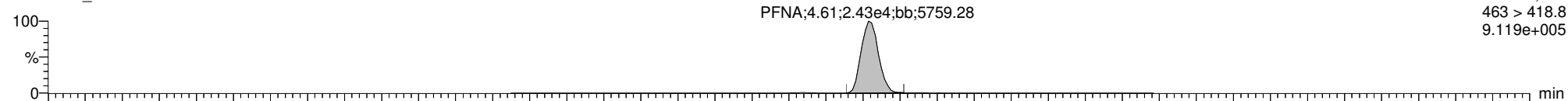
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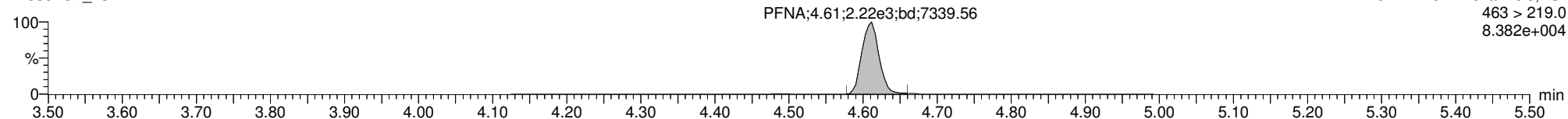
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**PFNA**

170301G1\_43

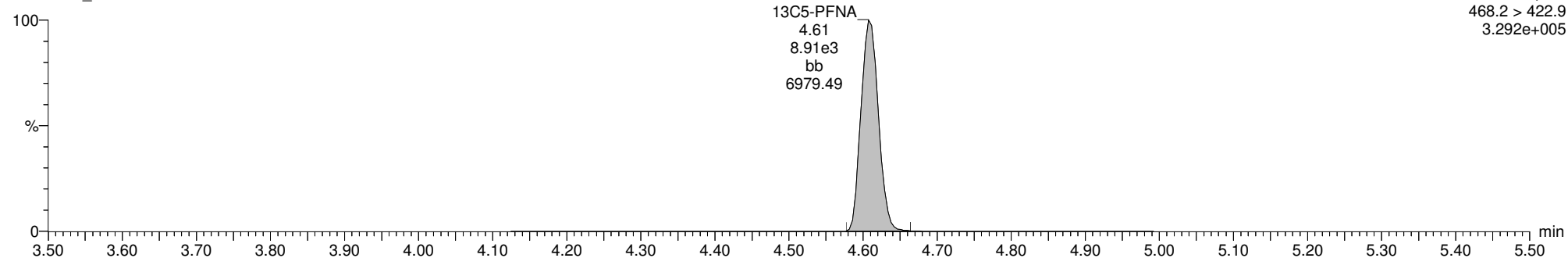


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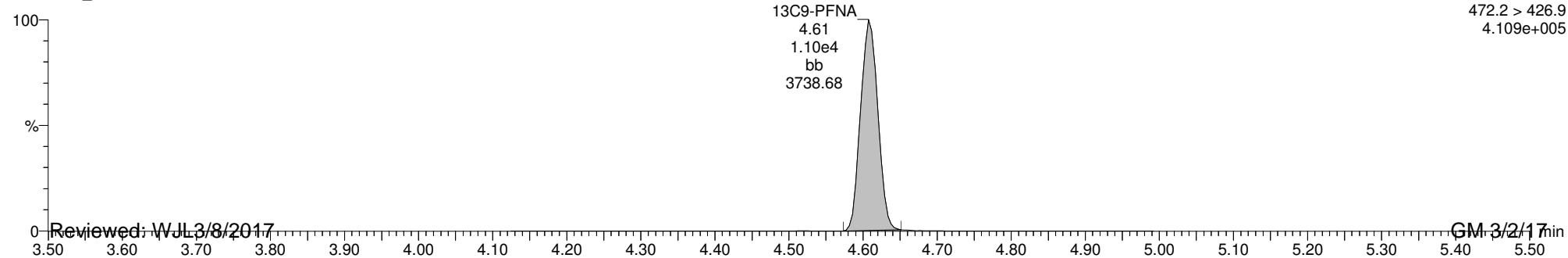
**13C5-PFNA**

170301G1\_43



**13C9-PFNA**

170301G1\_43



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-43.qld

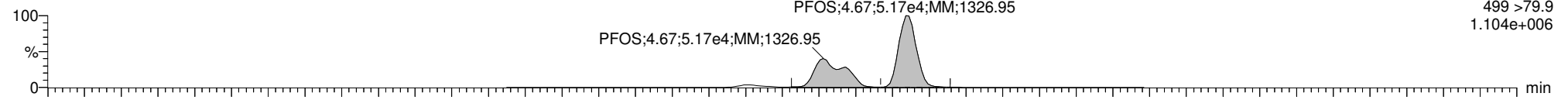
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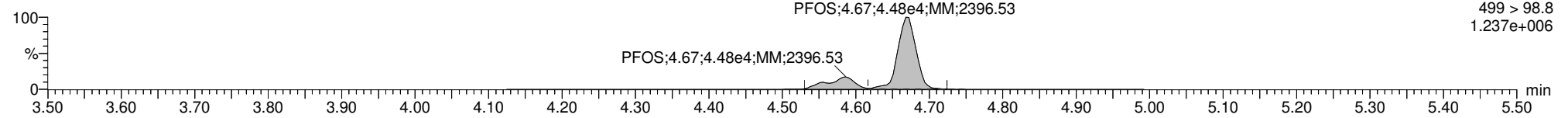
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**Total PFOS**

170301G1\_43

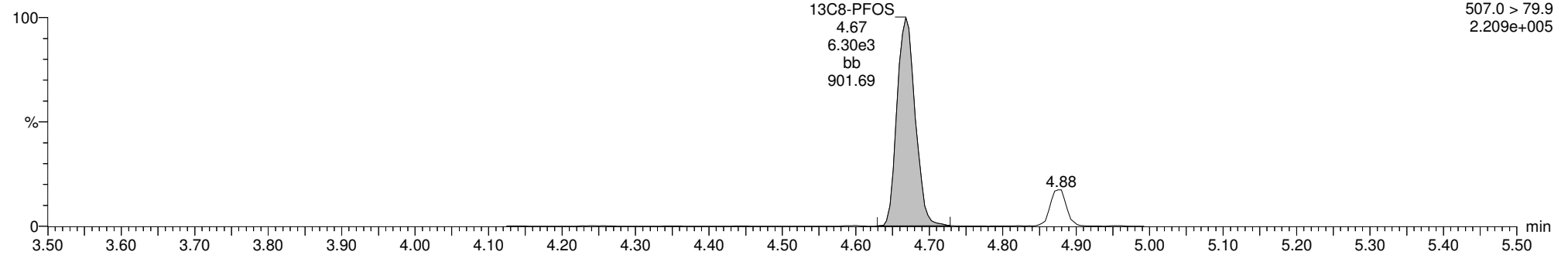


170301G1\_43



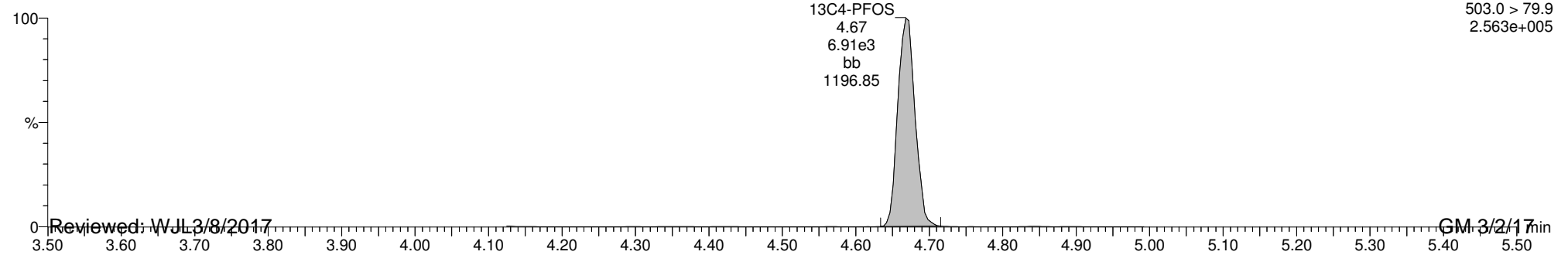
**13C8-PFOS**

170301G1\_43



**13C4-PFOS**

170301G1\_43



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-7.qld

Last Altered: Friday, March 03, 2017 09:46:37 Pacific Standard Time

Printed: Friday, March 03, 2017 09:47:19 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-MSD1@5X Matrix Spike Dup 0.12637, Description: Matrix Spike Dup, Name: 170302G1\_7, Date: 02-Mar-2017, Time: 17:01:19

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	4.242e3	5.319e2		0.126	4.69	1510	
2	12 13C8-PFOS	507.0 > 79.9	5.319e2	6.800e2	0.941	0.126	4.69	82.2	83.1
3	17 13C4-PFOS	503.0 > 79.9	6.800e2	6.800e2	1.000	0.126	4.69	98.9	100
4	21 Total PFOS	499 > 79.9		5.319e2		0.126		1510	

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-7.qld

Last Altered: Friday, March 03, 2017 09:46:37 Pacific Standard Time

Printed: Friday, March 03, 2017 09:47:19 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: B7B0129-MSD1@5X Matrix Spike Dup 0.12637, Description: Matrix Spike Dup, Name: 170302G1\_7, Date: 02-Mar-2017, Time: 17:01:19

**Total PFBS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	3.02	4138.144	1015.836	187.0
2	18 Total PFBS	299 > 79.7	2.90	41.687	811.975	2.4

**Total PFHxS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	19 Total PFHxS	398.9 > 79.6	3.92	1211.196	811.975	83.5
2	19 Total PFHxS	398.9 > 79.6	3.89	403.543	811.975	27.5
3	3 PFHxS	398.9 > 79.6	4.01	6940.833	811.975	464.5

**Total PFOA**

	# Name	Trace	RT	Area	IS Area	Conc.
1	20 Total PFOA	413 > 368.7	4.68	34.357	3720.939	0.1
2	20 Total PFOA	413 > 368.7	4.66	58.147	3720.939	0.8
3	20 Total PFOA	413 > 368.7	4.59	17.051	3720.939	
4	20 Total PFOA	413 > 368.7	4.48	9.540	3720.939	
5	20 Total PFOA	413 > 368.7	4.44	16.086	3720.939	
6	4 PFOA	413 > 368.7	4.30	10766.326	3720.939	313.0
7	20 Total PFOA	413 > 368.7	4.20	1356.852	3720.939	38.6

**Total PFOS**

	# Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.69	4241.885	531.899	1512.3

Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-7.qld

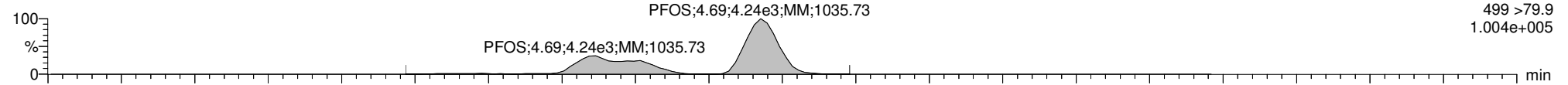
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Printed: Friday, March 03, 2017 09:47:19 Pacific Standard Time

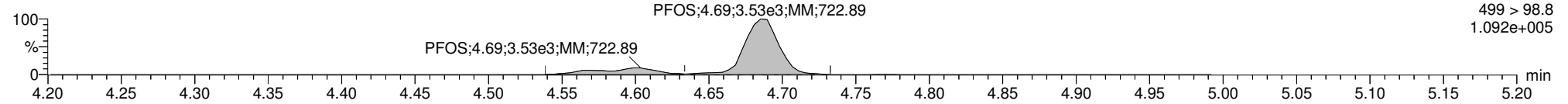
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**Total PFOS**

170302G1\_7

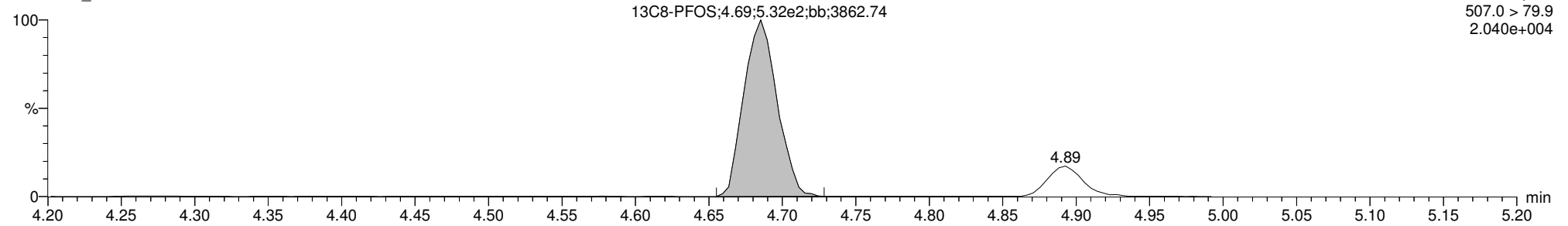


170302G1\_7



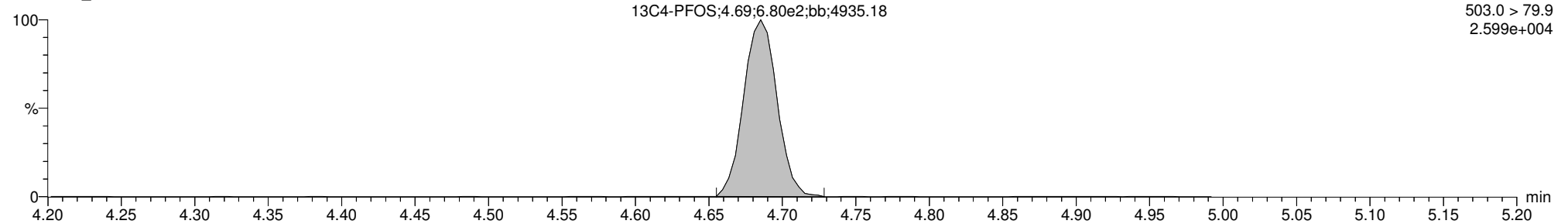
**13C8-PFOS**

170302G1\_7



**13C4-PFOS**

170302G1\_7





Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

Last Altered: Thursday, March 02, 2017 12:24:36 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:25:04 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-06 OW2C-MW24-0217 0.1257, Description: OW2C-MW24-0217, Name: 170301G1\_44, Date: 01-Mar-2017, Time: 23:56:35

#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.972e3	5.646e3		0.126	2.97	16.1	
2	2 PFHpA	363 > 318.9	1.184e4	1.584e4		0.126	3.87	40.3	
3	3 PFHxS	398.9 > 79.6	1.052e4	6.794e3		0.126	3.99	87.1	
4	4 PFOA	413 > 368.7	2.294e5	2.336e4		0.126	4.28	1070	
5	5 PFNA	463 > 418.8	2.063e3	9.128e3		0.126	4.61	9.82	
6	6 PFOS	499 > 79.9	3.655e3	8.867e3		0.126	4.67	78.7	
7	7 13C3-PFBS	302.0 > 98.8	5.646e3	1.566e4	0.442	0.126	2.97	81.0	81.5
8	8 13C4-PFHpA	367.2 > 321.8	1.584e4	1.566e4	1.117	0.126	3.87	90.1	90.6
9	9 18O2-PFHxS	403 > 102.6	6.794e3	1.566e4	0.420	0.126	3.99	103	103
10	10 13C2-PFOA	414.9 > 369.7	2.336e4	6.372e3	2.782	0.126	4.28	131	132
11	11 13C5-PFNA	468.2 > 422.9	9.128e3	1.130e4	0.846	0.126	4.61	94.9	95.4
12	12 13C8-PFOS	507.0 > 79.9	8.867e3	1.042e4	0.941	0.126	4.67	89.9	90.4
13	13 13C5-PFHxA	318 > 272.9	2.421e4	2.421e4	1.000	0.126	3.35	99.4	100
14	14 13C3-PFHxS	401.9 > 79.9	1.566e4	1.566e4	1.000	0.126	3.99	99.4	100
15	15 13C8-PFOA	421.3 > 376	6.372e3	6.372e3	1.000	0.126	4.28	99.4	100
16	16 13C9-PFNA	472.2 > 426.9	1.130e4	1.130e4	1.000	0.126	4.61	99.4	100
17	17 13C4-PFOS	503.0 > 79.9	1.042e4	1.042e4	1.000	0.126	4.67	99.4	100
18	18 Total PFBS	299 > 79.7		6.794e3		0.126		16.1	
19	19 Total PFHxS	398.9 > 79.6		6.794e3		0.126		87.1	
20	20 Total PFOA	413 > 368.7		2.336e4		0.126		1350	
21	21 Total PFOS	499 > 79.9		8.867e3		0.126		78.7	

E

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

Last Altered: Thursday, March 02, 2017 12:24:36 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:25:04 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-06 OW2C-MW24-0217 0.1257, Description: OW2C-MW24-0217, Name: 170301G1\_44, Date: 01-Mar-2017, Time: 23:56:35

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7	2.97	1971.583	5645.655	16.1

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	10516.615	6794.458	87.1

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	229362.375	23361.881	1070.0
2	20 Total PFOA	413 > 368.7	4.18	60580.414	23361.881	281.9

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	6 PFOS	499 > 79.9	4.67	3654.997	8866.891	78.7

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

Last Altered: Thursday, March 02, 2017 12:24:36 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:25:04 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

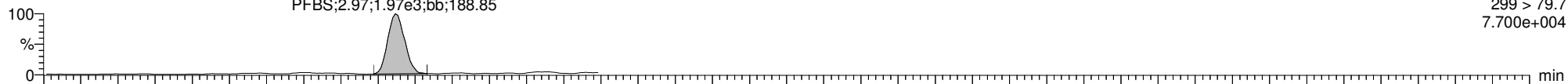
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**Total PFBS**

170301G1\_44

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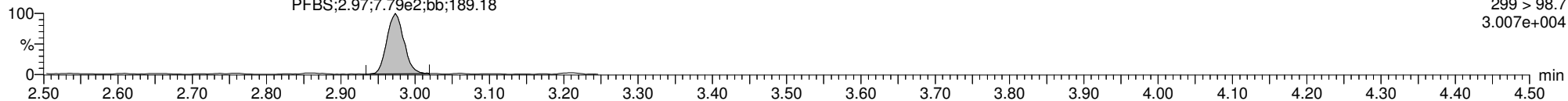
F2:MRM of 3 channels,ES-  
299 > 79.7  
7.700e+004



170301G1\_44

PFBS;2.97;7.79e2;bb;189.18

F2:MRM of 3 channels,ES-  
299 > 98.7  
3.007e+004

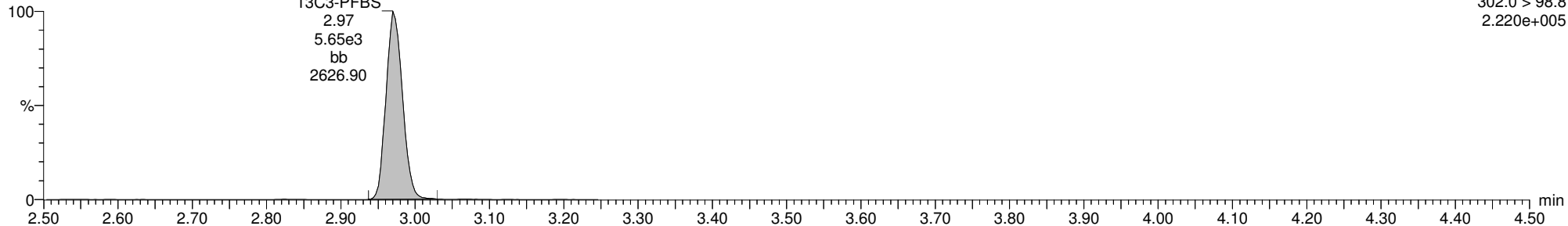


**13C3-PFBS**

170301G1\_44

13C3-PFBS  
2.97  
5.65e3  
bb  
2626.90

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.220e+005

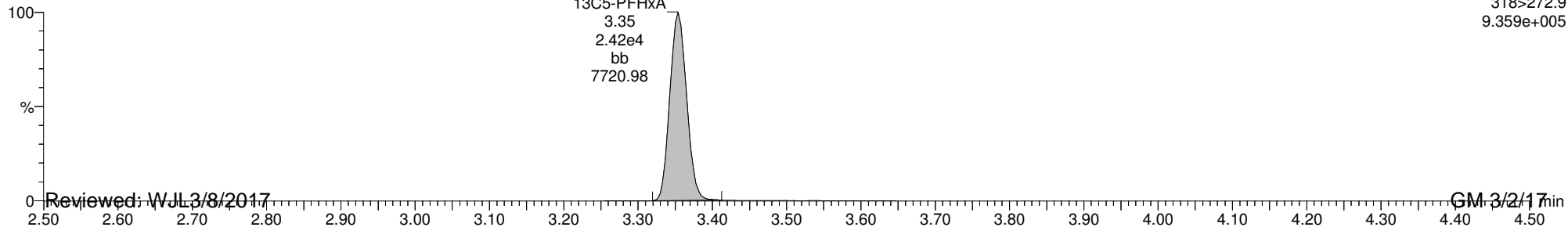


**13C5-PFHxA**

170301G1\_44

13C5-PFHxA  
3.35  
2.42e4  
bb  
7720.98

F3:MRM of 1 channel,ES-  
318>272.9  
9.359e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

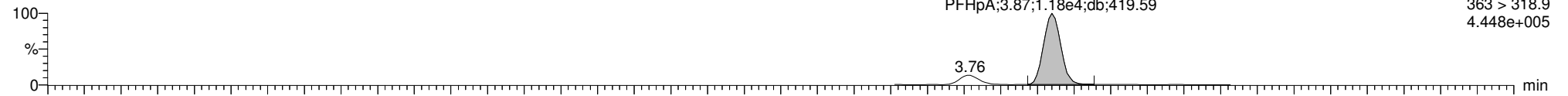
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Printed: Thursday, March 02, 2017 12:25:04 Pacific Standard Time

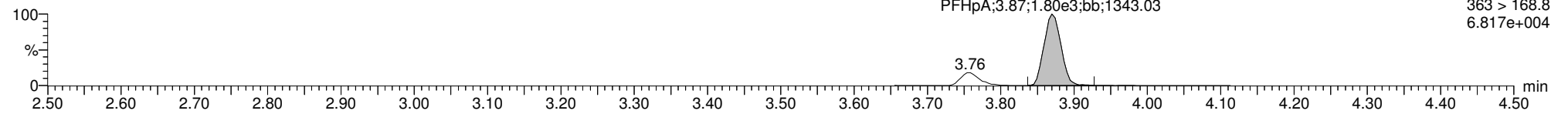
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**PFHpA**

170301G1\_44

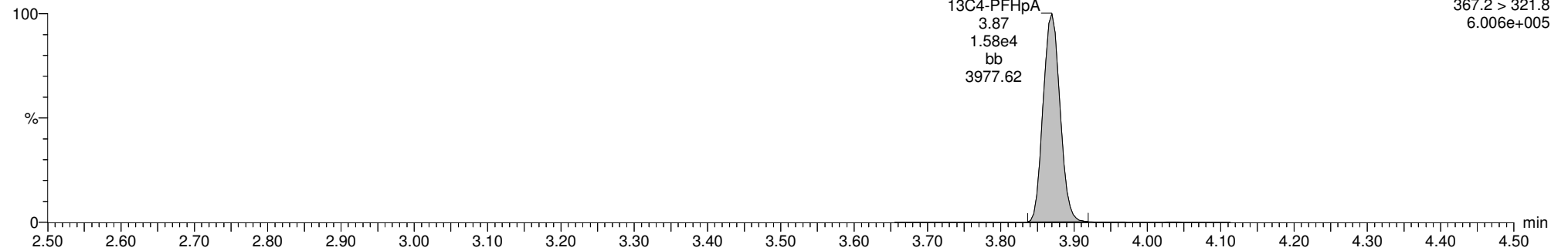


170301G1\_44



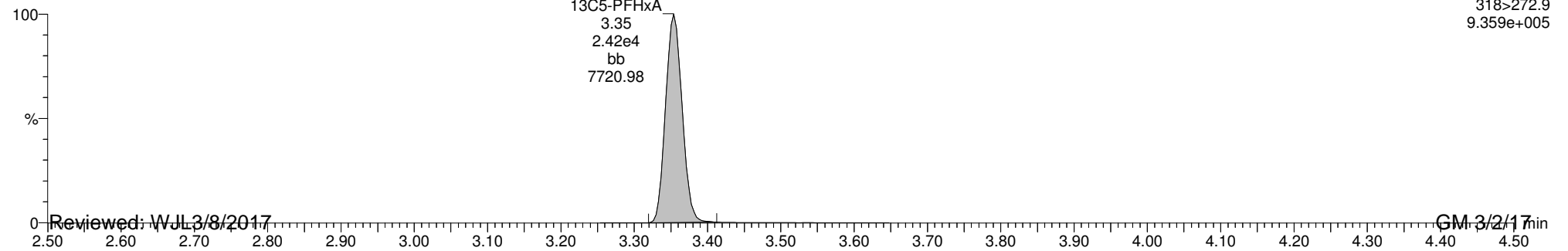
**13C4-PFHpA**

170301G1\_44



**13C5-PFHxA**

170301G1\_44



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

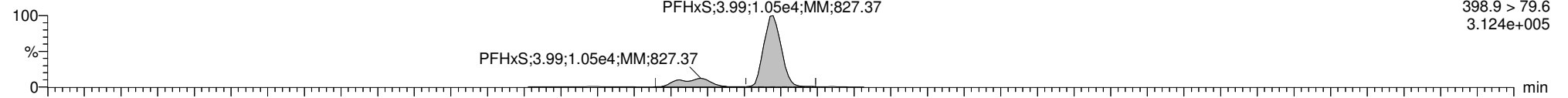
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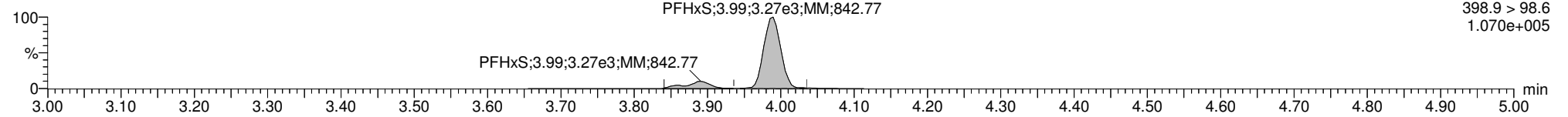
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**Total PFHxS**

170301G1\_44

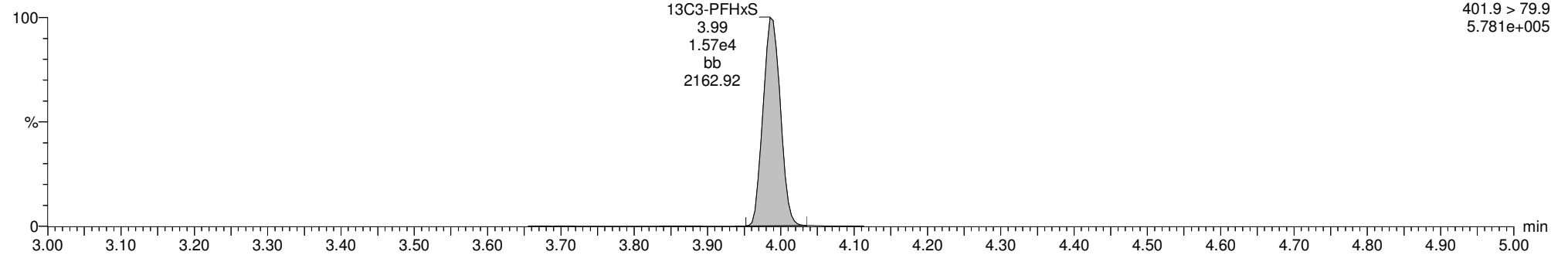


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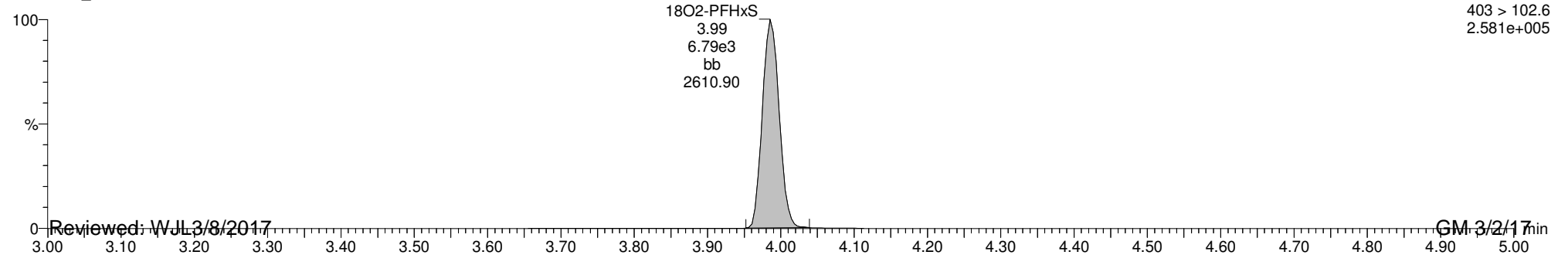
**13C3-PFHxS**

170301G1\_44



**18O2-PFHxS**

170301G1\_44



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

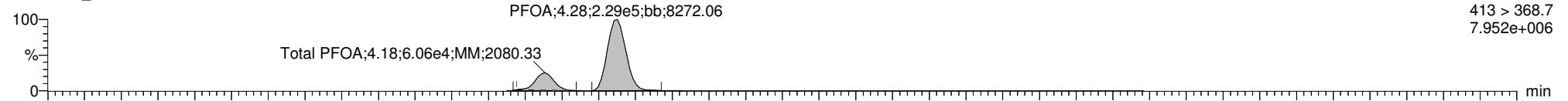
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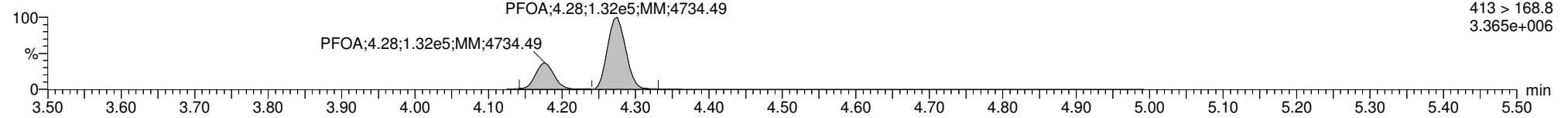
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**Total PFOA**

170301G1\_44

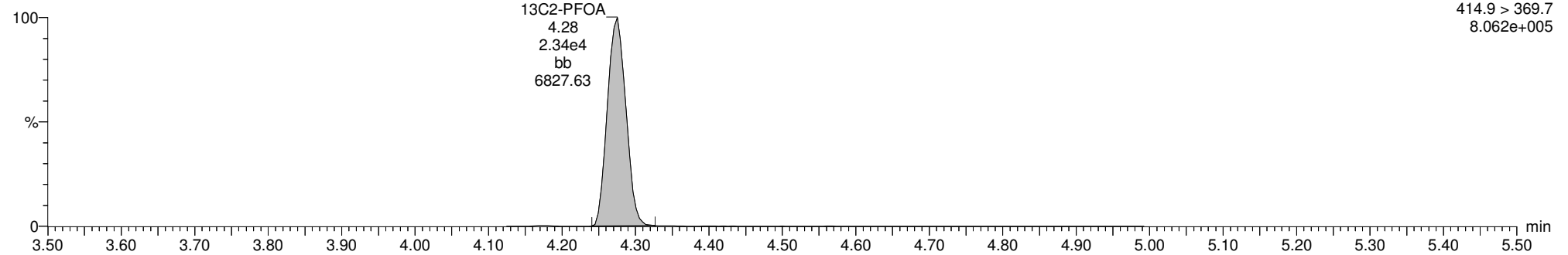


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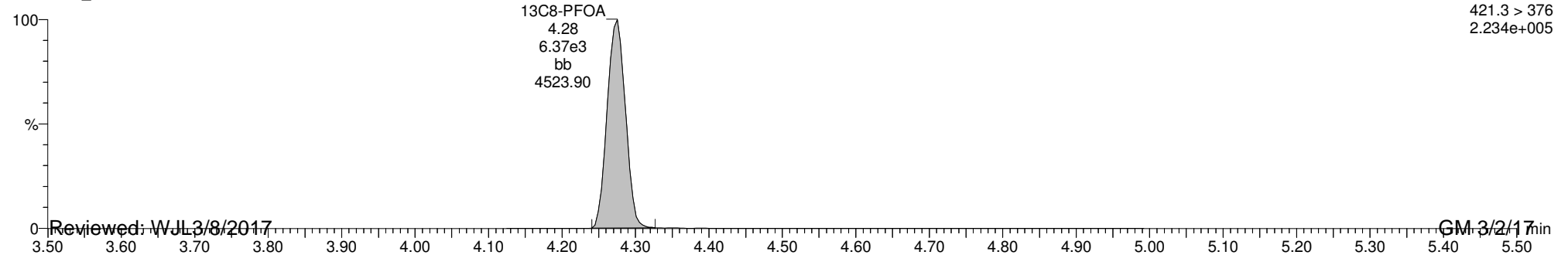
**13C2-PFOA**

170301G1\_44



**13C8-PFOA**

170301G1\_44



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

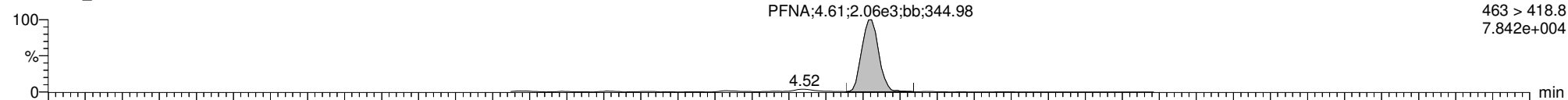
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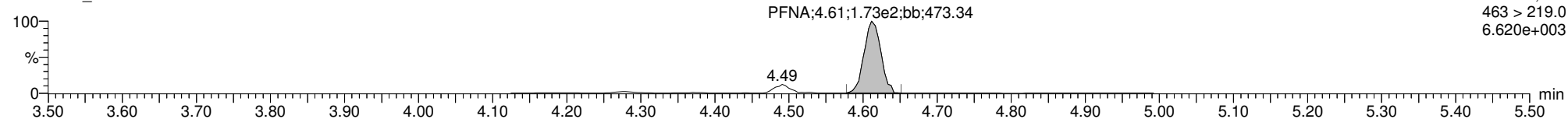
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**PFNA**

170301G1\_44

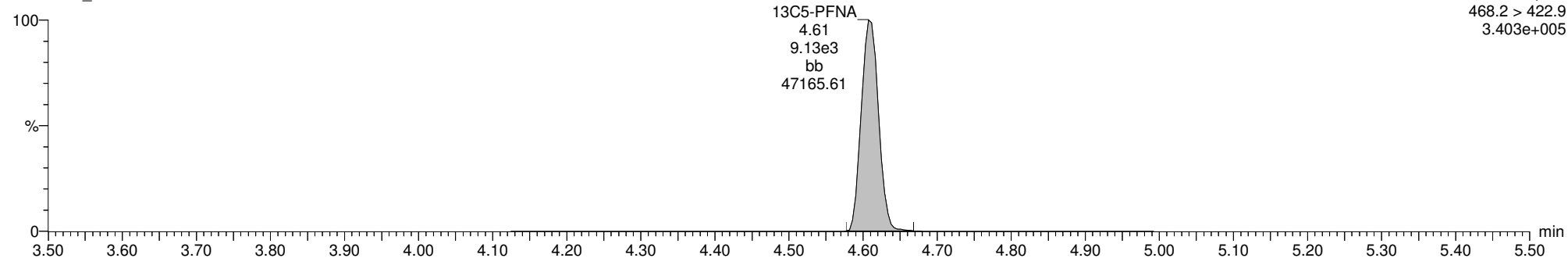


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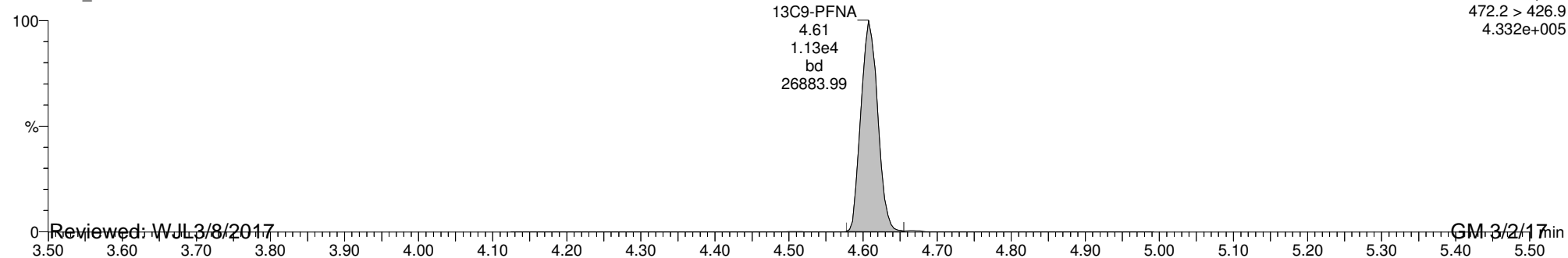
**13C5-PFNA**

170301G1\_44



**13C9-PFNA**

170301G1\_44



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-44.qld

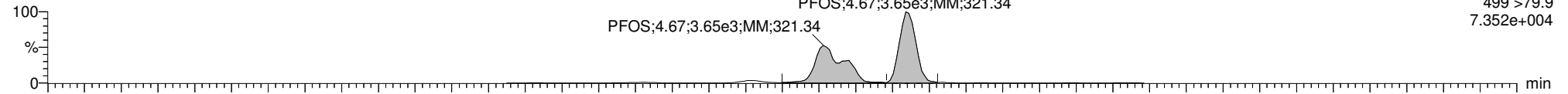
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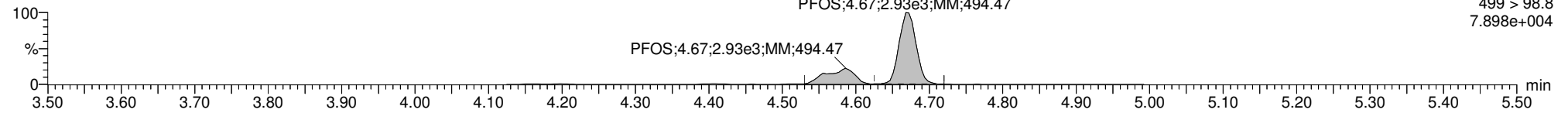
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**Total PFOS**

170301G1\_44

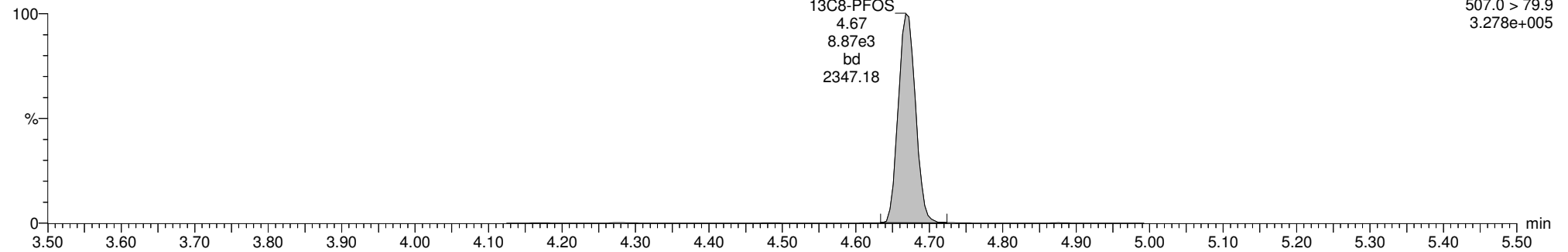


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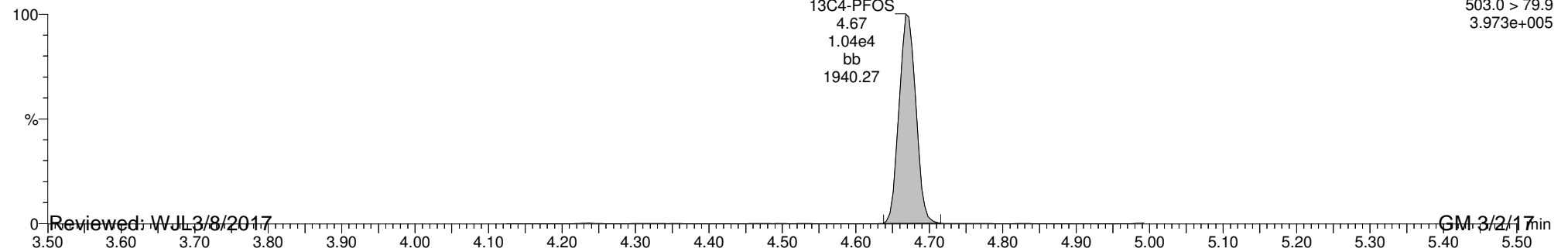
**13C8-PFOS**

170301G1\_44



**13C4-PFOS**

170301G1\_44



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\New folder\170308G3-4.qld

Last Altered: Thursday, March 09, 2017 08:24:58 Pacific Standard Time

Printed: Thursday, March 09, 2017 08:29:46 Pacific Standard Time

Method: Untitled 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

ID: 1700263-06@5X OW2C-MW24-0217 0.1257, Description: OW2C-MW24-0217, Name: 170308G3\_4, Date: 08-Mar-2017, Time: 21:26:23

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	4 PFOA	413 > 368.7	4.143e4	4.049e3		0.126	4.27	1280	
2	10 13C2-PFOA	414.9 > 369.7	4.049e3	1.171e3	4.608	0.126	4.27	74.6	75.0
3	15 13C8-PFOA	421.3 > 376	1.171e3	1.171e3	1.000	0.126	4.27	99.4	100
4	20 Total PFOA	413 > 368.7		4.049e3		0.126		1540	

Dataset: U:\G1.PRO\Results\2017\New folder\170308G3-4.qld

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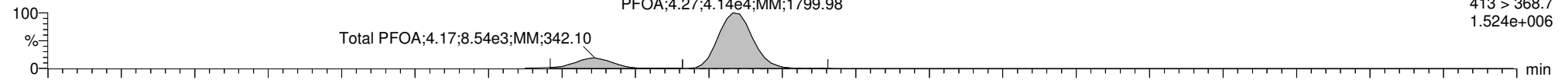
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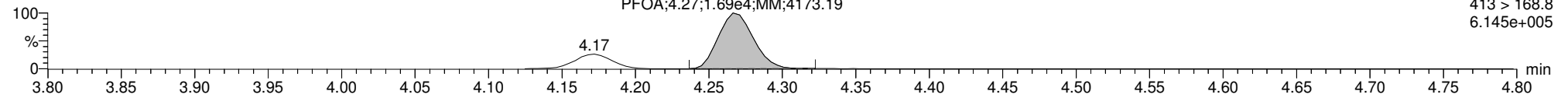
ID: 1700263-06@5X OW2C-MW24-0217 0.1257, Description: OW2C-MW24-0217, Name: 170308G3\_4, Date: 08-Mar-2017, Time: 21:26:23, Instrument: , Lab: , User:

**Total PFOA**

170308G3\_4

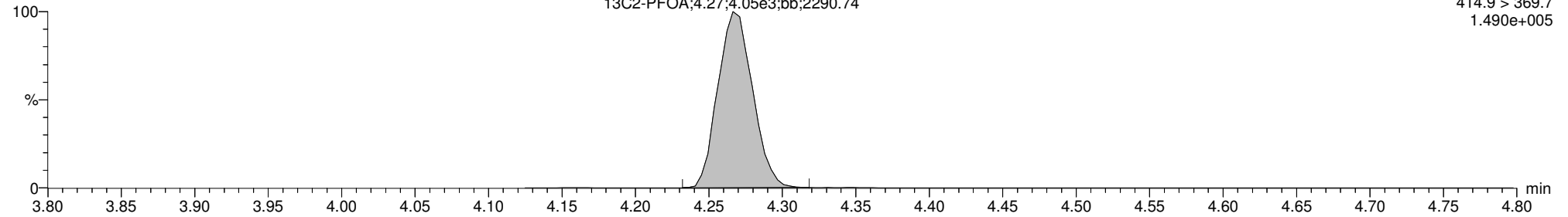


170308G3\_4



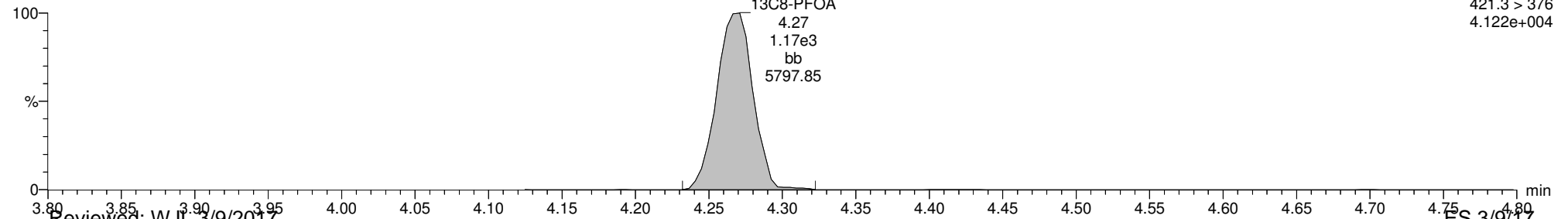
**13C2-PFOA**

170308G3\_4



**13C8-PFOA**

170308G3\_4



Reviewed: WJL 3/9/2017

ES 3/9/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09

#	Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7		6.494e3		0.126			
2	2 PFHpA	363 > 318.9	3.325e2	1.607e4		0.126	3.87	0.910	
3	3 PFHxS	398.9 > 79.6	4.309e1	6.927e3		0.126	3.99		
4	4 PFOA	413 > 368.7	1.311e3	2.945e4		0.126	4.28	3.91	
5	5 PFNA	463 > 418.8	3.329e2	7.953e3		0.126	4.61	1.27	
6	6 PFOS	499 > 79.9		9.332e3		0.126			
7	7 13C3-PFBS	302.0 > 98.8	6.494e3	1.617e4	0.442	0.126	2.98	89.7	90.8
8	8 13C4-PFHpA	367.2 > 321.8	1.607e4	1.617e4	1.117	0.126	3.87	87.9	89.0
9	9 18O2-PFHxS	403 > 102.6	6.927e3	1.617e4	0.420	0.126	3.99	101	102
10	10 13C2-PFOA	414.9 > 369.7	2.945e4	8.380e3	2.782	0.126	4.28	125	126
11	11 13C5-PFNA	468.2 > 422.9	7.953e3	1.009e4	0.846	0.126	4.61	92.1	93.2
12	12 13C8-PFOS	507.0 > 79.9	9.332e3	8.977e3	0.941	0.126	4.67	109	110
13	13 13C5-PFHxA	318>272.9	2.385e4	2.385e4	1.000	0.126	3.35	98.8	100
14	14 13C3-PFHxS	401.9 > 79.9	1.617e4	1.617e4	1.000	0.126	3.99	98.8	100
15	15 13C8-PFOA	421.3 > 376	8.380e3	8.380e3	1.000	0.126	4.27	98.8	100
16	16 13C9-PFNA	472.2 > 426.9	1.009e4	1.009e4	1.000	0.126	4.61	98.8	100
17	17 13C4-PFOS	503.0 > 79.9	8.977e3	8.977e3	1.000	0.126	4.67	98.8	100
18	18 Total PFBS	299 > 79.7		6.927e3		0.126			
19	19 Total PFHxS	398.9 > 79.6		6.927e3		0.126			
20	20 Total PFOA	413 > 368.7		2.945e4		0.126		3.91	
21	21 Total PFOS	499 > 79.9		9.332e3		0.126			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7			6494.419	

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	43.094	6926.940	

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	1311.249	29449.281	3.9

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

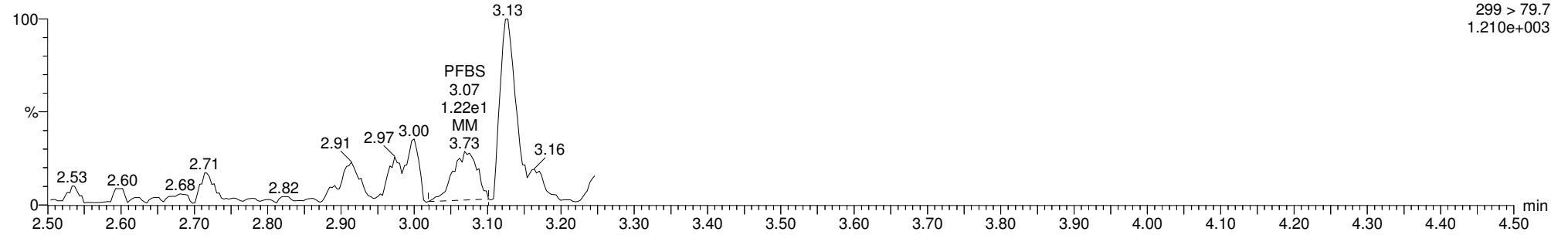
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09, Instrument: , Lab: , User:

**Total PFBS**

170301G1\_45

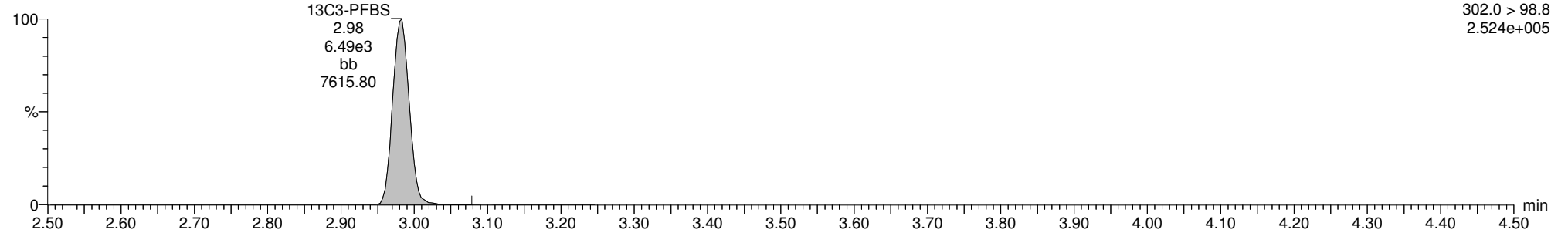
F2:MRM of 3 channels,ES-  
299 > 79.7  
1.210e+003



**13C3-PFBS**

170301G1\_45

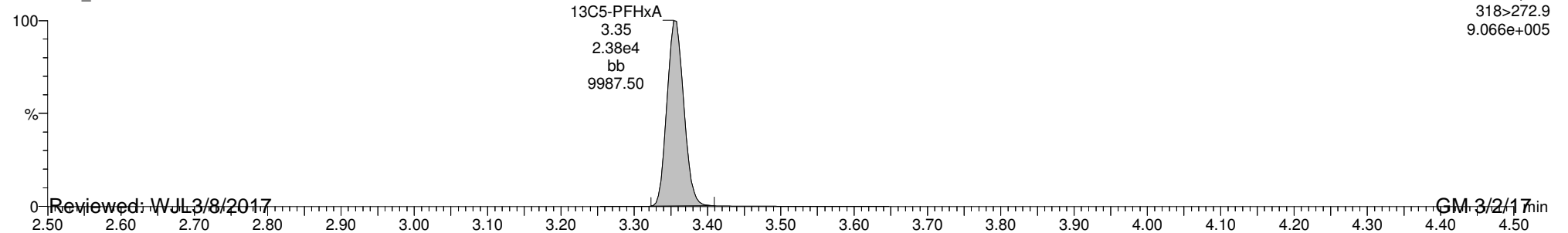
F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.524e+005



**13C5-PFHxA**

170301G1\_45

F3:MRM of 1 channel,ES-  
318>272.9  
9.066e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

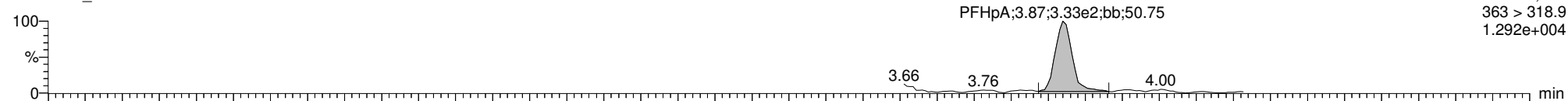
Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

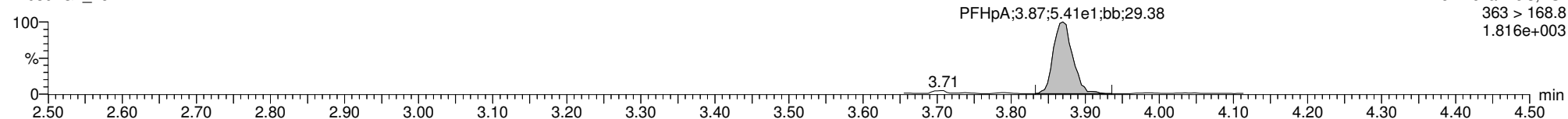
ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09, Instrument: , Lab: , User:

**PFHpA**

170301G1\_45

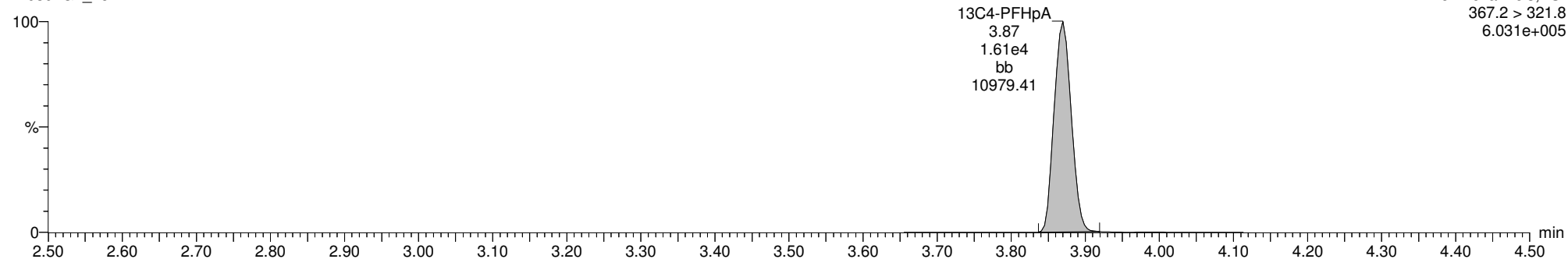


170301G1\_45



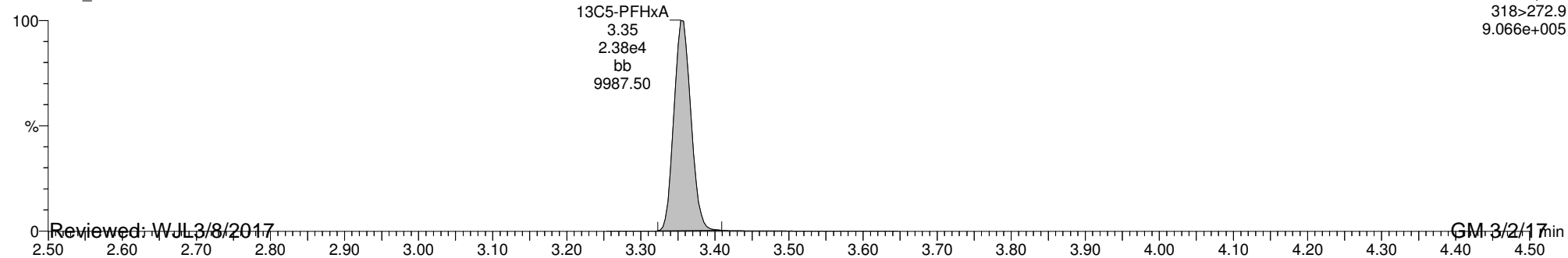
**13C4-PFHpA**

170301G1\_45



**13C5-PFHxA**

170301G1\_45



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

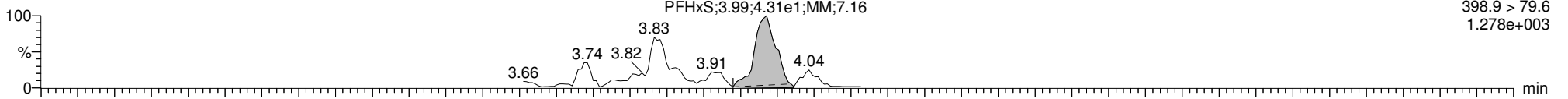
Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09, Instrument: , Lab: , User:

**Total PFHxS**

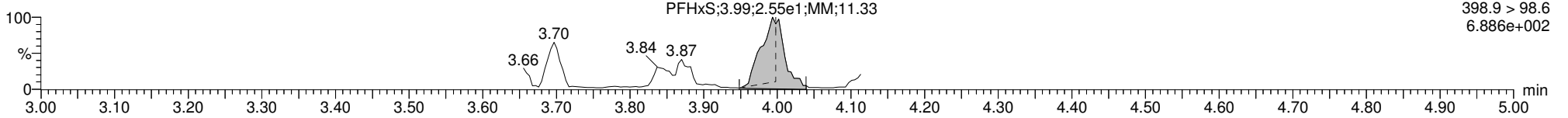
170301G1\_45

F4:MRM of 7 channels,ES-  
398.9 > 79.6  
1.278e+003



170301G1\_45

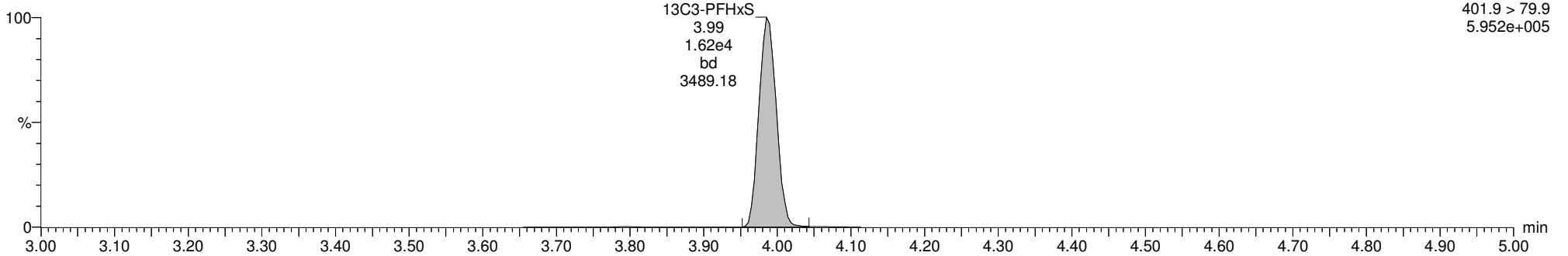
F4:MRM of 7 channels,ES-  
398.9 > 98.6  
6.886e+002



**13C3-PFHxS**

170301G1\_45

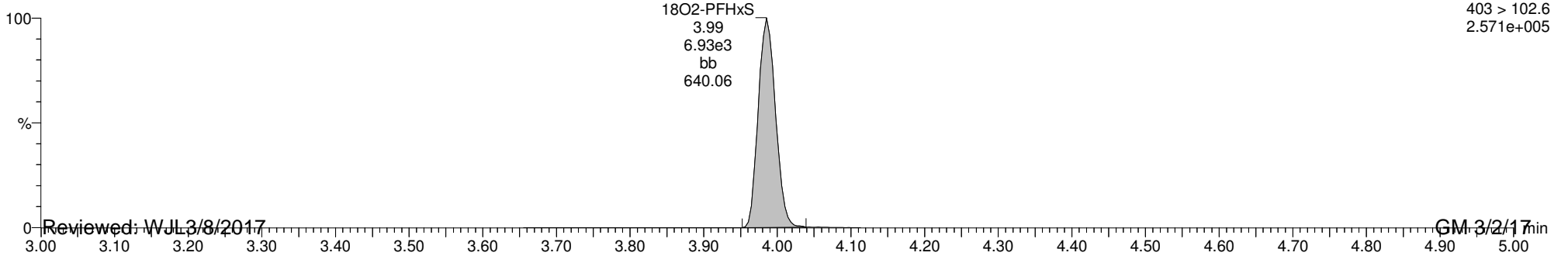
F4:MRM of 7 channels,ES-  
401.9 > 79.9  
5.952e+005



**18O2-PFHxS**

170301G1\_45

F4:MRM of 7 channels,ES-  
403 > 102.6  
2.571e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

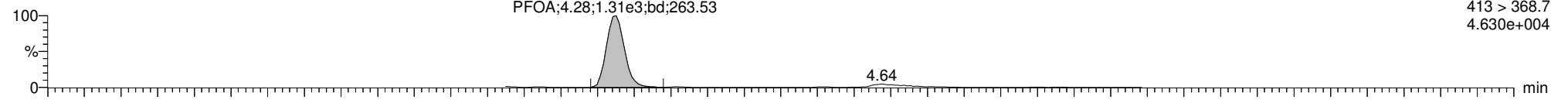
Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09, Instrument: , Lab: , User:

**Total PFOA**

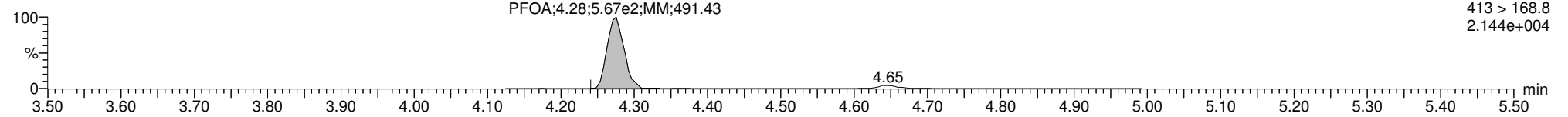
170301G1\_45

F5:MRM of 12 channels,ES-  
413 > 368.7  
4.630e+004



170301G1\_45

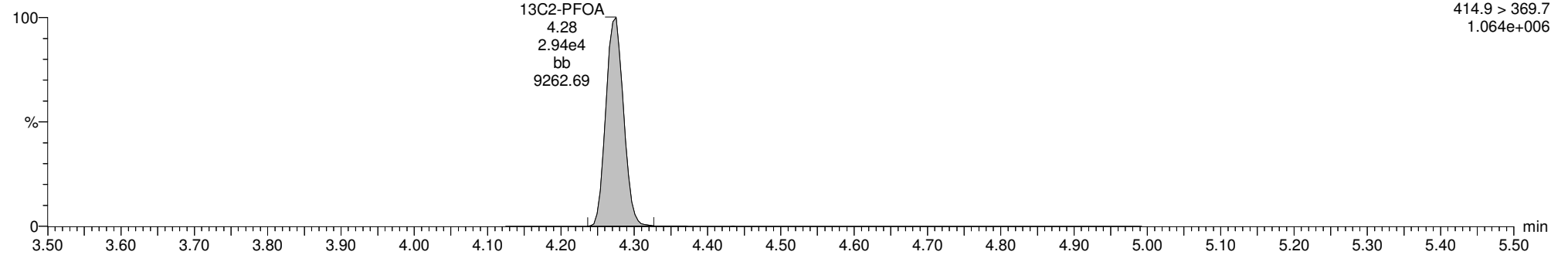
F5:MRM of 12 channels,ES-  
413 > 168.8  
2.144e+004



**13C2-PFOA**

170301G1\_45

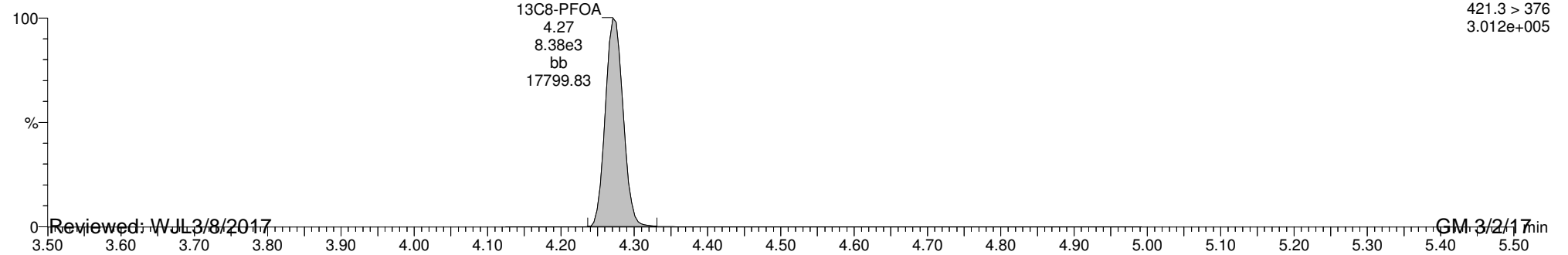
F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.064e+006



**13C8-PFOA**

170301G1\_45

F5:MRM of 12 channels,ES-  
421.3 > 376  
3.012e+005



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

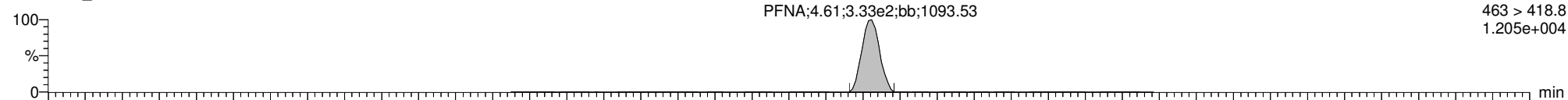
Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

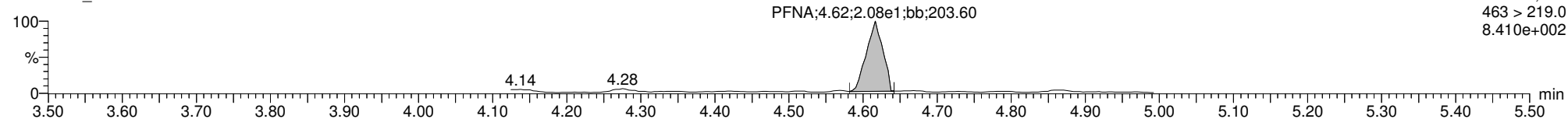
ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09, Instrument: , Lab: , User:

**PFNA**

170301G1\_45

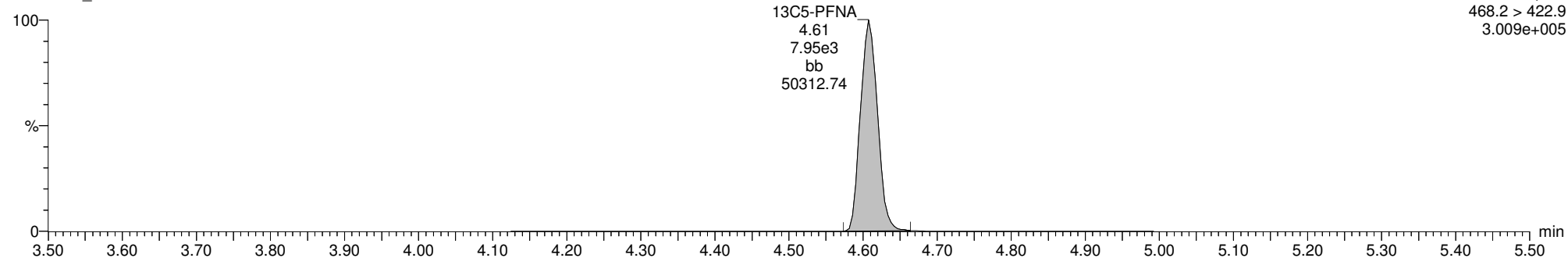


170301G1\_45



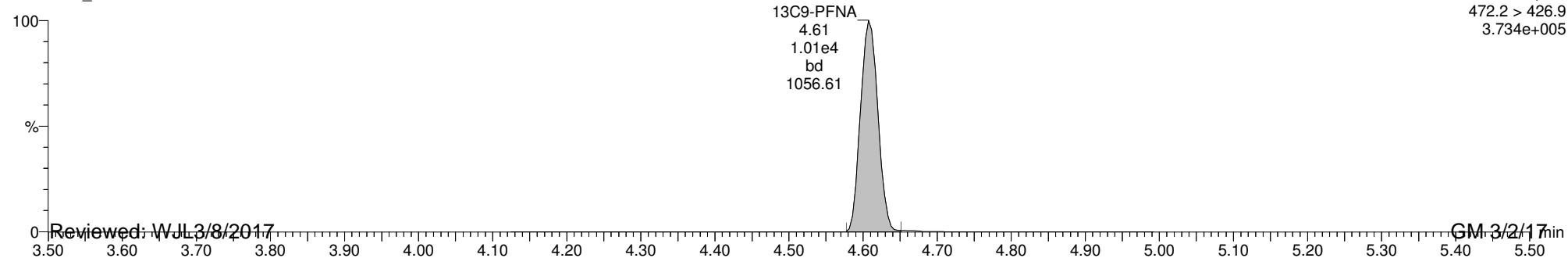
**13C5-PFNA**

170301G1\_45



**13C9-PFNA**

170301G1\_45



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-45.qld

Last Altered: Thursday, March 02, 2017 12:28:14 Pacific Standard Time

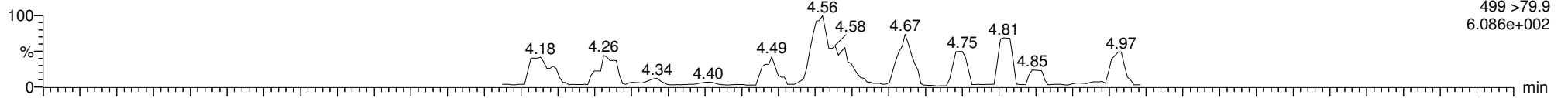
Printed: Thursday, March 02, 2017 12:29:17 Pacific Standard Time

ID: 1700263-07 OW2C-EB-0217 0.12647, Description: OW2C-EB-0217, Name: 170301G1\_45, Date: 02-Mar-2017, Time: 00:09:09, Instrument: , Lab: , User:

**Total PFOS**

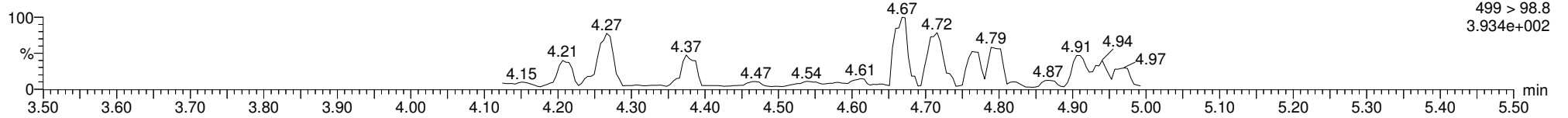
170301G1\_45

F5:MRM of 12 channels,ES-  
499 >79.9  
6.086e+002



170301G1\_45

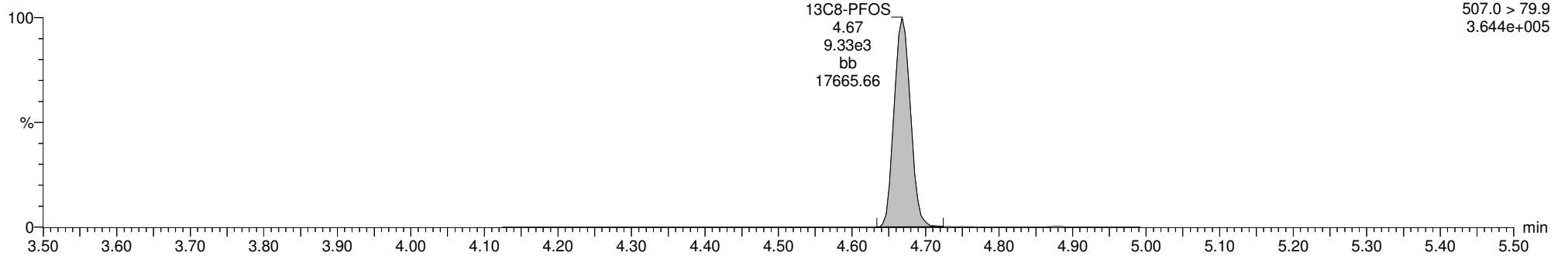
F5:MRM of 12 channels,ES-  
499 > 98.8  
3.934e+002



**13C8-PFOS**

170301G1\_45

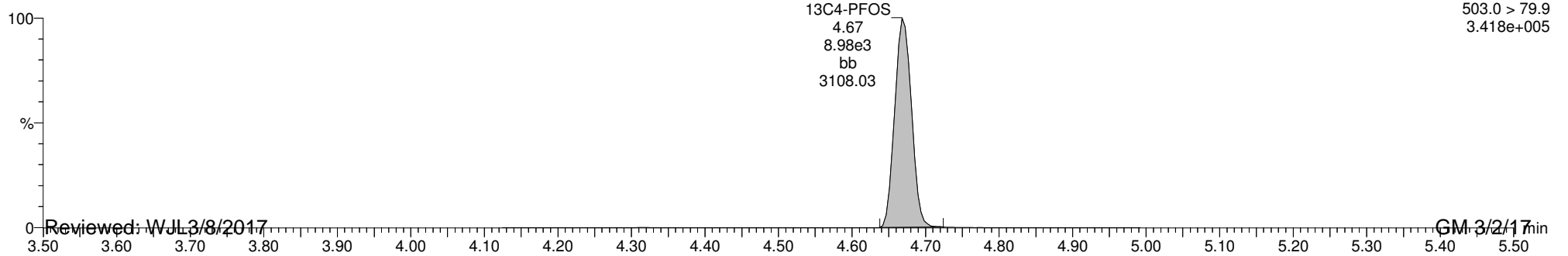
F5:MRM of 12 channels,ES-  
507.0 > 79.9  
3.644e+005



**13C4-PFOS**

170301G1\_45

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.418e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42

	# Name	Trace	Peak Area	IS Resp	RRF Mean	wt/vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7		6.179e3		0.130			
2	2 PFHpA	363 > 318.9	3.103e2	1.554e4		0.130	3.87	0.847	
3	3 PFHxS	398.9 > 79.6	4.938e1	6.515e3		0.130	3.99		
4	4 PFOA	413 > 368.7	1.263e3	2.907e4		0.130	4.28	3.69	
5	5 PFNA	463 > 418.8	3.948e2	7.753e3		0.130	4.61	1.64	
6	6 PFOS	499 > 79.9		8.224e3		0.130			
7	7 13C3-PFBS	302.0 > 98.8	6.179e3	1.636e4	0.442	0.130	2.98	82.0	85.4
8	8 13C4-PFHpA	367.2 > 321.8	1.554e4	1.636e4	1.117	0.130	3.87	81.7	85.1
9	9 18O2-PFHxS	403 > 102.6	6.515e3	1.636e4	0.420	0.130	3.99	91.1	94.8
10	10 13C2-PFOA	414.9 > 369.7	2.907e4	8.190e3	2.782	0.130	4.27	123	128
11	11 13C5-PFNA	468.2 > 422.9	7.753e3	1.150e4	0.846	0.130	4.61	76.5	79.6
12	12 13C8-PFOS	507.0 > 79.9	8.224e3	9.609e3	0.941	0.130	4.67	87.3	90.9
13	13 13C5-PFHxA	318>272.9	2.419e4	2.419e4	1.000	0.130	3.36	96.1	100
14	14 13C3-PFHxS	401.9 > 79.9	1.636e4	1.636e4	1.000	0.130	3.99	96.1	100
15	15 13C8-PFOA	421.3 > 376	8.190e3	8.190e3	1.000	0.130	4.27	96.1	100
16	16 13C9-PFNA	472.2 > 426.9	1.150e4	1.150e4	1.000	0.130	4.61	96.1	100
17	17 13C4-PFOS	503.0 > 79.9	9.609e3	9.609e3	1.000	0.130	4.67	96.1	100
18	18 Total PFBS	299 > 79.7		6.515e3		0.130			
19	19 Total PFHxS	398.9 > 79.6		6.515e3		0.130			
20	20 Total PFOA	413 > 368.7		2.907e4		0.130		3.69	
21	21 Total PFOS	499 > 79.9		8.224e3		0.130			

Vista Analytical Laboratory Q1

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42

**Total PFBS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	1 PFBS	299 > 79.7			6179.154	

**Total PFHxS**

#	Name	Trace	RT	Area	IS Area	Conc.
1	3 PFHxS	398.9 > 79.6	3.99	49.381	6514.789	

**Total PFOA**

#	Name	Trace	RT	Area	IS Area	Conc.
1	4 PFOA	413 > 368.7	4.28	1263.226	29065.115	3.7

**Total PFOS**

#	Name	Trace	RT	Area	IS Area	Conc.
1						

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

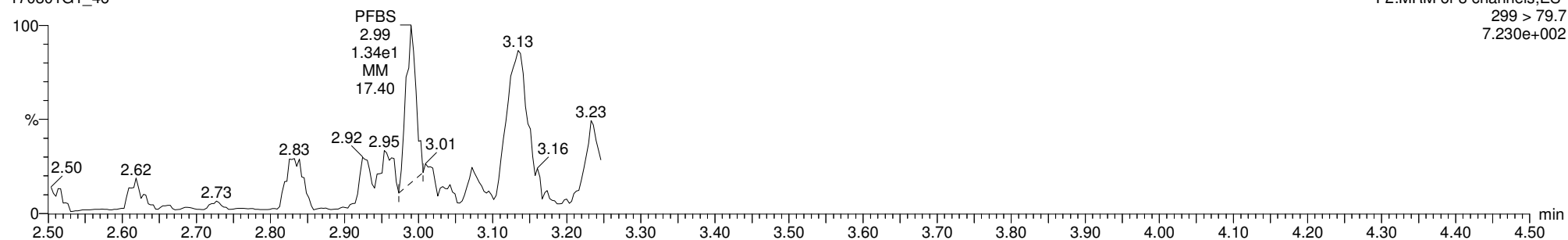
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42, Instrument: , Lab: , User:

**Total PFBS**

170301G1\_46

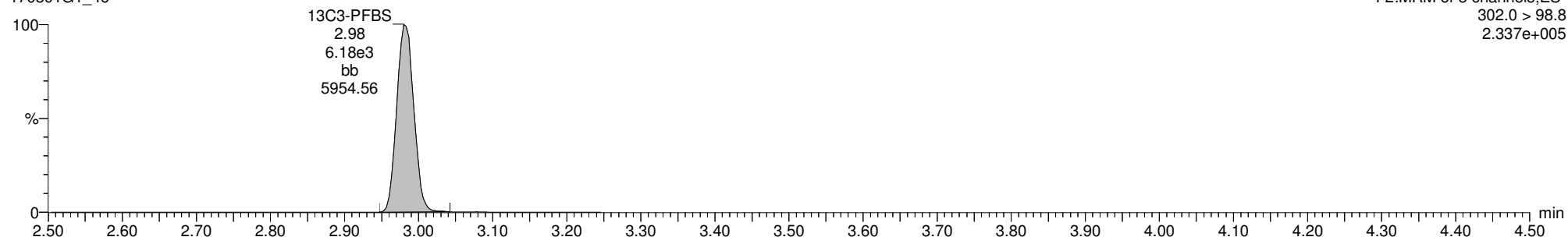
F2:MRM of 3 channels,ES-  
299 > 79.7  
7.230e+002



**13C3-PFBS**

170301G1\_46

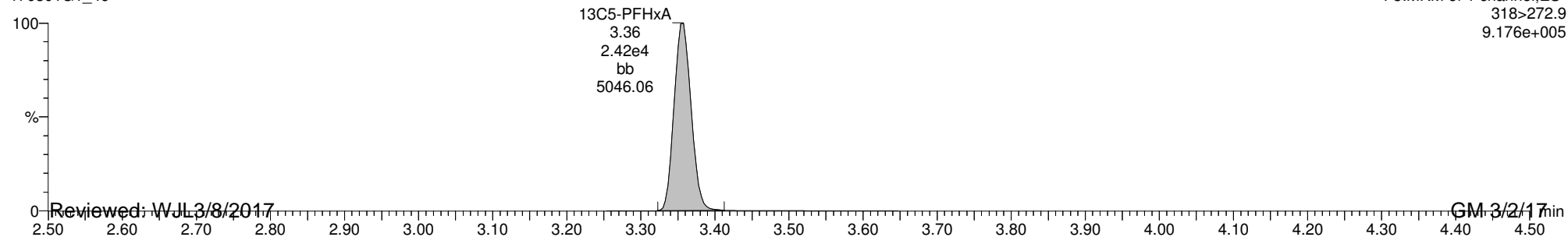
F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.337e+005



**13C5-PFHxA**

170301G1\_46

F3:MRM of 1 channel,ES-  
318>272.9  
9.176e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

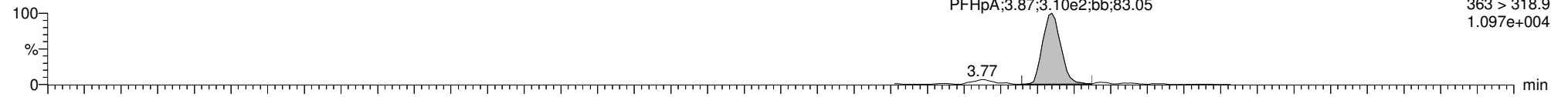
Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

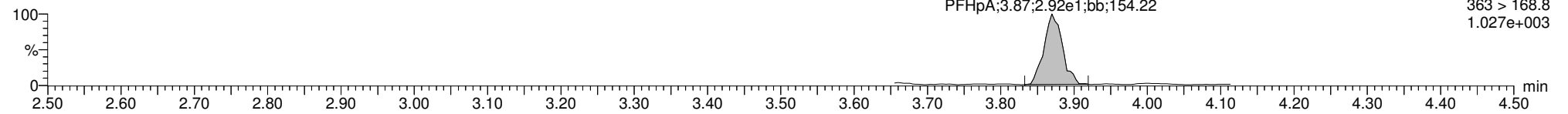
ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42, Instrument: , Lab: , User:

**PFHpA**

170301G1\_46

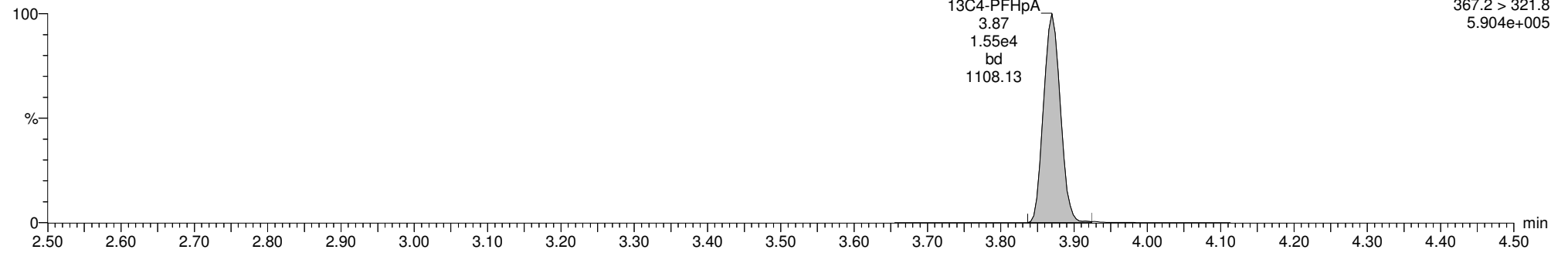


170301G1\_46



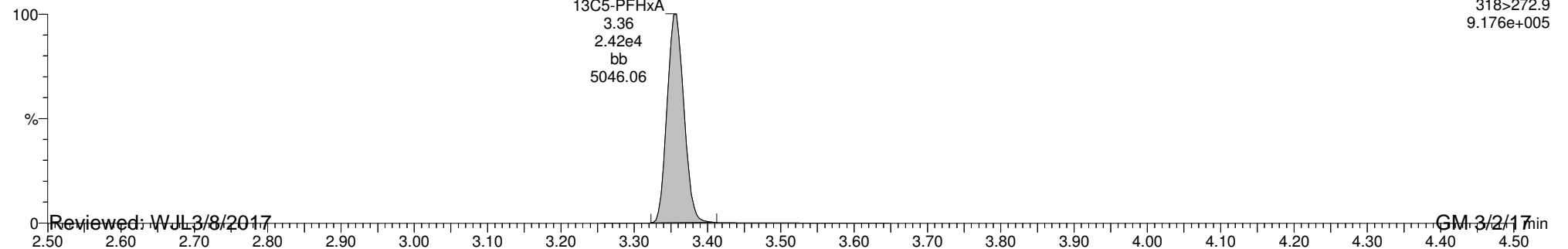
**13C4-PFHpA**

170301G1\_46



**13C5-PFHxA**

170301G1\_46



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

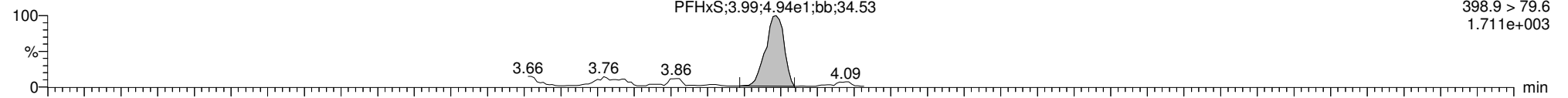
Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42, Instrument: , Lab: , User:

**Total PFHxS**

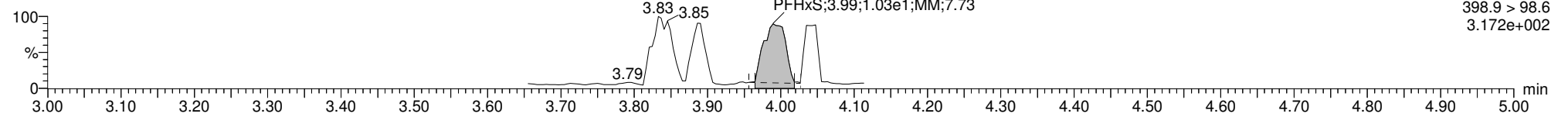
170301G1\_46

F4:MRM of 7 channels,ES-  
398.9 > 79.6  
1.711e+003



170301G1\_46

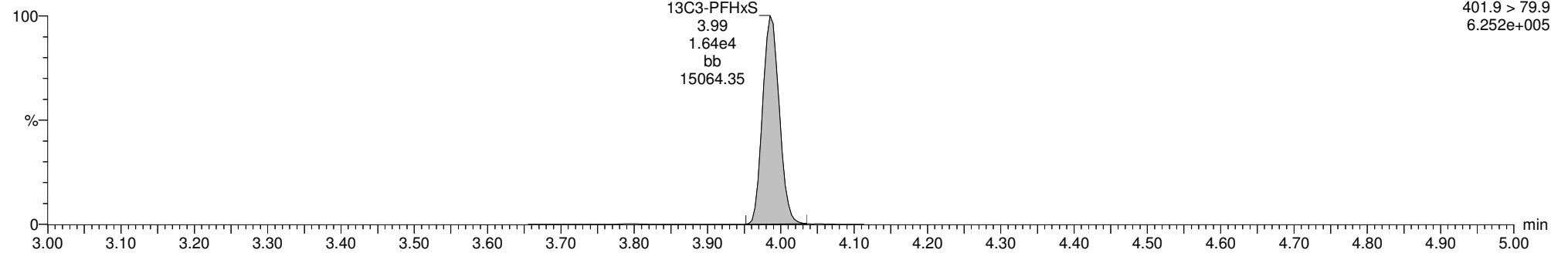
F4:MRM of 7 channels,ES-  
398.9 > 98.6  
3.172e+002



**13C3-PFHxS**

170301G1\_46

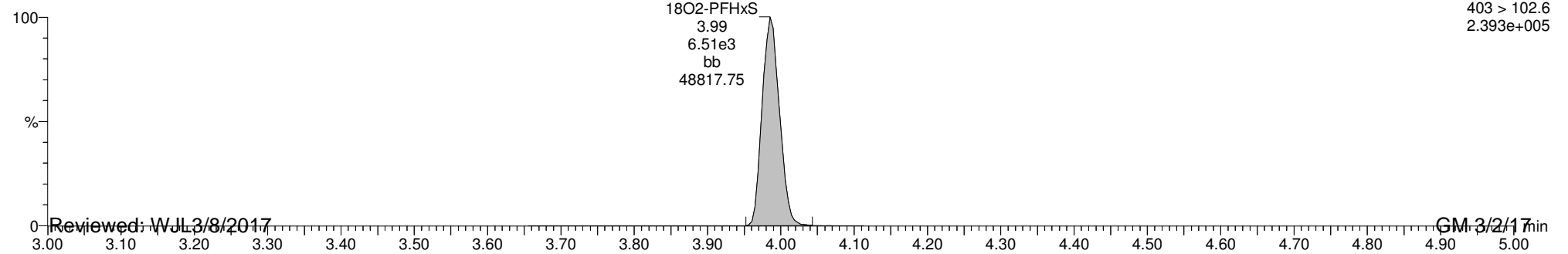
F4:MRM of 7 channels,ES-  
401.9 > 79.9  
6.252e+005



**18O2-PFHxS**

170301G1\_46

F4:MRM of 7 channels,ES-  
403 > 102.6  
2.393e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

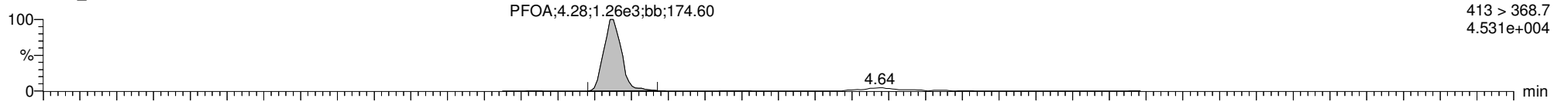
Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42, Instrument: , Lab: , User:

**Total PFOA**

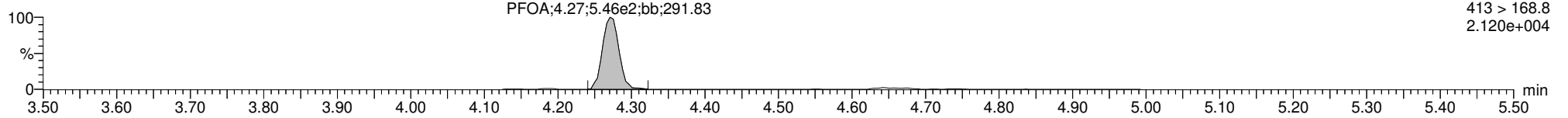
170301G1\_46

F5:MRM of 12 channels,ES-  
413 > 368.7  
4.531e+004



170301G1\_46

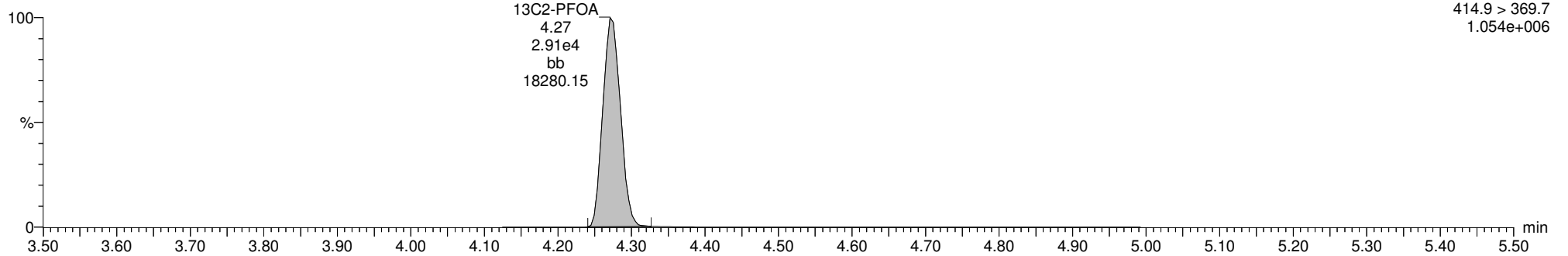
F5:MRM of 12 channels,ES-  
413 > 168.8  
2.120e+004



**13C2-PFOA**

170301G1\_46

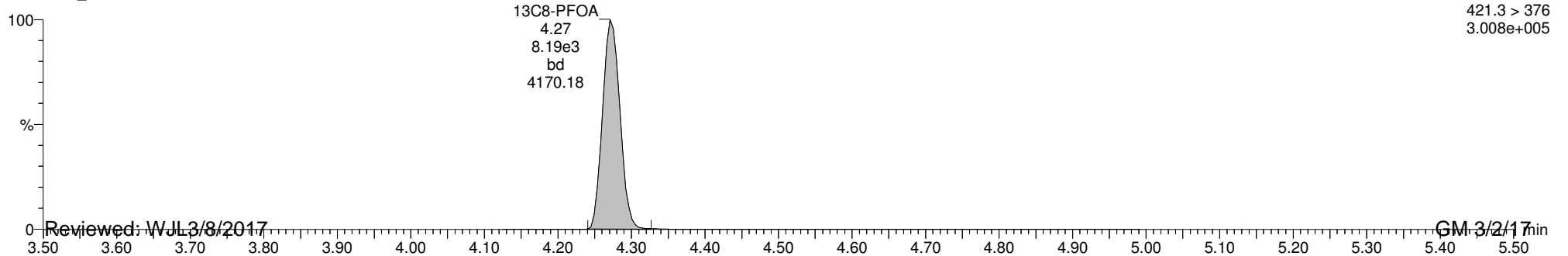
F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.054e+006



**13C8-PFOA**

170301G1\_46

F5:MRM of 12 channels,ES-  
421.3 > 376  
3.008e+005



Reviewed: WJL 3/8/2017

GM 3/2/17



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

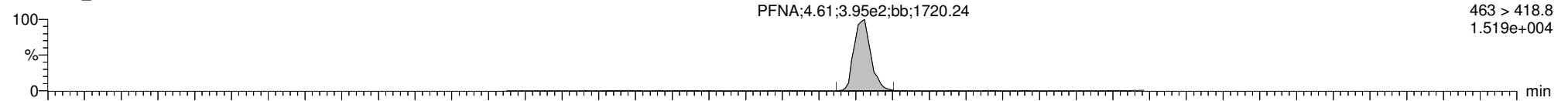
Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

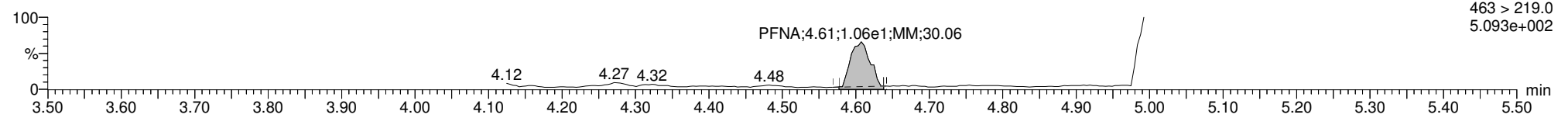
ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42, Instrument: , Lab: , User:

**PFNA**

170301G1\_46

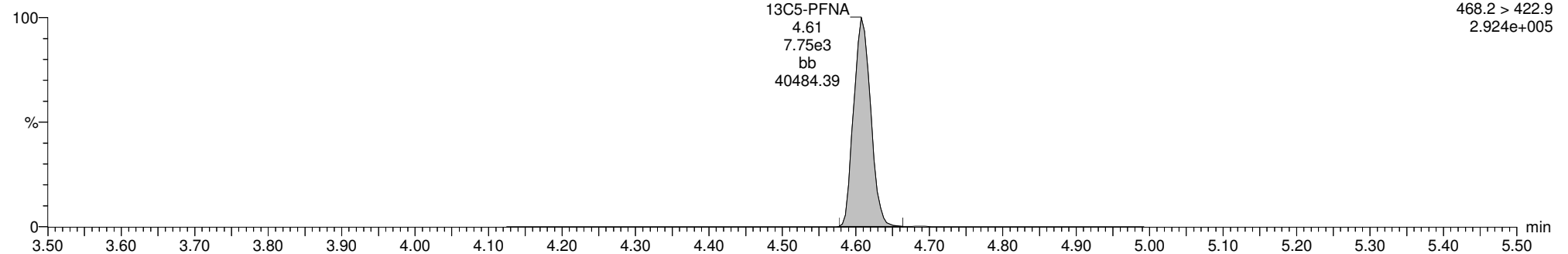


170301G1\_46



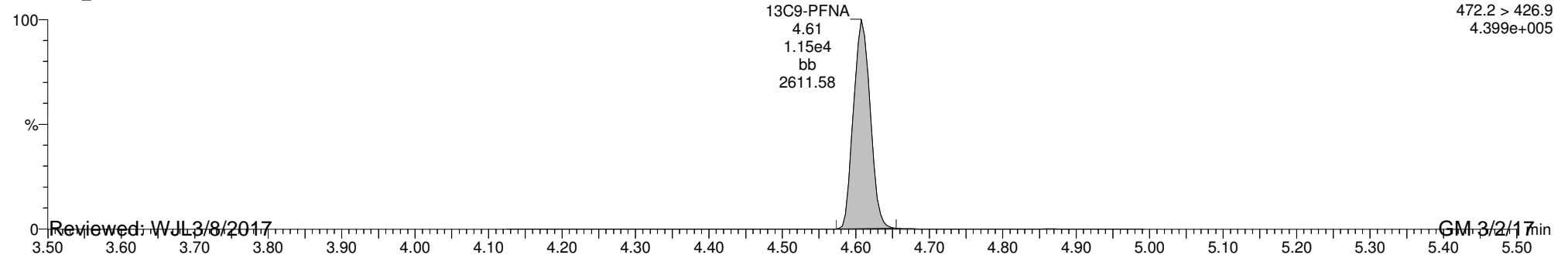
**13C5-PFNA**

170301G1\_46



**13C9-PFNA**

170301G1\_46



Reviewed: WJL 3/8/2017

GM 3/2/17

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-46.qld

Last Altered: Thursday, March 02, 2017 12:34:47 Pacific Standard Time

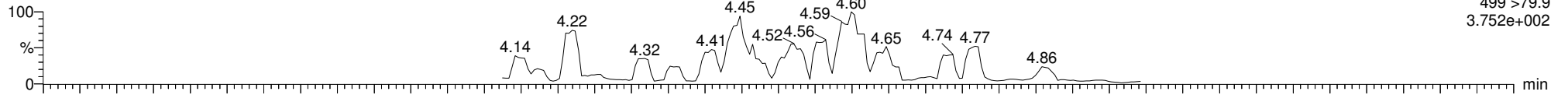
Printed: Thursday, March 02, 2017 12:35:00 Pacific Standard Time

ID: 1700263-08 OW2C-FB-0217 0.13011, Description: OW2C-FB-0217, Name: 170301G1\_46, Date: 02-Mar-2017, Time: 00:21:42, Instrument: , Lab: , User:

**Total PFOS**

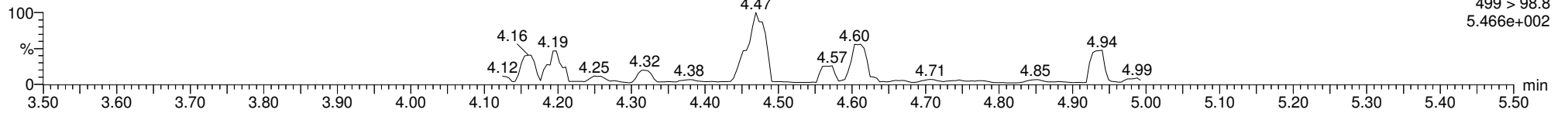
170301G1\_46

F5:MRM of 12 channels,ES-  
499 >79.9  
3.752e+002



170301G1\_46

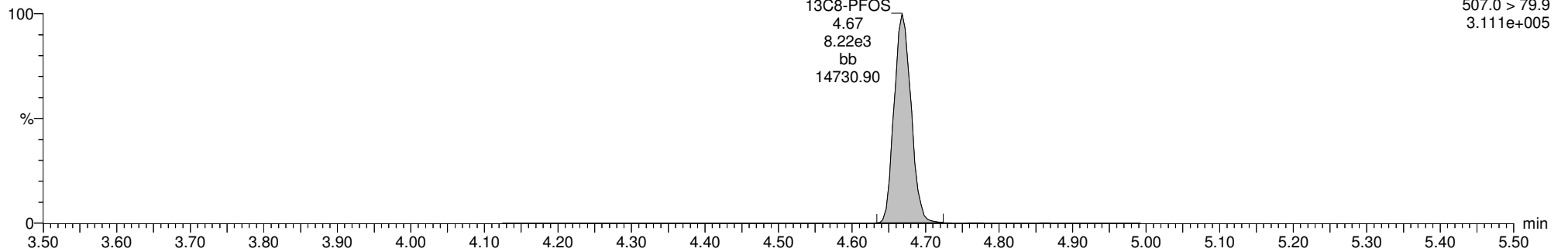
F5:MRM of 12 channels,ES-  
499 > 98.8  
5.466e+002



**13C8-PFOS**

170301G1\_46

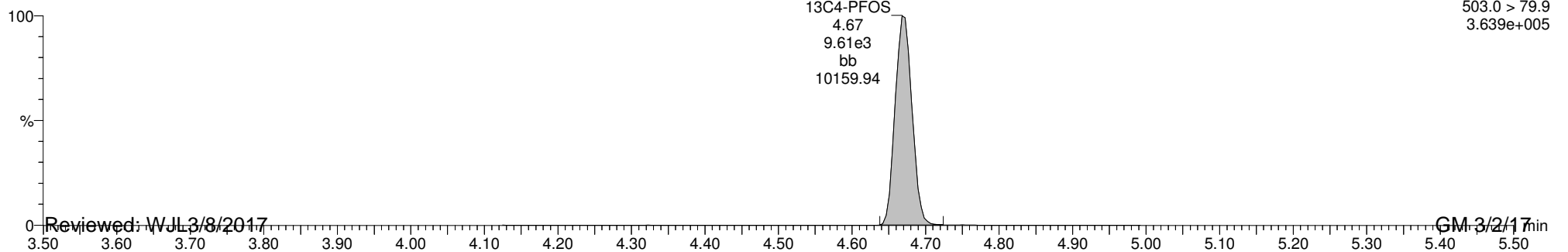
F5:MRM of 12 channels,ES-  
507.0 > 79.9  
3.111e+005



**13C4-PFOS**

170301G1\_46

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.639e+005



Reviewed: WJL 3/8/2017

GM 3/2/17

**CONTINUING CALIBRATION**

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-29.qld

Last Altered: Thursday, March 02, 2017 09:18:09 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:19:04 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170301G1\_29, Date: 01-Mar-2017, Time: 20:48:27, ID: ST170301G1-9 PFC CS2 17C0123, Description: PFC CS2 17C0123 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	6.78e3	7.52e3		1.000	2.99	5.23	104.7
2	2 PFHpA	363 > 318.9	1.46e4	2.10e4		1.000	3.88	4.73	94.6
3	3 PFHxS	398.9 > 79.6	5.91e3	7.38e3		1.000	3.99	5.64	112.9
4	4 PFOA	413 > 368.7	1.20e4	3.67e4		1.000	4.28	4.35	87.0
5	5 PFNA	463 > 418.8	1.11e4	1.17e4		1.000	4.61	5.44	108.9
6	6 PFOS	499 > 79.9	2.09e3	1.05e4		1.000	4.67	4.77	95.4
7	7 13C3-PFBS	302.0 > 98.8	7.52e3	1.84e4	0.442	1.000	2.98	11.6	92.6
8	8 13C4-PFHpA	367.2 > 321.8	2.10e4	1.84e4	1.117	1.000	3.87	12.8	102.2
9	9 18O2-PFHxS	403 > 102.6	7.38e3	1.84e4	0.420	1.000	3.99	12.0	95.7
10	10 13C2-PFOA	414.9 > 369.7	3.67e4	1.11e4	2.782	1.000	4.28	14.9	118.8
11	11 13C5-PFNA	468.2 > 422.9	1.17e4	1.28e4	0.846	1.000	4.61	13.4	107.5
12	12 13C8-PFOS	507.0 > 79.9	1.05e4	1.06e4	0.941	1.000	4.67	13.2	105.3
13	13 13C5-PFHxA	318 > 272.9	3.07e4	3.07e4	1.000	1.000	3.36	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.84e4	1.84e4	1.000	1.000	3.99	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.11e4	1.11e4	1.000	1.000	4.28	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.28e4	1.28e4	1.000	1.000	4.61	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	1.06e4	1.06e4	1.000	1.000	4.67	12.5	100.0

75-125  
↓  
60-150  
↓  
80-150  
60-150  
↓

ES 3/2/17

Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:06:06 Pacific Standard Time  
Printed: Thursday, March 02, 2017 09:06:22 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45  
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170301G1_1	IPA	01-Mar-17	14:57:20
2	170301G1_2	ST170301G1-1 PFC CS-2 17C0119	01-Mar-17	15:09:39
3	170301G1_3	ST170301G1-2 PFC CS-1 17C0120	01-Mar-17	15:22:08
4	170301G1_4	ST170301G1-3 PFC CS0 17C0121	01-Mar-17	15:34:43
5	170301G1_5	ST170301G1-4 PFC CS1 17C0122	01-Mar-17	15:47:17
6	170301G1_6	ST170301G1-5 PFC CS2 17C0123	01-Mar-17	15:59:50
7	170301G1_7	ST170301G1-6 PFC CS3 17C0124	01-Mar-17	16:12:23
8	170301G1_8	ST170301G1-7 PFC CS4 17C0125	01-Mar-17	16:24:59
9	170301G1_9	ST170301G1-8 PFC CS5 17B2726	01-Mar-17	16:37:33
10	170301G1_10	IPA	01-Mar-17	16:50:06
11	170301G1_11	SS170301G1-1 PFC SSS 17C0127	01-Mar-17	17:02:38
12	170301G1_12	IPA	01-Mar-17	17:15:08
13	170301G1_13	B7B0118-BS1 OPR 0.125	01-Mar-17	17:27:46
14	170301G1_14	B7B0114-BS1 OPR 0.125	01-Mar-17	17:40:13
15	170301G1_15	IPA	01-Mar-17	17:52:54
16	170301G1_16	B7B0118-BLK1 Method Blank 0.125	01-Mar-17	18:05:24
17	170301G1_17	B7B0114-BLK1 Method Blank 0.125	01-Mar-17	18:17:56
18	170301G1_18	1700261-01 WI-CV-GW10D-0217 0.125	01-Mar-17	18:30:28
19	170301G1_19	1700261-02 WI-CV-EB01-022017 0.125	01-Mar-17	18:43:01
20	170301G1_20	1700261-03 WI-CV-GW065-0217 0.125	01-Mar-17	18:55:35
21	170301G1_21	1700261-04 WI-CV-GW065/5P-0217 0.125	01-Mar-17	19:08:08
22	170301G1_22	1700261-05 WI-CV-GW105-0217 0.125	01-Mar-17	19:20:37
23	170301G1_23	1700261-06 WI-CV-EB03-022217 0.125	01-Mar-17	19:33:12
24	170301G1_24	1700261-07 WI-CV-GW06M-0217 0.125	01-Mar-17	19:45:41
25	170301G1_25	B7B0118-MSD1 Matrix Spike Dup 0.125	01-Mar-17	19:58:14
26	170301G1_26	B7B0118-MS1 Matrix Spike 0.125	01-Mar-17	20:10:56
27	170301G1_27	1700261-08 WI-CV-EB02-022117 0.125	01-Mar-17	20:23:23
28	170301G1_28	IPA	01-Mar-17	20:35:54
29	170301G1_29	ST170301G1-9 PFC CS2 17C0123	01-Mar-17	20:48:27
30	170301G1_30	IPA	01-Mar-17	21:01:00
31	170301G1_31	B7B0129-BS1 OPR 0.125	01-Mar-17	21:13:33
32	170301G1_32	IPA	01-Mar-17	21:26:03

Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:06:06 Pacific Standard Time  
Printed: Thursday, March 02, 2017 09:06:22 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
33	170301G1_33	B7B0129-BLK1 Method Blank 0.125	01-Mar-17	21:38:38
34	170301G1_34	1700261-09 WI-CV-EB04-022317 0.125	01-Mar-17	21:51:09
35	170301G1_35	1700261-10 WI-CV-GW13M-0217 0.125	01-Mar-17	22:03:43
36	170301G1_36	1700245-01 Milk - 012617 0.125	01-Mar-17	22:16:13
37	170301G1_37	1700263-01 OW2E-MW09R-0217 0.12578	01-Mar-17	22:28:46
38	170301G1_38	1700263-02 OW2E-MW09RP-0217 0.12994	01-Mar-17	22:41:20
39	170301G1_39	1700263-03 OW2C-MW05-0217 0.13161	01-Mar-17	22:53:54
40	170301G1_40	1700263-04 OW2C-MW25-0217 0.12534	01-Mar-17	23:06:27
41	170301G1_41	1700263-05 OW2C-MW19-0217 0.12438	01-Mar-17	23:19:00
42	170301G1_42	B7B0129-MS1 Matrix Spike 0.12756	01-Mar-17	23:31:30
43	170301G1_43	B7B0129-MSD1 Matrix Spike Dup 0.12637	01-Mar-17	23:44:02
44	170301G1_44	1700263-06 OW2C-MW24-0217 0.1257	01-Mar-17	23:56:35
45	170301G1_45	1700263-07 OW2C-EB-0217 0.12647	02-Mar-17	00:09:09
46	170301G1_46	1700263-08 OW2C-FB-0217 0.13011	02-Mar-17	00:21:42
47	170301G1_47	IPA	02-Mar-17	00:34:15
48	170301G1_48	ST170301G1-10 PFC CS2 17C0123	02-Mar-17	00:46:50
49	170301G1_49	IPA	02-Mar-17	00:59:21

# LC Calibration Standards Review Checklist

Q1

Calibration ID:	L M H	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
<u>ST17030161-9</u>	(L M H)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>↓ -10</u>	(L M H)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Full Mass Cai. Date: 12/6/17

Run Log Present:

# of Samples per Sequence Checked:

Reviewed By: elm 3/2/17  
Initials/Date

**Comments:**  
 L6 ; Two Transitions

Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:19:39 Pacific Standard Time  
Printed: Thursday, March 02, 2017 09:22:00 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45  
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

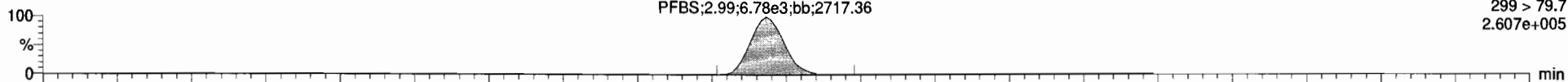
ID: ST170301G1-9 PFC CS2 17C0123, Description: PFC CS2 17C0123 A, Name: 170301G1\_29, Date: 01-Mar-2017, Time: 20:48:27, Instrument: , Lab: , User:

**PFBS**

170301G1\_29

PFBS;2.99;6.78e3;bb;2717.36

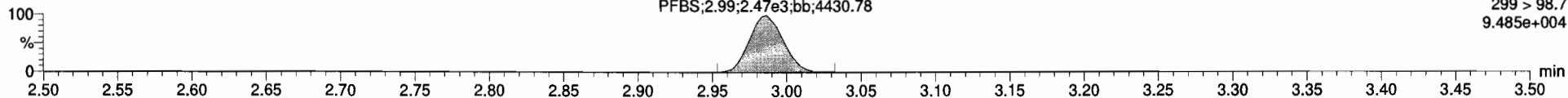
F2:MRM of 3 channels,ES-  
299 > 79.7  
2.607e+005



170301G1\_29

PFBS;2.99;2.47e3;bb;4430.78

F2:MRM of 3 channels,ES-  
299 > 98.7  
9.485e+004

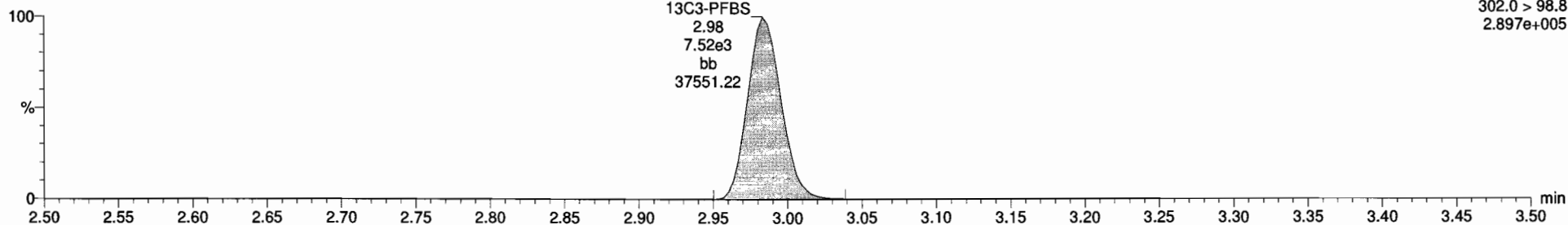


**13C3-PFBS**

170301G1\_29

13C3-PFBS  
2.98  
7.52e3  
bb  
37551.22

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.897e+005

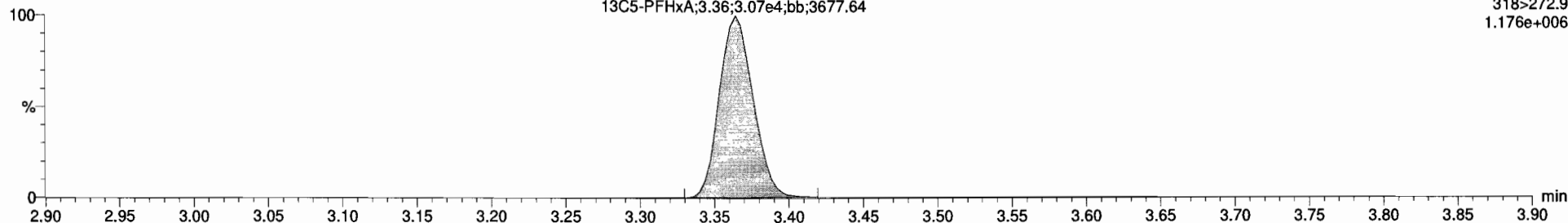


**13C5-PFHxA**

170301G1\_29

13C5-PFHxA;3.36;3.07e4;bb;3677.64

F3:MRM of 1 channel,ES-  
318>272.9  
1.176e+006





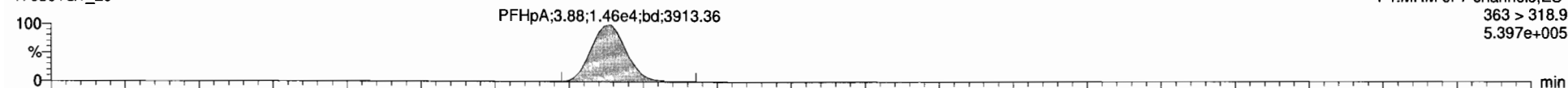
Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:19:39 Pacific Standard Time  
Printed: Thursday, March 02, 2017 09:22:00 Pacific Standard Time

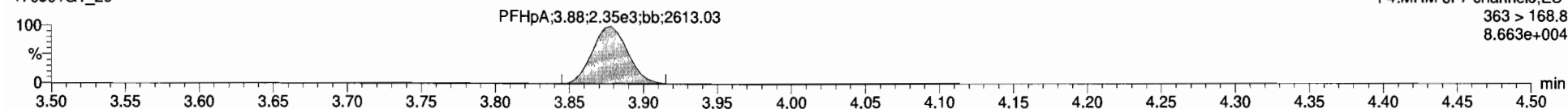
ID: ST170301G1-9 PFC CS2 17C0123, Description: PFC CS2 17C0123 A, Name: 170301G1\_29, Date: 01-Mar-2017, Time: 20:48:27, Instrument: , Lab: , User:

**PFHpA**

170301G1\_29

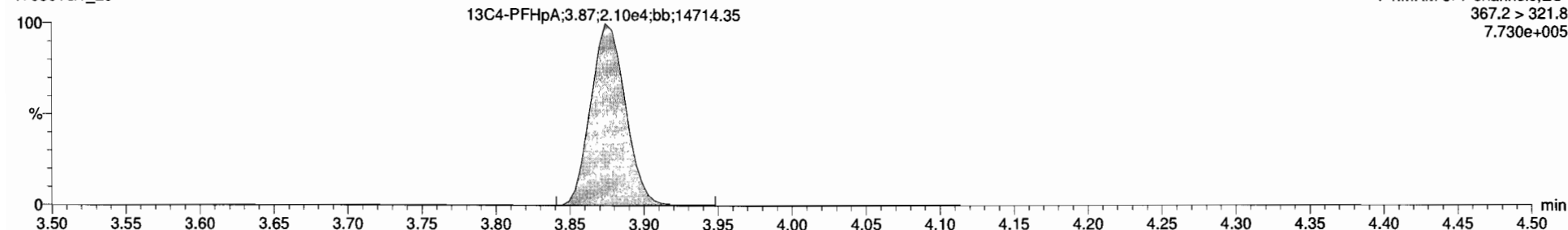


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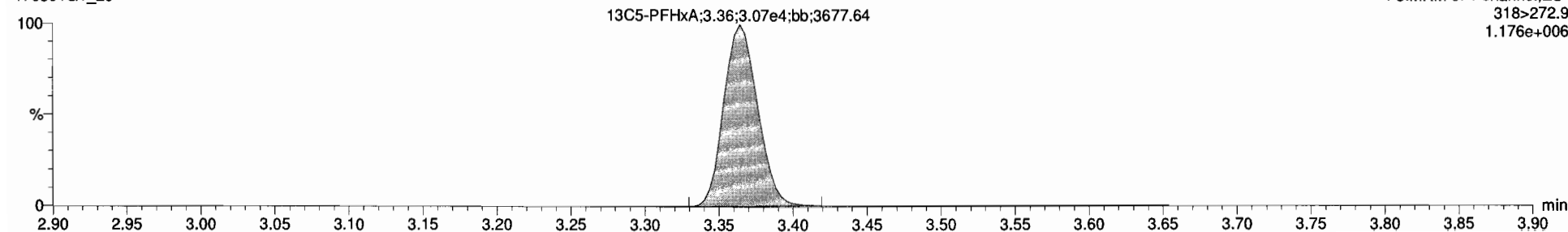
**13C4-PFHpA**

170301G1\_29



**13C5-PFHxA**

170301G1\_29



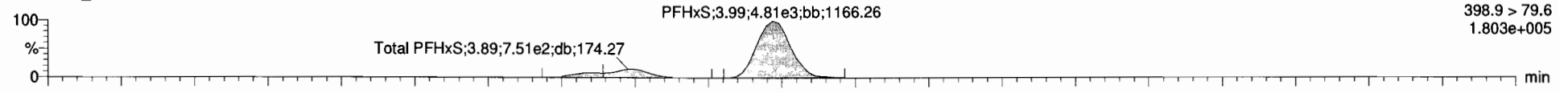
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Printed: Thursday, March 02, 2017 09:22:00 Pacific Standard Time

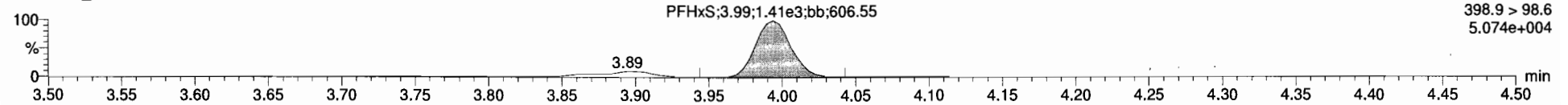
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**Total PFHxS**

170301G1\_29

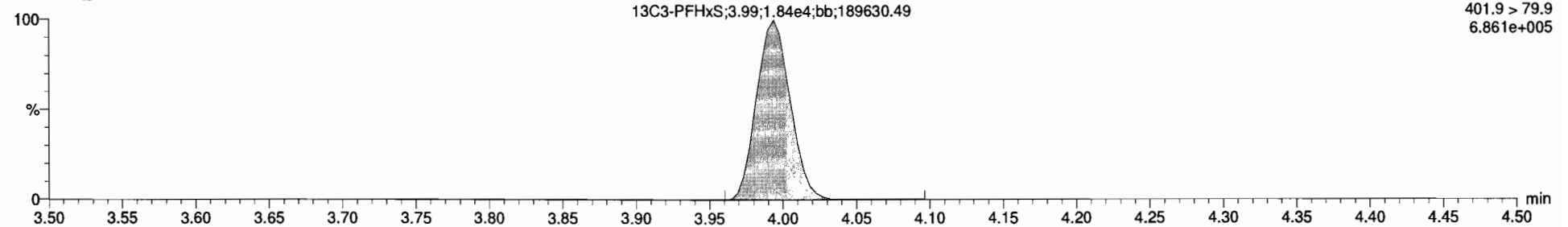


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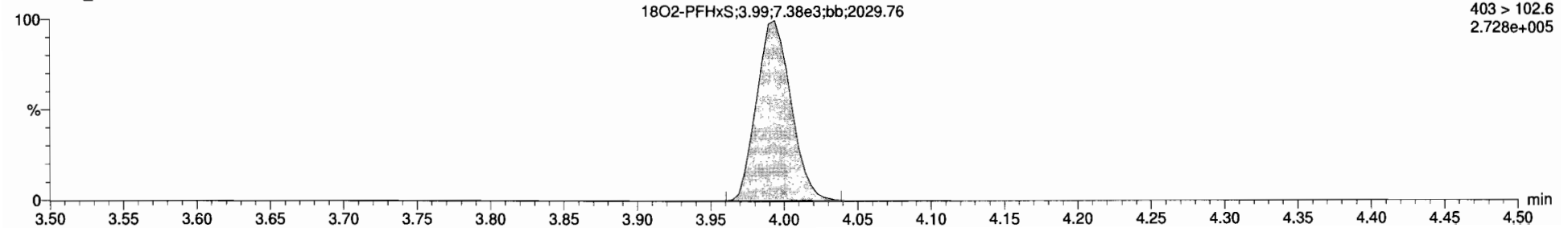
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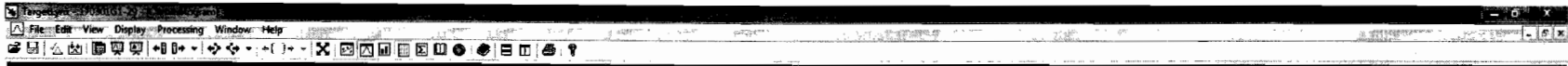
170301G1\_29



**18O2-PFHxS**

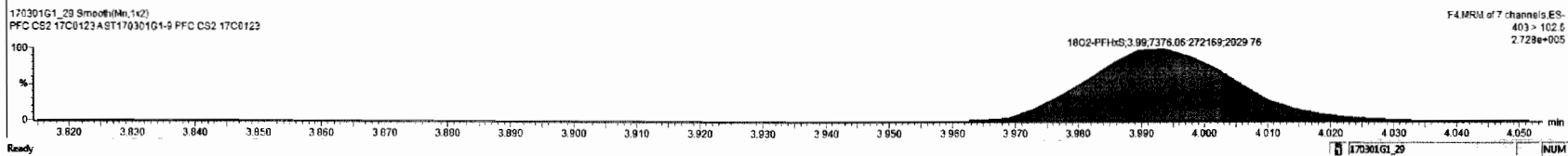
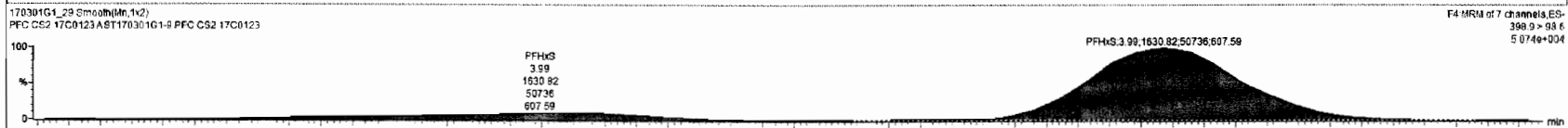
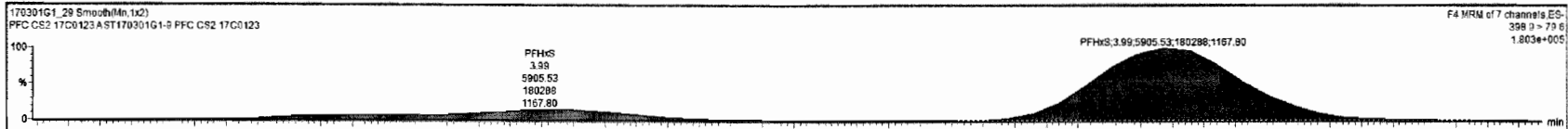
170301G1\_29





