

Groundwater Sample Results, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, Sample Location Report, SDG 1701439

NAS Chase Field TX

December 2020



November 10, 2017

Vista Work Order No. 1701439

Ms. Nia Nikmanesh KMEA 2423 Hoover Avenue National City, CA 91950

Dear Ms. Nikmanesh,

Enclosed are the additional results for the sample set received at Vista Analytical Laboratory on October 07, 2017. This sample set was analyzed on a rush turn-around time, under your Project Name 'BRAC PFAS,NAS Chase Field,TX-TO 0008'.

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.

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.

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Vista Work Order No. 1701439 Case Narrative

Sample Condition on Receipt:

Two groundwater samples and three blank water 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. As requested, the date was added after each of the blank samples as YYYMMDD.

As requested on the CoC, the following samples were placed on extract and hold: "FRB05_20171005", "FRB04_20171005", and "FRB06_20171006".

As requested on November 2, 2017, samples "FRB05_20171005" and "FRB06_20171006" were removed from hold. The results for these samples are included within this report.

Analytical Notes:

Modified EPA Method 537

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

Holding Times

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

Quality Control

The Initial Calibration met the method acceptance criteria. The concentrations of PFDA and MeFOSAA were 139.6% and 133.5%, respectively, of the true values in the Continuing Calibration Verification; however, these analytes were not detected in the sample "FRB05_20171005".

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

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

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Sample Inventory Report

| Vista Sample ID | Client Sample ID | Sampled | Received | Components/Containers |
|--------------------|---------------------------|-----------------|-----------------|-----------------------|
| 1701439-01 | FRB05_20171005 | 05-Oct-17 13:15 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
| | | | | HDPE Bottle, 125 mL |
| 1701439-02 | Site 3-GW-03GW02-20171005 | 05-Oct-17 16:30 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
| | | | | HDPE Bottle, 125 mL |
| 1701439-03 | FRB04_20171005 | 05-Oct-17 16:35 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
| | | | | HDPE Bottle, 125 mL |
| 1701439-04 | Site 4-GW-04GW01-20171006 | 06-Oct-17 08:00 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
| | | | | HDPE Bottle, 125 mL |
| 1701439-05 | FRB06_20171006 | 06-Oct-17 08:08 | 07-Oct-17 09:23 | HDPE Bottle, 125 mL |
| | | | | HDPE Bottle, 125 mL |

Vista Project: 1701439 Client Project: BRAC PFAS,NAS Chase Field,TX-TO 0008

ANALYTICAL RESULTS



Sample ID: Method Blank Modified EPA Method 537

Client Data Laboratory Data

Name: KMEA Matrix: Aqueous Lab Sample: B7J0092-BLK1 Column: BEH C18

Project: BRAC PFAS,NAS Chase Field,TX-TO 0008

| Project: BRAC PFAS,I | NAS Chase Field,TX-TO | 0008 | | | | | | | | | |
|--------------------------|-----------------------|--------------|----------|----------|---------|------------|--------------------|------------------------|--------------------|------------------------------------|----------|
| Analyte | | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| PFBA | | ND | 0.000729 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFPeA | | ND | 0.00128 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFBS | | ND | 0.00179 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFHxA | | ND | 0.00218 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFHpA | | ND | 0.000591 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFHxS | | ND | 0.000947 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFOA | | ND | 0.000651 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFOS | | ND | 0.000807 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFNA | | ND | 0.000810 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFDA | | ND | 0.00149 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFOSA | | ND | 0.00177 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| MeFOSAA | | ND | 0.00165 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFDS | | ND | 0.00123 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFUnA | | ND | 0.00105 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| EtFOSAA | | ND | 0.00137 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFDoA | | ND | 0.000792 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| PFTrDA | | ND | 0.000494 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | |
| PFTeDA | | ND | 0.000755 | 0.00500 | 0.00800 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| Labeled Standards | Type | % Recovery | | Limits | | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 89.9 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C3-PFPeA | IS | 82.8 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C3-PFBS | IS | 95.4 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFHxA | IS | 87.5 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C4-PFHpA | IS | 86.9 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 18O2-PFHxS | IS | 89.9 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFOA | IS | 82.4 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C8-PFOS | IS | 102 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C5-PFNA | IS | 83.4 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFDA | IS | 72.7 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C8-PFOSA | IS | 53.6 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| d3-MeFOSAA | IS | 64.4 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| 13C2-PFUnA | | | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | |
| | IS | 70.7 | | 30 - 130 | | | | | | | |
| d5-EtFOSAA | | 73.0 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 13:10 | 1 |
| d5-EtFOSAA 13C2-PFDoA | IS IS IS | | | | | | B7J0092 B7J0092 | 17-Oct-17 17-Oct-17 | 0.125 L 0.125 L | 26-Oct-17 13:10 26-Oct-17 13:10 | |

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DL - Detection Limit LOD - Limit of Detection LOQ - Limit of quantitation LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, 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: OPR

Modified EPA Method 537

Client Data Laboratory Data

Name: KMEA Matrix: Aqueous Lab Sample: B7J0092-BS1 Column: BEH C18

Project: BRAC PFAS,NAS Chase Field,TX-TO 0008

| Analyte | Amt Found (ug/L) | Spike Amt | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|-------------------|------------------|-----------|-------|---------|------------|---------|-----------|-----------|-----------------|----------|
| PFBA | 0.0699 | 0.0800 | 87.3 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFPeA | 0.0707 | 0.0800 | 88.3 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFBS | 0.0714 | 0.0800 | 89.2 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFHxA | 0.0741 | 0.0800 | 92.7 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFHpA | 0.0708 | 0.0800 | 88.5 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFHxS | 0.0743 | 0.0800 | 92.9 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFOA | 0.0667 | 0.0800 | 83.4 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFOS | 0.0606 | 0.0800 | 75.7 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFNA | 0.0696 | 0.0800 | 87.1 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFDA | 0.0818 | 0.0800 | 102 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFOSA | 0.0596 | 0.0800 | 74.6 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| MeFOSAA | 0.0715 | 0.0800 | 89.4 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFDS | 0.0997 | 0.0800 | 125 | 60-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFUnA | 0.0707 | 0.0800 | 88.3 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| EtFOSAA | 0.0622 | 0.0800 | 77.8 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFDoA | 0.0766 | 0.0800 | 95.7 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFTrDA | 0.0917 | 0.0800 | 115 | 60-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| PFTeDA | 0.0582 | 0.0800 | 72.8 | 70-130 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| Labeled Standards | Туре | | % Rec | Limits | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | | 89.9 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| 13C3-PFPeA | IS | | 79.3 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| 13C3-PFBS | IS | | 81.8 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| 13C2-PFHxA | IS | | 83.1 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 13C4-PFHpA | IS | | 84.8 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 18O2-PFHxS | IS | | 82.4 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 13C2-PFOA | IS | | 82.5 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 13C8-PFOS | IS | | 97.7 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 13C5-PFNA | IS | | 81.7 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 13C2-PFDA | IS | | 68.7 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 13C8-PFOSA | IS | | 57.8 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| d3-MeFOSAA | IS | | 57.6 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| 13C2-PFUnA | IS | | 66.4 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | |
| d5-EtFOSAA | IS | | 61.9 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| 13C2-PFDoA | IS | | 66.6 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |
| 13C2-PFTeDA | IS | | 92.0 | 50- 150 | | B7J0092 | 17-Oct-17 | 0.125 L | 26-Oct-17 12:03 | 1 |

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Sample ID: FRB05_20171005 **Modified EPA Method 537**

Client Data Laboratory Data

Lab Sample: Name: **KMEA** Matrix: Blank Water 1701439-01 Column: BEH C18 Project:

Date Collected: 05-Oct-17 13:15 BRAC PFAS,NAS Chase Field,TX-TO 0008 Date Received: 07-Oct-17 09:23

| Analyte | | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|---|----------------------|----------------------|----------|----------------------------------|---------|------------|--------------------|------------------------|--------------------|------------------------------------|-------------|
| | | | | | | Quanners | | | | | |
| PFBA | | ND | 0.000759 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFPeA PFBS | | ND | 0.00133 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| | | ND | 0.00186 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFHxA | | ND | 0.00227 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFHpA | | ND | 0.000615 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFHxS | | ND | 0.000986 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFOA | | ND | 0.000678 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFOS | | ND | 0.000840 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFNA | | ND | 0.000843 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFDA | | ND | 0.00155 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | - 1 |
| PFOSA | | ND | 0.00184 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| MeFOSAA | | ND | 0.00172 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFDS | | ND | 0.00128 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFUnA | | ND | 0.00109 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| EtFOSAA | | ND | 0.00143 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFDoA | | ND | 0.000825 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | |
| PFTrDA | | ND | 0.000514 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| PFTeDA | | ND | 0.000786 | 0.00521 | 0.00833 | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| Labeled Standards | Type | % Recovery | | Limits | | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 84.5 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C3-PFPeA | IS | 83.5 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C3-PFBS | IS | 88.1 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFHxA | IS | 82.8 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C4-PFHpA | IS | 82.1 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 18O2-PFHxS | IS | 80.2 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFOA | IS | 78.2 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C8-PFOS | IS | 98.7 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C5-PFNA | IS | 78.6 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| IJCJ-I FINA | 13 | | | 50 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFDA | IS | 57.3 | | 50 - 150 | | | | | | | |
| | | 57.3 82.8 | | 50 - 150 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFDA | IS | | | | | | B7J0092 B7J0092 | 17-Oct-17 17-Oct-17 | 0.120 L 0.120 L | 07-Nov-17 22:17 07-Nov-17 22:17 | |
| 13C2-PFDA 13C8-PFOSA | IS IS | 82.8 | | 50 - 150 | | | | | | | 1 |
| 13C2-PFDA 13C8-PFOSA d3-MeFOSAA | IS IS IS IS | 82.8 68.8 | | 50 - 150 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.120 L | 07-Nov-17 22:17 | 1 |
| 13C2-PFDA 13C8-PFOSA d3-MeFOSAA 13C2-PFUnA | IS IS IS | 82.8 68.8 69.9 | | 50 - 150 50 - 150 50 - 150 | | | B7J0092 B7J0092 | 17-Oct-17 17-Oct-17 | 0.120 L 0.120 L | 07-Nov-17 22:17 07-Nov-17 22:17 | 1 1 1 |

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DL - Detection Limit LOD - Limit of Detection LOQ - Limit of quantitation LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.
When reported, 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: FRB06_20171006 Modified EPA Method 537

Client Data **Laboratory Data**

Lab Sample: Name: **KMEA** Matrix: Blank Water 1701439-05 Column: BEH C18 Project:

Date Collected: 06-Oct-17 08:08 BRAC PFAS,NAS Chase Field,TX-TO 0008 Date Received: 07-Oct-17 09:23

| Analyte | | Conc. (ug/L) | DL | LOD | LOQ | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
|-------------------|------|--------------|----------|----------|---------|------------|---------|-----------|-----------|-----------------|----------|
| PFBA | | ND | 0.000763 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFPeA | | ND | 0.00134 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFBS | | ND | 0.00187 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFHxA | | ND | 0.00228 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFHpA | | ND | 0.000618 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFHxS | | ND | 0.000991 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFOA | | ND | 0.000681 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFOS | | ND | 0.000844 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFNA | | ND | 0.000847 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFDA | | ND | 0.00156 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFOSA | | ND | 0.00185 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| MeFOSAA | | ND | 0.00173 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFDS | | ND | 0.00129 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFUnA | | ND | 0.00110 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| EtFOSAA | | ND | 0.00143 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFDoA | | ND | 0.000829 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFTrDA | | ND | 0.000517 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| PFTeDA | | ND | 0.000790 | 0.00525 | 0.00837 | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| Labeled Standards | Type | % Recovery | | Limits | | Qualifiers | Batch | Extracted | Samp Size | Analyzed | Dilution |
| 13C3-PFBA | IS | 86.2 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C3-PFPeA | IS | 86.3 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C3-PFBS | IS | 94.6 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C2-PFHxA | IS | 85.6 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C4-PFHpA | IS | 88.3 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 18O2-PFHxS | IS | 86.3 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C2-PFOA | IS | 73.2 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C8-PFOS | IS | 74.6 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C5-PFNA | IS | 74.9 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C2-PFDA | IS | 56.2 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C8-PFOSA | IS | 56.1 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| d3-MeFOSAA | IS | 64.8 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| 13C2-PFUnA | IS | 72.2 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| d5-EtFOSAA | IS | 64.8 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |
| us-Lu Obrari | | | | | | | | | | | |
| 13C2-PFDoA | IS | 79.3 | | 50 - 150 | | | B7J0092 | 17-Oct-17 | 0.119 L | 03-Nov-17 14:08 | 1 |

Work Order 1701439 Revision 1 Page 12 of 402



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

Work Order 1701439 Revision 1 Page 13 of 402

DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank.

D Dilution

E The associated compound concentration exceeded the calibration range of

the instrument.

H Recovery and/or RPD was outside laboratory acceptance limits.

I Chemical Interference

J The amount detected is below the Reporting Limit/LOQ.

M Estimated Maximum Possible Concentration. (CA Region 2 projects only)

* See Cover Letter

Conc. Concentration

NA Not applicable

ND Not Detected

TEQ Toxic Equivalency

U Not Detected (specific projects only)

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

CERTIFICATIONS

| Accrediting Authority | Certificate Number |
|---|---------------------------|
| Arkansas Department of Environmental Quality | 17-015-0 |
| California Department of Health – ELAP | 2892 |
| DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005 | 3091.01 |
| Florida Department of Health | E87777-18 |
| Hawaii Department of Health | N/A |
| Louisiana Department of Environmental Quality | 01977 |
| Maine Department of Health | 2016026 |
| Minnesota Department of Health | 1175673 |
| New Hampshire Environmental Accreditation Program | 207716 |
| New Jersey Department of Environmental Protection | CA003 |
| New York Department of Health | 11411 |
| Oregon Laboratory Accreditation Program | 4042-008 |
| Pennsylvania Department of Environmental Protection | 013 |
| Texas Commission on Environmental Quality | T104704189-17-8 |
| Virginia Department of General Services | 8621 |
| 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 | EPA 23 |
| Dibenzofurans | |

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

Vista Analytical

1104 Windfield Way El Dorado Hills, CA 95762

TEL: 916-673-1520

Vista PM: Karen Volpendesta

CHAIN OF CUSTODY RECORD

DATE: 10/5/2017 - 10/6/2017

PAGE: 3 OF 3

| AME | ATORY CLIENT: C Foster Wheeler E & I, Inc. | | | ENT PROJE | | | | 200000 | - Walliam 1 | | W-0000 | | | | | | NO.: | | Tall Management of | | | | | | |
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| San [| Diego, CA 92123 | | | | | | MPLER(S): (| | | iiie i | , | 51 | | | | | | | | USE | | | .403 | | 18 18 18 18 |
| TEL: | E-Mail | | E-MAIL | | | | | | el | Rul | h | | | | | | | | | 1 | ٦.,۲ | $\neg r$ | | | |
| | 39.3400 medora.hackler@amecfw.c | om | marie.bevi | er@amecfw | .com | _ | | | ι | | | | | • | | | | | Bana | dilaa | | and b | | | 200 |
| | AME DAY | | | | | | | | REC | QUE | STE | D A | NA | LYS | SIS | | | | | | | | | | |
| SPECIA | L REQUIREMENTS (ADDITIONAL COSTS MAY APPLY) | | 200 | | | | | | | | | | | | | | П | | | | | | | | |
| | RWQCB REPORTING ARCHIVE SAMPLES | S UNTIL . | 1 | _/ | | | | | | | | | | | | | | | | | | | | | |
| | LINSTRUCTIONS | | | l 86 | PFBS | | | | | | | | | | | | | | | | | | | | |
| 7.50 7.50 000 | samples are only to be analyzed if associated associate | | | and PFBS Mod.) | D D | | | | | | | | | | | | | | | | | | | | |
| dete | ection at or above LOQ. | | | | | | an Z | and (| | | | | | | | | | | | | | | | | |
| | | | | | | | V, PFOS, and PF EPA 537 Mod.) | OS, a 537) | | | | | | | | | | | | | | | | ii. | |
| | | | | W/ | | Level | H A | PF EPA | | | | | | | | | | | | | | | | | |
| LAB USE | SAMPLE ID | SAMI | PLING | Matrix | *Cone | F. | PFOA, (U.S. El | PFOA, PFC (U.S. EPA | | | | | | | | | | | | | | | | | |
| ONLY | 000-00- | DATE | TIME | 74 | J. | ဗ္ဗ | 품글 | 품의 | | | | | | | | | | | | | | | | | |
| | FRB 05 | 1015/17 | 13:15 | ßw | 2 | | 7 | | 1+ | 0 | 4 | 9 | | | | | | | | | | | | | |
| | Site3-GW-03G402-20171005 | ч | 16:30 | GW | 2 | V | X | | | | | | | | | | | | | | | | | | |
| | FR304 | ч | 16:35 | 13 4 | 2 | | × | | 4 | 0 | 1 | 0 | | | | | | | | | | | | | |
| | Site 4-GW-04GW01-20171006 | 10/6/17 | 8.00 | GW | 2 | | × | | | | 26 | | | | | | | | | | | | | | П |
| | FRB06 | ч | 8:08 | BW | 2 | | 1 | | # | 0 | L | 9 | | | | | | | | | | | | | П |
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| | Clef Ruste | | | | | | | | | | | | | | 10 | 161 | 17 | | 1: | 5:0 | U | | | | |
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Vista Analytical

1104 Windfield Way El Dorado Hills, CA 95762 1701439

CHAIN OF CUSTODY RECORD

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| PAGE: | 7 | OF |) | |
| Lugie | <u> </u> | _ ~ | - | - |

| | C Foster Wheeler E & I, Inc. | | | | | | | TNAMET | | | Ci- | 14 7 | v - | .O 00 | ing. | | | P.O. | | PO 5 | 55 | | |
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| an I | Diego, CA 92123 | | | | | | | Hackle | | ie Be | vie | | | | | | - | | USE 6 | | D-24 | 15 | |
| EL | 539,3400 E-Mail mediora hackler@amectw. | com | E-MAIL marie bevi | er@amectw | com | | | u | 41 | Zuil | | | | | | | | | |]-[| | | I |
| JRINA | AROUND TIME | | CHEDICAL V | 10 DAYS | | | | | | | 1 | REQ | UES | TE | ANA | LYS | IS | | | | | | |
| | SAME DAY 24 HR 48HR 72 HR | _ p U/ | ars Dr | HUDAIS | | | 15 | TE. | | | T | T | T | T | | | | | - | | | | |
| | RWQCB REPORTING ARCHIVE SAMPLE | SUNTIL | 1 | 1 | | | Ibio od | THE PERMIT | | | | | | | | | | | | | | | |
| | ALINSTRUCTIONS B samples are only to be analyzed if associa | ted field s | amples e | xhibit | | | 1 = | 10- | | | | | - | | | | | | | | | | |
| | | | | | | | Mod.) | | | | | | | | | | | 100 | | | | | |
| 4 | ection at or above LOQ. PFAS-18 compound list; see st | P WZ# | 12 | | | | 537 | 53. | 1336 | | | | 100 | | | | | | | | | | |
| ì. | 1 | | | | - 1 | 1 20 | 24 点 | 24 8 | | | | | | | | | | | | | | | |
| I | SAMPLE ID | DATE | TIME | Water . | *Con | ac Le | U.S. I | U.S. U | | | | | | | | | | | | | | | |
| 1 | FR305 | 10/5/17 | 131,15 | ßW | Z | G | بد | 45 | + | 0 | 4 | 9 | 1 | Ex- | trac | 1 | to). | 5 | KA | loli | - | | |
| - | Site3-GW-03G402-20171065 | 4 | 16:30 | GW | 2 | V | X | | | | | | | | | | | 13 | | | | - | 1 |
| | | ч | 16:35 | AV | 2 | 186 | × | THE REAL PROPERTY. | 4 | 0 | - | 2 | 1 | X | nuct | Ho | 10 |) ic | wir | - | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |
| | FR.304 | | The second second | | | - | | - | | AND DESCRIPTION OF | | | - 1 | | | | 10000000 | 100 | | | The same of the same of | | |
| + | FRIO 04 5-124-GW-04-GW01-2017-1006 | 10/6/17 | 8.00 | GW | Z | | × | | | | | | | | | 1. 1. | | 1 | - | | | - | |
| | 5 k 4 - GW - 04 GW01-2017006 | 0/6/17 | 8:08 | BW | 2 | | * | | 44 | 0 | L | 9 | (| Exc | na | - ! # | d | 1 | اعران | 7 | | | _ |
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| | 5 k 4 - GW - 04 GW01-2017006 | | | | - | | * | 0[6] | | 0 | | 9 | (| - x- | 70.64 | -! 4 |) Id | 01 | اعالما | 7 | | | |
| | 5 k 4 - GW - 04 GW01-2017006 | | | | - | | * | 0[6] | | 0 | | 9 | (| - Xd | 77.64 | -!#! | Id | D1 | que | 3 | | | |
| | Sik 4 - GW - 04 GW01-2017 1006 FRB 06 | | | BW | 2 | | x ! | | 7 | 0 | | 9 | (| Ext | 70.0 | -! 4 | Da | ate | | | Time | | |
| Iqu | Sik 4 - GW - 04 GW01-2017 1006 FRB 06 | | | | 2 | | x ! | | 7 | 0 | | 9 | (| Exe | 70.61 | 1 14 | Da fe | ate: 0 (6 | (13 | | 1 | 530 | |
| b | Sik 4 - GW - 04 GW01-2017 1006 FRB 06 | | | Received to | 2 | ature) / | x ! | | 7 | 0 | | 9 | (| - | 77.64 | -! 14 | Da fe | ate | | | Time (| 530 | - 2 |

revised COC received via smail 450 10/10/17



Sample Log-in Checklist

| | Vista Work Orde | r#: 17042 | 2 17 | 01439 | | TAT_ |) busin | ess da | gys | |
|---------|--|--|---|-----------------------------------|--------------------|---|-------------------------------------|-----------------------|----------|----------------------|
| | Samples Arrival: | Date/Time 10/07/17 09 | 23 | Initials: | | Location: Shelf/Rack | , | | | |
| | Logged In: | Date/Time // O | 61910/17 947- 1025 | Initials: | SB | Location: Shelf/Rack | WR-2 | · | | ar |
| | Delivered By: | FedEx UPS | | | DHL | Deliver | | Oth | | |
| | Preservation: | (lce ³) | BI | ue Ice | | Dry Ice | | Noi | ne | |
| | Temp °C: 0 | | Time: 0 | 36 ed: Yes□ | No ¤ | Thermomet | er ID: | IR-1 | | |
| | | | mmmmm | mmmmm | | | VEC | NO | NIA | ı |
| | | | | | | | YES | NO | NA | |
| | Adequate Sample | e Volume Receive | ed? | | | | Y | | | |
| | Holding Time Acc | ceptable? | | | | | ✓ | | | |
| | Shipping Contain | er(s) Intact? | | | | | √ | | | |
| | Shipping Custody | y Seals Intact? | | | | | ✓ | | | |
| | Shipping Docume | entation Present? | 1 | | | | 1 | | | |
| | Airbill | Trk # 8081 | 00-10-5 | 5264 | | | √ | | | |
| | Sample Containe | | WIL | 3-01 | | | 1 | | | |
| | Sample Custody | | | | | | | | √ | |
| 15 | | / Sample Docum | entation Pr | resent? | | | 1 | | | |
| | | ample Acceptance | | | | | | 1 | / | |
| | 1000 Allomaly/38 | ample Acceptance | C I OIIII COII | ipicicu ! | | | | | | |
| | If Chlorinated or I | Drinking Water Sa | amples, Aco | ceptable Pre | eservat | 50 | / | | | |
| | Preservation Doc | umented: | Na₂S₂O₃ | Trizma |)(N | lone (*) | Yes) | No | NA | |
| | Shipping Contain | er (| Vista | Client | Re | tain Re | turn | Disp | ose | |
| WO# 701 | Comments: Sample & FRBU & EBO & DUPO Site & Site | es received in 12 th 1_20171005 1_20171002 11 (B bottle has 3-GW-42164 3-DW-42164 | Some Hope low volume 18 - was of 18 - 2017 (| bottles with 09119 085 (Bbo | h an ex ttle ha | ception of a * receive * tricma s low volu | emples of in 2 oprese one) | : 250 ml nt for | MQ. | ie bottle: sample |

ID.: LR - SLC

Rev No.: 0

Rev Date: 05/18/2017

Page: 1 of 1

EXTRACTION INFORMATION

Process Sheet

Workorder: 1701439

Prep Expiration: 2017-Oct-19

Client: KMEA

Workorder Due: 23-Oct-17 00:00

TAT: 16

Method: 537M PFAS DOD (LOQ as mRL)

Matrix: Aqueous

Prep Batch: <u>B750092</u>

Prep Data Entered:

10-18-17 7tc

Version: TX+MeFOSAA+EtFOSAA (18 Analytes)

DoD: DoD QSM 5.1

Initial Sequence:

| LabSampID | A/B | Prep Rec_ | Spike Rec ClientSampleID | Comments | Location | Container |
|------------|-----|--------------|-----------------------------|--------------|----------|---------------------|
| 1701439-01 | A | | FRB05_20171005 FRB05" | Ext and Hold | WR-2 B-5 | HDPE Bottle, 125 mL |
| 1701439-02 | T | U | Site 3-GW-03GW02-20171005 | | WR-2 B-5 | HDPE Bottle, 125 mL |
| 1701439-03 | | | ☐ FRB04_20171005 FRB04"/ | Ext and Hold | WR-2 B-5 | HDPE Bottle, 125 mL |
| 1701439-04 | | V | Site 4-GW-04GW01-20171006 | | WR-2 B-5 | HDPE Bottle, 125 mL |
| 1701439-05 | V | | ☐ FRB06_20171006 FRB00'' ✓ | Ext and Hold | WR-2 B-5 | HDPE Bottle, 125 mL |

Pre-Prep Check Out: 10 10/17
Pre-Prep Check In: 10/14/17

Prep Check Out: (C 10 17 17

Prep Reconciled Initals/Date: KC 10|16|17

Spike Reconciled Initals/Date: HC 10|16|17

VialBoxID: Funday

Page 1 of 2

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

| | |
|---------|--|
| B7J0092 | |
| | |

Prep Date/Time: 16-0ct-17 08:43

Prepared using: LCMS - SPE Extraction-LCMS

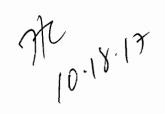
| | | Date/Inita | ıls: K | 10/16/1 | 7 | BalanceID: | JU2-8 | | | | |
|-----|--------------------|--------------|-------------|------------------|-----------------------|---------------------------|-----------------------|-----------------------|---------------------------|----------|----------------------|
| Cen | VISTA Sample ID | pH Before | pH After | Chlorine (Cl) | Drops HCl Added | Bottle + Sample (g) | Bottle Only (g) | Sample Amt. (L) | IS/NS CHEM/WIT DATE | SPE VC13 | THE RS CHEM/WIT DATE |
| | B7J0092-BLK1 | 5 | 2 | 0 | 2 | NA | NA | (0.125) | THE KC 10-17-1 | | 1/2 KC 10.17.17 |
| | B7J0092-BS1 | 5 | 2 | 0 | 2 | Ţ | - | (0.125) | | T | - |
| | 1701432-08RE1 | 7 | 2 | 0 | 3 | 88.07 | 27.17 | 0.06090 | | | |
| | 1701439-01 | 5 | 2 | 0 | 2 | | 24.22 | 0.12006 | | | |
| | 1701439-02 | U | 2 | 0 | 3 | | 27.18 | 0.11578 | /// | | |
| | 1701439-03 | 4 | 2 | 0 | 2 | | 27.17 | 0.12041 | X | | |
| | 1701439-04 | 5 | 2 | 0 | 4 | 146.69 | 27.09 | 0.119601 | / | | |
| | 1701439-05 | 5 | 2 | 0 | 2 | 146.65 | 27.18 | 0.11947 | d | 4/ | 4 |

| 15: 17 I 3002, 194 (V4) | SPE Chem: Strata X AW 33um with | Notes: (A) Spiled while prepaine, 1000 volume. KC 10/16/17 |
|-------------------------|--|--|
| IS SUP: NA | ELE SOLV: MUTH 1.5° LO NIHWOH in MEDIT | · |
| NS: 1762428, 10pl (VI) | Final Volume(s) | |
| RS: 1772619, 10pl (13) | | |
| | | |

Batch: B7J0092

Matrix: Aqueous

| LabNumber | WetWeight (Initial) | % Solids (Extraction Solids) | DryWeight | Final | Extracted | Ext By | Spike | SpikeAmount | ClientMatrix | Analysis |
|---------------|------------------------|---------------------------------|-----------|-------|-----------------|--------|---------|-------------|--------------|-----------------------|
| 1701432-08RE1 | 0.0609 / | MA | NA | 1000 | 17-Oct-17 08:43 | HAC | | | Groundwater | 537M PFAS DOD (LOQ as |
| 1701439-01 | 0.12006 | | 7 | 1000 | 17-Oct-17 08:43 | HAC | | | Blank Water | 537M PFAS DOD (LOQ as |
| 1701439-02 | 0.11578 | | | 1000 | 17-Oct-17 08:43 | HAC | | | Blank Water | 537M PFAS DOD (LOQ as |
| 1701439-03 | 0.12041 / | | | 1000 | 17-Oct-17 08:43 | HAC | | | Blank Water | 537M PFAS DOD (LOQ as |
| 1701439-04 | 0.1196 | | | 1000 | 17-Oct-17 08:43 | HAC | | | Blank Water | 537M PFAS DOD (LOQ as |
| 1701439-05 | 0.11947 | | | 1000 | 17-Oct-17 08:43 | HAC | | | Blank Water | 537M PFAS DOD (LOQ as |
| B7J0092-BLK1 | 0.125 | | | 1000 | 17-Oct-17 08:43 | HAC | _ | | | QC |
| B7J0092-BS1 | 0.125 | 4 | 4 | 1000 | 17-Oct-17 08:43 | HAC | 17G2428 | 10 / | | QC |



SAMPLE DATA – MODIFIED EPA METHOD 537

Quantify Sample Summary Report Vista Analytical Laboratory

Rev'd: MM 10/27/17

Page 1 of 1

Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.qld

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:01 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----|--------------|---------------|--------|---------|----------|-----|---------|------|--------------|-------|------|
| 1 | 1 PFBA | 213.0 > 168.8 | | 6.75e3 | 0.125 | | 1.32 | | | | |
| 2 | 2 PFPeA | 263.1 > 218.9 | | 7.35e3 | 0.125 | | 2.31 | | | | |
| 3 | 3 PFBS | 299.0 > 79.7 | | 1.02e3 | 0.125 | | 2.59 | | | | |
| 4 | 4 PFHxA | 313.2 > 268.9 | | 3.04e3 | 0.125 | | 3.08 | | | | |
| 5 | 5 PFHpA | 363.0 > 318.9 | | 6.97e3 | 0.125 | | 3.70 | | | | |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 4.23e0 | 8.55e2 | 0.125 | | 3.86 | 3.76 | 0.0619 | 0.849 | |
| 7 | 9 L-PFOA | 413 > 368.7 | 2.11e2 | 1.05e4 | 0.125 | | 4.23 | 4.15 | 0.252 | | |
| 8 | 12 PFNA | 463.0 > 418.8 | | 9.67e3 | 0.125 | | 4.67 | | | | |
| 9 | 13 PFOSA | 498.1 > 77.8 | | 2.01e3 | 0.125 | | 4.72 | | | | |
| 10 | 14 L-PFOS | 499 > 79.9 | | 2.53e3 | 0.125 | | 4.76 | | | | |
| 11 | 16 PFDA | 513 > 468.8 | | 9.48e3 | 0.125 | | 5.05 | | | | |
| 12 | 18 N-MeFOSAA | 570.1 > 419 | | 3.51e3 | 0.125 | | 5.21 | | | | |
| 13 | 19 N-EtFOSAA | 584.2 > 419 | | 3.99e3 | 0.125 | | 5.37 | | | | |
| 14 | 20 PFUnA | 563.0 > 518.9 | 4.71e1 | 1.12e4 | 0.125 | | 5.38 | 5.30 | 0.0523 | 0.140 | |
| 15 | 21 PFDS | 598.8 > 80 | | 1.12e4 | 0.125 | | 5.43 | | | | |
| 16 | 22 PFDoA | 612.9 > 569.0 | | 1.08e4 | 0.125 | | 5.67 | | | | |
| 17 | 24 PFTrDA | 662.9 > 618.9 | | 1.08e4 | 0.125 | | 5.92 | | | | |

Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.qld

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----------|--------------------|---------------|------------------|------------------|----------|-------|--------------|--------------|--------------|--------------|--------------|
| 1 | 25 PFTeDA | 712.9 > 668.8 | Alea | 8.97e3 | 0.125 | nnı | 6.13 | n i | y Axis nesp. | COIIC. | /onec |
| 2 | 31 13C3-PFBA | 216.1 > 171.8 | 6.75e3 | 8.09e3 | 0.125 | 0.928 | 1.33 | 1.23 | 10.4 | 89.9 | 89.9 |
| 2 | 32 13C3-PFPeA | 266. > 221.8 | 7.35e3 | 1.17e4 | 0.125 | 0.757 | 2.31 | 2.21 | 7.83 | 82.8 | 82.8 |
| 4 | 33 13C3-PFBS | 302. > 98.8 | 1.02e3 | 1.17e4 1.17e4 | 0.125 | 0.757 | 2.51 | 2.50 | 1.08 | 95.4 | 95.4 |
| 5 | 34 13C2-PFHxA | 315 > 269.8 | 3.04e3 | 1.17e4 1.17e4 | 0.125 | 0.739 | 3.08 | 2.99 | 3.23 | 35.0 | 87.5 |
| 6 | 35 13C4-PFHpA | 367.2 > 321.8 | 6.97e3 | 1.17e4 1.17e4 | 0.125 | 0.739 | 3.70 | 3.62 | 7.43 | 86.9 | 86.9 |
| 7 | 36 18O2-PFHxS | 403.0 > 102.6 | 8.55e2 | 2.31e3 | 0.125 | 0.664 | 3.85 | 3.78 | 4.63 | 89.9 | 89.9 |
| 8 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.40e3 | 1.13e4 | 0.125 | 0.412 | 4.18 | 4.09 | 2.65 | 85.4 | 85.4 |
| 9 | 38 13C2-PFOA | 414.9 > 369.7 | 2.40e3 1.05e4 | 1.13e4 1.13e4 | 0.125 | 1.120 | 4.18 | 4.09 | 11.5 | 82.4 | 82.4 |
| 10 | 39 13C5-PFNA | 468.2 > 422.9 | 9.67e3 | 1.13e4 1.25e4 | 0.125 | 0.929 | 4.23 | 4.13 | 9.68 | 83.4 | 83.4 |
| 11 | 40 13C8-PFOSA | 506.1 > 77.7 | 2.01e3 | 1.52e4 | 0.125 | 0.929 | 4.07 | 4.64 | 1.65 | 53.6 | 53.6 |
| 12 | 41 13C8-PFOS | 507.0 > 79.9 | 2.01e3 2.53e3 | 2.41e3 | 0.125 | 1.027 | 4.72 | 4.68 | 13.1 | 102 | 102.2 |
| 13 | 42 13C2-PFDA | 515.1 > 469.9 | 2.33e3 9.48e3 | 1.38e4 | 0.125 | 0.946 | 5.05 | 4.98 | 8.59 | 72.7 | 72.7 |
| 14 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 9.46e3 2.05e3 | 1.38e4 | 0.125 | 0.946 | 5.03 | 4.96 4.95 | 1.86 | 86.8 | 86.8 |
| 15 | 44 d3-N-MeFOSAA | 573.3 > 419 | 2.05e3 3.51e3 | 1.50e4 1.52e4 | 0.125 | 0.171 | 5.03 | 5.13 | 2.88 | 64.4 | 64.4 |
| 16 | 45 d5-N-EtFOSAA | 589.3 > 419 | 3.99e3 | 1.52e4 1.52e4 | 0.125 | 0.360 | 5.36 | 5.13 | 3.28 | 73.0 | 73.0 |
| 17 | 46 13C2-PFUdA | 565 > 519.8 | 3.99e3 1.12e4 | 1.52e4 1.52e4 | 0.125 | 1.045 | 5.38 | 5.26 | 9.24 | 73.0 70.7 | |
| 18 | 47 13C2-PFDoA | 615.0 > 569.7 | 1.12e4 1.08e4 | 1.52e4 1.52e4 | 0.125 | 1.045 | 5.36 5.67 | 5.60 | 9.24 8.84 | 70.7 62.0 | 70.7 62.0 |
| 19 | | | | | | | 6.13 | | | | 63.1 |
| | 49 13C2-PFTeDA | 714.8 > 669.6 | 8.97e3 | 1.52e4 | 0.125 | 0.934 | | 6.07 | 7.37 | 63.1 | |
| 20 | 54 13C4-PFBA | 217. > 171.8 | 8.09e3 | 8.09e3 | 0.125 | 1.000 | 1.33 | 1.23 | 12.5 | 100 | 100.0 |
| 21 | 55 13C5-PFHxA | 318 > 272.9 | 1.17e4 | 1.17e4 | 0.125 | 1.000 | 3.08 | 2.99 | 12.5 | 100 | 100.0 |
| 22 | 56 13C3-PFHxS | 401.9 > 79.9 | 2.31e3 | 2.31e3 | 0.125 | 1.000 | 3.85 | 3.77 | 12.5 | 100 | 100.0 |
| 23 | 57 13C8-PFOA | 421.3 > 376 | 1.13e4 | 1.13e4 | 0.125 | 1.000 | 4.23 | 4.15 | 12.5 | 100 | 100.0 |
| 24 | 58 13C9-PFNA | 472.2 > 426.9 | 1.25e4 | 1.25e4 | 0.125 | 1.000 | 4.67 | 4.59 | 12.5 | 100 | 100.0 |
| 25 26 | 59 13C4-PFOS | 503 > 79.9 | 2.41e3 | 2.41e3 | 0.125 | 1.000 | 4.76 | 4.68 | 12.5 | 100 | 100.0 |
| 26 | 60 13C6-PFDA | 519.1 > 473.7 | 1.38e4 | 1.38e4 | 0.125 | 1.000 | 5.05 | 4.97 | 12.5 | 100 | 100.0 |
| 27 | 61 13C7-PFUnA | 570.1 > 524.8 | 1.52e4 | 1.52e4 | 0.125 | 1.000 | 5.38 | 5.31 | 12.5 | 100 | 100.0 |
| 28 | 62 Total PFHxS | 398.9 > 79.6 | | 8.55e2 | | | | | | 0.849 | 9 |
| 29 | 63 Total PFOA | 413 > 368.7 | 2.11e2 | 1.05e4 | 0.125 | | 4.23 | | 0.000 | | |
| 30 | 64 Total PFOS | 499 > 79.9 | 0.00e0 | 2.53e3 | 0.125 | | 4.67 | | 0.000 | | |
| 31 | 65 Total N-MeFOSAA | 570.1 > 419 | 0.00e0 | 3.51e3 | 0.125 | | 5.21 | | 0.000 | | |
| 32 | 66 Total N-EtFOSAA | 584.2 > 419 | 0.00e0_ | 3.99e3_ | 0.125_ | | 5.37_ | | 0.000_ | | |

AC 10/27/17

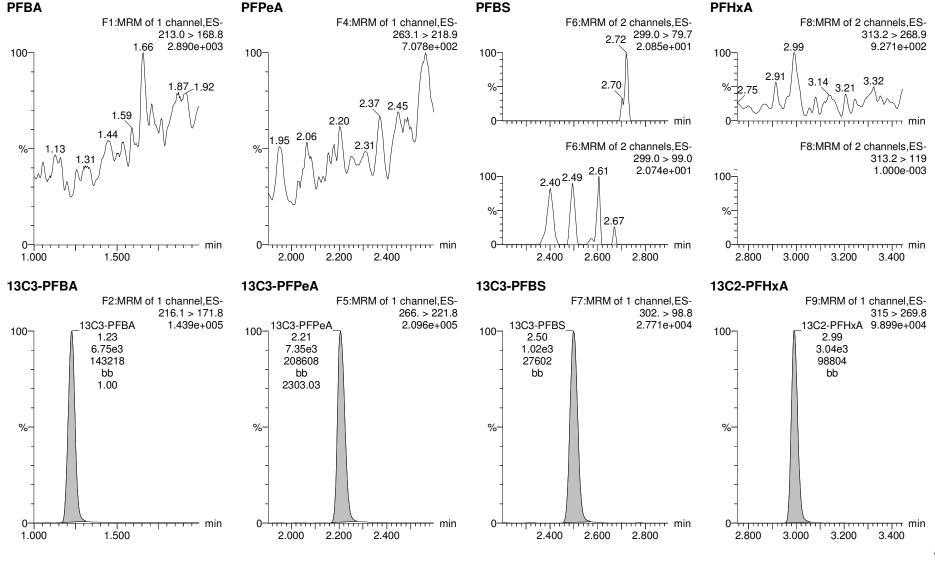
Work Order 1701439 Revision 1

Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.qld

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



AC 10/27/17

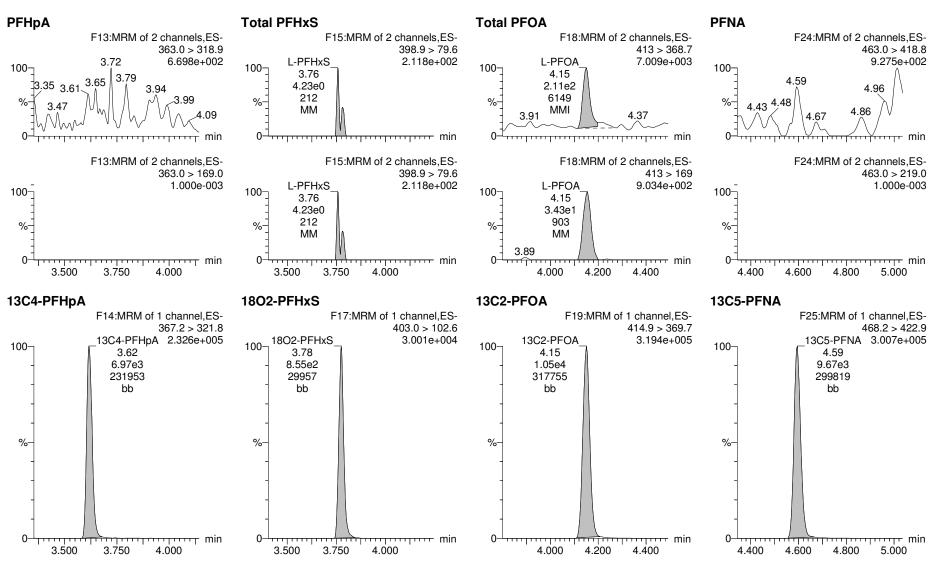
Work Order 1701439 Revision 1

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Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.qld

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



AC 10/27/17

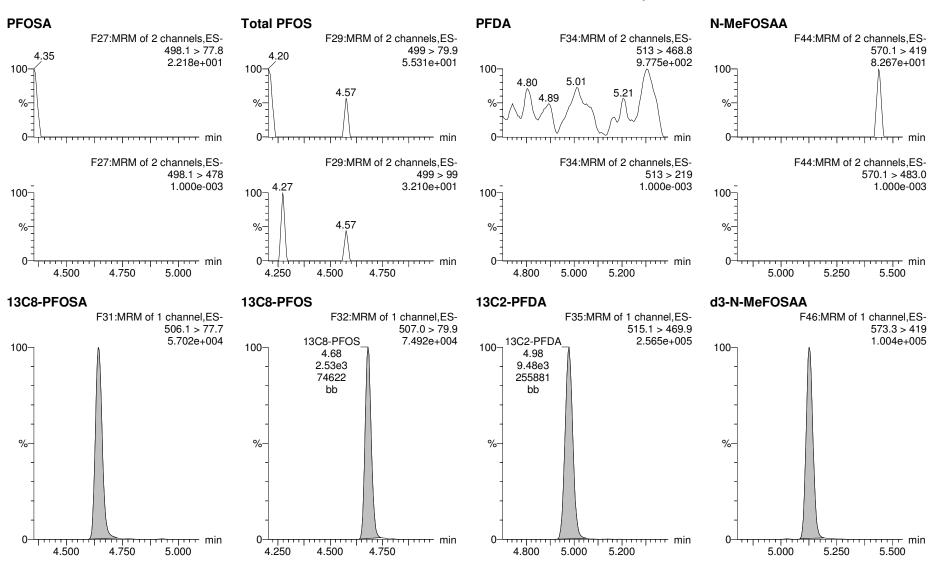
Work Order 1701439 Revision 1 Page 29 of 402

Rev'd: MM 10/27/17

Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.gld

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



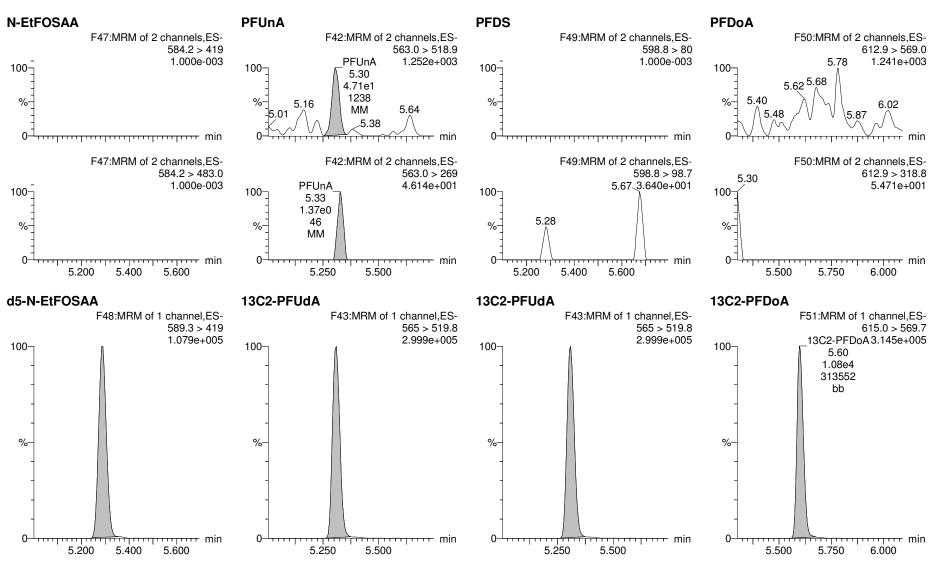
AC 10/27/17

Work Order 1701439 Revision 1 Page 30 of 402

Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.qld

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



AC 10/27/17

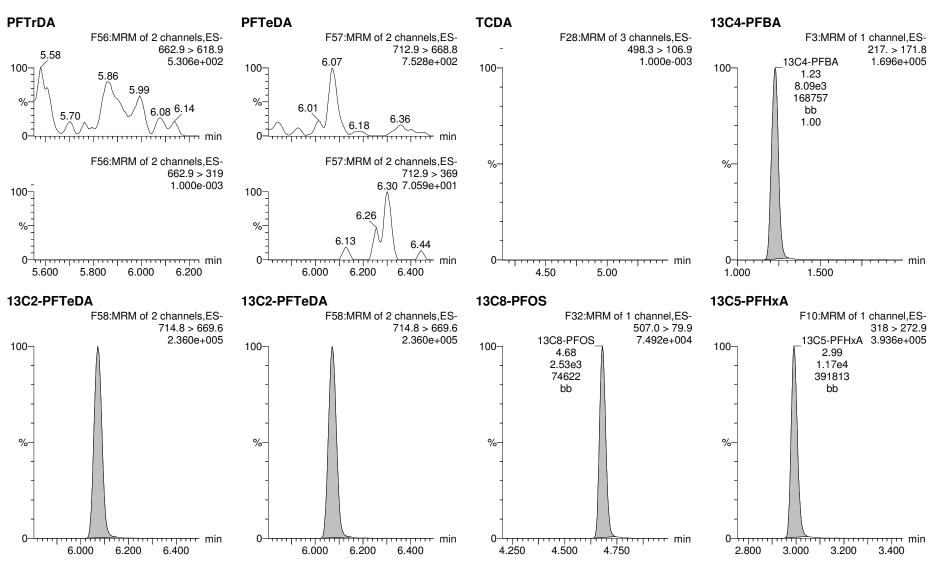
Work Order 1701439 Revision 1
Page 31 of 402

Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.qld

Quantify Sample Report

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



AC 10/27/17

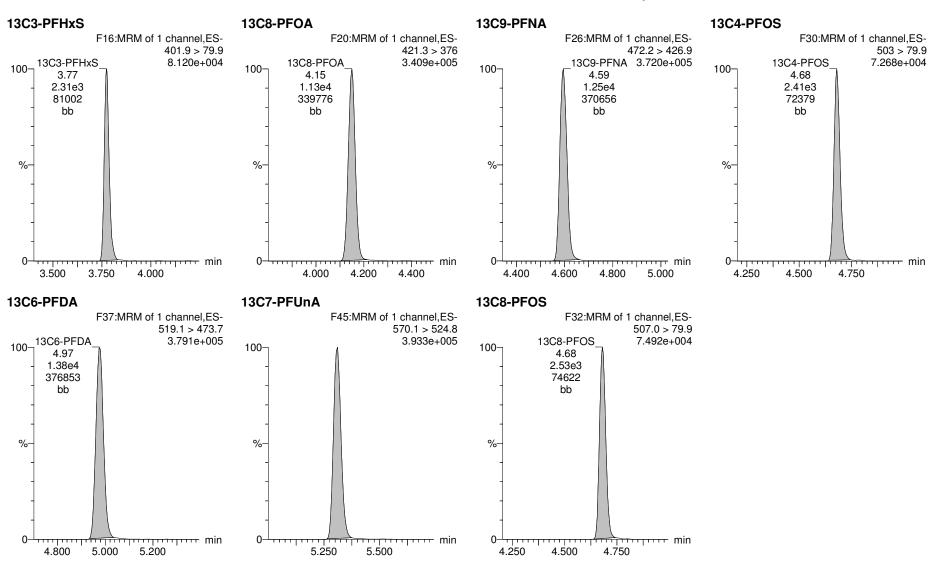
Work Order 1701439 Revision 1 Page 32 of 402

Dataset: U:\Q4.PRO\results\171026M1\171026M1-22.qld

Quantify Sample Report

Last Altered: Friday, October 27, 2017 13:08:18 Pacific Daylight Time Printed: Friday, October 27, 2017 13:09:15 Pacific Daylight Time

Name: 171026M1_22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank



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Vista Analytical Laboratory

Rev'd: MM 10/29/17

Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

| | # N.I. | - | | 10.4 | 144.07.1 | 222 | D IDT | DT | 4 : D | | 0/ D |
|----|--------------|---------------|--------|---------|----------|-----|---------|------|--------------|-------|-------|
| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
| 1 | 1 PFBA | 213.0 > 168.8 | 6.57e3 | 7.51e3 | 0.125 | | 1.32 | 1.23 | 10.9 | 69.9 | 87.3 |
| 2 | 2 PFPeA | 263.1 > 218.9 | 6.52e3 | 8.00e3 | 0.125 | | 2.31 | 2.21 | 10.2 | 70.7 | 88.3 |
| 3 | 3 PFBS | 299.0 > 79.7 | 1.72e3 | 9.89e2 | 0.125 | | 2.59 | 2.51 | 21.7 | 71.4 | 89.2 |
| 4 | 4 PFHxA | 313.2 > 268.9 | 1.01e4 | 3.27e3 | 0.125 | | 3.08 | 3.00 | 15.5 | 74.1 | 92.7 |
| 5 | 5 PFHpA | 363.0 > 318.9 | 8.27e3 | 7.73e3 | 0.125 | | 3.70 | 3.62 | 13.4 | 70.8 | 88.5 |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 1.46e3 | 8.12e2 | 0.125 | | 3.86 | 3.78 | 22.5 | 74.3 | 92.9 |
| 7 | 9 L-PFOA | 413 > 368.7 | 8.48e3 | 1.09e4 | 0.125 | | 4.23 | 4.15 | 9.69 | 66.7 | 83.4 |
| 8 | 12 PFNA | 463.0 > 418.8 | 9.89e3 | 9.79e3 | 0.125 | | 4.67 | 4.59 | 12.6 | 69.6 | 87.1 |
| 9 | 13 PFOSA | 498.1 > 77.8 | 1.50e3 | 2.15e3 | 0.125 | | 4.72 | 4.64 | 8.70 | 59.6 | 74.6 |
| 10 | 14 L-PFOS | 499 > 79.9 | 1.95e3 | 2.79e3 | 0.125 | | 4.76 | 4.68 | 8.73 | 60.6 | 75.7 |
| 11 | 16 PFDA | 513 > 468.8 | 1.03e4 | 9.27e3 | 0.125 | | 5.05 | 4.98 | 13.8 | 81.8 | 102.2 |
| 12 | 18 N-MeFOSAA | 570.1 > 419 | 3.52e3 | 3.11e3 | 0.125 | | 5.21 | 5.13 | 14.2 | 71.5 | 89.4 |
| 13 | 19 N-EtFOSAA | 584.2 > 419 | 2.66e3 | 3.36e3 | 0.125 | | 5.37 | 5.29 | 9.87 | 62.2 | 77.8 |
| 14 | 20 PFUnA | 563.0 > 518.9 | 8.48e3 | 1.05e4 | 0.125 | | 5.38 | 5.31 | 10.1 | 70.7 | 88.3 |
| 15 | 21 PFDS | 598.8 > 80 | 2.05e3 | 1.05e4 | 0.125 | | 5.43 | 5.36 | 2.44 | 99.7 | 124.6 |
| 16 | 22 PFDoA | 612.9 > 569.0 | 1.12e4 | 1.15e4 | 0.125 | | 5.67 | 5.60 | 12.2 | 76.6 | 95.7 |
| 17 | 24 PFTrDA | 662.9 > 618.9 | 1.41e4 | 1.15e4 | 0.125 | | 5.92 | 5.86 | 15.4 | 91.7 | 114.6 |

Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Friday, October 27, 2017 13:12:38 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

| 2 3 4 5 | 25 PFTeDA 31 13C3-PFBA 32 13C3-PFPeA 33 13C3-PFBS 34 13C2-PFHxA | 712.9 > 668.8 216.1 > 171.8 266. > 221.8 302. > 98.8 | 1.25e4 7.51e3 8.00e3 | 1.30e4 9.00e3 | 0.125 | | 6.13 | 6.07 | 12.1 | 58.2 | 72.8 |
|------------------|---|---|----------------------------|------------------|-------|-------|------|------|-------|------|-------|
| 4 5 | 32 13C3-PFPeA 33 13C3-PFBS 34 13C2-PFHxA | 266. > 221.8 | | 9.00e3 | 0.405 | | | | | | |
| 4 5 | 33 13C3-PFBS 34 13C2-PFHxA | | 8.00e3 | | 0.125 | 0.928 | 1.33 | 1.23 | 10.4 | 89.9 | 89.9 |
| 5 | 34 13C2-PFHxA | 302. > 98.8 | | 1.33e4 | 0.125 | 0.757 | 2.31 | 2.21 | 7.50 | 79.3 | 79.3 |
| | | | 9.89e2 | 1.33e4 | 0.125 | 0.091 | 2.59 | 2.50 | 0.928 | 81.8 | 81.8 |
| 6 | | 315 > 269.8 | 3.27e3 | 1.33e4 | 0.125 | 0.739 | 3.08 | 3.00 | 3.07 | 33.2 | 83.1 |
| | 35 13C4-PFHpA | 367.2 > 321.8 | 7.73e3 | 1.33e4 | 0.125 | 0.684 | 3.70 | 3.62 | 7.25 | 84.8 | 84.8 |
| 6 7 | 36 18O2-PFHxS | 403.0 > 102.6 | 8.12e2 | 2.39e3 | 0.125 | 0.412 | 3.85 | 3.78 | 4.25 | 82.4 | 82.4 |
| 8 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.57e3 | 1.18e4 | 0.125 | 0.248 | 4.18 | 4.10 | 2.71 | 87.6 | 87.6 |
| 9 | 38 13C2-PFOA | 414.9 > 369.7 | 1.09e4 | 1.18e4 | 0.125 | 1.120 | 4.23 | 4.15 | 11.6 | 82.5 | 82.5 |
| 10 | 39 13C5-PFNA | 468.2 > 422.9 | 9.79e3 | 1.29e4 | 0.125 | 0.929 | 4.67 | 4.59 | 9.49 | 81.7 | 81.7 |
| 11 | 40 13C8-PFOSA | 506.1 > 77.7 | 2.15e3 | 1.51e4 | 0.125 | 0.246 | 4.72 | 4.65 | 1.78 | 57.8 | 57.8 |
| 12 | 41 13C8-PFOS | 507.0 > 79.9 | 2.79e3 | 2.78e3 | 0.125 | 1.027 | 4.76 | 4.68 | 12.5 | 97.7 | 97.7 |
| 13 | 42 13C2-PFDA | 515.1 > 469.9 | 9.27e3 | 1.43e4 | 0.125 | 0.946 | 5.05 | 4.98 | 8.12 | 68.7 | 68.7 |
| 14 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 2.36e3 | 1.43e4 | 0.125 | 0.171 | 5.03 | 4.95 | 2.07 | 96.6 | 96.6 |
| 15 | 44 d3-N-MeFOSAA | 573.3 > 419 | 3.11e3 | 1.51e4 | 0.125 | 0.358 | 5.20 | 5.13 | 2.57 | 57.6 | 57.6 |
| 16 | 45 d5-N-EtFOSAA | 589.3 > 419 | 3.36e3 | 1.51e4 | 0.125 | 0.360 | 5.36 | 5.29 | 2.78 | 61.9 | 61.9 |
| 17 | 46 13C2-PFUdA | 565 > 519.8 | 1.05e4 | 1.51e4 | 0.125 | 1.045 | 5.38 | 5.31 | 8.68 | 66.4 | 66.4 |
| 18 | 47 13C2-PFDoA | 615.0 > 569.7 | 1.15e4 | 1.51e4 | 0.125 | 1.141 | 5.67 | 5.60 | 9.50 | 66.6 | 66.6 |
| 19 | 49 13C2-PFTeDA | 714.8 > 669.6 | 1.30e4 | 1.51e4 | 0.125 | 0.934 | 6.13 | 6.07 | 10.7 | 92.0 | 92.0 |
| 20 | 54 13C4-PFBA | 217. > 171.8 | 9.00e3 | 9.00e3 | 0.125 | 1.000 | 1.33 | 1.23 | 12.5 | 100 | 100.0 |
| 21 | 55 13C5-PFHxA | 318 > 272.9 | 1.33e4 | 1.33e4 | 0.125 | 1.000 | 3.08 | 2.99 | 12.5 | 100 | 100.0 |
| 22 | 56 13C3-PFHxS | 401.9 > 79.9 | 2.39e3 | 2.39e3 | 0.125 | 1.000 | 3.85 | 3.78 | 12.5 | 100 | 100.0 |
| 23 | 57 13C8-PFOA | 421.3 > 376 | 1.18e4 | 1.18e4 | 0.125 | 1.000 | 4.23 | 4.15 | 12.5 | 100 | 100.0 |
| 24 | 58 13C9-PFNA | 472.2 > 426.9 | 1.29e4 | 1.29e4 | 0.125 | 1.000 | 4.67 | 4.59 | 12.5 | 100 | 100.0 |
| 25 | 59 13C4-PFOS | 503 > 79.9 | 2.78e3 | 2.78e3 | 0.125 | 1.000 | 4.76 | 4.68 | 12.5 | 100 | 100.0 |
| 26 | 60 13C6-PFDA | 519.1 > 473.7 | 1.43e4 | 1.43e4 | 0.125 | 1.000 | 5.05 | 4.98 | 12.5 | 100 | 100.0 |
| 27 | 61 13C7-PFUnA | 570.1 > 524.8 | 1.51e4 | 1.51e4 | 0.125 | 1.000 | 5.38 | 5.31 | 12.5 | 100 | 100.0 |
| 28 | 62 Total PFHxS | 398.9 > 79.6 | | 8.12e2 | | | | | | | |
| 29 | 63 Total PFOA | 413 > 368.7 | 8.48e3 | 1.09e4 | 0.125 | | 4.23 | | 9.69 | 66.7 | |
| 30 | 64 Total PFOS | 499 > 79.9 | 1.95e3 | 2.79e3 | 0.125 | | 4.67 | | 8.73 | 60.6 | |
| 31 | 65 Total N-MeFOSAA | 570.1 > 419 | 3.52e3 | 3.11e3 | 0.125 | | 5.21 | | 14.2 | 71.5 | |
| 32 | 66 Total N-EtFOSAA | 584.2 > 419 | 2.66e3 | 3.36e3 | 0.125 | | 5.37 | | 9.87 | 62.2 | |

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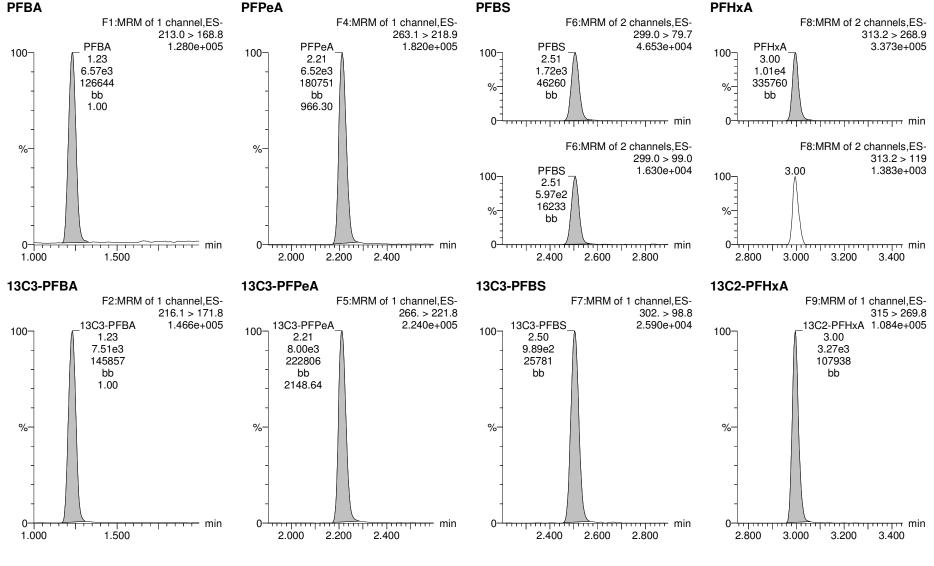
Rev'd: MM 10/29/17

Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 11:45:01 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR



AC 10/27/17

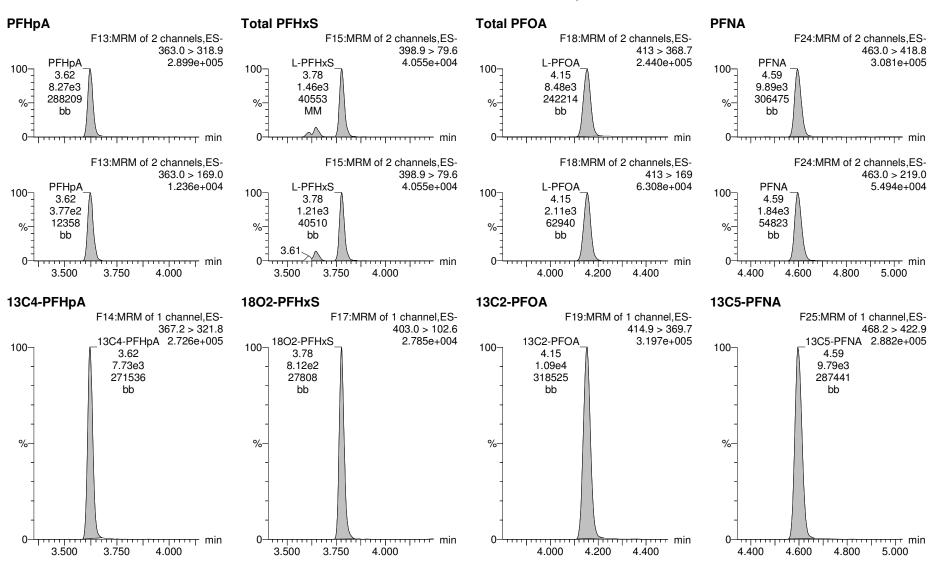
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Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR



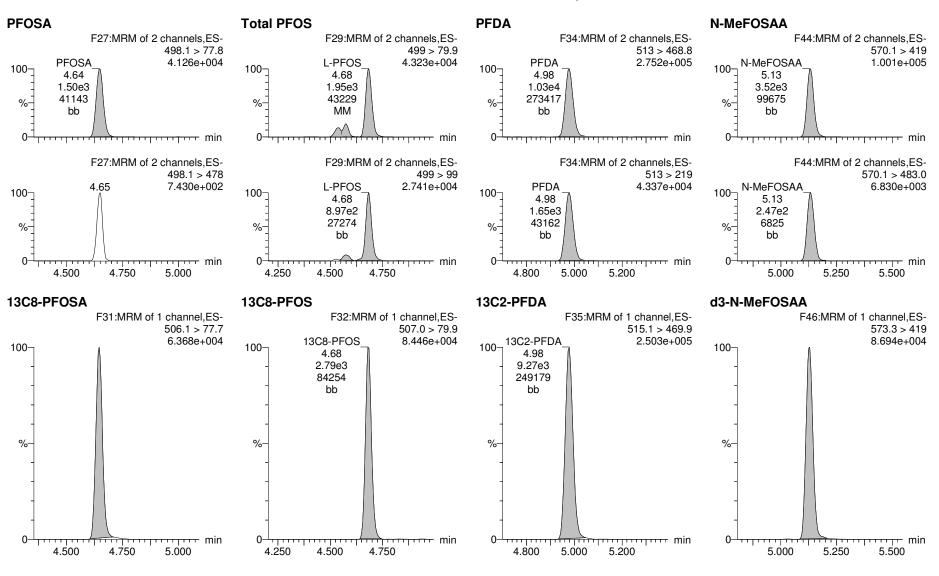
AC 10/27/17

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Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR



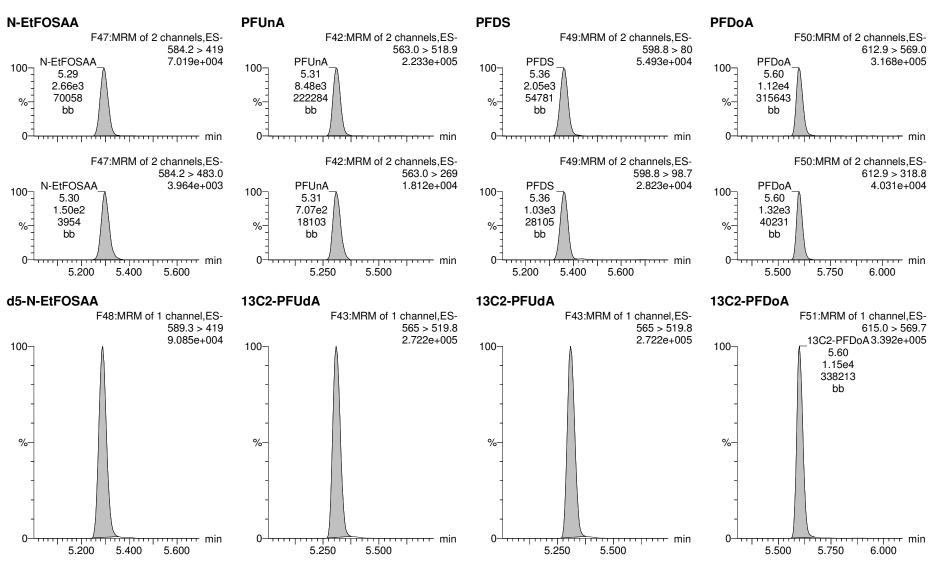
AC 10/27/17

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Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR



AC 10/27/17

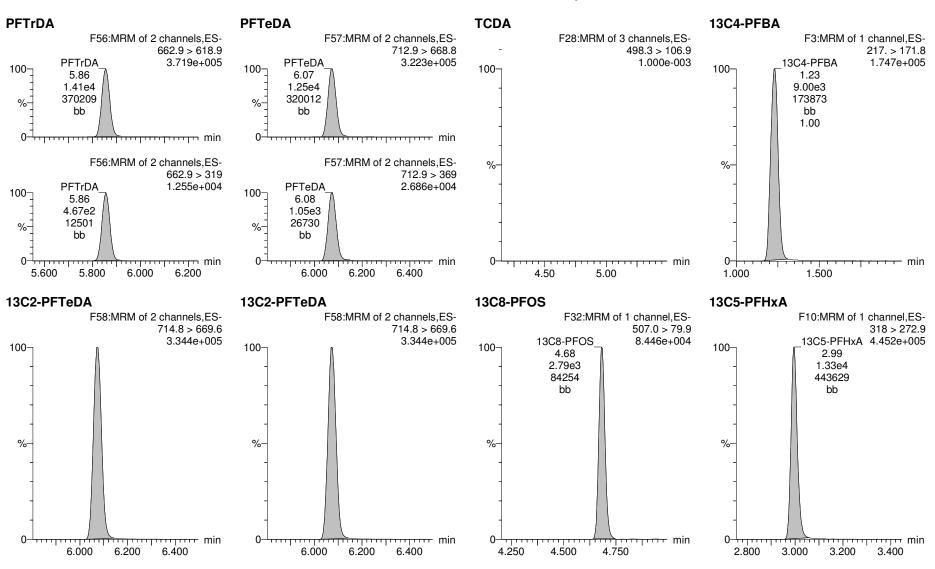
Work Order 1701439 Revision 1 Page 39 of 402

Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Quantify Sample Report

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Printed: Friday, October 27, 2017 13:05:00 Pacific Daylight Time

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR



AC 10/27/17

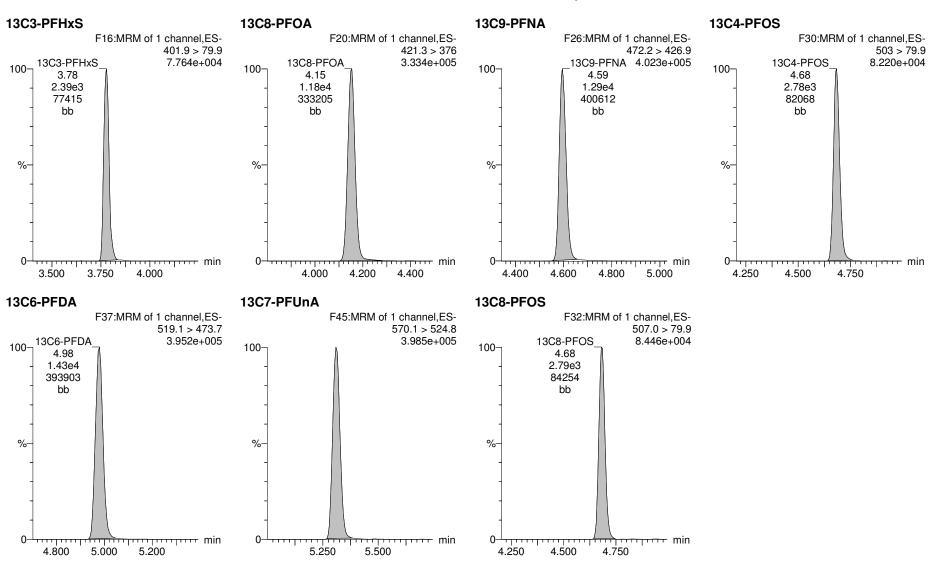
Work Order 1701439 Revision 1 Page 40 of 402

Dataset: U:\Q4.PRO\results\171026M1\171026M1-16.qld

Quantify Sample Report

Last Altered: Friday, October 27, 2017 12:58:27 Pacific Daylight Time Friday, October 27, 2017 13:05:00 Pacific Daylight Time

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR



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Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:13:39 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----|--------------|---------------|--------|---------|----------|-----|---------|------|--------------|-------|------|
| 1 | 1 PFBA | 213.0 > 168.8 | | 5.56e3 | 0.1201 | | 1.64 | | | | |
| 2 | 2 PFPeA | 263.1 > 218.9 | | 6.35e3 | 0.1201 | | 2.63 | | | | |
| 3 | 3 PFBS | 299.0 > 79.7 | | 7.60e2 | 0.1201 | | 2.89 | | | | |
| 4 | 4 PFHxA | 313.2 > 268.9 | | 2.44e3 | 0.1201 | | 3.39 | | | | |
| 5 | 5 PFHpA | 363.0 > 318.9 | | 5.68e3 | 0.1201 | | 4.02 | | | | |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 1.24e0 | 5.56e2 | 0.1201 | | 4.16 | 3.95 | 0.0278 | | |
| 7 | 9 L-PFOA | 413 > 368.7 | | 7.95e3 | 0.1201 | | 4.53 | | | | |
| 8 | 12 PFNA | 463.0 > 418.8 | | 6.45e3 | 0.1201 | | 4.96 | | | | |
| 9 | 13 PFOSA | 498.1 > 77.8 | | 1.66e3 | 0.1201 | | 5.01 | | | | |
| 10 | 14 L-PFOS | 499 > 79.9 | | 1.67e3 | 0.1201 | | 5.03 | | | | |
| 11 | 16 PFDA | 513 > 468.8 | | 5.46e3 | 0.1201 | | 5.33 | | | | |
| 12 | 18 N-MeFOSAA | 570.1 > 419 | | 2.46e3 | 0.1201 | | 5.48 | | | | |
| 13 | 19 N-EtFOSAA | 584.2 > 419 | | 2.68e3 | 0.1201 | | 5.63 | | | | |
| 14 | 20 PFUdA | 563.0 > 518.9 | | 6.67e3 | 0.1201 | | 5.65 | | | | |
| 15 | 21 PFDS | 598.8 > 80 | | 6.67e3 | 0.1201 | | 5.70 | | | | |
| 16 | 22 PFDoA | 612.9 > 569.0 | | 9.23e3 | 0.1201 | | 5.92 | | | | |
| 17 | 24 PFTrDA | 662.9 > 618.9 | | 9.23e3 | 0.1201 | | 6.16 | | | | |

Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Wednesday, November 08, 2017 16:13:52 Pacific Standard Time

 $Method: U: \Q4.PRO\\MethDB\\PFAS_FULL_80C_110617_AC.mdb\ 07\ Nov\ 2017\ 07:51:36$

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----|-----------------|---------------|--------|---------|----------|-------|---------|------|--------------|---------|-------|
| 1 | 25 PFTeDA | 712.9 > 668.8 | | 1.06e4 | 0.1201 | | 6.36 | | | | |
| 2 | 31 13C3-PFBA | 216.1 > 171.8 | 5.56e3 | 6.93e3 | 0.1201 | 0.949 | 1.64 | 1.43 | 10.0 | 87.985 | 84.5 |
| 3 | 32 13C3-PFPeA | 266. > 221.8 | 6.35e3 | 9.74e3 | 0.1201 | 0.781 | 2.63 | 2.41 | 8.16 | 86.959 | 83.5 |
| 4 | 33 13C3-PFBS | 302. > 98.8 | 7.60e2 | 9.74e3 | 0.1201 | 0.089 | 2.89 | 2.69 | 0.975 | 91.705 | 88.1 |
| 5 | 34 13C2-PFHxA | 315 > 269.8 | 2.44e3 | 9.74e3 | 0.1201 | 0.755 | 3.39 | 3.18 | 3.13 | 34.482 | 82.8 |
| 6 | 35 13C4-PFHpA | 367.2 > 321.8 | 5.68e3 | 9.74e3 | 0.1201 | 0.711 | 4.02 | 3.81 | 7.29 | 85.435 | 82.1 |
| 7 | 36 18O2-PFHxS | 403.0 > 102.6 | 5.56e2 | 1.64e3 | 0.1201 | 0.423 | 4.16 | 3.96 | 4.24 | 83.500 | 80.2 |
| 8 | 38 13C2-PFOA | 414.9 > 369.7 | 7.95e3 | 7.77e3 | 0.1201 | 1.310 | 4.53 | 4.33 | 12.8 | 81.393 | 78.2 |
| 9 | 39 13C5-PFNA | 468.2 > 422.9 | 6.45e3 | 8.38e3 | 0.1201 | 0.979 | 4.96 | 4.76 | 9.63 | 81.872 | 78.6 |
| 10 | 40 13C8-PFOSA | 506.1 > 77.7 | 1.66e3 | 9.71e3 | 0.1201 | 0.207 | 5.01 | 4.82 | 2.14 | 86.222 | 82.8 |
| 11 | 41 13C8-PFOS | 507.0 > 79.9 | 1.67e3 | 1.58e3 | 0.1201 | 1.072 | 5.03 | 4.85 | 13.2 | 102.788 | 98.7 |
| 12 | 42 13C2-PFDA | 515.1 > 469.9 | 5.46e3 | 9.41e3 | 0.1201 | 1.014 | 5.33 | 5.14 | 7.26 | 59.607 | 57.3 |
| 13 | 44 d3-N-MeFOSAA | 573.3 > 419 | 2.46e3 | 9.71e3 | 0.1201 | 0.368 | 5.48 | 5.29 | 3.16 | 71.609 | 68.8 |
| 14 | 45 d5-N-EtFOSAA | 589.3 > 419 | 2.68e3 | 9.71e3 | 0.1201 | 0.389 | 5.63 | 5.44 | 3.45 | 73.908 | 71.0 |
| 15 | 46 13C2-PFUdA | 565 > 519.8 | 6.67e3 | 9.71e3 | 0.1201 | 0.983 | 5.65 | 5.46 | 8.59 | 72.764 | 69.9 |
| 16 | 47 13C2-PFDoA | 615.0 > 569.7 | 9.23e3 | 9.71e3 | 0.1201 | 0.997 | 5.92 | 5.74 | 11.9 | 99.319 | 95.4 |
| 17 | 49 13C2-PFTeDA | 714.8 > 669.6 | 1.06e4 | 9.71e3 | 0.1201 | 1.039 | 6.36 | 6.20 | 13.7 | 109.750 | 105.4 |

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Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

Calibration: U:\Q4.PRO\CurveDB\C18 VAL-PFAS Q4 10-31-17-FULL OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----|--------------------|---------------|--------|---------|----------|-------|---------|------|--------------|---------|-------|
| 1 | 54 13C4-PFBA | 217. > 171.8 | 6.93e3 | 6.93e3 | 0.1201 | 1.000 | 1.64 | 1.43 | 12.5 | 104.115 | 100.0 |
| 2 | 55 13C5-PFHxA | 318 > 272.9 | 9.74e3 | 9.74e3 | 0.1201 | 1.000 | 3.39 | 3.18 | 12.5 | 104.115 | 100.0 |
| 3 | 56 13C3-PFHxS | 401.9 > 79.9 | 1.64e3 | 1.64e3 | 0.1201 | 1.000 | 4.16 | 3.95 | 12.5 | 104.115 | 100.0 |
| 4 | 57 13C8-PFOA | 421.3 > 376 | 7.77e3 | 7.77e3 | 0.1201 | 1.000 | 4.53 | 4.33 | 12.5 | 104.115 | 100.0 |
| 5 | 58 13C9-PFNA | 472.2 > 426.9 | 8.38e3 | 8.38e3 | 0.1201 | 1.000 | 4.96 | 4.76 | 12.5 | 104.115 | 100.0 |
| 6 | 59 13C4-PFOS | 503 > 79.9 | 1.58e3 | 1.58e3 | 0.1201 | 1.000 | 5.03 | 4.85 | 12.5 | 104.115 | 100.0 |
| 7 | 60 13C6-PFDA | 519.1 > 473.7 | 9.41e3 | 9.41e3 | 0.1201 | 1.000 | 5.33 | 5.14 | 12.5 | 104.115 | 100.0 |
| 8 | 61 13C7-PFUdA | 570.1 > 524.8 | 9.71e3 | 9.71e3 | 0.1201 | 1.000 | 5.65 | 5.46 | 12.5 | 104.115 | 100.0 |
| 9 | 62 Total PFHxS | 398.9 > 79.6 | 1.24e0 | 5.56e2 | 0.1201 | | 4.16 | | 0.000 | | |
| 10 | 63 Total PFOA | 413 > 368.7 | 0.00e0 | 7.95e3 | 0.1201 | | 4.53 | | 0.000 | | |
| 11 | 64 Total PFOS | 499 > 79.9 | 0.00e0 | 1.67e3 | 0.1201 | | 5.03 | | 0.000 | | |
| 12 | 65 Total N-MeFOSAA | 570.1 > 419 | 0.00e0 | 2.46e3 | 0.1201 | | 5.48 | | 0.000 | | |
| 13 | 66 Total N-EtFOSAA | 584.2 > 419 | 0.00e0 | 2.68e3 | 0.1201 | | 5.63 | | 0.000 | | |
| 14 | 67 TCDA | 498.3>106.9 | | | 0.1201 | | 4.76 | | | | |

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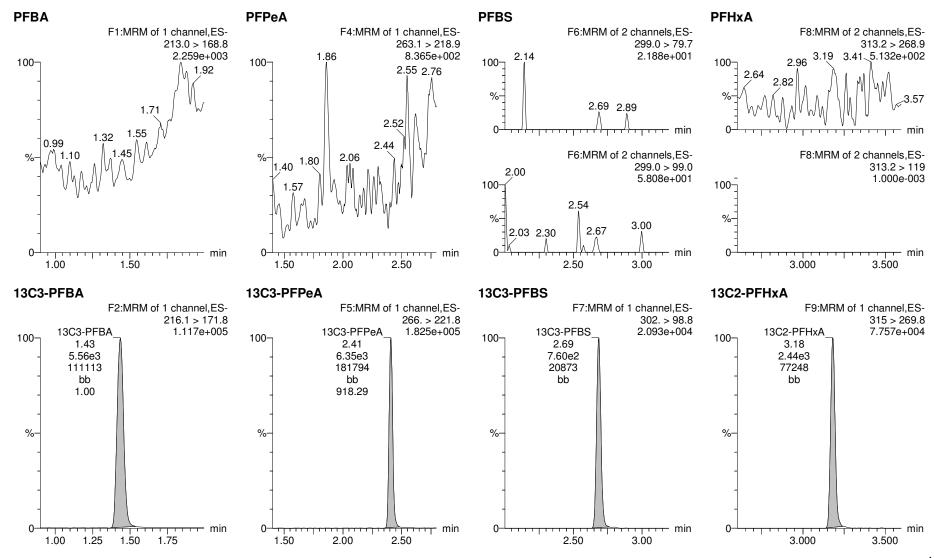
Rev'd: MM 11/9/17

Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS FULL 80C 110617 AC.mdb 07 Nov 2017 07:51:36 Calibration: U:\Q4.PRO\CurveDB\C18 VAL-PFAS Q4 10-31-17-FULL OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2 4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05 20171005 0.125, Description: FRB05 20171005



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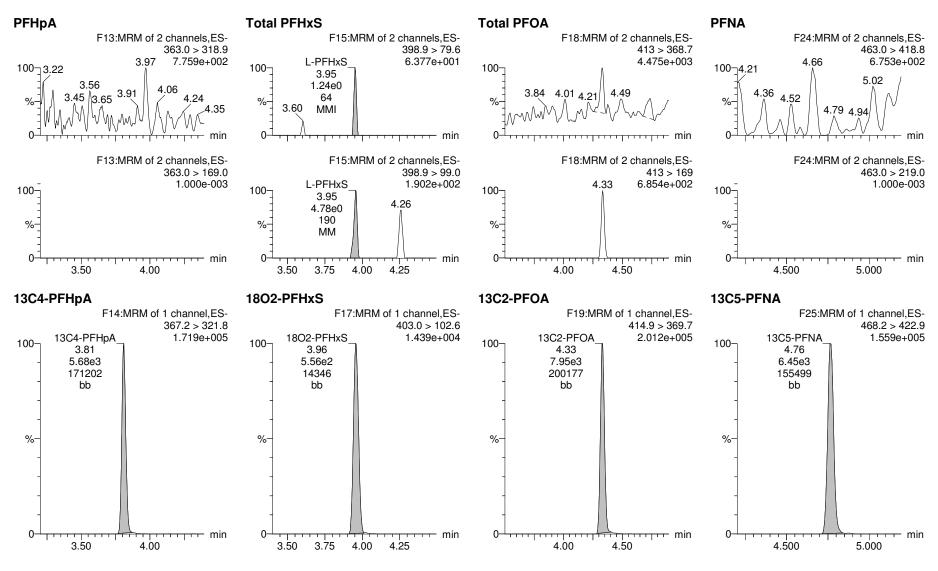
Rev'd: MM 11/9/17

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Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005



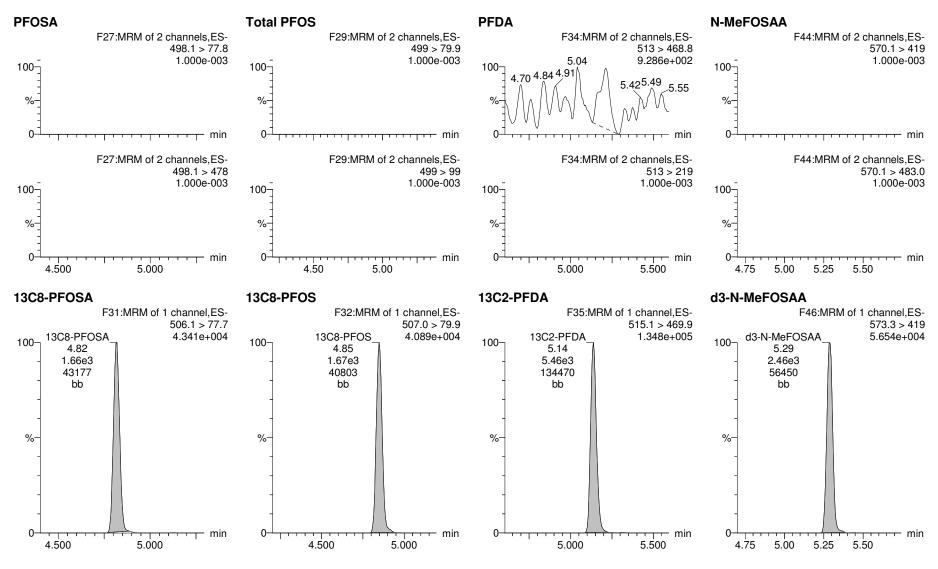
LA 11/8/2017

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Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005