170301G1\_29 - ST170301G1-9 PFC CS2 17C0123 - PFC CS2 17C0123 A

#	Name	Conc	DL	SRUC	EMPC	Abn Flag	RF	RT	W	Ear	RA	N/N	RRT	Acq Date	Acq Time	1 <sup>o</sup> Chr Name	D	Sample Test	Factor1	SWP	Cal/Fw	INCL
1	PFBS	5.233006	0.0086	104.7		6.775e3		2.99	1	7	0.365	YES	1.001	01-Mar-17	20:43:27	21.343	ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
2	PFHA	4.728091		94.6		1.482e4		3.68	2	8			1.001	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
3	PFHxS	5.905519		112.8		5.905e3		3.99	3	9			1.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
4	PFOA	4.349281		87.0		1.195e4		4.28	4	10			1.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
5	PFNA	5.4440177		108.9		1.106e4		4.61	5	11			1.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
6	PFOS	4.7718719	0.0168	95.4		2.006e3		4.67	6	12			0.999	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
7	13C3-PFBS	11.570426	0.00794	92.6		7.515e3	0.442	2.98	7	14			0.887	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
8	13C4-PFHA	12.780749	0.00214	102.2		2.096e4	1.117	3.67	8	14			0.970	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
9	18O2-PFHxS	11.957173	0.0145	95.7		7.376e3	0.420	3.99	9	14			1.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
10	13C2-PFOA	14.855667	0.0115	118.8		3.671e4	2.782	4.28	10	15			1.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
11	13C5-PFNA	13.438076	0.00548	107.5		1.167e4	0.846	4.61	11	16			1.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
12	13C3-PFOS	13.158179	0.00453	105.3		1.050e4	0.941	4.67	12	17			1.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
13	13C5-PFHA	12.500000	0.00850	100.0		3.070e4	1.000	3.36	13	13			0.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
14	13C3-PFHxS	12.500000	0.00165	100.0		1.636e4	1.000	3.99	14	14			0.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
15	13C6-PFOA	12.500000	0.00445	100.0		1.110e4	1.000	4.28	15	15			0.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
16	13C3-PFNA	12.500000	0.00559	100.0		1.283e4	1.000	4.61	16	16			0.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
17	13C4-PFOS	12.500000	0.0156	100.0		1.059e4	1.000	4.67	17	17			0.000	01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
18	Total PFBS	5.233006	0.009177					19						01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
19	Total PFHxS	6.5154125						19						01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
20	Total PFOA	4.349281						20						01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
21	Total PFOS	6.129806	0.0168					21						01-Mar-17	20:43:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO



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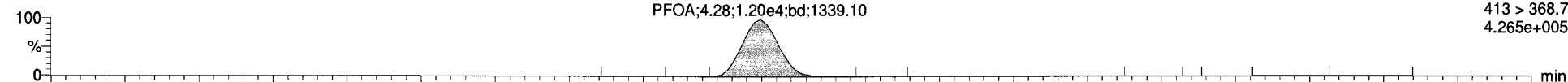
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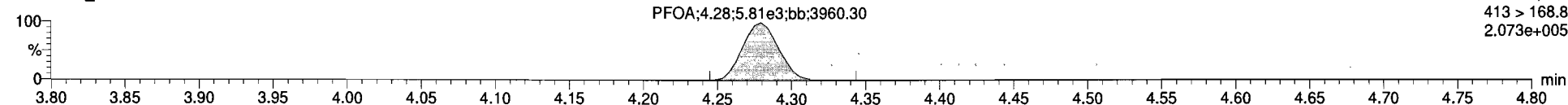
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**Total PFOA**

170301G1\_29

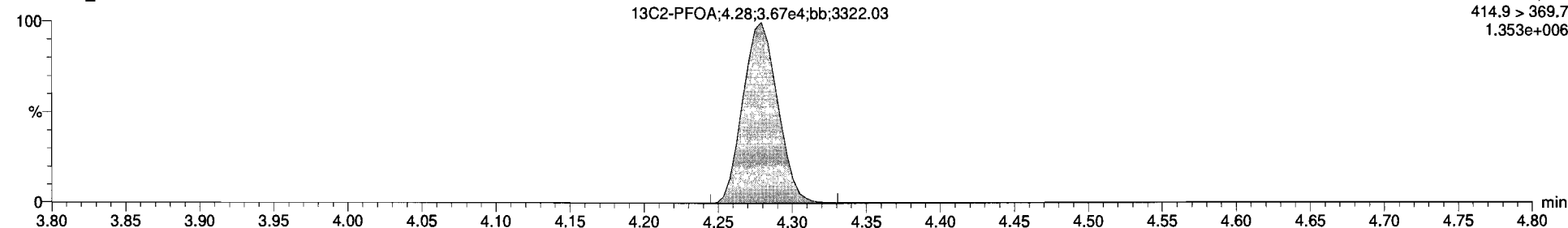


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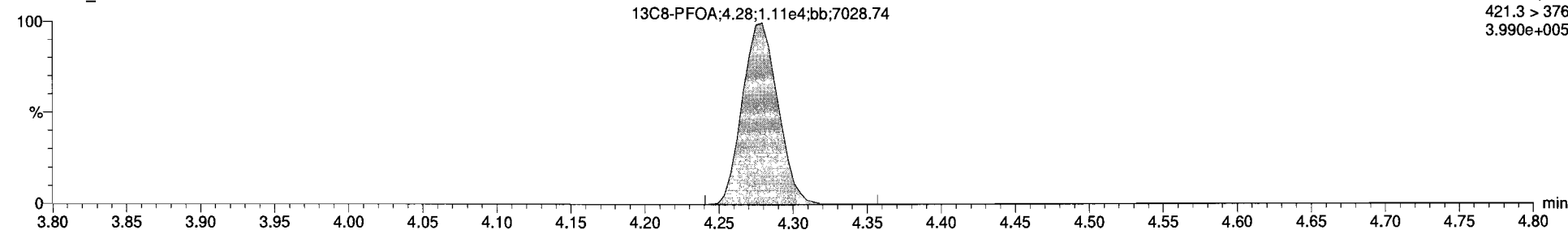
**13C2-PFOA**

170301G1\_29



**13C8-PFOA**

170301G1\_29



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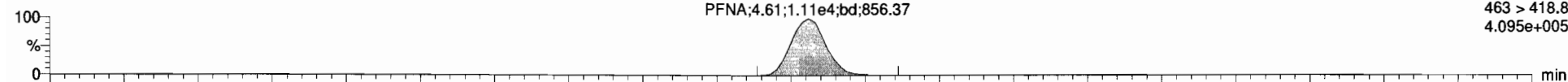
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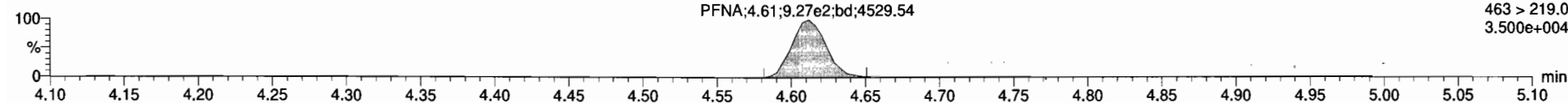
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**PFNA**

170301G1\_29

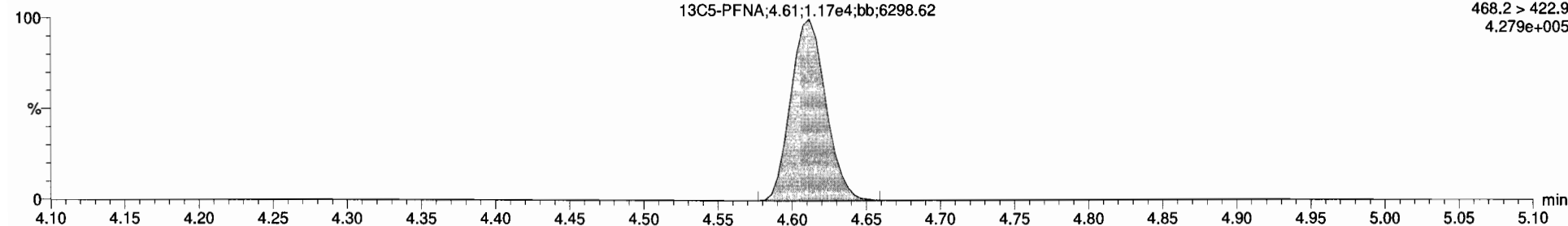


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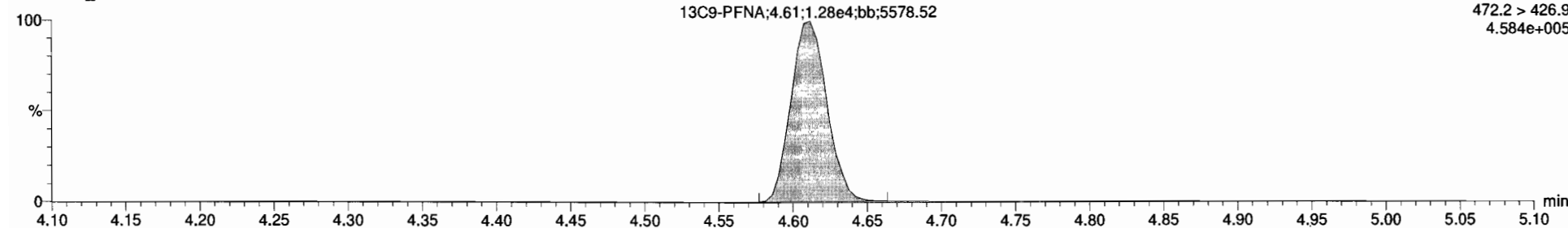
**13C5-PFNA**

170301G1\_29



**13C9-PFNA**

170301G1\_29



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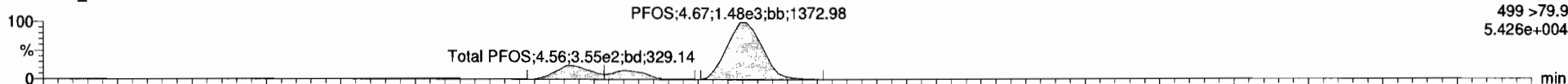
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**Total PFOS**

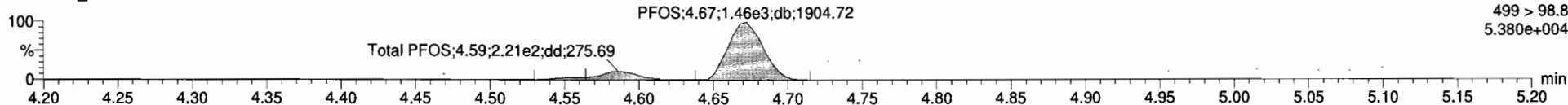
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F5:MRM of 12 channels,ES-  
499 >79.9  
5.426e+004



170301G1\_29

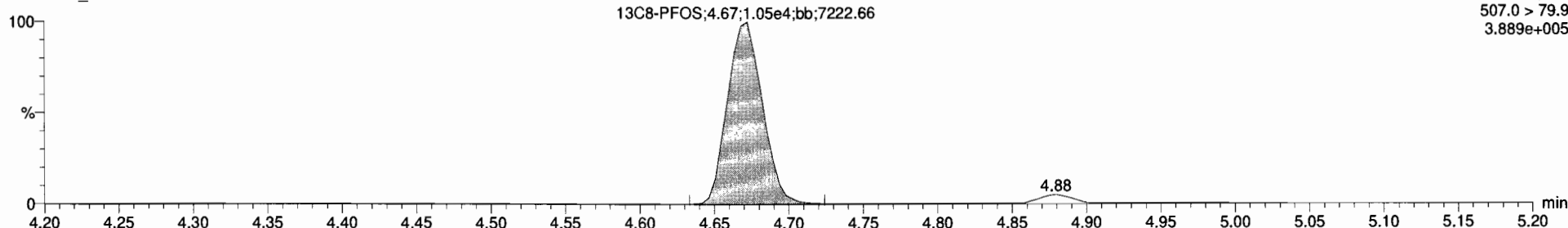
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5.380e+004



**13C8-PFOS**

170301G1\_29

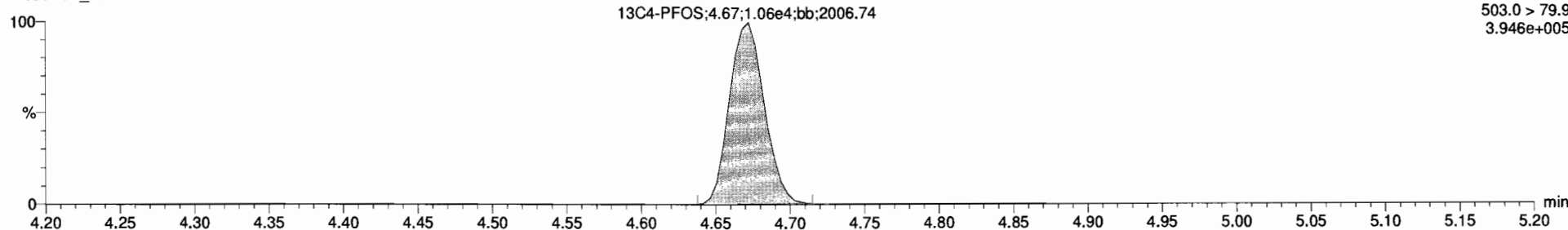
F5:MRM of 12 channels,ES-  
507.0 > 79.9  
3.889e+005



**13C4-PFOS**

170301G1\_29

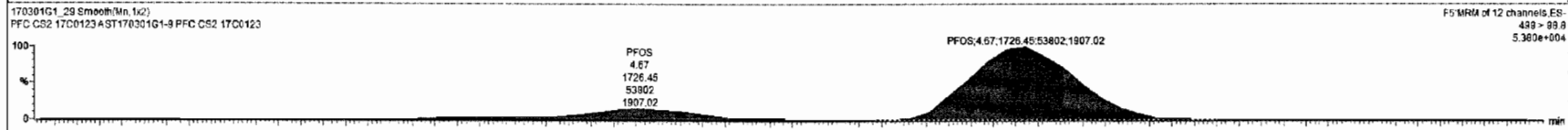
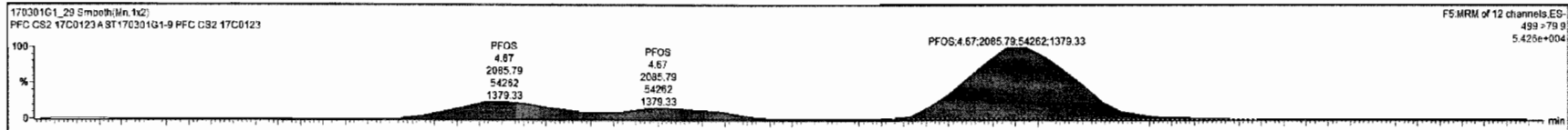
F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.946e+005





170301G1\_29 ST170301G1-9 PFC CS2 17C0123 PFC CS2 17C0123 A

Name	Conc.	DL	Subst.	EMPC	Abs.Reco	RRF	RT	#	SR	RA	Y/N	RRT	Acq.Date	Acq.Time	1 <sup>st</sup> Chr	Nose D	Sample Test	Factor	SWR	Cal.Fis	MDL
1 PFBS	5.2330666	0.00809	104.7		6.775e2		2.99	1	7	0.365	YES	1.001	01-Mar-17	20:48:27	21.343	ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
2 PFhxA	4.7209711		94.6		1.462e4		3.88	2	8			1.001	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
3 PFhxC	5.8443476		113.0		9.909e3		3.99	3	9			1.000	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
4 PFDA	4.3492881		87.0		1.195e4		4.28	4	10			1.000	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
5 PFNA	5.4440777		108.9		1.108e4		4.61	5	11			1.000	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
6 PFOS	6.7718118	0.01180	98.4		2.086e3		4.67	6	12			0.999	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES
7 13C3-PFBS	11.579420	0.000794	92.6		7.515e3	0.442	2.98	7	14			0.957	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
8 13C4-PFhxA	12.780749	0.00214	102.2		2.086e4	1.117	3.87	8	14			0.970	01-Mar-17	20:49:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
9 18O2-PFhxC	11.967173	0.0145	85.7		7.376e3	0.420	3.99	9	14			1.000	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
10 13C2-PFDA	14.859967	0.0115	110.0		3.671e4	2.762	4.28	10	15			1.000	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
11 13C5-PFNA	13.438076	0.00548	107.5		1.167e4	0.846	4.61	11	16			1.000	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
12 13C8-PFOS	13.158179	0.00453	105.3		1.650e4	0.941	4.67	12	17			1.000	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
13 13C5-PFhxA	12.500000	0.00850	100.0		3.070e4	1.000	3.36	13	13			0.999	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
14 13C3-PFhxC	12.500000	0.00665	100.0		1.836e4	1.000	3.99	14	14			0.999	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
15 13C8-PFDA	12.500000	0.00445	100.0		1.110e4	1.000	4.28	15	15			0.998	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
16 13C8-PFNA	12.500000	0.00560	100.0		1.283e4	1.000	4.61	16	16			0.999	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
17 13C4-PFOS	12.500000	0.0156	100.0		1.059e4	1.000	4.67	17	17			0.999	01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
18 Total PFBS	5.2330666	0.00917						18					01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
19 Total PFhxC	6.5154125							19					01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
20 Total PFDA	4.3492881							20					01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
21 Total PFOS	6.1208006	0.0168						21					01-Mar-17	20:48:27		ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO



Ready 170301G1\_29

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Last Altered: Thursday, March 02, 2017 09:28:46 Pacific Standard Time

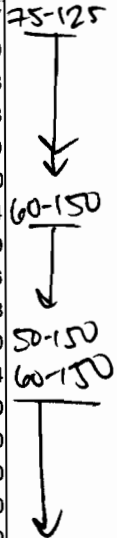
Printed: Thursday, March 02, 2017 09:29:50 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170301G1\_48, Date: 02-Mar-2017, Time: 00:46:50, ID: ST170301G1-10 PFC CS2 17C0123, Description: PFC CS2 17C0123 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	6.35e3	7.47e3		1.000	2.99	4.93	98.7
2	2 PFHpA	363 > 318.9	1.39e4	2.12e4		1.000	3.88	4.45	89.0
3	3 PFHxS	398.9 > 79.6	5.46e3	8.10e3		1.000	3.99	4.74	94.8
4	4 PFOA	413 > 368.7	1.34e4	3.70e4		1.000	4.28	4.84	96.8
5	5 PFNA	463 > 418.8	1.09e4	1.03e4		1.000	4.62	6.10	122.0
6	6 PFOS	499 > 79.9	2.04e3	8.54e3		1.000	4.68	5.75	115.0
7	7 13C3-PFBS	302.0 > 98.8	7.47e3	1.81e4	0.442	1.000	2.99	11.7	93.4
8	8 13C4-PFHpA	367.2 > 321.8	2.12e4	1.81e4	1.117	1.000	3.88	13.1	104.9
9	9 18O2-PFHxS	403 > 102.6	8.10e3	1.81e4	0.420	1.000	3.99	13.3	106.6
10	10 13C2-PFOA	414.9 > 369.7	3.70e4	1.00e4	2.782	1.000	4.28	16.5	132.3
11	11 13C5-PFNA	468.2 > 422.9	1.03e4	1.25e4	0.846	1.000	4.62	12.2	98.0
12	12 13C8-PFOS	507.0 > 79.9	8.54e3	9.92e3	0.941	1.000	4.68	11.4	91.4
13	13 13C5-PFHxA	318 > 272.9	3.21e4	3.21e4	1.000	1.000	3.37	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.81e4	1.81e4	1.000	1.000	3.99	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.00e4	1.00e4	1.000	1.000	4.28	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.25e4	1.25e4	1.000	1.000	4.61	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	9.92e3	9.92e3	1.000	1.000	4.67	12.5	100.0



ES 3/2/17



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:06:06 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:06:22 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45  
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Compound name: PFBS

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1	170301G1_1	IPA	01-Mar-17	14:57:20
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3	170301G1_3	ST170301G1-2 PFC CS-1 17C0120	01-Mar-17	15:22:08
4	170301G1_4	ST170301G1-3 PFC CS0 17C0121	01-Mar-17	15:34:43
5	170301G1_5	ST170301G1-4 PFC CS1 17C0122	01-Mar-17	15:47:17
6	170301G1_6	ST170301G1-5 PFC CS2 17C0123	01-Mar-17	15:59:50
7	170301G1_7	ST170301G1-6 PFC CS3 17C0124	01-Mar-17	16:12:23
8	170301G1_8	ST170301G1-7 PFC CS4 17C0125	01-Mar-17	16:24:59
9	170301G1_9	ST170301G1-8 PFC CS5 17B2726	01-Mar-17	16:37:33
10	170301G1_10	IPA	01-Mar-17	16:50:06
11	170301G1_11	SS170301G1-1 PFC SSS 17C0127	01-Mar-17	17:02:38
12	170301G1_12	IPA	01-Mar-17	17:15:08
13	170301G1_13	B7B0118-BS1 OPR 0.125	01-Mar-17	17:27:46
14	170301G1_14	B7B0114-BS1 OPR 0.125	01-Mar-17	17:40:13
15	170301G1_15	IPA	01-Mar-17	17:52:54
16	170301G1_16	B7B0118-BLK1 Method Blank 0.125	01-Mar-17	18:05:24
17	170301G1_17	B7B0114-BLK1 Method Blank 0.125	01-Mar-17	18:17:56
18	170301G1_18	1700261-01 WI-CV-GW10D-0217 0.125	01-Mar-17	18:30:28
19	170301G1_19	1700261-02 WI-CV-EB01-022017 0.125	01-Mar-17	18:43:01
20	170301G1_20	1700261-03 WI-CV-GW065-0217 0.125	01-Mar-17	18:55:35
21	170301G1_21	1700261-04 WI-CV-GW065/5P-0217 0.125	01-Mar-17	19:08:08
22	170301G1_22	1700261-05 WI-CV-GW105-0217 0.125	01-Mar-17	19:20:37
23	170301G1_23	1700261-06 WI-CV-EB03-022217 0.125	01-Mar-17	19:33:12
24	170301G1_24	1700261-07 WI-CV-GW06M-0217 0.125	01-Mar-17	19:45:41
25	170301G1_25	B7B0118-MSD1 Matrix Spike Dup 0.125	01-Mar-17	19:58:14
26	170301G1_26	B7B0118-MS1 Matrix Spike 0.125	01-Mar-17	20:10:56
27	170301G1_27	1700261-08 WI-CV-EB02-022117 0.125	01-Mar-17	20:23:23
28	170301G1_28	IPA	01-Mar-17	20:35:54
29	170301G1_29	ST170301G1-9 PFC CS2 17C0123	01-Mar-17	20:48:27
30	170301G1_30	IPA	01-Mar-17	21:01:00
31	170301G1_31	B7B0129-BS1 OPR 0.125	01-Mar-17	21:13:33
32	170301G1_32	IPA	01-Mar-17	21:26:03

Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:06:06 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:06:22 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
33	170301G1_33	B7B0129-BLK1 Method Blank 0.125	01-Mar-17	21:38:38
34	170301G1_34	1700261-09 WI-CV-EB04-022317 0.125	01-Mar-17	21:51:09
35	170301G1_35	1700261-10 WI-CV-GW13M-0217 0.125	01-Mar-17	22:03:43
36	170301G1_36	1700245-01 Milk - 012617 0.125	01-Mar-17	22:16:13
37	170301G1_37	1700263-01 OW2E-MW09R-0217 0.12578	01-Mar-17	22:28:46
38	170301G1_38	1700263-02 OW2E-MW09RP-0217 0.12994	01-Mar-17	22:41:20
39	170301G1_39	1700263-03 OW2C-MW05-0217 0.13161	01-Mar-17	22:53:54
40	170301G1_40	1700263-04 OW2C-MW25-0217 0.12534	01-Mar-17	23:06:27
41	170301G1_41	1700263-05 OW2C-MW19-0217 0.12438	01-Mar-17	23:19:00
42	170301G1_42	B7B0129-MS1 Matrix Spike 0.12756	01-Mar-17	23:31:30
43	170301G1_43	B7B0129-MSD1 Matrix Spike Dup 0.12637	01-Mar-17	23:44:02
44	170301G1_44	1700263-06 OW2C-MW24-0217 0.1257	01-Mar-17	23:56:35
45	170301G1_45	1700263-07 OW2C-EB-0217 0.12647	02-Mar-17	00:09:09
46	170301G1_46	1700263-08 OW2C-FB-0217 0.13011	02-Mar-17	00:21:42
47	170301G1_47	IPA	02-Mar-17	00:34:15
48	170301G1_48	ST170301G1-10 PFC CS2 17C0123	02-Mar-17	00:46:50
49	170301G1_49	IPA	02-Mar-17	00:59:21

Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:26:36 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:26:42 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

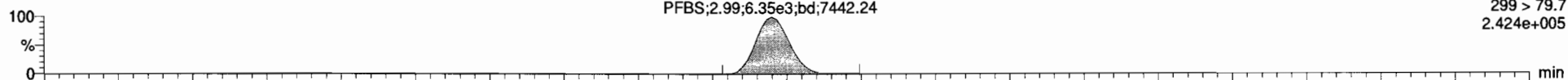
ID: ST170301G1-10 PFC CS2 17C0123, Description: PFC CS2 17C0123 A, Name: 170301G1\_48, Date: 02-Mar-2017, Time: 00:46:50, Instrument: , Lab: , User:

**PFBS**

170301G1\_48

PFBS;2.99;6.35e3;bd;7442.24

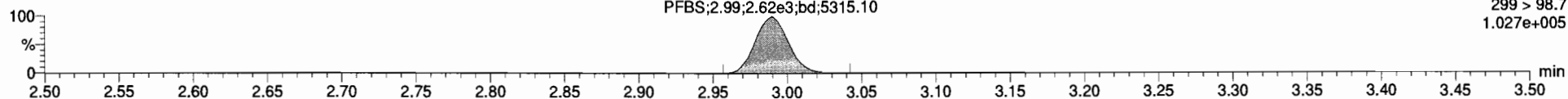
F2:MRM of 3 channels,ES-  
299 > 79.7  
2.424e+005



170301G1\_48

PFBS;2.99;2.62e3;bd;5315.10

F2:MRM of 3 channels,ES-  
299 > 98.7  
1.027e+005

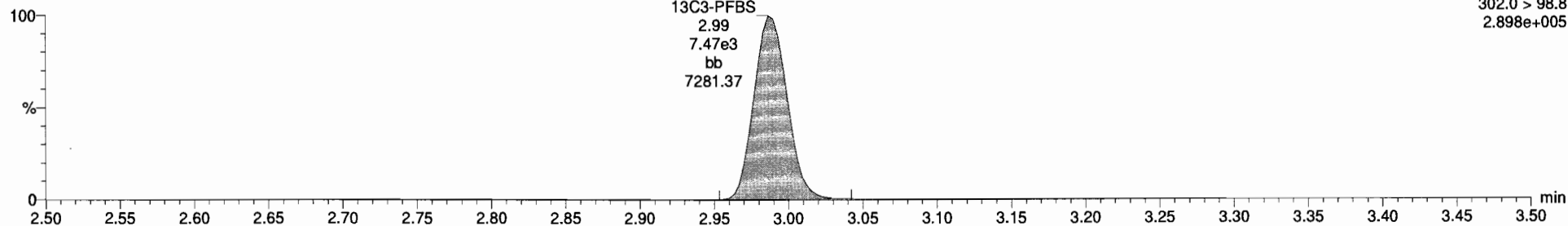


**13C3-PFBS**

170301G1\_48

13C3-PFBS  
2.99  
7.47e3  
bb  
7281.37

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.898e+005

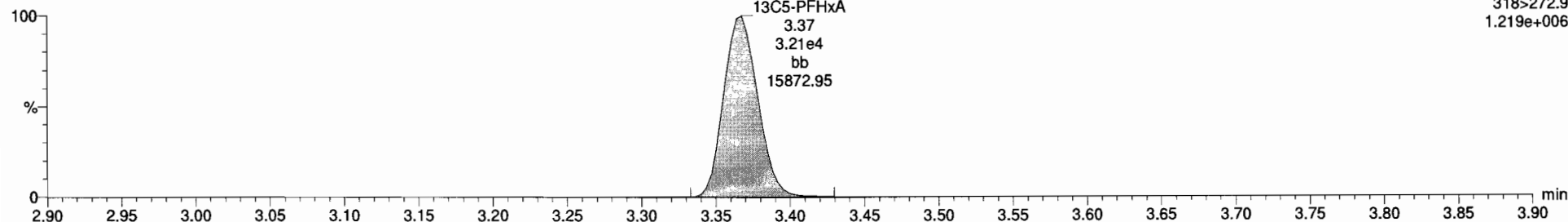


**13C5-PFHxA**

170301G1\_48

13C5-PFHxA  
3.37  
3.21e4  
bb  
15872.95

F3:MRM of 1 channel,ES-  
318>272.9  
1.219e+006



Dataset: Untitled

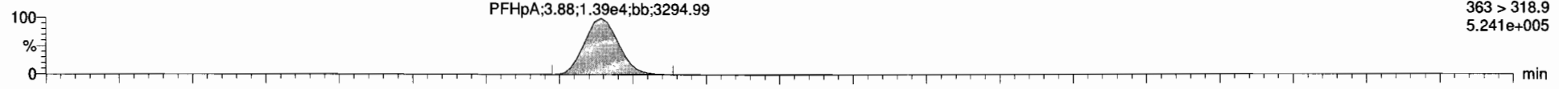
Last Altered: Thursday, March 02, 2017 09:26:36 Pacific Standard Time  
Printed: Thursday, March 02, 2017 09:26:42 Pacific Standard Time

ID: ST170301G1-10 PFC CS2 17C0123, Description: PFC CS2 17C0123 A, Name: 170301G1\_48, Date: 02-Mar-2017, Time: 00:46:50, Instrument: , Lab: , User:

**PFHpA**

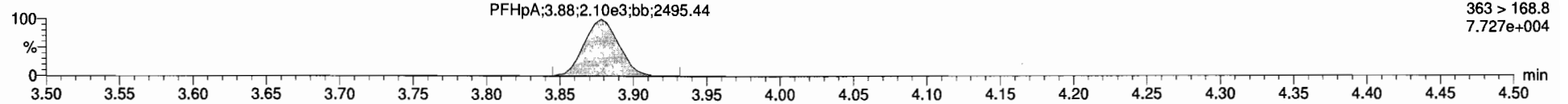
170301G1\_48

F4:MRM of 7 channels,ES-  
363 > 318.9  
5.241e+005



170301G1\_48

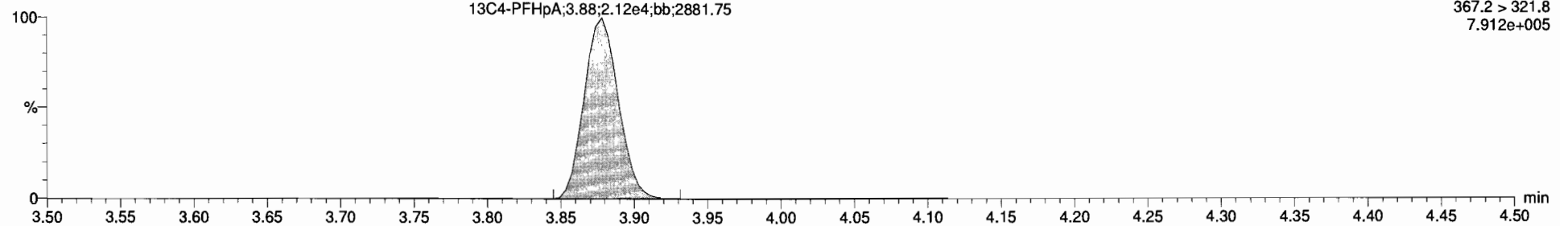
F4:MRM of 7 channels,ES-  
363 > 168.8  
7.727e+004



**13C4-PFHpA**

170301G1\_48

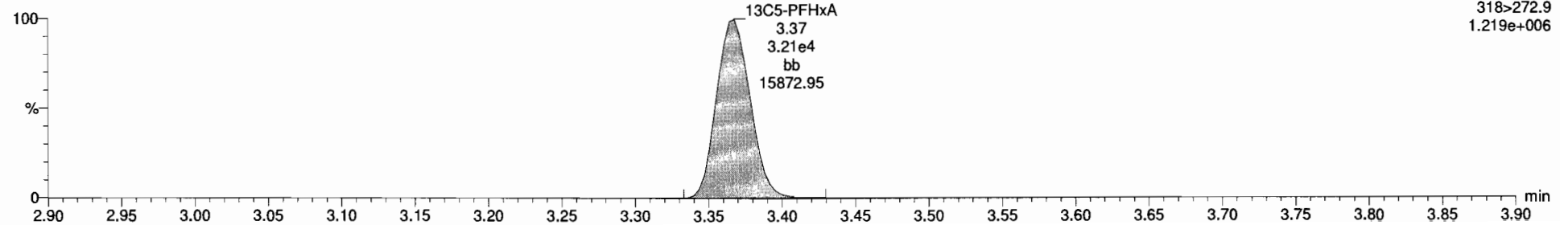
F4:MRM of 7 channels,ES-  
367.2 > 321.8  
7.912e+005



**13C5-PFHxA**

170301G1\_48

F3:MRM of 1 channel,ES-  
318>272.9  
1.219e+006



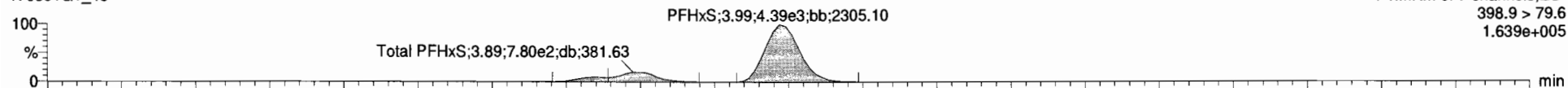
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Last Altered: Thursday, March 02, 2017 09:26:36 Pacific Standard Time  
Printed: Thursday, March 02, 2017 09:26:42 Pacific Standard Time

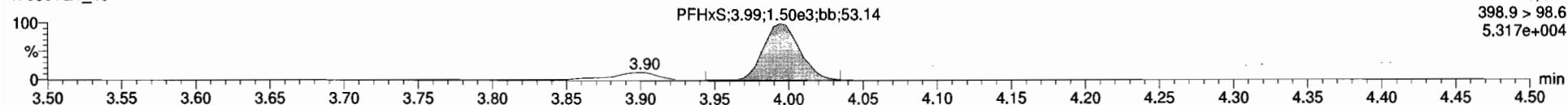
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**Total PFHxS**

170301G1\_48

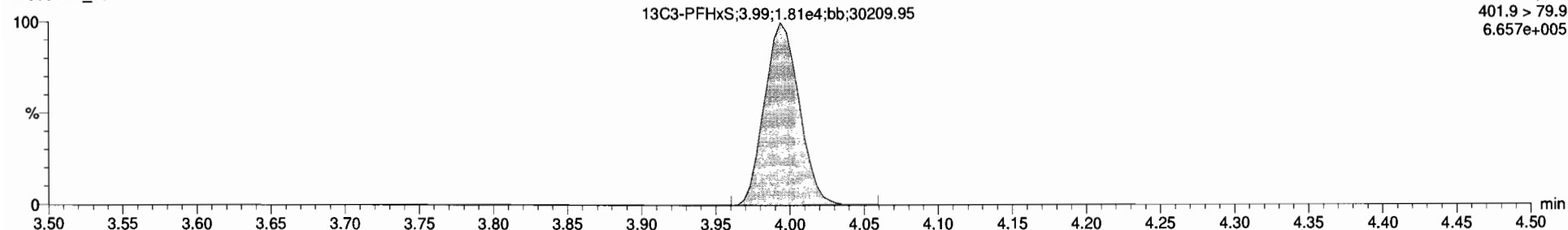


170301G1\_48



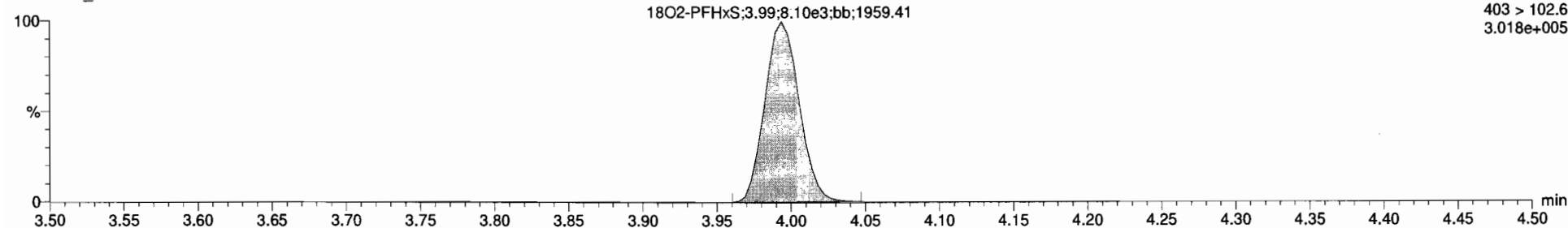
**13C3-PFHxS**

170301G1\_48

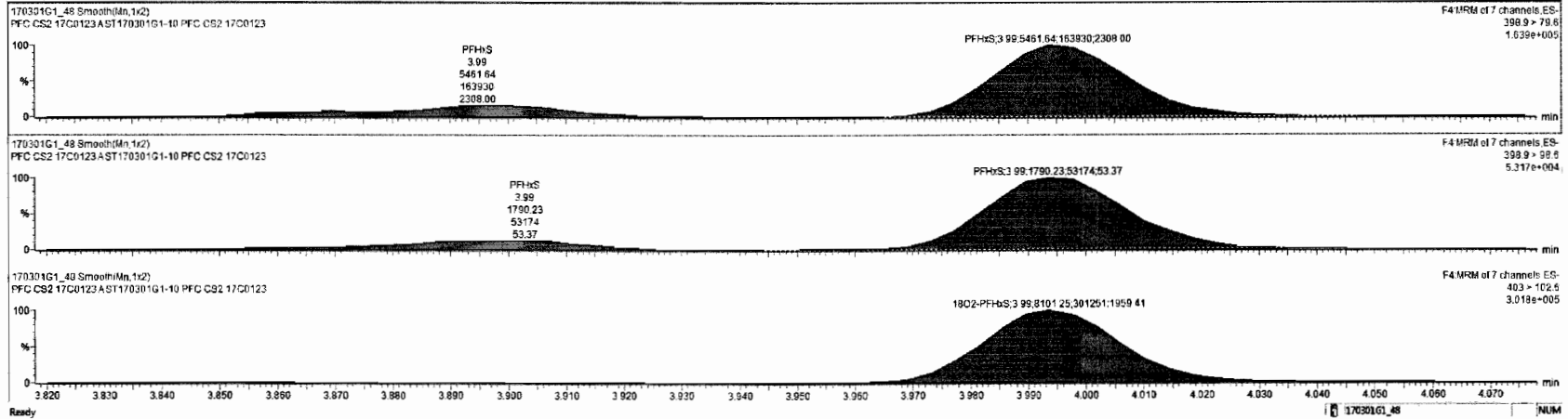


**18O2-PFHxS**

170301G1\_48



Name	Conc	DL	%Rec	EMPC	Abs Relsp	RF	RT	#	IS#	RA	Y#	RRT	Acc Date	Acq Time	Ch Noise	D	Sample Test	Factor1	SMS	Col File	ADOL
1	PFBS	4.9339874	0.00569	99.7	6.347e3	2.99	1	7	0.413	YES	1.001	02-Mar-17	00:46:53	19.316	ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO	
2	PFHxA	4.4507429	0.0050	89.0	1.392e4	3.88	2	8		1.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO	
3	PFHxS	17.422846	0.0060	94.8	5.465e3	3.99	3	9		1.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES	
4	PFOA	4.8413442	0.0050	96.8	1.336e4	4.28	4	10		1.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES	
5	PFNA	6.0904406	0.0050	122.0	1.094e4	4.82	5	11		1.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES	
6	PFOS	5.7478990	0.0337	115.0	2.045e3	4.88	6	12		1.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	YES	
7	13C-PFBS	11.670305	0.00422	93.4	7.489e3	0.442	2.99	7	14		0.887	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
8	13C-PFHxA	13.114139	0.0115	104.9	2.118e4	1.117	3.88	8	14		0.871	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
9	18O2-PFHxS	13.328556	0.0172	106.6	8.101e3	0.420	3.99	9	14		1.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
10	13C-PFOA	18.535749	0.00303	132.3	3.898e4	2.782	4.28	10	15		1.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
11	13C-PFNA	12.244847	0.000497	98.0	1.032e4	0.846	4.82	11	16		1.001	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
12	13C-PFOS	11.427155	0.00155	91.4	8.541e3	0.841	4.88	12	17		1.001	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
13	13C-PFHxA	12.500000	0.00197	100.0	3.213e4	1.000	3.37	13	13		0.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
14	13C-PFHxS	12.500000	0.00103	100.0	1.809e4	1.000	3.99	14	14		0.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
15	13C-PFOA	12.500000	0.00320	100.0	1.005e4	1.000	4.28	15	15		0.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
16	13C-PFNA	12.500000	0.00996	100.0	1.245e4	1.000	4.81	16	16		0.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
17	13C-PFOS	12.500000	0.00121	100.0	9.925e3	1.000	4.87	17	17		0.000	02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
18	Total PFBS	4.9902559	0.00563					18				02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
19	Total PFHxS	5.5847731						19				02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
20	Total PFOA	4.8413442						20				02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO
21	Total PFOS	7.3384874	0.0337					21				02-Mar-17	00:46:53			ST170301G	PFC CS2 17C01	1.0	1.00	C18_V	NO



Dataset: Untitled

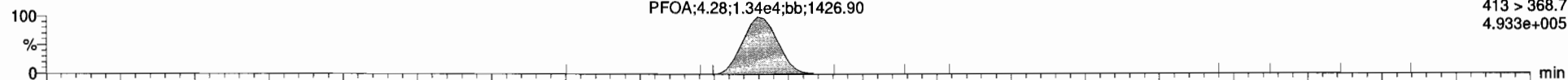
Last Altered: Thursday, March 02, 2017 09:26:36 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:26:42 Pacific Standard Time

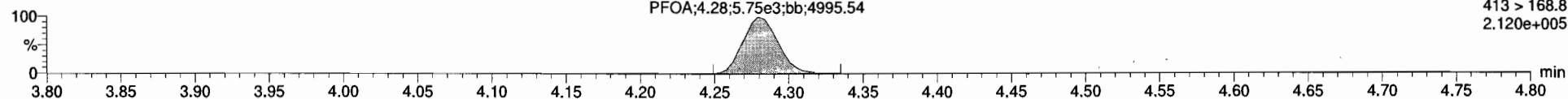
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**Total PFOA**

170301G1\_48

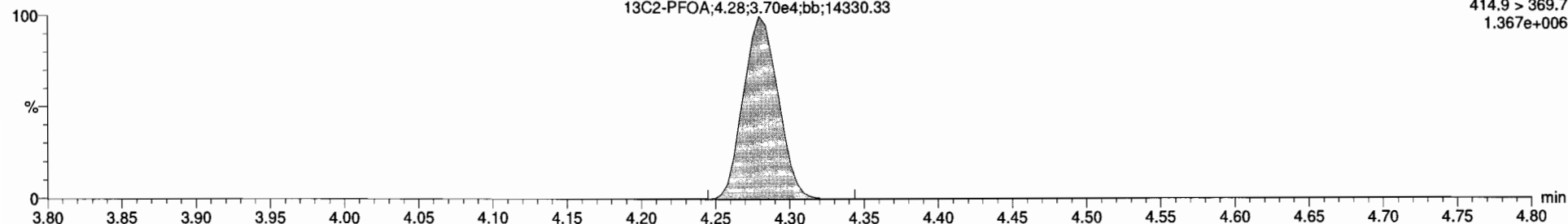


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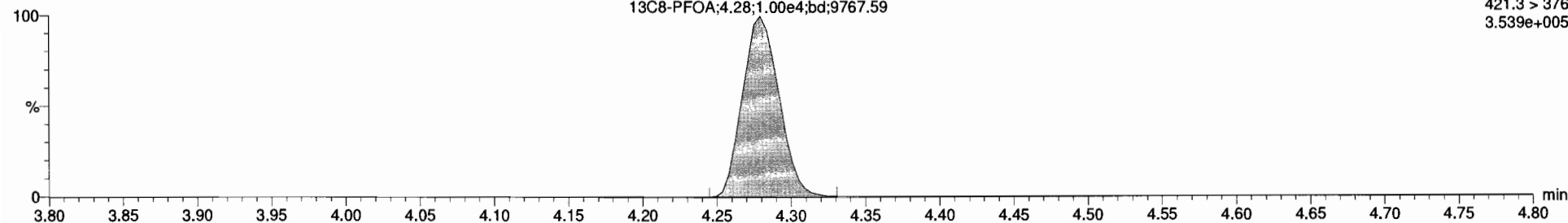
**13C2-PFOA**

170301G1\_48



**13C8-PFOA**

170301G1\_48



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:26:36 Pacific Standard Time  
Printed: Thursday, March 02, 2017 09:26:42 Pacific Standard Time

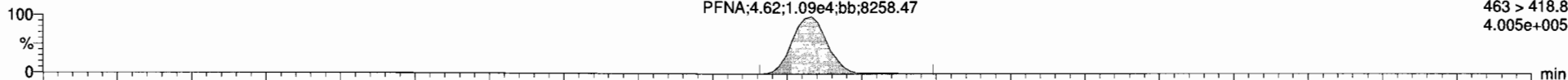
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**PFNA**

170301G1\_48

PFNA;4.62;1.09e4;bb;8258.47

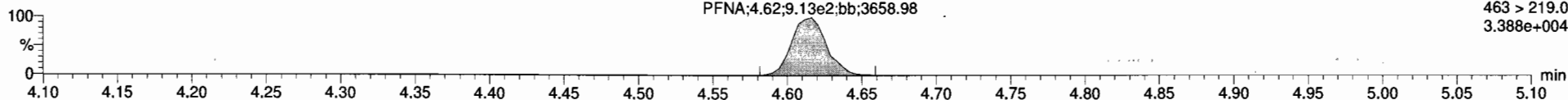
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463 > 418.8  
4.005e+005



170301G1\_48

PFNA;4.62;9.13e2;bb;3658.98

F5:MRM of 12 channels,ES-  
463 > 219.0  
3.388e+004

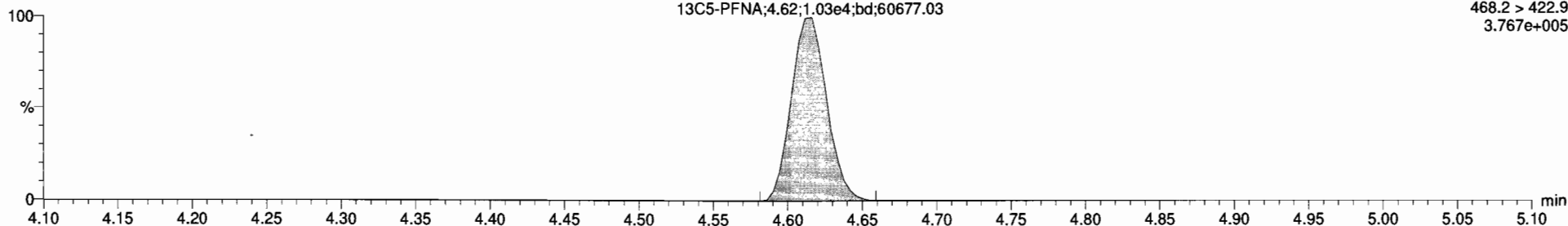


**13C5-PFNA**

170301G1\_48

13C5-PFNA;4.62;1.03e4;bd;60677.03

F5:MRM of 12 channels,ES-  
468.2 > 422.9  
3.767e+005

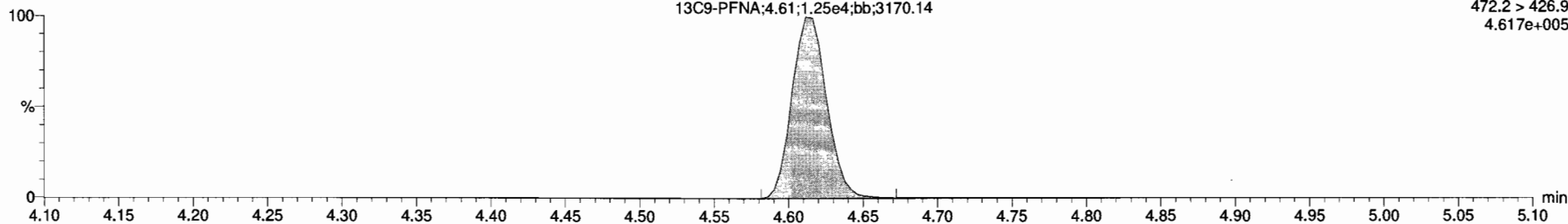


**13C9-PFNA**

170301G1\_48

13C9-PFNA;4.61;1.25e4;bb;3170.14

F5:MRM of 12 channels,ES-  
472.2 > 426.9  
4.617e+005





Dataset: Untitled

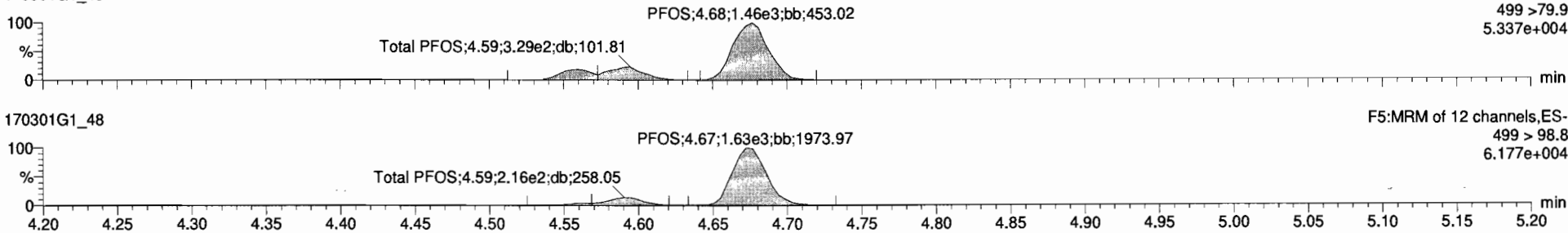
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**Total PFOS**

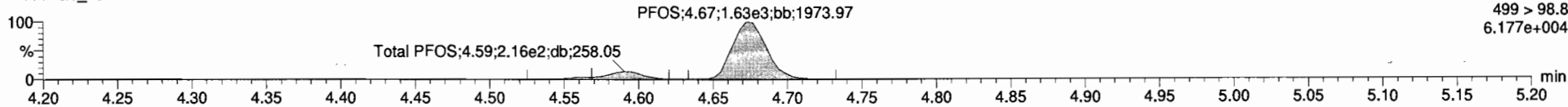
170301G1\_48

F5:MRM of 12 channels,ES-  
499 > 79.9  
5.337e+004



170301G1\_48

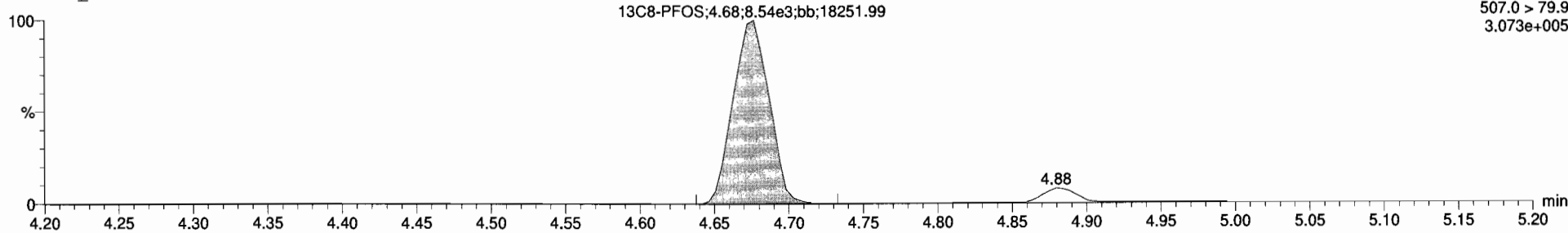
F5:MRM of 12 channels,ES-  
499 > 98.8  
6.177e+004



**13C8-PFOS**

170301G1\_48

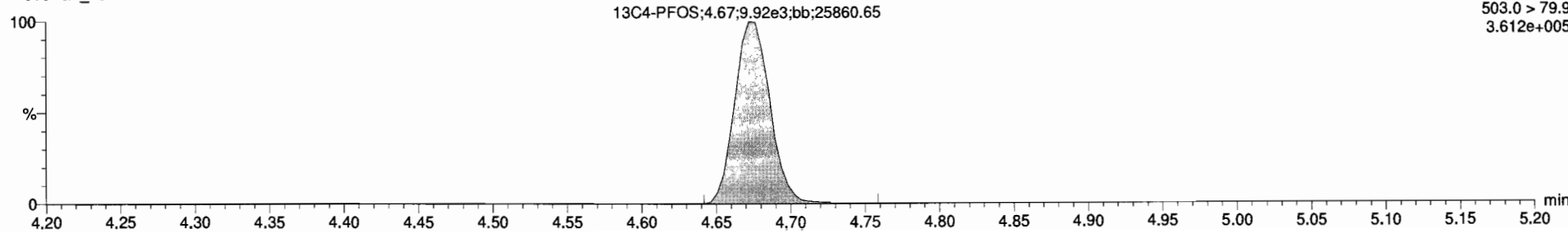
F5:MRM of 12 channels,ES-  
507.0 > 79.9  
3.073e+005



**13C4-PFOS**

170301G1\_48

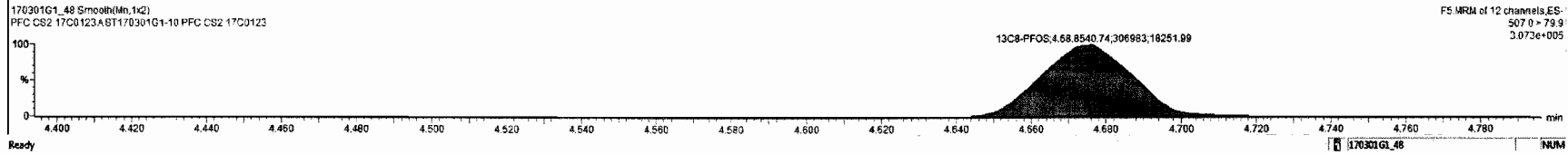
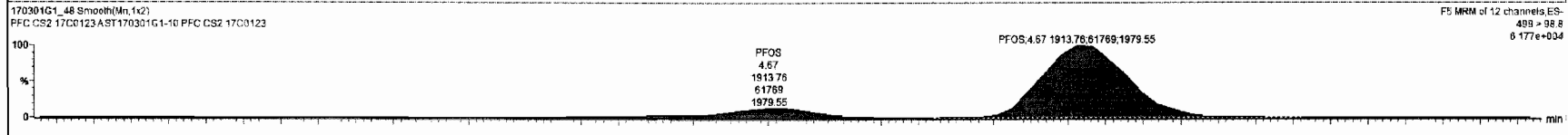
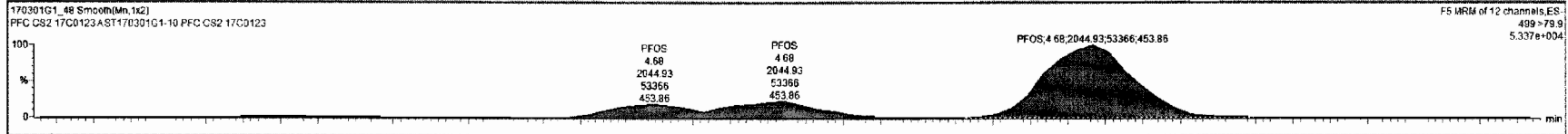
F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.612e+005





170301G1\_48 - ST170301G1-10 PFC CS2 17C0123 - PFC CS2 17C0123 A

Name	Conc	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	ISF	RA	YN	RRT	AcqDate	AcqTime	1 <sup>st</sup> Chr/Noise	ID	Sample Text	Factor1	SW	Cal File	MOD
PFBS	4.9338874	0.00569	98.7		6.347e3	2.99	7	7	0.413	YES	1.001	02-Mar-17	00:46:50	19.316	ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
PFHpA	4.4507420	0.0000	80.0		1.392e4	3.68	2	8			1.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
PFHxS	3.7932586	0.0000	75.9		4.385e3	3.99	3	9			1.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	YES	
PFOA	4.8413442	0.0000	96.8		1.336e4	4.28	4	10			1.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	YES	
PFNA	6.0984408	0.0000	122.0		1.094e4	4.62	5	11			1.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	YES	
PFOS	4.7418095	0.0021	111.0		3.145e3	4.68	6	12			1.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	YES	
13C3-PFBS	11.670305	0.00422	93.4		7.469e3	0.442	2.99	7	14		0.857	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C4-PFHpA	13.114139	0.0115	104.9		2.119e4	1.117	3.88	8	14		0.971	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
18O2-PFHxS	13.328556	0.0172	106.6		8.101e3	0.420	3.99	9	14		1.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C2-PFOA	16.535749	0.00303	132.3		3.696e4	2.782	4.28	10	15		1.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C5-PFNA	12.244847	0.000497	98.0		1.032e4	0.846	4.62	11	16		1.001	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C8-PFOS	11.427155	0.00155	91.4		8.541e3	0.941	4.68	12	17		1.001	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C5-PFHpA	12.500000	0.00197	100.0		3.213e4	1.000	3.37	13	13		0.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C3-PFHxS	12.500000	0.00103	100.0		1.809e4	1.000	3.99	14	14		0.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C8-PFOA	12.500000	0.00320	100.0		1.005e4	1.000	4.28	15	15		0.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C8-PFNA	12.500000	0.00886	100.0		1.245e4	1.000	4.61	16	16		0.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
13C4-PFOS	12.500000	0.00121	100.0		9.825e3	1.000	4.67	17	17		0.000	02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
Total PFBS	4.9502559	0.00563						18				02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
Total PFHpA	4.5557482							19				02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
Total PFOA	4.8413442							20				02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	
Total PFOS	7.3394874	0.0337						21				02-Mar-17	00:46:50		ST170301G	PFC CS2 17C01...	1.0	1.00	C18_V...	NO	



Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-2.qld

Last Altered: Friday, March 03, 2017 09:07:07 Pacific Standard Time

Printed: Friday, March 03, 2017 09:09:59 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170302G1\_2, Date: 02-Mar-2017, Time: 15:58:10, ID: ST170302G1-1 PFC CS3 17C0227, Description: PFC CS3 17C0227 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc	%Rec
1	3 PFHxS	398.9 > 79.6	1.06e4	6.58e3		1.000	4.01	11.4	114.1
2	4 PFOA	413 > 368.7	2.48e4	3.26e4		1.000	4.29	10.3	103.0
3	6 PFOS	499 > 79.9	3.51e3	7.79e3		1.000	4.68	10.8	108.0
4	7 13C3-PFBS	302.0 > 98.8	6.34e3	1.49e4	0.442	1.000	3.01	12.0	96.1
5	8 13C4-PFHpA	367.2 > 321.8	1.63e4	1.49e4	1.117	1.000	3.89	12.3	98.1
6	9 18O2-PFHxS	403 > 102.6	6.58e3	1.49e4	0.420	1.000	4.01	13.1	105.0
7	10 13C2-PFOA	414.9 > 369.7	3.26e4	9.07e3	2.782	1.000	4.29	16.1	129.2
8	11 13C5-PFNA	468.2 > 422.9	7.99e3	1.05e4	0.846	1.000	4.62	11.2	89.9
9	12 13C8-PFOS	507.0 > 79.9	7.79e3	8.60e3	0.941	1.000	4.68	12.0	96.3
10	13 13C5-PFHxA	318 > 272.9	2.60e4	2.60e4	1.000	1.000	3.39	12.5	100.0
11	14 13C3-PFHxS	401.9 > 79.9	1.49e4	1.49e4	1.000	1.000	4.01	12.5	100.0
12	15 13C8-PFOA	421.3 > 376	9.07e3	9.07e3	1.000	1.000	4.29	12.5	100.0
13	16 13C9-PFNA	472.2 > 426.9	1.05e4	1.05e4	1.000	1.000	4.62	12.5	100.0
14	17 13C4-PFOS	503.0 > 79.9	8.60e3	8.60e3	1.000	1.000	4.68	12.5	100.0

75-125  
↓  
60-150  
↓  
50-150  
60-150

ES  
3/3/17

✓ AC  
3/5/17

Dataset: Untitled

Last Altered: Friday, March 03, 2017 09:28:45 Pacific Standard Time

Printed: Friday, March 03, 2017 09:28:57 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170302G1_1	IPA	02-Mar-17	15:45:57
2	170302G1_2	ST170302G1-1 PFC CS3 17C0227	02-Mar-17	15:58:10
3	170302G1_3	IPA	02-Mar-17	16:11:01
4	170302G1_4	1700263-04@10X OW2C-MW25-0217 0.12534	02-Mar-17	16:23:19
5	170302G1_5	1700263-05@5X OW2C-MW19-0217 0.12438	02-Mar-17	16:35:52
6	170302G1_6	B7B0129-MS1@5X Matrix Spike 0.12756	02-Mar-17	16:48:25
7	170302G1_7	B7B0129-MSD1@5X Matrix Spike Dup 0.12637	02-Mar-17	17:01:19
8	170302G1_8	IPA	02-Mar-17	17:13:47
9	170302G1_9	ST170302G1-2 PFC CS3 17C0227	02-Mar-17	17:26:17
10	170302G1_10	IPA	02-Mar-17	17:38:49

# LC Calibration Standards Review Checklist

Q1

Calibration ID:	L M H	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	<u>NA</u>
<u>SI19030261-1</u>	L M H	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>J -2</u>	L M H	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Full Mass Cal. Date:** 12/6/17

**Run Log Present:**

**# of Samples per Sequence Checked:**

**Reviewed By:** AC 3/5/17  
Initials/Date

**Comments:**  
 PFHxS, PFOA, PFOS

Dataset: Untitled

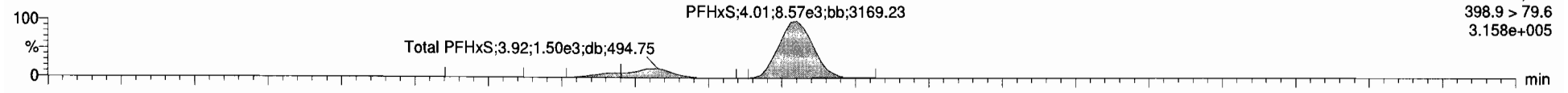
Last Altered: Friday, March 03, 2017 09:04:49 Pacific Standard Time

Printed: Friday, March 03, 2017 09:05:31 Pacific Standard Time

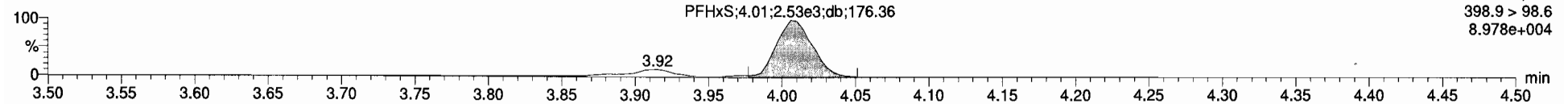
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**Total PFHxS**

170302G1\_2

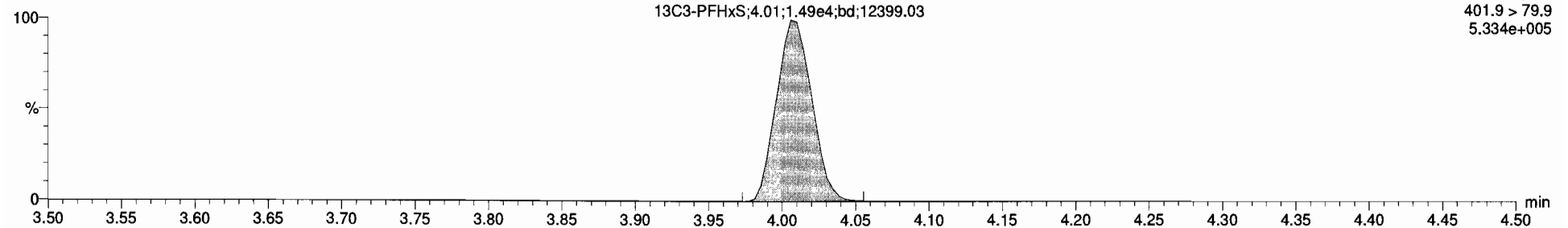


170302G1\_2



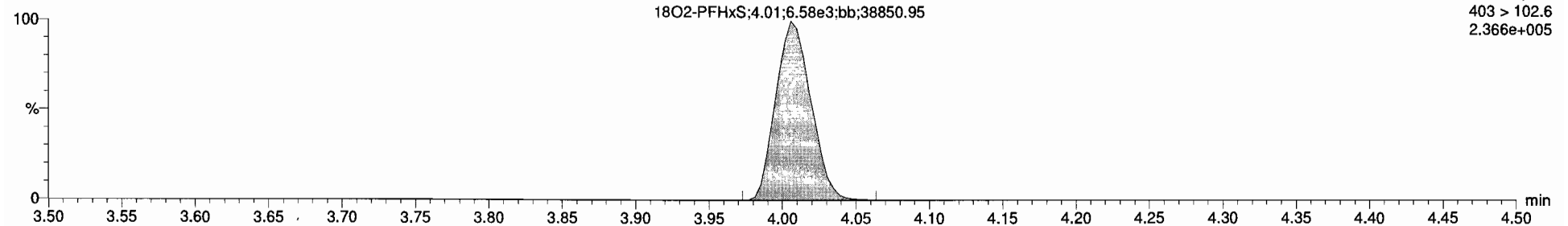
**13C3-PFHxS**

170302G1\_2

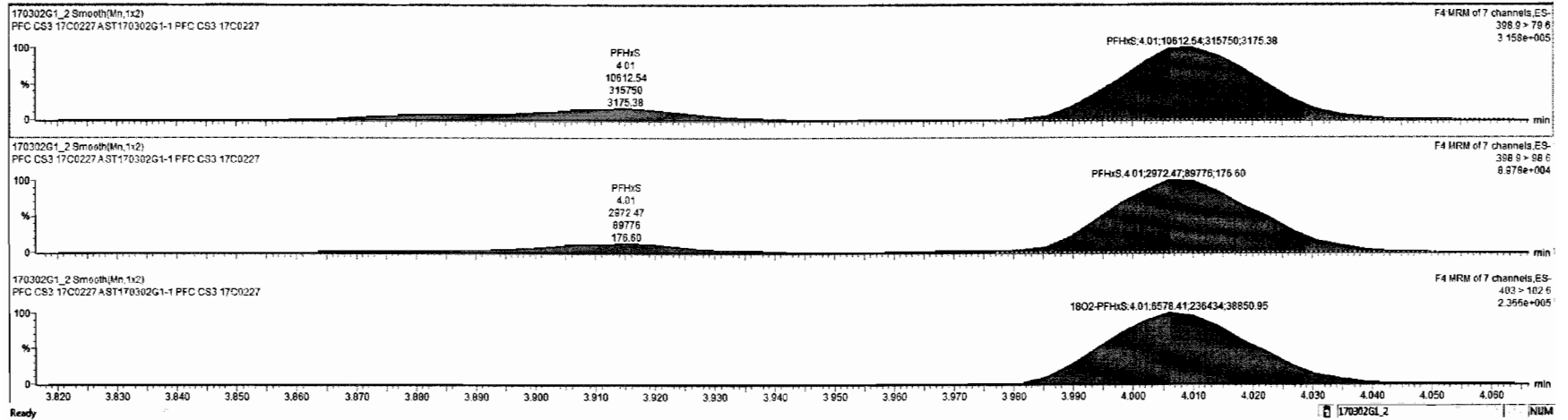


**18O2-PFHxS**

170302G1\_2



Name	Comp	DL	NRec	EMPC	Abn.Prec	RRF	RT	SF	RA	Y/N	RR1	Acq Date	Acq Thw	1 <sup>st</sup> Chr Name	Sample Text	Factor	SW	Cal File	MUL	
1	PFBS	10.791699	0.0106	107.9	1.179e4	3.01	1	7	0.365	YES	1.001	02-Mar-17	15:58:10	9.646	ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
2	PFHxA	10.818671	0.0090	108.2	2.599e4	3.98	2	9			1.001	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
3	PFHxS	11.411151	0.0090	114.1	1.061e4	4.01	3	9			1.001	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
4	PFOA	10.304470	0.0090	103.0	2.477e4	4.26	4	10			1.001	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
5	PFNA	15.216299	0.0090	152.2	2.095e4	4.62	5	11			1.001	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
6	PFOS	7.9207367	0.0264	79.2	2.573e3	4.68	6	12			1.001	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
7	13C3-PFBS	12.012528	0.00644	96.1	6.339e3	0.442	3.01	7	14		0.828	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
8	13C3-PFHxA	12.261760	0.00220	98.1	1.634e4	1.117	3.89	8	14		0.872	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
9	18O2-PFHxS	13.126687	0.000849	105.0	6.578e3	0.420	4.01	9	14		1.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
10	13C3-PFOA	16.145384	0.0154	129.2	3.259e4	2.782	4.26	10	15		1.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
11	13C3-PFNA	11.233826	0.0264	89.9	7.990e3	0.848	4.62	11	16		1.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
12	13C3-PFOS	12.037801	0.00774	96.3	7.790e3	0.941	4.66	12	17		1.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
13	13C3-PFHxA	12.500000	0.00196	100.0	2.998e4	1.000	3.39	13	13		0.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
14	13C3-PFHxS	12.500000	0.00252	100.0	1.491e4	1.000	4.01	14	14		0.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
15	13C3-PFOA	12.500000	0.00108	100.0	9.079e3	1.000	4.29	15	15		0.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
16	13C3-PFNA	12.500000	0.000677	100.0	1.051e4	1.000	4.62	16	16		0.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
17	13C3-PFOS	12.500000	0.0007	100.0	8.596e3	1.000	4.66	17	17		0.000	02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
18	Total PFBS	10.810302	0.0105					18				02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
19	Total PFHxS	13.389576						19				02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
20	Total PFOA	10.304470						20				02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
21	Total PFOS	10.842456	0.0264					21				02-Mar-17	15:58:10		ST178302G	PFC CS3 17C02	1.0	1.00	C18_V	NO

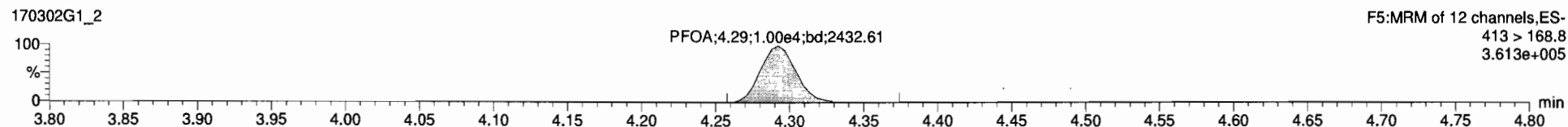
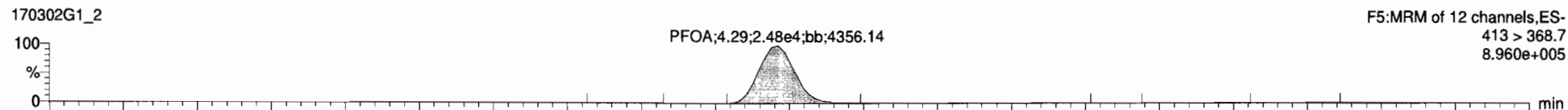


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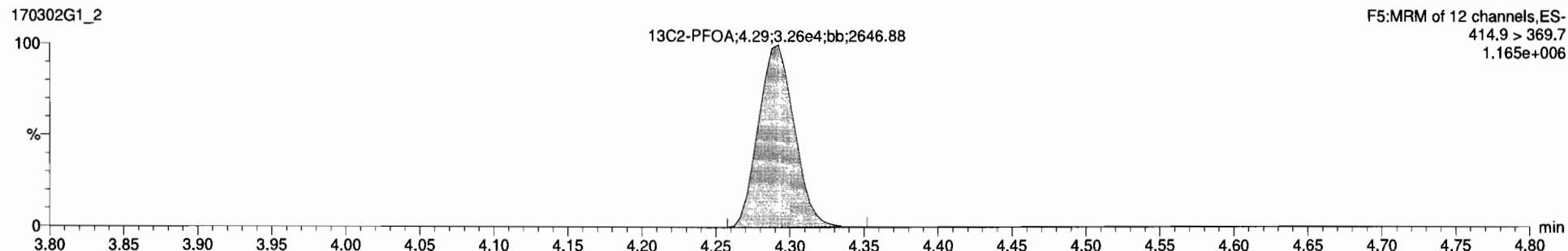
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Printed: Friday, March 03, 2017 09:05:31 Pacific Standard Time

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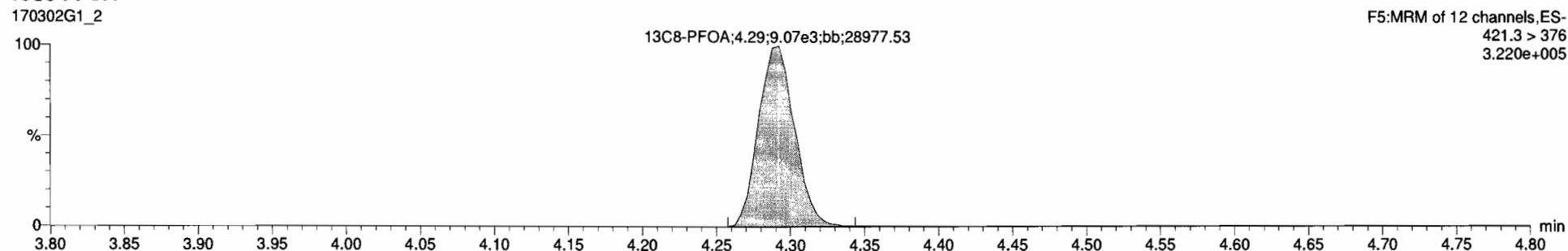
**Total PFOA**



**13C2-PFOA**



**13C8-PFOA**





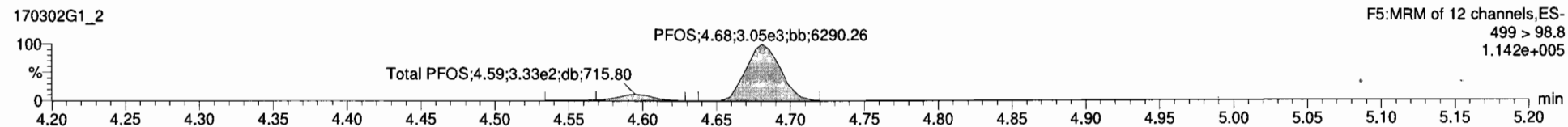
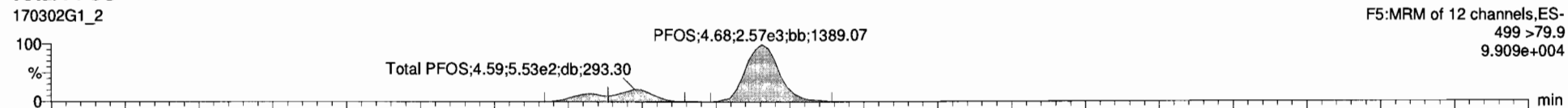
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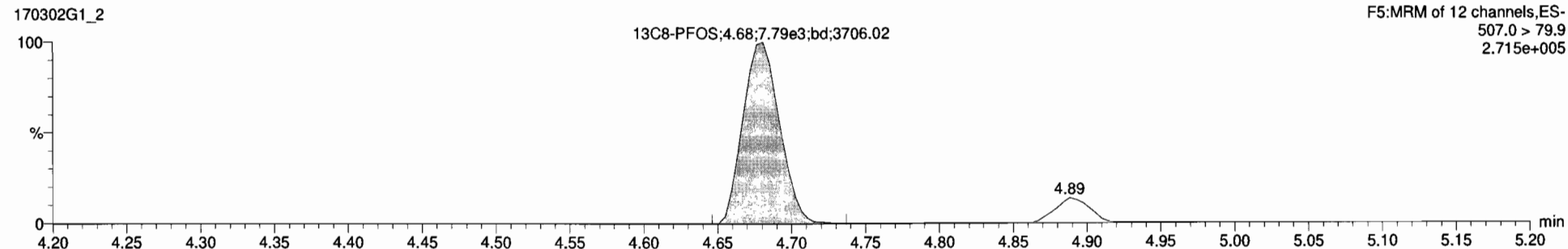
Printed: Friday, March 03, 2017 09:05:31 Pacific Standard Time

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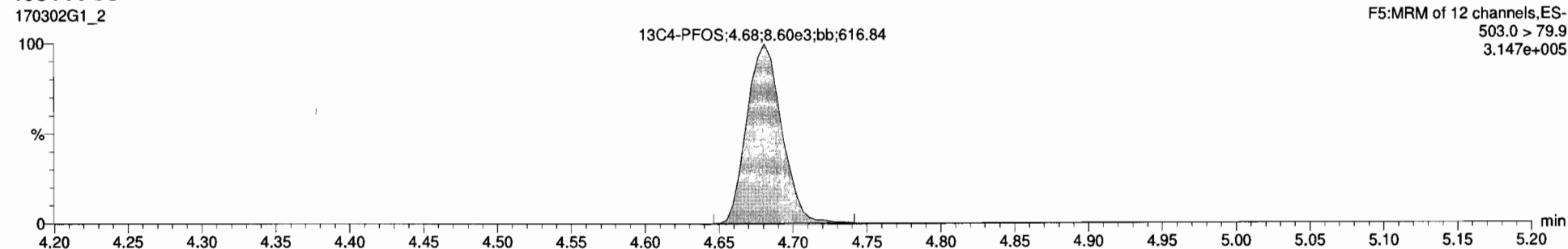
**Total PFOS**



**13C8-PFOS**



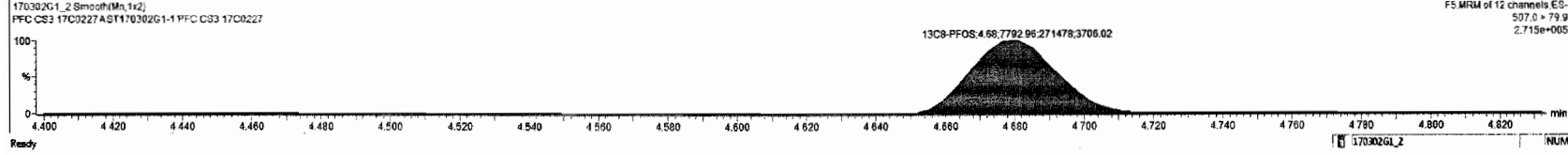
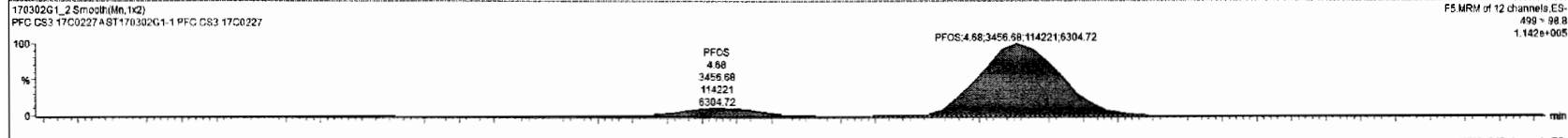
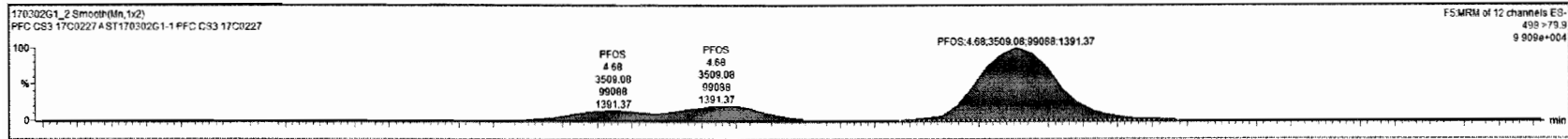
**13C4-PFOS**





170302G1\_2 - ST170302G1-1 PFC CS3 17C0227 - PFC CS3 17C0227A

#	Name	Conc	DL	%Prec	EMPC	Alt Resp	RPF	OT	#	IS4	RA	Y/N	Q21	Acq Date	Acq Time	# Chr/Notes	D	Sample Text	Factor1	SW	Ctrl File	WOL
1	PFBS	10.791809	0.0106	107.0		1.178e4		3.01	1	7	0.385	YES	1.001	02-Mar-17	15:58:10	9.548	ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
2	PFHpA	10.810971	0.0050	108.2		2.599e4		3.89	2	0			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
3	PFHxS	11.411151	0.0000	114.1		1.061e4		4.01	3	9			1.001	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
4	PFOA	10.304470	0.0000	103.0		2.477e4		4.29	4	10			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
5	PFNA	15.216299	0.0000	152.2		2.095e4		4.62	5	11			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
6	PFOS	16.000370	0.0264	106.8		3.699e3		4.68	6	12			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	YES
7	13C3-PFBS	12.012528	0.08644	96.1		6.339e3	0.442	3.01	7	14			0.888	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
8	13C4-PFHpA	12.261700	0.00220	98.1		1.634e4	1.117	3.89	8	14			0.972	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
9	18O2-PFHxS	13.128607	0.000849	105.0		6.578e3	0.420	4.01	9	14			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
10	13C2-PFOA	18.145304	0.0154	128.2		3.259e4	2.782	4.29	10	15			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
11	13C5-PFNA	11.233826	0.0264	89.9		7.996e3	0.645	4.62	11	16			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
12	13C6-PFOS	12.037801	0.00774	96.3		7.793e3	0.941	4.68	12	17			1.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
13	13C5-PFHxS	12.500000	0.00196	100.0		2.588e4	1.000	3.39	13	13			0.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
14	13C3-PFHxS	12.500000	0.00252	100.0		1.491e4	1.000	4.01	14	14			0.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
15	13C6-PFOA	12.500000	0.00108	100.0		9.070e3	1.000	4.29	15	15			0.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
16	13C8-PFNA	12.500000	0.000677	100.0		1.061e4	1.000	4.62	16	16			0.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
17	13C4-PFOS	12.500000	0.0507	100.0		8.596e3	1.000	4.68	17	17			0.000	02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
18	Total PFBS	10.810302	0.0105						18					02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
19	Total PFHpA	13.389676							19					02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
20	Total PFHxS	10.304470							20					02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO
21	Total PFOA	13.322099	0.0264						21					02-Mar-17	15:58:10		ST170302G	PFC CS3 17C02	1.0	1.00	C18_V	NO



Dataset: U:\G1.PRO\Results\2017\170302G1\170302G1-9.qld

Last Altered: Friday, March 03, 2017 09:12:52 Pacific Standard Time

Printed: Friday, March 03, 2017 09:14:12 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170302G1\_9, Date: 02-Mar-2017, Time: 17:26:17, ID: ST170302G1-2 PFC CS3 17C0227, Description: PFC CS3 17C0227 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	3 PFHxS	398.9 > 79.6	1.12e4	7.73e3		1.000	4.01	10.2	102.3
2	4 PFOA	413 > 368.7	2.78e4	3.90e4		1.000	4.29	9.65	96.5
3	6 PFOS	499 > 79.9	3.79e3	9.62e3		1.000	4.69	9.45	94.5
4	7 13C3-PFBS	302.0 > 98.8	6.80e3	1.72e4	0.442	1.000	3.01	11.2	89.4
5	8 13C4-PFHpA	367.2 > 321.8	1.87e4	1.72e4	1.117	1.000	3.90	12.2	97.5
6	9 18O2-PFHxS	403 > 102.6	7.73e3	1.72e4	0.420	1.000	4.01	13.4	107.0
7	10 13C2-PFOA	414.9 > 369.7	3.90e4	9.36e3	2.782	1.000	4.29	18.7	149.8
8	11 13C5-PFNA	468.2 > 422.9	9.97e3	1.06e4	0.846	1.000	4.62	13.9	110.9
9	12 13C8-PFOS	507.0 > 79.9	9.62e3	1.02e4	0.941	1.000	4.69	12.5	99.9
10	13 13C5-PFHxA	318 > 272.9	2.94e4	2.94e4	1.000	1.000	3.39	12.5	100.0
11	14 13C3-PFHxS	401.9 > 79.9	1.72e4	1.72e4	1.000	1.000	4.01	12.5	100.0
12	15 13C8-PFOA	421.3 > 376	9.36e3	9.36e3	1.000	1.000	4.29	12.5	100.0
13	16 13C9-PFNA	472.2 > 426.9	1.06e4	1.06e4	1.000	1.000	4.62	12.5	100.0
14	17 13C4-PFOS	503.0 > 79.9	1.02e4	1.02e4	1.000	1.000	4.69	12.5	100.0

75-125  
↓  
60-150  
↓  
50-150  
60-150

eg 3/3/17  
✓ AC  
3/5/17

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Last Altered: Friday, March 03, 2017 09:28:45 Pacific Standard Time

Printed: Friday, March 03, 2017 09:28:57 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170302G1_1	IPA	02-Mar-17	15:45:57
2	170302G1_2	ST170302G1-1 PFC CS3 17C0227	02-Mar-17	15:58:10
3	170302G1_3	IPA	02-Mar-17	16:11:01
4	170302G1_4	1700263-04@10X OW2C-MW25-0217 0.12534	02-Mar-17	16:23:19
5	170302G1_5	1700263-05@5X OW2C-MW19-0217 0.12438	02-Mar-17	16:35:52
6	170302G1_6	B7B0129-MS1@5X Matrix Spike 0.12756	02-Mar-17	16:48:25
7	170302G1_7	B7B0129-MSD1@5X Matrix Spike Dup 0.12637	02-Mar-17	17:01:19
8	170302G1_8	IPA	02-Mar-17	17:13:47
9	170302G1_9	ST170302G1-2 PFC CS3 17C0227	02-Mar-17	17:26:17
10	170302G1_10	IPA	02-Mar-17	17:38:49

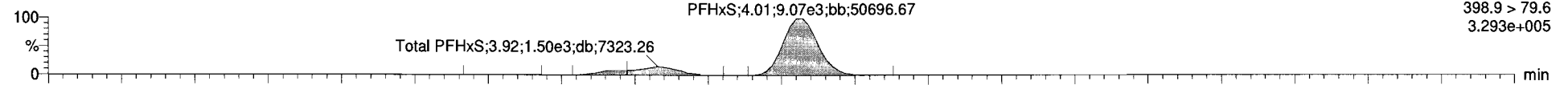
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Printed: Friday, March 03, 2017 09:11:01 Pacific Standard Time

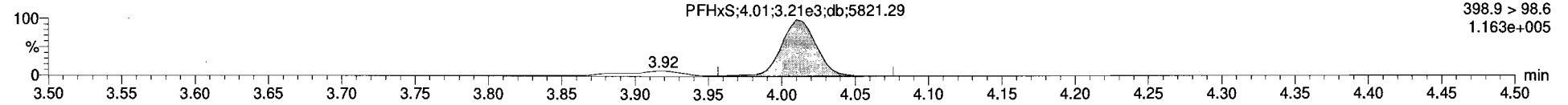
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**Total PFHxS**

170302G1\_9

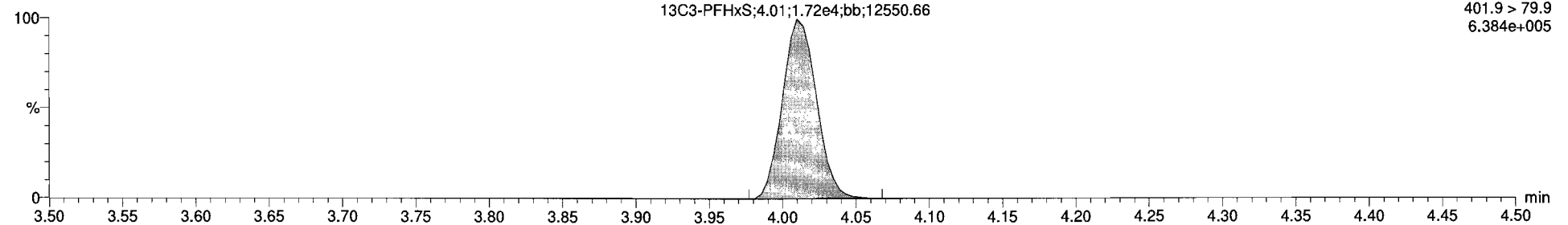


170302G1\_9



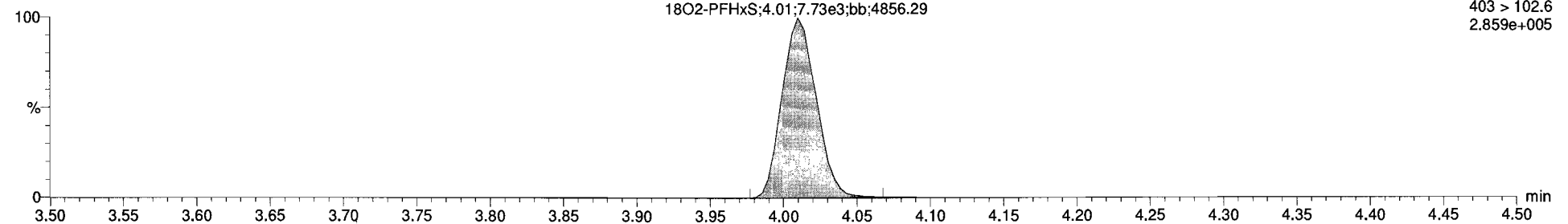
**13C3-PFHxS**

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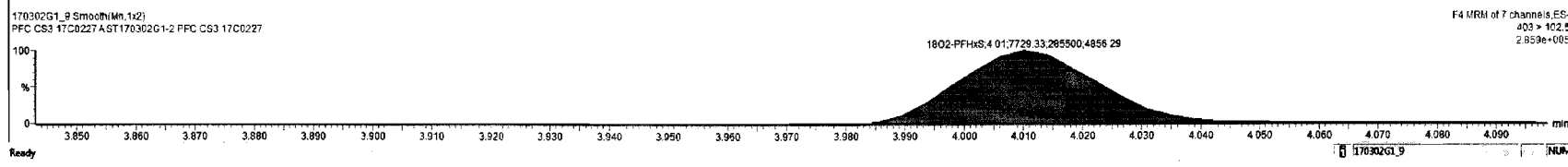
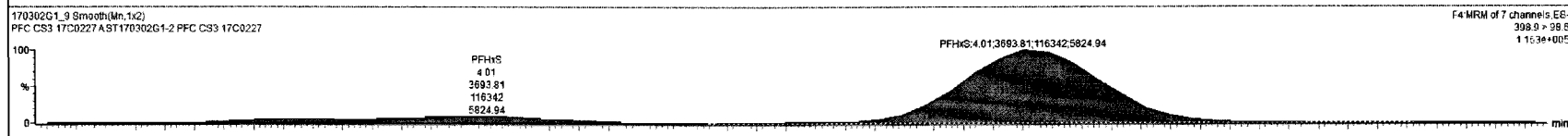
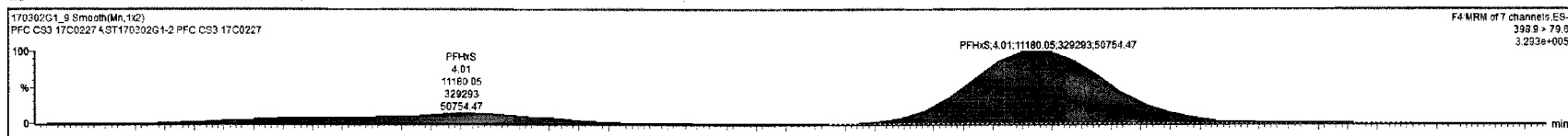


**18O2-PFHxS**

170302G1\_9



Item	Name	Conc.	OL	%Rec	EMPC	Abs Resp	RRF	RT	SA	RA	Y/N	RRF	Acq Date	Acq Time	1 <sup>st</sup> Car Index	D	Sample Test	Factor1	SW	CalFile	MDL
1	PFBS	10.960221	0.0052	108.6		1.27344		3.02	1	7	0.397	YES	1.001	02-Mar-17	17:26:17	38.269	ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	YES
2	PFHxA	10.993427	0.0060	103.9		2.86244		3.90	2	8			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	YES
3	PFHxS	10.231613	0.0050	102.3		1.71194		4.01	9				1.001	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	YES
4	PFOA	9.6522491	0.0000	96.5		2.76944		4.29	4	10			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	YES
5	PFNA	12.407815	0.0090	124.1		2.13444		4.82	5	11			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	YES
6	PFOS	6.9079677	0.0187	69.1		2.76944		4.68	6	12			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	YES
7	13C-PFBS	11.179301	0.00196	89.4		6.89563	0.442	3.01	7	14			0.688	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
8	13C-PFHxA	12.181675	0.0120	97.5		1.87244	1.117	3.90	8	14			0.972	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
9	18O2-PFHxS	13.370808	0.00686	107.0		7.72843	0.420	4.01	9	14			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
10	13C2-PFOA	18.729367	0.0418	149.8		3.90244	2.782	4.29	10	15			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
11	13C5-PFNA	13.859034	0.00421	110.9		9.87063	0.846	4.62	11	16			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
12	13C8-PFOS	12.482265	0.00699	99.9		9.62143	0.941	4.69	12	17			1.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
13	13C5-PFHxA	12.500000	0.00268	100.0		2.93844	1.000	3.39	13	13			0.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
14	13C3-PFHxS	12.500000	0.00249	100.0		1.72044	1.000	4.01	14	14			0.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
15	13C8-PFOA	12.500000	0.00770	100.0		9.38143	1.000	4.29	15	15			0.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
16	13C8-PFNA	12.500000	0.00810	100.0		1.06244	1.000	4.62	16	16			0.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
17	13C4-PFOS	12.500000	0.00143	100.0		1.02444	1.000	4.98	17	17			0.000	02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
18	Total PFBS	10.882521	0.00567					4.01	18					02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
19	Total PFHxS	11.967758						4.01	19					02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
20	Total PFOA	9.6522491						4.29	20					02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO
21	Total PFOS	9.3488237	0.0187					4.68	21					02-Mar-17	17:26:17		ST170302G_PFC CS3 17C0227	1.0	1.00	C18_V...	NO



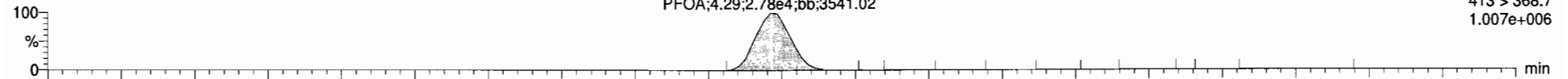
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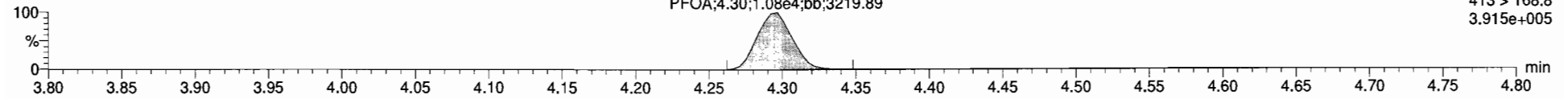
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**Total PFOA**

170302G1\_9

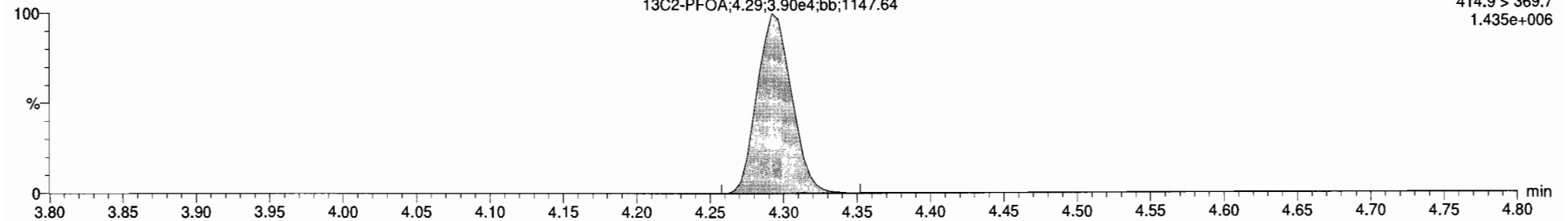


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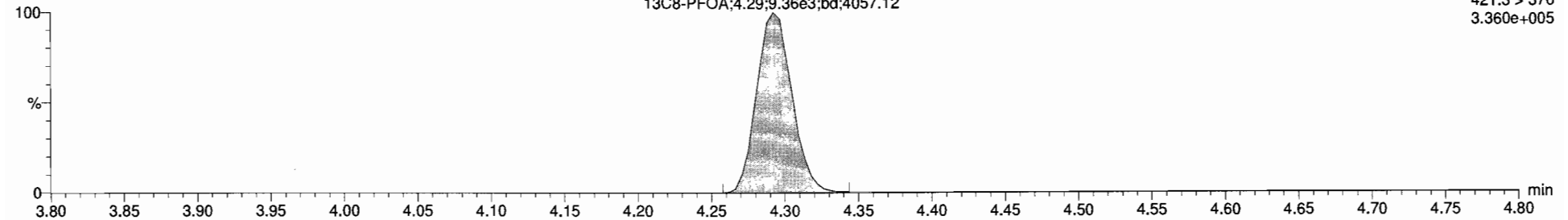
**13C2-PFOA**

170302G1\_9



**13C8-PFOA**

170302G1\_9



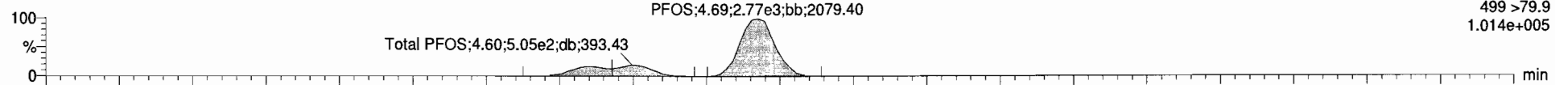
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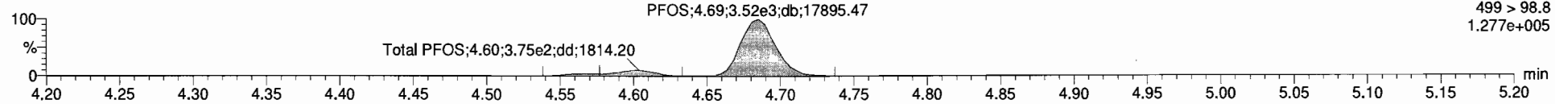
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**Total PFOS**

170302G1\_9

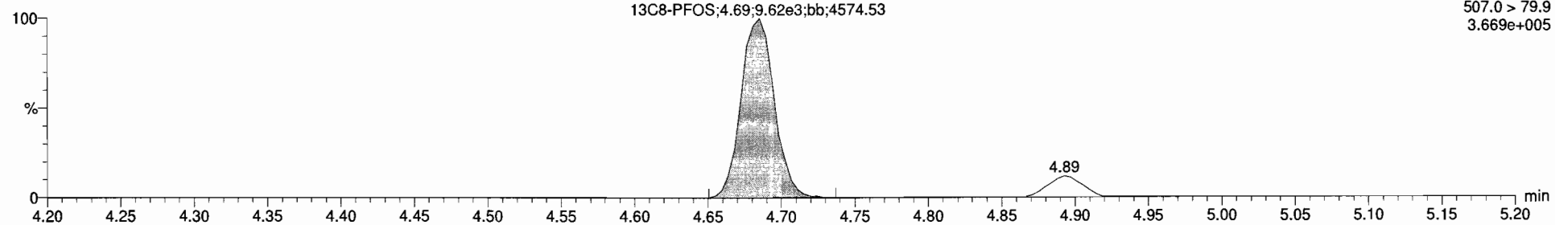


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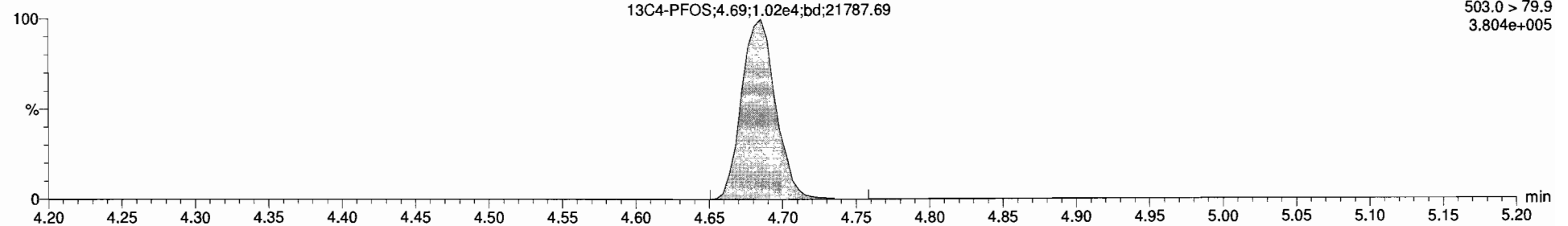
**13C8-PFOS**

170302G1\_9



**13C4-PFOS**

170302G1\_9

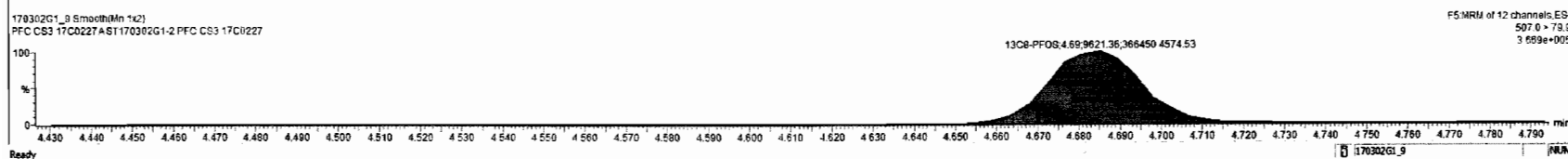
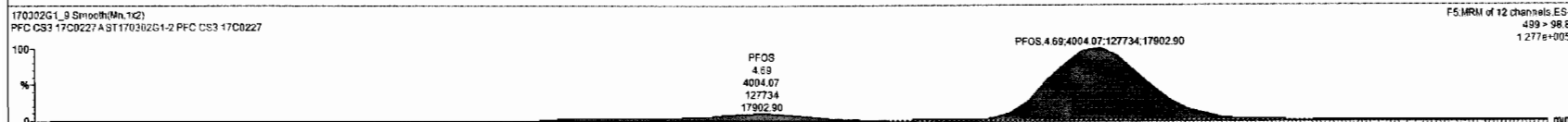
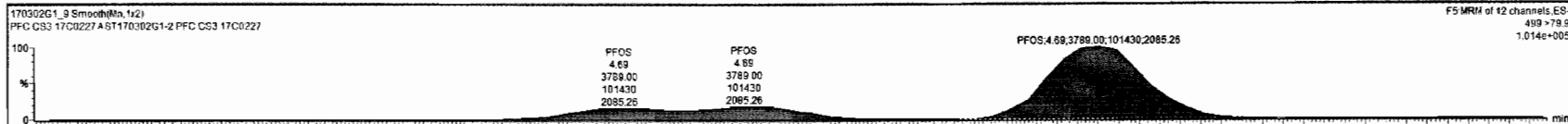






170302G1\_9 - ST170302G1-2 PFC CS3 17C0227 - PFC CS3 17C0227 / A

Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRR	Acq Date	Acq Time	1 <sup>st</sup> Chr Name	ID	Sample Test	Factor1	SW	Cal File	>MDL
1	PFBS	10.860221	0.00582	108.6	1.273e4	3.02	1	7		0.397	YES	1.001	02-Mar-17	17:26:17	38 288	ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	YES
2	PFHpA	10.383427	0.0000	103.8	2.862e4	3.90	2	8				1.001	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	YES
3	PFHxS	10.231813	0.0000	102.3	1.118e4	4.01	3	9				1.001	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	YES
4	PFDA	9.6522491	0.0000	96.5	2.780e4	4.28	4	10				1.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	YES
5	PFNA	12.407815	0.0000	124.1	2.134e4	4.62	5	11				1.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	YES
6	PFBS	8.4470645	0.0187	84.5	3.788e3	4.69	6	12				1.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	YES
7	13C1-PFBS	11.179301	0.00196	89.4	6.876e3	4.42	3.01	7	14			0.888	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
8	13C4-PFHpA	12.181675	0.0120	97.5	1.872e4	1.117	5.90	8	14			0.972	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
9	18O2-PFHxS	13.378603	0.00656	107.0	7.729e3	9.420	4.01	9	14			1.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
10	13C2-PFDA	18.729367	0.0416	149.8	3.562e4	2.782	4.29	10	15			1.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
11	13C3-PFNA	13.869834	0.00421	110.8	9.979e3	0.846	4.62	11	16			1.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
12	13C3-PFOS	12.482265	0.00690	99.3	6.621e3	0.941	4.69	12	17			1.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
13	13C3-PFHxA	12.506000	0.00268	100.0	2.938e4	1.000	3.39	13	13			0.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
14	13C3-PFHxS	12.506000	0.00249	100.0	1.720e4	1.000	4.01	14	14			0.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
15	13C3-PFDA	12.506000	0.00770	100.0	9.361e3	1.000	4.29	15	15			0.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
16	13C3-PFNA	12.509000	0.00610	100.0	1.062e4	1.000	4.62	16	16			0.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
17	13C3-PFOS	12.509000	0.00143	100.0	1.624e4	1.000	4.69	17	17			0.000	02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
18	Total PFBS	10.862521	0.00567					18					02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
19	Total PFHxS	11.967758						19					02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
20	Total PFDA	9.6522491						20					02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO
21	Total PFOS	11.887941	0.0187					21					02-Mar-17	17:26:17		ST170302G	PFC CS3 17C0227	1.0	1.00	C18_V	NO



Dataset: U:\G1.PRO\Results\2017\New folder\170303G1-2.qld

Last Altered: Friday, March 03, 2017 12:12:38 Pacific Standard Time

Printed: Friday, March 03, 2017 12:12:59 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170303G1\_2, Date: 03-Mar-2017, Time: 10:04:41, ID: ST170303G1-1 PFC CS3 17C0227, Description: PFC CS3 17C0227 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	3.44e3	6.74e3		1.000	4.69	12.2	122.3
2	12 13C8-PFOS	507.0 > 79.9	6.74e3	7.89e3	0.941	1.000	4.69	11.3	90.7
3	17 13C4-PFOS	503.0 > 79.9	7.89e3	7.89e3	1.000	1.000	4.69	12.5	100.0

75-125  
60-150

ED 3/3/17

✓ AC 3/5/17

Dataset: Untitled

Last Altered: Friday, March 03, 2017 12:19:36 Pacific Standard Time

Printed: Friday, March 03, 2017 12:20:14 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170303G1_1	IPA	03-Mar-17	09:52:28
2	170303G1_2	ST170303G1-1 PFC CS3 17C0227	03-Mar-17	10:04:41
3	170303G1_3	IPA	03-Mar-17	10:17:15
4	170303G1_4	1700263-04@40X OW2C-MW25-0217 0.12534	03-Mar-17	10:29:48
5	170303G1_5	1700263-04@20X OW2C-MW25-0217 0.12534	03-Mar-17	10:42:18
6	170303G1_6	1700263-05@5X OW2C-MW19-0217 0.12438	03-Mar-17	10:54:51
7	170303G1_7	IPA	03-Mar-17	11:07:24
8	170303G1_8	ST170303G1-2 PFC CS3 17C0227	03-Mar-17	11:19:58
9	170303G1_9	IPA	03-Mar-17	11:32:32

# LC Calibration Standards Review Checklist

01

Calibration ID:	L M H	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
<u>ST17030361-1</u>	<u>(L M H)</u>	<u>MA</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>MA</u> <input checked="" type="checkbox"/>
<u>J -2</u>	<u>(L M H)</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Full Mass Cal. Date: 12/6/17

Run Log Present:

# of Samples per Sequence Checked:

Reviewed By: AC 3/5/17  
Initials/Date

**Comments:**  
 PFAS only

Dataset: Untitled

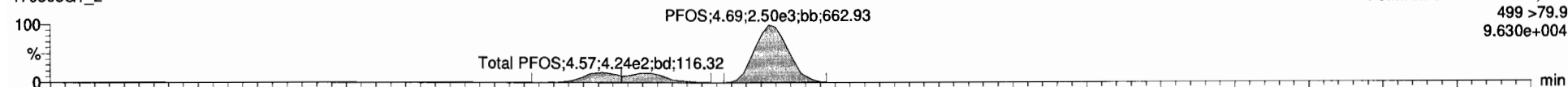
Last Altered: Friday, March 03, 2017 12:06:26 Pacific Standard Time

Printed: Friday, March 03, 2017 12:07:42 Pacific Standard Time

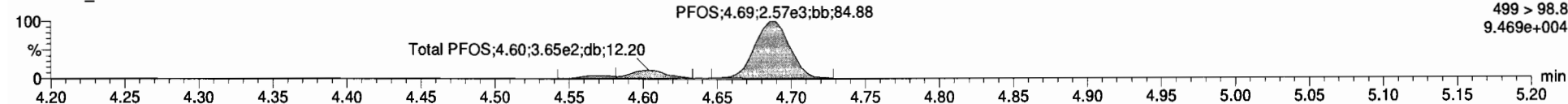
ID: ST170303G1-1 PFC CS3 17C0227, Description: PFC CS3 17C0227 A, Name: 170303G1\_2, Date: 03-Mar-2017, Time: 10:04:41, Instrument: , Lab: , User:

**Total PFOS**

170303G1\_2

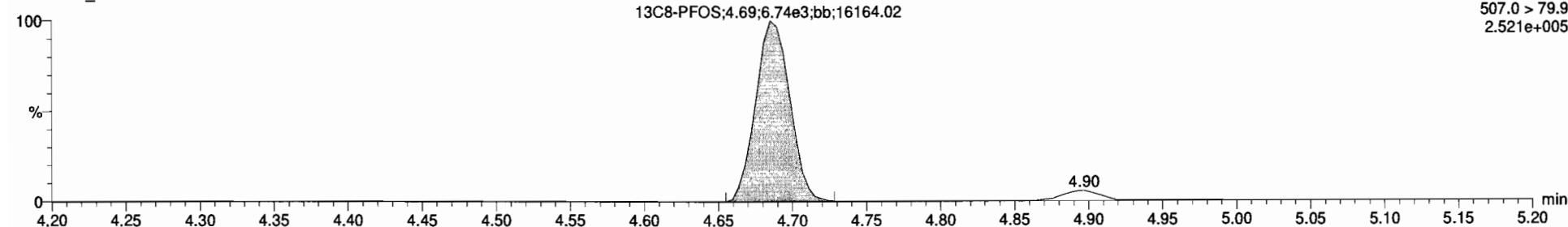


170303G1\_2



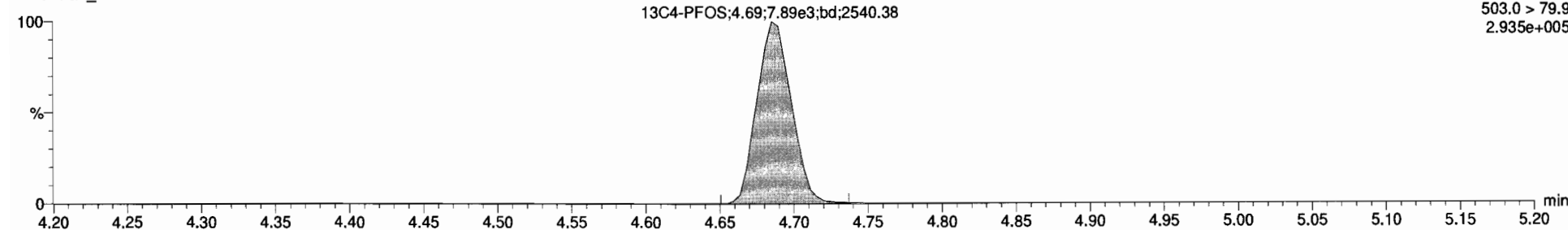
**13C8-PFOS**

170303G1\_2



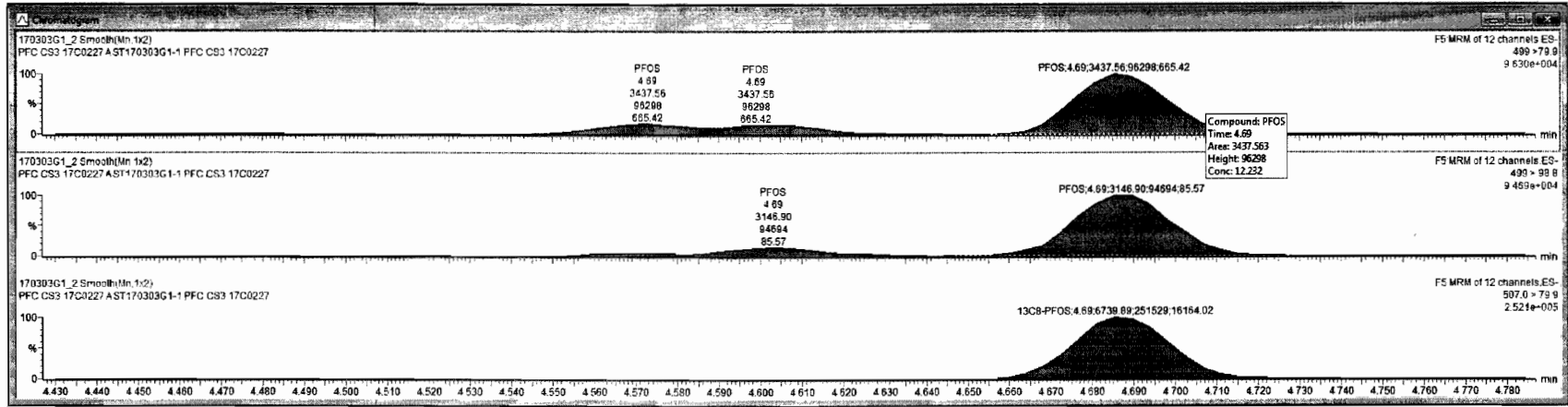
**13C4-PFOS**

170303G1\_2



170303G1\_2 ST170303G1-1 PFC CS3 17C0227 PFC CS3 17C0227 A

#	Name	Thro	Area	RRF	WtVol	Pred RT	RT	Conc.	MDL	%Rec	DL
1	PFBS	299 > 79.7	1.45e4		1.000	3.02	3.02	11.5	YES	114.6	0.004243
2	PFHxA	363 > 318.9	3.06e4		1.000	3.90	3.90	10.6	YES	105.9	0.0000000
3	PFHxS	398.9 > 79.6	9.74e3		1.000	4.02	4.02	8.96	YES	89.0	0.0000000
4	PFOA	413 > 368.7	2.64e4		1.000	4.30	4.30	9.63	YES	96.3	0.0000000
5	PFNA	463 > 418.8	1.96e4		1.000	4.62	4.63	15.0	YES	149.7	0.0000000
6	PFOS	499 > 79.9	3.46e3		1.000	4.69	4.69	12.2	YES	122.3	0.0451647
7	13C1-PFBS	302.0 > 98.8	7.35e3	0.442	1.000	3.02	3.02	12.0	NO	95.6	0.0017257
8	13C4-PFHpA	367.2 > 321.6	1.96e4	1.12	1.000	3.90	3.90	12.7	NO	101.2	0.0054130
9	18O2-PFHxS	403 > 102.6	7.73e3	0.420	1.000	4.02	4.02	13.2	NO	108.0	0.0206247
10	13C2-PFOA	414.9 > 369.7	3.71e4	2.78	1.000	4.30	4.30	21.2	NO	169.8	0.0018163
11	13C5-PFNA	468.2 > 422.9	7.60e3	0.846	1.000	4.62	4.62	12.2	NO	97.6	0.0109912
12	13C8-PFOS	507.0 > 79.9	6.74e3	0.941	1.000	4.69	4.69	11.3	NO	90.7	0.0017604
13	13C5-PFHxA	318 > 272.9	3.11e4	1.00	1.000	3.29	3.40	12.5	NO	100.0	0.0041723
14	13C3-PFHxS	401.9 > 79.9	1.74e4	1.00	1.000	3.94	4.02	12.5	NO	100.0	0.0109068
15	13C3-PFOA	421.3 > 376	7.65e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0093492
16	13C5-PFNA	472.2 > 426.9	8.20e3	1.00	1.000	4.56	4.62	12.5	NO	100.0	0.0008498
17	13C4-PFOS	503.0 > 79.9	7.89e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0123013
18	Total PFBS	299 > 79.7	1.45e4		1.000	3.11		11.5	NO		0.0044116
19	Total PFHxS	398.9 > 79.6	1.21e4		1.000	4.09		11.0	NO		
20	Total PFOA	413 > 368.7	2.64e4		1.000	4.30		9.63	NO		
21	Total PFOS	499 > 79.9	3.46e3		1.000	4.67		12.2	NO		0.0451647



Dataset: U:\G1.PRO\Results\2017\New folder\170303G1-8.qld

Last Altered: Friday, March 03, 2017 12:16:10 Pacific Standard Time

Printed: Friday, March 03, 2017 12:16:29 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170303G1\_8, Date: 03-Mar-2017, Time: 11:19:58, ID: ST170303G1-2 PFC CS3 17C0227, Description: PFC CS3 17C0227 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	6 PFOS	499 >79.9	1.96e3	4.52e3		1.000	4.69	10.4	103.9
2	12 13C8-PFOS	507.0 > 79.9	4.52e3	4.84e3	0.941	1.000	4.69	12.4	99.3
3	17 13C4-PFOS	503.0 > 79.9	4.84e3	4.84e3	1.000	1.000	4.69	12.5	100.0

75-125  
60-150

ES 3/3/17

✓ AC 3/5/17

Dataset: Untitled

Last Altered: Friday, March 03, 2017 12:19:36 Pacific Standard Time

Printed: Friday, March 03, 2017 12:20:14 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Compound name: PFBS

Name	ID	Acq.Date	Acq.Time
170303G1_1	IPA	03-Mar-17	09:52:28
170303G1_2	ST170303G1-1 PFC CS3 17C0227	03-Mar-17	10:04:41
170303G1_3	IPA	03-Mar-17	10:17:15
170303G1_4	1700263-04@40X OW2C-MW25-0217 0.12534	03-Mar-17	10:29:48
170303G1_5	1700263-04@20X OW2C-MW25-0217 0.12534	03-Mar-17	10:42:18
170303G1_6	1700263-05@5X OW2C-MW19-0217 0.12438	03-Mar-17	10:54:51
170303G1_7	IPA	03-Mar-17	11:07:24
170303G1_8	ST170303G1-2 PFC CS3 17C0227	03-Mar-17	11:19:58
170303G1_9	IPA	03-Mar-17	11:32:32



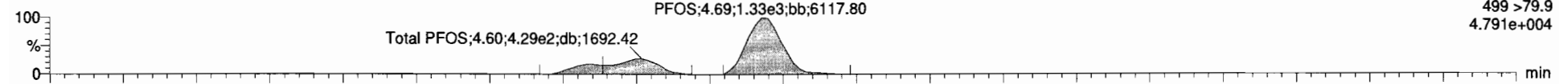
Dataset: Untitled

Last Altered: Friday, March 03, 2017 12:08:34 Pacific Standard Time  
Printed: Friday, March 03, 2017 12:08:40 Pacific Standard Time

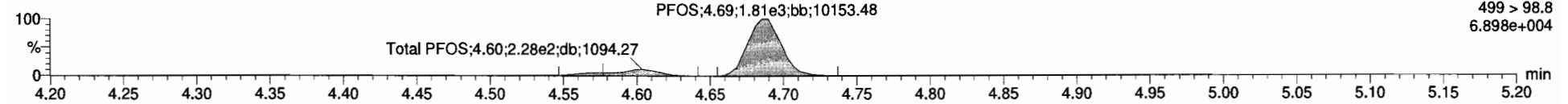
ID: ST170303G1-2 PFC CS3 17C0227, Description: PFC CS3 17C0227 A, Name: 170303G1\_8, Date: 03-Mar-2017, Time: 11:19:58, Instrument: , Lab: , User:

**Total PFOS**

170303G1\_8

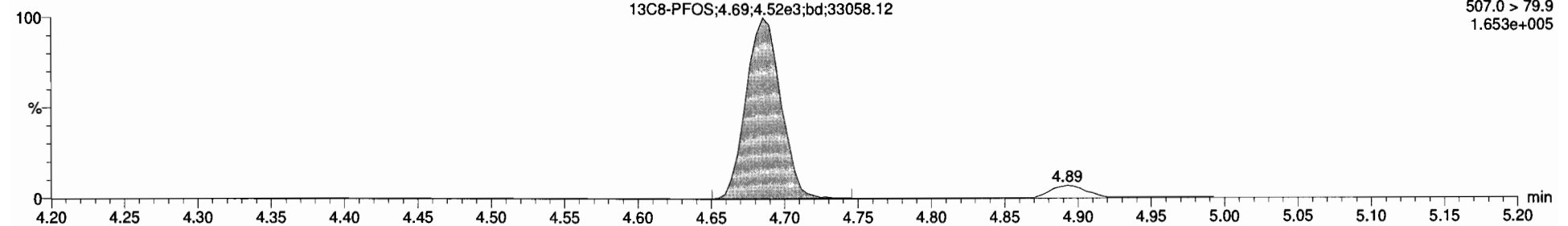


170303G1\_8



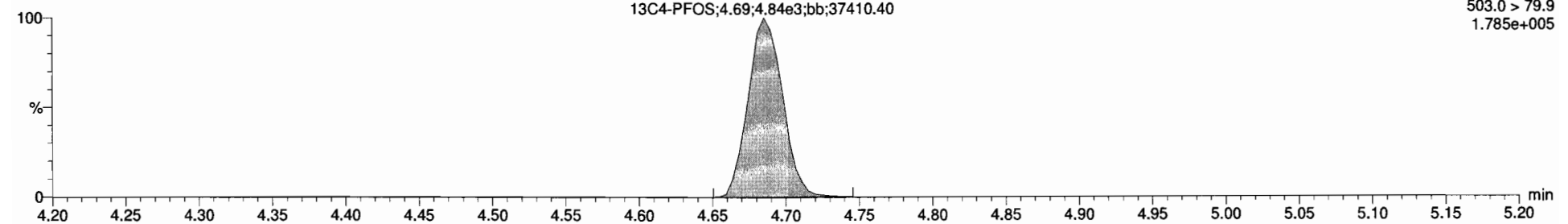
**13C8-PFOS**

170303G1\_8

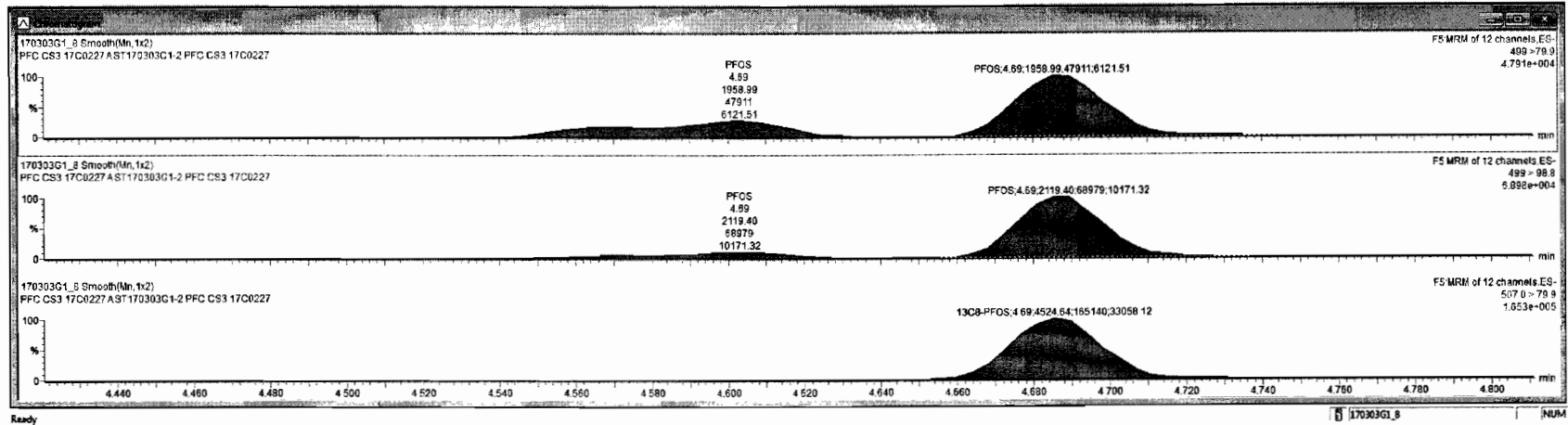


**13C4-PFOS**

170303G1\_8



Name	Trace	Area	RFI	WVcl	Prod.RT	RT	Conc.	MIDL	%Rec	DL	
1	PFOS	290 > 79.9	1.324	1.000	3.12	3.02	12.1	YES	122.8	0.0002261	
2	PFOS	383 > 79.9	2.864	1.000	3.99	3.90	10.6	YES	106.3	0.0006060	
3	PFOS	505.0 > 79.9	8.314	1.000	4.02	4.02	9.65	YES	96.5	0.0001000	
4	PFDA	413 > 369.7	2.164	1.000	4.30	4.30	9.96	YES	99.6	0.0000040	
5	PFNA	463 > 419.9	1.454	1.000	4.62	4.63	13.4	YES	133.6	0.0000000	
6	PFOS	499 > 79.9	1.964	1.000	4.69	4.69	14.4	YES	143.9	0.0135581	
7	13C8-PFOS	382.0 > 98.9	8.564	0.442	1.000	3.02	3.02	12.5	NO	99.7	0.0010606
8	13C8-PFOS	387.2 > 321.8	1.704	1.132	1.000	3.90	3.90	12.9	NO	103.6	0.0092457
9	13C8-PFOS	383 > 102.8	0.094	0.420	1.000	4.02	4.02	12.9	NO	99.4	0.0045464
10	13C8-PFOS	414.8 > 369.7	3.914	1.278	1.000	4.30	4.30	19.1	NO	152.0	0.0037352
11	13C8-PFNA	468.2 > 432.9	0.314	0.840	1.000	4.62	4.62	13.3	NO	108.1	0.0113093
12	13C8-PFOS	507.0 > 79.9	4.524	0.941	1.000	4.69	4.69	12.4	NO	98.3	0.0009296
13	13C8-PFOS	318 > 272.9	2.814	1.00	1.000	3.29	3.40	12.5	NO	108.0	0.0033215
14	13C8-PFOS	461.8 > 79.9	1.814	1.00	1.000	3.84	4.02	12.5	NO	108.0	0.0054228
15	13C8-PFDA	421.3 > 376	7.974	1.00	1.000	4.22	4.30	12.5	NO	108.0	0.0012961
16	13C8-PFNA	472.2 > 428.9	7.834	1.00	1.000	4.86	4.62	12.5	NO	108.0	0.0044191
17	13C8-PFOS	505.0 > 79.9	4.844	1.00	1.000	4.67	4.69	12.5	NO	108.0	0.0008332
18	PFOS	290 > 79.9	1.324	1.000	3.12	3.11	12.1	NO			0.0072019
19	PFOS	383 > 79.9	1.854	1.000	3.99	3.99	12.9	NO			
20	PFOS	413 > 369.7	2.204	1.000	4.30	4.30	9.96	NO			
21	PFOS	463 > 79.9	2.584	1.000	4.62	4.62	13.2	NO			0.0135581



Dataset: U:\G1.PRO\Results\2017\New folder\170307G1-2.qld

Last Altered: Tuesday, March 07, 2017 09:51:38 Pacific Standard Time

Printed: Tuesday, March 07, 2017 09:54:56 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170307G1\_2, Date: 07-Mar-2017, Time: 09:14:04, ID: ST170307G1-1 PFC CS3 17C0701, Description: PFC CS3 17C0701 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.31e4	7.20e3		1.000	2.99	9.55	95.5
2	2 PFHpA	363 > 318.9	2.77e4	1.83e4		1.000	3.88	10.4	104.3
3	3 PFHxS	398.9 > 79.6	1.20e4	7.52e3		1.000	4.00	10.9	109.4
4	4 PFOA	413 > 368.7	2.44e4	3.81e4		1.000	4.28	9.86	98.6
5	5 PFNA	463 > 418.8	1.87e4	8.55e3		1.000	4.61	9.94	99.4
6	6 PFOS	499 > 79.9	3.38e3	8.10e3		1.000	4.67	9.77	97.7
7	7 13C3-PFBS	302.0 > 98.8	7.20e3	1.80e4	0.410	1.000	2.99	12.2	97.9
8	8 13C4-PFHpA	367.2 > 321.8	1.83e4	1.80e4	1.098	1.000	3.88	11.6	93.0
9	9 18O2-PFHxS	403 > 102.6	7.52e3	1.80e4	0.434	1.000	4.00	12.1	96.4
10	10 13C2-PFOA	414.9 > 369.7	3.81e4	8.44e3	4.608	1.000	4.28	12.2	98.0
11	11 13C5-PFNA	468.2 > 422.9	8.55e3	1.03e4	0.867	1.000	4.61	12.0	95.6
12	12 13C8-PFOS	507.0 > 79.9	8.10e3	8.25e3	0.958	1.000	4.67	12.8	102.5
13	13 13C5-PFHxA	318 > 272.9	3.17e4	3.17e4	1.000	1.000	3.37	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.80e4	1.80e4	1.000	1.000	4.00	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	8.44e3	8.44e3	1.000	1.000	4.28	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.03e4	1.03e4	1.000	1.000	4.61	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	8.25e3	8.25e3	1.000	1.000	4.67	12.5	100.0

75-125  
↓  
60-150  
↓  
50-150  
60-150

ES 3/7/17  
✓ AC 3/7/17

Dataset: Untitled

Last Altered: Tuesday, March 07, 2017 10:58:31 Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:58:48 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170307G1_1	IPA	07-Mar-17	09:01:51
2	170307G1_2	ST170307G1-1 PFC CS3 17C0701	07-Mar-17	09:14:04
3	170307G1_3	IPA	07-Mar-17	09:26:31
4	170307G1_4	1700263-04RE1@10X OW2C-MW25-0217 0...	07-Mar-17	09:39:38
5	170307G1_5	1700293-01@10X WI-CV-GW02S-0317 0.125	07-Mar-17	09:51:58
6	170307G1_6	1700293-02@10X WI-CV-GW02S/SP-0317 0...	07-Mar-17	10:04:33
7	170307G1_7	IPA	07-Mar-17	10:17:07
8	170307G1_8	ST170307G1-2 PFC CS3 17C0701	07-Mar-17	10:29:40
9	170307G1_9	IPA	07-Mar-17	10:42:20

# LC Calibration Standards Review Checklist

Q1

Calibration ID:	L M H	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
<u>ST170307G1-1</u>	L M H	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>J -2</u>	L M H	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

MB

Full Mass Cal. Date: 12/7/16

Run Log Present:

# of Samples per Sequence Checked:

Reviewed By: AC 3/7/17  
Initials/Date

**Comments:**  
 List 6

Dataset: Untitled

Last Altered: Tuesday, March 07, 2017 09:55:08 Pacific Standard Time

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Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

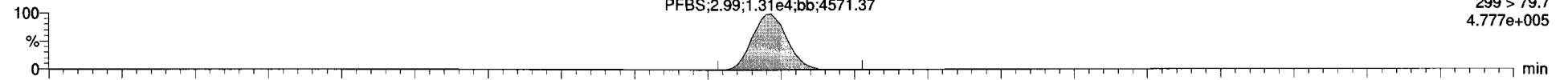
ID: ST170307G1-1 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_2, Date: 07-Mar-2017, Time: 09:14:04, Instrument: , Lab: , User:

**PFBS**

170307G1\_2

PFBS;2.99;1.31e4;bb;4571.37

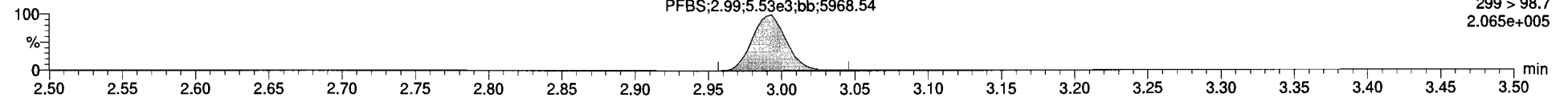
F2:MRM of 3 channels,ES-  
299 > 79.7  
4.777e+005



170307G1\_2

PFBS;2.99;5.53e3;bb;5968.54

F2:MRM of 3 channels,ES-  
299 > 98.7  
2.065e+005

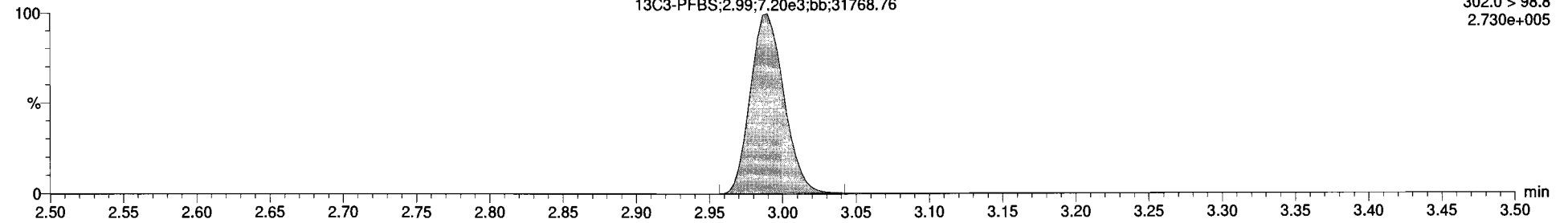


**13C3-PFBS**

170307G1\_2

13C3-PFBS;2.99;7.20e3;bb;31768.76

F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.730e+005

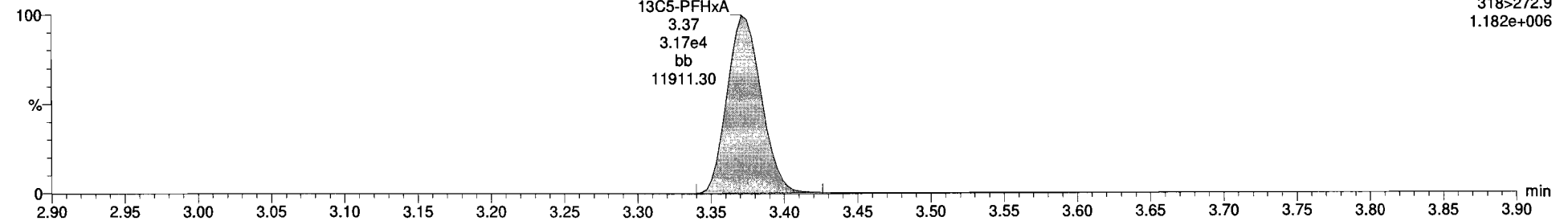


**13C5-PFHxA**

170307G1\_2

13C5-PFHxA  
3.37  
3.17e4  
bb  
11911.30

F3:MRM of 1 channel,ES-  
318>272.9  
1.182e+006



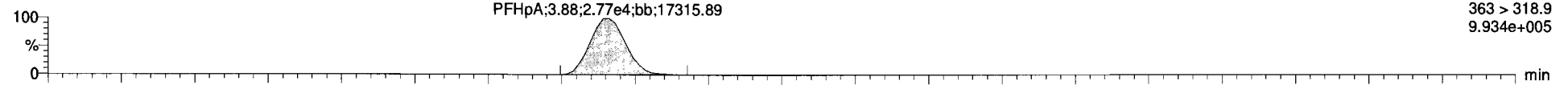
Dataset: Untitled

Last Altered: Tuesday, March 07, 2017 09:55:08 Pacific Standard Time  
Printed: Tuesday, March 07, 2017 09:55:29 Pacific Standard Time

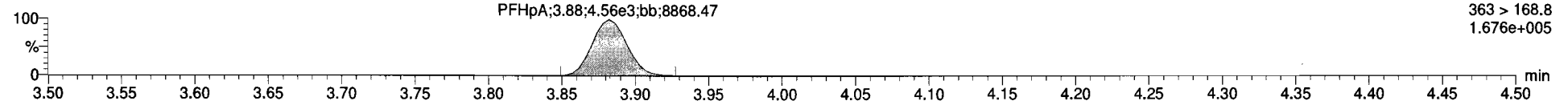
ID: ST170307G1-1 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_2, Date: 07-Mar-2017, Time: 09:14:04, Instrument: , Lab: , User:

**PFHpA**

170307G1\_2

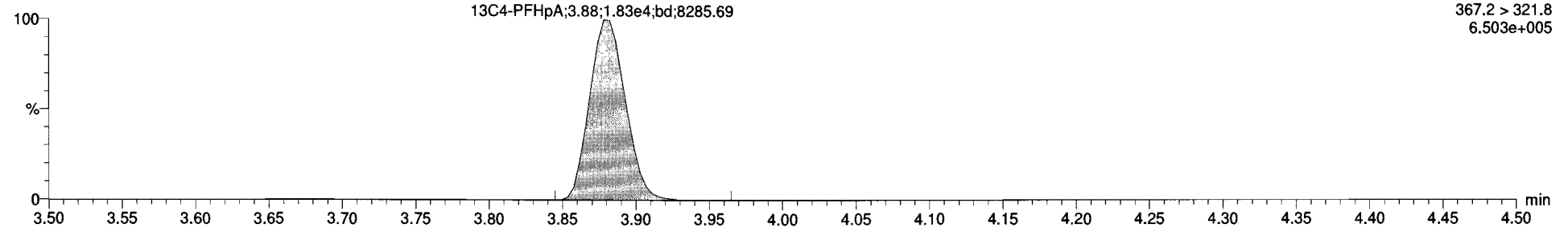


170307G1\_2



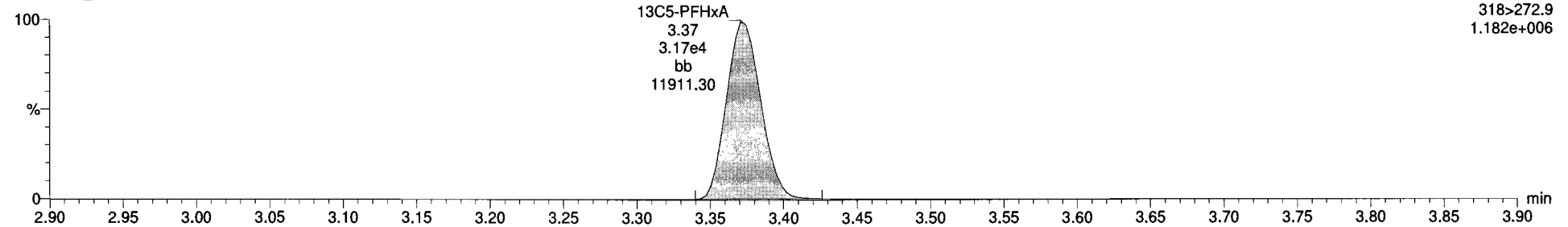
**13C4-PFHpA**

170307G1\_2



**13C5-PFHxA**

170307G1\_2



Dataset: Untitled

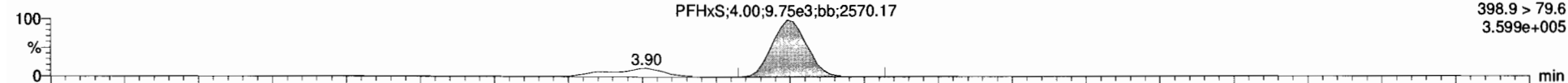
Last Altered: Tuesday, March 07, 2017 09:55:08 Pacific Standard Time

Printed: Tuesday, March 07, 2017 09:55:29 Pacific Standard Time

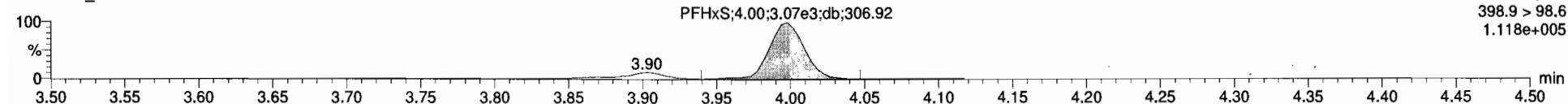
ID: ST170307G1-1 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_2, Date: 07-Mar-2017, Time: 09:14:04, Instrument: , Lab: , User:

**PFHxS**

170307G1\_2

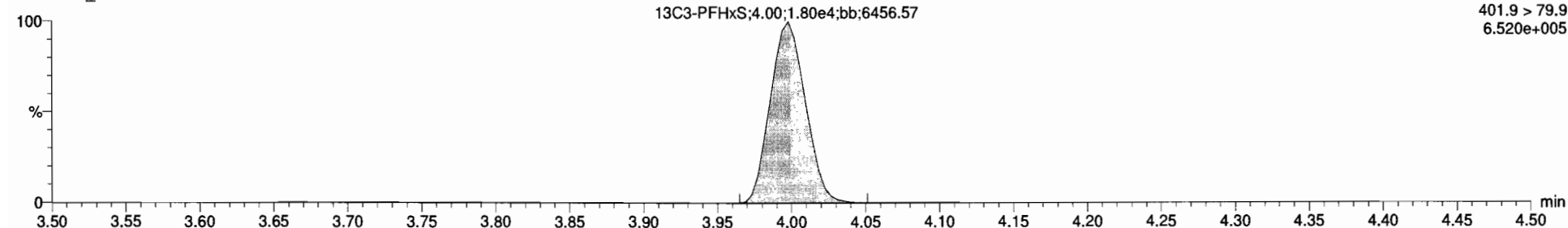


170307G1\_2



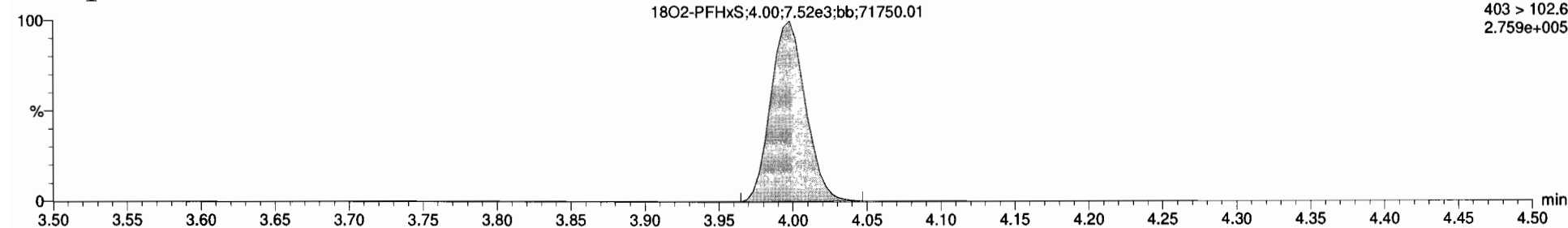
**13C3-PFHxS**

170307G1\_2



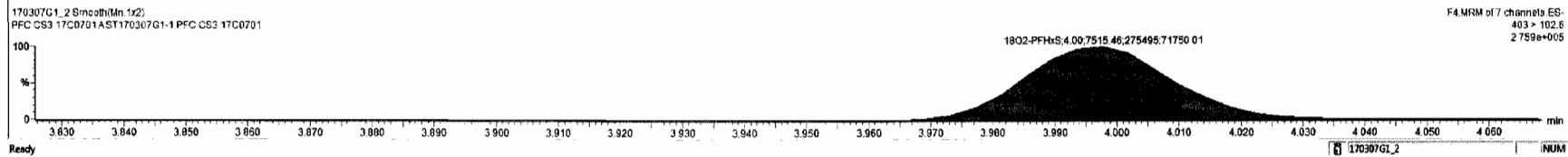
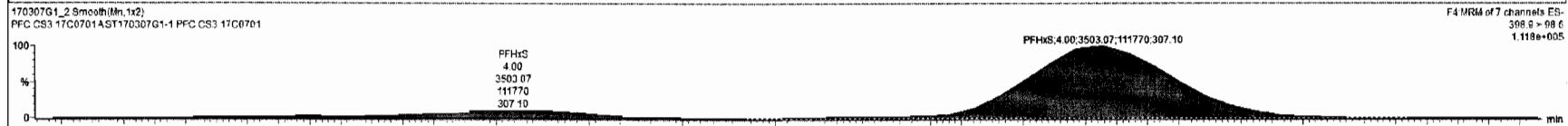
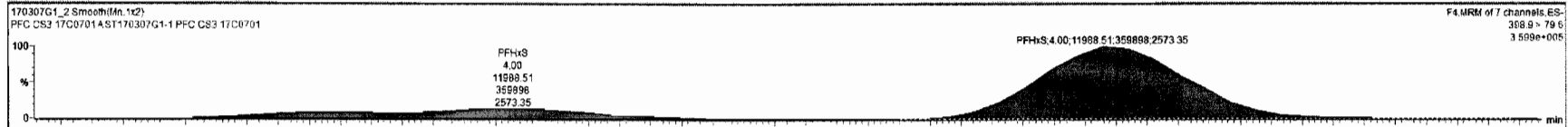
**18O2-PFHxS**

170307G1\_2





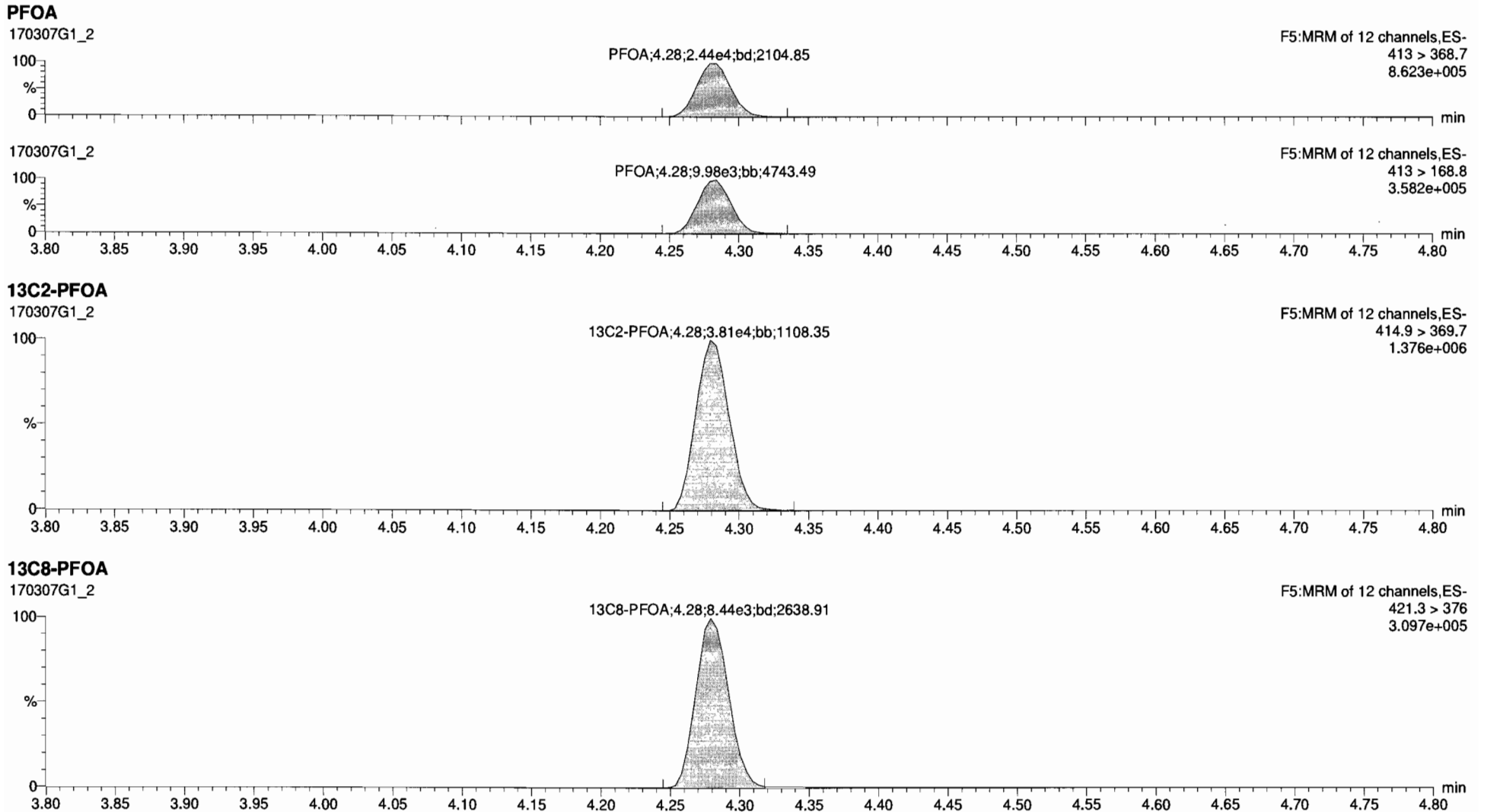
170307G1_2 ST170307G1-1 PFC CS3 17C0701 PFC CS3 17C0701A																						
#	Name	Conc	DL	%Rec	ENPC	Abs Resp	RF	RY	#	SI	RA	Y/N	RRY	Acq Date	Acq Time	1* Chr Name	ID	Sample Text	Factor1	SVM	Cal File	>MDL
1	PFBS	9.5530501	0.0000	95.5		1.315e4	2.99	1	7	0.420	YES	1.001	07-Mar-17	09:14:04	34.534	ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
2	PFHpA	10.431872	0.0000	104.3		2.772e4	3.68	2	8			1.001	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
3	PFHxS	19.900303	0.0000	199.3		7.199e4	4.00	3	9			1.006	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
4	PFOA	9.8607393	0.0000	98.6		2.444e4	4.28	4	10			1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
5	PFNA	9.9380371	0.0000	99.4		1.866e4	4.61	5	11			1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
6	PFOS	9.7730628	0.0987	97.7		3.377e3	4.67	6	12			1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
7	13C3-PFBS	12.234542	0.00100	87.9		7.203e3	0.410	2.99	7	14		0.887	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
8	13C4-PFHpA	11.627334	0.00343	83.0		1.834e4	1.098	3.88	8	14		0.970	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
9	18O2-PFHxS	12.050037	0.000424	96.4		7.515e3	0.434	4.00	9	14		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
10	13C2-PFOA	12.248430	0.0271	96.0		3.813e4	4.608	4.28	10	15		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
11	13C3-PFNA	11.956032	0.00460	95.6		8.548e3	0.867	4.61	11	16		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
12	13C8-PFOS	12.811481	0.000827	102.5		8.101e3	0.958	4.67	12	17		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
13	13C3-PFHpA	12.500000	0.00262	100.0		3.170e4	1.000	3.37	13	13		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
14	13C3-PFHxS	12.500000	0.00484	100.0		1.795e4	1.000	4.00	14	14		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
15	13C8-PFOA	12.500000	0.0118	100.0		8.444e3	1.000	4.28	15	15		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
16	13C3-PFNA	12.500000	0.00521	100.0		1.031e4	1.000	4.61	16	16		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
17	13C4-PFOS	12.500000	0.00526	100.0		8.248e3	1.000	4.67	17	17		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
18	Total PFBS	9.5530501							18				07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
19	Total PFHxS	12.827396							19				07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
20	Total PFOA	9.8607393							20				07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
21	Total PFOS	13.181636	0.0987						21				07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	



Dataset: Untitled

Last Altered: Tuesday, March 07, 2017 09:55:08 Pacific Standard Time  
Printed: Tuesday, March 07, 2017 09:55:29 Pacific Standard Time

ID: ST170307G1-1 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_2, Date: 07-Mar-2017, Time: 09:14:04, Instrument: , Lab: , User:



Dataset: Untitled

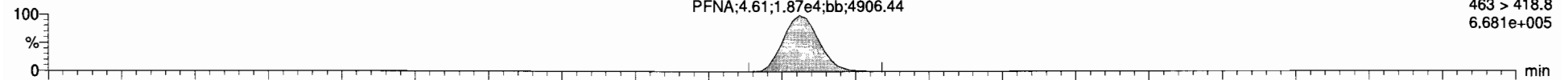
Last Altered: Tuesday, March 07, 2017 09:55:08 Pacific Standard Time

Printed: Tuesday, March 07, 2017 09:55:29 Pacific Standard Time

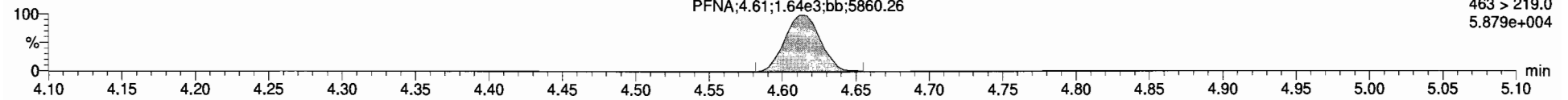
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**PFNA**

170307G1\_2

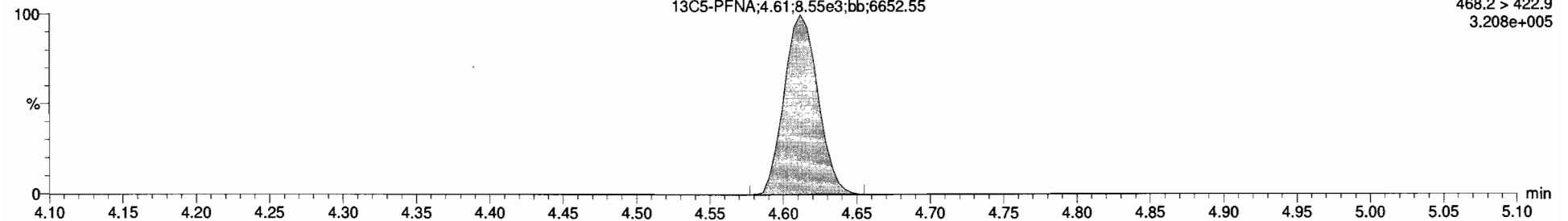


170307G1\_2



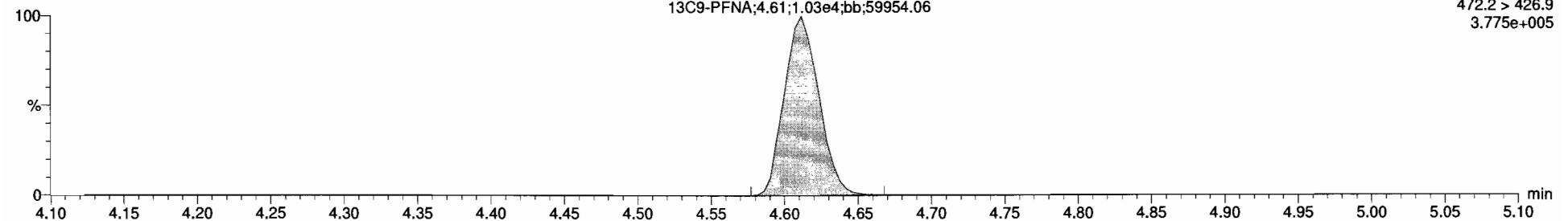
**13C5-PFNA**

170307G1\_2



**13C9-PFNA**

170307G1\_2



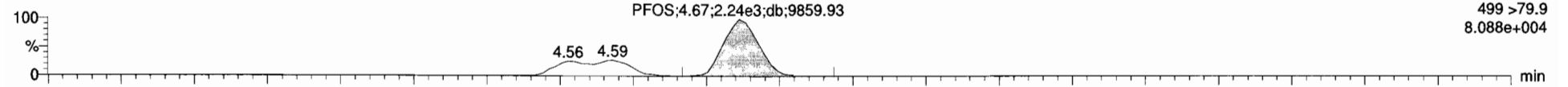
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Last Altered: Tuesday, March 07, 2017 09:55:08 Pacific Standard Time  
Printed: Tuesday, March 07, 2017 09:55:29 Pacific Standard Time

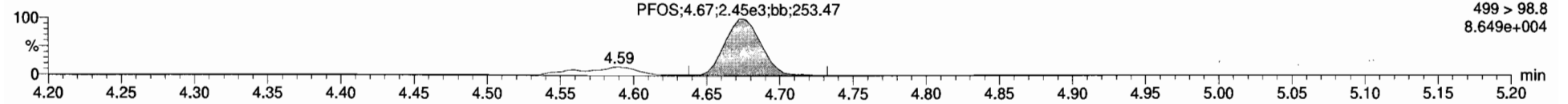
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**PFOS**

170307G1\_2

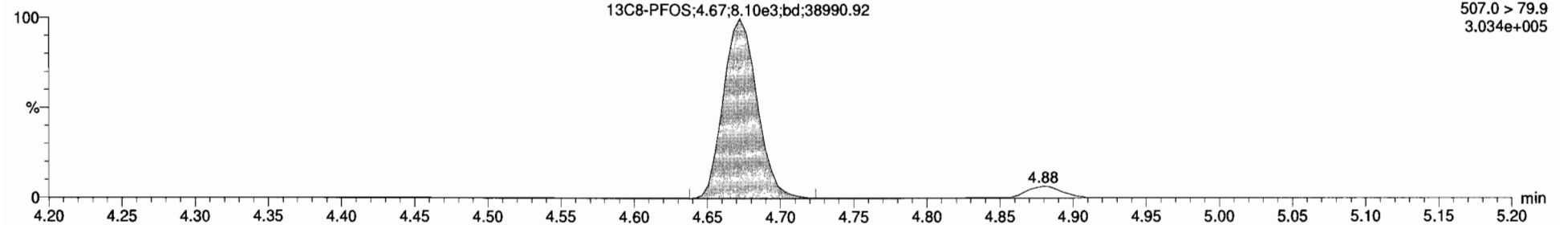


170307G1\_2



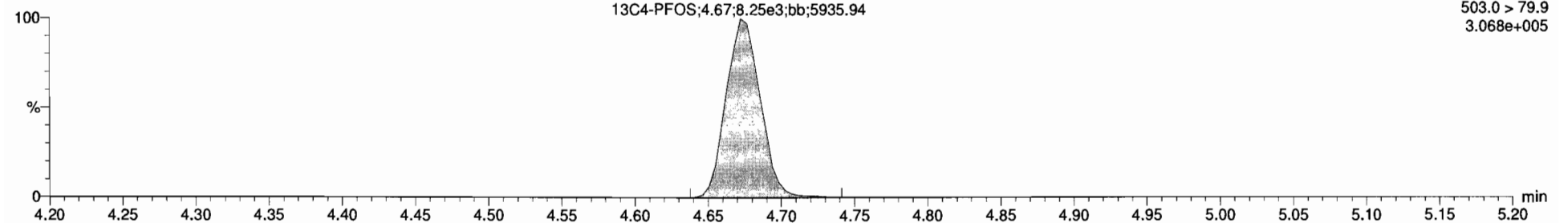
**13C8-PFOS**

170307G1\_2



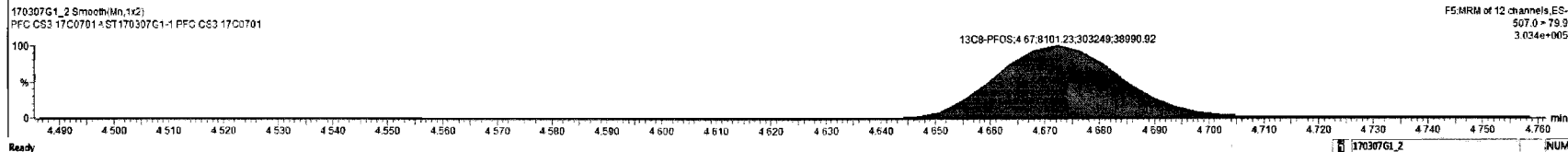
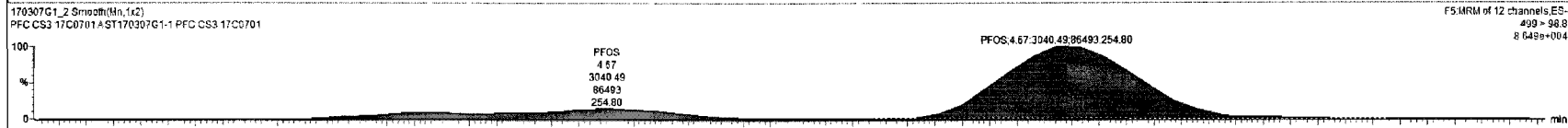
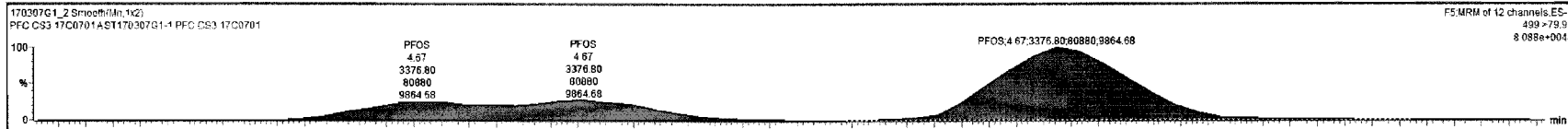
**13C4-PFOS**

170307G1\_2



170307G1\_2 - ST170307G1.1 PFC CS3 17C0701 - PFC CS3 17C0701 A

Name	Conc	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	SB	RA	Y/N	RRT	Acq Date	Acq Time	1 <sup>st</sup> Chr Noise	ID	Sample Test	Factor1	SWK	Cal File	>MUL
1 PFBS	9.5530501	0.0000	95.5		1.315e4	2.99	1	7	0.420	YES	1.001	07-Mar-17	09:14:04	24.534	ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
2 PFHpA	10.431872	0.0000	104.3		2.772e4	3.88	2	8			1.001	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
3 PFHxS	19.939263	0.0000	199.4		1.199e4	4.00	3	9			1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
4 PFDA	9.8607393	0.0000	98.6		2.444e4	4.28	4	10			1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
5 PFNA	9.9380371	0.0000	99.4		1.866e4	4.61	5	11			1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
6 PFOS	9.7736628	0.0967	97.7		3.377e3	4.67	6	12			1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	YES	
7 13C3-PFBS	12.234542	0.00100	97.9		7.203e3	0.410	2.99	7	14		0.887	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
8 13C4-PFHpA	11.627334	0.00343	93.0		1.834e4	1.058	3.88	8	14		0.976	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
9 18O2-PFHxS	12.950637	0.000424	96.4		7.515e3	0.434	4.00	9	14		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
10 13C2-PFDA	12.240430	0.00271	96.0		3.813e4	4.608	4.28	10	15		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
11 13C5-PFNA	11.958032	0.00469	95.6		8.543e3	0.367	4.61	11	16		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
12 13C8-PFOS	12.811481	0.000827	102.5		6.101e3	0.358	4.67	12	17		1.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
13 13C5-PFHpA	12.500000	0.00262	100.0		3.170e4	1.000	3.37	13	13		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
14 13C3-PFHxS	12.500000	0.00464	100.0		1.795e4	1.000	4.00	14	14		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
15 13C8-PFDA	12.500000	0.0118	100.0		8.444e3	1.000	4.28	15	15		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
16 13C5-PFNA	12.500000	0.00521	100.0		1.031e4	1.000	4.61	16	16		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
17 13C4-PFOS	12.500000	0.00526	100.0		8.248e3	1.000	4.67	17	17		0.000	07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
18 Total PFBS	9.5530501						18					07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
19 Total PFHpA	12.627396						19					07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
20 Total PFDA	9.8607393						20					07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	
21 Total PFOS	13.181636	0.0967					21					07-Mar-17	09:14:04		ST170307G...	PFC CS3 17C07...	1.0	1.00	C18_V...	NO	



Dataset: U:\G1.PRO\Results\2017\New folder\170307G1-8.qld

Last Altered: Tuesday, March 07, 2017 10:55:27 Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:55:59 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170307G1\_8, Date: 07-Mar-2017, Time: 10:29:40, ID: ST170307G1-2 PFC CS3 17C0701, Description: PFC CS3 17C0701 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.56e4	7.84e3		1.000	2.99	10.4	104.0
2	2 PFHpA	363 > 318.9	3.08e4	1.95e4		1.000	3.88	10.9	109.1
3	3 PFHxS	398.9 > 79.6	1.22e4	8.14e3		1.000	4.00	10.3	102.6
4	4 PFOA	413 > 368.7	2.90e4	4.09e4		1.000	4.28	10.9	109.3
5	5 PFNA	463 > 418.8	2.28e4	9.69e3		1.000	4.62	10.7	107.2
6	6 PFOS	499 > 79.9	4.26e3	9.91e3		1.000	4.68	10.1	100.9
7	7 13C3-PFBS	302.0 > 98.8	7.84e3	1.97e4	0.410	1.000	2.99	12.1	97.1
8	8 13C4-PFHpA	367.2 > 321.8	1.95e4	1.97e4	1.098	1.000	3.88	11.3	90.2
9	9 18O2-PFHxS	403 > 102.6	8.14e3	1.97e4	0.434	1.000	4.00	11.9	95.1
10	10 13C2-PFOA	414.9 > 369.7	4.09e4	1.00e4	4.608	1.000	4.28	11.1	88.7
11	11 13C5-PFNA	468.2 > 422.9	9.69e3	1.22e4	0.867	1.000	4.61	11.4	91.5
12	12 13C8-PFOS	507.0 > 79.9	9.91e3	1.02e4	0.958	1.000	4.67	12.7	101.8
13	13 13C5-PFHxA	318 > 272.9	3.64e4	3.64e4	1.000	1.000	3.37	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.97e4	1.97e4	1.000	1.000	4.00	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.00e4	1.00e4	1.000	1.000	4.28	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.22e4	1.22e4	1.000	1.000	4.61	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	1.02e4	1.02e4	1.000	1.000	4.68	12.5	100.0

75-125  
↓  
60-150  
↓  
50-150  
60-150

of 3/7/17  
✓ AC 3/7/17

Dataset: Untitled

Last Altered: Tuesday, March 07, 2017 10:58:31 Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:58:48 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Compound name: PFBS

Name	ID	Acq.Date	Acq.Time
170307G1_1	IPA	07-Mar-17	09:01:51
170307G1_2	ST170307G1-1 PFC CS3 17C0701	07-Mar-17	09:14:04
170307G1_3	IPA	07-Mar-17	09:26:31
170307G1_4	1700263-04RE1@10X OW2C-MW25-0217 0....	07-Mar-17	09:39:38
170307G1_5	1700293-01@10X WI-CV-GW02S-0317 0.125	07-Mar-17	09:51:58
170307G1_6	1700293-02@10X WI-CV-GW02S/SP-0317 0....	07-Mar-17	10:04:33
170307G1_7	IPA	07-Mar-17	10:17:07
170307G1_8	ST170307G1-2 PFC CS3 17C0701	07-Mar-17	10:29:40
170307G1_9	IPA	07-Mar-17	10:42:20

Dataset: Untitled

Last Altered: Tuesday, March 07, 2017 10:56:53 Pacific Standard Time

Printed: Tuesday, March 07, 2017 10:57:19 Pacific Standard Time

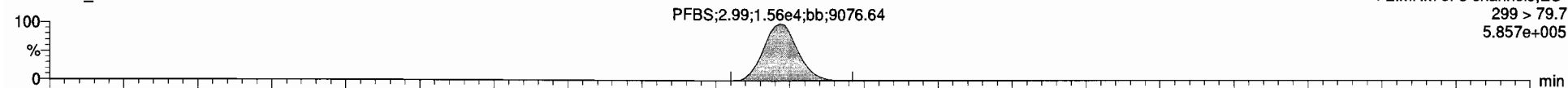
Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

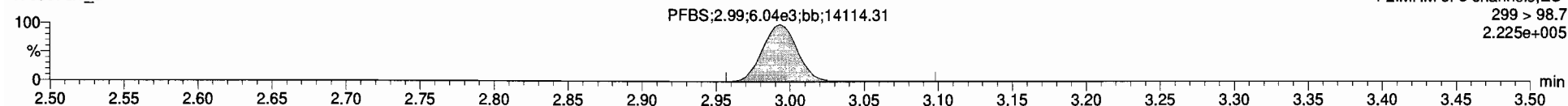
ID: ST170307G1-2 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_8, Date: 07-Mar-2017, Time: 10:29:40, Instrument: , Lab: , User:

**PFBS**

170307G1\_8

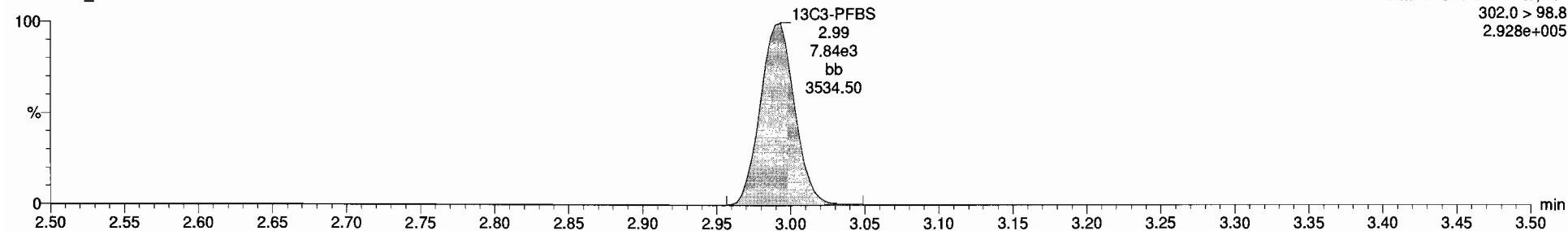


170307G1\_8



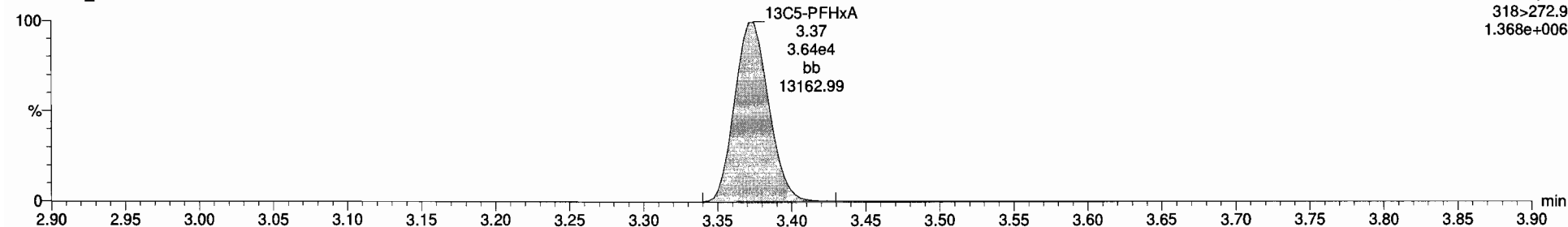
**13C3-PFBS**

170307G1\_8



**13C5-PFHxA**

170307G1\_8



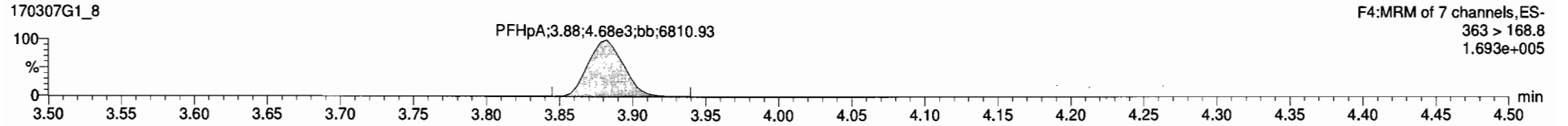
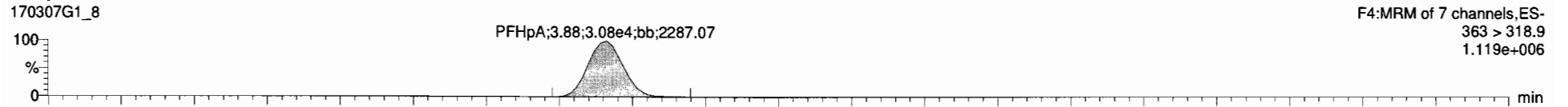


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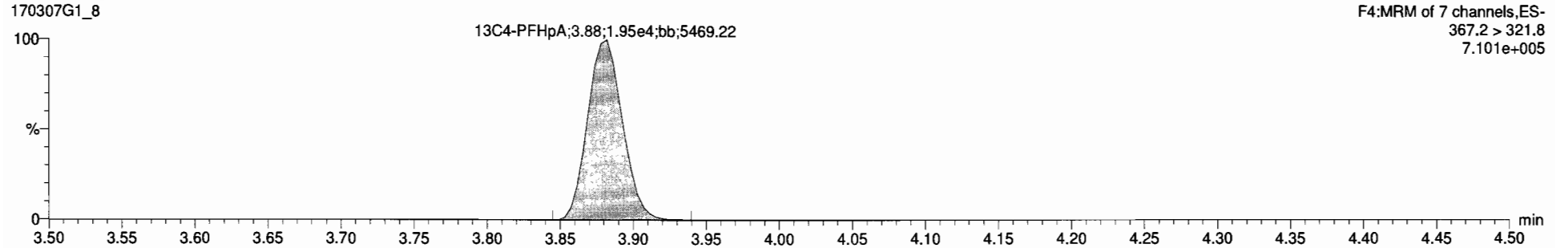
Last Altered: Tuesday, March 07, 2017 10:56:53 Pacific Standard Time  
Printed: Tuesday, March 07, 2017 10:57:19 Pacific Standard Time

ID: ST170307G1-2 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_8, Date: 07-Mar-2017, Time: 10:29:40, Instrument: , Lab: , User:

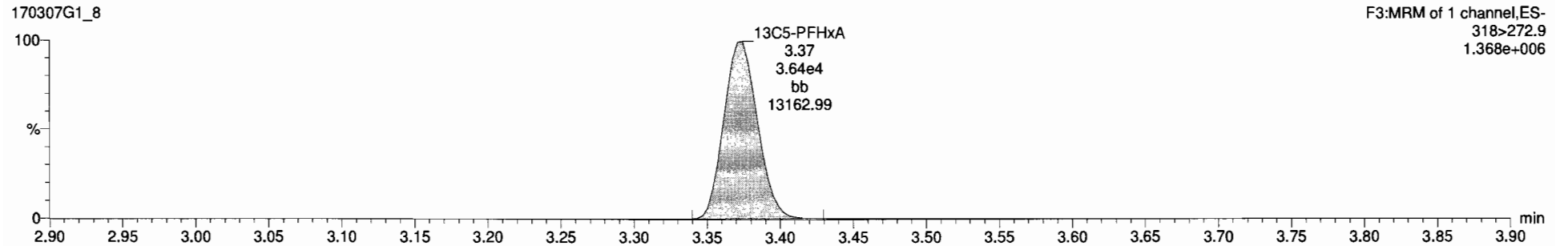
**PFHpA**



**13C4-PFHpA**



**13C5-PFHxA**



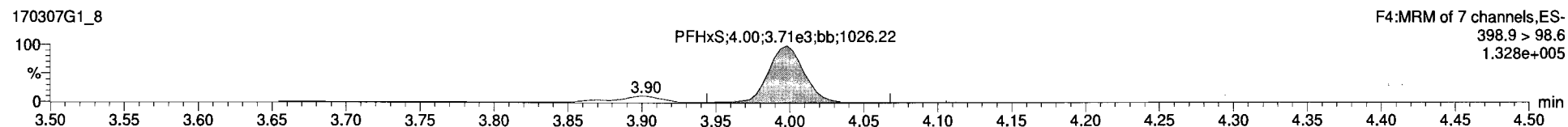
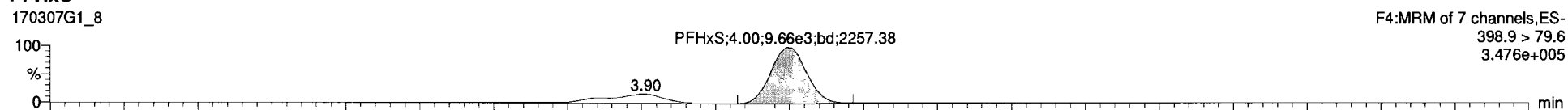
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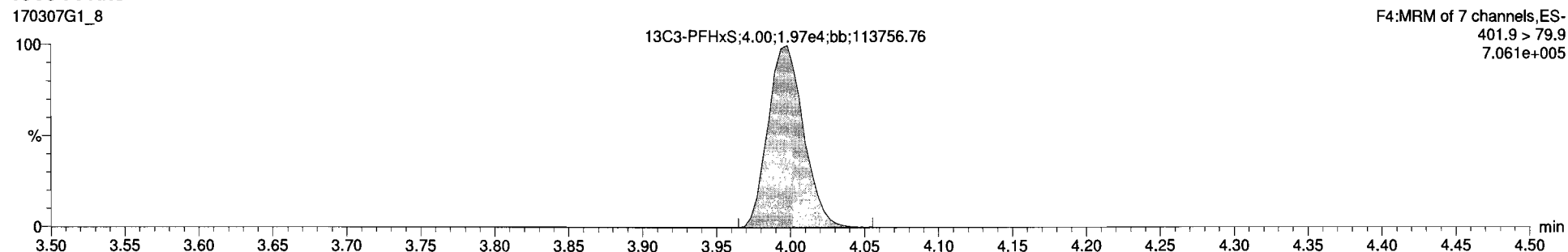
Printed: Tuesday, March 07, 2017 10:57:19 Pacific Standard Time

ID: ST170307G1-2 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_8, Date: 07-Mar-2017, Time: 10:29:40, Instrument: , Lab: , User:

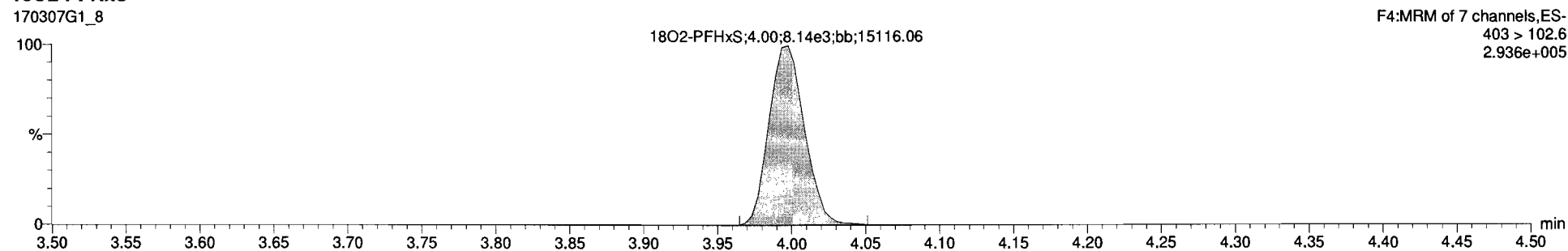
**PFHxS**



**13C3-PFHxS**

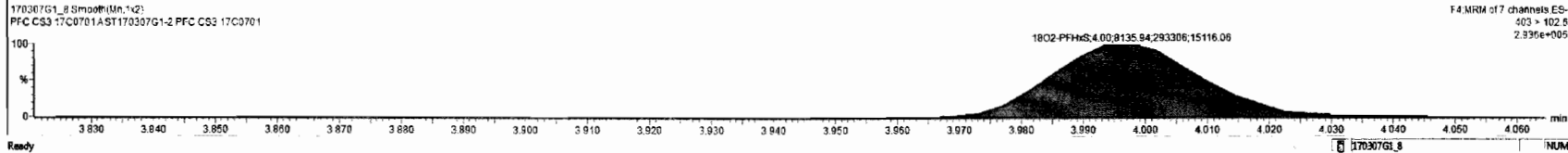
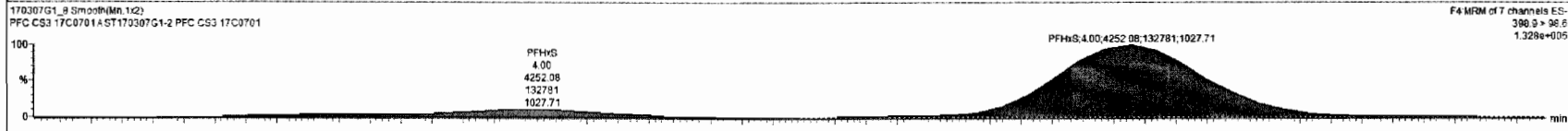
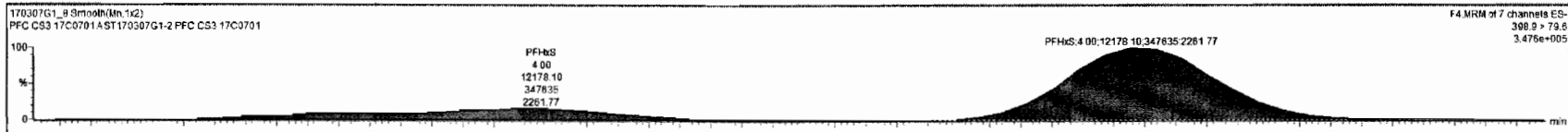


**18O2-PFHxS**



170307G1\_8 SI170307G1-2 PFC CS3 17C0701 PFC CS3 17C0701A

Line	Name	Trace	Area	RRP	WVAL	Pred RT	RT	Conc.	%IDL	%Rec	DL
1	PFBS	299 > 79.7	1.56e4		1.000	2.99	2.99	10.4	YES	104.0	0.0000000
2	PFHpA	363 > 318.9	3.09e4		1.000	3.68	3.85	10.9	YES	109.1	0.0000000
3	PFHxS	398.9 > 79.8	1.22e4		1.000	4.00	4.00	11.3	YES	102.8	0.0000000
4	PFOA	413 > 368.7	2.90e4		1.000	4.28	4.28	10.9	YES	109.3	0.0000000
5	PFNA	463 > 418.8	2.28e4		1.000	4.61	4.62	10.7	YES	107.2	0.0000000
6	PFOS	499 > 79.9	4.28e3		1.000	4.66	4.66	10.1	YES	100.9	0.1020764
7	13C3-PFBS	302.0 > 96.8	7.84e3	0.410	1.000	2.99	2.99	12.1	NO	97.1	0.0089459
8	13C4-PFHpA	367.2 > 321.8	1.95e4	1.10	1.000	3.88	3.88	11.3	NO	90.2	0.0052350
9	18O2-PFHxS	403 > 102.8	8.14e3	0.434	1.000	4.00	4.00	11.9	NO	95.1	0.0018807
10	13C2-PFOA	414.9 > 369.7	4.09e4	4.61	1.000	4.28	4.28	11.1	NO	88.7	0.0075607
11	13C5-PFNA	468.2 > 422.9	9.89e3	0.967	1.000	4.61	4.61	11.4	NO	91.5	0.0193856
12	13C6-PFOS	507.0 > 79.9	9.91e3	0.958	1.000	4.66	4.67	12.7	NO	101.6	0.0079572
13	13C5-PFHxA	318 > 272.9	3.64e4	1.00	1.000	3.29	3.37	12.5	NO	100.0	0.0023741
14	13C3-PFHxS	401.9 > 79.9	1.97e4	1.00	1.000	3.84	4.00	12.5	NO	100.0	0.0002747
15	13C6-PFOA	421.3 > 376	1.00e4	1.00	1.000	4.22	4.28	12.5	NO	100.0	0.0099667
16	13C9-PFNA	472.2 > 426.9	1.22e4	1.00	1.000	4.56	4.61	12.5	NO	100.0	0.0011821
17	13C4-PFOS	503.0 > 79.9	1.02e4	1.00	1.000	4.67	4.66	12.5	NO	100.0	0.0009496
18	Total PFBS	299 > 79.7	1.56e4		1.000	3.11		10.4	NO		
19	Total PFHxS	398.9 > 79.6	1.46e4		1.000	4.09		12.2	NO		
20	Total PFOA	413 > 368.7	2.90e4		1.000	4.38		10.9	NO		
21	Total PFOS	499 > 79.9	4.39e3		1.000	4.67		11.6	NO		0.1020764

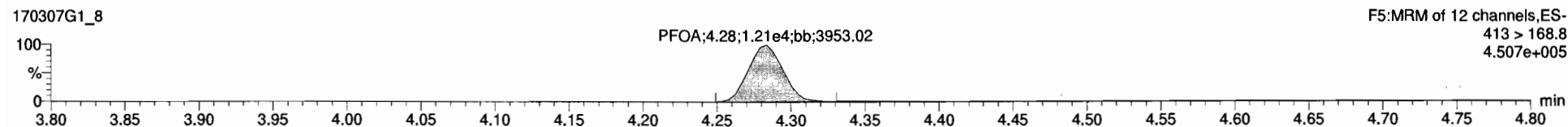
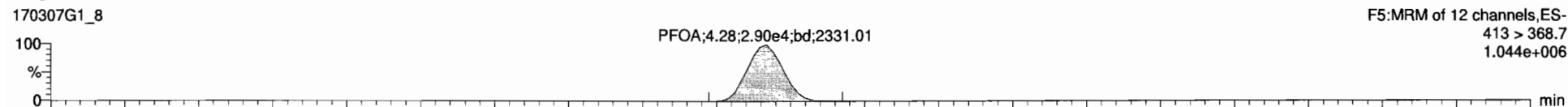


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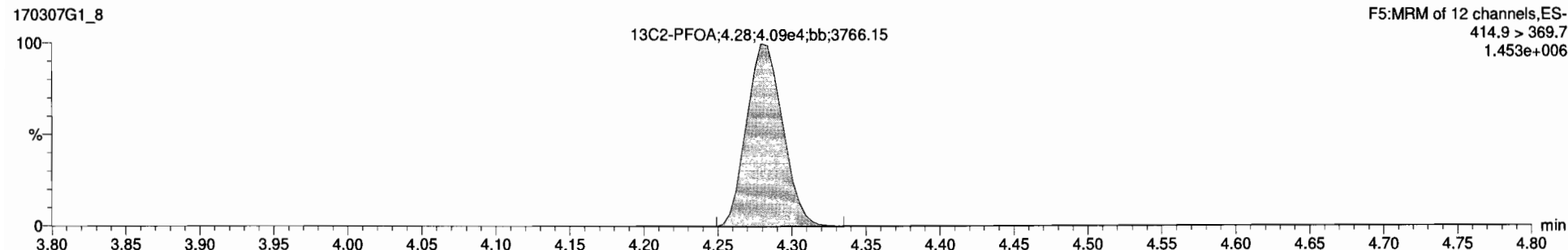
Last Altered: Tuesday, March 07, 2017 10:56:53 Pacific Standard Time  
Printed: Tuesday, March 07, 2017 10:57:19 Pacific Standard Time

ID: ST170307G1-2 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_8, Date: 07-Mar-2017, Time: 10:29:40, Instrument: , Lab: , User:

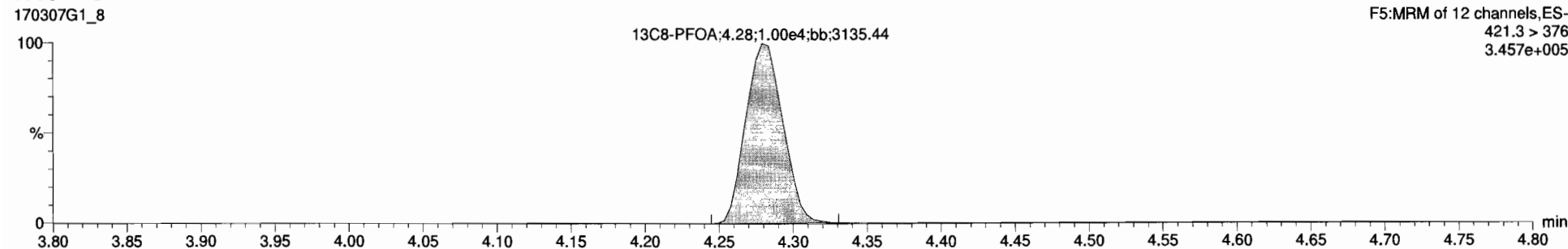
**PFOA**



**13C2-PFOA**



**13C8-PFOA**

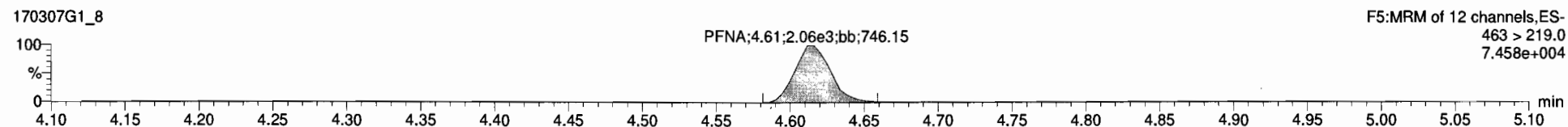
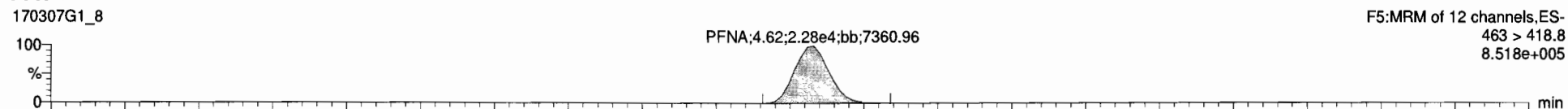


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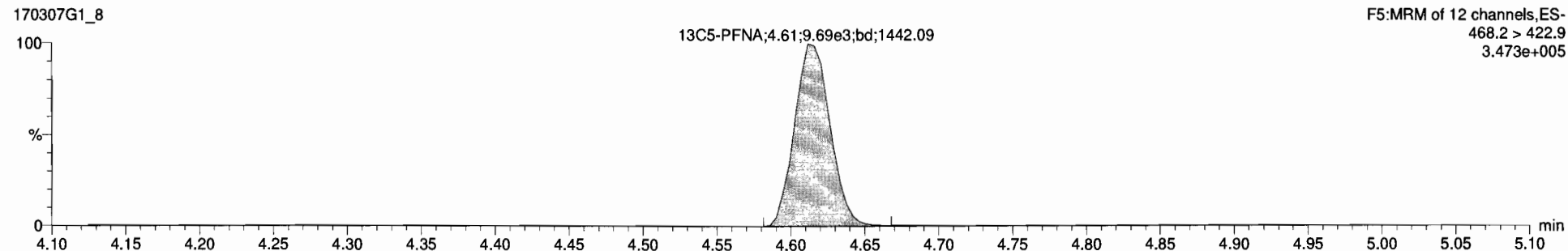
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Printed: Tuesday, March 07, 2017 10:57:19 Pacific Standard Time

ID: ST170307G1-2 PFC CS3 17C0701, Description: PFC CS3 17C0701 A, Name: 170307G1\_8, Date: 07-Mar-2017, Time: 10:29:40, Instrument: , Lab: , User:

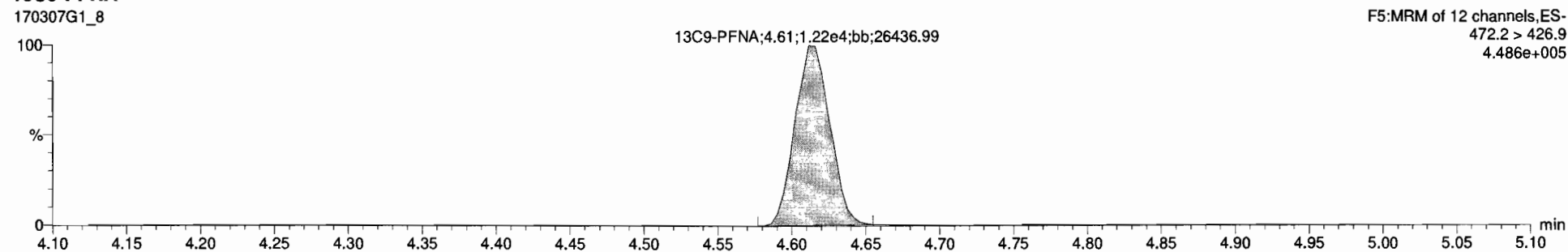
**PFNA**



**13C5-PFNA**



**13C9-PFNA**



Dataset: Untitled

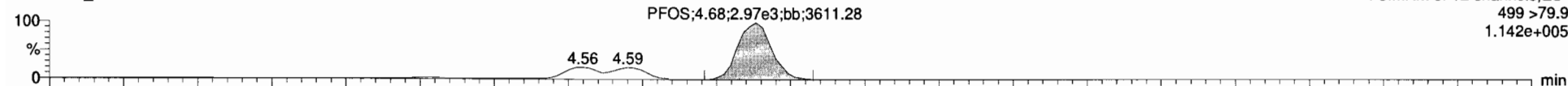
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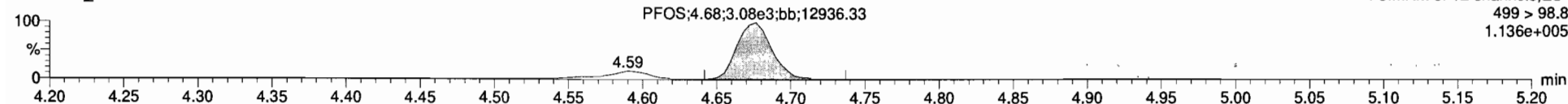
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**PFOS**

170307G1\_8

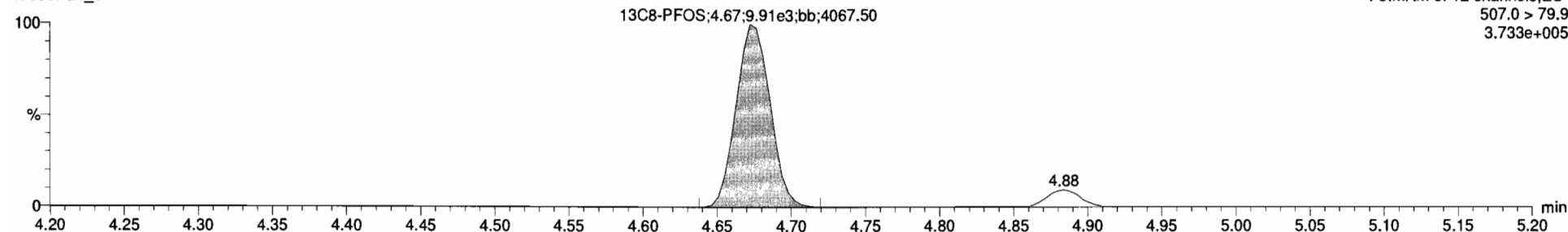


170307G1\_8



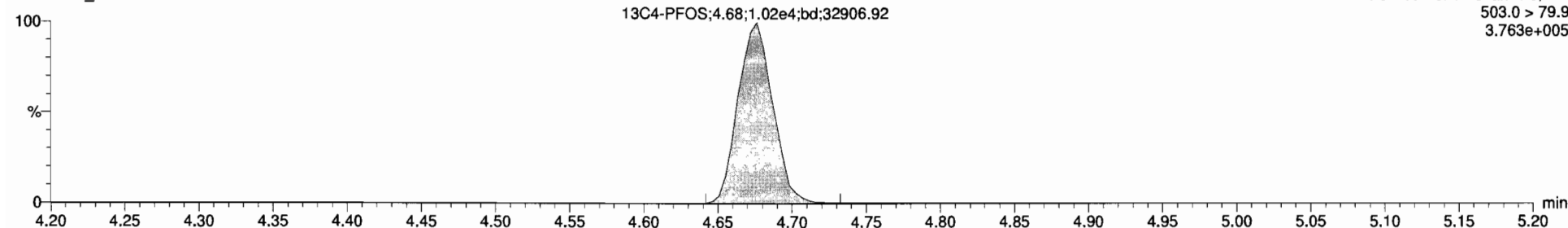
**13C8-PFOS**

170307G1\_8



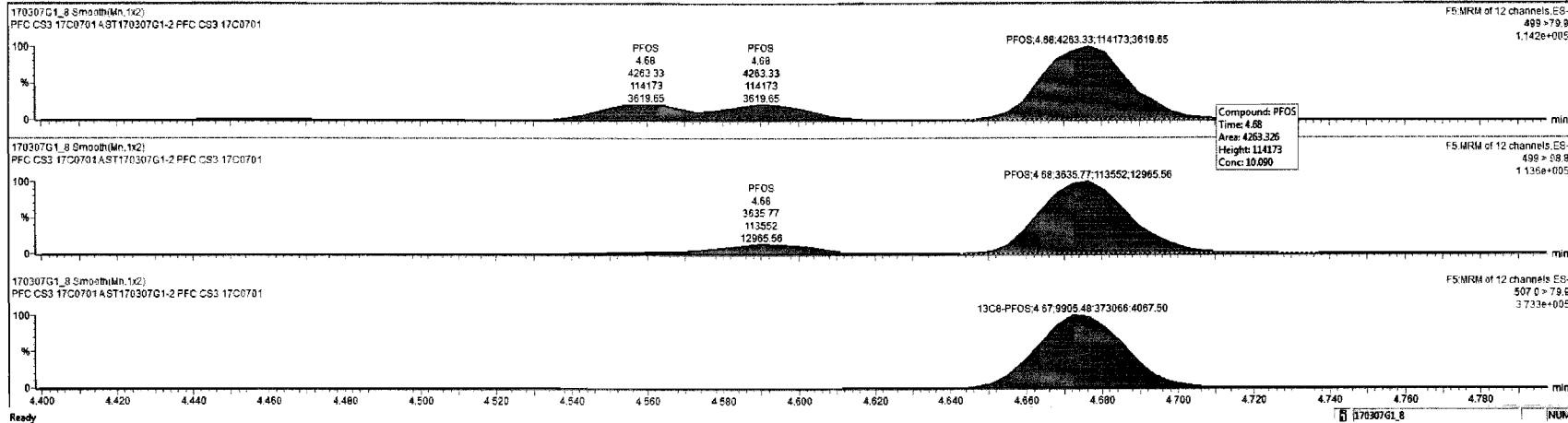
**13C4-PFOS**

170307G1\_8



170307G1-8 - ST170307G1-2 PFC CS3 17C0701 - PFC CS3 17C0701 A

#	Name	Trace	Area	RFI	WVAL	Prod RT	RT	Conc	MOD	%Rec	DL
1	PFBS	299 > 79.7	1.56e4		1.000	2.99	2.99	10.4	YES	104.0	0.0000009
2	PFHxA	363 > 318.9	3.08e4		1.000	3.88	3.88	10.9	YES	109.1	0.0000009
3	PFHxS	398.9 > 79.6	1.22e4		1.000	4.00	4.00	10.3	YES	102.6	0.0000009
4	PFOA	413 > 366.7	2.90e4		1.000	4.28	4.28	10.9	YES	109.3	0.0000009
5	PFNA	463 > 418.8	2.28e4		1.000	4.61	4.62	10.7	YES	107.2	0.0000009
6	PFOS	499 > 79.9	4.89e3		1.000	4.68	4.68	11.6	YES	106.9	0.1020764
7	13C3-PFBS	302.0 > 98.8	7.84e3	0.410	1.000	2.99	2.99	12.1	NO	97.1	0.0088459
8	13C4-PFHxA	367.2 > 321.8	1.95e4	1.10	1.000	3.88	3.88	11.3	NO	90.2	0.0052350
9	18O2-PFHxS	403 > 102.6	8.14e3	0.434	1.000	4.00	4.00	11.9	NO	95.1	0.0019807
10	13C2-PFOA	414.9 > 369.7	4.09e4	4.61	1.000	4.28	4.28	11.1	NO	88.7	0.0075607
11	13C5-PFNA	468.2 > 422.9	9.69e3	0.587	1.000	4.61	4.61	11.4	NO	91.5	0.0193866
12	13C8-PFOS	507.0 > 79.9	9.91e3	0.958	1.000	4.68	4.67	12.7	NO	101.8	0.0079572
13	13C5-PFHxA	318 > 272.9	3.64e4	1.00	1.000	3.79	3.77	12.9	NO	100.0	0.0023741
14	13C3-PFHxS	401.9 > 79.9	1.97e4	1.00	1.000	3.94	4.00	12.5	NO	100.0	0.0022747
15	13C6-PFOA	421.3 > 376	1.00e4	1.00	1.000	4.22	4.28	12.5	NO	100.0	0.0099667
16	13C9-PFNA	472.2 > 426.9	1.23e4	1.00	1.000	4.56	4.61	12.5	NO	100.0	0.0011821
17	13C4-PFOS	503.0 > 79.9	1.02e4	1.00	1.000	4.67	4.68	12.5	NO	100.0	0.0009466
18	Total PFBS	299 > 79.7	1.56e4		1.000	3.11		10.4	NO		
19	Total PFHxS	398.9 > 79.6	1.46e4		1.000	4.00		12.2	NO		
20	Total PFOA	413 > 366.7	2.90e4		1.000	4.38		10.9	NO		
21	Total PFOS	499 > 79.9	4.89e3		1.000	4.67		11.6	NO		



Dataset: U:\G1.PRO\Results\2017\New folder\170308G3-2.qld

Last Altered: Thursday, March 09, 2017 08:13:43 Pacific Standard Time

Printed: Thursday, March 09, 2017 08:14:54 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170308G3\_2, Date: 08-Mar-2017, Time: 21:01:14, ID: ST170308G3-1 PFC CS2 17C0805, Description: PFC CS2 17C0805 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	4 PFOA	413 > 368.7	1.40e4	4.26e4		1.000	4.27	4.94	98.9
2	10 13C2-PFOA	414.9 > 369.7	4.26e4	1.00e4	4.608	1.000	4.27	11.6	92.5
3	15 13C8-PFOA	421.3 > 376	1.00e4	1.00e4	1.000	1.000	4.27	12.5	100.0

75-125  
60-150

ES 3/9/17

✓ AC 3/9/17



Dataset: Untitled

Last Altered: Thursday, March 09, 2017 08:19:01 Pacific Standard Time

Printed: Thursday, March 09, 2017 08:19:16 Pacific Standard Time

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Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Compound name: PFBS

Name	ID	Acq.Date	Acq.Time
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170308G3_2	ST170308G3-1 PFC CS2 17C0805	08-Mar-17	21:01:14
170308G3_3	IPA	08-Mar-17	21:13:48
170308G3_4	1700263-06@5X OW2C-MW24-0217 0.1257	08-Mar-17	21:26:23
170308G3_5	IPA	08-Mar-17	21:38:54
170308G3_6	ST170308G3-2 PFC CS2 17C0805	08-Mar-17	21:51:28
170308G3_7	IPA	08-Mar-17	22:03:59

## LC Calibration Standards Review Checklist Q1

Calibration ID:	L M H	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	<del>QA</del>
<u>ST17030863-1</u>	L M H	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<u>J -2</u>	L M H	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	L M H	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Full Mass Cal. Date: 12/7/16

Run Log Present:

# of Samples per Sequence Checked:

Reviewed By: AC 3/9/17  
Initials/Date

**Comments:** PDA only.

Dataset: Untitled

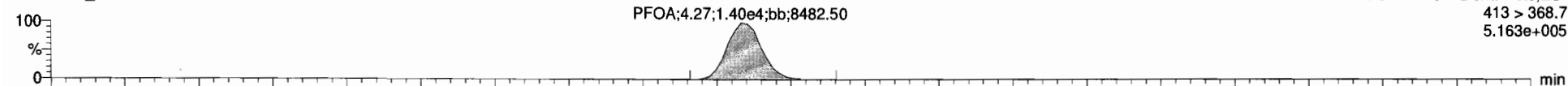
Last Altered: Thursday, March 09, 2017 08:15:53 Pacific Standard Time

Printed: Thursday, March 09, 2017 08:16:13 Pacific Standard Time

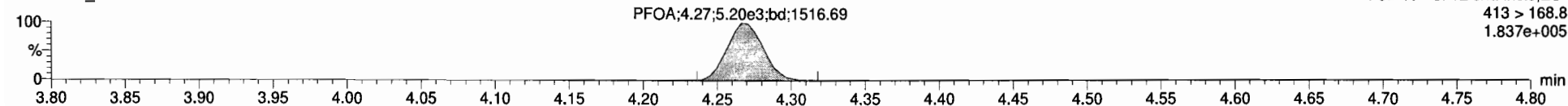
ID: ST170308G3-1 PFC CS2 17C0805, Description: PFC CS2 17C0805 A, Name: 170308G3\_2, Date: 08-Mar-2017, Time: 21:01:14, Instrument: , Lab: , User:

**PFOA**

170308G3\_2

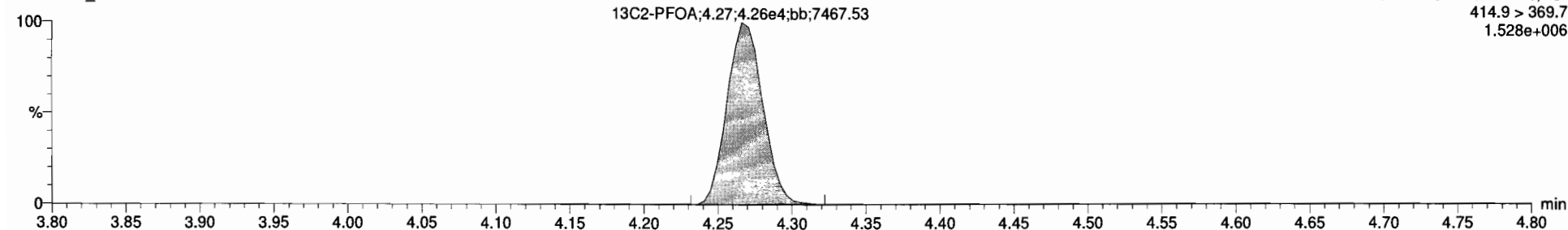


170308G3\_2



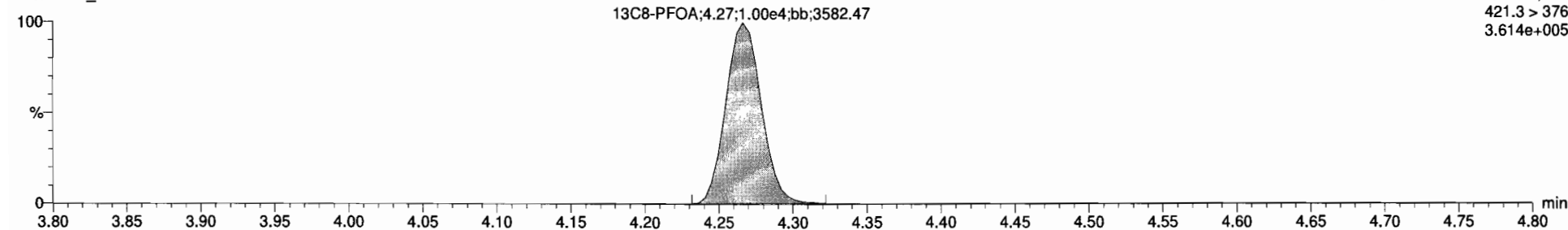
**13C2-PFOA**

170308G3\_2



**13C8-PFOA**

170308G3\_2



Dataset: U:\G1.PRO\Results\2017\New folder\170308G3-6.qld

Last Altered: Thursday, March 09, 2017 08:16:50 Pacific Standard Time

Printed: Thursday, March 09, 2017 08:18:41 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170308G3\_6, Date: 08-Mar-2017, Time: 21:51:28, ID: ST170308G3-2 PFC CS2 17C0805, Description: PFC CS2 17C0805 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	4 PFOA	413 > 368.7	1.41e4	4.52e4		1.000	4.27	4.68	93.5
2	10 13C2-PFOA	414.9 > 369.7	4.52e4	1.04e4	4.608	1.000	4.27	11.7	93.9
3	15 13C8-PFOA	421.3 > 376	1.04e4	1.04e4	1.000	1.000	4.27	12.5	100.0

75-125  
60-150

ES 3/9/17

✓ AC 3/9/17

Dataset: Untitled

Last Altered: Thursday, March 09, 2017 08:19:01 Pacific Standard Time  
Printed: Thursday, March 09, 2017 08:19:16 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53  
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170308G3_1	IPA	08-Mar-17	20:49:02
2	170308G3_2	ST170308G3-1 PFC CS2 17C0805	08-Mar-17	21:01:14
3	170308G3_3	IPA	08-Mar-17	21:13:48
4	170308G3_4	1700263-06@5X OW2C-MW24-0217 0.1257	08-Mar-17	21:26:23
5	170308G3_5	IPA	08-Mar-17	21:38:54
6	170308G3_6	ST170308G3-2 PFC CS2 17C0805	08-Mar-17	21:51:28
7	170308G3_7	IPA	08-Mar-17	22:03:59

Dataset: Untitled

Last Altered: Thursday, March 09, 2017 08:16:50 Pacific Standard Time

Printed: Thursday, March 09, 2017 08:16:54 Pacific Standard Time

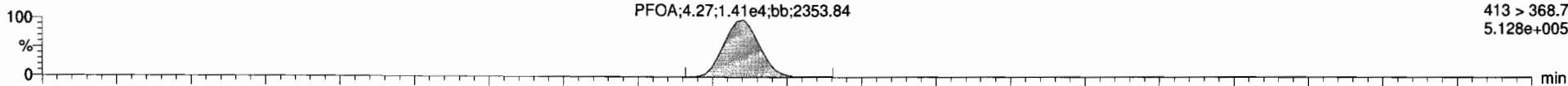
ID: ST170308G3-2 PFC CS2 17C0805, Description: PFC CS2 17C0805 A, Name: 170308G3\_6, Date: 08-Mar-2017, Time: 21:51:28, Instrument: , Lab: , User:

**PFOA**

170308G3\_6

PFOA;4.27;1.41e4;bb;2353.84

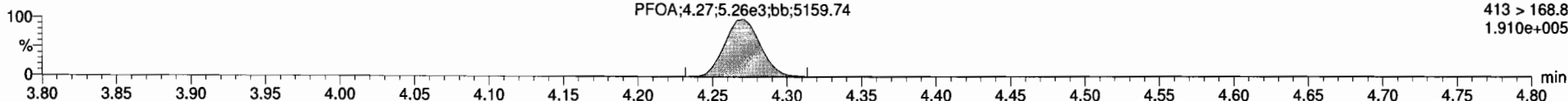
F5:MRM of 12 channels,ES-  
413 > 368.7  
5.128e+005



170308G3\_6

PFOA;4.27;5.26e3;bb;5159.74

F5:MRM of 12 channels,ES-  
413 > 168.8  
1.910e+005

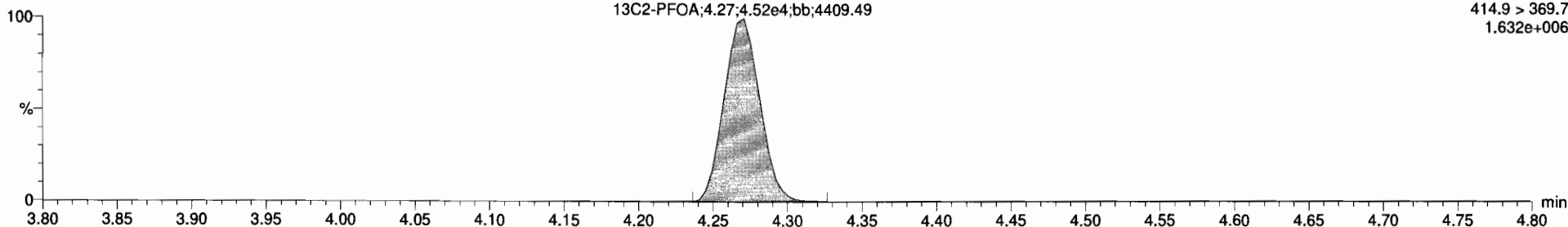


**13C2-PFOA**

170308G3\_6

13C2-PFOA;4.27;4.52e4;bb;4409.49

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.632e+006

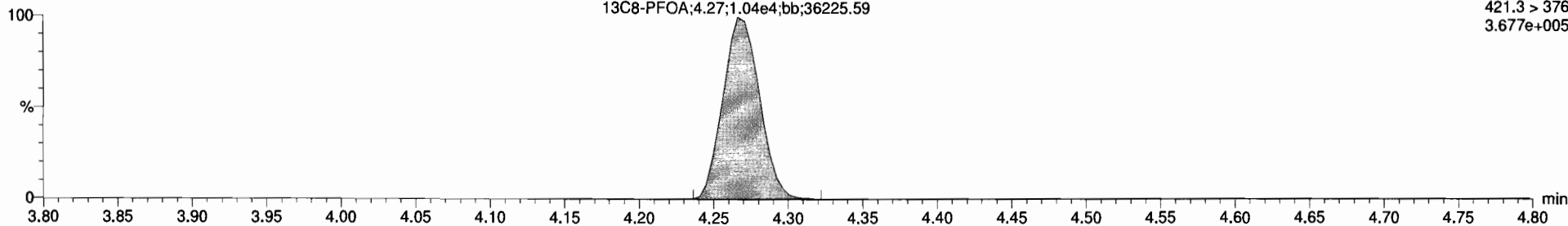


**13C8-PFOA**

170308G3\_6

13C8-PFOA;4.27;1.04e4;bb;36225.59

F5:MRM of 12 channels,ES-  
421.3 > 376  
3.677e+005



## **INITIAL CALIBRATION**

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45  
Calibration: U:\G1.PRO\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

**Compound name: PFBS**

Correlation coefficient:  $r = 0.999661$ ,  $r^2 = 0.999322$

Calibration curve:  $2.15479 * x + -0.00874732$

Response type: Internal Std ( Ref 7 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

*es 3/2/17*

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	0.250	2.98	3.28e2	7.51e3	0.258	3.2	2.19
2	2 170301G1_3	0.500	2.97	7.28e2	8.00e3	0.532	6.4	2.28
3	3 170301G1_4	1.00	2.97	1.23e3	8.02e3	0.891	-10.9	1.91
4	4 170301G1_5	2.00	2.97	2.93e3	8.74e3	1.95	-2.5	2.10
5	5 170301G1_6	5.00	2.98	6.07e3	7.36e3	4.78	-4.3	2.06
6	6 170301G1_7	10.0	2.98	1.44e4	7.66e3	10.9	9.0	2.35
7	7 170301G1_8	50.0	2.98	5.72e4	6.68e3	49.6	-0.7	2.14
8	8 170301G1_9	100	2.98	9.97e4	5.79e3	99.8	-0.2	2.15

**Compound name: PFHpA**

Correlation coefficient:  $r = 0.999574$ ,  $r^2 = 0.999147$

Calibration curve:  $1.83353 * x + 0.0475478$

Response type: Internal Std ( Ref 8 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

*Qm  
3/2/17*

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	0.250	3.86	7.85e2	1.81e4	0.269	7.8	2.17
2	2 170301G1_3	0.500	3.86	1.47e3	1.95e4	0.488	-2.4	1.89
3	3 170301G1_4	1.00	3.86	3.16e3	1.98e4	1.06	6.1	1.99
4	4 170301G1_5	2.00	3.86	6.18e3	2.28e4	1.82	-8.8	1.70
5	5 170301G1_6	5.00	3.87	1.34e4	1.89e4	4.79	-4.2	1.77
6	6 170301G1_7	10.0	3.87	2.91e4	1.99e4	9.91	-0.9	1.82
7	7 170301G1_8	50.0	3.87	1.28e5	1.67e4	52.0	4.0	1.91
8	8 170301G1_9	100	3.87	2.16e5	1.49e4	98.4	-1.6	1.80



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

**Compound name: PFHxS**

Coefficient of Determination:  $R^2 = 0.999683$

Calibration curve:  $0.0013481 * x^2 + 1.73839 * x + 0.152899$

Response type: Internal Std ( Ref 9 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	0.250	3.98	3.81e2	6.74e3	0.318	27.3	2.82
2	2 170301G1_3	0.500	3.98	5.38e2	7.28e3	0.443	-11.4	1.85
3	3 170301G1_4	1.00	3.98	1.01e3	7.61e3	0.870	-13.0	1.67
4	4 170301G1_5	2.00	3.98	2.16e3	7.82e3	1.89	-5.4	1.72
5	5 170301G1_6	5.00	3.98	4.81e3	6.79e3	4.98	-0.4	1.77
6	6 170301G1_7	10.0	3.98	1.12e4	7.73e3	10.3	3.0	1.82
7	7 170301G1_8	50.0	3.98	4.80e4	6.65e3	49.9	-0.1	1.81
8	8 170301G1_9	100	3.98	8.93e4	5.95e3	100	0.0	1.87

**Compound name: PFOA**

Correlation coefficient:  $r = 0.999586$ ,  $r^2 = 0.999171$

Calibration curve:  $0.91162 * x + 0.105798$

Response type: Internal Std ( Ref 10 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	0.250	4.27	8.80e2	3.24e4	0.257	2.7	1.36
2	2 170301G1_3	0.500	4.27	1.60e3	3.43e4	0.526	5.3	1.17
3	3 170301G1_4	1.00	4.27	2.80e3	3.31e4	1.04	4.5	1.06
4	4 170301G1_5	2.00	4.27	5.14e3	3.56e4	1.86	-6.8	0.903
5	5 170301G1_6	5.00	4.27	1.16e4	3.37e4	4.61	-7.8	0.862
6	6 170301G1_7	10.0	4.27	2.61e4	3.55e4	9.97	-0.3	0.920
7	7 170301G1_8	50.0	4.27	1.21e5	3.20e4	51.9	3.8	0.948
8	8 170301G1_9	100	4.27	2.10e5	2.92e4	98.6	-1.4	0.900

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

**Compound name: PFNA**

Correlation coefficient:  $r = 0.999823$ ,  $r^2 = 0.999645$

Calibration curve:  $2.14195 * x + 0.180366$

Response type: Internal Std ( Ref 11 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	0.250	4.60	5.85e2	1.09e4	0.230	-7.9	2.69
2	2 170301G1_3	0.500	4.60	1.19e3	1.18e4	0.505	1.0	2.52
3	3 170301G1_4	1.00	4.60	2.16e3	1.11e4	1.05	4.5	2.42
4	4 170301G1_5	2.00	4.60	4.21e3	1.21e4	1.95	-2.3	2.18
5	5 170301G1_6	5.00	4.60	9.48e3	1.10e4	4.92	-1.5	2.14
6	6 170301G1_7	10.0	4.61	1.93e4	1.05e4	10.7	6.9	2.31
7	7 170301G1_8	50.0	4.61	1.05e5	1.23e4	50.0	-0.1	2.14
8	8 170301G1_9	100	4.60	1.89e5	1.11e4	99.4	-0.6	2.13

**Compound name: PFOS**

Correlation coefficient:  $r = 0.998821$ ,  $r^2 = 0.997644$

Calibration curve:  $0.521667 * x + -0.00559175$

Response type: Internal Std ( Ref 12 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	0.250	4.67	1.09e2	8.67e3	0.311	24.5	0.627
2	2 170301G1_3	0.500	4.66	1.57e2	1.02e4	0.379	-24.2	0.384
3	3 170301G1_4	1.00	4.66	3.48e2	1.01e4	0.833	-16.7	0.429
4	4 170301G1_5	2.00	4.66	7.67e2	9.01e3	2.05	2.5	0.532
5	5 170301G1_6	5.00	4.67	1.73e3	8.84e3	4.70	-6.0	0.489
6	6 170301G1_7	10.0	4.66	3.59e3	7.38e3	11.7	16.6	0.608
7	7 170301G1_8	50.0	4.67	2.23e4	1.07e4	50.2	0.3	0.523
8	8 170301G1_9	100	4.67	4.10e4	9.97e3	98.7	-1.3	0.515

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

**Compound name: 13C3-PFBS**

Response Factor: 0.442319

RRF SD: 0.0236024, Relative SD: 5.33606

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	2.97	7.51e3	1.69e4	12.6	0.4	0.444
2	2 170301G1_3	12.5	2.97	8.00e3	1.78e4	12.7	1.6	0.449
3	3 170301G1_4	12.5	2.97	8.02e3	1.82e4	12.4	-0.6	0.440
4	4 170301G1_5	12.5	2.97	8.74e3	1.94e4	12.7	1.7	0.450
5	5 170301G1_6	12.5	2.97	7.36e3	1.59e4	13.1	4.6	0.463
6	6 170301G1_7	12.5	2.97	7.66e3	1.61e4	13.4	7.5	0.475
7	7 170301G1_8	12.5	2.97	6.68e3	1.65e4	11.4	-8.5	0.405
8	8 170301G1_9	12.5	2.97	5.79e3	1.40e4	11.7	-6.6	0.413

**Compound name: 13C4-PFHpA**

Response Factor: 1.11689

RRF SD: 0.0752551, Relative SD: 6.7379

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	3.86	1.81e4	1.69e4	12.0	-4.0	1.07
2	2 170301G1_3	12.5	3.86	1.95e4	1.78e4	12.3	-1.8	1.10
3	3 170301G1_4	12.5	3.86	1.98e4	1.82e4	12.2	-2.6	1.09
4	4 170301G1_5	12.5	3.86	2.28e4	1.94e4	13.1	4.9	1.17
5	5 170301G1_6	12.5	3.87	1.89e4	1.59e4	13.3	6.7	1.19
6	6 170301G1_7	12.5	3.87	1.99e4	1.61e4	13.8	10.8	1.24
7	7 170301G1_8	12.5	3.87	1.67e4	1.65e4	11.3	-9.3	1.01
8	8 170301G1_9	12.5	3.87	1.49e4	1.40e4	11.9	-4.6	1.07

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

**Compound name: 18O2-PFHxS**

Response Factor: 0.420072

RRF SD: 0.026108, Relative SD: 6.21512

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	3.98	6.74e3	1.69e4	11.9	-5.0	0.399
2	2 170301G1_3	12.5	3.98	7.28e3	1.78e4	12.2	-2.6	0.409
3	3 170301G1_4	12.5	3.98	7.61e3	1.82e4	12.4	-0.7	0.417
4	4 170301G1_5	12.5	3.98	7.82e3	1.94e4	12.0	-4.2	0.402
5	5 170301G1_6	12.5	3.98	6.79e3	1.59e4	12.7	1.7	0.427
6	6 170301G1_7	12.5	3.98	7.73e3	1.61e4	14.3	14.1	0.479
7	7 170301G1_8	12.5	3.98	6.65e3	1.65e4	12.0	-4.2	0.403
8	8 170301G1_9	12.5	3.98	5.95e3	1.40e4	12.6	1.0	0.424

**Compound name: 13C2-PFOA**

Response Factor: 2.78174

RRF SD: 0.14342, Relative SD: 5.15577

Response type: Internal Std ( Ref 15 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	4.27	3.24e4	1.11e4	13.2	5.3	2.93
2	2 170301G1_3	12.5	4.27	3.43e4	1.25e4	12.3	-1.6	2.74
3	3 170301G1_4	12.5	4.27	3.31e4	1.29e4	11.5	-7.7	2.57
4	4 170301G1_5	12.5	4.27	3.56e4	1.38e4	11.6	-7.6	2.57
5	5 170301G1_6	12.5	4.27	3.37e4	1.16e4	13.1	4.6	2.91
6	6 170301G1_7	12.5	4.27	3.55e4	1.26e4	12.7	1.7	2.83
7	7 170301G1_8	12.5	4.27	3.20e4	1.13e4	12.7	1.9	2.83
8	8 170301G1_9	12.5	4.27	2.92e4	1.02e4	12.9	3.3	2.87

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

**Compound name: 13C5-PFNA**

Response Factor: 0.846329

RRF SD: 0.0461649, Relative SD: 5.45473

Response type: Internal Std ( Ref 16 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	4.60	1.09e4	1.33e4	12.0	-3.8	0.814
2	2 170301G1_3	12.5	4.60	1.18e4	1.46e4	12.0	-4.0	0.812
3	3 170301G1_4	12.5	4.60	1.11e4	1.40e4	11.7	-6.0	0.795
4	4 170301G1_5	12.5	4.60	1.21e4	1.51e4	11.8	-5.7	0.798
5	5 170301G1_6	12.5	4.60	1.10e4	1.26e4	12.9	3.4	0.876
6	6 170301G1_7	12.5	4.60	1.05e4	1.20e4	12.8	2.7	0.869
7	7 170301G1_8	12.5	4.60	1.23e4	1.36e4	13.3	6.5	0.902
8	8 170301G1_9	12.5	4.60	1.11e4	1.22e4	13.4	6.9	0.904

**Compound name: 13C8-PFOS**

Response Factor: 0.941363

RRF SD: 0.084731, Relative SD: 9.00088

Response type: Internal Std ( Ref 17 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	4.66	8.67e3	9.62e3	12.0	-4.2	0.901
2	2 170301G1_3	12.5	4.66	1.02e4	1.15e4	11.8	-5.2	0.892
3	3 170301G1_4	12.5	4.66	1.01e4	1.07e4	12.5	0.4	0.945
4	4 170301G1_5	12.5	4.66	9.01e3	1.11e4	10.8	-13.7	0.812
5	5 170301G1_6	12.5	4.66	8.84e3	9.82e3	12.0	-4.3	0.901
6	6 170301G1_7	12.5	4.66	7.38e3	7.48e3	13.1	4.7	0.986
7	7 170301G1_8	12.5	4.66	1.07e4	1.06e4	13.3	6.8	1.01
8	8 170301G1_9	12.5	4.66	9.97e3	9.15e3	14.5	15.7	1.09

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

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**Compound name: 13C5-PFHxA**

Response Factor: 1

RRF SD: 1.18688e-016, Relative SD: 1.18688e-014

Response type: Internal Std ( Ref 13 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	3.35	2.76e4	2.76e4	12.5	0.0	1.00
2	2 170301G1_3	12.5	3.35	3.04e4	3.04e4	12.5	0.0	1.00
3	3 170301G1_4	12.5	3.35	3.12e4	3.12e4	12.5	0.0	1.00
4	4 170301G1_5	12.5	3.35	3.16e4	3.16e4	12.5	0.0	1.00
5	5 170301G1_6	12.5	3.35	2.80e4	2.80e4	12.5	0.0	1.00
6	6 170301G1_7	12.5	3.35	3.05e4	3.05e4	12.5	0.0	1.00
7	7 170301G1_8	12.5	3.35	2.64e4	2.64e4	12.5	0.0	1.00
8	8 170301G1_9	12.5	3.35	2.31e4	2.31e4	12.5	0.0	1.00

**Compound name: 13C3-PFHxS**

Response Factor: 1

RRF SD: 5.93439e-017, Relative SD: 5.93439e-015

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	3.98	1.69e4	1.69e4	12.5	0.0	1.00
2	2 170301G1_3	12.5	3.98	1.78e4	1.78e4	12.5	0.0	1.00
3	3 170301G1_4	12.5	3.98	1.82e4	1.82e4	12.5	0.0	1.00
4	4 170301G1_5	12.5	3.98	1.94e4	1.94e4	12.5	0.0	1.00
5	5 170301G1_6	12.5	3.98	1.59e4	1.59e4	12.5	-0.0	1.00
6	6 170301G1_7	12.5	3.98	1.61e4	1.61e4	12.5	0.0	1.00
7	7 170301G1_8	12.5	3.98	1.65e4	1.65e4	12.5	0.0	1.00
8	8 170301G1_9	12.5	3.98	1.40e4	1.40e4	12.5	-0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

**Compound name: 13C8-PFOA**

Response Factor: 1

RRF SD: 8.3925e-017, Relative SD: 8.3925e-015

Response type: Internal Std ( Ref 15 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	4.27	1.11e4	1.11e4	12.5	0.0	1.00
2	2 170301G1_3	12.5	4.27	1.25e4	1.25e4	12.5	0.0	1.00
3	3 170301G1_4	12.5	4.27	1.29e4	1.29e4	12.5	0.0	1.00
4	4 170301G1_5	12.5	4.27	1.38e4	1.38e4	12.5	0.0	1.00
5	5 170301G1_6	12.5	4.27	1.16e4	1.16e4	12.5	0.0	1.00
6	6 170301G1_7	12.5	4.27	1.26e4	1.26e4	12.5	0.0	1.00
7	7 170301G1_8	12.5	4.27	1.13e4	1.13e4	12.5	0.0	1.00
8	8 170301G1_9	12.5	4.27	1.02e4	1.02e4	12.5	0.0	1.00

**Compound name: 13C9-PFNA**

Response Factor: 1

RRF SD: 1.02787e-016, Relative SD: 1.02787e-014

Response type: Internal Std ( Ref 16 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	4.60	1.33e4	1.33e4	12.5	0.0	1.00
2	2 170301G1_3	12.5	4.60	1.46e4	1.46e4	12.5	0.0	1.00
3	3 170301G1_4	12.5	4.60	1.40e4	1.40e4	12.5	0.0	1.00
4	4 170301G1_5	12.5	4.60	1.51e4	1.51e4	12.5	-0.0	1.00
5	5 170301G1_6	12.5	4.60	1.26e4	1.26e4	12.5	0.0	1.00
6	6 170301G1_7	12.5	4.60	1.20e4	1.20e4	12.5	0.0	1.00
7	7 170301G1_8	12.5	4.60	1.36e4	1.36e4	12.5	-0.0	1.00
8	8 170301G1_9	12.5	4.60	1.22e4	1.22e4	12.5	0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

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Printed: Thursday, March 02, 2017 08:22:21 Pacific Standard Time

**Compound name: 13C4-PFOS**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 17 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170301G1_2	12.5	4.66	9.62e3	9.62e3	12.5	0.0	1.00
2	2 170301G1_3	12.5	4.66	1.15e4	1.15e4	12.5	0.0	1.00
3	3 170301G1_4	12.5	4.66	1.07e4	1.07e4	12.5	0.0	1.00
4	4 170301G1_5	12.5	4.66	1.11e4	1.11e4	12.5	0.0	1.00
5	5 170301G1_6	12.5	4.67	9.82e3	9.82e3	12.5	0.0	1.00
6	6 170301G1_7	12.5	4.66	7.48e3	7.48e3	12.5	0.0	1.00
7	7 170301G1_8	12.5	4.67	1.06e4	1.06e4	12.5	0.0	1.00
8	8 170301G1_9	12.5	4.66	9.15e3	9.15e3	12.5	0.0	1.00



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:06:06 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:06:22 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	170301G1_1	IPA	01-Mar-17	14:57:20
2	170301G1_2	ST170301G1-1 PFC CS-2 17C0119	01-Mar-17	15:09:39
3	170301G1_3	ST170301G1-2 PFC CS-1 17C0120	01-Mar-17	15:22:08
4	170301G1_4	ST170301G1-3 PFC CS0 17C0121	01-Mar-17	15:34:43
5	170301G1_5	ST170301G1-4 PFC CS1 17C0122	01-Mar-17	15:47:17
6	170301G1_6	ST170301G1-5 PFC CS2 17C0123	01-Mar-17	15:59:50
7	170301G1_7	ST170301G1-6 PFC CS3 17C0124	01-Mar-17	16:12:23
8	170301G1_8	ST170301G1-7 PFC CS4 17C0125	01-Mar-17	16:24:59
9	170301G1_9	ST170301G1-8 PFC CS5 17B2726	01-Mar-17	16:37:33
10	170301G1_10	IPA	01-Mar-17	16:50:06
11	170301G1_11	SS170301G1-1 PFC SSS 17C0127	01-Mar-17	17:02:38
12	170301G1_12	IPA	01-Mar-17	17:15:08
13	170301G1_13	B7B0118-BS1 OPR 0.125	01-Mar-17	17:27:46
14	170301G1_14	B7B0114-BS1 OPR 0.125	01-Mar-17	17:40:13
15	170301G1_15	IPA	01-Mar-17	17:52:54
16	170301G1_16	B7B0118-BLK1 Method Blank 0.125	01-Mar-17	18:05:24
17	170301G1_17	B7B0114-BLK1 Method Blank 0.125	01-Mar-17	18:17:56
18	170301G1_18	1700261-01 WI-CV-GW10D-0217 0.125	01-Mar-17	18:30:28
19	170301G1_19	1700261-02 WI-CV-EB01-022017 0.125	01-Mar-17	18:43:01
20	170301G1_20	1700261-03 WI-CV-GW065-0217 0.125	01-Mar-17	18:55:35
21	170301G1_21	1700261-04 WI-CV-GW065/5P-0217 0.125	01-Mar-17	19:08:08
22	170301G1_22	1700261-05 WI-CV-GW105-0217 0.125	01-Mar-17	19:20:37
23	170301G1_23	1700261-06 WI-CV-EB03-022217 0.125	01-Mar-17	19:33:12
24	170301G1_24	1700261-07 WI-CV-GW06M-0217 0.125	01-Mar-17	19:45:41
25	170301G1_25	B7B0118-MSD1 Matrix Spike Dup 0.125	01-Mar-17	19:58:14
26	170301G1_26	B7B0118-MS1 Matrix Spike 0.125	01-Mar-17	20:10:56
27	170301G1_27	1700261-08 WI-CV-EB02-022117 0.125	01-Mar-17	20:23:23
28	170301G1_28	IPA	01-Mar-17	20:35:54
29	170301G1_29	ST170301G1-9 PFC CS2 17C0123	01-Mar-17	20:48:27
30	170301G1_30	IPA	01-Mar-17	21:01:00
31	170301G1_31	B7B0129-BS1 OPR 0.125	01-Mar-17	21:13:33
32	170301G1_32	IPA	01-Mar-17	21:26:03

Dataset: Untitled

Last Altered: Thursday, March 02, 2017 09:06:06 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:06:22 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
33	170301G1_33	B7B0129-BLK1 Method Blank 0.125	01-Mar-17	21:38:38
34	170301G1_34	1700261-09 WI-CV-EB04-022317 0.125	01-Mar-17	21:51:09
35	170301G1_35	1700261-10 WI-CV-GW13M-0217 0.125	01-Mar-17	22:03:43
36	170301G1_36	1700245-01 Milk - 012617 0.125	01-Mar-17	22:16:13
37	170301G1_37	1700263-01 OW2E-MW09R-0217 0.12578	01-Mar-17	22:28:46
38	170301G1_38	1700263-02 OW2E-MW09RP-0217 0.12994	01-Mar-17	22:41:20
39	170301G1_39	1700263-03 OW2C-MW05-0217 0.13161	01-Mar-17	22:53:54
40	170301G1_40	1700263-04 OW2C-MW25-0217 0.12534	01-Mar-17	23:06:27
41	170301G1_41	1700263-05 OW2C-MW19-0217 0.12438	01-Mar-17	23:19:00
42	170301G1_42	B7B0129-MS1 Matrix Spike 0.12756	01-Mar-17	23:31:30
43	170301G1_43	B7B0129-MSD1 Matrix Spike Dup 0.12637	01-Mar-17	23:44:02
44	170301G1_44	1700263-06 OW2C-MW24-0217 0.1257	01-Mar-17	23:56:35
45	170301G1_45	1700263-07 OW2C-EB-0217 0.12647	02-Mar-17	00:09:09
46	170301G1_46	1700263-08 OW2C-FB-0217 0.13011	02-Mar-17	00:21:42
47	170301G1_47	IPA	02-Mar-17	00:34:15
48	170301G1_48	ST170301G1-10 PFC CS2 17C0123	02-Mar-17	00:46:50
49	170301G1_49	IPA	02-Mar-17	00:59:21

Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:20:49 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45

Calibration: U:\G1.PRO\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

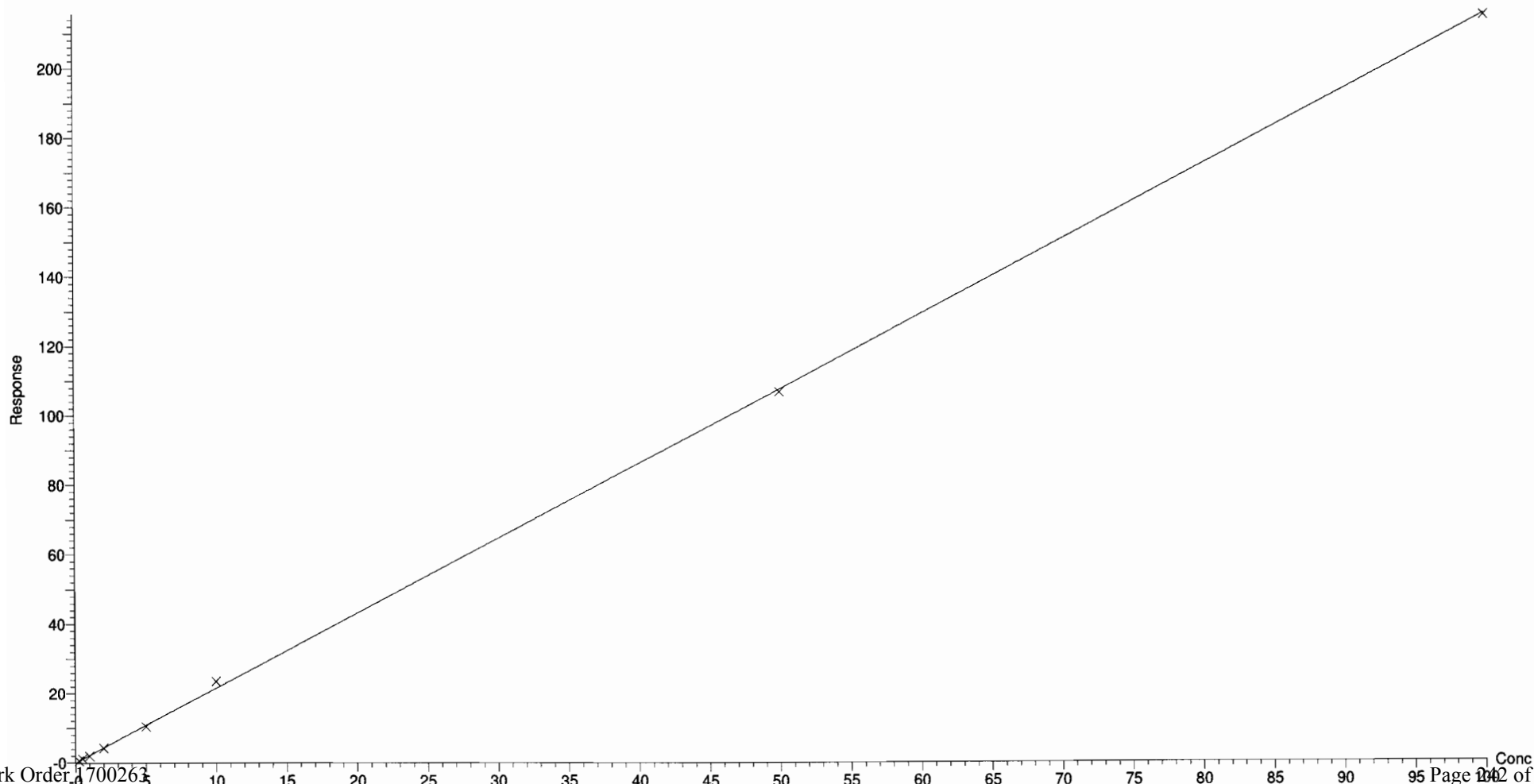
Compound name: PFBS

Correlation coefficient:  $r = 0.999661$ ,  $r^2 = 0.999322$

Calibration curve:  $2.15479 * x + -0.00874732$

Response type: Internal Std ( Ref 7 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

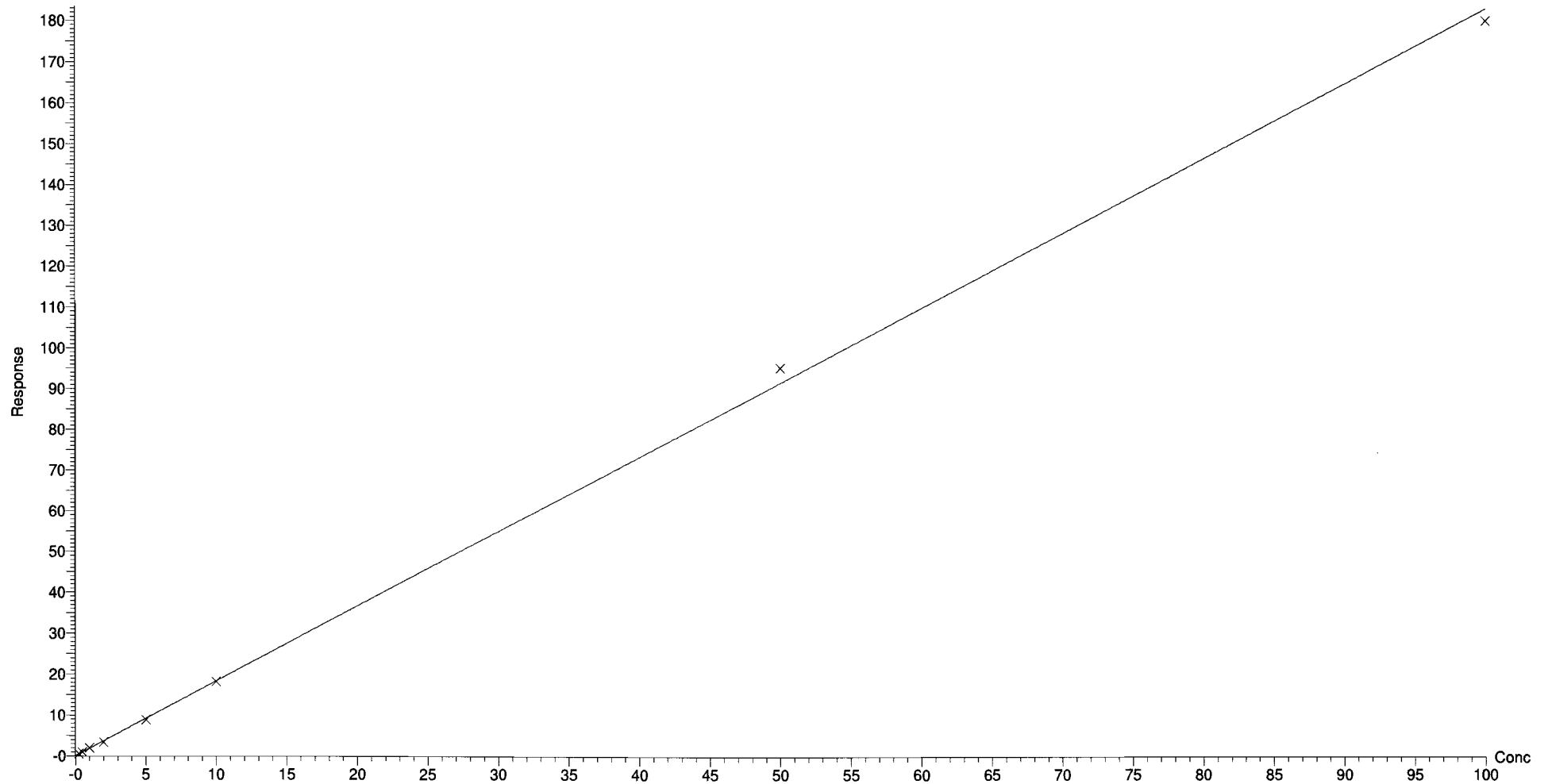


Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:20:49 Pacific Standard Time

Compound name: PFHpA  
Correlation coefficient:  $r = 0.999574$ ,  $r^2 = 0.999147$   
Calibration curve:  $1.83353 * x + 0.0475478$   
Response type: Internal Std ( Ref 8 ), Area \* ( IS Conc. / IS Area )  
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:20:49 Pacific Standard Time

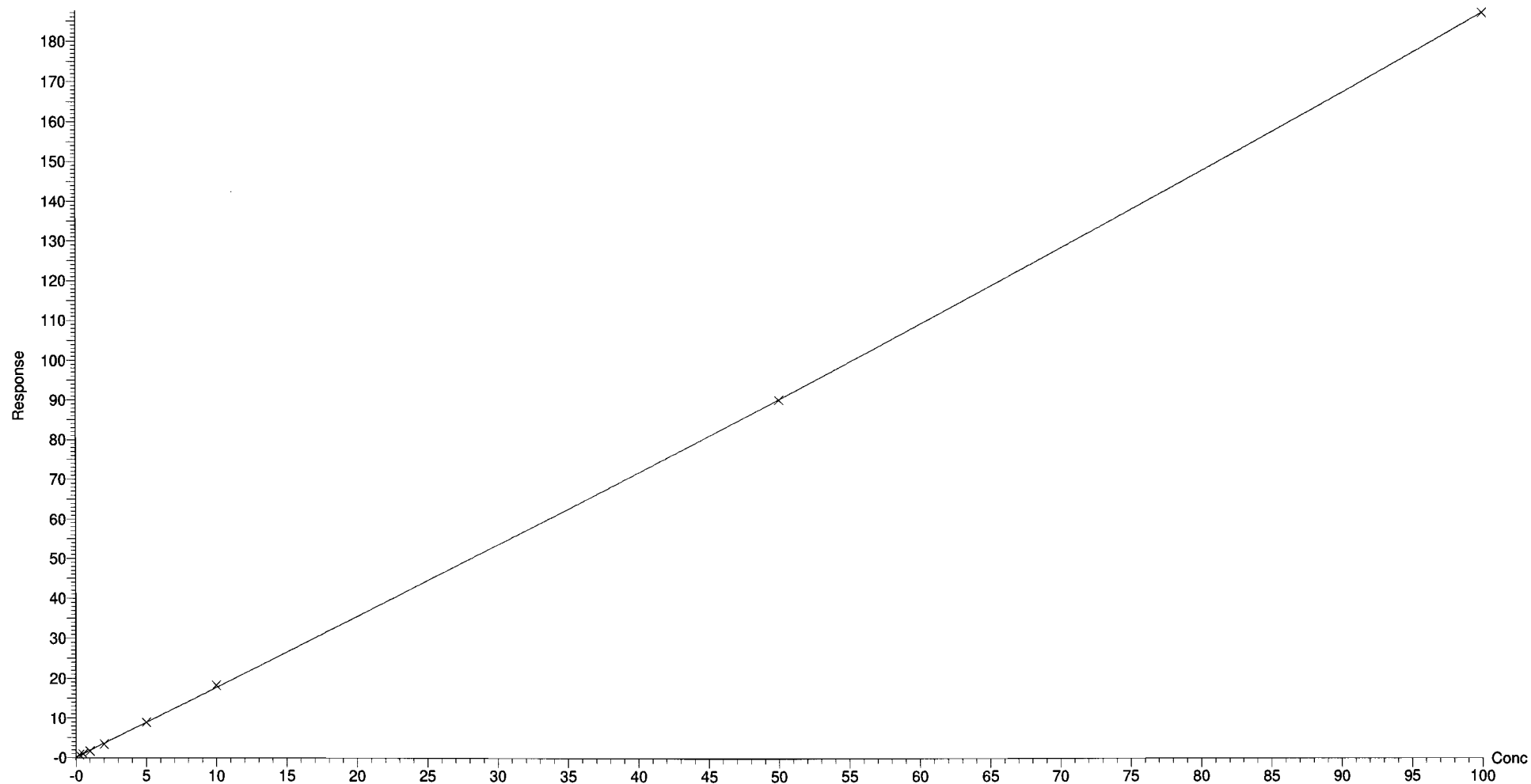
Compound name: PFHxS

Coefficient of Determination:  $R^2 = 0.999683$

Calibration curve:  $0.0013481 * x^2 + 1.73839 * x + 0.152899$

Response type: Internal Std ( Ref 9 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:20:49 Pacific Standard Time