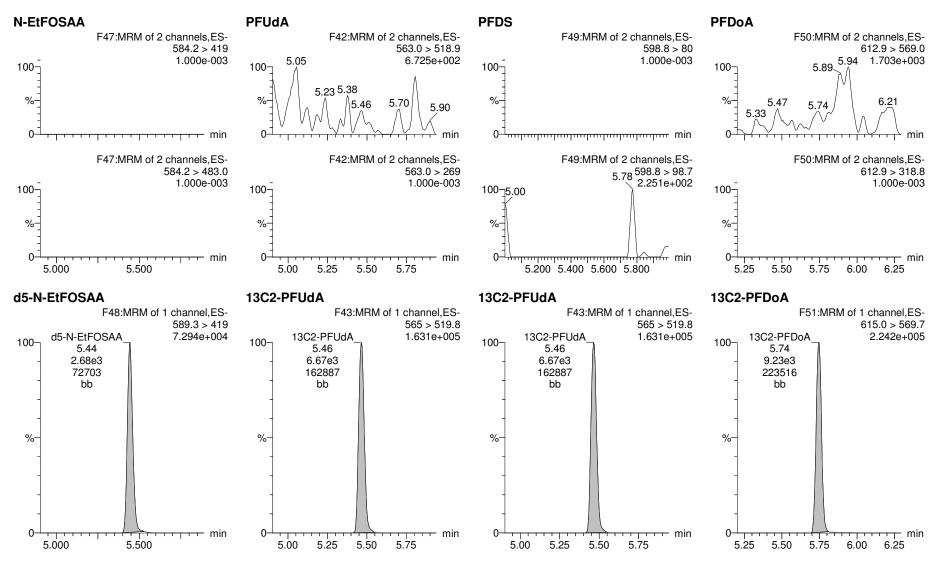
LA 11/8/2017

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Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005



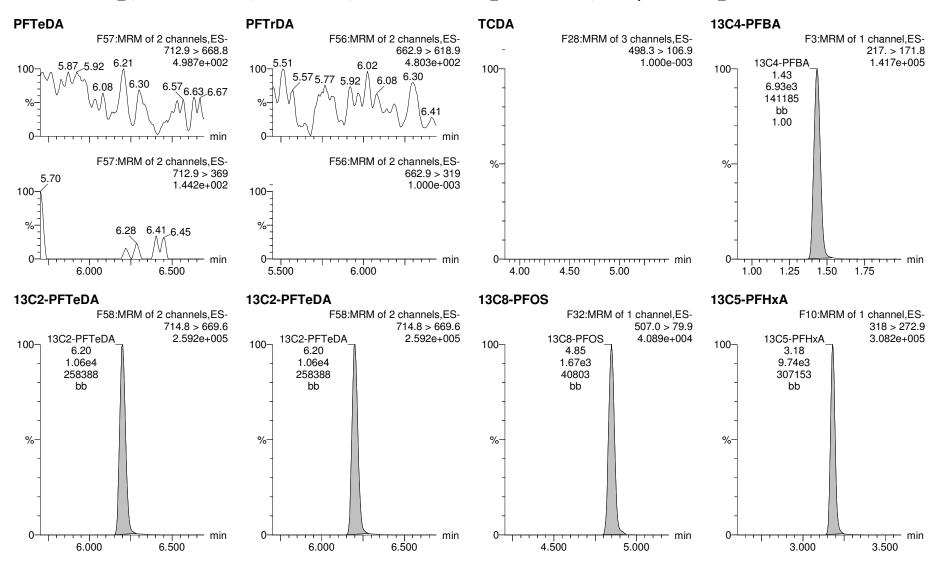
LA 11/8/2017

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Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

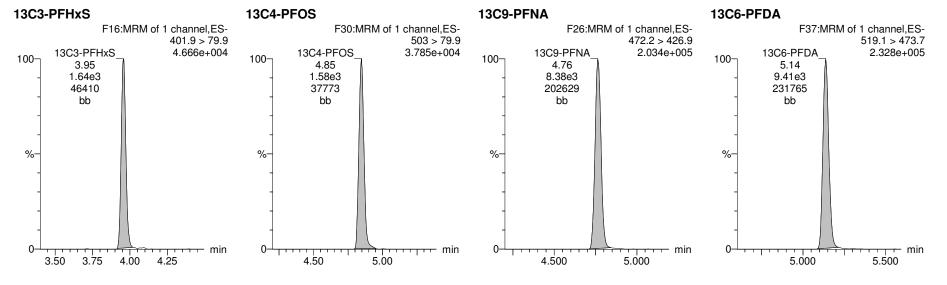
Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005



Dataset: U:\Q4.PRO\results\171107M2\171107M2-4.qld

Last Altered: Wednesday, November 08, 2017 10:31:11 Pacific Standard Time Printed: Wednesday, November 08, 2017 16:14:07 Pacific Standard Time

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005



Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Printed: Friday, November 03, 2017 16:04:20 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----|--------------|---------------|--------|---------|----------|-----|---------|------|--------------|-------|------|
| 1 | 1 PFBA | 213.0 > 168.8 | | 6.04e3 | 0.1195 | | 1.17 | | | | |
| 2 | 2 PFPeA | 263.1 > 218.9 | | 6.30e3 | 0.1195 | | 2.15 | | | | |
| 3 | 3 PFBS | 299.0 > 79.7 | | 7.82e2 | 0.1195 | | 2.44 | | | | |
| 4 | 4 PFHxA | 313.2 > 268.9 | | 2.41e3 | 0.1195 | | 2.93 | | | | |
| 5 | 5 PFHpA | 363.0 > 318.9 | | 5.87e3 | 0.1195 | | 3.56 | | | | |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 2.29e0 | 6.18e2 | 0.1195 | | 3.71 | 3.59 | 0.0462 | | |
| 7 | 9 L-PFOA | 413 > 368.7 | | 7.84e3 | 0.1195 | | 4.05 | | | | |
| 8 | 12 PFNA | 463.0 > 418.8 | | 6.26e3 | 0.1195 | | 4.55 | | | | |
| 9 | 13 PFOSA | 498.1 > 77.8 | | 1.20e3 | 0.1195 | | 4.59 | | | | |
| 10 | 14 L-PFOS | 499 > 79.9 | | 1.60e3 | 0.1195 | | 4.63 | | | | |
| 11 | 16 PFDA | 513 > 468.8 | | 6.06e3 | 0.1195 | | 4.92 | | | | |
| 12 | 18 N-MeFOSAA | 570.1 > 419 | | 2.47e3 | 0.1195 | | 5.08 | | | | |
| 13 | 19 N-EtFOSAA | 584.2 > 419 | | 2.61e3 | 0.1195 | | 5.24 | | | | |
| 14 | 20 PFUdA | 563.0 > 518.9 | | 7.33e3 | 0.1195 | | 5.25 | | | | |
| 15 | 21 PFDS | 598.8 > 80 | | 7.33e3 | 0.1195 | | 5.31 | | | | |
| 16 | 22 PFDoA | 612.9 > 569.0 | | 8.18e3 | 0.1195 | | 5.55 | | | | |
| 17 | 24 PFTrDA | 662.9 > 618.9 | | 8.18e3 | 0.1195 | | 5.80 | | | | |

Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

| | # Name | Trace | Area | IS Area | Wt./Vol. | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----|--------------------|---------------|--------|---------|----------|-------|---------|------|--------------|---------|-------|
| 1 | 25 PFTeDA | 712.9 > 668.8 | | 5.82e3 | 0.1195 | | 6.02 | | | | |
| 2 | 31 13C3-PFBA | 216.1 > 171.8 | 6.04e3 | 7.38e3 | 0.1195 | 0.949 | 1.17 | 1.07 | 10.2 | 90.229 | 86.2 |
| 3 | 32 13C3-PFPeA | 266. > 221.8 | 6.30e3 | 9.34e3 | 0.1195 | 0.781 | 2.15 | 2.02 | 8.43 | 90.342 | 86.3 |
| 4 | 33 13C3-PFBS | 302. > 98.8 | 7.82e2 | 9.34e3 | 0.1195 | 0.089 | 2.44 | 2.31 | 1.05 | 98.952 | 94.6 |
| 5 | 34 13C2-PFHxA | 315 > 269.8 | 2.41e3 | 9.34e3 | 0.1195 | 0.755 | 2.93 | 2.81 | 3.23 | 35.812 | 85.6 |
| 6 | 35 13C4-PFHpA | 367.2 > 321.8 | 5.87e3 | 9.34e3 | 0.1195 | 0.711 | 3.56 | 3.43 | 7.85 | 92.422 | 88.3 |
| 7 | 36 18O2-PFHxS | 403.0 > 102.6 | 6.18e2 | 1.69e3 | 0.1195 | 0.423 | 3.71 | 3.59 | 4.57 | 90.316 | 86.3 |
| 8 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 1.93e3 | 8.18e3 | 0.1195 | 0.286 | 4.03 | 3.91 | 2.95 | 86.382 | 82.6 |
| 9 | 38 13C2-PFOA | 414.9 > 369.7 | 7.84e3 | 8.18e3 | 0.1195 | 1.310 | 4.05 | 3.96 | 12.0 | 76.597 | 73.2 |
| 10 | 39 13C5-PFNA | 468.2 > 422.9 | 6.26e3 | 8.53e3 | 0.1195 | 0.979 | 4.55 | 4.41 | 9.17 | 78.373 | 74.9 |
| 11 | 40 13C8-PFOSA | 506.1 > 77.7 | 1.20e3 | 1.03e4 | 0.1195 | 0.207 | 4.59 | 4.47 | 1.45 | 58.733 | 56.1 |
| 12 | 41 13C8-PFOS | 507.0 > 79.9 | 1.60e3 | 2.00e3 | 0.1195 | 1.072 | 4.63 | 4.50 | 10.0 | 78.088 | 74.6 |
| 13 | 42 13C2-PFDA | 515.1 > 469.9 | 6.06e3 | 1.06e4 | 0.1195 | 1.014 | 4.92 | 4.80 | 7.12 | 58.767 | 56.2 |
| 14 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 1.98e3 | 1.06e4 | 0.1195 | 0.216 | 4.89 | 4.76 | 2.33 | 90.286 | 86.3 |
| 15 | 44 d3-N-MeFOSAA | 573.3 > 419 | 2.47e3 | 1.03e4 | 0.1195 | 0.368 | 5.08 | 4.95 | 2.98 | 67.821 | 64.8 |
| 16 | 45 d5-N-EtFOSAA | 589.3 > 419 | 2.61e3 | 1.03e4 | 0.1195 | 0.389 | 5.24 | 5.11 | 3.15 | 67.850 | 64.8 |
| 17 | 46 13C2-PFUdA | 565 > 519.8 | 7.33e3 | 1.03e4 | 0.1195 | 0.983 | 5.25 | 5.13 | 8.87 | 75.499 | 72.2 |
| 18 | 47 13C2-PFDoA | 615.0 > 569.7 | 8.18e3 | 1.03e4 | 0.1195 | 0.997 | 5.55 | 5.42 | 9.89 | 83.023 | 79.3 |
| 19 | 49 13C2-PFTeDA | 714.8 > 669.6 | 5.82e3 | 1.03e4 | 0.1195 | 1.039 | 6.02 | 5.90 | 7.03 | 56.616 | 54.1 |
| 20 | 54 13C4-PFBA | 217. > 171.8 | 7.38e3 | 7.38e3 | 0.1195 | 1.000 | 1.17 | 1.07 | 12.5 | 104.629 | 100.0 |
| 21 | 55 13C5-PFHxA | 318 > 272.9 | 9.34e3 | 9.34e3 | 0.1195 | 1.000 | 2.93 | 2.81 | 12.5 | 104.629 | 100.0 |
| 22 | 56 13C3-PFHxS | 401.9 > 79.9 | 1.69e3 | 1.69e3 | 0.1195 | 1.000 | 3.71 | 3.59 | 12.5 | 104.629 | 100.0 |
| 23 | 57 13C8-PFOA | 421.3 > 376 | 8.18e3 | 8.18e3 | 0.1195 | 1.000 | 4.05 | 3.96 | 12.5 | 104.629 | 100.0 |
| 24 | 58 13C9-PFNA | 472.2 > 426.9 | 8.53e3 | 8.53e3 | 0.1195 | 1.000 | 4.55 | 4.41 | 12.5 | 104.629 | 100.0 |
| 25 | 59 13C4-PFOS | 503 > 79.9 | 2.00e3 | 2.00e3 | 0.1195 | 1.000 | 4.63 | 4.50 | 12.5 | 104.629 | 100.0 |
| 26 | 60 13C6-PFDA | 519.1 > 473.7 | 1.06e4 | 1.06e4 | 0.1195 | 1.000 | 4.92 | 4.80 | 12.5 | 104.629 | 100.0 |
| 27 | 61 13C7-PFUdA | 570.1 > 524.8 | 1.03e4 | 1.03e4 | 0.1195 | 1.000 | 5.25 | 5.13 | 12.5 | 104.629 | 100.0 |
| 28 | 62 Total PFHxS | 398.9 > 79.6 | 2.29e0 | 6.18e2 | 0.1195 | | 3.71 | | 0.000 | | |
| 29 | 63 Total PFOA | 413 > 368.7 | 0.00e0 | 7.84e3 | 0.1195 | | 4.05 | | 0.000 | | |
| 30 | 64 Total PFOS | 499 > 79.9 | 0.00e0 | 1.60e3 | 0.1195 | | 4.63 | | 0.000 | | |
| 31 | 65 Total N-MeFOSAA | 570.1 > 419 | 0.00e0 | 2.47e3 | 0.1195 | | 5.08 | | 0.000 | | |
| 32 | 66 Total N-EtFOSAA | 584.2 > 419 | 0.00e0 | 2.61e3 | 0.1195 | | 5.24 | | 0.000 | | |

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Vista Analytical Laboratory

Rev'd: MM 11/4/17

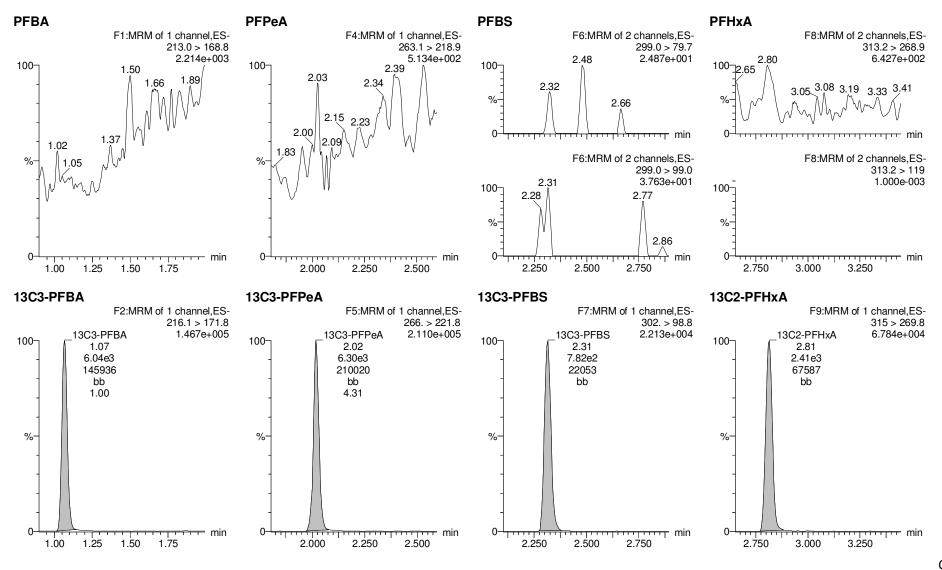
Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Friday, November 03, 2017 16:04:28 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006



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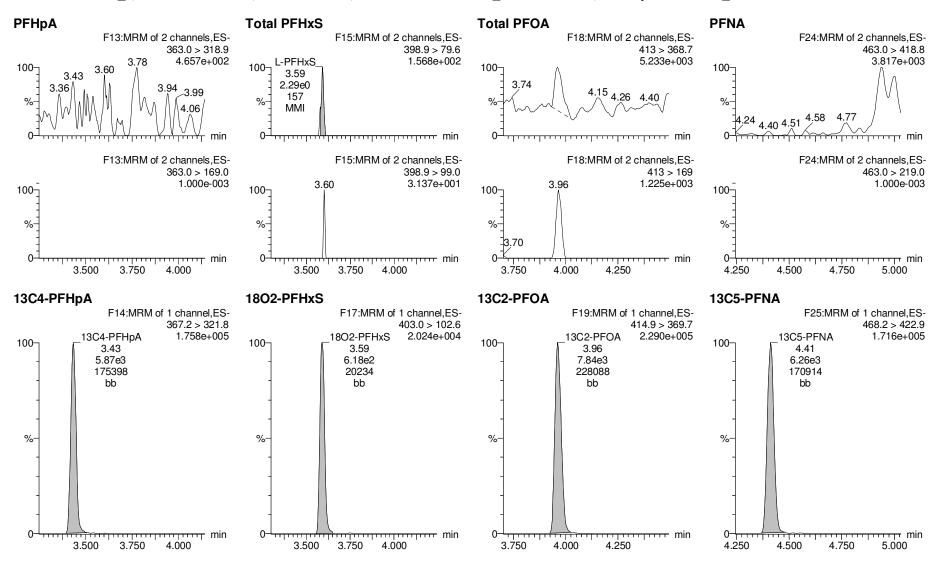
Work Order 1701439 Revision 1

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Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006



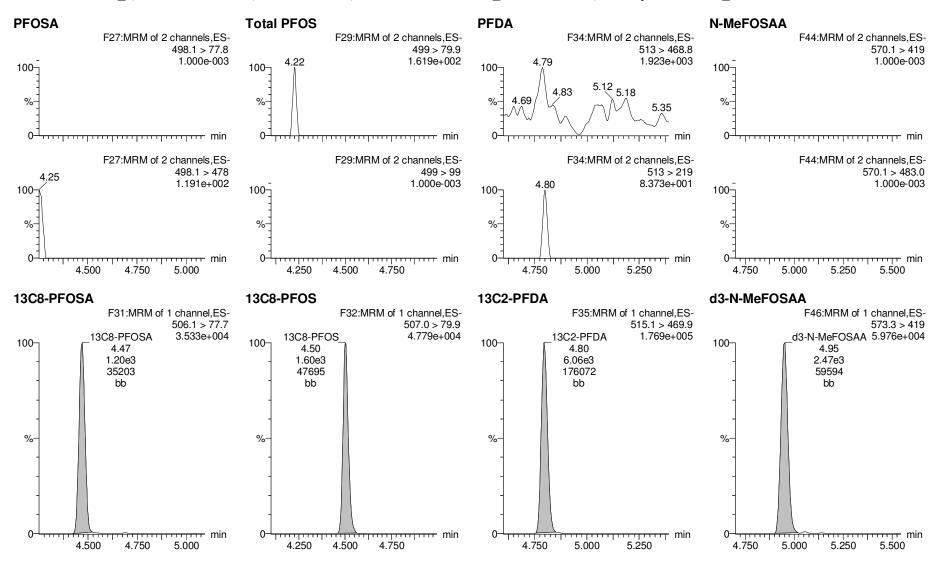
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Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

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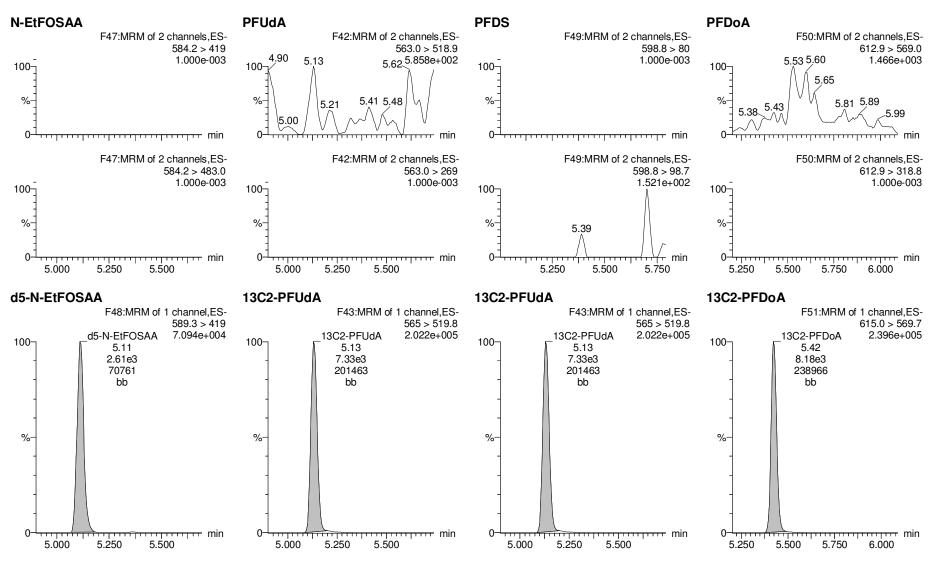


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Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

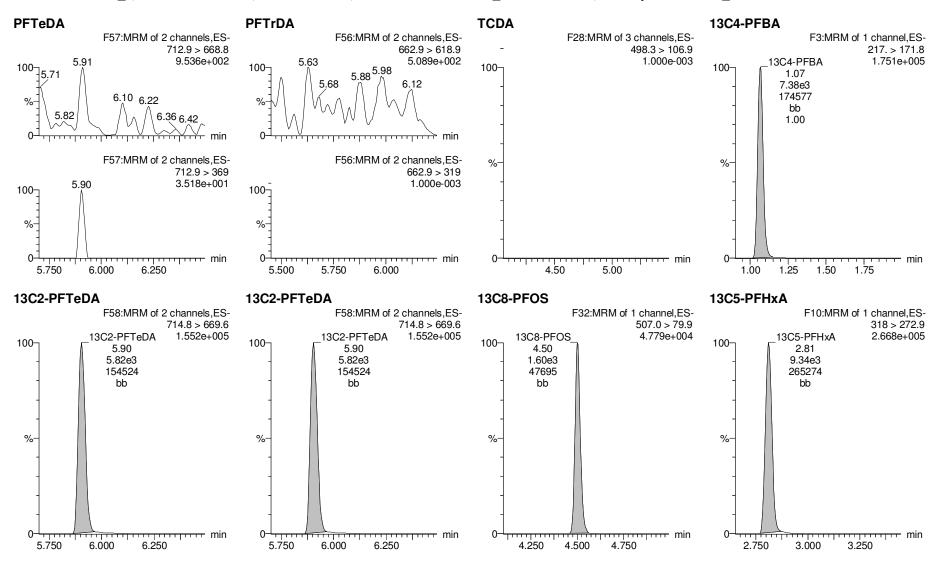
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Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

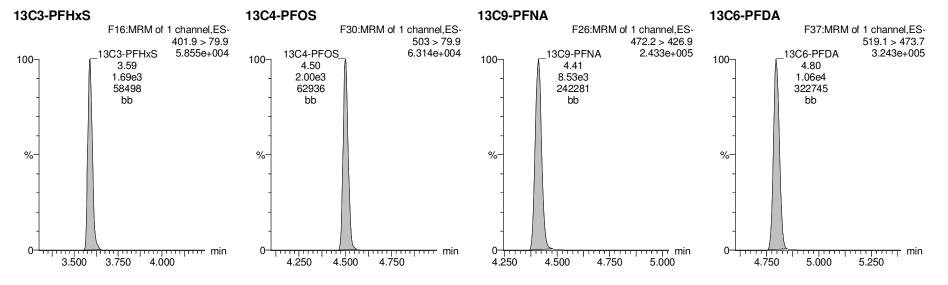


Work Order 1701439 Revision 1

Dataset: U:\Q4.PRO\results\171103M1\171103M1-5.qld

Last Altered: Friday, November 03, 2017 16:03:56 Pacific Daylight Time Printed: Friday, November 03, 2017 16:04:28 Pacific Daylight Time

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006



INJECTION INTERNAL STANDARD (IIS) AREAS, INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

Dataset: Untitled

Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Printed: Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS RS-10-27-17.mdb 27 Oct 2017 15:32:48

Calibration: 27 Oct 2017 15:35:32

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-6 PFC CS3 17J1806 | 9.46e3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-6 PFC CS3 17J1806 | 1.31e4 | 100.0 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-6 PFC CS3 17J1806 | 2.28e3 | 100.0 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-6 PFC CS3 17J1806 | 1.18e4 | 100.0 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-6 PFC CS3 17J1806 | 1.12e4 | 100.0 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-6 PFC CS3 17J1806 | 2.51e3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-6 PFC CS3 17J1806 | 1.20e4 | 100.0 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-6 PFC CS3 17J1806 | 1.38e4 | 100.0 | NO |

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17J2102

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-7 PFC CS4 17J2102 | 8.00e3 | 84.5 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-7 PFC CS4 17J2102 | 1.17e4 | 89.3 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-7 PFC CS4 17J2102 | 1.96e3 | 85.7 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-7 PFC CS4 17J2102 | 9.34e3 | 79.4 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-7 PFC CS4 17J2102 | 1.05e4 | 94.3 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-7 PFC CS4 17J2102 | 2.33e3 | 92.9 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-7 PFC CS4 17J2102 | 1.10e4 | 91.9 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-7 PFC CS4 17J2102 | 1.30e4 | 94.1 | NO |

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-8 PFC CS5 17J2101 | 7.89e3 | 83.3 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-8 PFC CS5 17J2101 | 9.83e3 | 75.0 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-8 PFC CS5 17J2101 | 1.91e3 | 83.6 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-8 PFC CS5 17J2101 | 9.00e3 | 76.5 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-8 PFC CS5 17J2101 | 9.96e3 | 89.1 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-8 PFC CS5 17J2101 | 2.00e3 | 80.0 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-8 PFC CS5 17J2101 | 1.03e4 | 86.1 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-8 PFC CS5 17J2101 | 1.00e4 | 72.3 | NO |

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17J2517

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-9 PFC CS6 17J2517 | 7.54e3 | 79.6 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-9 PFC CS6 17J2517 | 9.52e3 | 72.6 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-9 PFC CS6 17J2517 | 1.81e3 | 79.2 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-9 PFC CS6 17J2517 | 8.18e3 | 69.5 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-9 PFC CS6 17J2517 | 9.05e3 | 81.0 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-9 PFC CS6 17J2517 | 1.94e3 | 77.3 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-9 PFC CS6 17J2517 | 8.81e3 | 73.4 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-9 PFC CS6 17J2517 | 9.76e3 | 70.5 | NO |

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Name: 171026M1_11, Date: 26-Oct-2017, Time: 11:07:20, ID: ST171026M1-10 PFC CS7 17J2518, Description: PFC CS7 17J2518

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-10 PFC CS7 17J2518 | 7.99e3 | 84.5 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-10 PFC CS7 17J2518 | 9.61e3 | 73.3 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-10 PFC CS7 17J2518 | 1.76e3 | 77.0 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-10 PFC CS7 17J2518 | 9.10e3 | 77.3 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-10 PFC CS7 17J2518 | 9.34e3 | 83.5 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-10 PFC CS7 17J2518 | 1.80e3 | 72.0 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-10 PFC CS7 17J2518 | 1.02e4 | 85.1 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-10 PFC CS7 17J2518 | 1.04e4 | 74.8 | NO |

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ICV171026M1-1 PFC ICV 17I3003 | 8.85e3 | 93.5 | NO |
| 2 | 2 13C5-PFHxA | ICV171026M1-1 PFC ICV 17I3003 | 1.20e4 | 91.7 | NO |
| 3 | 3 13C3-PFHxS | ICV171026M1-1 PFC ICV 17I3003 | 2.17e3 | 94.8 | NO |
| 4 | 4 13C8-PFOA | ICV171026M1-1 PFC ICV 17I3003 | 1.14e4 | 96.5 | NO |
| 5 | 5 13C9-PFNA | ICV171026M1-1 PFC ICV 17I3003 | 1.20e4 | 107.0 | NO |
| 6 | 6 13C4-PFOS | ICV171026M1-1 PFC ICV 17I3003 | 2.51e3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ICV171026M1-1 PFC ICV 17I3003 | 1.25e4 | 104.5 | NO |
| 8 | 8 13C7-PFUnA | ICV171026M1-1 PFC ICV 17I3003 | 1.46e4 | 105.8 | NO |

Name: 171026M1 14, Date: 26-Oct-2017, Time: 11:41:12, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Dataset: Untitled

Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Name: 171026M1_15, Date: 26-Oct-2017, Time: 11:52:22, ID: B7J0122-BS1 OPR 0.125, Description: OPR

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0122-BS1 OPR 0.125 | 8.21e3 | 86.7 | NO |
| 2 | 2 13C5-PFHxA | B7J0122-BS1 OPR 0.125 | 1.13e4 | 86.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0122-BS1 OPR 0.125 | 2.22e3 | 97.1 | NO |
| 4 | 4 13C8-PFOA | B7J0122-BS1 OPR 0.125 | 1.05e4 | 89.6 | NO |
| 5 | 5 13C9-PFNA | B7J0122-BS1 OPR 0.125 | 1.16e4 | 104.1 | NO |
| 6 | 6 13C4-PFOS | B7J0122-BS1 OPR 0.125 | 2.60e3 | 103.6 | NO |
| 7 | 7 13C6-PFDA | B7J0122-BS1 OPR 0.125 | 1.19e4 | 99.2 | NO |
| 8 | 8 13C7-PFUnA | B7J0122-BS1 OPR 0.125 | 1.39e4 | 100.6 | NO |

Name: 171026M1_16, Date: 26-Oct-2017, Time: 12:03:33, ID: B7J0092-BS1 OPR 0.125, Description: OPR

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0092-BS1 OPR 0.125 | 9.00e3 | 95.2 | NO |
| 2 | 2 13C5-PFHxA | B7J0092-BS1 OPR 0.125 | 1.33e4 | 101.6 | NO |
| 3 | 3 13C3-PFHxS | B7J0092-BS1 OPR 0.125 | 2.39e3 | 104.7 | NO |
| 4 | 4 13C8-PFOA | B7J0092-BS1 OPR 0.125 | 1.18e4 | 100.5 | NO |
| 5 | 5 13C9-PFNA | B7J0092-BS1 OPR 0.125 | 1.29e4 | 115.4 | NO |
| 6 | 6 13C4-PFOS | B7J0092-BS1 OPR 0.125 | 2.78e3 | 111.1 | NO |
| 7 | 7 13C6-PFDA | B7J0092-BS1 OPR 0.125 | 1.43e4 | 118.8 | NO |
| 8 | 8 13C7-PFUnA | B7J0092-BS1 OPR 0.125 | 1.51e4 | 109.0 | NO |

Name: 171026M1_17, Date: 26-Oct-2017, Time: 12:14:43, ID: B7J0152-BS1 OPR 0.005, Description: OPR

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0152-BS1 OPR 0.005 | 7.91e3 | 83.6 | NO |
| 2 | 2 13C5-PFHxA | B7J0152-BS1 OPR 0.005 | 1.03e4 | 78.7 | NO |
| 3 | 3 13C3-PFHxS | B7J0152-BS1 OPR 0.005 | 2.04e3 | 89.3 | NO |
| 4 | 4 13C8-PFOA | B7J0152-BS1 OPR 0.005 | 9.39e3 | 79.8 | NO |
| 5 | 5 13C9-PFNA | B7J0152-BS1 OPR 0.005 | 9.53e3 | 85.3 | NO |
| 6 | 6 13C4-PFOS | B7J0152-BS1 OPR 0.005 | 1.51e3 | 60.1 | NO |
| 7 | 7 13C6-PFDA | B7J0152-BS1 OPR 0.005 | 7.87e3 | 65.6 | NO |
| 8 | 8 13C7-PFUnA | B7J0152-BS1 OPR 0.005 | 4.15e3 | 29.9 | YES |

Name: 171026M1_18, Date: 26-Oct-2017, Time: 12:25:54, ID: B7J0136-BS1 OPR 1, Description: OPR

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-BS1 OPR 1 | 7.43e3 | 78.5 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-BS1 OPR 1 | 1.02e4 | 78.2 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-BS1 OPR 1 | 2.04e3 | 89.4 | NO |
| 4 | 4 13C8-PFOA | B7J0136-BS1 OPR 1 | 9.77e3 | 83.0 | NO |
| 5 | 5 13C9-PFNA | B7J0136-BS1 OPR 1 | 1.04e4 | 93.3 | NO |
| 6 | 6 13C4-PFOS | B7J0136-BS1 OPR 1 | 1.91e3 | 76.3 | NO |
| 7 | 7 13C6-PFDA | B7J0136-BS1 OPR 1 | 9.16e3 | 76.4 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-BS1 OPR 1 | 6.42e3 | 46.4 | YES |

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Name: 171026M1_19, Date: 26-Oct-2017, Time: 12:37:09, ID: B7J0136-BSD1 LCS Dup 1, Description: LCS Dup

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-BSD1 LCS Dup 1 | 6.85e3 | 72.4 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-BSD1 LCS Dup 1 | 9.37e3 | 71.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-BSD1 LCS Dup 1 | 1.86e3 | 81.3 | NO |
| 4 | 4 13C8-PFOA | B7J0136-BSD1 LCS Dup 1 | 8.53e3 | 72.5 | NO |
| 5 | 5 13C9-PFNA | B7J0136-BSD1 LCS Dup 1 | 9.09e3 | 81.3 | NO |
| 6 | 6 13C4-PFOS | B7J0136-BSD1 LCS Dup 1 | 1.68e3 | 66.9 | NO |
| 7 | 7 13C6-PFDA | B7J0136-BSD1 LCS Dup 1 | 7.63e3 | 63.6 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-BSD1 LCS Dup 1 | 4.59e3 | 33.1 | YES |

Name: 171026M1_20, Date: 26-Oct-2017, Time: 12:48:25, ID: IPA, Description: IPA

| | # Name | ĪD | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Name: 171026M1_21, Date: 26-Oct-2017, Time: 12:59:36, ID: B7J0122-BLK1 Method Blank 0.125, Description: Method Blank

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0122-BLK1 Method Blank 0.125 | 7.89e3 | 83.4 | NO |
| 2 | 2 13C5-PFHxA | B7J0122-BLK1 Method Blank 0.125 | 1.07e4 | 81.3 | NO |
| 3 | 3 13C3-PFHxS | B7J0122-BLK1 Method Blank 0.125 | 1.95e3 | 85.4 | NO |
| 4 | 4 13C8-PFOA | B7J0122-BLK1 Method Blank 0.125 | 9.63e3 | 81.9 | NO |
| 5 | 5 13C9-PFNA | B7J0122-BLK1 Method Blank 0.125 | 1.09e4 | 97.8 | NO |
| 6 | 6 13C4-PFOS | B7J0122-BLK1 Method Blank 0.125 | 2.37e3 | 94.7 | NO |
| 7 | 7 13C6-PFDA | B7J0122-BLK1 Method Blank 0.125 | 1.12e4 | 93.3 | NO |
| 8 | 8 13C7-PFUnA | B7J0122-BLK1 Method Blank 0.125 | 1.44e4 | 103.8 | NO |

Name: 171026M1 22, Date: 26-Oct-2017, Time: 13:10:47, ID: B7J0092-BLK1 Method Blank 0.125, Description: Method Blank

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0092-BLK1 Method Blank 0.125 | 8.09e3 | 85.5 | NO |
| 2 | 2 13C5-PFHxA | B7J0092-BLK1 Method Blank 0.125 | 1.17e4 | 89.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0092-BLK1 Method Blank 0.125 | 2.31e3 | 101.0 | NO |
| 4 | 4 13C8-PFOA | B7J0092-BLK1 Method Blank 0.125 | 1.13e4 | 96.4 | NO |
| 5 | 5 13C9-PFNA | B7J0092-BLK1 Method Blank 0.125 | 1.25e4 | 111.8 | NO |
| 6 | 6 13C4-PFOS | B7J0092-BLK1 Method Blank 0.125 | 2.41e3 | 96.1 | NO |
| 7 | 7 13C6-PFDA | B7J0092-BLK1 Method Blank 0.125 | 1.38e4 | 114.9 | NO |
| 8 | 8 13C7-PFUnA | B7J0092-BLK1 Method Blank 0.125 | 1.52e4 | 109.9 | NO |

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Name: 171026M1_23, Date: 26-Oct-2017, Time: 13:21:58, ID: B7J0152-BLK1 Method Blank 0.005, Description: Method Blank

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0152-BLK1 Method Blank 0.005 | 6.71e3 | 70.9 | NO |
| 2 | 2 13C5-PFHxA | B7J0152-BLK1 Method Blank 0.005 | 9.43e3 | 71.9 | NO |
| 3 | 3 13C3-PFHxS | B7J0152-BLK1 Method Blank 0.005 | 1.81e3 | 79.2 | NO |
| 4 | 4 13C8-PFOA | B7J0152-BLK1 Method Blank 0.005 | 8.55e3 | 72.7 | NO |
| 5 | 5 13C9-PFNA | B7J0152-BLK1 Method Blank 0.005 | 8.47e3 | 75.8 | NO |
| 6 | 6 13C4-PFOS | B7J0152-BLK1 Method Blank 0.005 | 1.69e3 | 67.6 | NO |
| 7 | 7 13C6-PFDA | B7J0152-BLK1 Method Blank 0.005 | 7.70e3 | 64.1 | NO |
| 8 | 8 13C7-PFUnA | B7J0152-BLK1 Method Blank 0.005 | 5.27e3 | 38.0 | YES |

Name: 171026M1_24, Date: 26-Oct-2017, Time: 13:33:09, ID: B7J0136-BLK1 Method Blank 1, Description: Method Blank

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-BLK1 Method Blank 1 | 7.31e3 | 77.3 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-BLK1 Method Blank 1 | 1.01e4 | 76.9 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-BLK1 Method Blank 1 | 2.16e3 | 94.5 | NO |
| 4 | 4 13C8-PFOA | B7J0136-BLK1 Method Blank 1 | 9.47e3 | 80.5 | NO |
| 5 | 5 13C9-PFNA | B7J0136-BLK1 Method Blank 1 | 9.36e3 | 83.7 | NO |
| 6 | 6 13C4-PFOS | B7J0136-BLK1 Method Blank 1 | 1.84e3 | 73.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-BLK1 Method Blank 1 | 8.57e3 | 71.4 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-BLK1 Method Blank 1 | 5.54e3 | 40.0 | YES |

Name: 171026M1_25, Date: 26-Oct-2017, Time: 13:44:19, ID: B7J0136-MS1 Matrix Spike 1.1, Description: Matrix Spike

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MS1 Matrix Spike 1.1 | 7.03e3 | 74.3 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MS1 Matrix Spike 1.1 | 9.40e3 | 71.7 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MS1 Matrix Spike 1.1 | 1.95e3 | 85.5 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MS1 Matrix Spike 1.1 | 8.98e3 | 76.3 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MS1 Matrix Spike 1.1 | 1.04e4 | 93.1 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MS1 Matrix Spike 1.1 | 2.08e3 | 83.0 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MS1 Matrix Spike 1.1 | 1.24e4 | 103.3 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MS1 Matrix Spike 1.1 | 1.16e4 | 83.5 | NO |

Name: 171026M1 26, Date: 26-Oct-2017, Time: 13:55:30, ID: B7J0136-MSD1 Matrix Spike Dup 1.1, Description: Matrix Spike Dup

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 7.63e3 | 80.6 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.04e4 | 79.4 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD1 Matrix Spike Dup 1.1 | 2.36e3 | 103.4 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.05e4 | 89.2 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.06e4 | 95.0 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD1 Matrix Spike Dup 1.1 | 2.23e3 | 89.1 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.12e4 | 93.0 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MSD1 Matrix Spike Dup 1.1 | 1.01e4 | 72.8 | NO |

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Name: 171026M1_27, Date: 26-Oct-2017, Time: 14:06:41, ID: B7J0136-MS2 Matrix Spike 1.12, Description: Matrix Spike

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MS2 Matrix Spike 1.12 | 8.42e3 | 89.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MS2 Matrix Spike 1.12 | 1.05e4 | 80.3 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MS2 Matrix Spike 1.12 | 2.27e3 | 99.4 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MS2 Matrix Spike 1.12 | 7.89e3 | 67.1 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MS2 Matrix Spike 1.12 | 1.17e4 | 105.0 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MS2 Matrix Spike 1.12 | 2.32e3 | 92.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MS2 Matrix Spike 1.12 | 6.49e3 | 54.1 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MS2 Matrix Spike 1.12 | 1.47e4 | 105.8 | NO |

Name: 171026M1_28, Date: 26-Oct-2017, Time: 14:17:51, ID: B7J0136-MSD2 Matrix Spike Dup 1.18, Description: Matrix Spike Dup

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 7.00e3 | 74.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 8.82e3 | 67.3 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.95e3 | 85.3 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.71e3 | 57.0 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 9.22e3 | 82.4 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.77e3 | 70.7 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 5.29e3 | 44.1 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 9.79e3 | 70.7 | NO |

Name: 171026M1_29, Date: 26-Oct-2017, Time: 14:29:02, ID: 1701430-02RE2@20X Foam-6603 Loud 0.04537, Description: Foam-6603 Loud

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701430-02RE2@20X Foam-6603 Lou | 3.54e2 | 3.7 | YES |
| 2 | 2 13C5-PFHxA | 1701430-02RE2@20X Foam-6603 Lou | 5.28e2 | 4.0 | YES |
| 3 | 3 13C3-PFHxS | 1701430-02RE2@20X Foam-6603 Lou | 9.71e1 | 4.3 | YES |
| 4 | 4 13C8-PFOA | 1701430-02RE2@20X Foam-6603 Lou | 4.96e2 | 4.2 | YES |
| 5 | 5 13C9-PFNA | 1701430-02RE2@20X Foam-6603 Lou | 5.35e2 | 4.8 | YES |
| 6 | 6 13C4-PFOS | 1701430-02RE2@20X Foam-6603 Lou | 1.13e2 | 4.5 | YES |
| 7 | 7 13C6-PFDA | 1701430-02RE2@20X Foam-6603 Lou | 5.45e2 | 4.5 | YES |
| 8 | 8 13C7-PFUnA | 1701430-02RE2@20X Foam-6603 Lou | 6.74e2 | 4.9 | YES |

Name: 171026M1_30, Date: 26-Oct-2017, Time: 14:40:13, ID: 1701430-02RE2 Foam-6603 Loud 0.04537, Description: Foam-6603 Loud

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701430-02RE2 Foam-6603 Loud 0.045 | 7.69e3 | 81.2 | NO |
| 2 | 2 13C5-PFHxA | 1701430-02RE2 Foam-6603 Loud 0.045 | 1.06e4 | 81.1 | NO |
| 3 | 3 13C3-PFHxS | 1701430-02RE2 Foam-6603 Loud 0.045 | 1.98e3 | 86.7 | NO |
| 4 | 4 13C8-PFOA | 1701430-02RE2 Foam-6603 Loud 0.045 | 9.21e3 | 78.3 | NO |
| 5 | 5 13C9-PFNA | 1701430-02RE2 Foam-6603 Loud 0.045 | 1.06e4 | 95.0 | NO |
| 6 | 6 13C4-PFOS | 1701430-02RE2 Foam-6603 Loud 0.045 | 2.04e3 | 81.5 | NO |
| 7 | 7 13C6-PFDA | 1701430-02RE2 Foam-6603 Loud 0.045 | 1.20e4 | 100.1 | NO |
| 8 | 8 13C7-PFUnA | 1701430-02RE2 Foam-6603 Loud 0.045 | 1.44e4 | 103.8 | NO |

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Name: 171026M1_31, Date: 26-Oct-2017, Time: 14:51:24, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Name: 171026M1_32, Date: 26-Oct-2017, Time: 15:02:34, ID: 1701432-08RE1 Site 4-GW-04GW03-20171004 0.11516, Description: Site 4-GW-04GW03-20171004

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|----------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701432-08RE1 Site 4-GW-04GW03-2 | 7.96e3 | 84.1 | NO |
| 2 | 2 13C5-PFHxA | 1701432-08RE1 Site 4-GW-04GW03-2 | 1.08e4 | 82.5 | NO |
| 3 | 3 13C3-PFHxS | 1701432-08RE1 Site 4-GW-04GW03-2 | 1.93e3 | 84.6 | NO |
| 4 | 4 13C8-PFOA | 1701432-08RE1 Site 4-GW-04GW03-2 | 9.84e3 | 83.6 | NO |
| 5 | 5 13C9-PFNA | 1701432-08RE1 Site 4-GW-04GW03-2 | 1.16e4 | 103.5 | NO |
| 6 | 6 13C4-PFOS | 1701432-08RE1 Site 4-GW-04GW03-2 | 2.44e3 | 97.3 | NO |
| 7 | 7 13C6-PFDA | 1701432-08RE1 Site 4-GW-04GW03-2 | 1.22e4 | 101.7 | NO |
| 8 | 8 13C7-PFUnA | 1701432-08RE1 Site 4-GW-04GW03-2 | 1.22e4 | 87.9 | NO |

Name: 171026M1_33, Date: 26-Oct-2017, Time: 15:13:45, ID: 1701384-01@10X MW-6 0.125, Description: MW-6

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701384-01@10X MW-6 0.125 | 3.54e3 | 18.7 | YES |
| 2 | 2 13C5-PFHxA | 1701384-01@10X MW-6 0.125 | 5.19e3 | 19.8 | YES |
| 3 | 3 13C3-PFHxS | 1701384-01@10X MW-6 0.125 | 1.01e3 | 22.1 | YES |
| 4 | 4 13C8-PFOA | 1701384-01@10X MW-6 0.125 | 4.96e3 | 21.1 | YES |
| 5 | 5 13C9-PFNA | 1701384-01@10X MW-6 0.125 | 5.68e3 | 25.4 | YES |
| 6 | 6 13C4-PFOS | 1701384-01@10X MW-6 0.125 | 1.21e3 | 24.1 | YES |
| 7 | 7 13C6-PFDA | 1701384-01@10X MW-6 0.125 | 5.36e3 | 22.3 | YES |
| 8 | 8 13C7-PFUnA | 1701384-01@10X MW-6 0.125 | 6.05e3 | 21.9 | YES |

Name: 171026M1_34, Date: 26-Oct-2017, Time: 15:24:56, ID: 1701385-05@10X B-E-GW 0.11326, Description: B-E-GW

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701385-05@10X B-E-GW 0.11326 | 3.69e3 | 19.5 | YES |
| 2 | 2 13C5-PFHxA | 1701385-05@10X B-E-GW 0.11326 | 4.71e3 | 18.0 | YES |
| 3 | 3 13C3-PFHxS | 1701385-05@10X B-E-GW 0.11326 | 9.70e2 | 21.2 | YES |
| 4 | 4 13C8-PFOA | 1701385-05@10X B-E-GW 0.11326 | 4.34e3 | 18.4 | YES |
| 5 | 5 13C9-PFNA | 1701385-05@10X B-E-GW 0.11326 | 4.74e3 | 21.2 | YES |
| 6 | 6 13C4-PFOS | 1701385-05@10X B-E-GW 0.11326 | 9.47e2 | 18.9 | YES |
| 7 | 7 13C6-PFDA | 1701385-05@10X B-E-GW 0.11326 | 4.73e3 | 19.7 | YES |
| 8 | 8 13C7-PFUnA | 1701385-05@10X B-E-GW 0.11326 | 5.45e3 | 19.7 | YES |

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Name: 171026M1_35, Date: 26-Oct-2017, Time: 15:36:06, ID: 1701385-06@10X B-H-GW 0.11258, Description: B-H-GW

| | # Name | ĪD | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701385-06@10X B-H-GW 0.11258 | 3.34e3 | 17.6 | YES |
| 2 | 2 13C5-PFHxA | 1701385-06@10X B-H-GW 0.11258 | 4.43e3 | 16.9 | YES |
| 3 | 3 13C3-PFHxS | 1701385-06@10X B-H-GW 0.11258 | 8.81e2 | 19.3 | YES |
| 4 | 4 13C8-PFOA | 1701385-06@10X B-H-GW 0.11258 | 4.20e3 | 17.8 | YES |
| 5 | 5 13C9-PFNA | 1701385-06@10X B-H-GW 0.11258 | 4.08e3 | 18.2 | YES |
| 6 | 6 13C4-PFOS | 1701385-06@10X B-H-GW 0.11258 | 9.42e2 | 18.8 | YES |
| 7 | 7 13C6-PFDA | 1701385-06@10X B-H-GW 0.11258 | 5.26e3 | 21.9 | YES |
| 8 | 8 13C7-PFUnA | 1701385-06@10X B-H-GW 0.11258 | 5.48e3 | 19.8 | YES |

Name: 171026M1_36, Date: 26-Oct-2017, Time: 15:47:17, ID: 1701385-07@10X B-I-GW 0.11542, Description: B-I-GW

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701385-07@10X B-I-GW 0.11542 | 2.92e3 | 15.4 | YES |
| 2 | 2 13C5-PFHxA | 1701385-07@10X B-I-GW 0.11542 | 3.99e3 | 15.2 | YES |
| 3 | 3 13C3-PFHxS | 1701385-07@10X B-I-GW 0.11542 | 7.76e2 | 17.0 | YES |
| 4 | 4 13C8-PFOA | 1701385-07@10X B-I-GW 0.11542 | 3.57e3 | 15.2 | YES |
| 5 | 5 13C9-PFNA | 1701385-07@10X B-I-GW 0.11542 | 3.96e3 | 17.7 | YES |
| 6 | 6 13C4-PFOS | 1701385-07@10X B-I-GW 0.11542 | 7.93e2 | 15.8 | YES |
| 7 | 7 13C6-PFDA | 1701385-07@10X B-I-GW 0.11542 | 3.99e3 | 16.6 | YES |
| 8 | 8 13C7-PFUnA | 1701385-07@10X B-I-GW 0.11542 | 4.70e3 | 17.0 | YES |

Name: 171026M1_37, Date: 26-Oct-2017, Time: 15:58:27, ID: 1701385-08@10X B-J-GW 0.11666, Description: B-J-GW

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701385-08@10X B-J-GW 0.11666 | 3.84e3 | 20.3 | YES |
| 2 | 2 13C5-PFHxA | 1701385-08@10X B-J-GW 0.11666 | 5.15e3 | 19.6 | YES |
| 3 | 3 13C3-PFHxS | 1701385-08@10X B-J-GW 0.11666 | 9.41e2 | 20.6 | YES |
| 4 | 4 13C8-PFOA | 1701385-08@10X B-J-GW 0.11666 | 4.93e3 | 20.9 | YES |
| 5 | 5 13C9-PFNA | 1701385-08@10X B-J-GW 0.11666 | 4.54e3 | 20.3 | YES |
| 6 | 6 13C4-PFOS | 1701385-08@10X B-J-GW 0.11666 | 1.07e3 | 21.4 | YES |
| 7 | 7 13C6-PFDA | 1701385-08@10X B-J-GW 0.11666 | 5.06e3 | 21.1 | YES |
| 8 | 8 13C7-PFUnA | 1701385-08@10X B-J-GW 0.11666 | 5.13e3 | 18.5 | YES |

Name: 171026M1_38, Date: 26-Oct-2017, Time: 16:09:38, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

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Name: 171026M1_39, Date: 26-Oct-2017, Time: 16:20:49, ID: 1701505-01 Breastmilk #1 0.005, Description: Breastmilk #1

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|--------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701505-01 Breastmilk #1 0.005 | 7.46e3 | 78.9 | NO |
| 2 | 2 13C5-PFHxA | 1701505-01 Breastmilk #1 0.005 | 1.09e4 | 83.2 | NO |
| 3 | 3 13C3-PFHxS | 1701505-01 Breastmilk #1 0.005 | 2.00e3 | 87.5 | NO |
| 4 | 4 13C8-PFOA | 1701505-01 Breastmilk #1 0.005 | 8.60e3 | 73.1 | NO |
| 5 | 5 13C9-PFNA | 1701505-01 Breastmilk #1 0.005 | 8.27e3 | 74.0 | NO |
| 6 | 6 13C4-PFOS | 1701505-01 Breastmilk #1 0.005 | 1.57e3 | 62.8 | NO |
| 7 | 7 13C6-PFDA | 1701505-01 Breastmilk #1 0.005 | 5.84e3 | 48.6 | YES |
| 8 | 8 13C7-PFUnA | 1701505-01 Breastmilk #1 0.005 | 6.79e3 | 49.0 | YES |

Name: 171026M1_40, Date: 26-Oct-2017, Time: 16:32:00, ID: 1701505-02 Breastmilk #2 0.005, Description: Breastmilk #2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|--------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701505-02 Breastmilk #2 0.005 | 7.65e3 | 80.9 | NO |
| 2 | 2 13C5-PFHxA | 1701505-02 Breastmilk #2 0.005 | 1.06e4 | 81.0 | NO |
| 3 | 3 13C3-PFHxS | 1701505-02 Breastmilk #2 0.005 | 1.89e3 | 82.6 | NO |
| 4 | 4 13C8-PFOA | 1701505-02 Breastmilk #2 0.005 | 9.51e3 | 80.8 | NO |
| 5 | 5 13C9-PFNA | 1701505-02 Breastmilk #2 0.005 | 7.59e3 | 67.9 | NO |
| 6 | 6 13C4-PFOS | 1701505-02 Breastmilk #2 0.005 | 1.35e3 | 53.9 | NO |
| 7 | 7 13C6-PFDA | 1701505-02 Breastmilk #2 0.005 | 4.96e3 | 41.4 | YES |
| 8 | 8 13C7-PFUnA | 1701505-02 Breastmilk #2 0.005 | 4.45e3 | 32.1 | YES |

Name: 171026M1_41, Date: 26-Oct-2017, Time: 16:43:10, ID: IPA, Description: IPA

| | # Name | ID | А | Area | %Rec | Area Out |
|---|--------------|-----|---|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | | NO |

Name: 171026M1 42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-11 PFC CS3 17J1806 | 9.63e3 | 101.8 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-11 PFC CS3 17J1806 | 1.29e4 | 98.3 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-11 PFC CS3 17J1806 | 2.20e3 | 96.3 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-11 PFC CS3 17J1806 | 1.15e4 | 98.0 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-11 PFC CS3 17J1806 | 1.30e4 | 116.5 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-11 PFC CS3 17J1806 | 2.66e3 | 105.9 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-11 PFC CS3 17J1806 | 1.49e4 | 124.3 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-11 PFC CS3 17J1806 | 1.77e4 | 127.5 | NO |

Dataset: Untitled

Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Name: 171026M1_43, Date: 26-Oct-2017, Time: 17:05:32, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Name: 171026M1_44, Date: 26-Oct-2017, Time: 17:16:50, ID: 1701378-01 BRDLY-02-SB01-0-2 1.07, Description: BRDLY-02-SB01-0-2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 7.82e3 | 82.7 | NO |
| 2 | 2 13C5-PFHxA | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 1.13e4 | 86.0 | NO |
| 3 | 3 13C3-PFHxS | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 2.11e3 | 92.4 | NO |
| 4 | 4 13C8-PFOA | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 9.27e3 | 78.8 | NO |
| 5 | 5 13C9-PFNA | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 9.39e3 | 84.0 | NO |
| 6 | 6 13C4-PFOS | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 1.95e3 | 77.7 | NO |
| 7 | 7 13C6-PFDA | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 8.88e3 | 74.0 | NO |
| 8 | 8 13C7-PFUnA | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 6.13e3 | 44.2 | YES |

Name: 171026M1_45, Date: 26-Oct-2017, Time: 17:28:15, ID: 1701378-02 BRDLY-02-SB01-13-15 1.2, Description: BRDLY-02-SB01-13-15

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 7.63e3 | 80.7 | NO |
| 2 | 2 13C5-PFHxA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 1.06e4 | 80.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 1.97e3 | 86.2 | NO |
| 4 | 4 13C8-PFOA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 9.38e3 | 79.7 | NO |
| 5 | 5 13C9-PFNA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 9.54e3 | 85.3 | NO |
| 6 | 6 13C4-PFOS | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 1.81e3 | 72.3 | NO |
| 7 | 7 13C6-PFDA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 8.33e3 | 69.4 | NO |
| 8 | 8 13C7-PFUnA | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 4.69e3 | 33.9 | YES |

Name: 171026M1_46, Date: 26-Oct-2017, Time: 17:39:56, ID: 1701378-03 BRDLY-02-SB02-0-2 1.08, Description: BRDLY-02-SB02-0-2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 7.13e3 | 75.3 | NO |
| 2 | 2 13C5-PFHxA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.02e4 | 77.7 | NO |
| 3 | 3 13C3-PFHxS | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 2.15e3 | 94.0 | NO |
| 4 | 4 13C8-PFOA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.07e4 | 90.6 | NO |
| 5 | 5 13C9-PFNA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 9.78e3 | 87.5 | NO |
| 6 | 6 13C4-PFOS | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 2.59e3 | 103.4 | NO |
| 7 | 7 13C6-PFDA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.07e4 | 89.3 | NO |
| 8 | 8 13C7-PFUnA | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 1.09e4 | 79.1 | NO |

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Name: 171026M1_47, Date: 26-Oct-2017, Time: 17:51:07, ID: 1701378-04 BRDLY-02-SB02-13-15 1.29, Description: BRDLY-02-SB02-13-15

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 8.42e3 | 88.9 | NO |
| 2 | 2 13C5-PFHxA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.13e4 | 86.4 | NO |
| 3 | 3 13C3-PFHxS | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 2.37e3 | 103.9 | NO |
| 4 | 4 13C8-PFOA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.07e4 | 91.1 | NO |
| 5 | 5 13C9-PFNA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.17e4 | 104.6 | NO |
| 6 | 6 13C4-PFOS | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.99e3 | 79.3 | NO |
| 7 | 7 13C6-PFDA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 1.02e4 | 85.0 | NO |
| 8 | 8 13C7-PFUnA | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 6.58e3 | 47.5 | YES |

Name: 171026M1_48, Date: 26-Oct-2017, Time: 18:02:17, ID: 1701378-05 BRDLY-02-SB03-0-2 1.08, Description: BRDLY-02-SB03-0-2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 7.98e3 | 84.3 | NO |
| 2 | 2 13C5-PFHxA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 1.07e4 | 81.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 2.01e3 | 87.8 | NO |
| 4 | 4 13C8-PFOA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 9.50e3 | 80.8 | NO |
| 5 | 5 13C9-PFNA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 9.92e3 | 88.8 | NO |
| 6 | 6 13C4-PFOS | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 2.12e3 | 84.7 | NO |
| 7 | 7 13C6-PFDA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 8.99e3 | 74.9 | NO |
| 8 | 8 13C7-PFUnA | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 6.93e3 | 50.0 | NO |

Name: 171026M1_49, Date: 26-Oct-2017, Time: 18:13:28, ID: 1701378-06 BRDLY-02-SB03-13-15 1.17, Description: BRDLY-02-SB03-13-15

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 7.11e3 | 75.2 | NO |
| 2 | 2 13C5-PFHxA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 9.68e3 | 73.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 2.01e3 | 88.1 | NO |
| 4 | 4 13C8-PFOA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 9.18e3 | 78.1 | NO |
| 5 | 5 13C9-PFNA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 8.22e3 | 73.5 | NO |
| 6 | 6 13C4-PFOS | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 1.55e3 | 62.0 | NO |
| 7 | 7 13C6-PFDA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 8.42e3 | 70.2 | NO |
| 8 | 8 13C7-PFUnA | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 5.47e3 | 39.5 | YES |

Name: 171026M1_50, Date: 26-Oct-2017, Time: 18:24:38, ID: 1701378-07 BRDLY-05-SB01-0-2 1.08, Description: BRDLY-05-SB01-0-2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 7.93e3 | 83.8 | NO |
| 2 | 2 13C5-PFHxA | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 1.07e4 | 81.5 | NO |
| 3 | 3 13C3-PFHxS | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 2.22e3 | 97.1 | NO |
| 4 | 4 13C8-PFOA | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 1.03e4 | 87.6 | NO |
| 5 | 5 13C9-PFNA | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 1.03e4 | 92.1 | NO |
| 6 | 6 13C4-PFOS | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 2.29e3 | 91.2 | NO |
| 7 | 7 13C6-PFDA | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 1.01e4 | 83.9 | NO |
| 8 | 8 13C7-PFUnA | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 9.15e3 | 66.1 | NO |

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Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Friday, October 27, 2017 15:36:12 Pacific Daylight Time Printed:

Name: 171026M1_51, Date: 26-Oct-2017, Time: 18:35:49, ID: 1701378-08 BRDLY-05-SB02-0-2 1.07, Description: BRDLY-05-SB02-0-2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 7.24e3 | 76.5 | NO |
| 2 | 2 13C5-PFHxA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 9.77e3 | 74.6 | NO |
| 3 | 3 13C3-PFHxS | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 1.87e3 | 81.8 | NO |
| 4 | 4 13C8-PFOA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 8.59e3 | 73.0 | NO |
| 5 | 5 13C9-PFNA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 1.12e4 | 100.4 | NO |
| 6 | 6 13C4-PFOS | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 2.22e3 | 88.5 | NO |
| 7 | 7 13C6-PFDA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 9.53e3 | 79.4 | NO |
| 8 | 8 13C7-PFUnA | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 9.29e3 | 67.1 | NO |

Name: 171026M1_52, Date: 26-Oct-2017, Time: 18:47:00, ID: 1701378-09 BRDLY-05-SB02-9-11 1.07, Description: BRDLY-05-SB02-9-11

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 8.09e3 | 85.5 | NO |
| 2 | 2 13C5-PFHxA | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 1.08e4 | 82.4 | NO |
| 3 | 3 13C3-PFHxS | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 1.97e3 | 86.4 | NO |
| 4 | 4 13C8-PFOA | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 9.21e3 | 78.3 | NO |
| 5 | 5 13C9-PFNA | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 1.03e4 | 91.7 | NO |
| 6 | 6 13C4-PFOS | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 2.06e3 | 82.1 | NO |
| 7 | 7 13C6-PFDA | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 9.53e3 | 79.4 | NO |
| 8 | 8 13C7-PFUnA | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 5.93e3 | 42.9 | YES |

Name: 171026M1_53, Date: 26-Oct-2017, Time: 18:58:11, ID: 1701378-10 BRDLY-05-SB03-0-2 1.05, Description: BRDLY-05-SB03-0-2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 7.07e3 | 74.7 | NO |
| 2 | 2 13C5-PFHxA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 9.56e3 | 72.9 | NO |
| 3 | 3 13C3-PFHxS | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 1.84e3 | 80.5 | NO |
| 4 | 4 13C8-PFOA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 8.19e3 | 69.6 | NO |
| 5 | 5 13C9-PFNA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 9.31e3 | 83.3 | NO |
| 6 | 6 13C4-PFOS | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 2.04e3 | 81.4 | NO |
| 7 | 7 13C6-PFDA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 1.01e4 | 84.1 | NO |
| 8 | 8 13C7-PFUnA | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 9.38e3 | 67.8 | NO |

Name: 171026M1 54, Date: 26-Oct-2017, Time: 19:09:21, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|-------|---------|----------|
| | | | 71104 | 701 100 | |
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

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Name: 171026M1_55, Date: 26-Oct-2017, Time: 19:20:33, ID: ST171026M1-12 PFC CS3 17J1806, Description: PFC CS3 17J1806

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-12 PFC CS3 17J1806 | 9.88e3 | 104.4 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-12 PFC CS3 17J1806 | 1.32e4 | 100.7 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-12 PFC CS3 17J1806 | 2.41e3 | 105.5 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-12 PFC CS3 17J1806 | 1.20e4 | 102.1 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-12 PFC CS3 17J1806 | 1.30e4 | 116.2 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-12 PFC CS3 17J1806 | 2.89e3 | 115.2 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-12 PFC CS3 17J1806 | 1.50e4 | 124.7 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-12 PFC CS3 17J1806 | 1.91e4 | 137.9 | NO |

Name: 171026M1_56, Date: 26-Oct-2017, Time: 19:31:43, ID: IPA, Description: IPA

| | # Name | ĪD | _ | Area | %Rec | Area Out |
|---|--------------|-----|---|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | | NO |

Name: 171026M1_57, Date: 26-Oct-2017, Time: 19:42:53, ID: 1701378-11 BRDLY-05-SB03-9-11 1.38, Description: BRDLY-05-SB03-9-11

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 6.92e3 | 73.2 | NO |
| 2 | 2 13C5-PFHxA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 9.77e3 | 74.6 | NO |
| 3 | 3 13C3-PFHxS | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 1.96e3 | 85.6 | NO |
| 4 | 4 13C8-PFOA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 7.62e3 | 64.8 | NO |
| 5 | 5 13C9-PFNA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 9.02e3 | 80.7 | NO |
| 6 | 6 13C4-PFOS | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 1.54e3 | 61.5 | NO |
| 7 | 7 13C6-PFDA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 5.96e3 | 49.6 | YES |
| 8 | 8 13C7-PFUnA | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 3.42e3 | 24.7 | YES |

Name: 171026M1_58, Date: 26-Oct-2017, Time: 19:54:04, ID: 1701378-13 BRDLY-03-SB03-0-2 1.13, Description: BRDLY-03-SB03-0-2

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 7.09e3 | 75.0 | NO |
| 2 | 2 13C5-PFHxA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 9.41e3 | 71.8 | NO |
| 3 | 3 13C3-PFHxS | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.98e3 | 86.6 | NO |
| 4 | 4 13C8-PFOA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 9.65e3 | 82.0 | NO |
| 5 | 5 13C9-PFNA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.10e4 | 98.8 | NO |
| 6 | 6 13C4-PFOS | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 2.15e3 | 85.9 | NO |
| 7 | 7 13C6-PFDA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.13e4 | 94.3 | NO |
| 8 | 8 13C7-PFUnA | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 1.23e4 | 88.6 | NO |

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Dataset: Untitled

Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Name: 171026M1_59, Date: 26-Oct-2017, Time: 20:05:15, ID: 1701378-14 BRDLY-05-SB01-9-11 1.15, Description: BRDLY-05-SB01-9-11

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 7.71e3 | 81.4 | NO |
| 2 | 2 13C5-PFHxA | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 1.03e4 | 78.2 | NO |
| 3 | 3 13C3-PFHxS | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 2.14e3 | 93.5 | NO |
| 4 | 4 13C8-PFOA | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 9.66e3 | 82.1 | NO |
| 5 | 5 13C9-PFNA | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 1.10e4 | 98.0 | NO |
| 6 | 6 13C4-PFOS | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 2.09e3 | 83.3 | NO |
| 7 | 7 13C6-PFDA | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 9.36e3 | 78.0 | NO |
| 8 | 8 13C7-PFUnA | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 7.46e3 | 53.9 | NO |

Name: 171026M1_60, Date: 26-Oct-2017, Time: 20:16:25, ID: 1701411-01 BRDLY-03-SB03-11-13 1.21, Description: BRDLY-03-SB03-11-13

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 8.44e3 | 89.2 | NO |
| 2 | 2 13C5-PFHxA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.14e4 | 87.2 | NO |
| 3 | 3 13C3-PFHxS | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 2.17e3 | 95.2 | NO |
| 4 | 4 13C8-PFOA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.00e4 | 85.2 | NO |
| 5 | 5 13C9-PFNA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.06e4 | 94.6 | NO |
| 6 | 6 13C4-PFOS | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 2.01e3 | 80.2 | NO |
| 7 | 7 13C6-PFDA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 1.04e4 | 86.7 | NO |
| 8 | 8 13C7-PFUnA | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 9.15e3 | 66.1 | NO |

Name: 171026M1_61, Date: 26-Oct-2017, Time: 20:27:36, ID: 1701429-02 H1-SB-135-0'-2'-1017 1.2, Description: H1-SB-135-0'-2'-1017

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 7.05e3 | 74.5 | NO |
| 2 | 2 13C5-PFHxA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 9.42e3 | 71.8 | NO |
| 3 | 3 13C3-PFHxS | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.99e3 | 87.2 | NO |
| 4 | 4 13C8-PFOA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 9.33e3 | 79.3 | NO |
| 5 | 5 13C9-PFNA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.07e4 | 95.6 | NO |
| 6 | 6 13C4-PFOS | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 2.26e3 | 90.2 | NO |
| 7 | 7 13C6-PFDA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.02e4 | 85.3 | NO |
| 8 | 8 13C7-PFUnA | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 1.03e4 | 74.3 | NO |

Name: 171026M1_62, Date: 26-Oct-2017, Time: 20:38:47, ID: 1701429-03 H1-SB-136-0'-2'-1017 1.14, Description: H1-SB-136-0'-2'-1017

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|--------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 7.97e3 | 84.2 | NO |
| 2 | 2 13C5-PFHxA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.06e4 | 80.5 | NO |
| 3 | 3 13C3-PFHxS | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 2.02e3 | 88.5 | NO |
| 4 | 4 13C8-PFOA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 9.70e3 | 82.4 | NO |
| 5 | 5 13C9-PFNA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.04e4 | 93.3 | NO |
| 6 | 6 13C4-PFOS | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 2.10e3 | 83.7 | NO |
| 7 | 7 13C6-PFDA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.04e4 | 86.5 | NO |
| 8 | 8 13C7-PFUnA | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 1.02e4 | 73.6 | NO |

Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Friday, October 27, 2017 15:36:12 Pacific Daylight Time

Name: 171026M1_63, Date: 26-Oct-2017, Time: 20:49:57, ID: 1701429-04 H1-SB-137-0'-2'-1017 1.18, Description: H1-SB-137-0'-2'-1017

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|--------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 7.73e3 | 81.7 | NO |
| 2 | 2 13C5-PFHxA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 1.11e4 | 84.6 | NO |
| 3 | 3 13C3-PFHxS | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 2.16e3 | 94.7 | NO |
| 4 | 4 13C8-PFOA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 9.70e3 | 82.4 | NO |
| 5 | 5 13C9-PFNA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 1.07e4 | 95.7 | NO |
| 6 | 6 13C4-PFOS | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 1.97e3 | 78.7 | NO |
| 7 | 7 13C6-PFDA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 9.87e3 | 82.2 | NO |
| 8 | 8 13C7-PFUnA | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 6.98e3 | 50.4 | NO |

Name: 171026M1_64, Date: 26-Oct-2017, Time: 21:01:09, ID: 1701429-05 H1-SB-138-0'-2'-1017 1.1, Description: H1-SB-138-0'-2'-1017

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 6.86e3 | 72.5 | NO |
| 2 | 2 13C5-PFHxA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 9.17e3 | 70.0 | NO |
| 3 | 3 13C3-PFHxS | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 1.88e3 | 82.4 | NO |
| 4 | 4 13C8-PFOA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 7.11e3 | 60.4 | NO |
| 5 | 5 13C9-PFNA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 9.04e3 | 80.9 | NO |
| 6 | 6 13C4-PFOS | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 1.87e3 | 74.8 | NO |
| 7 | 7 13C6-PFDA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 6.33e3 | 52.7 | NO |
| 8 | 8 13C7-PFUnA | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 1.15e4 | 83.3 | NO |

Name: 171026M1_65, Date: 26-Oct-2017, Time: 21:12:19, ID: 1701426-05RE1@5x FOAM1710050900JNR 0.00104, Description: FOAM1710050900JNR

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|--------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701426-05RE1@5x FOAM171005090 | 4.24e3 | 44.9 | YES |
| 2 | 2 13C5-PFHxA | 1701426-05RE1@5x FOAM171005090 | 5.65e3 | 43.1 | YES |
| 3 | 3 13C3-PFHxS | 1701426-05RE1@5x FOAM171005090 | 1.09e3 | 47.8 | YES |
| 4 | 4 13C8-PFOA | 1701426-05RE1@5x FOAM171005090 | 5.30e3 | 45.1 | YES |
| 5 | 5 13C9-PFNA | 1701426-05RE1@5x FOAM171005090 | 5.85e3 | 52.3 | NO |
| 6 | 6 13C4-PFOS | 1701426-05RE1@5x FOAM171005090 | 1.12e3 | 44.6 | YES |
| 7 | 7 13C6-PFDA | 1701426-05RE1@5x FOAM171005090 | 5.94e3 | 49.5 | YES |
| 8 | 8 13C7-PFUnA | 1701426-05RE1@5x FOAM171005090 | 7.58e3 | 54.8 | NO |

Name: 171026M1_66, Date: 26-Oct-2017, Time: 21:23:30, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

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Untitled Dataset:

Last Altered: Friday, October 27, 2017 15:35:32 Pacific Daylight Time Friday, October 27, 2017 15:36:12 Pacific Daylight Time Printed:

Name: 171026M1_67, Date: 26-Oct-2017, Time: 21:34:41, ID: ST171026M1-13 PFC CS3 17J1806, Description: PFC CS3 17J1806

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171026M1-13 PFC CS3 17J1806 | 1.02e4 | 108.3 | NO |
| 2 | 2 13C5-PFHxA | ST171026M1-13 PFC CS3 17J1806 | 1.37e4 | 104.2 | NO |
| 3 | 3 13C3-PFHxS | ST171026M1-13 PFC CS3 17J1806 | 2.65e3 | 116.0 | NO |
| 4 | 4 13C8-PFOA | ST171026M1-13 PFC CS3 17J1806 | 1.25e4 | 105.9 | NO |
| 5 | 5 13C9-PFNA | ST171026M1-13 PFC CS3 17J1806 | 1.35e4 | 121.1 | NO |
| 6 | 6 13C4-PFOS | ST171026M1-13 PFC CS3 17J1806 | 2.64e3 | 105.3 | NO |
| 7 | 7 13C6-PFDA | ST171026M1-13 PFC CS3 17J1806 | 1.39e4 | 116.2 | NO |
| 8 | 8 13C7-PFUnA | ST171026M1-13 PFC CS3 17J1806 | 1.73e4 | 124.8 | NO |

Name: 171026M1_68, Date: 26-Oct-2017, Time: 21:45:51, ID: IPA, Description: IPA

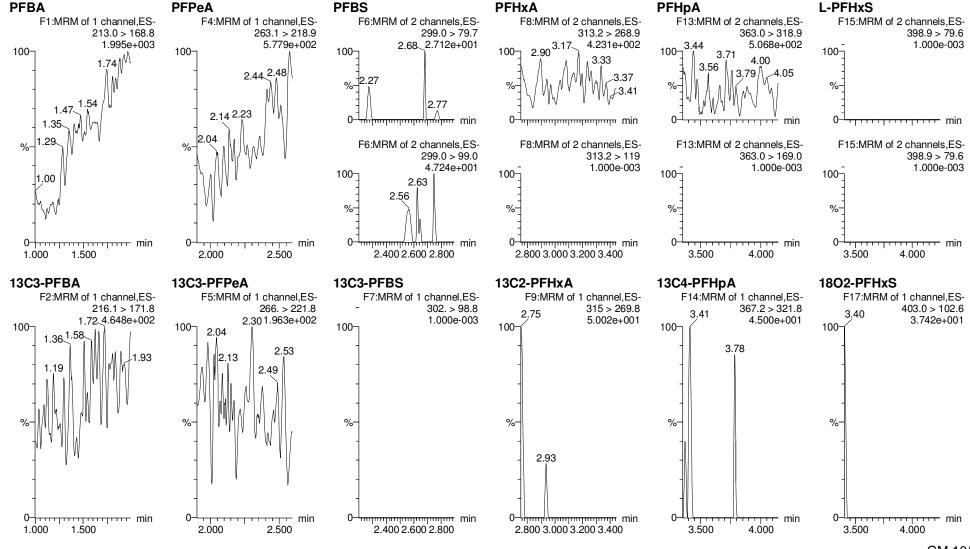
| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



GM 10/26/17

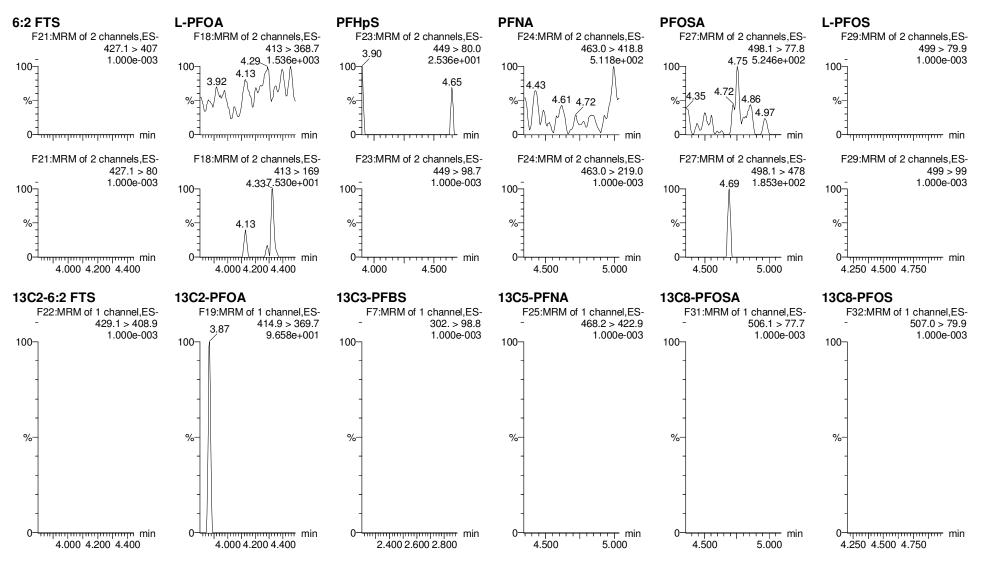
Work Order 1701439 Revision 1

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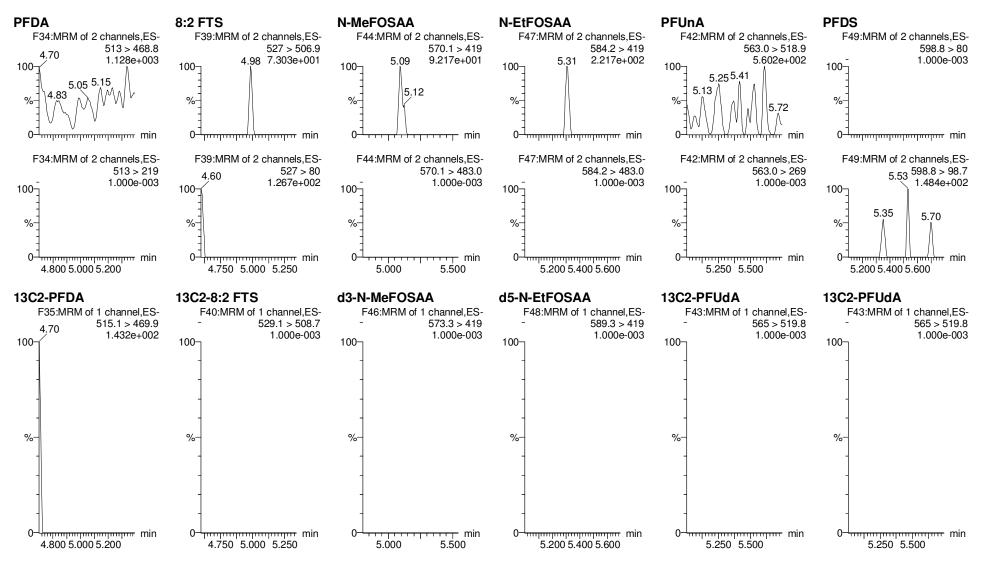
Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Last Altered: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time Printed:

Name: 171026M1 12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA

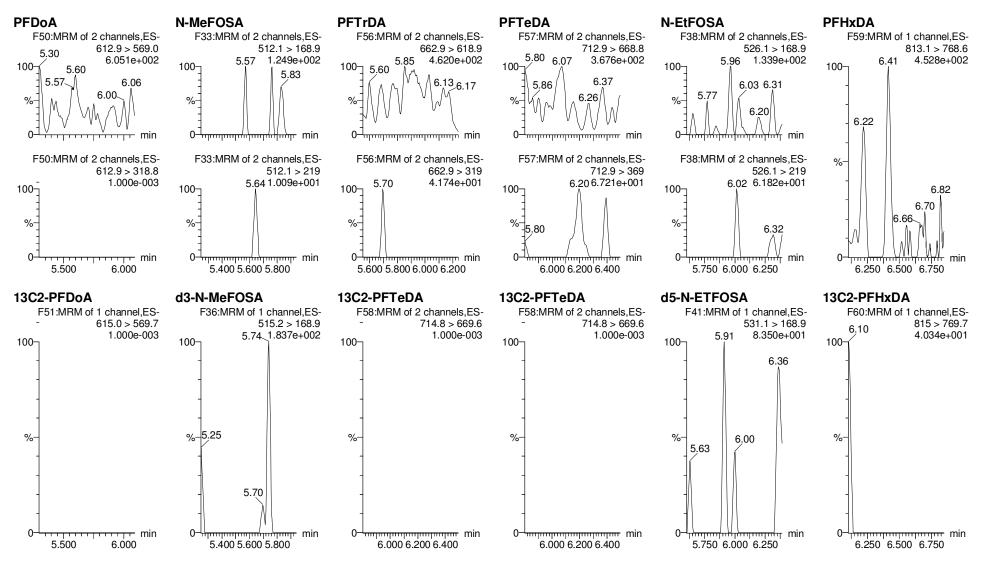


GM 10/26/17

Untitled

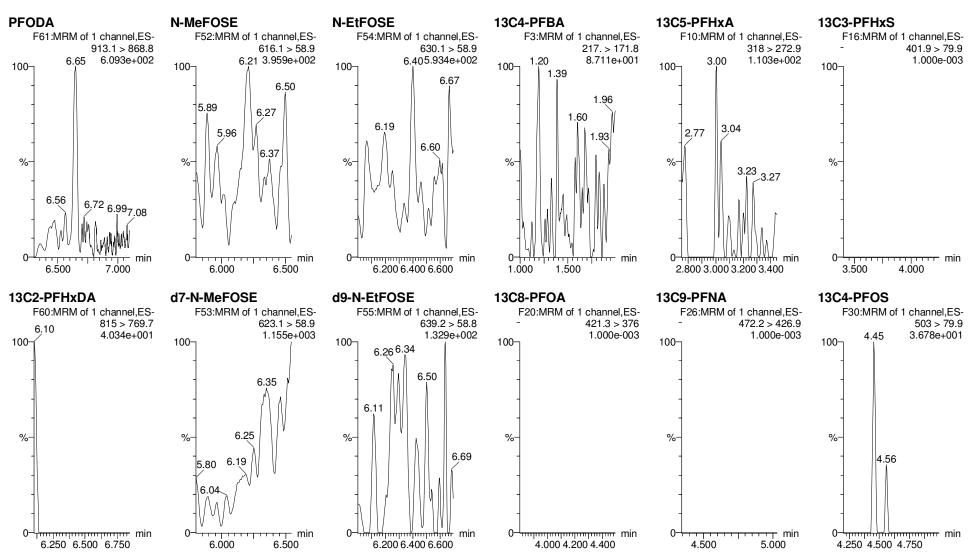
Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Thursday, October 26, 2017 16:59:18 Pacific Daylight Time Printed:

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA

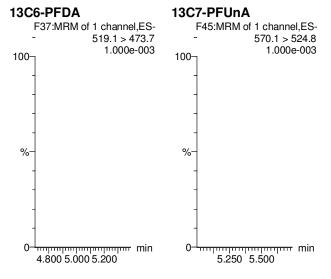


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Untitled Dataset:

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



U:\Q4.PRO\results\171026M1\171026M1-42.qld

Last Altered: Printed:

Friday, October 27, 2017 10:51:51 Pacific Daylight Time Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 10:03:44