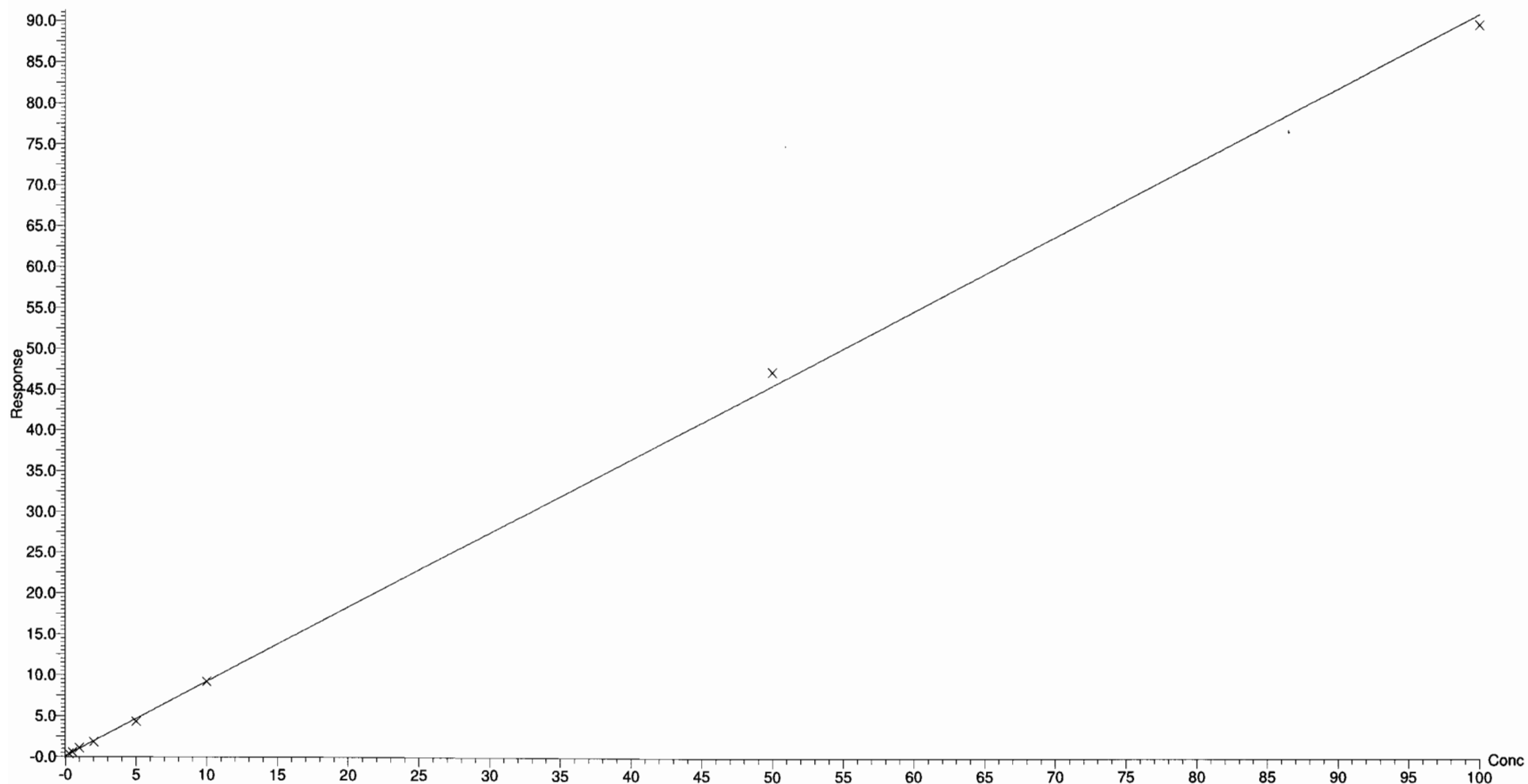
Compound name: PFOA

Correlation coefficient:  $r = 0.999586$ ,  $r^2 = 0.999171$

Calibration curve:  $0.91162 * x + 0.105798$

Response type: Internal Std ( Ref 10 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:20:49 Pacific Standard Time

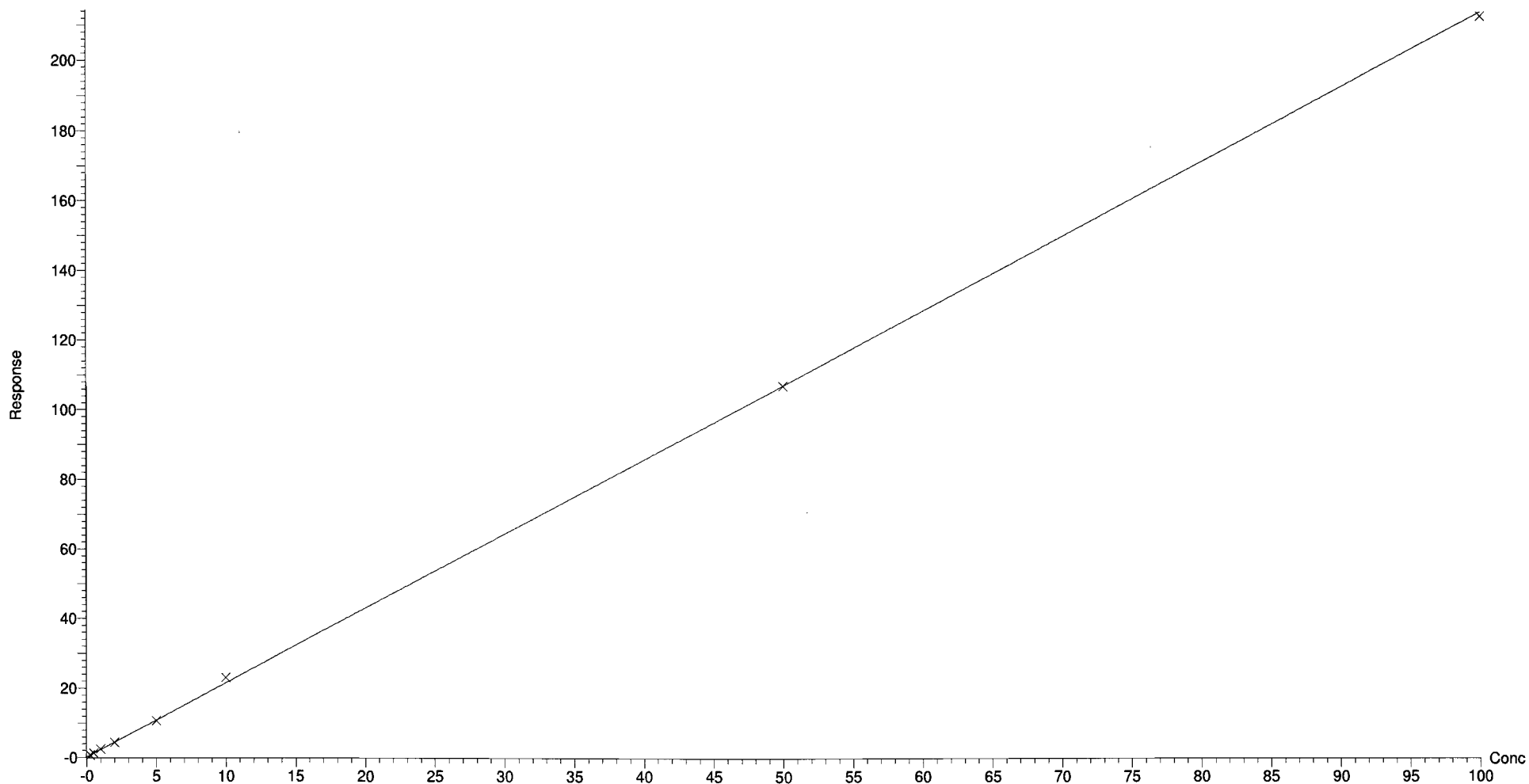
Compound name: PFNA

Correlation coefficient:  $r = 0.999823$ ,  $r^2 = 0.999645$

Calibration curve:  $2.14195 * x + 0.180366$

Response type: Internal Std ( Ref 11 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-CRV.qld

Last Altered: Thursday, March 02, 2017 08:18:08 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:20:49 Pacific Standard Time

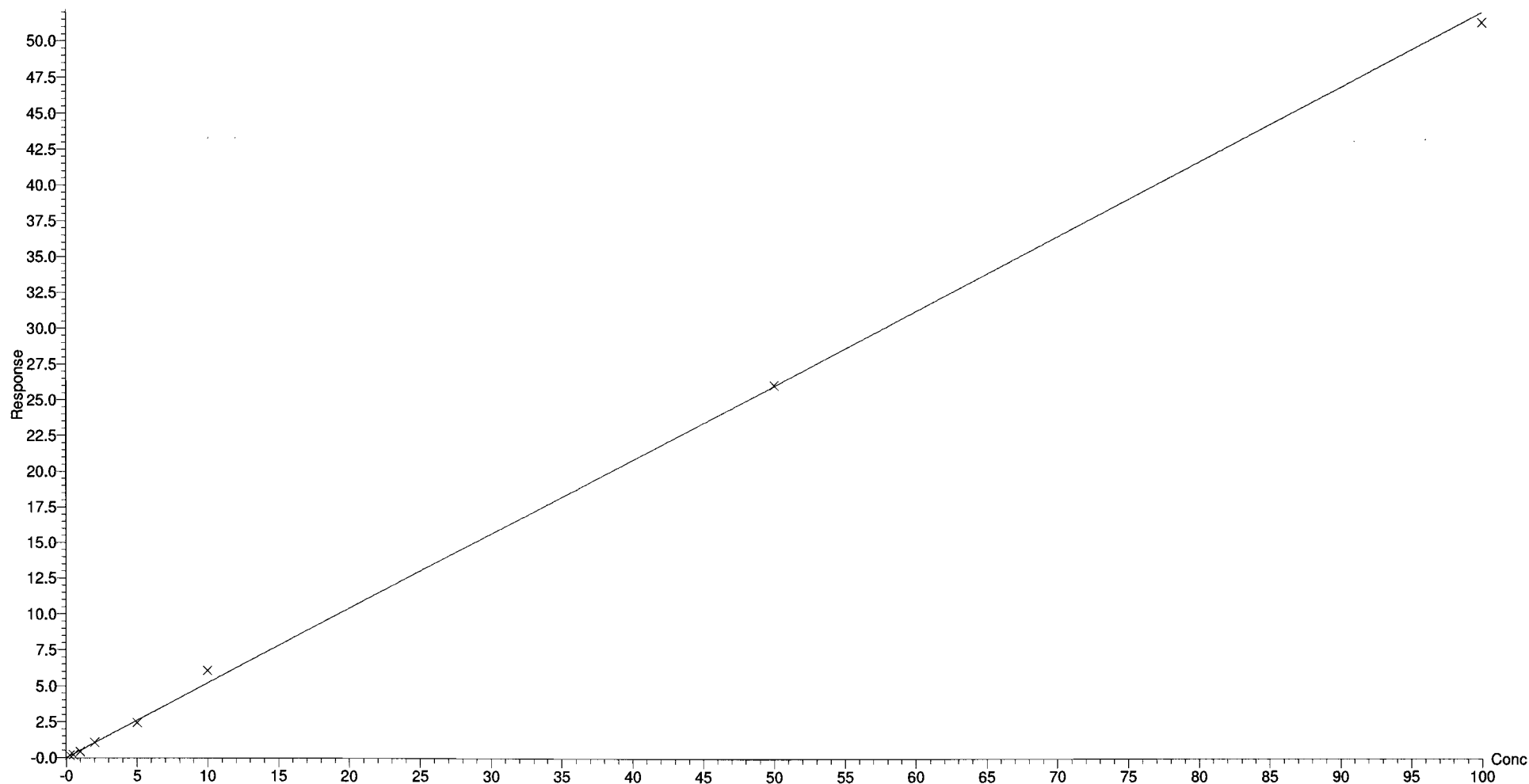
Compound name: PFOS

Correlation coefficient:  $r = 0.998821$ ,  $r^2 = 0.997644$

Calibration curve:  $0.521667 * x + -0.00559175$

Response type: Internal Std ( Ref 12 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



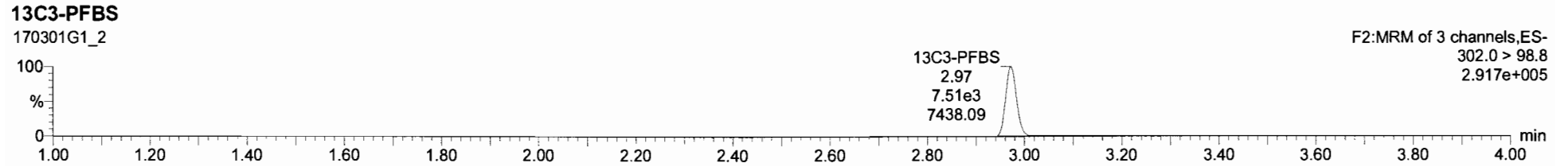
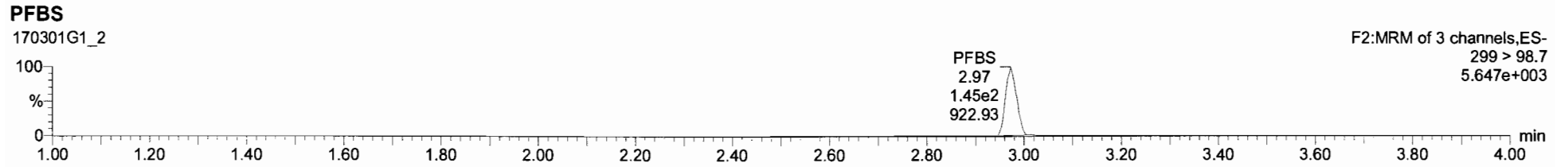
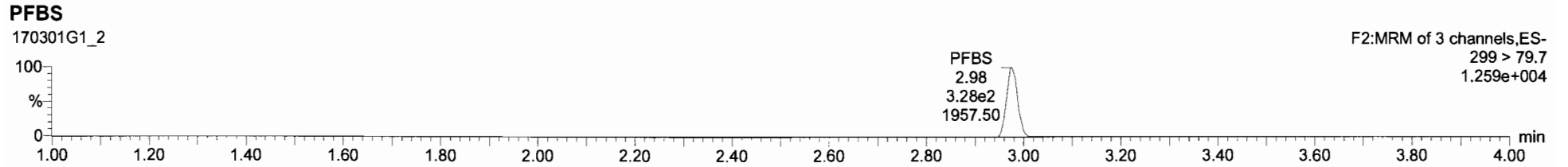


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:26:44 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45  
Calibration: 02 Mar 2017 08:21:56

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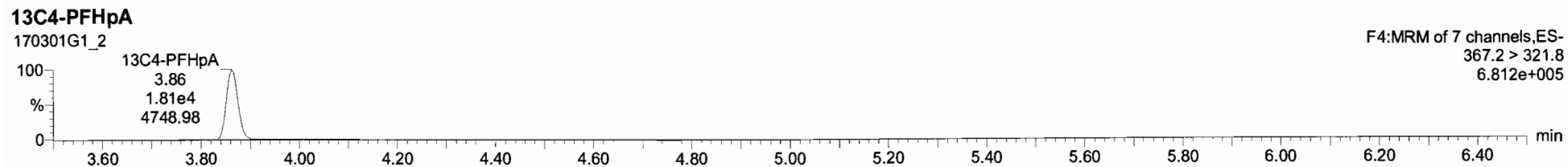
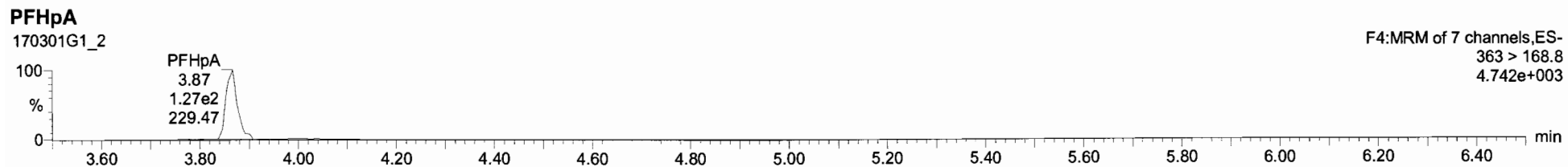
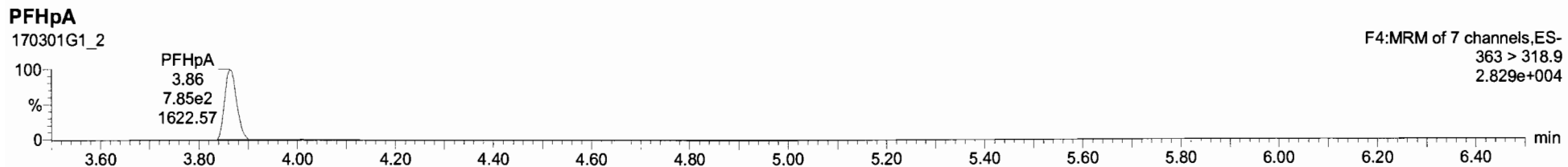


Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:26:44 Pacific Standard Time

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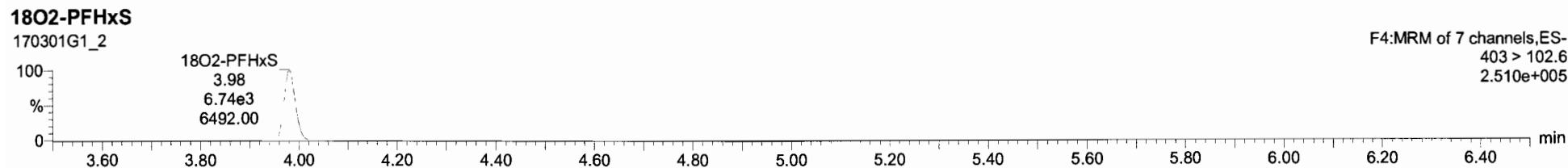
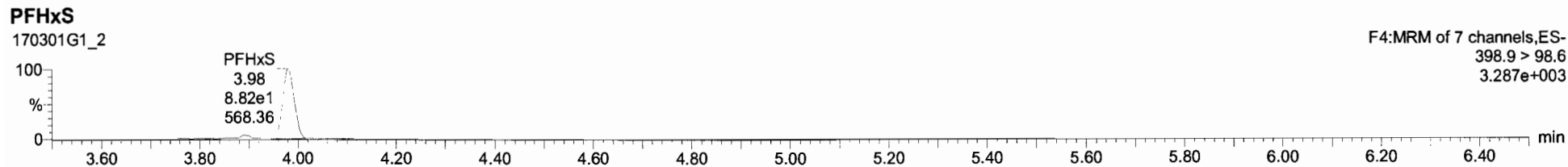
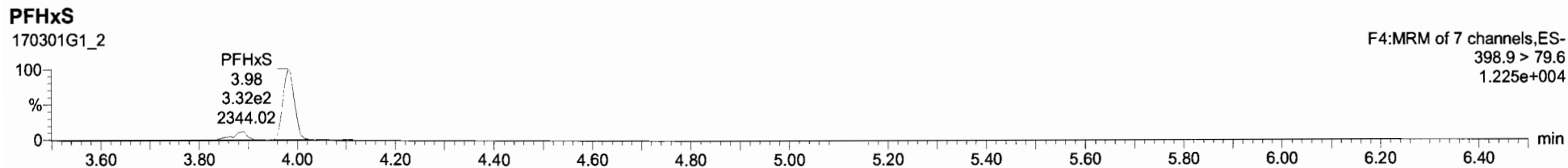


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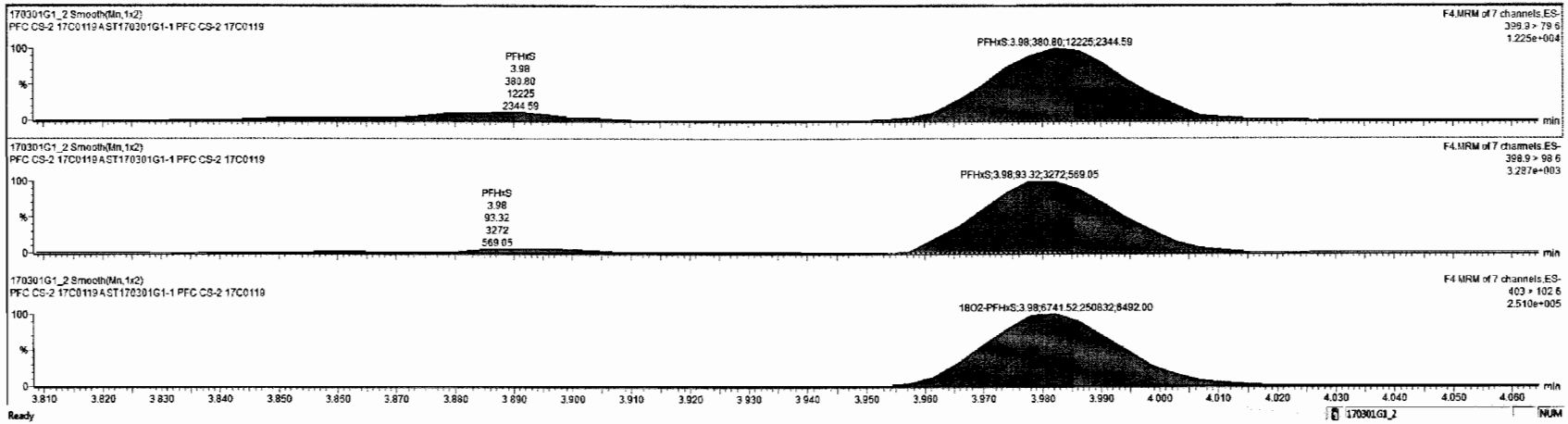
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:26:44 Pacific Standard Time

Name: 170301G1\_2, Date: 01-Mar-2017, Time: 15:09:39, ID: ST170301G1-1 PFC CS-2 17C0119, Description: PFC CS-2 17C0119 A



Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	IS#	RA	YN	RKT	AcqDate	AcqTime	1 <sup>st</sup> Chr Method	D	Sample Test	Factor	SW	Cal File	MDL
1 PFBS	0.25795124	0.00438	103.2		3.285e2	2.98	1	7	0.441	YES	1.00	01-Mar-17	15:09:39	6.964	ST170301G	PFC CS-2 17C01	1.0	1.00		NO
2 PFHpA	0.26947140		107.8		7.852e2	3.66	2	8			1.00	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
3 PFHxS	0.31132779		127.3		1.896e2	3.90	3	9			1.00	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
4 PFOA	0.25680670		102.7		8.805e2	4.27	4	10			1.00	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
5 PFNA	0.23020717		92.1		5.853e2	4.60	5	11			1.00	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
6 PFOS	0.31137446	0.0123	124.5		1.088e2	4.67	6	12			1.00	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
7 13C3-PFBS	12.552825	0.00444	100.4		7.505e3	0.442	2.97	7	14		0.866	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
8 13C4-PFHpA	12.003233	0.00643	96.0		1.812e4	1.117	3.66	3	14		0.970	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
9 18O2-PFHxS	11.872519	0.00481	95.0		6.742e3	0.420	3.98	9	14		1.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
10 13C2-PFOA	13.162765	0.00157	105.3		3.238e4	2.782	4.27	10	15		1.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
11 13C5-PFNA	12.027213	0.0138	96.2		1.086e4	0.846	4.60	11	16		1.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
12 13C8-PFOS	11.969626	0.00107	95.8		8.672e3	0.941	4.66	12	17		1.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
13 13C5-PFHxA	12.500000	0.00806	100.0		2.756e4	1.000	3.35	13	13		0.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
14 13C3-PFHxS	12.500000	0.0222	100.0		1.690e4	1.000	3.98	14	14		0.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
15 13C8-PFOA	12.500000	0.00484	100.0		1.105e4	1.000	4.27	15	15		0.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
16 13C9-PFNA	12.500000	0.00156	100.0		1.334e4	1.000	4.60	16	16		0.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
17 13C4-PFOS	12.500000	0.000659	100.0		9.621e3	1.000	4.66	17	17		0.000	01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
18 Total PFBS	0.25795124	0.00443					16					01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
19 Total PFHxS	0.31132779						19					01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
20 Total PFOA	0.25680670						20					01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO
21 Total PFOS	0.31137446	0.0123					21					01-Mar-17	15:09:39		ST170301G	PFC CS-2 17C01	1.0	1.00		NO



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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

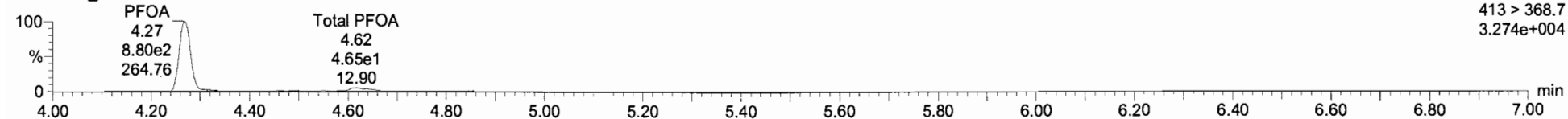
Printed: Thursday, March 02, 2017 08:26:44 Pacific Standard Time

Name: 170301G1\_2, Date: 01-Mar-2017, Time: 15:09:39, ID: ST170301G1-1 PFC CS-2 17C0119, Description: PFC CS-2 17C0119 A

**PFOA**

170301G1\_2

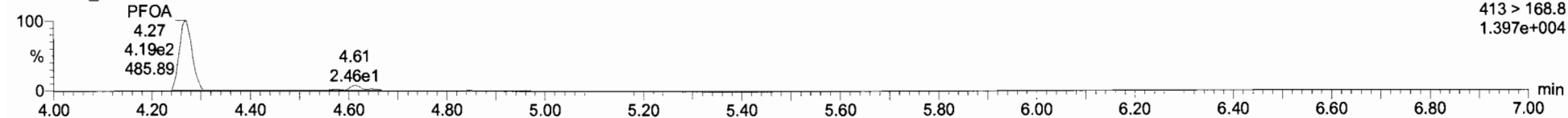
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413 > 368.7  
3.274e+004



**PFOA**

170301G1\_2

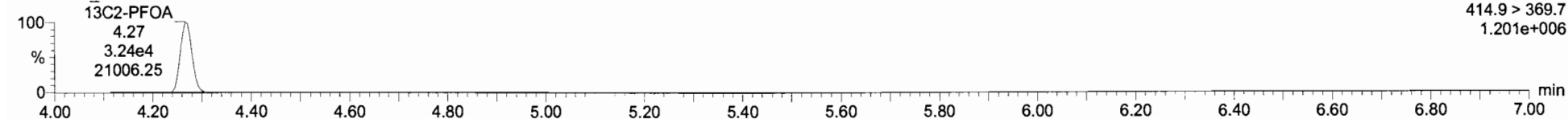
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413 > 168.8  
1.397e+004



**13C2-PFOA**

170301G1\_2

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.201e+006



Dataset: Untitled

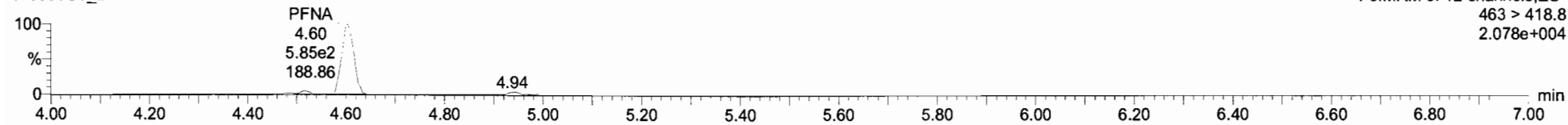
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Printed: Thursday, March 02, 2017 08:26:44 Pacific Standard Time

Name: 170301G1\_2, Date: 01-Mar-2017, Time: 15:09:39, ID: ST170301G1-1 PFC CS-2 17C0119, Description: PFC CS-2 17C0119 A

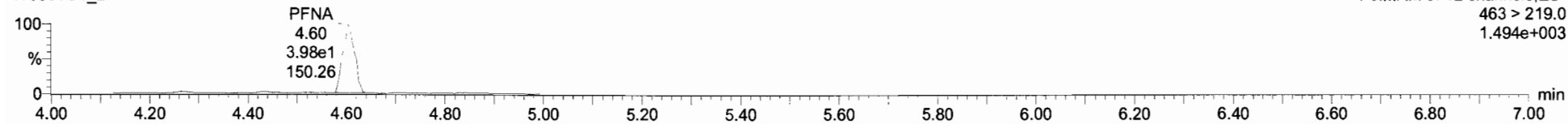
**PFNA**

170301G1\_2



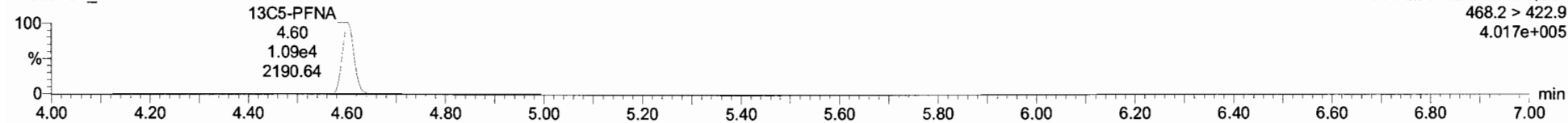
**PFNA**

170301G1\_2



**13C5-PFNA**

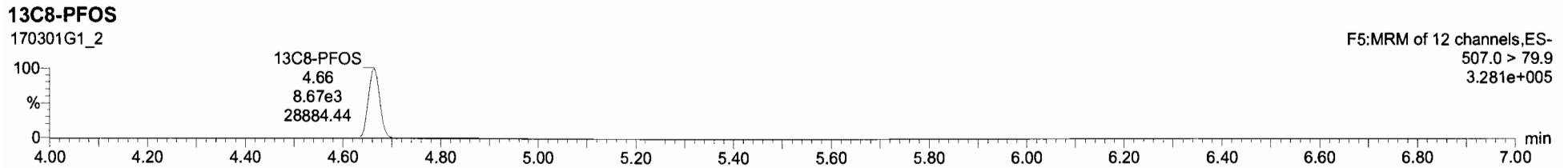
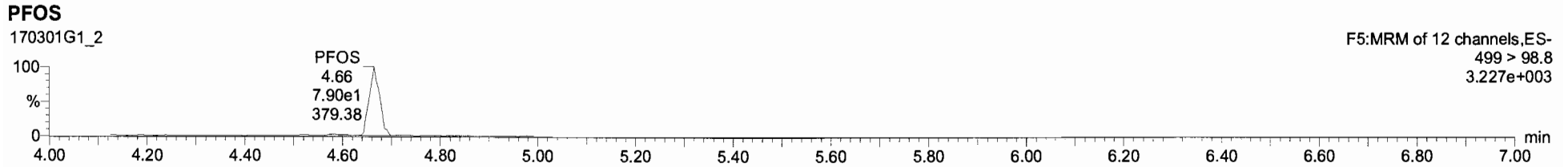
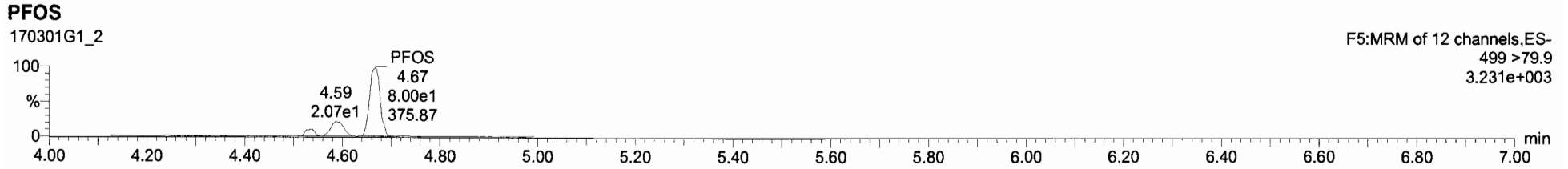
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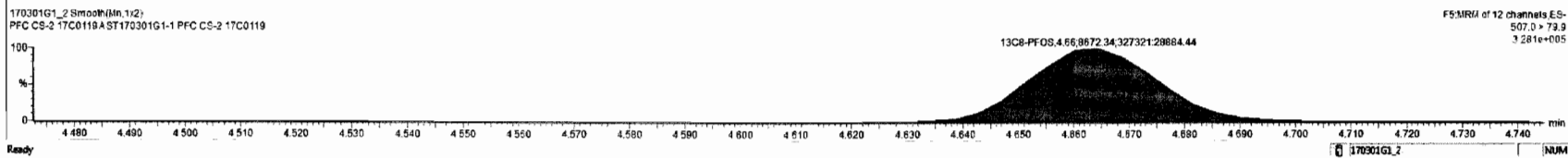
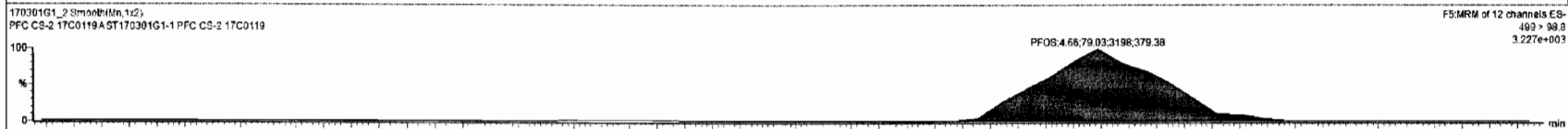
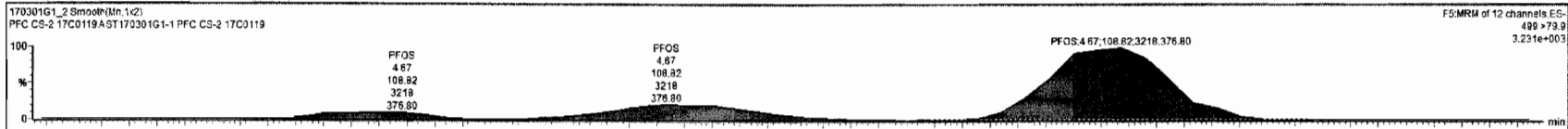
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Printed: Thursday, March 02, 2017 08:26:44 Pacific Standard Time

Name: 170301G1\_2, Date: 01-Mar-2017, Time: 15:09:39, ID: ST170301G1-1 PFC CS-2 17C0119, Description: PFC CS-2 17C0119 A





Name	Conc	DL	%Rec	EMPC	Abs Resp	RRP	RT	#	SR	RA	YAT	RRT	Acq Date	Acq Time	1st Channel ID	Sample Name	Factor	Sum	Cal File	MDL
1 PFBS	0.25795124	0.00436	103.2		3.285e2		2.96	1	7	0.441	YES	1.001	01-Mar-17	15:09:39	6.064 ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
2 PPHxA	0.26947140		107.8		7.852e2		3.96	2	8			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
3 PFHxS	0.31613279		127.3		3.688e2		3.96	3	9			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
4 PFOA	0.25680670		102.7		8.605e2		4.27	4	10			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
5 PFNA	0.23020717		92.1		5.853e2		4.60	5	11			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
6 PFOS	0.51337446	0.0123	124.5		1.086e3		4.67	6	12			1.001	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
7 13C3-PFBS	12.552825	0.00444	100.4		7.595e3	0.442	2.97	7	14			0.586	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
8 13C4-PPHxA	12.003233	0.00643	96.0		1.612e4	1.117	3.85	8	14			0.970	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
9 18O2-PPHxS	11.872519	0.00461	95.0		6.742e3	0.420	3.98	9	14			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
10 13C2-PFOA	13.162765	0.00157	105.3		3.238e4	2.782	4.27	10	15			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
11 13C5-PFNA	12.027213	0.0138	96.2		1.086e4	0.846	4.60	11	16			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
12 13C8-PFOS	11.969626	0.00107	95.8		5.672e3	0.941	4.66	12	17			1.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
13 13C5-PPHxA	12.500000	0.00806	100.0		2.756e4	1.000	3.35	13	13			0.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
14 13C3-PFHxS	12.500000	0.0222	100.0		1.690e4	1.000	3.98	14	14			0.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
15 13C8-PFOA	12.500000	0.00484	100.0		1.105e4	1.000	4.27	15	15			0.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
16 13C9-PFNA	12.500000	0.00186	100.0		1.334e4	1.000	4.60	16	16			0.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
17 13C4-PFOS	12.500000	0.000809	100.0		9.621e3	1.000	4.66	17	17			0.000	01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
18 Total PFBS	0.25795124	0.00443						18					01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
19 Total PPHxS	0.31613279							19					01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
20 Total PFOA	0.25680670							20					01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO
21 Total PFOS	0.51337446	0.0123						21					01-Mar-17	15:09:39	ST170301G	PFC CS-2 17C01...	1.0	1.00		NO





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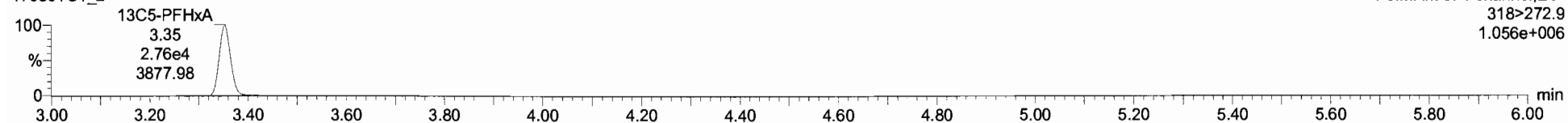
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Printed: Thursday, March 02, 2017 08:26:44 Pacific Standard Time

Name: 170301G1\_2, Date: 01-Mar-2017, Time: 15:09:39, ID: ST170301G1-1 PFC CS-2 17C0119, Description: PFC CS-2 17C0119 A

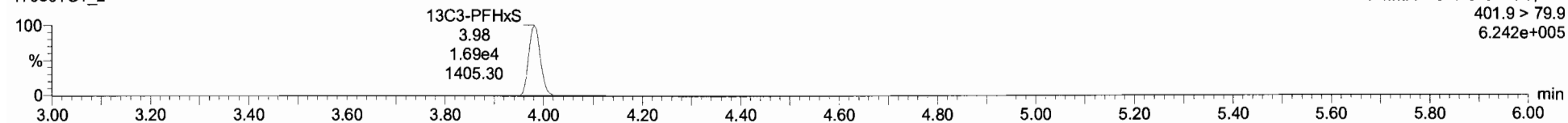
**13C5-PFHxA**

170301G1\_2



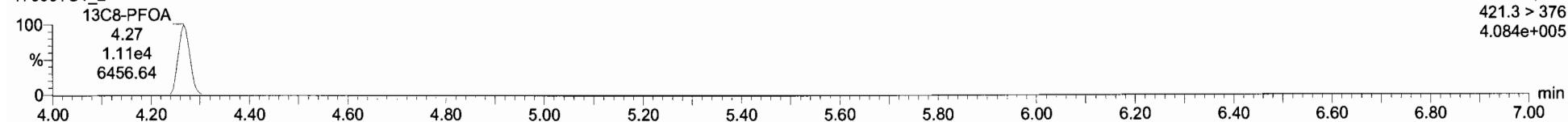
**13C3-PFHxS**

170301G1\_2



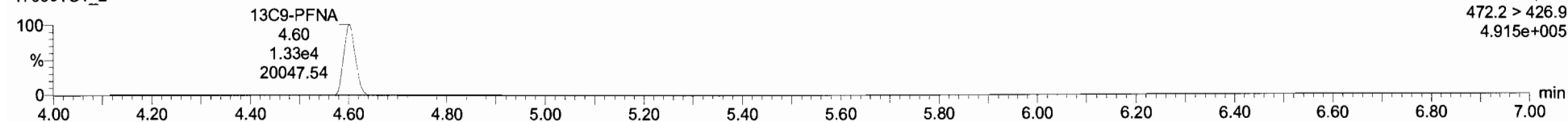
**13C8-PFOA**

170301G1\_2



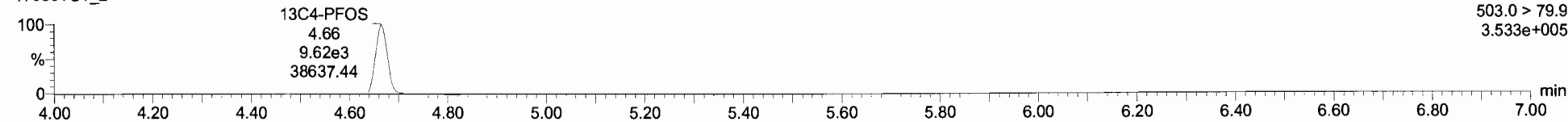
**13C9-PFNA**

170301G1\_2



**13C4-PFOS**

170301G1\_2



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

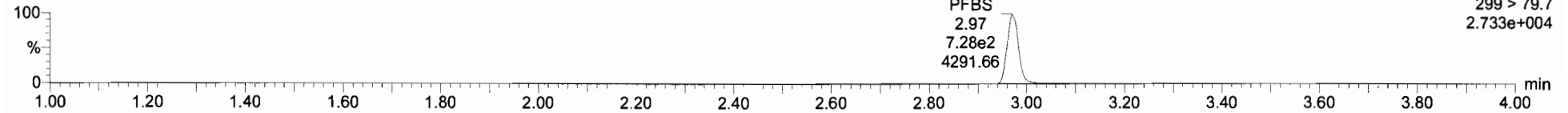
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45  
Calibration: 02 Mar 2017 08:21:56

Name: 170301G1\_3, Date: 01-Mar-2017, Time: 15:22:08, ID: ST170301G1-2 PFC CS-1 17C0120, Description: PFC CS-1 17C0120 A

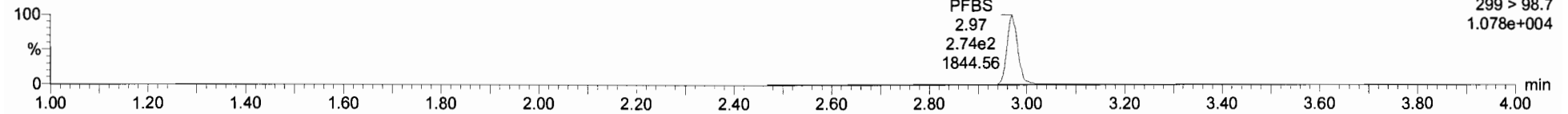
**PFBS**

170301G1\_3



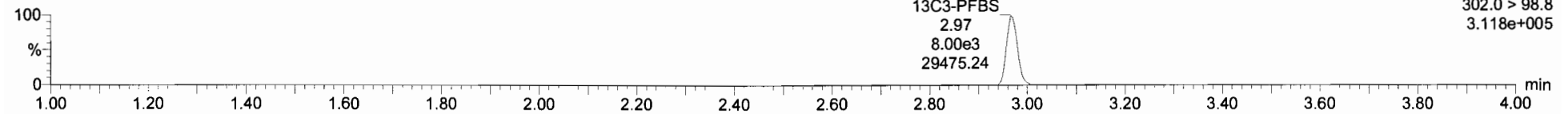
**PFBS**

170301G1\_3



**13C3-PFBS**

170301G1\_3

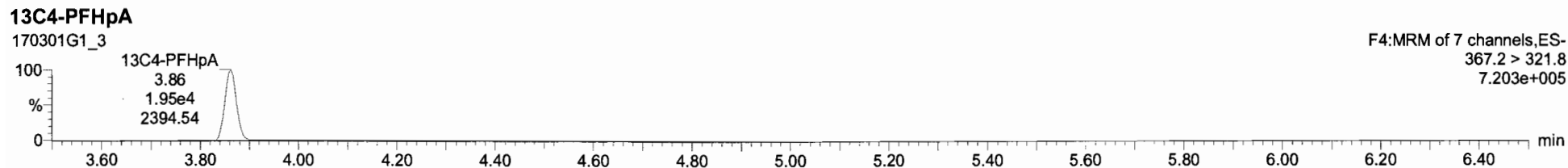
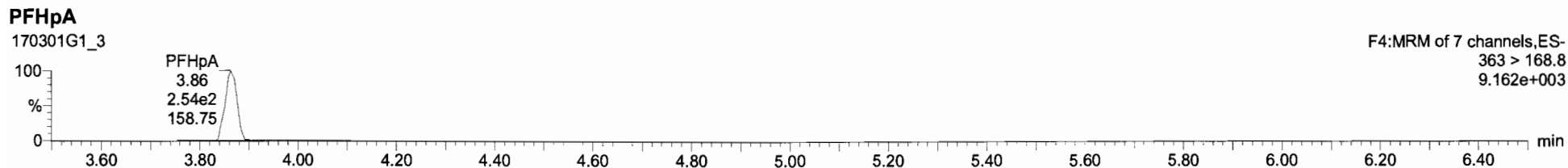
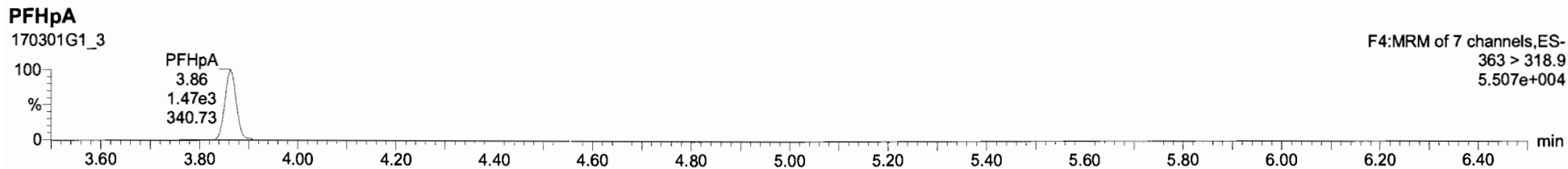


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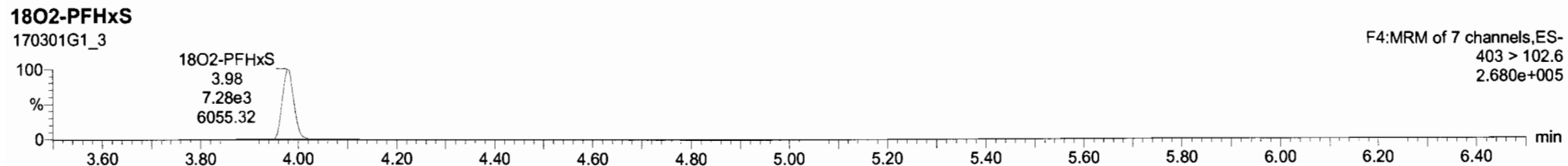
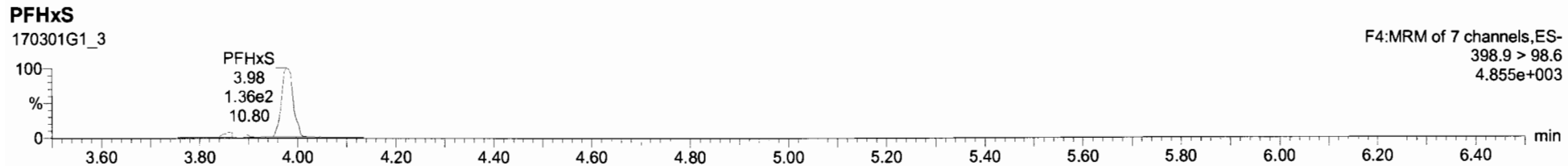
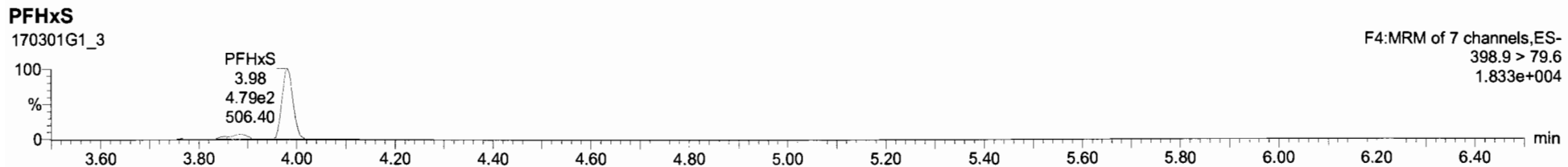


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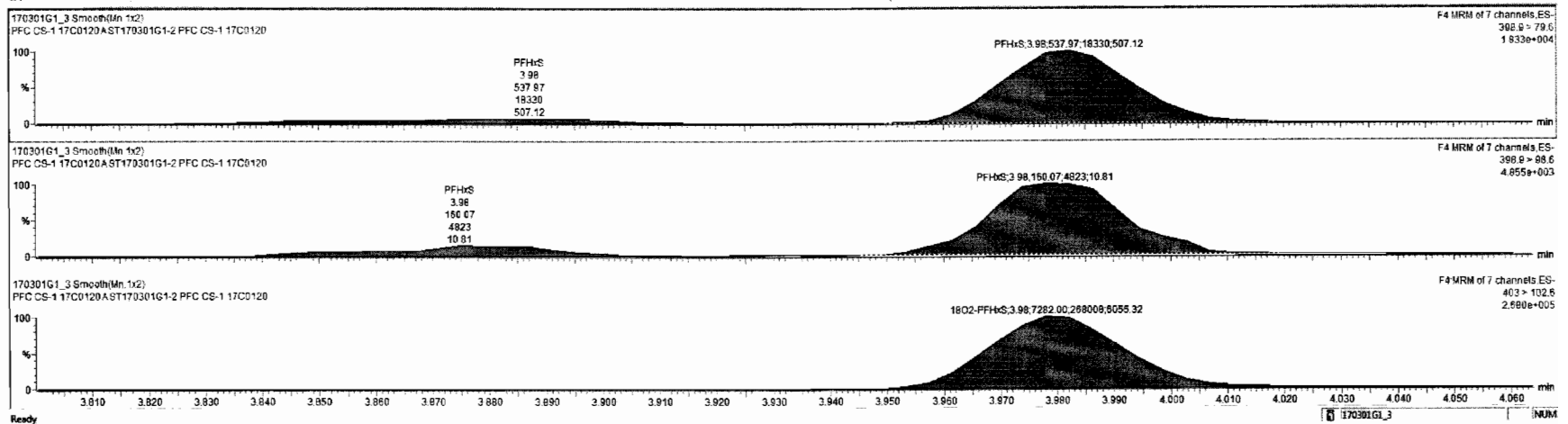
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170301G1\_3 ST170301G1.2 PFC CS 1 17C0120 PFC CS 1 17C0120A

Name	Comp	DL	%Rec	EMPC	Abd Pctd	RPF	RT	#	ES	RA	Y/N	BRT	Acq Date	Acq Time	Ch Name	D	Sample Test	Factor1	SW	Cal File	INCL
PFBS	0.53186200	0.00436	106.4		2.279e2		2.97	1	7	0.377	YES	1.001	01-Mar-17	15:22:08	5.830	ST170301G	PFC CS-1 17C01	1.0	1.00		NO
PFHpA	0.48816450		97.6		1.472e3		3.86	2	8			1.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
PFHxS	0.42610614		98.0		3.360e2		3.98	3	9			1.001	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
PFOA	0.52834876		105.3		1.605e3		4.27	4	10			1.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
PFNA	0.50488938		101.0		1.194e3		4.60	5	11			1.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
PFOS	0.37889948	0.0142	75.8		1.573e2		4.66	6	12			1.001	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CS-PFBS	12.694488	0.00114	101.6		7.985e3	0.442	2.97	7	14			0.986	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CA-PFHpA	12.270736	0.0128	98.2		1.952e4	1.117	3.86	8	14			0.970	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
1802-PFHxS	12.166892	0.00501	97.4		7.282e3	0.420	3.98	9	14			0.999	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CB-PFOA	12.303831	0.00799	98.4		3.425e4	2.762	4.27	10	15			1.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CS-PFNA	11.994471	0.00973	96.0		1.183e4	0.846	4.60	11	16			1.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CB-PFOS	11.847369	0.00710	94.8		1.024e4	0.941	4.66	12	17			0.999	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CS-PFHxA	12.500000	0.00448	100.0		3.039e4	1.000	3.35	13	13			0.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CS-PFHxS	12.500000	0.00404	100.0		1.781e4	1.000	3.86	14	14			0.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CB-PFOA	12.500000	0.00564	100.0		1.251e4	1.000	4.27	15	15			0.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CB-PFNA	12.500000	0.00256	100.0		1.457e4	1.000	4.60	16	16			0.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
13CA-PFOS	12.500000	0.00333	100.0		1.148e4	1.000	4.66	17	17			0.000	01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
Total PFBS	0.53188800	0.00440						18					01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
Total PFHxS	0.44310514							19					01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
Total PFOA	0.52834876							20					01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO
Total PFOS	0.42635111	0.0142						21					01-Mar-17	15:22:08		ST170301G	PFC CS-1 17C01	1.0	1.00		NO



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

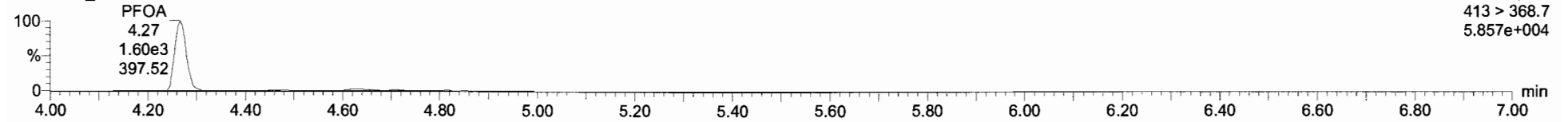
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_3, Date: 01-Mar-2017, Time: 15:22:08, ID: ST170301G1-2 PFC CS-1 17C0120, Description: PFC CS-1 17C0120 A

**PFOA**

170301G1\_3

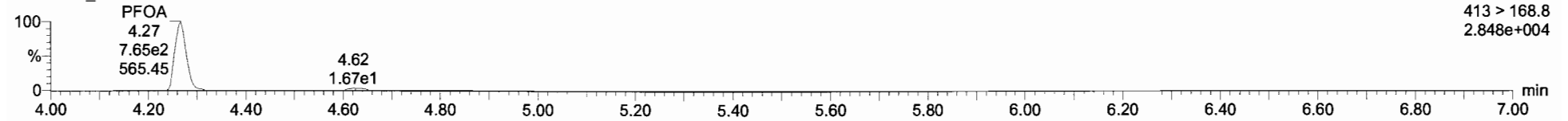
F5:MRM of 12 channels,ES-  
413 > 368.7  
5.857e+004



**PFOA**

170301G1\_3

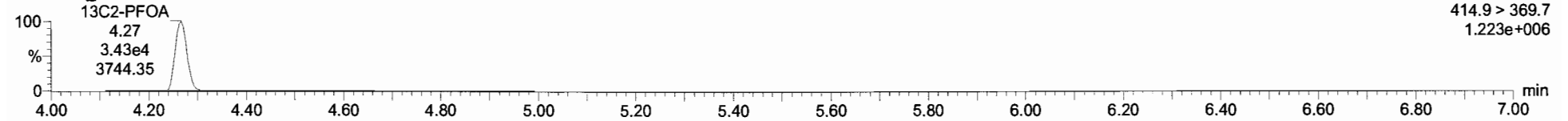
F5:MRM of 12 channels,ES-  
413 > 168.8  
2.848e+004



**13C2-PFOA**

170301G1\_3

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.223e+006



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

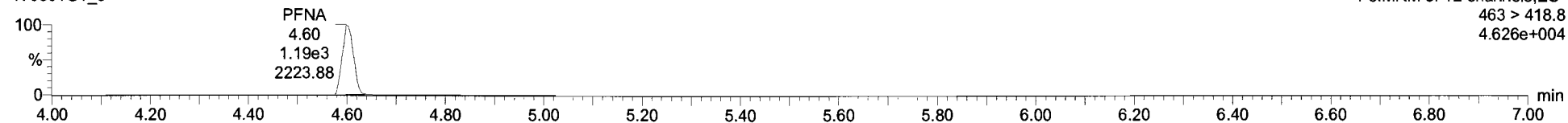
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_3, Date: 01-Mar-2017, Time: 15:22:08, ID: ST170301G1-2 PFC CS-1 17C0120, Description: PFC CS-1 17C0120 A

**PFNA**

170301G1\_3

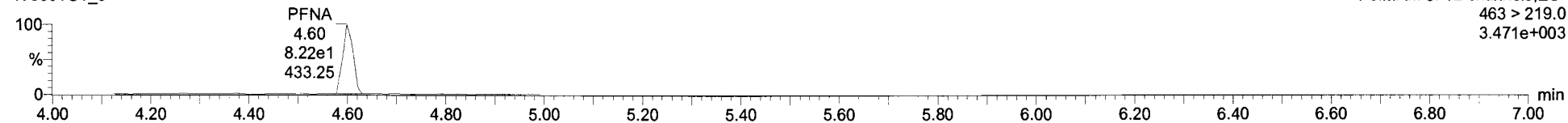
F5:MRM of 12 channels,ES-  
463 > 418.8  
4.626e+004



**PFNA**

170301G1\_3

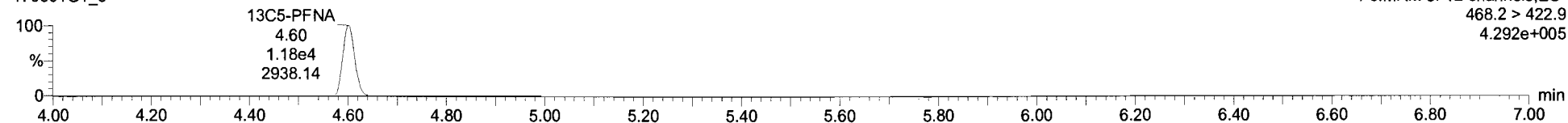
F5:MRM of 12 channels,ES-  
463 > 219.0  
3.471e+003



**13C5-PFNA**

170301G1\_3

F5:MRM of 12 channels,ES-  
468.2 > 422.9  
4.292e+005



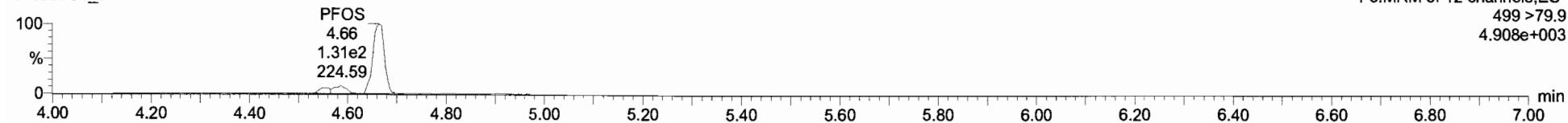
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_3, Date: 01-Mar-2017, Time: 15:22:08, ID: ST170301G1-2 PFC CS-1 17C0120, Description: PFC CS-1 17C0120 A

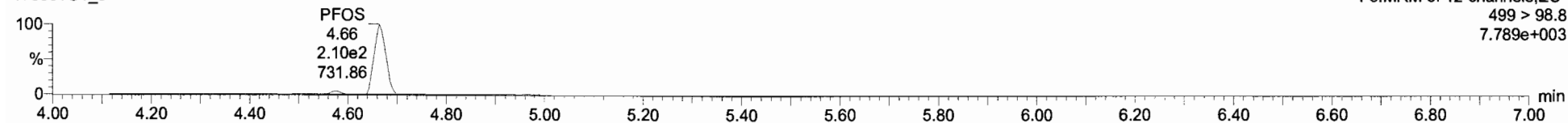
**PFOS**

170301G1\_3



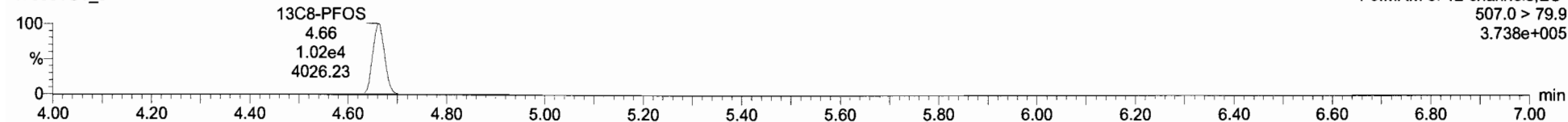
**PFOS**

170301G1\_3



**13C8-PFOS**

170301G1\_3

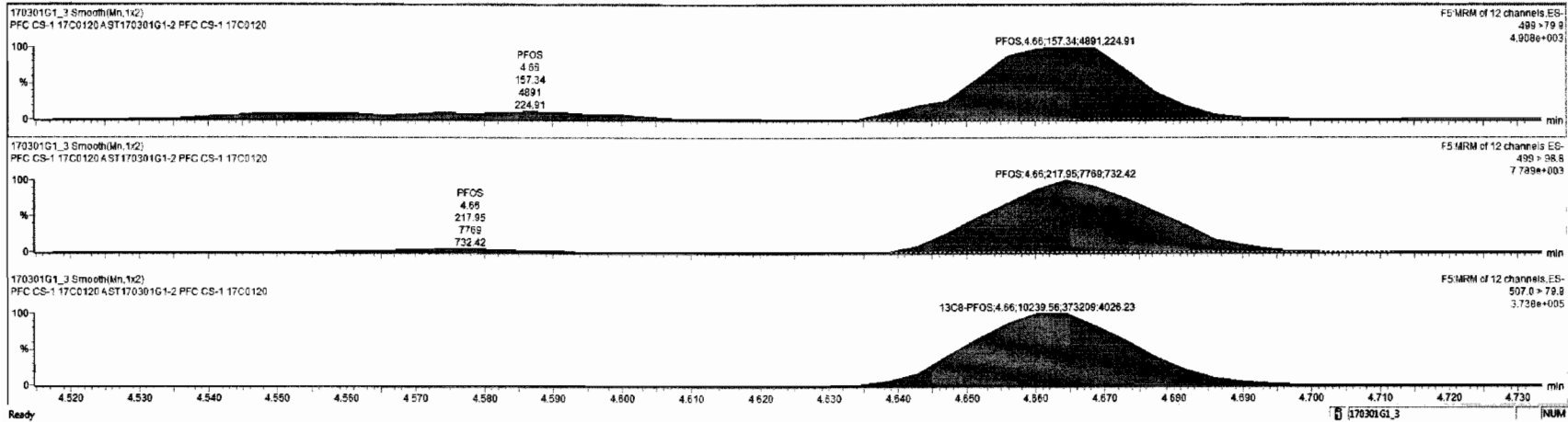






170301G1\_3 - ST170301G1-2 PFC CS-1 17C0120 - PFC CS-1 17C0120A

Item	Comp	DL	%Rec	EMPC	Abs Resp	RF	RT	#	ISF	RA	YN	ERT	Acq Date	Acq Time	#	Chr	Rows	D	Sample Text	Factor1	SNV	Cal File	>MDL
1	PFBS	0.53198300	0.00436	106.4	7.279e2	2.97	1	7	0.377	YES	1.001	01-Mar-17	15:22:08	5.620	ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
2	PFHpA	0.48816450		97.6	1.472e3	3.86	2	9			1.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
3	PFHxS	0.44310514		88.6	5.380e2	3.98	3	9			1.001	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
4	PFOA	0.52634876		105.3	1.605e3	4.27	4	10			1.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
5	PFNA	0.50488938		101.0	1.194e3	4.80	5	11			1.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
6	PFOS	0.57089948	0.0142	75.8	1.573e3	4.86	6	12			1.001	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
7	13C3-PFBS	12.694468	0.00114	101.6	7.998e3	0.442	2.97	7	14		0.806	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
8	13C4-PFHpA	12.270736	0.0128	98.2	1.952e4	1.117	3.96	8	14		0.970	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
9	18O2-PFHxS	12.189892	0.00501	97.4	7.282e3	0.420	3.98	9	14		0.999	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
10	13C3-PFOA	12.303631	0.00799	96.4	3.425e4	2.782	4.27	10	15		1.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
11	13C5-PFNA	11.994471	0.00973	96.0	1.183e4	0.846	4.80	11	16		1.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
12	13C8-PFOS	11.847369	0.00710	94.8	1.024e4	0.941	4.86	12	17		0.999	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
13	13C5-PFHxS	12.500000	0.00448	100.0	3.039e4	1.000	3.35	13	13		0.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
14	13C3-PFHxS	12.500000	0.00404	100.0	1.781e4	1.000	3.86	14	14		0.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
15	13C8-PFOA	12.500000	0.0564	100.0	1.251e4	1.000	4.27	15	15		0.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
16	13C9-PFNA	12.500000	0.00256	100.0	1.457e4	1.000	4.80	16	16		0.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
17	13C4-PFOS	12.500000	0.00333	100.0	1.148e4	1.000	4.86	17	17		0.000	01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
18	Total PFBS	0.53198300	0.00440					18				01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
19	Total PFHpA	0.44310514						19				01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
20	Total PFOA	0.52634876						20				01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND
21	Total PFOS	0.42635111	0.0142					21				01-Mar-17	15:22:08		ST170301G...			PFC CS-1 17C01...	1.0	1.00			ND



Dataset: Untitled

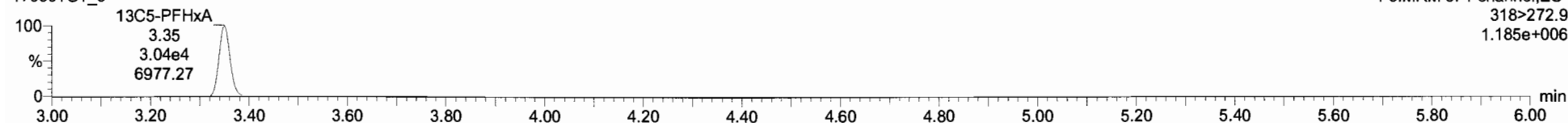
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_3, Date: 01-Mar-2017, Time: 15:22:08, ID: ST170301G1-2 PFC CS-1 17C0120, Description: PFC CS-1 17C0120 A

**13C5-PFHxA**

170301G1\_3

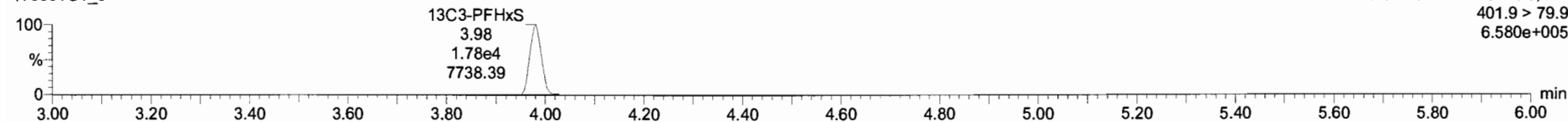
F3:MRM of 1 channel,ES-  
318>272.9  
1.185e+006



**13C3-PFHxS**

170301G1\_3

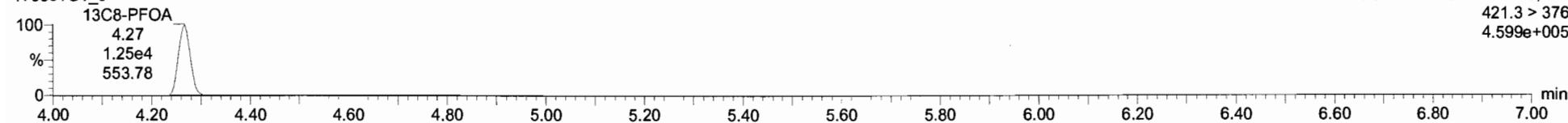
F4:MRM of 7 channels,ES-  
401.9 > 79.9  
6.580e+005



**13C8-PFOA**

170301G1\_3

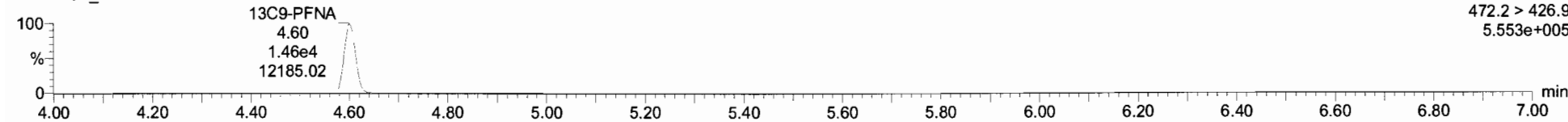
F5:MRM of 12 channels,ES-  
421.3 > 376  
4.599e+005



**13C9-PFNA**

170301G1\_3

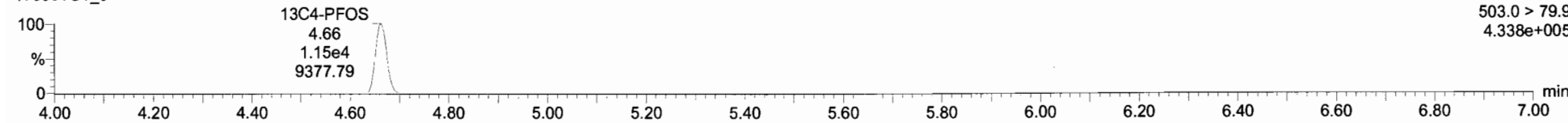
F5:MRM of 12 channels,ES-  
472.2 > 426.9  
5.553e+005



**13C4-PFOS**

170301G1\_3

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
4.338e+005

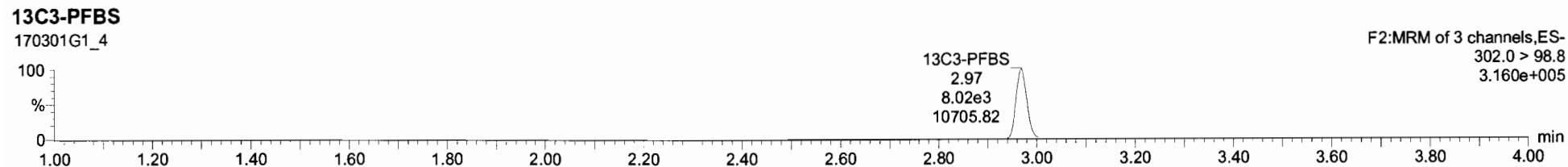
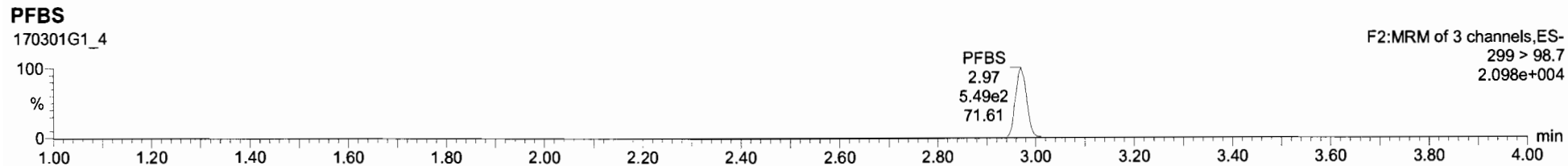
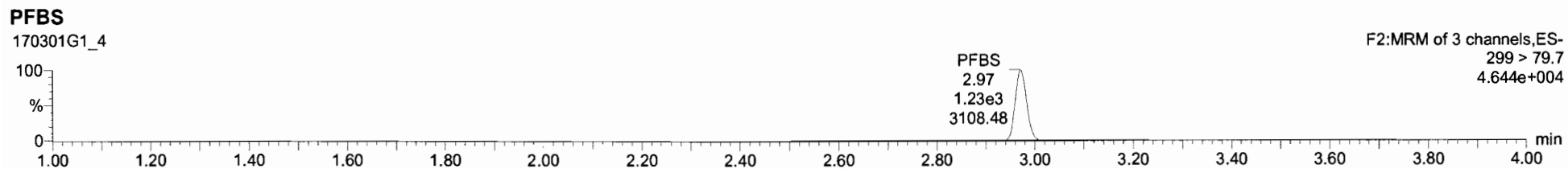


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

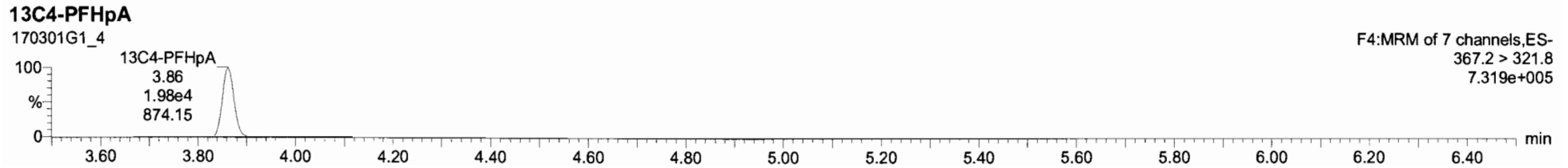
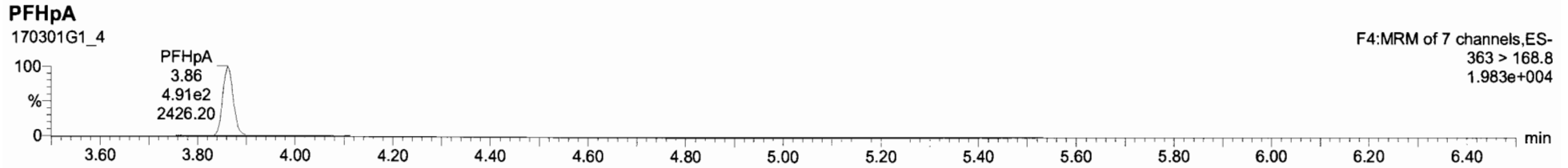
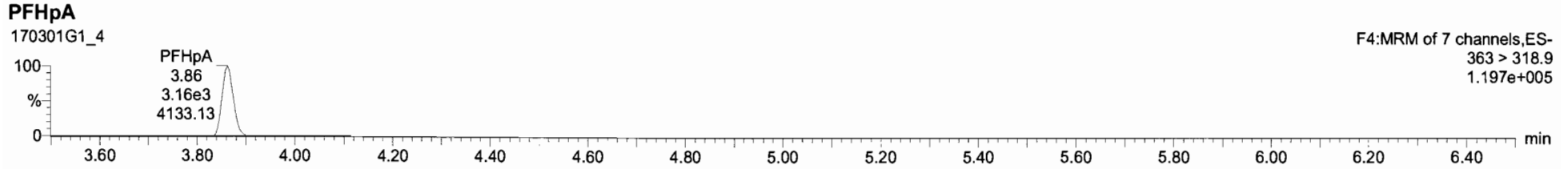
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Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_4, Date: 01-Mar-2017, Time: 15:34:43, ID: ST170301G1-3 PFC CS0 17C0121, Description: PFC CS0 17C0121 A

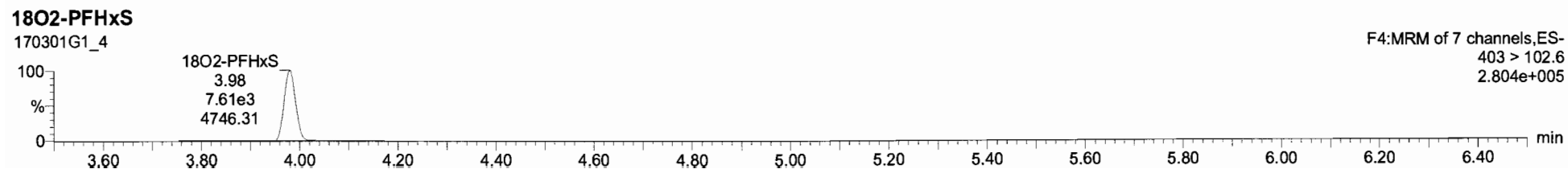
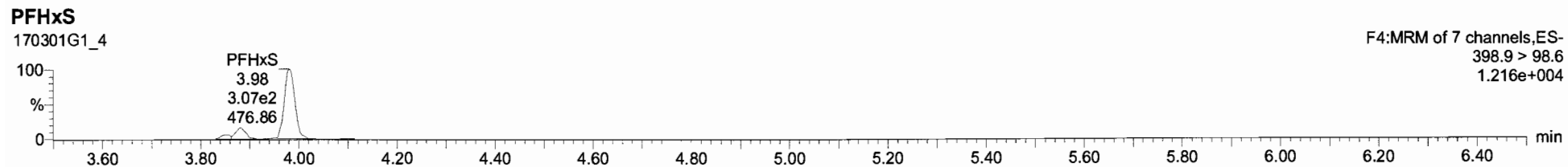
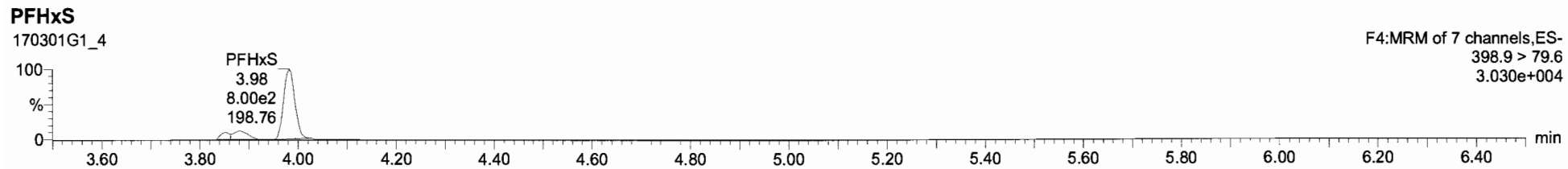


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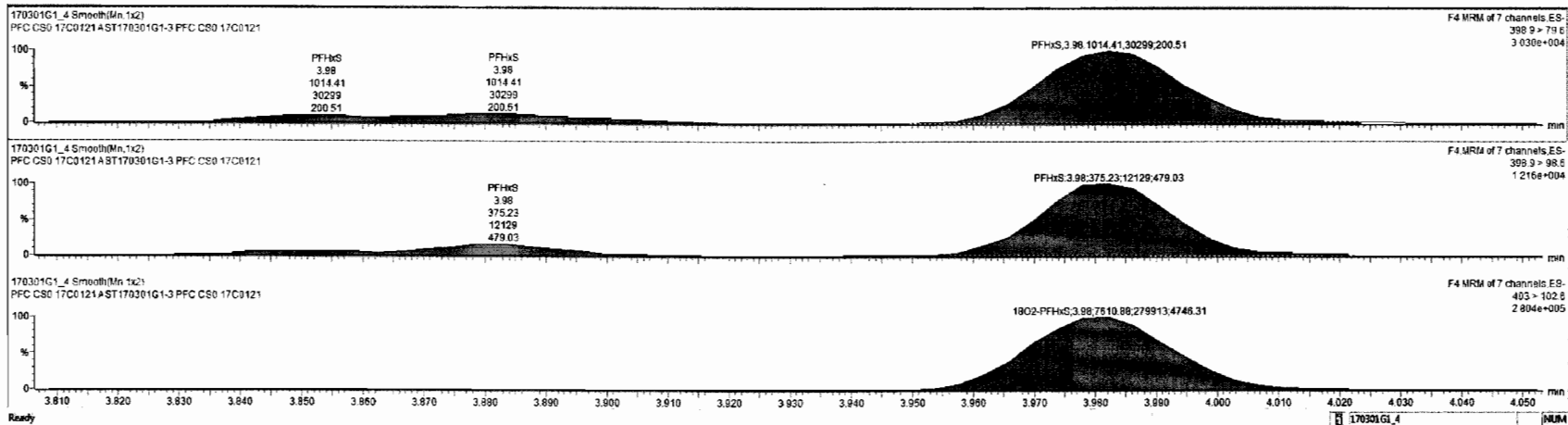
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

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Name: 170301G1\_4, Date: 01-Mar-2017, Time: 15:34:43, ID: ST170301G1-3 PFC CS0 17C0121, Description: PFC CS0 17C0121 A



Line	Name	Conc	DL	M/Rec	EMPC	Abs Resp	RRP	RT	#	IS#	RA	YN	RRT	Acq Date	Acq Time	17 Chr Noise	D	Sample Text	Factor1	SN	Cal File	>MOD
1	PFBS	0.8997441	0.00474	89.1		1.227e3		2.97	1	7	0.447	YES	1.000	01-Mar-17	15:34:43	292.645	ST170301G	PFC CS0 17C01...	1.0	1.00		NO
2	PFHpA	1.0610513		106.1		3.162e3		3.86	2	8			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
3	PFHxS	3.980229		39.8		3.980		3.98	3	9			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
4	PFOA	1.0449353		104.5		2.855e3		4.27	4	10			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
5	PFNA	1.0454728		104.5		2.155e3		4.60	5	11			1.001	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
6	PFOS	0.83308366	0.0307	83.3		3.477e2		4.66	6	12			0.999	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
7	13C3-PFBS	12.429798	0.00309	99.4		8.023e3	0.442	2.97	7	14			0.887	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
8	13C3-PFHpA	12.169251	0.0347	87.4		1.963e4	1.117	3.86	8	14			0.970	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
9	1802-PFHxS	12.415818	0.00651	99.3		7.611e3	0.420	3.98	9	14			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
10	13C3-PFOA	11.535676	0.0206	92.3		3.312e4	2.782	4.27	10	15			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
11	13C3-PFNA	11.744206	0.00294	94.0		1.113e4	0.846	4.60	11	16			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
12	13C3-PFOS	12.546272	0.0291	100.4		1.013e4	0.941	4.66	12	17			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
13	13C3-PFHpA	12.500000	0.00279	100.0		3.117e4	1.000	3.35	13	13			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
14	13C3-PFHxS	12.500000	0.0182	100.0		1.824e4	1.000	3.98	14	14			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
15	13C3-PFOA	12.500000	0.00622	100.0		1.290e4	1.000	4.27	15	15			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
16	13C3-PFNA	12.500000	0.00486	100.0		1.409e4	1.000	4.60	16	16			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
17	13C3-PFOS	12.500000	0.00433	100.0		1.072e4	1.000	4.66	17	17			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
18	Total PFBS	0.8997441	0.00483						16					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
19	Total PFHpA	0.90318119							19					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
20	Total PFOA	1.0449353							20					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
21	Total PFOS	1.0654659	0.0307						21					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

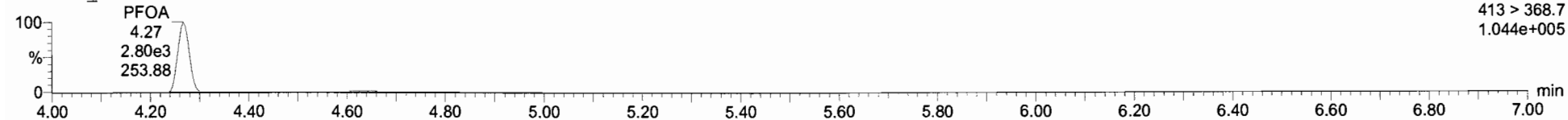
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_4, Date: 01-Mar-2017, Time: 15:34:43, ID: ST170301G1-3 PFC CS0 17C0121, Description: PFC CS0 17C0121 A

**PFOA**

170301G1\_4

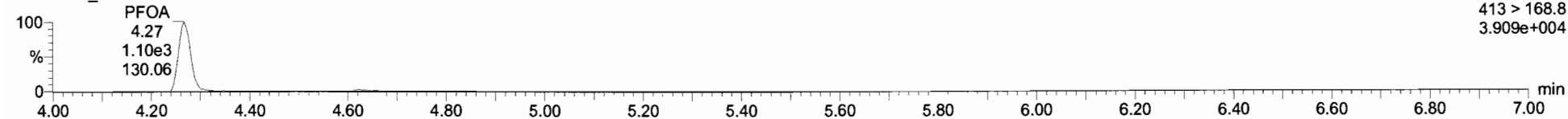
F5:MRM of 12 channels,ES-  
413 > 368.7  
1.044e+005



**PFOA**

170301G1\_4

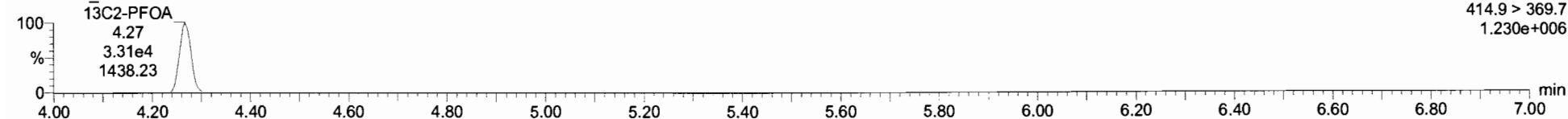
F5:MRM of 12 channels,ES-  
413 > 168.8  
3.909e+004



**13C2-PFOA**

170301G1\_4

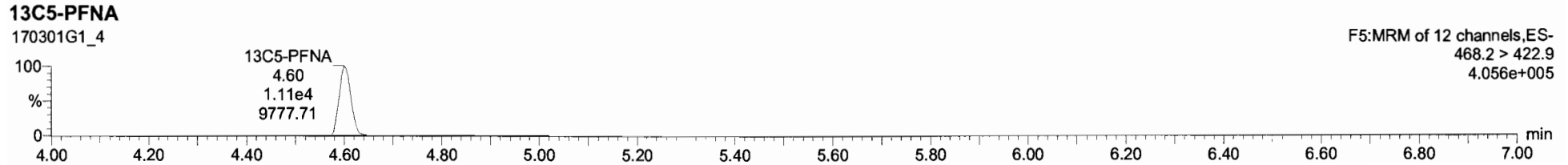
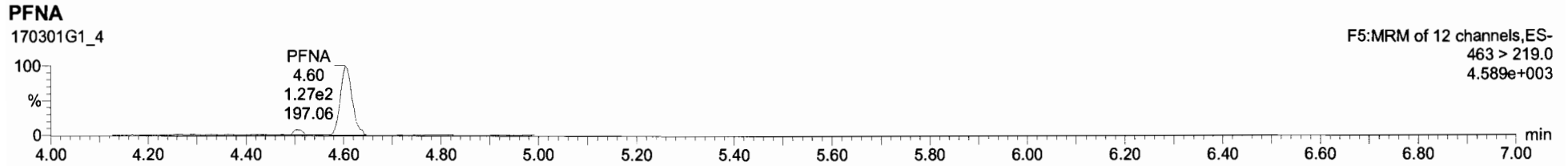
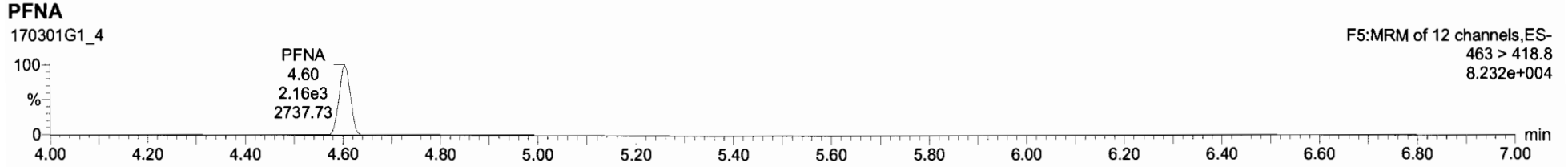
F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.230e+006



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_4, Date: 01-Mar-2017, Time: 15:34:43, ID: ST170301G1-3 PFC CS0 17C0121, Description: PFC CS0 17C0121 A

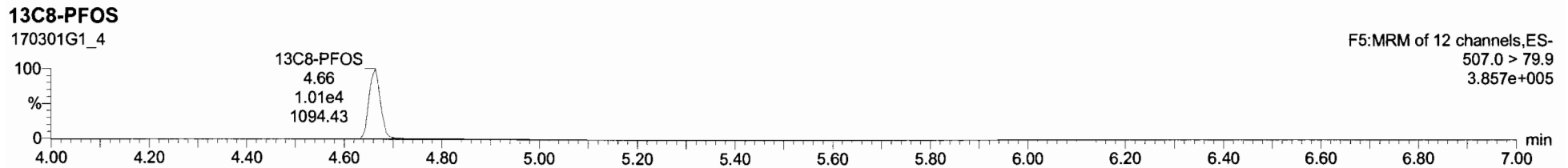
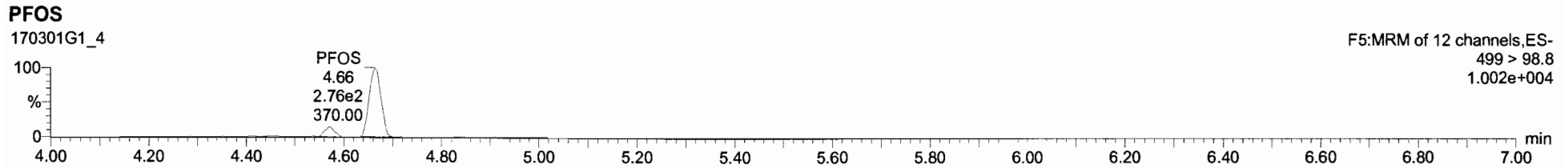
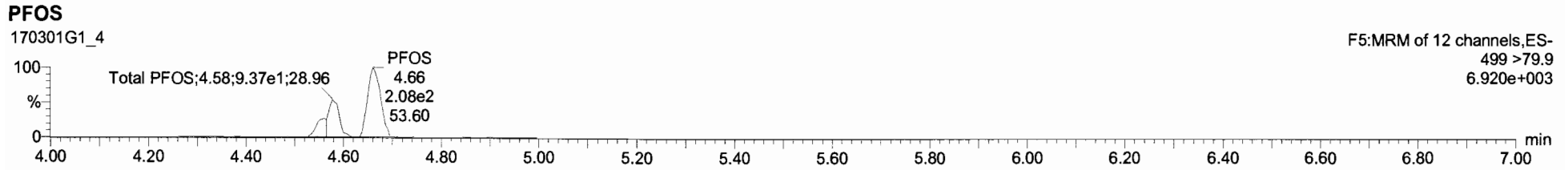




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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

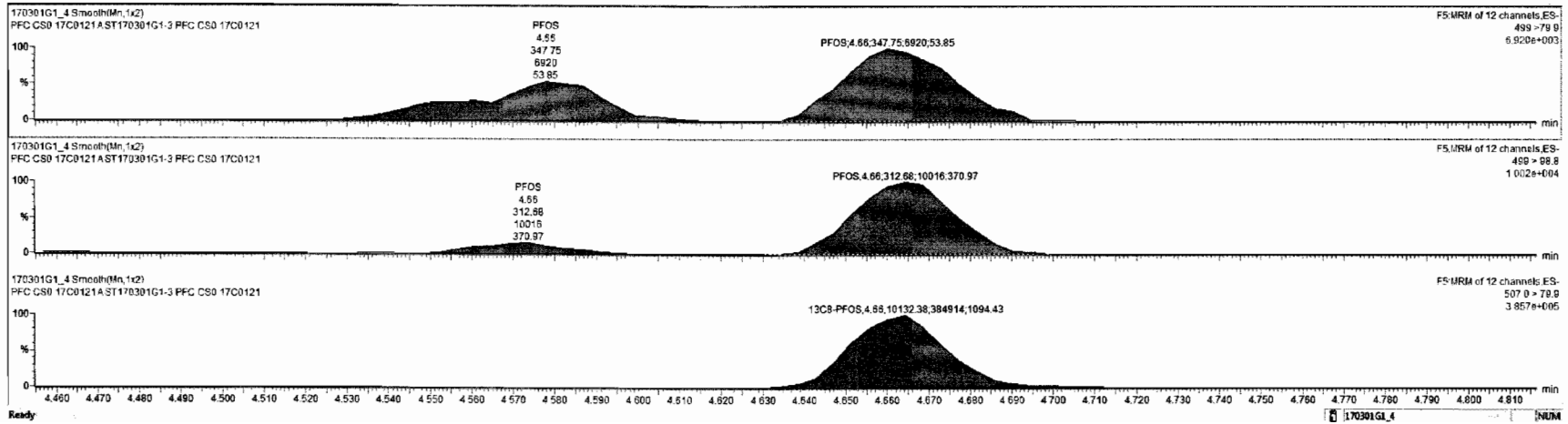
Name: 170301G1\_4, Date: 01-Mar-2017, Time: 15:34:43, ID: ST170301G1-3 PFC CS0 17C0121, Description: PFC CS0 17C0121 A





170301G1\_4 - ST170301G1\_3 PFC CS0 17C0121 - PFC CS0 17C0121A

#	Name	Conc	DL	%Rec	EMPC	Abn Resp	RRP	RT	#	SP	RA	Y/N	RR1	Acq Date	Acq Time	# Chr/Noise	D	Sample Year	Factor1	SWI	Cal File	MDL
1	PFBS	0.8907441	0.00474	89.1		1.227e3		2.97	1	7	0.447	YES	1.000	01-Mar-17	15:34:43	262.845	ST170301G	PFC CS0 17C01...	1.0	1.00		NO
2	PFHpA	1.0610513		106.1		3.162e3		3.86	2	8			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
3	PFHxS	0.86984628		87.0		1.014e3		3.98	3	9			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
4	PFDA	1.0449353		104.5		2.805e3		4.27	4	10			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
5	PFNA	1.0454706		104.5		2.155e3		4.80	5	11			1.001	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
6	PFOS	0.6923139	0.00474	69.3		1.479e3		4.88	6	12			0.989	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
7	13C3-PFBS	12.429766	0.00309	99.4		8.023e3	0.442	2.97	7	14			0.887	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
8	13C4-PFHpA	12.168251	0.0347	97.4		1.983e4	1.117	3.86	8	14			0.970	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
9	18O2-PFHpS	12.415818	0.00551	99.3		7.611e3	0.420	3.98	9	14			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
10	13C2-PFDA	11.535676	0.0206	92.3		3.312e4	2.782	4.27	10	15			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
11	13C5-PFNA	11.744206	0.00284	94.0		1.113e4	0.848	4.60	11	16			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
12	13C8-PFOS	12.546272	0.0281	100.4		1.013e4	0.841	4.66	12	17			1.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
13	13C5-PFHpA	12.500000	0.00279	100.0		3.117e4	1.000	3.35	13	13			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
14	13C3-PFHpS	12.500000	0.0182	100.0		1.824e4	1.000	3.98	14	14			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
15	13C8-PFDA	12.500000	0.00622	100.0		1.280e4	1.000	4.27	15	15			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
16	13C9-PFNA	12.500000	0.00486	100.0		1.400e4	1.000	4.60	16	16			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
17	13C4-PFOS	12.500000	0.00433	100.0		1.072e4	1.000	4.86	17	17			0.000	01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
18	Total PFBS	0.8907441	0.00483						18					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
19	Total PFHpS	0.9031819							19					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
20	Total PFDA	1.0449353							20					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO
21	Total PFOS	1.0654659	0.0307						21					01-Mar-17	15:34:43		ST170301G	PFC CS0 17C01...	1.0	1.00		NO



Dataset: Untitled

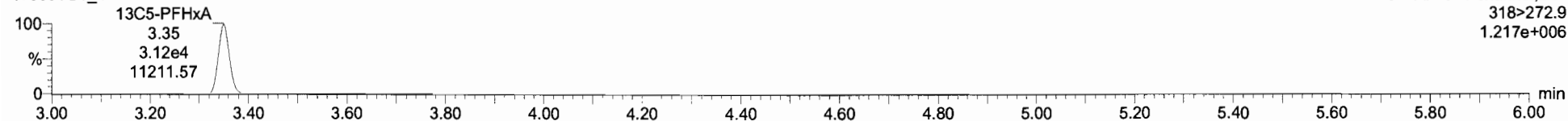
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_4, Date: 01-Mar-2017, Time: 15:34:43, ID: ST170301G1-3 PFC CS0 17C0121, Description: PFC CS0 17C0121 A

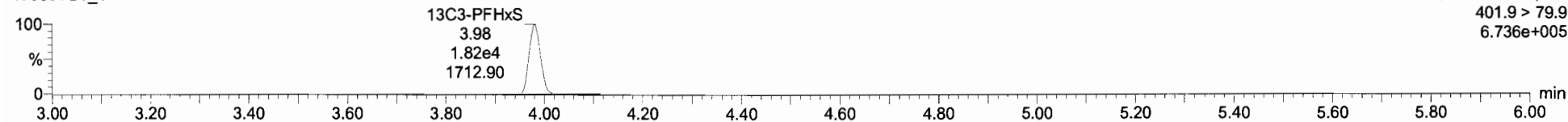
**13C5-PFHxA**

170301G1\_4



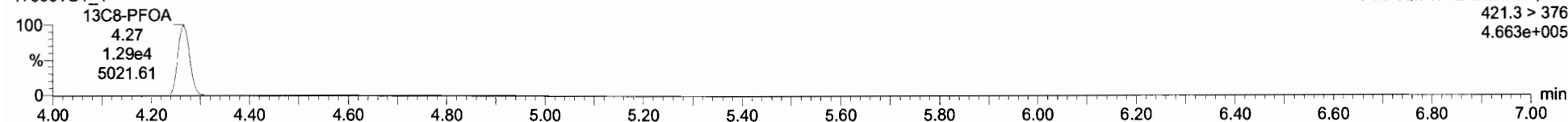
**13C3-PFHxS**

170301G1\_4



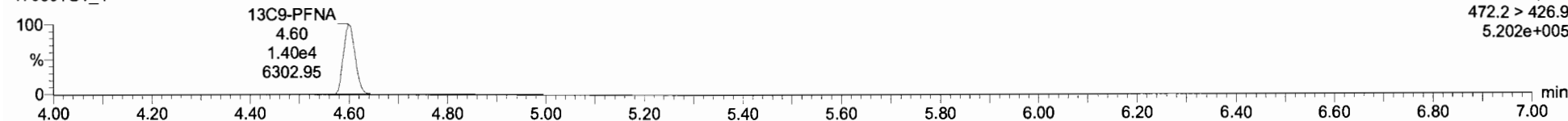
**13C8-PFOA**

170301G1\_4



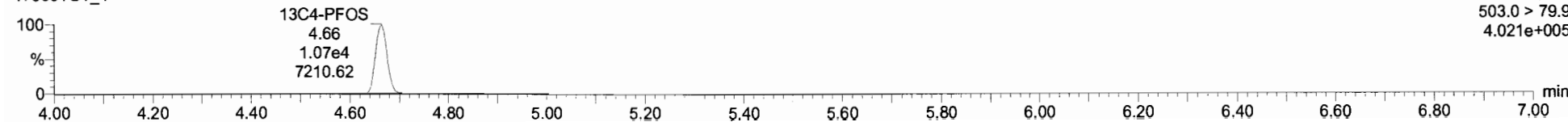
**13C9-PFNA**

170301G1\_4



**13C4-PFOS**

170301G1\_4

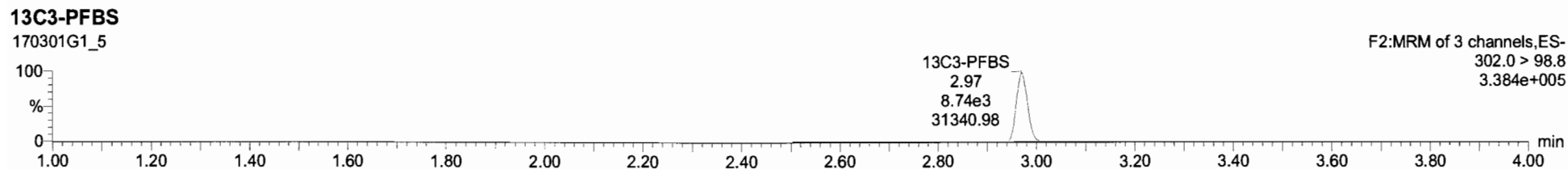
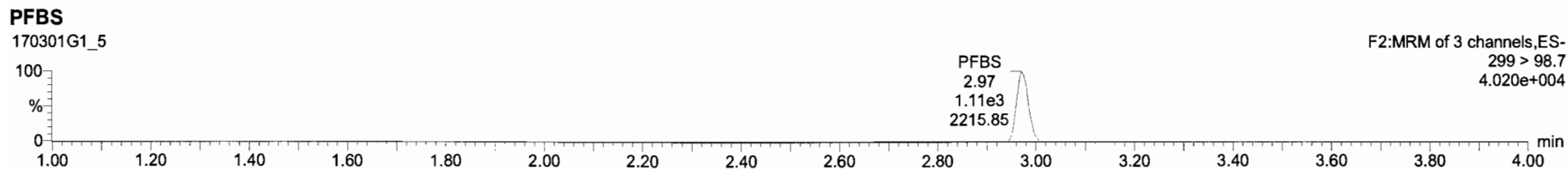
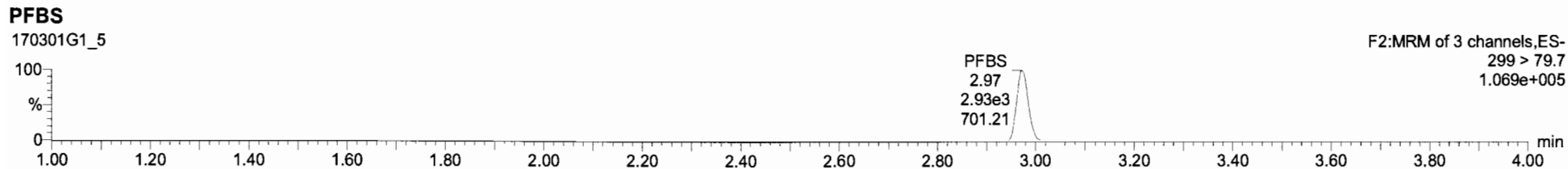


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_5, Date: 01-Mar-2017, Time: 15:47:17, ID: ST170301G1-4 PFC CS1 17C0122, Description: PFC CS1 17C0122 A

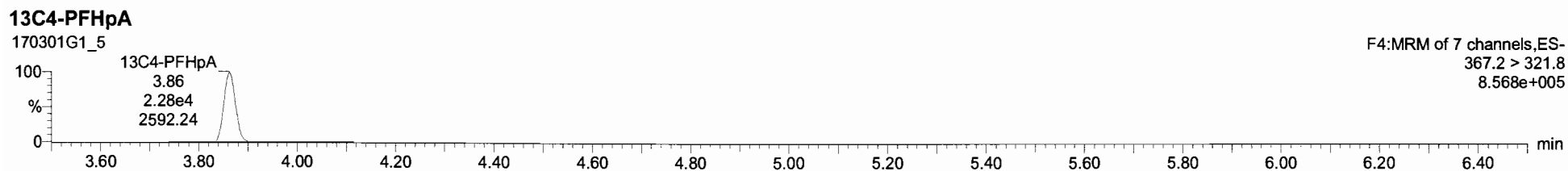
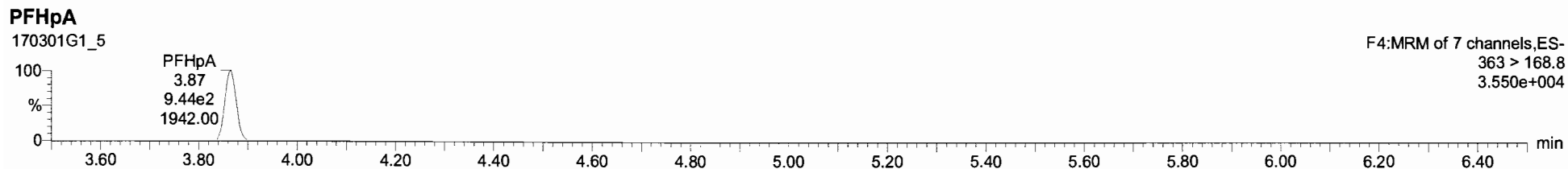
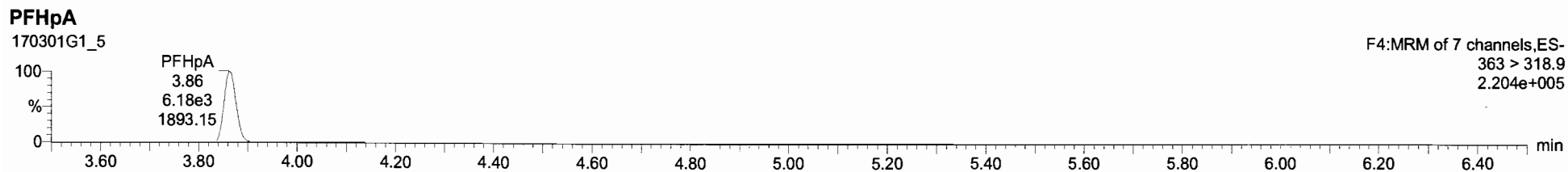


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_5, Date: 01-Mar-2017, Time: 15:47:17, ID: ST170301G1-4 PFC CS1 17C0122, Description: PFC CS1 17C0122 A

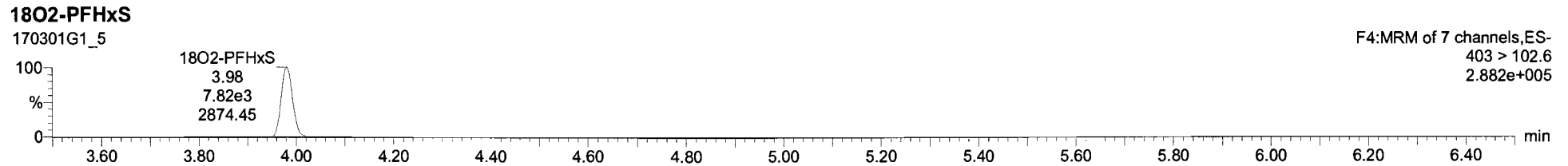
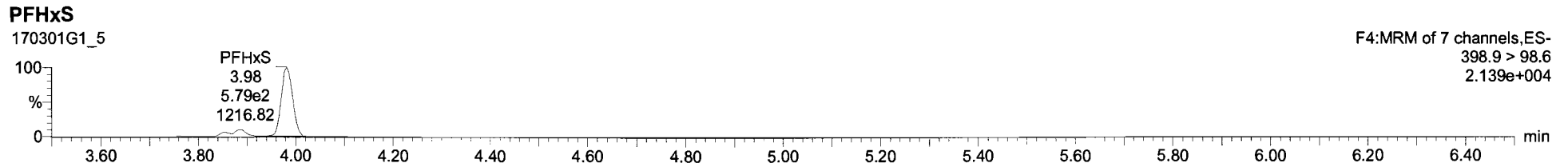
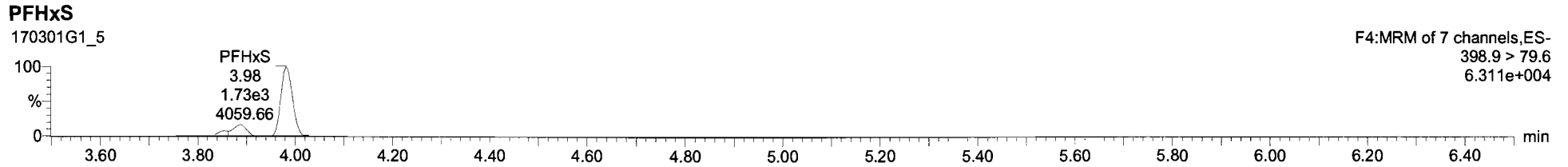


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

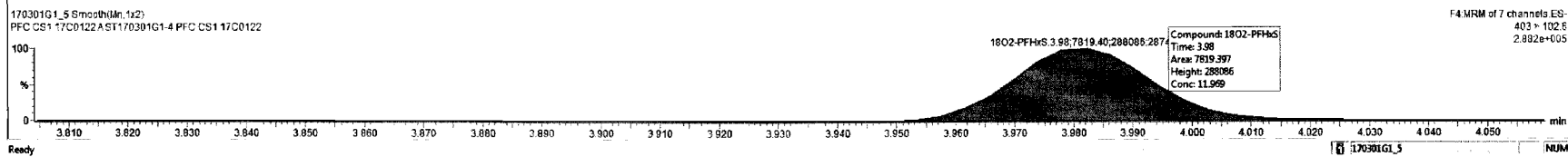
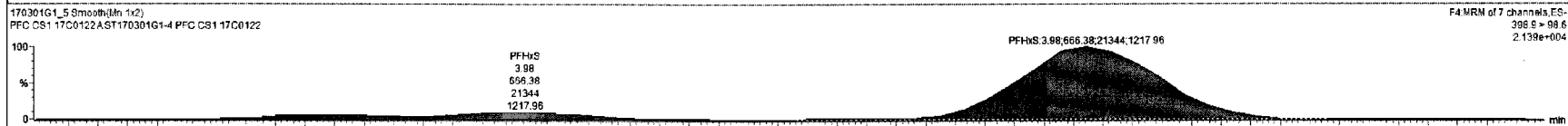
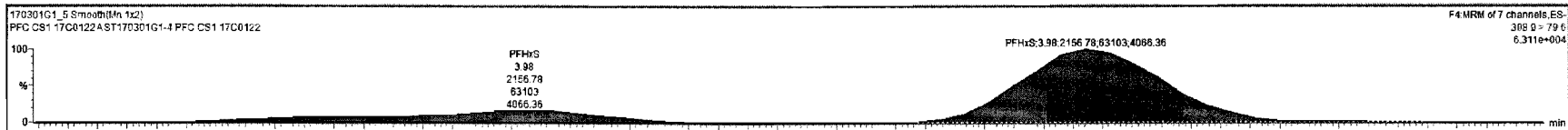
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_5, Date: 01-Mar-2017, Time: 15:47:17, ID: ST170301G1-4 PFC CS1 17C0122, Description: PFC CS1 17C0122 A



170301G1\_5 - ST170301G1-4 PFC CS1 17C0122 PFC CS1 17C0122A

Name	Conc	DI	%Rec	EMPC	Abs Resp	RRF	RT	#	IS	RA	YN	RTI	Acq Date	Acq Time	# Chr	Notes	D	Sample Text	Factor	SVI	Cal File	>MOL
1 PFBS	1.9506772	0.0106	97.5		2.933e3	2.97	1	7	0.380	YES	1.001	01-Mar-17	15:47:17	18.119		ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
2 PFHpA	1.8234467		91.2		6.178e3	3.86	2	8			1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
3 PFHxS	1.9257003		94.8		2.157e3	3.98	3	9			1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
4 PFOA	1.8649281		93.2		5.142e3	4.27	4	10			1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
5 PFNA	1.9531600		97.7		4.211e3	4.60	5	11			1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
6 PFOS	2.0497297	0.0136	102.5		7.669e2	4.66	6	12			1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		YES	
7 13C3-PFBS	12.707219	0.00103	101.7		8.741e3	0.442	2.97	7	14		0.887	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
8 13C4-PFHpA	13.112636	0.0125	104.9		2.278e4	1.117	3.86	8	14		0.970	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
9 18O2-PFHxS	11.869466	0.0101	95.8		7.819e3	0.420	3.98	9	14		1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
10 13C2-PFOA	11.555566	0.00239	92.4		3.561e4	2.782	4.27	10	15		1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
11 13C3-PFNA	11.791860	0.00143	94.3		1.206e4	0.646	4.60	11	16		1.001	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
12 13C8-PFOS	10.781882	0.00712	86.3		9.012e3	0.941	4.66	12	17		1.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
13 13C3-PFHxS	12.500000	0.00390	100.0		3.165e4	1.000	3.35	13	13		0.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
14 13C3-PFHxS	12.500000	0.000658	100.0		1.944e4	1.000	3.89	14	14		0.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
15 13C8-PFOA	12.500000	0.00106	100.0		1.385e4	1.000	4.27	15	15		0.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
16 13C8-PFNA	12.500000	0.000777	100.0		1.511e4	1.000	4.60	16	16		0.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
17 13C4-PFOS	12.500000	0.00941	100.0		1.110e4	1.000	4.66	17	17		0.000	01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
18 Total PFBS	1.9506772	0.0117						18				01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
19 Total PFHxS	2.1021049							19				01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
20 Total PFOA	1.8649281							20				01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	
21 Total PFOS	2.7240372	0.0136						21				01-Mar-17	15:47:17			ST170301G...	PFC CS1 17C01...	1.0	1.00		NO	

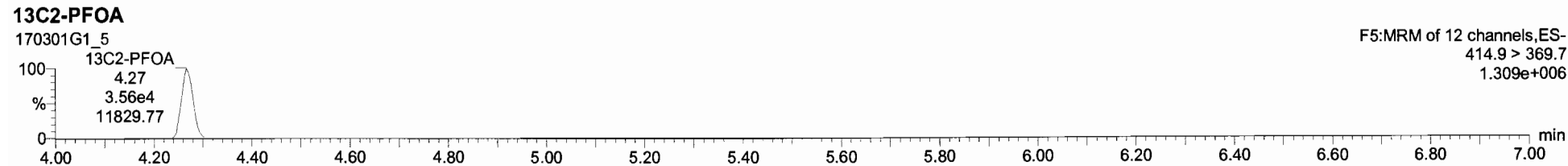
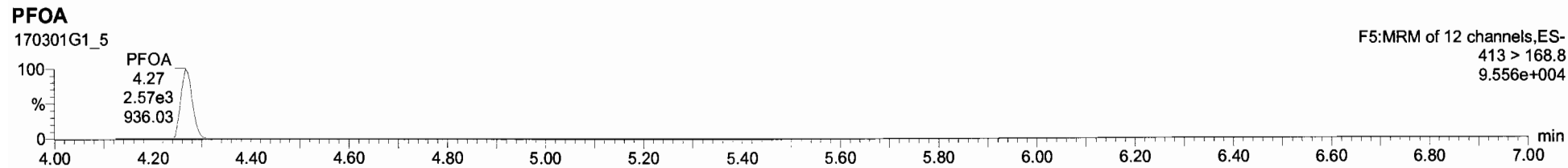
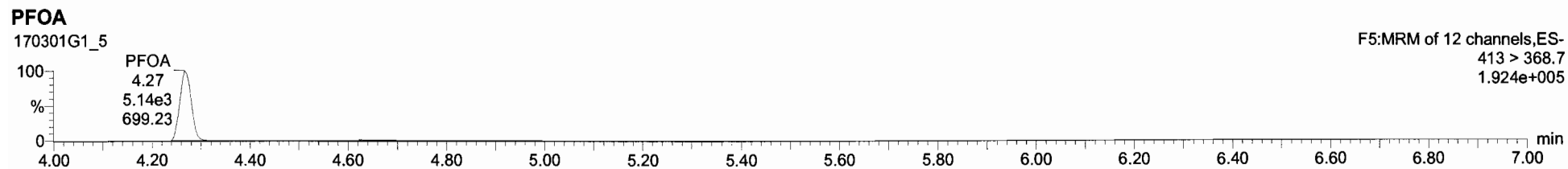


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_5, Date: 01-Mar-2017, Time: 15:47:17, ID: ST170301G1-4 PFC CS1 17C0122, Description: PFC CS1 17C0122 A





Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

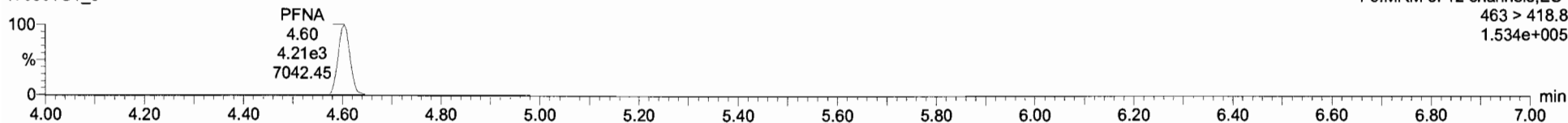
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_5, Date: 01-Mar-2017, Time: 15:47:17, ID: ST170301G1-4 PFC CS1 17C0122, Description: PFC CS1 17C0122 A

**PFNA**

170301G1\_5

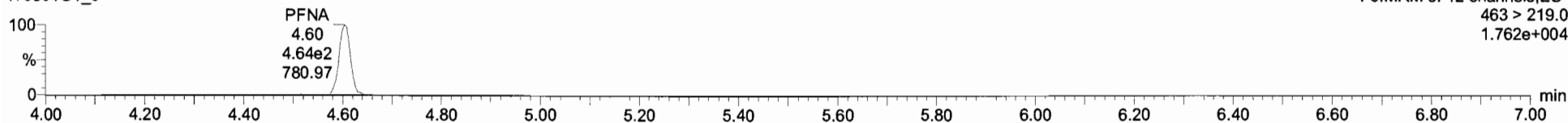
F5:MRM of 12 channels,ES-  
463 > 418.8  
1.534e+005



**PFNA**

170301G1\_5

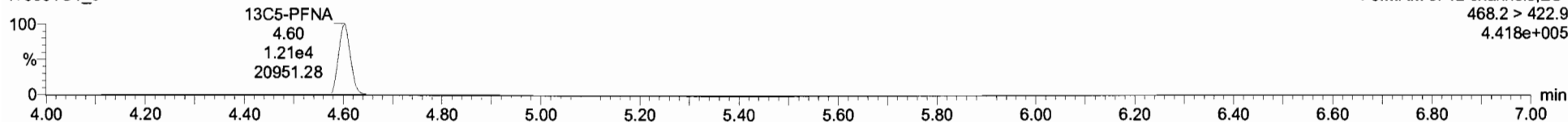
F5:MRM of 12 channels,ES-  
463 > 219.0  
1.762e+004



**13C5-PFNA**

170301G1\_5

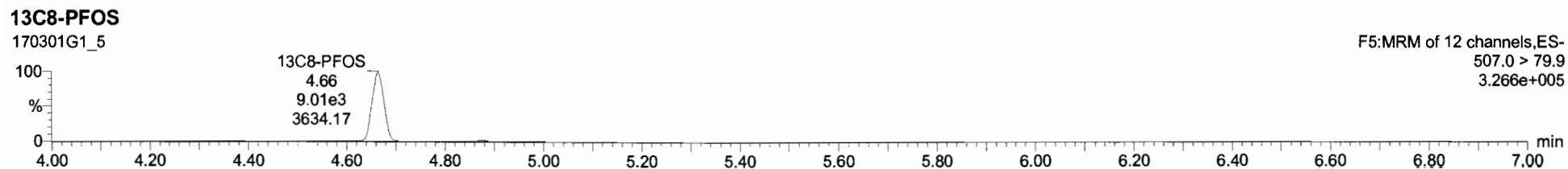
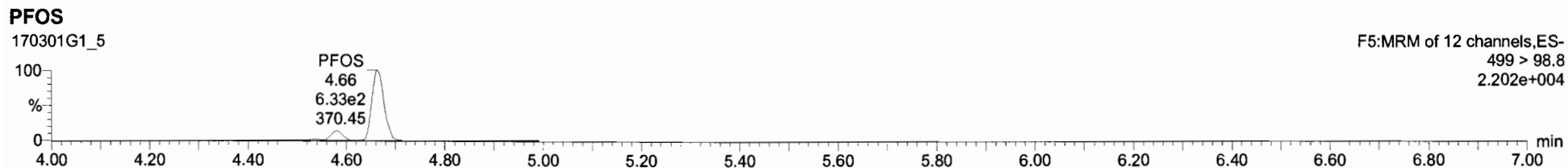
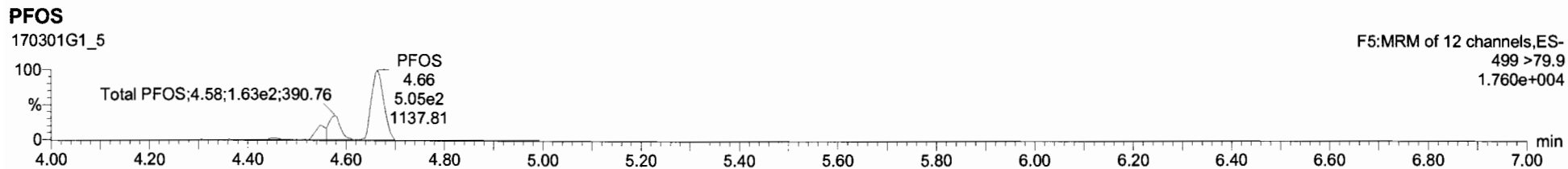
F5:MRM of 12 channels,ES-  
468.2 > 422.9  
4.418e+005



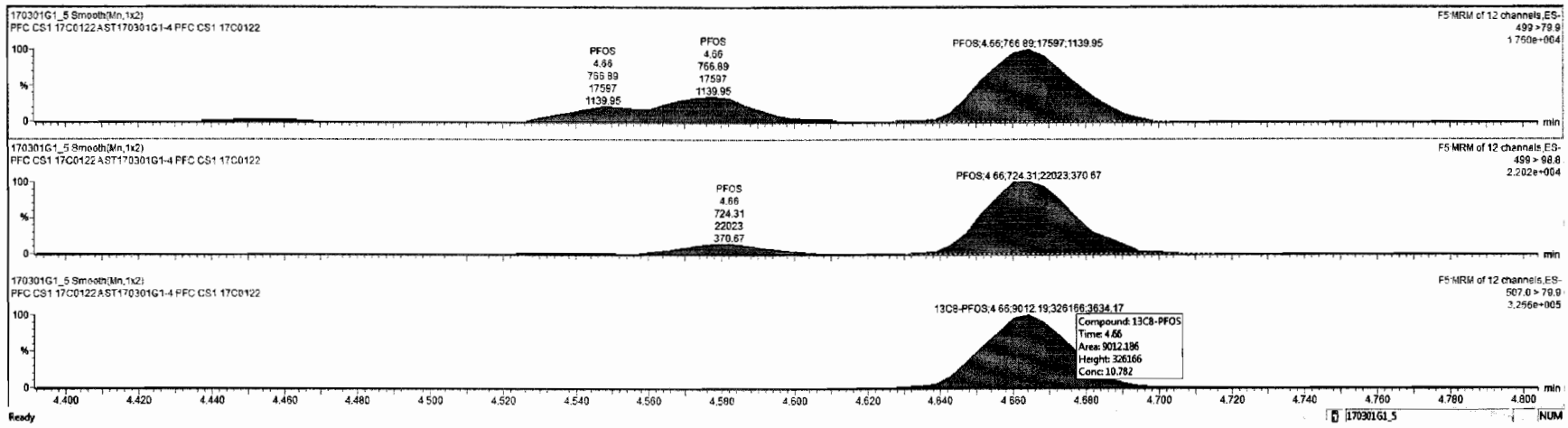
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_5, Date: 01-Mar-2017, Time: 15:47:17, ID: ST170301G1-4 PFC CS1 17C0122, Description: PFC CS1 17C0122 A



Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	SR	RA	Y/N	RRT	Acq Date	Acq Time	1 <sup>st</sup> Chr Noise	ID	Sample Text	Factor1	SVN	Cal File	MRSL	
PFBS	1.9606772	0.0106	97.5		2.933e3		2.07	1	7	0.380	YES	1.001	01-Mar-17	15:47:17	18.110	ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
PFHpA	1.8234407		91.2		6.178e3		3.06	2	8			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
PFbS	1.8925999		94.6		2.157e3		3.98	3	9			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
PFOA	1.8640281		93.2		5.143e3		4.27	4	10			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
PFNA	1.9531600		97.7		4.211e3		4.60	5	11			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
PFOS	2.7240372	0.0136	102.6		7.869e3		4.66	6	12			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		YES	
13C-PFBS	12.707219	0.00103	101.7		8.741e3	0.442	2.97	7	14			0.887	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C-PFHpA	13.112636	0.0125	104.9		2.278e4	1.117	3.86	8	14			0.970	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
18O2-PFOA	11.969486	0.0101	95.8		7.819e3	0.420	3.98	9	14			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C2-PFOA	11.555566	0.00239	92.4		3.561e4	2.782	4.27	10	15			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C3-PFNA	11.791880	0.00143	94.3		1.206e4	0.346	4.60	11	16			1.001	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C8-PFOS	10.781802	0.00712	86.3		9.012e3	0.941	4.66	12	17			1.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C3-PFbSA	12.500900	0.00390	100.0		3.165e4	1.000	3.35	13	13			0.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C3-PFOA	12.500900	0.00058	100.0		1.944e4	1.000	3.96	14	14			0.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C8-PFOA	12.500900	0.00106	100.0		1.380e4	1.000	4.27	15	15			0.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C8-PFNA	12.500900	0.00777	100.0		1.511e4	1.000	4.60	16	16			0.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
13C4-PFOS	12.500900	0.00841	100.0		1.110e4	1.000	4.66	17	17			0.000	01-Mar-17	15:47:17		ST170301G...	PFC CS1 17C0122A	1.0	1.00		NO	
Total PFBS	1.9606772	0.0117																				NO
Total PFHpS	2.1021049																					NO
Total PFOA	1.8640281																					NO
Total PFOS	2.7240372	0.0136																				NO



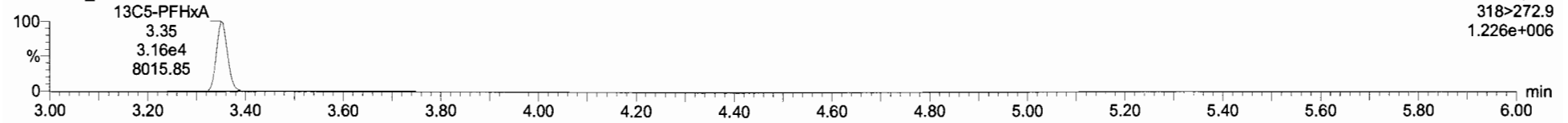
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_5, Date: 01-Mar-2017, Time: 15:47:17, ID: ST170301G1-4 PFC CS1 17C0122, Description: PFC CS1 17C0122 A

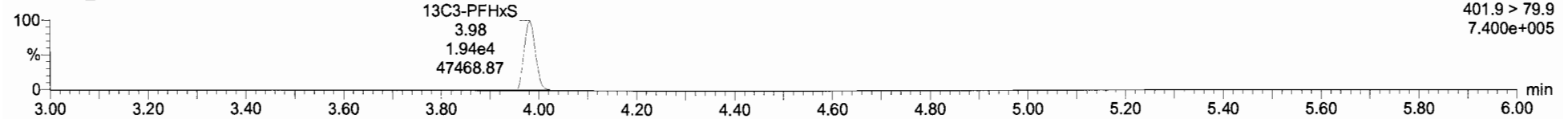
**13C5-PFHxA**

170301G1\_5



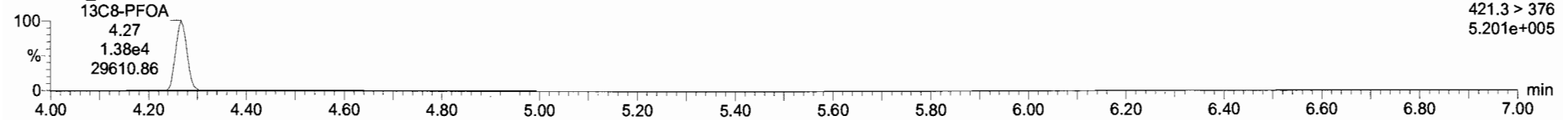
**13C3-PFHxS**

170301G1\_5



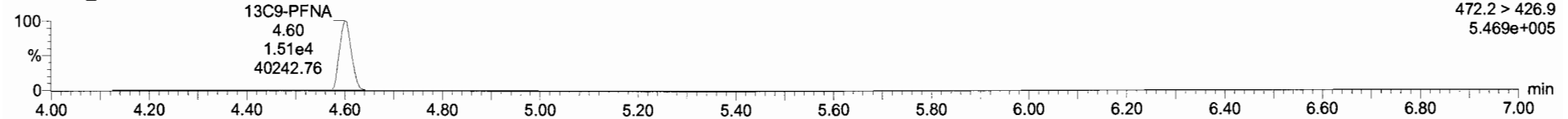
**13C8-PFOA**

170301G1\_5



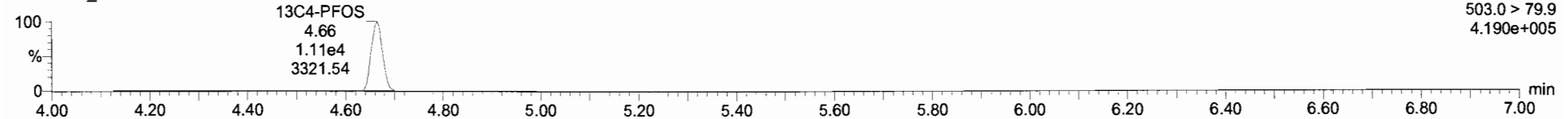
**13C9-PFNA**

170301G1\_5



**13C4-PFOS**

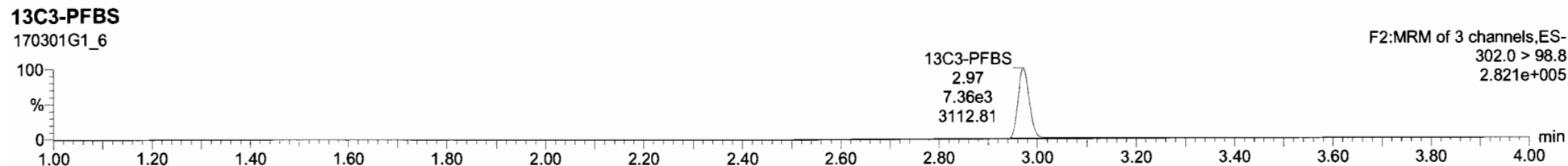
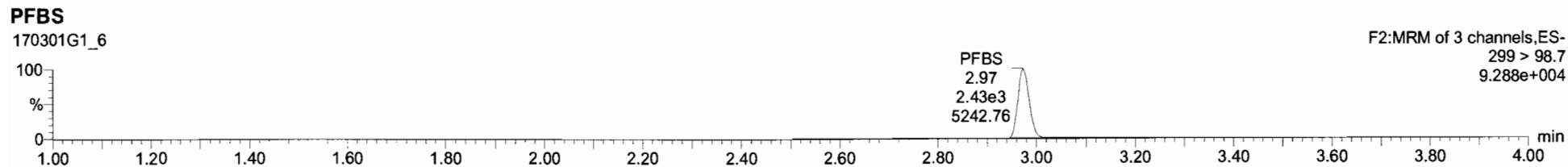
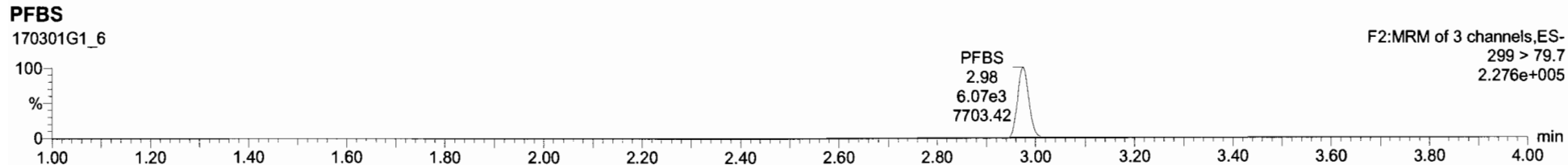
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_6, Date: 01-Mar-2017, Time: 15:59:50, ID: ST170301G1-5 PFC CS2 17C0123, Description: PFC CS2 17C0123 A

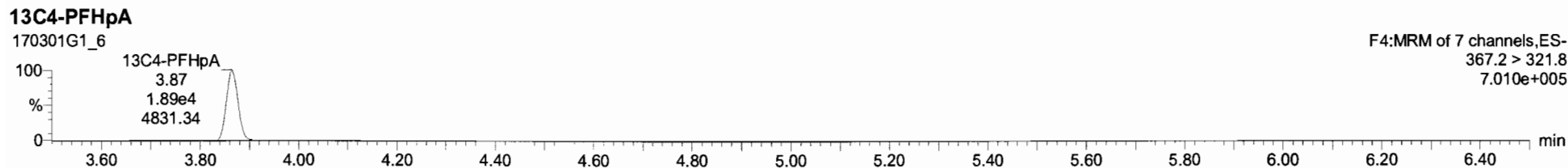
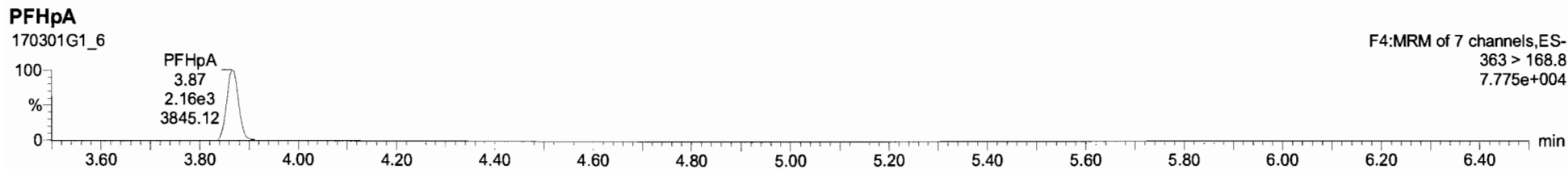
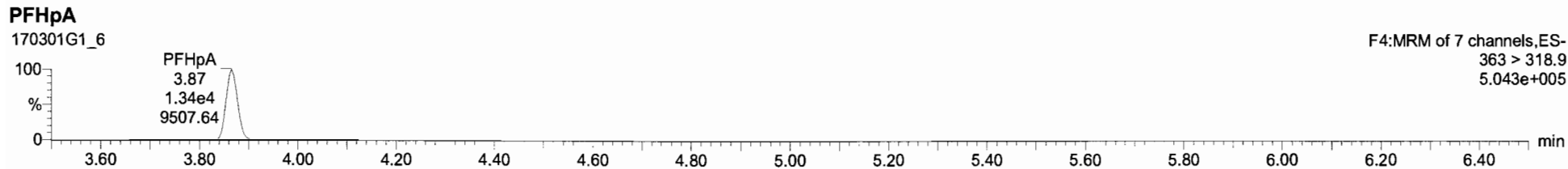


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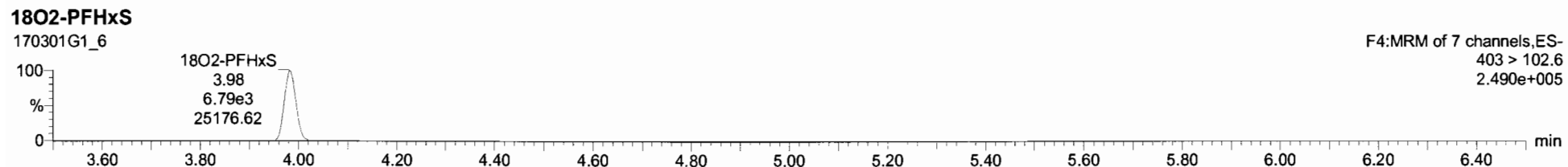
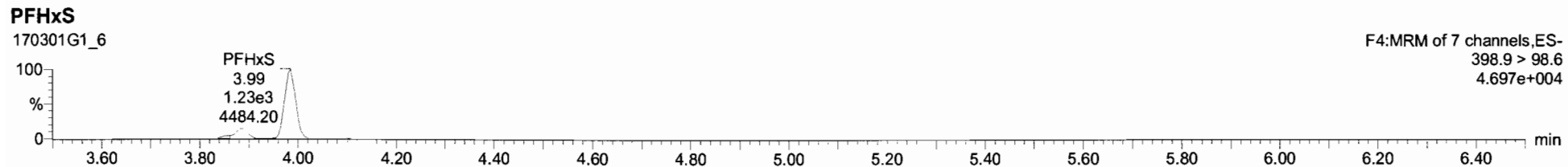
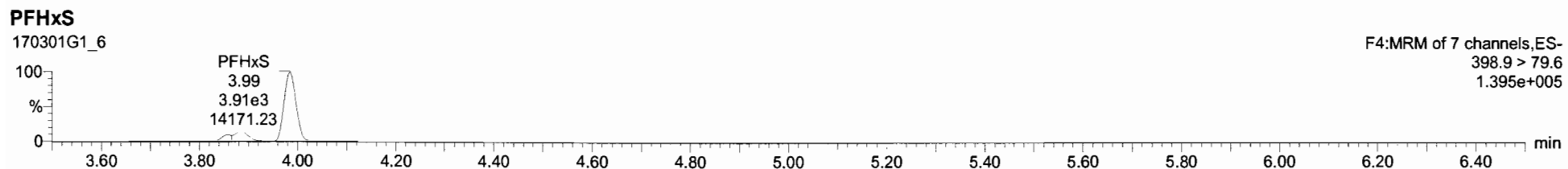
Name: 170301G1\_6, Date: 01-Mar-2017, Time: 15:59:50, ID: ST170301G1-5 PFC CS2 17C0123, Description: PFC CS2 17C0123 A



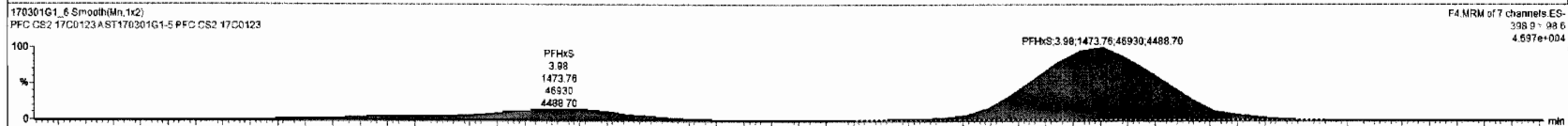
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_6, Date: 01-Mar-2017, Time: 15:59:50, ID: ST170301G1-5 PFC CS2 17C0123, Description: PFC CS2 17C0123 A



Name	Conc	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRT	Acq Date	Acq Time	Ch Note	D	Sample Tm	Factor	SW	Cal File	MDU
1 PFBS	4.7849106	0.00558	95.7		6.96843		3.98	1	7	0.401	YES	1.001	01-Mar-17	15:59:50	17.627	ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
2 PFHpA	4.7911338	95.8			1.33944		3.87	2	8			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
3 PFHxS	4.8018933	99.8			4.30943		3.98	3	9			1.001	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
4 PFOA	4.8117978	92.2			1.18264		4.27	4	10			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
5 PFNA	4.9225520	98.5			9.48943		4.60	5	11			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
6 PFOS	4.7006570	0.0140	94.0		1.73043		4.67	6	12			1.001	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
7 13C3-PFBS	13.078866	0.0111	104.6		7.36243	0.442	2.97	7	14			0.886	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
8 13C4-PFHpA	13.331342	0.00701	106.7		1.89544	1.117	3.87	8	14			0.970	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
9 18O2-PFHxS	12.708681	0.00127	101.7		6.79443	0.420	3.98	9	14			0.999	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
10 13C2-PFOA	13.080296	0.0128	104.6		3.36944	2.782	4.27	10	15			1.001	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
11 13C5-PFNA	12.931109	0.00261	103.4		1.10544	0.846	4.60	11	16			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
12 13C2-PFOS	11.959294	0.00200	95.7		8.84143	0.941	4.68	12	17			0.969	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13 13C5-PFNA	12.590000	0.00518	100.0		2.80444	1.000	3.35	13	13			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
14 13C2-PFHxS	12.590000	0.00832	100.0		1.59144	1.000	3.98	14	14			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
15 13C4-PFOA	12.590000	0.00379	100.0		1.15744	1.000	4.27	15	15			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
16 13C5-PFNA	12.590000	0.00626	100.0		1.26244	1.000	4.60	16	16			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
17 13C4-PFOS	12.590000	0.00365	100.0		9.81643	1.000	4.67	17	17			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
18 Total PFBS	4.8033281	0.00578					3.98						01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
19 Total PFHxS	5.7412723						3.98						01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
20 Total PFOA	4.8117978						4.27						01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
21 Total PFOS	6.0654645	0.0148					4.67						01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO





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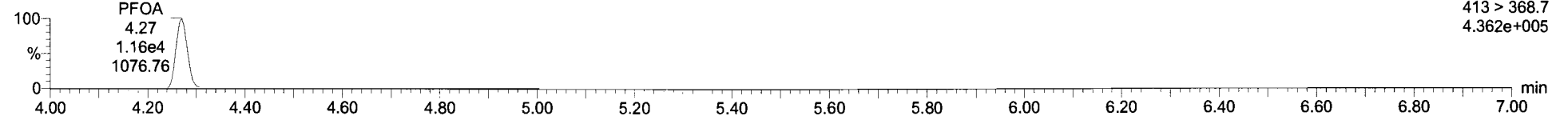
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_6, Date: 01-Mar-2017, Time: 15:59:50, ID: ST170301G1-5 PFC CS2 17C0123, Description: PFC CS2 17C0123 A

**PFOA**

170301G1\_6

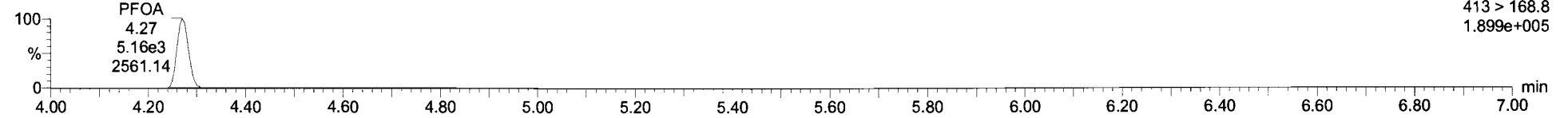
F5:MRM of 12 channels,ES-  
413 > 368.7  
4.362e+005



**PFOA**

170301G1\_6

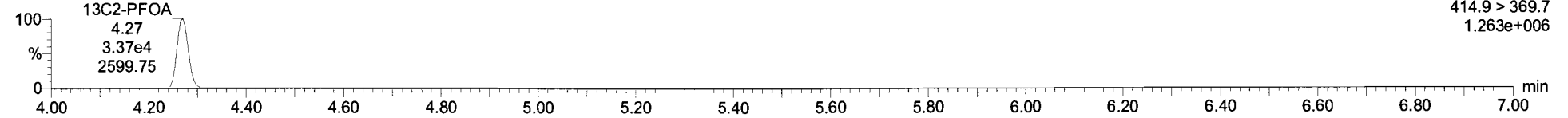
F5:MRM of 12 channels,ES-  
413 > 168.8  
1.899e+005



**13C2-PFOA**

170301G1\_6

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.263e+006



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

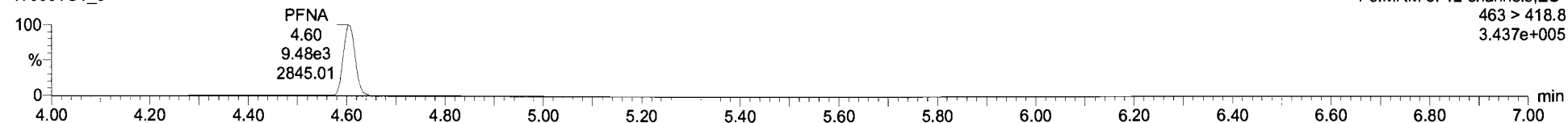
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Name: 170301G1\_6, Date: 01-Mar-2017, Time: 15:59:50, ID: ST170301G1-5 PFC CS2 17C0123, Description: PFC CS2 17C0123 A

**PFNA**

170301G1\_6

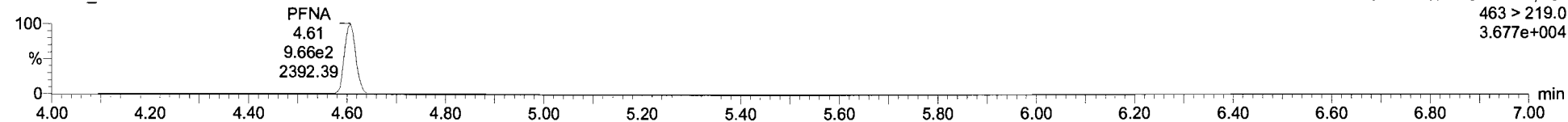
F5:MRM of 12 channels,ES-  
463 > 418.8  
3.437e+005



**PFNA**

170301G1\_6

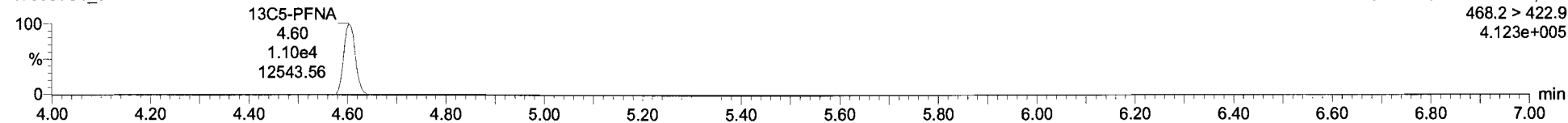
F5:MRM of 12 channels,ES-  
463 > 219.0  
3.677e+004



**13C5-PFNA**

170301G1\_6

F5:MRM of 12 channels,ES-  
468.2 > 422.9  
4.123e+005



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

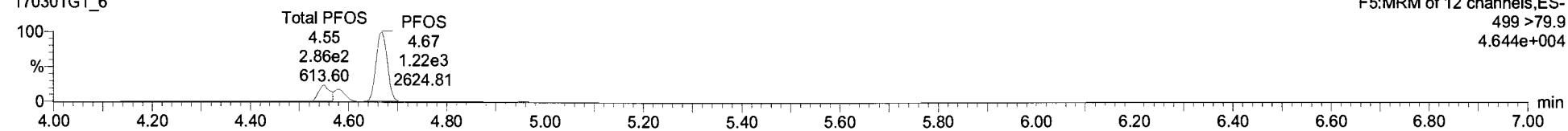
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Name: 170301G1\_6, Date: 01-Mar-2017, Time: 15:59:50, ID: ST170301G1-5 PFC CS2 17C0123, Description: PFC CS2 17C0123 A

**PFOS**

170301G1\_6

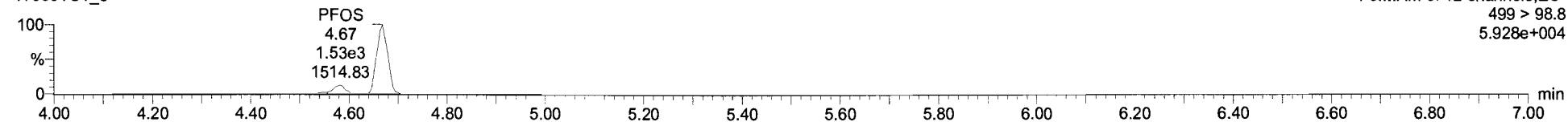
F5:MRM of 12 channels,ES-  
499 >79.9  
4.644e+004



**PFOS**

170301G1\_6

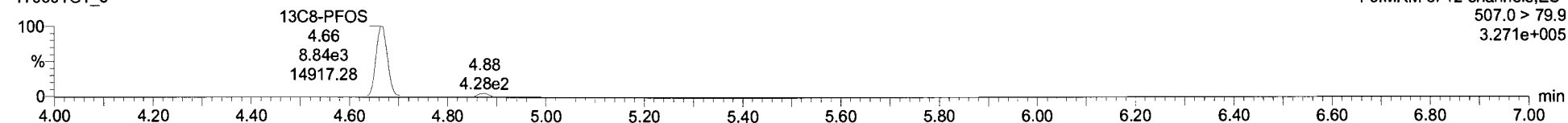
F5:MRM of 12 channels,ES-  
499 > 98.8  
5.928e+004



**13C8-PFOS**

170301G1\_6

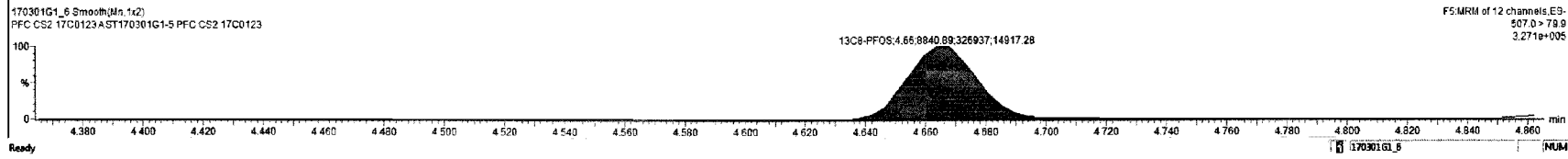
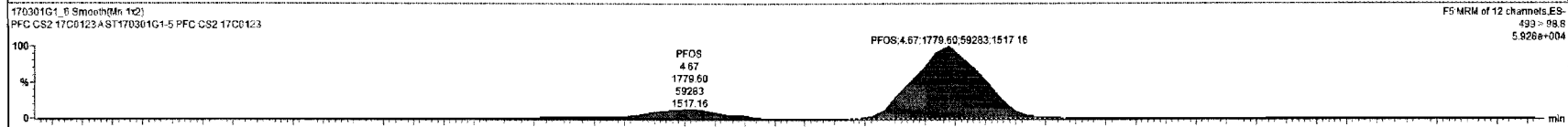
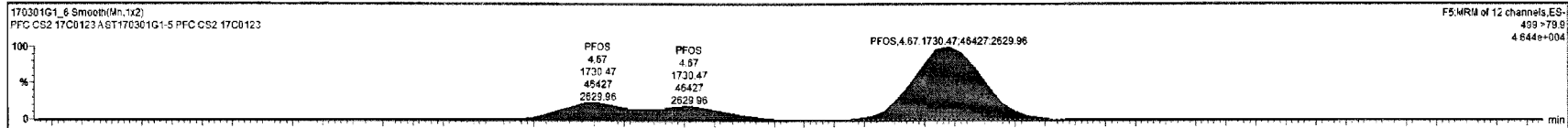
F5:MRM of 12 channels,ES-  
507.0 > 79.9  
3.271e+005





170301G1\_5 - ST170301G1-5 PFC CS2 17C0123 - PFC CS2 17C0123A

Name	Comp	DL	MRbc	EMPC	Area Resp	RRF	RT	#	SA	RA	Y/N	RRF	Ass Date	Acq Time	17 Chr/Noise	ID	Sample Test	Factor1	SN	Cal File	W/OE
PFBS	4.7649106	0.00550	95.7		6.06e3		2.99	1	7	0.401	YES	1.001	01-Mar-17	15:59:50	17.667	ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
PFHpA	4.7911338		95.8		1.33e4		3.87	2	8			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
PFHxS	4.9818933		99.6		4.80e3		3.98	3	9			1.001	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
PFOA	4.6117978		92.2		1.182e4		4.27	4	10			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
PFNA	4.9225520		98.5		9.49e3		4.60	5	11			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
PFC2	7.7002910	0.0140	94.6		7.70e3		4.87	6	12			1.001	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		YES
13C3-PFBS	13.0789865	0.0111	104.6		7.362e3	0.442	2.97	7	14			0.886	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C4-PFHpA	13.331342	0.00701	106.7		1.895e4	1.117	3.87	8	14			0.570	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
18O2-PFHxS	12.708681	0.00127	101.7		6.794e3	0.420	3.98	9	14			0.999	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C4-PFOA	13.080296	0.0128	104.6		3.369e4	2.782	4.27	10	15			1.001	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C5-PFNA	12.931109	0.00281	103.4		1.105e4	0.646	4.60	11	16			1.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C6-PFOS	11.959294	0.00200	95.7		8.841e3	0.941	4.66	12	17			0.999	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C5-PFHpA	12.500000	0.00518	100.0		2.804e4	1.000	3.35	13	13			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C5-PFHxS	12.500000	0.00832	100.0		1.591e4	1.000	3.98	14	14			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C6-PFOA	12.500000	0.00379	100.0		1.157e4	1.000	4.27	15	15			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C4-PFNA	12.500000	0.00626	100.0		1.282e4	1.000	4.60	16	16			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
13C4-PFOS	12.500000	0.00365	100.0		9.816e3	1.000	4.67	17	17			0.000	01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
Total PFBS	4.8033281	0.00578						18					01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
Total PFHxS	5.7412723							19					01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
Total PFOA	4.6117978							20					01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO
Total PFOS	6.0854645	0.0140						21					01-Mar-17	15:59:50		ST170301G...	PFC CS2 17C01...	1.0	1.00		NO



Dataset: Untitled

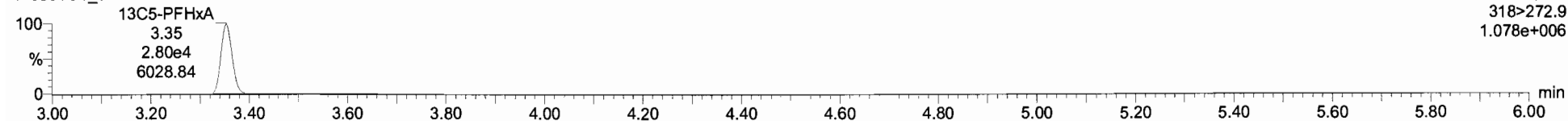
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_6, Date: 01-Mar-2017, Time: 15:59:50, ID: ST170301G1-5 PFC CS2 17C0123, Description: PFC CS2 17C0123 A

**13C5-PFHxA**

170301G1\_6

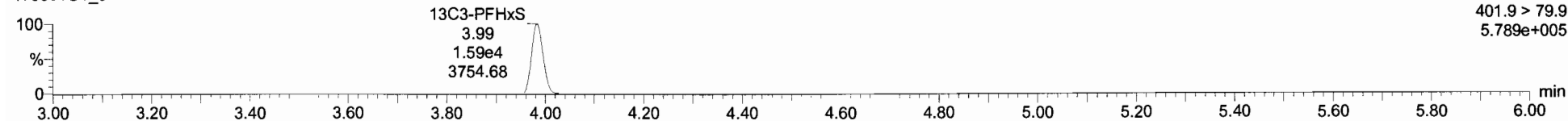
F3:MRM of 1 channel,ES-  
318>272.9  
1.078e+006



**13C3-PFHxS**

170301G1\_6

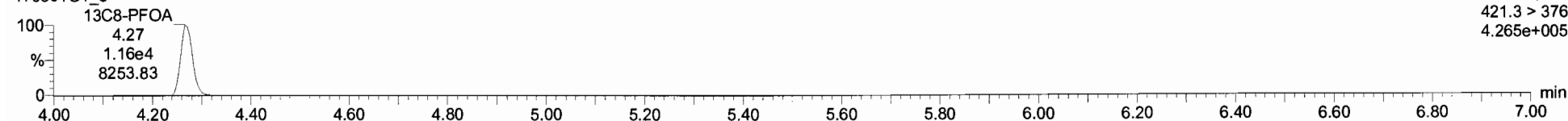
F4:MRM of 7 channels,ES-  
401.9 > 79.9  
5.789e+005



**13C8-PFOA**

170301G1\_6

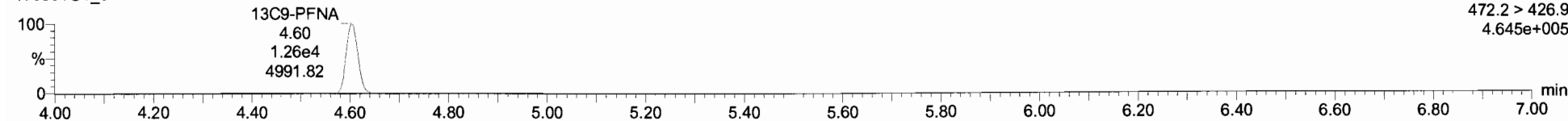
F5:MRM of 12 channels,ES-  
421.3 > 376  
4.265e+005



**13C9-PFNA**

170301G1\_6

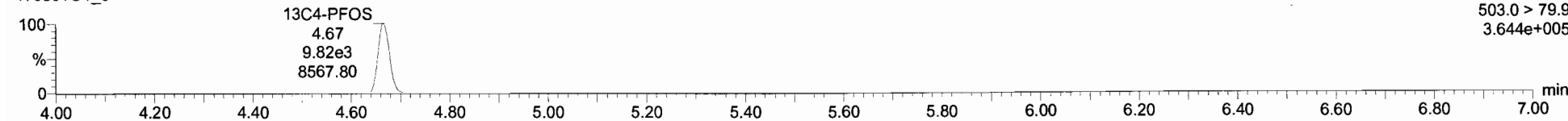
F5:MRM of 12 channels,ES-  
472.2 > 426.9  
4.645e+005



**13C4-PFOS**

170301G1\_6

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.644e+005



Dataset: Untitled

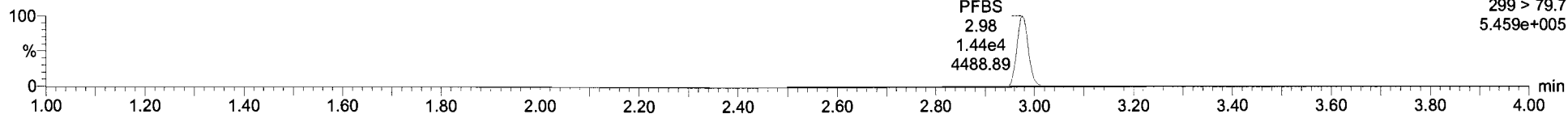
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_7, Date: 01-Mar-2017, Time: 16:12:23, ID: ST170301G1-6 PFC CS3 17C0124, Description: PFC CS3 17C0124 A

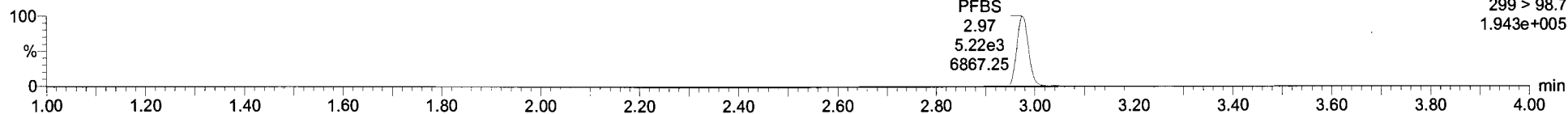
**PFBS**

170301G1\_7



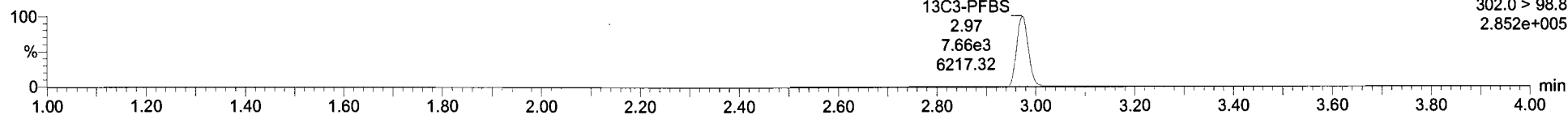
**PFBS**

170301G1\_7



**13C3-PFBS**

170301G1\_7



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

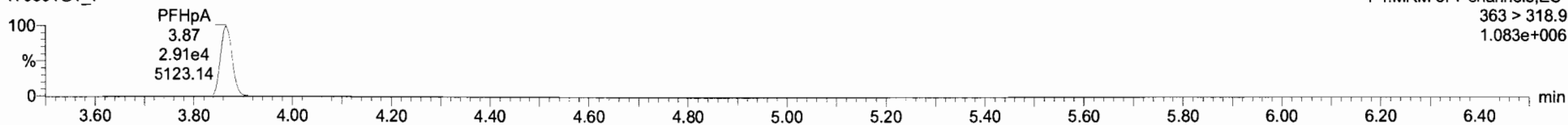
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_7, Date: 01-Mar-2017, Time: 16:12:23, ID: ST170301G1-6 PFC CS3 17C0124, Description: PFC CS3 17C0124 A

**PFHpA**

170301G1\_7

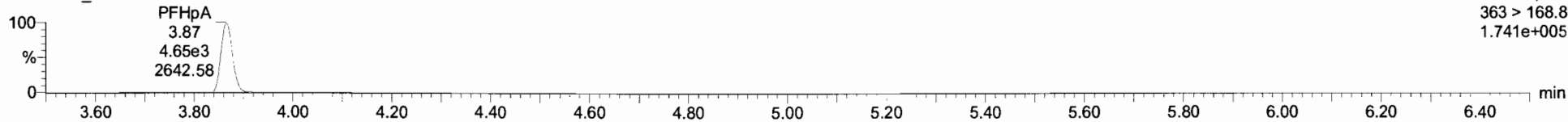
F4:MRM of 7 channels,ES-  
363 > 318.9  
1.083e+006



**PFHpA**

170301G1\_7

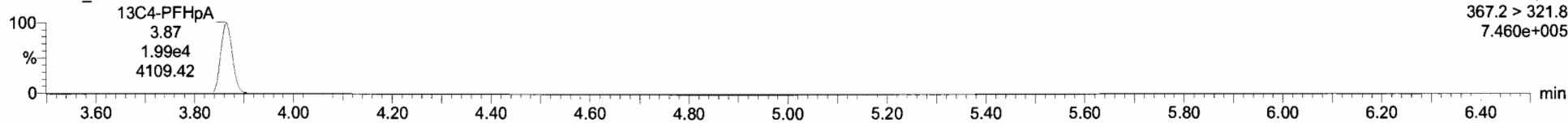
F4:MRM of 7 channels,ES-  
363 > 168.8  
1.741e+005



**13C4-PFHpA**

170301G1\_7

F4:MRM of 7 channels,ES-  
367.2 > 321.8  
7.460e+005

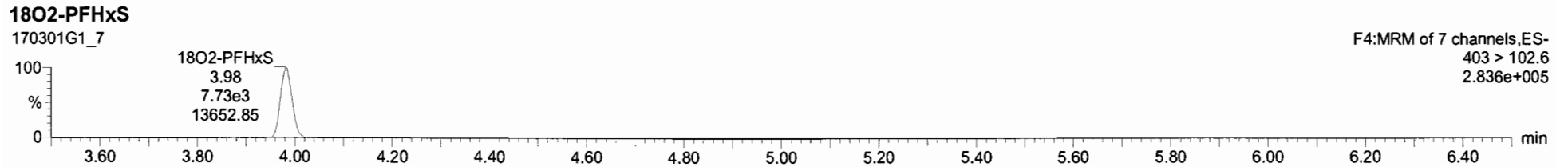
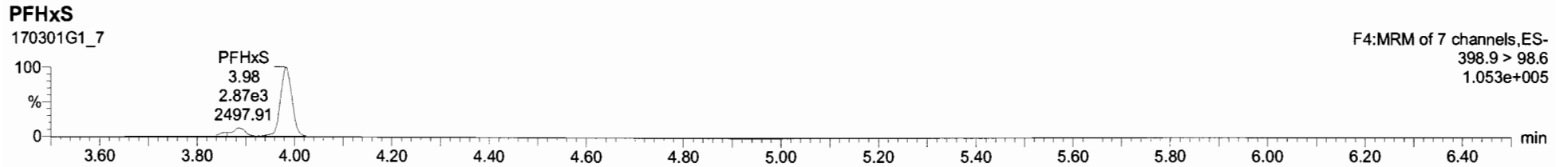
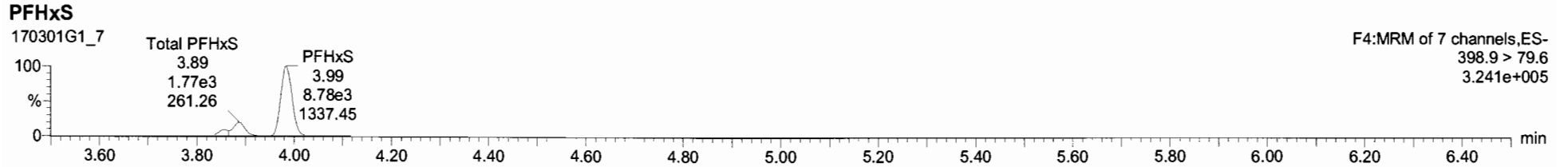


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_7, Date: 01-Mar-2017, Time: 16:12:23, ID: ST170301G1-6 PFC CS3 17C0124, Description: PFC CS3 17C0124 A

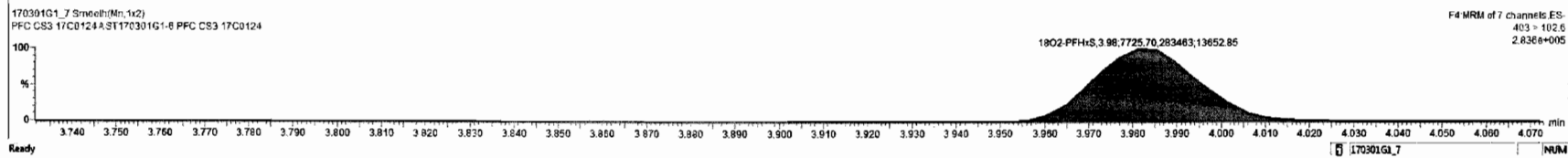
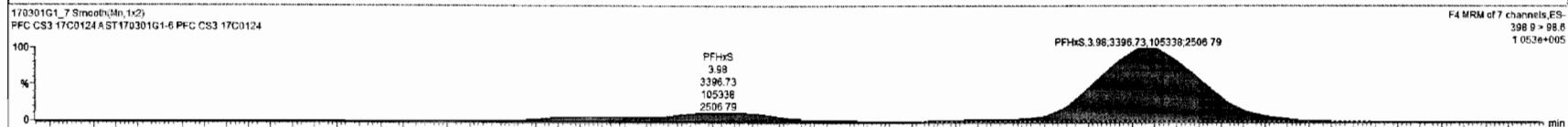
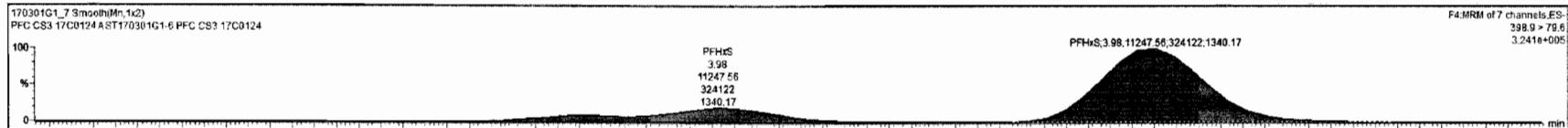






170301G1\_7 - ST170301G1-6 PFC CS3 17C0124 - PFC CS3 17C0124A

#	Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRP	RT	#	ES	RA	Y/N	RRT	Acq Date	Acq Time	1 <sup>st</sup> CR/Noise	ID	Sample Text	Factor1	SW	Cal File	MDL
1	PFBS	10.901515	0.0102	109.0		1.439e4		2.98	7	0.362	YES	1.001	01-Mar-17	16:12:23	28.225	ST170301G	PFC CS3 17C01...	1.0	1.00		YES	
2	PFHpA	9.9028563		99.1		2.999e4		3.87	2	0.1		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES	
3	PFHxS	13.292200		103.8		1.125e4		3.98	3	0.1		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES	
4	PFOA	9.9726680		99.7		2.614e4		4.27	4	10		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES	
5	PFNA	10.899220		106.9		1.931e4		4.61	5	11		1.001	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES	
6	PFOS	11.660372	0.0175	116.6		3.587e3		4.66	6	12		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES	
7	13C3-PFBS	13.431747	0.00555	107.5		7.661e3	0.442	2.97	7	14		0.386	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
8	13C4-PFHpA	13.848202	0.00889	110.8		1.995e4	1.117	3.87	8	14		0.971	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
9	18O2-PFHxS	14.261743	0.00265	114.1		7.729e3	0.420	3.98	9	14		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
10	13C2-PFOA	12.717799	0.0106	101.7		3.552e4	2.782	4.27	10	15		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
11	13C5-PFNA	12.836034	0.00174	102.7		1.046e4	0.848	4.60	11	16		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
12	13C6-PFOS	13.089222	0.00467	104.7		7.377e3	0.941	4.66	12	17		1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
13	13C3-PFHxA	12.500000	0.00334	100.0		3.055e4	1.000	3.35	13	13		0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
14	13C3-PFHxS	12.500000	0.00931	100.0		1.612e4	1.000	3.98	14	14		0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
15	13C8-PFOA	12.500000	0.00112	100.0		1.255e4	1.000	4.27	15	15		0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
16	13C9-PFNA	12.500000	0.00261	100.0		1.203e4	1.000	4.60	16	16		0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
17	13C4-PFOS	12.500000	0.00668	100.0		7.484e3	1.000	4.66	17	17		0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
18	Total PFBS	10.901515	0.0103						18				01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
19	Total PFHxS	12.339630							19				01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
20	Total PFOA	9.9726680							20				01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	
21	Total PFOS	14.703004	0.0175						21				01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO	



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

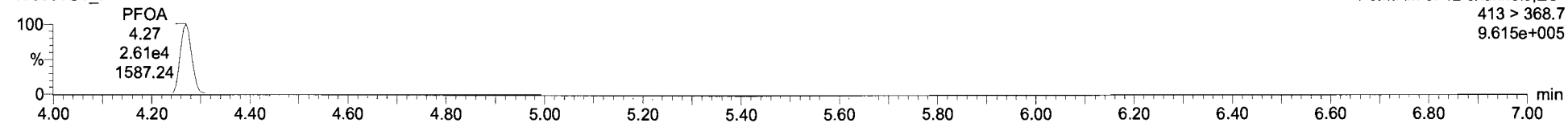
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_7, Date: 01-Mar-2017, Time: 16:12:23, ID: ST170301G1-6 PFC CS3 17C0124, Description: PFC CS3 17C0124 A

**PFOA**

170301G1\_7

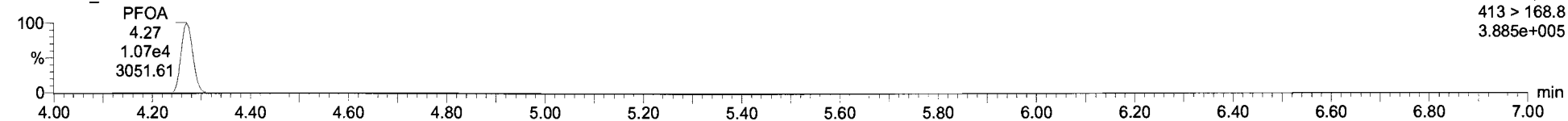
F5:MRM of 12 channels,ES-  
413 > 368.7  
9.615e+005



**PFOA**

170301G1\_7

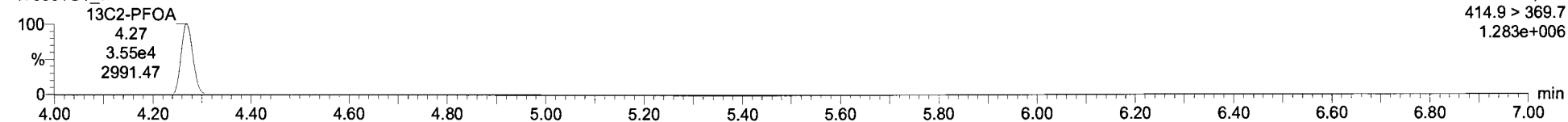
F5:MRM of 12 channels,ES-  
413 > 168.8  
3.885e+005



**13C2-PFOA**

170301G1\_7

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.283e+006



Dataset: Untitled

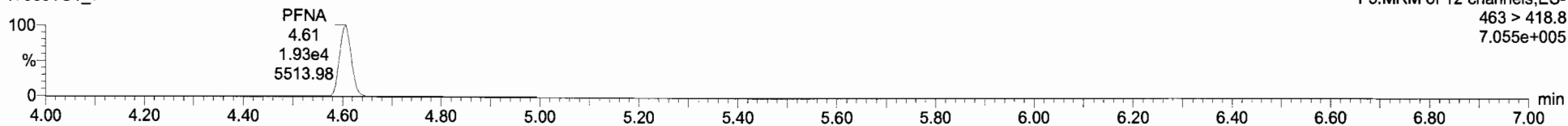
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_7, Date: 01-Mar-2017, Time: 16:12:23, ID: ST170301G1-6 PFC CS3 17C0124, Description: PFC CS3 17C0124 A

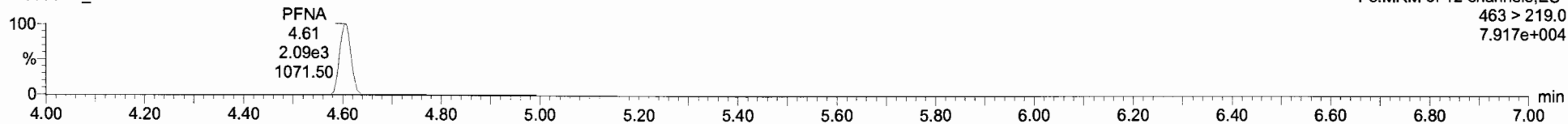
**PFNA**

170301G1\_7



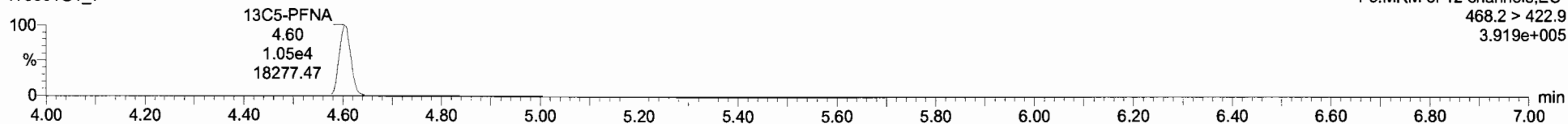
**PFNA**

170301G1\_7



**13C5-PFNA**

170301G1\_7



Dataset: Untitled

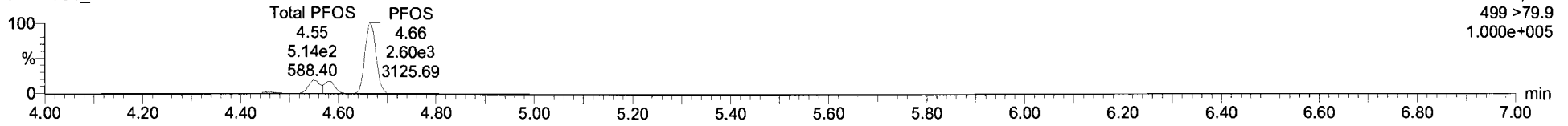
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_7, Date: 01-Mar-2017, Time: 16:12:23, ID: ST170301G1-6 PFC CS3 17C0124, Description: PFC CS3 17C0124 A

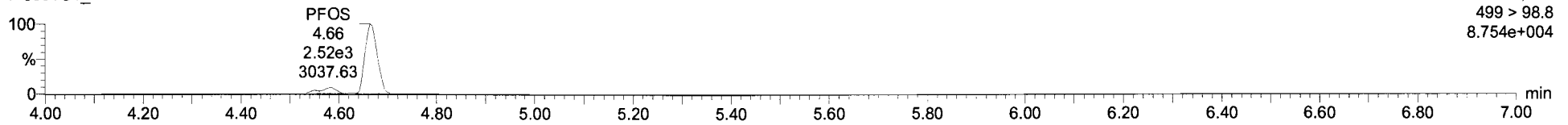
**PFOS**

170301G1\_7



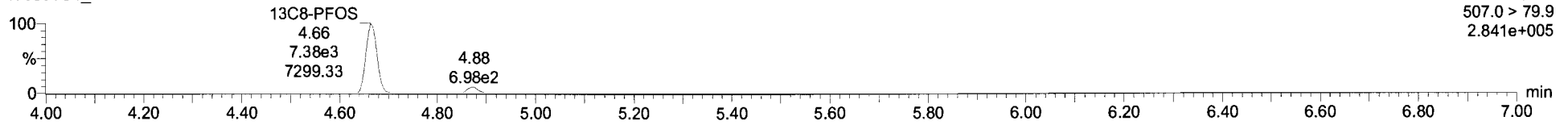
**PFOS**

170301G1\_7



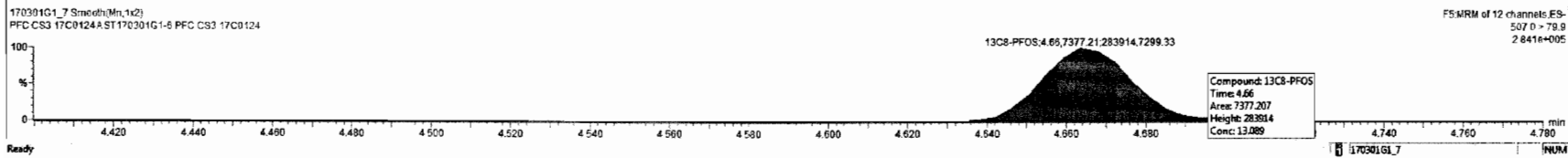
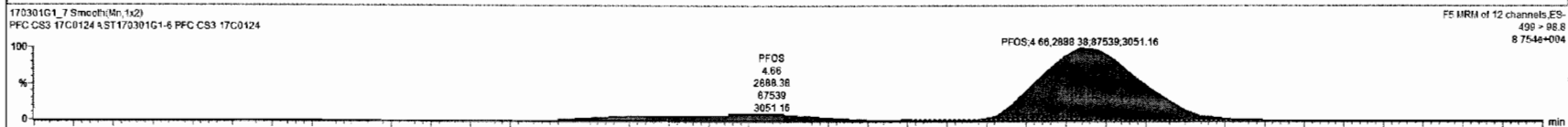
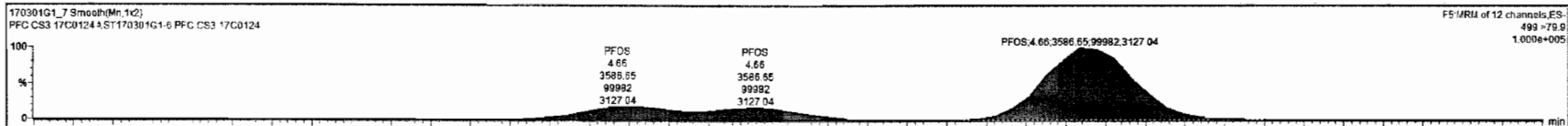
**13C8-PFOS**

170301G1\_7





Name	Conc	DL	Wt%	EMPC	Abs Rtn	RFC	RT	#	IS	RA	Y/N	RR	Acq Date	Acq Time	Ch Noise	ID	Sample	Factor	SW	Cal File	MDL
1	PFBS	10.901515	0.0102	109.0	1.43564		2.56	1	7	0.362	YES	1.001	01-Mar-17	16:12:23	25.225	ST170301G	PFC CS3 17C01...	1.0	1.00		YES
2	PFHpA	9.9050963		99.1	2.90564		3.57	2	6			1.001	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES
3	PFHxS	10.296250		103.0	1.12564		3.58	3	9			1.001	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES
4	PFDA	9.9726680		99.7	2.61464		4.27	4	10			1.001	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES
5	PFNA	10.696020		106.9	1.93164		4.61	5	11			1.001	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES
6	PFOS	11.064072	0.0175	106.8	3.58700		4.66	6	12			1.001	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		YES
7	13C3-PFBS	13.451747	0.00555	107.5	7.861e3	0.442	2.97	7	14			0.226	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
8	13C4-PFHpA	13.946202	0.00689	110.8	1.99564	1.117	3.57	8	14			0.971	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
9	18O2-PFHpS	14.261743	0.00265	114.1	7.725e3	0.420	3.58	9	14			1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
10	13C2-PFDA	12.717799	0.0106	101.7	3.552e3	2.782	4.27	10	15			1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
11	13C5-PFNA	12.836034	0.00174	102.7	1.046e4	0.846	4.60	11	16			1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
12	13C6-PFOS	13.089222	0.00467	104.7	7.377e3	0.941	4.66	12	17			1.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
13	13C5-PFHpA	12.506000	0.00334	100.0	3.055e4	1.000	3.35	13	13			0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
14	13C3-PFHpS	12.506000	0.000931	100.0	1.612e4	1.000	3.58	14	14			0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
15	13C6-PFOA	12.506000	0.00112	100.0	1.255e4	1.000	4.27	15	15			0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
16	13C9-PFNA	12.506000	0.00281	100.0	1.203e4	1.000	4.60	16	16			0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
17	13C4-PFOS	12.500000	0.00968	100.0	7.454e3	1.000	4.66	17	17			0.000	01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
18	Total PFBS	10.901515	0.0103					18					01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
19	Total PFHpS	12.339636						19					01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
20	Total PFDA	9.9726680						20					01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO
21	Total PFOS	14.703004	0.0175					21					01-Mar-17	16:12:23		ST170301G	PFC CS3 17C01...	1.0	1.00		NO



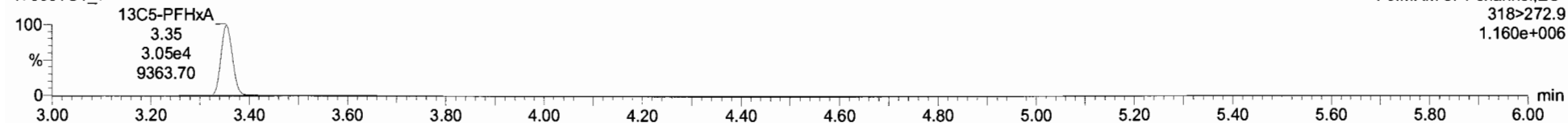
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_7, Date: 01-Mar-2017, Time: 16:12:23, ID: ST170301G1-6 PFC CS3 17C0124, Description: PFC CS3 17C0124 A

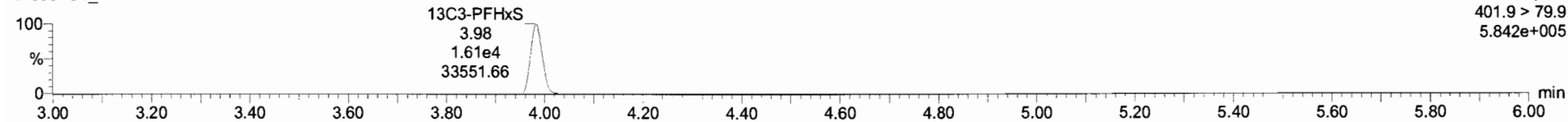
**13C5-PFHxA**

170301G1\_7



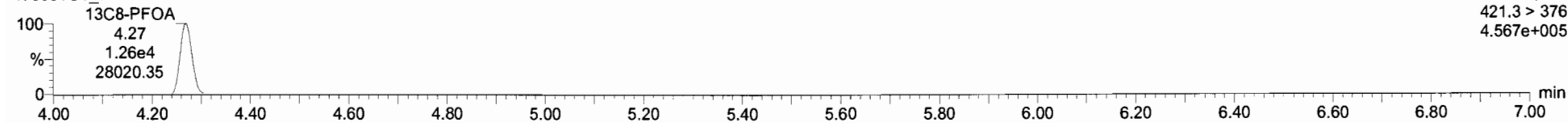
**13C3-PFHxS**

170301G1\_7



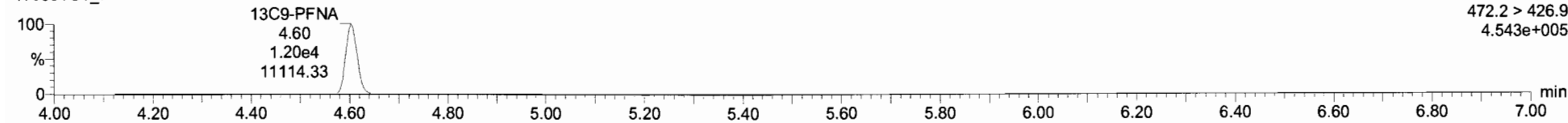
**13C8-PFOA**

170301G1\_7



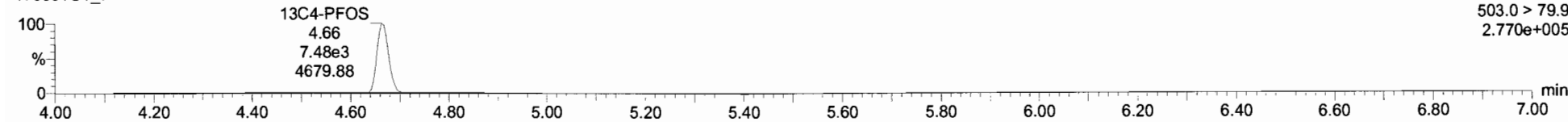
**13C9-PFNA**

170301G1\_7



**13C4-PFOS**

170301G1\_7



Dataset: Untitled

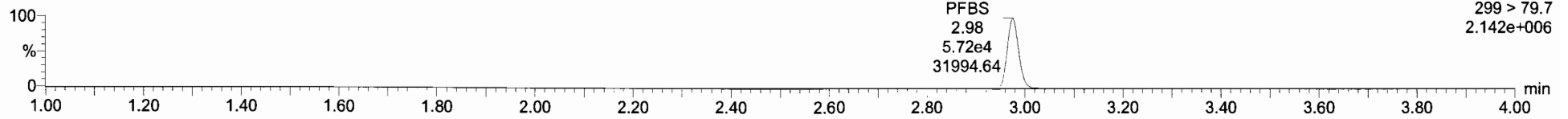
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_8, Date: 01-Mar-2017, Time: 16:24:59, ID: ST170301G1-7 PFC CS4 17C0125, Description: PFC CS4 17C0125 A

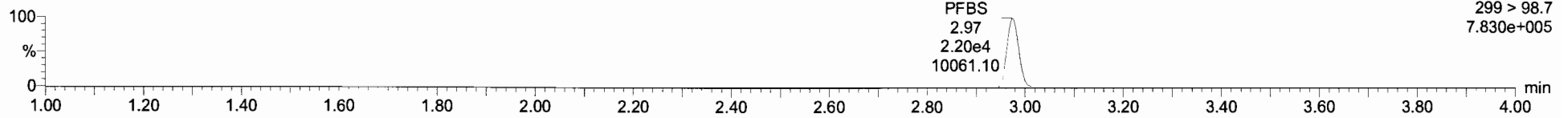
**PFBS**

170301G1\_8



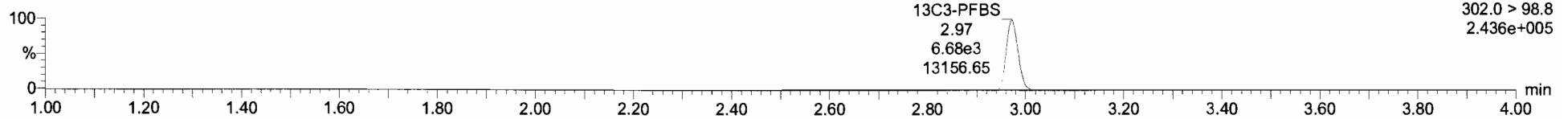
**PFBS**

170301G1\_8



**<sup>13</sup>C3-PFBS**

170301G1\_8

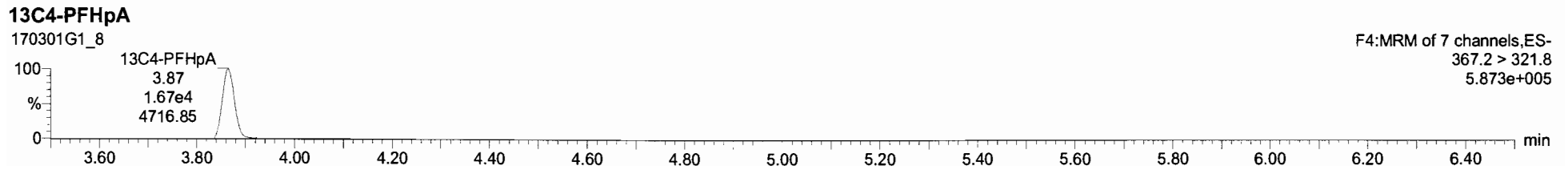
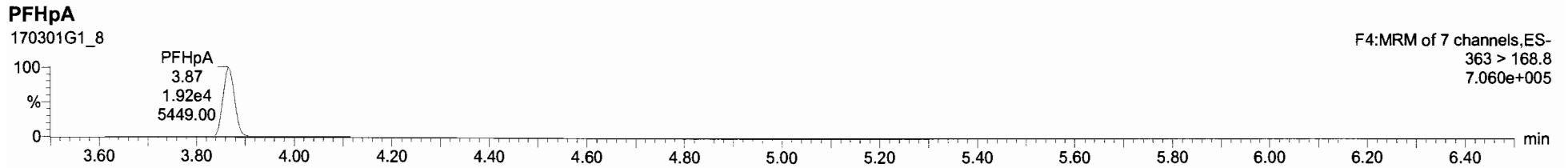
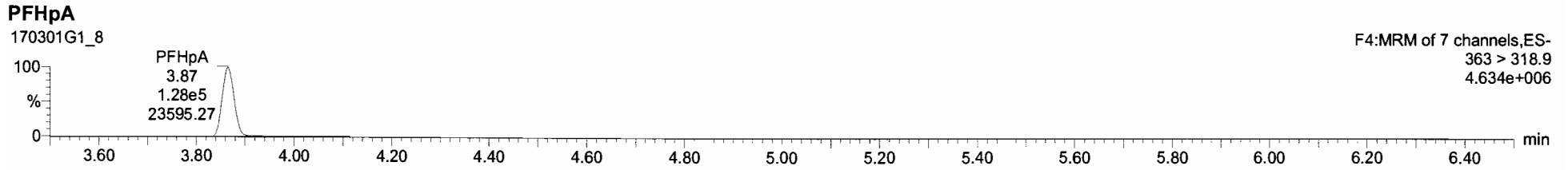


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_8, Date: 01-Mar-2017, Time: 16:24:59, ID: ST170301G1-7 PFC CS4 17C0125, Description: PFC CS4 17C0125 A



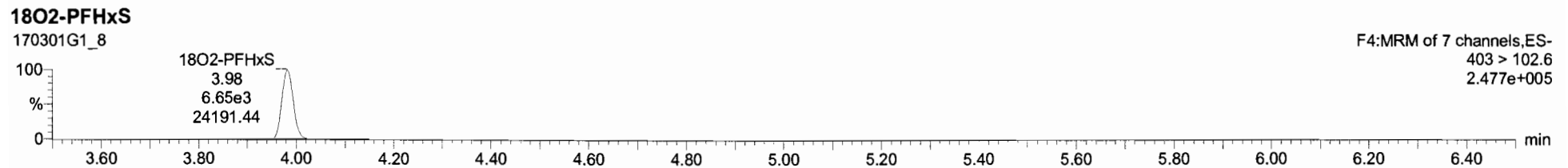
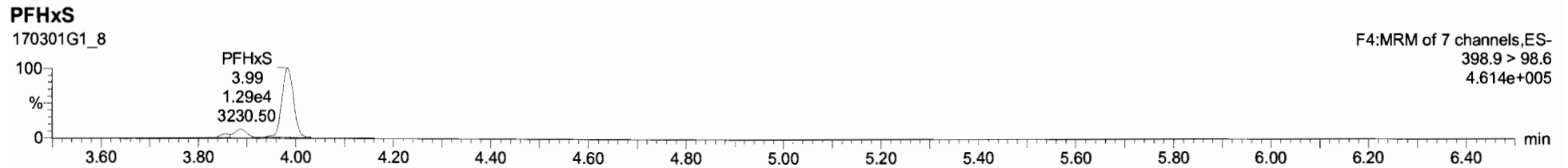
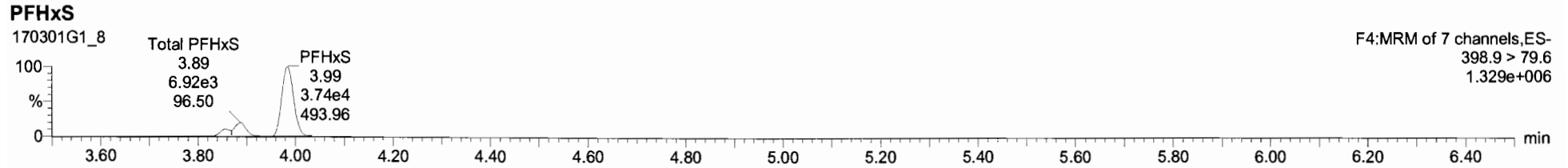


Dataset: Untitled

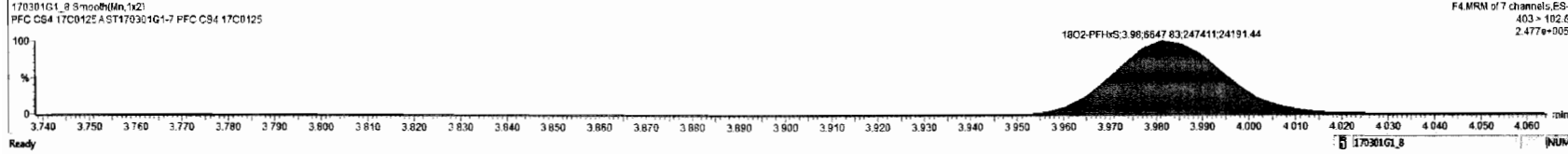
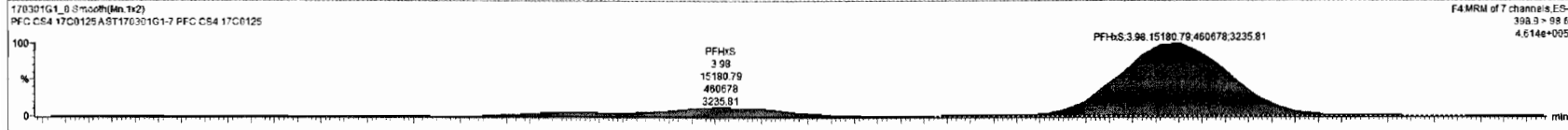
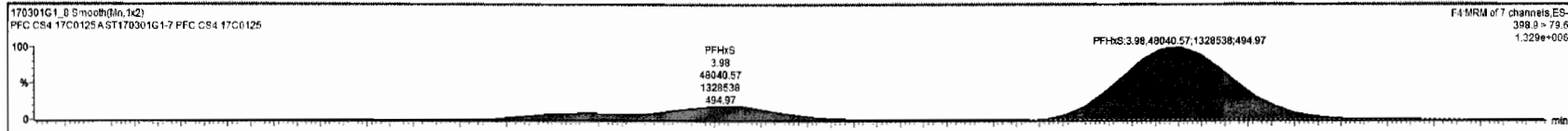
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_8, Date: 01-Mar-2017, Time: 16:24:59, ID: ST170301G1-7 PFC CS4 17C0125, Description: PFC CS4 17C0125 A



Line	Name	Conc	DL	%Rec	EMPC	Abs Resp	RRP	RT	#	SA	Y/N	RRT	Acq Date	Acq Time	* Chr Name	D	Sample Test	Factor	SWI	Cal File	+MOL
1	PFBS	49.645261	0.00804	99.3		5.718e4	2.98	1	7	0.385	YES	1.001	01-Mar-17	16:24:59	77 780	ST170301G	PFC C54 17C01...	1.0	1.00		YES
2	PFHpA	52.609248		104.0		1.277e5	3.87	2	8			1.000	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		YES
3	PFHxS	49.840499	0.107	99.9		4.854e4	3.98	3	9			1.001	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		YES
4	PFOA	51.876581		103.8		1.213e5	4.27	4	10			1.005	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		YES
5	PFNA	49.971852		99.9		1.852e5	4.61	5	11			1.001	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		YES
6	PFOS	50.150341	0.0216	100.3		2.231e4	4.67	6	12			1.001	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		YES
7	13C3-PFBS	11.435935	0.00214	91.5		6.852e3	0.442	2.97	7	14		0.886	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
8	13C4-PFHpA	11.343416	0.00570	90.7		1.674e4	1.117	3.87	8	14		0.971	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
9	18O2-PFHxS	11.979274	0.00125	95.8		6.648e3	0.420	3.98	9	14		1.000	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
10	13C2-PFOA	12.732742	0.00137	101.9		3.198e4	2.782	4.27	10	15		1.001	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
11	13C5-PFNA	13.317444	0.0115	106.5		1.227e4	0.848	4.60	11	16		1.000	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
12	13C8-PFOS	13.348267	0.00402	106.8		1.066e4	0.941	4.66	12	17		0.999	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
13	13C5-PFHxS	12.550000	0.00394	100.0		2.635e4	1.000	3.35	13	13		0.800	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
14	13C3-PFHxS	12.550000	0.00124	100.0		1.851e4	1.000	3.98	14	14		0.800	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
15	13C2-PFOA	12.550000	0.00210	100.0		1.128e4	1.000	4.27	15	15		0.800	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
16	13C3-PFNA	12.550000	0.00066	100.0		1.361e4	1.000	4.60	16	16		0.800	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
17	13C4-PFOS	12.550000	0.00241	100.0		1.861e4	1.000	4.67	17	17		0.800	01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
18	Total PFBS	49.855229	0.00798										01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
19	Total PFHpS	80.737588	0.107										01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
20	Total PFOA	51.876581											01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO
21	Total PFOS	63.780670	0.0216										01-Mar-17	16:24:59		ST170301G	PFC C54 17C01...	1.0	1.00		NO

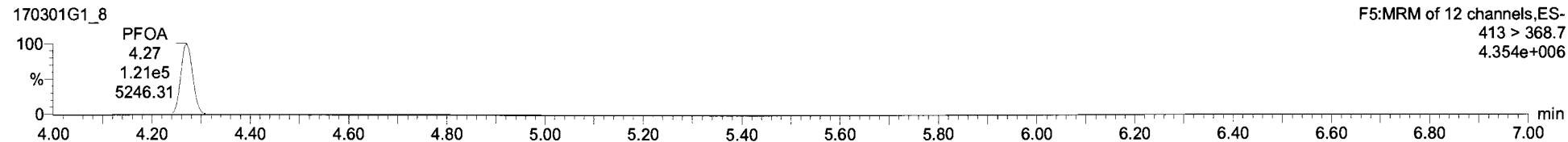


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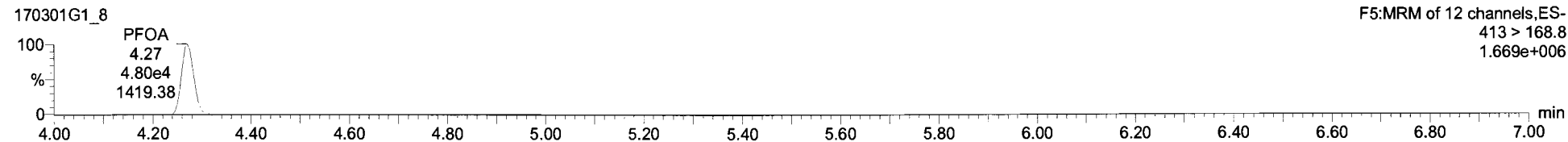
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_8, Date: 01-Mar-2017, Time: 16:24:59, ID: ST170301G1-7 PFC CS4 17C0125, Description: PFC CS4 17C0125 A

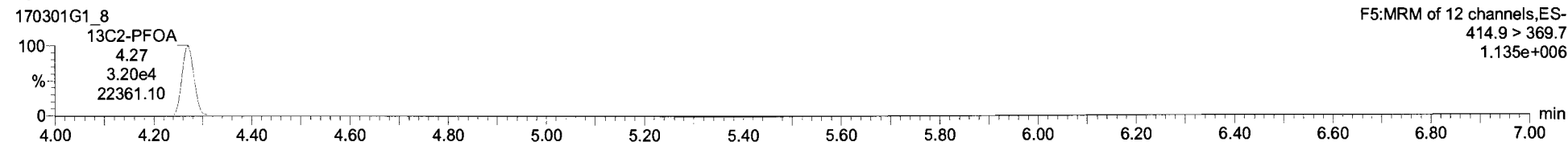
**PFOA**



**PFOA**



**<sup>13</sup>C2-PFOA**



Dataset: Untitled

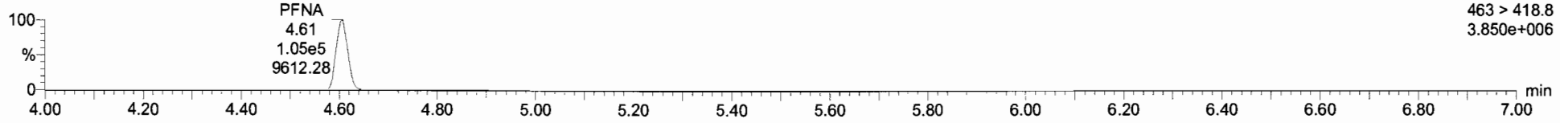
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

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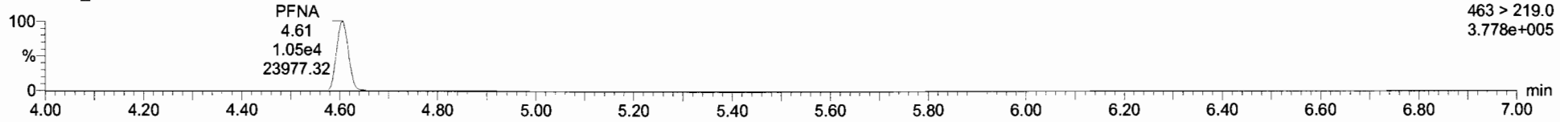
**PFNA**

170301G1\_8



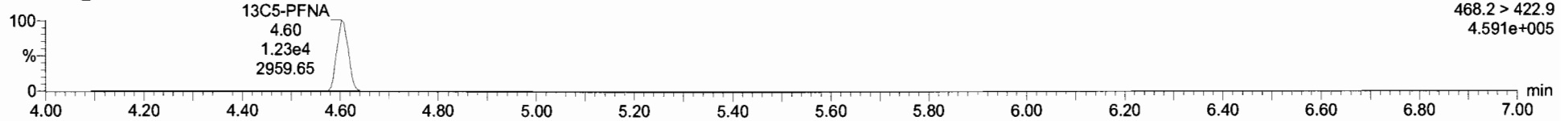
**PFNA**

170301G1\_8



**13C5-PFNA**

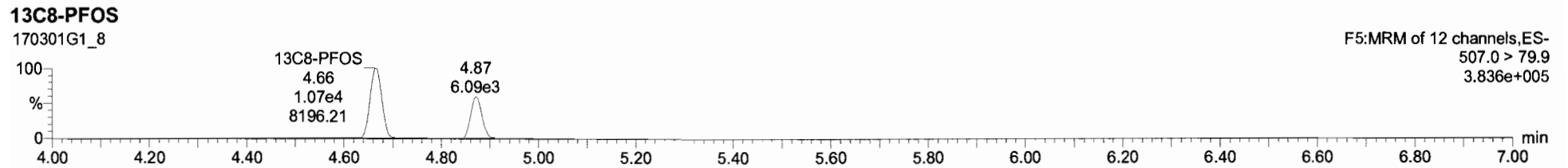
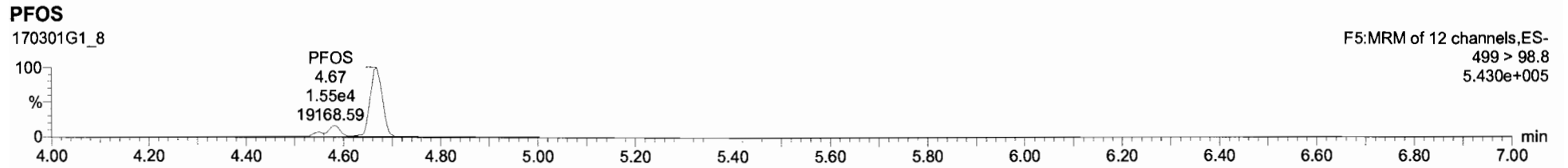
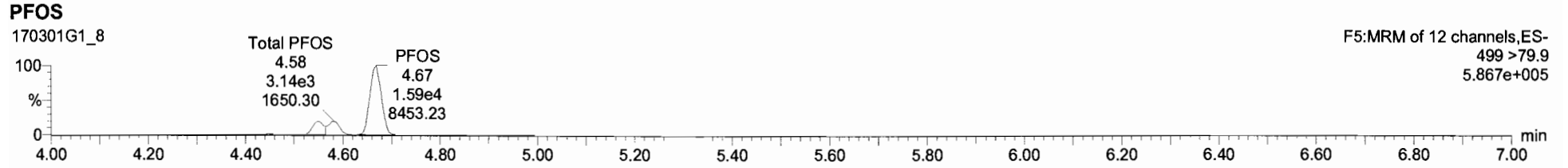
170301G1\_8



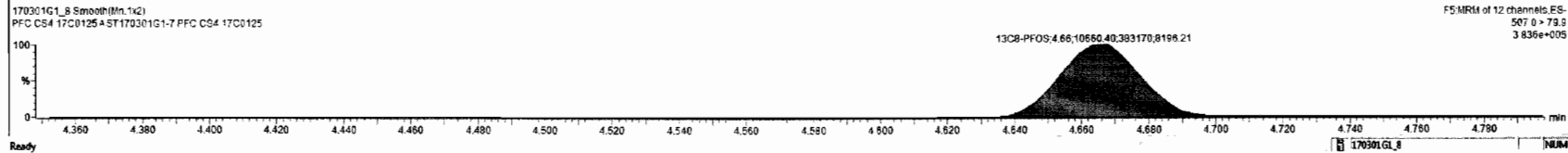
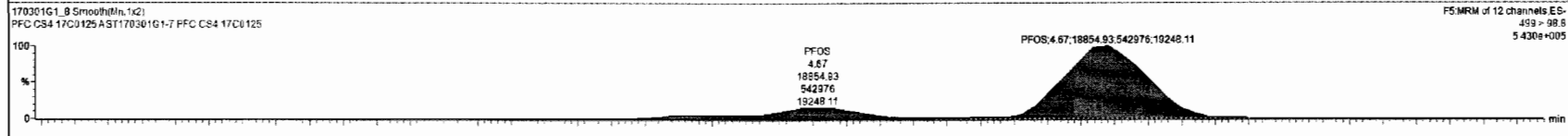
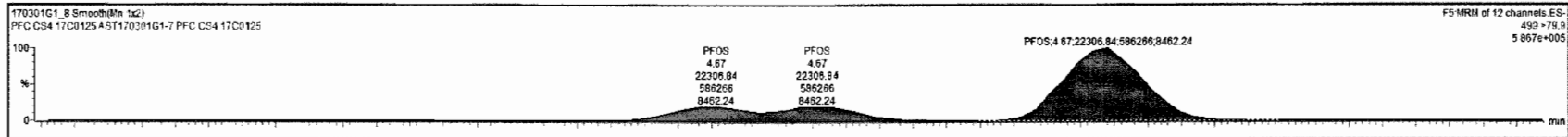
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_8, Date: 01-Mar-2017, Time: 16:24:59, ID: ST170301G1-7 PFC CS4 17C0125, Description: PFC CS4 17C0125 A



Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	SA	Y/N	RRT	Acq Date	Acq Time	* Chk Hole	ID	Sample Test	Factor	SW	Cal File	MDL
1 PFBS	49.645261	0.00304	99.3		5.719e4	2.96	1	7	0.385	YES	1.001	01-Mar-17	16:24:59	77.780	ST170301G	PFC CS4 17C01...	1.0	1.00		YES
2 PFHpA	52.909248		104.0		1.277e5	3.87	2	8			1.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		YES
3 PFHxS	49.940499	0.107	99.9		4.854e4	3.98	3	9			1.001	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		YES
4 PFDA	51.876581		103.8		1.213e5	4.27	4	10			1.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		YES
5 PFNA	49.971852		99.9		1.052e5	4.61	5	11			1.001	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		YES
6 PFBS	50.159341	0.0216	106.3		2.231e4	4.07	6	12			1.001	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		YES
7 13C3-PFBS	11.435935	0.00214	91.5		8.662e3	0.442	2.97	7	14		0.886	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
8 13C4-PFHpA	11.343416	0.00570	90.7		1.674e4	1.117	3.87	8	14		0.971	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
9 1802-PFHxS	11.979274	0.00125	95.8		6.848e3	0.420	3.98	9	14		1.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
10 13C2-PFOA	12.732742	0.00137	101.9		3.198e4	2.782	4.27	10	15		1.001	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
11 13C5-PFNA	13.317444	0.0115	106.5		1.227e4	0.846	4.60	11	16		1.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
12 13C8-PFOS	13.345267	0.00402	106.8		1.966e4	0.941	4.66	12	17		0.999	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
13 13C5-PFHxA	12.509000	0.00394	100.0		2.635e4	1.000	3.35	13	13		0.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
14 13C3-PFHxS	12.500000	0.00124	100.0		1.851e4	1.000	3.96	14	14		0.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
15 13C8-PFOA	12.500000	0.00219	100.0		1.129e4	1.000	4.27	15	15		0.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
16 13C3-PFNA	12.500000	0.00068	100.0		1.361e4	1.000	4.60	16	16		0.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
17 13C4-PFOS	12.500000	0.00241	100.0		1.961e4	1.000	4.67	17	17		0.000	01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
18 Total PFBS	49.858229	0.00798										01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
19 Total PFHxS	60.737596	0.107										01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
20 Total PFOA	51.876581											01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO
21 Total PFOS	63.789670	0.0216										01-Mar-17	16:24:59		ST170301G	PFC CS4 17C01...	1.0	1.00		NO



Dataset: Untitled

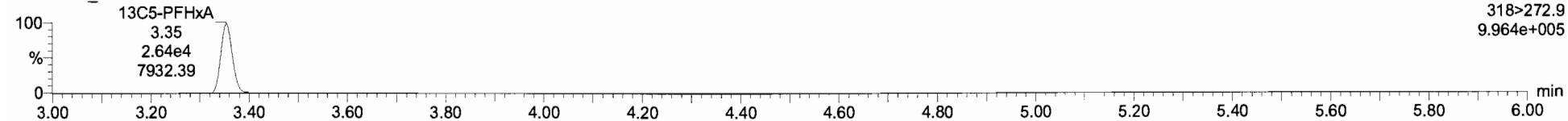
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_8, Date: 01-Mar-2017, Time: 16:24:59, ID: ST170301G1-7 PFC CS4 17C0125, Description: PFC CS4 17C0125 A

**13C5-PFHxA**

170301G1\_8

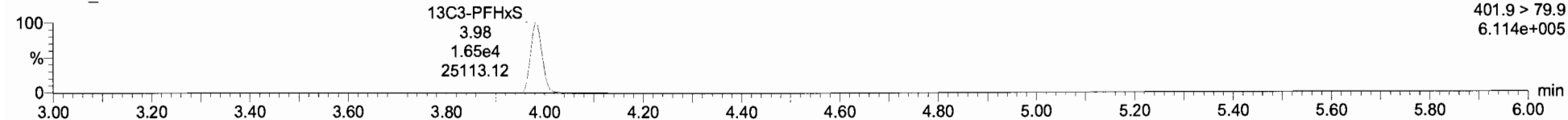
F3:MRM of 1 channel,ES-  
318>272.9  
9.964e+005



**13C3-PFHxS**

170301G1\_8

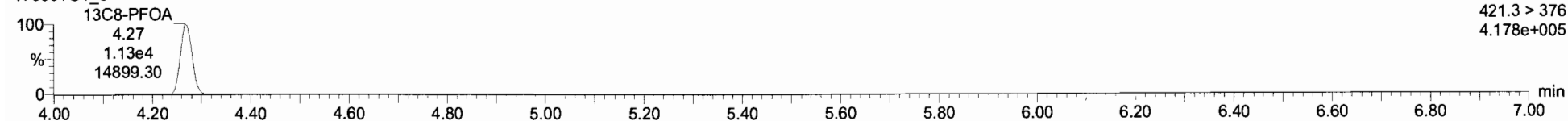
F4:MRM of 7 channels,ES-  
401.9 > 79.9  
6.114e+005



**13C8-PFOA**

170301G1\_8

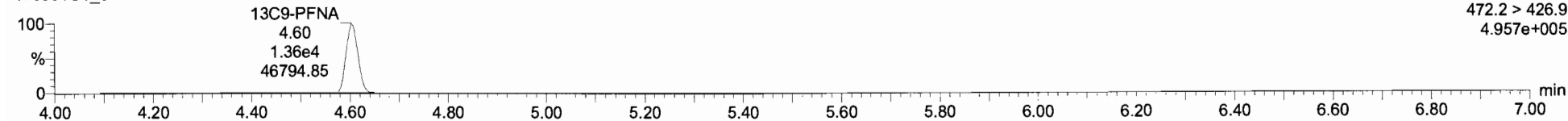
F5:MRM of 12 channels,ES-  
421.3 > 376  
4.178e+005



**13C9-PFNA**

170301G1\_8

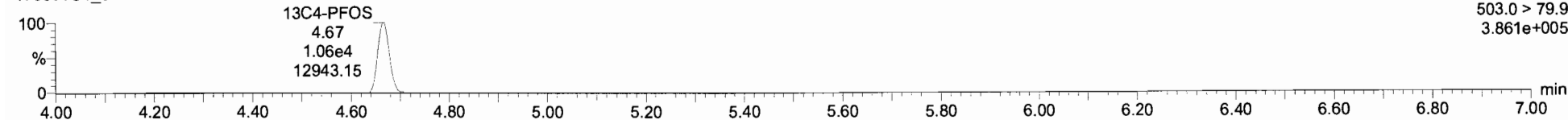
F5:MRM of 12 channels,ES-  
472.2 > 426.9  
4.957e+005



**13C4-PFOS**

170301G1\_8

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.861e+005

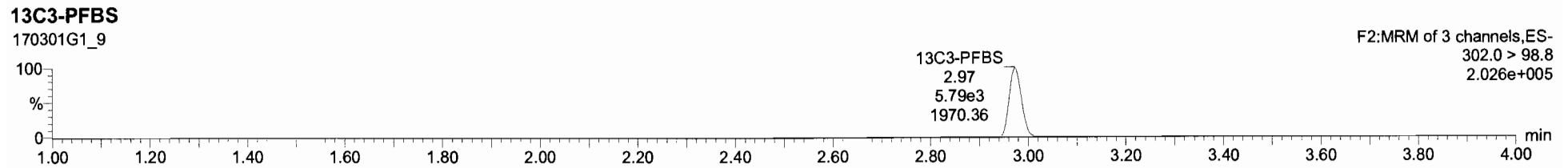
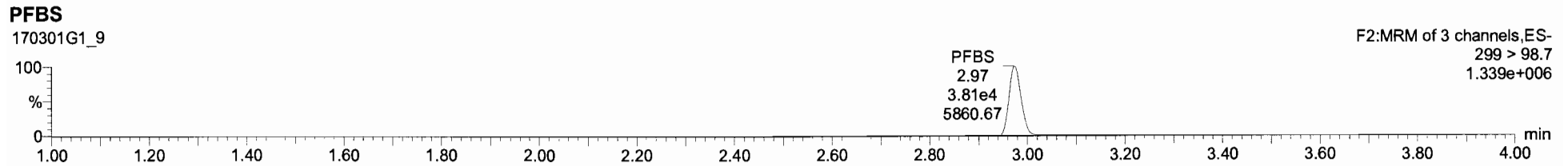
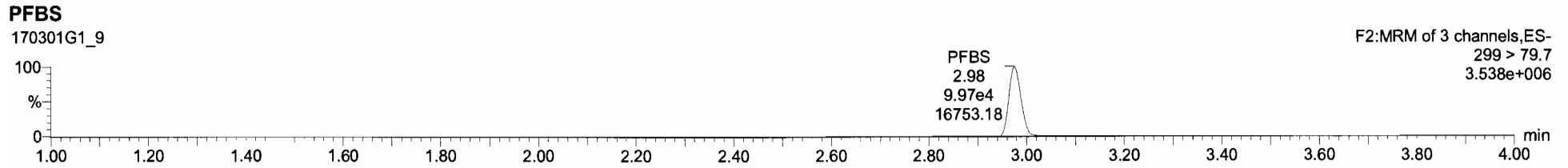


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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_9, Date: 01-Mar-2017, Time: 16:37:33, ID: ST170301G1-8 PFC CS5 17B2726, Description: PFC CS5 17B2726 A





Dataset: Untitled

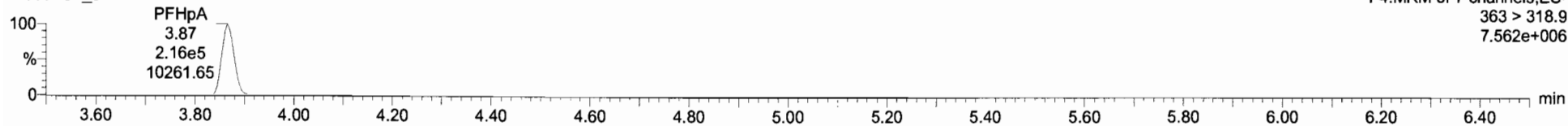
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_9, Date: 01-Mar-2017, Time: 16:37:33, ID: ST170301G1-8 PFC CS5 17B2726, Description: PFC CS5 17B2726 A

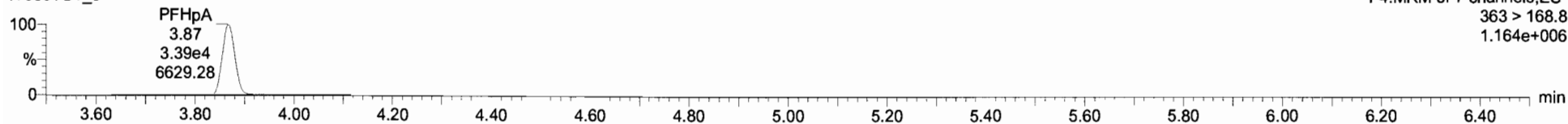
**PFHpA**

170301G1\_9



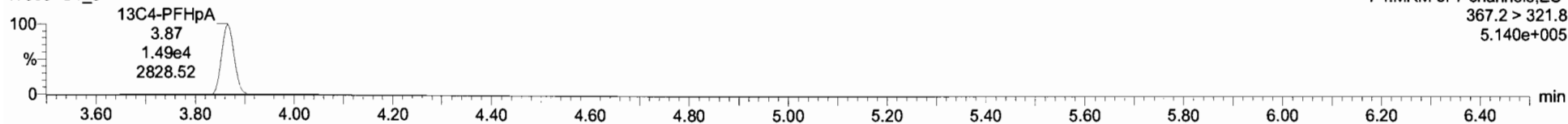
**PFHpA**

170301G1\_9



**13C4-PFHpA**

170301G1\_9



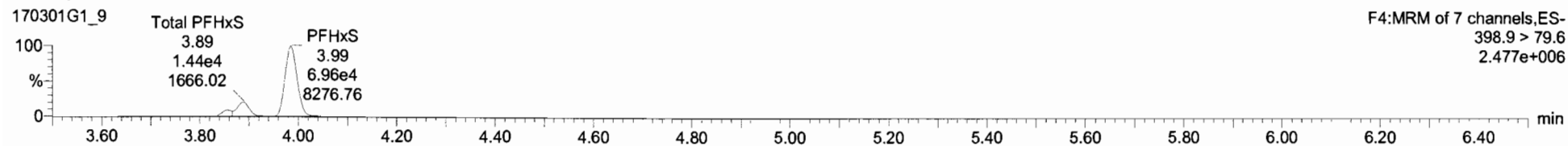
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

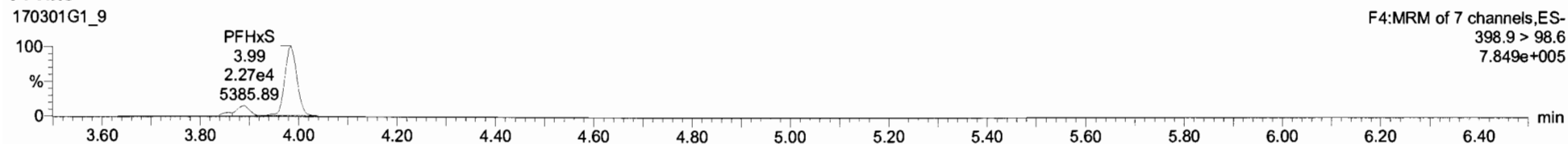
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_9, Date: 01-Mar-2017, Time: 16:37:33, ID: ST170301G1-8 PFC CS5 17B2726, Description: PFC CS5 17B2726 A

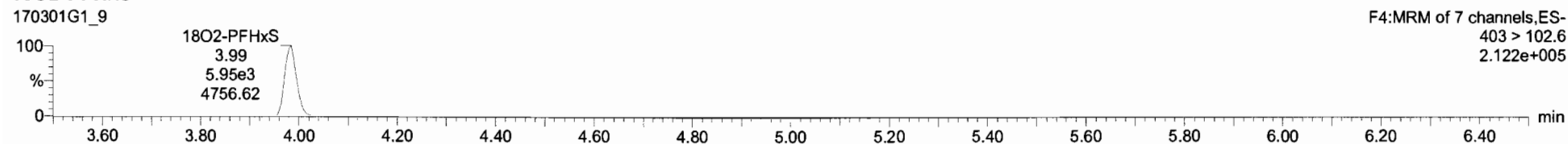
**PFHxS**



**PFHxS**

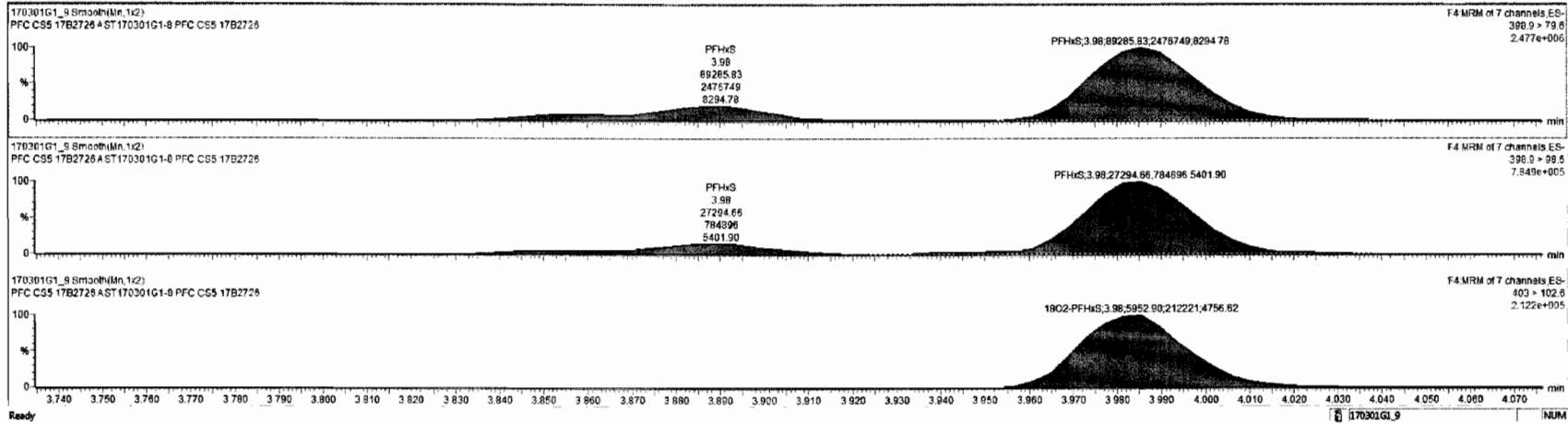


**18O2-PFHxS**





170301G1_9 ST170301G1 8 PFC CS5 17C0126 PFC CS5 17C0126 A																							
#	Name	Conc	OL	%Rec	EMPC	Abs Res	RPV	RT	#	IS#	DA	Y/N	ORI	Acq Date	Acq Time	#	Ch#	MS#	Sample Inst.	Factor1	Slut	Cal File	>MDL
1	PFBS	99.796722	0.0192	99.8		9.967e4	2.96	11	7		0.382	YES	1.001	01-Mar-17	16:37:33	228	230	ST170301G...	PFC CS5 17B27...	1.0	1.00		YES
2	PFHA	96.401634		96.4		2.158e5	3.87	2	8				1.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		YES
3	PFNA	100.906541		100.0		1.029e4	1.96	3	9				1.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		YES
4	PFOA	98.596534		98.6		2.165e5	4.27	4	10				1.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		YES
5	PFNA	99.451046		99.4		1.867e5	4.60	5	11				1.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		YES
6	PFOS	98.665333	0.0527	98.7		4.104e4	4.67	6	12				1.001	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		YES
7	13C3-PFBS	11.669132	0.0147	93.4		5.795e3	0.442	2.97	7	14			0.886	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
8	13C4-PFHA	11.821164	0.0103	95.4		1.495e4	1.117	3.87	8	14			0.971	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
9	18O2-PFHxS	12.622808	0.00674	101.0		5.953e3	0.420	3.98	9	14			1.001	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
10	13C2-PFOA	12.911524	0.00439	103.3		2.923e4	2.732	4.27	10	15			1.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
11	13C5-PFNA	13.357683	0.0107	106.9		1.107e4	0.648	4.60	11	16			1.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
12	13C8-PFOS	14.461068	0.0425	115.7		9.962e3	0.941	4.66	12	17			1.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
13	13C5-PFHxA	12.500000	0.0175	100.0		2.315e4	1.000	3.35	13	13			0.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
14	13C3-PFHxS	12.500000	0.00484	100.0		1.403e4	1.000	3.98	14	14			0.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
15	13C8-PFOA	12.500000	0.00310	100.0		1.017e4	1.000	4.27	15	15			0.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
16	13C8-PFNA	12.500000	0.00583	100.0		1.224e4	1.000	4.60	16	16			0.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
17	13C4-PFOS	12.500000	0.00415	100.0		9.153e3	1.000	4.66	17	17			0.000	01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
18	Total PFBS	99.626270	0.0195						18					01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
19	Total PFHxS	122.37310							19					01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
20	Total PFOA	98.596534							20					01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO
21	Total PFOS	129.53697	0.0527						21					01-Mar-17	16:37:33			ST170301G...	PFC CS5 17B27...	1.0	1.00		NO



Dataset: Untitled

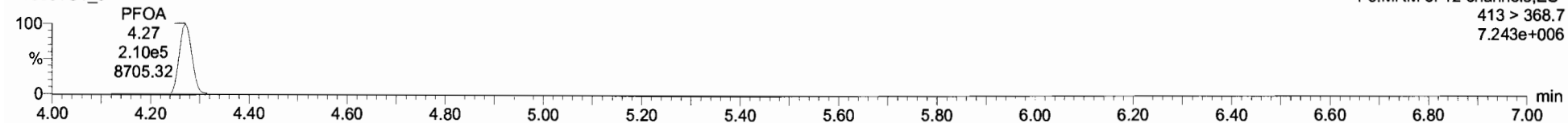
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_9, Date: 01-Mar-2017, Time: 16:37:33, ID: ST170301G1-8 PFC CS5 17B2726, Description: PFC CS5 17B2726 A

**PFOA**

170301G1\_9

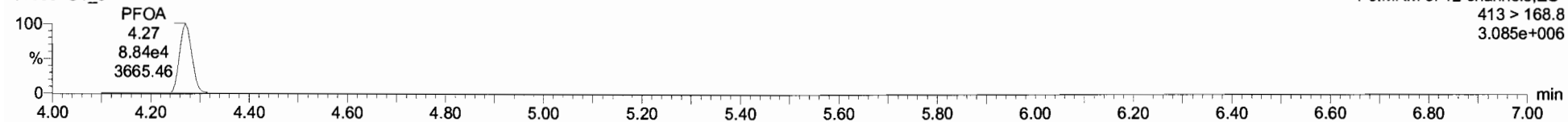
F5:MRM of 12 channels,ES-  
413 > 368.7  
7.243e+006



**PFOA**

170301G1\_9

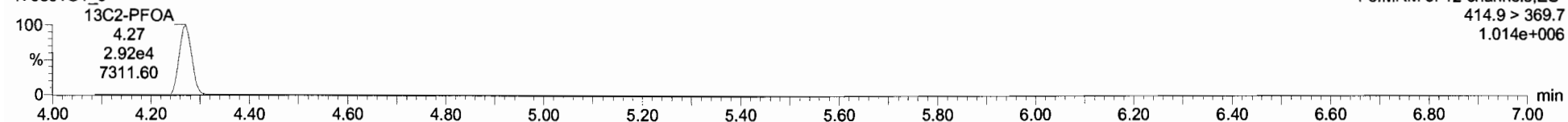
F5:MRM of 12 channels,ES-  
413 > 168.8  
3.085e+006



**13C2-PFOA**

170301G1\_9

F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.014e+006



Dataset: Untitled

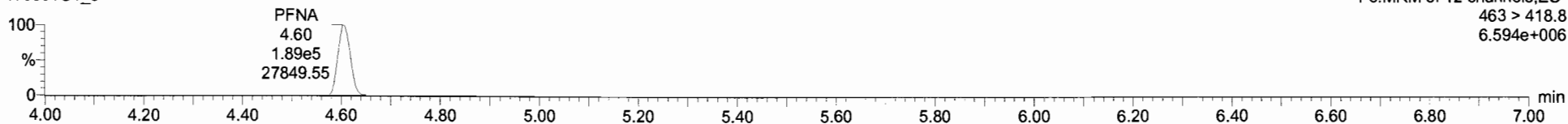
Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_9, Date: 01-Mar-2017, Time: 16:37:33, ID: ST170301G1-8 PFC CS5 17B2726, Description: PFC CS5 17B2726 A

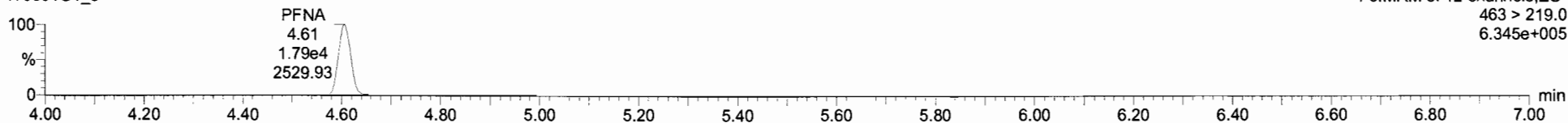
**PFNA**

170301G1\_9



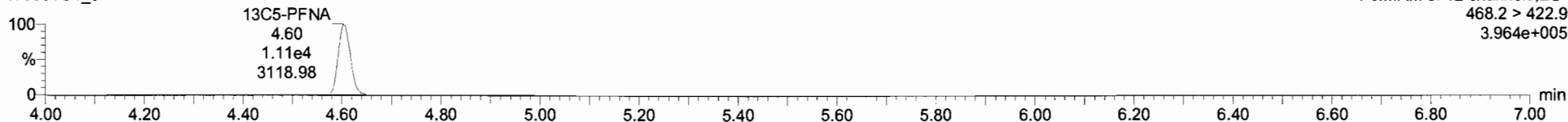
**PFNA**

170301G1\_9



**13C5-PFNA**

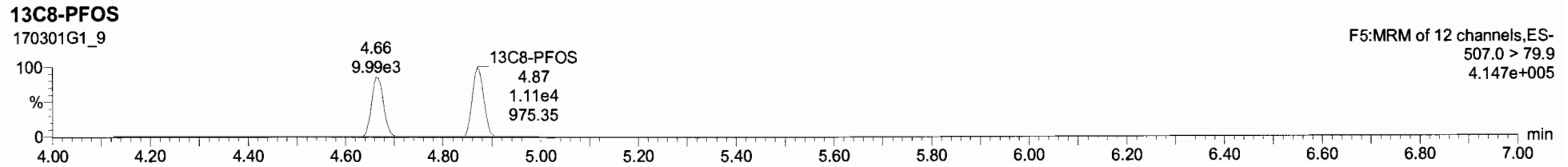
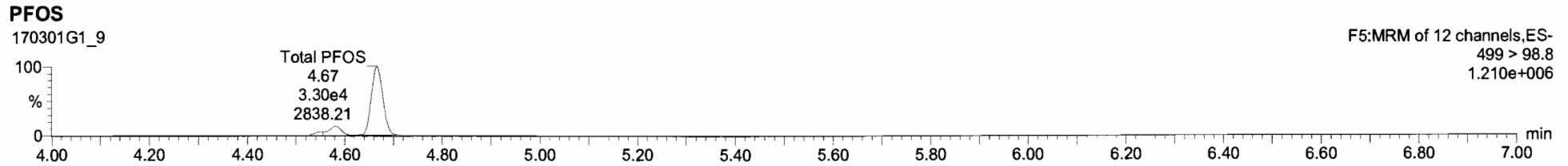
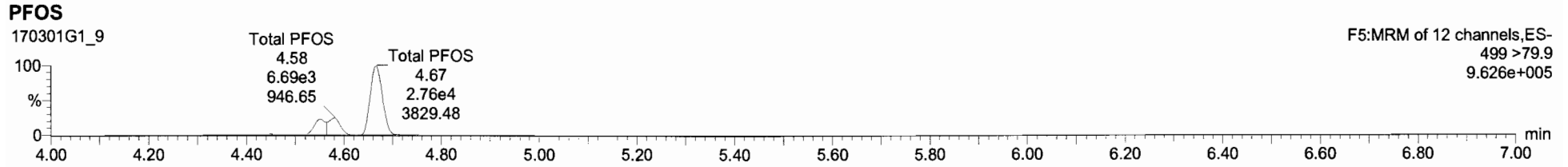
170301G1\_9



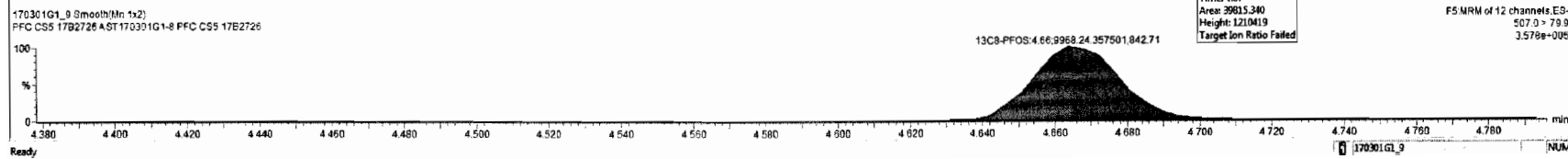
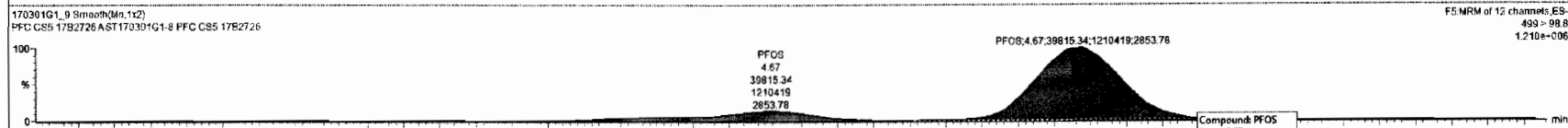
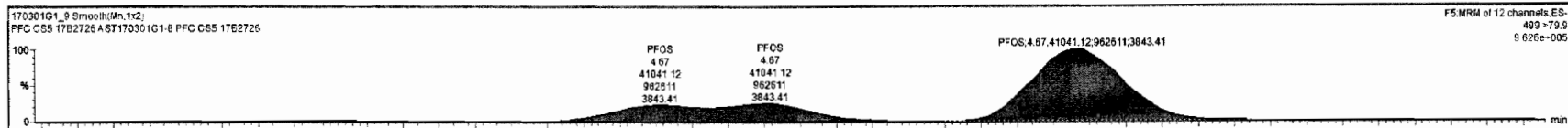
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Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_9, Date: 01-Mar-2017, Time: 16:37:33, ID: ST170301G1-8 PFC CS5 17B2726, Description: PFC CS5 17B2726 A



1	Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRF	Acq Date	Acq Time	1 <sup>st</sup> Ch/Name	ID	Sample Name	Factor1	SWI	Cal File	AMD
1	PFBS	99.786722	0.0152	99.0		9.907e4	2.99	1	7		0.362	YES	1.001	01-Mar-17	16:37:33	228.230	ST170301G..	PFC C55 17B27..	1.0	1.00		YES
2	PFHxA	98.401634		98.4		2.156e5	3.87	2	6				1.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		YES
3	PFHxS	100.90541		100.0		8.929e4	3.99	3	9				1.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		YES
4	PFOA	98.596834		98.6		2.105e5	4.27	4	10				1.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		YES
5	PFNA	99.431046		99.4		1.887e5	4.66	5	11				1.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		YES
6	PFOS	98.095131	0.0527	98.7		4.114e4	4.67	6	12				1.001	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		YES
7	13C3-PFBS	11.669132	0.0147	93.4		5.795e3	0.442	2.97	7	14			0.686	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
8	13C4-PFHxA	11.921184	0.0103	95.4		1.495e4	1.117	3.87	8	14			0.971	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
9	13C2-PFHxS	12.622890	0.00674	101.0		5.953e3	0.420	3.98	9	14			1.001	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
10	13C2-PFOA	12.911524	0.00439	103.3		2.923e4	2.782	4.27	10	15			1.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
11	13C5-PFNA	13.357663	0.0107	106.9		1.107e4	0.646	4.60	11	16			1.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
12	13C8-PFOS	14.461066	0.0425	115.7		9.965e3	0.941	4.66	12	17			1.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
13	13C5-PFHxA	12.500000	0.0175	100.0		2.315e4	1.600	3.35	13	13			0.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
14	13C3-PFHxS	12.500000	0.00454	100.0		1.403e4	1.000	3.98	14	14			0.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
15	13C3-PFOA	12.500000	0.00310	100.0		1.017e4	1.000	4.27	15	15			0.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
16	13C5-PFNA	12.500000	0.00583	100.0		1.224e4	1.000	4.60	16	16			0.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
17	13C4-PFOS	12.500000	0.00415	100.0		9.153e3	1.000	4.66	17	17			0.000	01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
18	Total PFBS	99.828270	0.0155						18					01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
19	Total PFHxS	122.37310							19					01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
20	Total PFOA	98.596834							20					01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO
21	Total PFOS	129.58697	0.0527						21					01-Mar-17	16:37:33		ST170301G..	PFC C55 17B27..	1.0	1.00		NO



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:21:56 Pacific Standard Time

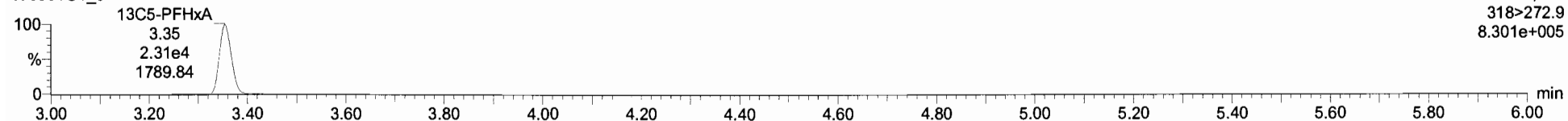
Printed: Thursday, March 02, 2017 08:27:08 Pacific Standard Time

Name: 170301G1\_9, Date: 01-Mar-2017, Time: 16:37:33, ID: ST170301G1-8 PFC CS5 17B2726, Description: PFC CS5 17B2726 A

**13C5-PFHxA**

170301G1\_9

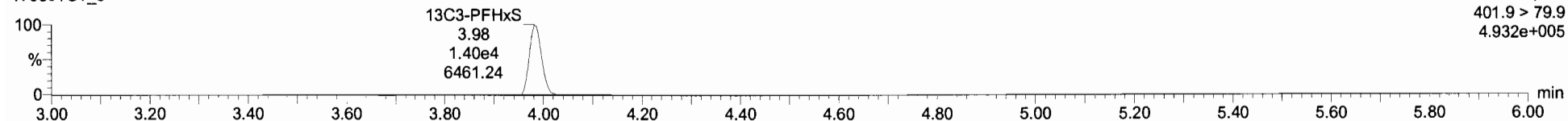
F3:MRM of 1 channel,ES-  
318>272.9  
8.301e+005



**13C3-PFHxS**

170301G1\_9

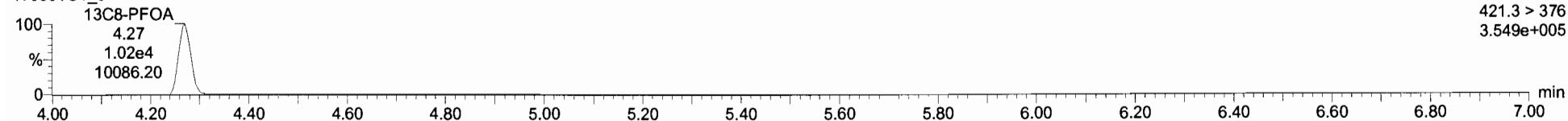
F4:MRM of 7 channels,ES-  
401.9 > 79.9  
4.932e+005



**13C8-PFOA**

170301G1\_9

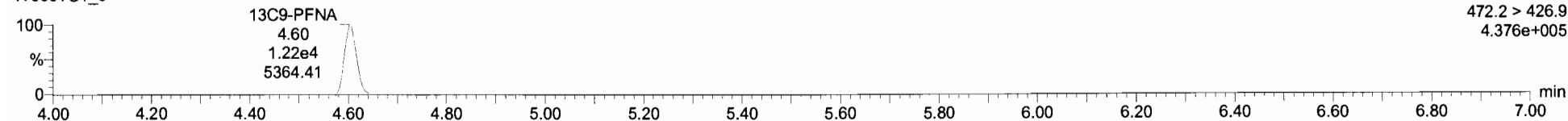
F5:MRM of 12 channels,ES-  
421.3 > 376  
3.549e+005



**13C9-PFNA**

170301G1\_9

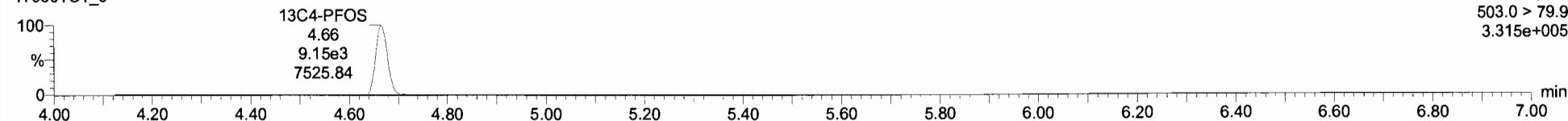
F5:MRM of 12 channels,ES-  
472.2 > 426.9  
4.376e+005



**13C4-PFOS**

170301G1\_9

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
3.315e+005





Dataset: U:\G1.PRO\Results\2017\170301G1\170301G1-11.qld

Last Altered: Thursday, March 02, 2017 09:00:59 Pacific Standard Time

Printed: Thursday, March 02, 2017 09:01:33 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45

Calibration: U:\G1.PRO\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170301G1\_11, Date: 01-Mar-2017, Time: 17:02:38, ID: SS170301G1-1 PFC SSS 17C0127, Description: PFC SSS 17C0127 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS (A)	299 > 79.7	1.26e4	8.35e3		1.000	2.98	8.75	87.3
2	2 PFHpA	363 > 318.9	3.02e4	2.14e4		1.000	3.87	9.57	95.7
3	3 PFHxS (A)	398.9 > 79.6	1.06e4	8.52e3		1.000	3.99	8.78	87.0
4	4 PFOA	413 > 368.7	2.68e4	3.81e4		1.000	4.27	9.54	95.4
5	5 PFNA	463 > 418.8	2.30e4	1.40e4		1.000	4.61	9.48	94.8
6	6 PFOS (A)	499 > 79.9	4.13e3	1.18e4		1.000	4.67	8.42	84.2
7	7 13C3-PFBS	302.0 > 98.8	8.35e3	1.92e4	0.442	1.000	2.98	12.3	98.5
8	8 13C4-PFHpA	367.2 > 321.8	2.14e4	1.92e4	1.117	1.000	3.87	12.5	100.2
9	9 18O2-PFHxS	403 > 102.6	8.52e3	1.92e4	0.420	1.000	3.99	13.2	105.9
10	10 13C2-PFOA	414.9 > 369.7	3.81e4	1.38e4	2.782	1.000	4.27	12.4	99.2
11	11 13C5-PFNA	468.2 > 422.9	1.40e4	1.46e4	0.846	1.000	4.61	14.2	113.4
12	12 13C8-PFOS	507.0 > 79.9	1.18e4	1.11e4	0.941	1.000	4.67	14.0	112.3
13	13 13C5-PFHxA	318 > 272.9	3.12e4	3.12e4	1.000	1.000	3.36	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.92e4	1.92e4	1.000	1.000	3.99	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	1.38e4	1.38e4	1.000	1.000	4.27	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	1.46e4	1.46e4	1.000	1.000	4.60	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	1.11e4	1.11e4	1.000	1.000	4.67	12.5	100.0

75-125  
↓

ES 3/2/17

(A) Concentration < 10 ng/L in SS native mix. ES 3/2/17

Dataset:      Untitled

Last Altered:    Thursday, March 02, 2017 08:29:33 Pacific Standard Time

Printed:        Thursday, March 02, 2017 08:29:43 Pacific Standard Time

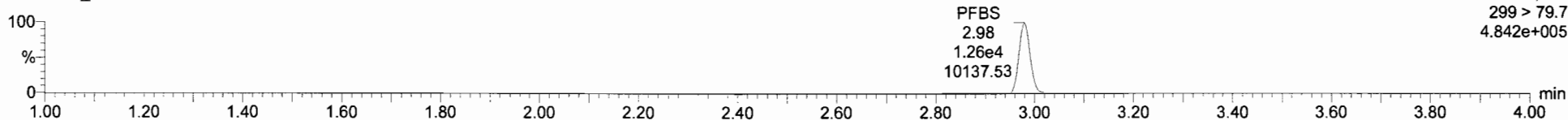
Method: U:\G1.PRO\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 28 Feb 2017 16:04:45

Calibration: U:\G1.PRO\CurveDB\C18\_VAL-PFC\_Q1\_3-01-17\_L6\_2Trans.cdb 02 Mar 2017 08:18:08

Name: 170301G1\_11, Date: 01-Mar-2017, Time: 17:02:38, ID: SS170301G1-1 PFC SSS 17C0127, Description: PFC SSS 17C0127 A

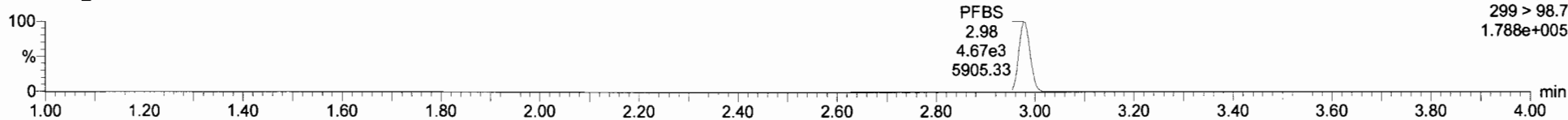
**PFBS**

170301G1\_11



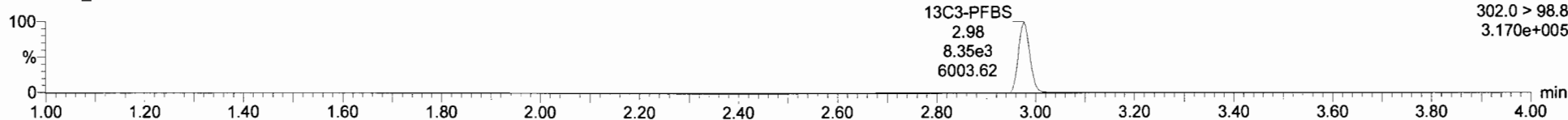
**PFBS**

170301G1\_11



**13C3-PFBS**

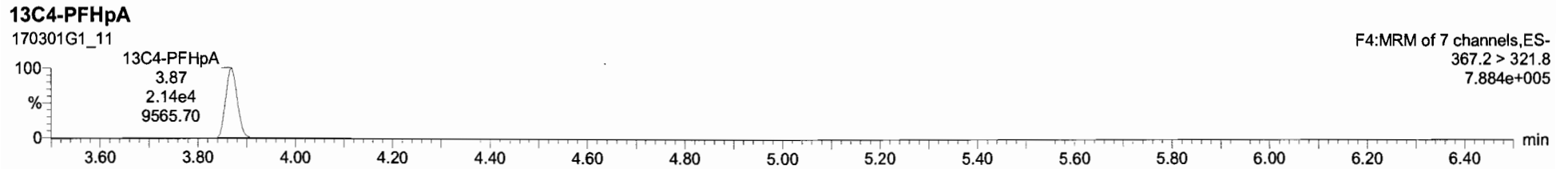
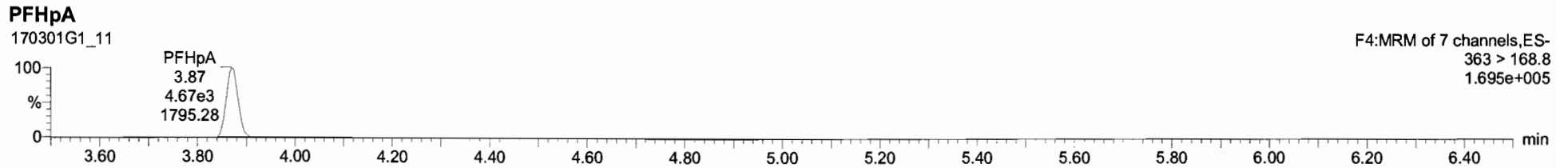
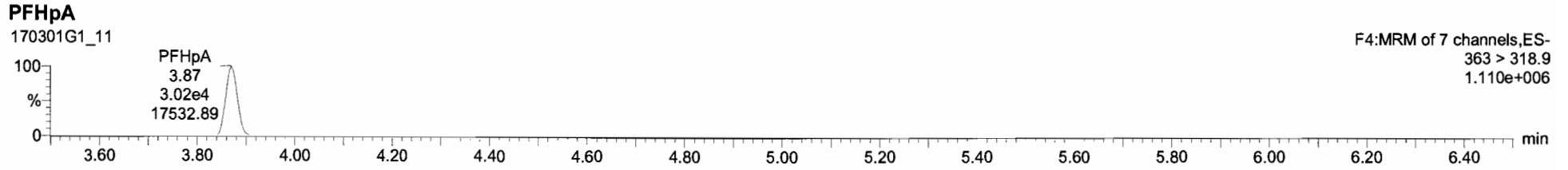
170301G1\_11



Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:29:33 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:29:43 Pacific Standard Time

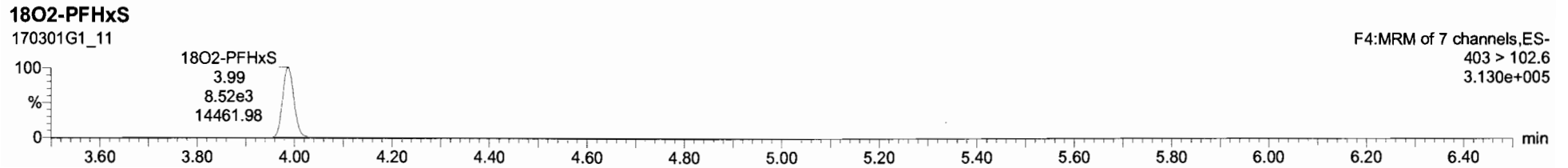
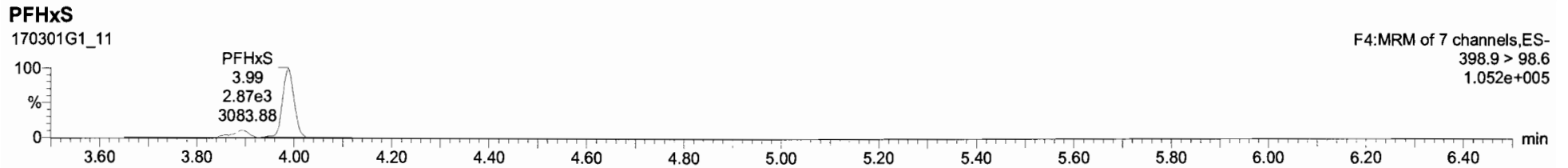
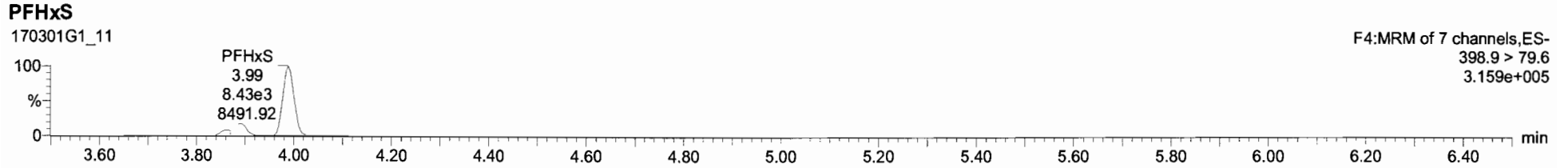
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Dataset: Untitled

Last Altered: Thursday, March 02, 2017 08:29:33 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:29:43 Pacific Standard Time

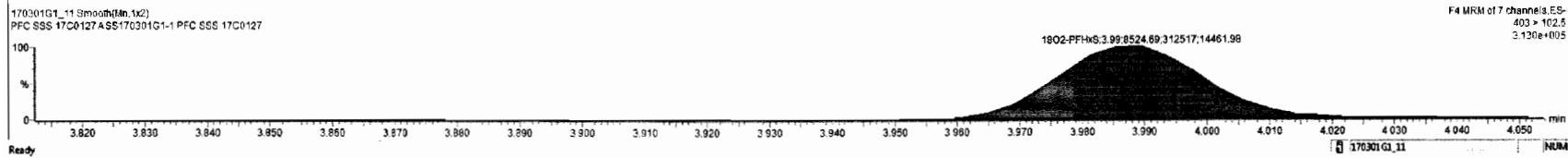
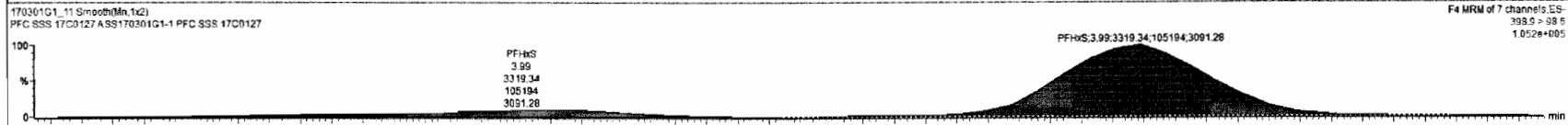
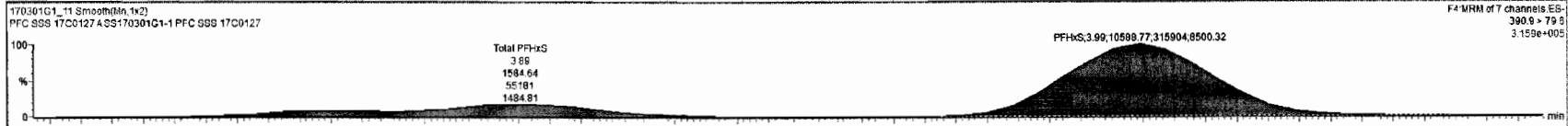
Name: 170301G1\_11, Date: 01-Mar-2017, Time: 17:02:38, ID: SS170301G1-1 PFC SSS 17C0127, Description: PFC SSS 17C0127 A





170301G1\_11 - SS170301G1-1 PFC SSS 17C0127 - PFC SSS 17C0127 A

#	Name	Trace	Area	RPF	WVAL	ProdRT	RT	Conc.	WDL	%Rec	DL
1	PFBS	299 > 79.7	1.26e4		1.000	2.98	2.98	8.75	NO	87.5	0.0062441
2	PFHpA	363 > 318.8	3.92e4		1.000	3.87	3.87	8.57	YES	95.7	0.0000000
3	PFHxS	398.9 > 79.8	1.05e4		1.000	3.99	3.99	8.78	YES	87.8	0.0000000
4	PFDA	413 > 368.7	2.66e4		1.000	4.27	4.27	9.54	YES	95.4	0.0000000
5	PFNA	463 > 418.8	2.30e4		1.000	4.61	4.61	9.48	YES	94.8	0.0000000
6	PFOS	499 > 79.9	4.13e3		1.000	4.67	4.67	8.42	YES	84.2	0.0596010
7	13C3-PFBS	362.0 > 88.8	8.35e3	0.442	1.000	2.98	2.98	12.3	NO	98.5	0.0052804
8	13C4-PFHpA	367.2 > 321.8	2.14e4	1.12	1.000	3.86	3.87	12.5	NO	100.2	0.0032621
9	18O2-PFHxS	483 > 102.6	8.52e3	0.420	1.000	3.99	3.99	13.2	NO	105.9	0.0022771
10	13C2-PFOA	414.8 > 369.7	3.81e4	2.78	1.000	4.27	4.27	12.4	NO	99.2	0.0023340
11	13C5-PFNA	468.2 > 422.9	1.40e4	0.848	1.000	4.60	4.61	14.2	NO	113.4	0.0019428
12	13C6-PFOS	507.0 > 79.9	1.18e4	0.941	1.000	4.67	4.67	14.0	NO	112.3	0.0061278
13	13C5-PFHxA	318-272.9	3.12e4	1.80	1.000	3.29	3.36	12.5	NO	100.0	0.0046902
14	13C3-PFHxS	491.9 > 79.9	1.92e4	1.80	1.000	3.94	3.99	12.5	NO	100.0	0.0057740
15	13C2-PFOA	421.3 > 376	1.38e4	1.80	1.000	4.22	4.27	12.5	NO	100.0	0.0031889
16	13C5-PFNA	472.3 > 426.9	1.48e4	1.80	1.000	4.56	4.60	12.5	NO	100.0	0.0045131
17	13C4-PFOS	503.0 > 79.9	1.11e4	1.80	1.000	4.63	4.67	12.5	NO	100.0	0.0064349
18	Total PFBS	299 > 79.7	1.26e4		1.000	3.11		8.77	NO		0.0062738
19	Total PFHxS	398.9 > 79.8	1.27e4		1.000	4.09		10.4	NO		
20	Total PFDA	413 > 368.7	2.69e4		1.000	4.38		9.54	NO		
21	Total PFOS	499 > 79.9	4.68e3		1.000	4.62		9.55	NO		0.0596010

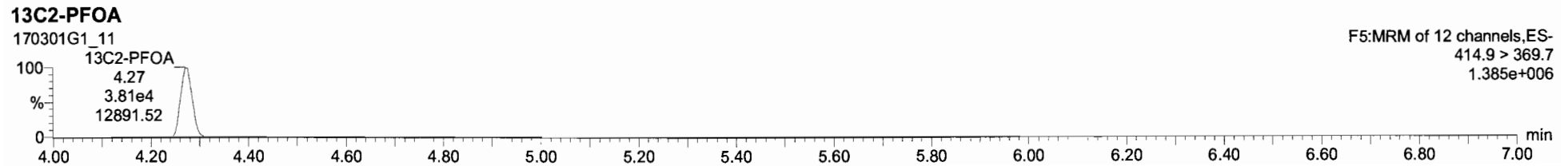
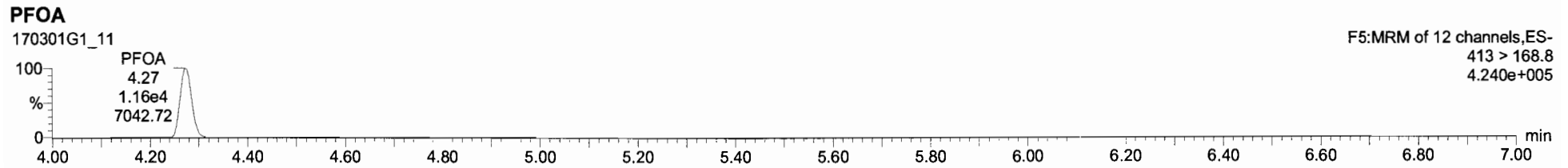
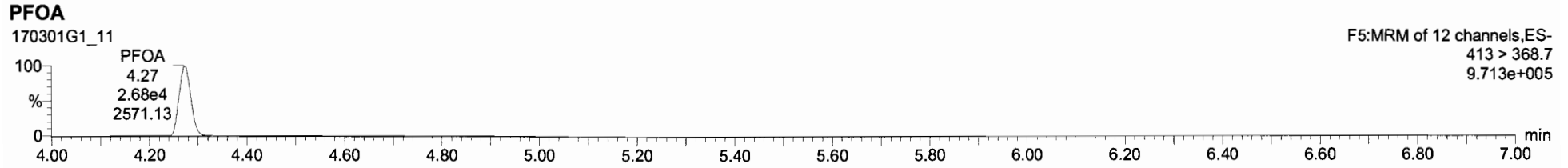


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Last Altered: Thursday, March 02, 2017 08:29:33 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:29:43 Pacific Standard Time

Name: 170301G1\_11, Date: 01-Mar-2017, Time: 17:02:38, ID: SS170301G1-1 PFC SSS 17C0127, Description: PFC SSS 17C0127 A



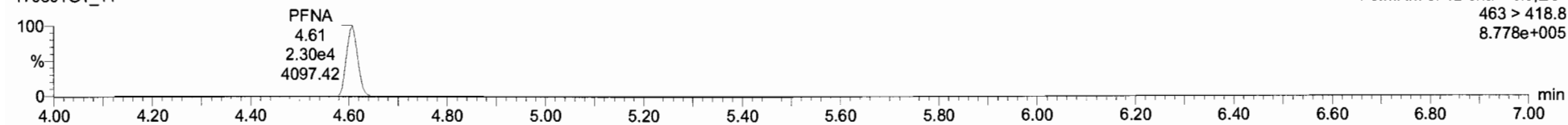
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Last Altered: Thursday, March 02, 2017 08:29:33 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:29:43 Pacific Standard Time

Name: 170301G1\_11, Date: 01-Mar-2017, Time: 17:02:38, ID: SS170301G1-1 PFC SSS 17C0127, Description: PFC SSS 17C0127 A

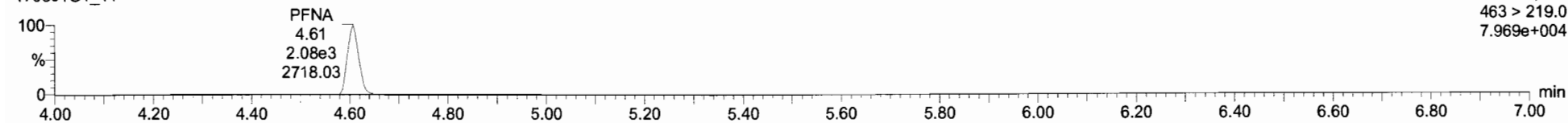
**PFNA**

170301G1\_11



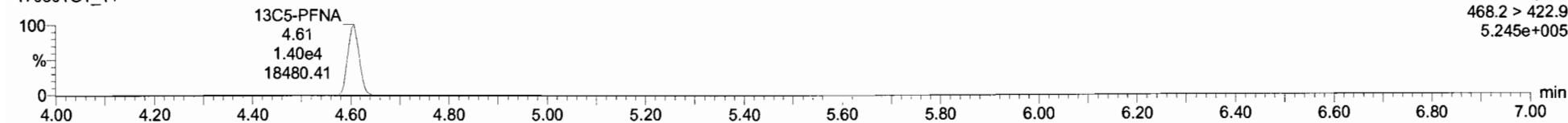
**PFNA**

170301G1\_11



**13C5-PFNA**

170301G1\_11



Dataset: Untitled

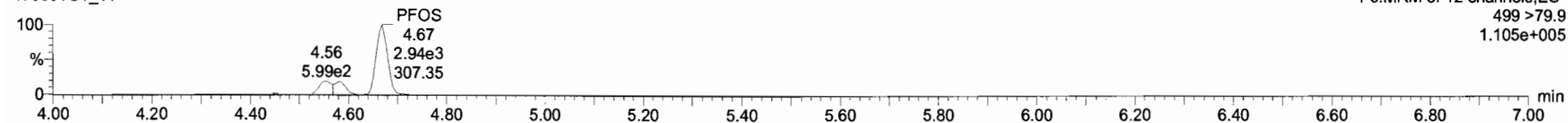
Last Altered: Thursday, March 02, 2017 08:29:33 Pacific Standard Time

Printed: Thursday, March 02, 2017 08:29:43 Pacific Standard Time

Name: 170301G1\_11, Date: 01-Mar-2017, Time: 17:02:38, ID: SS170301G1-1 PFC SSS 17C0127, Description: PFC SSS 17C0127 A

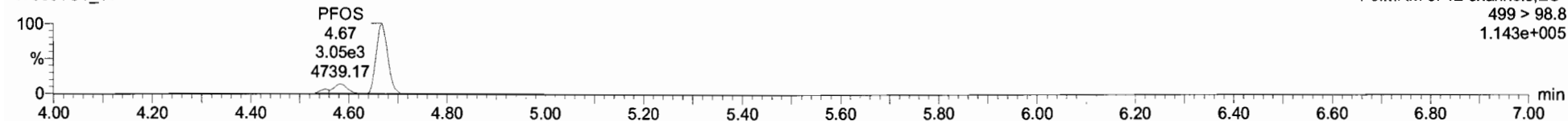
**PFOS**

170301G1\_11



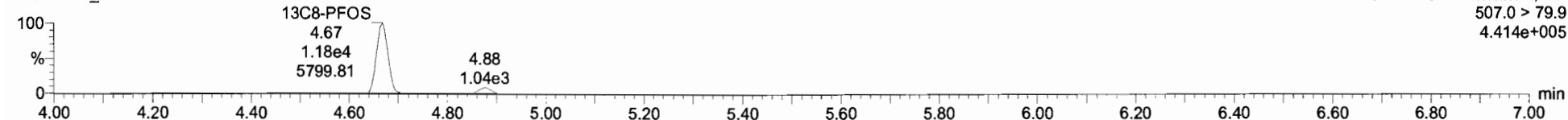
**PFOS**

170301G1\_11



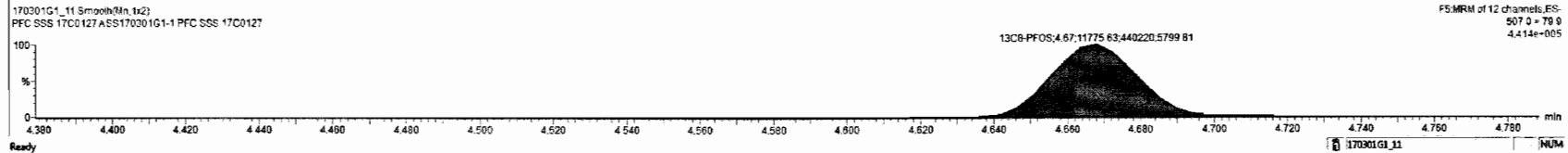
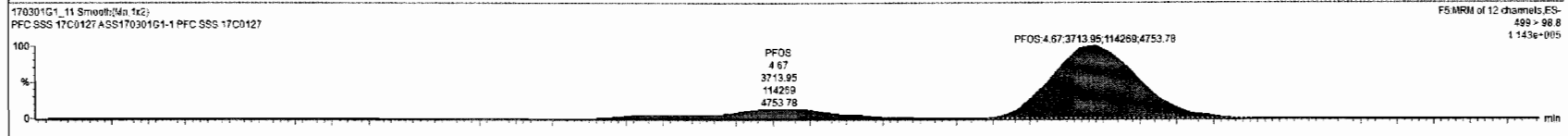
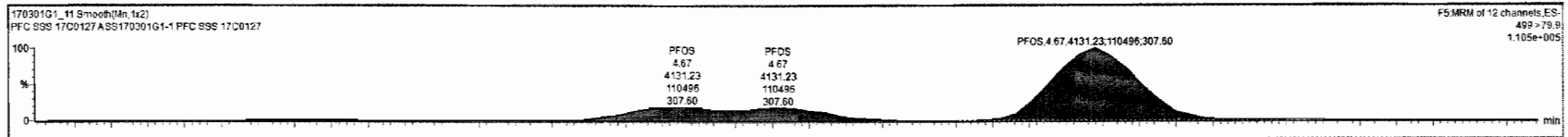
**13C8-PFOS**

170301G1\_11





Peak	Time	Area	DFP	Wt%	Prod RT	RT	Conc	>MDL	%Rec	DL	
1	PFBS	299 > 70.7	1.26e4	1.000	2.98	2.99	8.75	NO	87.5	0.0062441	
2	PFHpA	363 > 318.9	3.02e4	1.000	3.87	3.87	9.57	YES	95.7	0.0000000	
3	PFHxS	398.9 > 79.6	1.05e4	1.000	3.99	3.99	8.70	YES	87.6	0.0000000	
4	PFOA	413 > 368.7	2.68e4	1.000	4.27	4.27	9.54	YES	95.4	0.0000000	
5	PFNA	463 > 418.3	2.39e4	1.000	4.61	4.61	9.48	YES	94.8	0.0000000	
6	PFOS	499 > 79.9	4.65e3	1.000	4.67	4.67	8.42	YES	84.2	0.0096010	
7	13C3-PFBS	302.0 > 98.8	8.35e3	0.442	1.000	2.98	2.99	12.3	NO	98.5	0.0052804
8	13C4-PFHpA	367.2 > 321.8	2.14e4	1.12	1.000	3.86	3.87	12.5	NO	100.2	0.0032621
9	18O2-PFHxS	403 > 102.6	8.52e3	0.420	1.000	3.99	3.99	13.2	NO	105.9	0.0022771
10	13C2-PFOA	414.9 > 369.7	3.81e4	2.76	1.000	4.27	4.27	12.4	NO	99.2	0.0023340
11	13C5-PFNA	468.2 > 422.9	1.49e4	0.846	1.000	4.60	4.61	14.2	NO	113.4	0.0019428
12	13C8-PFOS	507.0 > 79.9	1.18e4	0.941	1.000	4.67	4.67	14.0	NO	112.3	0.0061276
13	13C5-PFHxS	318 > 272.9	3.12e4	1.00	1.000	3.29	3.36	12.5	NO	100.0	0.0046902
14	13C3-PFHxS	401.9 > 79.9	1.92e4	1.00	1.000	3.94	3.99	12.5	NO	100.0	0.0057740
15	13C8-PFOA	421.3 > 376	1.38e4	1.00	1.000	4.22	4.27	12.5	NO	100.0	0.0031169
16	13C9-PFNA	472.2 > 426.9	1.46e4	1.00	1.000	4.56	4.60	12.5	NO	100.0	0.0045131
17	13C4-PFOS	503.0 > 79.9	1.11e4	1.00	1.000	4.63	4.67	12.5	NO	100.0	0.0084349
18	Total PFBS	299 > 79.7	1.26e4	1.000	3.11				NO		0.0062736
19	Total PFHxS	398.9 > 79.6	1.27e4	1.000	4.09				NO		10.4
20	Total PFOA	413 > 368.7	2.69e4	1.000	4.39				NO		9.54
21	Total PFOS	499 > 79.9	4.65e3	1.000	4.62				NO		0.0096010



Dataset: Untitled

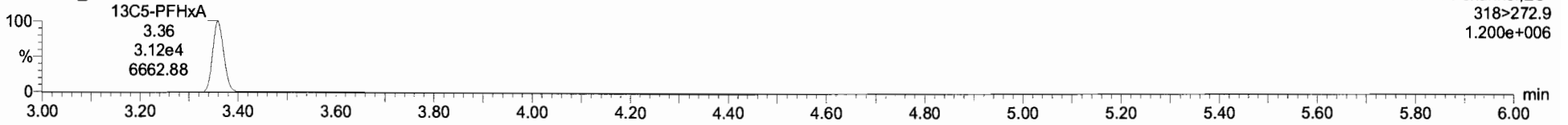
Last Altered: Thursday, March 02, 2017 08:29:33 Pacific Standard Time  
Printed: Thursday, March 02, 2017 08:29:43 Pacific Standard Time

Name: 170301G1\_11, Date: 01-Mar-2017, Time: 17:02:38, ID: SS170301G1-1 PFC SSS 17C0127, Description: PFC SSS 17C0127 A

**13C5-PFHxA**

170301G1\_11

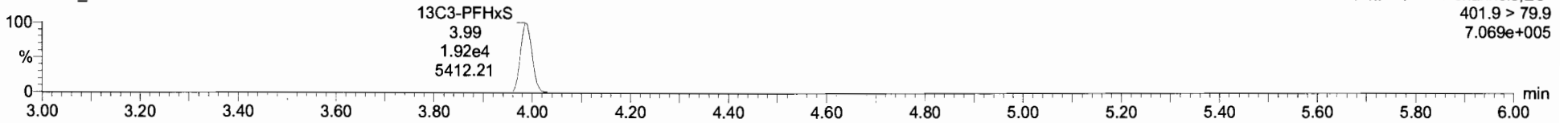
F3:MRM of 1 channel,ES-  
318>272.9  
1.200e+006



**13C3-PFHxS**

170301G1\_11

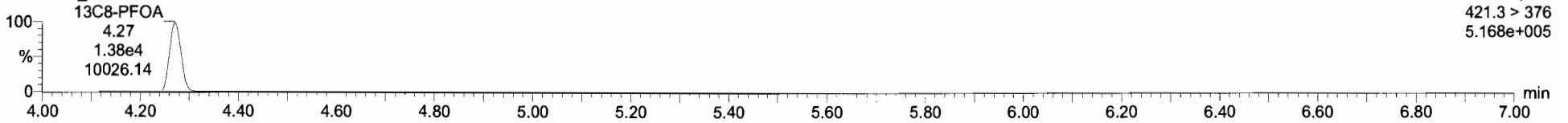
F4:MRM of 7 channels,ES-  
401.9 > 79.9  
7.069e+005



**13C8-PFOA**

170301G1\_11

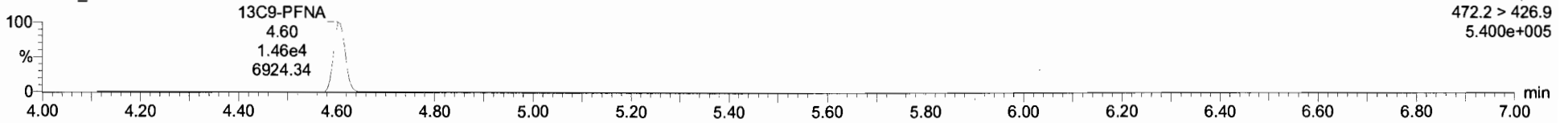
F5:MRM of 12 channels,ES-  
421.3 > 376  
5.168e+005



**13C9-PFNA**

170301G1\_11

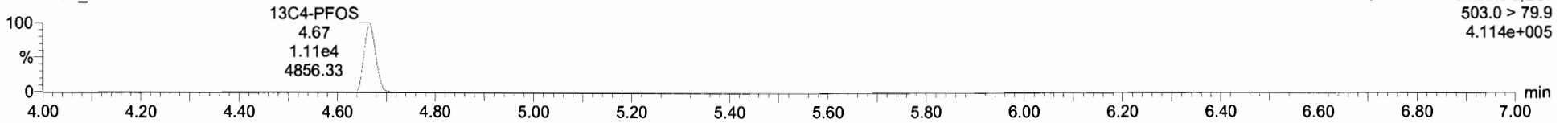
F5:MRM of 12 channels,ES-  
472.2 > 426.9  
5.400e+005



**13C4-PFOS**

170301G1\_11

F5:MRM of 12 channels,ES-  
503.0 > 79.9  
4.114e+005



Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

Last Altered: Monday, March 06, 2017 08:19:21 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:29:13 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53  
Calibration: U:\G1.PRO\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:19:21

**Compound name: PFBS**

Correlation coefficient:  $r = 0.999596$ ,  $r^2 = 0.999192$

Calibration curve:  $2.38097 * x + 0.0682571$

Response type: Internal Std ( Ref 7 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	0.250	3.05	3.44e2	6.21e3	0.263	5.1	2.77
2	2 170305G1_3	0.500	3.05	6.19e2	6.45e3	0.475	-5.0	2.40
3	3 170305G1_4	1.00	3.04	1.07e3	5.41e3	1.01	1.1	2.47
4	4 170305G1_5	2.00	3.03	2.78e3	7.24e3	1.99	-0.7	2.40
5	5 170305G1_6	5.00	3.03	5.91e3	6.73e3	4.58	-8.4	2.20
6	6 170305G1_7	10.0	3.03	1.12e4	5.49e3	10.7	7.2	2.56
7	7 170305G1_8	50.0	3.03	5.43e4	5.58e3	51.1	2.1	2.43
8	8 170305G1_9	100	3.03	9.61e4	5.11e3	98.6	-1.4	2.35

ES 3/6/17

**Compound name: PFHpA**

Correlation coefficient:  $r = 0.999429$ ,  $r^2 = 0.998857$

Calibration curve:  $1.79957 * x + 0.123896$

Response type: Internal Std ( Ref 8 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	0.250	3.93	7.46e2	1.70e4	0.235	-5.8	2.19
2	2 170305G1_3	0.500	3.92	1.43e3	1.69e4	0.518	3.7	2.11
3	3 170305G1_4	1.00	3.91	2.27e3	1.52e4	0.964	-3.6	1.86
4	4 170305G1_5	2.00	3.91	5.65e3	1.86e4	2.05	2.3	1.90
5	5 170305G1_6	5.00	3.91	1.36e4	1.95e4	4.78	-4.4	1.74
6	6 170305G1_7	10.0	3.91	1.98e4	1.29e4	10.6	6.4	1.93
7	7 170305G1_8	50.0	3.91	1.16e5	1.55e4	51.9	3.8	1.87
8	8 170305G1_9	100	3.91	1.99e5	1.42e4	97.6	-2.4	1.76

✓ AC  
3/6/17

Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

Last Altered: Monday, March 06, 2017 08:19:21 Pacific Standard Time  
 Printed: Monday, March 06, 2017 08:29:13 Pacific Standard Time

**Compound name: PFHxS**

Correlation coefficient:  $r = 0.999200$ ,  $r^2 = 0.998401$

Calibration curve:  $1.81334 * x + 0.103191$

Response type: Internal Std ( Ref 9 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	0.250	4.04	3.26e2	7.11e3	0.259	3.8	2.29
2	2 170305G1_3	0.500	4.03	5.47e2	6.83e3	0.496	-0.9	2.00
3	3 170305G1_4	1.00	4.03	8.97e2	5.85e3	1.00	0.1	1.92
4	4 170305G1_5	2.00	4.03	2.23e3	7.43e3	2.01	0.5	1.87
5	5 170305G1_6	5.00	4.03	5.17e3	7.64e3	4.60	-8.0	1.69
6	6 170305G1_7	10.0	4.03	6.69e3	4.52e3	10.1	1.5	1.85
7	7 170305G1_8	50.0	4.03	4.78e4	6.24e3	52.8	5.6	1.92
8	8 170305G1_9	100	4.03	8.33e4	5.89e3	97.4	-2.6	1.77

**Compound name: PFOA**

Correlation coefficient:  $r = 0.998804$ ,  $r^2 = 0.997609$

Calibration curve:  $0.794457 * x + 0.179058$

Response type: Internal Std ( Ref 10 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	0.250	4.32	1.04e3	3.51e4	0.241	-3.7	1.48
2	2 170305G1_3	0.500	4.31	1.52e3	3.53e4	0.452	-9.6	1.08
3	3 170305G1_4	1.00	4.30	2.09e3	2.91e4	0.908	-9.2	0.901
4	4 170305G1_5	2.00	4.30	5.39e3	3.70e4	2.06	3.1	0.909
5	5 170305G1_6	5.00	4.30	1.24e4	3.46e4	5.43	8.5	0.898
6	6 170305G1_7	10.0	4.30	1.56e4	2.18e4	11.0	9.8	0.890
7	7 170305G1_8	50.0	4.30	1.10e5	3.30e4	52.3	4.6	0.835
8	8 170305G1_9	100	4.30	1.98e5	3.22e4	96.4	-3.6	0.767

Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

Last Altered: Monday, March 06, 2017 08:19:21 Pacific Standard Time  
 Printed: Monday, March 06, 2017 08:29:13 Pacific Standard Time

**Compound name: PFNA**

Correlation coefficient:  $r = 0.999011$ ,  $r^2 = 0.998022$

Calibration curve:  $2.73664 * x + 0.0966541$

Response type: Internal Std ( Ref 11 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	0.250	4.65	5.06e2	8.36e3	0.241	-3.5	3.03
2	2 170305G1_3	0.500	4.64	8.81e2	7.67e3	0.489	-2.1	2.87
3	3 170305G1_4	1.00	4.63	1.26e3	5.74e3	0.968	-3.2	2.75
4	4 170305G1_5	2.00	4.63	3.17e3	6.97e3	2.04	2.0	2.84
5	5 170305G1_6	5.00	4.63	7.77e3	7.48e3	4.71	-5.8	2.60
6	6 170305G1_7	10.0	4.63	7.05e3	2.88e3	11.1	11.4	3.06
7	7 170305G1_8	50.0	4.63	7.41e4	6.50e3	52.1	4.1	2.85
8	8 170305G1_9	100	4.63	1.56e5	7.35e3	97.1	-2.9	2.66

**Compound name: PFOS**

Coefficient of Determination:  $R^2 = 0.997963$

Calibration curve:  $-0.000185224 * x^2 + 0.54028 * x + -0.0525057$

Response type: Internal Std ( Ref 12 ), Area \* ( IS Conc. / IS Area )

Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	0.250	4.62	3.72e1	6.28e3	0.234	-6.3	0.296
2	2 170305G1_3	0.500	4.71	7.39e1	6.57e3	0.358	-28.5	0.281
3	3 170305G1_4	1.00	4.69	1.82e2	4.73e3	0.989	-1.1	0.482
4	4 170305G1_5	2.00	4.69	5.28e2	5.18e3	2.46	23.0	0.638
5	5 170305G1_6	5.00	4.69	1.23e3	5.64e3	5.14	2.8	0.544
6	6 170305G1_7	10.0	4.69	8.60e2	1.88e3	10.7	7.1	0.571
7	7 170305G1_8	50.0	4.69	1.04e4	5.14e3	47.8	-4.4	0.507
8	8 170305G1_9	100	4.69	2.64e4	6.26e3	101	1.1	0.527

Ⓐ Point excluded.  
 of 3/6/17

Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

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**Compound name: 13C3-PFBS**

Response Factor: 0.40994

RRF SD: 0.0411734, Relative SD: 10.0438

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	3.05	6.21e3	1.48e4	12.8	2.4	0.420
2	2 170305G1_3	12.5	3.05	6.45e3	1.61e4	12.2	-2.5	0.400
3	3 170305G1_4	12.5	3.03	5.41e3	1.44e4	11.5	-8.1	0.377
4	4 170305G1_5	12.5	3.03	7.24e3	1.74e4	12.7	1.2	0.415
5	5 170305G1_6	12.5	3.03	6.73e3	1.72e4	11.9	-4.7	0.391
6	6 170305G1_7	12.5	3.03	5.49e3	1.09e4	15.4	23.0	0.504
7	7 170305G1_8	12.5	3.03	5.58e3	1.48e4	11.5	-7.9	0.378
8	8 170305G1_9	12.5	3.03	5.11e3	1.29e4	12.1	-3.5	0.396

**Compound name: 13C4-PFHpA**

Response Factor: 1.09794

RRF SD: 0.0510391, Relative SD: 4.64862

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	3.92	1.70e4	1.48e4	13.1	5.0	1.15
2	2 170305G1_3	12.5	3.92	1.69e4	1.61e4	11.9	-4.5	1.05
3	3 170305G1_4	12.5	3.91	1.52e4	1.44e4	12.1	-3.4	1.06
4	4 170305G1_5	12.5	3.91	1.86e4	1.74e4	12.1	-3.1	1.06
5	5 170305G1_6	12.5	3.91	1.95e4	1.72e4	12.9	3.0	1.13
6	6 170305G1_7	12.5	3.91	1.29e4	1.09e4	13.4	7.6	1.18
7	7 170305G1_8	12.5	3.91	1.55e4	1.48e4	11.9	-4.4	1.05
8	8 170305G1_9	12.5	3.91	1.42e4	1.29e4	12.5	-0.2	1.10

Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

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**Compound name: 18O2-PFHxS**

Response Factor: 0.434252

RRF SD: 0.0243573, Relative SD: 5.60903

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.04	7.11e3	1.48e4	13.8	10.7	0.481
2	2 170305G1_3	12.5	4.03	6.83e3	1.61e4	12.2	-2.6	0.423
3	3 170305G1_4	12.5	4.03	5.85e3	1.44e4	11.7	-6.2	0.407
4	4 170305G1_5	12.5	4.02	7.43e3	1.74e4	12.3	-1.8	0.426
5	5 170305G1_6	12.5	4.02	7.64e3	1.72e4	12.8	2.2	0.444
6	6 170305G1_7	12.5	4.02	4.52e3	1.09e4	12.0	-4.4	0.415
7	7 170305G1_8	12.5	4.02	6.24e3	1.48e4	12.1	-2.8	0.422
8	8 170305G1_9	12.5	4.02	5.89e3	1.29e4	13.1	5.0	0.456

**Compound name: 13C2-PFOA**

Response Factor: 4.60838

RRF SD: 0.269705, Relative SD: 5.85249

Response type: Internal Std ( Ref 15 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.32	3.51e4	7.77e3	12.2	-2.0	4.51
2	2 170305G1_3	12.5	4.31	3.53e4	8.14e3	11.8	-5.8	4.34
3	3 170305G1_4	12.5	4.31	2.91e4	6.38e3	12.4	-1.0	4.56
4	4 170305G1_5	12.5	4.30	3.70e4	8.23e3	12.2	-2.4	4.50
5	5 170305G1_6	12.5	4.30	3.46e4	7.88e3	11.9	-4.6	4.40
6	6 170305G1_7	12.5	4.30	2.18e4	4.25e3	13.9	11.6	5.14
7	7 170305G1_8	12.5	4.30	3.30e4	7.29e3	12.3	-1.8	4.53
8	8 170305G1_9	12.5	4.30	3.22e4	6.59e3	13.3	6.0	4.89

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**Compound name: 13C5-PFNA**

Response Factor: 0.867114

RRF SD: 0.0501317, Relative SD: 5.78144

Response type: Internal Std ( Ref 16 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.64	8.36e3	8.87e3	13.6	8.7	0.943
2	2 170305G1_3	12.5	4.64	7.67e3	8.20e3	13.5	7.9	0.936
3	3 170305G1_4	12.5	4.63	5.74e3	7.15e3	11.6	-7.4	0.803
4	4 170305G1_5	12.5	4.63	6.97e3	8.16e3	12.3	-1.4	0.855
5	5 170305G1_6	12.5	4.63	7.48e3	8.62e3	12.5	0.0	0.867
6	6 170305G1_7	12.5	4.63	2.88e3	3.54e3	11.7	-6.0	0.815
7	7 170305G1_8	12.5	4.63	6.50e3	7.60e3	12.3	-1.3	0.856
8	8 170305G1_9	12.5	4.63	7.35e3	8.52e3	12.4	-0.5	0.863

**Compound name: 13C8-PFOS**

Response Factor: 0.95832

RRF SD: 0.0597595, Relative SD: 6.23587

Response type: Internal Std ( Ref 17 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.70	6.28e3	6.73e3	12.2	-2.5	0.934
2	2 170305G1_3	12.5	4.70	6.57e3	7.11e3	12.1	-3.6	0.924
3	3 170305G1_4	12.5	4.69	4.73e3	5.19e3	11.9	-4.7	0.913
4	4 170305G1_5	12.5	4.69	5.18e3	5.45e3	12.4	-0.9	0.950
5	5 170305G1_6	12.5	4.69	5.64e3	6.31e3	11.7	-6.8	0.894
6	6 170305G1_7	12.5	4.69	1.88e3	1.74e3	14.1	12.8	1.08
7	7 170305G1_8	12.5	4.69	5.14e3	5.13e3	13.1	4.4	1.00
8	8 170305G1_9	12.5	4.69	6.26e3	6.45e3	12.7	1.3	0.971



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**Compound name: 13C5-PFHxA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 13 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	3.43	2.72e4	2.72e4	12.5	0.0	1.00
2	2 170305G1_3	12.5	3.43	2.95e4	2.95e4	12.5	0.0	1.00
3	3 170305G1_4	12.5	3.41	2.60e4	2.60e4	12.5	0.0	1.00
4	4 170305G1_5	12.5	3.41	3.17e4	3.17e4	12.5	0.0	1.00
5	5 170305G1_6	12.5	3.41	3.10e4	3.10e4	12.5	0.0	1.00
6	6 170305G1_7	12.5	3.41	2.37e4	2.37e4	12.5	0.0	1.00
7	7 170305G1_8	12.5	3.41	2.69e4	2.69e4	12.5	0.0	1.00
8	8 170305G1_9	12.5	3.41	2.39e4	2.39e4	12.5	0.0	1.00

**Compound name: 13C3-PFHxS**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 14 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.04	1.48e4	1.48e4	12.5	0.0	1.00
2	2 170305G1_3	12.5	4.03	1.61e4	1.61e4	12.5	0.0	1.00
3	3 170305G1_4	12.5	4.03	1.44e4	1.44e4	12.5	0.0	1.00
4	4 170305G1_5	12.5	4.02	1.74e4	1.74e4	12.5	0.0	1.00
5	5 170305G1_6	12.5	4.02	1.72e4	1.72e4	12.5	0.0	1.00
6	6 170305G1_7	12.5	4.03	1.09e4	1.09e4	12.5	0.0	1.00
7	7 170305G1_8	12.5	4.02	1.48e4	1.48e4	12.5	0.0	1.00
8	8 170305G1_9	12.5	4.02	1.29e4	1.29e4	12.5	0.0	1.00

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**Compound name: 13C8-PFOA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 15 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.32	7.77e3	7.77e3	12.5	0.0	1.00
2	2 170305G1_3	12.5	4.31	8.14e3	8.14e3	12.5	0.0	1.00
3	3 170305G1_4	12.5	4.30	6.38e3	6.38e3	12.5	0.0	1.00
4	4 170305G1_5	12.5	4.30	8.23e3	8.23e3	12.5	0.0	1.00
5	5 170305G1_6	12.5	4.30	7.88e3	7.88e3	12.5	0.0	1.00
6	6 170305G1_7	12.5	4.30	4.25e3	4.25e3	12.5	0.0	1.00
7	7 170305G1_8	12.5	4.30	7.29e3	7.29e3	12.5	0.0	1.00
8	8 170305G1_9	12.5	4.30	6.59e3	6.59e3	12.5	0.0	1.00

**Compound name: 13C9-PFNA**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 16 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

#	Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.64	8.87e3	8.87e3	12.5	0.0	1.00
2	2 170305G1_3	12.5	4.64	8.20e3	8.20e3	12.5	0.0	1.00
3	3 170305G1_4	12.5	4.63	7.15e3	7.15e3	12.5	0.0	1.00
4	4 170305G1_5	12.5	4.63	8.16e3	8.16e3	12.5	0.0	1.00
5	5 170305G1_6	12.5	4.63	8.62e3	8.62e3	12.5	0.0	1.00
6	6 170305G1_7	12.5	4.63	3.54e3	3.54e3	12.5	0.0	1.00
7	7 170305G1_8	12.5	4.63	7.60e3	7.60e3	12.5	0.0	1.00
8	8 170305G1_9	12.5	4.63	8.52e3	8.52e3	12.5	0.0	1.00

Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

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**Compound name: 13C4-PFOS**

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 17 ), Area \* ( IS Conc. / IS Area )

Curve type: RF

	# Name	Std. Conc	RT	Resp	IS Resp	Conc.	%Dev	RRF
1	1 170305G1_2	12.5	4.70	6.73e3	6.73e3	12.5	0.0	1.00
2	2 170305G1_3	12.5	4.70	7.11e3	7.11e3	12.5	0.0	1.00
3	3 170305G1_4	12.5	4.69	5.19e3	5.19e3	12.5	0.0	1.00
4	4 170305G1_5	12.5	4.69	5.45e3	5.45e3	12.5	0.0	1.00
5	5 170305G1_6	12.5	4.69	6.31e3	6.31e3	12.5	0.0	1.00
6	6 170305G1_7	12.5	4.69	1.74e3	1.74e3	12.5	0.0	1.00
7	7 170305G1_8	12.5	4.69	5.13e3	5.13e3	12.5	0.0	1.00
8	8 170305G1_9	12.5	4.69	6.45e3	6.45e3	12.5	0.0	1.00

Dataset: Untitled

Last Altered: Monday, March 06, 2017 09:13:54 Pacific Standard Time

Printed: Monday, March 06, 2017 09:14:12 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53  
Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Compound name: PFBS

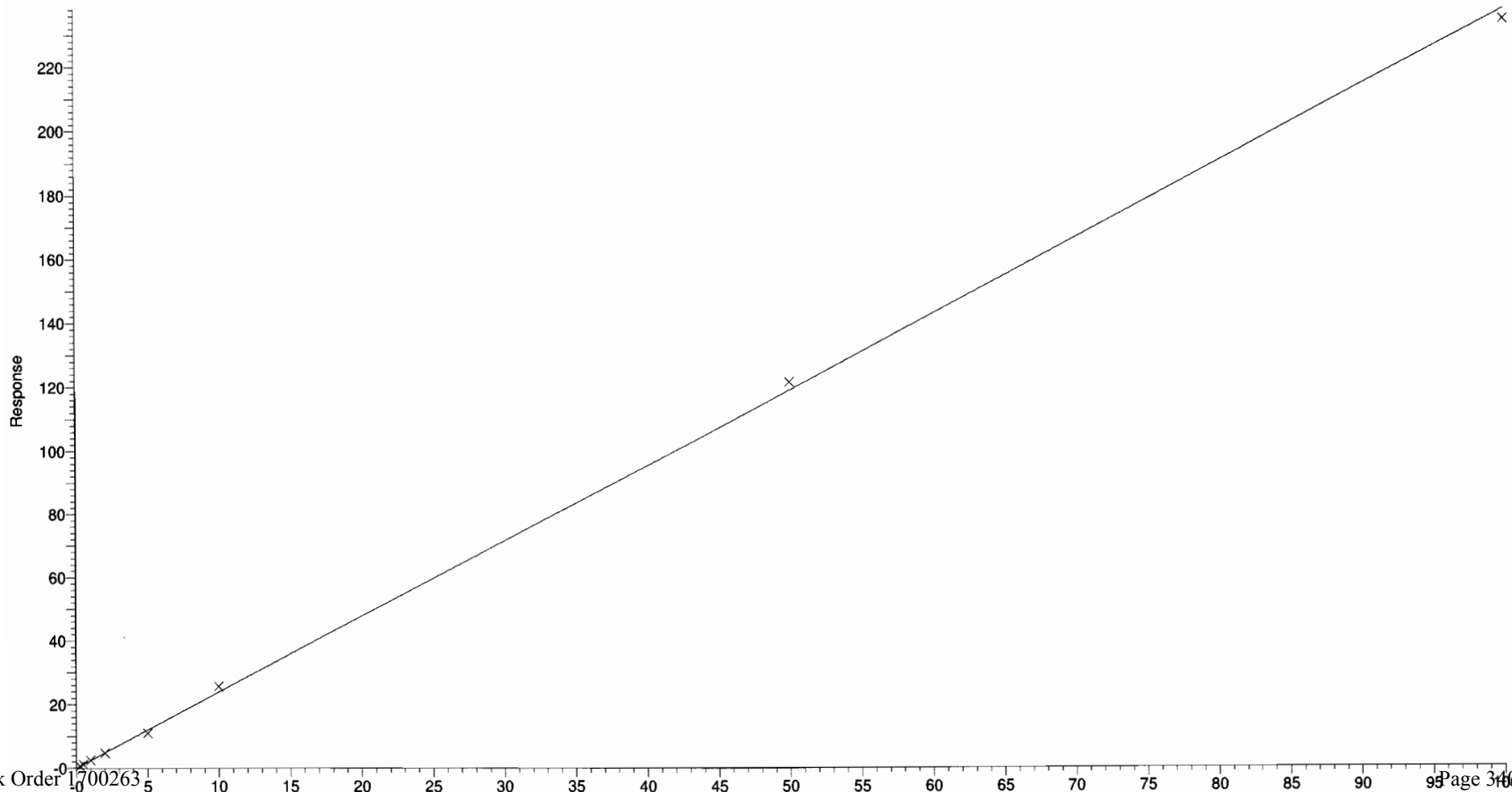
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1	170305G1_1	IPA	05-Mar-17	12:34:35
2	170305G1_2	ST170305G1-1 PFC CS-2 17C0501	05-Mar-17	12:46:48
3	170305G1_3	ST170305G1-2 PFC CS-1 17C0502	05-Mar-17	12:59:15
4	170305G1_4	ST170305G1-3 PFC CS0 17C0503	05-Mar-17	13:11:49
5	170305G1_5	ST170305G1-4 PFC CS1 17C0504	05-Mar-17	13:24:21
6	170305G1_6	ST170305G1-5 PFC CS2 17C0505	05-Mar-17	13:36:55
7	170305G1_7	ST170305G1-6 PFC CS3 17C0506	05-Mar-17	13:49:29
8	170305G1_8	ST170305G1-7 PFC CS4 17C0507	05-Mar-17	14:02:00
9	170305G1_9	ST170305G1-8 PFC CS5 17C0508	05-Mar-17	14:14:34
10	170305G1_10	IPA	05-Mar-17	14:27:08
11	170305G1_11	SS170305G1-1 PFC SSS 17C0509	05-Mar-17	14:39:40
12	170305G1_12	IPA	05-Mar-17	14:52:09
13	170305G1_13	B7C0012-BS1 OPR 0.125	05-Mar-17	15:04:45
14	170305G1_14	B7C0010-BS1 OPR 0.125	05-Mar-17	15:17:15
15	170305G1_15	IPA	05-Mar-17	15:29:48
16	170305G1_16	B7C0012-BLK1 Method Blank 0.125	05-Mar-17	15:42:23
17	170305G1_17	B7C0010-BLK1 Method Blank 0.125	05-Mar-17	15:54:54
18	170305G1_18	1700268-02RE1 WI-CV-GW05M-0217 0.125	05-Mar-17	16:07:28
19	170305G1_19	1700268-04RE1 WI-CV-GW11M-0217 0.125	05-Mar-17	16:20:00
20	170305G1_20	1700280-01 WI-CV-GW03M-0217 0.125	05-Mar-17	16:32:34
21	170305G1_21	1700280-02 WI-CV-GW03D-0217 0.125	05-Mar-17	16:45:07
22	170305G1_22	1700280-03 WI-CV-EB07-022717 0.125	05-Mar-17	16:57:36
23	170305G1_23	1700280-04 WI-CV-GW04M-0217 0.125	05-Mar-17	17:10:09
24	170305G1_24	1700280-05 WI-CV-GW01M-0217 0.125	05-Mar-17	17:22:42
25	170305G1_25	1700280-06 WI-CV-EB08-022817 0.125	05-Mar-17	17:35:16
26	170305G1_26	1700280-07 WI-CV-GW01D-0217 0.125	05-Mar-17	17:47:49
27	170305G1_27	1700277-01 MILK-022717 0.005	05-Mar-17	18:00:22
28	170305G1_28	IPA	05-Mar-17	18:12:56
29	170305G1_29	ST170305G1-9 PFC CS3 17C0506	05-Mar-17	18:25:28
30	170305G1_30	IPA	05-Mar-17	18:38:01

Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

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Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53  
Calibration: U:\G1.PRO\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:19:21

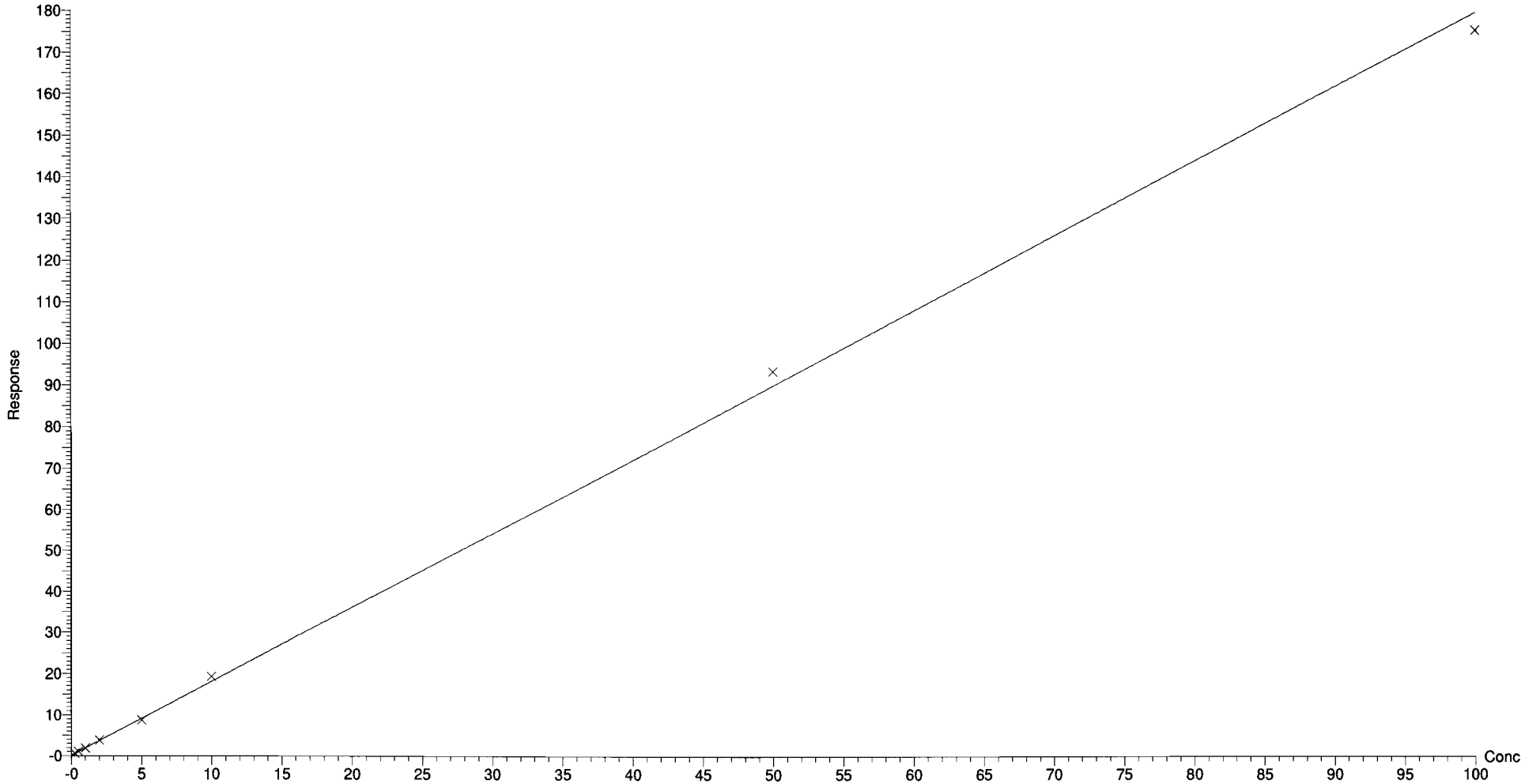
Compound name: PFBS  
Correlation coefficient:  $r = 0.999596$ ,  $r^2 = 0.999192$   
Calibration curve:  $2.38097 * x + 0.0682571$   
Response type: Internal Std ( Ref 7 ), Area \* ( IS Conc. / IS Area )  
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

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Compound name: PFHpA  
Correlation coefficient:  $r = 0.999429$ ,  $r^2 = 0.998857$   
Calibration curve:  $1.79957 * x + 0.123896$   
Response type: Internal Std ( Ref 8 ), Area \* ( IS Conc. / IS Area )  
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

Last Altered: Monday, March 06, 2017 08:19:21 Pacific Standard Time

Printed: Monday, March 06, 2017 08:27:41 Pacific Standard Time

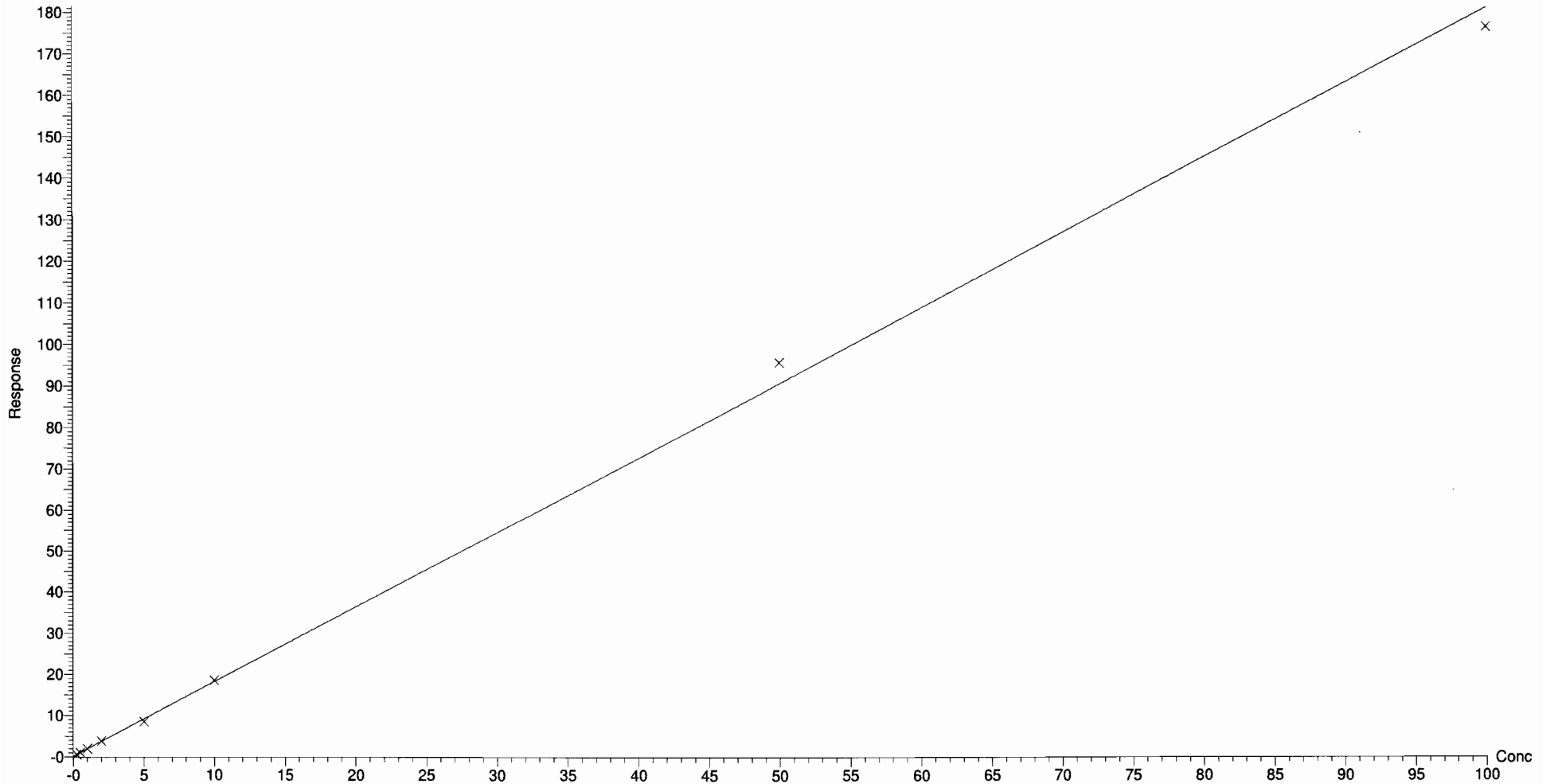
Compound name: PFHxS

Correlation coefficient:  $r = 0.999200$ ,  $r^2 = 0.998401$

Calibration curve:  $1.81334 * x + 0.103191$

Response type: Internal Std ( Ref 9 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

Last Altered: Monday, March 06, 2017 08:19:21 Pacific Standard Time

Printed: Monday, March 06, 2017 08:27:41 Pacific Standard Time

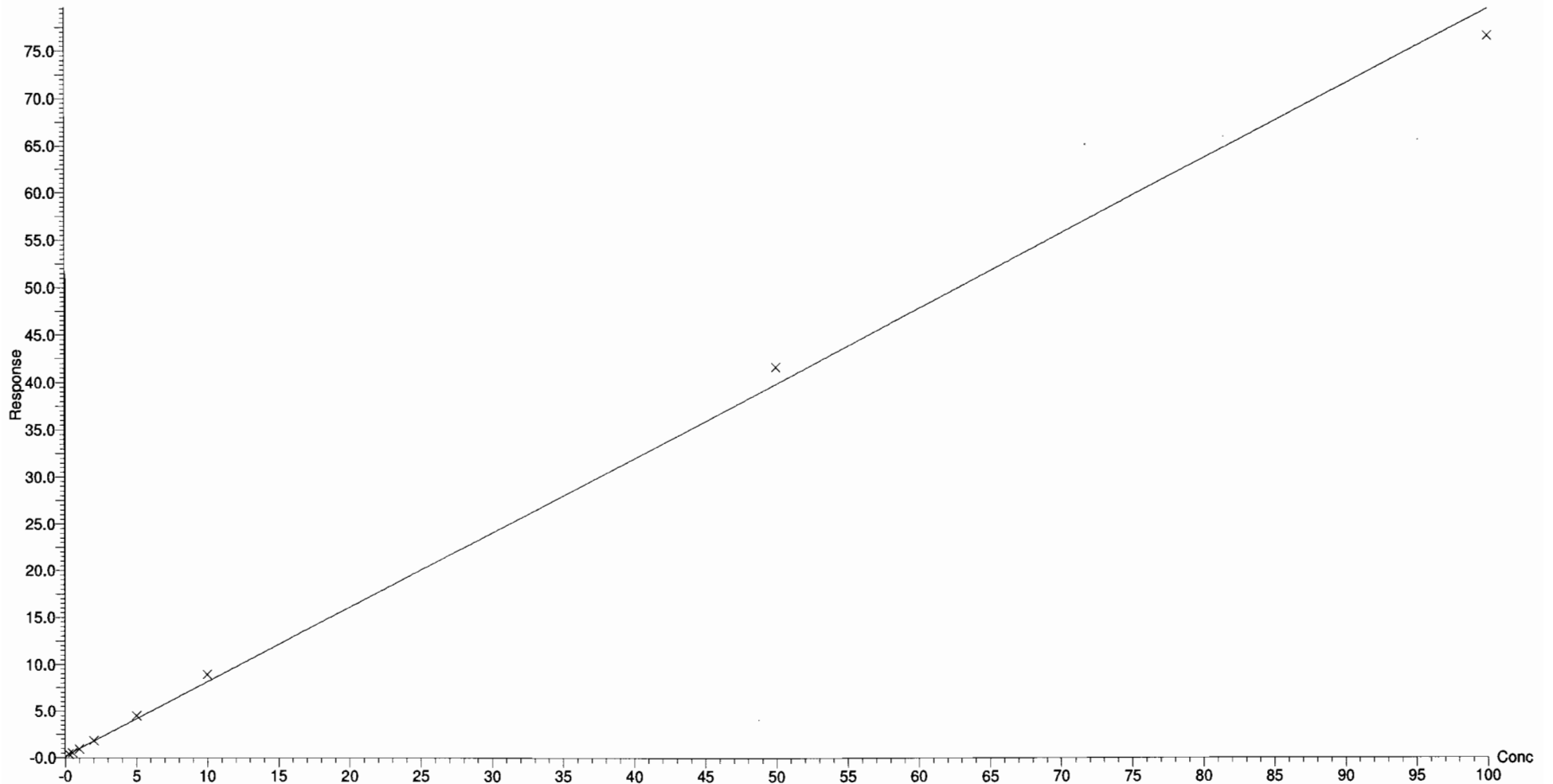
Compound name: PFOA

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Calibration curve:  $0.794457 * x + 0.179058$

Response type: Internal Std ( Ref 10 ), Area \* ( IS Conc. / IS Area )

Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None





Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

Last Altered: Monday, March 06, 2017 08:19:21 Pacific Standard Time

Printed: Monday, March 06, 2017 08:27:41 Pacific Standard Time

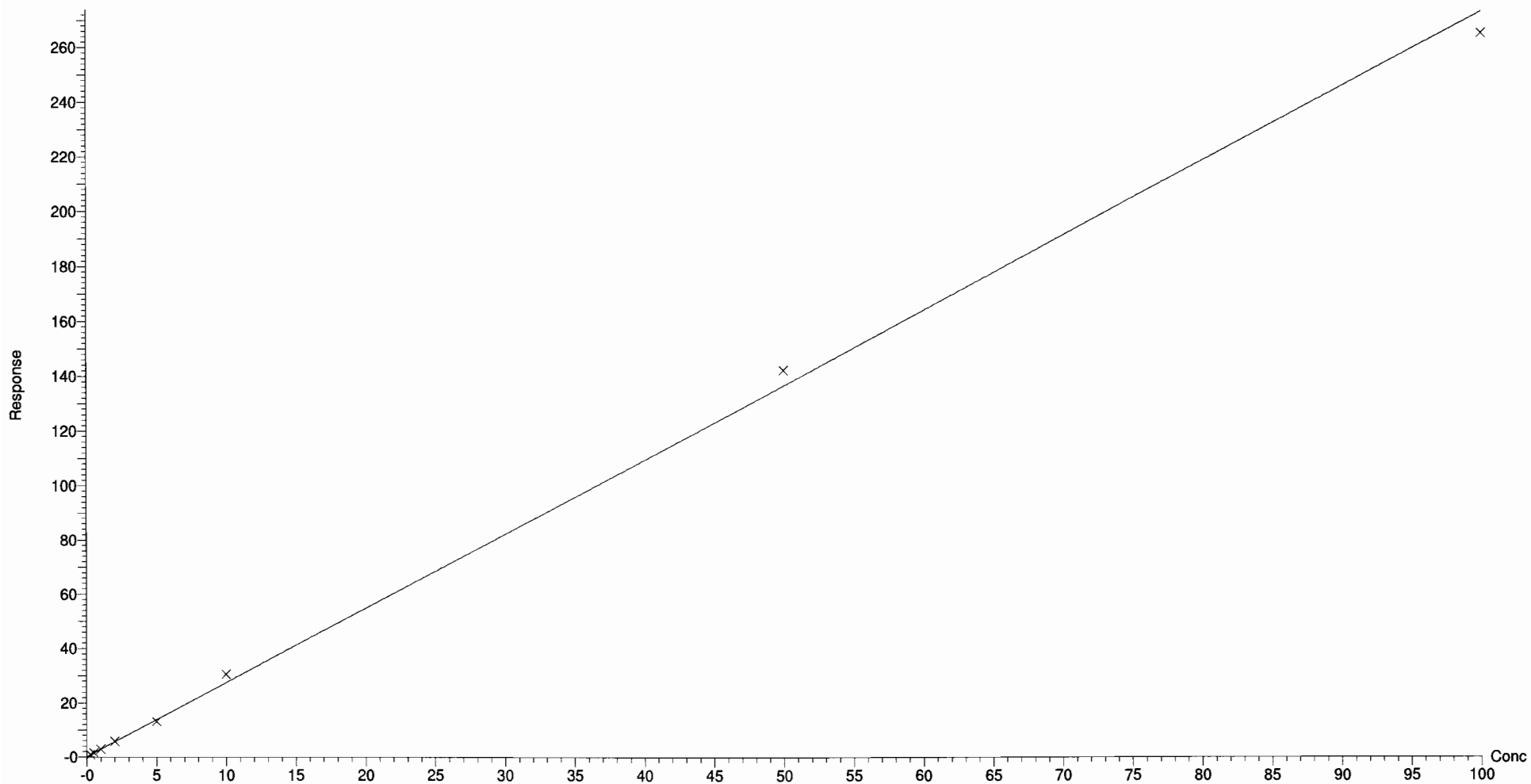
Compound name: PFNA

Correlation coefficient:  $r = 0.999011$ ,  $r^2 = 0.998022$

Calibration curve:  $2.73664 * x + 0.0966541$

Response type: Internal Std ( Ref 11 ), Area \* ( IS Conc. / IS Area )

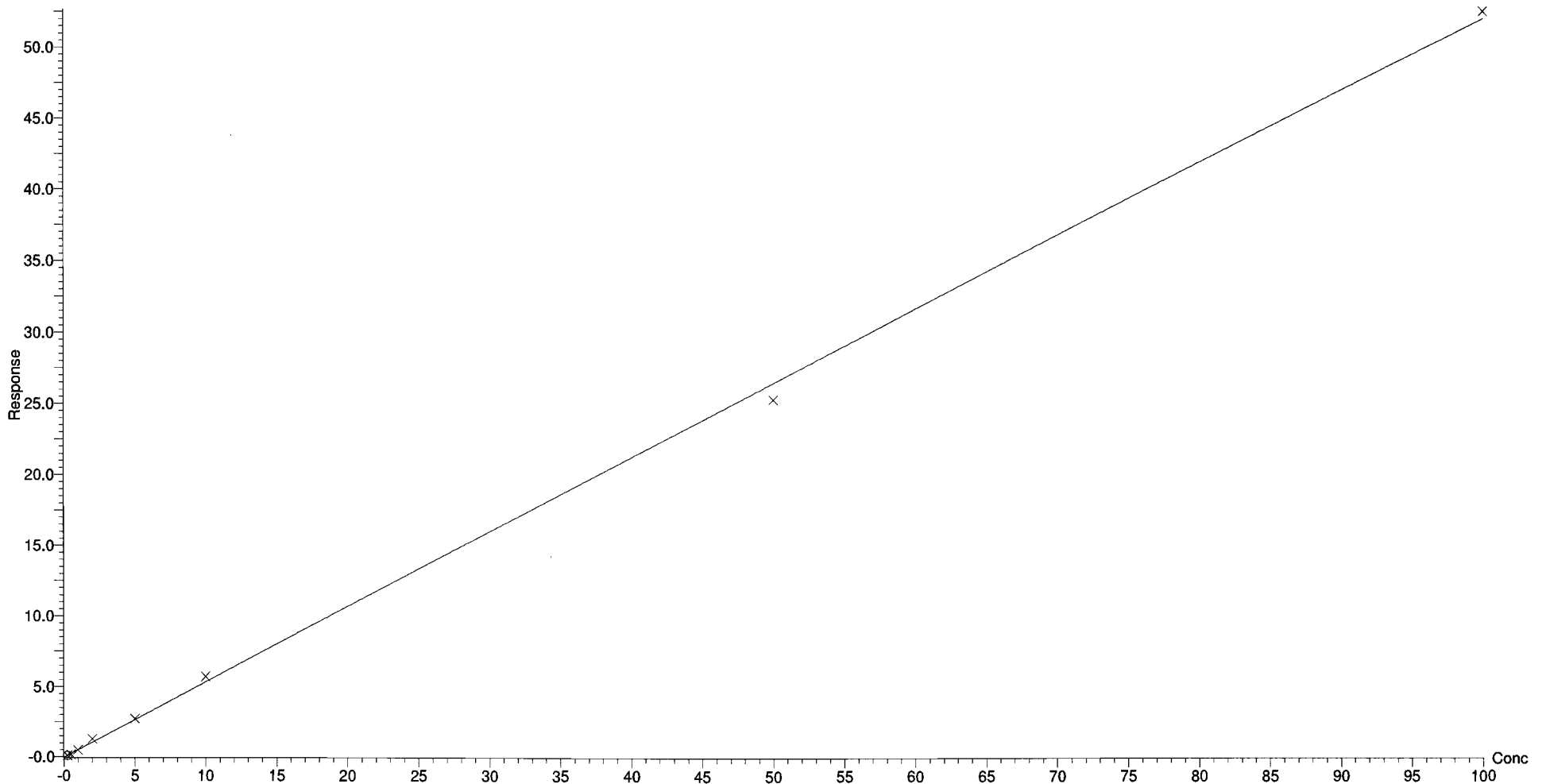
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-CRV.qld

Last Altered: Monday, March 06, 2017 08:19:21 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:27:41 Pacific Standard Time

Compound name: PFOS  
Coefficient of Determination:  $R^2 = 0.997963$   
Calibration curve:  $-0.000185224 * x^2 + 0.54028 * x + -0.0525057$   
Response type: Internal Std ( Ref 12 ), Area \* ( IS Conc. / IS Area )  
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



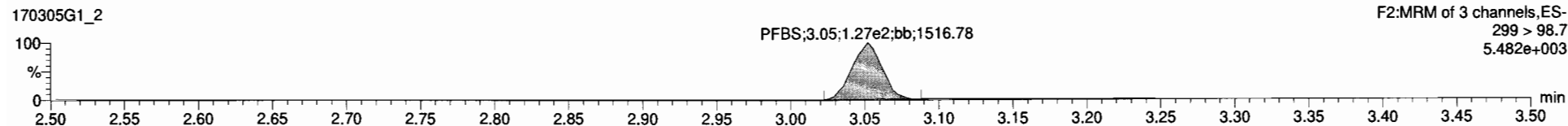
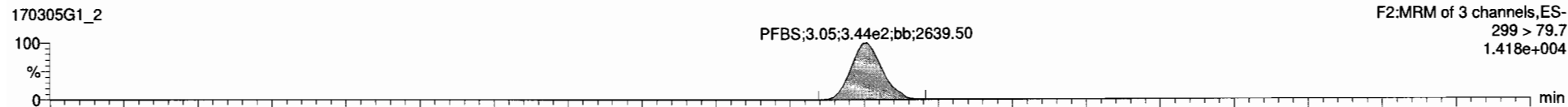
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Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

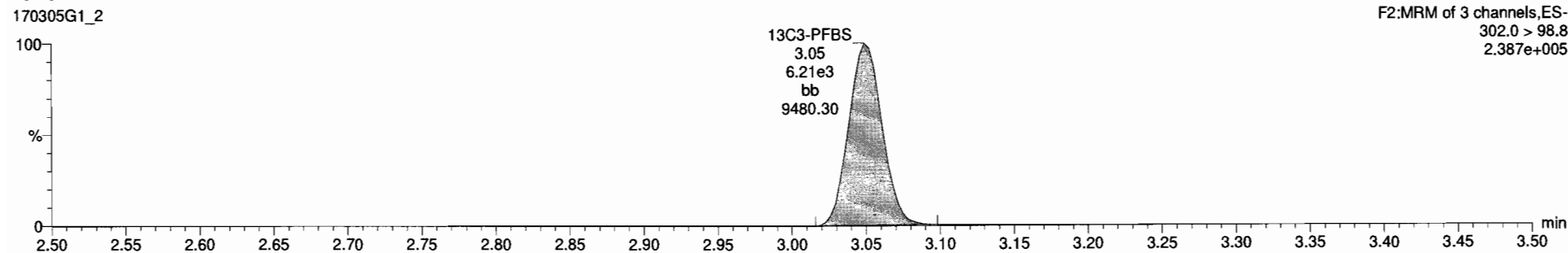
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Calibration: 06 Mar 2017 08:36:20

ID: ST170305G1-1 PFC CS-2 17C0501, Description: PFC CS-2 17C0501 A, Name: 170305G1\_2, Date: 05-Mar-2017, Time: 12:46:48, Instrument: , Lab: , User:

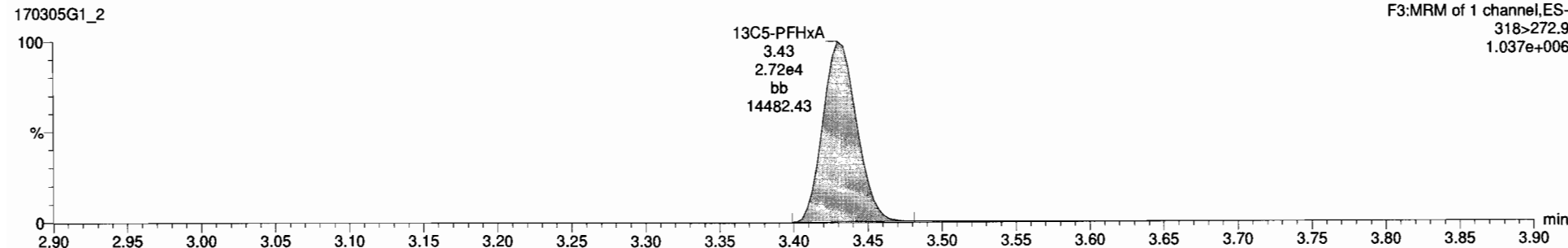
**PFBS**



**13C3-PFBS**



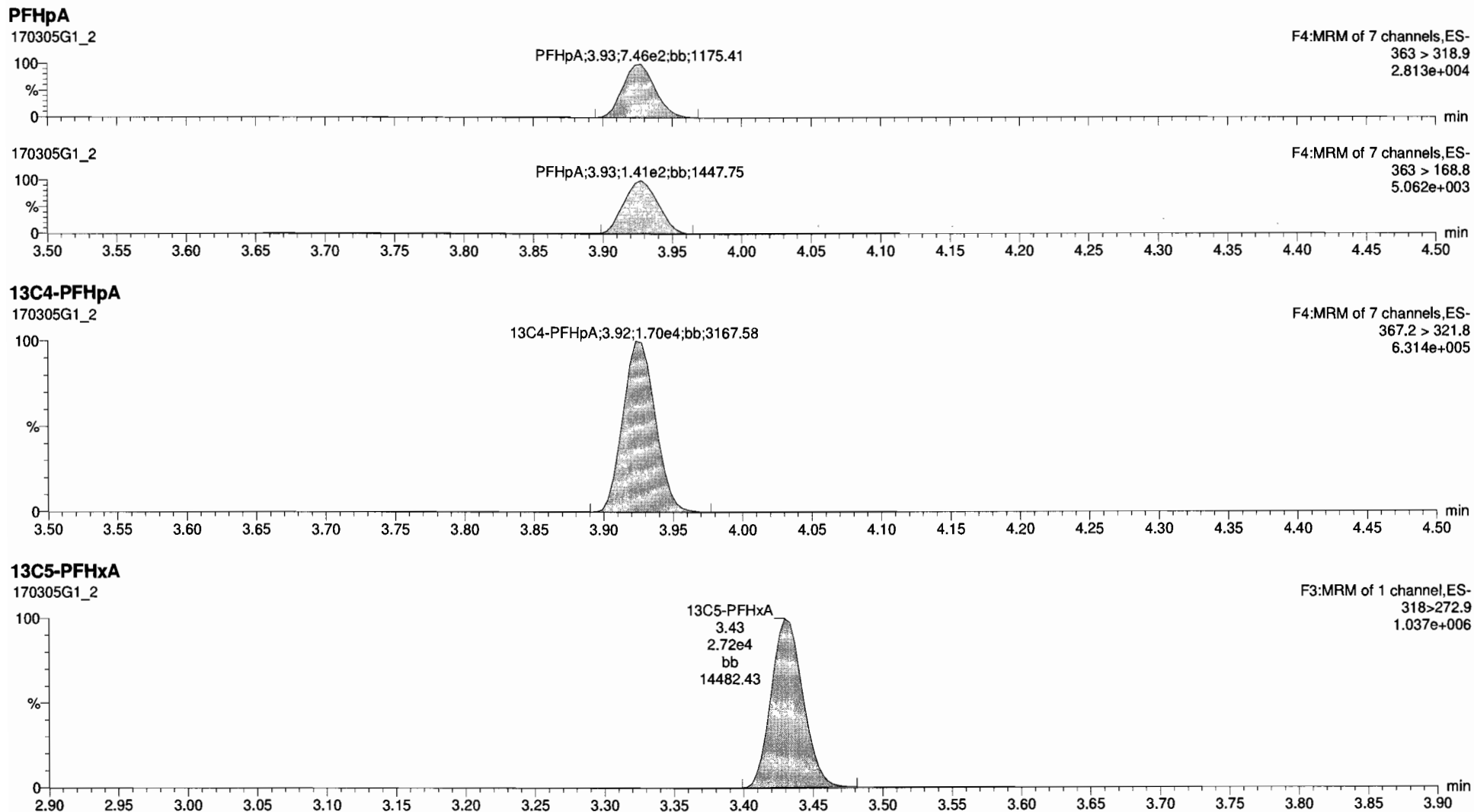
**13C5-PFHxA**



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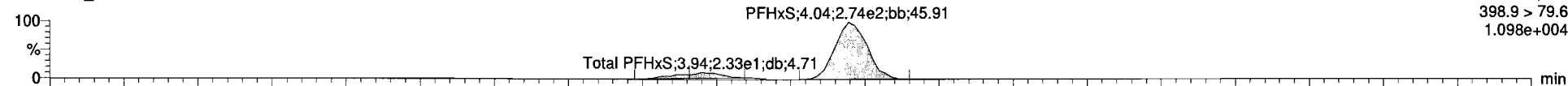
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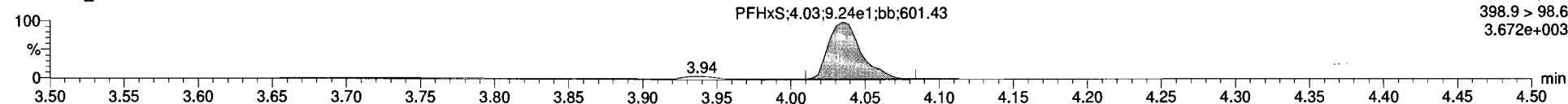
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**Total PFHxS**

170305G1\_2

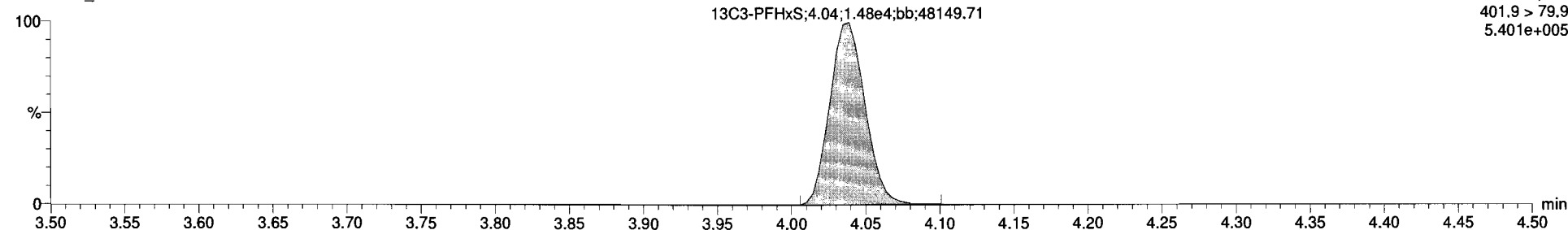


170305G1\_2



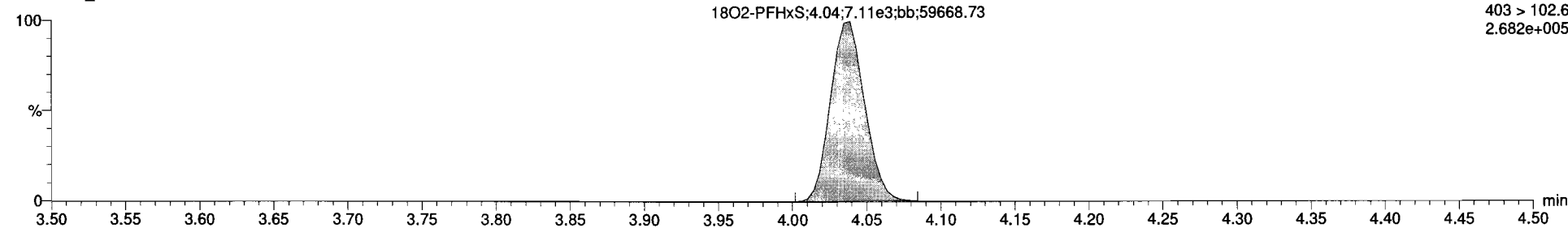
**13C3-PFHxS**

170305G1\_2

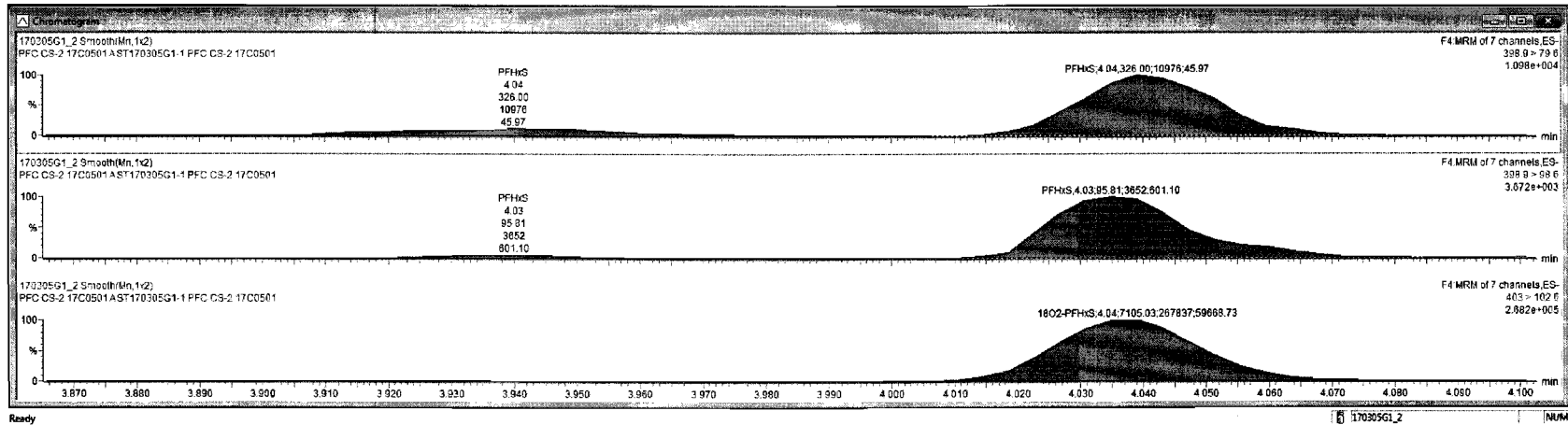


**18O2-PFHxS**

170305G1\_2



#	Name	Trace	Area	RRP	Wt%	Pred RT	RT	Conc.	SUOL	%Rec	DL
1	PFBS	299 > 79.7	3.44e2		1.000	3.05	3.05	0.283	NO	105.1	
2	PFHpA	363 > 318.8	7.46e2		1.000	3.92	3.93	0.235	NO	94.2	
3	PFHxS	398.9 > 79.8	3.29e2		1.000	4.04	4.04	0.259	NO	103.8	
4	PFOA	413 > 368.7	1.04e3		1.000	4.32	4.32	0.241	NO	96.3	
5	PFNA	463 > 418.8	3.06e2		1.000	4.64	4.65	0.241	NO	96.5	
6	PFOS	499 > 79.9	3.72e1		1.000	4.71	4.62	0.234	NO	93.7	0.1069576
7	13C3-PFBS	302.0 > 98.8	6.21e3	0.410	1.000	3.04	3.05	12.8	NO	102.4	0.0035537
8	13C3-PFHpA	367.2 > 321.8	1.70e4	1.10	1.000	3.82	3.92	13.1	NO	105.0	0.0105143
9	18O2-PFHxS	403 > 102.6	7.11e3	0.434	1.000	4.04	4.04	13.8	NO	110.7	0.0005992
10	13C2-PFOA	414.8 > 368.7	3.51e4	4.61	1.000	4.32	4.32	12.2	NO	98.0	0.0040166
11	13C5-PFNA	468.2 > 422.9	8.36e3	0.867	1.000	4.64	4.64	13.6	NO	103.7	0.0016950
12	13C8-PFOS	507.0 > 79.9	6.28e3	0.958	1.000	4.70	4.70	12.2	NO	97.5	0.0431338
13	13C3-PFHpA	318 > 272.9	2.72e4	1.00	1.000	3.29	3.43	12.5	NO	100.0	0.0021576
14	13C3-PFHxS	401.8 > 79.9	1.48e4	1.00	1.000	3.94	4.04	12.5	NO	100.0	0.0036490
15	13C3-PFOA	421.3 > 376	7.77e3	1.00	1.000	4.22	4.32	12.5	NO	100.0	0.0023119
16	13C5-PFNA	472.2 > 428.9	8.87e3	1.00	1.000	4.56	4.64	12.5	NO	100.0	0.0028988
17	13C4-PFOS	503.0 > 79.9	6.73e3	1.60	1.000	4.67	4.70	12.5	NO	100.0	0.0015837
18	Total PFBS	299 > 79.7	3.44e2		1.000	3.11		0.283	NO		
19	Total PFHxS	398.9 > 79.6	3.63e2		1.000	4.09		0.259	NO		
20	Total PFOA	413 > 368.7	1.10e3		1.000	4.39		0.241	NO		
21	Total PFOS	499 > 79.9	3.72e1		1.000	4.67		0.234	NO		0.1069576



Dataset: Untitled

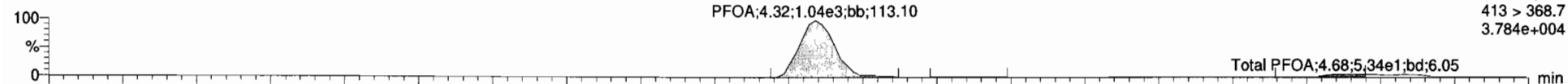
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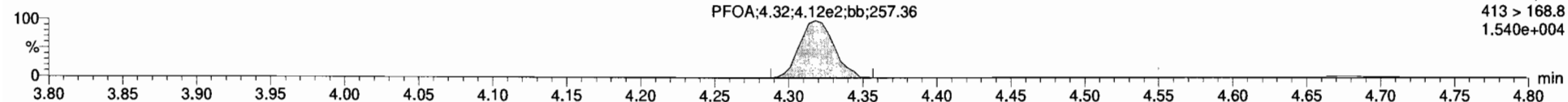
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**Total PFOA**

170305G1\_2

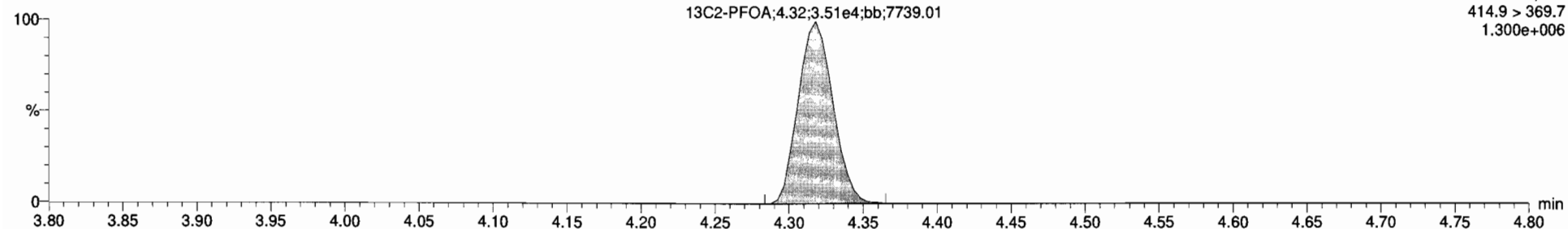


170305G1\_2



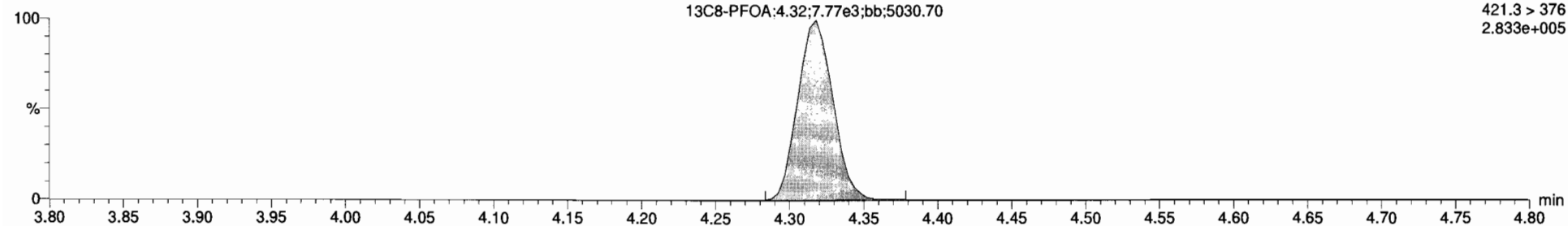
**13C2-PFOA**

170305G1\_2



**13C8-PFOA**

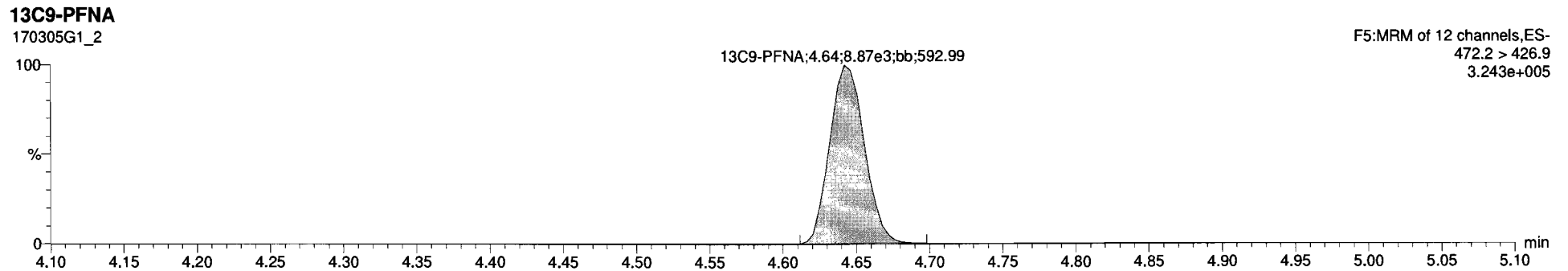
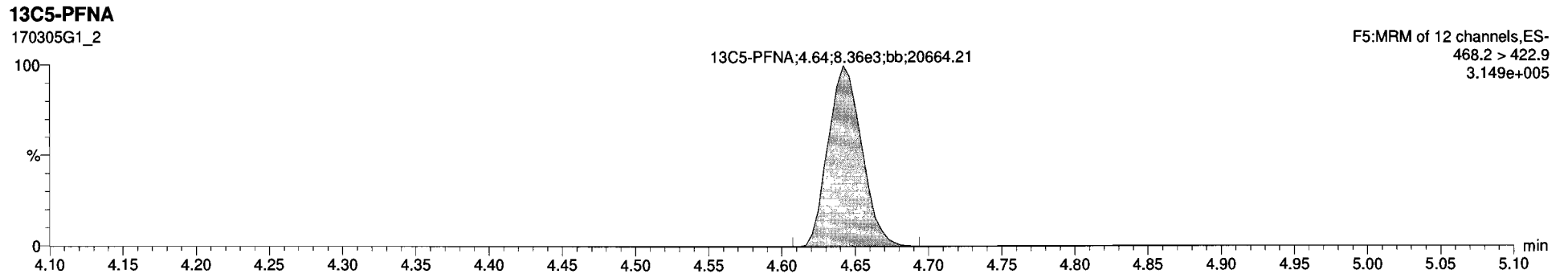
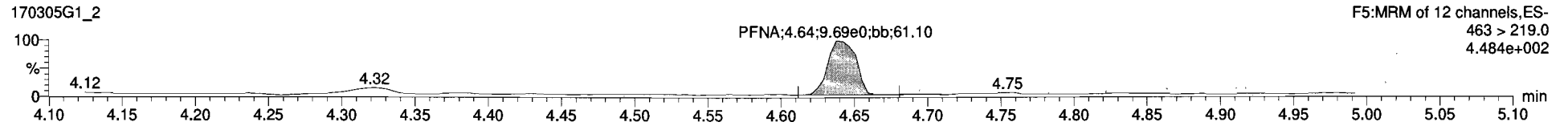
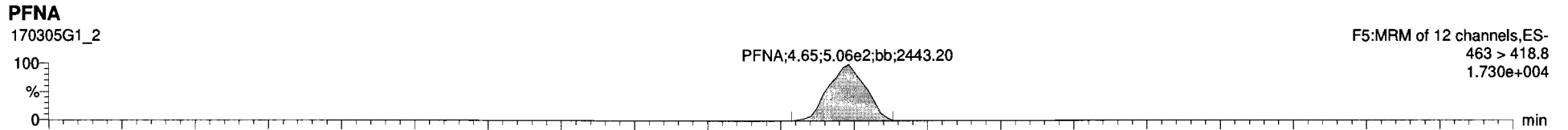
170305G1\_2



Dataset: Untitled

Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-1 PFC CS-2 17C0501, Description: PFC CS-2 17C0501 A, Name: 170305G1\_2, Date: 05-Mar-2017, Time: 12:46:48, Instrument: , Lab: , User:





Dataset: Untitled

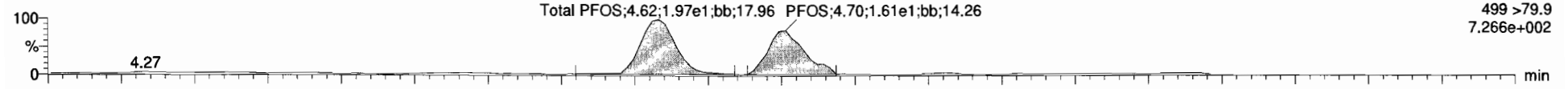
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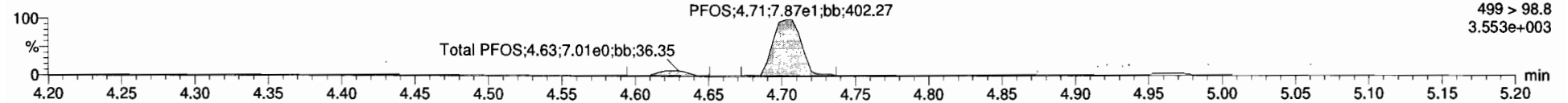
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**Total PFOS**

170305G1\_2

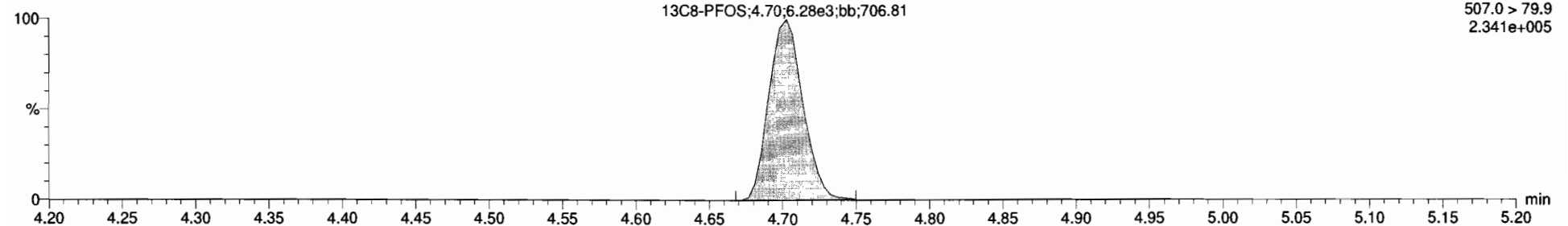


170305G1\_2



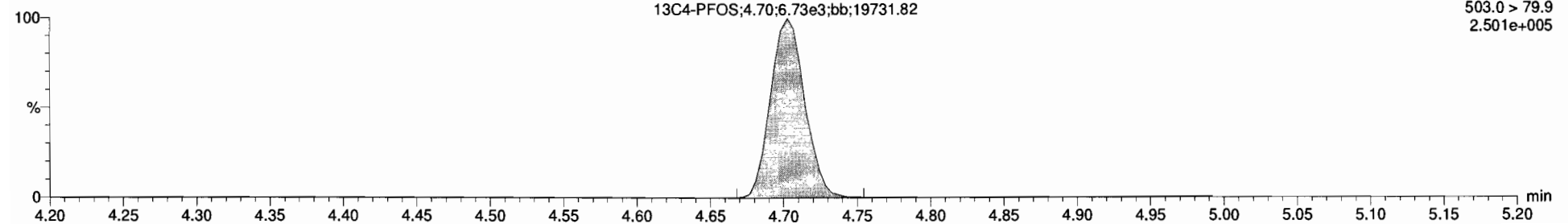
**13C8-PFOS**

170305G1\_2

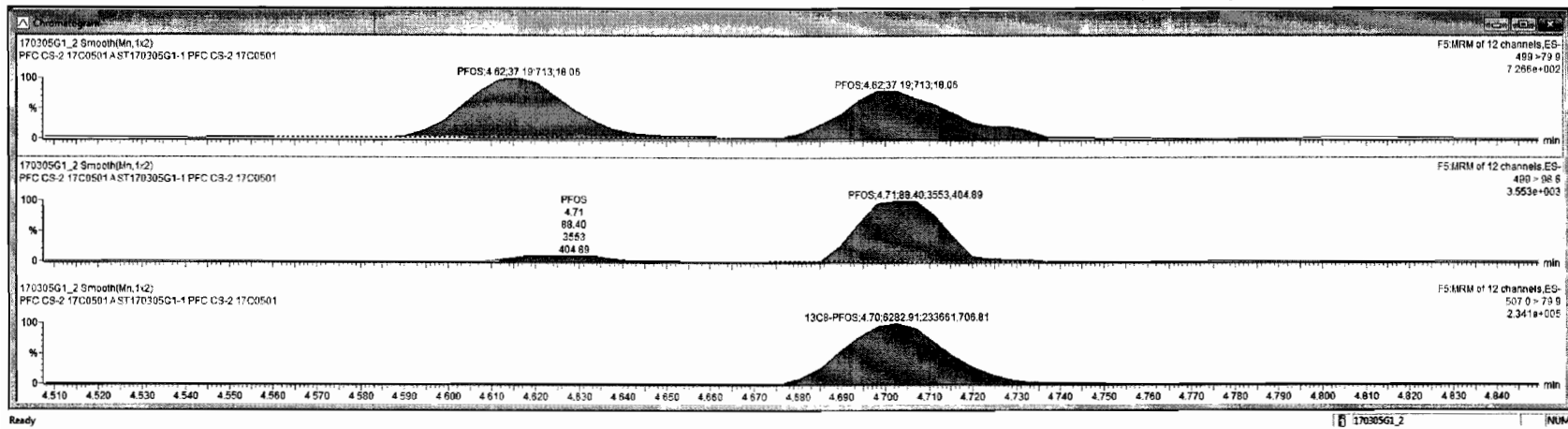


**13C4-PFOS**

170305G1\_2



Name	Area	Area	RRF	WtVol	ProdRT	RT	Conc	>MOL	%Rec	DL
1 PFBS	299 > 79.7	3.44e2		1.000	3.95	3.95	0.263	NO	165.1	
2 PFHpA	363 > 318.9	7.45e2		1.000	3.92	3.93	0.235	NO	94.2	
3 PFHxS	398.9 > 79.6	3.26e2		1.000	4.04	4.04	0.259	NO	103.8	
4 PFOA	413 > 368.7	1.04e3		1.000	4.32	4.32	0.241	NO	96.3	
5 PFNA	463 > 418.8	5.06e2		1.000	4.64	4.65	0.241	NO	96.5	
6 PFOS	499 > 79.9	3.72e1		1.000	4.71	4.62	0.234	NO	93.7	0.1069576
7 13C3-PFBS	302.0 > 98.8	6.21e3	0.410	1.000	3.94	3.95	12.8	NO	102.4	0.0035537
8 13C4-PFHpA	367.2 > 321.8	1.70e4	1.10	1.000	3.92	3.92	13.1	NO	105.0	0.0105143
9 18O2-PFHxS	403 > 102.6	7.11e3	0.434	1.000	4.04	4.04	13.8	NO	110.7	0.0025922
10 13C2-PFOA	414.9 > 369.7	3.51e4	4.61	1.000	4.32	4.32	12.2	NO	99.0	0.0040166
11 13C5-PFNA	468.2 > 422.9	8.36e3	0.867	1.000	4.64	4.64	13.6	NO	108.7	0.0016950
12 13C8-PFOS	507.0 > 79.9	6.28e3	0.958	1.000	4.70	4.70	12.2	NO	97.5	0.0431338
13 13C3-PFHxS	316 > 272.9	2.72e4	1.00	1.000	3.29	3.43	12.5	NO	100.0	0.0021578
14 13C3-PFHxS	401.9 > 79.9	1.48e4	1.00	1.000	3.94	4.04	12.5	NO	100.0	0.0006490
15 13C3-PFOA	421.3 > 376	7.77e3	1.00	1.000	4.22	4.32	12.5	NO	100.0	0.0052119
16 13C3-PFNA	472.2 > 426.5	8.87e3	1.00	1.000	4.58	4.64	12.5	NO	100.0	0.0526988
17 13C4-PFOS	503.0 > 79.9	6.73e3	1.00	1.000	4.67	4.70	12.5	NO	100.0	0.0015837
18 Total PFBS	299 > 79.7	3.44e2		1.000	3.11		0.263	NO		
19 Total PFHxS	398.9 > 79.6	3.63e2		1.000	4.09		0.259	NO		
20 Total PFOA	413 > 368.7	1.10e3		1.000	4.39		0.241	NO		
21 Total PFOS	499 > 79.9	3.72e1		1.000	4.67		0.234	NO		0.1069576



Dataset: Untitled

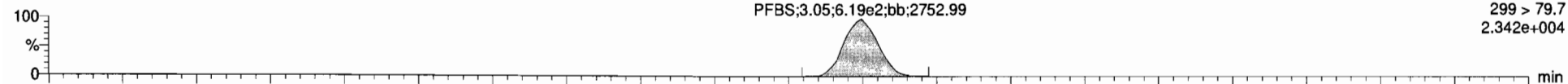
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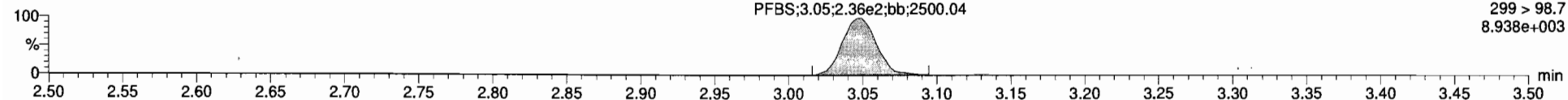
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**PFBS**

170305G1\_3

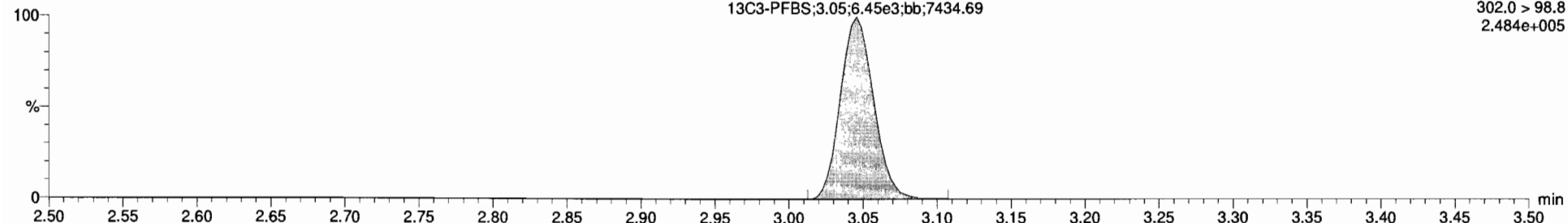


170305G1\_3



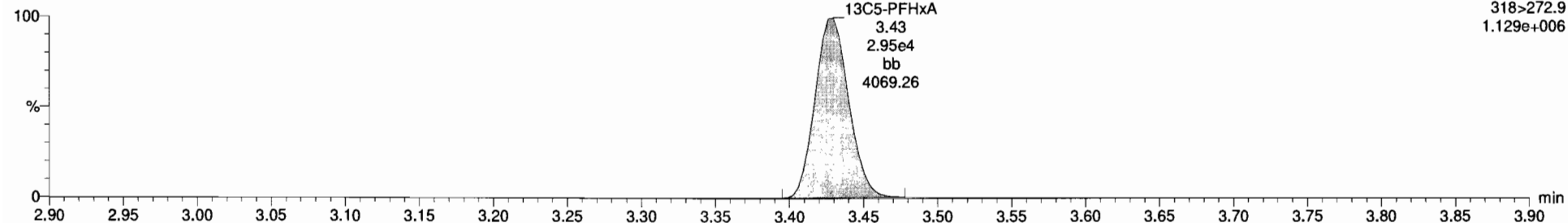
**13C3-PFBS**

170305G1\_3



**13C5-PFHxA**

170305G1\_3



Dataset: Untitled

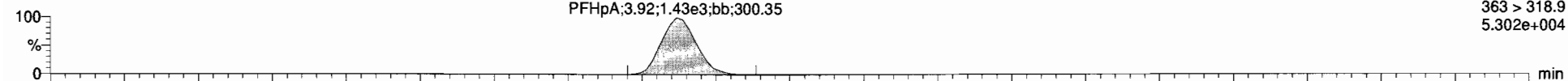
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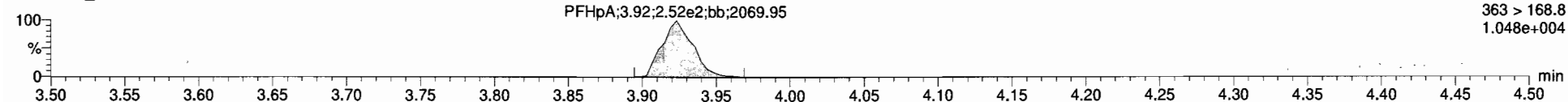
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**PFHpA**

170305G1\_3

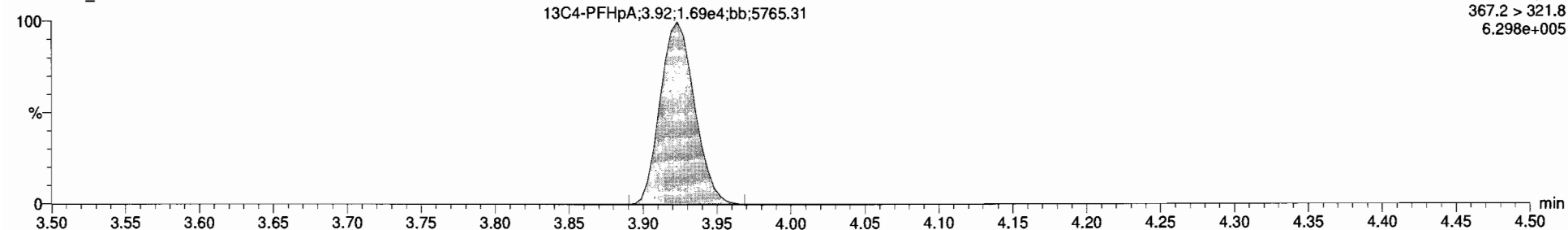


170305G1\_3



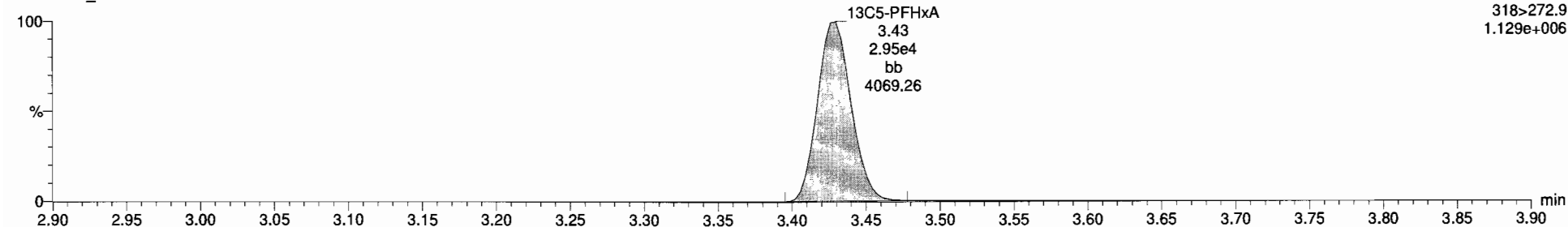
**13C4-PFHpA**

170305G1\_3



**13C5-PFHxA**

170305G1\_3



Dataset: Untitled

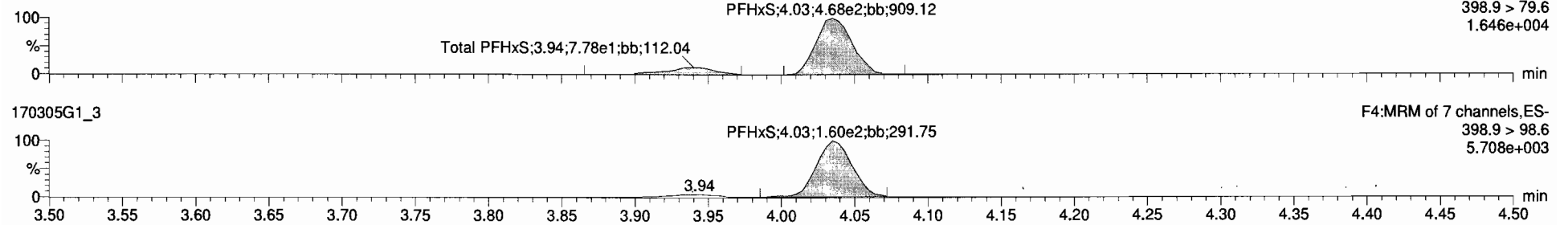
Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time

Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-2 PFC CS-1 17C0502, Description: PFC CS-1 17C0502 A, Name: 170305G1\_3, Date: 05-Mar-2017, Time: 12:59:15, Instrument: , Lab: , User:

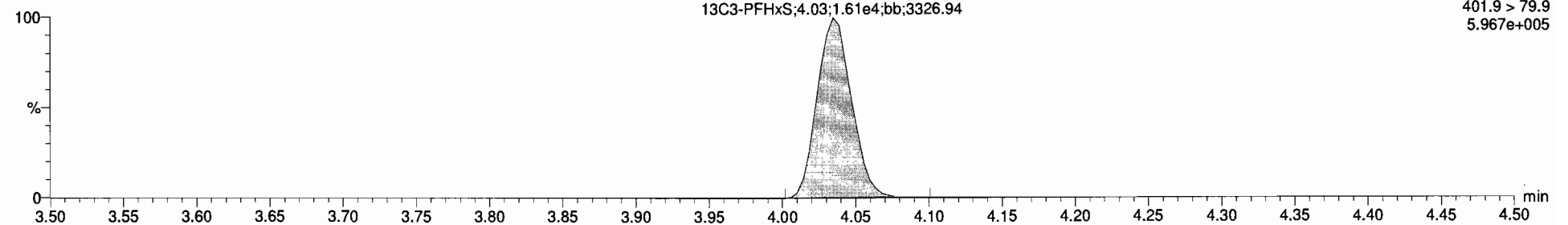
**Total PFHxS**

170305G1\_3



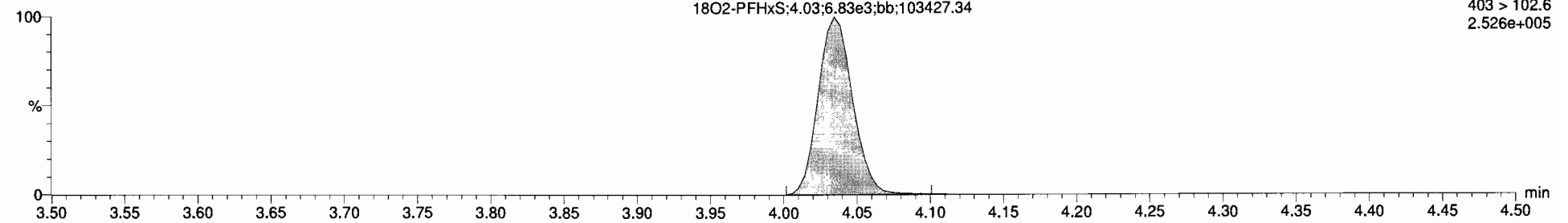
**13C3-PFHxS**

170305G1\_3



**18O2-PFHxS**

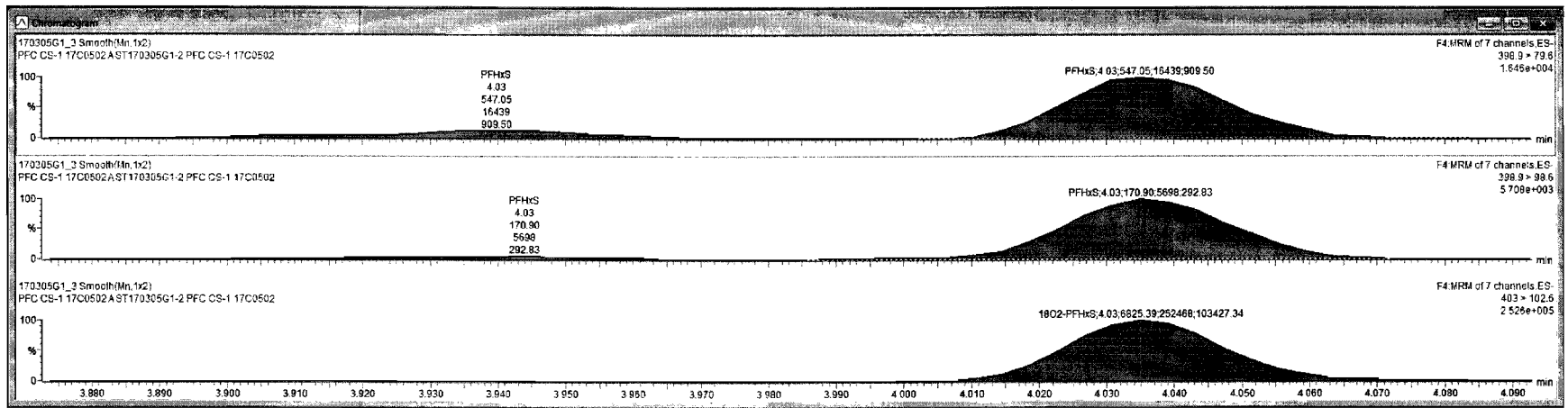
170305G1\_3





170305G1\_3 - ST170305G1.2 PFC CS-1 17C0502 PFC CS-1 17C0502 A

Name	Trace	Area	RRF	WtVol	Pre3.RT	RT	Conc.	>NDL	%Rec	DL	
1	PFBS	299 > 79.7	6.19e2	1.000	3.05	3.05	0.475	NO	95.0		
2	PFHpA	363 > 318.9	1.43e3	1.000	3.92	3.92	0.518	NO	103.7		
3	PFHxS	398.9 > 79.8	5.47e2	1.000	4.03	4.03	0.496	NO	99.1		
4	PFOA	413 > 368.7	1.52e3	1.000	4.31	4.31	0.452	NO	90.4		
5	PFNA	463 > 418.8	8.81e2	1.000	4.64	4.64	0.489	NO	97.9		
6	PFOS	499 > 79.9	7.39e1	1.000	4.71	4.71	0.358	NO	71.5	0.1053526	
7	13C3-PFBS	302.0 > 98.8	6.45e3	0.410	1.000	3.04	3.95	12.2	NO	97.5	0.0042668
8	13C4-PFHpA	367.2 > 321.8	1.89e4	1.10	1.000	3.91	3.92	11.9	NO	95.5	0.0052041
9	18O2-PFHxS	403 > 102.6	6.83e3	0.434	1.000	4.03	4.03	12.2	NO	97.4	0.0002946
10	13C2-PFOA	414.9 > 369.7	3.53e4	4.61	1.000	4.31	4.31	11.8	NO	94.2	0.0083474
11	13C3-PFNA	468.2 > 422.9	7.87e3	0.867	1.000	4.64	4.64	13.5	NO	107.9	0.0073319
12	13C8-PFOS	507.0 > 79.9	6.57e3	0.958	1.000	4.70	4.70	12.1	NO	96.4	0.0047793
13	13C5-PFHxA	318 > 272.9	2.95e4	1.00	1.000	3.29	3.43	12.5	NO	100.0	0.0076795
14	13C3-PFHxS	401.9 > 79.9	1.61e4	1.00	1.000	3.94	4.03	12.5	NO	100.0	0.0083970
15	13C8-PFOA	421.3 > 376	8.14e3	1.00	1.000	4.22	4.31	12.5	NO	100.0	0.0096315
16	13C9-PFNA	472.2 > 426.8	8.20e3	1.00	1.000	4.56	4.64	12.5	NO	100.0	0.0015263
17	13C4-PFOS	503.0 > 79.9	7.11e3	1.00	1.000	4.67	4.70	12.5	NO	100.0	0.0052005
18	Total PFBS	299 > 79.7	6.19e2		1.000	3.11		0.475	NO		
19	Total PFHxS	398.9 > 79.8	6.25e2		1.000	4.09		0.517	NO		
20	Total PFOA	413 > 368.7	1.56e3		1.000	4.39		0.452	NO		
21	Total PFOS	499 > 79.9	9.52e1		1.000	4.67		0.530	NO		0.1053528



Ready

170305G1\_3

NUM

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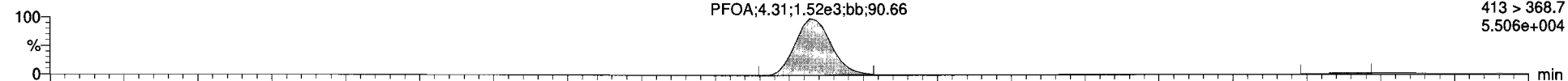
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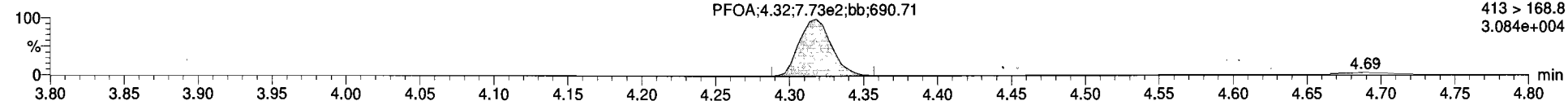
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**Total PFOA**

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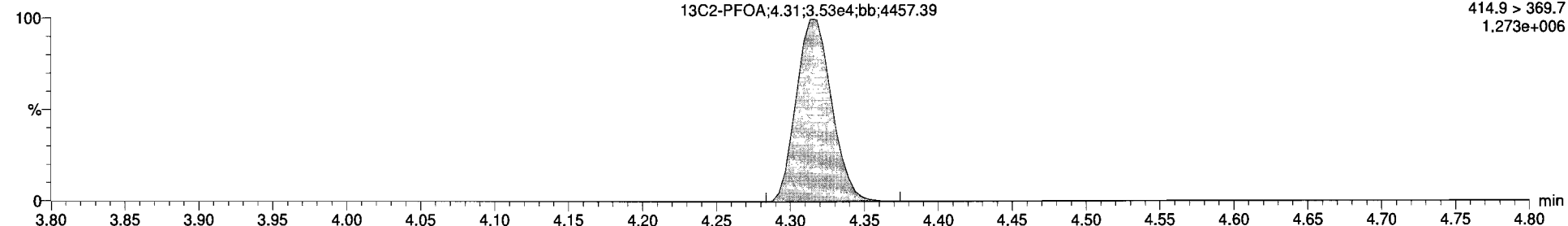


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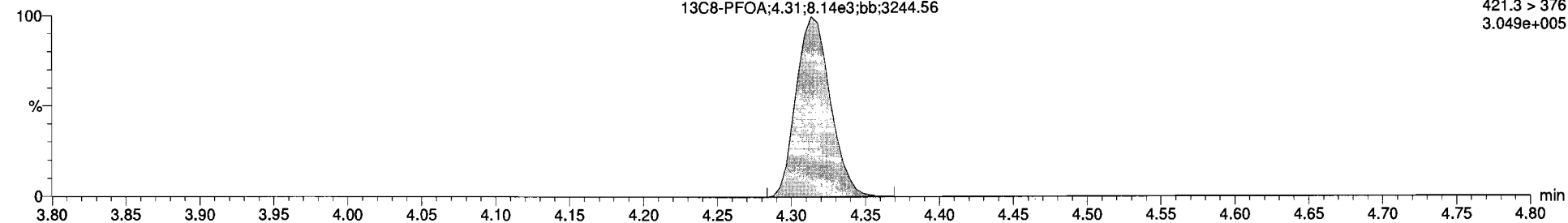
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170305G1\_3



**13C8-PFOA**

170305G1\_3



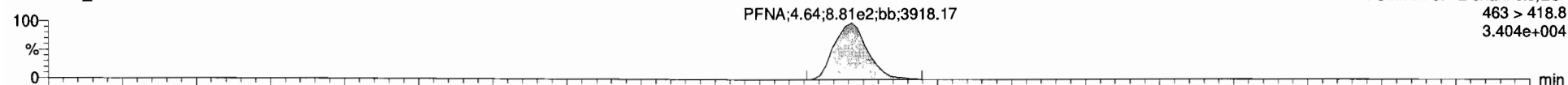
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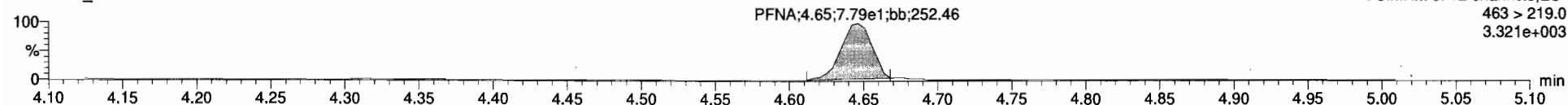
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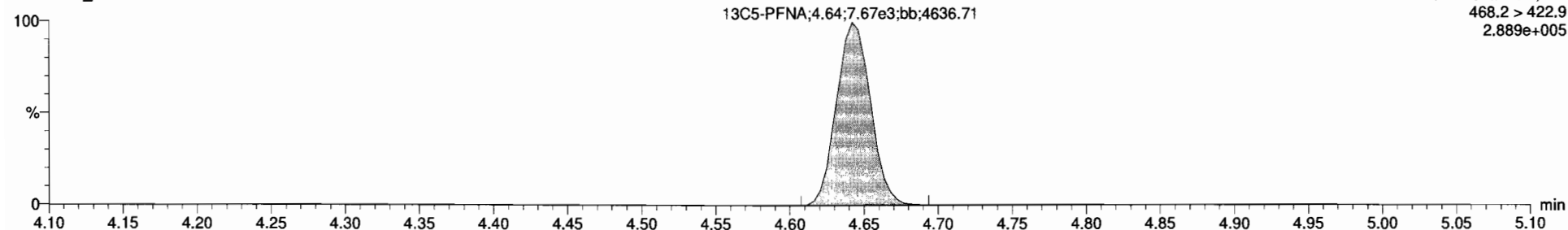