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

(A) Alban Innit Inforce

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

| 1630 (1841) (1341) 1741 (1841) (1842) | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | ⊎y Axis Resp. | Conc. | %Rec | |
|--|-------------------------|---------------|--------|---------|-------|---------|------|---------------|-------|-------|-------------------------------|
| 1 | 1 PFBA | 213.0 > 168.8 | 9.56e3 | 8.95e3 | IXIXI | 1.32 | 1.22 | 13.4 | 10.7 | 106.7 | n-120 |
| 2 | 2 PFPeA | 263.1 > 218.9 | 9.69e3 | 9.79e3 | | 2.31 | 2.20 | 12.4 | 10.7 | 107.2 | 1 |
| 3 | 3 PFBS | 299.0 > 79.7 | 2.34e3 | 1.22e3 | | 2.59 | 2.50 | 23.9 | 9.82 | 98.2 | |
| 4 | 4 PFHxA | 313.2 > 268.9 | 1.42e4 | 3.89e3 | | 3.08 | 2.99 | 18.2 | 10.9 | 109.2 | |
| 5 | 5 PFHpA | 363.0 > 318.9 | 1.20e4 | 9.39e3 | | 3.70 | 3.61 | 15.9 | 10.5 | 105.2 | |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 2.02e3 | 9.52e2 | | 3.86 | 3.77 | 26.5 | 11.0 | 109.5 | |
| 7 | 8 6:2 FTS | 427.1 > 407 | 2.63e3 | 2.78e3 | | 4.18 | 4.09 | 11.8 | 11.5 | 115.4 | |
| 8 of differentiality | 9 L-PFOA | 413 > 368.7 | 1.35e4 | 1.29e4 | | 4.23 | 4.14 | 13.1 | 11.4 | 113.8 | |
| 9 | 11 PFHpS | 449 > 80.0 | 2.34e3 | 1.29e4 | | 4.34 | 4.26 | 2.27 | 11.0 | 110.2 | |
| 10 | 12 PFNA | 463.0 > 418.8 | 1.50e4 | 1.17e4 | | 4.67 | 4.59 | 16.0 | 11.1 | 110.5 | |
| 11 | 13 PFOSA | 498.1 > 77.8 | 3.83e3 | 3.74e3 | | 4.72 | 4.64 | 12.8 | 11.0 | 109.9 | OM 10/27/127 10/27/2017 |
| 12 | 14 L-PFOS | 499 > 79.9 | 2.39e3 | 2.79e3 | | 4.76 | 4.68 | 10.7 | 9.29 | 92.9 | Dhy |
| 13 | 16 PFDA | 513 > 468.8 | 1.87e4 | 1.37e4 | | 5.05 | 4.97 | 17.0 | 12.6 | 125.9 | 1-2/14 |
| 14 | 17 8:2 FTS | 527 > 506.9 | 3.10e3 | 2.41e3 | | 5.03 | 4.94 | 16.1 | 12.1 | 121.2 | 10/2/ |
| 15 | 18 N-MeFOSAA | 570.1 > 419 | 7.81e3 | 5.29e3 | | 5.21 | 5.13 | 18.5 | 11.7 | 116.8 | 1 |
| 16 Sugar | 19 N-EtFOSAA | 584.2 > 419 | 6.38e3 | 5.40e3 | | 5.37 | 5.29 | 14.8 | 11.7 | 116.5 | l νWA. |
| 17 | 20 PFUnA | 563.0 > 518.9 | 1.69e4 | 1.61e4 | | 5.38 | 5.30 | 13.1 | 11.5 | 114.9 | 1 Millockou |
| 18 | 21 PFDS | 598.8 > 80 | 3.47e3 | 1.61e4 | | 5.43 | 5.36 | 2.70 | 13.8 | 137.8 | 0 10 120 17 |
| 19 | 22 PFDoA | 612.9 > 569.0 | 2.16e4 | 1.67e4 | | 5.67 | 5.59 | 16.2 | 12.8 | 128.2 | |
| 20 | 23 N-MeFOSA | 512.1 > 168.9 | 5.74e3 | 1.35e4 | | 5.63 | 5.59 | 64.0 | 52.8 | 105.5 | |
| 21 | 24 PFTrDA | 662.9 > 618.9 | 2.30e4 | 1.67e4 | | 5.92 | 5.85 | 17.3 | 12.9 | 128.7 | |
| 22 | 25 PFTeDA | 712.9 > 668.8 | 1.82e4 | 1.43e4 | | 6.13 | 6.06 | 16.0 | 9.74 | 97.4 | |
| 23 | 26 N-EtFOSA | 526.1 > 168.9 | 6.68e3 | 1.95e4 | | 6.04 | 6.03 | 51.4 | 50.7 | 101.3 | |
| 24 | 27 PFHxDA | 813.1 > 768.6 | 5.50e3 | 2.88e3 | | 6.46 | 6.40 | 9.55 | 13.0 | 129.7 | 1 |
| 25 | 29 N-MeFOSE | 616.1 > 58.9 | 9.78e3 | 2.31e4 | | 6.23 | 6.24 | 63.5 | 59.2 | 118.4 | |
| 26 m | 30 N-EtFOSE | 630.1 > 58.9 | 9.95e3 | 2.00e4 | | 6.39 | 6.40 | 74.5 | 57.7 | 115.4 | . |
| 27 | 31 13C3-PFBA | 216.1 > 171.8 | 8.95e3 | 9.63e3 | 0.928 | 1.33 | 1.22 | 11.6 | 12.5 | 100.2 | 9-170 |
| 28 | 32 13C3-PFPeA | 266. > 221.8 | 9.79e3 | 1.29e4 | 0.757 | 2.31 | 2.20 | 9.50 | 12.5 | 100.4 | |
| 29 | 33 13C3-PFBS | 302. > 98.8 | 1.22e3 | 1.29e4 | 0.091 | 2.59 | 2.50 | 1.19 | 13.1 | 104.6 | 1 |
| 30 | 34 13C2-PFHxA | 315 > 269.8 | 3.89e3 | 1.29e4 | 0.739 | 3.08 | 2.99 | 3.77 | 5.10 | 102.0 | .1, |
| 31 Work | 35d3C478F489 Revision 1 | 367.2 > 321.8 | 9.39e3 | 1.29e4 | 0.684 | 3.70 | 3.61 | 9.11 | 13.3 | 106.6 | Page 82 of 402 |

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Dataset:

U:\Q4.PRO\results\171026M1\171026M1-42.qld

Last Altered: Printed:

Friday, October 27, 2017 10:51:51 Pacific Daylight Time Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

| estras termologija e estra Albejes olidijas karikes | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|--|-----------------|---------------|--------|---------|-------|---------|------|--------------|-------|-------------|
| 32 | 36 1802-PFHxS | 403.0 > 102.6 | 9.52e2 | 2.20e3 | 0.412 | 3.85 | 3.77 | 5.40 | 13.1 | 104.7 50-15 |
| 33 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.78e3 | 1.15e4 | 0.248 | 4.18 | 4.08 | 3.01 | 12.1 | 97.2 |
| 34 | 38 13C2-PFOA | 414.9 > 369.7 | 1.29e4 | 1.15e4 | 1.120 | 4.23 | 4.15 | 13.9 | 12.4 | 99.6 |
| 35 | 39 13C5-PFNA | 468.2 > 422.9 | 1.17e4 | 1.30e4 | 0.929 | 4.67 | 4.59 | 11.2 | 12.1 | 96.9 |
| 36 | 40 13C8-PFOSA | 506.1 > 77.7 | 3.74e3 | 1.77e4 | 0.246 | 4.72 | 4.64 | 2.65 | 10.7 | 85.9 |
| 37 | 41 13C8-PFOS | 507.0 > 79.9 | 2.79e3 | 2.66e3 | 1.027 | 4.76 | 4.67 | 13.1 | 12.8 | 102.1 |
| 38 | 42 13C2-PFDA | 515.1 > 469.9 | 1.37e4 | 1.49e4 | 0.946 | 5.05 | 4.97 | 11.5 | 12.2 | 97.4 |
| 39 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 2.41e3 | 1.49e4 | 0.171 | 5.03 | 4.94 | 2.02 | 11.8 | 94.3 |
| 40 | 44 d3-N-MeFOSAA | 573.3 > 419 | 5.29e3 | 1.77e4 | 0.358 | 5.20 | 5.12 | 3.74 | 10.5 | 83.7 |
| 41 | 45 d5-N-EtFOSAA | 589.3 > 419 | 5.40e3 | 1.77e4 | 0.360 | 5.36 | 5.28 | 3.82 | 10.6 | 84.9 |
| 42 | 46 13C2-PFUdA | 565 > 519.8 | 1.61e4 | 1.77e4 | 1.045 | 5.38 | 5.30 | 11.4 | 10.9 | 87.1 |
| 43 | 47 13C2-PFDoA | 615.0 > 569.7 | 1.67e4 | 1.77e4 | 1.141 | 5.67 | 5.59 | 11.8 | 10.3 | 82.7 |
| 44 | 48 d3-N-MeFOSA | 515.2 > 168.9 | 1.35e4 | 1.77e4 | 0.093 | 5.65 | 5.62 | 9.53 | 102 | 68.0 |
| 45 | 49 13C2-PFTeDA | 714.8 > 669.6 | 1.43e4 | 1.77e4 | 0.934 | 6.13 | 6.07 | 10.1 | 10.8 | 86.6 |
| 46 | 50 d5-N-ETFOSA | 531.1 > 168.9 | 1.95e4 | 1.77e4 | 0.132 | 6.06 | 6.04 | 13.8 | 105 | 69.7 |
| 47 | 51 13C2-PFHxDA | 815 > 769.7 | 2.88e3 | 1.77e4 | 0.809 | 6.45 | 6.40 | 2.04 | 2.52 | 50.4 |
| 48 | 52 d7-N-MeFOSE | 623.1 > 58.9 | 2.31e4 | 1.77e4 | 0.142 | 6.22 | 6.23 | 16.3 | 115 | 76.7 |
| 49 | 53 d9-N-EtFOSE | 639.2 > 58.8 | 2.00e4 | 1.77e4 | 0.131 | 6.37 | 6.39 | 14.2 | 109 | 72.4 |
| 50 | 54 13C4-PFBA | 217. > 171.8 | 9.63e3 | 9.63e3 | 1.000 | 1.33 | 1.22 | 12.5 | 12.5 | 100.0 |
| 51 | 55 13C5-PFHxA | 318 > 272.9 | 1.29e4 | 1.29e4 | 1.000 | 3.08 | 2.99 | 12.5 | 12.5 | 100.0 |
| 52 | 56 13C3-PFHxS | 401.9 > 79.9 | 2.20e3 | 2.20e3 | 1.000 | 3.85 | 3.77 | 12.5 | 12.5 | 100.0 |
| 53 | 57 13C8-PFOA | 421.3 > 376 | 1.15e4 | 1.15e4 | 1.000 | 4.23 | 4.15 | 12.5 | 12.5 | 100.0 |
| 54 | 58 13C9-PFNA | 472.2 > 426.9 | 1.30e4 | 1.30e4 | 1.000 | 4.67 | 4.59 | 12.5 | 12.5 | 100.0 |
| 55 | 59 13C4-PFOS | 503 > 79.9 | 2.66e3 | 2.66e3 | 1.000 | 4.76 | 4.68 | 12.5 | 12.5 | 100.0 |
| 56 | 60 13C6-PFDA | 519.1 > 473.7 | 1.49e4 | 1.49e4 | 1.000 | 5.05 | 4.97 | 12.5 | 12.5 | 100.0 |
| 57 | 61 13C7-PFUnA | 570.1 > 524.8 | 1.77e4 | 1.77e4 | 1.000 | 5.38 | 5.30 | 12.5 | 12.5 | 100.0 |

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Last Altered: Printed:

Friday, October 27, 2017 09:45:04 Pacific Daylight Time Friday, October 27, 2017 09:46:52 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06

Compound name: PFBA

| | Name | | Acq.Date | Acq.Time |
|----|-------------|---------------------------------------|-----------|------------|
| 1 | 171026M1_1 | IPA | 26-Oct-17 | 09:14:50 |
| 2 | 171026M1_2 | ST171026M1-1 PFC CS-2 17I3006 | 26-Oct-17 | 09:26:00 |
| 3 | 171026M1_3 | ST171026M1-2 PFC CS-1 17I3007 | 26-Oct-17 | 09:37:20 |
| 4 | 171026M1_4 | ST171026M1-3 PFC CS0 17J1805 | 26-Oct-17 | 09:48:39 |
| 5 | 171026M1_5 | ST171026M1-4 PFC CS1 17J3009 | 26-Oct-17 | 09:59:50 |
| 6 | 171026M1_6 | ST171026M1-5 PFC CS2 17J2519 | 26-Oct-17 | 10:11:00 |
| 7 | 171026M1_7 | ST171026M1-6 PFC CS3 17J1806 | 26-Oct-17 | 10:22:11 |
| 8 | 171026M1_8 | ST171026M1-7 PFC CS4 17J2102 | 26-Oct-17 | 10:33:24 |
| 9 | 171026M1_9 | ST171026M1-8 PFC CS5 17J2101 | 26-Oct-17 | 10:44:36 |
| 10 | 171026M1_10 | ST171026M1-9 PFC CS6 17J2517 | 26-Oct-17 | 10:55:46 |
| 11 | 171026M1_11 | ST171026M1-10 PFC CS7 17J2518 | 26-Oct-17 | 11:07:20 |
| 12 | 171026M1_12 | IPA | 26-Oct-17 | 11:18:50 |
| 13 | 171026M1_13 | ICV171026M1-1 PFC ICV 17I3003 | 26-Oct-17 | 11:30:01 |
| 14 | 171026M1_14 | IPA | 26-Oct-17 | 11:41:12 |
| 15 | 171026M1_15 | B7J0122-BS1 OPR 0.125 | 26-Oct-17 | 11:52:22 |
| 16 | 171026M1_16 | B7J0092-BS1 OPR 0.125 | 26-Oct-17 | 12:03:33 |
| 17 | 171026M1_17 | B7J0152-BS1 OPR 0.005 | 26-Oct-17 | 12:14:43 |
| 18 | 171026M1_18 | B7J0136-BS1 OPR 1 | 26-Oct-17 | 12:25:54 |
| 19 | 171026M1_19 | B7J0136-BSD1 LCS Dup 1 | 26-Oct-17 | 12:37:09 |
| 20 | 171026M1_20 | IPA | 26-Oct-17 | 12:48:25 |
| 21 | 171026M1_21 | B7J0122-BLK1 Method Blank 0.125 | 26-Oct-17 | 12:59:36 |
| 22 | 171026M1_22 | B7J0092-BLK1 Method Blank 0.125 | 26-Oct-17 | 13:10:47 |
| 23 | 171026M1_23 | B7J0152-BLK1 Method Blank 0.005 | 26-Oct-17 | 13:21:58 |
| 24 | 171026M1_24 | B7J0136-BLK1 Method Blank 1 | 26-Oct-17 | 13:33:09 |
| 25 | 171026M1_25 | B7J0136-MS1 Matrix Spike 1.1 | 26-Oct-17 | 13:44:19 |
| 26 | 171026M1_26 | B7J0136-MSD1 Matrix Spike Dup 1.1 | 26-Oct-17 | 13:55:30 |
| 27 | 171026M1_27 | B7J0136-MS2 Matrix Spike 1.12 | 26-Oct-17 | 14:06:41 |
| 28 | 171026M1_28 | B7J0136-MSD2 Matrix Spike Dup 1.18 | 26-Oct-17 | 14:17:51 |
| 29 | 171026M1_29 | 1701430-02RE2@20X Foam-6603 Loud 0.04 | 26-Oct-17 | 14:29:02 |
| 30 | 171026M1_30 | 1701430-02RE2 Foam-6603 Loud 0.04537 | 26-Oct-17 | . 14:40:13 |
| 31 | 171026M1_31 | IPA | 26-Oct-17 | 14:51:24 |

Work Order 1701439 Revision 1

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Last Altered: Printed:

Friday, October 27, 2017 09:45:04 Pacific Daylight Time Friday, October 27, 2017 09:46:52 Pacific Daylight Time

Compound name: PFBA

| and the | Name | er (IDHEHKA | Acq.Date | Acq.Time |
|-------------------------|-------------|---------------------------------------|--|----------|
| 32 | 171026M1 32 | 1701432-08RE1 Site 4-GW-04GW03-201710 | CONTRACTOR CANADA CONTRACTOR CONT | 15:02:34 |
| 33 | 171026M1_32 | 1701384-01@10X MW-6 0.125 | 26-Oct-17 | 15:13:45 |
| 34 | 171026M1_33 | 1701385-05@10X B-E-GW 0.11326 | 26-Oct-17 | 15:24:56 |
| 35 | 171026M1_34 | 1701385-06@10X B-H-GW 0.11258 | 26-Oct-17 | 15:36:06 |
| 36 | 171026M1_33 | 1701385-07@10X B-I-GW 0.11238 | 26-Oct-17 | 15:47:17 |
| 37 | 171026M1_36 | 1701385-07@10X B-J-GW 0.11642 | 26-Oct-17 26-Oct-17 | 15:58:27 |
| Mark State of the Carlo | 10011400 | IPA | | 16:09:38 |
| 38 | 171026M1_38 | | 26-Oct-17 | |
| 39 | 171026M1_39 | 1701505-01 Breastmilk #1 0.005 | 26-Oct-17 | 16:20:49 |
| 40 | 171026M1_40 | 1701505-02 Breastmilk #2 0.005 | 26-Oct-17 | 16:32:00 |
| 41 | 171026M1_41 | IPA | 26-Oct-17 | 16:43:10 |
| 42 | 171026M1_42 | ST171026M1-11 PFC CS3 17J1806 | 26-Oct-17 | 16:54:21 |
| 43 | 171026M1_43 | IPA | 26-Oct-17 | 17:05:32 |
| 44 | 171026M1_44 | 1701378-01 BRDLY-02-SB01-0-2 1.07 | 26-Oct-17 | 17:16:50 |
| 45 | 171026M1_45 | 1701378-02 BRDLY-02-SB01-13-15 1.2 | 26-Oct-17 | 17:28:15 |
| 46 | 171026M1_46 | 1701378-03 BRDLY-02-SB02-0-2 1.08 | 26-Oct-17 | 17:39:56 |
| 47 | 171026M1_47 | 1701378-04 BRDLY-02-SB02-13-15 1.29 | 26-Oct-17 | 17:51:07 |
| 48 | 171026M1_48 | 1701378-05 BRDLY-02-SB03-0-2 1.08 | 26-Oct-17 | 18:02:17 |
| 49 | 171026M1_49 | 1701378-06 BRDLY-02-SB03-13-15 1.17 | 26-Oct-17 | 18:13:28 |
| 50 | 171026M1_50 | 1701378-07 BRDLY-05-SB01-0-2 1.08 | 26-Oct-17 | 18:24:38 |
| 51 | 171026M1_51 | 1701378-08 BRDLY-05-SB02-0-2 1.07 | 26-Oct-17 | 18:35:49 |
| 52 | 171026M1_52 | 1701378-09 BRDLY-05-SB02-9-11 1.07 | 26-Oct-17 | 18:47:00 |
| 53 | 171026M1_53 | 1701378-10 BRDLY-05-SB03-0-2 1.05 | 26-Oct-17 | 18:58:11 |
| 54 | 171026M1_54 | IPA | 26-Oct-17 | 19:09:21 |
| 55 | 171026M1_55 | ST171026M1-12 PFC CS3 17J1806 | 26-Oct-17 | 19:20:33 |
| 56 | 171026M1_56 | IPA | 26-Oct-17 | 19:31:43 |
| 57 | 171026M1_57 | 1701378-11 BRDLY-05-SB03-9-11 1.38 | 26-Oct-17 | 19:42:53 |
| 58 | 171026M1_58 | 1701378-13 BRDLY-03-SB03-0-2 1.13 | 26-Oct-17 | 19:54:04 |
| 59 | 171026M1_59 | 1701378-14 BRDLY-05-SB01-9-11 1.15 | 26-Oct-17 | 20:05:15 |
| 60 | 171026M1 60 | 1701411-01 BRDLY-03-SB03-11-13 1.21 | 26-Oct-17 | 20:16:25 |
| 61 | 171026M1_61 | 1701429-02 H1-SB-135-0'-2'-1017 1.2 | 26-Oct-17 | 20:27:36 |
| 62 | 171026M1 62 | 1701429-03 H1-SB-136-0'-2'-1017 1.14 | 26-Oct-17 | 20:38:47 |
| 63 | 171026M1 63 | 1701429-04 H1-SB-137-0'-2'-1017 1.18 | 26-Oct-17 | 20:49:57 |
| 64 | 171026M1_64 | 1701429-05 H1-SB-138-0'-2'-1017 1.1 | 26-Oct-17 | 21:01:09 |
| 65 | 171026M1 65 | 1701426-05RE1@5x FOAM1710050900JNR | 26-Oct-17 | 21:12:19 |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, October 27, 2017 09:45:04 Pacific Daylight Time Friday, October 27, 2017 09:46:52 Pacific Daylight Time

Compound name: PFBA

| Name | | Acq.Date | Acq.Time |
|----------------|-------------------------------|-----------|----------|
| 66 171026M1_66 | IPA | 26-Oct-17 | 21:23:30 |
| 67 171026M1_67 | ST171026M1-13 PFC CS3 17J1806 | 26-Oct-17 | 21:34:41 |

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| LC Calibration Standards Review Checklist | | | | | | | | |
|--|----------------|-----------|---------------------------|----------------|--------------------------|------------------|---|------------|
| | | ION Ratio | Concentration | C-Cals Name | Sign Date | Correct I-Cal | Manual Integrations | |
| Calibration ID: ST 17 De M -11 | LM H | 4 | © □ (0) | 回 | | v | | ф |
| Calibration ID: 12 | _ L (M) Н - | ф | | a | \(\sigma^{\frac{1}{2}}\) | d | | ф |
| Calibration ID: | LMH- | | $\mathbb{A}_{\mathbb{Q}}$ | Ū | | \forall | Image: Control of the | |
| Calibration ID: | LMH | | | | | | | |
| Calibration ID: | LMH | | | | | | | |
| Calibration ID: | LMH | | | | | | | |
| Calibration ID: | LMH | | | | - L | | | |
| Calibration ID: | LMH | | | | | | | |
| Calibration ID: | LMH - | | | | | | | |
| Calibration ID: | LMH | | | | | | | |
| | | | | | Full Ma | ıss Cal. D | Pate: <u>V(2 </u> | 17 |
| Run Log Present: \overline{igvee} | | | | _ | | | | |
| # of Samples per Sequence Checked: # OF Samples per Sequence Chec | | | | | | | | |
| Reviewed By: 10 127/2017 | _` | | | | _ | | 9 86. B(2PF | txDA:35.3/ |

ID: LR - LCSRC Work Order 1701439 Revision 1 Rev. No.: 0

Rev. Date: 06/06/2017

Page: 1 of 1

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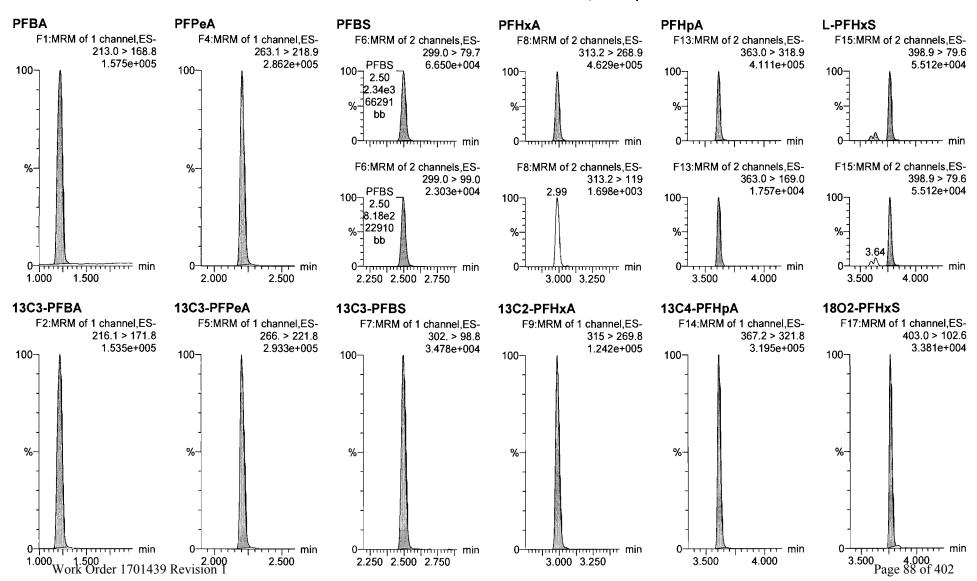
U:\Q4.PRO\results\171026M1\171026M1-42.qld

Last Altered: Printed: Friday, October 27, 2017 10:51:51 Pacific Daylight Time Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 10:03:44

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

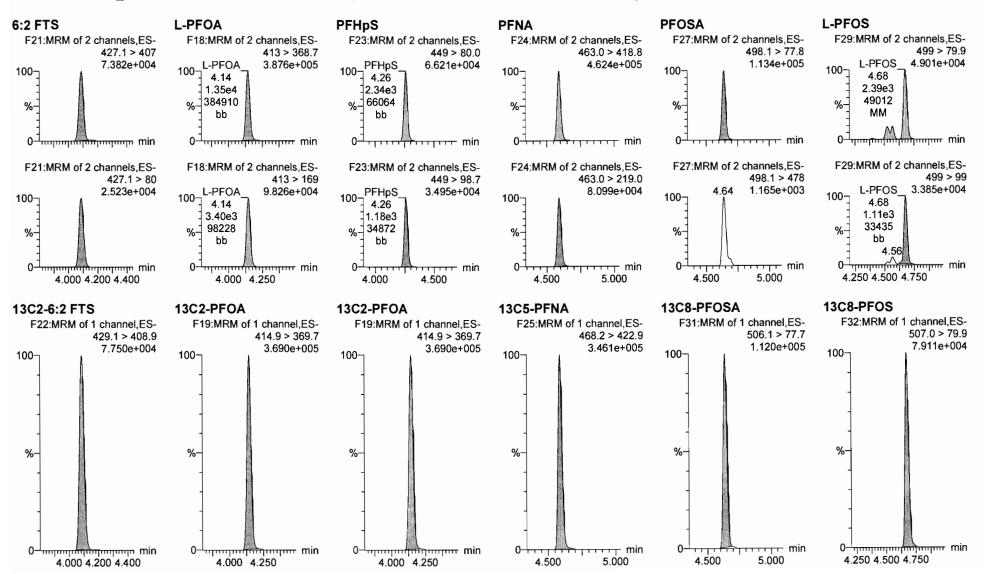
Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806



U:\Q4.PRO\results\171026M1\171026M1-42.qld

Last Altered: Printed: Friday, October 27, 2017 10:51:51 Pacific Daylight Time Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

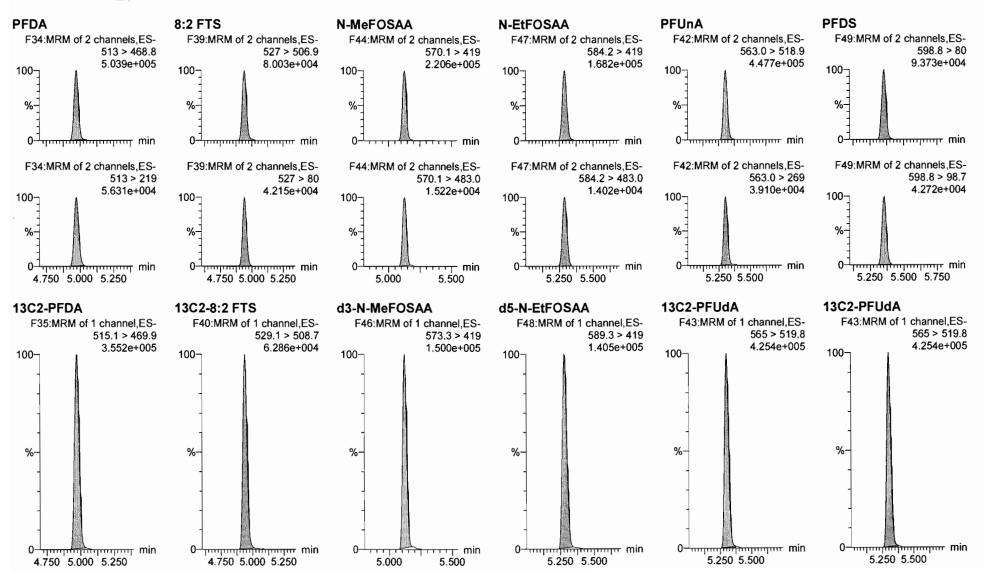


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U:\Q4.PRO\results\171026M1\171026M1-42.qld

Last Altered: Printed: Friday, October 27, 2017 10:51:51 Pacific Daylight Time Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

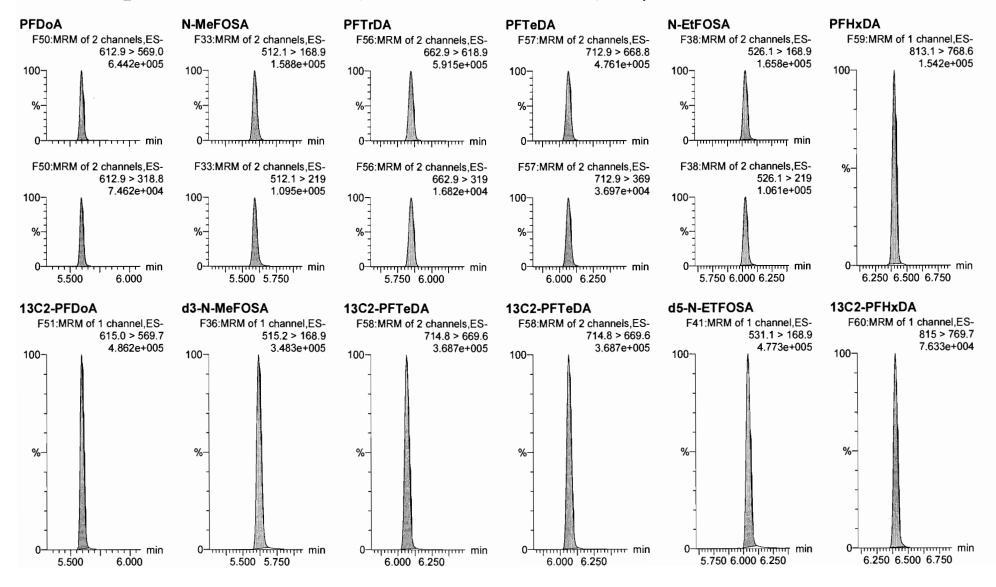


Work Order 1701439 Revision 1

Dataset: U:\Q4.PRO\results\171026M1\171026M1-42.qld

Last Altered: Friday, October 27, 2017 10:51:51 Pacific Daylight Time Printed: Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

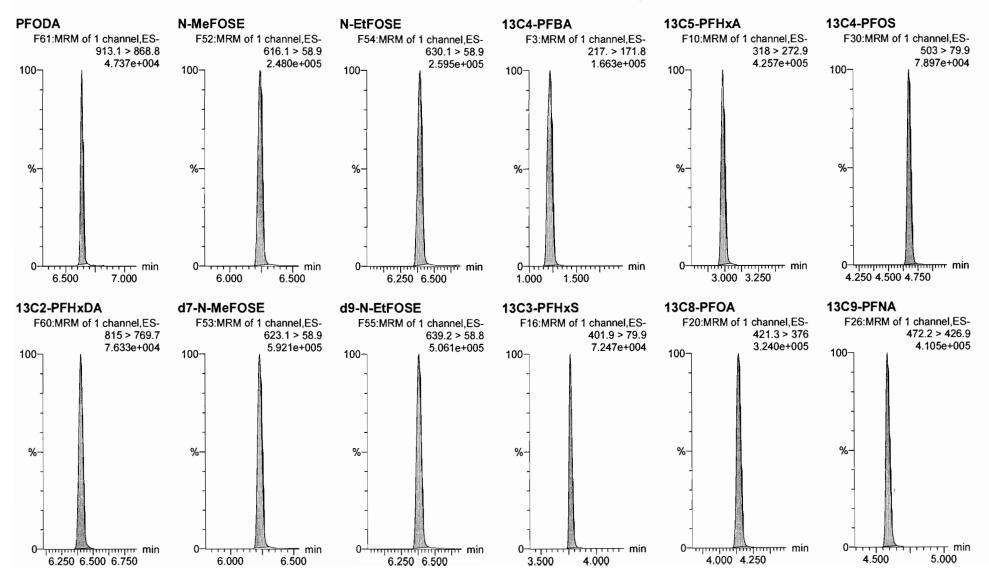


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U:\Q4.PRO\results\171026M1\171026M1-42.qld

Last Altered: Printed: Friday, October 27, 2017 10:51:51 Pacific Daylight Time Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806

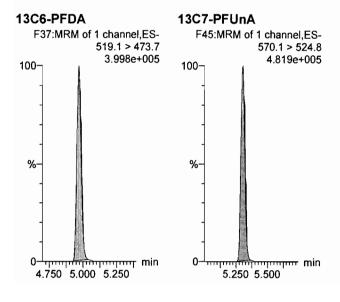


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Last Altered: Printed:

Friday, October 27, 2017 10:51:51 Pacific Daylight Time Friday, October 27, 2017 10:52:07 Pacific Daylight Time

Name: 171026M1_42, Date: 26-Oct-2017, Time: 16:54:21, ID: ST171026M1-11 PFC CS3 17J1806, Description: PFC CS3 17J1806



Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-10-27-17.mdb 27 Oct 2017 15:32:48

Calibration: 03 Nov 2017 15:35:49

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171103M1-1 PFC CS0 17J2807 | 7.33e3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-1 PFC CS0 17J2807 | 9.41e3 | 100.0 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-1 PFC CS0 17J2807 | 1.71e3 | 100.0 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-1 PFC CS0 17J2807 | 7.90e3 | 100.0 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-1 PFC CS0 17J2807 | 8.20e3 | 100.0 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-1 PFC CS0 17J2807 | 2.24e3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-1 PFC CS0 17J2807 | 8.32e3 | 100.0 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-1 PFC CS0 17J2807 | 9.08e3 | 100.0 | NO |

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Name: 171103M1_4, Date: 03-Nov-2017, Time: 13:57:38, ID: 1701439-03 FRB04_20171005 0.125, Description: FRB04_20171005

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701439-03 FRB04_20171005 0.125 | 7.15e3 | 97.6 | NO |
| 2 | 2 13C5-PFHxA | 1701439-03 FRB04_20171005 0.125 | 8.79e3 | 93.5 | NO |
| 3 | 3 13C3-PFHxS | 1701439-03 FRB04_20171005 0.125 | 1.66e3 | 96.9 | NO |
| 4 | 4 13C8-PFOA | 1701439-03 FRB04_20171005 0.125 | 8.11e3 | 102.7 | NO |
| 5 | 5 13C9-PFNA | 1701439-03 FRB04_20171005 0.125 | 9.94e3 | 121.3 | NO |
| 6 | 6 13C4-PFOS | 1701439-03 FRB04_20171005 0.125 | 1.78e3 | 79.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-03 FRB04_20171005 0.125 | 8.94e3 | 107.5 | NO |
| 8 | 8 13C7-PFUnA | 1701439-03 FRB04_20171005 0.125 | 8.91e3 | 98.1 | NO |

Name: 171103M1_5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06_20171006 0.125, Description: FRB06_20171006

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701439-05 FRB06_20171006 0.125 | 7.38e3 | 100.7 | NO |
| 2 | 2 13C5-PFHxA | 1701439-05 FRB06_20171006 0.125 | 9.34e3 | 99.3 | NO |
| 3 | 3 13C3-PFHxS | 1701439-05 FRB06_20171006 0.125 | 1.69e3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | 1701439-05 FRB06_20171006 0.125 | 8.18e3 | 103.5 | NO |
| 5 | 5 13C9-PFNA | 1701439-05 FRB06_20171006 0.125 | 8.53e3 | 104.1 | NO |
| 6 | 6 13C4-PFOS | 1701439-05 FRB06_20171006 0.125 | 2.00e3 | 89.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-05 FRB06_20171006 0.125 | 1.06e4 | 127.9 | NO |
| 8 | 8 13C7-PFUnA | 1701439-05 FRB06_20171006 0.125 | 1.03e4 | 113.9 | NO |

Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_6, Date: 03-Nov-2017, Time: 14:20:00, ID: B7J0136-MS2@5X Matrix Spike 1.12, Description: Matrix Spike

| | # Name | ĪD | Area | %Rec | Area Out |
|---|--------------|----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.60e3 | 21.8 | YES |
| 2 | 2 13C5-PFHxA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.32e3 | 24.7 | YES |
| 3 | 3 13C3-PFHxS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.50e2 | 20.5 | YES |
| 4 | 4 13C8-PFOA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.69e3 | 21.3 | YES |
| 5 | 5 13C9-PFNA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.91e3 | 23.3 | YES |
| 6 | 6 13C4-PFOS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.83e2 | 17.1 | YES |
| 7 | 7 13C6-PFDA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.07e3 | 24.9 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.30e3 | 25.4 | YES |

Name: 171103M1_7, Date: 03-Nov-2017, Time: 14:31:11, ID: B7J0136-MSD2@5X Matrix Spike Dup 1.18, Description: Matrix Spike Dup

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MSD2@5X Matrix Spike Dup | 1.35e3 | 18.4 | YES |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2@5X Matrix Spike Dup | 2.00e3 | 21.3 | YES |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2@5X Matrix Spike Dup | 3.50e2 | 20.4 | YES |
| 4 | 4 13C8-PFOA | B7J0136-MSD2@5X Matrix Spike Dup | 1.49e3 | 18.8 | YES |
| 5 | 5 13C9-PFNA | B7J0136-MSD2@5X Matrix Spike Dup | 1.59e3 | 19.4 | YES |
| 6 | 6 13C4-PFOS | B7J0136-MSD2@5X Matrix Spike Dup | 5.34e2 | 23.8 | YES |
| 7 | 7 13C6-PFDA | B7J0136-MSD2@5X Matrix Spike Dup | 2.03e3 | 24.4 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2@5X Matrix Spike Dup | 2.94e3 | 32.4 | YES |

Name: 171103M1_8, Date: 03-Nov-2017, Time: 14:42:22, ID: B7J0136-MSD2 Matrix Spike Dup 1.18, Description: Matrix Spike Dup

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.81e3 | 93.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 8.60e3 | 91.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.69e3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.59e3 | 83.5 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.10e4 | 134.7 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 3.13e3 | 139.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 7.31e3 | 87.9 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.76e4 | 194.2 | YES |

Name: 171103M1_9, Date: 03-Nov-2017, Time: 14:54:57, ID: 1701528-05@30X STWRT-RPTSW01 0.11748, Description: STWRT-RPTSW01

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701528-05@30X STWRT-RPTSW01 | 2.01e2 | 2.7 | YES |
| 2 | 2 13C5-PFHxA | 1701528-05@30X STWRT-RPTSW01 | 2.76e2 | 2.9 | YES |
| 3 | 3 13C3-PFHxS | 1701528-05@30X STWRT-RPTSW01 | 3.55e1 | 2.1 | YES |
| 4 | 4 13C8-PFOA | 1701528-05@30X STWRT-RPTSW01 | 2.02e2 | 2.6 | YES |
| 5 | 5 13C9-PFNA | 1701528-05@30X STWRT-RPTSW01 | 2.43e2 | 3.0 | YES |
| 6 | 6 13C4-PFOS | 1701528-05@30X STWRT-RPTSW01 | 3.43e1 | 1.5 | YES |
| 7 | 7 13C6-PFDA | 1701528-05@30X STWRT-RPTSW01 | 3.45e2 | 4.1 | YES |
| 8 | 8 13C7-PFUnA | 1701528-05@30X STWRT-RPTSW01 | 2.51e2 | 2.8 | YES |

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Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_10, Date: 03-Nov-2017, Time: 15:06:05, ID: IPA, Description: IPA

| | # Name | ĪD | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810

| | # Name | ĪD | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171103M1-2 PFC CS3 17J2810 | 7.57e3 | 103.3 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-2 PFC CS3 17J2810 | 1.06e4 | 112.2 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-2 PFC CS3 17J2810 | 1.82e3 | 106.4 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-2 PFC CS3 17J2810 | 6.90e3 | 87.3 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-2 PFC CS3 17J2810 | 9.52e3 | 116.1 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-2 PFC CS3 17J2810 | 2.00e3 | 89.1 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-2 PFC CS3 17J2810 | 8.56e3 | 102.9 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-2 PFC CS3 17J2810 | 9.81e3 | 108.1 | NO |

Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

 $Method: U: \Q4.PRO\MethDB\PFAS_RS-10-27-17.mdb\ 27\ Oct\ 2017\ 15:32:48$

Calibration: 03 Nov 2017 15:35:49

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171103M1-1 PFC CS0 17J2807 | 7.33e3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-1 PFC CS0 17J2807 | 9.41e3 | 100.0 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-1 PFC CS0 17J2807 | 1.71e3 | 100.0 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-1 PFC CS0 17J2807 | 7.90e3 | 100.0 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-1 PFC CS0 17J2807 | 8.20e3 | 100.0 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-1 PFC CS0 17J2807 | 2.24e3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-1 PFC CS0 17J2807 | 8.32e3 | 100.0 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-1 PFC CS0 17J2807 | 9.08e3 | 100.0 | NO |

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | _ | _ | NO |

Name: 171103M1_4, Date: 03-Nov-2017, Time: 13:57:38, ID: 1701439-03 FRB04_20171005 0.125, Description: FRB04_20171005

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701439-03 FRB04_20171005 0.125 | 7.15e3 | 97.6 | NO |
| 2 | 2 13C5-PFHxA | 1701439-03 FRB04_20171005 0.125 | 8.79e3 | 93.5 | NO |
| 3 | 3 13C3-PFHxS | 1701439-03 FRB04_20171005 0.125 | 1.66e3 | 96.9 | NO |
| 4 | 4 13C8-PFOA | 1701439-03 FRB04_20171005 0.125 | 8.11e3 | 102.7 | NO |
| 5 | 5 13C9-PFNA | 1701439-03 FRB04_20171005 0.125 | 9.94e3 | 121.3 | NO |
| 6 | 6 13C4-PFOS | 1701439-03 FRB04_20171005 0.125 | 1.78e3 | 79.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-03 FRB04_20171005 0.125 | 8.94e3 | 107.5 | NO |
| 8 | 8 13C7-PFUnA | 1701439-03 FRB04_20171005 0.125 | 8.91e3 | 98.1 | NO |

Name: 171103M1 5, Date: 03-Nov-2017, Time: 14:08:50, ID: 1701439-05 FRB06 20171006 0.125, Description: FRB06 20171006

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | 1701439-05 FRB06_20171006 0.125 | 7.38e3 | 100.7 | NO |
| 2 | 2 13C5-PFHxA | 1701439-05 FRB06_20171006 0.125 | 9.34e3 | 99.3 | NO |
| 3 | 3 13C3-PFHxS | 1701439-05 FRB06_20171006 0.125 | 1.69e3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | 1701439-05 FRB06_20171006 0.125 | 8.18e3 | 103.5 | NO |
| 5 | 5 13C9-PFNA | 1701439-05 FRB06_20171006 0.125 | 8.53e3 | 104.1 | NO |
| 6 | 6 13C4-PFOS | 1701439-05 FRB06_20171006 0.125 | 2.00e3 | 89.3 | NO |
| 7 | 7 13C6-PFDA | 1701439-05 FRB06_20171006 0.125 | 1.06e4 | 127.9 | NO |
| 8 | 8 13C7-PFUnA | 1701439-05 FRB06_20171006 0.125 | 1.03e4 | 113.9 | NO |

Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_6, Date: 03-Nov-2017, Time: 14:20:00, ID: B7J0136-MS2@5X Matrix Spike 1.12, Description: Matrix Spike

| | # Name | ĪD | Area | %Rec | Area Out |
|---|--------------|----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.60e3 | 21.8 | YES |
| 2 | 2 13C5-PFHxA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.32e3 | 24.7 | YES |
| 3 | 3 13C3-PFHxS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.50e2 | 20.5 | YES |
| 4 | 4 13C8-PFOA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.69e3 | 21.3 | YES |
| 5 | 5 13C9-PFNA | B7J0136-MS2@5X Matrix Spike 1.12 | 1.91e3 | 23.3 | YES |
| 6 | 6 13C4-PFOS | B7J0136-MS2@5X Matrix Spike 1.12 | 3.83e2 | 17.1 | YES |
| 7 | 7 13C6-PFDA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.07e3 | 24.9 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MS2@5X Matrix Spike 1.12 | 2.30e3 | 25.4 | YES |

Name: 171103M1_7, Date: 03-Nov-2017, Time: 14:31:11, ID: B7J0136-MSD2@5X Matrix Spike Dup 1.18, Description: Matrix Spike Dup

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|----------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MSD2@5X Matrix Spike Dup | 1.35e3 | 18.4 | YES |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2@5X Matrix Spike Dup | 2.00e3 | 21.3 | YES |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2@5X Matrix Spike Dup | 3.50e2 | 20.4 | YES |
| 4 | 4 13C8-PFOA | B7J0136-MSD2@5X Matrix Spike Dup | 1.49e3 | 18.8 | YES |
| 5 | 5 13C9-PFNA | B7J0136-MSD2@5X Matrix Spike Dup | 1.59e3 | 19.4 | YES |
| 6 | 6 13C4-PFOS | B7J0136-MSD2@5X Matrix Spike Dup | 5.34e2 | 23.8 | YES |
| 7 | 7 13C6-PFDA | B7J0136-MSD2@5X Matrix Spike Dup | 2.03e3 | 24.4 | YES |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2@5X Matrix Spike Dup | 2.94e3 | 32.4 | YES |

Name: 171103M1_8, Date: 03-Nov-2017, Time: 14:42:22, ID: B7J0136-MSD2 Matrix Spike Dup 1.18, Description: Matrix Spike Dup

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.81e3 | 93.0 | NO |
| 2 | 2 13C5-PFHxA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 8.60e3 | 91.5 | NO |
| 3 | 3 13C3-PFHxS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.69e3 | 98.8 | NO |
| 4 | 4 13C8-PFOA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 6.59e3 | 83.5 | NO |
| 5 | 5 13C9-PFNA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.10e4 | 134.7 | NO |
| 6 | 6 13C4-PFOS | B7J0136-MSD2 Matrix Spike Dup 1.18 | 3.13e3 | 139.4 | NO |
| 7 | 7 13C6-PFDA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 7.31e3 | 87.9 | NO |
| 8 | 8 13C7-PFUnA | B7J0136-MSD2 Matrix Spike Dup 1.18 | 1.76e4 | 194.2 | YES |

Name: 171103M1_9, Date: 03-Nov-2017, Time: 14:54:57, ID: 1701528-05@30X STWRT-RPTSW01 0.11748, Description: STWRT-RPTSW01

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701528-05@30X STWRT-RPTSW01 | 2.01e2 | 2.7 | YES |
| 2 | 2 13C5-PFHxA | 1701528-05@30X STWRT-RPTSW01 | 2.76e2 | 2.9 | YES |
| 3 | 3 13C3-PFHxS | 1701528-05@30X STWRT-RPTSW01 | 3.55e1 | 2.1 | YES |
| 4 | 4 13C8-PFOA | 1701528-05@30X STWRT-RPTSW01 | 2.02e2 | 2.6 | YES |
| 5 | 5 13C9-PFNA | 1701528-05@30X STWRT-RPTSW01 | 2.43e2 | 3.0 | YES |
| 6 | 6 13C4-PFOS | 1701528-05@30X STWRT-RPTSW01 | 3.43e1 | 1.5 | YES |
| 7 | 7 13C6-PFDA | 1701528-05@30X STWRT-RPTSW01 | 3.45e2 | 4.1 | YES |
| 8 | 8 13C7-PFUnA | 1701528-05@30X STWRT-RPTSW01 | 2.51e2 | 2.8 | YES |

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Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:35:49 Pacific Daylight Time Printed: Friday, November 03, 2017 15:36:06 Pacific Daylight Time

Name: 171103M1_10, Date: 03-Nov-2017, Time: 15:06:05, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810

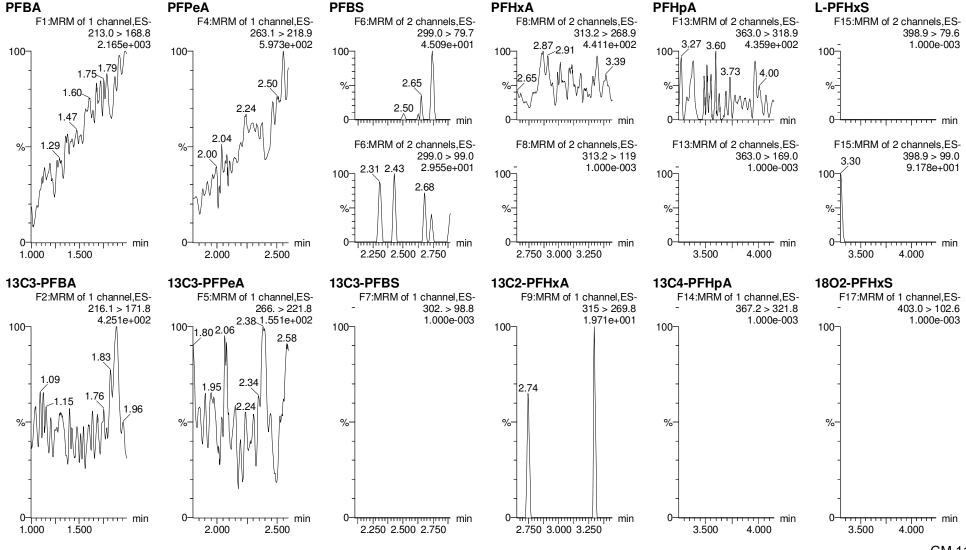
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|---|--------------|------------------------------|--------|-------|----------|
| | # Name | ID | Area | %Rec | Area Out |
| 1 | 1 13C4-PFBA | ST171103M1-2 PFC CS3 17J2810 | 7.57e3 | 103.3 | NO |
| 2 | 2 13C5-PFHxA | ST171103M1-2 PFC CS3 17J2810 | 1.06e4 | 112.2 | NO |
| 3 | 3 13C3-PFHxS | ST171103M1-2 PFC CS3 17J2810 | 1.82e3 | 106.4 | NO |
| 4 | 4 13C8-PFOA | ST171103M1-2 PFC CS3 17J2810 | 6.90e3 | 87.3 | NO |
| 5 | 5 13C9-PFNA | ST171103M1-2 PFC CS3 17J2810 | 9.52e3 | 116.1 | NO |
| 6 | 6 13C4-PFOS | ST171103M1-2 PFC CS3 17J2810 | 2.00e3 | 89.1 | NO |
| 7 | 7 13C6-PFDA | ST171103M1-2 PFC CS3 17J2810 | 8.56e3 | 102.9 | NO |
| 8 | 8 13C7-PFUnA | ST171103M1-2 PFC CS3 17J2810 | 9.81e3 | 108.1 | NO |

Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

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Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA



GM 11/3/17

Work Order 1701439 Revision 1

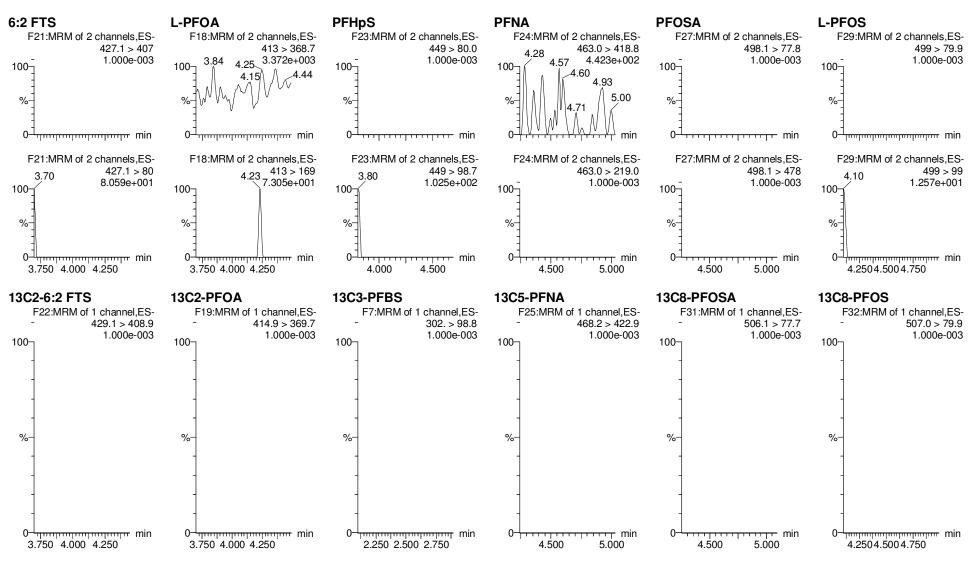
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Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

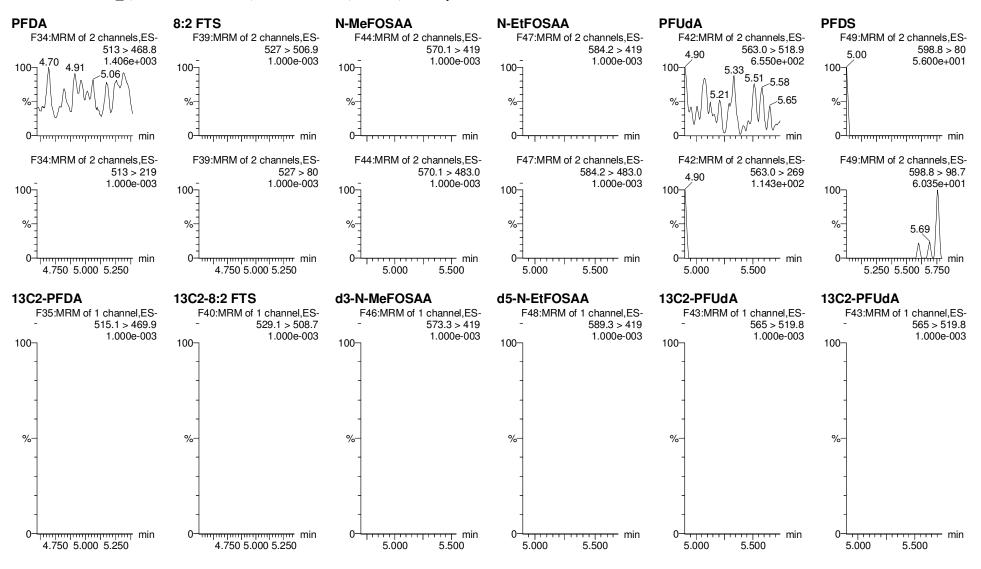


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Dataset: Untitled

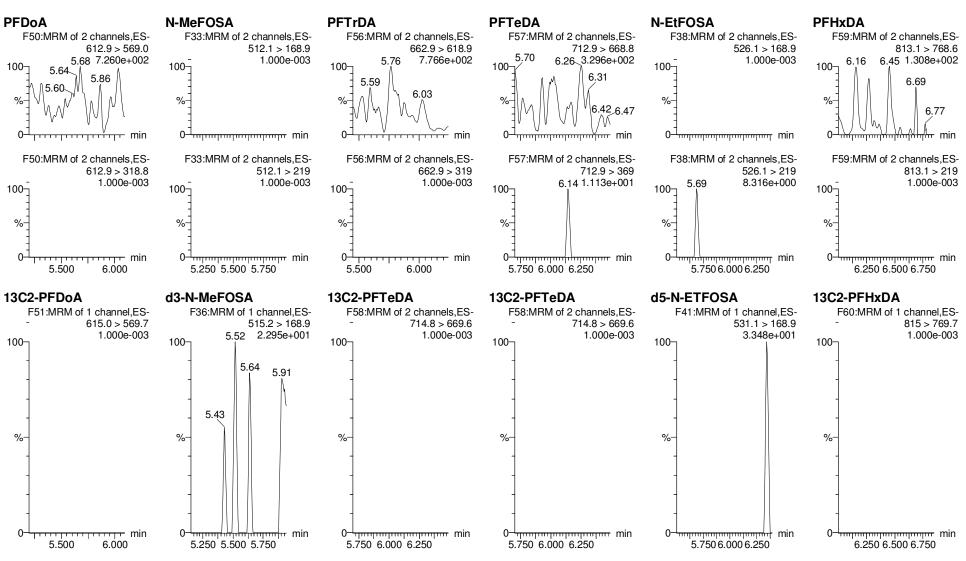
Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA



Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

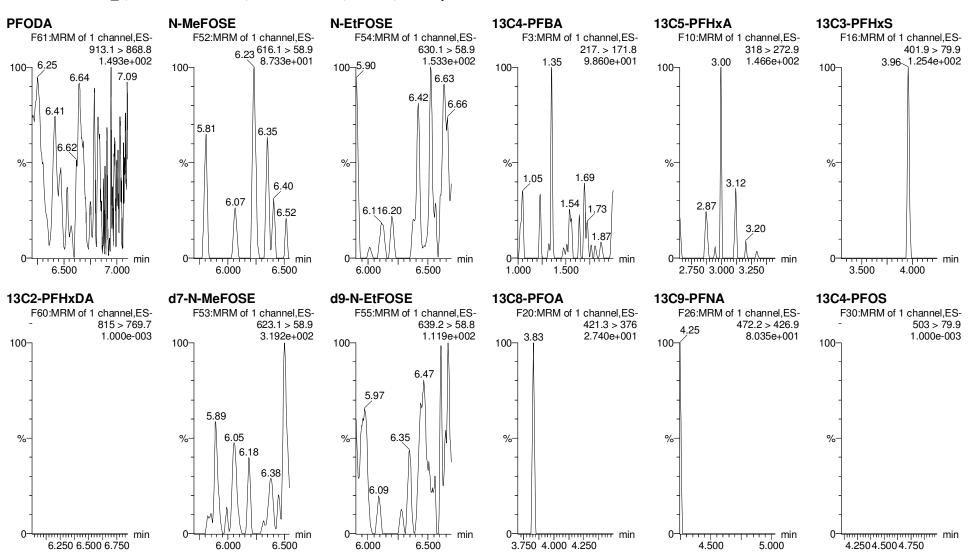


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Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA



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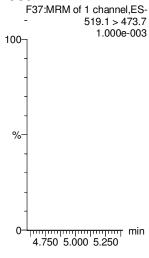
Quantify Sample Report Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:14:25 Pacific Daylight Time Printed: Friday, November 03, 2017 15:15:10 Pacific Daylight Time

Name: 171103M1_3, Date: 03-Nov-2017, Time: 13:46:25, ID: IPA, Description: IPA

13C6-PFDA



Quantify Sample Summary Report Vista Analytical Laboratory

MassLynx MassLynx V4.1 SCN945 SCN960

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Dataset:

U:\Q4.PRO\results\171103M1\171103M1-2.qld

Last Altered: Printed:

Friday, November 03, 2017 14:24:40 Pacific Daylight Time Friday, November 03, 2017 14:26:24 Pacific Daylight Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807

| er gag ir ta | | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec | |
|--------------|--|----------------------------|---------------|--------|---------|-------------------------|---------|------|--------------|-------|-------|-----------------|
| 1 | original Color | 1 PFBA | 213.0 > 168.8 | 6.59e2 | 7.15e3 | scalare vr Mitdaaacsess | 1.17 | 1.07 | 1.15 | 1.04 | 104.1 | 70-130 |
| 2 | | 2 PFPeA | 263.1 > 218.9 | 6.41e2 | 7.67e3 | | 2.15 | 2.02 | 1.04 | 0.996 | 99.6 | |
| 3 | | 3 PFBS | 299.0 > 79.7 | 1.52e2 | 9.21e2 | | 2.44 | 2.32 | 2.07 | 0.930 | 93.0 | |
| 4 | | 4 PFHxA | 313.2 > 268.9 | 9.72e2 | 3.04e3 | | 2.93 | 2.81 | 1.60 | 0.995 | 99.5 | |
| 5 | | 5 PFHpA | 363.0 > 318.9 | 7.67e2 | 6.96e3 | | 3.56 | 3.44 | 1.38 | 0.971 | 97.1 | |
| 6 | | 6 L-PFHxS | 398.9 > 79.6 | 1.02e2 | 7.00e2 | | 3.71 | 3.59 | 1.82 | 0.864 | 86.4 | |
| 7.0.5 | Dermander den Mag | 8 6:2 FTS | 427.1 > 407 | 1.55e2 | 2.04e3 | | 4.03 | 3.90 | 0.952 | 0.990 | 99.0 | |
| 8 | | 9 L-PFOA | 413 > 368.7 | 9.76e2 | 9.65e3 | | 4.05 | 3.96 | 1.26 | 1.00 | 100.4 | |
| 9 | Ministerijas (n Prisiper Medicilia) Post | 11 PFHpS | 449 > 80.0 | 1.81e2 | 9.65e3 | | 4.20 | 4.08 | 0.234 | 1.26 | 126.2 | |
| 10 | Missing to the | 12 PFNA | 463.0 > 418.8 | 7.62e2 | 9.25e3 | | 4.55 | 4.41 | 1.03 | 0.856 | 85.6 | OM. |
| 11 | lässen ja lajana. Jan | 13 PFOSA | 498.1 > 77.8 | 2.17e2 | 2.10e3 | | 4.59 | 4.46 | 1.29 | 1.17 | 117.0 | W |
| 12 | ini Zapania Visionalia Visionalia | 14 L-PFOS | 499 > 79.9 | 1.67e2 | 2.39e3 | | 4.63 | 4.50 | 0.872 | 0.898 | 89.8 | 1 1/2/17 |
| 13 | labisa politika ja Mag | 16 PFDA | 513 > 468.8 | 1.04e3 | 8.85e3 | | 4.92 | 4.80 | 1.46 | 1.12 | 111.8 | 1 ((13 |
| 14 | t pater state of the later. | 17 8:2 FTS | 527 > 506.9 | 1.92e2 | 1.32e3 | | 4.89 | 4.76 | 1.81 | 1.30 | 129.9 | 1 40 |
| 15 | (4) (13, 13, 13) 2) 7) (13, 13, 13, 13, 13, 13, 13, 13, 13, 13, | 18 N-MeFOSAA | 570.1 > 419 | 3.94e2 | 3.36e3 | | 5.08 | 4.96 | 1.47 | 0.921 | 92.1 | V 14. |
| 16 | | 19 N-EtFOSAA | 584.2 > 419 | 3.97e2 | 4.06e3 | | 5.24 | 5.11 | 1.22 | 1.05 | 105.2 | 1 (11/03/201 |
| 17 | e kelijang pana | 20 PFUdA | 563.0 > 518.9 | 8.92e2 | 1.05e4 | | 5.25 | 5.13 | 1.06 | 1.03 | 102.5 | |
| 18 | Minalospoolebajos Sees valans seedaa Ressa, jõpavõda saa | 21 PFDS | 598.8 > 80 | 2.12e2 | 1.05e4 | | 5.31 | 5.18 | 0.252 | 1.29 | 129.1 | |
| 19 | (1) (5) (2) (1) (2) | 22 PFDoA | 612.9 > 569.0 | 9.66e2 | 9.87e3 | | 5.55 | 5.43 | 1.22 | 0.925 | 92.5 | |
| 20 | er sate en de | 23 N-MeFOSA | 512.1 > 168.9 | 3.86e2 | 1.08e4 | | 5.56 | 5.50 | 5.35 | 5.06 | 101.2 | |
| 21 | n den paris Diagram | 24 PFTrDA | 662.9 > 618.9 | 8.17e2 | 9.87e3 | | 5.80 | 5.68 | 1.03 | 0.808 | 80.8 | |
| 22 | nasite filoso michalos | 25 PFTeDA | 712.9 > 668.8 | 8.42e2 | 9.54e3 | | 6.02 | 5.90 | 1.10 | 0.857 | 85.7 | |
| 23 | un programa Un generalisa | 26 N-EtFOSA | 526.1 > 168.9 | 5.59e2 | 1.72e4 | | 6.01 | 5.96 | 4.87 | 4.82 | 96.4 | 1 |
| 24 | | 27 PFHxDA | 813.1 > 768.6 | 5.79e2 | 3.74e3 | | 6.32 | 6.27 | 0.773 | 1.16 | 116.3 | \ \ |
| 25 | | 28 PFODA | 913.1 > 868.8 | 2.85e2 | 3.74e3 | | 6.61 | 6.52 | 0.380 | 0.989 | 98.9 | |
| 26 | erongay Adlebij Sii databilada | 29 N-MeFOSE | 616.1 > 58.9 | 5.65e2 | 1.52e4 | | 6.23 | 6.19 | 5.56 | 5.48 | 109.7 | |
| 27 | Papelia. | 30 N-EtFOSE | 630.1 > 58.9 | 4.83e2 | 1.44e4 | | 6.39 | 6.35 | 5.04 | 4.20 | 84.0 | |
| 28 | l Magapallind Shir Marajan diga shir | 31 13C3-PFBA | 216.1 > 171.8 | 7.15e3 | 7.34e3 | 0.949 | 1.17 | 1.07 | 12.2 | 12.8 | 102.8 | 90-150 |
| 29 | | 32 13C3-PFPeA | 266. > 221.8 | 7.67e3 | 9.41e3 | 0.781 | 2.15 | 2.02 | 10.2 | 13.1 | 104.4 | |
| 30 | | 33 13C3-PFBS | 302. > 98.8 | 9.21e2 | 9.41e3 | 0.089 | 2.44 | 2.32 | 1.22 | 13.8 | 110.5 | |
| 31 | Work | O4dlaC270F14849 Revision 1 | 315 > 269.8 | 3.04e3 | 9.41e3 | 0.755 | 2.93 | 2.81 | 4.04 | 5.35 | 107.0 | Page 106 of 402 |

U:\Q4.PRO\results\171103M1\171103M1-2.qld

Last Altered: Printed:

Friday, November 03, 2017 14:24:40 Pacific Daylight Time Friday, November 03, 2017 14:26:24 Pacific Daylight Time

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807

| | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|----|-----------------|---------------|--------|---------|-------|---------|------|--------------|-------|-------|
| 32 | 35 13C4-PFHpA | 367.2 > 321.8 | 6.96e3 | 9.41e3 | 0.711 | 3.56 | 3.43 | 9.25 | 13.0 | 104.1 |
| 33 | 36 18O2-PFHxS | 403.0 > 102.6 | 7.00e2 | 1.71e3 | 0.423 | 3.71 | 3.59 | 5.11 | 12.1 | 96.6 |
| 34 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.04e3 | 7.90e3 | 0.286 | 4.03 | 3.90 | 3.23 | 11.3 | 90.4 |
| 35 | 38 13C2-PFOA | 414.9 > 369.7 | 9.65e3 | 7.90e3 | 1.310 | 4.05 | 3.96 | 15.3 | 11.7 | 93.3 |
| 36 | 39 13C5-PFNA | 468.2 > 422.9 | 9.25e3 | 8.20e3 | 0.979 | 4.55 | 4.41 | 14.1 | 14.4 | 115.3 |
| 37 | 40 13C8-PFOSA | 506.1 > 77.7 | 2.10e3 | 9.08e3 | 0.207 | 4.59 | 4.46 | 2.89 | 14.0 | 111.7 |
| 38 | 41 13C8-PFOS | 507.0 > 79.9 | 2.39e3 | 2.24e3 | 1.072 | 4.63 | 4.50 | 13.3 | 12.4 | 99.3 |
| 39 | 42 13C2-PFDA | 515.1 > 469.9 | 8.85e3 | 8.30e3 | 1.014 | 4.92 | 4.80 | 13.3 | 13.1 | 105.1 |
| 40 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 1.32e3 | 8.30e3 | 0.216 | 4.89 | 4.76 | 1.99 | 9.20 | 73.6 |
| 41 | 44 d3-N-MeFOSAA | 573.3 > 419 | 3.36e3 | 9.08e3 | 0.368 | 5.08 | 4.95 | 4.62 | 12.6 | 100.5 |
| 42 | 45 d5-N-EtFOSAA | 589.3 > 419 | 4.06e3 | 9.08e3 | 0.389 | 5.24 | 5.11 | 5.59 | 14.4 | 115.1 |
| 43 | 46 13C2-PFUdA | 565 > 519.8 | 1.05e4 | 9.08e3 | 0.983 | 5.25 | 5.13 | 14.4 | 14.7 | 117.6 |
| 44 | 47 13C2-PFDoA | 615.0 > 569.7 | 9.87e3 | 9.08e3 | 0.997 | 5.55 | 5.42 | 13.6 | 13.6 | 109.1 |
| 45 | 48 d3-N-MeFOSA | 515.2 > 168.9 | 1.08e4 | 9.08e3 | 0.096 | 5.56 | 5.53 | 14.9 | 156 | 103.7 |
| 46 | 49 13C2-PFTeDA | 714.8 > 669.6 | 9.54e3 | 9.08e3 | 1.039 | 6.02 | 5.90 | 13.1 | 12.6 | 101.1 |
| 47 | 50 d5-N-ETFOSA | 531.1 > 168.9 | 1.72e4 | 9.08e3 | 0.144 | 6.01 | 5.98 | 23.7 | 165 | 109.8 |
| 48 | 51 13C2-PFHxDA | 815 > 769.7 | 3.74e3 | 9.08e3 | 1.032 | 6.32 | 6.27 | 5.16 | 4.99 | 99.9 |
| 49 | 52 d7-N-MeFOSE | 623.1 > 58.9 | 1.52e4 | 9.08e3 | 0.133 | 6.23 | 6.19 | 21.0 | 158 | 105.2 |
| 50 | 53 d9-N-EtFOSE | 639.2 > 58.8 | 1.44e4 | 9.08e3 | 0.128 | 6.39 | 6.34 | 19.8 | 155 | 103.2 |
| 51 | 54 13C4-PFBA | 217. > 171.8 | 7.34e3 | 7.34e3 | 1.000 | 1.17 | 1.07 | 12.5 | 12.5 | 100.0 |
| 52 | 55 13C5-PFHxA | 318 > 272.9 | 9.41e3 | 9.41e3 | 1.000 | 2.93 | 2.81 | 12.5 | 12.5 | 100.0 |
| 53 | 56 13C3-PFHxS | 401.9 > 79.9 | 1.71e3 | 1.71e3 | 1.000 | 3.71 | 3.59 | 12.5 | 12.5 | 100.0 |
| 54 | 57 13C8-PFOA | 421.3 > 376 | 7.90e3 | 7.90e3 | 1.000 | 4.05 | 3.96 | 12.5 | 12.5 | 100.0 |
| 55 | 58 13C9-PFNA | 472.2 > 426.9 | 8.20e3 | 8.20e3 | 1.000 | 4.55 | 4.41 | 12.5 | 12.5 | 100.0 |
| 56 | 59 13C4-PFOS | 503 > 79.9 | 2.24e3 | 2.24e3 | 1.000 | 4.63 | 4.50 | 12.5 | 12.5 | 100.0 |
| 57 | 60 13C6-PFDA | 519.1 > 473.7 | 8.30e3 | 8.30e3 | 1.000 | 4.92 | 4.80 | 12.5 | 12.5 | 100.0 |
| 58 | 61 13C7-PFUdA | 570.1 > 524.8 | 9.08e3 | 9.08e3 | 1.000 | 5.25 | 5.13 | 12.5 | 12.5 | 100.0 |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

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Vista Analytical Laboratory

Dataset:

Untitled

Last Altered: Printed: Friday, November 03, 2017 15:33:44 Pacific Daylight Time Friday, November 03, 2017 15:34:28 Pacific Daylight Time

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Compound name: PFBA

| | Name | ID ID | Acq.Date | Acq.Time |
|----|-------------|---------------------------------------|-----------|----------|
| 1 | 171103M1_1 | IPA | 03-Nov-17 | 13:24:06 |
| 2 | 171103M1_2 | ST171103M1-1 PFC CS0 17J2807 | 03-Nov-17 | 13:35:14 |
| 3 | 171103M1_3 | IPA | 03-Nov-17 | 13:46:25 |
| 4 | 171103M1_4 | 1701439-03 FRB04_20171005 0.125 | 03-Nov-17 | 13:57:38 |
| 5 | 171103M1_5 | 1701439-05 FRB06_20171006 0.125 | 03-Nov-17 | 14:08:50 |
| 6 | 171103M1_6 | B7J0136-MS2@5X Matrix Spike 1.12 | 03-Nov-17 | 14:20:00 |
| 7 | 171103M1_7 | B7J0136-MSD2@5X Matrix Spike Dup 1.18 | 03-Nov-17 | 14:31:11 |
| 8 | 171103M1_8 | B7J0136-MSD2 Matrix Spike Dup 1.18 | 03-Nov-17 | 14:42:22 |
| 9 | 171103M1_9 | 1701528-05@30X STWRT-RPTSW01 0.11748 | 03-Nov-17 | 14:54:57 |
| 10 | 171103M1_10 | IPA | 03-Nov-17 | 15:06:05 |
| 11 | 171103M1_11 | ST171103M1-2 PFC CS3 17J2810 | 03-Nov-17 | 15:17:27 |
| 12 | 171103M1_12 | IPA | 03-Nov-17 | 15:28:59 |

Work Order 1701439 Revision 1 Page 108 of 402

| LC Ca | LC Calibration Standards Review Checklist(| | | | | | | | | |
|---|--|-----------|---------------|----------------|--------------|------------------|------------------------|---|--|--|
| | | ION Ratio | Concentration | C-Cals Name | Sign Date | Correct I-Cal | Manual Integrations | A | | |
| Calibration ID: ST 17 1103 M 1 - 1 | (L)M H | # | | V | U | V | \triangleleft | 中 | | |
| Calibration ID: ——————————————————————————————————— | L(M)H | ₫⁄ | ' | ď | 回 | V | □√ | 4 | | |
| Calibration ID: | L M H — | | | | | | | | | |
| Calibration ID: | LМН — | | | | | | | | | |
| Calibration ID: | LМН — | | | | | | | | | |
| Calibration ID: | LМН — | | | | | | | | | |
| Calibration ID: | L M H - | | | | | | | | | |
| Calibration ID: | L M H - | | | | | | | | | |
| Calibration ID: | L M H - | | | | | | | | | |
| Calibration ID: | L M H - | | | | | | | | | |
| | | | | | Full Ma | ss Cal. D | Pate: 4/21/7 | | | |
| Run Log Present: | | | | | _ | | | | | |
| # of Samples per Sequence Checked: | 4 | | | | Comme Fi | ents:) (\ (| OLD | | | |
| Reviewed By: 1 03 20 (7 Initials/Date | | | | | | | | | | |

ID: LR - LCSRC Work Order 1701439 Revision 1

Rev. No.: 0

Rev. Date: 06/06/2017

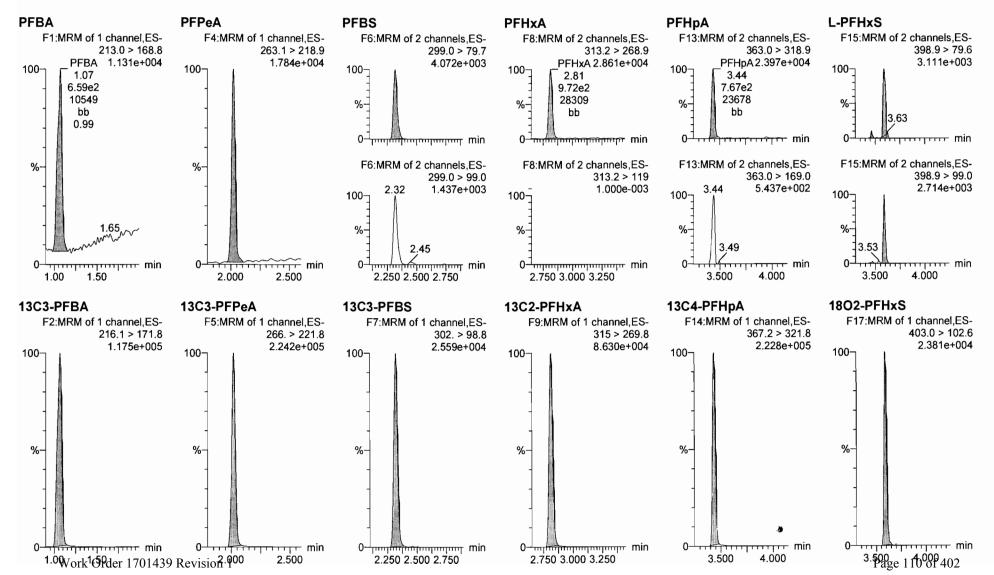
Page: 1 of 1Page 109 of 402

U:\Q4.PRO\results\171103M1\171103M1-2.qld

Last Altered: Printed: Friday, November 03, 2017 14:24:40 Pacific Daylight Time Friday, November 03, 2017 14:26:24 Pacific Daylight Time

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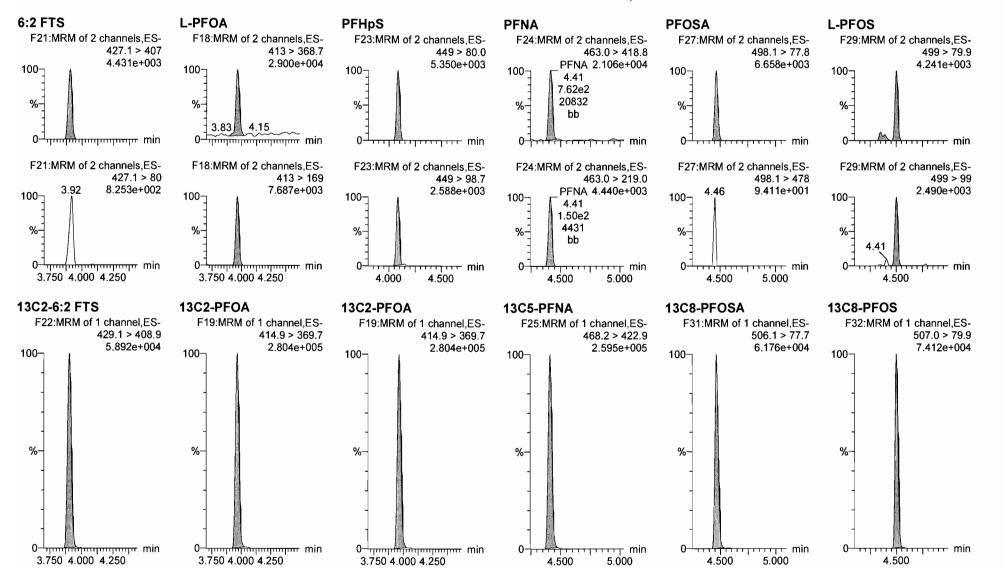
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U:\Q4.PRO\results\171103M1\171103M1-2.qld

Last Altered: Printed: Friday, November 03, 2017 14:24:40 Pacific Daylight Time Friday, November 03, 2017 14:26:24 Pacific Daylight Time

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807



Work Order 1701439 Revision 1 Page 111 of 402

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Dataset:

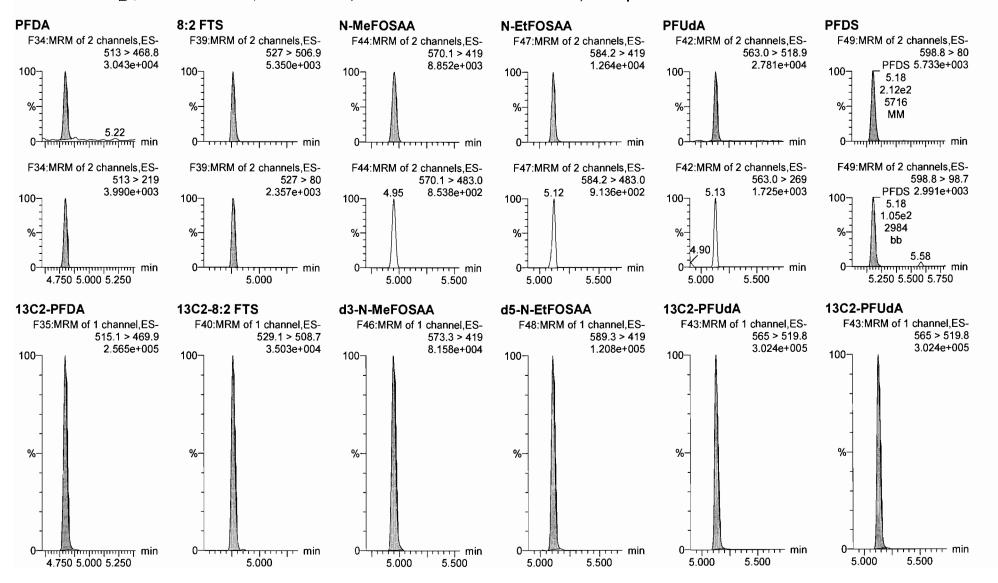
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Last Altered:

Friday, November 03, 2017 14:24:40 Pacific Daylight Time

Printed: Friday, November 03, 2017 14:26:24 Pacific Daylight Time

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807



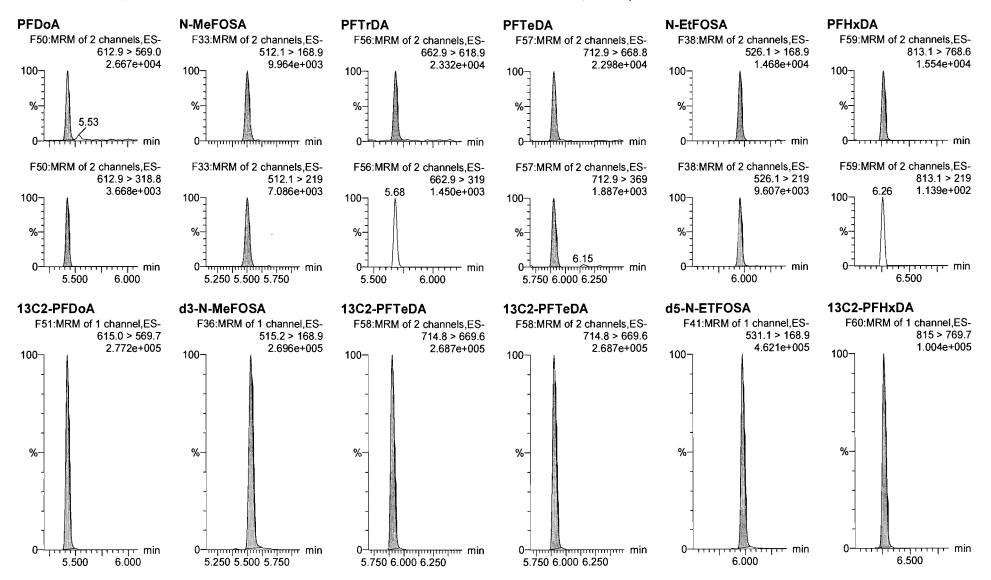
Work Order 1701439 Revision 1

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Friday, November 03, 2017 14:24:40 Pacific Daylight Time

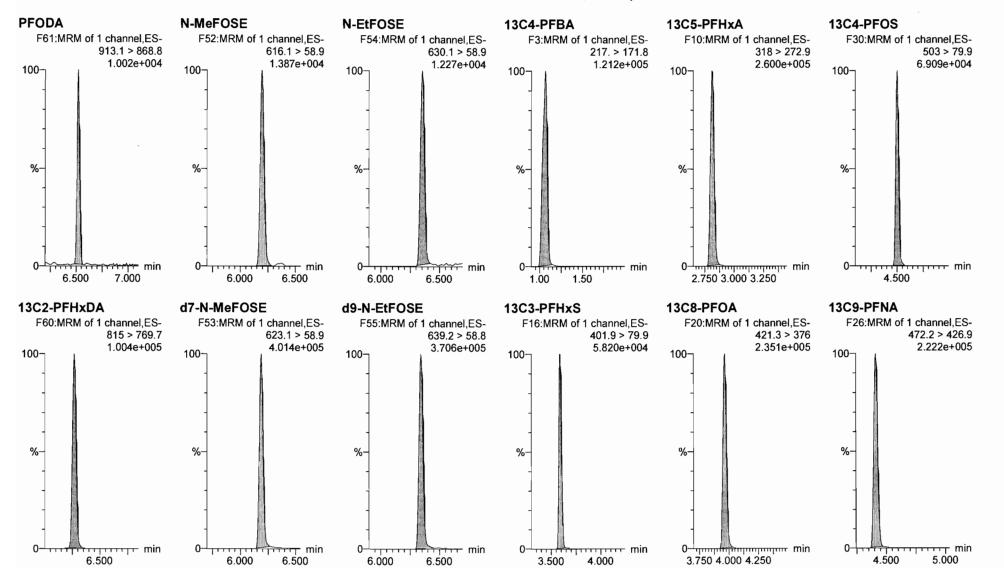
Printed: Friday, November 03, 2017 14:26:24 Pacific Daylight Time



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Last Altered: Printed:

Friday, November 03, 2017 14:24:40 Pacific Daylight Time Friday, November 03, 2017 14:26:24 Pacific Daylight Time

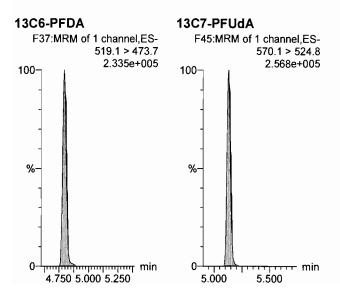


U:\Q4.PRO\results\171103M1\171103M1-2.qld

Last Altered: Printed:

Friday, November 03, 2017 14:24:40 Pacific Daylight Time Friday, November 03, 2017 14:26:24 Pacific Daylight Time

Name: 171103M1_2, Date: 03-Nov-2017, Time: 13:35:14, ID: ST171103M1-1 PFC CS0 17J2807, Description: PFC CS0 17J2807



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U:\Q4.PRO\results\171103M1\171103M1-113.qld

Last Altered: Printed:

Friday, November 03, 2017 15:31:35 Pacific Daylight Time Friday, November 03, 2017 15:31:46 Pacific Daylight Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

| en en aktoriste a en en aktoriste a | # Name | Trace | Area | IS Area | RRF I | Pred.RT | RT | y Axis Resp. | Conc. | %Rec | |
|--|----------------------------------|---------------|--------|---------|-------|---------|------|--------------|-------|-------|--------------------------|
| 1 | 1 PFBA | 213.0 > 168.8 | 6.42e3 | 7.20e3 | Ougs. | 1.17 | 1.07 | 11.2 | 10.4 | 104.0 | 70-130 |
| 2 3 | 2 PFPeA | 263.1 > 218.9 | 6.38e3 | 7.78e3 | | 2.15 | 2.03 | 10.3 | 10.7 | 106.9 | T |
| 3 | 3 PFBS | 299.0 > 79.7 | 1.66e3 | 8.58e2 | | 2.44 | 2.32 | 24.2 | 11.9 | 119.3 | ì |
| 4 | 4 PFHxA | 313.2 > 268.9 | 9.21e3 | 3.06e3 | | 2.93 | 2.81 | 15.1 | 10.6 | 105.9 | |
| 5 | 5 PFHpA | 363.0 > 318.9 | 7.34e3 | 6.76e3 | | 3.56 | 3.44 | 13.6 | 10.4 | 104.2 | |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 1.31e3 | 7.49e2 | | 3.71 | 3.59 | 21.9 | 10.8 | 108.0 | |
| 7 | 8 6:2 FTS | 427.1 > 407 | 1.84e3 | 2.26e3 | | 4.03 | 3.90 | 10.2 | 10.8 | 108.1 | |
| 8 9 | 9 L-PFOA | 413 > 368.7 | 7.95e3 | 9.99e3 | | 4.05 | 3.96 | 9.95 | 10.2 | 102.1 | W 113/17 |
| 9 | 11 PFHpS | 449 > 80.0 | 1.46e3 | 9.99e3 | | 4.20 | 4.09 | 1.82 | 9.93 | 99.3 | J W |
| 10 | 12 PFNA | 463.0 > 418.8 | 9.25e3 | 9.14e3 | | 4.55 | 4.41 | 12.6 | 10.1 | 101.0 | 113/17 |
| 11 | 13 PFOSA | 498.1 > 77.8 | 1.75e3 | 1.95e3 | | 4.59 | 4.47 | 11.2 | 10.4 | 104.2 | (1) |
| 12 | 14 L-PFOS | 499 > 79.9 | 1.71e3 | 2.20e3 | | 4.63 | 4.50 | 9.69 | 9.56 | 95.6 | |
| 13 | 16 PFDA | 513 > 468.8 | 9.67e3 | 9.08e3 | | 4.92 | 4.80 | 13.3 | 10.4 | 103.7 | <i>μ</i> ΙιΔ |
| 14 | 17 8:2 FTS | 527 > 506.9 | 2.38e3 | 1.98e3 | | 4.89 | 4.76 | 15.1 | 10.6 | 106.1 | VIA. |
| 15 | 18 N-MeFOSAA | 570.1 > 419 | 4.78e3 | 4.45e3 | | 5.08 | 4.95 | 13.4 | 9.25 | 92.5 | 0 11103120 |
| 16 | 19 N-EtFOSAA | 584.2 > 419 | 4.03e3 | 4.01e3 | | 5.24 | 5.11 | 12.6 | 10.7 | 107.0 | |
| 17 | 20 PFUdA | 563.0 > 518.9 | 7.58e3 | 9.91e3 | | 5.25 | 5.13 | 9.55 | 9.85 | 98.5 | |
| 18 | 21 PFDS | 598.8 > 80 | 1.66e3 | 9.91e3 | | 5.31 | 5.18 | 2.09 | 9.41 | 94.1 | |
| 19 | 22 PFDoA | 612.9 > 569.0 | 1.04e4 | 1.08e4 | | 5.55 | 5.42 | 12.1 | 9.78 | 97.8 | |
| 20 | 23 N-MeFOSA | 512.1 > 168.9 | 3.58e3 | 9.84e3 | | 5.56 | 5.51 | 54.5 | 54.6 | 109.2 | |
| 21 | 24 PFTrDA | 662.9 > 618.9 | 9.30e3 | 1.08e4 | | 5.80 | 5.68 | 10.8 | 8.44 | 84.4 | |
| 22 | 25 PFTeDA | 712.9 > 668.8 | 6.91e3 | 8.60e3 | | 6.02 | 5.90 | 10.1 | 7.83 | 78.3 | |
| 23 | 26 N-EtFOSA | 526.1 > 168.9 | 4.95e3 | 1.56e4 | | 6.01 | 5.96 | 47.5 | 51.8 | 103.6 | |
| 24 | 27 PFHxDA | 813.1 > 768.6 | 3.94e3 | 3.68e3 | | 6.32 | 6.27 | 5.35 | 9.20 | 92.0 | |
| 25 | 28 PFODA | 913.1 > 868.8 | 2.28e3 | 3.68e3 | | 6.61 | 6.52 | 3.09 | 7.51 | 75.1 | |
| 26 | 29 N-MeFOSE | 616.1 > 58.9 | 4.67e3 | 1.71e4 | | 6.23 | 6.20 | 41.0 | 44.4 | 88.9 | 1 |
| 27 | 30 N-EtFOSE | 630.1 > 58.9 | 5.71e3 | 1.52e4 | | 6.39 | 6.35 | 56.3 | 55.2 | 110.4 | V |
| 28 | 31 13C3-PFBA | 216.1 > 171.8 | 7.20e3 | 7.57e3 | 0.949 | 1.17 | 1.07 | 11.9 | 12.5 | | 50-150 |
| 29 | 32 13C3-PFPeA | 266. > 221.8 | 7.78e3 | 1.06e4 | 0.781 | 2.15 | 2.03 | 9.21 | 11.8 | 94.3 | |
| 30 | 33 13C3-PFBS | 302. > 98.8 | 8.58e2 | 1.06e4 | 0.089 | 2.44 | 2.32 | 1.02 | 11.5 | 91.8 | (, |
| 31 | Work O4de3 9270 F 489 Revision 1 | 315 > 269.8 | 3.06e3 | 1.06e4 | 0.755 | 2.93 | 2.81 | 3.62 | 4.80 | 96.0 | V Page 116 of 402 |

U:\Q4.PRO\results\171103M1\171103M1-113.qld

Last Altered: Printed:

Friday, November 03, 2017 15:31:35 Pacific Daylight Time Friday, November 03, 2017 15:31:46 Pacific Daylight Time

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| | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | ⊪%Rec |
|-----|-----------------|---------------|--------|---------|-------|---------|------|--------------|-------|--------------|
| 32 | 35 13C4-PFHpA | 367.2 > 321.8 | 6.76e3 | 1.06e4 | 0.711 | 3.56 | 3.44 | 8.00 | 11.3 | 90.0 50 -150 |
| 33 | 36 1802-PFHxS | 403.0 > 102.6 | 7.49e2 | 1.82e3 | 0.423 | 3.71 | 3.59 | 5.13 | 12.1 | 97.0 |
| 34 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.26e3 | 6.90e3 | 0.286 | 4.03 | 3.91 | 4.10 | 14.3 | 114.8 |
| 35 | 38 13C2-PFOA | 414.9 > 369.7 | 9.99e3 | 6.90e3 | 1.310 | 4.05 | 3.96 | 18.1 | 13.8 | 110.6 |
| 36 | 39 13C5-PFNA | 468.2 > 422.9 | 9.14e3 | 9.52e3 | 0.979 | 4.55 | 4.41 | 12.0 | 12.3 | 98.0 |
| 37 | 40 13C8-PFOSA | 506.1 > 77.7 | 1.95e3 | 9.81e3 | 0.207 | 4.59 | 4.47 | 2.49 | 12.0 | 96.3 |
| 38 | 41 13C8-PFOS | 507.0 > 79.9 | 2.20e3 | 2.00e3 | 1.072 | 4.63 | 4.50 | 13.8 | 12.9 | 102.9 |
| 39 | 42 13C2-PFDA | 515.1 > 469.9 | 9.08e3 | 8.56e3 | 1.014 | 4.92 | 4.80 | 13.3 | 13.1 | 104.6 |
| 40 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 1.98e3 | 8.56e3 | 0.216 | 4.89 | 4.76 | 2.89 | 13.4 | 107.0 |
| 41 | 44 d3-N-MeFOSAA | 573.3 > 419 | 4.45e3 | 9.81e3 | 0.368 | 5.08 | 4.95 | 5.66 | 15.4 | 123.1 |
| 42 | 45 d5-N-EtFOSAA | 589.3 > 419 | 4.01e3 | 9.81e3 | 0.389 | 5.24 | 5.11 | 5.10 | 13.1 | 105.1 |
| 43 | 46 13C2-PFUdA | 565 > 519.8 | 9.91e3 | 9.81e3 | 0.983 | 5.25 | 5.13 | 12.6 | 12.8 | 102.8 |
| 44 | 47 13C2-PFDoA | 615.0 > 569.7 | 1.08e4 | 9.81e3 | 0.997 | 5.55 | 5.42 | 13.7 | 13.8 | 110.0 |
| 45 | 48 d3-N-MeFOSA | 515.2 > 168.9 | 9.84e3 | 9.81e3 | 0.096 | 5.56 | 5.53 | 12.5 | 131 | 87.4 |
| 46 | 49 13C2-PFTeDA | 714.8 > 669.6 | 8.60e3 | 9.81e3 | 1.039 | 6.02 | 5.91 | 10.9 | 10.5 | 84.3 |
| 47 | 50 d5-N-ETFOSA | 531.1 > 168.9 | 1.56e4 | 9.81e3 | 0.144 | 6.01 | 5.98 | 19.9 | 138 | 92.1 |
| 48 | 51 13C2-PFHxDA | 815 > 769.7 | 3.68e3 | 9.81e3 | 1.032 | 6.32 | 6.27 | 4.69 | 4.54 | 90.8 |
| 49 | 52 d7-N-MeFOSE | 623.1 > 58.9 | 1.71e4 | 9.81e3 | 0.133 | 6.23 | 6.19 | 21.7 | 163 | 108.9 |
| 50 | 53 d9-N-EtFOSE | 639.2 > 58.8 | 1.52e4 | 9.81e3 | 0.128 | 6.39 | 6.34 | 19.4 | 152 | 101.2 |
| 51. | 54 13C4-PFBA | 217. > 171.8 | 7.57e3 | 7.57e3 | 1.000 | 1.17 | 1.07 | 12.5 | 12.5 | 100.0 |
| 52 | 55 13C5-PFHxA | 318 > 272.9 | 1.06e4 | 1.06e4 | 1.000 | 2.93 | 2.81 | 12.5 | 12.5 | 100.0 |
| 53 | 56 13C3-PFHxS | 401.9 > 79.9 | 1.82e3 | 1.82e3 | 1.000 | 3.71 | 3.59 | 12.5 | 12.5 | 100.0 |
| 54 | 57 13C8-PFOA | 421.3 > 376 | 6.90e3 | 6.90e3 | 1.000 | 4.05 | 3.96 | 12.5 | 12.5 | 100.0 |
| 55 | 58 13C9-PFNA | 472.2 > 426.9 | 9.52e3 | 9.52e3 | 1.000 | 4.55 | 4.41 | 12.5 | 12.5 | 100.0 |
| 56 | 59 13C4-PFOS | 503 > 79.9 | 2.00e3 | 2.00e3 | 1.000 | 4.63 | 4.50 | 12.5 | 12.5 | 100.0 |
| 57 | 60 13C6-PFDA | 519.1 > 473.7 | 8.56e3 | 8.56e3 | 1.000 | 4.92 | 4.79 | 12.5 | 12.5 | 100.0 |
| 58 | 61 13C7-PFUdA | 570.1 > 524.8 | 9.81e3 | 9.81e3 | 1.000 | 5.25 | 5.13 | 12.5 | 12.5 | 100.0 |

Work Order 1701439 Revision 1 Page 117 of 402

Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Page 1 of 1

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, November 03, 2017 15:33:44 Pacific Daylight Time Printed: Friday, November 03, 2017 15:34:28 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 01 Nov 2017 11:32:51 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Compound name: PFBA

| | Name | ID . | Acq.Date | Acq.Time |
|--------------------|-------------|---------------------------------------|-----------|----------|
| 1 | 171103M1_1 | IPA | 03-Nov-17 | 13:24:06 |
| 2 | 171103M1_2 | ST171103M1-1 PFC CS0 17J2807 | 03-Nov-17 | 13:35:14 |
| 3 | 171103M1_3 | IPA · | 03-Nov-17 | 13:46:25 |
| 4 mali proposition | 171103M1_4 | 1701439-03 FRB04_20171005 0.125 | 03-Nov-17 | 13:57:38 |
| 5 | 171103M1_5 | 1701439-05 FRB06_20171006 0.125 | 03-Nov-17 | 14:08:50 |
| 6 | 171103M1_6 | B7J0136-MS2@5X Matrix Spike 1.12 | 03-Nov-17 | 14:20:00 |
| 7 | 171103M1_7 | B7J0136-MSD2@5X Matrix Spike Dup 1.18 | 03-Nov-17 | 14:31:11 |
| 8 | 171103M1_8 | B7J0136-MSD2 Matrix Spike Dup 1.18 | 03-Nov-17 | 14:42:22 |
| 9 | 171103M1_9 | 1701528-05@30X STWRT-RPTSW01 0.11748 | 03-Nov-17 | 14:54:57 |
| 10 | 171103M1_10 | IPA | 03-Nov-17 | 15:06:05 |
| 11 | 171103M1_11 | ST171103M1-2 PFC CS3 17J2810 | 03-Nov-17 | 15:17:27 |
| 12 | 171103M1_12 | IPA | 03-Nov-17 | 15:28:59 |

Work Order 1701439 Revision 1 Page 118 of 402

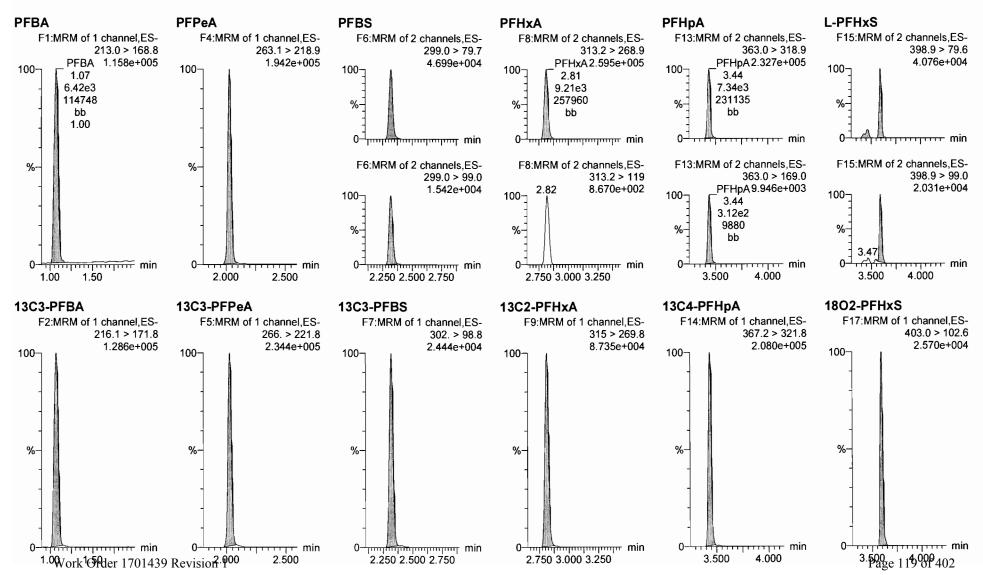
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13



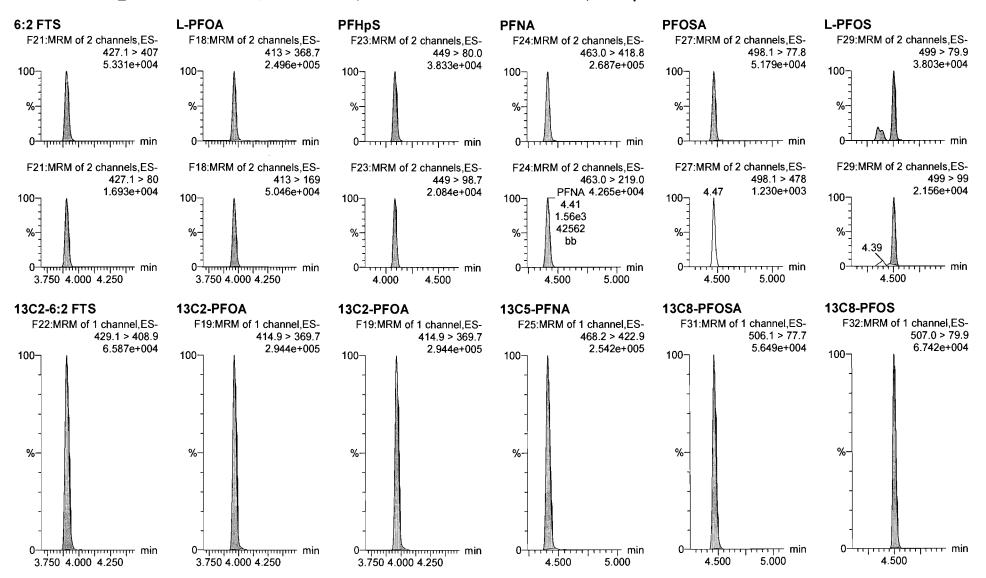
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Friday, November 03, 2017 15:31:35 Pacific Daylight Time

Printed: Friday, November 03, 2017 15:31:46 Pacific Daylight Time

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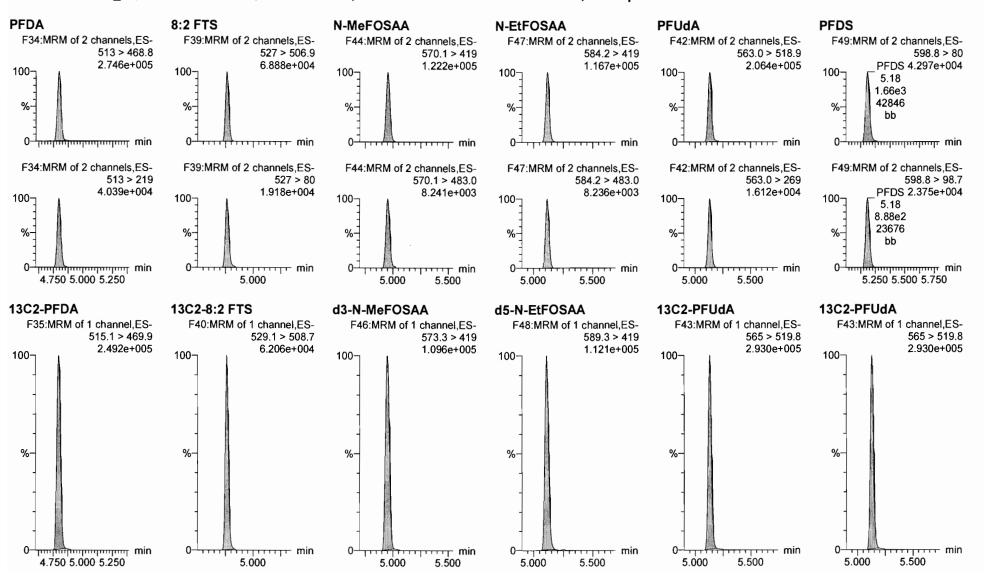


Work Order 1701439 Revision 1 Page 120 of 402

U:\Q4.PRO\results\171103M1\171103M1-113.qld

Last Altered: Printed: Friday, November 03, 2017 15:31:35 Pacific Daylight Time Friday, November 03, 2017 15:31:46 Pacific Daylight Time

Name: 171103M1_11, Date: 03-Nov-2017, Time: 15:17:27, ID: ST171103M1-2 PFC CS3 17J2810, Description: PFC CS3 17J2810



Work Order 1701439 Revision 1 Page 121 of 402

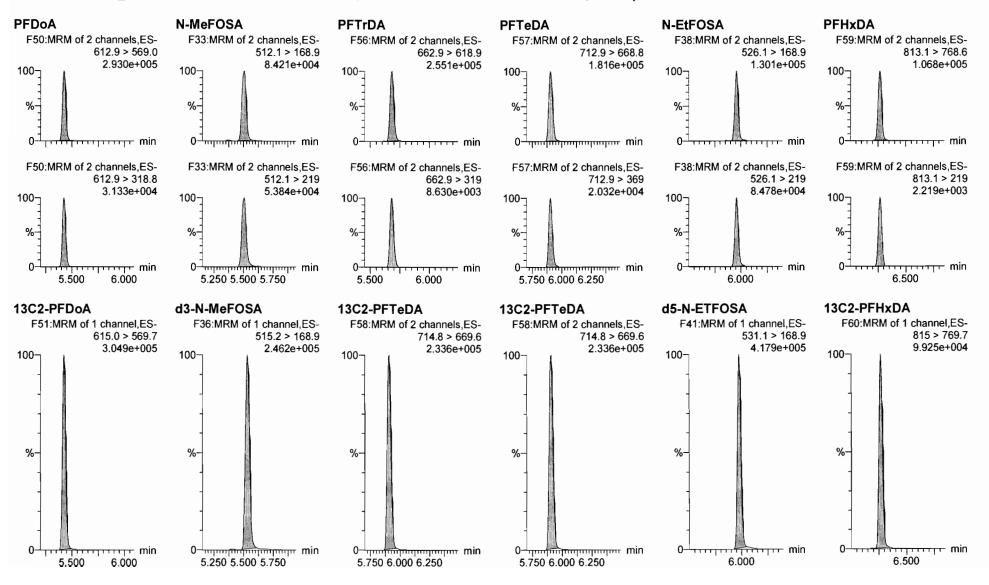
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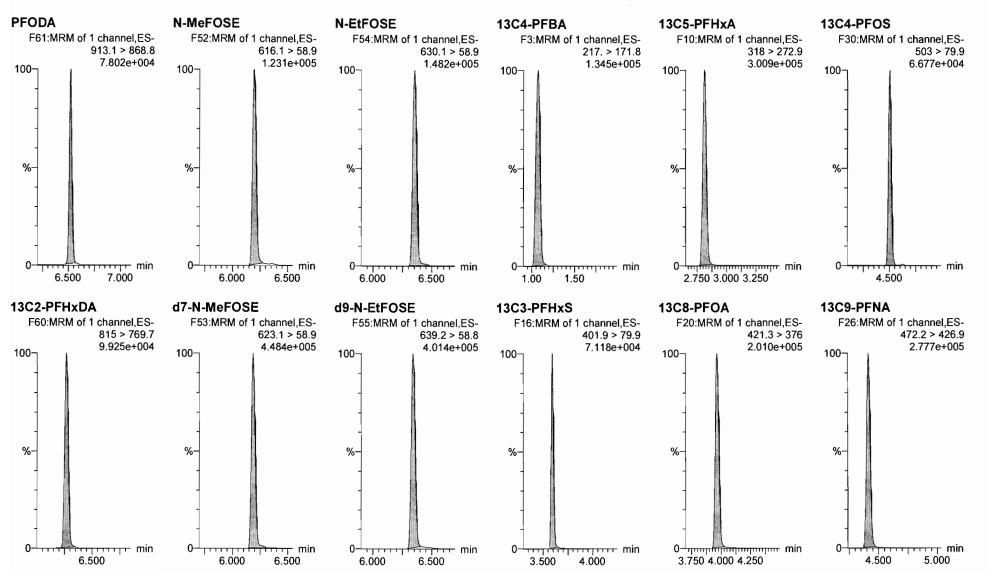
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Friday, November 03, 2017 15:31:35 Pacific Daylight Time Friday, November 03, 2017 15:31:46 Pacific Daylight Time



Page 6 of 6

Dataset:

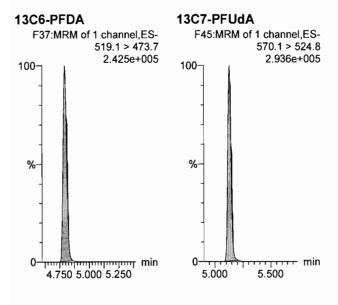
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Friday, November 03, 2017 15:31:35 Pacific Daylight Time

Printed:

Friday, November 03, 2017 15:31:46 Pacific Daylight Time



Dataset: Untitled

Last Altered: Wednesday, November 08, 2017 09:31:13 Pacific Standard Time Printed: Wednesday, November 08, 2017 09:33:03 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-11-08-17.mdb 08 Nov 2017 09:01:48

Calibration: 08 Nov 2017 09:31:13

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171107M2-1 PFC CS0 17J2707 | 8.42e3 | 100.0 | NO |
| 2 | 2 13C5-PFHxA | ST171107M2-1 PFC CS0 17J2707 | 1.10e4 | 100.0 | NO |
| 3 | 3 13C3-PFHxS | ST171107M2-1 PFC CS0 17J2707 | 2.06e3 | 100.0 | NO |
| 4 | 4 13C8-PFOA | ST171107M2-1 PFC CS0 17J2707 | 9.95e3 | 100.0 | NO |
| 5 | 5 13C9-PFNA | ST171107M2-1 PFC CS0 17J2707 | 1.03e4 | 100.0 | NO |
| 6 | 6 13C4-PFOS | ST171107M2-1 PFC CS0 17J2707 | 2.03e3 | 100.0 | NO |
| 7 | 7 13C6-PFDA | ST171107M2-1 PFC CS0 17J2707 | 1.19e4 | 100.0 | NO |
| 8 | 8 13C7-PFUnA | ST171107M2-1 PFC CS0 17J2707 | 1.25e4 | 100.0 | NO |

Name: 171107M2_3, Date: 07-Nov-2017, Time: 22:06:44, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | _ | _ | NO |

Name: 171107M2_4, Date: 07-Nov-2017, Time: 22:17:55, ID: 1701439-01 FRB05_20171005 0.125, Description: FRB05_20171005

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|---------------------------------|--------|------|----------|
| 1 | 1 13C4-PFBA | 1701439-01 FRB05_20171005 0.125 | 6.93e3 | 82.4 | NO |
| 2 | 2 13C5-PFHxA | 1701439-01 FRB05_20171005 0.125 | 9.74e3 | 88.5 | NO |
| 3 | 3 13C3-PFHxS | 1701439-01 FRB05_20171005 0.125 | 1.64e3 | 79.6 | NO |
| 4 | 4 13C8-PFOA | 1701439-01 FRB05_20171005 0.125 | 7.77e3 | 78.0 | NO |
| 5 | 5 13C9-PFNA | 1701439-01 FRB05_20171005 0.125 | 8.38e3 | 81.5 | NO |
| 6 | 6 13C4-PFOS | 1701439-01 FRB05_20171005 0.125 | 1.58e3 | 77.8 | NO |
| 7 | 7 13C6-PFDA | 1701439-01 FRB05_20171005 0.125 | 9.41e3 | 79.0 | NO |
| 8 | 8 13C7-PFUnA | 1701439-01 FRB05_20171005 0.125 | 9.71e3 | 77.6 | NO |

Name: 171107M2 5, Date: 07-Nov-2017, Time: 22:29:06, ID: IPA, Description: IPA

| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|-----|------|------|----------|
| 1 | 1 13C4-PFBA | IPA | | | NO |
| 2 | 2 13C5-PFHxA | IPA | | | NO |
| 3 | 3 13C3-PFHxS | IPA | | | NO |
| 4 | 4 13C8-PFOA | IPA | | | NO |
| 5 | 5 13C9-PFNA | IPA | | | NO |
| 6 | 6 13C4-PFOS | IPA | | | NO |
| 7 | 7 13C6-PFDA | IPA | | | NO |
| 8 | 8 13C7-PFUnA | IPA | | | NO |

GM 11/8/17

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, November 08, 2017 09:31:13 Pacific Standard Time Printed: Wednesday, November 08, 2017 09:33:03 Pacific Standard Time

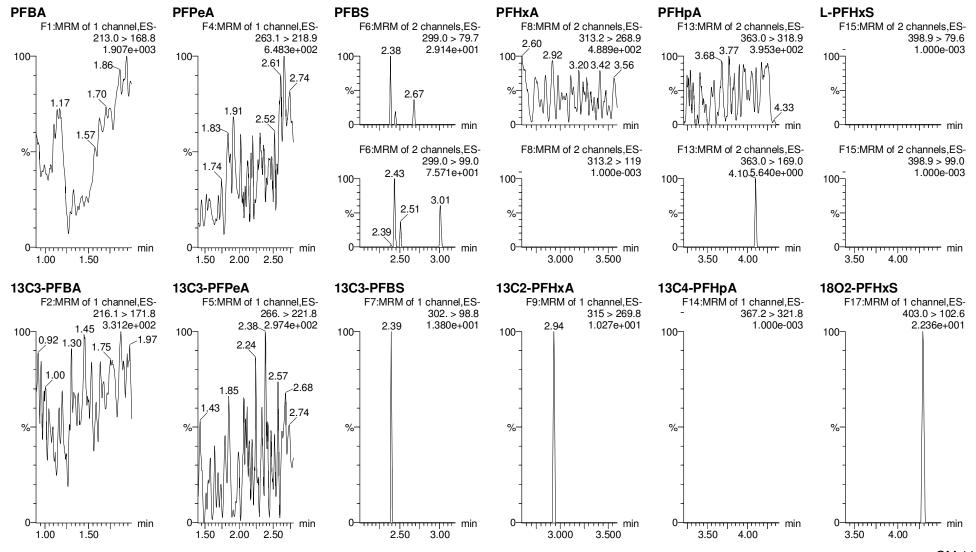
| | # Name | ID | Area | %Rec | Area Out |
|---|--------------|------------------------------|--------|-------|----------|
| 1 | 1 13C4-PFBA | ST171107M2-2 PFC CS3 17J2710 | 9.02e3 | 107.2 | NO |
| 2 | 2 13C5-PFHxA | ST171107M2-2 PFC CS3 17J2710 | 1.11e4 | 100.5 | NO |
| 3 | 3 13C3-PFHxS | ST171107M2-2 PFC CS3 17J2710 | 2.09e3 | 101.6 | NO |
| 4 | 4 13C8-PFOA | ST171107M2-2 PFC CS3 17J2710 | 9.94e3 | 99.9 | NO |
| 5 | 5 13C9-PFNA | ST171107M2-2 PFC CS3 17J2710 | 1.06e4 | 103.1 | NO |
| 6 | 6 13C4-PFOS | ST171107M2-2 PFC CS3 17J2710 | 2.24e3 | 110.2 | NO |
| 7 | 7 13C6-PFDA | ST171107M2-2 PFC CS3 17J2710 | 1.09e4 | 91.4 | NO |
| 8 | 8 13C7-PFUnA | ST171107M2-2 PFC CS3 17J2710 | 1.25e4 | 100.0 | NO |

Dataset: Untitled

Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_11-06-17-FULL_NOPFDS.cdb 07 Nov 2017 09:14:26

Name: 171107M1 7, Date: 07-Nov-2017, Time: 13:41:03, ID: blk tester, Description: 17k0701



GM 11/7/17

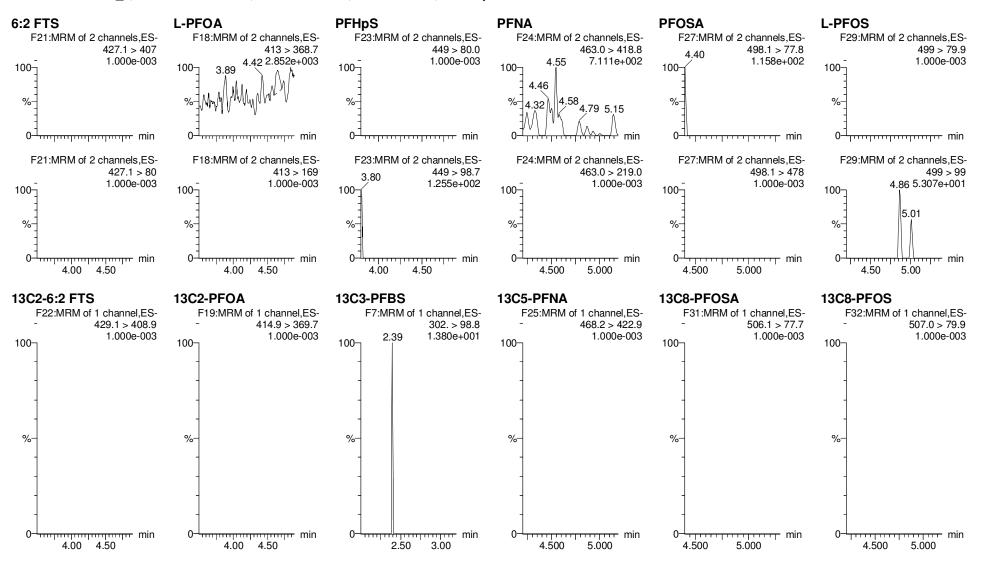
Work Order 1701439 Revision 1

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Vista Analytical Laboratory

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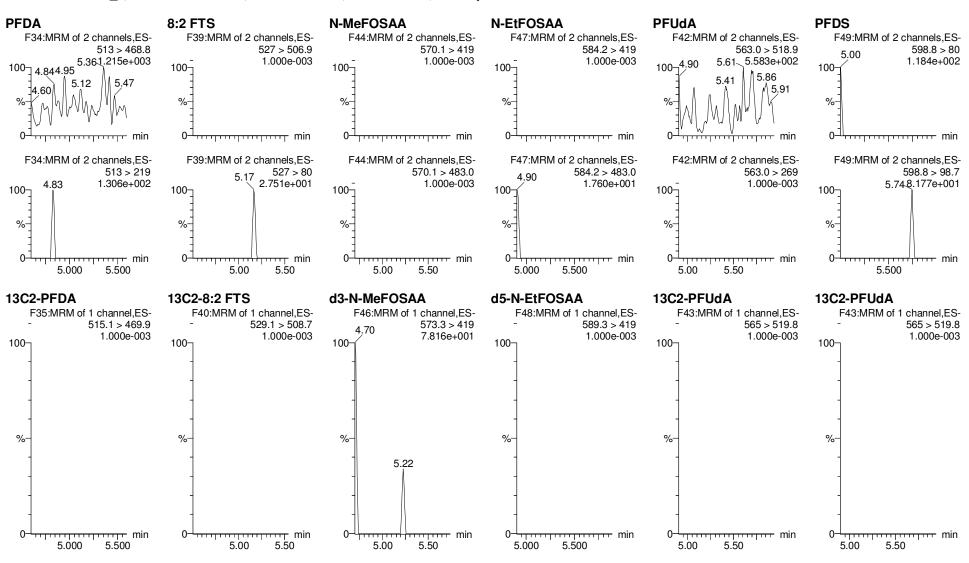
Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time



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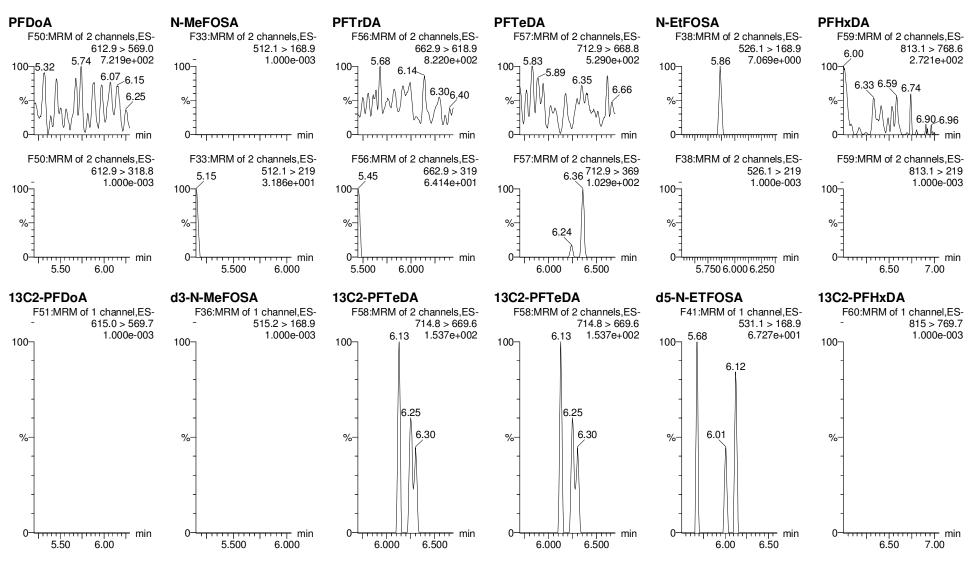
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Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time



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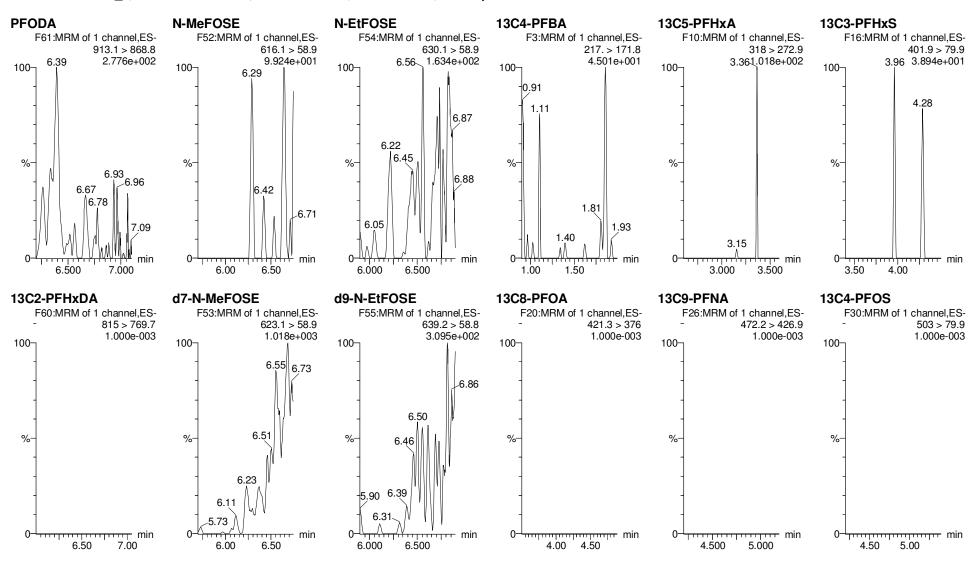
Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time



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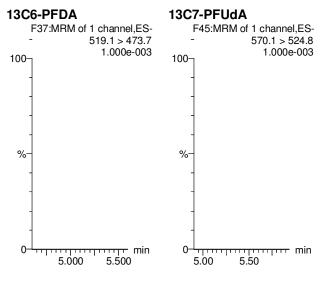
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Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time



Untitled Dataset:

Last Altered: Tuesday, November 07, 2017 16:39:55 Pacific Standard Time Printed: Tuesday, November 07, 2017 16:41:03 Pacific Standard Time



Page 1 of 2

Dataset:

U:\Q4.PRO\results\171107M2\171107M2-2.qld

Last Altered:

Wednesday, November 08, 2017 09:24:49 Pacific Standard Time

Printed:

Wednesday, November 08, 2017 09:27:10 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

(b) phone (mit mitoria)

| | # Name | Trace | Area | IS Area | RRF F | red.RT | RT | y Axis Resp. | Conc. | %Rec | .26 |
|-----------------|--|---------------|--------|---------|---|--------|------|--------------|-------|-----------|------------------------------------|
| 1 | 1 PFBA | 213.0 > 168.8 | 7.74e2 | 7.66e3 | AND THE REAL PROPERTY AND | 1.64 | 1.45 | 1.26 | 1.15 | 114.7 70- | - 130 |
| 2 | 2 PFPeA | 263.1 > 218.9 | 7.49e2 | 8.29e3 | | 2.63 | 2.41 | 1.13 | 1.08 | 108.4 | |
| 3 | 3 PFBS | 299.0 > 79.7 | 2.08e2 | 1.03e3 | | 2.89 | 2.69 | 2.53 | 1.16 | 116.3 | |
| 4 | 4 PFHxA | 313.2 > 268.9 | 1.15e3 | 3.06e3 | | 3.39 | 3.18 | 1.87 | 1.19 | 119.1 | |
| 5 | 5 PFHpA | 363.0 > 318.9 | 9.65e2 | 7.07e3 | | 4.02 | 3.81 | 1.71 | 1.23 | 122.6 | |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 1.25e2 | 8.13e2 | | 4.16 | 3.96 | 1.93 | 0.919 | 91.9 | Δ14.Λ |
| 7 | 8 6:2 FTS | 427.1 > 407 | 1.73e2 | 2.49e3 | | 4.48 | 4.27 | 0.871 | 0.906 | 90.6 | om 11/0/17 VM. 11/08/2017 |
| 8 | 9 L-PFOA | 413 > 368.7 | 1.20e3 | 1.12e4 | | 4.53 | 4.33 | 1.34 | 1.08 | 108.0 | (10)(7 |
| 9 | 11 PFHpS | 449 > 80.0 | 1.21e2 | 1.12e4 | | 4.64 | 4.45 | 0.135 | 0.723 | 72.3 | 1110. |
| 10 | 12 PFNA | 463.0 > 418.8 | 9.61e2 | 8.92e3 | | 4.96 | 4.77 | 1.35 | 1.11 | 110.9 | |
| 11 | 13 PFOSA | 498.1 > 77.8 | 3.14e2 | 2.93e3 | | 5.01 | 4.82 | 1.34 | 1.21 | 121.2 | .111 |
| 12 | 14 L-PFOS | 499 > 79.9 | 1.79e2 | 2.39e3 | | 5.03 | 4.85 | 0.933 | 0.958 | 95.8 | V/14. |
| 13 | 16 PFDA | 513 > 468.8 | 1.19e3 | 1.00e4 | | 5.33 | 5.14 | 1.49 | 1.14 | 113.6 | 0 11/08/2017 |
| 14 | 17 8:2 FTS | 527 > 506.9 | 2.01e2 | 1.76e3 | | 5.30 | 5.11 | 1.42 | 1.03 | 103.3 | |
| 15 | 18 N-MeFOSAA | 570.1 > 419 | 5.86e2 | 4.37e3 | | 5.48 | 5.30 | 1.68 | 1.07 | 106.7 | |
| 16 | 19 N-EtFOSAA | 584.2 > 419 | 4.17e2 | 4.17e3 | | 5.63 | 5.45 | 1.25 | 1.08 | 107.7 | |
| 17 | 20 PFUdA | 563.0 > 518.9 | 9.48e2 | 1.16e4 | | 5.65 | 5.47 | 1.02 | 0.980 | 98.0 | |
| 18 | 21 PFDS | 598.8 > 80 | 2.06e2 | 1.16e4 | | 5.70 | 5.52 | 0.221 | 1.15 | 115.3 | |
| 19 | 22 PFDoA | 612.9 > 569.0 | 1.43e3 | 1.35e4 | | 5.92 | 5.75 | 1.32 | 1.01 | 100.8 | |
| 20 | 23 N-MeFOSA | 512.1 > 168.9 | 5.81e2 | 1.23e4 | | 5.84 | 5.73 | 7.10 | 6.82 | 136.4 | |
| 21 | 24 PFTrDA | 662.9 > 618.9 | 1.43e3 | 1.35e4 | | 6.16 | 5.99 | 1.32 | 1.03 | 103.2 | |
| 22 | 25 PFTeDA | 712.9 > 668.8 | 1.32e3 | 1.47e4 | | 6.36 | 6.20 | 1.12 | 0.874 | 87.4 | |
| 23 | 26 N-EtFOSA | 526.1 > 168.9 | 6.48e2 | 1.75e4 | | 6.19 | 6.12 | 5.54 | 5.55 | 111.1 | |
| 24 | 27 PFHxDA | 813.1 > 768.6 | 9.09e2 | 5.45e3 | | 6.65 | 6.51 | 0.834 | 1.27 | 127.0 | |
| 25 | 28 PFODA | 913.1 > 868.8 | 3.85e2 | 5.45e3 | | 6.86 | 6.74 | 0.354 | 0.924 | 92.4 | |
| 26 min H | 29 N-MeFOSE | 616.1 > 58.9 | 5.99e2 | 1.57e4 | | 6.30 | 6.28 | 5.70 | 5.65 | 112.9 | 1 |
| 27 | 30 N-EtFOSE | 630.1 > 58.9 | 6.84e2 | 1.66e4 | | 6.45 | 6.43 | 6.17 | 5.32 | 106.4 | 173 |
| 28 | 31 13C3-PFBA | 216.1 > 171.8 | 7.66e3 | 8.42e3 | 0.949 | 1.64 | 1.45 | 11.4 | 12.0 | 95.9 | 110 |
| 29 | 32 13C3-PFPeA | 266. > 221.8 | 8.29e3 | 1.10e4 | 0.781 | 2.63 | 2.41 | 9.41 | 12.1 | 96.4 | |
| 30 | 33 13C3-PFBS | 302. > 98.8 | 1.03e3 | 1.10e4 | 0.089 | 2.89 | 2.69 | 1.17 | 13.2 | 105.4 | |
| 31 Wo | rk 04 dtaC270 ft 43A Revision 1 | 315 > 269.8 | 3.06e3 | 1.10e4 | 0.755 | 3.39 | 3.18 | 3.47 | 4.60 | 91.9 | Page 133 of 402 |

Page 2 of 2

Dataset:

U:\Q4.PRO\results\171107M2\171107M2-2.qld

Last Altered: Printed:

Wednesday, November 08, 2017 09:24:49 Pacific Standard Time Wednesday, November 08, 2017 09:27:10 Pacific Standard Time

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707

| 92% au 1267 7191 2 729 6 12 | # Name | Trace - | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|-----------------------------------|-----------------|---------------|--------|---------|-------|---------|------|--------------|--------|-------------|
| 32 | 35 13C4-PFHpA | 367.2 > 321.8 | 7.07e3 | 1.10e4 | 0.711 | 4.02 | 3.81 | 8.03 | 11.3 | 90.4 20-180 |
| 33 | 36 1802-PFHxS | 403.0 > 102.6 | 8.13e2 | 2.07e3 | 0.423 | 4.16 | 3.96 | 4.92 | 11.6 | 92.9 |
| 34 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.49e3 | 9.95e3 | 0.286 | 4.48 | 4.28 | 3.13 | 10.9 | 87.5 |
| 35 | 38 13C2-PFOA | 414.9 > 369.7 | 1.12e4 | 9.95e3 | 1.310 | 4.53 | 4.33 | 14.1 | 10.7 | 86.0 |
| 36 | 39 13C5-PFNA | 468.2 > 422.9 | 8.92e3 | 1.03e4 | 0.979 | 4.96 | 4.76 | 10.8 | 11.1 | 88.6 |
| 37 | 40 13C8-PFOSA | 506.1 > 77.7 | 2.93e3 | 1.25e4 | 0.207 | 5.01 | 4.82 | 2.93 | 14.2 | 113.5 |
| 38 | 41 13C8-PFOS | 507.0 > 79.9 | 2.39e3 | 2.03e3 | 1.072 | 5.03 | 4.85 | 14.7 | 13.7 | 109.9 |
| 39 | 42 13C2-PFDA | 515.1 > 469.9 | 1.00e4 | 1.19e4 | 1.014 | 5.33 | 5.14 | 10.5 | 10.4 | 82.8 |
| 40 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 1.76e3 | 1.19e4 | 0.216 | 5.30 | 5.11 | 1.85 | 8.57 | 68.5 |
| 41 | 44 d3-N-MeFOSAA | 573.3 > 419 | 4.37e3 | 1.25e4 | 0.368 | 5.48 | 5.29 | 4.36 | 11.9 | 94.9 |
| 42 | 45 d5-N-EtFOSAA | 589.3 > 419 | 4.17e3 | 1.25e4 | 0.389 | 5.63 | 5.45 | 4.17 | 10.7 | 85.8 |
| 43 | 46 13C2-PFUdA | 565 > 519.8 | 1.16e4 | 1.25e4 | 0.983 | 5.65 | 5.47 | 11.6 | 11.8 | 94.7 |
| 44 | 47 13C2-PFDoA | 615.0 > 569.7 | 1.35e4 | 1.25e4 | 0.997 | 5.92 | 5.75 | 13.5 | 13.6 | 108.4 |
| 45 | 48 d3-N-MeFOSA | 515.2 > 168.9 | 1.23e4 | 1.25e4 | 0.096 | 5.84 | 5.75 | 12.3 | 128 | 85.5 |
| 46 | 49 13C2-PFTeDA | 714.8 > 669.6 | 1.47e4 | 1.25e4 | 1.039 | 6.36 | 6.21 | 14.7 | 14.1 | 113.1 |
| 47 | 50 d5-N-ETFOSA | 531.1 > 168.9 | 1.75e4 | 1.25e4 | 0.144 | 6.19 | 6.13 | 17.5 | 122 | 81.1 |
| 48 | 51 13C2-PFHxDA | 815 > 769.7 | 5.45e3 | 1.25e4 | 1.032 | 6.65 | 6.52 | 5.44 | 5.27 | 105.5 |
| 49 | 52 d7-N-MeFOSE | 623.1 > 58.9 | 1.57e4 | 1.25e4 | 0.133 | 6.30 | 6.27 | 15.7 | 118 | 78.9 |
| 50 | 53 d9-N-EtFOSE | 639.2 > 58.8 | 1.66e4 | 1.25e4 | 0.128 | 6.45 | 6.42 | 16.6 | 130 | 86.8 |
| 51 | 54 13C4-PFBA | 217. > 171.8 | 8.42e3 | 8.42e3 | 1.000 | 1.64 | 1.44 | 12.5 | 12.5 | 100.0 |
| 52 | 55 13C5-PFHxA | 318 > 272.9 | 1.10e4 | 1.10e4 | 1.000 | 3.39 | 3.18 | 12.5 | 12.5 | 100.0 |
| 53 | 56 13C3-PFHxS | 401.9 > 79.9 | 2.07e3 | 2.07e3 | 1.000 | 4.16 | 3.96 | 12.5 | 12.5 | 100.0 |
| 54 | 57 13C8-PFOA | 421.3 > 376 | 9.95e3 | 9.95e3 | 1.000 | 4.53 | 4.33 | 12.5 | 12.5 | 100.0 |
| 55 | 58 13C9-PFNA | 472.2 > 426.9 | 1.03e4 | 1.03e4 | 1.000 | 4.96 | 4.76 | 12.5 | 12.5 | 100.0 |
| 56 | 59 13C4-PFOS | 503 > 79.9 | 2.03e3 | 2.03e3 | 1.000 | 5.03 | 4.85 | 12.5 | 12.5 | 100.0 |
| 57 | 60 13C6-PFDA | 519.1 > 473.7 | 1.19e4 | 1.19e4 | 1.000 | 5.33 | 5.14 | 12.5 | 12.5 | 100.0 |
| 58 | 61 13C7-PFUdA | 570.1 > 524.8 | 1.25e4 | 1.25e4 | 1.000 | 5.65 | 5.47 | 12.5 | 12.5 _ | 100.0 |

Work Order 1701439 Revision 1 Page 134 of 402

Quantify Compound Summary Report Vista Analytical Laboratory MassLynx MassLynx V4.1 SCN945 SCN960

Page 1 of 1

Dataset:

Untitled

Last Altered:

Wednesday, November 08, 2017 09:31:13 Pacific Standard Time

Printed:

Wednesday, November 08, 2017 09:32:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-11-08-17.mdb 08 Nov 2017 09:01:48

Calibration: 08 Nov 2017 09:31:13

Compound name: 13C4-PFBA

| 100 marks 175 | Name | ID to the same of | Acq.Date | Acq.Time |
|---------------|------------|---|-----------|----------|
| 1 | 171107M2_2 | ST171107M2-1 PFC CS0 17J2707 | 07-Nov-17 | 21:55:33 |
| 2 | 171107M2_3 | IPA | 07-Nov-17 | 22:06:44 |
| 3 | 171107M2_4 | 1701439-01 FRB05_20171005 0.125 | 07-Nov-17 | 22:17:55 |
| 4 | 171107M2_5 | IPA | 07-Nov-17 | 22:29:06 |
| 5 | 171107M2_6 | ST171107M2-2 PFC CS3 17J2710 | 07-Nov-17 | 22:40:16 |

Work Order 1701439 Revision 1 Page 135 of 402

LC Calibration Standards Review Checklist $- \mathcal{Q}$

| | | | ION Ratio | Concentration | C-Cals Name | Sign Date | Correct I-Cal | Manual Integrations | |
|-----------------|----------------------|-------------|-----------|---------------|----------------|--------------|------------------|------------------------|----------|
| Calibration ID: | 51171107WZ-1 | <u>Б</u> мн | 1 | ₽ Ø | 卤 | Ø | ď | U | 4 |
| Calibration ID: | I r | LM H | | □ B | | □ | Ċ | \Box | ₩ |
| Calibration ID: | | LMH - | | | | | | | |
| Calibration ID: | | LMH | | | | | | | |
| Calibration ID: | | LMH - | | | | | | | |
| Calibration ID: | | LMH - | | | | | | | |
| Calibration ID: | | LMH | | | | | | | |
| Calibration ID: | | LMH - | | | | | | | |
| Calibration ID: | | LMH - | | | | | | | |
| Calibration ID: | | LMH - | | | | | | | |
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Run Log Present:

of Samples per Sequence Checked:

Reviewed By: 11/08/20 (7/

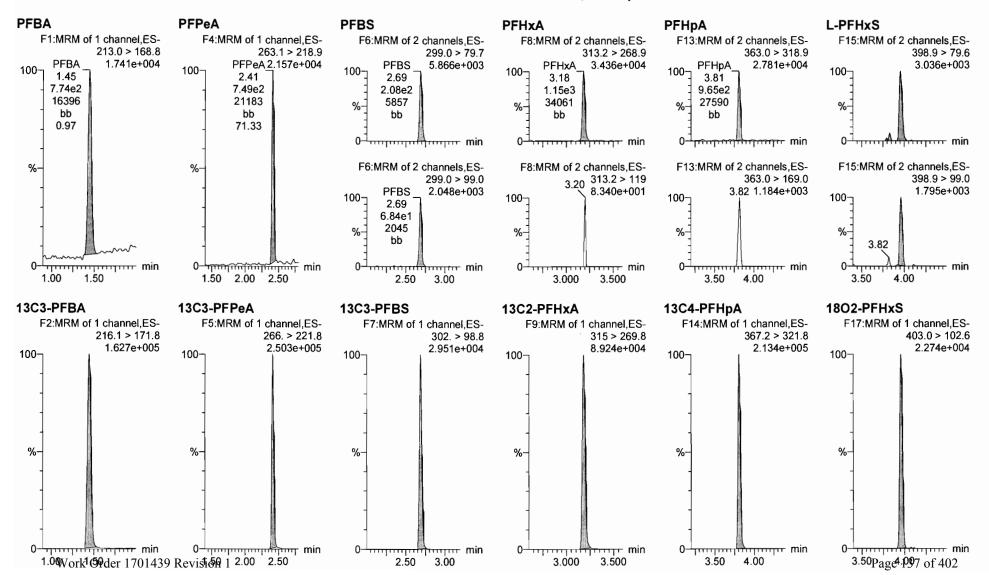
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(B) 6:2PTS, PFDA, METOSAA > 1307.

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Last Altered: Printed: Wednesday, November 08, 2017 09:24:49 Pacific Standard Time Wednesday, November 08, 2017 09:27:10 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18 VAL-PFAS Q4 10-31-17-FULL OLD.cdb 01 Nov 2017 08:42:13



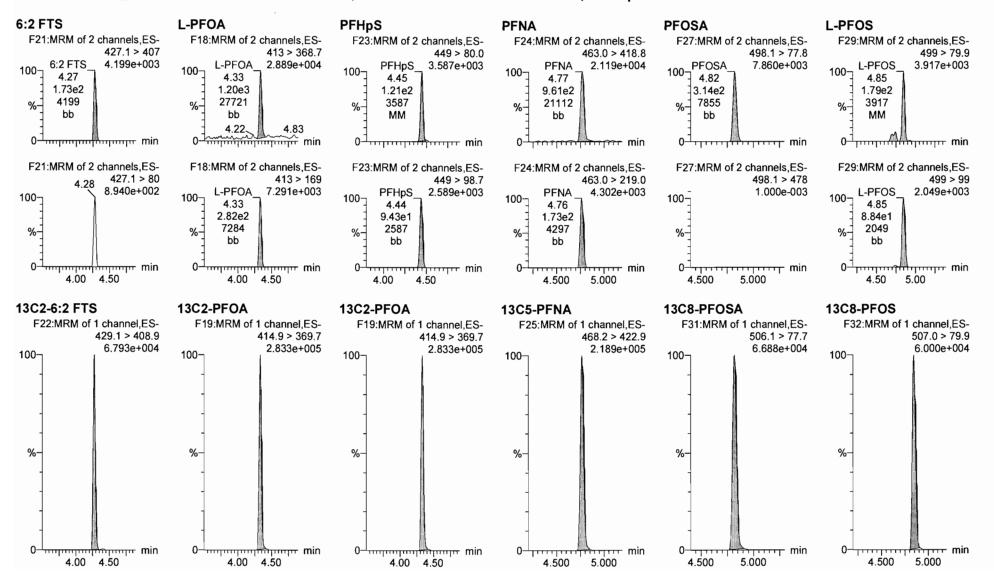
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Wednesday, November 08, 2017 09:24:49 Pacific Standard Time

Printed: Wednesday, November 08, 2017 09:27:10 Pacific Standard Time

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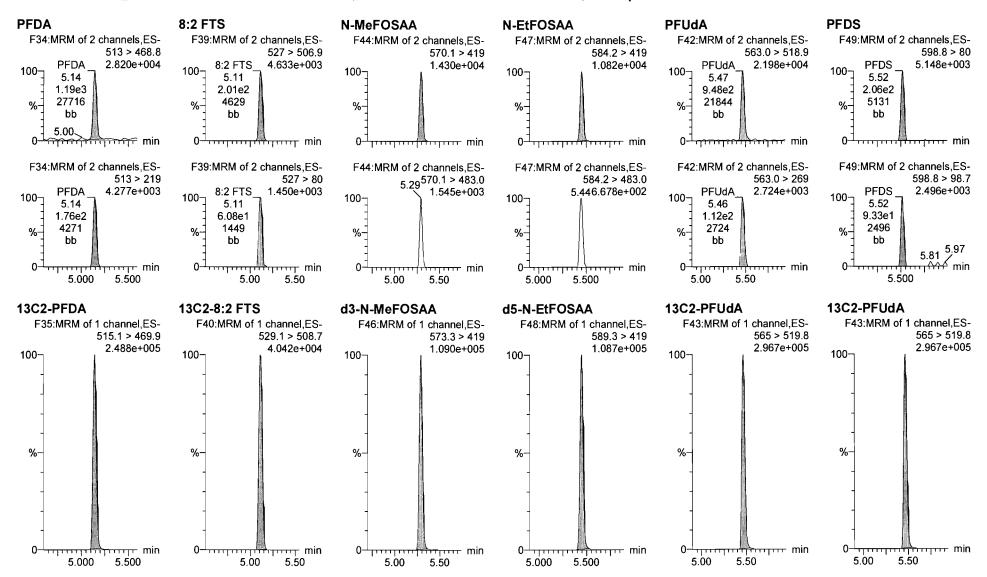
Work Order 1701439 Revision 1

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Wednesday, November 08, 2017 09:24:49 Pacific Standard Time

Printed: Wednesday, November 08, 2017 09:27:10 Pacific Standard Time

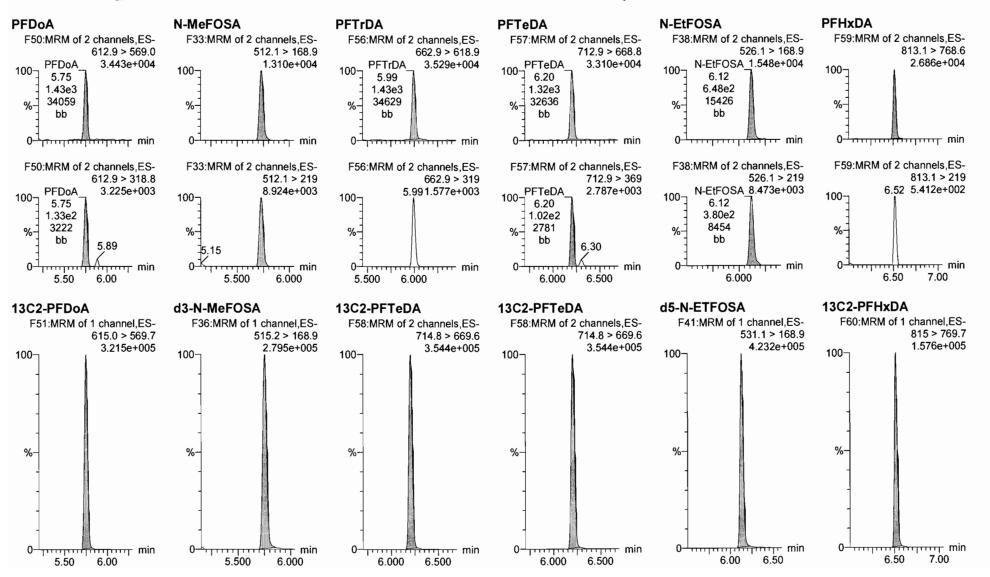


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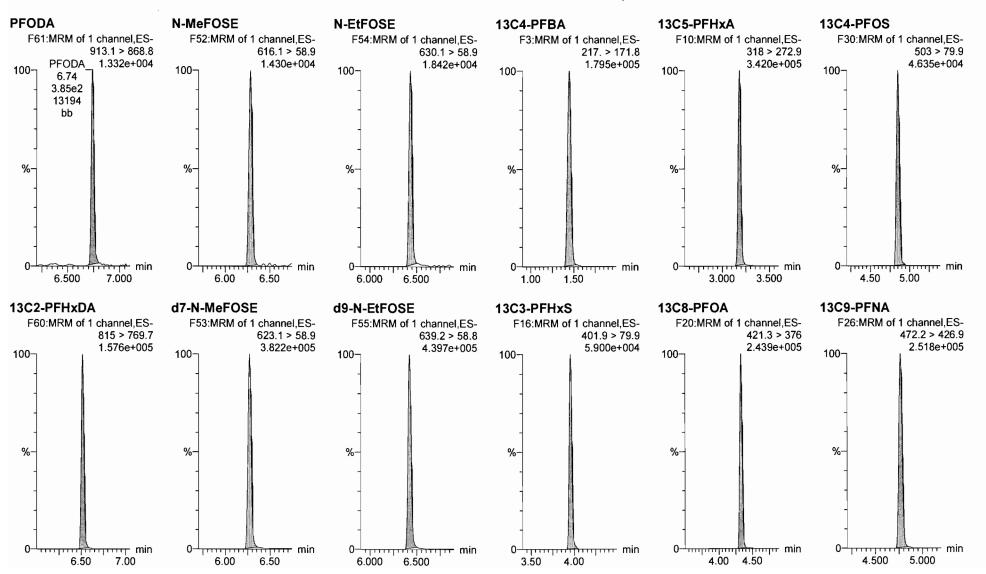


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Wednesday, November 08, 2017 09:24:49 Pacific Standard Time

Printed: Wednesday, November 08, 2017 09:27:10 Pacific Standard Time



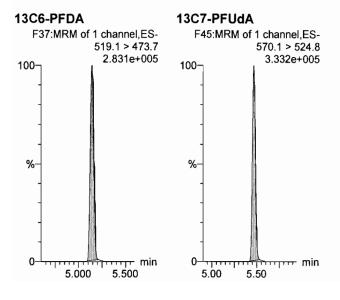
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Wednesday, November 08, 2017 09:24:49 Pacific Standard Time

Printed: Wednesday, November 08, 2017 09:27:10 Pacific Standard Time

Name: 171107M2_2, Date: 07-Nov-2017, Time: 21:55:33, ID: ST171107M2-1 PFC CS0 17J2707, Description: PFC CS0 17J2707



Work Order 1701439 Revision 1 Page 142 of 402

U:\Q4.PRO\results\171107M2\171107M2-6.qld

Last Altered:

Wednesday, November 08, 2017 09:28:29 Pacific Standard Time

Printed:

Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_110617_AC.mdb 07 Nov 2017 07:51:36

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17J28710

| £150 | # Name | Trace | Area | - IS Area | RRF P | red.RT | RT | y Axis Resp. | Conc. | %Rec | |
|---|----------------------------|---------------|--------|-----------|-------|--------|------|--------------|-------|------------------------|-----------------|
| | 1 PFBA | 213.0 > 168.8 | 7.71e3 | 7.90e3 | | 1.64 | 1.44 | 12.2 | 11.4 | 113.7 | <u> 20-13</u> 0 |
| 2 | 2 PFPeA | 263.1 > 218.9 | 7.77e3 | 8.63e3 | | 2.63 | 2.41 | 11.2 | 11.7 | 117.3 | 1 |
| 3 | 3 PFBS | 299.0 > 79.7 | 1.82e3 | 9.50e2 | | 2.89 | 2.68 | 24.0 | 11.8 | 118.0 | |
| 4 | 4 PFHxA | 313.2 > 268.9 | 1.06e4 | 2.95e3 | | 3.39 | 3.18 | 18.0 | 12.7 | 126.8 | |
| 5 | 5 PFHpA | 363.0 > 318.9 | 8.05e3 | 7.52e3 | | 4.02 | 3.80 | 13.4 | 10.3 | 102.8 | |
| 6 | 6 L-PFHxS | 398.9 > 79.6 | 1.58e3 | 7.83e2 | | 4.16 | 3.95 | 25.2 | 12.4 | 124.3 | |
| 7 | 8 6:2 FTS | 427.1 > 407 | 2.34e3 | 2.20e3 | | 4.48 | 4.27 | 13.3 | 14.2 | (1 7)142.4 | |
| 8 | 9 L-PFOA | 413 > 368.7 | 9.45e3 | 1.10e4 | | 4.53 | 4.32 | 10.7 | 11.0 | 110.2 | |
| 9. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. | 11 PFHpS | 449 > 80.0 | 1.95e3 | 1.10e4 | | 4.64 | 4.43 | 2.20 | 12.0 | 120.0 | |
| 10 | 12 PFNA | 463.0 > 418.8 | 1.16e4 | 1.00e4 | | 4.96 | 4.76 | 14.4 | 11.5 | 114.9 | OM |
| 11 | 13 PFOSA | 498.1 > 77.8 | 2.88e3 | 2.99e3 | | 5.01 | 4.81 | 12.1 | 11.2 | 112.2 | 10/12 |
| 12 | 14 L-PFOS | 499 > 79.9 | 2.14e3 | 2.27e3 | | 5.03 | 4.84 | 11.8 | 11.6 | 116.4 | 111811 |
| 13 | 16 PFDA | 513 > 468.8 | 1.26e4 | 8.77e3 | | 5.33 | 5.14 | 17.9 | 14.0 | (1 39.6 | |
| 14 | 17 8:2 FTS | 527 > 506.9 | 2.32e3 | 1.98e3 | | 5.30 | 5.11 | 14.6 | 10.3 | 102.8 | V Va. |
| 15 | 18 N-MeFOSAA | 570.1 > 419 | 5.94e3 | 3.85e3 | | 5.48 | 5.29 | 19.3 | 13.3 | (A)133.5 | 1 / 11/00/20 |
| 16 | 19 N-EtFOSAA | 584.2 > 419 | 3.88e3 | 4.25e3 | | 5.63 | 5.44 | 11.4 | 9.73 | 97.3 | 0 4(0) 20 |
| 17 | 20 PFUdA | 563.0 > 518.9 | 9.72e3 | 1.36e4 | | 5.65 | 5.46 | 8.95 | 9.23 | 92.3 | |
| 18 | 21 PFDS | 598.8 > 80 | 2.36e3 | 1.36e4 | | 5.70 | 5.51 | 2.18 | 9.81 | 98.1 | |
| 19 | 22 PFDoA | 612.9 > 569.0 | 1.29e4 | 1.45e4 | | 5.92 | 5.75 | 11.2 | 9.05 | 90.5 | , |
| 20 | 23 N-MeFOSA | 512.1 > 168.9 | 5.16e3 | 1.26e4 | | 5.84 | 5.73 | 61.4 | 61.5 | 123.1 | 1 |
| 21 | 24 PFTrDA | 662.9 > 618.9 | 1.72e4 | 1.45e4 | | 6.16 | 5.98 | 14.8 | 11.6 | 116.0 | |
| 22 | 25 PFTeDA | 712.9 > 668.8 | 1.58e4 | 1.35e4 | | 6.36 | 6.20 | 14.6 | 11.4 | 113.7 | |
| 23 | 26 N-EtFOSA | 526.1 > 168.9 | 6.10e3 | 1.78e4 | | 6.19 | 6.12 | 51.6 | 56.3 | 112.5 | |
| 24 | 27 PFHxDA | 813.1 > 768.6 | 8.31e3 | 5.88e3 | | 6.65 | 6.51 | 7.07 | 12.2 | 122.2 | 1 |
| 25 | 28 PFODA | 913.1 > 868.8 | 5.59e3 | 5.88e3 | | 6.86 | 6.74 | 4.76 | 11.4 | 114.3 | |
| 26 | 29 N-MeFOSE | 616.1 > 58.9 | 6.70e3 | 1.78e4 | | 6.30 | 6.28 | 56.5 | 61.4 | 122.8 | , |
| 27 | 30 N-EtFOSE | 630.1 > 58.9 | 6.74e3 | 1.60e4 | | 6.45 | 6.43 | 63.3 | 62.2 | 124.3 | 20 VLA |
| 28 | 31 13C3-PFBA | 216.1 > 171.8 | 7.90e3 | 9.02e3 | 0.949 | 1.64 | 1.44 | 10.9 | 11.5 | 92.3 | 7 |
| 29 | 32 13C3-PFPeA | 266. > 221.8 | 8.63e3 | 1.11e4 | 0.781 | 2.63 | 2.41 | 9.75 | 12.5 | 99.9 | |
| 30 | 33 13C3-PFBS | 302. > 98.8 | 9.50e2 | 1.11e4 | 0.089 | 2.89 | 2.68 | 1.07 | 12.1 | 97.0 | J |
| 31 Wor | k 84rd8C2-70F1489 Revision | 1 315 > 269.8 | 2.95e3 | 1.11e4 | 0.755 | 3.39 | 3.18 | 3.33 | 4.41 | 88.2 | Page 143 of 40 |

(1) Ahous (mit criteria.

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102

Page 2 of 2

Dataset:

U:\Q4.PRO\results\171107M2\171107M2-6.qld

Last Altered: Printed:

Wednesday, November 08, 2017 09:28:29 Pacific Standard Time Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17J28710

| Charles for a series of the control | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT. | y Axis Resp. | Conc. | %Rec |
|---|-----------------|---------------|--------|---------|-------|---------|------|--------------|-------|-------|
| 32 | 35 13C4-PFHpA | 367.2 > 321.8 | 7.52e3 | 1.11e4 | 0.711 | 4.02 | 3.80 | 8.49 | 11.9 | 95.6 |
| 33 | 36 1802-PFHxS | 403.0 > 102.6 | 7.83e2 | 2.09e3 | 0.423 | 4.16 | 3.95 | 4.69 | 11.1 | 88.5 |
| 34 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.20e3 | 9.94e3 | 0.286 | 4.48 | 4.27 | 2.77 | 9.69 | 77.5 |
| 35 | 38 13C2-PFOA | 414.9 > 369.7 | 1.10e4 | 9.94e3 | 1.310 | 4.53 | 4.32 | 13.9 | 10.6 | 84.7 |
| 36 | 39 13C5-PFNA | 468.2 > 422.9 | 1.00e4 | 1.06e4 | 0.979 | 4.96 | 4.76 | 11.8 | 12.1 | 96.6 |
| 37 | 40 13C8-PFOSA | 506.1 > 77.7 | 2.99e3 | 1.25e4 | 0.207 | 5.01 | 4.81 | 2.98 | 14.4 | 115.5 |
| 38 | 41 13C8-PFOS | 507.0 > 79.9 | 2.27e3 | 2.24e3 | 1.072 | 5.03 | 4.84 | 12.7 | 11.8 | 94.6 |
| 39 | 42 13C2-PFDA | 515.1 > 469.9 | 8.77e3 | 1.09e4 | 1.014 | 5.33 | 5.14 | 10.1 | 9.93 | 79.4 |
| 40 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 1.98e3 | 1.09e4 | 0.216 | 5.30 | 5.11 | 2.28 | 10.5 | 84.3 |
| 41 | 44 d3-N-MeFOSAA | 573.3 > 419 | 3.85e3 | 1.25e4 | 0.368 | 5.48 | 5.29 | 3.84 | 10.4 | 83.6 |
| 42 | 45 d5-N-EtFOSAA | 589.3 > 419 | 4.25e3 | 1.25e4 | 0.389 | 5.63 | 5.44 | 4.24 | 10.9 | 87.4 |
| 43 | 46 13C2-PFUdA | 565 > 519.8 | 1.36e4 | 1.25e4 | 0.983 | 5.65 | 5.46 | 13.6 | 13.8 | 110.4 |
| 44 | 47 13C2-PFDoA | 615.0 > 569.7 | 1.45e4 | 1.25e4 | 0.997 | 5.92 | 5.74 | 14.5 | 14.5 | 116.1 |
| 45 | 48 d3-N-MeFOSA | 515.2 > 168.9 | 1.26e4 | 1.25e4 | 0.096 | 5.84 | 5.74 | 12.6 | 132 | 87.8 |
| 46 | 49 13C2-PFTeDA | 714.8 > 669.6 | 1.35e4 | 1.25e4 | 1.039 | 6.36 | 6.20 | 13.5 | 13.0 | 104.2 |
| 47 | 50 d5-N-ETFOSA | 531.1 > 168.9 | 1.78e4 | 1.25e4 | 0.144 | 6.19 | 6.13 | 17.7 | 123 | 82.1 |
| 48 | 51 13C2-PFHxDA | 815 > 769.7 | 5.88e3 | 1.25e4 | 1.032 | 6.65 | 6.51 | 5.87 | 5.69 | 113.8 |
| 49 | 52 d7-N-MeFOSE | 623.1 > 58.9 | 1.78e4 | 1.25e4 | 0.133 | 6.30 | 6.27 | 17.8 | 134 | 89.1 |
| 50 | 53 d9-N-EtFOSE | 639.2 > 58.8 | 1.60e4 | 1.25e4 | 0.128 | 6.45 | 6.42 | 16.0 | 125 | 83.3 |
| 51 | 54 13C4-PFBA | 217. > 171.8 | 9.02e3 | 9.02e3 | 1.000 | 1.64 | 1.43 | 12.5 | 12.5 | 100.0 |
| 52 | 55 13C5-PFHxA | 318 > 272.9 | 1.11e4 | 1.11e4 | 1.000 | 3.39 | 3.18 | 12.5 | 12.5 | 100.0 |
| 53 | 56 13C3-PFHxS | 401.9 > 79.9 | 2.09e3 | 2.09e3 | 1.000 | 4.16 | 3.95 | 12.5 | 12.5 | 100.0 |
| 54 | 57 13C8-PFOA | 421.3 > 376 | 9.94e3 | 9.94e3 | 1.000 | 4.53 | 4.32 | 12.5 | 12.5 | 100.0 |
| 55 | 58 13C9-PFNA | 472.2 > 426.9 | 1.06e4 | 1.06e4 | 1.000 | 4.96 | 4.76 | 12.5 | 12.5 | 100.0 |
| 56 | 59 13C4-PFOS | 503 > 79.9 | 2.24e3 | 2.24e3 | 1.000 | 5.03 | 4.84 | 12.5 | 12.5 | 100.0 |
| 57 | 60 13C6-PFDA | 519.1 > 473.7 | 1.09e4 | 1.09e4 | 1.000 | 5.33 | 5.14 | 12.5 | 12.5 | 100.0 |
| 58 | 61 13C7-PFUdA | 570.1 > 524.8 | 1.25e4 | 1.25e4 | 1.000 | 5.65 | 5.46 | 12.5 | 12.5 | 100.0 |

Work Order 1701439 Revision 1 Page 144 of 402

Quantify Compound Summary Report Vista Analytical Laboratory

MassLynx MassLynx V4.1 SCN945 SCN960

Page 1 of 1

Dataset:

Untitled

Last Altered:

Wednesday, November 08, 2017 09:31:13 Pacific Standard Time

Printed:

Wednesday, November 08, 2017 09:32:12 Pacific Standard Time

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Calibration: 08 Nov 2017 09:31:13

Compound name: 13C4-PFBA

| | Name | ID III III III III III III III III III | Acq.Date | Acq.Time |
|---|------------|--|-----------|----------|
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| 2 | 171107M2_3 | IPA | 07-Nov-17 | 22:06:44 |
| 3 | 171107M2_4 | 1701439-01 FRB05_20171005 0.125 | 07-Nov-17 | 22:17:55 |
| 4 | 171107M2_5 | IPA | 07-Nov-17 | 22:29:06 |
| 5 | 171107M2_6 | ST171107M2-2 PFC CS3 17J2710 | 07-Nov-17 | 22:40:16 |

Work Order 1701439 Revision 1 Page 145 of 402

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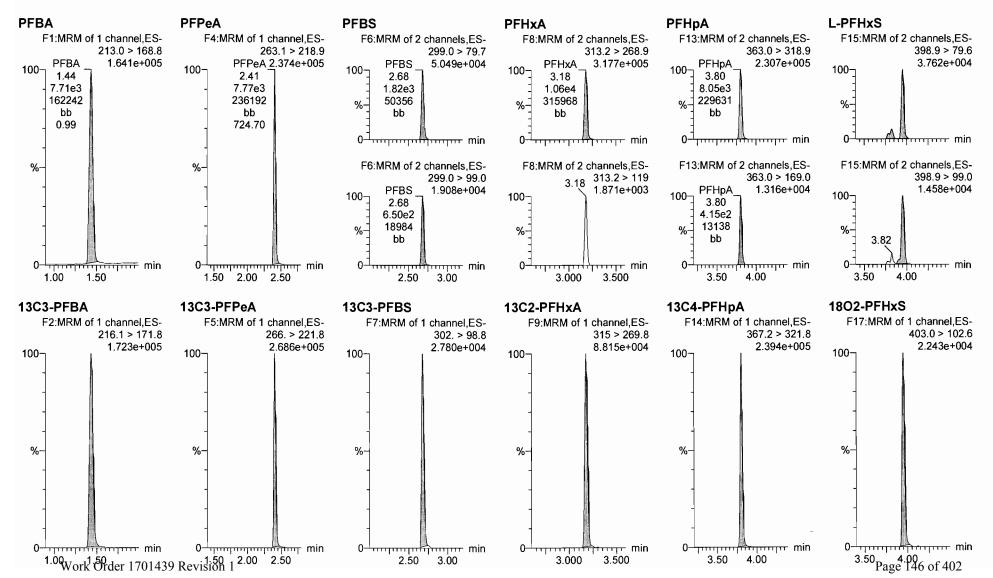
Wednesday, November 08, 2017 09:28:29 Pacific Standard Time

Printed:

Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:42:13



Page 2 of 6

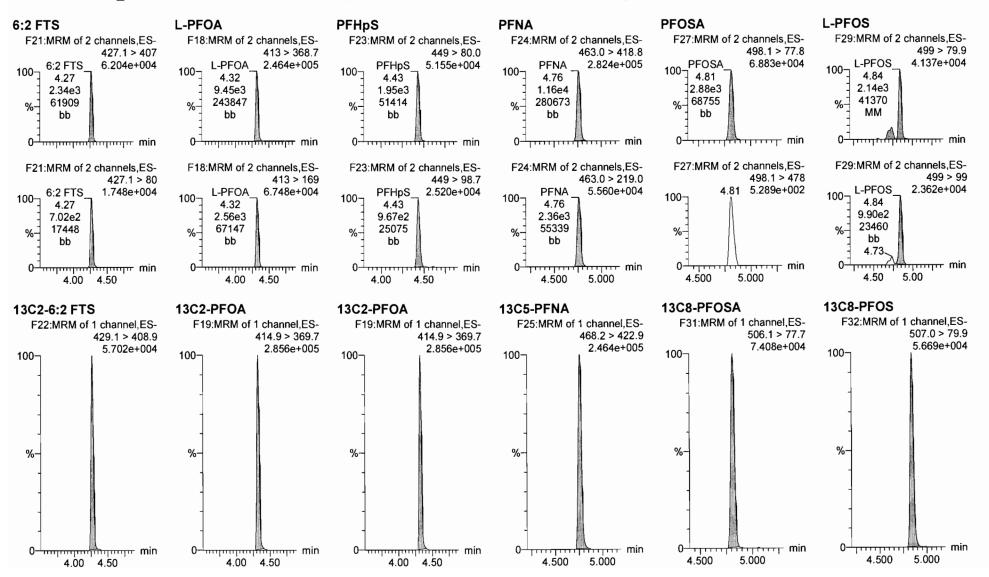
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Wednesday, November 08, 2017 09:28:29 Pacific Standard Time

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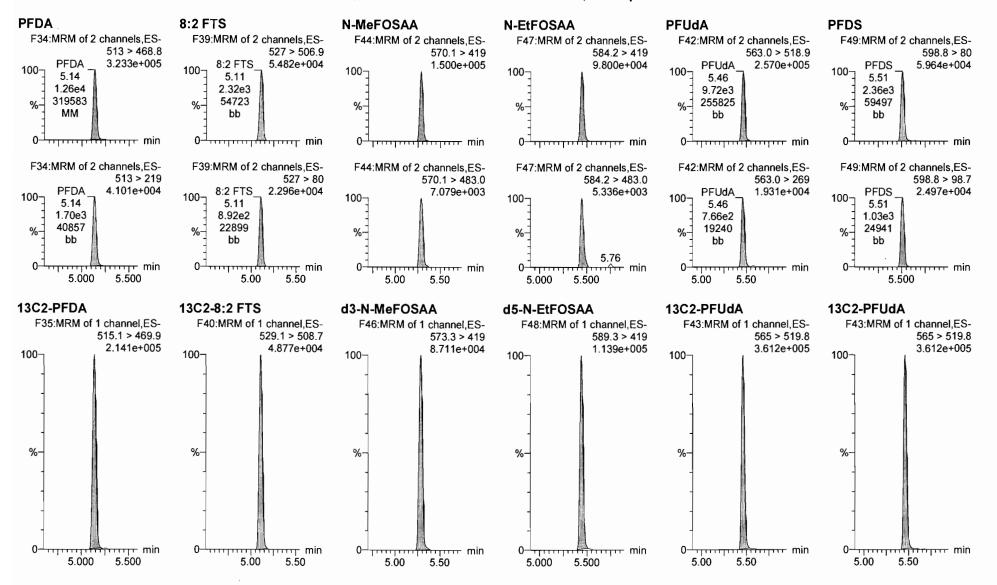
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Wednesday, November 08, 2017 09:28:29 Pacific Standard Time Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

Name: 171107M2_6, Date: 07-Nov-2017, Time: 22:40:16, ID: ST171107M2-2 PFC CS3 17J2710, Description: PFC CS3 17J28710



Work Order 1701439 Revision 1 Page 148 of 402

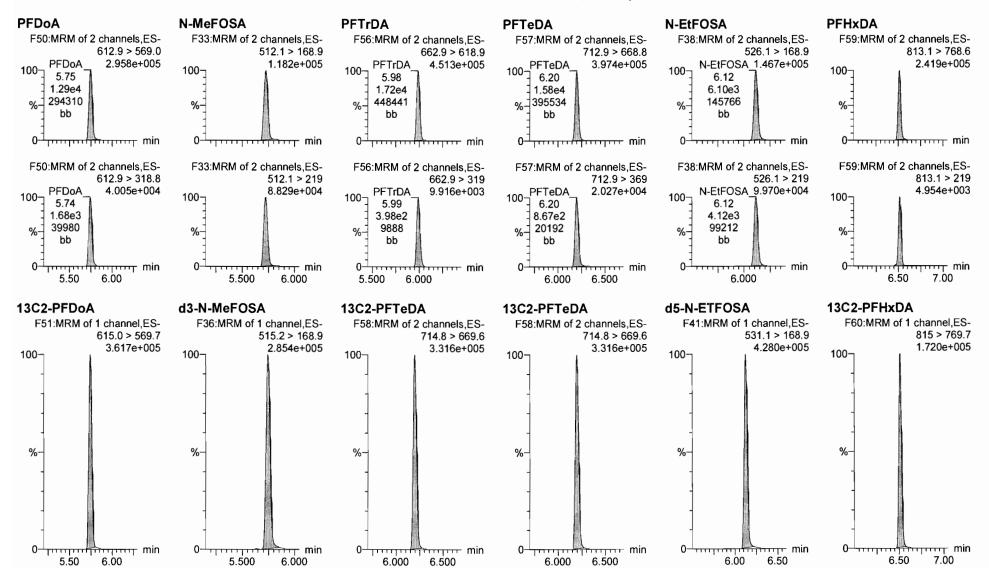
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Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

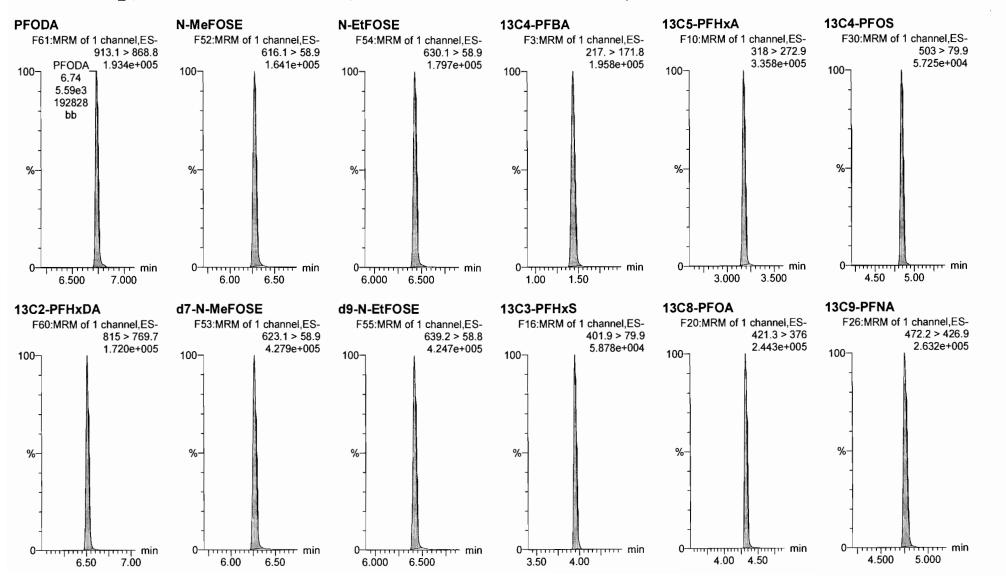


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Last Altered:

Wednesday, November 08, 2017 09:28:29 Pacific Standard Time

Printed: Wednesday, November 08, 2017 09:29:08 Pacific Standard Time

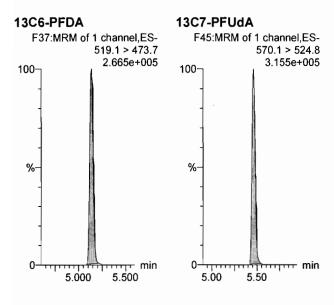


U:\Q4.PRO\results\171107M2\171107M2-6.qld

Last Altered:

Wednesday, November 08, 2017 09:28:29 Pacific Standard Time

Printed: Wednesday, November 08, 2017 09:29:08 Pacific Standard Time



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:24:20

Compound name: PFBA

Correlation coefficient: r = 0.999162, $r^2 = 0.998324$

Calibration curve: 1.25384 * x + -0.0149356

Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

ol27/17

/ JA. 10/24/2017

| ingle to | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----------|---------------|----------|-----------|------|------------|----------|----------|-------|------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 1.25 | 169.410 | 7808.215 | 0.271 | 0.2 | -8.7 | NO | 0.998 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 1.25 | 378.556 | 8572.229 | 0.552 | 0.5 | -9.6 | NO | 0.998 | NO | ММ |
| 3 | 3 171026M1_4 | Standard | 1.000 | 1.25 | 971.693 | 7984.760 | 1.521 | 1.2 | 22.5 | NO | 0.998 | NO | MM |
| 4 | 4 171026M1_5 | Standard | 2.000 | 1.25 | 1475.644 | 8054.466 | 2.290 | 1.8 | -8.1 | NO | 0.998 | NO | MM |
| 5 | 5 171026M1_6 | Standard | 5.000 | 1.25 | 3254.984 | 6778.724 | 6.002 | 4.8 | -4.0 | NO | 0.998 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 1.23 | 9473.223 | 8629.076 | 13.723 | 11.0 | 9.6 | NO | 0.998 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 1.25 | 36005.004 | 7455.317 | 60.368 | 48.2 | -3.7 | NO | 0.998 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 1.25 | 70425.258 | 7419.347 | 118.651 | 94.6 | -5.4 | NO | 0.998 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 1.25 | 177538.250 | 6902.076 | 321.531 | 256.4 | 2.6 | NO | 0.998 | NO | bb |