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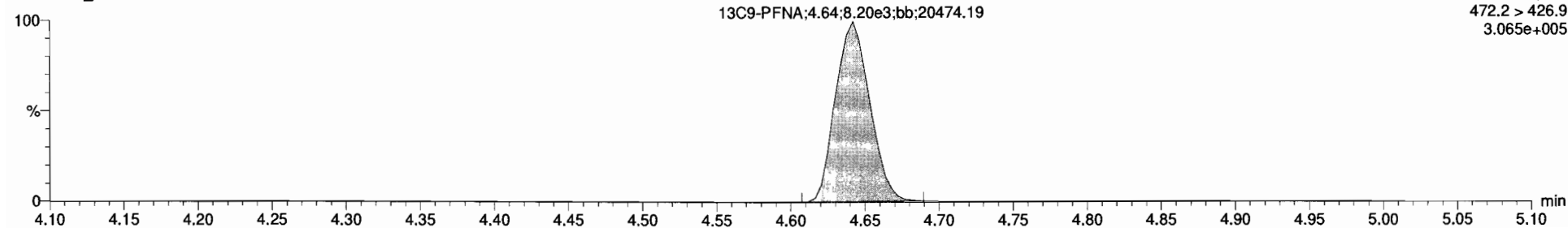
**13C5-PFNA**

170305G1\_3



**13C9-PFNA**

170305G1\_3





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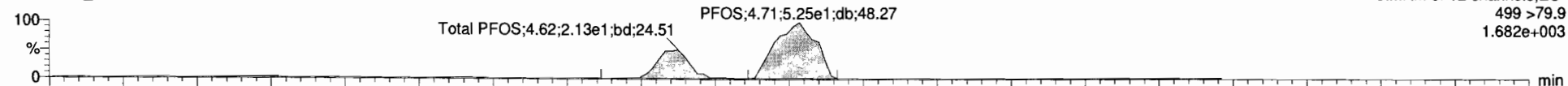
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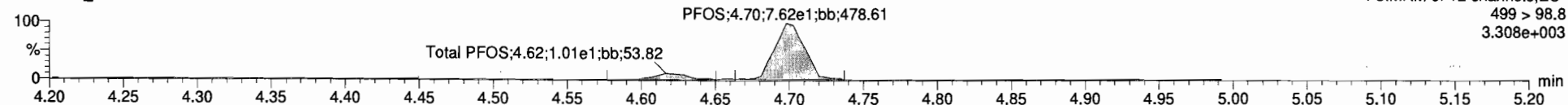
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**Total PFOS**

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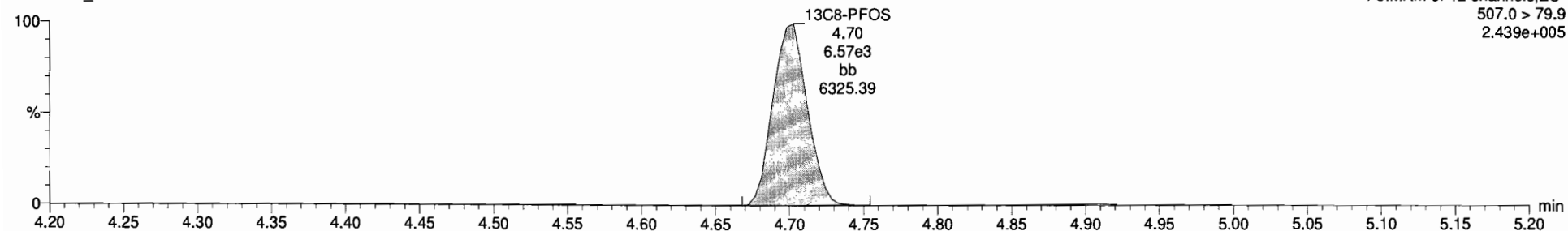


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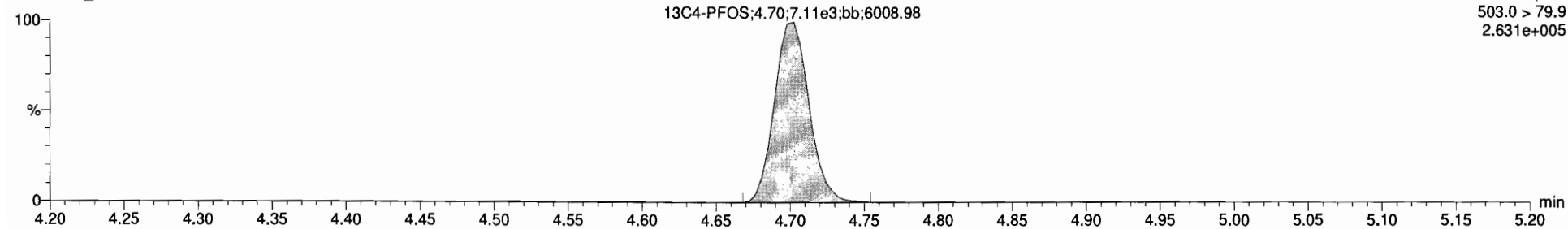
**13C8-PFOS**

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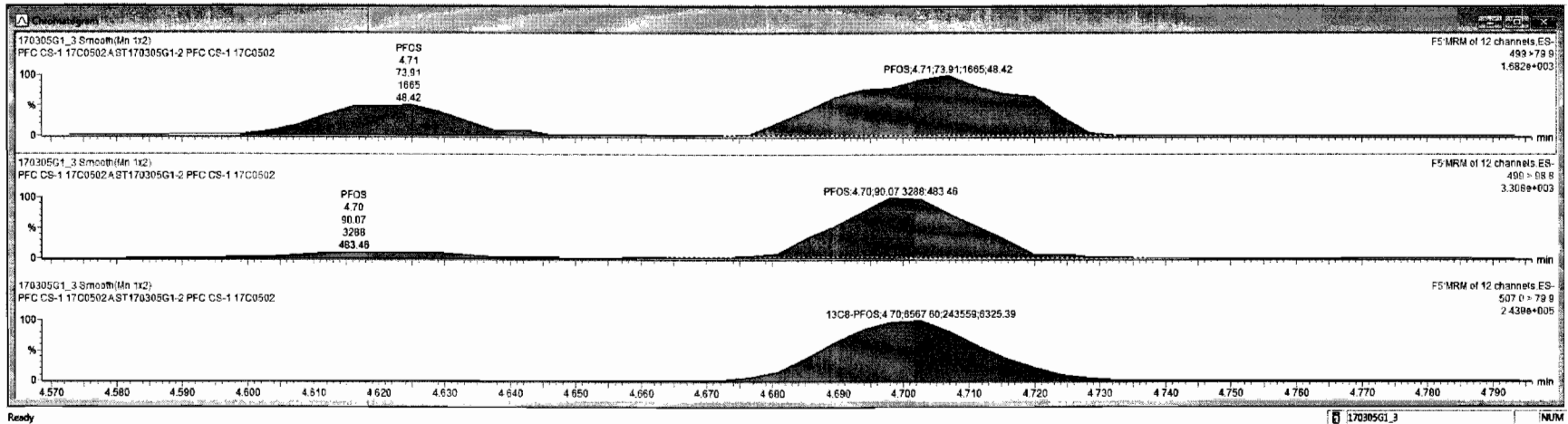
**13C4-PFOS**

170305G1\_3





Name	Trace	Area	RRF	WtVal	PreRet	RT	Conc	>MDL	%Rec	DL
PFBS	299 > 79.7	6.19e2		1.000	3.05	3.65	0.475	NO	95.0	
PFHpA	363 > 318.9	1.43e3		1.000	3.92	3.92	0.518	NO	103.7	
PFHxS	398.9 > 79.6	6.47e2		1.000	4.03	4.03	0.490	NO	99.1	
PFOA	413 > 368.7	1.52e3		1.000	4.31	4.31	0.452	NO	90.4	
PFNA	463 > 418.8	8.81e2		1.000	4.64	4.64	0.489	NO	97.8	
PFOS	499 > 79.9	7.39e1		1.000	4.71	4.71	0.358	NO	71.5	0.1053526
13C3-PFBS	302.0 > 98.8	6.45e3	0.410	1.000	3.04	3.05	12.2	NO	97.5	0.0042968
13C4-PFHpA	367.2 > 321.8	1.69e4	1.10	1.000	3.91	3.92	11.9	NO	95.5	0.0052041
18O2-PFHxS	403 > 102.6	6.83e3	0.434	1.000	4.03	4.03	12.2	NO	97.4	0.0002948
13C2-PFOA	414.9 > 369.7	3.53e4	4.61	1.000	4.31	4.31	11.8	NO	94.2	0.0063474
13C5-PFNA	468.2 > 422.9	7.67e3	0.867	1.000	4.64	4.64	13.5	NO	107.9	0.0073319
13C8-PFOS	507.0 > 79.9	6.57e3	0.958	1.000	4.70	4.70	12.1	NO	96.4	0.0047793
13C5-PFHxA	318 > 272.9	2.95e4	1.00	1.000	3.29	3.43	12.5	NO	100.0	0.0076795
13C3-PFHxS	401.9 > 79.9	1.61e4	1.00	1.000	3.94	4.03	12.5	NO	100.0	0.0093930
13C8-PFOA	421.3 > 376	8.14e3	1.00	1.000	4.22	4.31	12.5	NO	100.0	0.0086315
13C9-PFNA	472.2 > 426.9	8.20e3	1.00	1.000	4.55	4.64	12.5	NO	100.0	0.0015263
13C4-PFOS	503.0 > 79.9	7.11e3	1.00	1.000	4.67	4.70	12.5	NO	100.0	0.0052005
Total PFBS	299 > 79.7	6.19e2		1.000	3.11		0.475	NO		
Total PFHxS	398.9 > 79.6	6.25e2		1.000	4.09		0.517	NO		
Total PFOA	413 > 368.7	1.56e3		1.000	4.39		0.452	NO		
Total PFOS	499 > 79.9	9.52e1		1.000	4.67		0.530	NO		0.1053526



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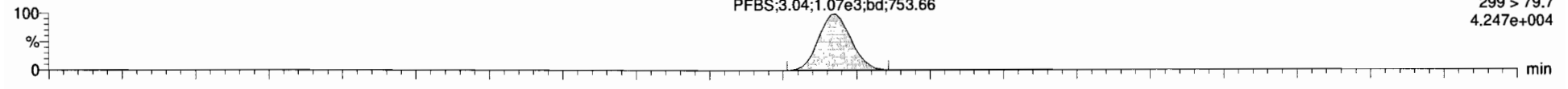
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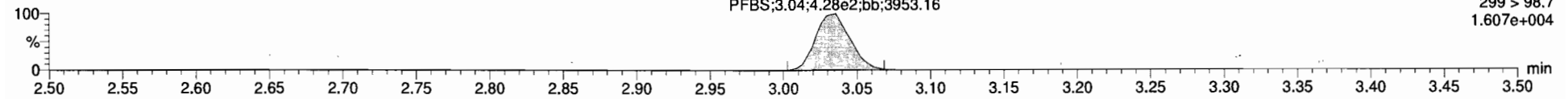
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**PFBS**

170305G1\_4

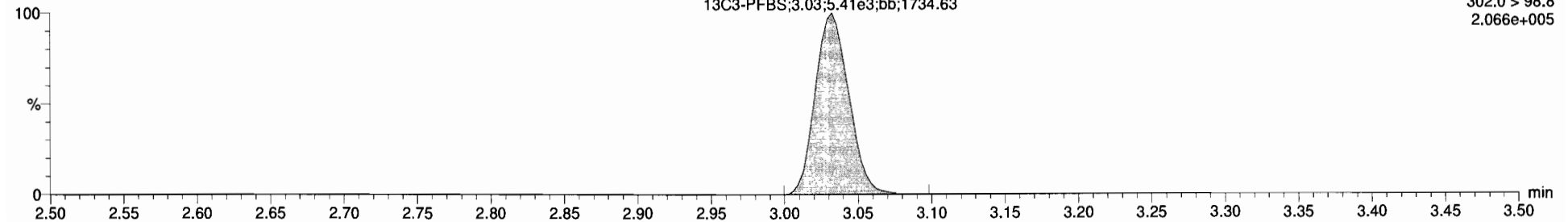


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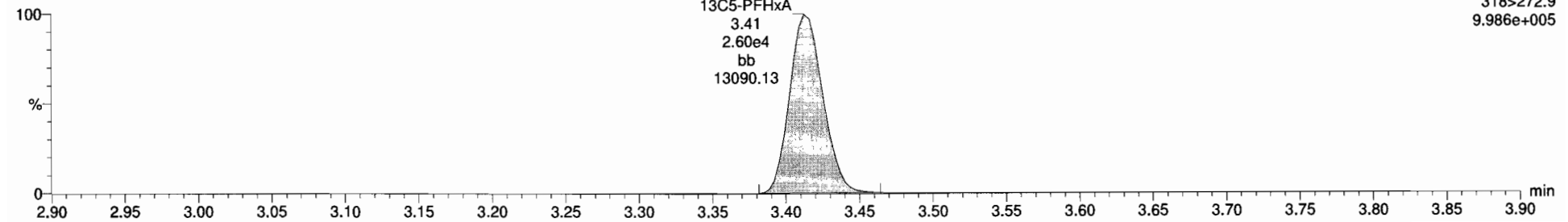
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170305G1\_4



**13C5-PFHxA**

170305G1\_4



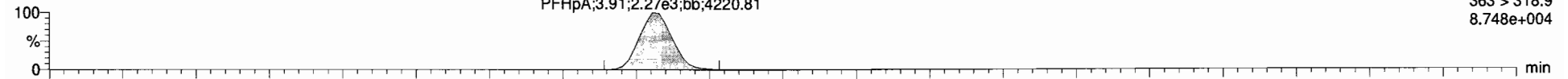
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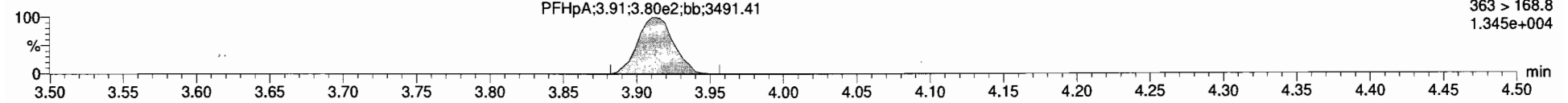
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**PFHpA**

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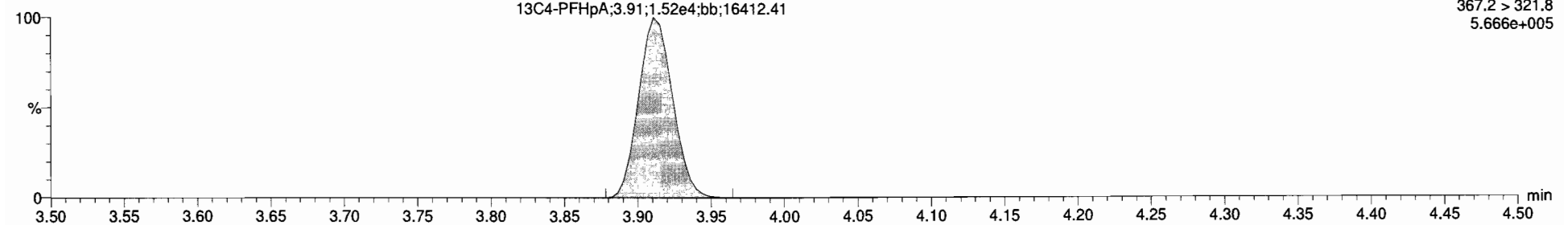


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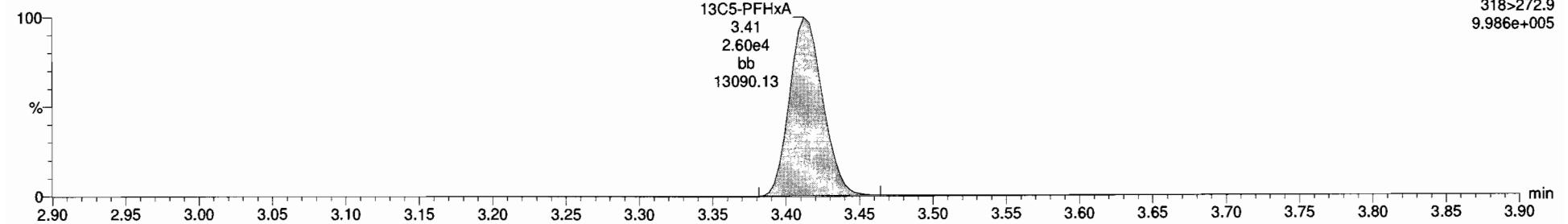
**13C4-PFHpA**

170305G1\_4



**13C5-PFHxA**

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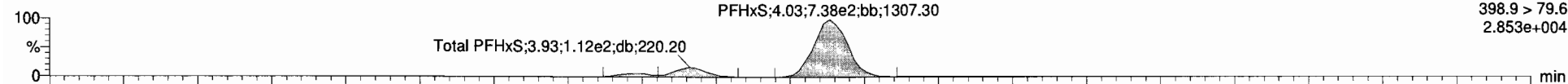
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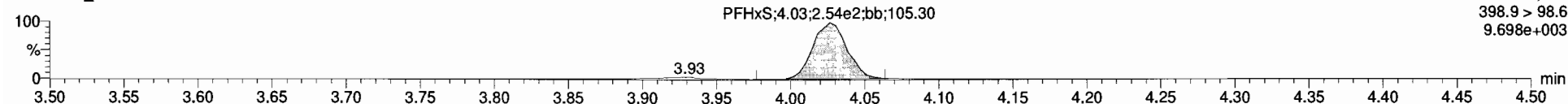
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**Total PFHxS**

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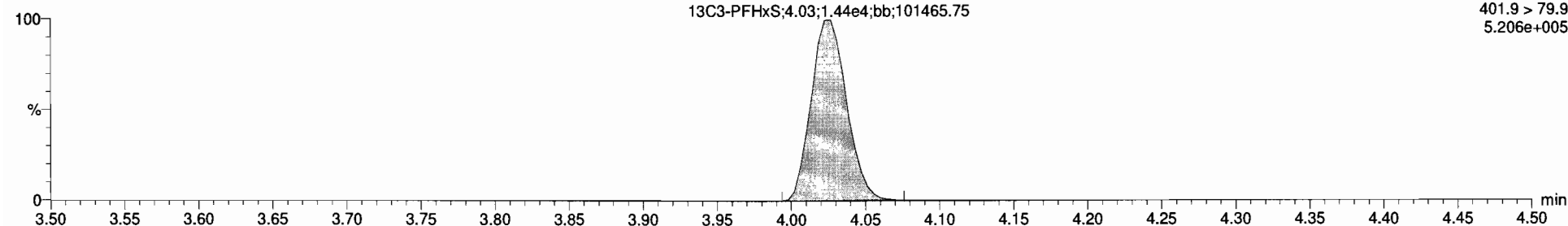


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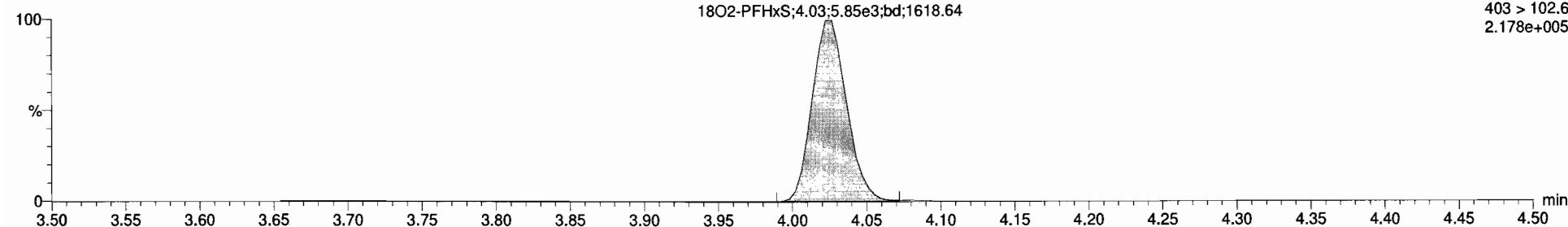
**13C3-PFHxS**

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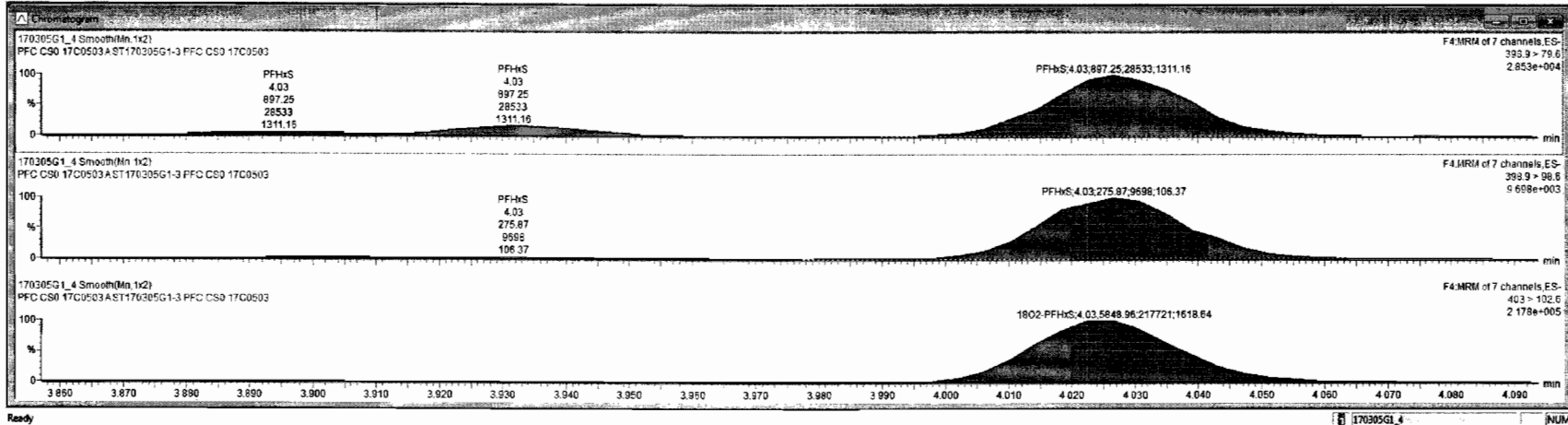


**18O2-PFHxS**

170305G1\_4



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1	PFBS	299 > 79.7	1.07e3	1.000	3.03	3.04	1.91	NO	101.1	
2	PFHpA	363 > 318.9	2.27e3	1.000	3.91	3.91	0.964	NO	96.4	
3	PFHxS	398.9 > 79.6	2.67e3	1.000	4.03	4.03	1.00	NO	100.0	
4	PFOA	413 > 368.7	2.09e3	1.000	4.31	4.30	0.908	NO	90.8	
5	PFNA	463 > 419.5	1.26e3	1.000	4.63	4.63	0.958	NO	95.8	
6	PFOS	499 > 79.9	1.82e2	1.000	4.70	4.69	0.589	NO	58.9	0.1002511
7	13C3-PFBS	302.0 > 98.8	5.41e3	0.410	1.000	3.03	3.03	11.5	91.5	0.0174615
8	13C4-PFHpA	367.2 > 321.5	1.52e4	1.10	1.000	3.90	3.91	12.1	96.6	0.0018598
9	18O2-PFHxS	403 > 102.6	5.85e3	0.434	1.000	4.03	4.03	11.7	93.8	0.0186300
10	13C2-PFOA	414.9 > 369.7	2.91e4	4.61	1.000	4.30	4.31	12.4	99.0	0.0006311
11	13C5-PFNA	468.2 > 422.9	5.74e3	0.867	1.000	4.63	4.63	11.6	92.6	0.0007193
12	13C8-PFOS	507.0 > 79.9	4.73e3	0.958	1.000	4.69	4.69	11.9	95.3	0.0110670
13	13C5-PFNaA	318 > 272.9	2.60e4	1.00	1.000	3.29	3.41	12.5	NO	100.0
14	13C3-PFHxS	401.9 > 79.9	1.44e4	1.00	1.000	3.94	4.03	12.5	NO	100.0
15	13C8-PFOA	421.3 > 376	6.38e3	1.00	1.000	4.22	4.30	12.5	NO	100.0
16	13C9-PFNA	472.2 > 428.9	7.15e3	1.00	1.000	4.56	4.63	12.5	NO	100.0
17	13C4-PFOS	503.0 > 79.9	5.15e3	1.00	1.000	4.67	4.69	12.5	NO	100.0
18	Total PFBS	299 > 79.7	1.08e3		1.000	3.11				
19	Total PFHxS	398.9 > 79.6	1.05e3		1.000	4.09				
20	Total PFOA	413 > 368.7	2.16e3		1.000	4.39				
21	Total PFOS	499 > 79.9	2.19e2		1.000	4.67				



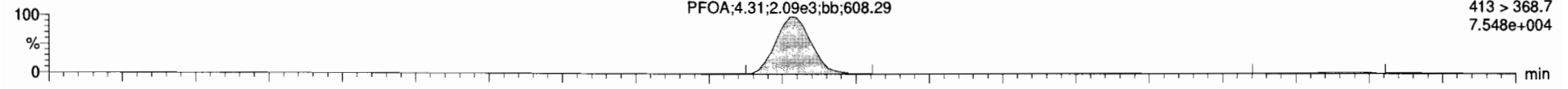
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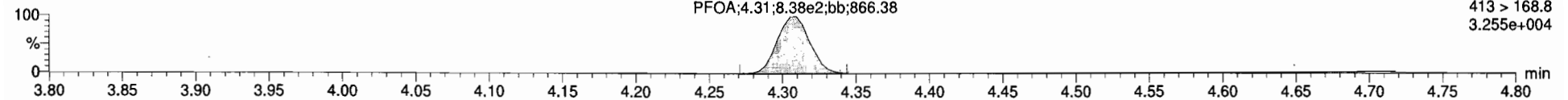
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F5:MRM of 12 channels,ES-  
413 > 368.7  
7.548e+004

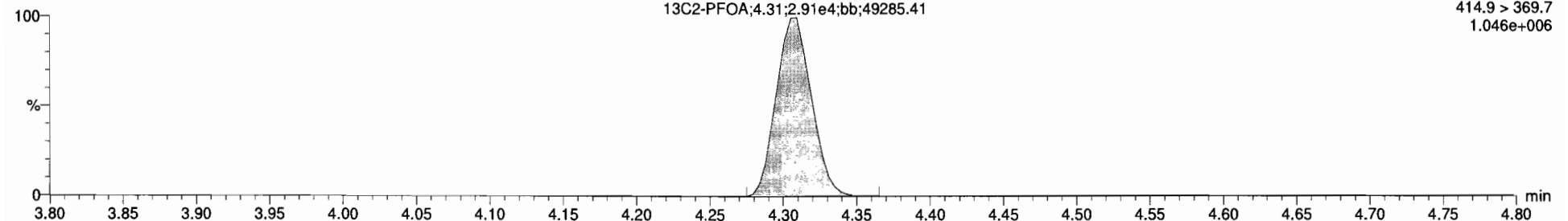
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413 > 168.8  
3.255e+004

**13C2-PFOA**

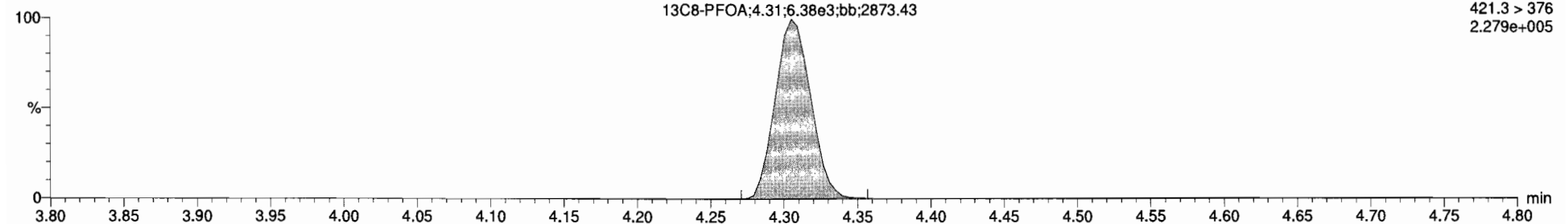
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F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.046e+006

**13C8-PFOA**

170305G1\_4



F5:MRM of 12 channels,ES-  
421.3 > 376  
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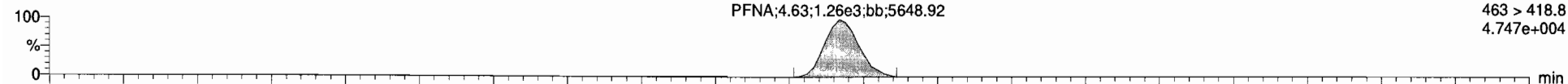
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**PFNA**

170305G1\_4

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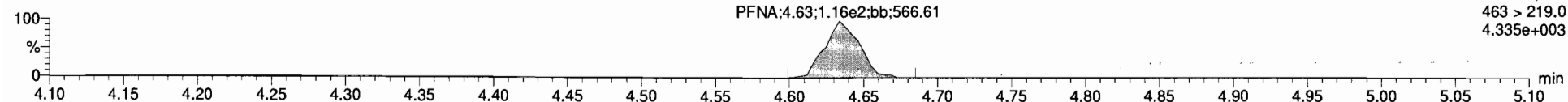
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463 > 418.8  
4.747e+004



170305G1\_4

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463 > 219.0  
4.335e+003

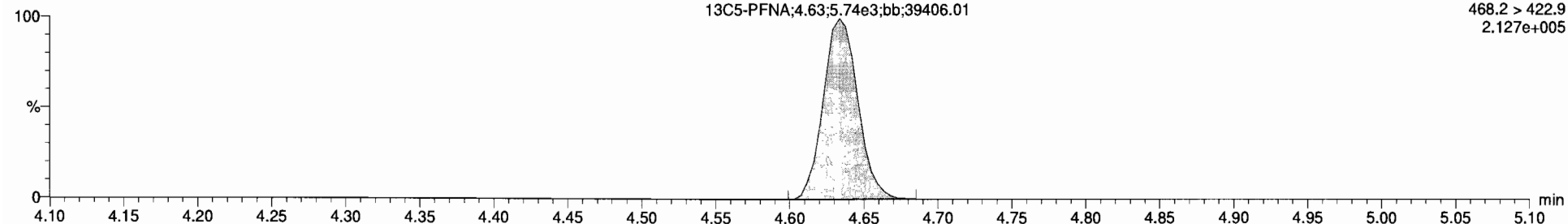


**13C5-PFNA**

170305G1\_4

13C5-PFNA;4.63;5.74e3;bb;39406.01

F5:MRM of 12 channels,ES-  
468.2 > 422.9  
2.127e+005

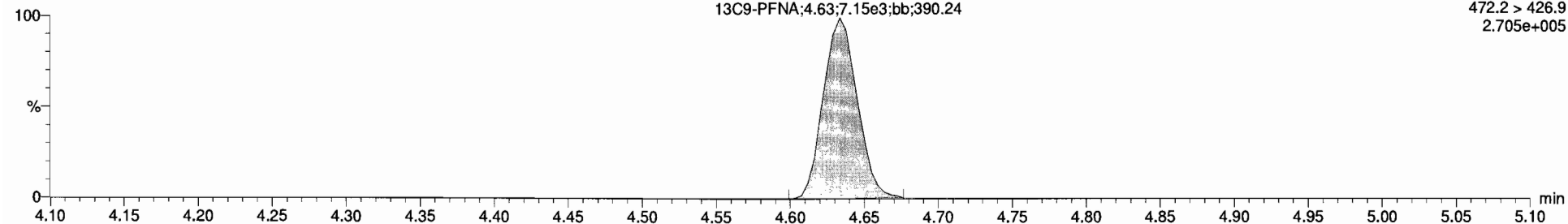


**13C9-PFNA**

170305G1\_4

13C9-PFNA;4.63;7.15e3;bb;390.24

F5:MRM of 12 channels,ES-  
472.2 > 426.9  
2.705e+005





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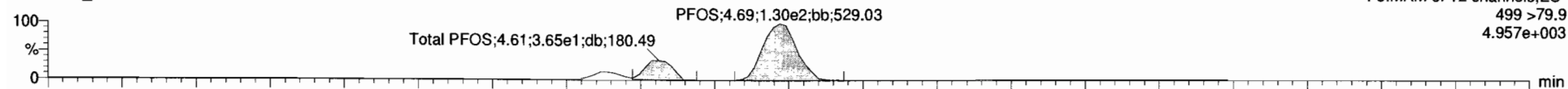
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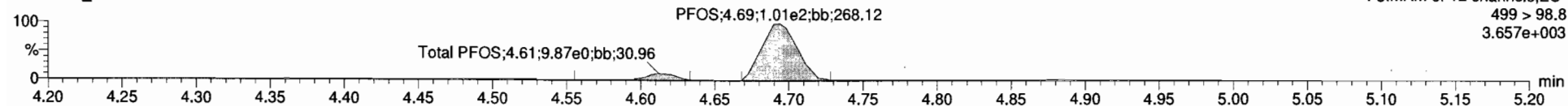
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**Total PFOS**

170305G1\_4

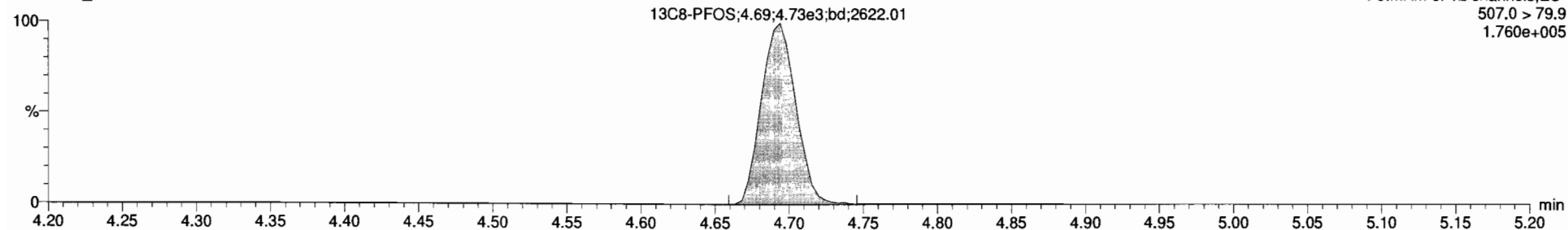


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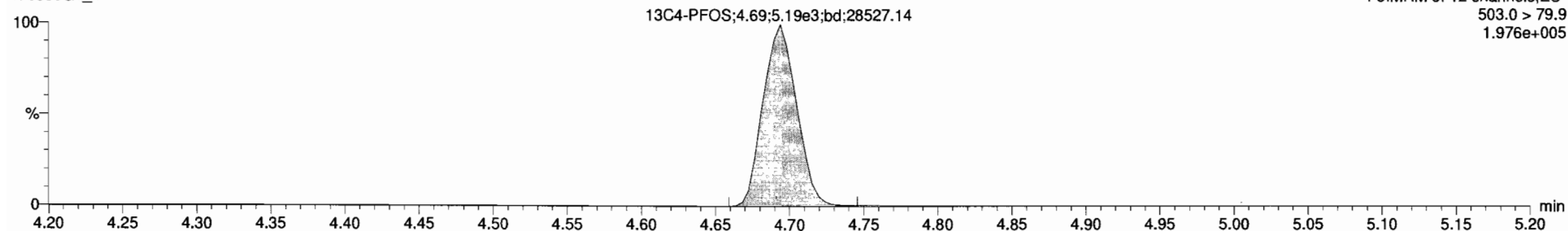
**13C8-PFOS**

170305G1\_4



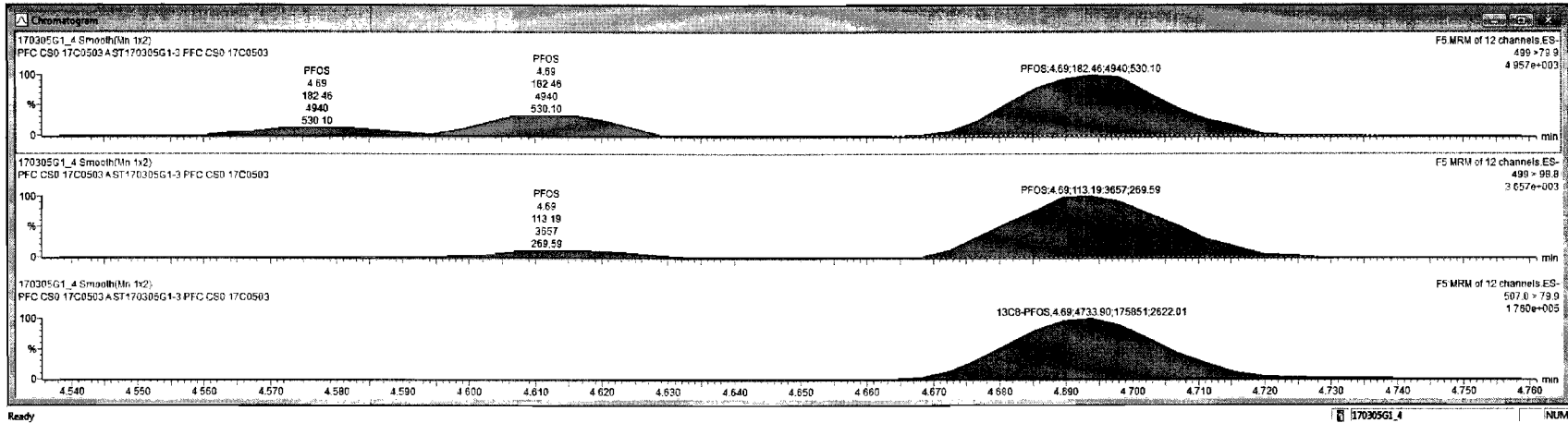
**13C4-PFOS**

170305G1\_4



TargetLine  
 File Edit View Display Processing Window Help  
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#	Name	Trace	Area	RRF	WtVol	Pred.RT	RT	Conc	>NDC	%Rec	Dt
1	PFBS	299 > 79.7	1.07e3		1.000	3.03	3.04	1.01	NO	181.1	
2	PFHpA	363 > 316.9	2.27e3		1.000	3.91	3.91	0.964	NO	96.4	
3	PFHxS	398.9 > 79.6	8.97e2		1.000	4.03	4.03	1.00	NO	100.1	
4	PFOA	413 > 368.7	2.09e3		1.000	4.31	4.30	0.908	NO	90.8	
5	PFNA	463 > 416.8	1.26e3		1.000	4.63	4.63	0.968	NO	96.8	
6	PFOS	499 > 79.9	1.82e2		1.000	4.70	4.69	0.989	NO	98.9	0.1002511
7	13C3-PFBS	302.0 > 98.8	5.41e3	0.410	1.000	3.03	3.03	11.5	NO	91.9	0.0174615
8	13C4-PFHpA	367.2 > 321.8	1.52e4	1.10	1.000	3.90	3.91	12.1	NO	96.6	0.0018598
9	18O2-PFHxS	403 > 102.8	5.85e3	0.434	1.000	4.03	4.03	11.7	NO	93.8	0.0186308
10	13C2-PFOA	414.9 > 369.7	2.91e4	4.61	1.000	4.20	4.31	12.4	NO	99.0	0.0009311
11	13C5-PFNA	468.2 > 422.9	5.74e3	0.867	1.000	4.63	4.63	11.6	NO	92.6	0.0067193
12	13C8-PFOS	507.0 > 79.9	4.73e3	0.958	1.000	4.69	4.69	11.9	NO	95.3	0.0110670
13	13C5-PFHxS	318 > 272.9	2.60e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0023873
14	13C1-PFHxS	401.9 > 79.9	1.44e4	1.00	1.000	3.94	4.03	12.5	NO	100.0	0.0003080
15	13C8-PFOA	421.3 > 376	6.38e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0168755
16	13C8-PFNA	472.2 > 426.9	7.15e3	1.00	1.000	4.56	4.63	12.5	NO	100.0	0.0868798
17	13C4-PFOS	503.0 > 79.9	5.19e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0019954
18	Total PFBS	299 > 79.7	1.08e3		1.000	3.11		1.01	NO		
19	Total PFHxS	398.9 > 79.6	1.05e3		1.000	4.09		1.08	NO		
20	Total PFOA	413 > 368.7	2.16e3		1.000	4.39		6.908	NO		
21	Total PFOS	499 > 79.9	2.19e2		1.000	4.67		1.26	NO		0.1002511



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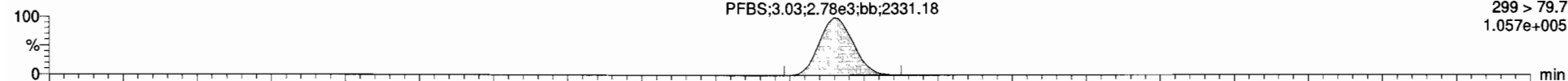
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Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-4 PFC CS1 17C0504, Description: PFC CS1 17C0504 A, Name: 170305G1\_5, Date: 05-Mar-2017, Time: 13:24:21, Instrument: , Lab: , User:

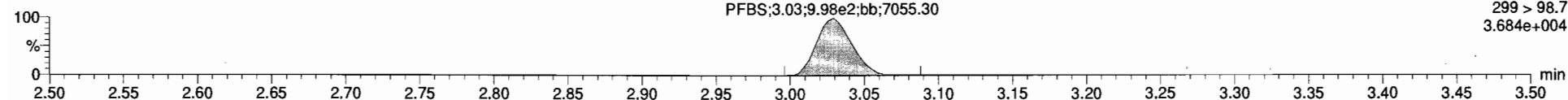
**PFBS**

170305G1\_5



F2:MRM of 3 channels,ES-  
299 > 79.7  
1.057e+005

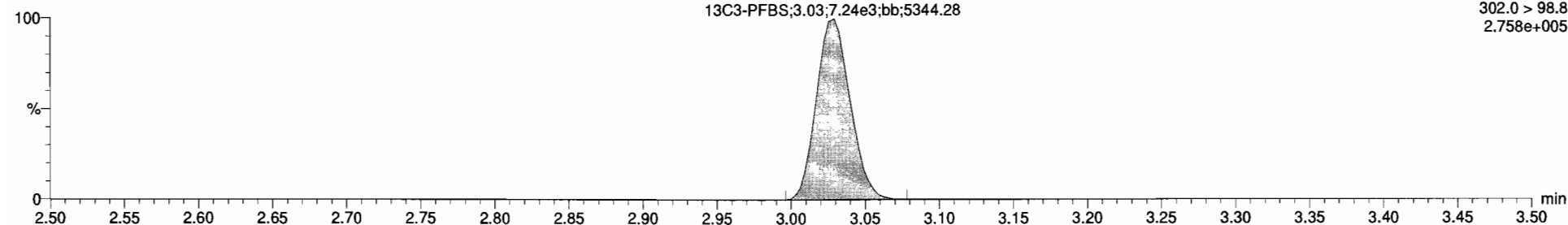
170305G1\_5



F2:MRM of 3 channels,ES-  
299 > 98.7  
3.684e+004

**13C3-PFBS**

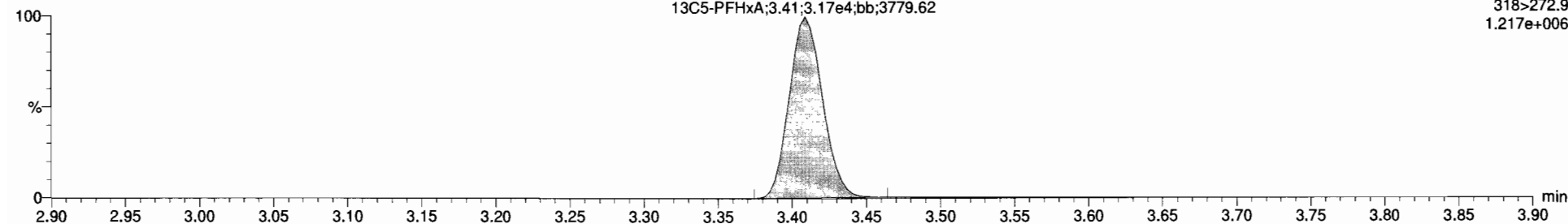
170305G1\_5



F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.758e+005

**13C5-PFHxA**

170305G1\_5



F3:MRM of 1 channel,ES-  
318>272.9  
1.217e+006

Dataset: Untitled

Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time

Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

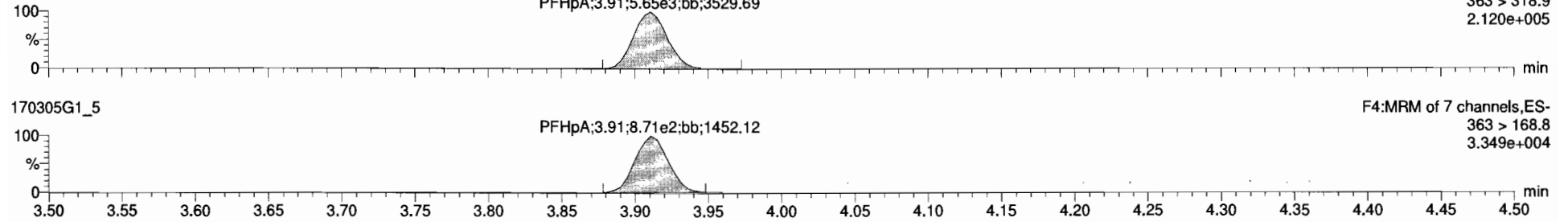
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**PFHpA**

170305G1\_5

PFHpA;3.91;5.65e3;bb;3529.69

F4:MRM of 7 channels,ES-  
363 > 318.9  
2.120e+005

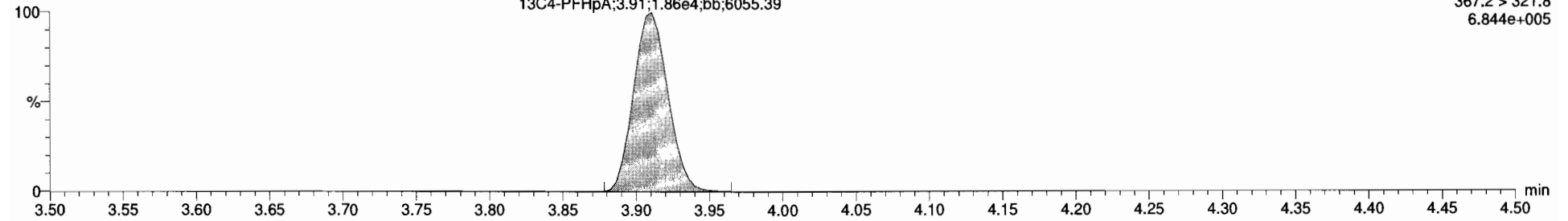


**13C4-PFHpA**

170305G1\_5

13C4-PFHpA;3.91;1.86e4;bb;6055.39

F4:MRM of 7 channels,ES-  
367.2 > 321.8  
6.844e+005

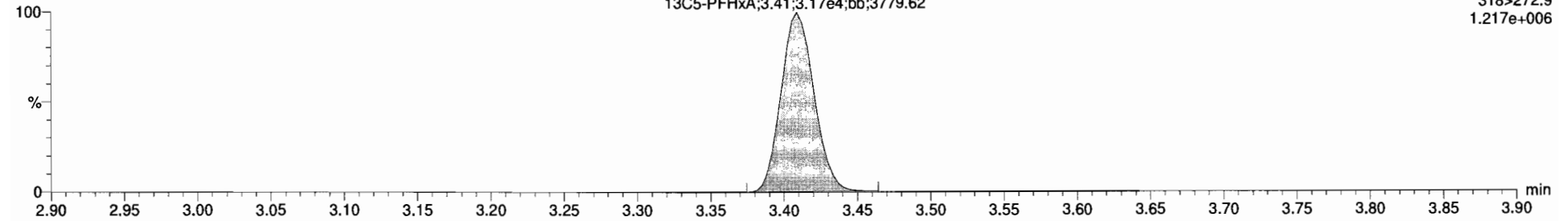


**13C5-PFHxA**

170305G1\_5

13C5-PFHxA;3.41;3.17e4;bb;3779.62

F3:MRM of 1 channel,ES-  
318>272.9  
1.217e+006



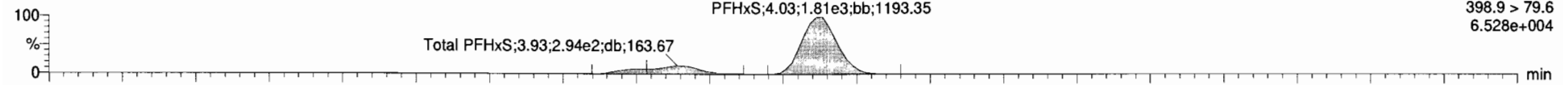
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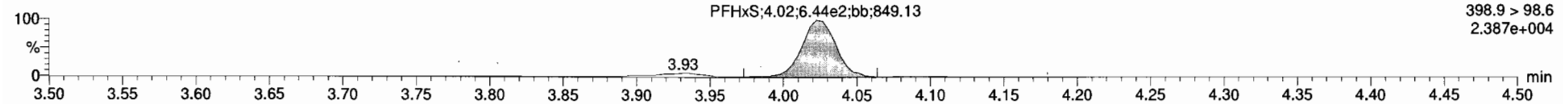
**Total PFHxS**

170305G1\_5



F4:MRM of 7 channels,ES-  
398.9 > 79.6  
6.528e+004

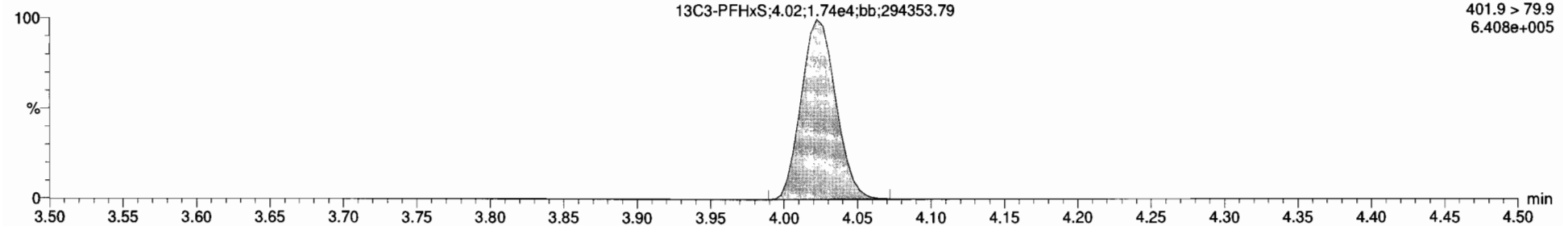
170305G1\_5



F4:MRM of 7 channels,ES-  
398.9 > 98.6  
2.387e+004

**13C3-PFHxS**

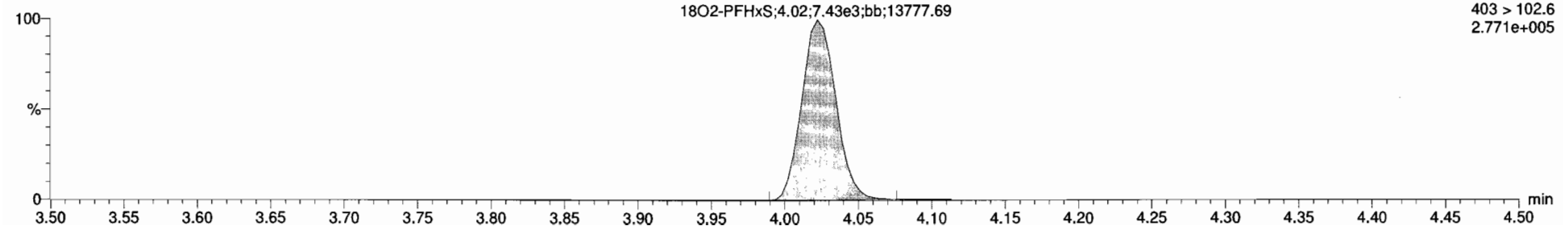
170305G1\_5



F4:MRM of 7 channels,ES-  
401.9 > 79.9  
6.408e+005

**18O2-PFHxS**

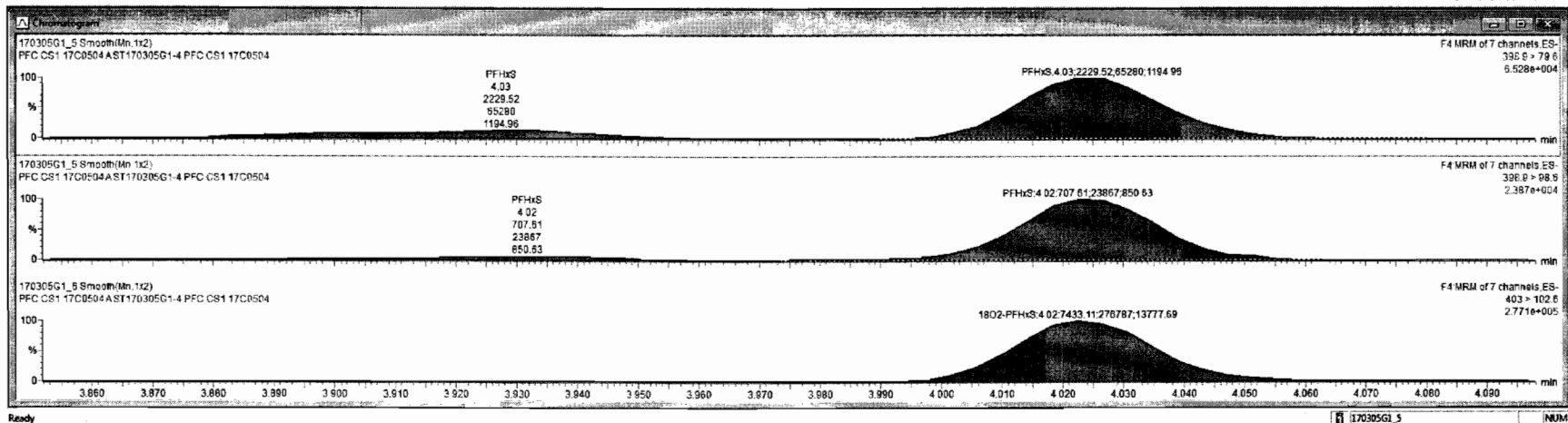
170305G1\_5



F4:MRM of 7 channels,ES-  
403 > 102.6  
2.771e+005



Name	Trace	Area	RRF	Wt%	Pres RT	RT	Conc	>MOL	%Rec	DL
1	PFBS	299 > 79.7	2.7843		1.000	3.93	3.93	1.99	NO	99.3
2	PFHpA	383 > 318.9	5.6543		1.000	3.91	3.91	2.05	NO	102.2
3	PFHxS	388.9 > 79.6	2.2343		1.000	4.82	4.83	2.81	NO	100.5
4	PFOA	413 > 368.7	5.3843		1.000	4.30	4.30	2.06	NO	103.1
5	PFNA	483 > 418.8	3.1743		1.000	4.63	4.63	2.84	NO	102.0
6	PFOS	499 > 79.9	5.2842		1.000	4.69	4.69	2.46	YES	123.0 0.1190520
7	13C3-PFBS	302.0 > 98.6	7.2443	0.410	1.000	3.83	3.83	12.7	NO	101.2 0.0061404
8	13C4-PFHpA	367.2 > 321.8	1.8644	1.10	1.000	3.90	3.91	12.1	NO	96.9 0.0059106
9	18O2-PFHxS	403 > 102.6	7.4343	0.434	1.000	4.02	4.02	12.3	NO	96.2 0.0022656
10	13C2-PFOA	414.9 > 369.7	3.7044	4.61	1.000	4.30	4.30	12.2	NO	97.6 0.0185493
11	13C5-PFNA	468.2 > 422.9	6.9743	0.867	1.000	4.63	4.63	12.3	NO	96.8 0.0011307
12	13C8-PFOS	507.0 > 79.9	5.1843	0.958	1.000	4.69	4.69	12.4	NO	99.1 0.0187137
13	13C5-PFHxS	318-272.9	3.1744	1.00	1.000	3.29	3.41	12.5	NO	100.0 0.0082660
14	13C3-PFHxS	401.8 > 79.9	1.7444	1.00	1.000	3.94	4.02	12.5	NO	100.0 0.0001062
15	13C8-PFOA	421.3 > 376	8.2343	1.00	1.000	4.22	4.30	12.5	NO	100.0 0.0221408
16	13C9-PFNA	472.2 > 426.9	8.1643	1.00	1.000	4.56	4.63	12.5	NO	100.0 0.0093300
17	13C4-PFOS	503.0 > 79.9	5.4543	1.00	1.000	4.67	4.69	12.5	NO	100.0 0.0016064
18	Total PFBS	299 > 79.7	2.7843		1.000	3.11		1.99	NO	
19	Total PFHxS	388.9 > 79.6	2.6343		1.000	4.09		2.27	NO	
20	Total PFOA	413 > 368.7	5.4843		1.000	4.39		2.06	NO	
21	Total PFOS	499 > 79.9	6.8842		1.000	4.67		3.37	NO	0.1190520



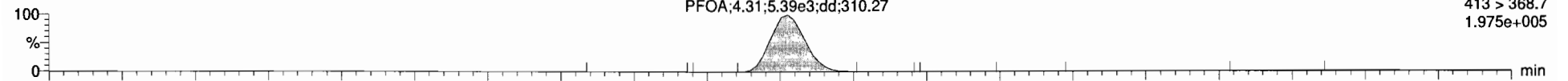
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Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

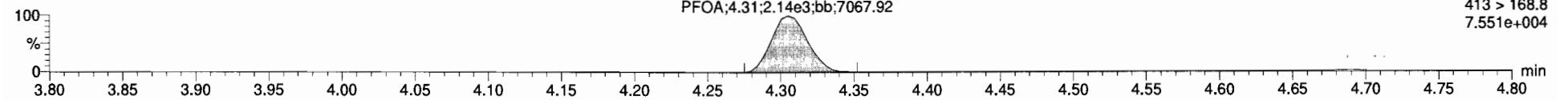
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**Total PFOA**

170305G1\_5

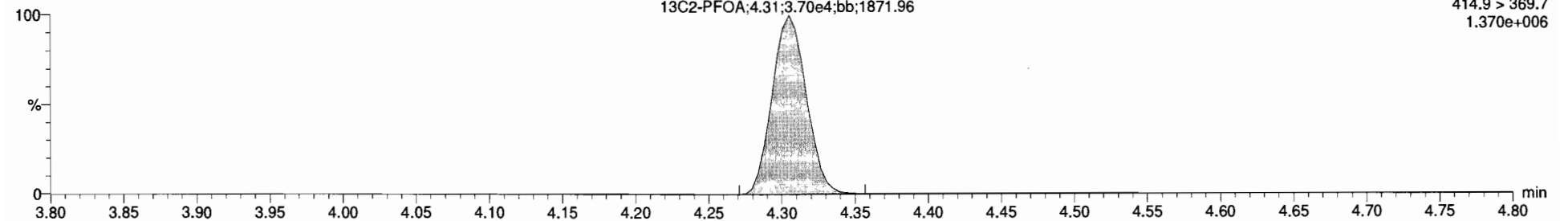


170305G1\_5



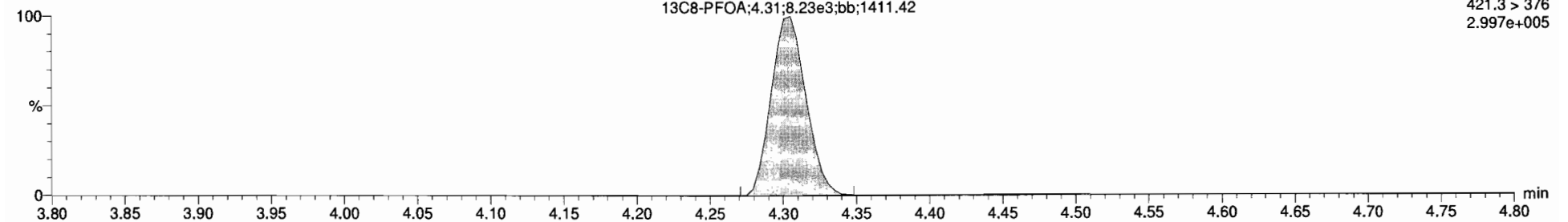
**13C2-PFOA**

170305G1\_5



**13C8-PFOA**

170305G1\_5



Dataset: Untitled

Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time

Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

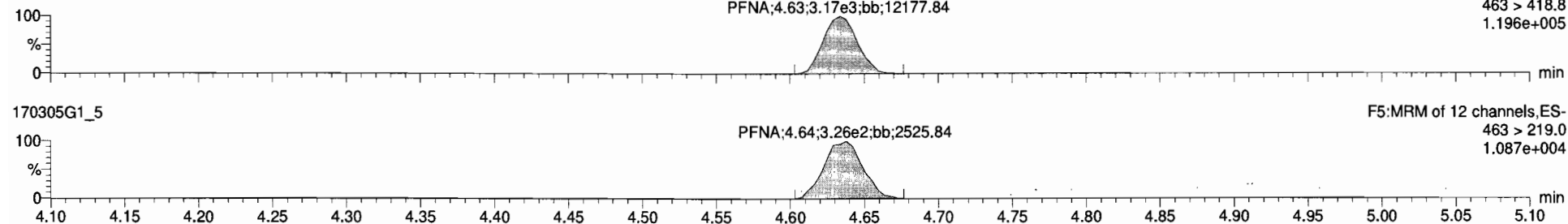
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**PFNA**

170305G1\_5

PFNA;4.63;3.17e3;bb;12177.84

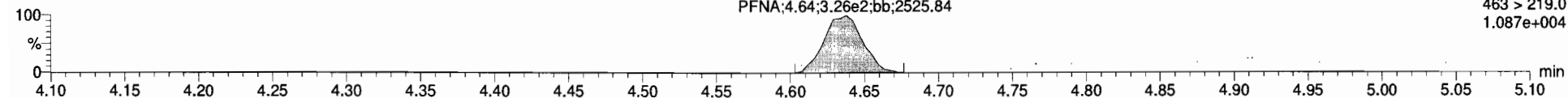
F5:MRM of 12 channels,ES-  
463 > 418.8  
1.196e+005



170305G1\_5

PFNA;4.64;3.26e2;bb;2525.84

F5:MRM of 12 channels,ES-  
463 > 219.0  
1.087e+004

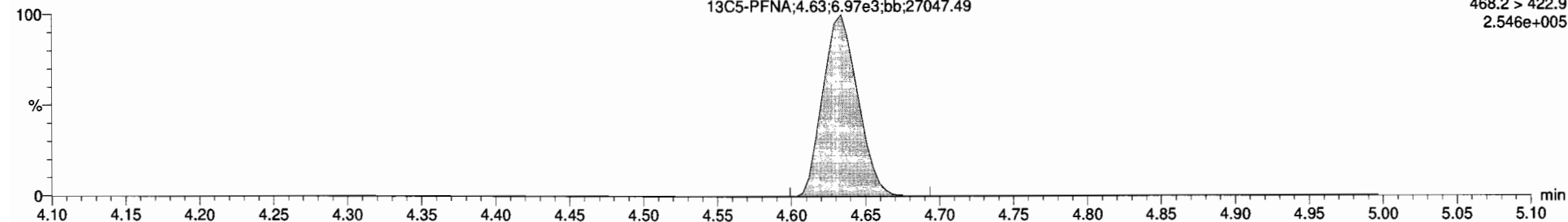


**13C5-PFNA**

170305G1\_5

13C5-PFNA;4.63;6.97e3;bb;27047.49

F5:MRM of 12 channels,ES-  
468.2 > 422.9  
2.546e+005

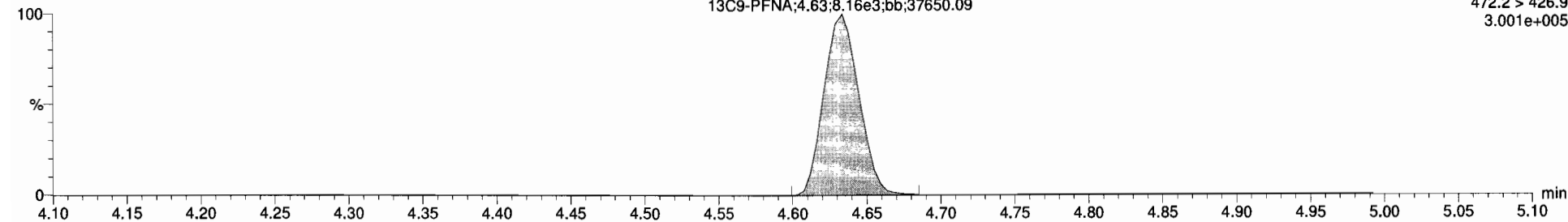


**13C9-PFNA**

170305G1\_5

13C9-PFNA;4.63;8.16e3;bb;37650.09

F5:MRM of 12 channels,ES-  
472.2 > 426.9  
3.001e+005





Dataset: Untitled

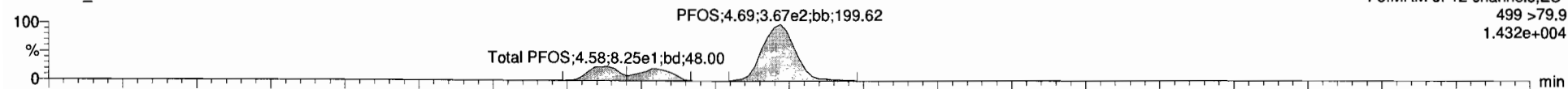
Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time

Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

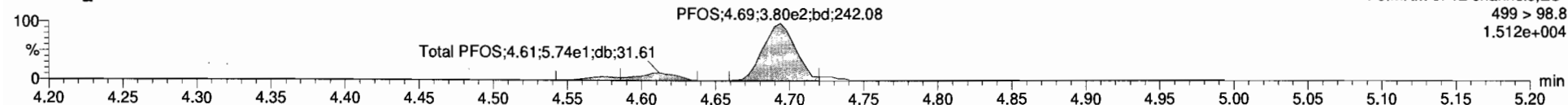
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**Total PFOS**

170305G1\_5

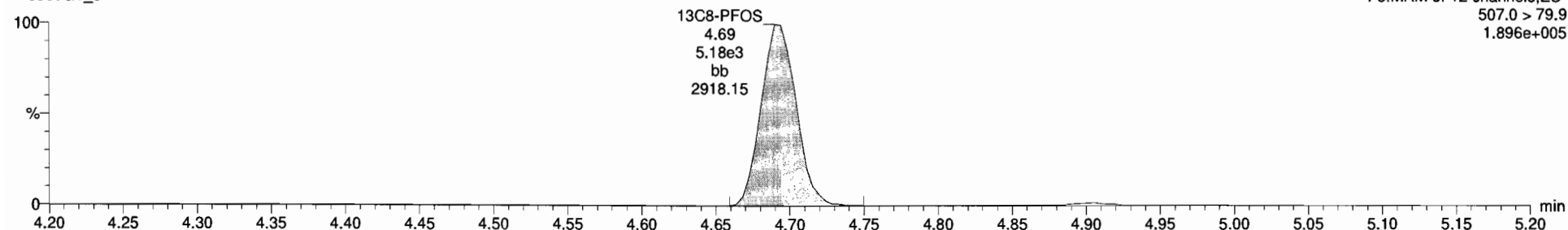


170305G1\_5



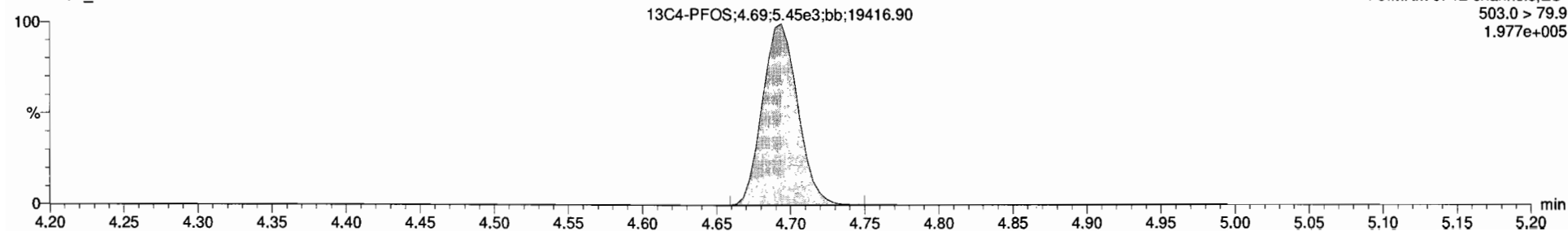
**13C8-PFOS**

170305G1\_5

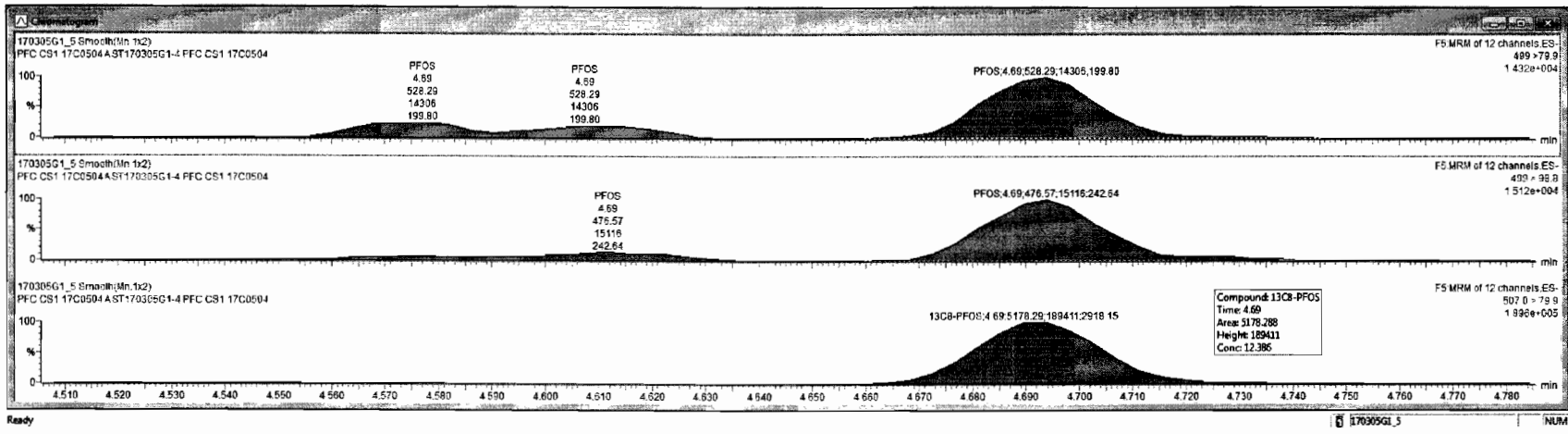


**13C4-PFOS**

170305G1\_5



Name	TrAc	Area	RFI	WtVol	Prod.RT	RT	Conc	>MDL	%Rec	DL
1 PFBS	299 > 79.7	2.78e3		1.000	3.03	3.03	1.99	NO	99.3	
2 PFHpA	383 > 318.9	5.85e3		1.000	3.91	3.91	2.05	NO	162.3	
3 PFHxS	398.9 > 79.6	2.23e3		1.000	4.02	4.02	2.01	NO	190.5	
4 PFOA	413 > 368.7	5.38e3		1.000	4.38	4.38	2.56	NO	193.1	
5 PFNA	463 > 418.8	3.17e3		1.000	4.63	4.63	2.04	NO	192.0	
6 PFOS	499 > 379.9	3.28e3		1.000	4.69	4.69	2.46	YES	122.0	0.1190520
7 13C3-PFBS	502.0 > 98.8	7.24e3	0.410	1.000	3.03	3.03	12.7	NO	101.2	0.0061404
8 13C4-PFHpA	367.2 > 321.8	1.86e4	1.10	1.000	3.90	3.91	12.1	NO	96.9	0.0050186
9 18O2-PFHxS	403 > 102.6	7.43e3	0.434	1.000	4.02	4.02	13.3	NO	98.2	0.0022595
10 13C2-PFOA	414.9 > 369.7	3.70e4	4.61	1.000	4.38	4.38	12.2	NO	97.6	0.0165493
11 13C5-PFNA	466.2 > 422.9	6.97e3	0.667	1.000	4.63	4.63	12.3	NO	98.6	0.0011387
12 13C6-PFOS	507.0 > 79.9	5.18e3	0.958	1.000	4.69	4.69	12.4	NO	99.1	0.0107137
13 13C5-PFHxA	310 > 272.9	3.17e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0062680
14 13C3-PFHxS	401.9 > 79.9	1.74e4	1.00	1.000	3.54	4.02	12.5	NO	100.0	0.0001082
15 13C8-PFOA	421.3 > 378	8.23e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0221408
16 13C8-PFNA	472.2 > 426.9	8.18e3	1.00	1.000	4.56	4.63	12.5	NO	100.0	0.0005300
17 13C4-PFOS	503.0 > 79.9	5.45e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0016094
18 Total PFBS	299 > 79.7	2.78e3		1.000	3.11		1.99	NO		
19 Total PFHxS	398.9 > 79.6	2.63e3		1.000	4.09		2.27	NO		
20 Total PFOA	413 > 368.7	5.48e3		1.000	4.39		2.06	NO		
21 Total PFOS	499 > 79.9	6.88e3		1.000	4.67		3.37	NO		0.1190520



Dataset: Untitled

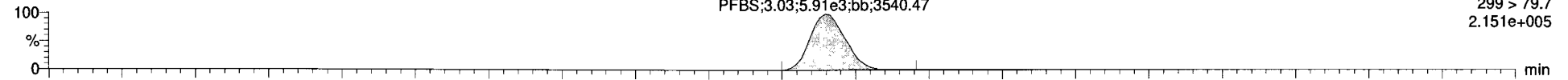
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Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-5 PFC CS2 17C0505, Description: PFC CS2 17C0505 A, Name: 170305G1\_6, Date: 05-Mar-2017, Time: 13:36:55, Instrument: , Lab: , User:

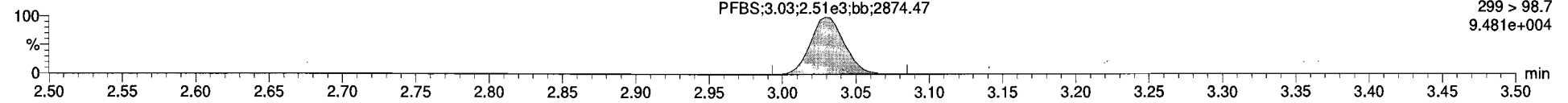
**PFBS**

170305G1\_6



F2:MRM of 3 channels,ES-  
299 > 79.7  
2.151e+005

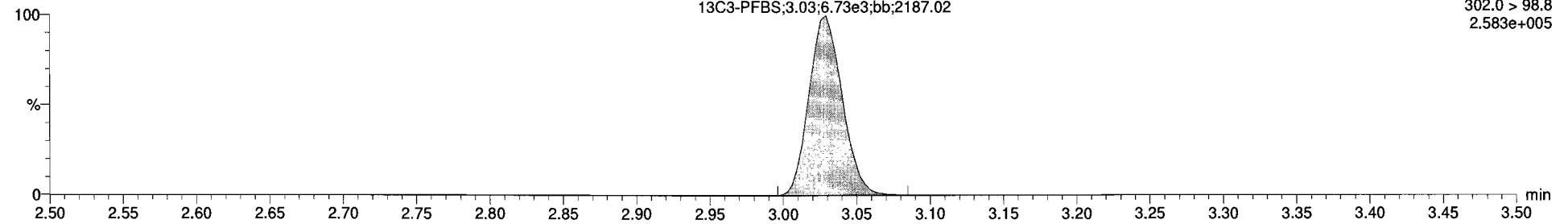
170305G1\_6



F2:MRM of 3 channels,ES-  
299 > 98.7  
9.481e+004

**13C3-PFBS**

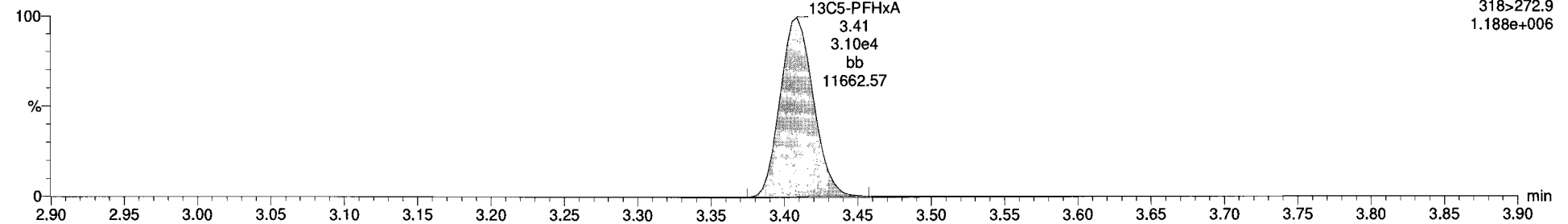
170305G1\_6



F2:MRM of 3 channels,ES-  
302.0 > 98.8  
2.583e+005

**13C5-PFHxA**

170305G1\_6

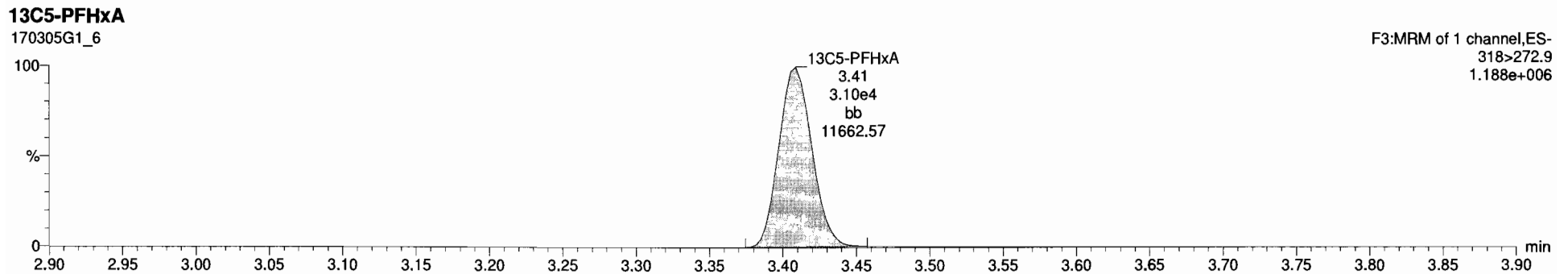
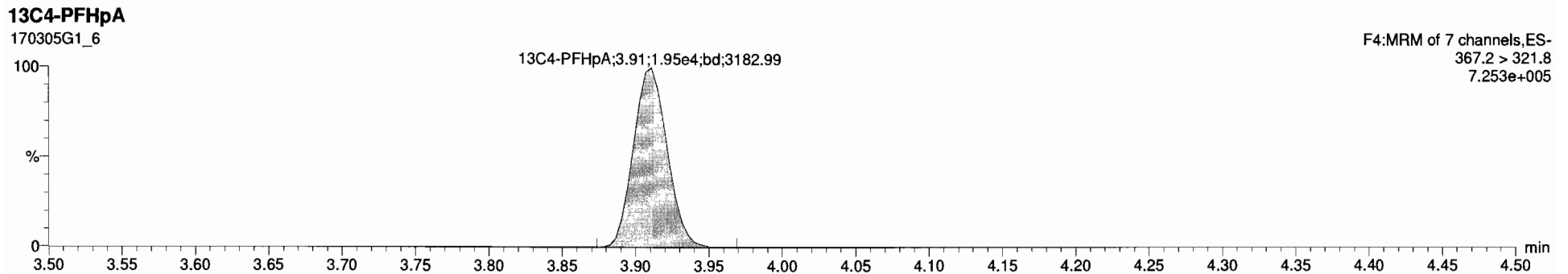
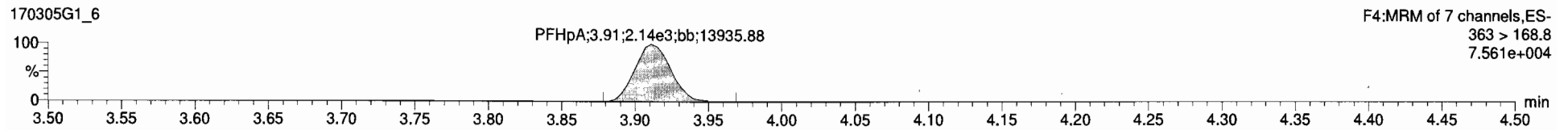
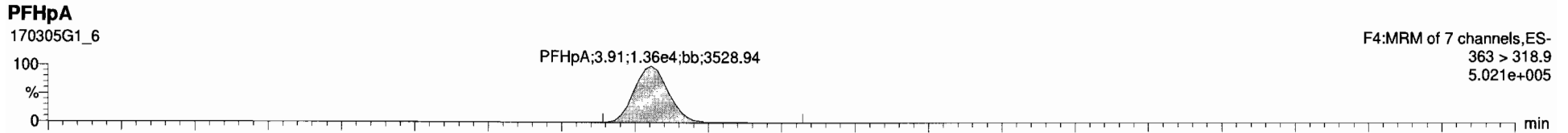


F3:MRM of 1 channel,ES-  
318>272.9  
1.188e+006

Dataset: Untitled

Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-5 PFC CS2 17C0505, Description: PFC CS2 17C0505 A, Name: 170305G1\_6, Date: 05-Mar-2017, Time: 13:36:55, Instrument: , Lab: , User:



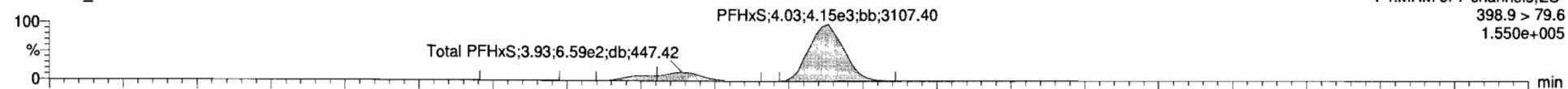
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Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

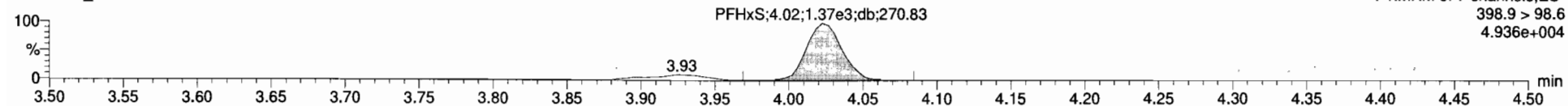
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**Total PFHxS**

170305G1\_6

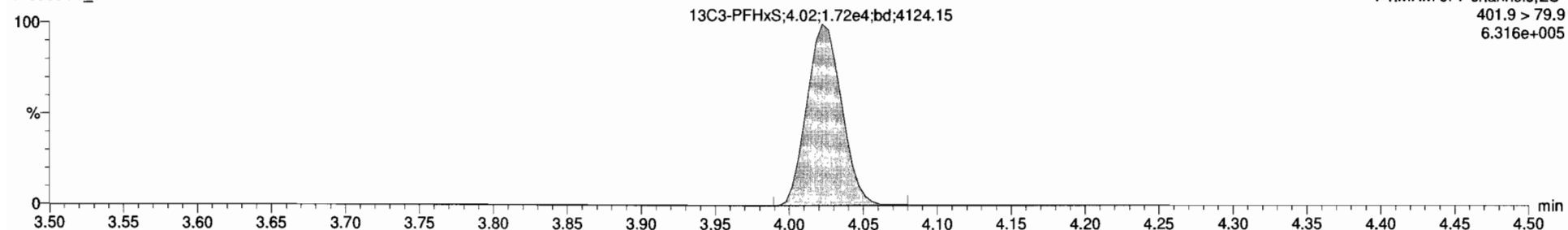


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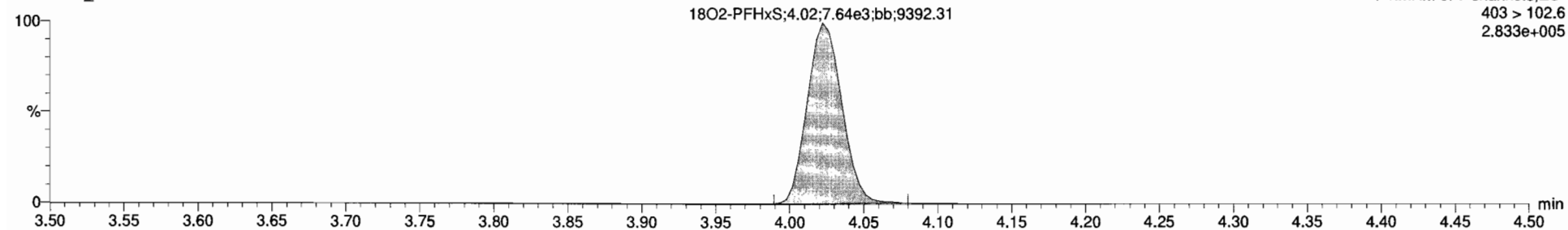
**13C3-PFHxS**

170305G1\_6



**18O2-PFHxS**

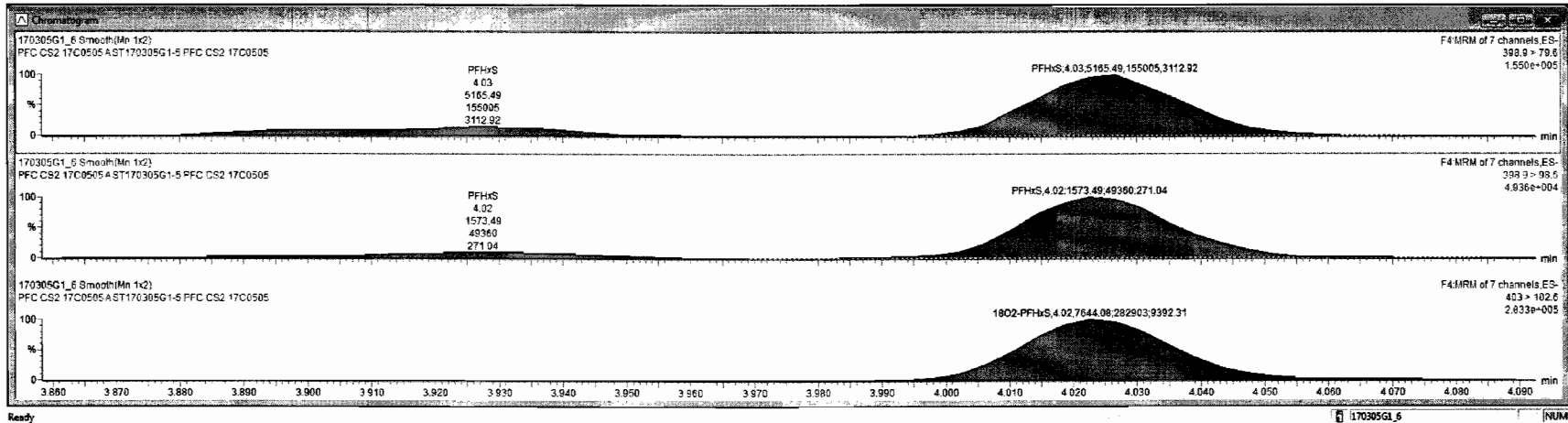
170305G1\_6





170305G1\_6 - ST170305G1-5-PFC CS2 17C0505 - PFC CS2 17C0505 A

#	Name	Trace	Area	RRF	WtV%	Pred RT	RT	Conc	>NDL	%Rec	DL
1	PFBS	299 > 79.7	5.91e3		1.000	3.03	3.03	4.58	NO	91.6	
2	PFHpA	363 > 318.9	1.36e4		1.000	3.91	3.91	4.78	NO	95.6	
3	PFHxS	398.8 > 79.8	5.17e3		1.000	4.02	4.03	4.80	YES	92.0	
4	PFOA	413 > 368.7	1.24e4		1.000	4.30	4.30	5.43	YES	108.5	
5	PFNA	463 > 418.8	7.77e3		1.000	4.63	4.63	4.71	YES	94.2	
6	PFDS	499 > 79.9	1.22e3		1.000	4.70	4.69	5.14	YES	102.8	0.0999192
7	13C3-PFBS	302.0 > 98.8	6.73e3	0.410	1.000	3.03	3.03	11.9	NO	95.3	0.0142443
8	13C4-PFHpA	367.2 > 321.9	1.95e4	1.10	1.000	3.90	3.91	12.9	NO	103.0	0.0102764
9	18O2-PFHxS	403 > 102.6	7.64e3	0.424	1.000	4.02	4.02	12.8	NO	102.2	0.0034349
10	13C2-PFOA	414.9 > 369.7	3.46e4	4.61	1.000	4.30	4.30	11.9	NO	95.4	0.0046755
11	13C5-PFNA	468.2 > 422.9	7.48e3	0.867	1.000	4.63	4.63	12.5	NO	100.0	0.0007409
12	13C8-PFDS	507.0 > 79.9	5.64e3	0.958	1.000	4.69	4.69	11.7	NO	93.2	0.0435914
13	13C5-PFHxS	318 > 272.9	3.10e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0026795
14	13C3-PFHxS	401.9 > 79.9	1.72e4	1.00	1.000	3.94	4.02	12.5	NO	100.0	0.0075773
15	13C5-PFOA	421.3 > 376	7.89e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0007868
16	13C5-PFNA	472.2 > 426.9	8.62e3	1.00	1.000	4.56	4.63	12.5	NO	100.0	0.0006215
17	13C4-PFDS	505.0 > 79.9	8.31e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0165574
18	Total PFBS	299 > 79.7	5.91e3		1.000	3.11		4.58	NO		
19	Total PFHxS	398.8 > 79.8	6.15e3		1.000	4.09		5.37	NO		
20	Total PFOA	413 > 368.7	1.25e4		1.000	4.39		5.43	NO		
21	Total PFDS	499 > 79.9	1.67e3		1.000	4.67		7.17	NO		0.0999192



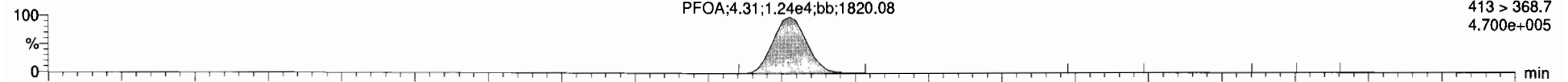
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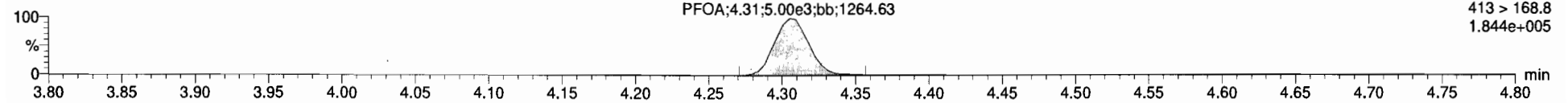
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**Total PFOA**

170305G1\_6

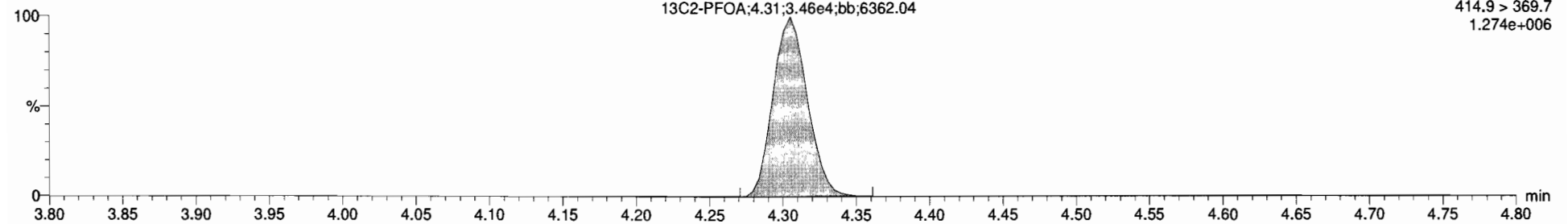


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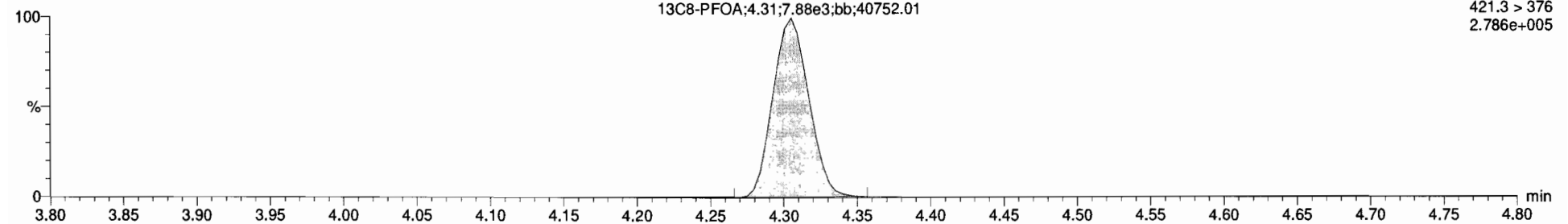
**13C2-PFOA**

170305G1\_6



**13C8-PFOA**

170305G1\_6



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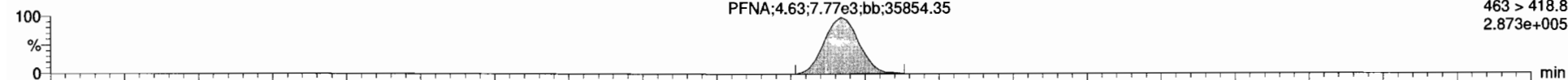
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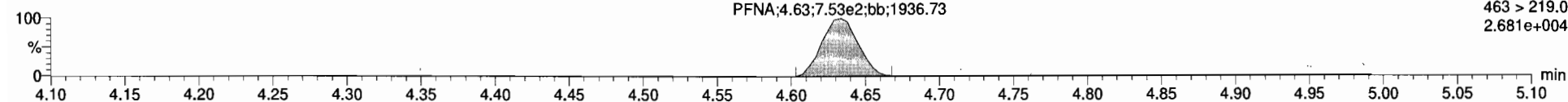
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**PFNA**

170305G1\_6

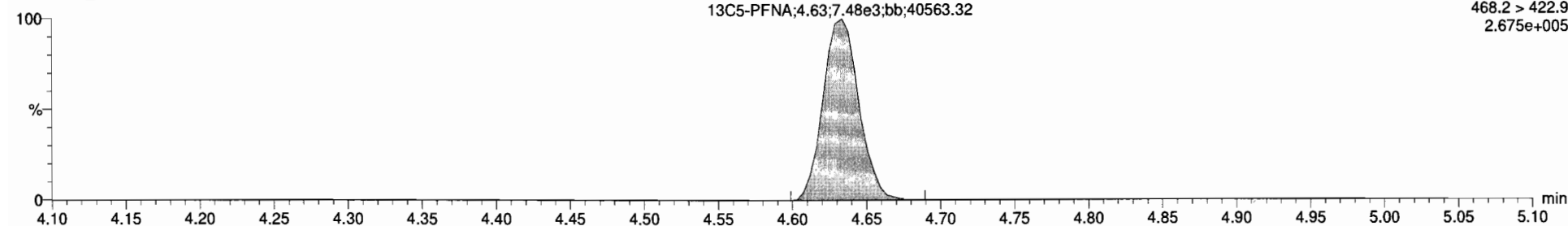


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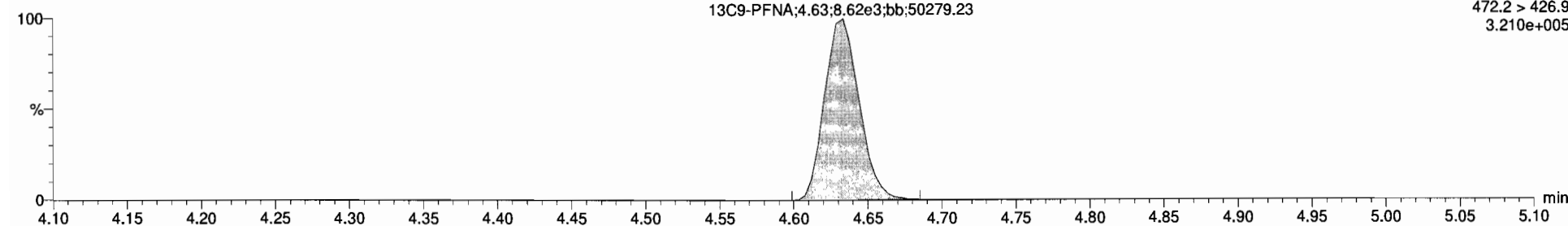
**13C5-PFNA**

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**13C9-PFNA**

170305G1\_6





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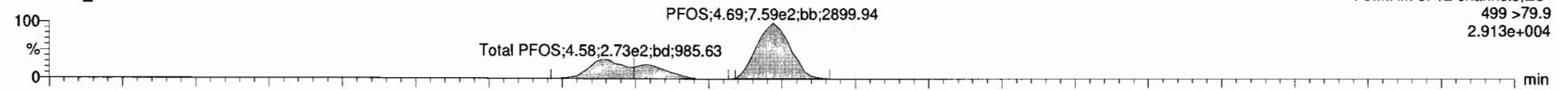
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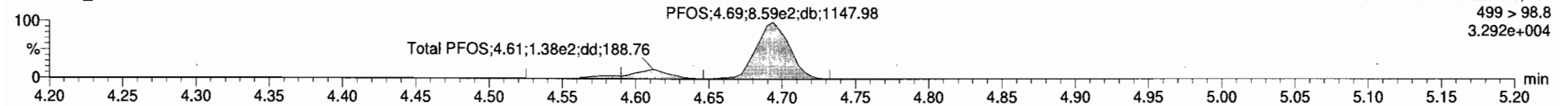
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**Total PFOS**

170305G1\_6

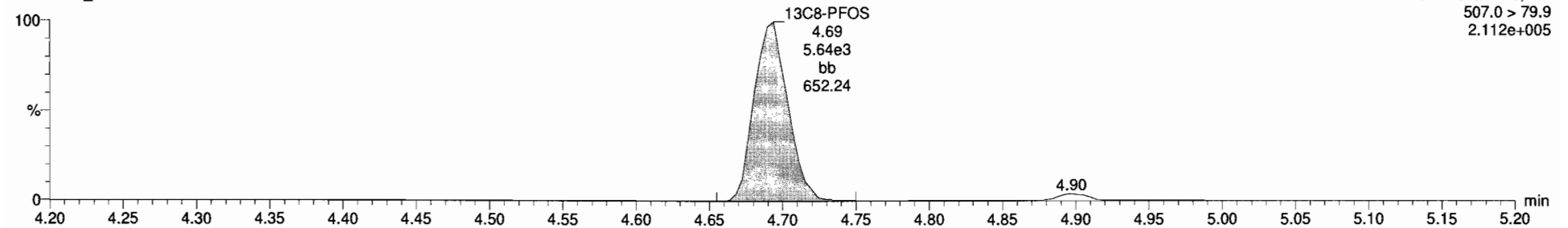


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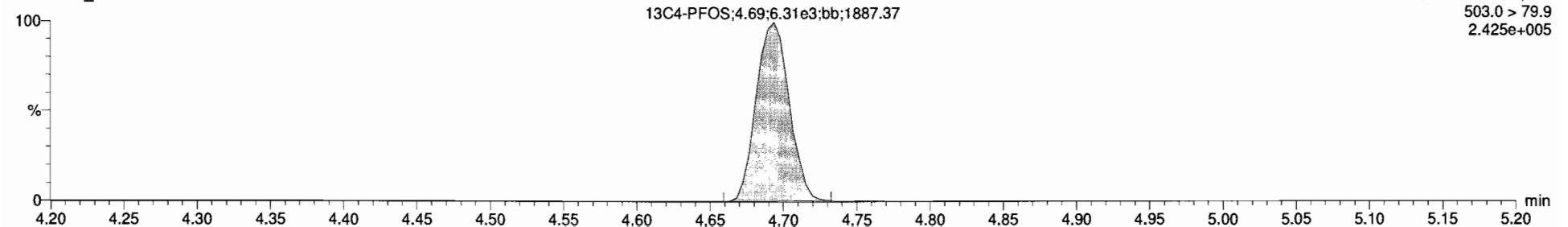
**13C8-PFOS**

170305G1\_6



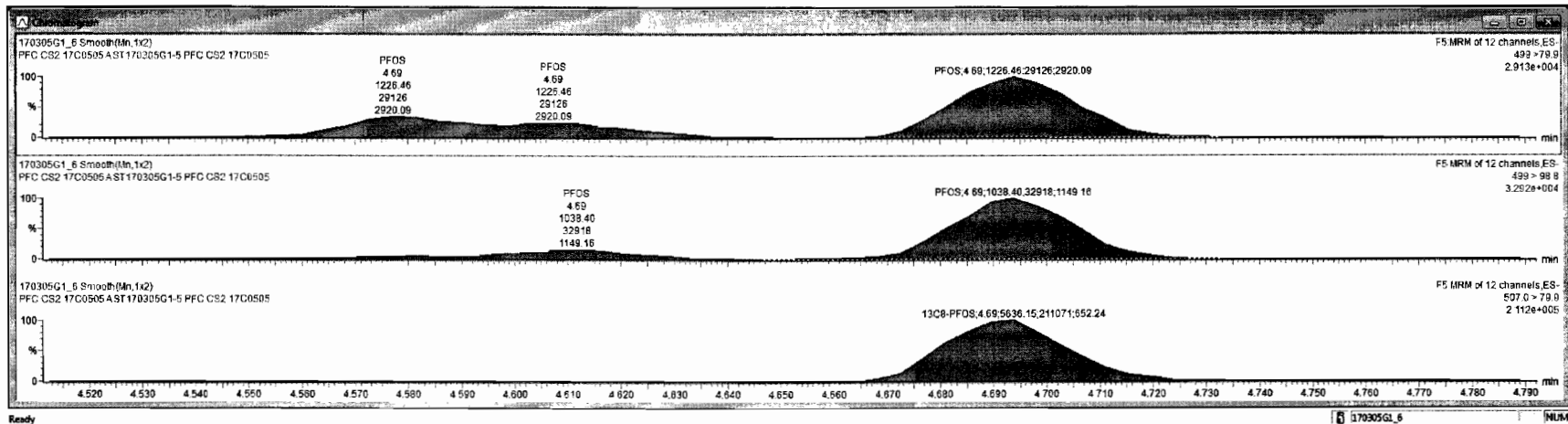
**13C4-PFOS**

170305G1\_6



170305G1\_6 ST170305G1-5 PFC CS2 17C0505 PFC CS2 17C0505A

Name	Trace	Area	RRF	WAVL	Pred RT	RT	Cone	SMDL	%Rel	DL	
1	PFBS	299 > 79.7	5.91e3	1.000	3.83	3.03	4.58	NO	91.8		
2	PFHpA	363 > 318.9	1.36e4	1.000	3.91	3.91	4.78	NO	95.6		
3	PFHxS	398.9 > 79.8	5.17e3	1.000	4.62	4.03	4.60	YES	92.0		
4	PFOA	413 > 368.7	1.24e4	1.000	4.30	4.30	5.43	YES	108.5		
5	PFNA	463 > 418.8	7.77e3	1.000	4.63	4.63	4.71	YES	94.2		
6	PFOS	499 > 79.9	1.23e3	1.000	4.79	4.69	5.14	YES	102.8	0.0999192	
7	13C3-PFBS	302.0 > 98.8	6.73e3	0.410	1.000	3.83	3.03	11.9	NO	95.3	0.0142443
8	13C4-PFHpA	367.2 > 321.8	1.95e4	1.10	1.000	3.90	3.91	12.9	NO	103.0	0.0102764
9	16O2-PFHxS	403 > 102.6	7.64e3	0.434	1.000	4.62	4.02	12.8	NO	102.2	0.0034349
10	13C2-PFOA	414.9 > 369.7	3.46e4	4.61	1.000	4.30	4.30	11.9	NO	95.4	0.0048755
11	13C5-PFNA	468.2 > 422.9	7.48e3	0.867	1.000	4.63	4.63	12.5	NO	100.0	0.0007409
12	13C8-PFOS	507.0 > 79.9	5.64e3	0.958	1.000	4.69	4.69	11.7	NO	93.2	0.0435914
13	13C5-PFHxS	318 > 272.9	3.10e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0026795
14	13C3-PFHxS	401.9 > 79.9	1.72e4	1.00	1.000	3.94	4.02	12.5	NO	100.0	0.0075773
15	13C8-PFOA	421.3 > 376	7.88e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0007688
16	13C9-PFNA	472.2 > 426.9	8.82e3	1.00	1.000	4.58	4.63	12.5	NO	100.0	0.0008215
17	13C4-PFOS	503.0 > 79.9	6.31e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0165574
18	Total PFBS	299 > 79.7	5.91e3		1.000	3.11		4.58	NO		
19	Total PFHxS	398.9 > 79.8	6.15e3		1.000	4.69		5.37	NO		
20	Total PFOA	413 > 368.7	1.25e4		1.000	4.39		5.43	NO		
21	Total PFOS	499 > 79.9	1.67e3		1.000	4.67		7.17	NO		0.0999192



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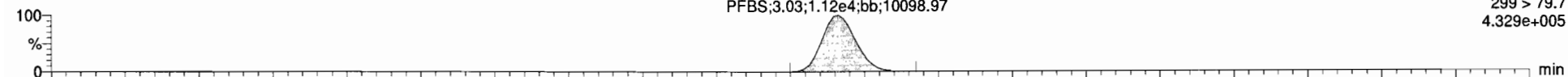
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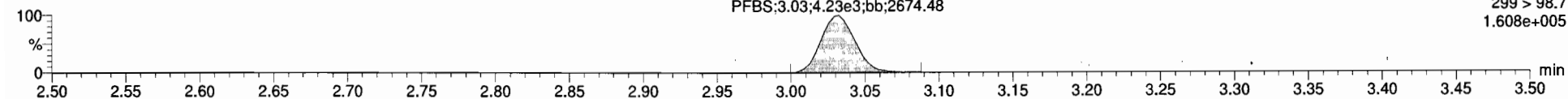
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**PFBS**

170305G1\_7

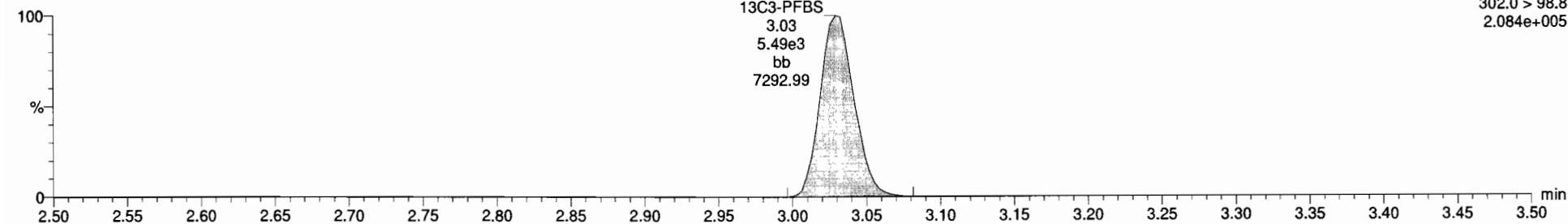


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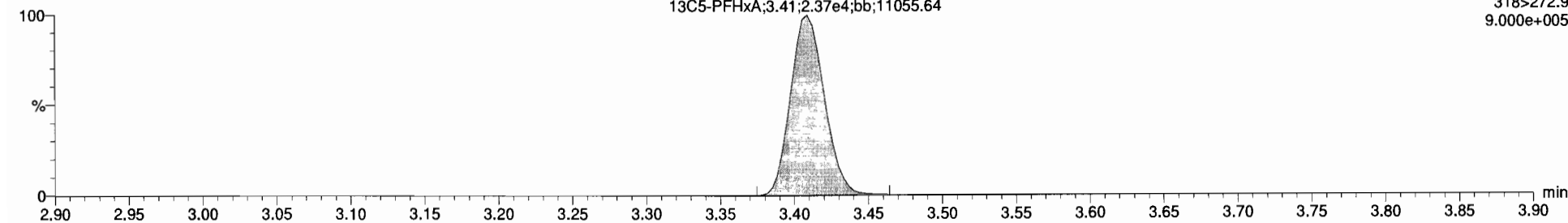
**13C3-PFBS**

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**13C5-PFHxA**

170305G1\_7

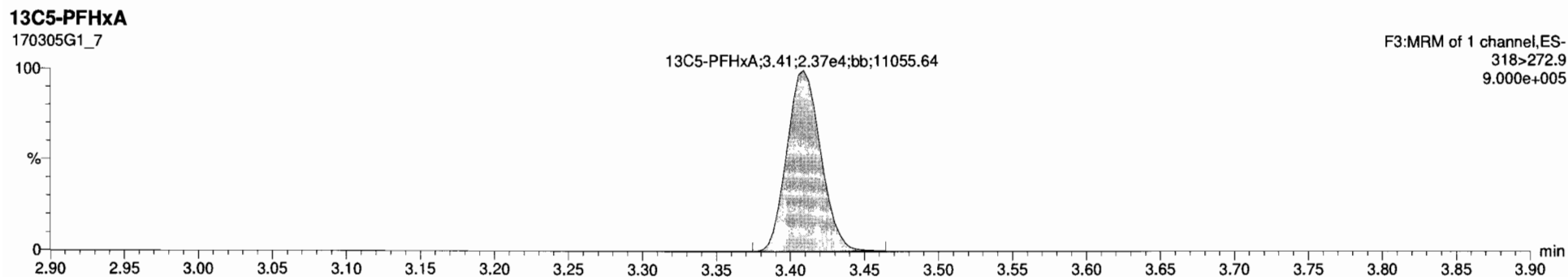
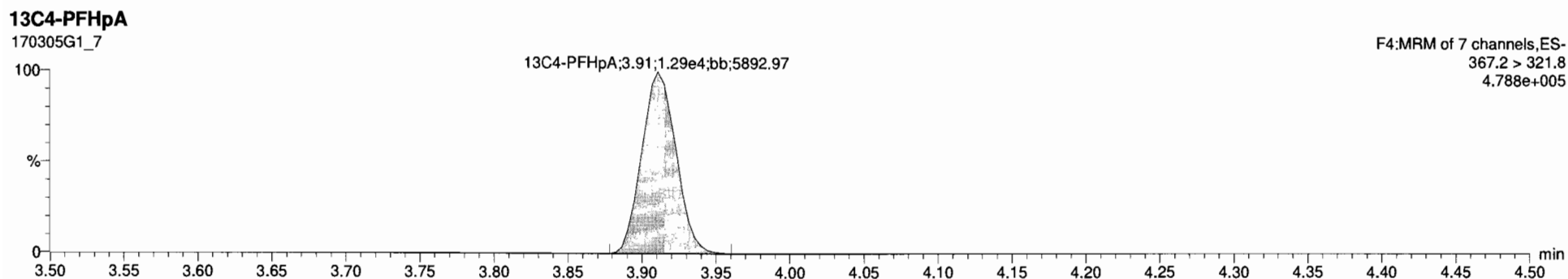
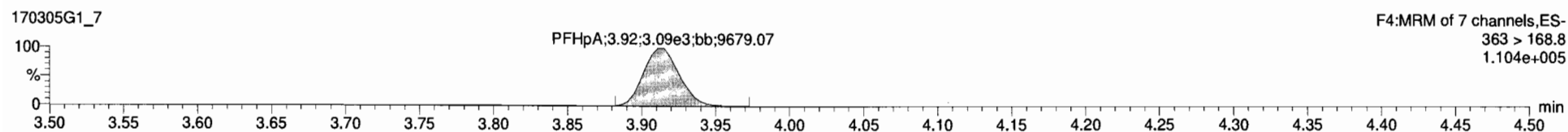
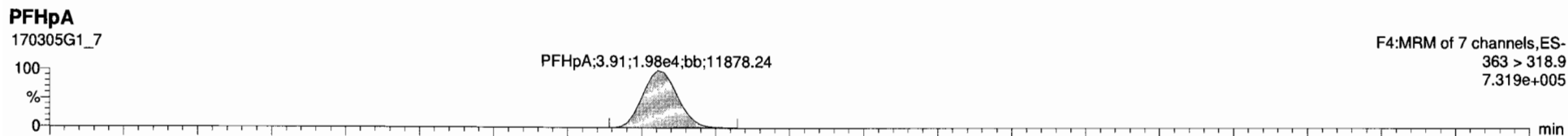


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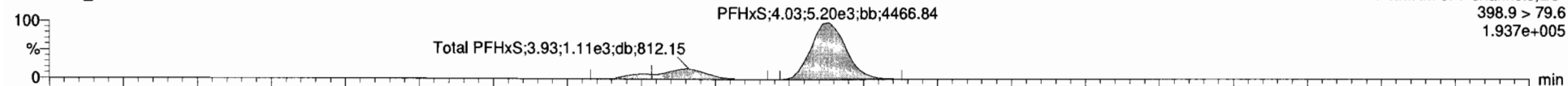
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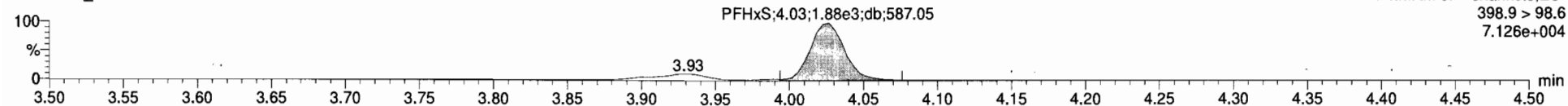
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**Total PFHxS**

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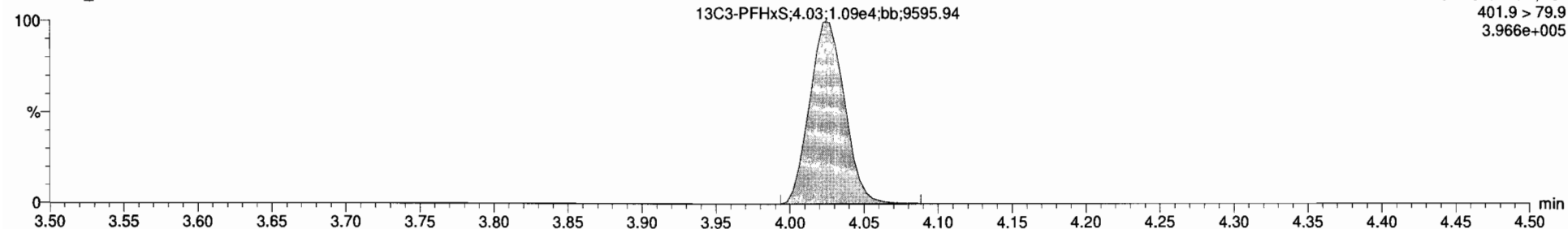


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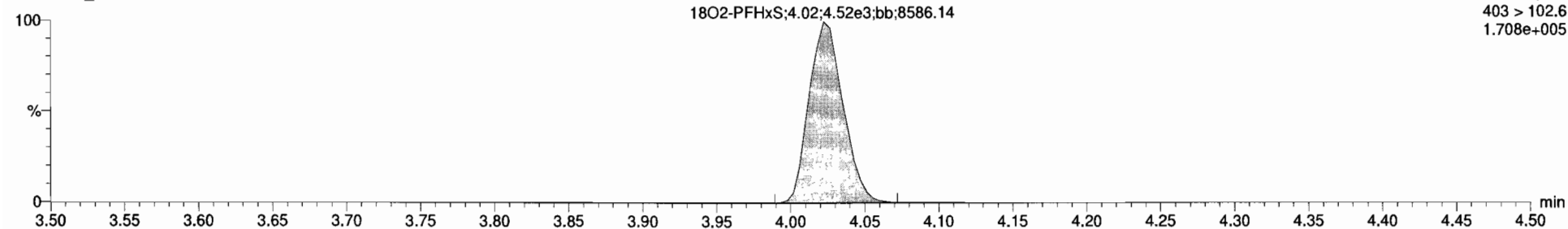
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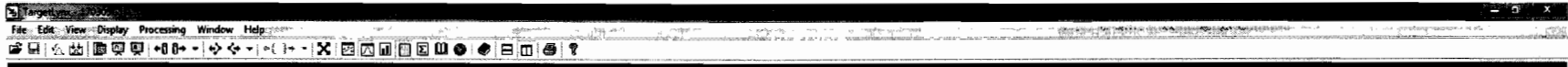
170305G1\_7



**18O2-PFHxS**

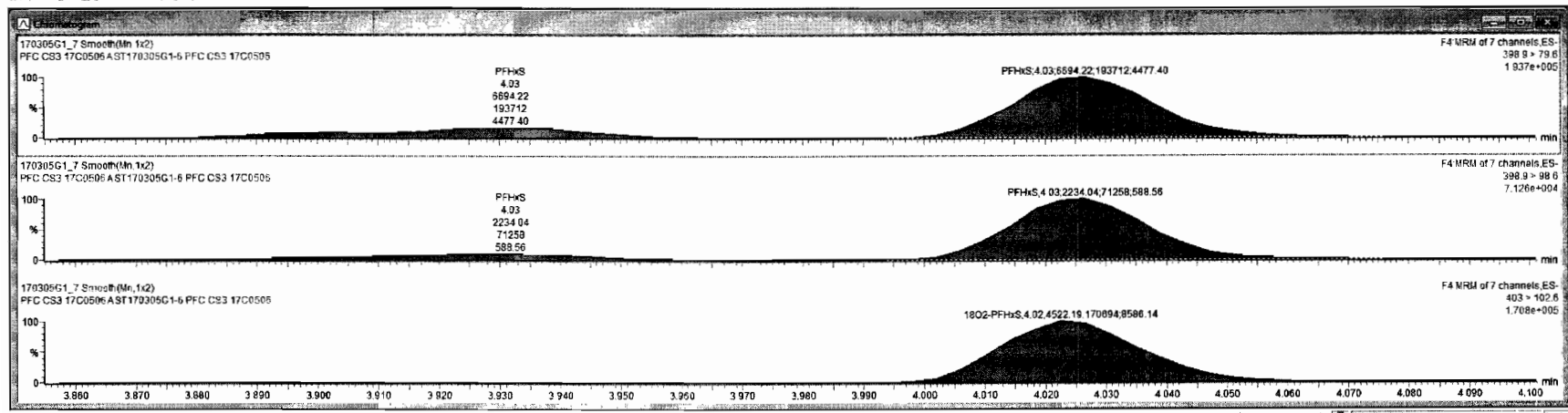
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170305G1\_7 ST170305G1-6 PFC CS3 17C0506 PFC CS3 17C0506 A

Name	Trace	Area	RPV	Wt%	Pred RT	RT	Case	>MUL	%Rec	DL
1	PFBS	299 > 79.7	1.12e4		1.000	3.03	10.7	YES	107.2	
2	PFHpA	363 > 316.9	1.96e4		1.000	3.91	10.6	YES	106.4	
3	PFHxS	388.9 > 79.6	6.69e3		1.000	4.02	10.1	YES	101.5	
4	PFOA	413 > 368.7	1.56e4		1.000	4.30	11.0	YES	109.8	
5	PFNA	463 > 418.8	7.05e3		1.000	4.63	11.1	YES	111.4	
6	PFOS	499 > 79.9	6.60e2		1.000	4.70	10.7	YES	107.1	0.1341527
7	13C3-PFBS	302.0 > 98.8	5.48e3	0.410	1.000	3.03	3.03	NO	123.0	0.0054942
8	13C4-PFHpA	367.2 > 321.8	1.29e4	1.10	1.000	3.90	3.91	NO	107.6	0.0058321
9	18O2-PFHxS	403 > 102.6	4.52e3	0.434	1.000	4.03	4.02	NO	95.6	0.0036126
10	13C2-PFOA	414.9 > 369.7	2.16e4	4.61	1.000	4.30	4.30	NO	111.6	0.0392472
11	13C5-PFNA	468.2 > 422.9	2.86e3	0.967	1.000	4.63	4.63	NO	94.0	0.0018297
12	13C8-PFOS	507.0 > 79.9	1.66e3	0.958	1.000	4.69	4.69	NO	112.8	0.0197697
13	13C5-PFHxA	318 > 272.9	2.37e4	1.00	1.000	3.29	3.41	NO	100.0	0.0028296
14	13C3-PFHxS	401.9 > 79.3	1.09e4	1.00	1.000	3.94	4.03	NO	100.0	0.0032506
15	13C8-PFOA	421.3 > 376	4.25e3	1.00	1.000	4.22	4.30	NO	100.0	0.0058705
16	13C5-PFNA	472.2 > 426.9	3.54e3	1.00	1.000	4.56	4.63	NO	100.0	0.0069093
17	13C4-PFOS	503.0 > 79.9	1.74e3	1.00	1.000	4.67	4.69	NO	100.0	0.1620576
18	Total PFBS	299 > 79.7	1.12e4		1.000	3.11		NO		
19	Total PFHxS	388.9 > 79.6	8.14e3		1.000	4.09		NO		
20	Total PFOA	413 > 368.7	1.57e4		1.000	4.39		NO		
21	Total PFOS	499 > 79.9	1.01e3		1.000	4.67		NO		0.1341527



Ready 170305G1\_7 NUM

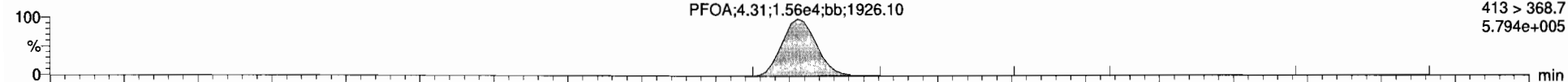
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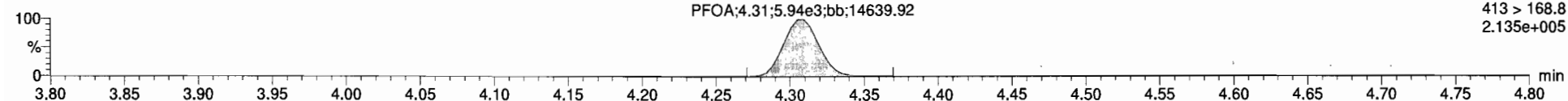
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**Total PFOA**

170305G1\_7

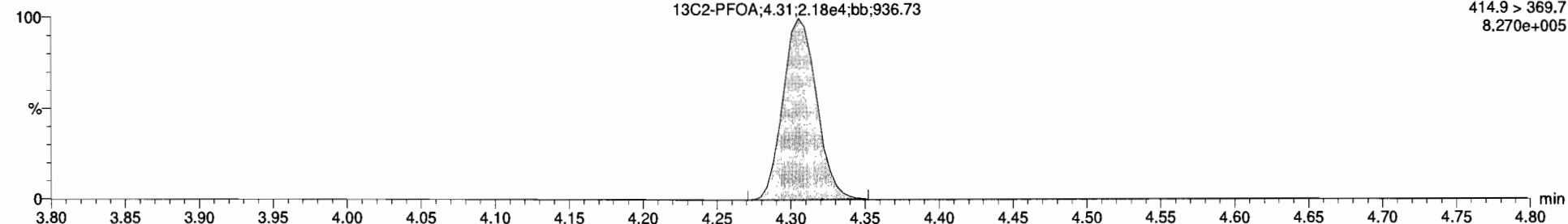


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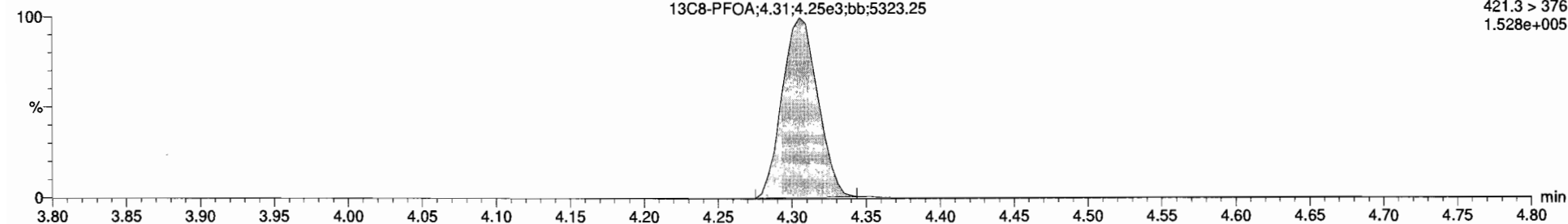
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**13C8-PFOA**