Compound name: PFPeA

Correlation coefficient: r = 0.999675, $r^2 = 0.999351$

Calibration curve: 1.1515 * x + 0.0271081

Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|-------------------------------------|---------------|----------|-----------|------|------------|----------|----------|-------|------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 2.22 | 195.461 | 8408.983 | 0.291 | 0.2 | -8.5 | NO | 0.999 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 2.22 | 410.022 | 8868.642 | 0.578 | 0.5 | -4.3 | NO | 0.999 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 2.23 | 957.906 | 8877.859 | 1.349 | 1.1 | 14.8 | NO | 0.999 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 2.23 | 1564.483 | 8596.897 | 2.275 | 2.0 | -2.4 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 2.22 | 3290.001 | 7755.411 | 5.303 | 4.6 | -8.4 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 2.22 | 9504.004 | 9337.942 | 12.722 | 11.0 | 10.2 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 2.23 | 37194.707 | 8015.438 | 58.005 | 50.3 | 0.7 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 2.23 | 70141.914 | 7838.237 | 111.859 | 97.1 | -2.9 | NO | 0.999 | NO | bb |
| 9 (100-10) (11) (11) (11) (11) (12) | 9 171026M1_10 | Standard | 250.000 | 2.23 | 175476.359 | 7562.272 | 290.052 | 251.9 | 0.7 | NO | 0.999 | NO | bb |

Quantify Compound Summary Report MassLynx MassLynx V4
Vista Analytical Laboratory

Summary Report MassLynx MassLynx V4.1 SCN945 SCN960 Page 2 of 29

Dataset:

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFBS

Correlation coefficient: r = 0.998426, $r^2 = 0.996854$

Calibration curve: 2.43502 * x + 0.00496287

Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 September 1 | 1 171026M1_2 | Standard | 0.250 | 2.51 | 56.109 | 942.759 | 0.744 | 0.3 | 21.4 | NO | 0.997 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 2.50 | 109.096 | 1150.455 | 1.185 | 0.5 | -3.0 | NO | 0.997 | NO | bb |
| 3 minimum de la | 3 171026M1_4 | Standard | 1.000 | 2.51 | 246.749 | 1085.497 | 2.841 | 1.2 | 16.5 | NO | 0.997 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 2.51 | 350.747 | 1130.237 | 3.879 | 1.6 | -20.4 | NO | 0.997 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 2.51 | 808.830 | 946.956 | 10.677 | 4.4 | -12.3 | NO | 0.997 | NO | bb |
| 600,000,000 | 6 171026M1_7 | Standard | 10.000 | 2.51 | 2276.402 | 1107.306 | 25.698 | 10.6 | 5.5 | NO | 0.997 | NO | bb |
| 7 managadyse | 7 171026M1_8 | Standard | 50.000 | 2.51 | 8724.820 | 930.832 | 117.164 | 48.1 | -3.8 | NO | 0.997 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 2.51 | 16856.811 | 937.808 | 224.684 | 92.3 | -7.7 | NO | 0.997 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 2.51 | 41762.863 | 824.913 | 632.837 | 259.9 | 4.0 | NO | 0.997 | NO | bb |

Compound name: PFHxA

Correlation coefficient: r = 0.999732, $r^2 = 0.999465$

Calibration curve: 1.66208 * x + 0.0769658

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----------------|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 3.00 | 283.989 | 2942.526 | 0.483 | 0.2 | -2.4 | NO | 0.999 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 3.00 | 587.805 | 3685.471 | 0.797 | 0.4 | -13.3 | NO | 0.999 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 3.00 | 1424.702 | 3516.192 | 2.026 | 1.2 | 17.3 | NO | 0.999 | NO | MM |
| 4 100 m 100 mm | 4 171026M1_5 | Standard | 2.000 | 3.00 | 2232.012 | 3262.653 | 3.421 | 2.0 | 0.6 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 3.00 | 4890.172 | 2910.139 | 8.402 | 5.0 | 0.2 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 3.00 | 13203.137 | 3962.694 | 16.659 | 10.0 | -0.2 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 3.00 | 54375.723 | 3263.629 | 83.306 | 50.1 | 0.1 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 3.00 | 99396.352 | 3101.273 | 160.251 | 96.4 | -3.6 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 3.00 | 243237.984 | 2886.449 | 421.345 | 253.5 | 1.4 | NO | 0.999 | NO | bb |

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Quantify Compound Summary Report Vista Analytical Laboratory

MassLynx MassLynx V4.1 SCN945 SCN960

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Dataset:

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFHpA

Correlation coefficient: r = 0.998813, $r^2 = 0.997628$ Calibration curve: 1.51217 * x + -0.00204214

Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std, Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------------------------|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 miles of publication of | 1 171026M1_2 | Standard | 0.250 | 3.62 | 217.491 | 6975.456 | 0.390 | 0.3 | 3.6 | NO | 0.998 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 3.62 | 435.150 | 8073.077 | 0.674 | 0.4 | -10.6 | NO | 0.998 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 3.62 | 1150.884 | 7874.637 | 1.827 | 1.2 | 20.9 | NO | 0.998 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 3.62 | 1765.486 | 7732.312 | 2.854 | 1.9 | -5.6 | NO | 0.998 | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 5.000 | 3.62 | 3955.650 | 7137.554 | 6.928 | 4.6 | -8.3 | NO | 0.998 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 3.63 | 11140.995 | 8761.563 | 15.895 | 10.5 | 5.1 | NO | 0.998 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 3.62 | 44386.152 | 7381.024 | 75.169 | 49.7 | -0.6 | NO | 0.998 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 3.63 | 82448.250 | 7389.083 | 139.476 | 92.2 | -7.8 | NO | 0.998 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 3.63 | 210467.547 | 6745.937 | 389.989 | 257.9 | 3.2 | NO | 0.998 | NO | bb |

Compound name: L-PFHxS

Correlation coefficient: r = 0.998527, r^2 = 0.997056

Calibration curve: 2.44187 * x + -0.197337

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 3.77 | 33.810 | 852.741 | 0.496 | 0.3 | 13.5 | NO | 0.997 | NO | ММ |
| 2 | 2 171026M1_3 | Standard | 0.500 | 3.77 | 87.560 | 950.357 | 1.152 | 0.6 | 10.5 | NO | 0.997 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 3.77 | 183.248 | 1000.627 | 2.289 | 1.0 | 1.8 | NO | 0.997 | NO | ММ |
| 47 | 4 171026M1_5 | Standard | 2.000 | 3.78 | 262.817 | 901.116 | 3.646 | 1.6 | -21.3 | NO | 0.997 | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 5.000 | 3.78 | 645.315 | 720.817 | 11.191 | 4.7 | -6.7 | NO | 0.997 | NO | ММ |
| 6 4 4 5 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 6 171026M1_7 | Standard | 10.000 | 3.78 | 2009.132 | 930.634 | 26.986 | 11.1 | 11.3 | NO | 0.997 | NO | ММ |
| 7 ,000-2000/000 | 7 171026M1_8 | Standard | 50.000 | 3.78 | 7421.165 | 812.195 | 114.215 | 46.9 | -6.3 | NO | 0.997 | NO | MM |
| 8 | 8 171026M1_9 | Standard | 100.000 | 3.78 | 14385.692 | 788.162 | 228.153 | 93.5 | -6.5 | NO | 0.997 | NO | MM |
| 9 | 9 171026M1_10 | Standard | 250.000 | 3.78 | 34045.094 | 672.689 | 632.631 | 259.2 | 3.7 | NO | 0.997 | NO | ММ |

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Quantify Compound Summary Report Vista Analytical Laboratory MassLynx WassLynx V4.1 SCN945 SCN960

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Dataset:

Printed:

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered:

Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: 6:2 FTS

Coefficient of Determination: R^2 = 0.990378

Calibration curve: -0.00338904 * x^2 + 1.06688 * x + -0.0276541 Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| ng ar in in Tiple below | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----------------------------|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.10 | 38.764 | 2164.565 | 0.224 | 0.2 | -5.6 | NO | 0.990 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.09 | 76.205 | 2370.950 | 0.402 | 0.4 | -19.4 | NO | 0.990 | NO | MM |
| 3 7 11 1 | 3 171026M1_4 | Standard | 1.000 | 4.10 | 260.433 | 2607.028 | 1.249 | 1.2 | 20.1 | NO | 0.990 | NO | MM |
| | 4 171026M1_5 | Standard | 2.000 | 4.10 | 371.059 | 2213.204 | 2.096 | 2.0 | 0.2 | NO | 0.990 | NO | MM |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.10 | 723.532 | 2011.325 | 4.497 | 4.3 | -14.0 | NO | 0.990 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.10 | 2375.465 | 2322.365 | 12.786 | 12.5 | 25.1 | NO | 0.990 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.10 | 8057.026 | 2423.382 | 41.559 | 45.6 | -8.8 | NO | 0.990 | NO | MM |
| 8:00:36-300000 | 8 171026M1_9 | Standard | 100.000 | 4.10 | 16916.268 | 2849.847 | 74.198 | 103.8 | 3.8 | NO | 0.990 | NO | MM |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.10 | 42048.867 | 3989.678 | 131.743 | | | NO _ | 0.990 | NO | MMXI |

Compound name: L-PFOA

Correlation coefficient: r = 0.999419, $r^2 = 0.998838$

Calibration curve: 1.12797 * x + 0.284504

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 200 | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.15 | 471.538 | 9078.071 | 0.649 | 0.3 | 29.4 | NO | 0.999 | NO | bb |
| 2 111675 | 2 171026M1_3 | Standard | 0.500 | 4.15 | 637.530 | 11620.861 | 0.686 | 0.4 | -28.9 | NO | 0.999 | NO | bb |
| 3 //////////////////////////////////// | 3 171026M1_4 | Standard | 1.000 | 4.15 | 1432.158 | 11362.964 | 1.575 | 1.1 | 14.5 | NO | 0.999 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.15 | 2028.134 | 10917.326 | 2.322 | 1.8 | -9.7 | NO | 0.999 | NO | bb |
| 5 (104) | 5 171026M1_6 | Standard | 5.000 | 4.15 | 4240.121 | 9732.542 | 5.446 | 4.6 | -8.5 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.16 | 12624.870 | 12620.936 | 12.504 | 10.8 | 8.3 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.15 | 46626.160 | 10698.399 | 54.478 | 48.0 | -3.9 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.15 | 87781.883 | 10016.809 | 109.543 | 96.9 | -3.1 | NO | 0.999 | NO | bb |
| guntangan antangan guntangan | 9 171026M1_10 | Standard | 250.000 | 4.15 | 215229.203 | 9351.515 | 287.693 | 254.8 | 1.9 | NO | 0.999 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.gld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFHpS

Coefficient of Determination: R^2 = 0.998365

Calibration curve: $4.65786e-005 * x^2 + 0.203609 * x + 0.0252184$ Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 Company | 1 171026M1_2 | Standard | 0.250 | 4.26 | 60.156 | 9078.071 | 0.083 | 0.3 | 13.2 | NO | 0.998 | NO | pp |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.26 | 97.399 | 11620.861 | 0.105 | 0.4 | -21.9 | NO | 0.998 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.27 | 221.282 | 11362.964 | 0.243 | 1.1 | 7.1 | NO | 0.998 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.27 | 363.685 | 10917.326 | 0.416 | 1.9 | -4.0 | NO | 0.998 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.26 | 747.675 | 9732.54 | 0.960 | 4.6 | -8.2 | NO | 0.998 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.27 | 2336.865 | 12620.936 | 2.314 | 11.2 | 12.1 | NO | 0.998 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.27 | 9392.685 | 10698.399 | 10.974 | 53.1 | 6.3 | NO | 0.998 | NO | bb |
| 8 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 8 171026M1_9 | Standard | 100.000 | 4.27 | 15827.031 | 10016.809 | 19.751 | 94.8 | -5.2 | NO | 0.998 | NO | bb |
| 9 10 10 10 10 10 10 10 10 10 10 10 10 10 | 9 171026M1_10 | Standard | 250.000 | 4.26 | 40503.746 | 9351.515 | 54.141 | 251.3 | 0.5 | NO | 0.998 | NO | bb |

Compound name: PFNA

Coefficient of Determination: R^2 = 0.997109

Calibration curve: -0.000379675 * x^2 + 1.44302 * x + 0.0895267 Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------------------|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.59 | 298.739 | 10432.768 | 0.358 | 0.2 | -25.6 | NO | 0.997 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.59 | 616.104 | 10776.714 | 0.715 | 0.4 | -13.4 | NO | 0.997 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.59 | 1536.325 | 10136.376 | 1.895 | 1.3 | 25.1 | NO | 0.997 | NO | bb |
| 4 Maria Maria Maria | 4 171026M1_5 | Standard | 2.000 | 4.59 | 2228.166 | 9401.615 | 2.962 | 2.0 | -0.4 | NO | 0.997 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.59 | 4653.905 | 8632.302 | 6.739 | 4.6 | -7.7 | NO | 0.997 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.60 | 15142.974 | 10614.531 | 17.833 | 12.3 | 23.4 | NO | 0.997 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.59 | 54084.996 | 9136.932 | 73.992 | 51.9 | 3.8 | NO | 0.997 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.59 | 99947.945 | 9445.277 | 132.272 | 93.9 | -6.1 | NO | 0.997 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.59 | 241162.719 | 8871.991 | 339.781 | 252.1 | 0.9 | NO | 0.997 | NO | bb |

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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFOSA

Correlation coefficient: r = 0.998461, $r^2 = 0.996924$

Calibration curve: 1.16388 * x + 0.0273367

Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| and Etran | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded_ |
|-----------|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|-------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.64 | 67.667 | 2860.033 | 0.296 | 0.2 | -7.8 | NO | 0.997 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.64 | 160.843 | 2971.727 | 0.677 | 0.6 | 11.6 | NO | 0.997 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.64 | 330.443 | 3347.137 | 1.234 | 1.0 | 3.7 | NO | 0.997 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.64 | 583.434 | 3119.570 | 2.338 | 2.0 | -0.7 | NO | 0.997 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.64 | 1163.094 | 2616.420 | 5.557 | 4.8 | -5.0 | NO | 0.997 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.65 | 3486.776 | 3417.714 | 12.753 | 10.9 | 9.3 | NO | 0.997 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.64 | 12015.530 | 3010.790 | 49.885 | 42.8 | -14.3 | NO | 0.997 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.64 | 25235.262 | 2679.938 | 117.705 | 101.1 | 1.1 | NO | 0.997 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.64 | 59672.262 | 2509.948 | 297.179 | 255.3 | 2.1 | NO | 0.997 | NO | bb |

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Compound name: L-PFOS

Correlation coefficient: r = 0.997357, $r^2 = 0.994721$

Calibration curve: 1.1564 * x + -0.0243452

Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|------------------|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.68 | 53.751 | 2514.781 | 0.267 | 0.3 | 0.8 | NO | 0.995 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.68 | 89.260 | 2269.787 | 0.492 | 0.4 | -10.8 | NO | 0.995 | NO | ММ |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.68 | 259.248 | 2388.392 | 1.357 | 1.2 | 19.4 | NO | 0.995 | NO | ММ |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.68 | 404.457 | 2373.570 | 2.130 | 1.9 | -6.9 | NO | 0.995 | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.68 | 742.283 | 2090.799 | 4.438 | 3.9 | -22.8 | NO | 0.995 | NO | MM |
| 62-40-93 (00-97) | 6 171026M1_7 | Standard | 10.000 | 4.68 | 2830.883 | 2570.850 | 13.764 | 11.9 | 19.2 | NO | 0.995 | NO | MM |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.68 | 9432.499 | 2064.157 | 57.121 | 49.4 | -1.2 | NO | 0.995 | NO | MM |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.68 | 18509.137 | 2233.150 | 103.604 | 89.6 | -10.4 | NO | 0.995 | NO | ММ |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.68 | 47303.645 | 1965.412 | 300.851 | 260.2 | 4.1 | NO | 0.995 | NO | ММ |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.gld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFDA

Coefficient of Determination: R^2 = 0.998744

Calibration curve: 0.000670409 * x^2 + 1.3303 * x + 0.180081 Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| Taki banah segahatahatek Taki cahilan kejahatahatek Taki cahilan kejahatahatek | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.97 | 372.370 | 9937.673 | 0.468 | 0.2 | -13.3 | NO | 0.999 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.97 | 652.787 | 10867.054 | 0.751 | 0.4 | -14.2 | NO | 0.999 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.97 | 1419.549 | 10060.540 | 1.764 | 1.2 | 19.0 | NO | 0.999 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.97 | 2263.442 | 10558.938 | 2.680 | 1.9 | -6.1 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.97 | 4849.386 | 9200.564 | 6.588 | 4.8 | -3.9 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.98 | 15897.714 | 12043.707 | 16.500 | 12.2 | 21.9 | NO | 0.999 | NO | bb |
| 7. 1. 6. 8. 2. 10. 11. 10. | 7 171026M1_8 | Standard | 50.000 | 4.97 | 50889.750 | 9506.485 | 66.915 | 49.0 | -2.1 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.97 | 100970.852 | 9169.604 | 137.643 | 98.4 | -1.6 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.97 | 271550.188 | 9033.771 | 375.743 | 250.7 | 0.3 | NO | 0.999 | NO | bb |

Compound name: 8:2 FTS

Coefficient of Determination: R^2 = 0.995715

Calibration curve: -0.00382414 * x^2 + 1.3379 * x + 0.459132 Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--------------------|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.94 | 81.448 | 1790.163 | 0.569 | 0.1 | -67.2 | NO | 0.996 | NO | bbX |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.94 | 132.352 | 1649.670 | 1.003 | 0.4 | -18.6 | NO | 0.996 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.94 | 279.093 | 1643.484 | 2.123 | 1.2 | 24.8 | NO | 0.996 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.94 | 305.201 | 1512.175 | 2.523 | 1.5 | -22.5 | NO | 0.996 | NO | bb |
| 5 million security | 5 171026M1_6 | Standard | 5.000 | 4.94 | 1052.290 | 1698.864 | 7.743 | 5.5 | 10.6 | NO | 0.996 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.94 | 2300.402 | 1959.247 | 14.677 | 11.0 | 9.7 | NO | 0.996 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.94 | 9184.235 | 2085.414 | 55.050 | 47.2 | -5.7 | NO | 0.996 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.94 | 18972.119 | 2439.029 | 97.232 | 102.2 | 2.2 | NO | 0.996 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.94 | 47933.313 | 3475.574 | 172.394 | _ | | NO _ | 0.996 | NO | bbXI |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.gld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFDA

Coefficient of Determination: R^2 = 0.998744

Calibration curve: 0.000670409 * x^2 + 1.3303 * x + 0.180081 Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 4.97 | 372.370 | 9937.673 | 0.468 | 0.2 | -13.3 | NO | 0.999 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.97 | 652.787 | 10867.054 | 0.751 | 0.4 | -14.2 | NO | 0.999 | NO | ММ |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.97 | 1419.549 | 10060.540 | 1.764 | 1.2 | 19.0 | NO | 0.999 | NO | bb |
| 4 HILL COUNTY | 4 171026M1_5 | Standard | 2.000 | 4.97 | 2263.442 | 10558.938 | 2.680 | 1.9 | -6.1 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.97 | 4849.386 | 9200.564 | 6.588 | 4.8 | -3.9 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.98 | 15897.714 | 12043.707 | 16.500 | 12.2 | 21.9 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.97 | 50889.750 | 9506.485 | 66.915 | 49.0 | -2.1 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.97 | 100970.852 | 9169.604 | 137.643 | 98.4 | -1.6 | NO | 0.999 | NO | bb |
| 9 100 100 100 100 100 100 100 100 100 10 | 9 171026M1_10 | Standard | 250.000 | 4.97 | 271550.188 | 9033.771 | 375.743 | 250.7 | 0.3 | NO | 0.999 | NO | bb |

Compound name: 8:2 FTS

Coefficient of Determination: R^2 = 0.995715

Calibration curve: -0.00382414 * x^2 + 1.3379 * x + 0.459132 Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 200 (1) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4 | # Name | Туре | Std. Conc | . RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 manifest messes | 1 171026M1_2 | Standard | 0.250 | 4.94 | 81.448 | 1790.163 | 0.569 | 0.1 | -67.2 | NO | 0.996 | NO | bbX |
| 2 | 2 171026M1_3 | Standard | 0.500 | 4.94 | 132.352 | 1649.670 | 1.003 | 0.4 | -18.6 | NO | 0.996 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 4.94 | 279.093 | 1643.484 | 2.123 | 1.2 | 24.8 | NO | 0.996 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 4.94 | 305.201 | 1512.175 | 2.523 | 1.5 | -22.5 | NO | 0.996 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 4.94 | 1052.290 | 1698.864 | 7.743 | 5.5 | 10.6 | NO | 0.996 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 4.94 | 2300.402 | 1959.247 | 14.677 | 11.0 | 9.7 | NO | 0.996 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 4.94 | 9184.235 | 2085.414 | 55.050 | 47.2 | -5.7 | NO | 0.996 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 4.94 | 18972.119 | 2439.029 | 97.232 | 102.2 | 2.2 | NO | 0.996 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 4.94 | 47933.313 | 3475.574 | 172.394 | | | NO | 0.996 | NO | bbXI |

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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Dataset:

Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: N-MeFOSAA

Coefficient of Determination: R^2 = 0.997869

Calibration curve: -0.000267179 * x^2 + 1.57739 * x + 0.0787904 Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| user i sameri Altalopystina lipsi hajiri Altalopomi i sameri sameri sa | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 5.12 | 171.157 | 4283.565 | 0.499 | 0.3 | 6.7 | NO | 0.998 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.12 | 251.886 | 4531.096 | 0.695 | 0.4 | -21.9 | NO | 0.998 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.13 | 611.555 | 4244.738 | 1.801 | 1.1 | 9.2 | NO | 0.998 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.13 | 1014.820 | 4230.691 | 2.998 | 1.9 | -7.4 | NO | 0.998 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 5.13 | 2286.861 | 3763.122 | 7.596 | 4.8 | -4.6 | NO | 0.998 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.13 | 7505.110 | 5027.620 | 18.660 | 11.8 | 18.0 | NO | 0.998 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 5.13 | 26761.980 | 4070.543 | 82.182 | 52.5 | 5.0 | NO | 0.998 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 5.13 | 48675.637 | 4156.273 | 146.392 | 94.3 | -5.7 | NO | 0.998 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 5.13 | 120635.273 | 3964.672 | 380.344 | 251.8 | 0.7 | NO _ | 0.998 | NO | bb |

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Compound name: N-EtFOSAA

Coefficient of Determination: R^2 = 0.994831

Calibration curve: 5.282e-005 * x^2 + 1.26472 * x + 0.0301259 Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std, Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 5.28 | 128.703 | 4328.346 | 0.372 | 0.3 | 8.0 | NO | 0.995 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.28 | 245.150 | 4608.545 | 0.665 | 0.5 | 0.4 | NO | 0.995 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.29 | 479.197 | 4596.165 | 1.303 | 1.0 | 0.7 | NO | 0.995 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.29 | 807.240 | 4598.011 | 2.195 | 1.7 | -14.4 | NO | 0.995 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 5.28 | 1751.644 | 4056.309 | 5.398 | 4.2 | -15.1 | NO | 0.995 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.29 | 6279.174 | 4795.402 | 16.368 | 12.9 | 29.1 | NO | 0.995 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 5.29 | 21268.102 | 3860.981 | 68.856 | 54.3 | 8.6 | NO | 0.995 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 5.29 | 38943.199 | 4197.738 | 115.965 | 91.3 | -8.7 | NO | 0.995 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 5.28 | 91337.641 | 3537.789 | 322.721 | 252.5 | 1.0 | NO | 0.995 | NO_ | bb |

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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.gld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Printed: Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFUnA

Coefficient of Determination: R^2 = 0.998990

Calibration curve: $-0.000325839 * x^2 + 1.14375 * x + 0.032356$ Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 10 (00) (177) (00) 10 (00) (177) (00) | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 5.30 | 333.859 | 11922.407 | 0.350 | 0.3 | 11.1 | NO | 0.999 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.30 | 604.879 | 14098.658 | 0.536 | 0.4 | -11.9 | NO | 0.999 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.30 | 1430.892 | 14676.305 | 1.219 | 1.0 | 3.8 | NO | 0.999 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.30 | 2224.770 | 13559.280 | 2.051 | 1.8 | -11.7 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 5.30 | 5026.863 | 11695.059 | 5.373 | 4.7 | -6.5 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.30 | 13767.616 | 12899.332 | 13.341 | 11.7 | 16.8 | NO | 0.999 | NO | MM |
| 7 | 7 171026M1_8 | Standard | 50.000 | 5.30 | 56903.492 | 12601.697 | 56.444 | 50.0 | 0.1 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 5.30 | 91266.719 | 10458.104 | 109.086 | 98.1 | -1.9 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 5.30 | 226259.609 | 10618.298 | 266.356 | 250.8 | 0.3 | NO | 0.999 | NO | bb |

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Compound name: PFDS

Coefficient of Determination: R^2 = 0.994206

Calibration curve: 0.195972 * x

Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-------|----------|------------|
| | 1 171026M1_2 | Standard | 0.250 | 5.35 | 45.020 | 11922.407 | 0.047 | 0.2 | -3.7 | NO | 0.994 | NO | MMX |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.35 | 151.486 | 14098.658 | 0.134 | 0.7 | 37.1 | NO | 0.994 | NO | MMX |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.36 | 213.721 | 14676.305 | 0.182 | 0.9 | -7.1 | NO | 0.994 | NO | ММ |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.35 | 460.999 | 13559.280 | 0.425 | 2.2 | 8.4 | NO | 0.994 | NO | ММ |
| 5 a minimalization | 5 171026M1_6 | Standard | 5.000 | 5.35 | 810.285 | 11695.059 | 0.866 | 4.4 | -11.6 | NO | 0.994 | NO | ММ |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.36 | 2627.442 | 12899.332 | 2.546 | 13.0 | 29.9 | NO | 0.994 | NO | ММ |
| 7 - 4-111111-00-00-00-00-00-00-00-00-00-00-00 | 7 171026M1_8 | Standard | 50.000 | 5.35 | 9770.502 | 12601.697 | 9.692 | 49.5 | -1.1 | NO | 0.994 | NO | ММ |
| 8 | 8 171026M1_9 | Standard | 100.000 | 5.35 | 22998.344 | 10458.104 | 27.489 | 140.3 | 40.3 | NO | 0.994 | NO | MMX |
| 9 | 9 171026M1_10 | Standard | 250.000 | 5.35 | 45583.809 | 10618.298 | 53.662 | 273.8 | 9.5 | NO _ | 0.994 | NO _ | MMX |

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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Fr

Dataset:

Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFDoA

Coefficient of Determination: R^2 = 0.997953

Calibration curve: -0.000109132 * x^2 + 1.24453 * x + 0.293856 Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| distriction of the second | 1 171026M1_2 | Standard | 0.250 | 5.59 | 431.656 | 13820.625 | 0.390 | 0.1 | -69.0 | NO | 0.998 | NO | bbX |
| 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 2 171026M1_3 | Standard | 0.500 | 5.59 | 915.266 | 14554.974 | 0.786 | 0.4 | -20.9 | NO | 0.998 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.59 | 1861.279 | 14053.078 | 1.656 | 1.1 | 9.4 | NO | 0.998 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.59 | 3205.994 | 13740.559 | 2.917 | 2.1 | 5.4 | NO | 0.998 | NO | bb |
| 5 mentangan pengangan benterakan Samulangan pelangangan | 5 171026M1_6 | Standard | 5.000 | 5.59 | 6002.763 | 12183.269 | 6.159 | 4.7 | -5.7 | NO | 0.998 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.59 | 19185.148 | 16125.540 | 14.872 | 11.7 | 17.3 | NO | 0.998 | NO | bb |
| Zir branda landa | 7 171026M1_8 | Standard | 50.000 | 5.59 | 65903.305 | 14441.244 | 57.044 | 45.8 | -8.4 | NO | 0.998 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 5.59 | 124742.266 | 12225.404 | 127.544 | 103.2 | 3.2 | NO | 0.998 | NO | bb |
| 9 100 100 | 9 171026M1_10 | Standard | 250.000 | 5.59 | 282094.188 | 11598.803 | 304.012 | 249.5 | -0.2 | NO | 0.998 | NO | bb |

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Compound name: N-MeFOSA

Coefficient of Determination: R^2 = 0.999297

Calibration curve: -0.000149877 * x^2 + 1.21877 * x + 0.0856513 Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| annan paritagan da kanan ka Kanan kanan ka | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|--------|-------|------------|-------|----------|------------|
| Total Company of the Company | 1 171026M1_2 | Standard | 1.250 | 5.59 | 150.739 | 13893.939 | 1.627 | 1.3 | 1.2 | NO | 0.999 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 2.500 | 5.59 | 289.176 | 15405.037 | 2.816 | 2.2 | -10.4 | NO | 0.999 | NO | bb |
| 3 Photographic and the control of th | 3 171026M1_4 | Standard | 5.000 | 5.60 | 725.535 | 14020.292 | 7.762 | 6.3 | 26.1 | NO | 0.999 | NO | bb |
| 4 per usas market same | 4 171026M1_5 | Standard | 10.000 | 5.60 | 1026.968 | 13929.710 | 11.059 | 9.0 | -9.9 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 25.000 | 5.59 | 2433.160 | 12908.811 | 28.273 | 23.2 | -7.2 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 50.000 | 5.60 | 5717.728 | 13491.567 | 63.570 | 52.4 | 4.9 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 250.000 | 5.60 | 25214.387 | 12434.965 | 304.155 | 257.7 | 3.1 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 500.000 | 5.60 | 44827.070 | 12026.860 | 559.087 | 487.9 | -2.4 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 1250.000 | 5.60 | 102687.719 | 11915.382 | 1292.712 | 1254.0 | 0.3 | NO | 0.999 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: PFTrDA

Coefficient of Determination: R^2 = 0.998625

Calibration curve: $0.000400269 * x^2 + 1.32903 * x + 0.10057$ Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 100000 | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--------|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 5.84 | 421.703 | 13820.625 | 0.381 | 0.2 | -15.5 | NO | 0.999 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 0.500 | 5.84 | 788.318 | 14554.974 | 0.677 | 0.4 | -13.3 | NO | 0.999 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 5.85 | 1764.051 | 14053.078 | 1.569 | 1.1 | 10.5 | NO | 0.999 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 5.85 | 2983.976 | 13740.559 | 2.715 | 2.0 | -1.7 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 5.84 | 6940.688 | 12183.269 | 7.121 | 5.3 | 5.5 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 5.85 | 20751.439 | 16125.540 | 16.086 | 12.0 | 19.8 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 5.85 | 73393.203 | 14441.244 | 63.527 | 47.1 | -5.9 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 5.85 | 134583.125 | 12225.404 | 137.606 | 100.4 | 0.4 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 5.84 | 332029.500 | 11598.803 | 357.827 | 250.3 | 0.1 | NO | 0.999 | NO | bb |

Compound name: PFTeDA

Coefficient of Determination: R^2 = 0.990408

Calibration curve: -0.0116096 * $x^2 + 1.77597 * x + -0.229836$ Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|-------------------|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 0.250 | 6.06 | 353.669 | 9377.037 | 0.471 | 0.4 | 58.4 | NO | 0.990 | NO | MMX |
| 2 | 2 171026M1_3 | Standard | 0.500 | 6.06 | 672.156 | 10575.495 | 0.794 | 0.6 | 15.8 | NO | 0.990 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 1.000 | 6.06 | 1342.364 | 10644.371 | 1.576 | 1.0 | 2.4 | NO | 0.990 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 6.06 | 2705.437 | 11884.834 | 2.845 | 1.8 | -12.4 | NO | 0.990 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 6.06 | 5888.760 | 10706.537 | 6.875 | 4.1 | -17.8 | NO | 0.990 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 6.06 | 18380.754 | 12533.464 | 18.332 | 11.3 | 12.8 | NO | 0.990 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 6.06 | 61918.887 | 13048.656 | 59.315 | 49.6 | -0.7 | NO | 0.990 | NO | db |
| 8,,,,,,,,,,,,,,,, | 8 171026M1_9 | Standard | 100.000 | 6.06 | 113524.648 | 11072.916 | 128.156 | | | NO | 0.990 | NO | bbXI |
| 9 | 9 171026M1_10 | Standard | 250.000 | 6.06 | 265615.188 | 10205.076 | 325.347 | | | NO | 0.990 | NO | dbXI |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: N-EtFOSA

Coefficient of Determination: R^2 = 0.999879

Calibration curve: $1.51717e-005 * x^2 + 1.00753 * x + 0.283778$ Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|------------|-----------|----------|--------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 1.250 | 6.02 | 203.932 | 19832.848 | 1.542 | 1.2 | -0.1 | NO | 1.000 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 2.500 | 6.02 | 358.754 | 21744.625 | 2.475 | 2.2 | -13.0 | NO | 1.000 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 5.000 | 6.02 | 808.101 | 20019.549 | 6.055 | 5.7 | 14.5 | NO | 1.000 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 10.000 | 6.03 | 1350.590 | 19708.096 | 10.279 | 9.9 | -0.8 | NO | 1.000 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 25.000 | 6.02 | 3120.174 | 19092.957 | 24.513 | 24.0 | -3.8 | NO | 1.000 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 50.000 | 6.03 | 6858.185 | 19619.416 | 52.434 | 51.7 | 3.4 | NO | 1.000 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 250.000 | 6.03 | 30907.031 | 18301.496 | 253.316 | 250.2 | 0.1 | NO | 1.000 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 500.000 | 6.03 | 57020.777 | 16908.625 | 505.843 | 498.0 | -0.4 | NO | 1.000 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 1250.000 | 6.03 | 127353.117 | 14876.408 | 1284.112 | 1250.7 | 0.1 | NO | 1.000 | NO | bb |

Compound name: PFHxDA

Coefficient of Determination: R^2 = 0.999290

Calibration curve: -0.000484189 * x^2 + 0.723946 * x + 0.0537259 Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| | 1 171026M1_2 | Standard | 0.250 | 6.39 | 213.157 | 4102.797 | 0.260 | 0.3 | 13.9 | NO | 0.999 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 0.500 | 6.40 | 292.271 | 4597.595 | 0.318 | 0.4 | -27.0 | NO | 0.999 | NO | MM |
| 3 | 3 171026M1_4 | Standard | 1.000 | 6.39 | 624.552 | 3582.335 | 0.872 | 1.1 | 13.1 | NO | 0.999 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 2.000 | 6.40 | 1095.076 | 3826.472 | 1.431 | 1.9 | -4.8 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 6.39 | 2960.819 | 4271.142 | 3.466 | 4.7 | -5.4 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 10.000 | 6.40 | 5007.562 | 3093.651 | 8.093 | 11.2 | 11.9 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 50.000 | 6.40 | 27038.670 | 3894.998 | 34.709 | 49.5 | -1.0 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 100.000 | 6.40 | 52087.980 | 3882.136 | 67.087 | 99.2 | -0.8 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 250.000 | 6.40 | 137320.813 | 4546.360 | 151.023 | 250.5 | 0.2 | NO | 0.999 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: N-MeFOSE

Correlation coefficient: r = 0.999413, $r^2 = 0.998826$

Calibration curve: 1.06845 * x + 0.279364

Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| ese de la Servicio Madricule de Recestrato das guardos estados de la dis- cultura de la Companya | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|--------|-------|------------|-------|----------|------------|
| 1 200 m 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 1 171026M1_2 | Standard | 1.250 | 6.23 | 204.517 | 20802.461 | 1.475 | 1.1 | -10.5 | NO | 0.999 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 2.500 | 6.23 | 398.669 | 23510.152 | 2.544 | 2.1 | -15.2 | NO | 0.999 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 5.000 | 6.23 | 978.670 | 21267.461 | 6.903 | 6.2 | 24.0 | NO | 0.999 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 10.000 | 6.23 | 1444.513 | 21867.092 | 9.909 | 9.0 | -9.9 | NO | 0.999 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 25.000 | 6.23 | 3483.212 | 20238.715 | 25.816 | 23.9 | -4.4 | NO | 0.999 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 50.000 | 6.23 | 9478.513 | 22323.734 | 63.689 | 59.3 | 18.7 | NO | 0.999 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 250.000 | 6.23 | 32783.449 | 18689.719 | 263.113 | 246.0 | -1.6 | NO | 0.999 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 500.000 | 6.23 | 62656.301 | 17806.627 | 527.806 | 493.7 | -1.3 | NO | 0.999 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 1250.000 | 6.23 | 147733.016 | 16557.975 | 1338.325 | 1252.3 | 0.2 | NO | 0.999 | NO | bb |

Compound name: N-EtFOSE

Correlation coefficient: r = 0.996094, $r^2 = 0.992203$

Calibration curve: 1.29546 * x + -0.281193

Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|------------|-----------|----------|--------|-------|------------|-------|----------|------------|
| 1 | 1 171026M1_2 | Standard | 1.250 | 6.38 | 185.001 | 18723.795 | 1.482 | 1.4 | 8.9 | NO | 0.992 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 2.500 | 6.38 | 430.795 | 21507.340 | 3.005 | 2.5 | 1.5 | NO | 0.992 | NO | bb |
| 3 | 3 171026M1_4 | Standard | 5.000 | 6.38 | 1034.048 | 19338.682 | 8.021 | 6.4 | 28.2 | NO | 0.992 | NO | bb |
| 4 | 4 171026M1_5 | Standard | 10.000 | 6.38 | 1584.456 | 20850.943 | 11.398 | 9.0 | -9.8 | NO | 0.992 | NO | bb |
| 5 | 5 171026M1_6 | Standard | 25.000 | 6.38 | 3160.580 | 19199.350 | 24.693 | 19.3 | -22.9 | NO | 0.992 | NO | bb |
| 6 | 6 171026M1_7 | Standard | 50.000 | 6.38 | 9352.294 | 21197.688 | 66.179 | 51.3 | 2.6 | NO | 0.992 | NO | bb |
| 7 | 7 171026M1_8 | Standard | 250.000 | 6.38 | 34461.918 | 16038.620 | 322.303 | 249.0 | -0.4 | NO | 0.992 | NO | bb |
| 8 | 8 171026M1_9 | Standard | 500.000 | 6.38 | 62399.871 | 16802.908 | 557.045 | 430.2 | -14.0 | NO | 0.992 | NO | bb |
| 9 | 9 171026M1_10 | Standard | 1250.000 | 6.38 | 169561.797 | 14824.236 | 1715.722 | 1324.6 | 6.0 | NO | 0.992 | NO | bb |

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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Printed: Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: 13C3-PFBA Response Factor: 0.927532

RRF SD: 0.0280799, Relative SD: 3.02738

Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)

Curve type: RF

Dataset:

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|---|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 1.24 | 7808.215 | 8131.078 | 12.004 | 12.9 | 3.5 | NO | 352333311311111111111111111111111111111 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 12.500 | 1.25 | 8572.229 | 9182.603 | 11.669 | 12.6 | 0.6 | NO | | NO | MM |
| 3 | 3 171026M1_4 | Standard | 12.500 | 1.25 | 7984.760 | 8448.222 | 11.814 | 12.7 | 1.9 | NO | | NO | MM |
| 4 | 4 171026M1_5 | Standard | 12.500 | 1.25 | 8054.466 | 8533.363 | 11.798 | 12.7 | 1.8 | NO | | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 12.500 | 1.25 | 6778.724 | 7846.642 | 10.799 | 11.6 | -6.9 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 1.23 | 8629.076 | 9461.365 | 11.400 | 12.3 | -1.7 | NO | | NO | MM |
| 7 | 7 171026M1_8 | Standard | 12.500 | 1.25 | 7455.317 | 7997.517 | 11.653 | 12.6 | 0.5 | NO | | NO | MM |
| 8 | 8 171026M1_9 | Standard | 12.500 | 1.25 | 7419.347 | 7885.960 | 11.760 | 12.7 | 1.4 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 1.25 | 6902.076 | 7535.223 | 11.450 | 12.3 | -1.2 | NO | | NO | ММ |

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Compound name: 13C3-PFPeA

Response Factor: 0.756774

RRF SD: 0.0472101, Relative SD: 6.23833

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| erright de grand de de grande Grand Harden, er bliefdig ett aus | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 Harring and Commission of the State of the | 1 171026M1_2 | Standard | 12.500 | 2.22 | 8408.983 | 10203.109 | 10.302 | 13.6 | 8.9 | NO | | NO | MM |
| 2 | 2 171026M1_3 | Standard | 12.500 | 2.22 | 8868.642 | 12595.204 | 8.802 | 11.6 | -7.0 | NO | | NO | ММ |
| 3 | 3 171026M1_4 | Standard | 12.500 | 2.22 | 8877.859 | 11545.891 | 9.611 | 12.7 | 1.6 | NO | | NO | ММ |
| 4 | 4 171026M1_5 | Standard | 12.500 | 2.23 | 8596.897 | 11375.869 | 9.446 | 12.5 | -0.1 | NO | | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 12.500 | 2.22 | 7755.411 | 10076.924 | 9.620 | 12.7 | 1.7 | NO | | NO | ММ |
| 6 | 6 171026M1_7 | Standard | 12.500 | 2.22 | 9337.942 | 13109.532 | 8.904 | 11.8 | -5.9 | NO | | NO | ММ |
| 7 | 7 171026M1_8 | Standard | 12.500 | 2.22 | 8015.438 | 11706.181 | 8.559 | 11.3 | -9.5 | NO | | NO | ММ |
| 8 | 8 171026M1_9 | Standard | 12.500 | 2.22 | 7838.237 | 9834.428 | 9.963 | 13.2 | 5.3 | NO | | NO | ММ |
| 9 | 9 171026M1_10 | Standard | 12.500 | 2.23 | 7562.272 | 9519.610 | 9.930 | 13.1 | 5.0 | NO | | NO | ММ |

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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: 13C3-PFBS Response Factor: 0.0907865

RRF SD: 0.00614258, Relative SD: 6.76596

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|------|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|--|----------|------------|
| 1 17 | 1 171026M1_2 | Standard | 12.500 | 2.51 | 942.759 | 10203.109 | 1.155 | 12.7 | 1.8 | NO | 71 (MASSEC - 12 - CARDO SOCIAL ASSECTION OF THE PROPERTY OF TH | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 2.50 | 1150.455 | 12595.204 | 1.142 | 12.6 | 0.6 | NO | | NO | ММ |
| 3 | 3 171026M1_4 | Standard | 12.500 | 2.51 | 1085.497 | 11545.891 | 1.175 | 12.9 | 3.6 | NO | | NO | MM |
| 4 | 4 171026M1_5 | Standard | 12.500 | 2.51 | 1130.237 | 11375.869 | 1.242 | 13.7 | 9.4 | NO | | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 12.500 | 2.51 | 946.956 | 10076.924 | 1.175 | 12.9 | 3.5 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 2.51 | 1107.306 | 13109.532 | 1.056 | 11.6 | -7.0 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 2.51 | 930.832 | 11706.181 | 0.994 | 10.9 | -12.4 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 2.51 | 937.808 | 9834.428 | 1.192 | 13.1 | 5.0 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 2.51 | 824.913 | 9519.610 | 1.083 | 11.9 | -4.6 | NO | | NO | bb |

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Compound name: 13C2-PFHxA

Response Factor: 0.739103

RRF SD: 0.0284957, Relative SD: 3.85545

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|----------|-----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171026M1_2 | Standard | 5.000 | 3.00 | 2942.526 | 10203.109 | 3.605 | 4.9 | -2.5 | NO | NO | bb |
| 2 | 2 171026M1_3 | Standard | 5.000 | 3.00 | 3685.471 | 12595.204 | 3.658 | 4.9 | -1.0 | NO | NO | bb |
| 3 | 3 171026M1_4 | Standard | 5.000 | 3.00 | 3516.192 | 11545.891 | 3.807 | 5.2 | 3.0 | NO | NO | bb |
| 4 | 4 171026M1_5 | Standard | 5.000 | 3.00 | 3262.653 | 11375.869 | 3.585 | 4.9 | -3.0 | NO | NO | bb |
| 5 | 5 171026M1_6 | Standard | 5.000 | 3.00 | 2910.139 | 10076.924 | 3.610 | 4.9 | -2.3 | NO | NO | bb |
| 6 | 6 171026M1_7 | Standard | 5.000 | 3.00 | 3962.694 | 13109.532 | 3.778 | 5.1 | 2.2 | NO | NO | bb |
| 7 | 7 171026M1_8 | Standard | 5.000 | 3.00 | 3263.629 | 11706.181 | 3.485 | 4.7 | -5.7 | NO | NO | bb |
| 8 10 10 10 10 10 10 10 10 10 10 10 10 10 | 8 171026M1_9 | Standard | 5.000 | 3.00 | 3101.273 | 9834.428 | 3.942 | 5.3 | 6.7 | NO | NO | MM |
| 9 | 9 171026M1_10 | Standard | 5.000 | 3.00 | 2886.449 | 9519.610 | 3.790 | 5.1 | 2.6 | NO | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: 13C4-PFHpA

Response Factor: 0.683724

RRF SD: 0.0365931, Relative SD: 5.35203

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| 2 (200 A) | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|-----------|---------------|----------|-----------|------|----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 3.62 | 6975.456 | 10203.109 | 8.546 | 12.5 | -0.0 | NO | • | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 3.62 | 8073.077 | 12595.204 | 8.012 | 11.7 | -6.3 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 3.62 | 7874.637 | 11545.891 | 8.525 | 12.5 | -0.2 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 3.62 | 7732.312 | 11375.869 | 8.496 | 12.4 | -0.6 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 3.62 | 7137.554 | 10076.924 | 8.854 | 12.9 | 3.6 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 3.63 | 8761.563 | 13109.532 | 8.354 | 12.2 | -2.3 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 3.62 | 7381.024 | 11706.181 | 7.882 | 11.5 | -7.8 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 3.62 | 7389.083 | 9834.428 | 9.392 | 13.7 | 9.9 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 3.62 | 6745.937 | 9519.610 | 8.858 | 13.0 | 3.6 | NO | | NO | MM |

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Compound name: 18O2-PFHxS

Response Factor: 0.412387

RRF SD: 0.0275105, Relative SD: 6.67104

Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std, Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----------------------|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 3.78 | 852.741 | 2092.944 | 5.093 | 12.3 | -1.2 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 3.78 | 950.357 | 2304.136 | 5.156 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 3.78 | 1000.627 | 2153.796 | 5.807 | 14.1 | 12.7 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 3.78 | 901.116 | 2054.447 | 5.483 | 13.3 | 6.4 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 3.78 | 720.817 | 1888.806 | 4.770 | 11.6 | -7.5 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 3.78 | 930.634 | 2284.629 | 5.092 | 12.3 | -1.2 | NO | | NO | bb |
| 7.080/00/00/00/00 | 7 171026M1_8 | Standard | 12.500 | 3.78 | 812.195 | 1956.825 | 5.188 | 12.6 | 0.6 | NO | | NO | bb |
| 8 interpretations | 8 171026M1_9 | Standard | 12.500 | 3.78 | 788.162 | 1910.957 | 5.156 | 12.5 | 0.0 | NO | | NO | bb |
| 9ուսուրդ դրդունունին | 9 171026M1_10 | Standard | 12.500 | 3.78 | 672.689 | 1808.740 | 4.649 | 11.3 | -9.8 | NO | | NO | bb |

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Vista Analytical Laboratory

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:24:20 Pacific Daylight Time

Printed: Friday, October 27, 2017 10:25:44 Pacific Daylight Time

Compound name: 13C2-6:2 FTS

Response Factor: 0.247918

RRF SD: 0.0352641, Relative SD: 14.2241

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

Curve type: RF

Dataset:

| Section Control of Con | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|-------------------------|----------|------------|
| 1 September States | 1 171026M1_2 | Standard | 12.500 | 4.09 | 2164.565 | 9163.441 | 2.953 | 11.9 | -4.7 | NO | EBSTREET AND ALL STREET | NO | MM |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.09 | 2370.950 | 9974.912 | 2.971 | 12.0 | -4.1 | NO | | NO | мм |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.10 | 2607.028 | 9625.220 | 3.386 | 13.7 | 9.3 | NO | | NO | ММ |
| 4 Julia Walangangangangan | 4 171026M1_5 | Standard | 12.500 | 4.10 | 2213.204 | 9702.345 | 2.851 | 11.5 | -8.0 | NO | | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.09 | 2011.325 | 8490.614 | 2.961 | 11.9 | -4.4 | NO | | NO | ММ |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.10 | 2322.365 | 11764.812 | 2.467 | 10.0 | -20.4 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.10 | 2423.382 | 9341.111 | 3.243 | 13.1 | 4.6 | NO | | NO | bb |
| 8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. | 8 171026M1_9 | Standard | 12.500 | 4.10 | 2849.847 | 8996.989 | 3.959 | 16.0 | 27.8 | NO | | NO | мм |
| 9 11 11 11 11 11 11 11 11 11 11 11 11 11 | 9 171026M1_10 | Standard | 12.500 | 4.10 | 3989.678 | 8181.460 | 6.096 | 24.6 | 96.7 | NO | | NO | bbX |

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Compound name: 13C2-PFOA

Response Factor: 1.12024

RRF SD: 0.0576361, Relative SD: 5.14497

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

Curve type: RF

| Approved Tours | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.15 | 9078.071 | 9163.441 | 12.384 | 11.1 | -11.6 | NO | | NO | bb |
| 2 100 100 100 100 100 100 100 100 100 10 | 2 171026M1_3 | Standard | 12.500 | 4.15 | 11620.861 | 9974.912 | 14.563 | 13.0 | 4.0 | NO | | NO | bb |
| 3 impressible | 3 171026M1_4 | Standard | 12.500 | 4.15 | 11362.964 | 9625.220 | 14.757 | 13.2 | 5.4 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.15 | 10917.326 | 9702.345 | 14.065 | 12.6 | 0.4 | NO | | NO | bb |
| 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | 5 171026M1_6 | Standard | 12.500 | 4.15 | 9732.542 | 8490.614 | 14.328 | 12.8 | 2.3 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.15 | 12620.936 | 11764.812 | 13.410 | 12.0 | -4.2 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.15 | 10698.399 | 9341.111 | 14.316 | 12.8 | 2.2 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.15 | 10016.809 | 8996.989 | 13.917 | 12.4 | -0.6 | NO | | NO | bb |
| 9 26511111111115 | 9 171026M1_10 | Standard | 12.500 | 4.15 | 9351.515 | 8181.460 | 14.288 | 12.8 | 2.0 | NO | | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered:

Printed:

Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Compound name: 13C5-PFNA Response Factor: 0.92855

RRF SD: 0.0475421, Relative SD: 5.12003

Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)

Curve type: RF

| rigia (1867), como englister, Post (1988) | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 militari di mandali di Amerikana di Amerik | 1 171026M1_2 | Standard | 12.500 | 4.59 | 10432.768 | 11155.522 | 11.690 | 12.6 | 0.7 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.59 | 10776.714 | 11986.115 | 11.239 | 12.1 | -3.2 | NO | | NO | bb |
| 3 11 1 | 3 171026M1_4 | Standard | 12.500 | 4.59 | 10136.376 | 10054.865 | 12.601 | 13.6 | 8.6 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.59 | 9401.615 | 10542.347 | 11.147 | 12.0 | -4.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.59 | 8632.302 | 9806.811 | 11.003 | 11.8 | -5.2 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.59 | 10614.531 | 11208.414 | 11.838 | 12.7 | 2.0 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.59 | 9136.932 | 10537.382 | 10.839 | 11.7 | -6.6 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.59 | 9445.277 | 9958.859 | 11.855 | 12.8 | 2.1 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.59 | 8871.991 | 9053.401 | 12.250 | 13.2 | 5.5 | NO | | NO | bb |

Compound name: 13C8-PFOSA

Response Factor: 0.24645

RRF SD: 0.0130448, Relative SD: 5.29309

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------|---------------|----------|-----------|------|----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.64 | 2860.033 | 11341.706 | 3.152 | 12.8 | 2.3 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.64 | 2971.727 | 12520.988 | 2.967 | 12.0 | -3.7 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.65 | 3347.137 | 13233.268 | 3.162 | 12.8 | 2.6 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.65 | 3119.570 | 13777.145 | 2.830 | 11.5 | -8.1 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.64 | 2616.420 | 10608.499 | 3.083 | 12.5 | 0.1 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.65 | 3417.714 | 13855.948 | 3.083 | 12.5 | 0.1 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.65 | 3010.790 | 13032.397 | 2.888 | 11.7 | -6.3 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.65 | 2679.938 | 10013.455 | 3.345 | 13.6 | 8.6 | NO | | NO | bb |
| 9 7 111 | 9 171026M1_10 | Standard | 12.500 | 4.64 | 2509.948 | 9757.946 | 3.215 | 13.0 | 4.4 | NO | | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C8-PFOS

Response Factor: 1.02732

RRF SD: 0.0754427, Relative SD: 7.34362

Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)

Curve type: RF

| er de de la companya | # Name | Туре | Std. Conc | , RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Fla | g x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|-------|------------|-------------|--------------|
| 1 Control of the Control | 1 171026M1_2 | Standard | 12.500 | 4.68 | 2514.781 | 2234.531 | 14.068 | 13.7 | 9.5 | NO | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.68 | 2269.787 | 2402.855 | 11.808 | 11.5 | -8.1 | NO | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.68 | 2388.392 | 2260.597 | 13.207 | 12.9 | 2.8 | NO | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.68 | 2373.570 | 2315.592 | 12.813 | 12.5 | -0.2 | NO | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.68 | 2090.799 | 1986.232 | 13.158 | 12.8 | 2.5 | NO | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.68 | 2570.850 | 2506.243 | 12.822 | 12.5 | -0.2 | NO | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.68 | 2064.157 | 2328.353 | 11.082 | 10.8 | -13.7 | NO | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.68 | 2233.150 | 2003.810 | 13.931 | 13.6 | 8.5 | NO | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.68 | 1965.412 | 1936.583 | 12.686 | 12.3 | -1.2 | NO | NO NO | bb |

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Compound name: 13C2-PFDA

Response Factor: 0.945709

RRF SD: 0.0821174, Relative SD: 8.68316

Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT - | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.97 | 9937.673 | 9533.811 | 13.030 | 13.8 | 10.2 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.97 | 10867.054 | 12756.174 | 10.649 | 11.3 | -9.9 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.97 | 10060.540 | 9677.285 | 12.995 | 13.7 | 9.9 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.97 | 10558.938 | 11273.634 | 11.708 | 12.4 | -1.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.97 | 9200.564 | 10655.413 | 10.793 | 11.4 | -8.7 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.98 | 12043.707 | 12000.405 | 12.545 | 13.3 | 6.1 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.97 | 9506.485 | 11033.647 | 10.770 | 11.4 | -8.9 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.97 | 9169.604 | 10335.311 | 11.090 | 11.7 | -6.2 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.97 | 9033.771 | 8813.177 | 12.813 | 13.5 | 8.4 | NO | | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C2-8:2 FTS

Response Factor: 0.171094

RRF SD: 0.0340588, Relative SD: 19.9065

Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|---|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.94 | 1790.163 | 9533.811 | 2.347 | 13.7 | 9.7 | NO | 000000000000000000000000000000000000000 | NO | MM |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.94 | 1649.670 | 12756.174 | 1.617 | 9.4 | -24.4 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.94 | 1643.484 | 9677.285 | 2.123 | 12.4 | -0.7 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.94 | 1512.175 | 11273.634 | 1.677 | 9.8 | -21.6 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.94 | 1698.864 | 10655.413 | 1.993 | 11.6 | -6.8 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.94 | 1959.247 | 12000.405 | 2.041 | 11.9 | -4.6 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.94 | 2085.414 | 11033.647 | 2.363 | 13.8 | 10.5 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.94 | 2439.029 | 10335.311 | 2.950 | 17.2 | 37.9 | NO | | NO | MM |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.94 | 3475.574 | 8813.177 | 4.930 | 28.8 | 130.5 | NO | | NO _ | bbX |

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Compound name: d3-N-MeFOSAA

Response Factor: 0.357633

RRF SD: 0.0388742, Relative SD: 10.8699

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| eranton en printipi de la como de La como de la como de l | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|--|----------|------------|
| 1 - հետանանական հետանական հետանական հետանական հետանական հետանական հետանական հետանական հետանական հետանական հետա 1 - հետանական հետանա | 1 171026M1_2 | Standard | 12.500 | 5.12 | 4283.565 | 11341.706 | 4.721 | 13.2 | 5.6 | NO | AND THE PERSON NAMED IN COLUMN TO TH | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 5.12 | 4531.096 | 12520.988 | 4.524 | 12.6 | 1.2 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 5.12 | 4244.738 | 13233.268 | 4.010 | 11.2 | -10.3 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 5.12 | 4230.691 | 13777.145 | 3.839 | 10.7 | -14.1 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 5.12 | 3763.122 | 10608.499 | 4.434 | 12.4 | -0.8 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 5.13 | 5027.620 | 13855.948 | 4.536 | 12.7 | 1.5 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 5.13 | 4070.543 | 13032.397 | 3.904 | 10.9 | -12.7 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 5.13 | 4156.273 | 10013.455 | 5.188 | 14.5 | 16.1 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 5.12 | 3964.672 | 9757.946 | 5.079 | 14.2 | 13.6 | NO | | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: d5-N-EtFOSAA

Response Factor: 0.359693

RRF SD: 0.0347331, Relative SD: 9.65633

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| 2006 | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|------|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 5.28 | 4328.346 | 11341.706 | 4.770 | 13.3 | 6.1 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 5.28 | 4608.545 | 12520.988 | 4.601 | 12.8 | 2.3 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 5.28 | 4596.165 | 13233.268 | 4.341 | 12.1 | -3.4 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 5.28 | 4598.011 | 13777.145 | 4.172 | 11.6 | -7.2 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 5.28 | 4056.309 | 10608.499 | 4.780 | 13.3 | 6.3 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 5.28 | 4795.402 | 13855.948 | 4.326 | 12.0 | -3.8 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 5.28 | 3860.981 | 13032.397 | 3.703 | 10.3 | -17.6 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 5.28 | 4197.738 | 10013.455 | 5.240 | 14.6 | 16.5 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 5.28 | 3537.789 | 9757.946 | 4.532 | 12.6 | 0.8 | NO | | NO _ | bb |

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Compound name: 13C2-PFUdA

Response Factor: 1.04482

RRF SD: 0.0695142, Relative SD: 6.65325

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| erroles repullulario da 11 de 2012, producia da Lucia 15 de 2013, producia da Lucia | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 5.30 | 11922.407 | 11341.706 | 13.140 | 12.6 | 0.6 | NO | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 5.30 | 14098.658 | 12520.988 | 14.075 | 13.5 | 7.8 | NO | NO | ММ |
| 3 | 3 171026M1_4 | Standard | 12.500 | 5.30 | 14676.305 | 13233.268 | 13.863 | 13.3 | 6.1 | NO | NO | ММ |
| 4 | 4 171026M1_5 | Standard | 12.500 | 5.30 | 13559.280 | 13777.145 | 12.302 | 11.8 | -5.8 | NO | NO | ММ |
| 5 | 5 171026M1_6 | Standard | 12.500 | 5.30 | 11695.059 | 10608.499 | 13.780 | 13.2 | 5.5 | NO | NO | MM |
| 6 | 6 171026M1_7 | Standard | 12.500 | 5.30 | 12899.332 | 13855.948 | 11.637 | 11.1 | -10.9 | NO | NO | MM |
| 7.2000 - 3.000 | 7 171026M1_8 | Standard | 12.500 | 5.30 | 12601.697 | 13032.397 | 12.087 | 11.6 | -7.5 | NO | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 5.30 | 10458.104 | 10013.455 | 13.055 | 12.5 | -0.0 | NO | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 5.30 | 10618.298 | 9757.946 | 13.602 | 13.0 | 4.1 | NO | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C2-PFDoA

Response Factor: 1.14113

RRF SD: 0.0738866, Relative SD: 6.47484

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| 2 80 - 050 000 | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 5.59 | 13820.625 | 11341.706 | 15.232 | 13.3 | 6.8 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 5.59 | 14554.974 | 12520.988 | 14.531 | 12.7 | 1.9 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 5.59 | 14053.078 | 13233.268 | 13.274 | 11.6 | -6.9 | NO | | NO | bb |
| 4 Page Manual Control of the Control | 4 171026M1_5 | Standard | 12.500 | 5.59 | 13740.559 | 13777.145 | 12.467 | 10.9 | -12.6 | NO | | NO | bb |
| 5 June 1914 | 5 171026M1_6 | Standard | 12.500 | 5.59 | 12183.269 | 10608.499 | 14.356 | 12.6 | 0.6 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 5.59 | 16125.540 | 13855.948 | 14.547 | 12.7 | 2.0 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 5.59 | 14441.244 | 13032.397 | 13.851 | 12.1 | -2.9 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 5.59 | 12225.404 | 10013.455 | 15.261 | 13.4 | 7.0 | NO | | NO | bb |
| 9 proping the second | 9 171026M1_10 | Standard | 12.500 | 5.59 | 11598.803 | 9757.946 | 14.858 | 13.0 | 4.2 | NO | | NO | bb |

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Compound name: d3-N-MeFOSA

Response Factor: 0.0934516

RRF SD: 0.00993873, Relative SD: 10.6352

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| Carlos de la companya de la companya Carlos de la companya | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-----------|----------|------------|
| richtenberchericher Landeren ender Pfak zweigen Herrentenberchertenbercher Landeren ernenbercher in bilder | 1 171026M1_2 | Standard | 150.000 | 5.62 | 13893.939 | 11341.706 | 15.313 | 163.9 | 9.2 | NO | 6.9 1-0.0 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 150.000 | 5.62 | 15405.037 | 12520.988 | 15.379 | 164.6 | 9.7 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 150.000 | 5.62 | 14020.292 | 13233.268 | 13.243 | 141.7 | -5.5 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 150.000 | 5.63 | 13929.710 | 13777.145 | 12.638 | 135.2 | -9.8 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 150.000 | 5.62 | 12908.811 | 10608.499 | 15.210 | 162.8 | 8.5 | NO | | NO | bd |
| 6 | 6 171026M1_7 | Standard | 150.000 | 5.63 | 13491.567 | 13855.948 | 12.171 | 130.2 | -13.2 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 150.000 | 5.63 | 12434.965 | 13032.397 | 11.927 | 127.6 | -14.9 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 150.000 | 5.63 | 12026.860 | 10013.455 | 15.013 | 160.7 | 7.1 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 150.000 | 5.63 | 11915.382 | 9757.946 | 15.264 | 163.3 | 8.9 | NO | | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C2-PFTeDA

Response Factor: 0.933898

RRF SD: 0.108658, Relative SD: 11.6349

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| ir a shiring or full think full thin gard | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|---|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 6.06 | 9377.037 | 11341.706 | 10.335 | 11.1 | -11.5 | NO | 2000 g 1 10 20 20 10 20 20 20 20 20 20 20 20 20 20 20 20 20 | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 6.06 | 10575.495 | 12520.988 | 10.558 | 11.3 | -9.6 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 6.06 | 10644.371 | 13233.268 | 10.055 | 10.8 | -13.9 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 6.06 | 11884.834 | 13777.145 | 10.783 | 11.5 | -7.6 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 6.06 | 10706.537 | 10608.499 | 12.616 | 13.5 | 8.1 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 6.06 | 12533.464 | 13855.948 | 11.307 | 12.1 | -3.1 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 6.06 | 13048.656 | 13032.397 | 12.516 | 13.4 | 7.2 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 6.07 | 11072.916 | 10013.455 | 13.823 | 14.8 | 18.4 | NO | | NO | bb |
| 9 partitude de la company | 9 171026M1_10 | Standard | 12.500 | 6.06 | 10205.076 | 9757.946 | 13.073 | 14.0 | 12.0 | NO | | NO | bb |

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Compound name: d5-N-ETFOSA

Response Factor: 0.132054

RRF SD: 0.0131962, Relative SD: 9.99304

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| Technical in the Manager of the | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------------------------------|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 150.000 | 6.04 | 19832.848 | 11341.706 | 21.858 | 165.5 | 10.4 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 150.000 | 6.04 | 21744.625 | 12520.988 | 21.708 | 164.4 | 9.6 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 150.000 | 6.04 | 20019.549 | 13233.268 | 18.910 | 143.2 | -4.5 | NO | | NO | bb |
| 4 minute of the second | 4 171026M1_5 | Standard | 150.000 | 6.04 | 19708.096 | 13777.145 | 17.881 | 135.4 | -9.7 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 150.000 | 6.04 | 19092.957 | 10608.499 | 22.497 | 170.4 | 13.6 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 150.000 | 6.04 | 19619.416 | 13855.948 | 17.699 | 134.0 | -10.6 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 150.000 | 6.04 | 18301.496 | 13032.397 | 17.554 | 132.9 | -11.4 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 150.000 | 6.04 | 16908.625 | 10013.455 | 21.107 | 159.8 | 6.6 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 150.000 | 6.04 | 14876.408 | 9757.946 | 19.057 | 144.3 | -3.8 | NO | | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C2-PFHxDA

Response Factor: 0.809323

RRF SD: 0.161699, Relative SD: 19.9795

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| 1100 | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--------------|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 5.000 | 6.39 | 4102.797 | 11341.706 | 4.522 | 5.6 | 11.7 | NO | | NO | MM |
| 2 | 2 171026M1_3 | Standard | 5.000 | 6.39 | 4597.595 | 12520.988 | 4.590 | 5.7 | 13.4 | NO | | NO | MM |
| 3 | 3 171026M1_4 | Standard | 5.000 | 6.39 | 3582.335 | 13233.268 | 3.384 | 4.2 | -16.4 | NO | | NO | MM |
| 4 management | 4 171026M1_5 | Standard | 5.000 | 6.40 | 3826.472 | 13777.145 | 3.472 | 4.3 | -14.2 | NO | | NO | MM |
| 5 | 5 171026M1_6 | Standard | 5.000 | 6.39 | 4271.142 | 10608.499 | 5.033 | 6.2 | 24.4 | NO | | NO | MM |
| 6 | 6 171026M1_7 | Standard | 5.000 | 6.40 | 3093.651 | 13855.948 | 2.791 | 3.4 | -31.0 | NO | | NO | MM |
| 7 | 7 171026M1_8 | Standard | 5.000 | 6.39 | 3894.998 | 13032.397 | 3.736 | 4.6 | -7.7 | NO | | NO | MM |
| 8 | 8 171026M1_9 | Standard | 5.000 | 6.40 | 3882.136 | 10013.455 | 4.846 | 6.0 | 19.8 | NO | | NO | MM |
| 9 | 9 171026M1_10 | Standard | 5.000 | 6.40 | 4546.360 | 9757.946 | 5.824 | 7.2 | 43.9 | NO | | NO | MMX |

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Compound name: d7-N-MeFOSE

Response Factor: 0.141984

RRF SD: 0.013133, Relative SD: 9.24964

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--------------------|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 150.000 | 6.22 | 20802.461 | 11341.706 | 22.927 | 161.5 | 7.7 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 150.000 | 6.22 | 23510.152 | 12520.988 | 23.471 | 165.3 | 10.2 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 150.000 | 6.22 | 21267.461 | 13233.268 | 20.089 | 141.5 | -5.7 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 150.000 | 6.22 | 21867.092 | 13777.145 | 19.840 | 139.7 | -6.8 | NO | | NO | bb |
| 5 հունականությունը | 5 171026M1_6 | Standard | 150.000 | 6.22 | 20238.715 | 10608.499 | 23.847 | 168.0 | 12.0 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 150.000 | 6.22 | 22323.734 | 13855.948 | 20.139 | 141.8 | -5.4 | NO | | NO | bb |
| Z same spicusiting | 7 171026M1_8 | Standard | 150.000 | 6.22 | 18689.719 | 13032.397 | 17.926 | 126.3 | -15.8 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 150.000 | 6.22 | 17806.627 | 10013.455 | 22.228 | 156.6 | 4.4 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 150.000 | 6.22 | 16557.975 | 9757.946 | 21.211 | 149.4 | -0.4 | NO | | NO _ | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: d9-N-EtFOSE

Response Factor: 0.130657

RRF SD: 0.014186, Relative SD: 10.8574

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|--------------|------------|
| 1 Company of the | 1 171026M1_2 | Standard | 150.000 | 6.37 | 18723.795 | 11341.706 | 20.636 | 157.9 | 5.3 | NO | NO | bb |
| 2 | 2 171026M1_3 | Standard | 150.000 | 6.37 | 21507.340 | 12520.988 | 21.471 | 164.3 | 9.6 | NO | NO | bb |
| 3 | 3 171026M1_4 | Standard | 150.000 | 6.37 | 19338.682 | 13233.268 | 18.267 | 139.8 | -6.8 | NO | NO | bb |
| 4 Surpring the second | 4 171026M1_5 | Standard | 150.000 | 6.37 | 20850.943 | 13777.145 | 18.918 | 144.8 | -3.5 | NO | NO | bb |
| 5 | 5 171026M1_6 | Standard | 150.000 | 6.37 | 19199.350 | 10608.499 | 22.623 | 173.1 | 15.4 | NO | NO | bb |
| 6 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 6 171026M1_7 | Standard | 150.000 | 6.37 | 21197.688 | 13855.948 | 19.123 | 146.4 | -2.4 | NO | NO | bb |
| 7 | 7 171026M1_8 | Standard | 150.000 | 6.37 | 16038.620 | 13032.397 | 15.383 | 117.7 | -21.5 | NO | NO | bb |
| 8 | 8 171026M1_9 | Standard | 150.000 | 6.37 | 16802.908 | 10013.455 | 20.975 | 160.5 | 7.0 | NO | NO | bb |
| 9 | 9 171026M1_10 | Standard | 150.000 | 6.37 | 14824.236 | 9757.946 | 18.990 | 145.3 | -3.1 | NO | NO | bb |

Compound name: 13C4-PFBA

Response Factor: 1

RRF SD: 8.77708e-017, Relative SD: 8.77708e-015

Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std, Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|--------------|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 1.24 | 8131.078 | 8131.078 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 1.25 | 9182.603 | 9182.603 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 1.25 | 8448.222 | 8448.222 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 1.25 | 8533.363 | 8533.363 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 1.25 | 7846.642 | 7846.642 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 1.23 | 9461.365 | 9461.365 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 700650000000 | 7 171026M1_8 | Standard | 12.500 | 1.25 | 7997.517 | 7997.517 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 1.25 | 7885.960 | 7885.960 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 1.25 | 7535.223 | 7535.223 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C5-PFHxA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Fla | ig x=excluded |
|--------------------------------|---------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|-------------|---------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 3.00 | 10203.109 | 10203.109 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 3.00 | 12595.204 | 12595.204 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 April 18 The Special Control | 3 171026M1_4 | Standard | 12.500 | 3.00 | 11545.891 | 11545.891 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 maring and the barries | 4 171026M1_5 | Standard | 12.500 | 3.00 | 11375.869 | 11375.869 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 3.00 | 10076.924 | 10076.924 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 3.00 | 13109.532 | 13109.532 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 3.00 | 11706.181 | 11706.181 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 3.00 | 9834.428 | 9834.428 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 illi Lidaner kapasar in | 9 171026M1_10 | Standard | 12.500 | 3.00 | 9519.610 | 9519.610 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Compound name: 13C3-PFHxS

Response Factor: 1

RRF SD: 7.85046e-017, Relative SD: 7.85046e-015

Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|------------------------|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 3.77 | 2092.944 | 2092.944 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 3.78 | 2304.136 | 2304.136 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 3.77 | 2153.796 | 2153.796 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 3.78 | 2054.447 | 2054.447 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 3.78 | 1888.806 | 1888.806 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 3.78 | 2284.629 | 2284.629 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 3.78 | 1956.825 | 1956.825 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 3.78 | 1910.957 | 1910.957 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 9 100 100 miles (1916) | 9 171026M1_10 | Standard | 12.500 | 3.78 | 1808.740 | 1808.740 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |

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Quantify Compound Summary Report MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C8-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

Curve type: RF

| The second prior of the contract of the contra | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|-----------|-----------------------|----------|-------|------|------------|-----|----------|------------|
| Topics and the second | 1 171026M1_2 | Standard | 12.500 | 4.15 | 9163.441 | 9163.441 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.15 | 9974.912 | 9974.912 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.15 | 9625.220 | 9625.220 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.15 | 9702.345 | 9702.345 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.15 | 8490.614 | 8490.614 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.15 | 11764.812 | 11764.812 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.15 | 9341.111 | 9341.111 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 8 100 3000 | 8 171026M1_9 | Standard | 12.500 | 4.15 | 8996.989 | 8996.989 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.15 | 8181.460 | 8181. 4 60 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |

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Compound name: 13C9-PFNA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.59 | 11155.522 | 11155.522 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.59 | 11986.115 | 11986.115 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.59 | 10054.865 | 10054.865 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.59 | 10542.347 | 10542.347 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.59 | 9806.811 | 9806.811 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.59 | 11208.414 | 11208.414 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 7,000-00-00-00-00-00-00-00-00-00-00-00-00 | 7 171026M1_8 | Standard | 12.500 | 4.59 | 10537.382 | 10537.382 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.59 | 9958.859 | 9958.859 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.59 | 9053.401 | 9053.401 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Printed: Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 1.17757e-016, Relative SD: 1.17757e-014

Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)

Curve type: RF

| # 100 (100 (101) # 100 (100) (101) | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------------------------------------|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.68 | 2234.531 | 2234.531 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.68 | 2402.855 | 2402.855 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.68 | 2260.597 | 2260.597 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.68 | 2315.592 | 2315.592 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.68 | 1986.232 | 1986.232 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.68 | 2506.243 | 2506.243 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 7 | 7 171026M1_8 | Standard | 12.500 | 4.68 | 2328.353 | 2328.353 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.68 | 2003.810 | 2003.810 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.68 | 1936.583 | 1936.583 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |

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Compound name: 13C6-PFDA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|-----------------------|---------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 4.97 | 9533.811 | 9533.811 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 4.97 | 12756.174 | 12756.174 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 4.97 | 9677.285 | 9677.285 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 4 | 4 171026M1_5 | Standard | 12.500 | 4.97 | 11273.634 | 11273.634 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 4.97 | 10655.413 | 10655.413 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 4.97 | 12000.405 | 12000.405 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 7. 19. 3. 10. 10. 10. | 7 171026M1_8 | Standard | 12.500 | 4.97 | 11033.647 | 11033.647 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 8 | 8 171026M1_9 | Standard | 12.500 | 4.97 | 10335.311 | 10335.311 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 9 | 9 171026M1_10 | Standard | 12.500 | 4.97 | 8813.177 | 8813.177 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:36:18 Pacific Daylight Time

Compound name: 13C7-PFUnA

Response Factor: 1

RRF SD: 5.55112e-017, Relative SD: 5.55112e-015

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----------------|---------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171026M1_2 | Standard | 12.500 | 5.30 | 11341.706 | 11341.706 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171026M1_3 | Standard | 12.500 | 5.30 | 12520.988 | 12520.988 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171026M1_4 | Standard | 12.500 | 5.30 | 13233.268 | 13233.268 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 4 Maria (1977) | 4 171026M1_5 | Standard | 12.500 | 5.30 | 13777.145 | 13777.145 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 5 | 5 171026M1_6 | Standard | 12.500 | 5.30 | 10608.499 | 10608.499 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 6 | 6 171026M1_7 | Standard | 12.500 | 5.30 | 13855.948 | 13855.948 | 12.500 | 12.5 | 0.0 | NO | | NO | MM |
| 7 | 7 171026M1_8 | Standard | 12.500 | 5.30 | 13032.397 | 13032.397 | 12.500 | 12.5 | 0.0 | NO | | NO | MM |
| 8 | 8 171026M1_9 | Standard | 12.500 | 5.30 | 10013.455 | 10013.455 | 12.500 | 12.5 | 0.0 | NO | | NO | MM |
| 9 | 9 171026M1_10 | Standard | 12.500 | 5.30 | 9757.946 | 9757.946 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |

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MassLynx MassLynx V4.1 SCN 945

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Dataset:

Untitled

Last Altered: Printed: Friday, October 27, 2017 08:48:34 Pacific Daylight Time Friday, October 27, 2017 08:48:47 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06

Compound name: PFBA

| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Name | ID . | Acq.Date | Acq.Time |
|---------------------------------------|-------------|----------------------------------|-----------|----------|
| 1 1 1 | 171026M1_1 | IPA | 26-Oct-17 | 09:14:50 |
| 2 | 171026M1_2 | ST171026M1-1 PFC CS-2 17I3006 | 26-Oct-17 | 09:26:00 |
| 3 | 171026M1_3 | ST171026M1-2 PFC CS-1 17I3007 | 26-Oct-17 | 09:37:20 |
| 4 | 171026M1_4 | ST171026M1-3 PFC CS0 17J1805 | 26-Oct-17 | 09:48:39 |
| 5 | 171026M1_5 | ST171026M1-4 PFC CS1 17/3009 (0) | 26-Oct-17 | 09:59:50 |
| 6 | 171026M1_6 | ST171026M1-5 PFC CS2 17J2519 | 26-Oct-17 | 10:11:00 |
| 7 | 171026M1_7 | ST171026M1-6 PFC CS3 17J1806 | 26-Oct-17 | 10:22:11 |
| 8 | 171026M1_8 | ST171026M1-7 PFC CS4 17J2102 | 26-Oct-17 | 10:33:24 |
| 9 | 171026M1_9 | ST171026M1-8 PFC CS5 17J2101 | 26-Oct-17 | 10:44:36 |
| 10 | 171026M1_10 | ST171026M1-9 PFC CS6 17J2517 | 26-Oct-17 | 10:55:46 |
| 11 | 171026M1_11 | ST171026M1-10 PFC CS7 17J2518 | 26-Oct-17 | 11:07:20 |
| 12 | 171026M1_12 | IPA | 26-Oct-17 | 11:18:50 |
| 13 | 171026M1_13 | ICV171026M1-1 PFC ICV 17I3003 | 26-Oct-17 | 11:30:01 |
| 14 | 171026M1_14 | IPA | 26-Oct-17 | 11:41:12 |

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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

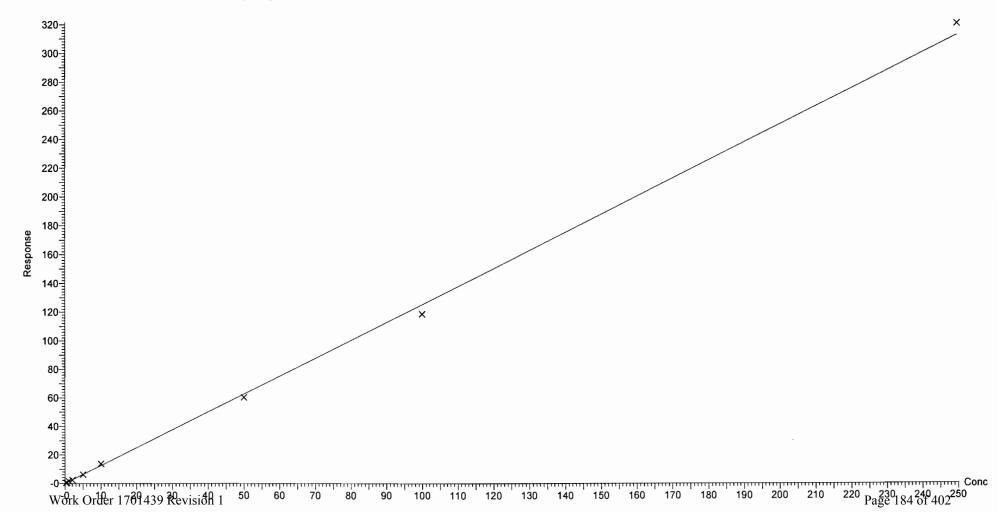
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Compound name: PFBA

Correlation coefficient: r = 0.999162, r^2 = 0.998324

Calibration curve: 1.25384 * x + -0.0149356

Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

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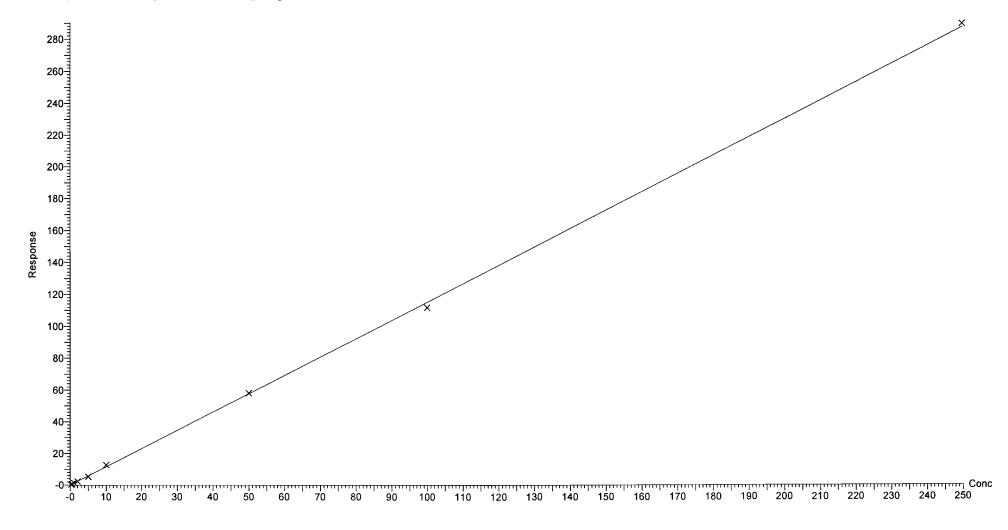
Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFPeA

Correlation coefficient: r = 0.999675, $r^2 = 0.999351$

Calibration curve: 1.1515 * x + 0.0271081

Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Dataset:

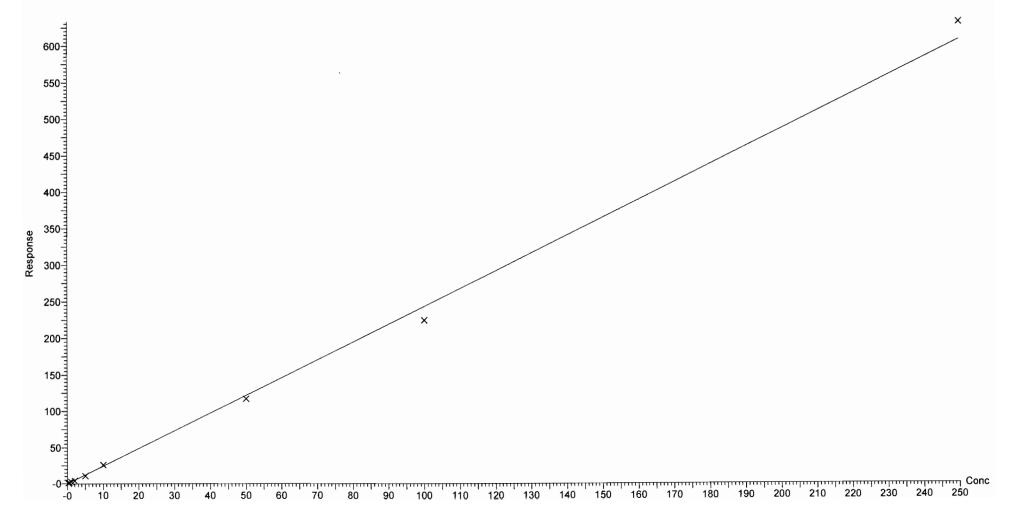
Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFBS

Correlation coefficient: r = 0.998426, $r^2 = 0.996854$

Calibration curve: 2.43502 * x + 0.00496287

Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.gld

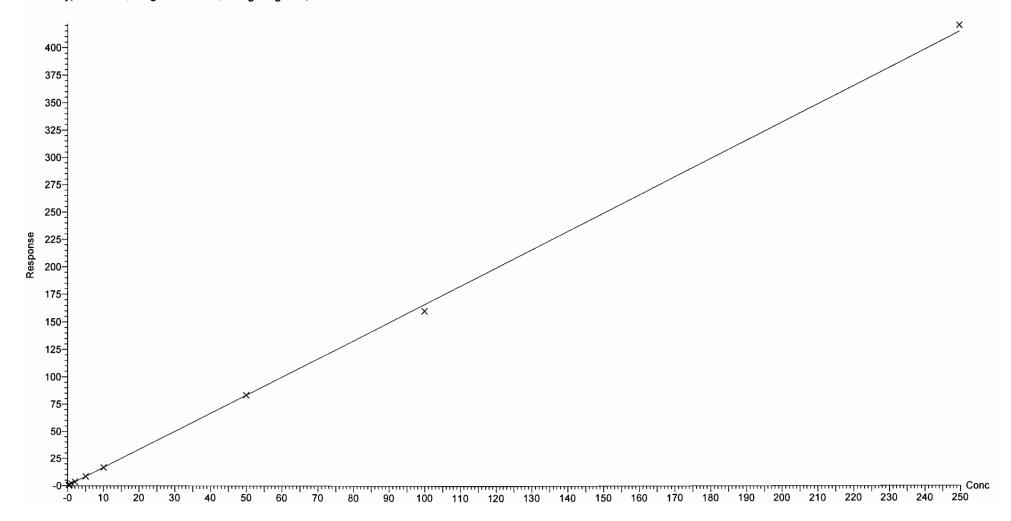
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Compound name: PFHxA