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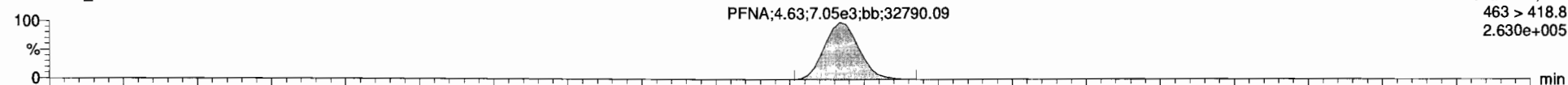
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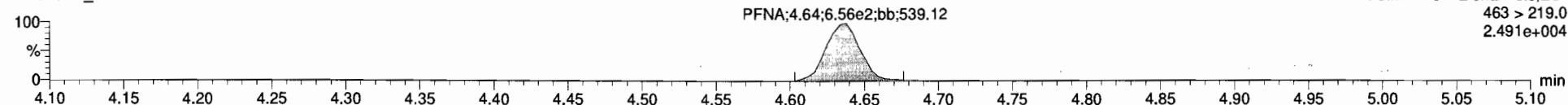
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**PFNA**

170305G1\_7

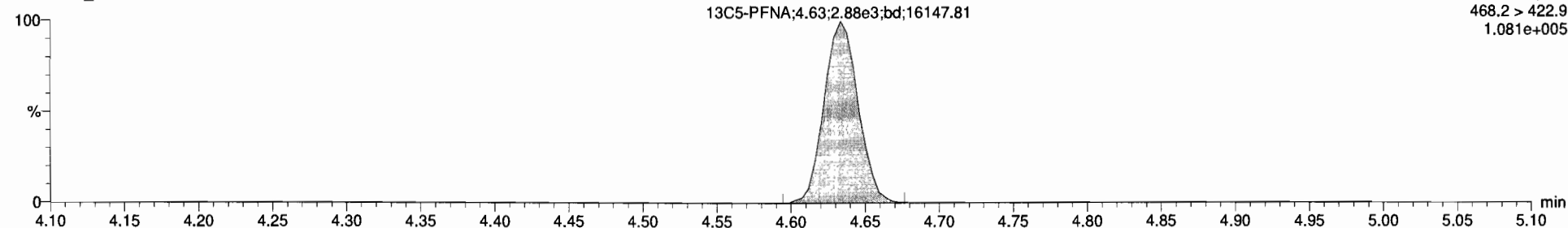


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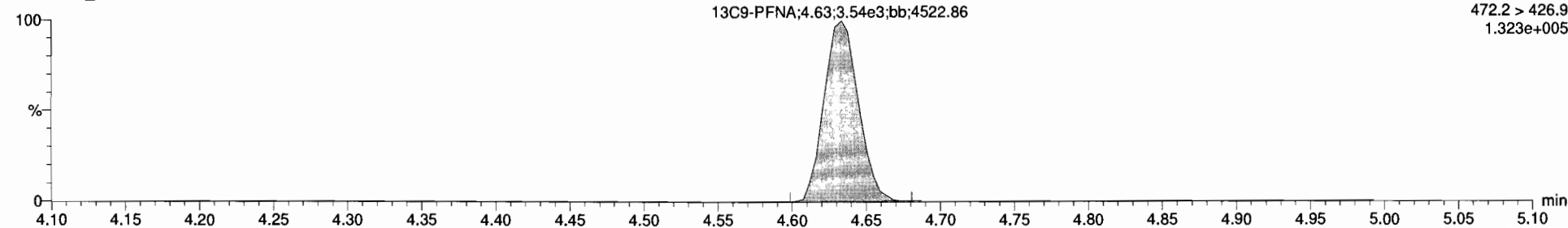
**13C5-PFNA**

170305G1\_7



**13C9-PFNA**

170305G1\_7





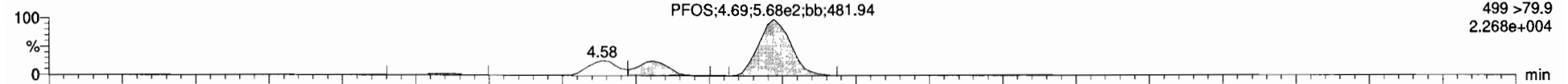
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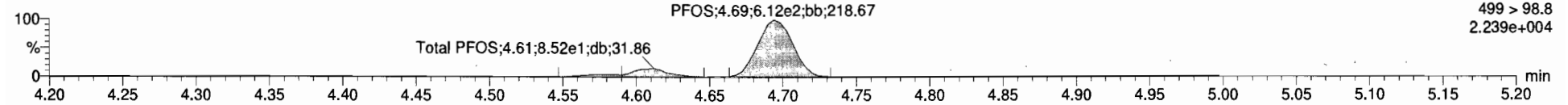
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**Total PFOS**

170305G1\_7

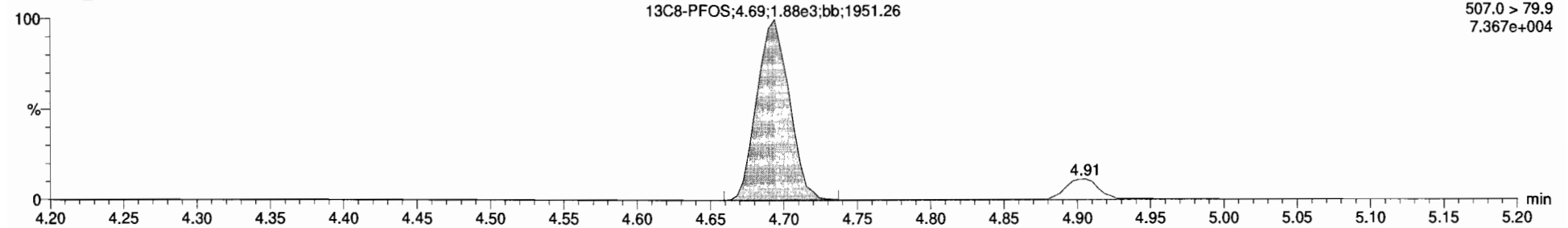


170305G1\_7



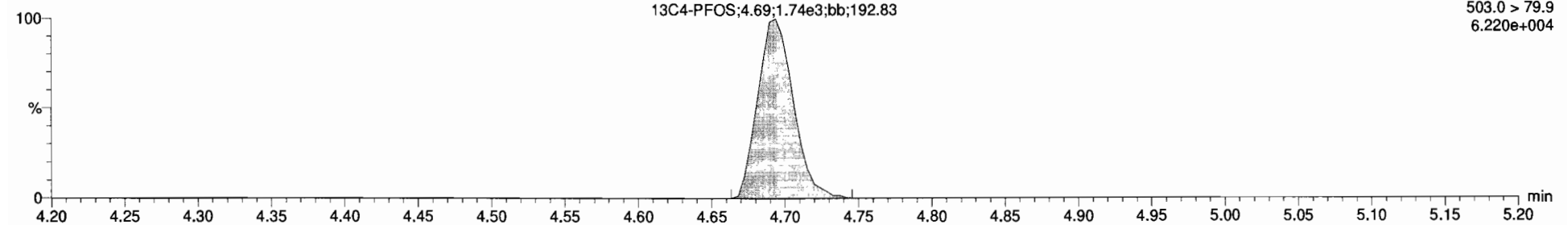
**13C8-PFOS**

170305G1\_7



**13C4-PFOS**

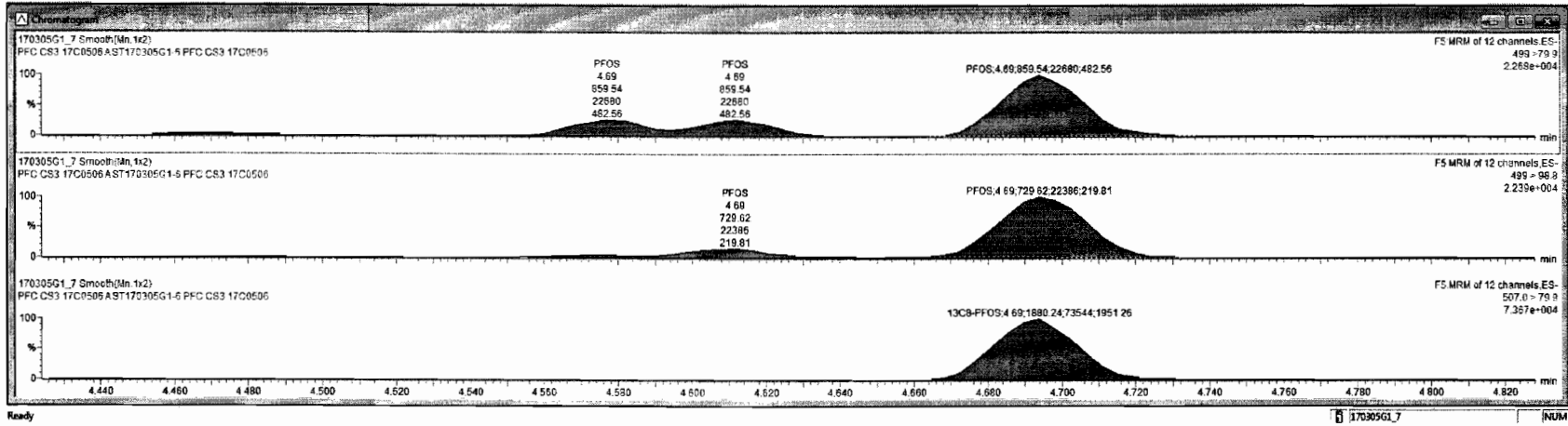
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170305G1\_7 - ST170305G1-6 PFC CS3 17C0506 - PFC CS3 17C0506 A

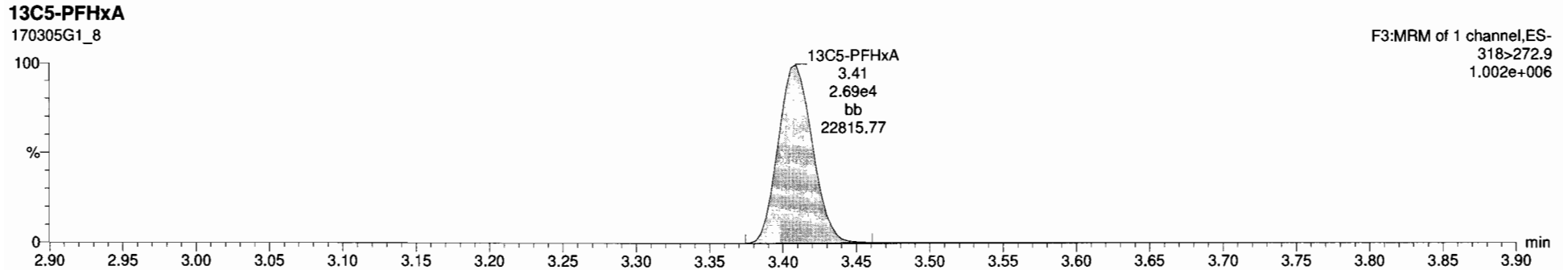
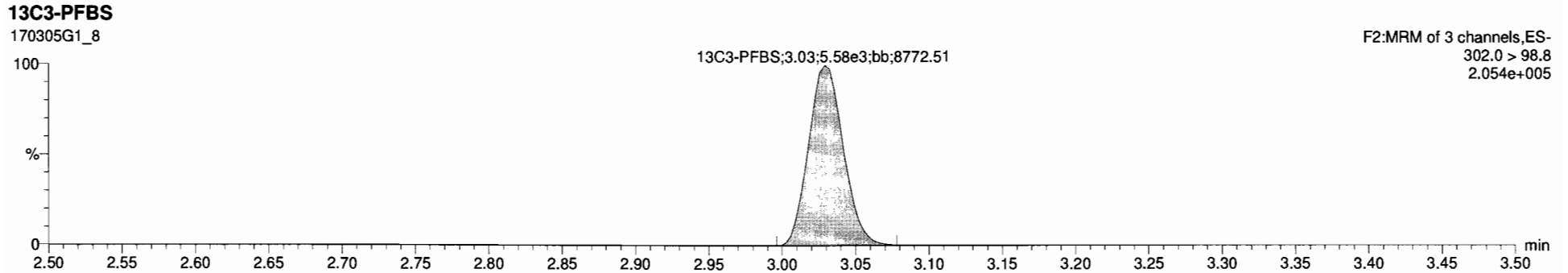
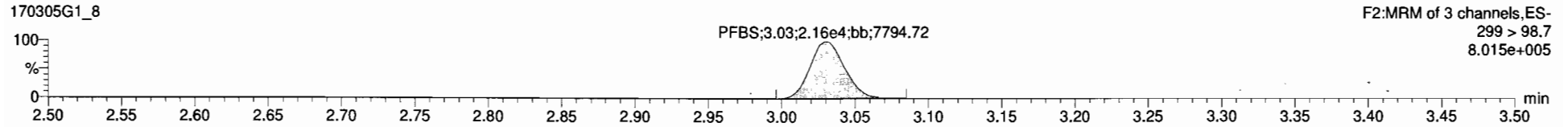
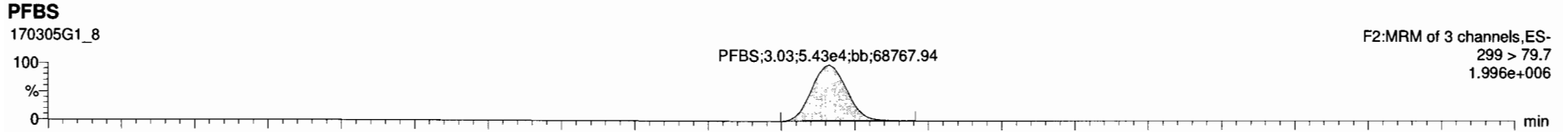
Name	Trace	Area	RRF	WtVal	Prod RT	RT	Conc.	MDL	%Rec	DL
1	PFBS	299 > 79.7	1.12e4	1.000	3.03	3.03	10.7	YES	107.2	0.0000000
2	PFHpA	363 > 318.9	1.96e4	1.000	3.91	3.91	10.6	YES	106.4	0.0000000
3	PFHxS	398.9 > 79.6	6.69e3	1.000	4.02	4.03	10.1	YES	101.5	0.0000000
4	PFOA	413 > 368.7	1.56e4	1.000	4.30	4.30	11.0	YES	109.8	0.0000000
5	PFNA	463 > 418.8	7.05e3	1.000	4.63	4.63	11.1	YES	111.4	0.0000000
6	PFOS	499 > 79.9	8.60e3	1.000	4.69	4.69	10.9	YES	108.8	0.1024216
7	13C3-PFBS	302.0 > 98.8	5.49e3	0.410	1.000	3.03	3.03	NO	123.0	0.0054942
8	13C4-PFHpA	367.2 > 321.8	1.29e4	1.10	1.000	3.90	3.91	NO	107.8	0.0058321
9	18O2-PFHxS	403 > 102.6	4.52e3	0.434	1.000	4.03	4.02	NO	95.5	0.0036126
10	13C2-PFOA	414.8 > 369.7	2.18e4	4.61	1.000	4.30	4.30	NO	111.6	0.032472
11	13C2-PFNA	468.2 > 422.9	2.86e3	0.867	1.000	4.63	4.63	NO	94.0	0.0018267
12	13C8-PFOS	507.0 > 79.9	1.86e3	0.958	1.000	4.69	4.69	NO	112.8	0.0197667
13	13C3-PFHxS	318 > 272.9	2.37e4	1.00	1.000	3.29	3.41	NO	100.0	0.0028266
14	13C3-PFHxS	461.9 > 79.9	1.09e4	1.00	1.000	3.84	4.03	NO	100.0	0.0032568
15	13C8-PFOA	421.3 > 376	4.25e3	1.00	1.000	4.22	4.30	NO	100.0	0.0058706
16	13C9-PFNA	472.2 > 426.9	3.54e3	1.00	1.000	4.56	4.63	NO	100.0	0.0059093
17	13C4-PFOS	503.0 > 79.9	1.74e3	1.00	1.000	4.67	4.69	NO	100.0	0.1620576
18	Total PFBS	299 > 79.7	1.12e4		1.000	3.11		NO		
19	Total PFHxS	398.9 > 79.6	8.14e3		1.000	4.09		NO		
20	Total PFOA	413 > 368.7	1.57e4		1.000	4.39		NO		
21	Total PFOS	499 > 79.9	1.01e3		1.000	4.67		NO		0.1024216



Dataset: Untitled

Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-7 PFC CS4 17C0507, Description: PFC CS4 17C0507 A, Name: 170305G1\_8, Date: 05-Mar-2017, Time: 14:02:00, Instrument: , Lab: , User:



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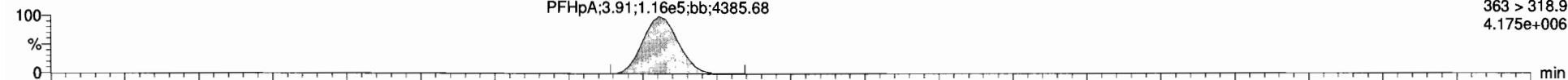
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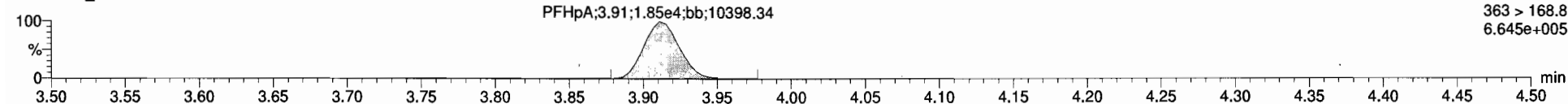
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**PFHpA**

170305G1\_8

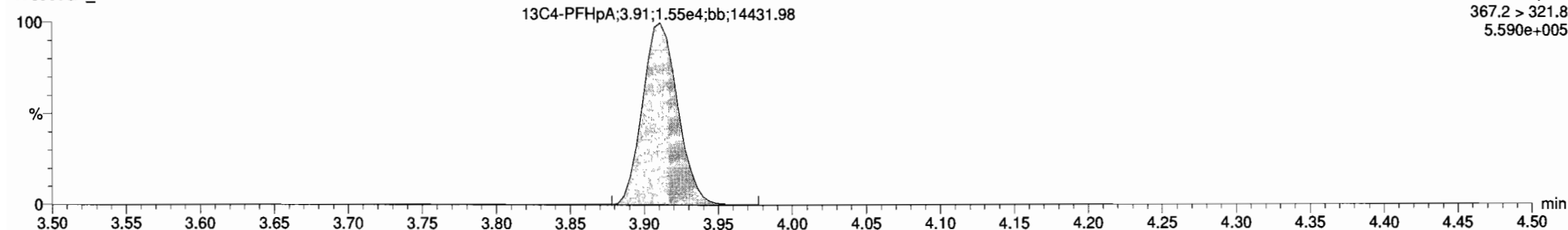


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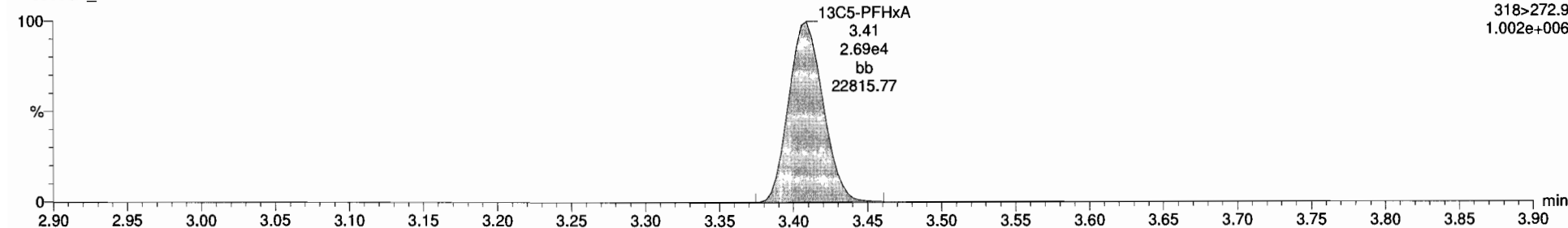
**13C4-PFHpA**

170305G1\_8



**13C5-PFHxA**

170305G1\_8



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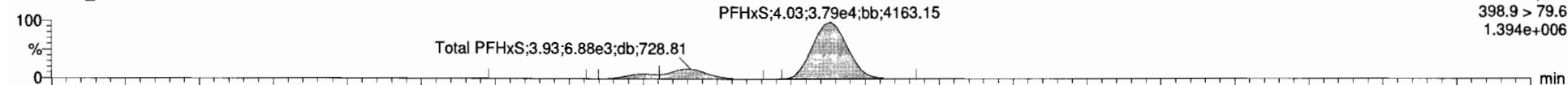
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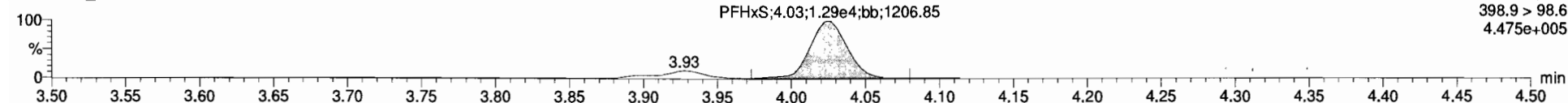
**Total PFHxS**

170305G1\_8



F4:MRM of 7 channels,ES-  
398.9 > 79.6  
1.394e+006

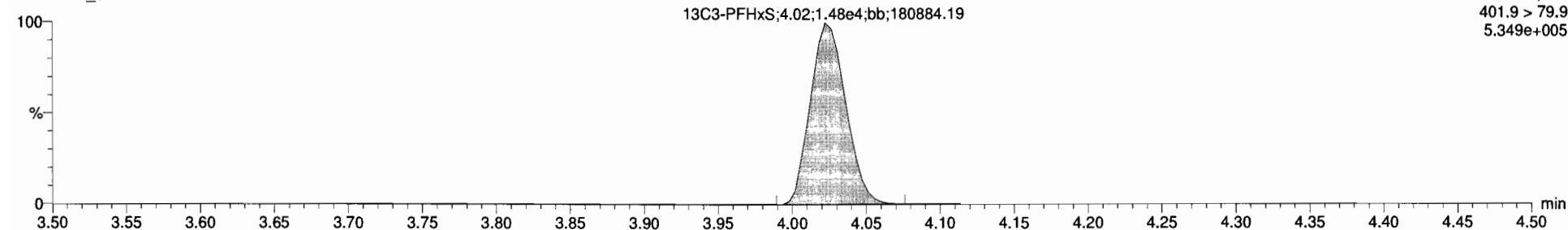
170305G1\_8



F4:MRM of 7 channels,ES-  
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4.475e+005

**13C3-PFHxS**

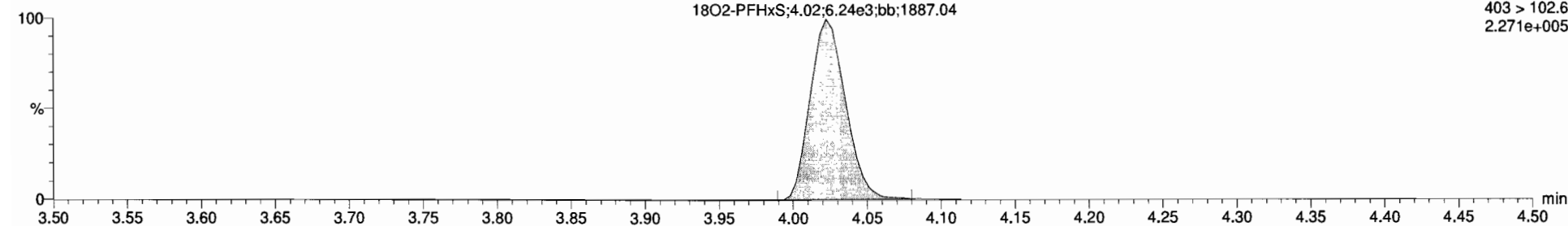
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F4:MRM of 7 channels,ES-  
401.9 > 79.9  
5.349e+005

**18O2-PFHxS**

170305G1\_8

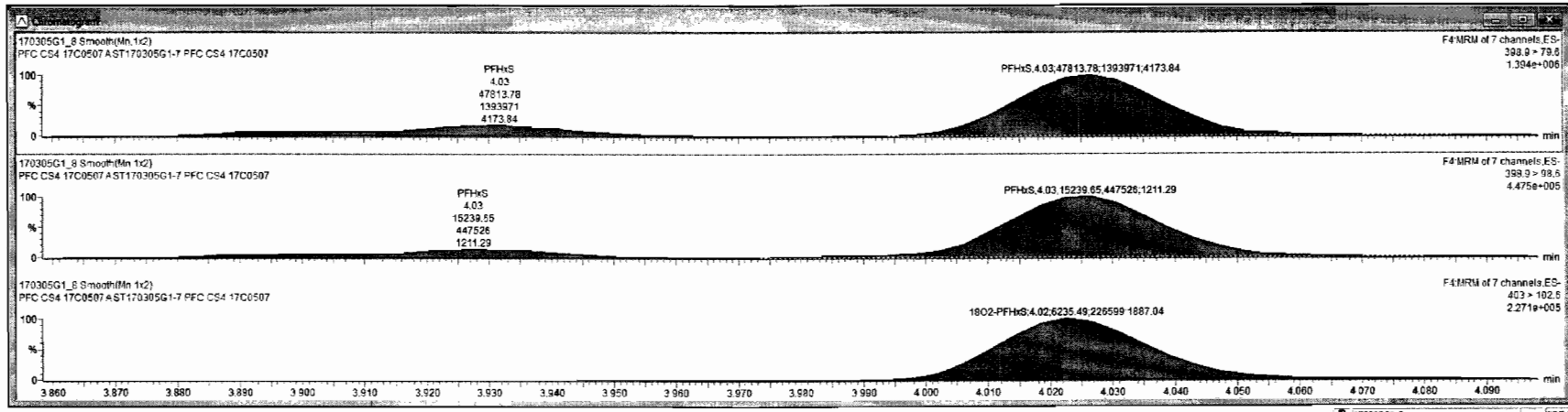


F4:MRM of 7 channels,ES-  
403 > 102.6  
2.271e+005



170305G1\_8 - ST170305G1-7 PFC CS4 17C0507 - PFC CS4 17C0507A

Name	Trace	Area	RRR	WVAL	Pred RT	RT	Conc.	MSL	SNR	DL
PFBS	299 > 79.7	5.43e4		1.000	3.03	3.03	51.1	YES	102.1	0.0000000
PFHpA	363 > 318.9	1.16e5		1.000	3.91	3.91	51.9	YES	103.8	0.0000000
PFHxS	398.9 > 79.6	4.79e4		1.000	4.03	4.03	52.8	YES	105.8	0.0000000
PFDA	413 > 368.7	1.10e5		1.000	4.30	4.30	52.3	YES	104.6	0.0000000
PFNA	453 > 418.8	7.41e4		1.000	4.63	4.63	52.1	YES	104.1	0.0000000
PFOS	499 > 79.9	1.04e4		1.000	4.69	4.69	48.3	YES	96.6	0.1281301
13C1-PFBS	302.0 > 98.8	5.58e3	0.410	1.000	3.03	3.03	11.5	NO	82.1	0.0033337
13C1-PFHpA	367.2 > 321.8	1.55e4	1.10	1.000	3.90	3.91	11.9	NO	85.6	0.0020622
1602-PFHxS	403 > 102.6	6.24e3	0.434	1.000	4.02	4.02	12.1	NO	97.2	0.0161792
13C2-PFOA	414.9 > 369.7	3.30e4	4.61	1.000	4.30	4.30	12.3	NO	98.2	0.0024226
13C2-PFNA	458.2 > 422.9	6.50e3	0.867	1.000	4.63	4.63	12.3	NO	98.7	0.0031015
13C2-PFOS	507.0 > 79.9	5.14e3	0.958	1.000	4.69	4.69	13.1	NO	104.4	0.0094134
13C3-PFHxS	316.272.9	2.89e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0013897
13C3-PFHxS	401.9 > 79.9	1.48e4	1.00	1.000	3.94	4.02	12.5	NO	100.0	0.0001728
13C3-PFOA	421.3 > 376	7.29e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0034967
13C3-PFNA	472.2 > 426.9	7.60e3	1.00	1.000	4.56	4.63	12.5	NO	100.0	0.0166538
13C3-PFOS	503.0 > 79.9	5.13e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0018396
Total PFBS	299 > 79.7	5.43e4		1.000	3.11		51.1	NO		
Total PFHxS	398.9 > 79.6	5.73e4		1.000	4.09		63.2	NO		
Total PFDA	413 > 368.7	1.10e5		1.000	4.39		52.3	NO		
Total PFOS	499 > 79.9	1.33e4		1.000	4.67		62.0	NO		0.1281301



Ready | 170305G1\_8 | NUM

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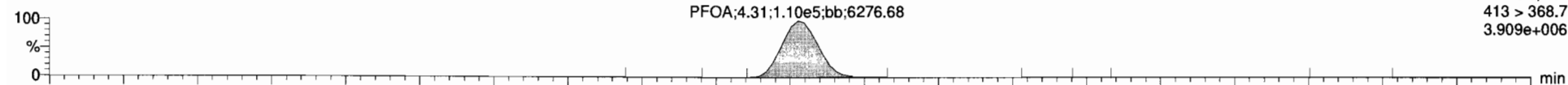
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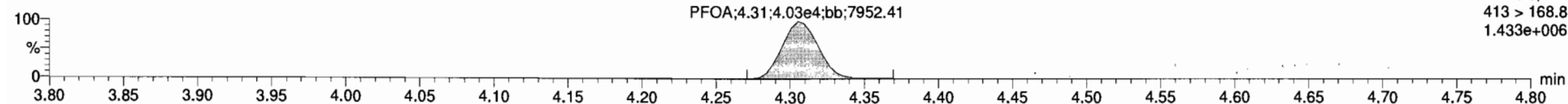
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**Total PFOA**

170305G1\_8

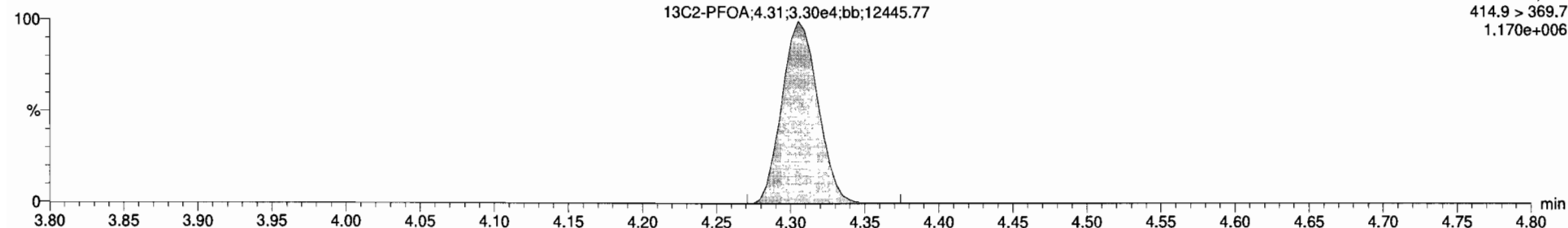


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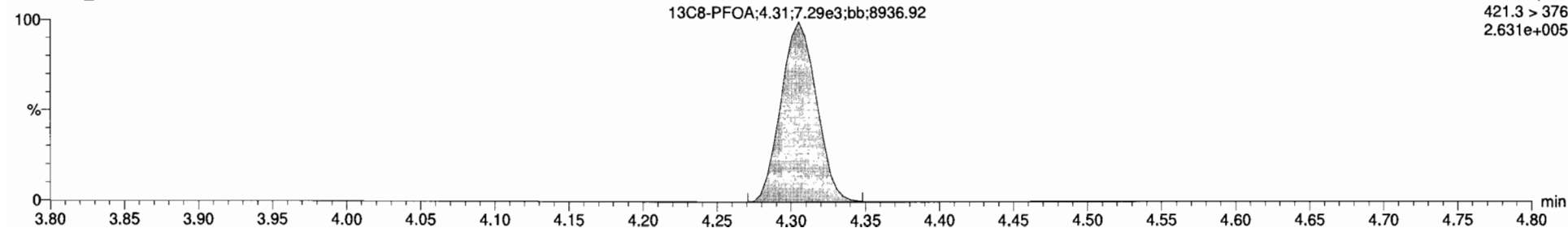
**13C2-PFOA**

170305G1\_8



**13C8-PFOA**

170305G1\_8



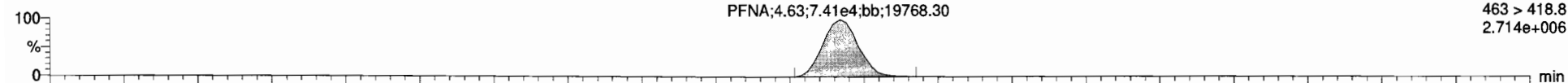
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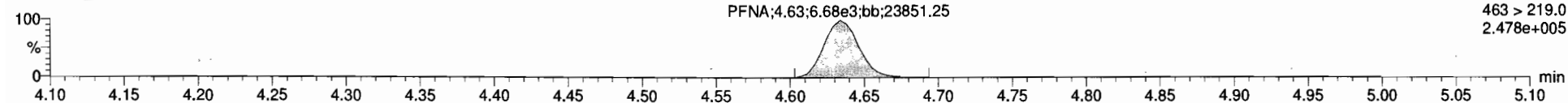
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**PFNA**

170305G1\_8

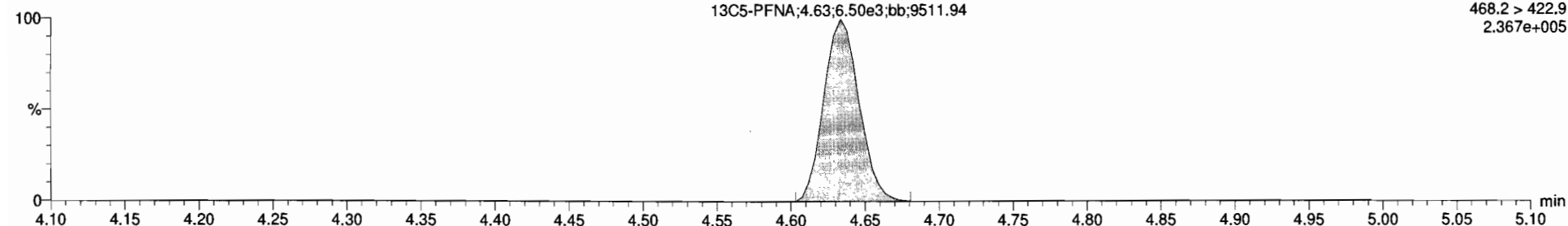


170305G1\_8



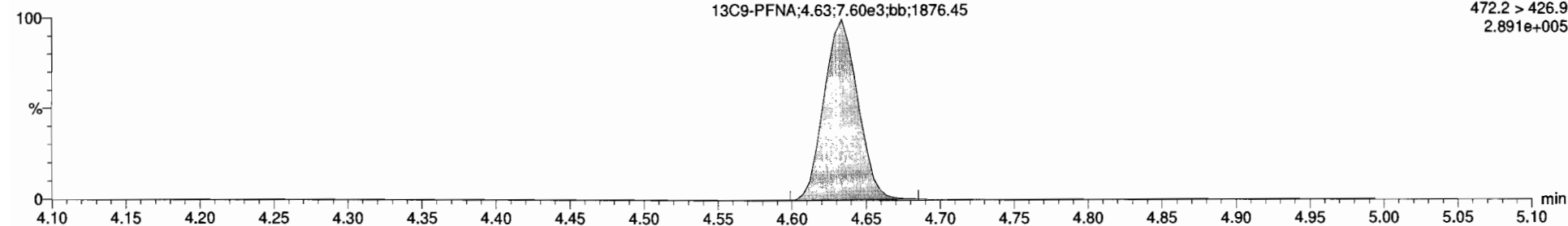
**13C5-PFNA**

170305G1\_8



**13C9-PFNA**

170305G1\_8





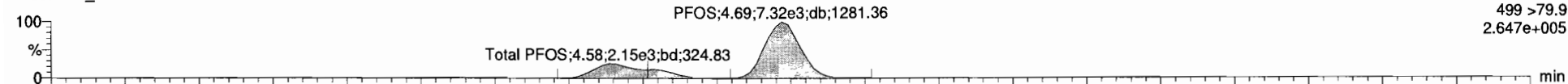
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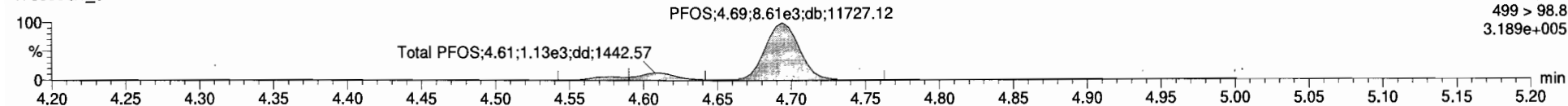
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**Total PFOS**

170305G1\_8

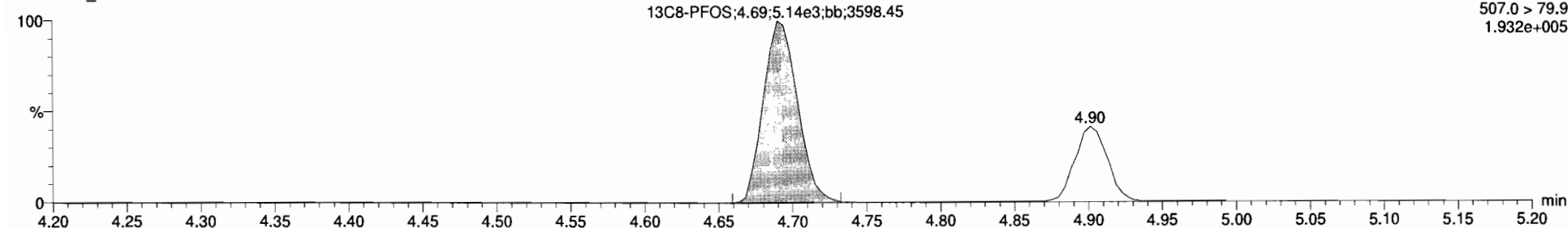


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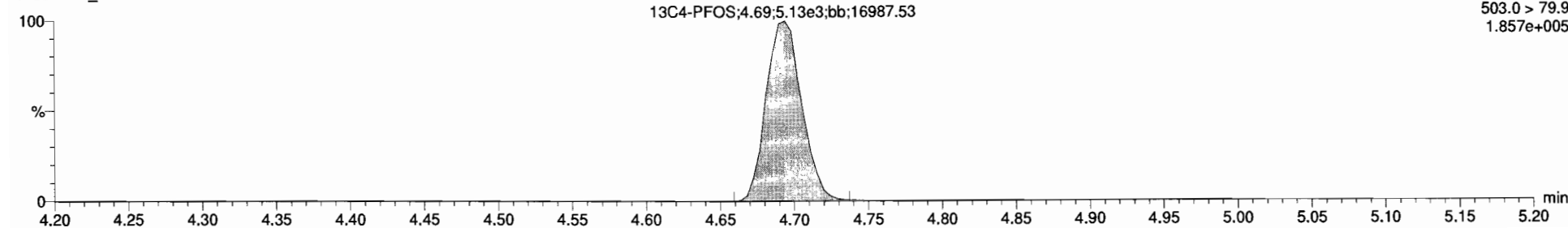
**13C8-PFOS**

170305G1\_8

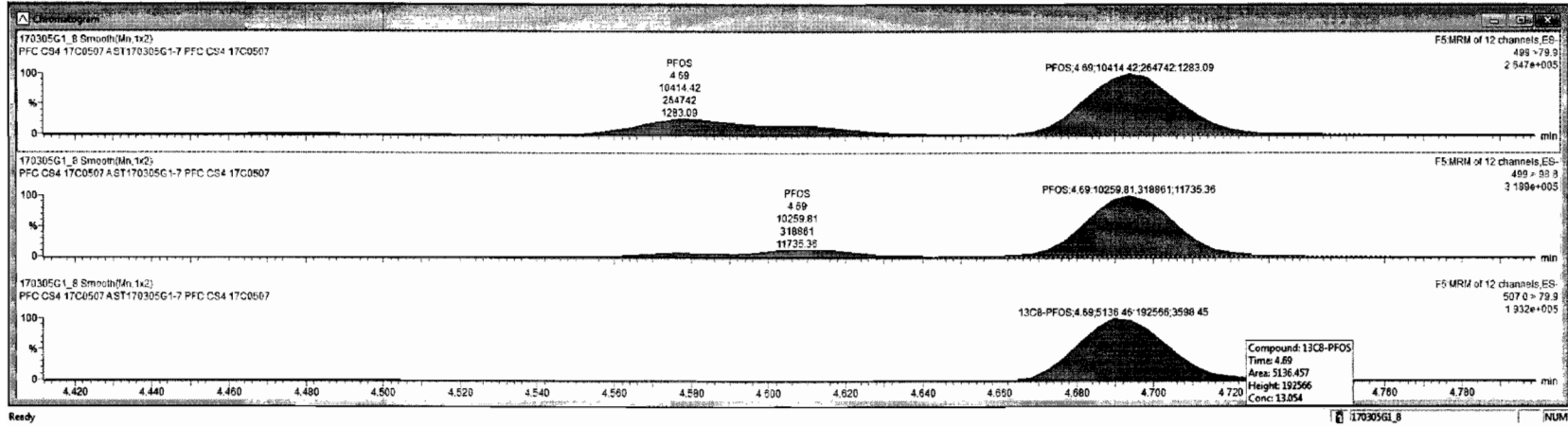


**13C4-PFOS**

170305G1\_8



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1	PFBS	290 > 79.7	5.43e4		1.000	3.03	3.03	51.1	YES	102.1	0.0000000
2	PFHpA	362 > 318.9	1.16e5		1.000	3.91	3.91	51.9	YES	103.3	0.0000000
3	PFHxS	398.9 > 79.8	4.78e4		1.000	4.02	4.03	52.8	YES	105.6	0.0000000
4	PFOA	413 > 368.7	1.10e5		1.000	4.30	4.30	52.3	YES	104.6	0.0000000
5	PFNA	463 > 418.6	7.41e4		1.000	4.63	4.63	52.1	YES	104.1	0.0000000
6	PFOS	499 > 79.9	1.04e4		1.000	4.69	4.69	48.3	YES	96.8	0.1281301
7	13C3-PFBS	302.0 > 96.6	5.58e3	0.410	1.000	3.03	3.03	11.5	NO	92.1	0.0033337
8	13C4-PFHpA	367.2 > 321.8	1.55e4	1.10	1.000	3.90	3.91	11.9	NO	95.6	0.0020622
9	18O2-PFHxS	403 > 102.6	6.24e3	0.434	1.000	4.02	4.02	12.1	NO	97.2	0.0161792
10	13C2-PFOA	414.9 > 369.7	3.30e4	4.61	1.000	4.30	4.30	12.3	NO	98.2	0.0024228
11	13C5-PFNA	468.2 > 422.9	6.50e3	0.867	1.000	4.63	4.63	12.3	NO	95.7	0.0031015
12	13C8-PFOS	507.0 > 79.9	5.14e3	0.936	1.000	4.69	4.69	13.1	NO	104.4	0.0094134
13	13C5-PFHpA	319 > 272.9	2.99e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0019697
14	13C3-PFHxS	401.9 > 79.9	1.40e4	1.00	1.000	3.94	4.02	12.5	NO	100.0	0.0001728
15	13C8-PFOA	421.3 > 378	7.29e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0034967
16	13C9-PFNA	472.2 > 426.9	7.60e3	1.00	1.000	4.56	4.63	12.5	NO	100.0	0.0166632
17	13C4-PFOS	503.0 > 79.8	5.13e3	1.00	1.000	4.67	4.68	12.5	NO	100.0	0.0016396
18	Total PFBS	290 > 79.7	5.43e4		1.000	3.11		51.1	NO		
19	Total PFHxS	398.9 > 79.8	5.73e4		1.000	4.09		63.2	NO		
20	Total PFOA	413 > 368.7	1.10e5		1.000	4.39		52.3	NO		
21	Total PFOS	499 > 79.9	1.33e4		1.000	4.67		62.0	NO		0.1281301



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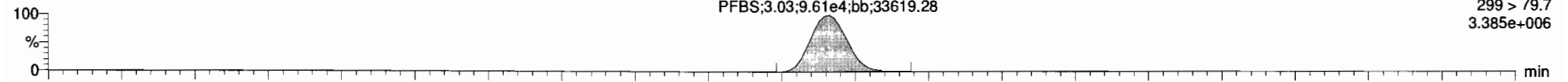
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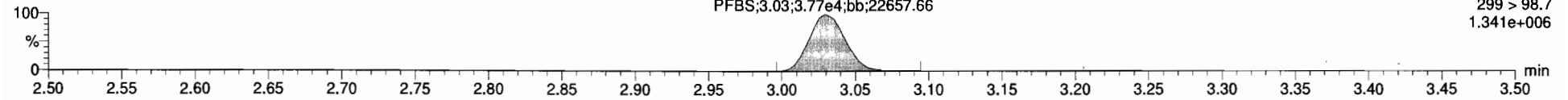
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**PFBS**

170305G1\_9

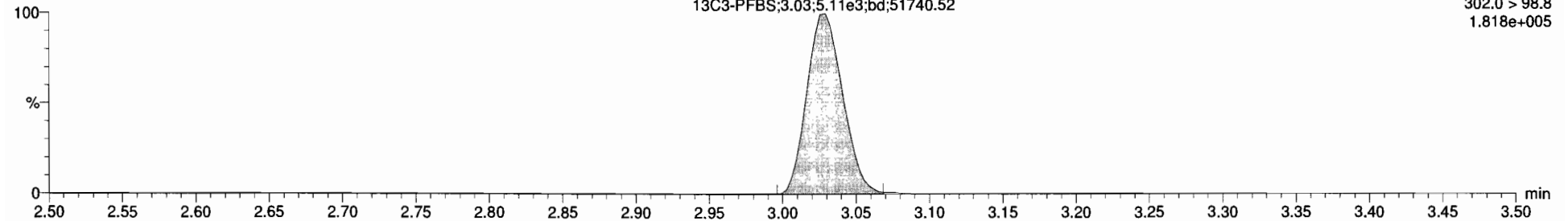


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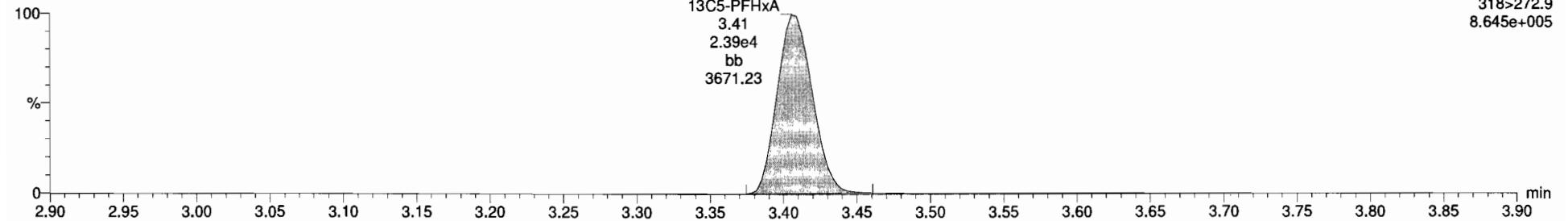
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170305G1\_9



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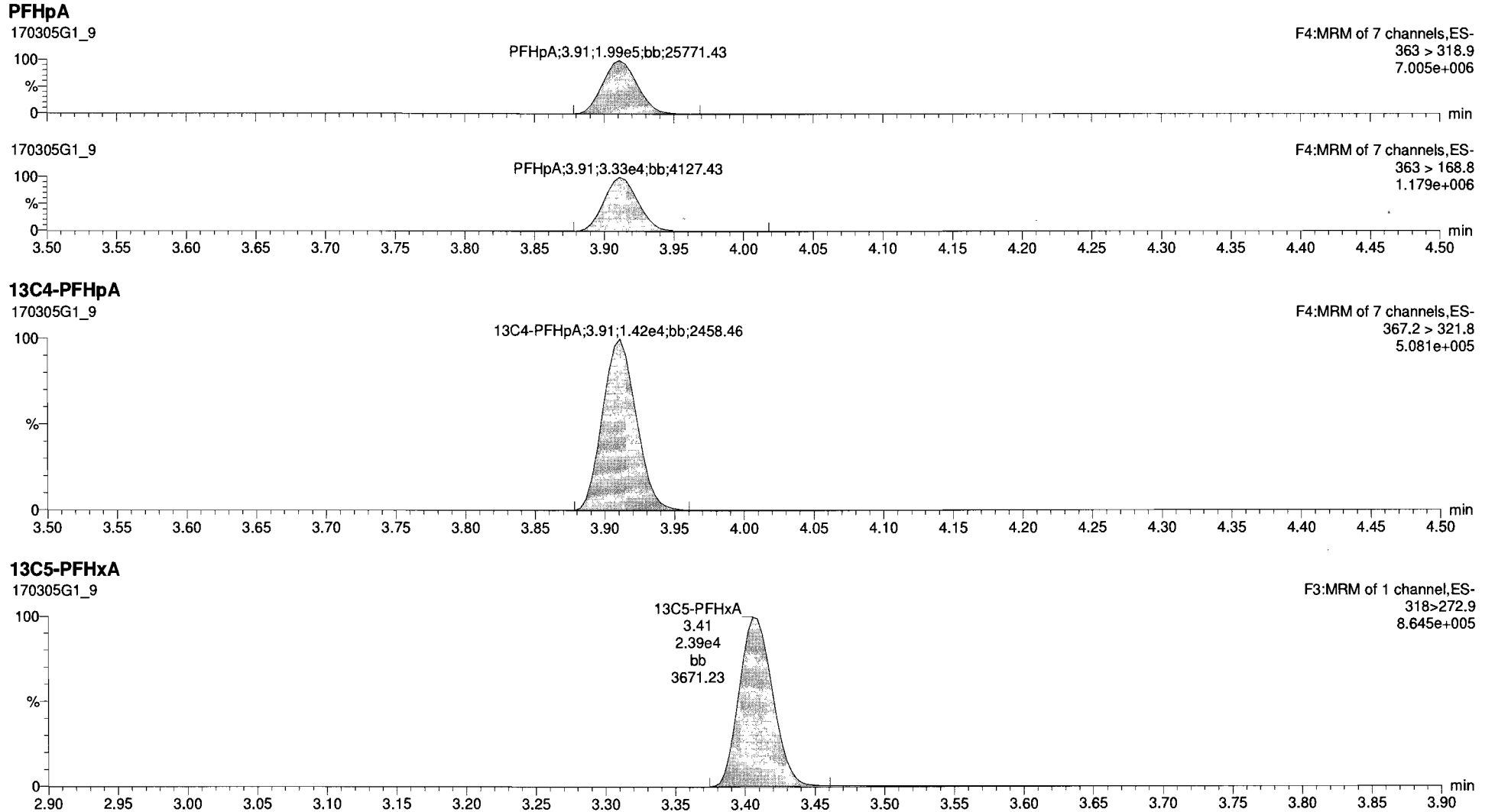
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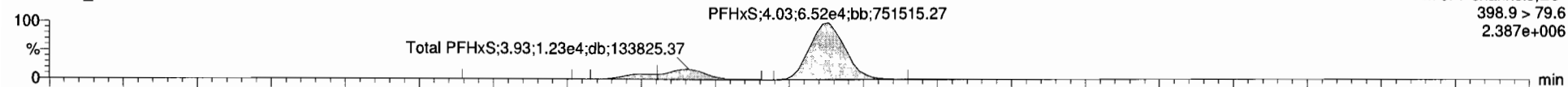
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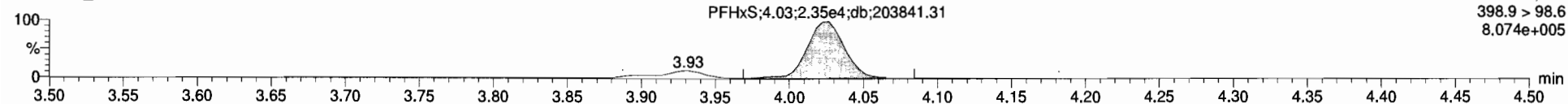
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**Total PFHxS**

170305G1\_9

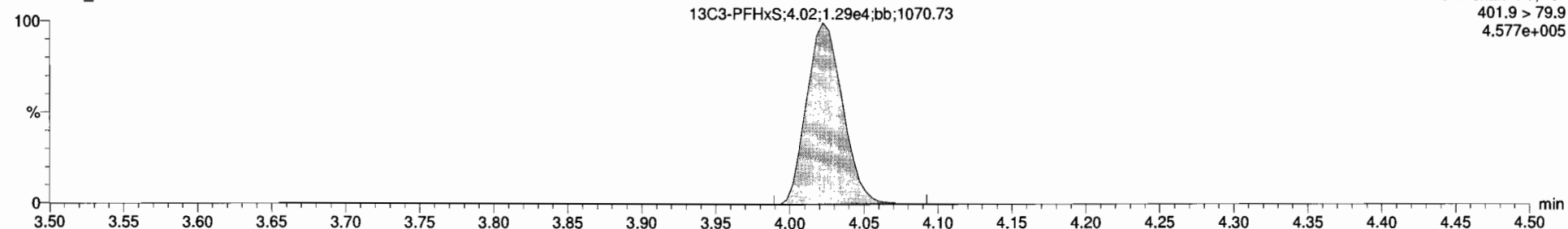


170305G1\_9



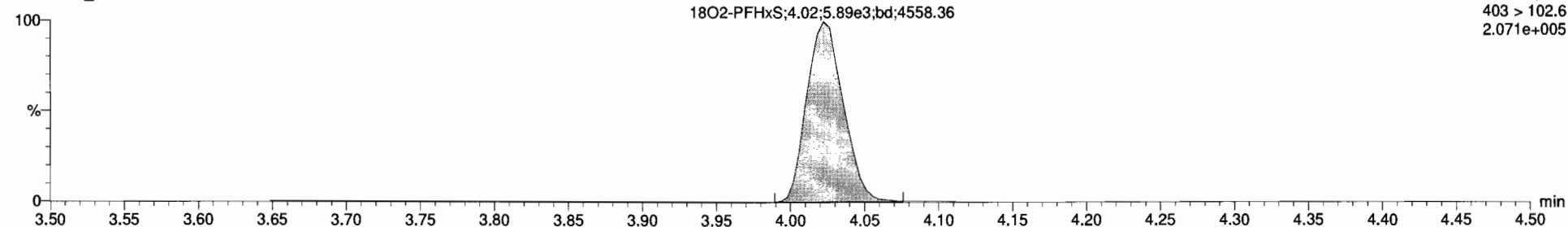
**13C3-PFHxS**

170305G1\_9

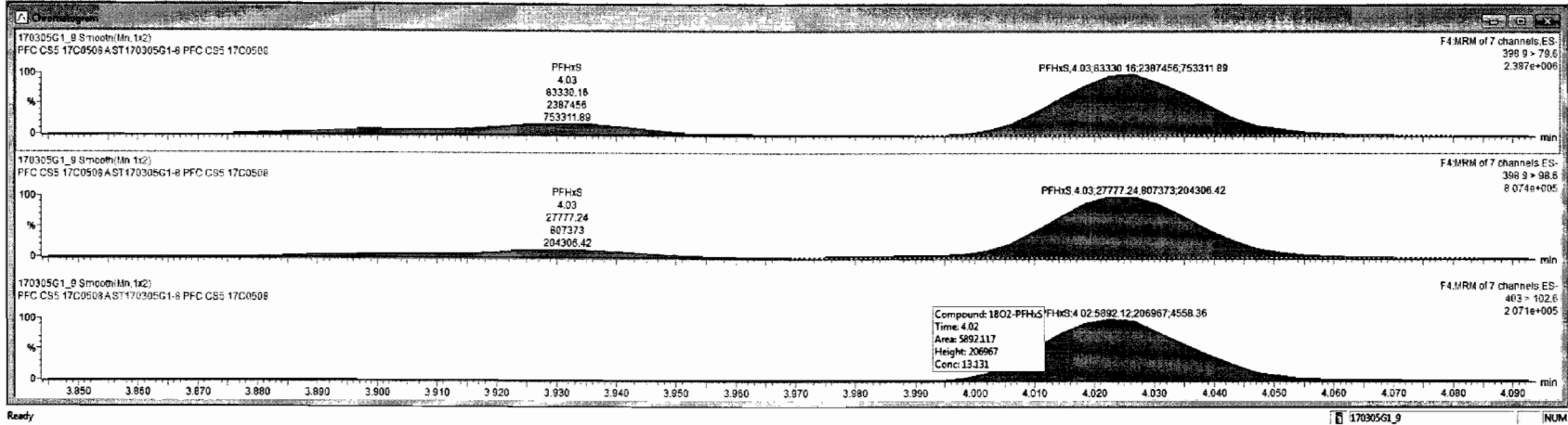


**18O2-PFHxS**

170305G1\_9



Peak	Name	Trace	Area	RRP	WtVol	Prod RT	RT	Conc	UIOL	NRAC	DL
1	PFBS	299 > 79.7	9.61e4		1.000	3.03	3.03	98.6	YES	98.6	0.0000000
2	PFHpA	363 > 318.9	1.99e5		1.000	3.91	3.91	97.6	YES	97.6	0.0000000
3	PFHxS	368.9 > 79.6	6.33e4		1.000	4.02	4.03	97.4	YES	97.4	0.0000000
4	PFDA	413 > 368.7	1.98e5		1.000	4.30	4.30	96.4	YES	96.4	0.0000000
5	PFNA	463 > 418.8	1.56e5		1.000	4.63	4.63	97.1	YES	97.1	0.0000000
6	PFOS	499 > 79.9	2.64e4		1.000	4.78	4.69	100	YES	100.2	0.0966952
7	13C1-PFBS	302.0 > 98.8	5.11e3	0.410	1.000	3.02	3.03	12.1	NO	96.5	0.007023
8	13C4-PFHpA	367.2 > 321.8	1.42e4	1.10	1.000	3.90	3.91	12.5	NO	99.8	0.0154075
9	18O2-PFHxS	403 > 102.6	5.89e3	0.434	1.000	4.02	4.02	13.1	NO	105.0	0.0085761
10	13C2-PFOA	414.9 > 369.7	3.22e4	4.81	1.000	4.30	4.30	13.3	NO	105.0	0.0220827
11	13C5-PFNA	468.2 > 422.9	7.35e3	0.867	1.000	4.63	4.63	12.4	NO	99.5	0.0013263
12	13C6-PFOS	507.8 > 79.9	6.36e3	0.958	1.000	4.69	4.69	12.7	NO	101.3	0.0096389
13	13C3-PFNA	318 > 272.9	2.39e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0102146
14	13C1-PFHxS	401.9 > 79.9	1.29e4	1.00	1.000	3.94	4.02	12.5	NO	100.0	0.0350229
15	13C4-PFOA	421.3 > 378	6.59e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0104096
16	13C5-PFNA	472.2 > 426.9	8.52e3	1.00	1.000	4.56	4.63	12.5	NO	100.0	0.0039269
17	13C6-PFOS	503.0 > 79.9	6.45e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0016940
18	Total PFBS	299 > 79.7	9.61e4		1.000	3.11		98.6	NO		0.0000000
19	Total PFHxS	368.9 > 79.6	1.01e5		1.000	4.09		118	NO		0.0000000
20	Total PFOA	413 > 368.7	1.98e5		1.000	4.39		96.4	NO		0.0000000
21	Total PFOS	499 > 79.9	3.65e4		1.000	4.67		135	NO		0.0966952



Dataset: Untitled

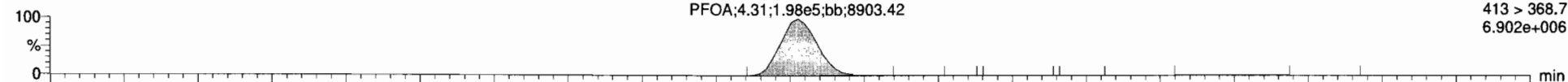
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Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-8 PFC CS5 17C0508, Description: PFC CS5 17C0508 A, Name: 170305G1\_9, Date: 05-Mar-2017, Time: 14:14:34, Instrument: , Lab: , User:

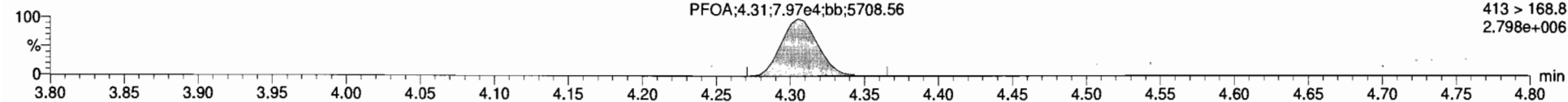
**Total PFOA**

170305G1\_9



F5:MRM of 12 channels,ES-  
413 > 368.7  
6.902e+006

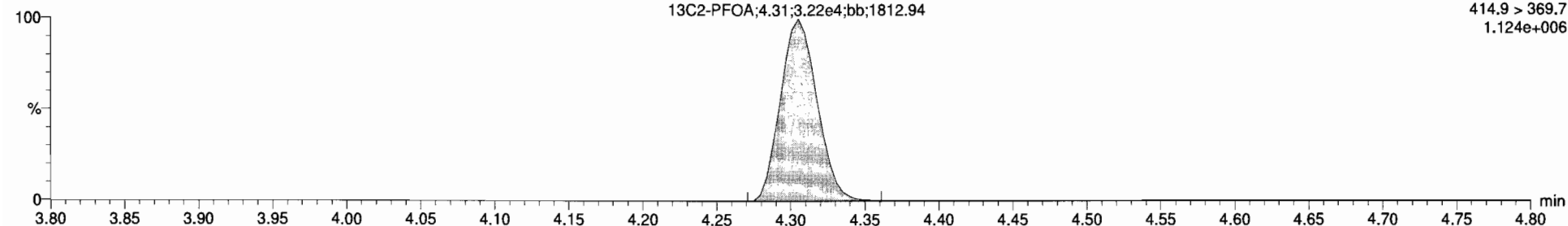
170305G1\_9



F5:MRM of 12 channels,ES-  
413 > 168.8  
2.798e+006

**13C2-PFOA**

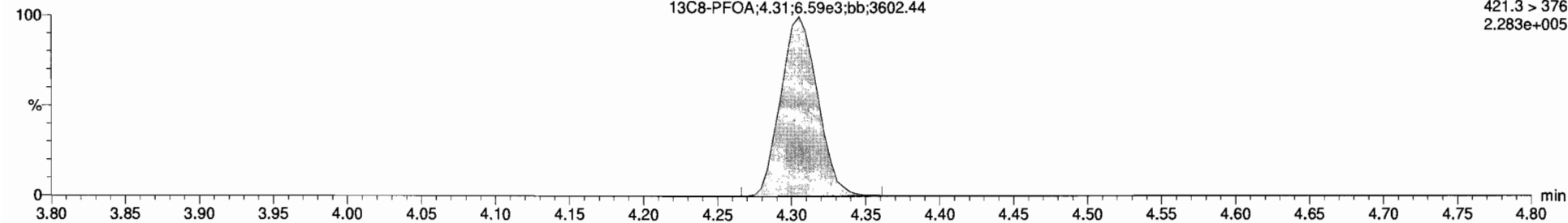
170305G1\_9



F5:MRM of 12 channels,ES-  
414.9 > 369.7  
1.124e+006

**13C8-PFOA**

170305G1\_9



F5:MRM of 12 channels,ES-  
421.3 > 376  
2.283e+005

Dataset: Untitled

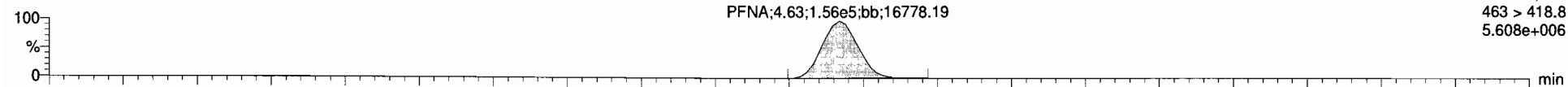
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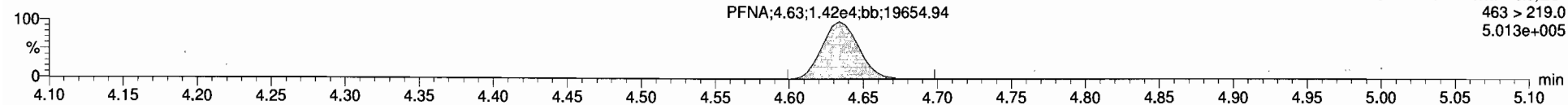
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**PFNA**

170305G1\_9

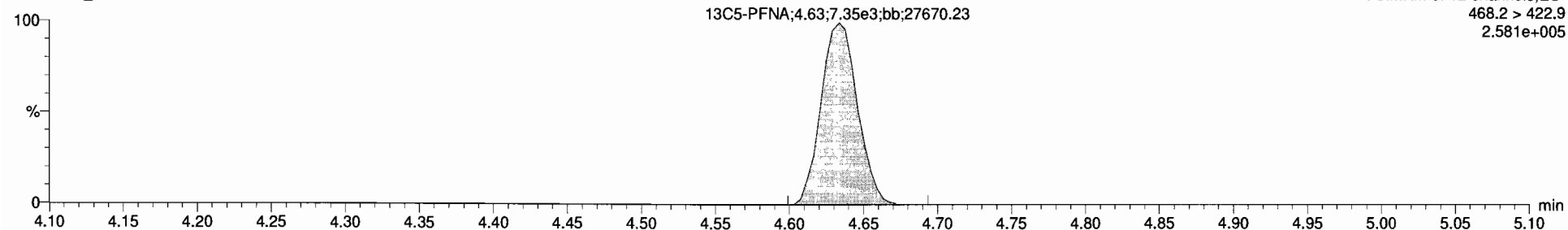


170305G1\_9



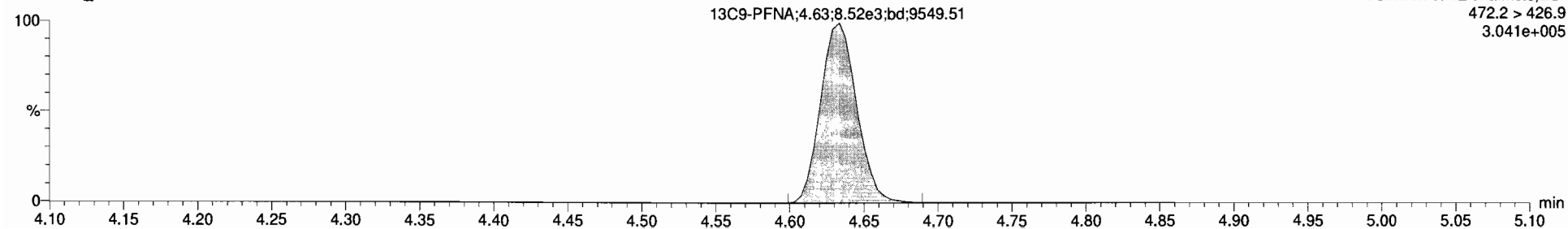
**13C5-PFNA**

170305G1\_9



**13C9-PFNA**

170305G1\_9





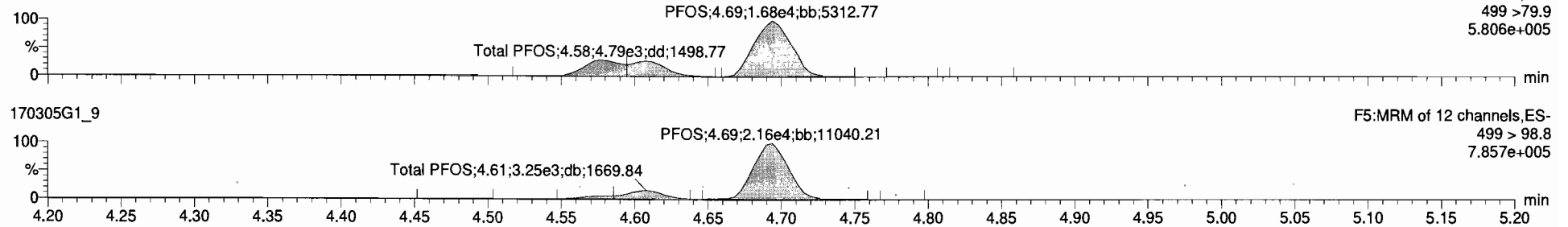
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Last Altered: Monday, March 06, 2017 08:36:20 Pacific Standard Time  
Printed: Monday, March 06, 2017 08:37:19 Pacific Standard Time

ID: ST170305G1-8 PFC CS5 17C0508, Description: PFC CS5 17C0508 A, Name: 170305G1\_9, Date: 05-Mar-2017, Time: 14:14:34, Instrument: , Lab: , User:

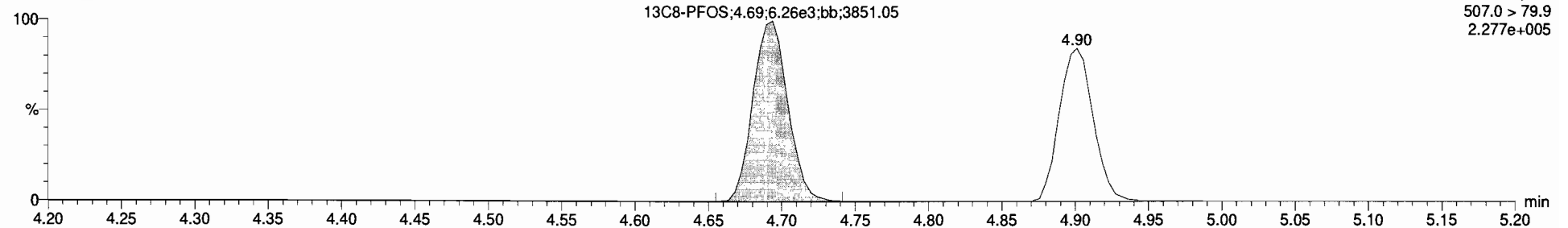
**Total PFOS**

170305G1\_9



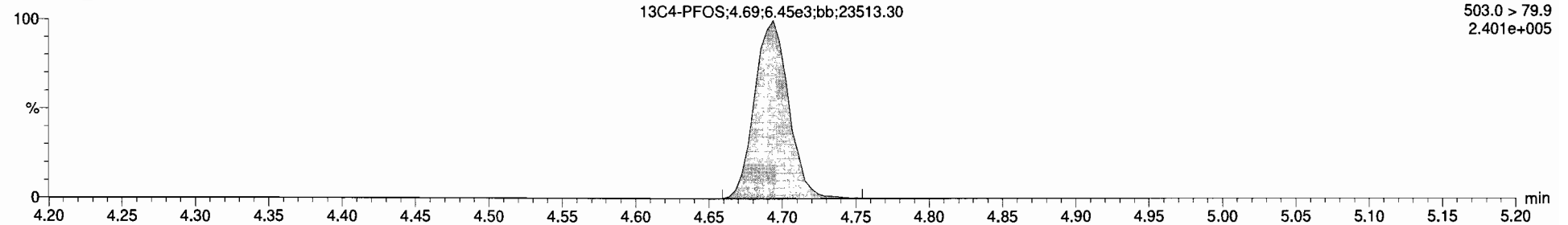
**13C8-PFOS**

170305G1\_9

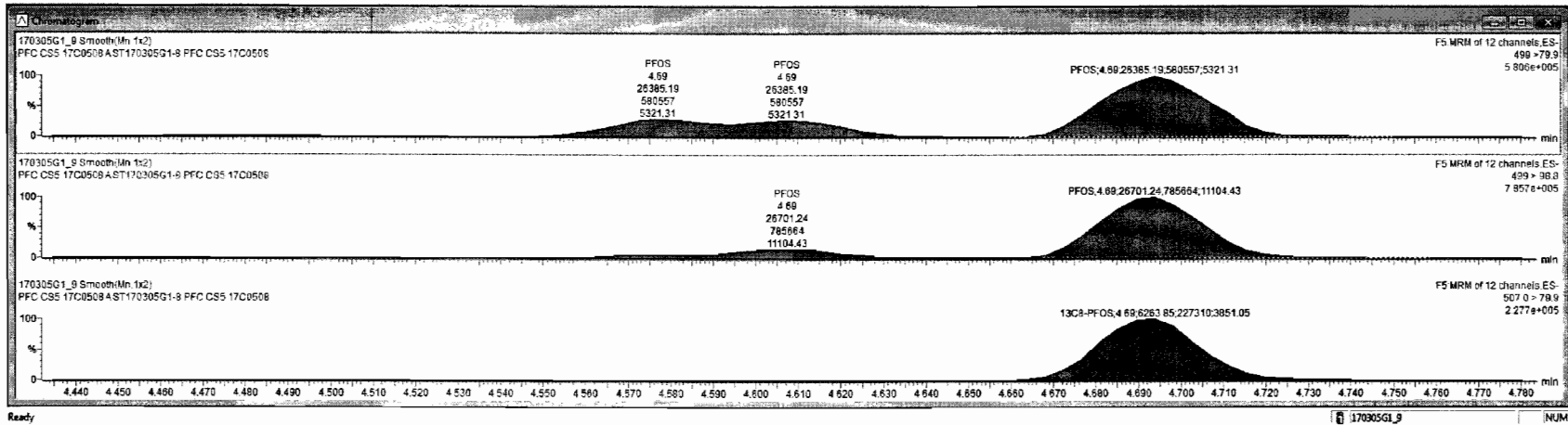


**13C4-PFOS**

170305G1\_9



#	Name	Yrds	Area	RRF	Wt%	Prod RT	RT	Conc.	>IDL	%Rec	DL
1	PFBS	299 > 78.7	9.61e4		1.000	3.03	3.03	98.8	YES	98.8	0.000000
2	PFNA	363 > 318.9	1.99e5		1.000	3.91	3.91	97.6	YES	97.6	0.000000
3	PFHxS	392.9 > 79.6	8.33e4		1.000	4.02	4.03	97.4	YES	97.4	0.000000
4	PFDA	413 > 368.7	1.98e5		1.000	4.30	4.30	96.4	YES	96.4	0.000000
5	PFNA	463 > 418.8	1.56e5		1.000	4.63	4.63	97.1	YES	97.1	0.000000
6	PFOS	499 > 79.9	3.55e4		1.000	4.70	4.69	100	YES	100.2	0.0686992
7	13C3-PFBS	302.0 > 98.8	5.11e3	0.410	1.000	3.02	3.03	12.1	NO	96.5	0.007023
8	13C4-PFHxA	367.2 > 321.8	1.42e4	1.10	1.000	3.90	3.91	12.5	NO	99.8	0.0154075
9	18O2-PFHxS	403 > 102.6	5.89e3	0.434	1.000	4.02	4.02	13.1	NO	105.0	0.0085751
10	13C2-PFDA	414.9 > 369.7	3.22e4	4.61	1.000	4.30	4.30	13.3	NO	105.0	0.0220827
11	13C3-PFNA	468.2 > 422.9	7.35e3	0.867	1.000	4.63	4.63	12.4	NO	99.5	0.0013253
12	13C8-PFOS	507.0 > 79.9	6.29e3	0.958	1.000	4.69	4.69	12.7	NO	101.3	0.0096289
13	13C3-PFHxA	318-272.9	2.39e4	1.00	1.000	3.29	3.41	12.5	NO	100.0	0.0102146
14	13C3-PFHxS	401.9 > 79.9	1.29e4	1.00	1.000	3.94	4.02	12.5	NO	100.0	0.0350220
15	13C6-PFDA	421.3 > 378	6.59e3	1.00	1.000	4.22	4.30	12.5	NO	100.0	0.0104096
16	13C9-PFNA	472.2 > 426.9	8.53e3	1.00	1.000	4.56	4.63	12.5	NO	100.0	0.0039259
17	13C4-PFOS	503.0 > 79.9	8.45e3	1.00	1.000	4.67	4.69	12.5	NO	100.0	0.0015848
18	Total PFBS	299 > 78.7	9.61e4		1.000	3.11		98.6	NO		0.000000
19	Total PFHxS	392.9 > 79.6	1.01e5		1.000	4.00		100	NO		0.000000
20	Total PFDA	413 > 368.7	1.98e5		1.000	4.39		96.4	NO		0.000000
21	Total PFOS	499 > 79.9	3.55e4		1.000	4.67		135	NO		0.0686992



Dataset: U:\G1.PRO\Results\2017\170305G1\170305G1-11.qld

Last Altered: Monday, March 06, 2017 09:12:14 Pacific Standard Time

Printed: Monday, March 06, 2017 09:13:06 Pacific Standard Time

Method: U:\G1.pro\MethDB\PFAS\_6\_2trans\_LINEAR.mdb 02 Mar 2017 11:26:53

Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

Name: 170305G1\_11, Date: 05-Mar-2017, Time: 14:39:40, ID: SS170305G1-1 PFC SSS 17C0509, Description: PFC SSS 17C0509 A

#	Name	Trace	Response	IS Resp	RRF	Wt/Vol	RT	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.09e4	6.54e3		1.000	3.03	8.70	87.0
2	2 PFHpA	363 > 318.9	2.52e4	1.73e4		1.000	3.91	10.0	100.4
3	3 PFHxS	398.9 > 79.6	8.94e3	6.56e3		1.000	4.03	9.33	93.3
4	4 PFOA	413 > 368.7	2.26e4	3.20e4		1.000	4.31	10.9	108.7
5	5 PFNA	463 > 418.8	1.28e4	5.80e3		1.000	4.63	10.0	100.4
6	6 PFOS	499 > 79.9	2.01e3	4.01e3		1.000	4.69	11.7	117.2
7	7 13C3-PFBS	302.0 > 98.8	6.54e3	1.49e4	0.410	1.000	3.03	13.4	106.8
8	8 13C4-PFHpA	367.2 > 321.8	1.73e4	1.49e4	1.098	1.000	3.91	13.2	105.7
9	9 18O2-PFHxS	403 > 102.6	6.56e3	1.49e4	0.434	1.000	4.02	12.6	101.2
10	10 13C2-PFOA	414.9 > 369.7	3.20e4	7.38e3	4.608	1.000	4.31	11.8	94.1
11	11 13C5-PFNA	468.2 > 422.9	5.80e3	6.69e3	0.867	1.000	4.63	12.5	99.9
12	12 13C8-PFOS	507.0 > 79.9	4.01e3	4.48e3	0.958	1.000	4.69	11.7	93.4
13	13 13C5-PFHxA	318 > 272.9	2.89e4	2.89e4	1.000	1.000	3.41	12.5	100.0
14	14 13C3-PFHxS	401.9 > 79.9	1.49e4	1.49e4	1.000	1.000	4.03	12.5	100.0
15	15 13C8-PFOA	421.3 > 376	7.38e3	7.38e3	1.000	1.000	4.31	12.5	100.0
16	16 13C9-PFNA	472.2 > 426.9	6.69e3	6.69e3	1.000	1.000	4.63	12.5	100.0
17	17 13C4-PFOS	503.0 > 79.9	4.48e3	4.48e3	1.000	1.000	4.69	12.5	100.0

75-125  
 ↓

ES  
 3/6/17  
 ✓ AC  
 3/6/17

Dataset: Untitled

Last Altered: Monday, March 06, 2017 09:10:12 Pacific Standard Time

Printed: Monday, March 06, 2017 09:10:17 Pacific Standard Time

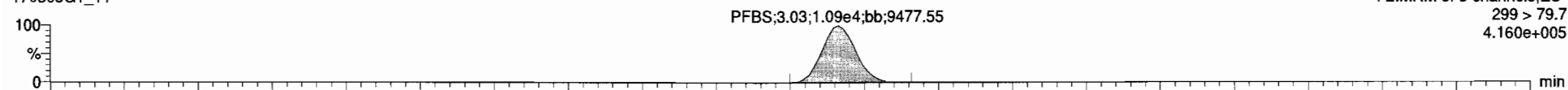
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Calibration: U:\G1.pro\CurveDB\C18\_VAL-PFC\_Q1\_3-05-17\_L6\_2Trans.cdb 06 Mar 2017 08:35:26

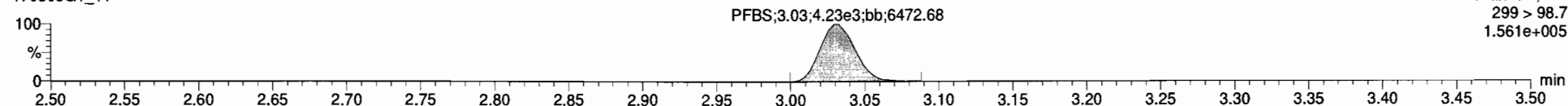
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**PFBS**

170305G1\_11

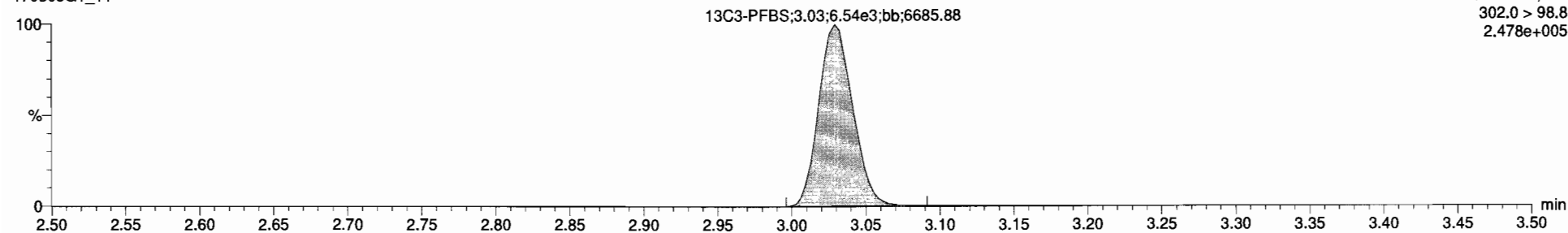


170305G1\_11



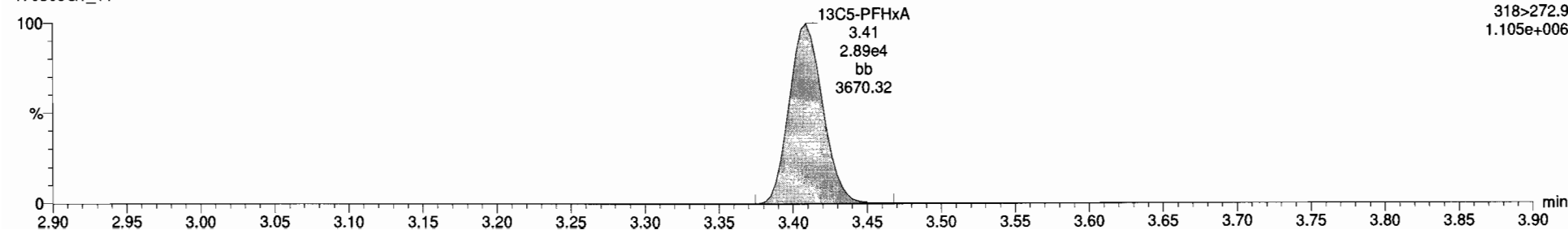
**13C3-PFBS**

170305G1\_11



**13C5-PFHxA**

170305G1\_11



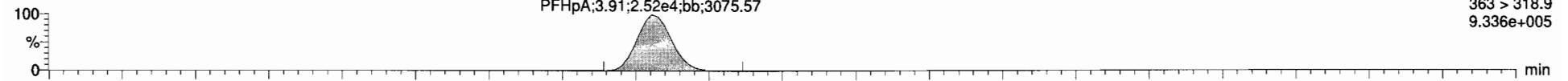
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Printed: Monday, March 06, 2017 09:10:17 Pacific Standard Time

ID: SS170305G1-1 PFC SSS 17C0509, Description: PFC SSS 17C0509 A, Name: 170305G1\_11, Date: 05-Mar-2017, Time: 14:39:40, Instrument: , Lab: , User:

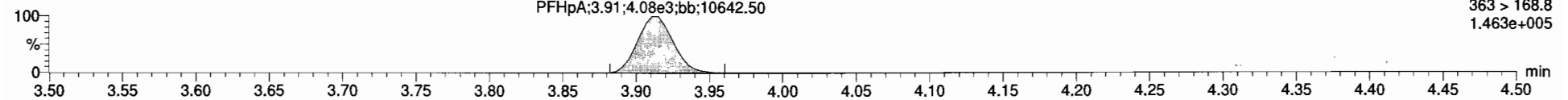
**PFHpA**

170305G1\_11



F4:MRM of 7 channels,ES-  
363 > 318.9  
9.336e+005

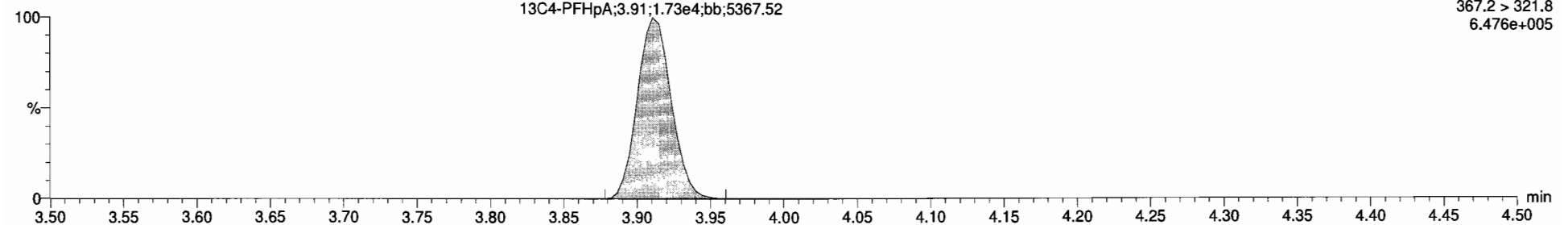
170305G1\_11



F4:MRM of 7 channels,ES-  
363 > 168.8  
1.463e+005

**13C4-PFHpA**

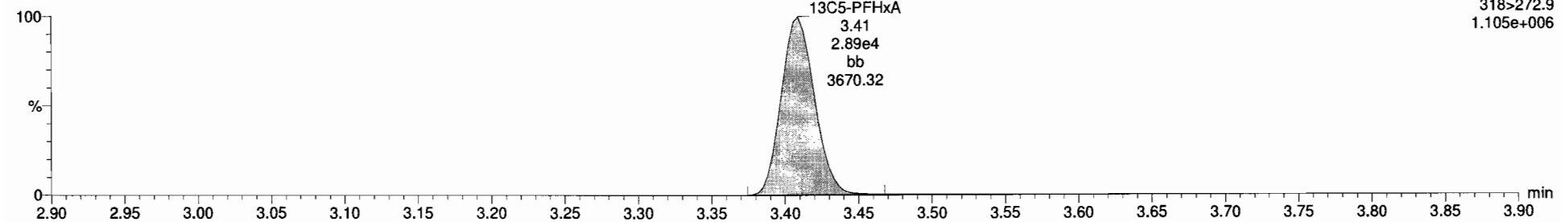
170305G1\_11



F4:MRM of 7 channels,ES-  
367.2 > 321.8  
6.476e+005

**13C5-PFHxA**

170305G1\_11



F3:MRM of 1 channel,ES-  
318>272.9  
1.105e+006

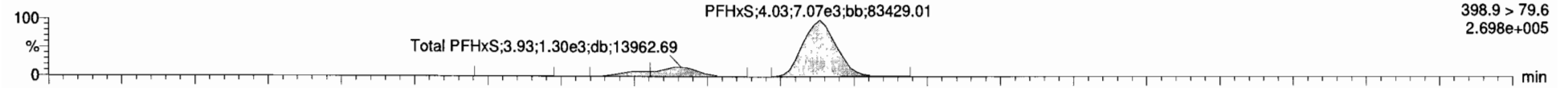
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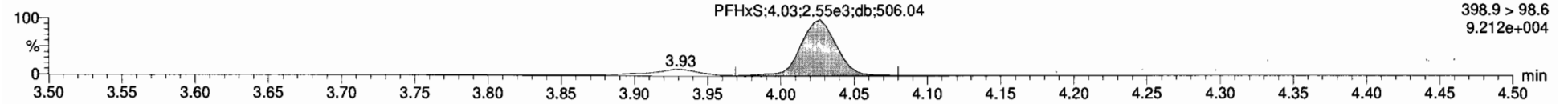
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**Total PFHxS**

170305G1\_11

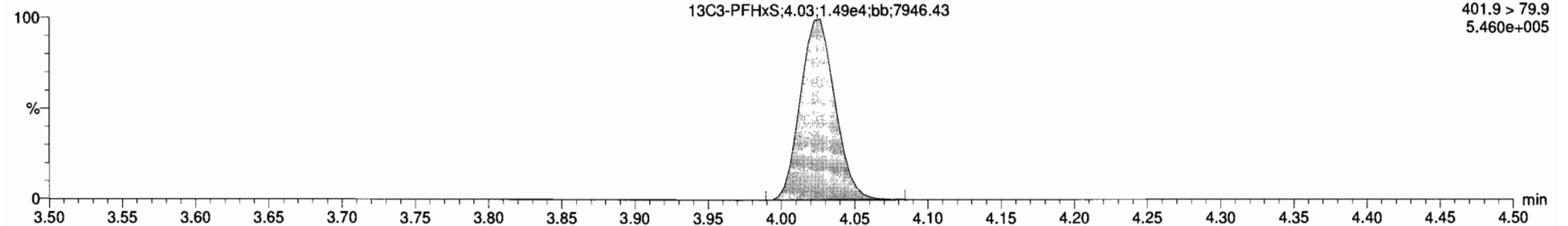


170305G1\_11



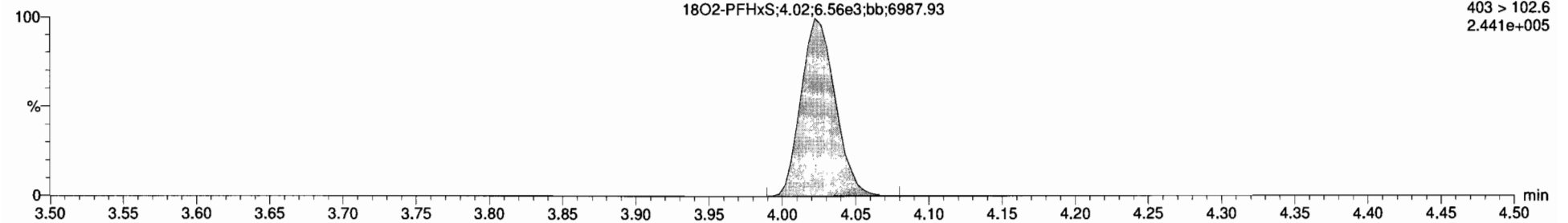
**13C3-PFHxS**

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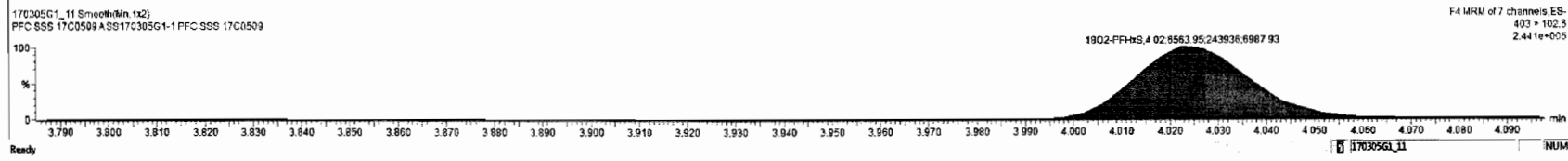
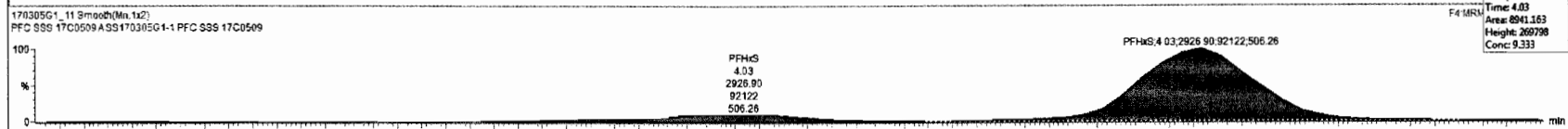
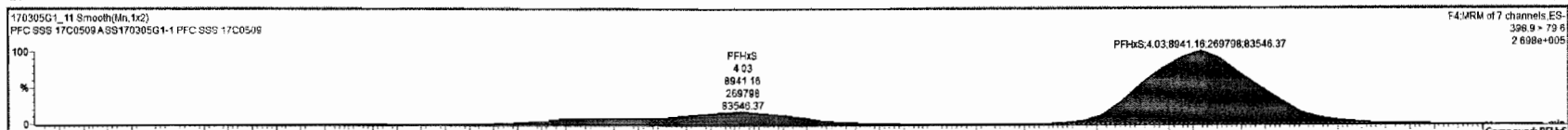


**18O2-PFHxS**

170305G1\_11



Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRP	RT	#	ISA	RA	Y/N	RRY	Acq Date	Acq Time	# of Chk Noise	ID	Sample Text	Factor1	SW	Cal File	MOL
1 PFBS	8.698458	0.0000	87.0		1.097e4	3.03	1	7	0.389	YES	1.001	05-Mar-17	14:39:43	24	078	SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
2 PFHpA	10.037598	0.0000	100.4		2.523e4	3.91	2	8			1.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	YES
3 PFHxS	9.3329736	0.0000	83.3		8.841e3	4.03	3	9			1.001	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	YES
4 PFOA	10.865712	0.0000	105.7		2.256e4	4.31	4	10			1.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	YES
5 PFNA	10.042823	0.0000	100.4		1.279e4	4.63	5	11			1.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	YES
6 PFOS	7.5852330	0.122	75.9		1.296e3	4.69	6	12			1.000	05-Mar-17	14:39:43			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	YES
7 13C3-PFBS	13.351268	0.00517	106.8		6.541e3	0.410	3.03	7	14		0.889	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
8 13C4-PFHpA	13.214482	0.00629	105.7		1.734e4	1.938	3.91	8	14		0.971	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
9 18O2-PFHxS	12.948532	0.00481	101.2		6.564e3	0.434	4.02	9	14		0.999	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
10 13C2-PFOA	11.761296	0.00247	94.1		3.201e4	4.698	4.31	10	15		1.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
11 13C5-PFNA	12.488185	0.00143	99.0		5.797e3	0.287	4.63	11	16		1.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
12 13C6-PFOS	11.580781	0.00302	93.4		4.014e3	0.958	4.69	12	17		1.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
13 13C5-PFHxS	12.500000	0.00051	100.0		2.890e4	1.000	3.41	13	13		0.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
14 13C3-PFHxS	12.500000	0.00393	100.0		1.494e4	1.000	4.03	14	14		0.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
15 13C4-PFOA	12.500000	0.00378	100.0		7.382e3	1.000	4.31	15	15		0.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
16 13C6-PFNA	12.500000	0.00140	100.0		6.692e3	1.000	4.63	16	16		0.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
17 13C4-PFOS	12.500000	0.00137	100.0		4.482e3	1.000	4.69	17	17		0.000	05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
18 Total PFBS	8.698458							18				05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
19 Total PFHxS	11.119483							19				05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
20 Total PFOA	10.865712							20				05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO
21 Total PFOS	11.670726	0.122						21				05-Mar-17	14:39:40			SS170305G...	PFC SSS 17C05...	1.0	1.00	C18_V...	NO



Dataset: Untitled

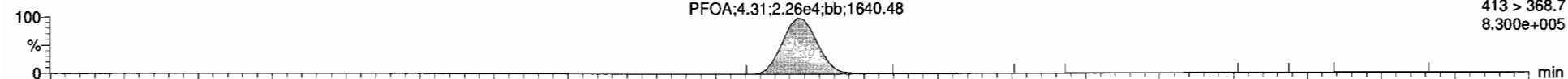
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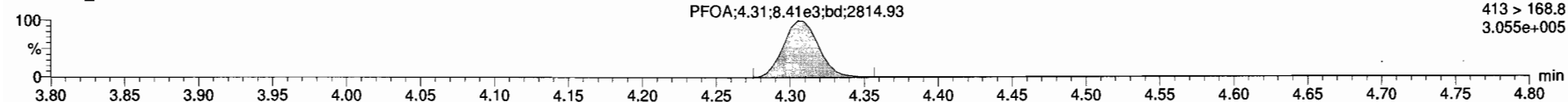
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**Total PFOA**

170305G1\_11

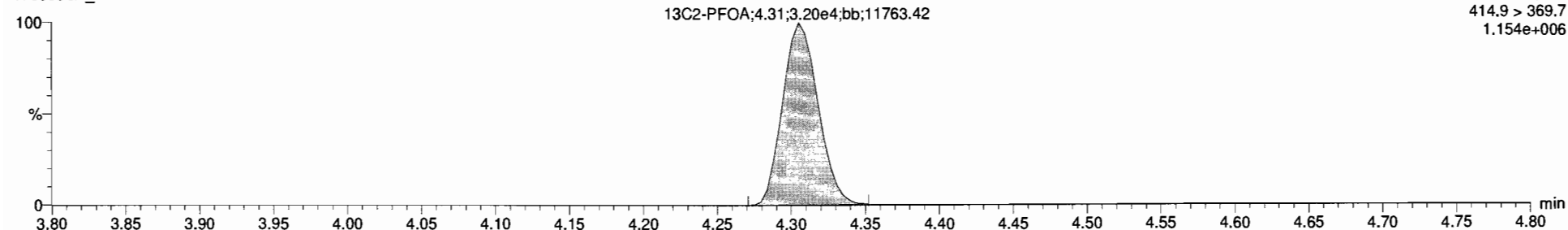


170305G1\_11



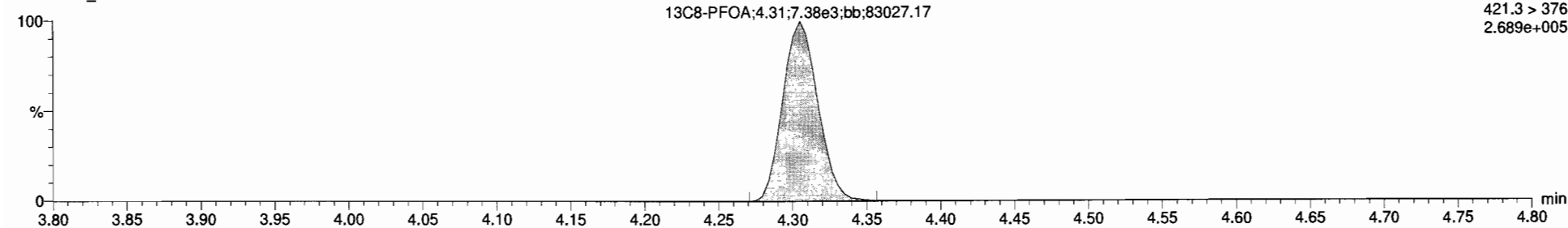
**13C2-PFOA**

170305G1\_11



**13C8-PFOA**

170305G1\_11

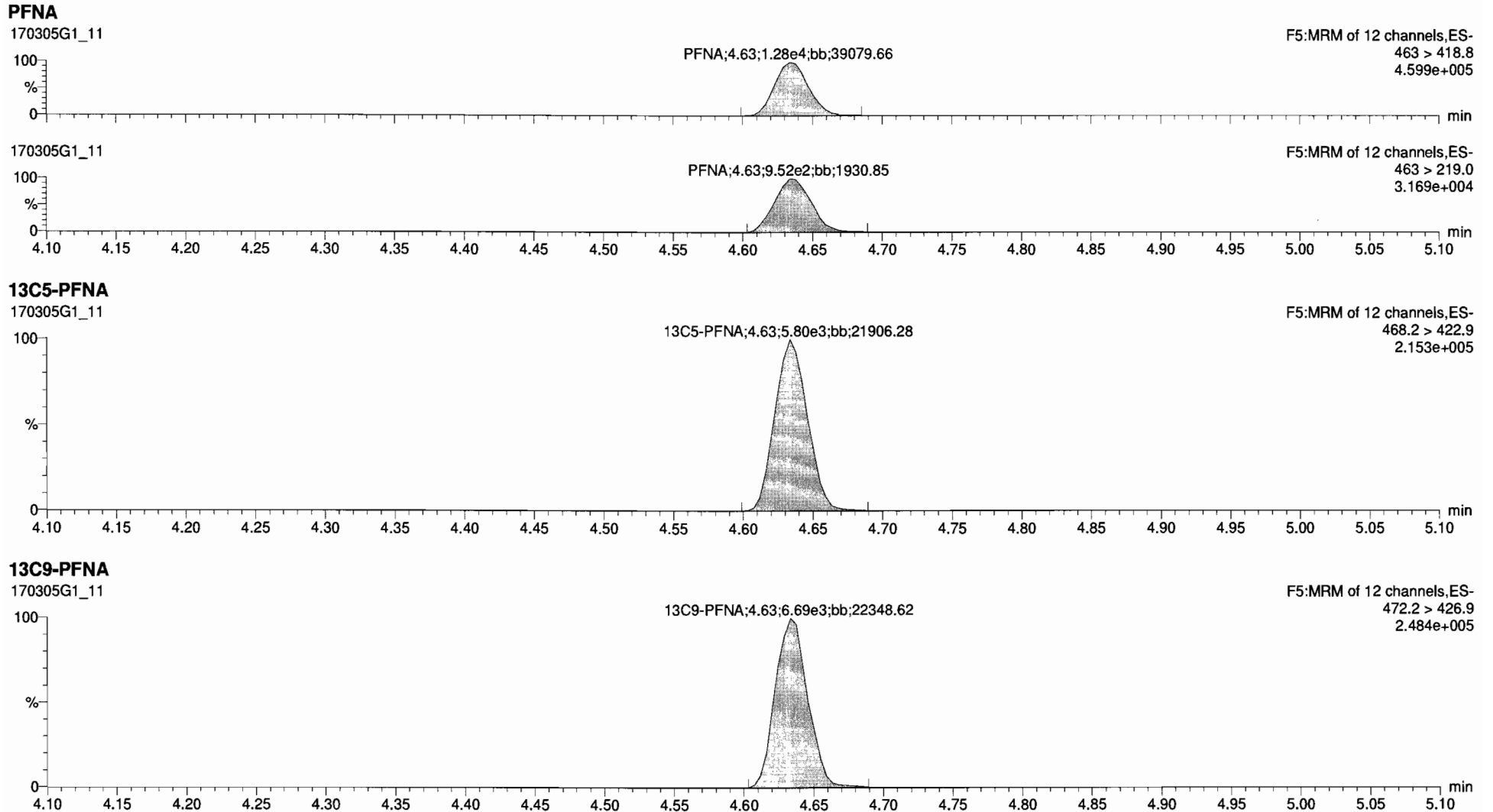




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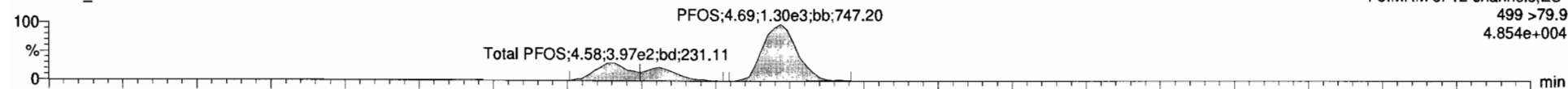
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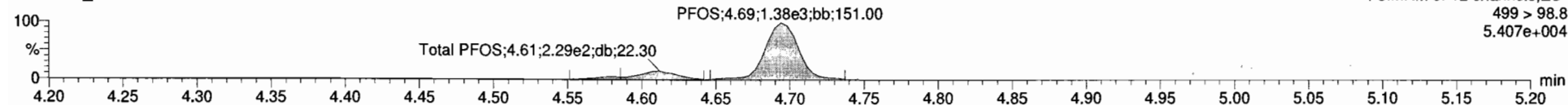
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**Total PFOS**

170305G1\_11

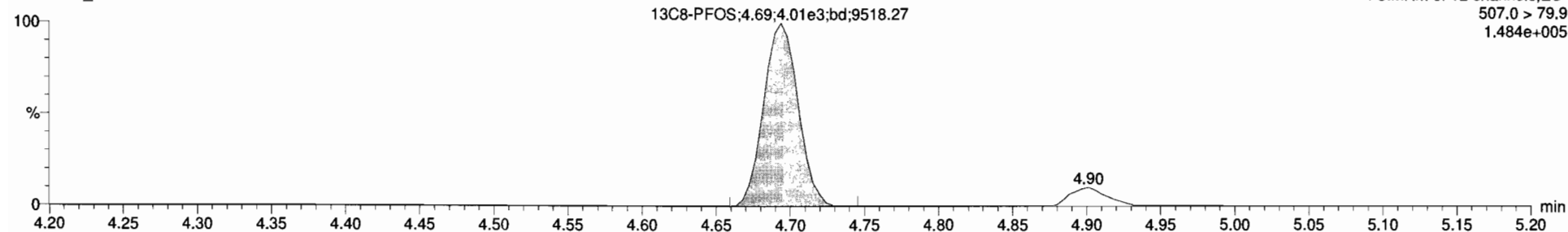


170305G1\_11



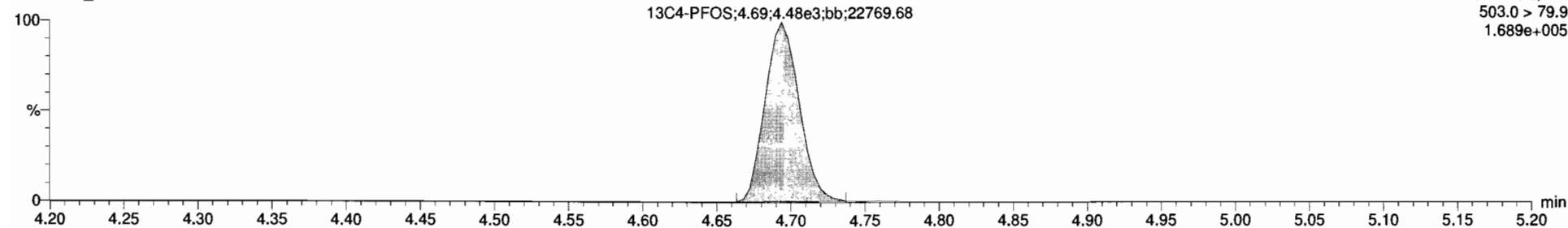
**13C8-PFOS**

170305G1\_11



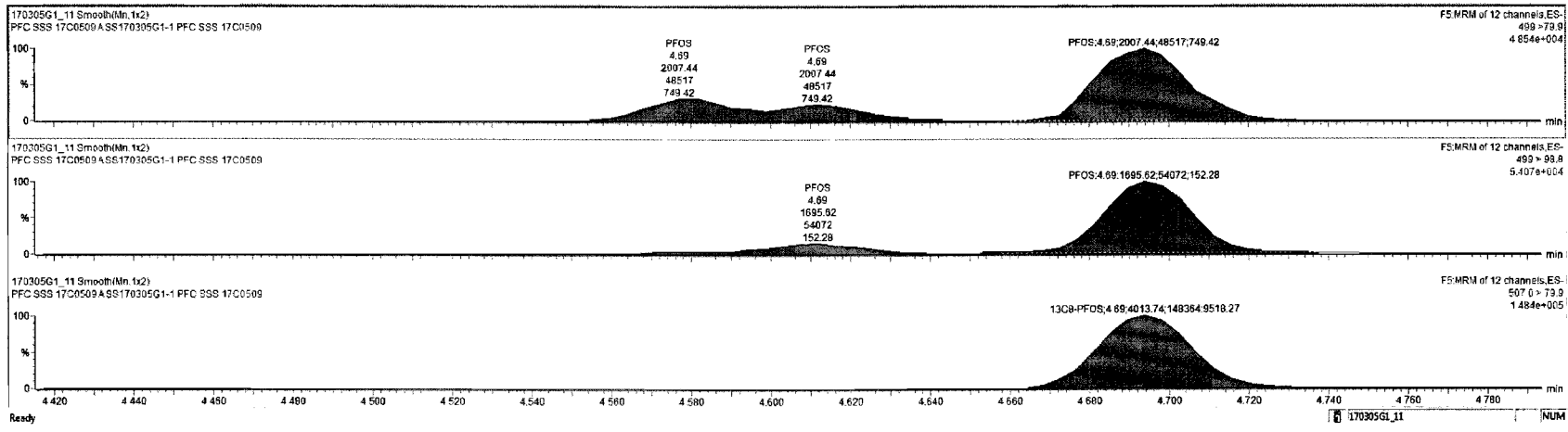
**13C4-PFOS**

170305G1\_11





Name	Conc.	DL	%Rec	EMPC	Abn Resp	RRR	QRT	#	SI	RA	YN	RRP	Acq Date	Acq Time	1* Chr	Note	ID	Sample Test	Factor1	SW	Cal File	MOD
1 PFBS	8.6989458	0.0000	87.0		1.087e4		3.03	1	7	0.388	YES	1.001	05-Mar-17	14:39:40	24.076	SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
2 PFHxA	10.037596	0.0000	100.4		2.523e4		3.91	2	0			1.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	YES	
3 PFHxS	9.3329736	0.0000	83.3		9.941e3		4.05	3	3			1.001	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	YES	
4 PFDA	10.865712	0.0000	108.7		2.256e4		4.31	4	10			1.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	YES	
5 PFNA	10.042823	0.0000	100.4		1.279e4		4.63	5	11			1.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	YES	
6 PFOS	11.719585	0.122	117.2		2.807e3		4.69	6	12			1.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	YES	
7 13C3-PFBS	13.351258	0.00517	106.8		6.541e3	0.410	3.03	7	14			0.889	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
8 13C4-PFHxA	13.214482	0.00629	105.7		1.734e4	1.095	3.91	8	14			0.971	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
9 16O2-PFHxS	12.648532	0.00461	101.2		6.564e3	0.434	4.02	9	14			0.999	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
10 13C2-PFDA	11.781296	0.00247	94.1		3.201e4	4.608	4.31	10	15			1.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
11 13C5-PFNA	12.488185	0.00143	99.9		5.797e3	0.867	4.63	11	16			1.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
12 13C4-PFOS	11.680781	0.00302	85.4		4.014e3	0.358	4.69	12	17			1.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
13 13C5-PFHxA	12.509000	0.00851	100.0		2.890e4	1.000	3.41	13	13			0.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
14 13C3-PFHxS	12.509000	0.00393	100.0		1.494e4	1.000	4.03	14	14			0.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
15 13C8-PFDA	12.509000	0.000376	100.0		7.382e3	1.000	4.31	15	15			0.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
16 13C9-PFNA	12.509000	0.00140	100.0		6.692e3	1.000	4.63	16	16			0.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
17 13C4-PFOS	12.509000	0.00137	100.0		4.482e3	1.000	4.69	17	17			0.000	05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
18 Total PFBS	8.6989458							18					05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
19 Total PFHxS	11.119483							19					05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
20 Total PFDA	10.865712							20					05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	
21 Total PFOS	15.801081	0.122						21					05-Mar-17	14:39:40		SS170305G	PFBS SSS 17C0509	1.0	1.00	C18_V	NO	





**DATA VALIDATION SUMMARY REPORT  
NAS OCEANA, VIRGINIA BEACH, VIRGINIA**

Client: CH2M HILL, Inc., Virginia Beach, Virginia  
 SDG: 1700263  
 Laboratory: Vista Analytical Laboratory, El Dorado Hills, California  
 Site: NAS Oceana, Virginia Beach, Virginia, CTO-WE14  
 Date: June 23, 2017

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	OW2E-MW09R-0217	1700263-01	Water
2	OW2E-MW09RP-0217	1700263-02	Water
3	OW2C-MW05-0217	1700263-03	Water
4	OW2C-MW25-0217	1700263-04	Water
5	OW2C-MW19-0217	1700263-05	Water
5MS	OW2C-MW19-0217MS	1700263-05MS	Water
5MSD	OW2C-MW19-0217MSD	1700263-05MSD	Water
6	OW2C-MW24-0217	1700263-06	Water
7	OW2C-EB-0217	1700263-07	Water
8	OW2C-FB-0217	1700263-08	Water

A full data validation was performed on the analytical data for six water samples, one aqueous equipment blank sample, and one aqueous field blank sample collected on February 23, 2017 by CH2M HILL at the NAS Oceana site in Virginia Beach, Virginia. The samples were analyzed under the EPA Method “Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)”.

Specific method references are as follows:

Analysis  
PFCs

Method References  
USEPA Method 537 Modified

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method, and the U.S. Department of Defense (DoD) Quality Systems Manual (QSM), Version 5.0 (July 2013) and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review,” August 2014;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

## ***Organics***

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Initial and continuing calibration summaries
- Method blank and field QC blank contamination
- Surrogate recoveries (%R)
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

### **Overall Usability Issues**

There were no rejections of data.

Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

### **Perfluorinated Compounds (PFCs)**

#### **Data Completeness, Case Narrative & Custody Documentation**

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

#### **Holding Times**

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

#### **Initial Calibration**

- All percent difference (%D) and/or correlation coefficients criteria were met.

### Continuing Calibration

- All percent recovery (%R) criteria were met.

### Method Blank

- The method blanks were free of contamination.

### Field QC Blank

- The field QC samples exhibited the following contamination.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
OW2C-EB-0217	PFHpA	0.910	None	All Associated >5X
	PFOA	3.91	None	All Associated >5X
	PFNA	1.27	None	See FB
OW2C-FB-0217	PFHpA	0.847	None	See EB
	PFOA	3.69	None	See EB
	PFNA	1.64	U	1, 2

### Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values except for the following.

Sample ID	Surrogate	%R	Qualifier
4	13C3-PFBS	152%	J - Associated Compound
	13C8-PFOS	157%	J - Associated Compound

### Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD sample exhibited acceptable percent recoveries (%R) and RPD values except for the following.

MS/MSD Sample ID	Compound	MS %R/MSD %R/ RPD	Qualifier	Affected Samples
5	PFHxS	OK/143%/58.7	None	4X Rule Applies
	PFOS	1,090%/222%/132	None	4X Rule Applies

### Laboratory Control Sample (LCS)

- The LCS samples exhibited acceptable percent recovery (%R) values.

**Target Compound Identification**

- All mass spectra and quantitation criteria were met.

**Compound Quantitation**

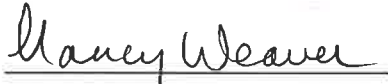
- All criteria were met.

**Field Duplicate Sample Precision**

- Field duplicate results are summarized below. The precision was acceptable.

Compound	OW2E-MW09R-0217 ng/L	OW2E-MW09RP-0217 ng/L	RPD	Qualifier
PFBS	48.3	48.2	0%	None
PFHpA	41.5	39.1	6%	
PFHxS	406	389	4%	
PFOA	134	130	3%	
PFOS	103	95.7	7%	

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:  Dated: 6/24/17  
Nancy Weaver  
Senior Chemist



Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



**Sample ID: OW2E-MW09R-0217**

**Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-01	Date Received:	24-Feb-2017 9:09		
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01		
Date Collected:	23-Feb-2017 10:10			Date Analyzed:	01-Mar-17 22:28	Column:	BEH C18		
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	48.3	1.78	3.97	1.99		IS 13C3-PFBS	106	60- 150	
PFHpA	41.5	0.587	1.98	1.99		IS 13C4-PFHpA	110	60- 150	
PFHxS	406	0.941	1.98	1.99		IS 18O2-PFHxS	106	60- 150	
PFOA	134	0.647	1.98	1.99		IS 13C2-PFOA	119	60- 150	
PFOS	103	0.802	0.893	1.99		IS 13C8-PFOS	94.3	60- 150	
PFNA	4.66	0.805	1.98	1.99	F0L	IS 13C5-PFNA	77.4	50- 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL.

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers

Only the linear isomer is reported for all other analytes

NW 6/23/17

2

Sample ID: OW2E-MW09RP-0217			Modified EPA Method 537						
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-02				
Project:	NAS Oceana PFC	Sample Size:	0.130 L	QC Batch:	B7B0129				
Date Collected:	23-Feb-2017 10:15			Date Analyzed:	01-Mar-17 22:41				
Location:				Column:	BEH C18				
				Date Received:	24-Feb-2017 9:09				
				Date Extracted:	28-Feb-2017 9:01				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	48.2	1.72	3.85	1.92		IS 13C3-PFBS	94.0	60 - 150	
PFHpA	39.1	0.569	1.92	1.92		IS 13C4-PFHpA	101	60 - 150	
PFHxS	389	0.911	1.92	1.92		IS 18O2-PFHxS	95.0	60 - 150	
PFOA	130	0.626	1.92	1.92		IS 13C2-PFOA	120	60 - 150	
PFOS	95.7	0.776	0.865	1.92		IS 13C8-PFOS	86.6	60 - 150	
PFNA	3.16	0.779	1.92	1.92	FBL	IS 13C5-PFNA	92.3	50 - 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers  
 Only the linear isomer is reported for all other analytes

MW 61231.7

3

Sample ID: OW2C-MW05-0217		Modified EPA Method 537							
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-03				
Project:	NAS Oceana PFC	Sample Size:	0.132 L	QC Batch:	B7B0129				
Date Collected:	23-Feb-2017 10:20			Date Analyzed:	01-Mar-17 22:53				
Location:				Column:	BEH C18				
				Date Received:	24-Feb-2017 9:09				
				Date Extracted:	28-Feb-2017 9:01				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	9.86	1.70	3.79	1.90		IS 13C3-PFBS	85.4	60- 150	
PFHpA	26.3	0.561	1.89	1.90		IS 13C4-PFHpA	89.8	60- 150	
PFHxS	78.8	0.899	1.89	1.90		IS 18O2-PFHxS	96.6	60- 150	
PFOA	42.9	0.618	1.89	1.90		IS 13C2-PFOA	117	60- 150	
PFOS	249	0.766	0.852	1.90		IS 13C8-PFOS	103	60- 150	
PFNA	108	0.769	1.89	1.90		IS 13C5-PFNA	91.9	50- 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers  
 Only the linear isomer is reported for all other analytes

NW61231.7

4

Sample ID: OW2C-MW25-0217			Modified EPA Method 537						
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-04				
Project:	NAS Oceana PFC	Sample Size:	0.125 L	QC Batch:	B7B0129				
Date Collected:	23-Feb-2017 12:40			Date Analyzed:	01-Mar-17 23:06				
Location:				Column:	BEH C18				
				07-Mar-17 09:39	Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	310 J	1.79	4.00	1.99	SSH	IS 13C3-PFBS	152	60- 150	H
PFHpA	531	0.589	2.00	1.99		IS 13C4-PFHpA	145	60- 150	
PFHxS	3580	9.44	20.0	19.9	D	IS 18O2-PFHxS	96.0	60- 150	D
PFOA	1100	6.49	20.0	19.9	D	IS 13C2-PFOA	106	60- 150	D
PFOS	44500 J	96.7	108	959	SSH	IS 13C8-PFOS	157	60- 150	D-H
PFNA	248	0.808	2.00	1.99		IS 13C5-PFNA	93.9	50- 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers  
 Only the linear isomer is reported for all other analytes

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Sample ID: OW2C-MW19-0217			Modified EPA Method 537						
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-05	Date Received:	24-Feb-2017 9:09		
Project:	NAS Oceana PFC	Sample Size:	0.124 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01		
Date Collected:	23-Feb-2017 14:30			Date Analyzed:	01-Mar-17 23:19	Column:	BEH C18		
Location:					03-Mar-17 10:54	Column:	BEH C18		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	97.9	1.80	4.03	2.01		IS 13C3-PFBS	102	60- 150	
PFHpA	52.8	0.594	2.02	2.01		IS 13C4-PFHpa	114	60- 150	
PFHxS	489	0.952	2.02	2.01		IS 18O2-PFHxS	101	60- 150	
PFOA	268	0.654	2.02	2.01		IS 13C2-PFOA	118	60- 150	
PFOS	1340	4.06	4.54	10.0		IS 13C8-PFOS	74.0	60- 150	ϕ
PFNA	29.2	0.814	2.02	2.01		IS 13C5-PFNA	82.1	50- 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers  
 Only the linear isomer is reported for all other analytes

NW6/23/17

**Sample ID: OW2C-MW24-0217**

**Modified EPA Method 537**

Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-06				
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129				
Date Collected:	23-Feb-2017 15:30			Date Analyzed:	01-Mar-17 23:56				
Location:				Column:	BEH C18				
				08-Mar-17 21:26	Column: BEH C18				
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	16.1	1.78	3.97	1.99		IS 13C3-PFBS	81.5	60- 150	
PFHpA	40.3	0.588	1.98	1.99		IS 13C4-PFHpA	90.6	60- 150	
PFHxS	87.1	0.942	1.98	1.99		IS 18O2-PFHxS	103	60- 150	
PFOA	1540	3.24	9.92	39.8		IS 13C2-PFOA	75.0	60- 150	
PFOS	78.7	0.803	0.893	1.99		IS 13C8-PFOS	90.4	60- 150	
PFNA	9.82	0.805	1.98	1.99		IS 13C5-PFNA	95.4	50- 150	

LCL-UCL - Lower control limit - upper control limit

Results reported to DL

When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers

Only the linear isomer is reported for all other analytes

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Sample ID: OW2C-EB-0217				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-07	Date Received:	24-Feb-2017 9:09		
Project:	NAS Oceana PFC	Sample Size:	0.126 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01		
Date Collected:	23-Feb-2017 16:00			Date Analyzed:	02-Mar-17 00:09	Column:	BEH C18		
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.77	3.97	1.98		IS 13C3-PFBS	90.8	60 - 150	
PFHpA	0.910	0.584	1.98	1.98	J	IS 13C4-PFHpA	89.0	60 - 150	
PFHxS	ND	0.936	1.98	1.98		IS 18O2-PFHxS	102	60 - 150	
PFOA	3.91	0.643	1.98	1.98		IS 13C2-PFOA	126	60 - 150	
PFOS	ND	0.798	0.893	1.98		IS 13C8-PFOS	110	60 - 150	
PFNA	1.27	0.801	1.98	1.98	J	IS 13C5-PFNA	93.2	50 - 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers  
 Only the linear isomer is reported for all other analytes

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Sample ID: OW2C-FB-0217				Modified EPA Method 537					
Client Data		Sample Data		Laboratory Data					
Name:	CH2M Hill	Matrix:	Groundwater	Lab Sample:	1700263-08	Date Received:	24-Feb-2017 9:09		
Project:	NAS Oceana PFC	Sample Size:	0.130 L	QC Batch:	B7B0129	Date Extracted:	28-Feb-2017 9:01		
Date Collected:	23-Feb-2017 16:15			Date Analyzed:	02-Mar-17 00:21	Column:	BEH C18		
Location:									
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
PFBS	ND	1.72	3.85	1.92		IS 13C3-PFBS	85.4	60- 150	
PFHpA	0.847	0.568	1.92	1.92	J	IS 13C4-PFHpA	85.1	60- 150	
PFHxS	ND	0.910	1.92	1.92		IS 18O2-PFHxS	94.8	60- 150	
PFOA	3.69	0.625	1.92	1.92		IS 13C2-PFOA	128	60- 150	
PFOS	ND	0.775	0.865	1.92		IS 13C8-PFOS	90.9	60- 150	
PFNA	1.64	0.778	1.92	1.92	J	IS 13C5-PFNA	79.6	50- 150	

LCL-UCL - Lower control limit - upper control limit  
 Results reported to DL  
 When reported, PFBS, PFHxS, PFOA and PFOS include both linear and branched isomers  
 Only the linear isomer is reported for all other analytes

nw 6/23/17