Correlation coefficient: r = 0.999732, $r^2 = 0.999465$

Calibration curve: 1.66208 * x + 0.0769658

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PF

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

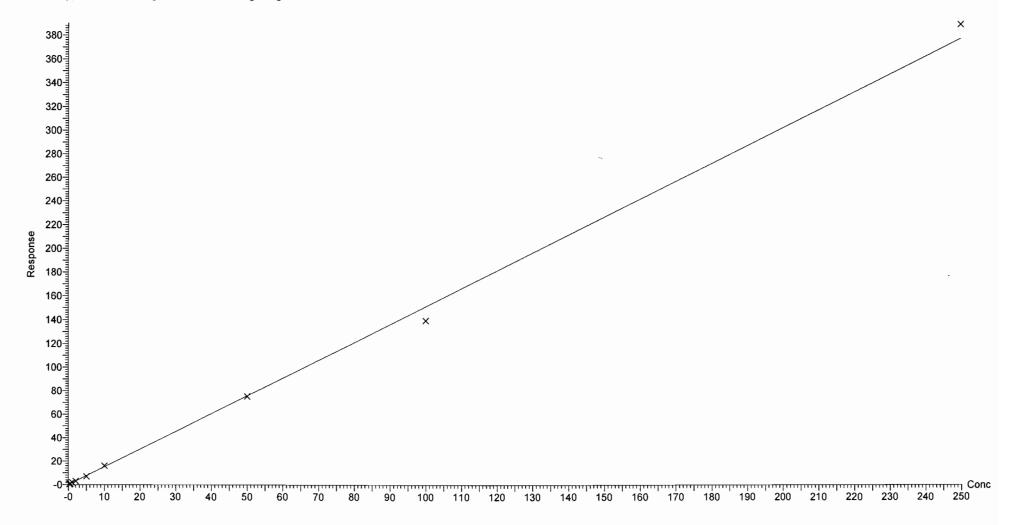
Last Altered: Printed:

Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFHpA

Correlation coefficient: r = 0.998813, r^2 = 0.997628 Calibration curve: 1.51217 * x + -0.00204214

Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

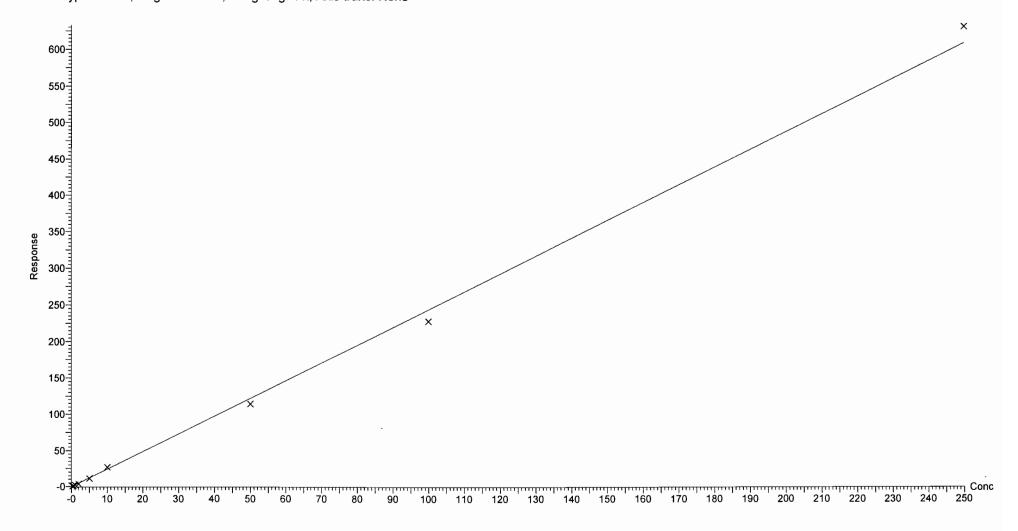
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Compound name: L-PFHxS

Correlation coefficient: r = 0.998527, $r^2 = 0.997056$

Calibration curve: 2.44187 * x + -0.197337

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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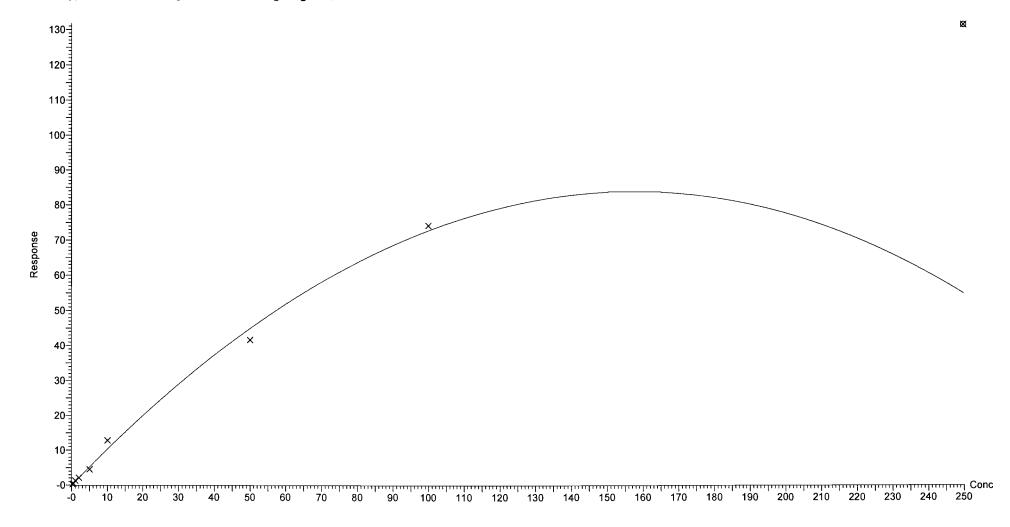
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Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: 6:2 FTS

Coefficient of Determination: R^2 = 0.990378

Calibration curve: -0.00338904 * x^2 + 1.06688 * x + -0.0276541 Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

Dataset:

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

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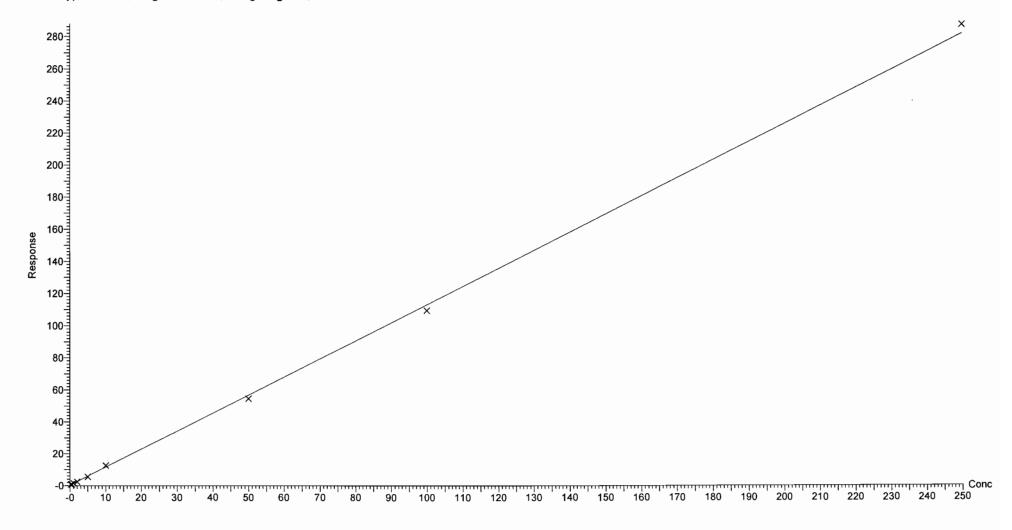
Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: L-PFOA

Correlation coefficient: r = 0.999419, $r^2 = 0.998838$

Calibration curve: 1.12797 * x + 0.284504

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory Q1

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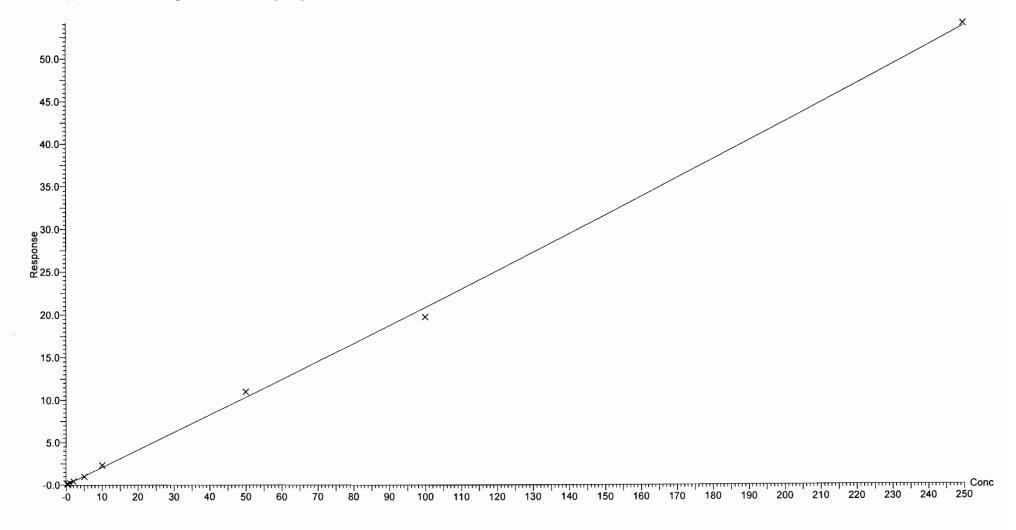
Last Altered: Printed:

Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFHpS

Coefficient of Determination: R^2 = 0.998365

Calibration curve: 4.65786e-005 * x^2 + 0.203609 * x + 0.0252184 Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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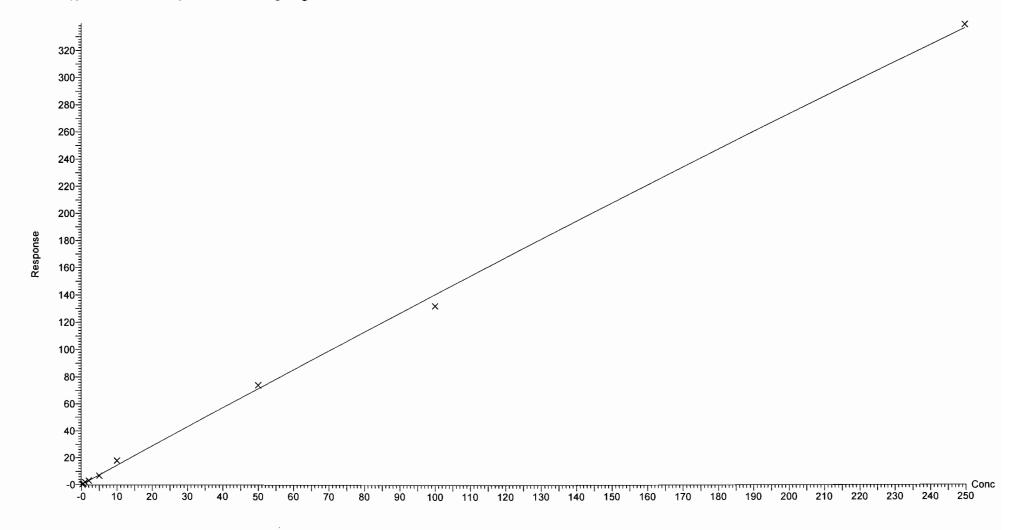
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Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Printed: Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFNA

Coefficient of Determination: R^2 = 0.997109

Calibration curve: -0.000379675 * x^2 + 1.44302 * x + 0.0895267 Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

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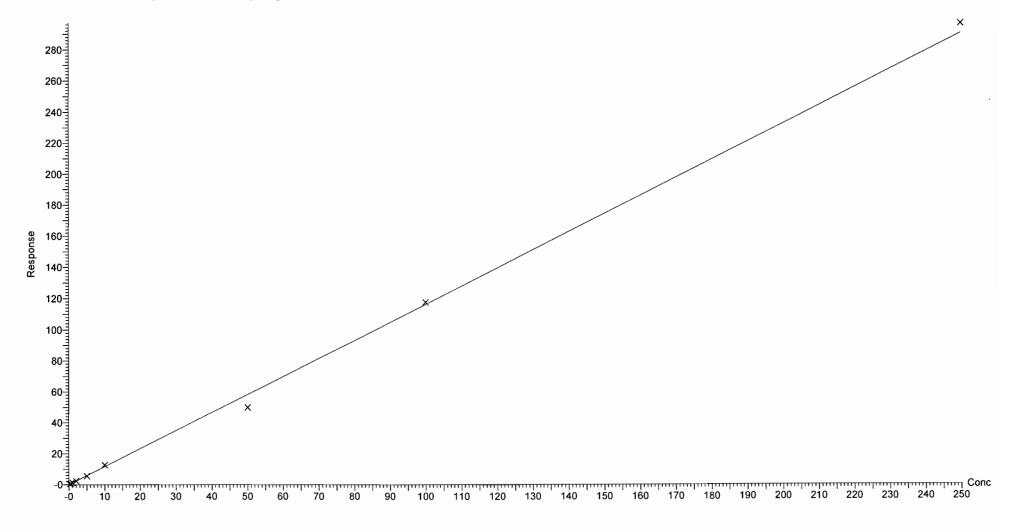
Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFOSA

Correlation coefficient: r = 0.998461, $r^2 = 0.996924$

Calibration curve: 1.16388 * x + 0.0273367

Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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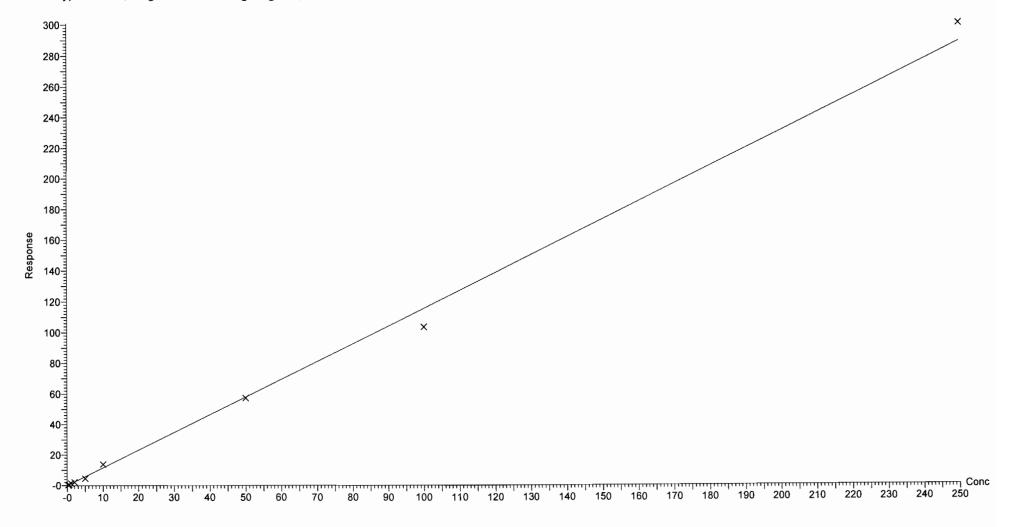
Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: L-PFOS

Correlation coefficient: r = 0.997357, r^2 = 0.994721

Calibration curve: 1.1564 * x + -0.0243452

Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PR0

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

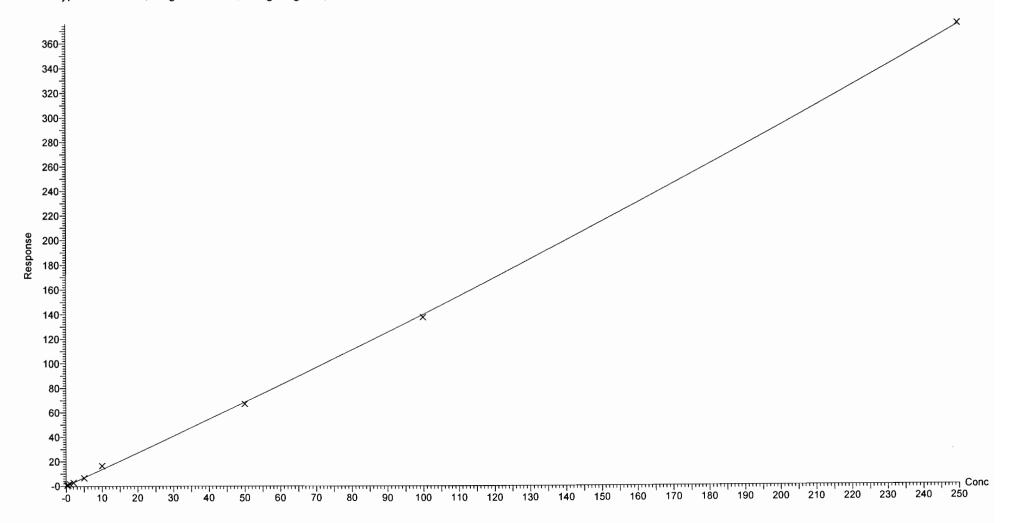
Last Altered: Printed:

Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFDA

Coefficient of Determination: R^2 = 0.998744

Calibration curve: 0.000670409 * x^2 + 1.3303 * x + 0.180081 Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory Q1

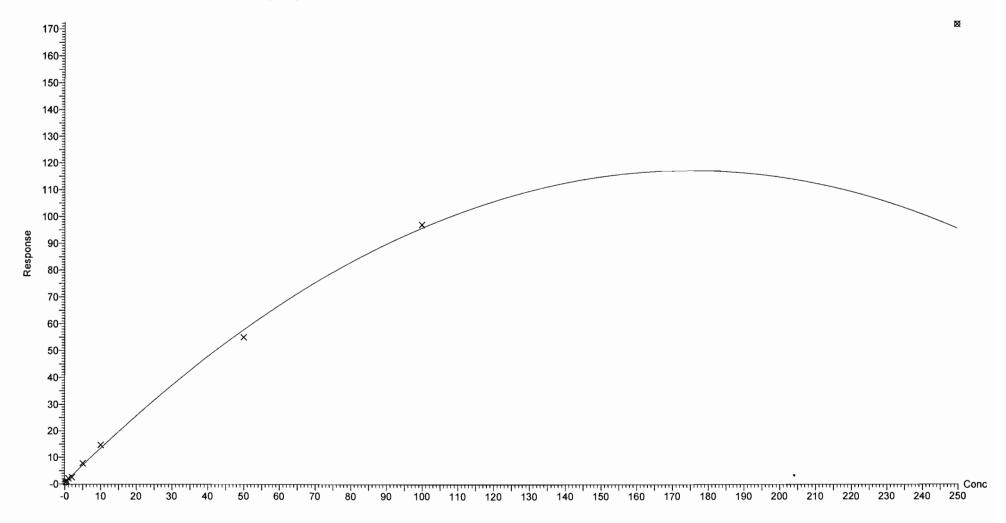
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Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: 8:2 FTS

Coefficient of Determination: R^2 = 0.995715

Calibration curve: -0.00382414 * x^2 + 1.3379 * x + 0.459132 Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

Dataset:

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

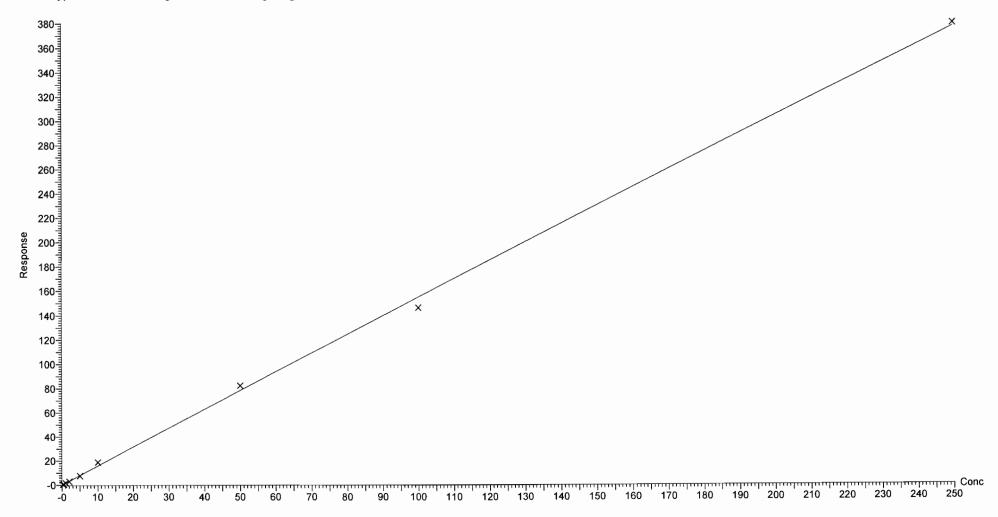
Last Altered: Printed:

Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: N-MeFOSAA

Coefficient of Determination: R^2 = 0.997869

Calibration curve: -0.000267179 * x^2 + 1.57739 * x + 0.0787904 Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



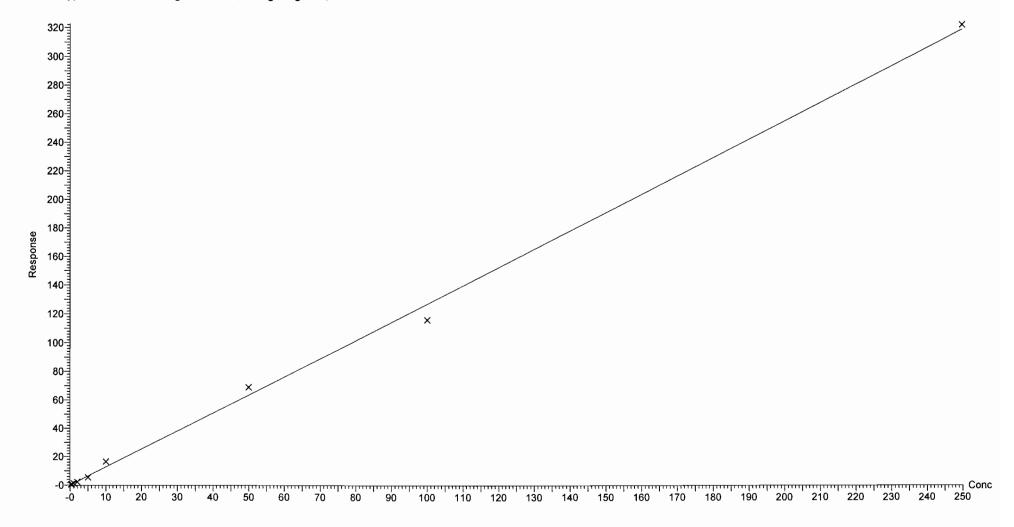
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Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: N-EtFOSAA

Coefficient of Determination: R^2 = 0.994831

Calibration curve: 5.282e-005 * x^2 + 1.26472 * x + 0.0301259 Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

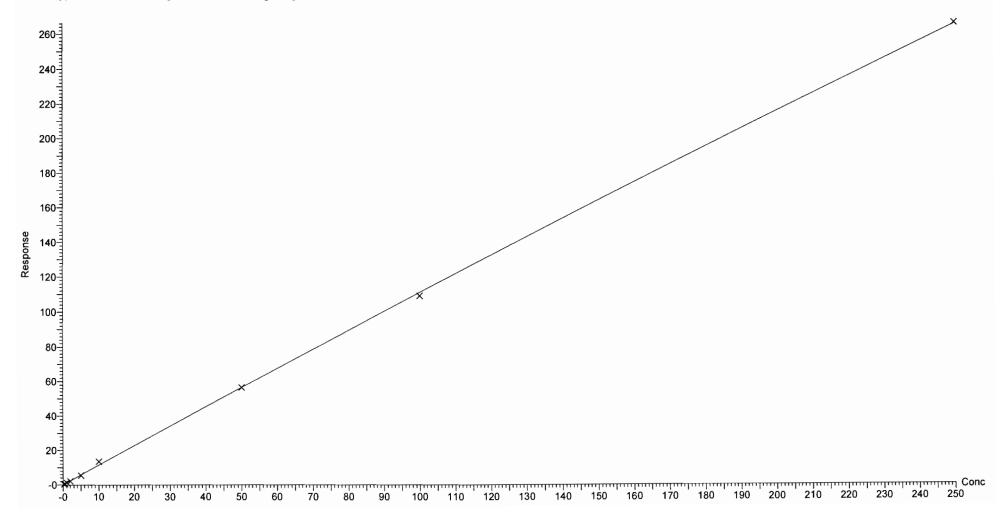
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Last Altered: Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFUnA

Coefficient of Determination: R^2 = 0.998990

Calibration curve: $-0.000325839 * x^2 + 1.14375 * x + 0.032356$ Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

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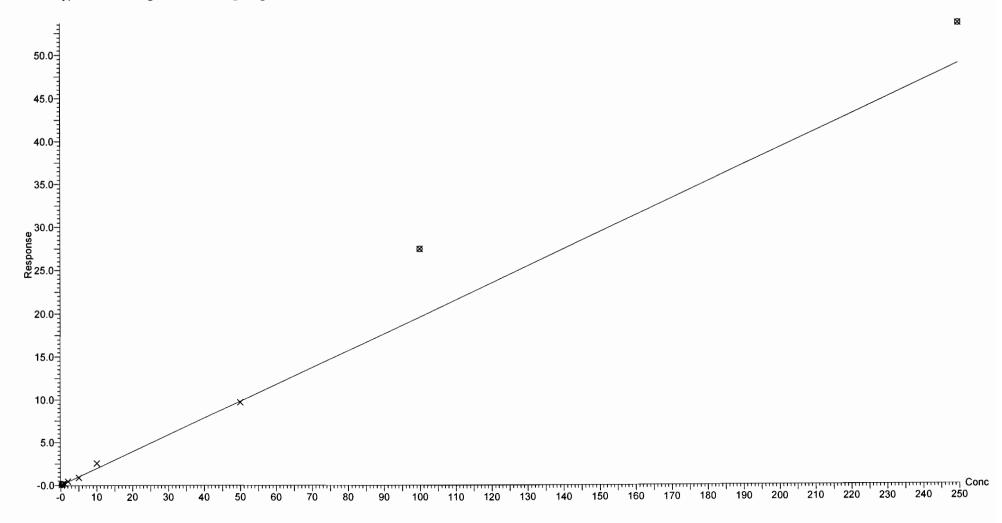
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Compound name: PFDS

Coefficient of Determination: R^2 = 0.994206

Calibration curve: 0.195972 * x

Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None



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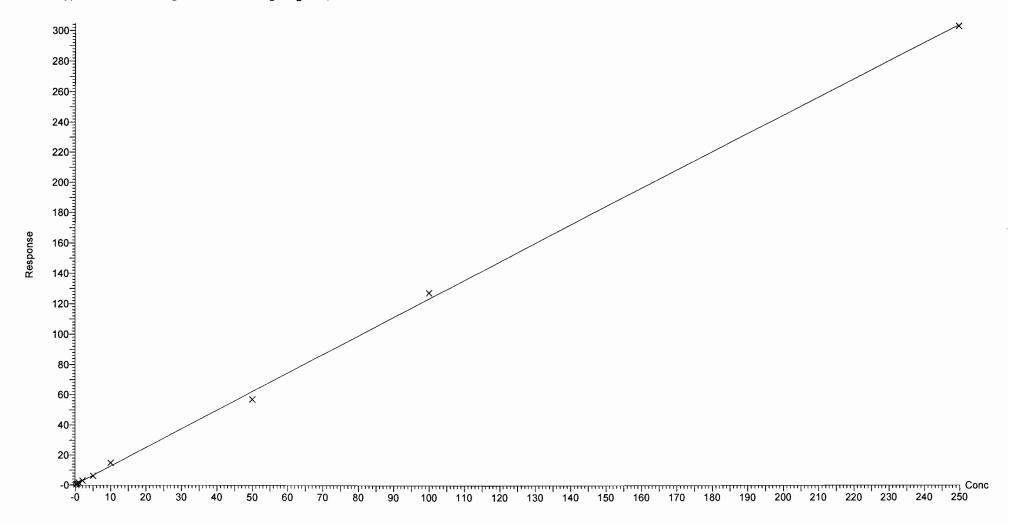
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Compound name: PFDoA

Coefficient of Determination: R^2 = 0.997953

Calibration curve: -0.000109132 * x^2 + 1.24453 * x + 0.293856 Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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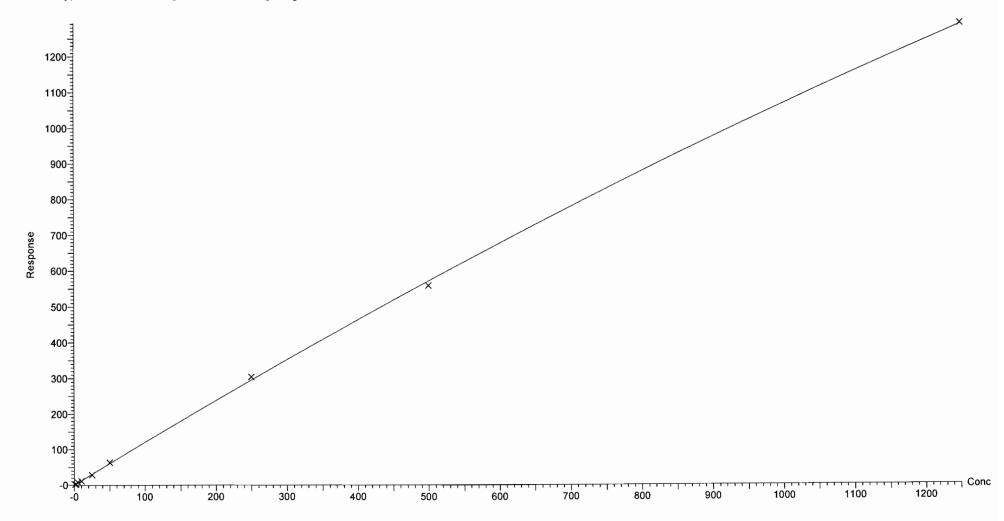
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Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: N-MeFOSA

Coefficient of Determination: R^2 = 0.999297

Calibration curve: -0.000149877 * x^2 + 1.21877 * x + 0.0856513 Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory Q1

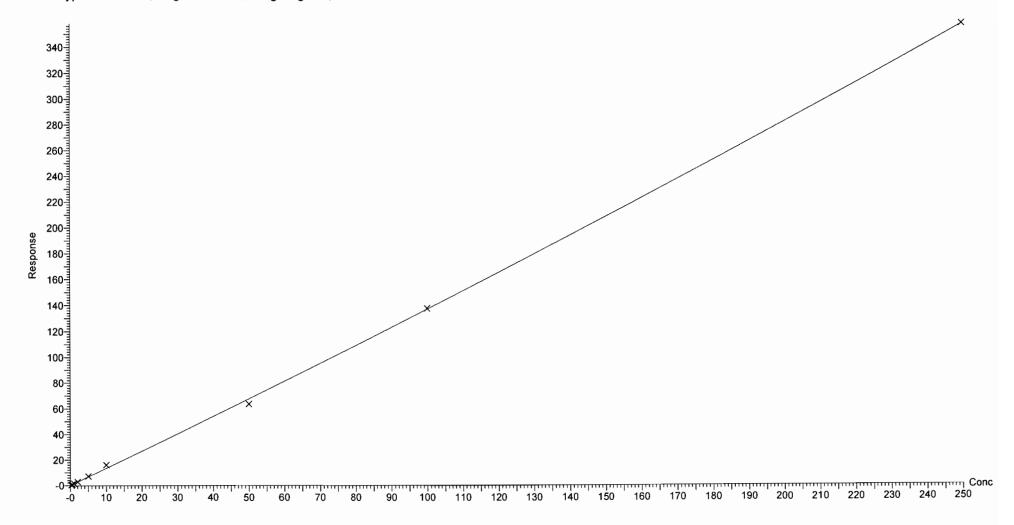
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Compound name: PFTrDA

Coefficient of Determination: R^2 = 0.998625

Calibration curve: 0.000400269 * x^2 + 1.32903 * x + 0.10057 Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

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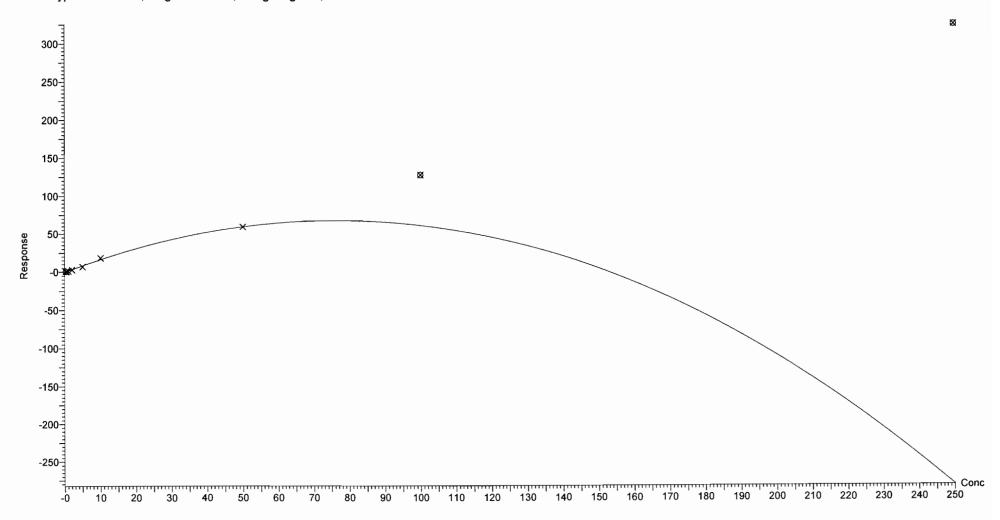
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Friday, October 27, 2017 10:26:14 Pacific Daylight Time Friday, October 27, 2017 10:38:18 Pacific Daylight Time

Compound name: PFTeDA

Coefficient of Determination: R^2 = 0.990408

Calibration curve: -0.0116096 * x^2 + 1.77597 * x + -0.229836 Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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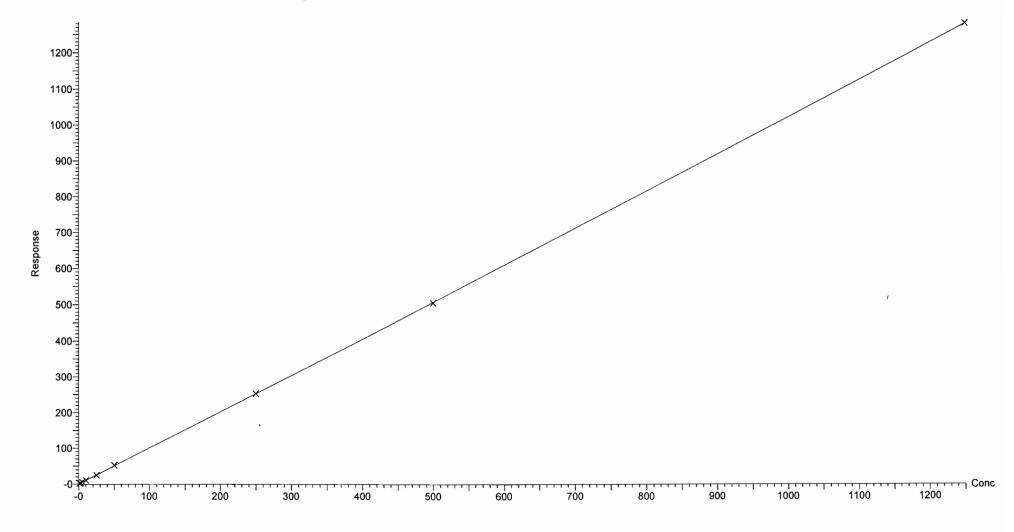
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Compound name: N-EtFOSA

Coefficient of Determination: R^2 = 0.999879

Calibration curve: $1.51717e-005 * x^2 + 1.00753 * x + 0.283778$ Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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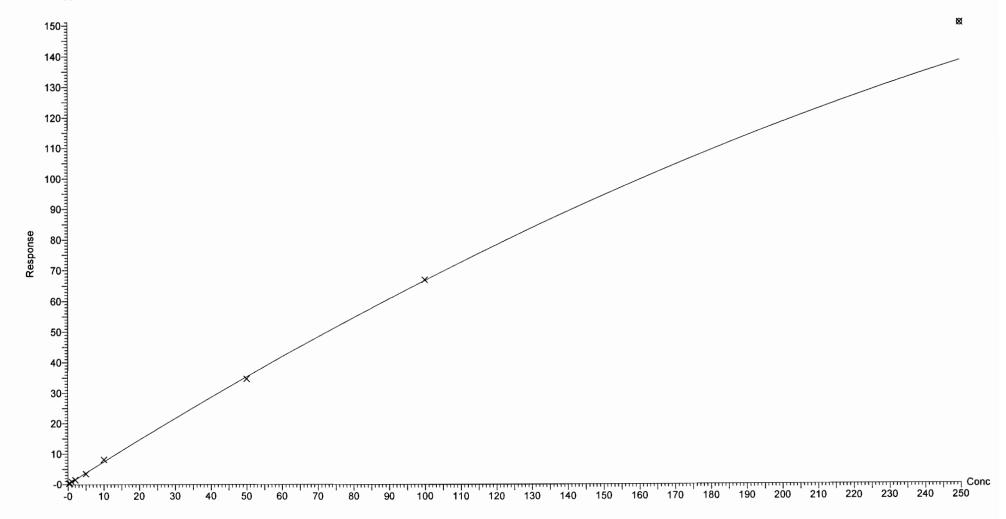
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Compound name: PFHxDA

Coefficient of Determination: R^2 = 0.998601

Calibration curve: $-0.000754699 * x^2 + 0.743417 * x + 0.0395372$ Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

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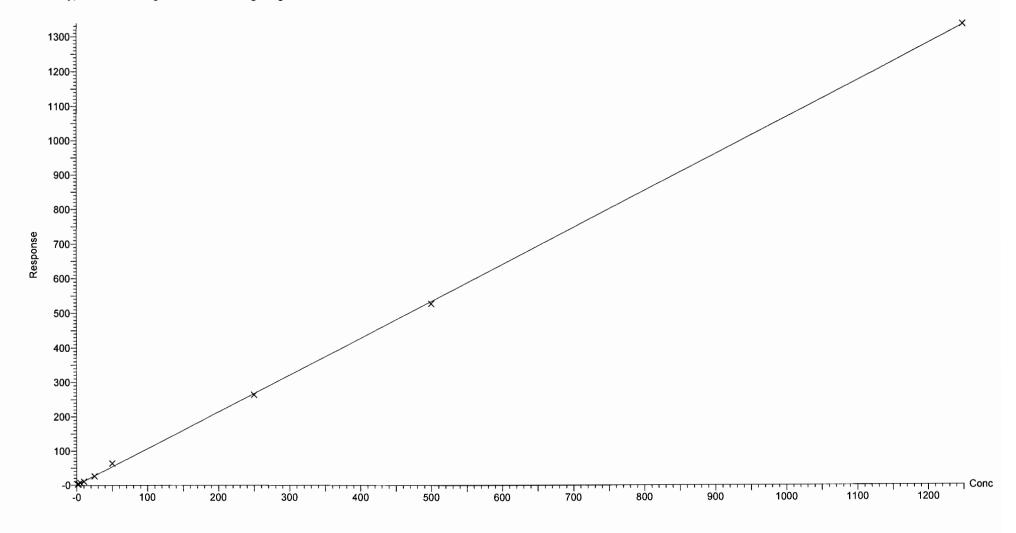
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Compound name: N-MeFOSE

Correlation coefficient: r = 0.999413, $r^2 = 0.998826$

Calibration curve: 1.06845 * x + 0.279364

Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

Dataset:

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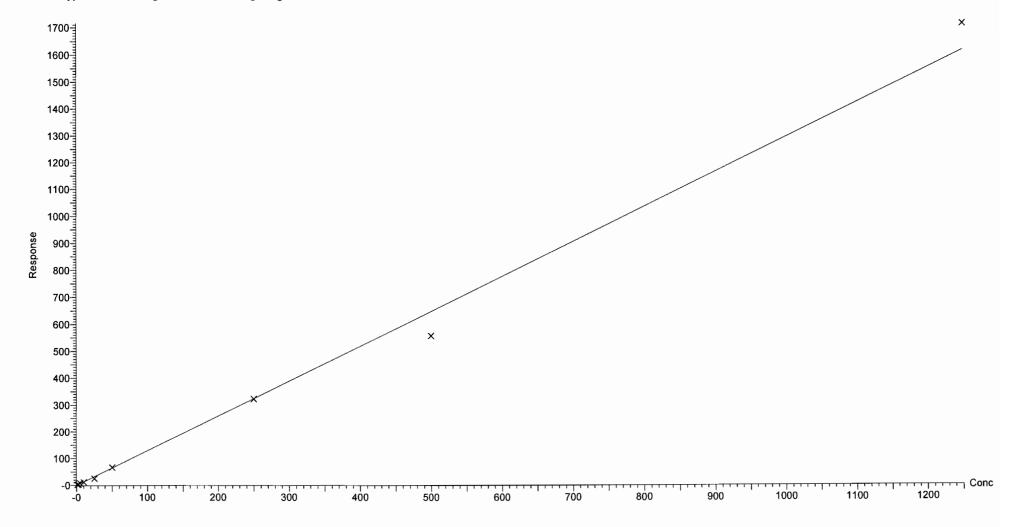
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Compound name: N-EtFOSE

Correlation coefficient: r = 0.996094, $r^2 = 0.992203$

Calibration curve: 1.29546 * x + -0.281193

Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

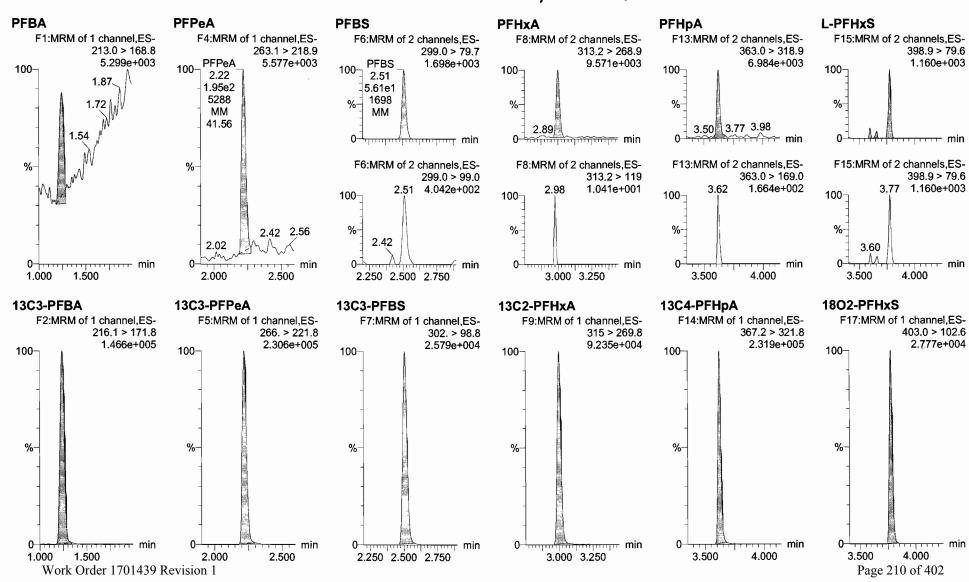
6 cm 10/22/17

(R)

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 26 Oct 2017 08:20:12

Calibration: 26 Oct 2017 15:43:46

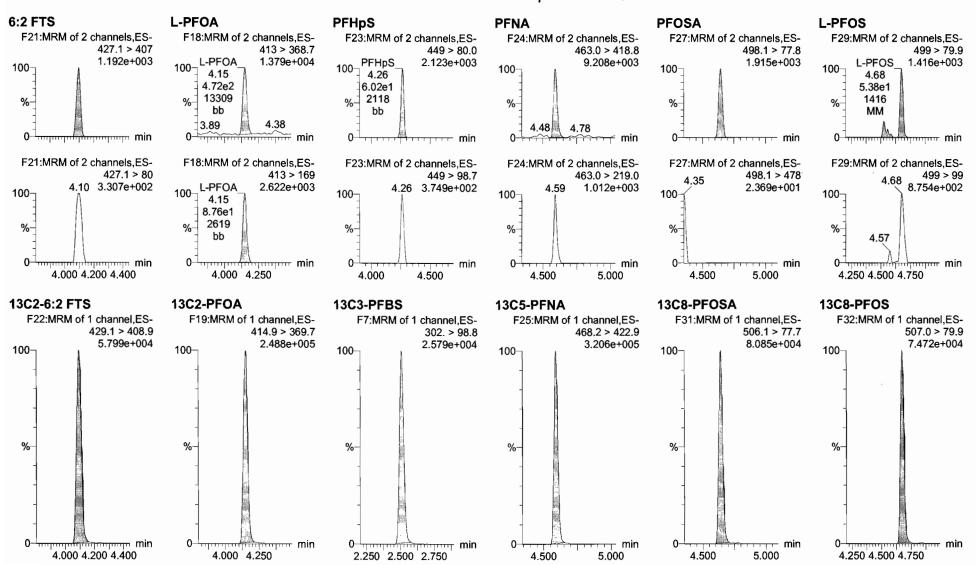
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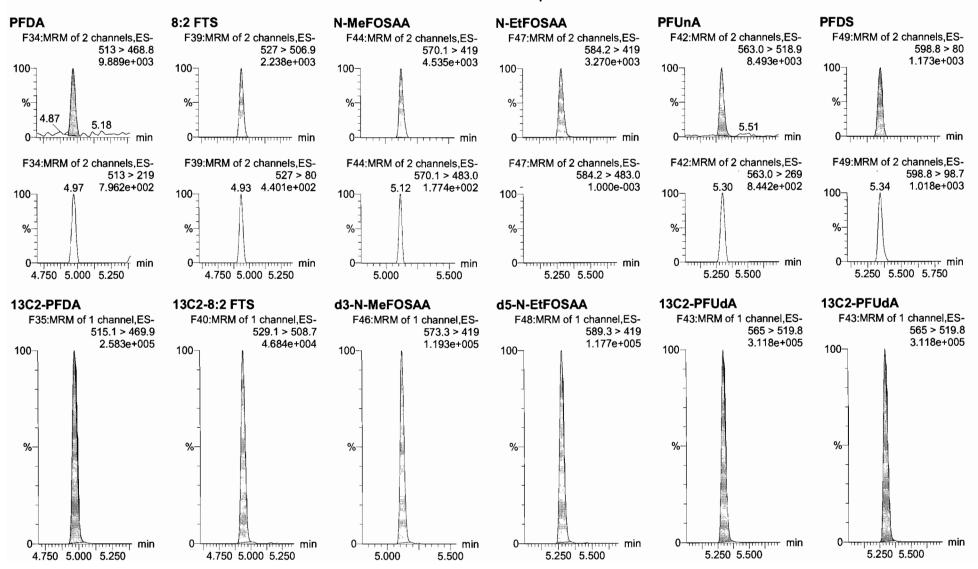
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Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

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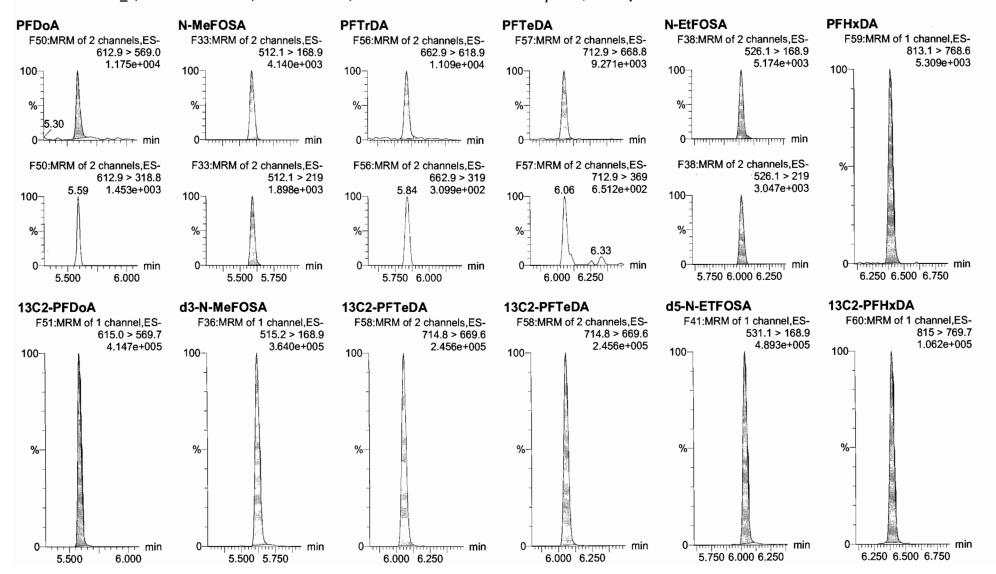


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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

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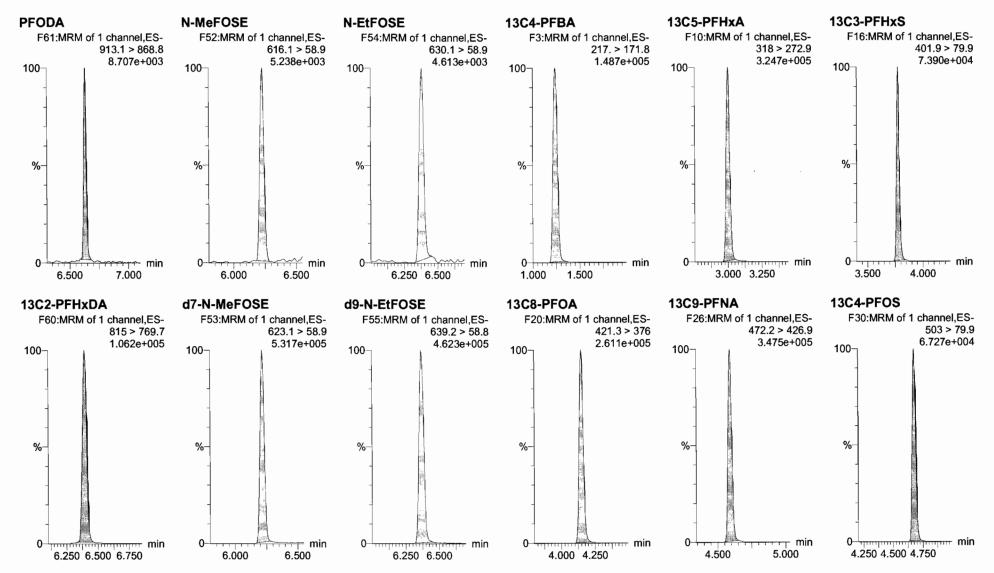
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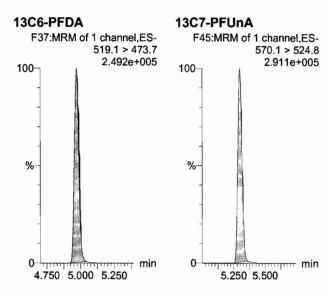
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Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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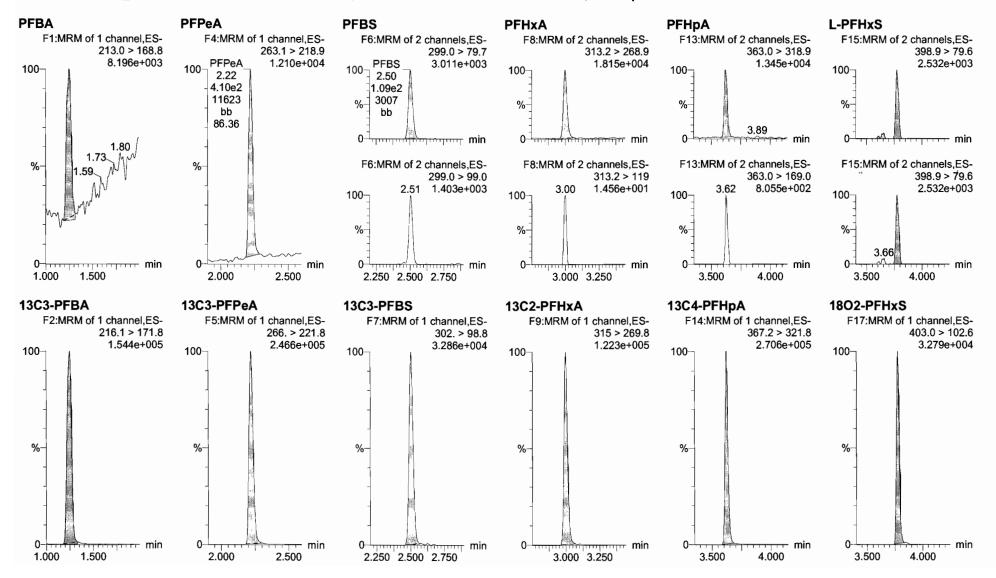
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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

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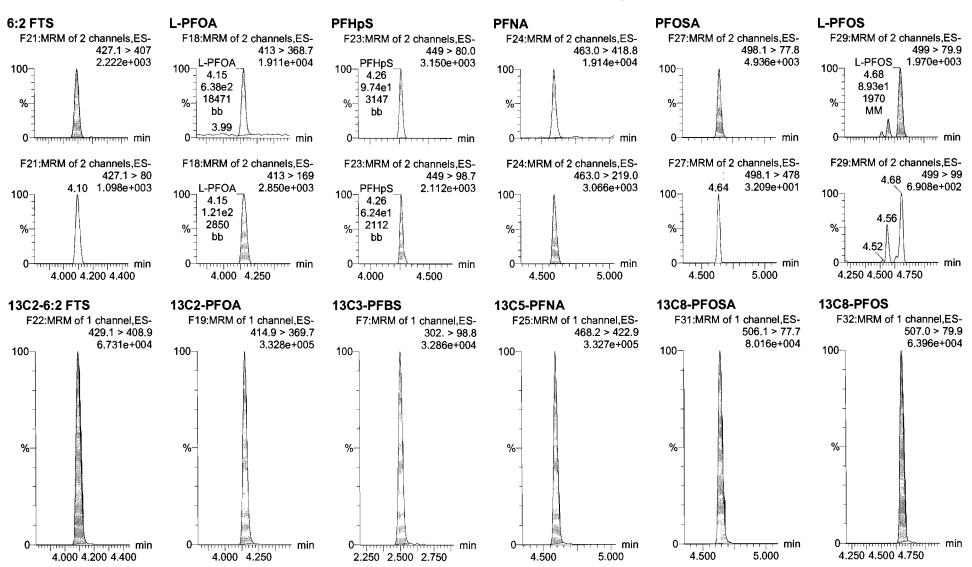
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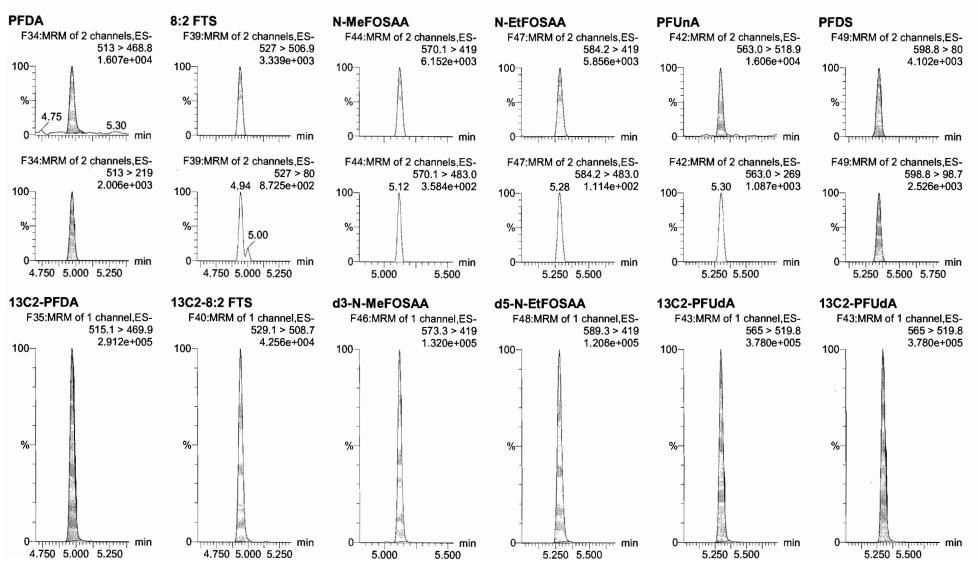
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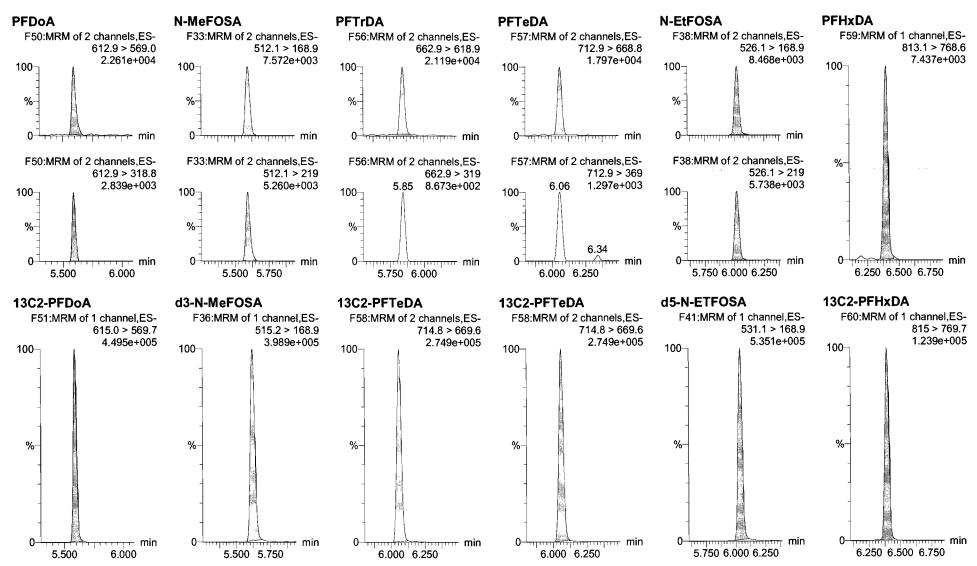
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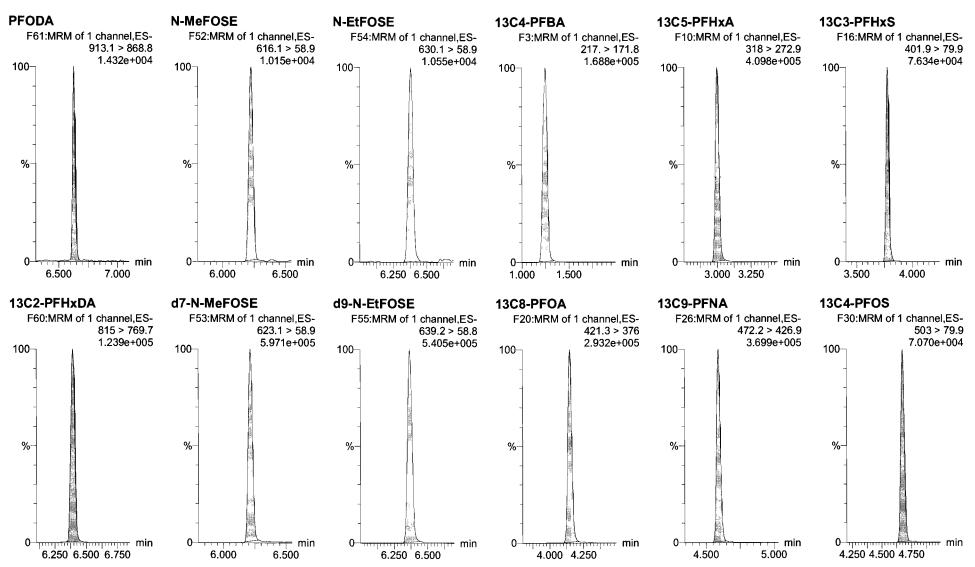


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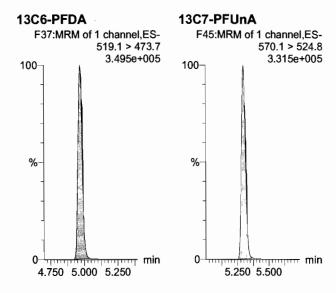
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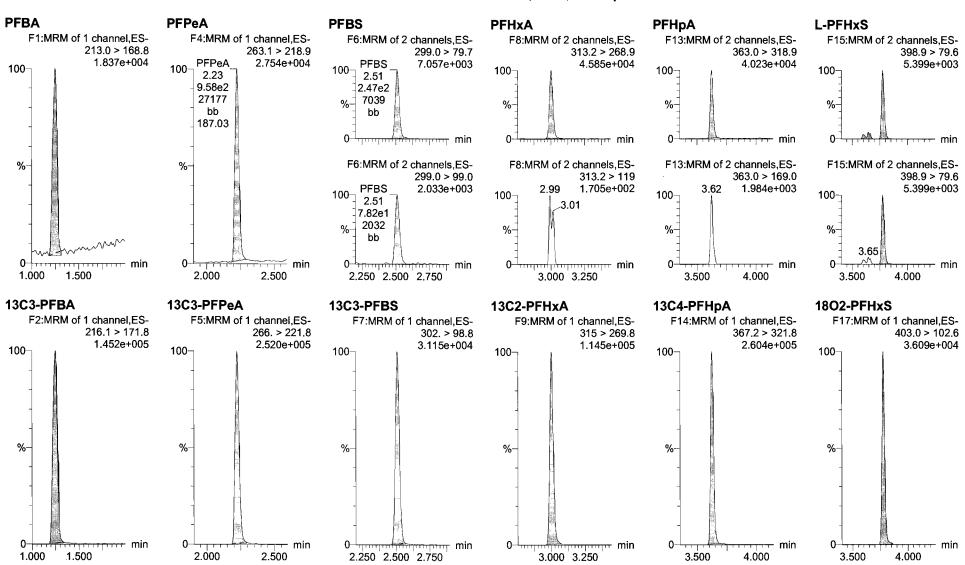
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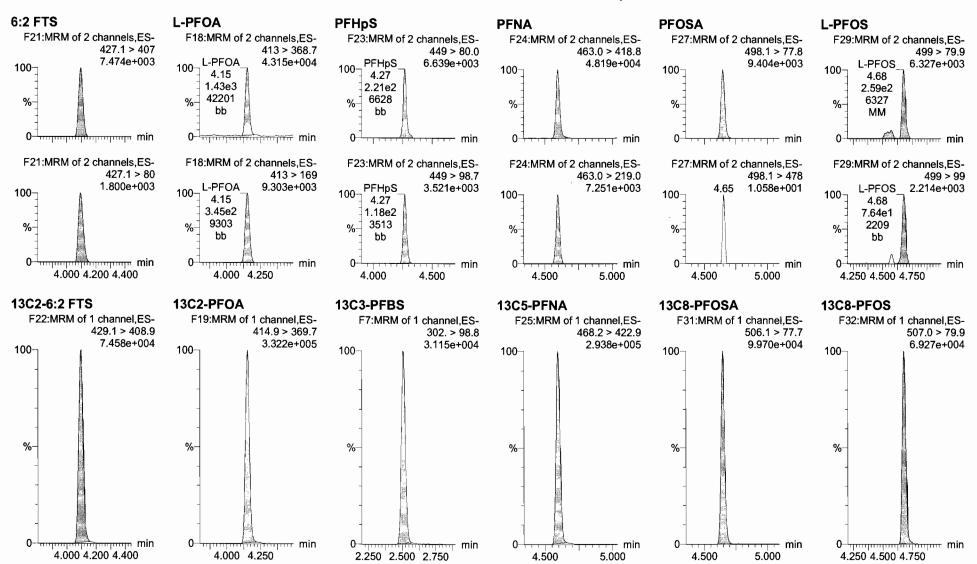
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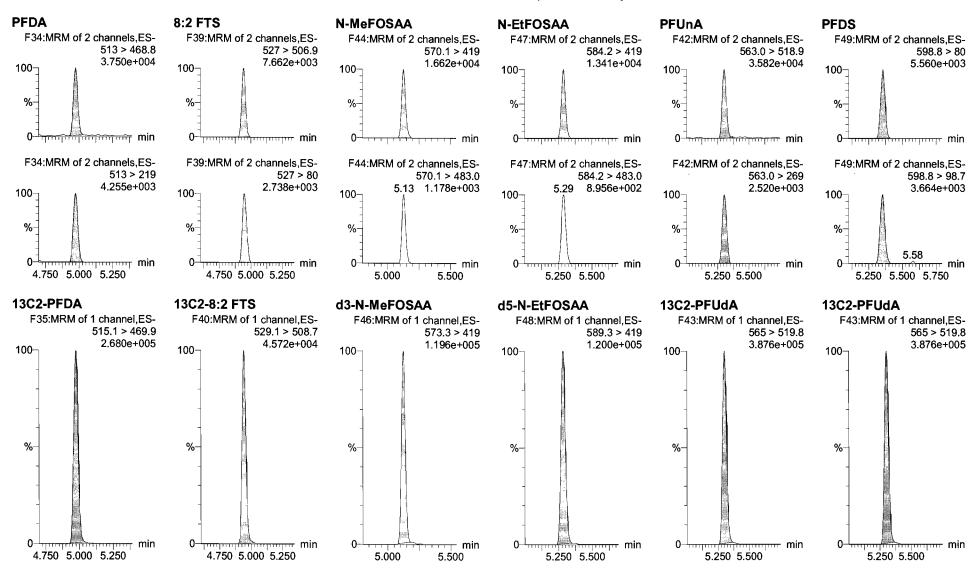
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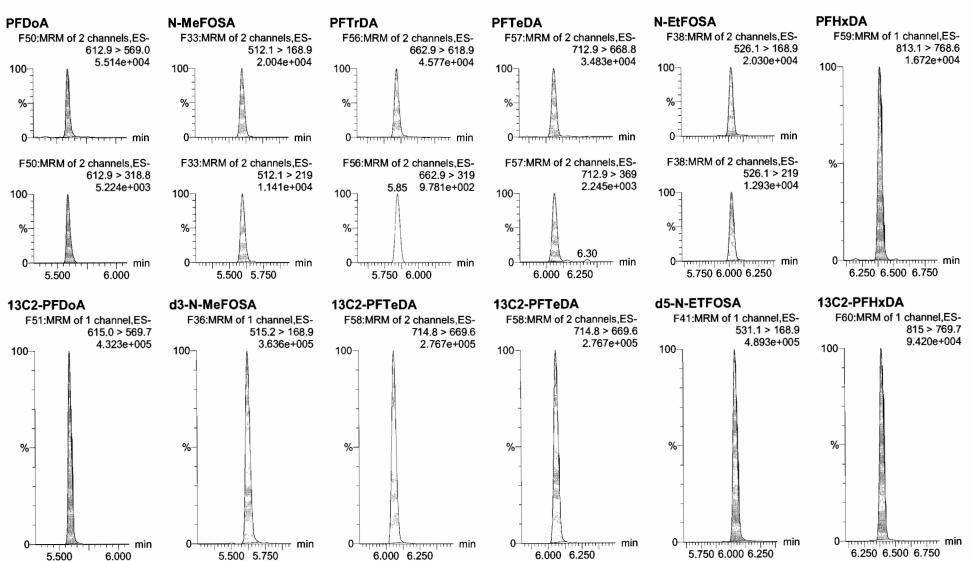
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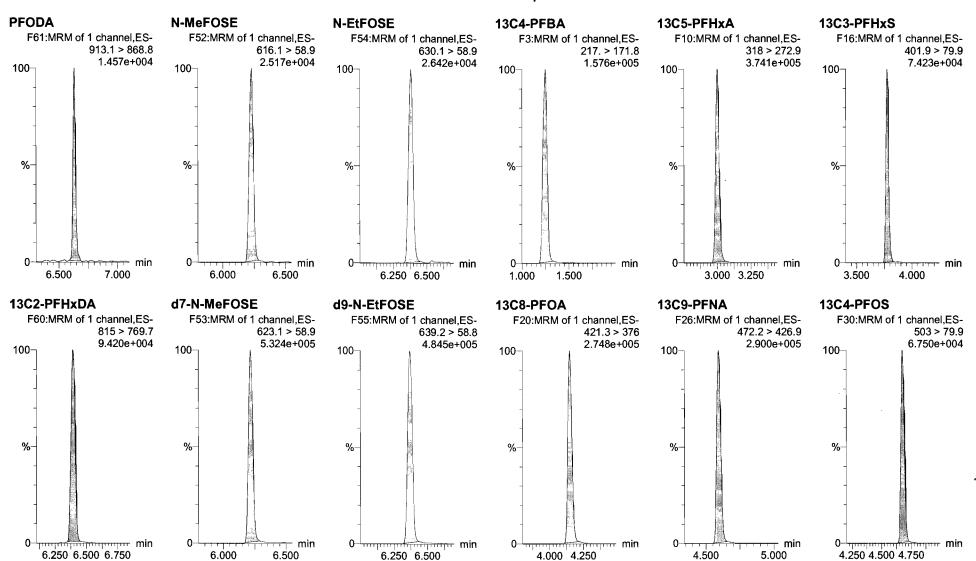
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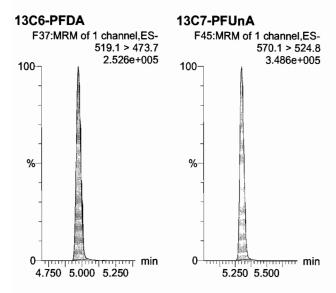
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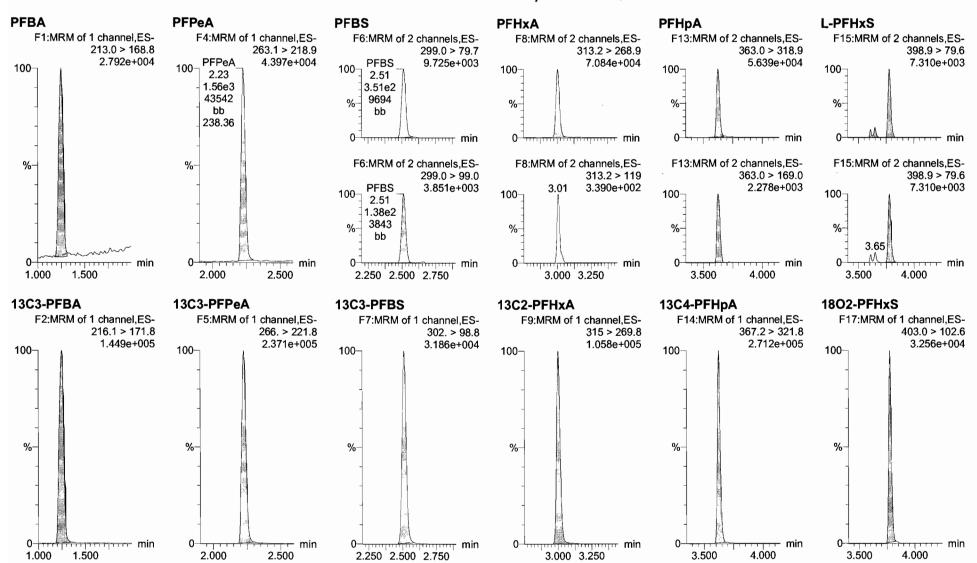
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Thursday, October 26, 2017 15:44:32 Pacific Daylight Time



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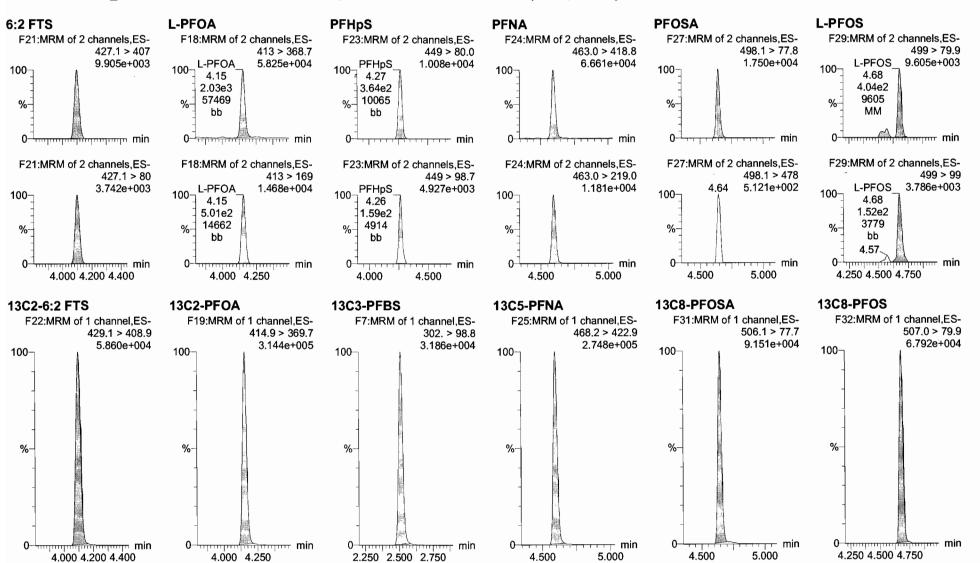
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Dataset:

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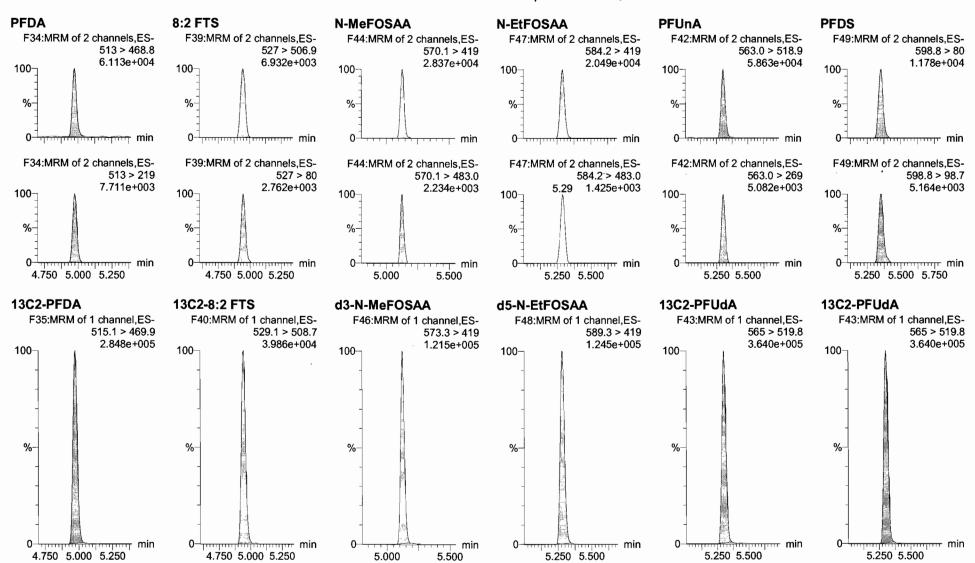
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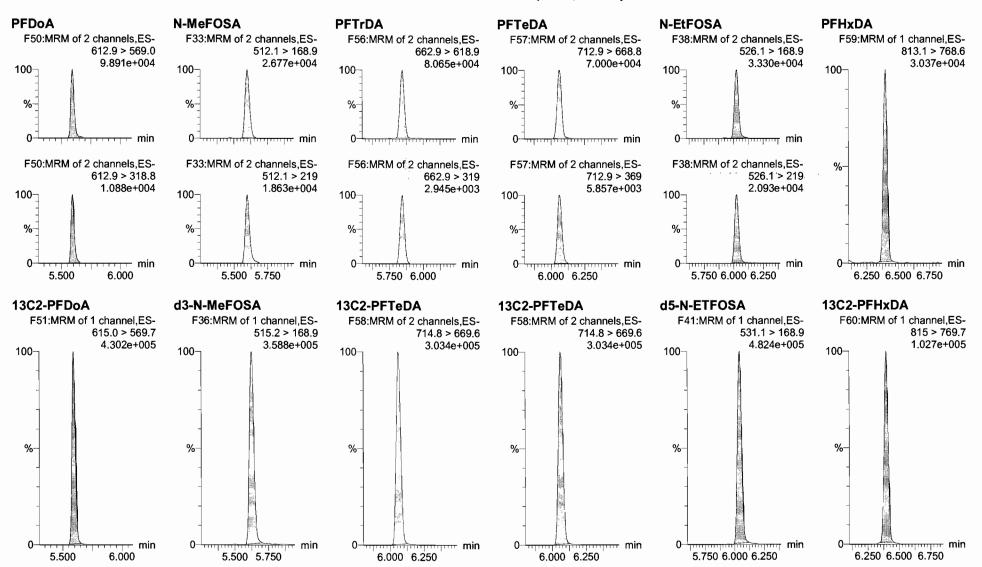
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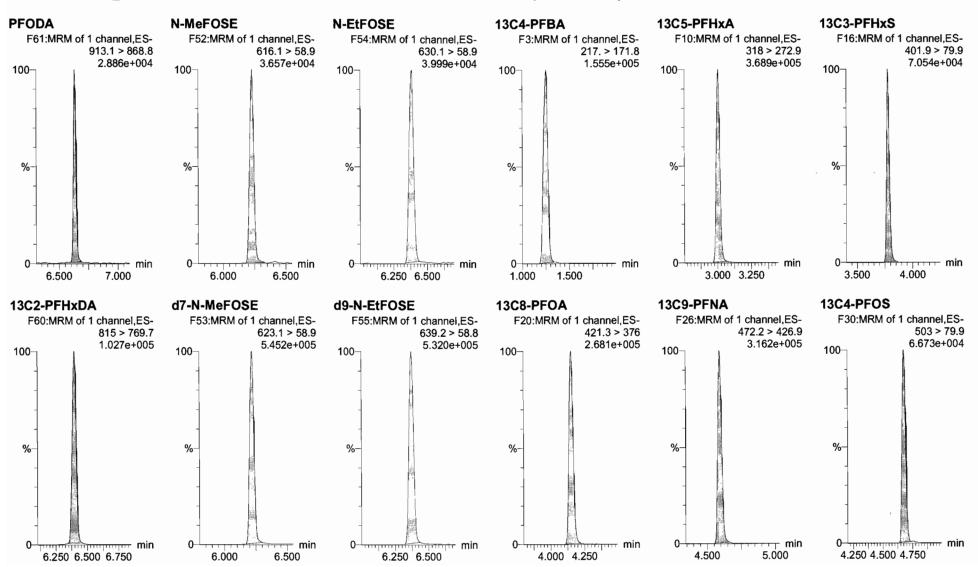
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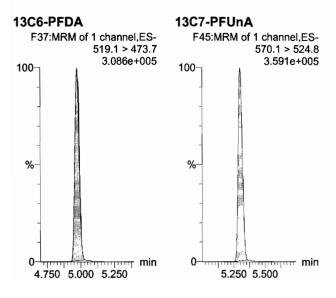
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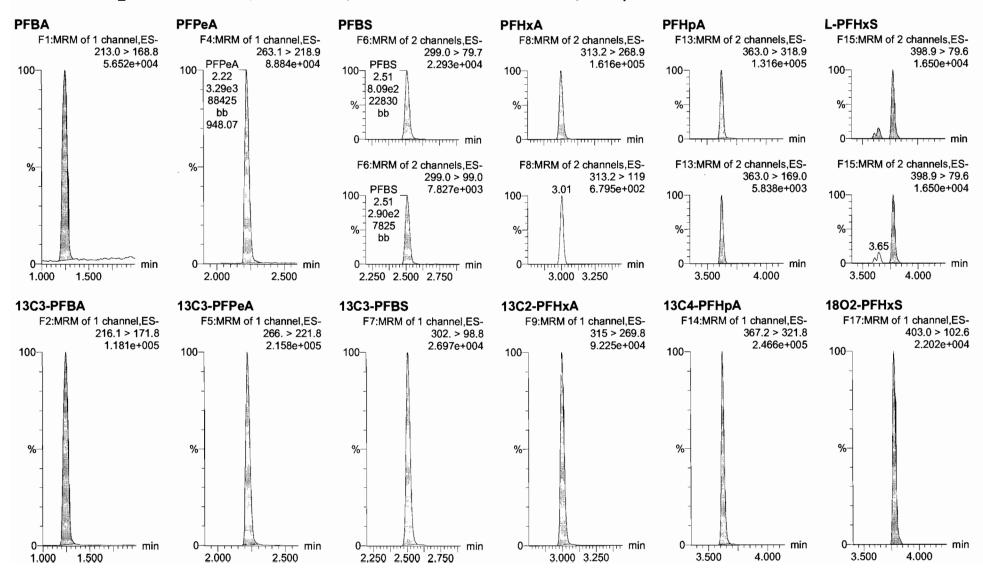
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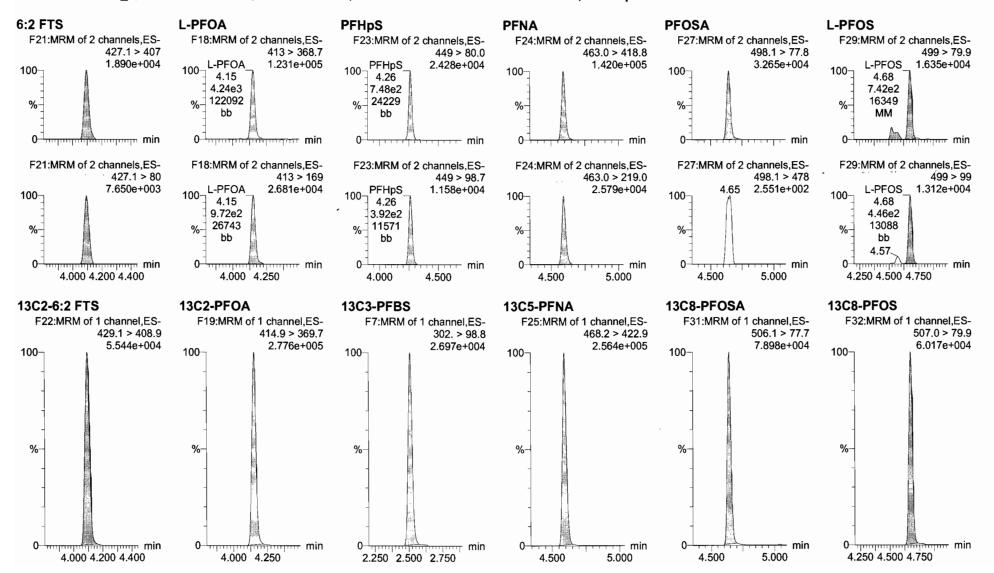
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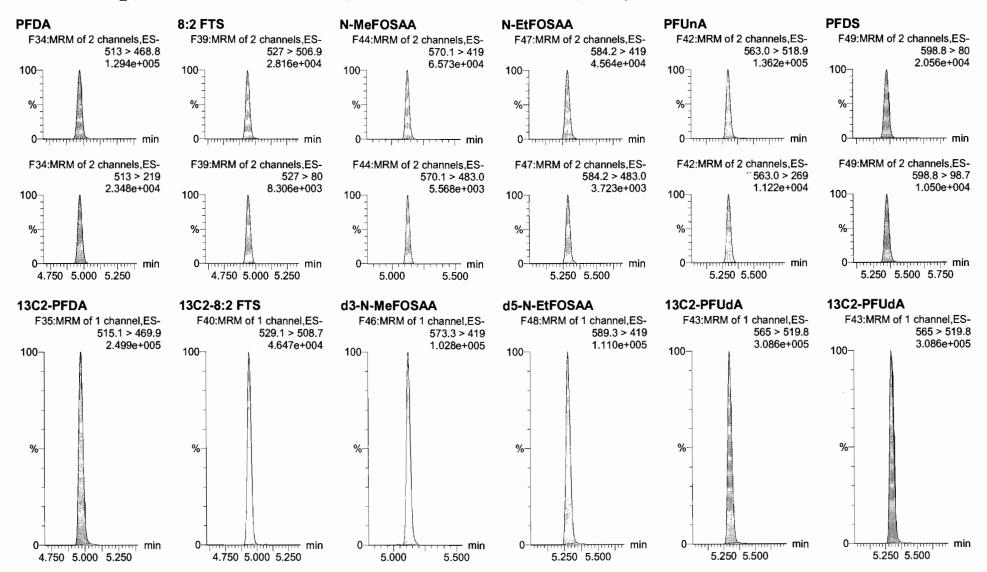


Work Order 1701439 Revision 1 Page 235 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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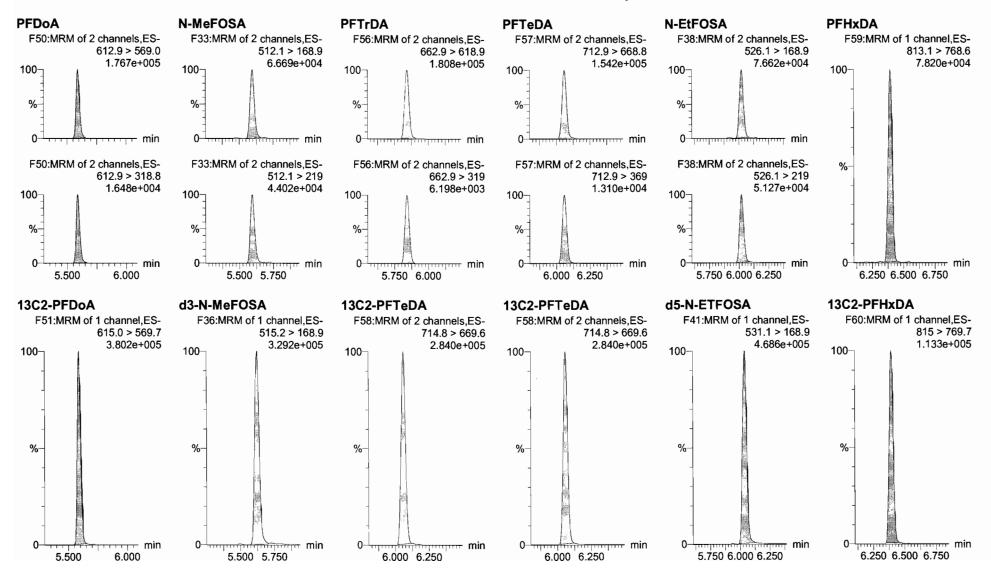
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Last Altered:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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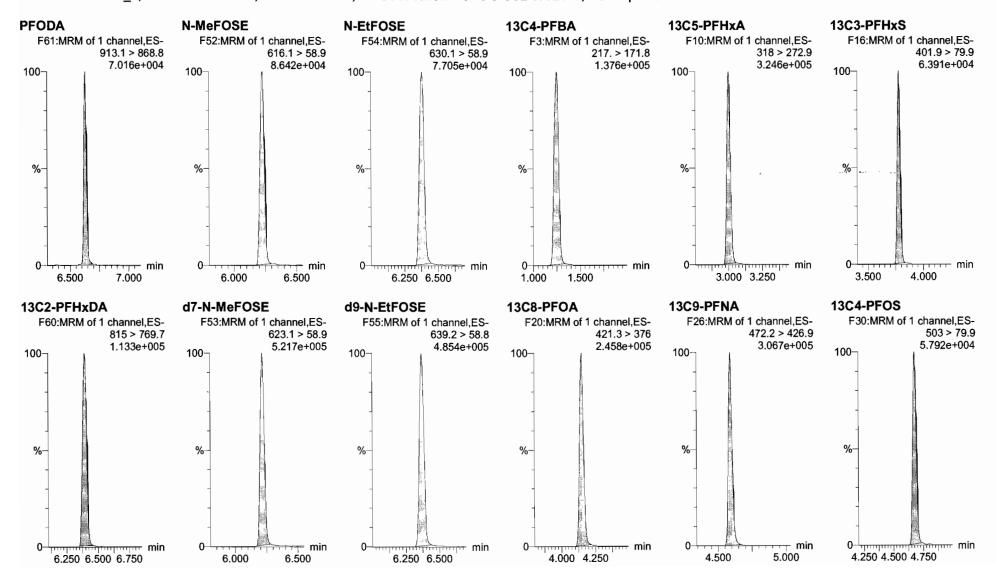


Work Order 1701439 Revision 1 Page 237 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_6, Date: 26-Oct-2017, Time: 10:11:00, ID: ST171026M1-5 PFC CS2 17J2519, Description: PFC CS2 17J2519



Work Order 1701439 Revision 1 Page 238 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

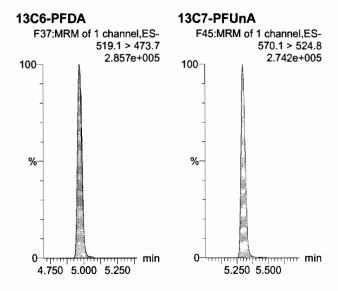
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Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Printed:

Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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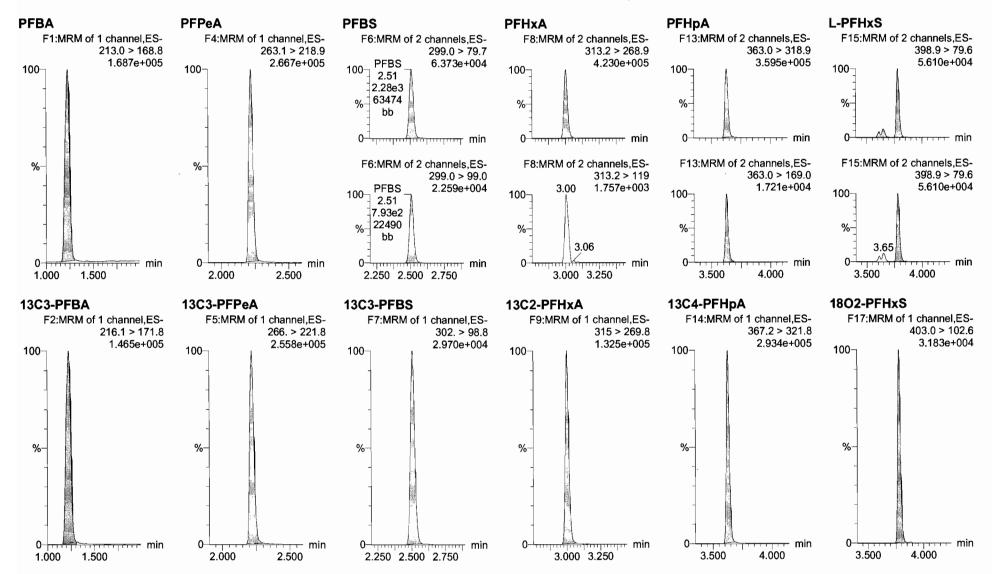
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Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806



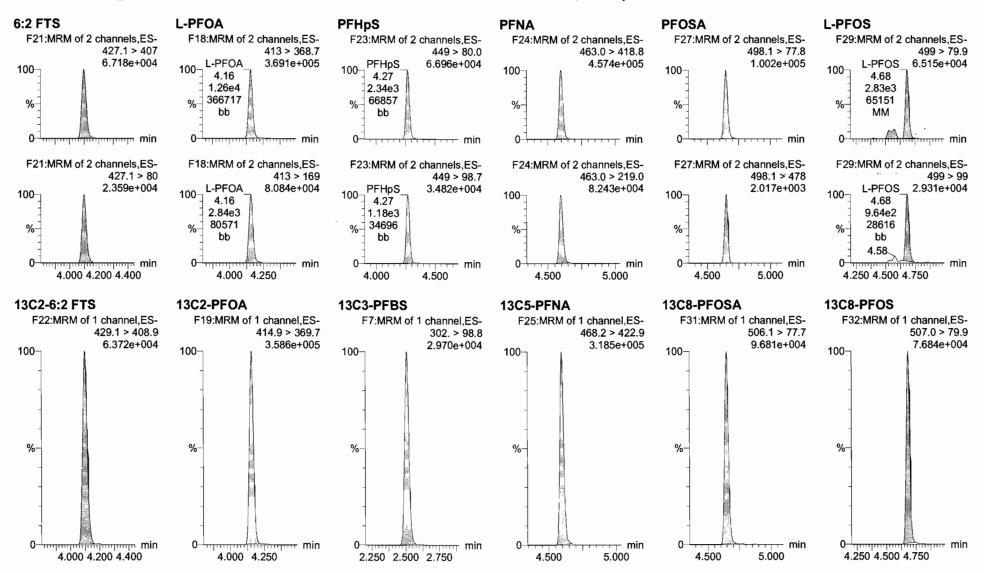
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Last Altered:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806



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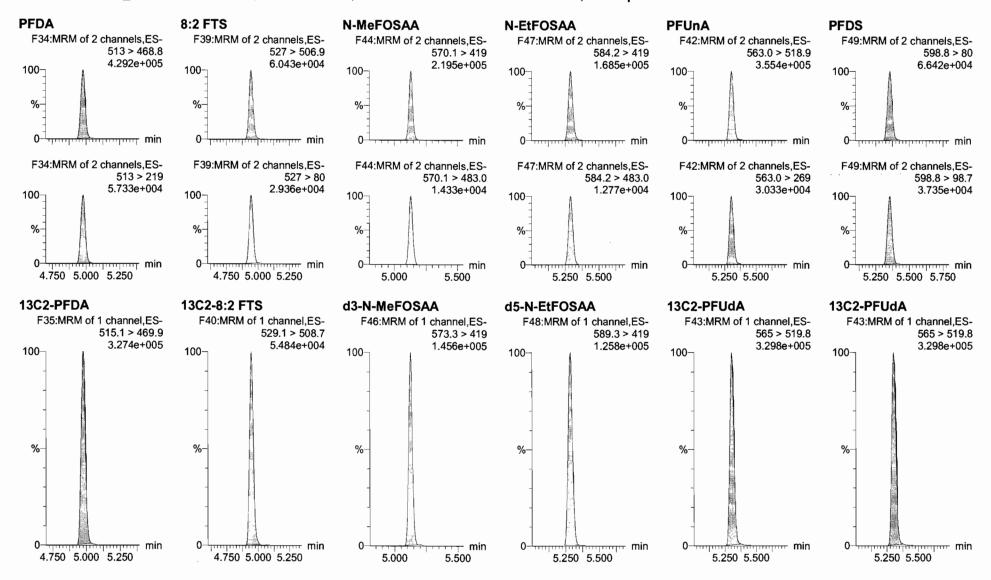
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Last Altered:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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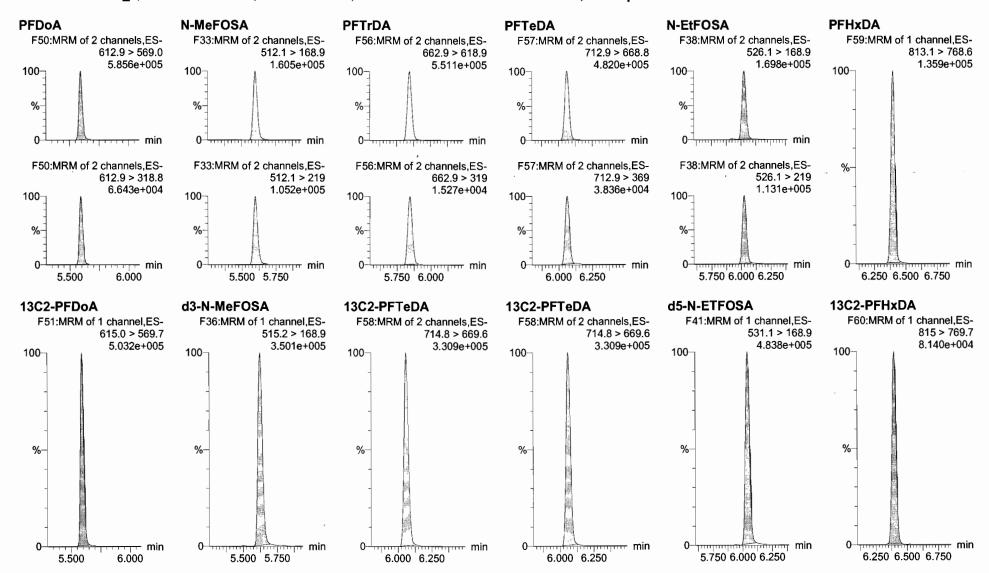
Work Order 1701439 Revision 1 Page 242 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806



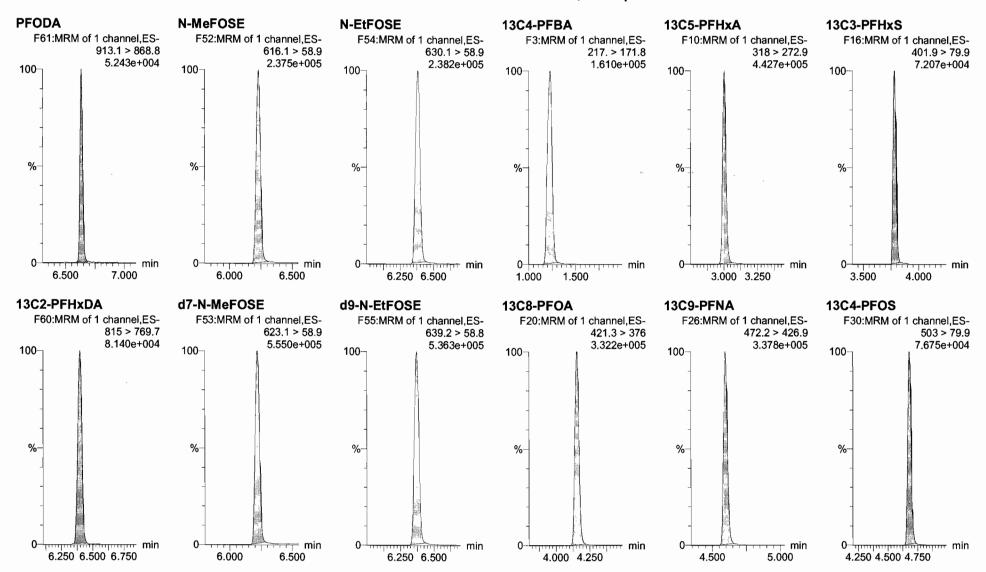
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Last Altered:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_7, Date: 26-Oct-2017, Time: 10:22:11, ID: ST171026M1-6 PFC CS3 17J1806, Description: PFC CS3 17J1806



Work Order 1701439 Revision 1 Page 244 of 402

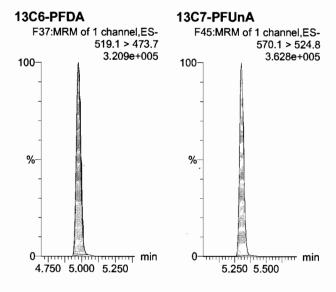
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Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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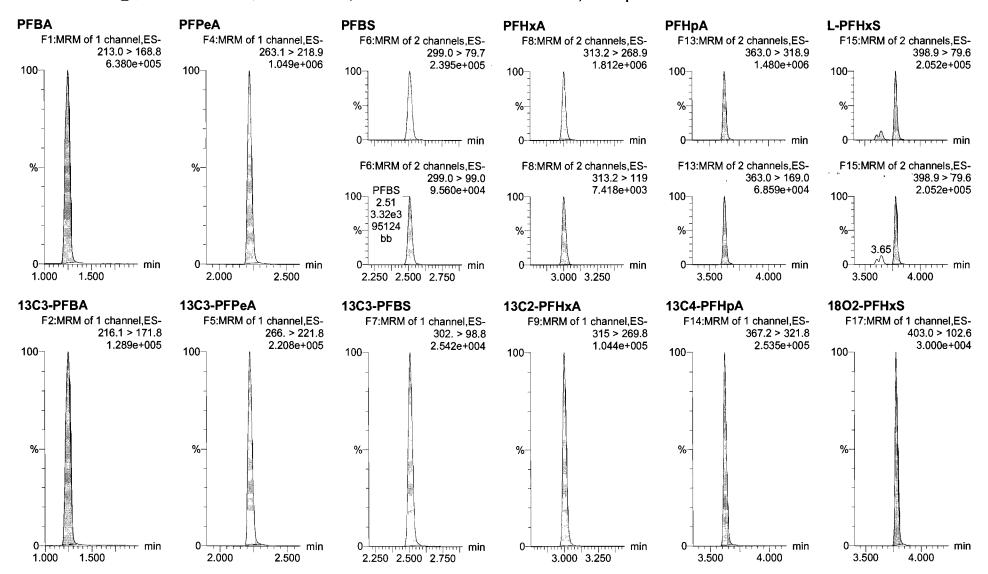
Work Order 1701439 Revision 1 Page 245 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17J2102



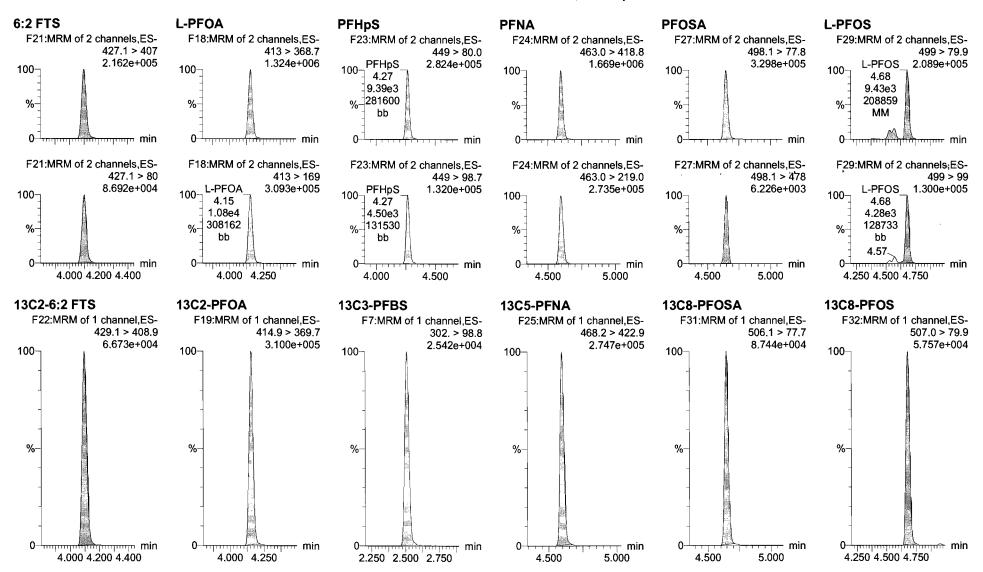
Work Order 1701439 Revision 1 Page 246 of 402

Detect: U/O4 PRO/requit

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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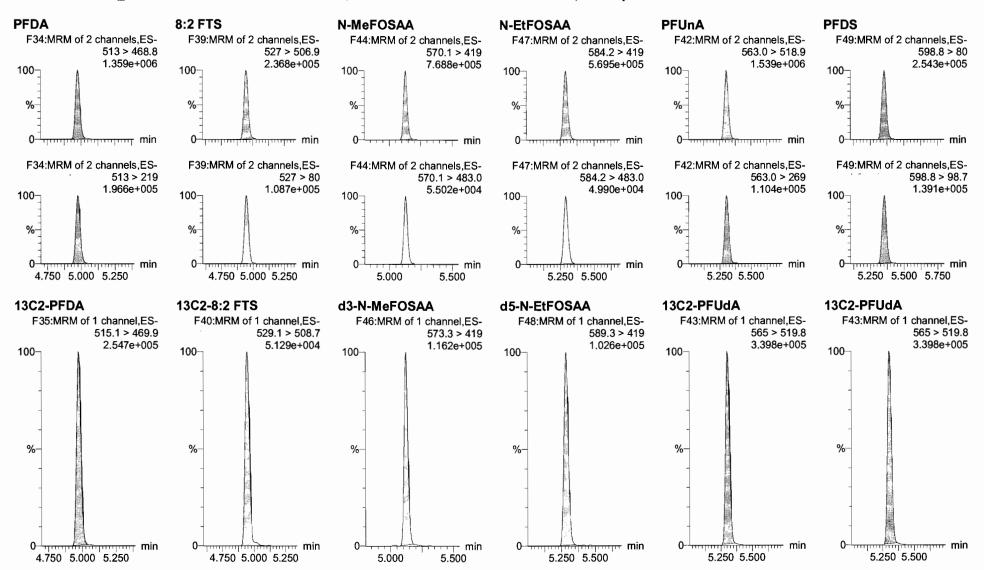


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U:\Q4.PRO\results\171026M1\171026M1-CRV.gld

Last Altered: Printed: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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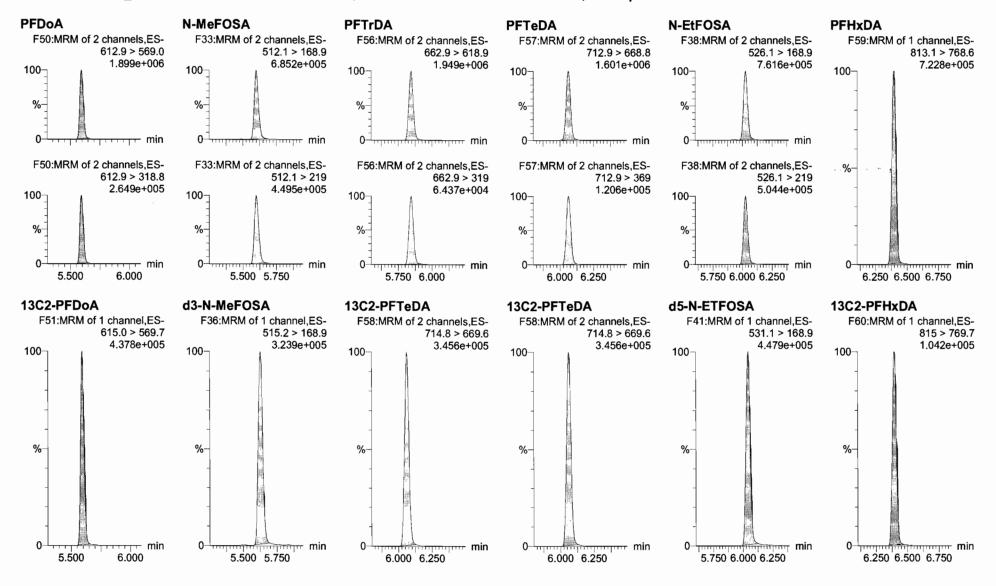
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Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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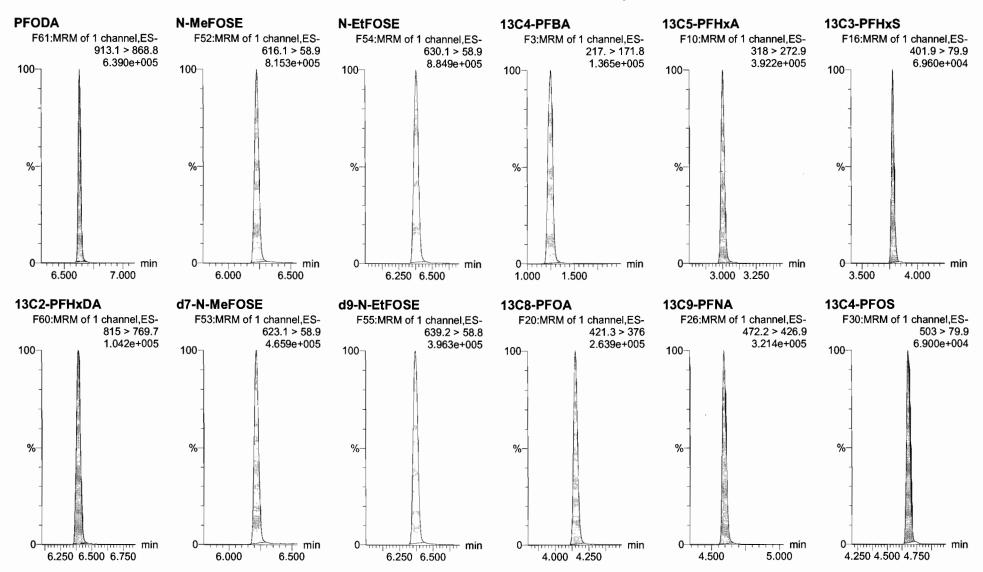


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Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_8, Date: 26-Oct-2017, Time: 10:33:24, ID: ST171026M1-7 PFC CS4 17J2102, Description: PFC CS4 17J2102



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Dataset:

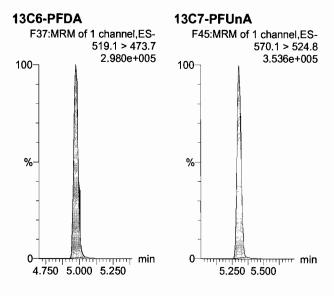
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Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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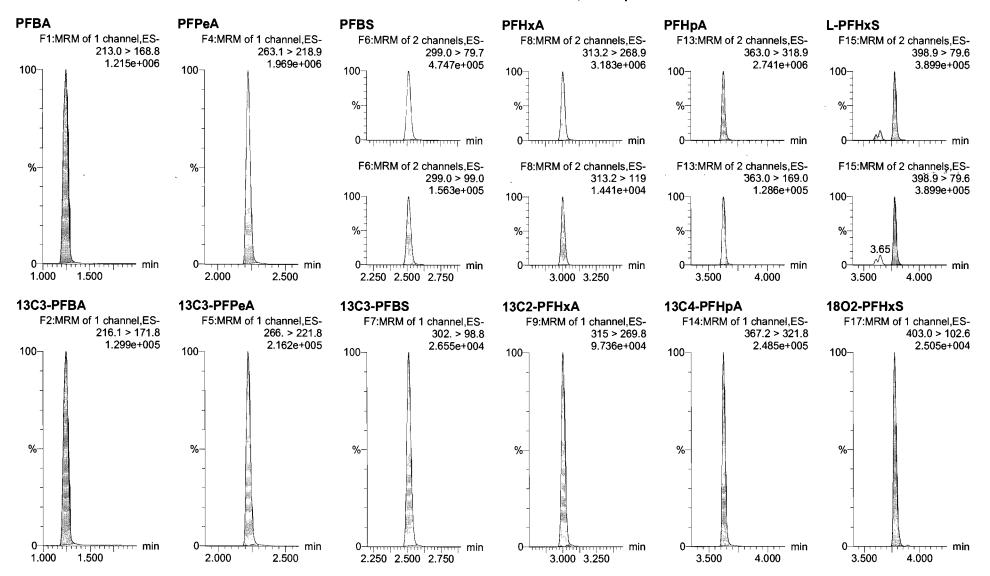


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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101



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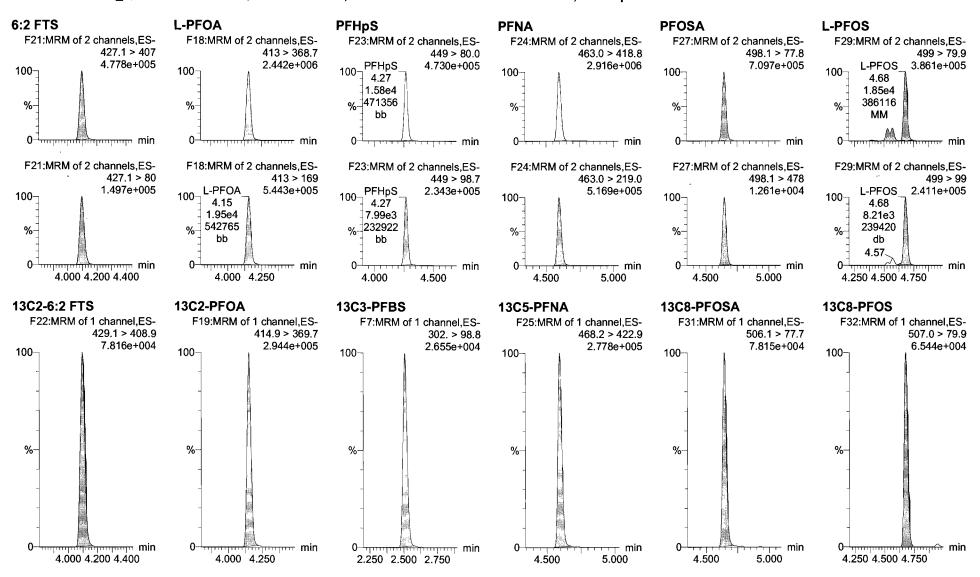
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Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time

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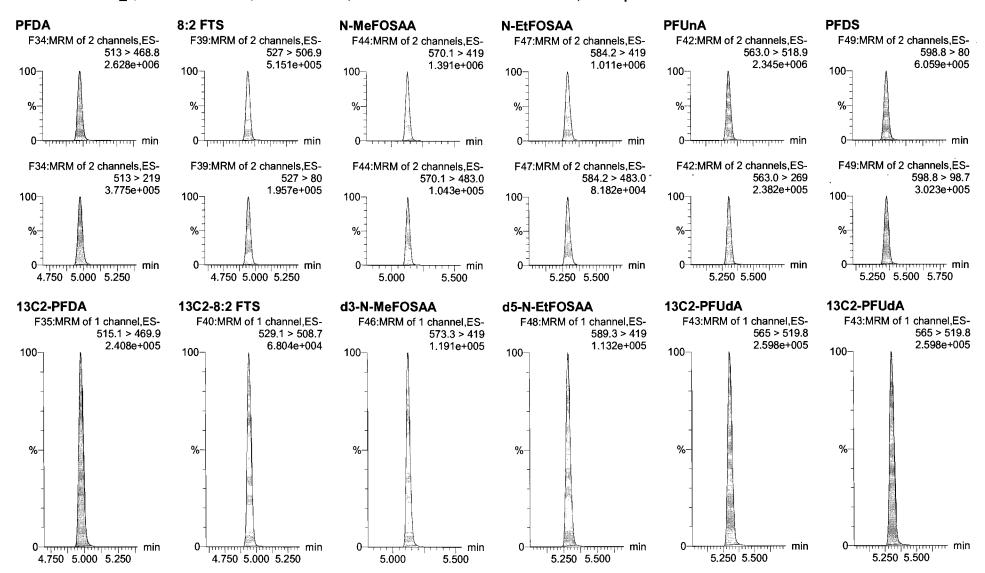
Work Order 1701439 Revision 1 Page 253 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101



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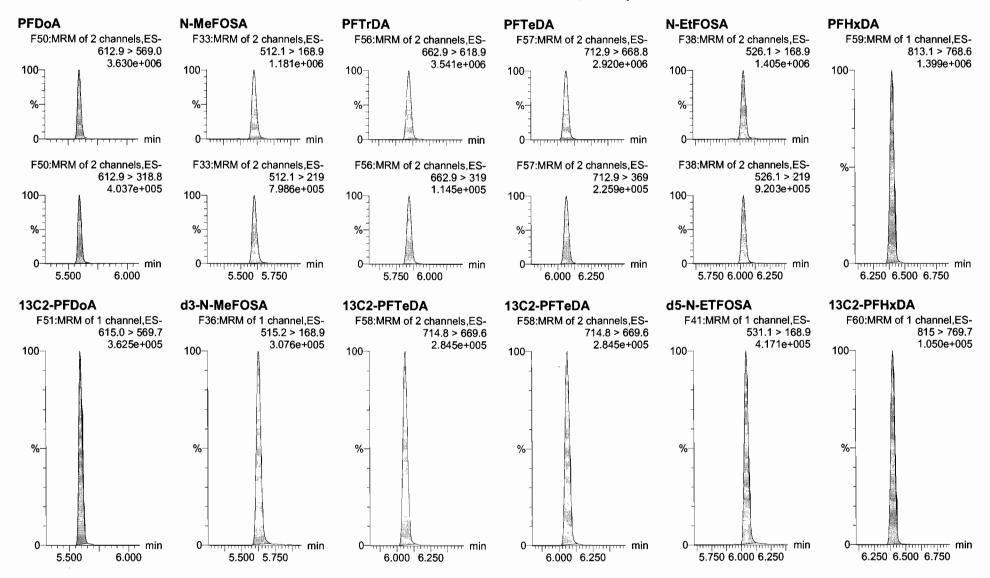
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Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_9, Date: 26-Oct-2017, Time: 10:44:36, ID: ST171026M1-8 PFC CS5 17J2101, Description: PFC CS5 17J2101



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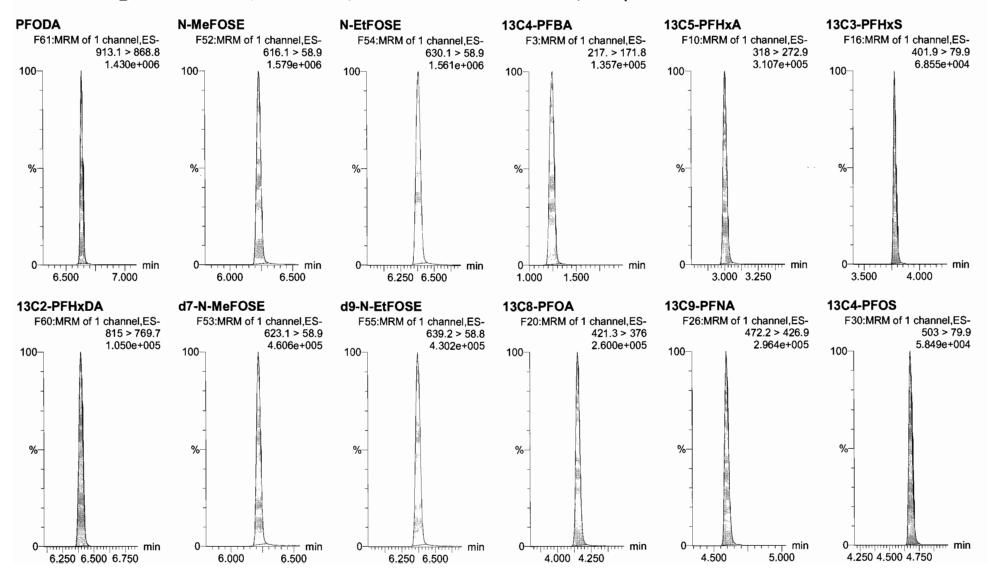
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Printed: Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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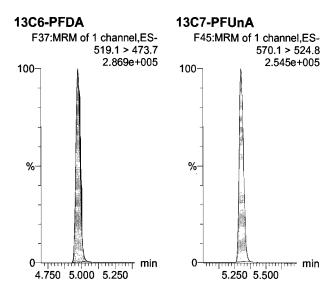
Work Order 1701439 Revision 1 Page 256 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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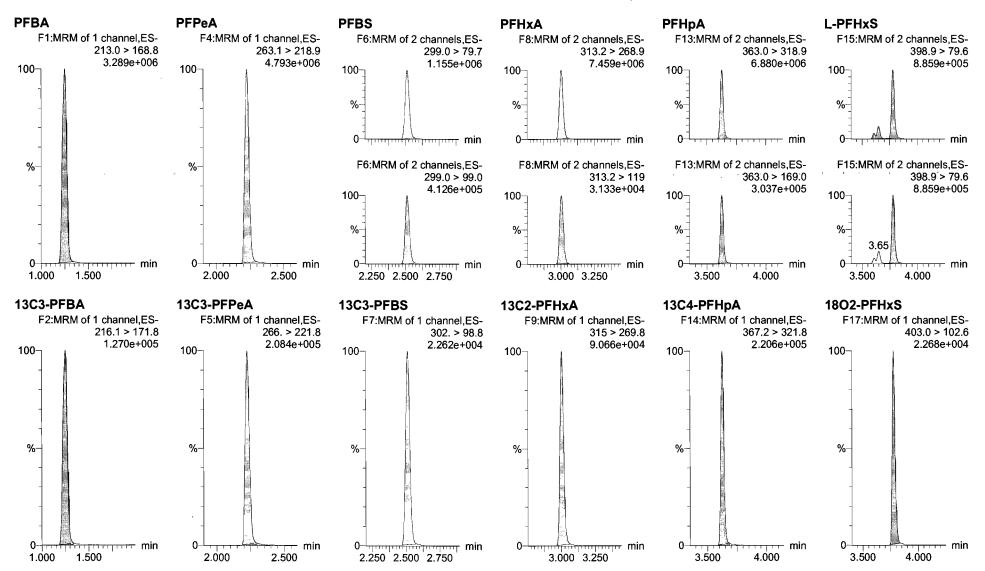


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U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

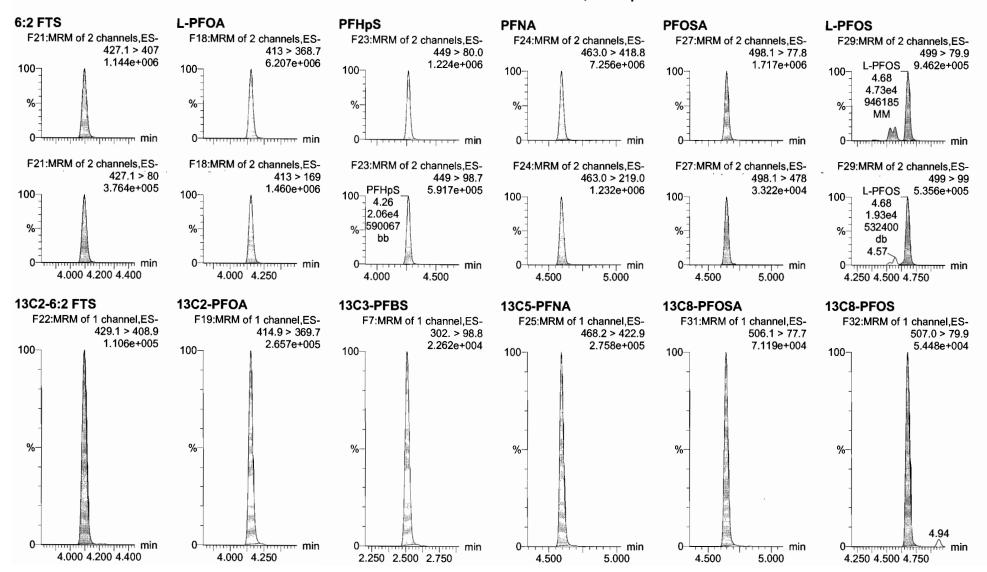
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Last Altered: Printed: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

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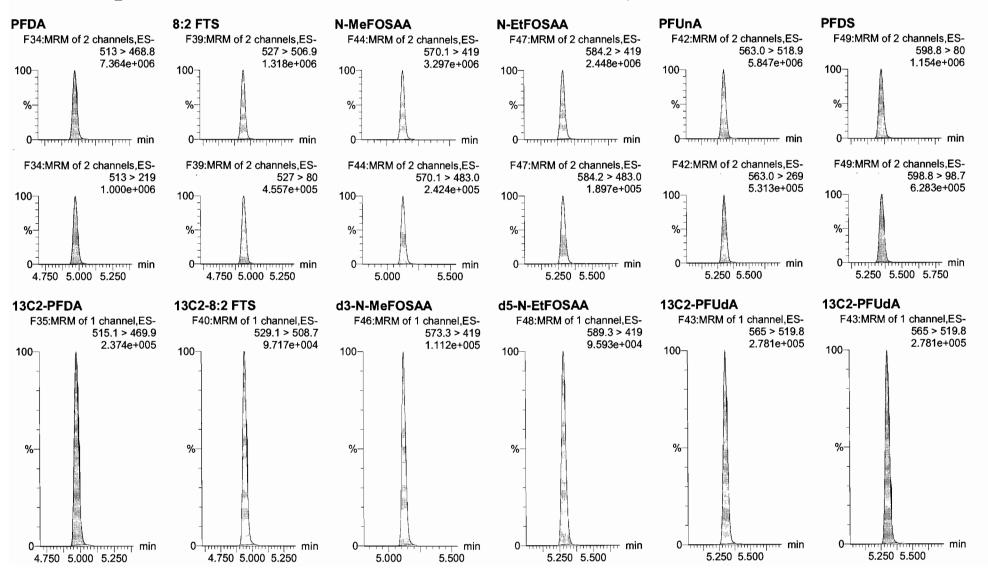
Work Order 1701439 Revision 1 Page 259 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17J2517



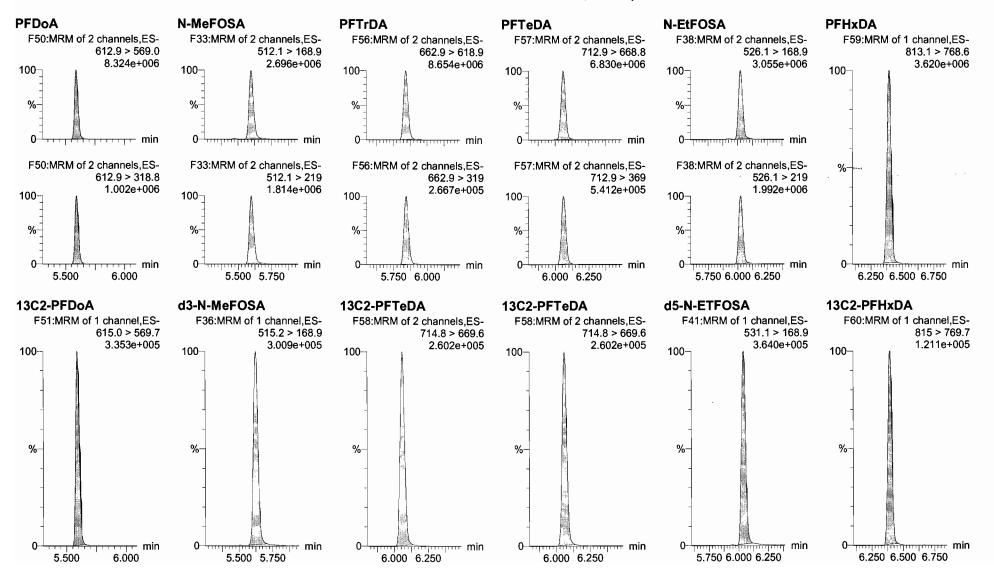
Work Order 1701439 Revision 1 Page 260 of 402

U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17J2517



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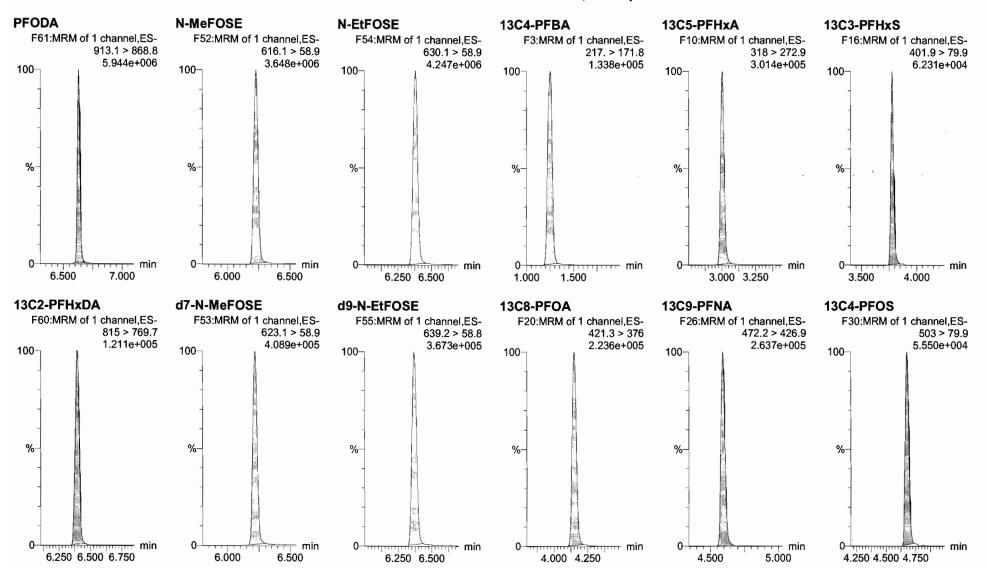
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Last Altered: Printed:

Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17J2517

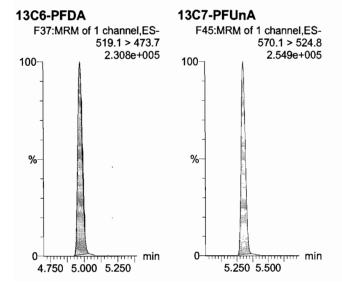


Work Order 1701439 Revision 1 Page 262 of 402

Dataset: U:\Q4.PRO\results\171026M1\171026M1-CRV.qld

Last Altered: Thursday, October 26, 2017 15:43:46 Pacific Daylight Time Thursday, October 26, 2017 15:44:32 Pacific Daylight Time

Name: 171026M1_10, Date: 26-Oct-2017, Time: 10:55:46, ID: ST171026M1-9 PFC CS6 17J2517, Description: PFC CS6 17J2517



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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171026M1\171026M1-13.qld

Last Altered: Friday, October 27, 2017 10:46:12 Pacific Daylight Time Printed: Friday, October 27, 2017 10:46:53 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102517.mdb 27 Oct 2017 10:03:44 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003

(A) pot wich.

| # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec | |
|---------------------------------|---------------|--------|---------|----------------|---------|------|--------------|-------|--------------|-------------------------|
| 1 PFBA | 213.0 > 168.8 | 8.56e3 | 8.12e3 | ost statistics | 1.32 | 1.23 | 13.2 | 10.5 | 105.2 | <u>)-136</u> |
| 2 PFPeA | 263.1 > 218.9 | 8.13e3 | 8.46e3 | | 2.31 | 2.21 | 12.0 | 10.4 | 104.0 | |
| 3 PFBS | 299.0 > 79.7 | 1.90e3 | 1.04e3 | | 2.59 | 2.51 | 22.9 | 9.42 | 94.2 | |
| 4 PFHxA | 313.2 > 268.9 | 1.24e4 | 3.33e3 | | 3.08 | 3.00 | 18.6 | 11.2 | 111.6 | |
| 5 PFHpA | 363.0 > 318.9 | 1.11e4 | 8.36e3 | | 3.70 | 3.62 | 16.5 | 10.9 | 109.3 | |
| 6 L-PFHxS | 398.9 > 79.6 | 1.63e3 | 8.16e2 | | 3.86 | 3.78 | 24.9 | 10.3 | 102.9 | |
| 8 6:2 FTS | 427.1 > 407 | 2.25e3 | 2.66e3 | | 4.18 | 4.10 | 10.6 | 10.3 | 102.9 | |
| 9 L-PFOA | 413 > 368.7 | 1.12e4 | 1.20e4 | | 4.23 | 4.15 | 11.7 | 10.1 | 101.0 | |
| 11 PFHpS | 449 > 80.0 | 1.99e3 | 1.20e4 | | 4.34 | 4.27 | 2.07 | 10.0 | 100.3 | 04.40 |
| 12 PFNA | 463.0 > 418.8 | 1.34e4 | 1.12e4 | | 4.67 | 4.60 | 15.0 | 10.4 | 103.7 | (<i>)</i> (v) |
| 13 PFOSA | 498.1 > 77.8 | 3.65e3 | 3.44e3 | | 4.72 | 4.65 | 13.3 | 11.4 | 113.6 | 1.20 |
| 14 L-PFOS | 499 > 79.9 | 2.28e3 | 2.69e3 | | 4.76 | 4.68 | 10.6 | 9.18 | 91.8 | (0) 27 117 |
| 16 PFDA | 513 > 468.8 | 1.48e4 | 1.13e4 | | 5.05 | 4.98 | 16.4 | 12.1 | 121.1 | 0M 10127117 1240 |
| 17 8:2 FTS | 527 > 506.9 | 2.85e3 | 2.36e3 | | 5.03 | 4.95 | 15.1 | 11.3 | 112.8 | / WA |
| 18 N-MeFOSAA | 570.1 > 419 | 6.77e3 | 4.57e3 | | 5.21 | 5.13 | 18.5 | 11.7 | 117.2 | 1 1 1 1 1 1 1 |
| 19 N-EtFOSAA | 584.2 > 419 | 5.48e3 | 5.15e3 | | 5.37 | 5.29 | 13.3 | 10.5 | 104.9 | (10/27/ |
| 20 PFUnA | 563.0 > 518.9 | 1.33e4 | 1.53e4 | | 5.38 | 5.32 | 10.9 | 9.54 | 95.4 | • |
| 21 PFDS | 598.8 > 80 | 2.58e3 | 1.53e4 | | 5.43 | 5.36 | 2,11 | 10.8 | 107.7 | |
| 22 PFDoA | 612.9 > 569.0 | 2.05e4 | 1.69e4 | | 5.67 | 5.60 | 15.2 | 12.0 | 119.8 | |
| 23 N-MeFOSA | 512.1 > 168.9 | | 1.39e4 | | 5.63 | | | (- | A) | |
| 24 PFTrDA | 662.9 > 618.9 | 1.88e4 | 1.69e4 | | 5.92 | 5.86 | 13.9 | 10.4 | 103.9 | |
| 25 PFTeDA | 712.9 > 668.8 | 1.50e4 | 1.25e4 | | 6.13 | 6.08 | 15.1 | 9.16 | 91.6 | |
| 26 N-EtFOSA | 526.1 > 168.9 | | 1.92e4 | | 6.04 | | | (| ∱ , | |
| 27 PFHxDA | 813.1 > 768.6 | | 3.19e3 | | 6.46 | | | | Y | |
| 29 N-MeFOSE | 616.1 > 58.9 | | 2.24e4 | | 6.23 | | | | I_{i} | 1 |
| 30 N-EtFOSE | 630.1 > 58.9 | | 1.95e4 | | 6.39 | | | | V \ | V |
| 31 13C3-PFBA | 216.1 > 171.8 | 8.12e3 | 8.85e3 | 0.928 | 1.33 | 1.23 | 11.5 | 12.4 | 99.0 | 0-150 |
| 32 13C3-PFPeA | 266. > 221.8 | 8.46e3 | 1.20e4 | 0.757 | 2.31 | 2.21 | 8.80 | 11.6 | 93.0 | i |
| 33 13C3-PFBS | 302. > 98.8 | 1.04e3 | 1.20e4 | 0.091 | 2.59 | 2.51 | 1.08 | 11.9 | 95.1 | |
| 34 13C2-PFHxA | 315 > 269.8 | 3.33e3 | 1.20e4 | 0.739 | 3.08 | 3.00 | 3.46 | 4.68 | 93.7 | |
| Work OxfoldsC4(PF439ARevision 1 | 367.2 > 321.8 | 8.36e3 | 1.20e4 | 0.684 | 3.70 | 3.62 | 8.69 | 12.7 | 101.7 | Page 264 of 402 |

U:\Q4.PRO\results\171026M1\171026M1-13.qld

Last Altered:

Friday, October 27, 2017 10:46:12 Pacific Daylight Time

Printed: Friday, October 27, 2017 10:46:53 Pacific Daylight Time

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003

| | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|---------|-----------------|---------------|--------|---------|-------|---------|------|--------------|-------|-------------|
| 32 | 36 1802-PFHxS | 403.0 > 102.6 | 8.16e2 | 2.17e3 | 0.412 | 3.85 | 3.78 | 4.71 | 11.4 | 91.3 50 150 |
| 33 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 2.66e3 | 1.14e4 | 0.248 | 4.18 | 4.10 | 2.92 | 11.8 | 94.3 |
| 34 | 38 13C2-PFOA | 414.9 > 369.7 | 1.20e4 | 1.14e4 | 1.120 | 4.23 | 4.15 | 13.2 | 11.8 | 94.5 |
| 35 | 39 13C5-PFNA | 468.2 > 422.9 | 1.12e4 | 1.20e4 | 0.929 | 4.67 | 4.59 | 11.7 | 12.6 | 100.5 |
| 36 | 40 13C8-PFOSA | 506.1 > 77.7 | 3.44e3 | 1.46e4 | 0.246 | 4.72 | 4.65 | 2.93 | 11.9 | 95.3 |
| 37 | 41 13C8-PFOS | 507.0 > 79.9 | 2.69e3 | 2.51e3 | 1.027 | 4.76 | 4.68 | 13.4 | 13.1 | 104.4 |
| 38 | 42 13C2-PFDA | 515.1 > 469.9 | 1.13e4 | 1.25e4 | 0.946 | 5.05 | 4.98 | 11.2 | 11.9 | 95.1 |
| 39 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 2.36e3 | 1.25e4 | 0.171 | 5.03 | 4.95 | 2.36 | 13.8 | 110.2 |
| 40 | 44 d3-N-MeFOSAA | 573.3 > 419 | 4.57e3 | 1.46e4 | 0.358 | 5.20 | 5.13 | 3.90 | 10.9 | 87.2 |
| 41 | 45 d5-N-EtFOSAA | 589.3 > 419 | 5.15e3 | 1.46e4 | 0.360 | 5.36 | 5.29 | 4.39 | 12.2 | 97.7 |
| 42 5000 | 46 13C2-PFUdA | 565 > 519.8 | 1.53e4 | 1.46e4 | 1.045 | 5.38 | 5.32 | 13.0 | 12.5 | 99.9 |
| 43 | 47 13C2-PFDoA | 615.0 > 569.7 | 1.69e4 | 1.46e4 | 1.141 | 5.67 | 5.60 | 14.4 | 12.6 | 100.8 |
| 44 | 48 d3-N-MeFOSA | 515.2 > 168.9 | 1.39e4 | 1.46e4 | 0.093 | 5.65 | 5.62 | 11.8 | 127 | 84.5 |
| 45 | 49 13C2-PFTeDA | 714.8 > 669.6 | 1.25e4 | 1.46e4 | 0.934 | 6.13 | 6.08 | 10.6 | 11.4 | 91.1 |
| 46 | 50 d5-N-ETFOSA | 531.1 > 168.9 | 1.92e4 | 1.46e4 | 0.132 | 6.06 | 6.04 | 16.4 | 124 | 82.8 |
| 47 | 51 13C2-PFHxDA | 815 > 769.7 | 3.19e3 | 1.46e4 | 0.809 | 6.45 | 6.41 | 2.73 | 3.37 | 67.4 |
| 48 | 52 d7-N-MeFOSE | 623.1 > 58.9 | 2.24e4 | 1.46e4 | 0.142 | 6.22 | 6.23 | 19.1 | 135 | 89.8 |
| 49 | 53 d9-N-EtFOSE | 639.2 > 58.8 | 1.95e4 | 1.46e4 | 0.131 | 6.37 | 6.38 | 16.6 | 127 | 84.8 |
| 50 | 54 13C4-PFBA | 217. > 171.8 | 8.85e3 | 8.85e3 | 1.000 | 1.33 | 1.23 | 12.5 | 12.5 | 100.0 |
| 51 | 55 13C5-PFHxA | 318 > 272.9 | 1.20e4 | 1.20e4 | 1.000 | 3.08 | 2.99 | 12.5 | 12.5 | 100.0 |
| 52 | 56 13C3-PFHxS | 401.9 > 79.9 | 2.17e3 | 2.17e3 | 1.000 | 3.85 | 3.77 | 12.5 | 12.5 | 100.0 |
| 53 | 57 13C8-PFOA | 421.3 > 376 | 1.14e4 | 1.14e4 | 1.000 | 4.23 | 4.15 | 12.5 | 12.5 | 100.0 |
| 54 | 58 13C9-PFNA | 472.2 > 426.9 | 1.20e4 | 1.20e4 | 1.000 | 4.67 | 4.59 | 12.5 | 12.5 | 100.0 |
| 55 | 59 13C4-PFOS | 503 > 79.9 | 2.51e3 | 2.51e3 | 1.000 | 4.76 | 4.68 | 12.5 | 12.5 | 100.0 |
| 56 | 60 13C6-PFDA | 519.1 > 473.7 | 1.25e4 | 1.25e4 | 1.000 | 5.05 | 4.98 | 12.5 | 12.5 | 100.0 |
| 57 | 61 13C7-PFUnA | 570.1 > 524.8 | 1.46e4 | 1.46e4 | 1.000 | 5.38 | 5.31 | 12.5 | 12.5 | 100.0 |

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U:\Q4.PRO\results\171026M1\171026M1-13.qld

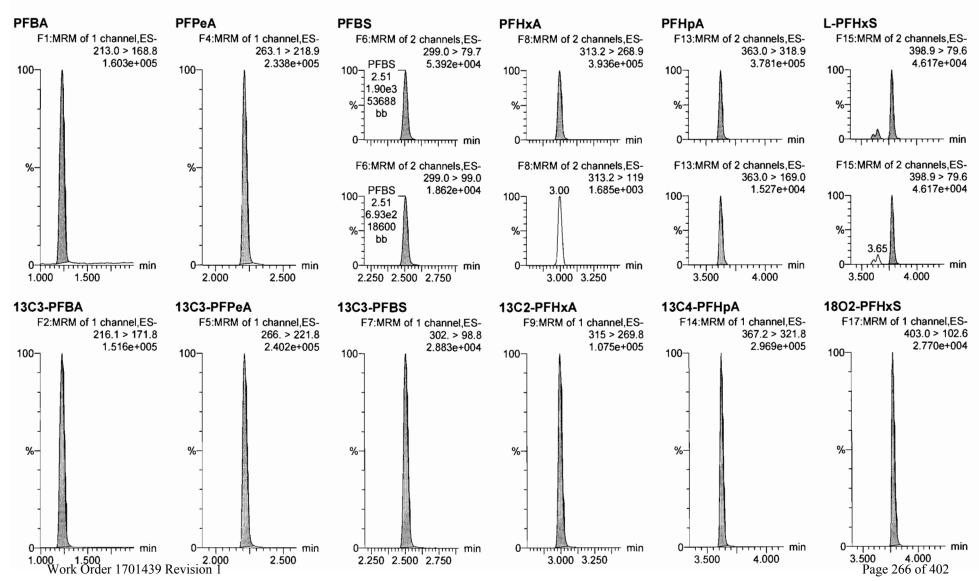
Last Altered: Printed:

Friday, October 27, 2017 10:46:12 Pacific Daylight Time Friday, October 27, 2017 10:46:53 Pacific Daylight Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 27 Oct 2017 10:26:14

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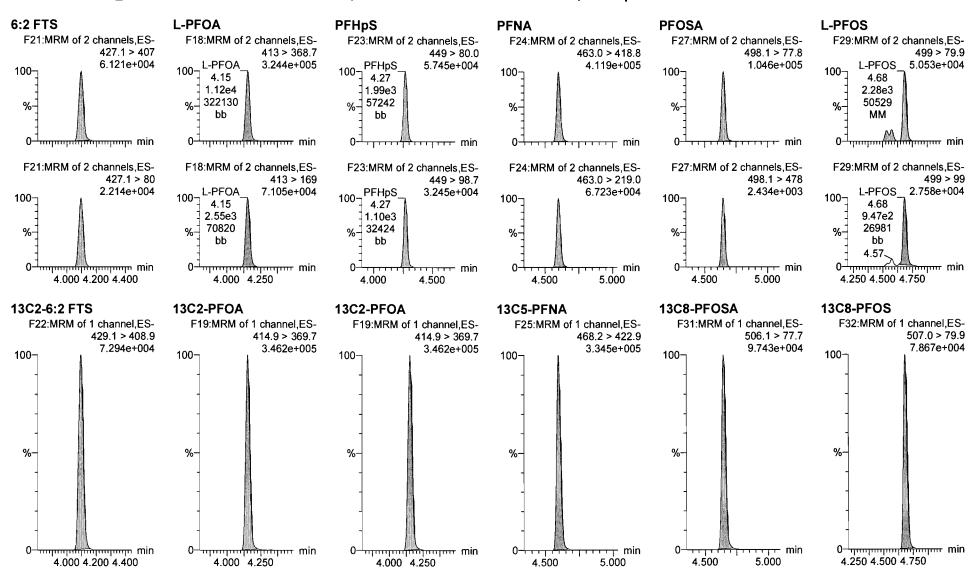


U:\Q4.PRO\results\171026M1\171026M1-13.qld

Last Altered: Printed:

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Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003



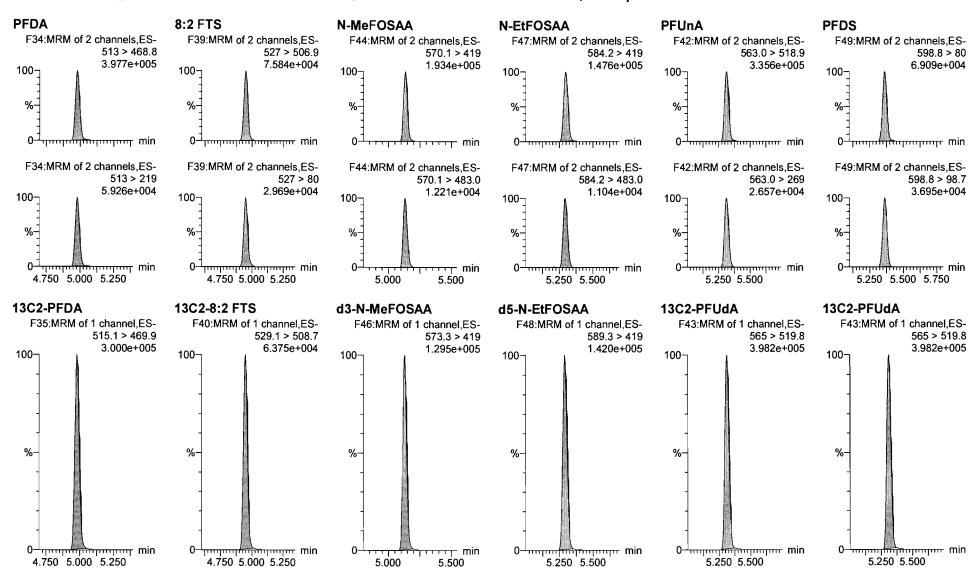
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U:\Q4.PRO\results\171026M1\171026M1-13.qld

Last Altered: Printed:

Friday, October 27, 2017 10:46:12 Pacific Daylight Time Friday, October 27, 2017 10:46:53 Pacific Daylight Time

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003



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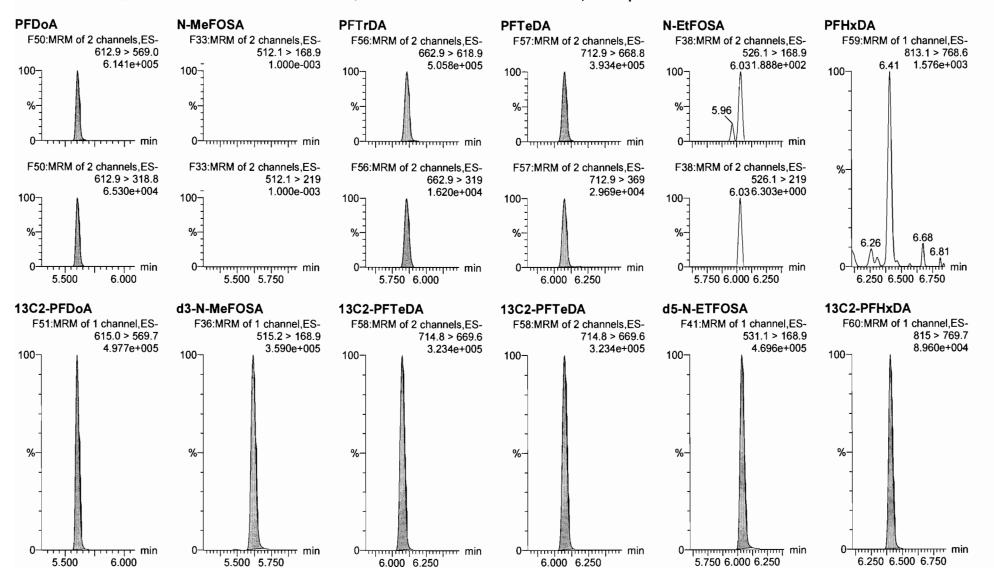
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Last Altered:

Friday, October 27, 2017 10:46:12 Pacific Daylight Time

Printed: Friday, October 27, 2017 10:46:53 Pacific Daylight Time

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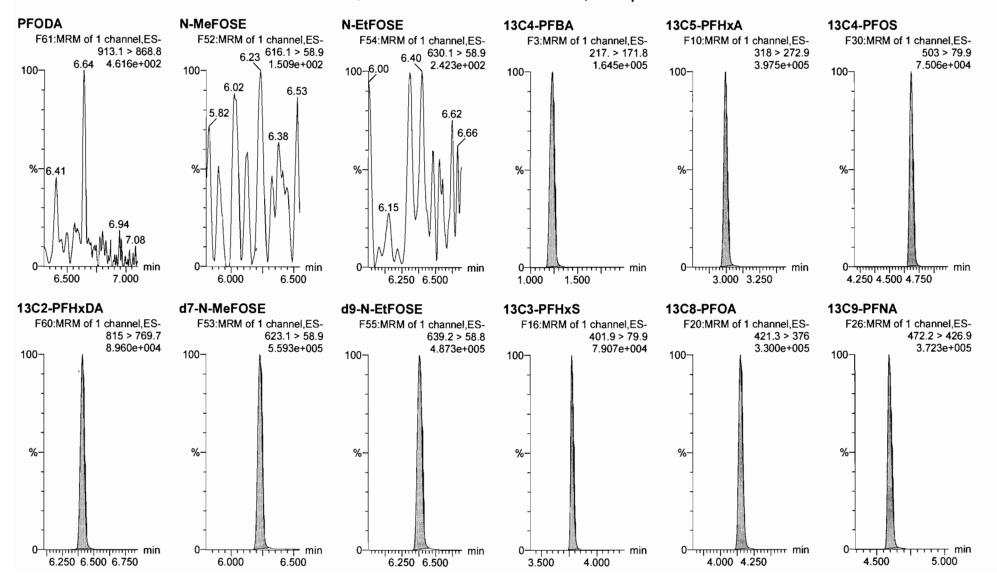
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U:\Q4.PRO\results\171026M1\171026M1-13.qld

Last Altered: Printed:

Friday, October 27, 2017 10:46:12 Pacific Daylight Time Friday, October 27, 2017 10:46:53 Pacific Daylight Time

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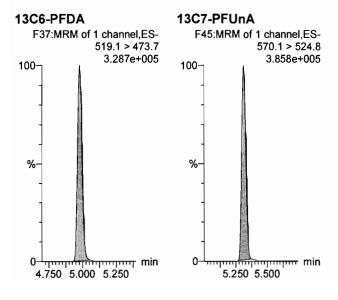
Work Order 1701439 Revision 1 Page 270 of 402

U:\Q4.PRO\results\171026M1\171026M1-13.qld

Last Altered: Printed:

Friday, October 27, 2017 10:46:12 Pacific Daylight Time Friday, October 27, 2017 10:46:53 Pacific Daylight Time

Name: 171026M1_13, Date: 26-Oct-2017, Time: 11:30:01, ID: ICV171026M1-1 PFC ICV 17I3003, Description: PFC ICV 17I3003



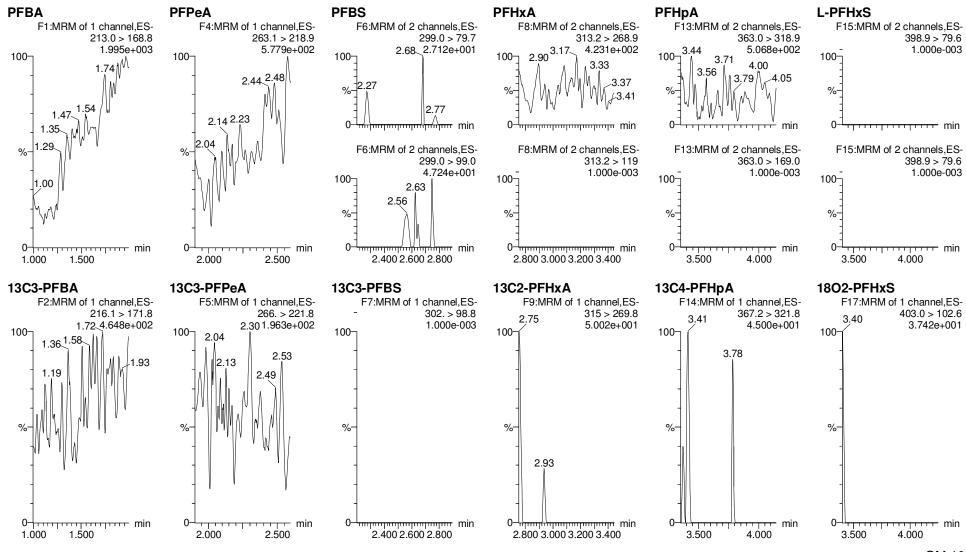
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Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-26-17-FULL_NOPFODA.cdb 26 Oct 2017 16:54:06

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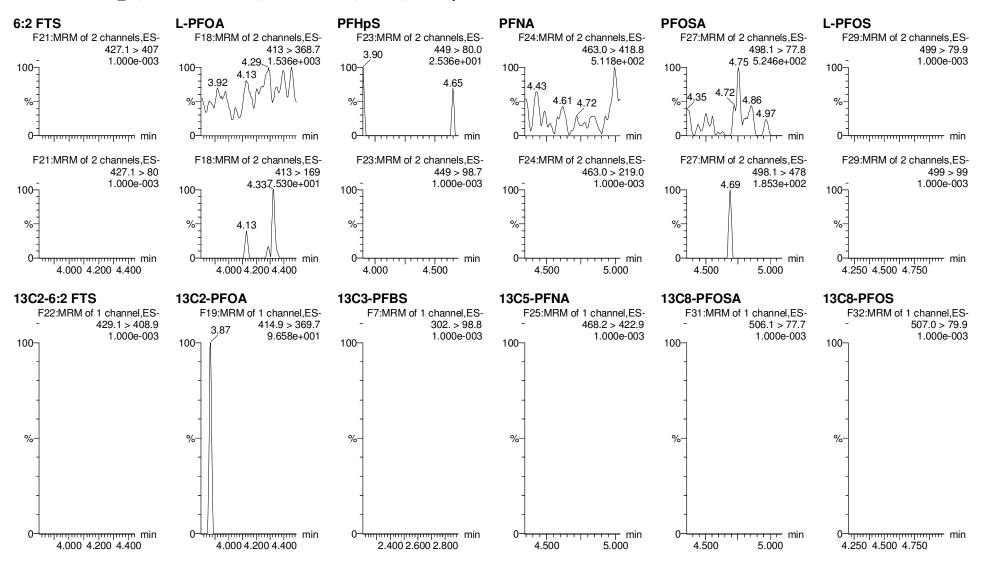
GM 10/26/17

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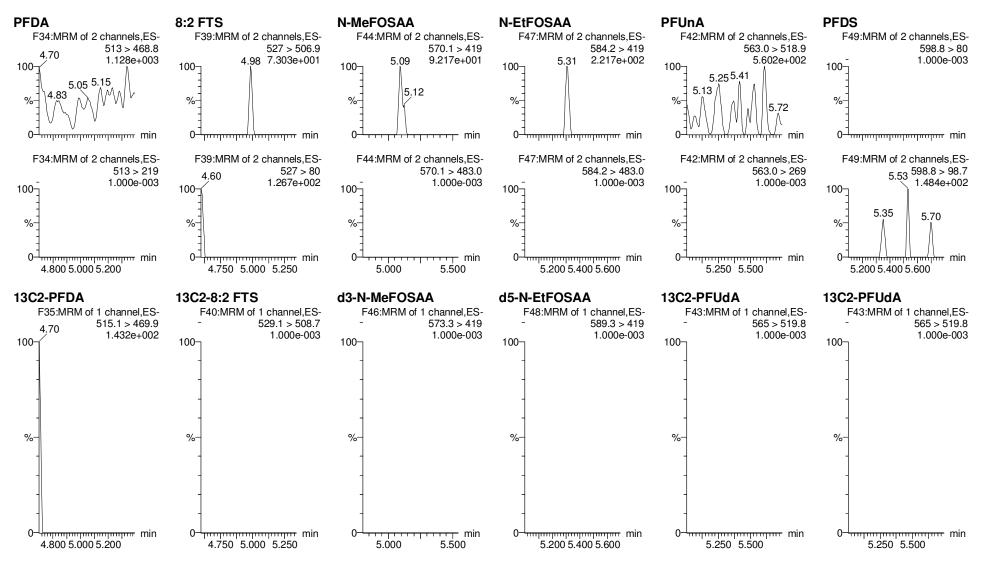
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Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA

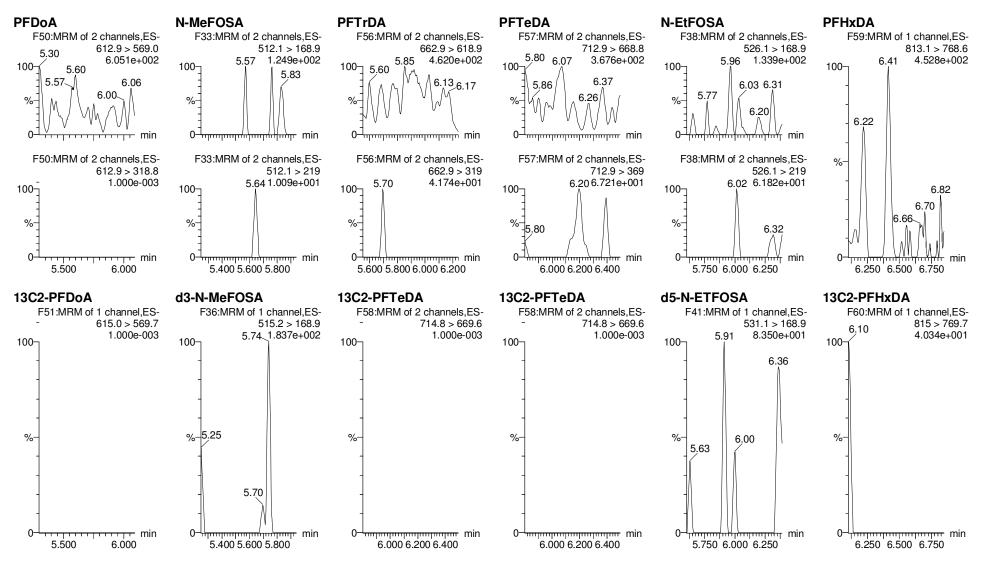


GM 10/26/17

Untitled

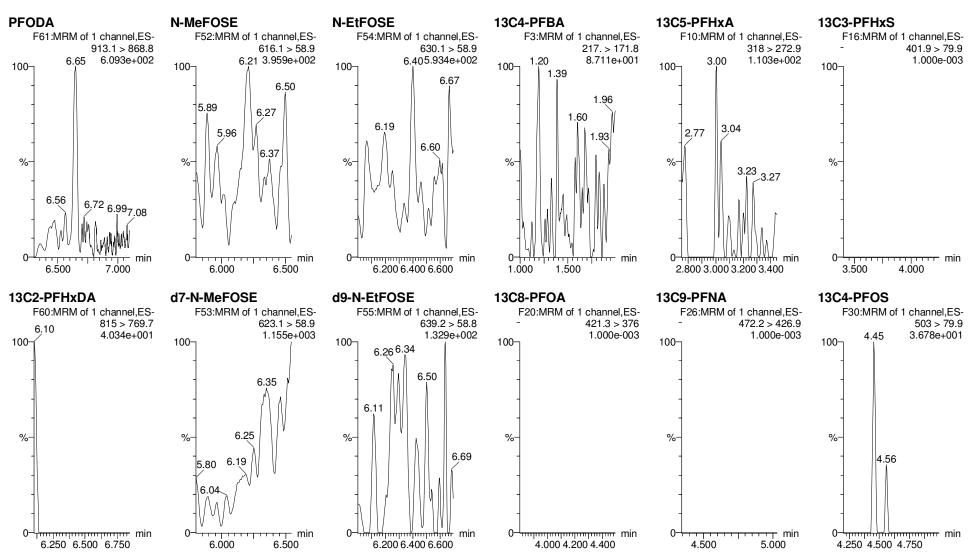
Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Thursday, October 26, 2017 16:59:18 Pacific Daylight Time Printed:

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA

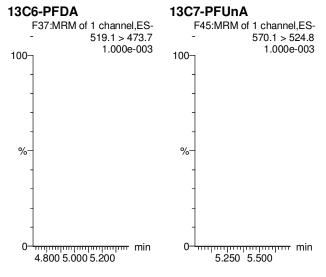


Quantify Sample Report Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Thursday, October 26, 2017 16:58:39 Pacific Daylight Time Printed: Thursday, October 26, 2017 16:59:18 Pacific Daylight Time

Name: 171026M1_12, Date: 26-Oct-2017, Time: 11:18:50, ID: IPA, Description: IPA



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Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

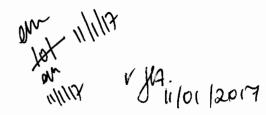
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33 Calibration: 01 Nov 2017 08:21:58 Cl ይ_ \\A_- የFAS_ ወዓ_ ነው-3\-17 - FU_OLD

Compound name: PFBA

Correlation coefficient: r = 0.999738, $r^2 = 0.999476$

Calibration curve: 1.06856 * x + 0.0388677

Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|--------------|------------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 1.15 | 153.879 | 5681.744 | 0.339 | 0.3 | 12.2 | NO | 0.999 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 1.10 | 261.266 | 6501.426 | 0.502 | 0.4 | -13.3 | NO | 0.999 | NO | MM |
| 3 | 3 171031M1_4 | Standard | 1.000 | 1.07 | 573.102 | 6527.458 | 1.097 | 1.0 | -0.9 | NO | 0.999 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 1.10 | 1260.548 | 6582.637 | 2.394 | 2.2 | 10.2 | NO | 0.999 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 1.08 | 2948.346 | 6530.870 | 5.643 | 5.2 | 4.9 | NO | 0.999 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 1.09 | 5426.435 | 6416.130 | 10.572 | 9.9 | -1.4 | NO | 0.999 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 1.09 | 28161.836 | 6484.366 | 54.288 | 50.8 | 1.5 | NO | 0.999 | NO | ММ |
| 8 | 8 171031M1_9 | Standard | 100.000 | 1.09 | 53423.398 | 6067.397 | 110.062 | 103.0 | 3.0 | NO | 0.999 | NO | bb |
| 9 | 9 171031M1_1 | 0 Standard | 250.000 | 1.09 | 132659.453 | 6307.260 | 262.910 | 246.0 | -1.6 | NO | 0.999 | NO | MM |

Compound name: PFPeA

Correlation coefficient: r = 0.999844, r^2 = 0.999687

Calibration curve: 0.95039 * x + 0.0982843

Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| i i i i i i i i i i i i i i i i i i i | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------------------------------------|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 2.10 | 171.908 | 6278.785 | 0.342 | 0.3 | 2.7 | NO | 1.000 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 2.06 | 298.917 | 7104.250 | 0.526 | 0.4 | -10.0 | NO | 1.000 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 2.04 | 559.784 | 6759.347 | 1.035 | 1.0 | -1.4 | NO | 1.000 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 2.05 | 1119.602 | 6829.161 | 2.049 | 2.1 | 2.6 | NO | 1.000 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 2.04 | 2694.035 | 6870.994 | 4.901 | 5.1 | 1.1 | NO | 1.000 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 2.05 | 5455.381 | 6958.893 | 9.799 | 10.2 | 2.1 | NO | 1.000 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 2.05 | 26336.158 | 6759.594 | 48.701 | 51.1 | 2.3 | NO | 1.000 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 2.05 | 48687.379 | 6268.124 | 97.093 | 102.1 | 2.1 | NO | 1.000 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 2.04 | 118874.586 | 6338.958 | 234.413 | 246.5 | -1.4 | NO | 1.000 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFBS

Correlation coefficient: r = 0.998677, $r^2 = 0.997355$

Calibration curve: 2.01352 * x + 0.191925

Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----|-----------------------|----------|-----------|------|-----------|---------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 2.39 | 32.129 | 688.358 | 0.583 | 0.2 | -22.2 | NO | 0.997 | NO | ММ |
| 2 | 2 171031M1_3 | Standard | 0.500 | 2.35 | 68.250 | 780.678 | 1.093 | 0.4 | -10.5 | NO | 0.997 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 2.34 | 135.287 | 753.021 | 2.246 | 1.0 | 2.0 | NO | 0.997 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 2.34 | 297.678 | 742.446 | 5.012 | 2.4 | 19.7 | NO | 0.997 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 2.34 | 677.897 | 796.599 | 10.637 | 5.2 | 3.8 | NO - | 0.997 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 2.34 | 1326.434 | 784.881 | 21.125 | 10.4 | 4.0 | NO | 0.997 | NO | bb |
| 7. | 7 171031 M 1_8 | Standard | 50.000 | 2.34 | 6743.358 | 761.174 | 110.739 | 54.9 | 9.8 | NO | 0.997 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 2.33 | 11668.234 | 777.412 | 187.613 | 93.1 | -6.9 | NO | 0.997 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 2.34 | 29680.076 | 733.437 | 505.839 | 251.1 | 0.5 | NO | 0.997 | NO | bb |

Compound name: PFHxA

Correlation coefficient: r = 0.998612, $r^2 = 0.997226$

Calibration curve: 1.40323 * x + 0.202144

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| Average street | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----------------|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 2.88 | 232.930 | 2384.504 | 0.488 | 0.2 | -18.4 | NO | 0.997 | NO | ММ |
| 2 | 2 171031M1_3 | Standard | 0.500 | 2.85 | 435.232 | 2709.806 | 0.803 | 0.4 | -14.4 | NO | 0.997 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 2.83 | 793.895 | 2400.978 | 1.653 | 1.0 | 3.4 | NO | 0.997 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 2.83 | 1654.046 | 2626.430 | 3.149 | 2.1 | 5.0 | NO | 0.997 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 2.83 | 4328.878 | 2766.778 | 7.823 | 5.4 | 8.6 | NO | 0.997 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 2.83 | 8221.420 | 2605.448 | 15.777 | 11.1 | 11.0 | NO | 0.997 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 2.83 | 38590.754 | 2715.844 | 71.047 | 50.5 | 1.0 | NO | 0.997 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 2.83 | 74838.055 | 2475.010 | 151.187 | 107.6 | 7.6 | NO | 0.997 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 2.83 | 175556.516 | 2600.894 | 337.493 | 240.4 | -3.9 | NO | 0.997 | NO | bb |

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Quantify Compound Summary Report MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFHpA

Correlation coefficient: r = 0.999826, $r^2 = 0.999651$

Calibration curve: 1.29101 * x + 0.123326

Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|------------|----------|----------|-------|------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 3.51 | 202.985 | 5735.094 | 0.442 | 0.2 | -1.1 | NO | 1.000 | NO | bb |
| 2 | 2 171031M1_3 | Standard | 0.500 | 3.47 | 345.688 | 6010.148 | 0.719 | 0.5 | -7.7 | NO | 1.000 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 3.46 | 706.153 | 6161.061 | 1.433 | 1.0 | 1.4 | NO | 1.000 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 3.46 | 1422.494 | 6429.838 | 2.765 | 2.0 | 2.3 | NO | 1.000 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 3.46 | 3399.143 | 6283.539 | 6.762 | 5.1 | 2.8 | · NO | 1.000 | NO | · MM |
| 6 | 6 171031M1_7 | Standard | 10.000 | 3.46 | 6601.609 | 6278.420 | 13.143 | 10.1 | 0.9 | NO | 1.000 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 3.46 | 31122.873 | 6039.965 | 64.410 | 49.8 | -0.4 | NO | 1.000 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 3.46 | 63387.383 | 5949.417 | 133.180 | 103.1 | 3.1 | NO | 1.000 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 3.46 | 148658.375 | 5827.636 | 318.865 | 246.9 | -1.2 | NO | 1.000 | NO | bb |

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Compound name: L-PFHxS

Correlation coefficient: r = 0.996867, $r^2 = 0.993744$

Calibration curve: 2.01952 * x + 0.0727077

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|-----------------------|-----------|------|-----------|---------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 3.66 | 28.985 | 649.655 | 0.558 | 0.2 | -3.9 | NO | 0.994 | NO | MM |
| 2 | 2 171031M1_3 | Standard [*] | 0.500 | 3.62 | 58.737 | 668.312 | 1.099 | 0.5 | 1.6 | NO | 0.994 | NO | ММ |
| 3 | 3 171031M1_4 | Standard | 1.000 | 3.62 | 78.075 | 618.725 | 1.577 | 0.7 | -25.5 | NO | 0.994 | NO | ММ |
| 4 | 4 171031M1_5 | Standard | 2.000 | 3.61 | 253.000 | 650.419 | 4.862 | 2.4 | 18.6 | NO | 0.994 | NO | ММ |
| 5 | 5 171031M1_6 | Standard | 5.000 | 3.62 | 542.660 | 695.829 | 9.748 | 4.8 | -4.2 | NO | 0.994 | NO | ММ |
| 6 | 6 171031M1_7 | Standard | 10.000 | 3.61 | 1113.139 | 646.401 | 21.526 | 10.6 | 6.2 | NO | 0.994 | NO | MM |
| 7 | 7 171031M1_8 | Standard | 50.000 | 3.62 | 5193.124 | 645.383 | 100.582 | 49.8 | -0.5 | NO | 0.994 | NO | MM |
| 8 | 8 171031M1_9 | Standard | 100.000 | 3.61 | 10900.779 | 597.037 | 228.227 | 113.0 | 13.0 | NO | 0.994 | NO | MM |
| 9 | 9 171031M1_10 | Standard | 250.000 | 3.62 | 23532.486 | 615.199 | 478.148 | 236.7 | -5.3 | NO | 0.994 | NO | MM |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 6:2 FTS

Coefficient of Determination: R^2 = 0.997401

Calibration curve: $-0.00272723 * x^2 + 0.973281 * x + -0.00870889$ Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | C ₀ D | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|------------------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 3.98 | 27.338 | 1391.426 | 0.246 | 0.3 | 4.6 | NO | 0.997 | NO | ММ |
| 2 | 2 171031M1_3 | Standard | 0.500 | 3.94 | 74.124 | 1783.023 | 0.520 | 0.5 | 8.7 | NO | 0.997 | NO | MM |
| 3 | 3 171031M1_4 | Standard | 1.000 | 3.93 | 140.061 | 1706.995 | 1.026 | 1.1 | 6.6 | NO | 0.997 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 3.93 | 280.315 | 1871.369 | 1.872 | 1.9 | -2.8 | NO | 0.997 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 3.93 | 564.158 | 1780.975 | 3.960 | 4.1 | -17.5 | NO | 0.997 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 3.93 | 1386.046 | 1894.751 | 9.144 | 9.7 | -3.3 | NO | 0.997 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 3.93 | 7470.005 | 2129.841 | 43.841 | 52.9 | 5.8 | NO | 0.997 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 3.93 | 13378.071 | 2419.446 | 69.117 | 97.9 | -2.1 | NO | 0.997 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 3.93 | 29064.654 | 3218.971 | 112.865 | | | NO | 0.997 | NO _ | bbXI |

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Compound name: L-PFOA

Correlation coefficient: r = 0.997771, $r^2 = 0.995546$

Calibration curve: 0.943455 * x + 0.316537

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| Classical and | # Name | Туре | Std, Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD see | CoD Flag | x=excluded |
|---------------|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|---------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 4.04 | 349.354 | 7934.241 | 0.550 | 0.2 | -0.9 | NO | 0.996 | NO | bb |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.00 | 501.178 | 8745.764 | 0.716 | 0.4 | -15.3 | NO | 0.996 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 3.99 | 854.147 | 9029.854 | 1.182 | 0.9 | -8.2 | NO | 0.996 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 3.99 | 1601.253 | 8565.783 | 2.337 | 2.1 | 7.1 | NO | 0.996 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 3.99 | 3730.852 | 9169.785 | 5.086 | 5.1 | 1.1 | NO | 0.996 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 3.99 | 6855.419 | 8262.648 | 10.371 | 10.7 | 6.6 | NO | 0.996 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 3.99 | 30963.996 | 7764.311 | 49.850 | 52.5 | 5.0 | NO | 0.996 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 3.99 | 69625.922 | 8377.454 | 103.889 | 109.8 | 9.8 | NO | 0.996 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 3.99 | 162899.641 | 9092.846 | 223.939 | 237.0 | -5.2 | NO | 0.996 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFHpS

Coefficient of Determination: R^2 = 0.997276

Calibration curve: $-3.99694e-005*x^2 + 0.183931*x + 0.00205894$ Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 4.15 | 39.027 | 7934.241 | 0.061 | 0.3 | 29.2 | NO | 0.997 | NO | ММ |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.12 | 57.728 | 8745.764 | 0.083 | 0.4 | -12.5 | NO | 0.997 | NO | ММ |
| 3 | 3 171031M1_4 | Standard | 1.000 | 4.11 | 113.362 | 9029.854 | 0.157 | 0.8 | -15.8 | NO | 0.997 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.11 | 244.912 | 8565.783 | 0.357 | 1.9 | -3.4 | NO | 0.997 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 4.11 | 696.652 | 9169.785 | 0.950 | 5.2 | 3.2 | NO | 0.997 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 4.11 | 1143.305 | 8262.648 | 1.730 | 9.4 | -5.9 | NO | 0.997 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.11 | 6257.199 | 7764.311 | 10.074 | 55.4 | 10.9 | NO | 0.997 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.11 | 11316.866 | 8377.454 | 16.886 | 93.7 | -6.3 | NO | 0.997 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 4.11 | 31817.225 | 9092.846 | 43.739 | 251.5 | 0.6 | NO | 0.997 | NO | bb |

Compound name: PFNA

Correlation coefficient: r = 0.998949, r^2 = 0.997900

Calibration curve: 1.25666 * x + -0.0468814

Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 40000 | # Name | Туре | Std. Concession | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|-------------|---------------|----------|-----------------|------|------------|----------|----------|-------|------|------------|-------|----------|------------|
| 1 cellinara | 1 171031M1_2 | Standard | 0.250 | 4.48 | 201.784 | 7267.375 | 0.347 | 0.3 | 25.4 | NO | 0.998 | NO | ММ |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.44 | 325.620 | 7363.853 | 0.553 | 0.5 | -4.6 | NO | 0.998 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 4.44 | 659.598 | 7012.465 | 1.176 | 1.0 | -2.7 | NO | 0.998 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.44 | 1519.270 | 8090.482 | 2.347 | 1.9 | -4.7 | NO | 0.998 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 4.44 | 3769.106 | 8176.660 | 5.762 | 4.6 | -7.6 | NO | 0.998 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 4.44 | 7686.453 | 7448.899 | 12.899 | 10.3 | 3.0 | NO | 0.998 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.44 | 34518.668 | 7447.263 | 57.939 | 46.1 | -7.7 | NO | 0.998 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.44 | 64070.883 | 6680.167 | 119.890 | 95.4 | -4.6 | NO | 0.998 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 4.44 | 169894.625 | 6536.574 | 324.892 | 258.6 | 3.4 | NO | 0.998 | NO | bb |

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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFOSA

Correlation coefficient: r = 0.997159, $r^2 = 0.994326$

Calibration curve: 1.07115 * x + 0.04065

Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 4.54 | 36.714 | 1492.771 | 0.307 | 0.2 | -0.4 | NO | 0.994 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.50 | 116.346 | 2163.038 | 0.672 | 0.6 | 17.9 | NO | 0.994 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 4.50 | 171.291 | 2040.950 | 1.049 | 0.9 | -5.9 | NO | 0.994 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.50 | 379.021 | 2051.817 | 2.309 | 2.1 | 5.9 | NO | 0.994 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 4.50 | 860.242 | 2306.300 | 4.662 | 4.3 | -13.7 | NO . | 0.994 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 4.49 | 1496.136 | 1967.677 | 9.504 | 8.8 | -11.6 | NO | 0.994 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.50 | 7218.330 | 1695.327 | 53.222 | 49.6 | -0.7 | NO | 0.994 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.49 | 16278.339 | 1684.739 | 120.778 | 112.7 | 12.7 | NO | 0.994 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 4.50 | 38711.664 | 1887.221 | 256.407 | 239.3 | -4.3 | NO | 0.994 | NO | bb |

Compound name: L-PFOS

Correlation coefficient: r = 0.999334, $r^2 = 0.998668$

Calibration curve: 1.01722 * x + -0.0414285

Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 4.57 | 37.054 | 1859.624 | 0.249 | 0.3 | 14.2 | NO | 0.999 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.53 | 81.539 | 1937.648 | 0.526 | 0.6 | 11.6 | NO | 0.999 | NO | MM |
| 3 | 3 171031M1_4 | Standard | 1.000 | 4.53 | 143.773 | 1851.665 | 0.971 | 1.0 | -0.5 | NO | 0.999 | NO | ММ |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.53 | 298.537 | 2059.767 | 1.812 | 1.8 | -8.9 | NO | 0.999 | NO | ММ |
| 5 | 5 171031M1_6 | Standard | 5.000 | 4.53 | 737.166 | 2120.759 | 4.345 | 4.3 | -13.8 | NO | 0.999 | NO | ММ |
| 6 | 6 171031M1_7 | Standard | 10.000 | 4.53 | 1277.119 | 1912.542 | 8.347 | 8.2 | -17.5 | NO | 0.999 | NO | ММ |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.53 | 7388.508 | 1864.678 | 49.529 | 48.7 | -2.5 | NO | 0.999 | NO | MM |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.53 | 14162.373 | 1751.382 | 101.080 | 99.4 | -0.6 | NO | 0.999 | NO | MM |
| 9 | 9 171031M1_10 | Standard | 250.000 | 4.53 | 33970.090 | 1641.193 | 258.730 | 254.4 | 1.8 | NO | 0.999 | NO | ММ |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFDA

Correlation coefficient: r = 0.999473, $r^2 = 0.998946$

Calibration curve: 1.28134 * x + 0.0315821

Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|------------------------------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 4.85 | 239.407 | 7145.477 | 0.419 | 0.3 | 20.9 | NO | 0.999 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.83 | 371.599 | 7574.697 | 0.613 | 0.5 | -9.2 | NO | 0.999 | NO | MM |
| 3 | 3 171031M1_4 | Standard | 1.000 | 4.82 | 881.430 | 8647.730 | 1.274 | 1.0 | -3.0 | NO | 0.999 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.83 | 1914.807 | 8337.258 | 2.871 | 2.2 | 10.8 | NO | 0.999 | NO | bb |
| 5 | -5 171031M1_6 | Standard | 5.000 | 4.82 | 3905.175 | 7915.097 | 6.167 | 4.8 | -4.2 | NO · | 0.999 | NO | рр |
| 6 | 6 171031M1_7 | Standard | 10.000 | 4.83 | 8371.640 | 9131.245 | 11.460 | 8.9 | -10.8 | NO | 0.999 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.82 | 40900.660 | 8341.659 | 61.290 | 47.8 | -4.4 | NO | 0.999 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.83 | 76433.445 | 7622.616 | 125.340 | 97.8 | -2.2 | NO | 0.999 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 4.83 | 180023.813 | 6872.966 | 327.413 | 255.5 | 2.2 | NO | 0.999 | NO | bb |

Compound name: 8:2 FTS

Coefficient of Determination: R^2 = 0.996235

Calibration curve: -0.00453751 * x^2 + 1.47718 * x + -0.0973776 Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | : 'RT ' | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|--------------|------------|-----------|---------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 4.83 | 65.123 | 1442.480 | 0.564 | 0.4 | 79.4 | NO | 0.996 | NO | bbX |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.79 | 102.447 | 1803.926 | 0.710 | 0.5 | 9.5 | NO | 0.996 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 4.80 | 156.067 | 1393.365 | 1.400 | 1.0 | 1.7 | NO | 0.996 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.79 | 348.723 | 1675.058 | 2.602 | 1.8 | -8.1 | NO | 0.996 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 4.79 | 839.326 | 1904.943 | 5.508 | 3.8 | -23.2 | NO | 0.996 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 4.79 | 1836.806 | 1553.782 | 14.777 | 10.4 | 4.0 | NO | 0.996 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.79 | 8494.477 | 1637.058 | 64.861 | 52.4 | 4.8 | NO | 0.996 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.79 | 17873.230 | 2210.796 | 101.057 | 97.9 | -2.1 | NO | 0.996 | NO | bb |
| 9 | 9 171031M1_1 | 0 Standard | 250.000 | 4.79 | 38514.566 | 2901.082 | 165.949 | | | NO | 0.996 | NO | bbXI |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: N-MeFOSAA

Coefficient of Determination: R^2 = 0.998527

Calibration curve: -0.00061126 * x^2 + 1.44366 * x + 0.138034 Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 7.59-18-2 | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|-----------|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.01 | 118.513 | 3075.407 | 0.482 | 0.2 | -4.8 | NO | 0.999 | NO | bb |
| 2 | 2 171031M1_3 | Standard | 0.500 | 4.99 | 215.609 | 3851.943 | 0.700 | 0.4 | -22.2 | NO | 0.999 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 4.98 | 470.854 | 3434.018 | 1.714 | 1.1 | 9.2 | NO | 0.999 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 4.98 | 750.749 | 3484.427 | 2.693 | 1.8 | -11.4 | NO | 0.999 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 4.98 | 2346.063 | 3316.072 | 8.844 | 6.0 | 20.9 | NO , | 0.999 | NO | pp. |
| 6 | 6 171031M1_7 | Standard | 10.000 | 4.98 | 4347.034 | 3387.262 | 16.042 | 11.1 | 10.7 | NO | 0.999 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 4.98 | 20170.664 | 3537.138 | 71.282 | 50.4 | 0.7 | NO | 0.999 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 4.98 | 35111.871 | 3288.611 | 133.460 | 96.3 | -3.7 | NO | 0.999 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 4.98 | 86532.555 | 3331.907 | 324.636 | 251.6 | 0.6 | NO | 0.999 | NO | bb |

Compound name: N-EtFOSAA

Correlation coefficient: r = 0.995319, $r^2 = 0.990659$

Calibration curve: 1.17468 * x + -0.0150013

Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

| Maria . | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------|---------------|----------|-----------|------|-----------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.17 | 62.526 | 3420.794 | 0.228 | 0.2 | -17.1 | NO | 0.991 | NO | bb |
| 2 | 2 171031M1_3 | Standard | 0.500 | 5.15 | 191.271 | 3359.667 | 0.712 | 0.6 | 23.7 | NO | 0.991 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 5.14 | 324.952 | 3890.687 | 1.044 | 0.9 | -9.8 | NO | 0.991 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 5.14 | 770.836 | 3644.828 | 2.644 | 2.3 | 13.2 | NO | 0.991 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 5.15 | 1545.738 | 4390.306 | 4.401 | 3.8 | -24.8 | NO | 0.991 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 5.14 | 3679.203 | 3847.179 | 11.954 | 10.2 | 1.9 | NO | 0.991 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 5.14 | 16059.152 | 3517.122 | 57.075 | 48.6 | -2.8 | NO | 0.991 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 5.14 | 32652.803 | 2987.895 | 136.605 | 116.3 | 16.3 | NO | 0.991 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 5.14 | 74233.180 | 3348.685 | 277.098 | 235.9 | -5.6 | NO | 0.991 | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFUdA

Coefficient of Determination: R^2 = 0.998778

Calibration curve: $-5.23555e-005 * x^2 + 0.962109 * x + 0.0759805$ Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT. | Area | IS Area | Response | Conc | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.18 | 247.472 | 9738.930 | 0.318 | 0.3 | 0.5 | NO | 0.999 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 5.17 | 398.495 | 9554.212 | 0.521 | 0.5 | -7.4 | NO | 0.999 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 5.16 | 768.983 | 8696.637 | 1.105 | 1.1 | 7.0 | NO | 0.999 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 5.16 | 1646.355 | 10075.132 | 2.043 | 2.0 | 2.2 | NO | 0.999 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 5.16 | 3929.417 | 8770.748 | 5.600 | 5.7 | 14.9 | NO | 0.999 | NO | · · bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 5.16 | 6427.294 | 10143.998 | 7.920 | 8.2 | -18.4 | NO | 0.999 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 5.16 | 33360.352 | 8695.222 | 47.958 | 49.9 | -0.2 | NO | 0.999 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 5.16 | 65607.578 | 8417.339 | 97.429 | 101.8 | 1.8 | NO | 0.999 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 5.16 | 154653.641 | 8165.827 | 236.739 | 249.4 | -0.3 | NO | 0.999 | NO | bb |

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Compound name: PFDS

Coefficient of Determination: R^2 = 0.999698

Calibration curve: $-2.28699e-006 * x^2 + 0.226098 * x + -0.0396467$ Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | ুলি Std. Conc | · RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|---------------|------|-----------|-----------|----------|-------|------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.23 | 10.806 | 9738.930 | 0.014 | 0.2 | -5.3 | NO | 1.000 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 5.22 | 53.313 | 9554.212 | 0.070 | 0.5 | -3.2 | NO | 1.000 | NO | MM · |
| 3 | 3 171031M1_4 | Standard | 1.000 | 5.21 | 125.420 | 8696.637 | 0.180 | 1.0 | -2.7 | NO | 1.000 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 5.21 | 407.262 | 10075.132 | 0.505 | 2.4 | 20.5 | NO | 1.000 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 5.21 | 711.767 | 8770.748 | 1.014 | 4.7 | -6.8 | NO | 1.000 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 5.21 | 1743.288 | 10143.998 | 2.148 | 9.7 | -3.2 | NO | 1.000 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 5.21 | 7899.934 | 8695.222 | 11.357 | 50.4 | 0.9 | NO | 1.000 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 5.21 | 15169.508 | 8417.339 | 22.527 | 99.9 | -0.1 | NO | 1.000 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 5.21 | 36801.285 | 8165.827 | 56.334 | 250.0 | -0.0 | NO | 1.000 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFDoA

Coefficient of Determination: R^2 = 0.993286

Calibration curve: -6.13859e-005 * $x^2 + 1.22441 * x + 0.0900393$ Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|----------|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.47 | 245.127 | 8973.643 | 0.341 | 0.2 | -17.9 | NO | 0.993 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 5.46 | 444.153 | 9276.800 | 0.598 | 0.4 | -16.9 | NO | 0.993 | NO | bd |
| 3 (4.00) | 3 171031M1_4 | Standard | 1.000 | 5.45 | 1112.388 | 9088.354 | 1.530 | 1.2 | 17.6 | NO | 0.993 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 5.45 | 2080.546 | 10505.300 | 2.476 | 1.9 | -2.6 | NO | 0.993 | NO | bd |
| 5 | 5 171031M1_6 | Standard | 5.000 | 5.45 | 5553.628 | 10097.720 | 6.875 | 5.5 | 10.9 | . NO | 0.993 | NO | bd |
| 6 | 6 171031M1_7 | Standard | 10.000 | 5.45 | 10044.343 | 8535.952 | 14.709 | 11.9 | 19.5 | NO | 0.993 | NO | ММ |
| 7 | 7 171031M1_8 | Standard | 50.000 | 5.45 | 42867.844 | 10663.989 | 50.248 | 41.0 | -17.9 | NO | 0.993 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 5.45 | 92022.883 | 8742.194 | 131.579 | 108.0 | 8.0 | NO | 0.993 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 5.45 | 180739.563 | 7516.635 | 300.566 | 248.5 | -0.6 | NO | 0.993 | NO | bb |

Compound name: N-MeFOSA

Correlation coefficient: r = 0.999056, $r^2 = 0.998113$

Calibration curve: 0.99285 * x + 0.328893

Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--------|---------------|----------|-----------|------|-----------|-----------|----------|--------|------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 1.250 | 5.58 | 103.179 | 9392.646 | 1.648 | 1.3 | 6.3 | NO | 0.998 | NO | bb |
| 2 | 2 171031M1_3 | Standard | 2.500 | 5.52 | 230.474 | 11698.229 | 2.955 | 2.6 | 5.8 | NO | 0.998 | NO | ММ |
| 3 | 3 171031M1_4 | Standard | 5.000 | 5.51 | 372.134 | 10823.978 | 5.157 | 4.9 | -2.7 | NO | 0.998 | NO | ММ |
| 4 | 4 171031M1_5 | Standard | 10.000 | 5.51 | 819.625 | 11408.556 | 10.776 | 10.5 | 5.2 | NO | 0.998 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 25.000 | 5.51 | 1844.567 | 10812.815 | 25.589 | 25.4 | 1.8 | NO | 0.998 | NO | ММ |
| 6 | 6 171031M1_7 | Standard | 50.000 | 5.51 | 3906.621 | 11180.341 | 52.413 | 52.5 | 4.9 | NO | 0.998 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 250.000 | 5.51 | 17793.039 | 10530.616 | 253.447 | 254.9 | 2.0 | NO | 0.998 | NO | bb |
| 8 州道 ※ | 8 171031M1_9 | Standard | 500.000 | 5.51 | 35579.340 | 10080.462 | 529.430 | 532.9 | 6.6 | NO | 0.998 | NO | ММ |
| 9 1 | 9 171031M1_10 | Standard | 1250.000 | 5.51 | 80108.445 | 10010.843 | 1200.325 | 1208.6 | -3.3 | NO | 0.998 | NO | bb |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 09:42:13 Pacific Daylight Time Printed: Wednesday, November 01, 2017 09:43:17 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33

Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Compound name: PFTrDA

Coefficient of Determination: R^2 = 0.992550

Calibration curve: 1.27931 * x

Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None

| ericher der sein der gestellt der eine St. Sein der sein der St. Sein der sein der St. Sein der | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.73 | 262.280 | 8973.643 | 0.365 | 0.3 | 14.2 | NO | 0.993 | NO | ММ |
| 2 | 2 171031M1_3 | Standard | 0.500 | 5.72 | 584.844 | 9276.800 | 0.788 | 0.6 | 23.2 | NO | 0.993 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 5.71 | 1041.562 | 9088.354 | 1.433 | 1.1 | 12.0 | NO | 0.993 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 5.71 | 2131.957 | 10505.300 | 2.537 | 2.0 | -0.9 | NO | 0.993 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 5.71 | 5844.869 | 10097.720 | 7.235 | 5.7 | 13.1 | NO | 0.993 | NO | bd |
| 6 | 6 171031M1_7 | Standard | 10.000 | 5.71 | 10984.958 | 8535.952 | 16.086 | 12.6 | 25.7 | NO | 0.993 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 5.71 | 46815.766 | 10663.989 | 54.876 | 42.9 | -14.2 | NO | 0.993 | NO | bb |
| 8 ministric and state of the second state of t | 8 171031M1_9 | Standard | 100.000 | 5.71 | 92389.688 | 8742.194 | 132.103 | 103.3 | 3.3 | NO | 0.993 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 5.71 | 240781.859 | 7516.635 | 400.415 | 313.0 | 25.2 | NO | 0.993 | NO | bbX |

Compound name: PFTeDA

Coefficient of Determination: R^2 = 0.999673

Calibration curve: -0.000957767 * x^2 + 1.29262 * x + -0.00461528 Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| And the state of t | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|------------|-----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 5.95 | 268.496 | 9070.291 | 0.370 | 0.3 | 16.0 | NO | 1.000 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 0.500 | 5.94 | 464.455 | 11052.117 | 0.525 | 0.4 | -18.0 | NO | 1.000 | NO | MM |
| 3 | 3 171031M1_4 | Standard | 1.000 | 5.93 | 1023.883 | 9782.038 | 1.308 | 1.0 | 1.7 | NO | 1.000 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 5.94 | 2131.989 | 10359.471 | 2.573 | 2.0 | -0.2 | NO | 1.000 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 5.94 | 4832.223 | 9972.630 | 6.057 | 4.7 | -5.9 | NO | 1.000 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 5.94 | 10591.471 | 9608.716 | 13.778 | 10.7 | 7.5 | NO | 1.000 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 5.94 | 45568.859 | 9259.316 | 61.518 | 49.4 | -1.2 | NO | 1.000 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 5.94 | 89156.484 | 9302.396 | 119.803 | 100.1 | 0.1 | NO | 1.000 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 5.94 | 181040.938 | 8593.112 | 263.352 | 250.1 | 0.0 | NO | 1.000 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: N-EtFOSA

Coefficient of Determination: R^2 = 0.999831

Calibration curve: $-4.41537e-005 * x^2 + 0.910589 * x + 0.484101$ Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | : | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|------------|-----------|----------|--------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 1.250 | 6.00 | 153.117 | 13901.869 | 1.652 | 1.3 | 2.6 | NO | 1.000 | NO | bb |
| 2 | 2 171031M1_3 | Standard | 2.500 | 5.97 | 272.378 | 17096.633 | 2.390 | 2.1 | -16.3 | NO | 1.000 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 5.000 | 5.96 | 545.049 | 16828.123 | 4.858 | 4.8 | -3.9 | NO | 1.000 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 10.000 | 5.96 | 1238.934 | 17169.912 | 10.824 | 11.4 | 13.6 | NO | 1.000 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 25.000 | 5.96 | 2654.813 | 16600.344 | 23.989 | 25.8 | 3.4 | NO . | 1.000 | NO | · · · bb |
| 6 | 6 171031M1_7 | Standard | 50.000 | 5.96 | 5304.547 | 17081.096 | 46.583 | 50.7 | 1.5 | NO | 1.000 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 250.000 | 5.96 | 24333.527 | 16298.452 | 223.949 | 248.4 | -0.6 | NO | 1.000 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 500.000 | 5.96 | 45078.742 | 15259.872 | 443.111 | 498.1 | -0.4 | NO | 1.000 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 1250.000 | 5.96 | 102308.297 | 14334.034 | 1070.616 | 1251.1 | 0.1 | NO | 1.000 | NO | bb |

Compound name: PFHxDA

Coefficient of Determination: R^2 = 0.999773

Calibration curve: -1.68772e-005 * x^2 + 0.569695 * x + 0.110552 Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---------------------------------------|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 2 | 1 171031M1_2 | Standard | 0.250 | 6.30 | 134.220 | 2965.394 | 0.226 | 0.2 | -18.7 | NO | 1.000 | NO | bb |
| 2 | 2 171031M1_3 | Standard | 0.500 | 6.30 | 306.653 | 3990.268 | 0.384 | 0.5 | -3.9 | NO | 1.000 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 6.29 | 501.658 | 3303.746 | 0.759 | 1.1 | 13.9 | NO | 1.000 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 6.30 | 1129.883 | 4525.968 | 1.248 | 2.0 | -0.1 | NO | 1.000 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 6.29 | 2281.175 | 3660.271 | 3.116 | 5.3 | 5.5 | NO | 1.000 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 6.29 | 5082.698 | 4204.542 | 6.044 | 10.4 | 4.2 | NO | 1.000 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 6.29 | 25515.646 | 4441.032 | 28.727 | 50.3 | 0.6 | NO | 1.000 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 6.29 | 44200.879 | 3948.273 | 55.975 | 98.3 | -1.7 | NO | 1.000 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 6.29 | 100865.922 | 3556.467 | 141.806 | 250.6 | 0.2 | NO | 1.000 | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: PFODA

Coefficient of Determination: R^2 = 0.999396

Calibration curve: 0.000959304 * x^2 + 0.407622 * x + -0.0239268 Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|------------|----------|----------|-------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 0.250 | 6.55 | 89.007 | 2965.394 | 0.150 | 0.4 | 70.6 | NO | 0.999 | NO | bbX |
| 2 | 2 171031M1_3 | Standard | 0.500 | 6.55 | 152.392 | 3990.268 | 0.191 | 0.5 | 5.3 | NO | 0.999 | NO | bb |
| 3 | 3 171031M1_4 | Standard | 1.000 | 6.54 | 282.941 | 3303.746 | 0.428 | 1.1 | 10.6 | NO | 0.999 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 2.000 | 6.55 | 677.328 | 4525.968 | 0.748 | 1.9 | -5.7 | NO | 0.999 | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 6.54 | 1210.663 | 3660.271 | 1.654 | 4.1 | -18.5 | NO · | 0.999 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 10.000 | 6.54 | 3375.460 | 4204.542 | 4.014 | 9.7 | -3.1 | NO | 0.999 | NO | bb |
| 7 | 7 171031M1_8 | Standard | 50.000 | 6.54 | 19505.232 | 4441.032 | 21.960 | 48.4 | -3.2 | NO | 0.999 | NO | bb |
| 8 | 8 171031M1_9 | Standard | 100.000 | 6.54 | 41236.699 | 3948.273 | 52.221 | 103.1 | 3.1 | NO | 0.999 | NO | bb |
| 9 | 9 171031M1_10 | Standard | 250.000 | 6.54 | 114699.141 | 3556.467 | 161.254 | 249.3 | -0.3 | NO | 0.999 | NO | bb |

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Compound name: N-MeFOSE

Correlation coefficient: r = 0.996570, $r^2 = 0.993151$

Calibration curve: 0.910887 * x + 0.561201

Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| and the same | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|--------------|---------------|----------|-----------|------|------------|-----------|----------|--------|-------|------------|-------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 1.250 | 6.19 | 124.033 | 13124.170 | 1.418 | 0.9 | -24.8 | NO | 0.993 | NO | MM |
| 2 | 2 171031M1_3 | Standard | 2.500 | 6.20 | 283.411 | 15410.882 | 2.759 | 2.4 | -3.5 | NO | 0.993 | NO | MM |
| 3 | 3 171031M1_4 | Standard | 5.000 | 6.19 | 511.333 | 16129.054 | 4.755 | 4.6 | -7.9 | NO | 0.993 | NO | bb |
| 4 | 4 171031M1_5 | Standard | 10.000 | 6.20 | 1104.509 | 16972.910 | 9.761 | 10.1 | 1.0 | NO | 0.993 | NO | MM |
| 5 | 5 171031M1_6 | Standard | 25.000 | 6.20 | 2682.080 | 14780.235 | 27.220 | 29.3 | 17.1 | NO | 0.993 | NO | bb |
| 6 | 6 171031M1_7 | Standard | 50.000 | 6.20 | 5001.466 | 16055.921 | 46.725 | 50.7 | 1.4 | NO | 0.993 | NO | bd |
| 7 | 7 171031M1_8 | Standard | 250.000 | 6.19 | 26665.461 | 14835.532 | 269.611 | 295.4 | 18.1 | NO | 0.993 | NO | MM |
| 8 **** | 8 171031M1_9 | Standard | 500.000 | 6.20 | 37148.656 | 11713.693 | 475.708 | 521.6 | 4.3 | NO | 0.993 | NO | MM |
| 9 | 9 171031M1_10 | Standard | 1250.000 | 6.19 | 102735.523 | 14345.026 | 1074.263 | 1178.7 | -5.7 | NO | 0.993 | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: N-EtFOSE

Correlation coefficient: r = 0.999631, $r^2 = 0.999262$

Calibration curve: 1.00592 * x + 0.816282

Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded. |
|---|---------------|----------|-----------|------|------------|-----------|----------|--------|-------|------------|-------|----------|-------------|
| 1 | 1 171031M1_2 | Standard | 1.250 | 6.35 | 142.814 | 11021.274 | 1.944 | 1.1 | -10.3 | NO | 0.999 | NO | MM . |
| 2 | 2 171031M1_3 | Standard | 2.500 | 6.35 | 268.158 | 13611.050 | 2.955 | 2.1 | -14.9 | NO | 0.999 | NO | ММ |
| 3 | 3 171031M1_4 | Standard | 5.000 | 6.35 | 601.760 | 14567.635 | 6.196 | 5.3 | 7.0 | NO | 0.999 | NO | ММ |
| 4 | 4 171031M1_5 | Standard | 10.000 | 6.35 | 1225.812 | 15962.389 | 11.519 | 10.6 | 6.4 | NO | 0.999 | NO | мм |
| 5 | 5 171031M1_6 | Standard | 25.000 | 6.35 | 2691.773 | 15443.354 | 26.145 | 25.2 | 0.7 | NO | 0.999 | NO | · bb * |
| 6 | 6 171031M1_7 | Standard | 50.000 | 6.35 | 5608.070 | 14651.429 | 57.415 | 56.3 | 12.5 | NO | 0.999 | NO | ММ |
| 7 | 7 171031M1_8 | Standard | 250.000 | 6.35 | 25879.797 | 15170.423 | 255.891 | 253.6 | 1.4 | NO | 0.999 | NO | ММ |
| 8 | 8 171031M1_9 | Standard | 500.000 | 6.36 | 47818.434 | 14707.501 | 487.694 | 484.0 | -3.2 | NO | 0.999 | NO | ММ |
| 9 | 9 171031M1_10 | Standard | 1250.000 | 6.35 | 108556.992 | 12885.272 | 1263.733 | 1255.5 | 0.4 | NO _ | 0.999 | NO | ММ |

Compound name: 13C3-PFBA

Response Factor: 0.94874

RRF SD: 0.0147158, Relative SD: 1.55109

Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)

Curve type: RF

| 100 | # Name | Type | Std. Conc | . RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|-----|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|---|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 1.15 | 5681.744 | 5963.095 | 11.910 | 12.6 | 0.4 | NO | - Anna | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 1.10 | 6501.426 | 6803.867 | 11.944 | 12.6 | 0.7 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 1.07 | 6527.458 | 6654.722 | 12.261 | 12.9 | 3.4 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 1.09 | 6582.637 | 7041.553 | 11.685 | 12.3 | -1.5 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 1.08 | 6530.870 | 6915.432 | 11.805 | 12.4 | -0.5 | NO | | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 1.09 | 6416.130 | 6832.840 | 11.738 | 12.4 | -1.0 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 1.09 | 6484.366 | 6879.583 | 11.782 | 12.4 | -0.7 | NO | | NO | MM |
| 8 | 8 171031M1_9 | Standard | 12.500 | 1.09 | 6067.397 | 6502.498 | 11.664 | 12.3 | -1.6 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 1.08 | 6307.260 | 6600.681 | 11.944 | 12.6 | 0.7 | NO | | NO | MM |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C3-PFPeA

Response Factor: 0.781167

RRF SD: 0.0326889, Relative SD: 4.18463

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | R | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 2.10 | 6278.785 | 7771.502 | 10.099 | 12.9 | 3.4 | NO | | NO | ММ |
| 2 | 2 171031M1_3 | Standard | 12.500 | 2.06 | 7104.250 | 9033.493 | 9.830 | 12.6 | 0.7 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 2.04 | 6759.347 | 8124.338 | 10.400 | 13.3 | 6.5 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 2.05 | 6829.161 | 8602.264 | 9.923 | 12.7 | 1.6 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 2.04 | 6870.994 | 9624.428 | 8.924 | 11.4 | -8.6 | NO | | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 2.05 | 6958.893 | 8956.964 | 9.712 | 12.4 | -0.5 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 2.05 | 6759.594 | 8823.722 | 9.576 | 12.3 | -1.9 | NO | | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 2.05 | 6268.124 | 7955.587 | 9.849 | 12.6 | 0.9 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 2.05 | 6338.958 | 8281.060 | 9.568 | 12.2 | -2.0 | NO | | NO | bb |

Compound name: 13C3-PFBS

Response Factor: 0.0885487

RRF SD: 0.0043337, Relative SD: 4.89414

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|---------|----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 2.39 | 688.358 | 7771.502 | 1.107 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 2.35 | 780.678 | 9033.493 | 1.080 | 12.2 | -2.4 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 2.33 | 753.021 | 8124.338 | 1.159 | 13.1 | 4.7 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 2.34 | 742.446 | 8602.264 | 1.079 | 12.2 | -2.5 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 2.34 | 796.599 | 9624.428 | 1.035 | 11.7 | -6.5 | NO | | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 2.34 | 784.881 | 8956.964 | 1.095 | 12.4 | -1.0 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 2.34 | 761.174 | 8823.722 | 1.078 | 12.2 | -2.6 | NO | | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 2.33 | 777.412 | 7955.587 | 1.221 | 13.8 | 10.4 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 2.34 | 733.437 | 8281.060 | 1.107 | 12.5 | 0.0 | NO | | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C2-PFHxA

Response Factor: 0.755271

RRF SD: 0.0229973, Relative SD: 3.0449

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| 8 6 A 7 | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD GoD Flag | x=excluded |
|---------|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 5.000 | 2.89 | 2384.504 | 7771.502 | 3.835 | 5.1 | 1.6 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 5.000 | 2.85 | 2709.806 | 9033.493 | 3.750 | 5.0 | -0.7 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 5.000 | 2.83 | 2400.978 | 8124.338 | 3.694 | 4.9 | -2.2 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 5.000 | 2.83 | 2626.430 | 8602.264 | 3.816 | 5.1 | 1.1 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 2.83 | 2766.778 | 9624.428 | 3.593 | 4.8 | -4.8 | , NO | . , . NO | bb |
| 6 | 6 171031M1_7 | Standard | 5.000 | 2.83 | 2605.448 | 8956.964 | 3.636 | 4.8 | -3.7 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 5.000 | 2.83 | 2715.844 | 8823.722 | 3.847 | 5.1 | 1.9 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 5.000 | 2.83 | 2475.010 | 7955.587 | 3.889 | 5.1 | 3.0 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 5.000 | 2.83 | 2600.894 | 8281.060 | 3.926 | 5.2 | 4.0 | NO | NO | bb |

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Compound name: 13C4-PFHpA

Response Factor: 0.710999

RRF SD: 0.0386896, Relative SD: 5.44158

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | · Area | IS Area | Response | Conc. | %Dev | Conc. Flag CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|------|----------------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 3.51 | 5735.094 | 7771.502 | 9.225 | 13.0 | 3.8 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 3.47 | 6010.148 | 9033.493 | 8.316 | 11.7 | -6.4 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 3.46 | 6161.061 | 8124.338 | 9.479 | 13.3 | 6.7 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 3.46 | 6429.838 | 8602.264 | 9.343 | 13.1 | 5.1 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 3.46 | 6283.539 | 9624.428 | 8.161 | 11.5 | -8.2 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 3.46 | 6278.420 | 8956.964 | 8.762 | 12.3 | -1.4 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 3.46 | 6039.965 | 8823.722 | 8.556 | 12.0 | -3.7 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 3.46 | 5949.417 | 7955.587 | 9.348 | 13.1 | 5.2 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 3.46 | 5827.636 | 8281.060 | 8.797 | 12.4 | -1.0 | NO | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 18O2-PFHxS

Response Factor: 0.423321

RRF SD: 0.028378, Relative SD: 6.70367

Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)

Curve type: RF

| ************************************** | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|---------|----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 3.66 | 649.655 | 1453.004 | 5.589 | 13.2 | 5.6 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 3.62 | 668.312 | 1448.036 | 5.769 | 13.6 | 9.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 3.61 | 618.725 | 1450.402 | 5.332 | 12.6 | 8.0 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 3.61 | 650.419 | 1759.264 | 4.621 | 10.9 | -12.7 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 3.61 | 695.829 | 1542.587 | 5.638 | 13.3 | 6.6 | . NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 3.61 | 646.401 | 1564.074 | 5.166 | 12.2 | -2.4 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 3.62 | 645.383 | 1586.405 | 5.085 | 12.0 | -3.9 | NO | NO | рр |
| 8 | 8 171031M1_9 | Standard | 12.500 | 3.62 | 597.037 | 1475.894 | 5.057 | 11.9 | -4.4 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 3.62 | 615.199 | 1433.237 | 5.365 | 12.7 | 1.4 | NO | NO | bb |

Compound name: 13C2-6:2 FTS

Response Factor: 0.285726

RRF SD: 0.0424804, Relative SD: 14.8676

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

Curve type: RF

| The state of the s | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD Flag | x=excluded |
|--|---------------|----------|-----------|------|----------|----------|----------|-------|-------|------------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 3.98 | 1391.426 | 5755.554 | 3.022 | 10.6 | -15.4 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 3.94 | 1783.023 | 6357.599 | 3.506 | 12.3 | -1.8 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 3.93 | 1706.995 | 6407.551 | 3.330 | 11.7 | -6.8 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 3.93 | 1871.369 | 6896.374 | 3.392 | 11.9 | -5.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 3.93 | 1780.975 | 7038.075 | 3.163 | 11.1 | -11.4 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 3.93 | 1894.751 | 6844.025 | 3.461 | 12.1 | -3.1 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 3.93 | 2129.841 | 6583.264 | 4.044 | 14.2 | 13.2 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 3.93 | 2419.446 | 6496.577 | 4.655 | 16.3 | 30.3 | NO | NO | bb |
| 9 *2. | 9 171031M1_10 | Standard | 12.500 | 3.93 | 3218.971 | 6480.723 | 6.209 | 21.7 | 73.8 | NO | NO | bbX |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C2-PFOA

Response Factor: 1.30974

RRF SD: 0.0867529, Relative SD: 6.62368

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

Curve type: RF

| the same and | # Name | Туре | Std. Conc | RT | Area · | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|--------------|---------------|----------|-----------|------|----------|----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.03 | 7934.241 | 5755.554 | 17.232 | 13.2 | 5.3 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.00 | 8745.764 | 6357.599 | 17.195 | 13.1 | 5.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 3.99 | 9029.854 | 6407.551 | 17.616 | 13.4 | 7.6 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 3.99 | 8565.783 | 6896.374 | 15.526 | 11.9 | -5.2 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 3.99 | 9169.785 | 7038.075 | 16.286 | 12.4 | -0.5 | NO | NO · · · | pp |
| 6 | 6 171031M1_7 | Standard | 12.500 | 3.99 | 8262.648 | 6844.025 | 15.091 | 11.5 | -7.8 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 3.99 | 7764.311 | 6583.264 | 14.743 | 11.3 | -10.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 3.99 | 8377.454 | 6496.577 | 16.119 | 12.3 | -1.5 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 3.99 | 9092.846 | 6480.723 | 17.538 | 13.4 | 7.1 | NO | NO | bb |

Compound name: 13C5-PFNA

Response Factor: 0.979208

RRF SD: 0.0766554, Relative SD: 7.82831

Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Cone. Flag | CoD CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.47 | 7267.375 | 7443.399 | 12.204 | 12.5 | -0.3 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.44 | 7363.853 | 7759.596 | 11.862 | 12.1 | -3.1 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.44 | 7012.465 | 7636.577 | 11.478 | 11.7 | -6.2 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.44 | 8090.482 | 8507.058 | 11.888 | 12.1 | -2.9 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.44 | 8176.660 | 8252.775 | 12.385 | 12.6 | 1.2 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.44 | 7448.899 | 7913.440 | 11.766 | 12.0 | -3.9 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.44 | 7447.263 | 7424.903 | 12.538 | 12.8 | 2.4 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.44 | 6680.167 | 5722.288 | 14.592 | 14.9 | 19.2 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 4.44 | 6536.574 | 7138.070 | 11.447 | 11.7 | -6.5 | NO | NO | bb |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C8-PFOSA

Response Factor: 0.206685

RRF SD: 0.0287647, Relative SD: 13.9171

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.53 | 1492.771 | 8791.230 | 2.123 | 10.3 | -17.8 | NO | | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.50 | 2163.038 | 10903.049 | 2.480 | 12.0 | -4.0 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.50 | 2040.950 | 8589.958 | 2.970 | 14.4 | 15.0 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.49 | 2051.817 | 10303.497 | 2.489 | 12.0 | -3.7 | NO | | NO | bb |
| 5 | -5 171031M1_6 | Standard | 12.500 | 4.49 | 2306.300 | 9557.864 | 3.016 | 14.6 | 16.7 | , NO | | , NO | bb " |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.49 | 1967.677 | 10502.081 | 2.342 | 11.3 | -9.3 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.49 | 1695.327 | 9076.938 | 2.335 | 11.3 | -9.6 | NO | | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.49 | 1684.739 | 8894.727 | 2.368 | 11.5 | -8.4 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 4.49 | 1887.221 | 7536.803 | 3.130 | 15.1 | 21.2 | NO | | NO | bb |

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Compound name: 13C8-PFOS

Response Factor: 1.07154

RRF SD: 0.0815576, Relative SD: 7.61125

Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)

Curve type: RF

| · · · · · · · · · · · · · · · · · · · | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---------------------------------------|------------------------|----------|-----------|-----------|----------|----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.56 | 1859.624 | 1684.138 | 13.802 | 12.9 | 3.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.53 | 1937.648 | 1709.990 | 14.164 | 13.2 | 5.7 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.53 | 1851.665 | 1670.649 | 13.854 | 12.9 | 3.4 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.53 | 2059.767 | 1730.373 | 14.880 | 13.9 | 11.1 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.53 | 2120.759 | 2046.018 | 12.957 | 12.1 | -3.3 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.53 | 1912.542 | 1723.226 | 13.873 | 12.9 | 3.6 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.53 | 1864.678 | 1862.948 | 12.512 | 11.7 | -6.6 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.53 | 1751.382 | 1675.064 | 13.070 | 12.2 | -2.4 | NO | NO | bb |
| 9 | 9 171 <u>0</u> 31M1_10 | Standard | 12.500 | 4.53 | 1641.193 | 1793.776 | 11.437 | 10.7 | -14.6 | NO | NO | bb |

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C2-PFDA

Response Factor: 1.01408

RRF SD: 0.100933, Relative SD: 9.95321

Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)

Curve type: RF

| CANAL STREET | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|--------------|------------------------|----------|-----------|------|----------|----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.85 | 7145.477 | 7192.681 | 12.418 | 12.2 | -2.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.83 | 7574.697 | 8328.828 | 11.368 | 11.2 | -10.3 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.82 | 8647.730 | 7719.951 | 14.002 | 13.8 | 10.5 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.82 | 8337.258 | 7639.211 | 13.642 | 13.5 | 7.6 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.82 | 7915.097 | 9023.982 | 10,964 | 10.8 | -13.5 | NO | NO NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.82 | 9131.245 | 7885.146 | 14.475 | 14.3 | 14.2 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.82 | 8341.659 | 8546.058 | 12.201 | 12.0 | -3.7 | NO | NO | bd |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.83 | 7622.616 | 7079.840 | 13.458 | 13.3 | 6.2 | NO | NO | bb |
| 9 | 9 171 <u>0</u> 31M1_10 | Standard | 12.500 | 4.83 | 6872.966 | 7435.586 | 11.554 | 11.4 | -8.8 | NO | NO | bb |

Compound name: 13C2-8:2 FTS

Response Factor: 0.216109

RRF SD: 0.0409852, Relative SD: 18.9651

Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | ·RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.82 | 1442.480 | 7192.681 | 2.507 | 11.6 | -7.2 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.80 | 1803.926 | 8328.828 | 2.707 | 12.5 | 0.2 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.80 | 1393.365 | 7719.951 | 2.256 | 10.4 | -16.5 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.79 | 1675.058 | 7639.211 | 2.741 | 12.7 | 1.5 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.79 | 1904.943 | 9023.982 | 2.639 | 12.2 | -2.3 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.79 | 1553.782 | 7885.146 | 2.463 | 11.4 | -8.8 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.79 | 1637.058 | 8546.058 | 2.394 | 11.1 | -11.4 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.79 | 2210.796 | 7079.840 | 3.903 | 18.1 | 44.5 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 4.79 | 2901.082 | 7435.586 | 4.877 | 22.6 | 80.5 | NO | NO | bbX |

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Quantify Compound Summary Report MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: d3-N-MeFOSAA

Response Factor: 0.368005

RRF SD: 0.0369419, Relative SD: 10.0384

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | .RJ. | or,,,,,,,,, - Area ∞ | IS Area | Response | Conc. | %Dev | Gonc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------------------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 5.00 | 3075.407 | 8791.230 | 4.373 | 11.9 | -4.9 | NO | | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.99 | 3851.943 | 10903.049 | 4.416 | 12.0 | -4.0 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.98 | 3434.018 | 8589.958 | 4.997 | 13.6 | 8.6 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.97 | 3484.427 | 10303.497 | 4.227 | 11.5 | -8.1 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.98 | 3316.072 | 9557.864 | 4.337 | 11.8 | -5.7 | NO ' | | NO | bb · · · |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.98 | 3387.262 | 10502.081 | 4.032 | 11.0 | -12.4 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.98 | 3537.138 | 9076.938 | 4.871 | 13.2 | 5.9 | NO | | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.98 | 3288.611 | 8894.727 | 4.622 | 12.6 | 0.5 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 4.98 | 3331.907 | 7536.803 | 5.526 | 15.0 | 20.1 | NO | | NO | bb_ |

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Compound name: d5-N-EtFOSAA

Response Factor: 0.38859

RRF SD: 0.0538614, Relative SD: 13.8607

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 5.17 | 3420.794 | 8791.230 | 4.864 | 12.5 | 0.1 | NO | | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 5.15 | 3359.667 | 10903.049 | 3.852 | 9.9 | -20.7 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 5.14 | 3890.687 | 8589.958 | 5.662 | 14.6 | 16.6 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 5.14 | 3644.828 | 10303.497 | 4.422 | 11.4 | -9.0 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 5.14 | 4390.306 | 9557.864 | 5.742 | 14.8 | 18.2 | NO | | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 5.14 | 3847.179 | 10502.081 | 4.579 | 11.8 | -5.7 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 5.14 | 3517.122 | 9076.938 | 4.843 | 12.5 | -0.3 | NO | | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 5.14 | 2987.895 | 8894.727 | 4.199 | 10.8 | -13.6 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 5.14 | 3348.685 | 7536.803 | 5.554 | 14.3 | 14.3 | NO | | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C2-PFUdA

Response Factor: 0.982848

RRF SD: 0.0745675, Relative SD: 7.58688

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| The state of | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 5.18 | 9738.930 | 8791.230 | 13.848 | 14.1 | 12.7 | NO | | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 5.17 | 9554.212 | 10903.049 | 10.954 | 11.1 | -10.8 | NO | | NO | bb |
| 3 , , , , , , , , , , , , , , , , , , , | 3 171031M1_4 | Standard | 12.500 | 5.16 | 8696.637 | 8589.958 | 12.655 | 12.9 | 3.0 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 5.16 | 10075.132 | 10303.497 | 12.223 | 12.4 | -0.5 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 5.16 | 8770.748 | 9557.864 | 11.471 | 11.7 | -6.6 | NO | | NO | · · · bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 5.16 | 10143.998 | 10502.081 | 12.074 | 12.3 | -1.7 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 5.16 | 8695.222 | 9076.938 | 11.974 | 12.2 | -2.5 | NO | | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 5.16 | 8417.339 | 8894.727 | 11.829 | 12.0 | -3.7 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 5.16 | 8165.827 | 7536.803 | 13.543 | 13.8 | 10.2 | NO | | NO _ | bb |

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Compound name: 13C2-PFDoA

Response Factor: 0.997054

RRF SD: 0.109236, Relative SD: 10.9559

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag Co | D CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|---------------|------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 5.47 | 8973.643 | 8791.230 | 12.759 | 12.8 | 2.4 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 5.46 | 9276.800 | 10903.049 | 10.636 | 10.7 | -14.7 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 5.45 | 9088.354 | 8589.958 | 13.225 | 13.3 | 6.1 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 5.45 | 10505.300 | 10303.497 | 12.745 | 12.8 | 2.3 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 5.45 | 10097.720 | 9557.864 | 13.206 | 13.2 | 6.0 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 5.45 | 8535.952 | 10502.081 | 10.160 | 10.2 | -18.5 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 5.45 | 10663.989 | 9076.938 | 14.686 | 14.7 | 17.8 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 5.45 | 8742.194 | 8894.727 | 12.286 | 12.3 | -1.4 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 5.45 | 7516.635 | 7536.803 | 12.467 | 12.5 | 0.0 | NO | NO_ | bb |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: d3-N-MeFOSA

Response Factor: 0.0956136

RRF SD: 0.00758527, Relative SD: 7.93325

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | -RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|-----------------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 150.000 | 5.61 | 9392.646 | 8791.230 | 13.355 | 139.7 | -6.9 | NO | | NO | bb |
| 2 | 2 171031M1_3 | Standard | 150.000 | 5.55 | 11698.229 | 10903.049 | 13.412 | 140.3 | -6.5 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 150.000 | 5.54 | 10823.978 | 8589.958 | 15.751 | 164.7 | 9.8 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 150.000 | 5.54 | 11408.556 | 10303.497 | 13.841 | 144.8 | -3.5 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 150.000 | 5.54 | 10812.815 | 9557.864 | 14.141 | 147.9 | -1.4 | · NO · | . н | NO · | bb∵ |
| 6 | 6 171031M1_7 | Standard | 150.000 | 5.54 | 11180.341 | 10502.081 | 13.307 | 139.2 | -7.2 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 150.000 | 5.54 | 10530.616 | 9076.938 | 14.502 | 151.7 | 1.1 | NO | | NO | bb |
| 8 | 8 17103 1M1_ 9 | Standard | 150.000 | 5.54 | 10080.462 | 8894.727 | 14.166 | 148.2 | -1.2 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 150.000 | 5.54 | 10010.843 | 7536.803 | 16.603 | 173.6 | 15.8 | NO | | NO | bb |

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Compound name: 13C2-PFTeDA

Response Factor: 1.03934

RRF SD: 0.0687595, Relative SD: 6.61571

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 5.95 | 9070.291 | 8791.230 | 12.897 | 12.4 | -0.7 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 5.94 | 11052.117 | 10903.049 | 12.671 | 12.2 | -2.5 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 5.94 | 9782.038 | 8589.958 | 14.235 | 13.7 | 9.6 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 5.94 | 10359.471 | 10303.497 | 12.568 | 12.1 | -3.3 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 5.94 | 9972.630 | 9557.864 | 13.042 | 12.5 | 0.4 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 5.94 | 9608.716 | 10502.081 | 11.437 | 11.0 | -12.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 5.94 | 9259.316 | 9076.938 | 12.751 | 12.3 | -1.9 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 5.94 | 9302.396 | 8894.727 | 13.073 | 12.6 | 0.6 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 5.94 | 8593.112 | 7536.803 | 14.252 | 13.7 | 9.7 | NO | NO | bb |

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Quantify Compound Summary Report MassLynx MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: d5-N-ETFOSA

Response Factor: 0.143993

RRF SD: 0.0113961, Relative SD: 7.91434

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|-----------|-----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 150.000 | 6.02 | 13901.869 | 8791.230 | 19.767 | 137.3 | -8.5 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 150.000 | 5.99 | 17096.633 | 10903.049 | 19.601 | 136.1 | -9.3 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 150.000 | 5.98 | 16828.123 | 8589.958 | 24.488 | 170.1 | 13.4 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 150.000 | 5.98 | 17169.912 | 10303.497 | 20.830 | 144.7 | -3.6 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 150.000 | 5.98 | 16600.344 | 9557.864 | 21.710 | 150.8 | 0.5 | NO · | NO · | bb |
| 6 | 6 171031M1_7 | Standard | 150.000 | 5.98 | 17081.096 | 10502.081 | 20.331 | 141.2 | -5.9 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 150.000 | 5.98 | 16298.452 | 9076.938 | 22.445 | 155.9 | 3.9 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 150.000 | 5.98 | 15259.872 | 8894.727 | 21.445 | 148.9 | -0.7 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 150.000 | 5.98 | 14334.034 | 7536.803 | 23.773 | 165.1 | 10.1 | NO | NO | bb |

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Compound name: 13C2-PFHxDA

Response Factor: 1.03209

RRF SD: 0.127277, Relative SD: 12.332

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| E E | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag CoD | CoD Flag | x=excluded |
|-----|---------------|----------|-----------|------|----------|-----------|----------|-------|--------------|----------------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 5.000 | 6.30 | 2965.394 | 8791.230 | 4.216 | 4.1 | -18.3 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 5.000 | 6.30 | 3990.268 | 10903.049 | 4.575 | 4.4 | -11.4 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 5.000 | 6.29 | 3303.746 | 8589.958 | 4.808 | 4.7 | -6 .8 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 5.000 | 6.29 | 4525.968 | 10303.497 | 5.491 | 5.3 | 6.4 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 5.000 | 6.29 | 3660.271 | 9557.864 | 4.787 | 4.6 | -7.2 | NO | ŅO | bb |
| 6 | 6 171031M1_7 | Standard | 5.000 | 6.29 | 4204.542 | 10502.081 | 5.004 | 4.8 | -3.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 5.000 | 6.29 | 4441.032 | 9076.938 | 6.116 | 5.9 | 18.5 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 5.000 | 6.29 | 3948.273 | 8894.727 | 5.549 | 5.4 | 7.5 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 5.000 | 6.29 | 3556.467 | 7536.803 | 5.899 | 5.7 | 14.3 | NO | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: d7-N-MeFOSE

Response Factor: 0.132974

RRF SD: 0.0163169, Relative SD: 12.2707

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|------------------|----------|-----------|------|-----------|-----------|----------|-------|-------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 150.000 | 6.18 | 13124.170 | 8791.230 | 18.661 | 140.3 | -6.4 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 150.000 | 6.19 | 15410.882 | 10903.049 | 17.668 | 132.9 | -11.4 | NO | NO | MM |
| 3 | 3 171031M1_4 | Standard | 150.000 | 6.18 | 16129.054 | 8589.958 | 23.471 | 176.5 | 17.7 | NO | NO | MM |
| 4 | 4 171031M1_5 | Standard | 150.000 | 6.19 | 16972.910 | 10303.497 | 20.591 | 154.9 | 3.2 | NO | NO | MM |
| 5 | 5 171031M1_6 · · | Standard | 150.000 | 6.19 | 14780.235 | 9557.864 | 19.330 | 145.4 | -3.1 | NO | NO | MM |
| 6 | 6 171031M1_7 | Standard | 150.000 | 6.19 | 16055.921 | 10502.081 | 19.110 | 143.7 | -4.2 | NO | NO | MM |
| 7 | 7 171031M1_8 | Standard | 150.000 | 6.19 | 14835.532 | 9076.938 | 20.430 | 153.6 | 2.4 | NO | NO | MM |
| 8 | 8 171031M1_9 | Standard | 150.000 | 6.19 | 11713.693 | 8894.727 | 16.462 | 123.8 | -17.5 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 150.000 | 6.19 | 14345.026 | 7536.803 | 23.792 | 178.9 | 19.3 | NO | NO | bb |

Compound name: d9-N-EtFOSE

Response Factor: 0.127708

RRF SD: 0.0154942, Relative SD: 12.1325

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| 1000 | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|------|--------------|------------|-----------|------|-----------|-----------|----------|-------|-------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 150.000 | 6.34 | 11021.274 | 8791.230 | 15.671 | 122.7 | -18.2 | NO | | NO | MM |
| 2 | 2 171031M1_3 | Standard | 150.000 | 6.35 | 13611.050 | 10903.049 | 15.605 | 122.2 | -18.5 | NO | | NO | MM |
| 3 | 3 171031M1_4 | Standard | 150.000 | 6.34 | 14567.635 | 8589.958 | 21.199 | 166.0 | 10.7 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 150.000 | 6.34 | 15962.389 | 10303.497 | 19.365 | 151.6 | 1.1 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 150.000 | 6.34 | 15443.354 | 9557.864 | 20.197 | 158.2 | 5.4 | NO | | NO | MM |
| 6 | 6 171031M1_7 | Standard | 150.000 | 6.35 | 14651.429 | 10502.081 | 17.439 | 136.6 | -9.0 | NO | | NO | MM |
| 7 | 7 171031M1_8 | Standard | 150.000 | 6.34 | 15170.423 | 9076.938 | 20.891 | 163.6 | 9.1 | NO | | NO | MM |
| 8 | 8 171031M1_9 | Standard | 150.000 | 6.35 | 14707.501 | 8894.727 | 20.669 | 161.8 | 7.9 | NO | | NO | ММ |
| 9 | 9 171031M1_1 | 0 Standard | 150.000 | 6.34 | 12885.272 | 7536.803 | 21.371 | 167.3 | 11.6 | NO | | NO | ММ |

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Quantify Compound Summary Report MassLynx WassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C4-PFBA

Response Factor: 1

RRF SD: 9.61481e-017, Relative SD: 9.61481e-015

Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)

Curve type: RF

| aging and the sta | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded . |
|-------------------|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|--------------|--------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 1.15 | 5963.095 | 5963.095 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 1.10 | 6803.867 | 6803.867 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 1.06 | 6654.722 | 6654.722 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 1.09 | 7041.553 | 7041.553 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 1.08 | 6915.432 | 6915.432 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 1.08 | 6832.840 | 6832.840 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 1.09 | 6879.583 | 6879.583 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 1.09 | 6502.498 | 6502.498 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 1.09 | 6600.681 | 6600.681 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Compound name: 13C5-PFHxA

Response Factor: 1

RRF SD: 1.17757e-016, Relative SD: 1.17757e-014

Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)

Curve type: RF

| , and a second | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | oD CoD Flag | x=excluded |
|--------------------------|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|-------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 2.89 | 7771.502 | 7771.502 | 12.500 | 12.5 | 0.0 | NO | NO | MM |
| 2 | 2 171031M1_3 | Standard | 12.500 | 2.85 | 9033.493 | 9033.493 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 2.83 | 8124.338 | 8124.338 | 12.500 | 12.5 | 0.0 | NO | NO | ММ |
| 4 | 4 171031M1_5 | Standard | 12.500 | 2.83 | 8602.264 | 8602.264 | 12.500 | 12.5 | 0.0 | NO | NO | ММ |
| 5 | 5 171031M1_6 | Standard | 12.500 | 2.83 | 9624.428 | 9624.428 | 12.500 | 12.5 | 0.0 | NO | NO | MM |
| 6 | 6 171031M1_7 | Standard | 12.500 | 2.83 | 8956.964 | 8956.964 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 Strain and Strain Con- | 7 171031M1_8 | Standard | 12.500 | 2.83 | 8823.722 | 8823.722 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 2.83 | 7955.587 | 7955.587 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 2.83 | 8281.060 | 8281.060 | 12.500 | 12.5 | 0.0 | NO | NO | ММ |

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Quantify Compound Summary Report MassLynx V4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C3-PFHxS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD | CoD Flag | x=excluded |
|---|-----------------------|----------|-----------|------|----------|----------|----------|-------|------|------------|-----|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 3.66 | 1453.004 | 1453.004 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 3.62 | 1448.036 | 1448.036 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 3.61 | 1450.402 | 1450.402 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 3.61 | 1759.264 | 1759.264 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 3.62 | 1542.587 | 1542.587 | 12.500 | 12.5 | 0.0 | · NO | | · NO · | bb |
| 6 | 6 171031 M 1_7 | Standard | 12.500 | 3.61 | 1564.074 | 1564.074 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 3.62 | 1586.405 | 1586.405 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 3.61 | 1475.894 | 1475.894 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 3.61 | 1433.237 | 1433.237 | 12.500 | 12.5 | 0.0 | NO | | NO | bb |

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Compound name: 13C8-PFOA

Response Factor: 1

RRF SD: 7.85046e-017, Relative SD: 7.85046e-015

Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag CoD | CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|------|----------------|----------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.03 | 5755.554 | 5755.554 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.00 | 6357.599 | 6357.599 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 3.99 | 6407.551 | 6407.551 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 3.99 | 6896.374 | 6896.374 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 3.99 | 7038.075 | 7038.075 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 3.99 | 6844.025 | 6844.025 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 3.99 | 6583.264 | 6583.264 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 3.99 | 6496.577 | 6496.577 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 3.99 | 6480.723 | 6480.723 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C9-PFNA

Response Factor: 1

RRF SD: 7.85046e-017, Relative SD: 7.85046e-015

Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.47 | 7443.399 | 7443.399 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.44 | 7759.596 | 7759.596 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.44 | 7636.577 | 7636.577 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.44 | 8507.058 | 8507.058 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.44 | 8252.775 | 8252.775 | 12.500 | 12.5 | 0.0 | NO | , NO , | pp |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.44 | 7913.440 | 7913.440 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.44 | 7424.903 | 7424.903 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.44 | 5722.288 | 5722.288 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 4.44 | 7138.070 | 7138.070 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 5.55112e-017, Relative SD: 5.55112e-015

Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Туре | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | =excluded |
|----------------|---------------|------------|-----------|------|----------|----------|----------|-------|------|------------|--------------|-----------|
| Transaction of | 1 171031M1_2 | Standard | 12.500 | 4.56 | 1684.138 | 1684.138 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.53 | 1709.990 | 1709.990 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.53 | 1670.649 | 1670.649 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.53 | 1730.373 | 1730.373 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.53 | 2046.018 | 2046.018 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.53 | 1723.226 | 1723.226 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.53 | 1862.948 | 1862.948 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.53 | 1675.064 | 1675.064 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171031M1_10 |) Standard | 12.500 | 4.53 | 1793.776 | 1793.776 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Quantify Compound Summary Report MassLynx W4.1 SCN945 SCN960

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:45:15 Pacific Daylight Time

Compound name: 13C6-PFDA

Response Factor: 1

RRF SD: 8.77708e-017, Relative SD: 8.77708e-015

Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)

Curve type: RF

| 100 | # Name | Туре | Std. Conc | RT. | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|-----|---------------|----------|-----------|------|----------|----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171031M1_2 | Standard | 12.500 | 4.85 | 7192.681 | 7192.681 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | Standard | 12.500 | 4.83 | 8328.828 | 8328.828 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | Standard | 12.500 | 4.82 | 7719.951 | 7719.951 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171031M1_5 | Standard | 12.500 | 4.82 | 7639.211 | 7639.211 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171031M1_6 | Standard | 12.500 | 4.82 | 9023.982 | 9023.982 | 12.500 | 12.5 | 0.0 | NO | . NO | bb |
| 6 | 6 171031M1_7 | Standard | 12.500 | 4.82 | 7885.146 | 7885.146 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | Standard | 12.500 | 4.82 | 8546.058 | 8546.058 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | Standard | 12.500 | 4.82 | 7079.840 | 7079.840 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171031M1_10 | Standard | 12.500 | 4.82 | 7435.586 | 7435.586 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Compound name: 13C7-PFUdA

Response Factor: 1

RRF SD: 5.55112e-017, Relative SD: 5.55112e-015

Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)

Curve type: RF

| | # Name | Type | Std. Conc | RT | Area | IS Area | Response | Conc. | %Dev | Conc. Flag | CoD CoD Flag | x=excluded |
|---|--------------|-------------|-----------|------|-----------|-----------|----------|-------|------|------------|--------------|------------|
| 1 | 1 171031M1_2 | 2 Standard | 12.500 | 5.18 | 8791.230 | 8791.230 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 2 | 2 171031M1_3 | 3 Standard | 12.500 | 5.17 | 10903.049 | 10903.049 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 3 | 3 171031M1_4 | 4 Standard | 12.500 | 5.16 | 8589.958 | 8589.958 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 4 | 4 171031M1_ | 5 Standard | 12.500 | 5.16 | 10303.497 | 10303.497 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 5 | 5 171031M1_0 | 6 Standard | 12.500 | 5.16 | 9557.864 | 9557.864 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 6 | 6 171031M1_ | 7 Standard | 12.500 | 5.16 | 10502.081 | 10502.081 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 7 | 7 171031M1_8 | 8 Standard | 12.500 | 5.16 | 9076.938 | 9076.938 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 8 | 8 171031M1_9 | 9 Standard | 12.500 | 5.16 | 8894.727 | 8894.727 | 12.500 | 12.5 | 0.0 | NO | NO | bb |
| 9 | 9 171031M1_ | 10 Standard | 12.500 | 5.16 | 7536.803 | 7536.803 | 12.500 | 12.5 | 0.0 | NO | NO | bb |

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Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, November 01, 2017 08:53:36 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:54:15 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33 Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 08:21:58

Compound name: PFBA

| 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | Name | D | Acq.Date | Acq.Time |
|--|-------------|-------------------------------|-----------|----------|
| 1 | 171031M1_1 | IPA | 31-Oct-17 | 15:56:43 |
| 2 | 171031M1_2 | ST171031M1-1 PFC CS-2 17J2805 | 31-Oct-17 | 16:08:10 |
| 3 | 171031M1_3 | ST171031M1-2 PFC CS-1 17J2806 | 31-Oct-17 | 16:19:21 |
| 4 | 171031M1_4 | ST171031M1-3 PFC CS0 17J2807 | 31-Oct-17 | 16:30:31 |
| 5 | 171031M1_5 | ST171031M1-4 PFC CS1 17J2808 | 31-Oct-17 | 16:41:42 |
| 6 | 171031M1_6 | ST171031M1-5 PFC CS2 17J2809 | 31-Oct-17 | 16:52:53 |
| 7 | 171031M1_7 | ST171031M1-6 PFC CS3 17J2810 | 31-Oct-17 | 17:04:03 |
| 8 | 171031M1_8 | ST171031M1-7 PFC CS4 17J2813 | 31-Oct-17 | 17:15:14 |
| 9 | 171031M1_9 | ST171031M1-8 PFC CS5 17J2814 | 31-Oct-17 | 17:26:43 |
| 10 | 171031M1_10 | ST171031M1-9 PFC CS6 17J2815 | 31-Oct-17 | 17:38:27 |
| 11 | 171031M1_11 | ST171031M1-10 PFC CS7 17J2816 | 31-Oct-17 | 17:49:36 |
| 12 | 171031M1_12 | IPA | 31-Oct-17 | 18:00:47 |
| 13 | 171031M1_13 | ICV171031M1-1 PFC ICV 17J2804 | 31-Oct-17 | 18:11:58 |
| 14 | 171031M1_14 | IPA | 31-Oct-17 | 18:23:08 |

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Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time

Printed:

Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

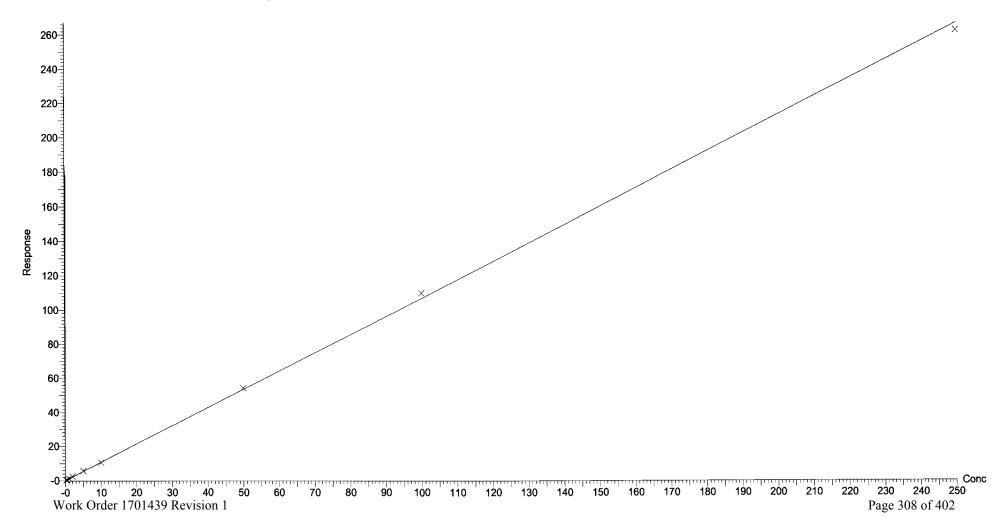
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33 Calibration: 01 Nov 2017 08:21:58 U8_VALT PFAS_Q4_10-3\-\F-FU_0LD

Compound name: PFBA

Correlation coefficient: r = 0.999738, $r^2 = 0.999476$

Calibration curve: 1.06856 * x + 0.0388677

Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

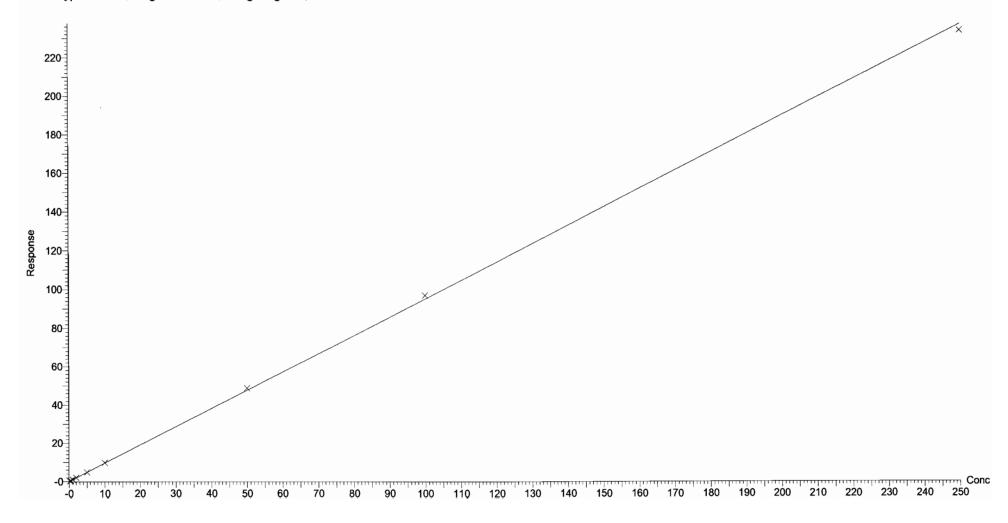
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFPeA

Correlation coefficient: r = 0.999844, $r^2 = 0.999687$

Calibration curve: 0.95039 * x + 0.0982843

Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

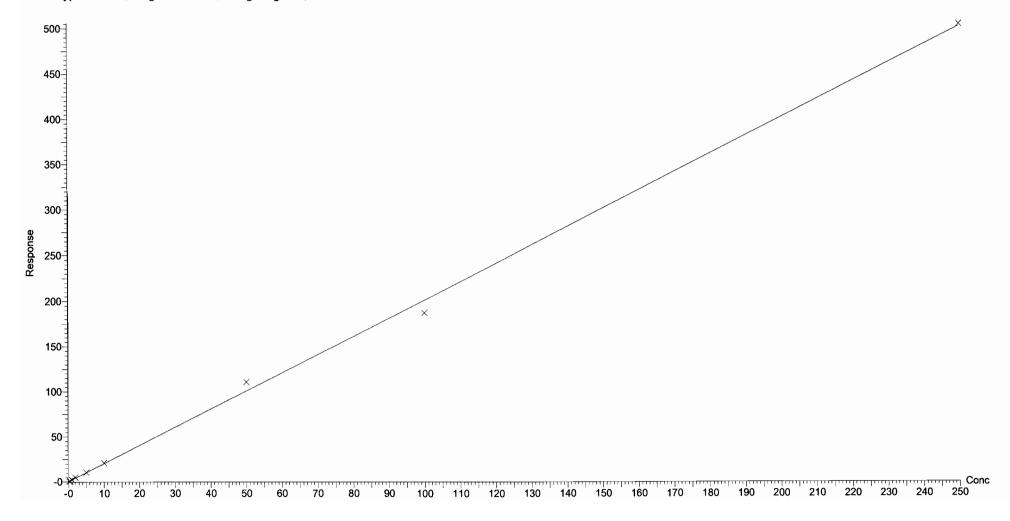
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFBS

Correlation coefficient: r = 0.998677, $r^2 = 0.997355$

Calibration curve: 2.01352 * x + 0.191925

Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

Dataset:

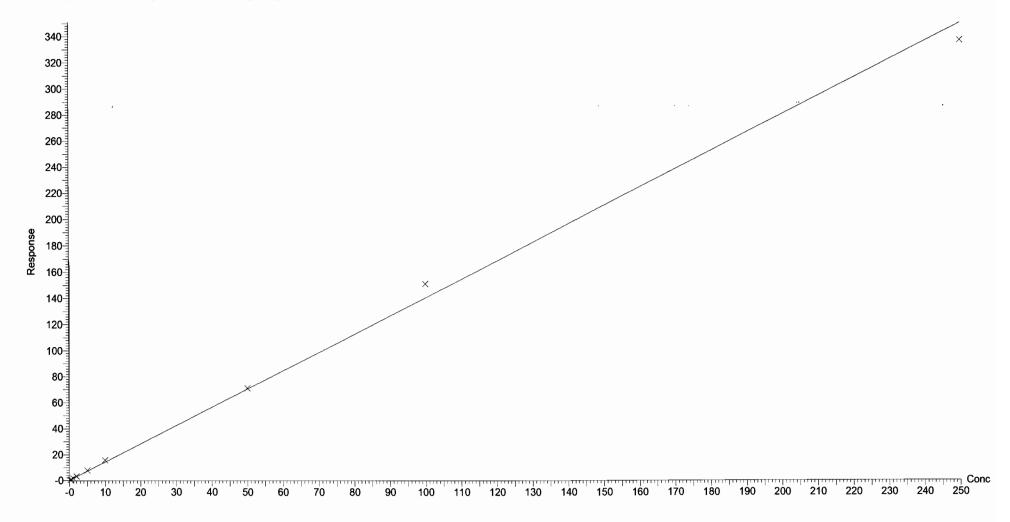
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFHxA

Correlation coefficient: r = 0.998612, $r^2 = 0.997226$

Calibration curve: 1.40323 * x + 0.202144

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

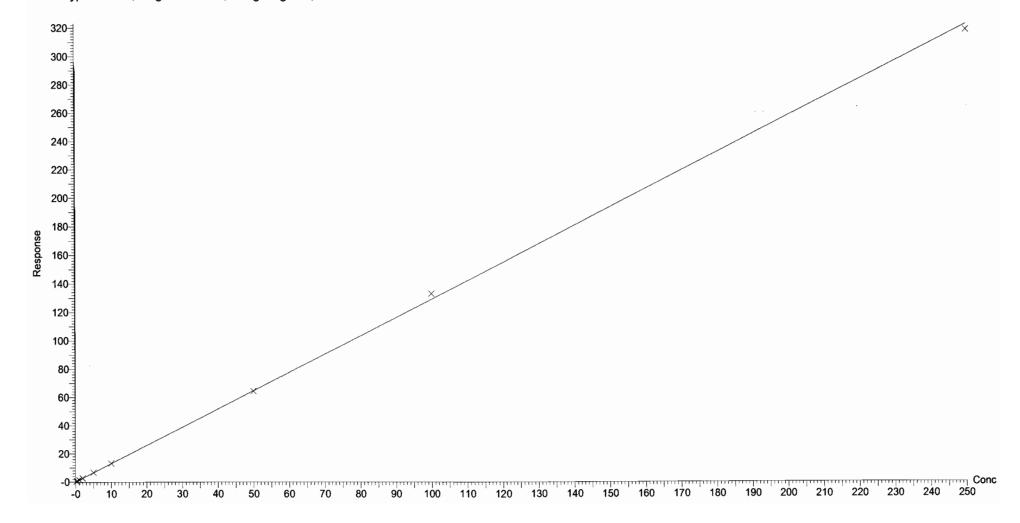
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFHpA

Correlation coefficient: r = 0.999826, $r^2 = 0.999651$

Calibration curve: 1.29101 * x + 0.123326

Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

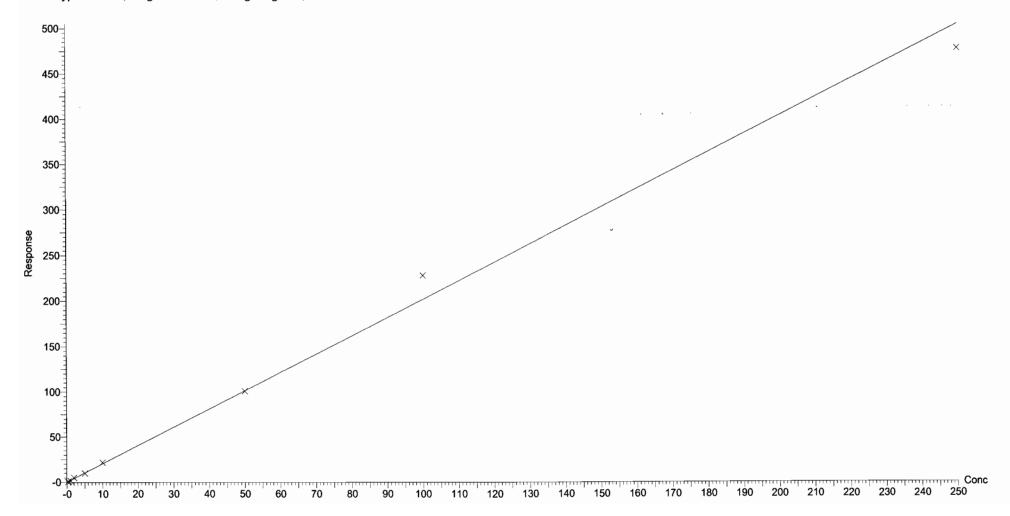
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: L-PFHxS

Correlation coefficient: r = 0.996867, $r^2 = 0.993744$

Calibration curve: 2.01952 * x + 0.0727077

Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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7,0ta / ...a., ...a. =a.z.

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

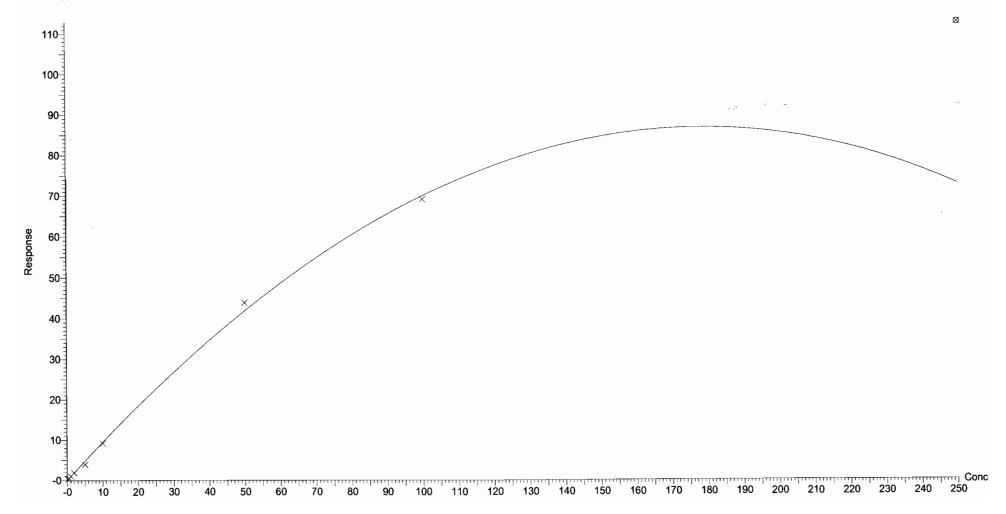
Dataset:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: 6:2 FTS

Coefficient of Determination: R^2 = 0.997401

Calibration curve: $-0.00272723 * x^2 + 0.973281 * x + -0.00870889$ Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

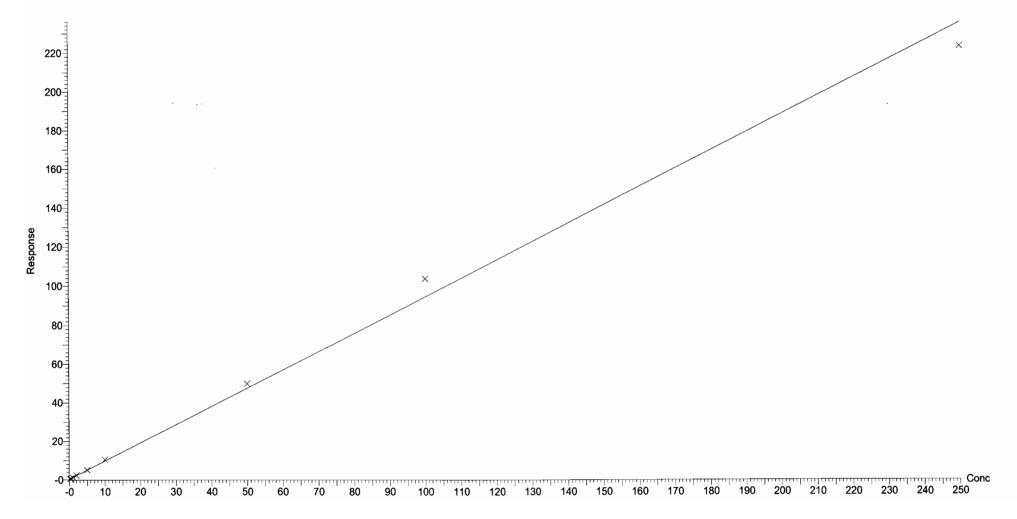
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: L-PFOA

Correlation coefficient: r = 0.997771, $r^2 = 0.995546$

Calibration curve: 0.943455 * x + 0.316537

Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

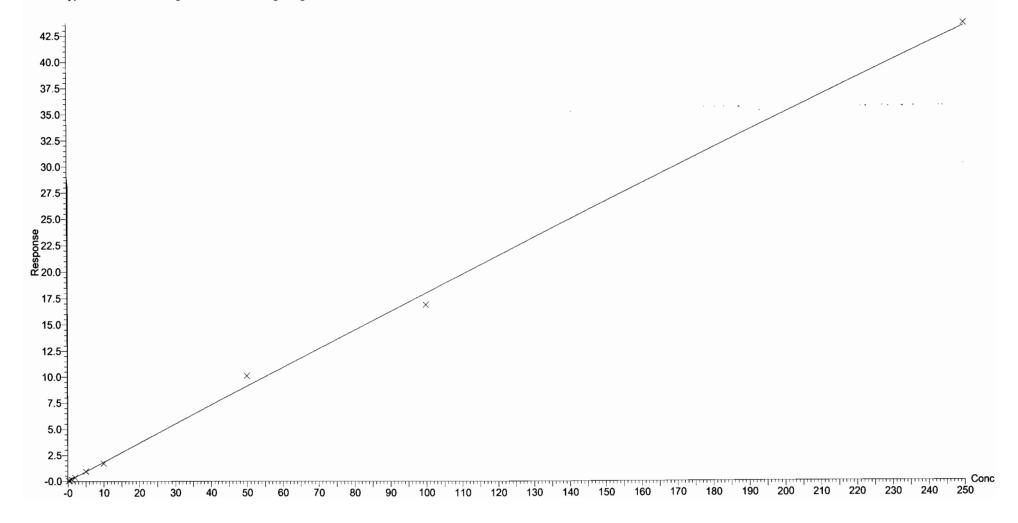
Last Altered: Printed:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFHpS

Coefficient of Determination: R^2 = 0.997276

Calibration curve: $-3.99694e-005 * x^2 + 0.183931 * x + 0.00205894$ Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

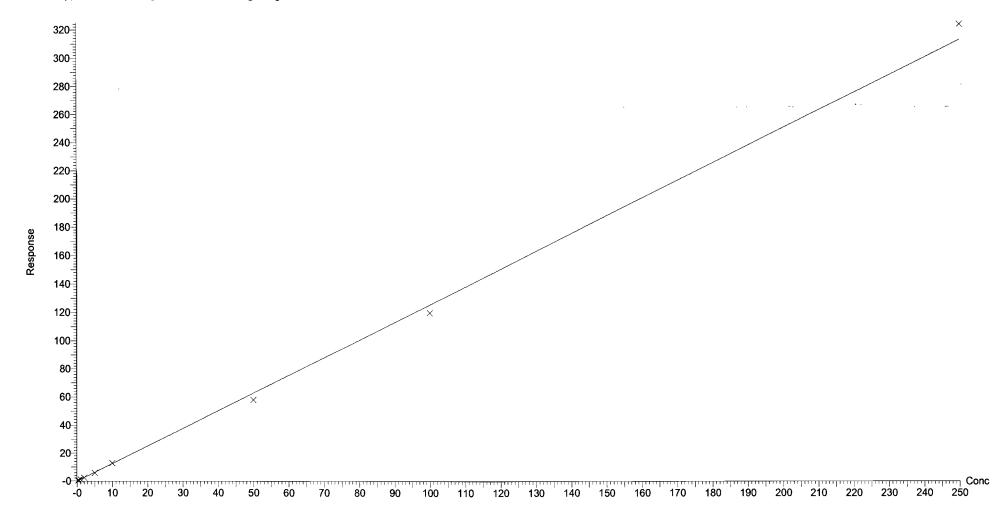
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFNA

Correlation coefficient: r = 0.998949, $r^2 = 0.997900$

Calibration curve: 1.25666 * x + -0.0468814

Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset:

Printed:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered:

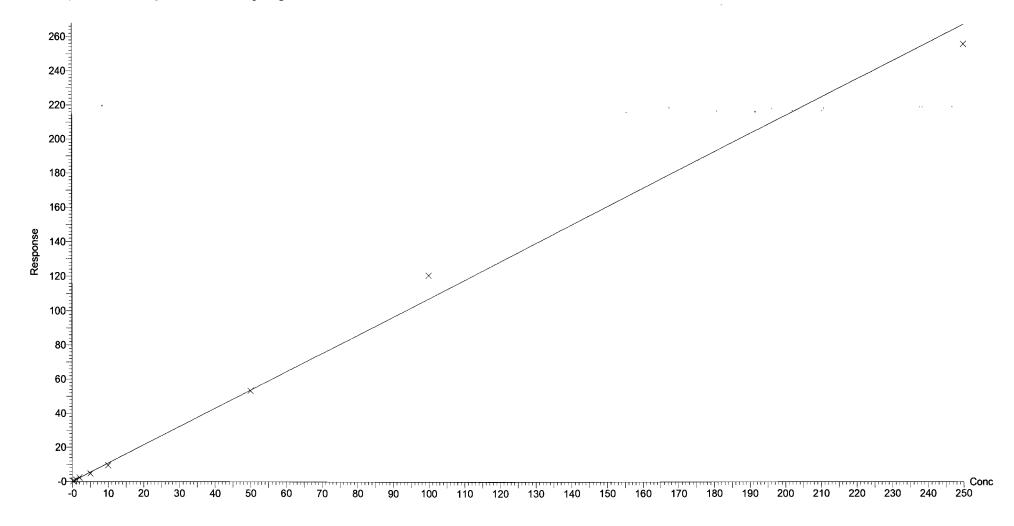
Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFOSA

Correlation coefficient: r = 0.997159, $r^2 = 0.994326$

Calibration curve: 1.07115 * x + 0.04065

Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

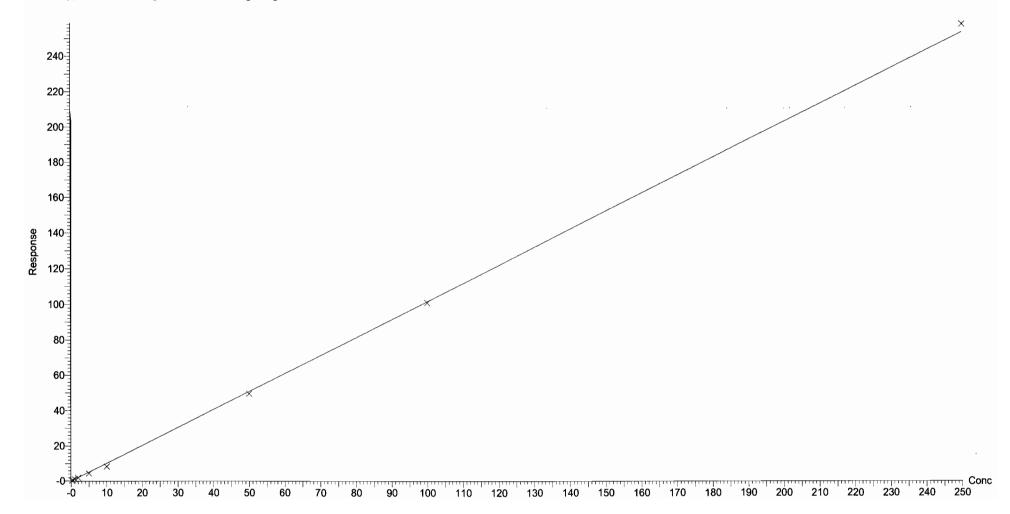
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Compound name: L-PFOS

Correlation coefficient: r = 0.999334, $r^2 = 0.998668$

Calibration curve: 1.01722 * x + -0.0414285

Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

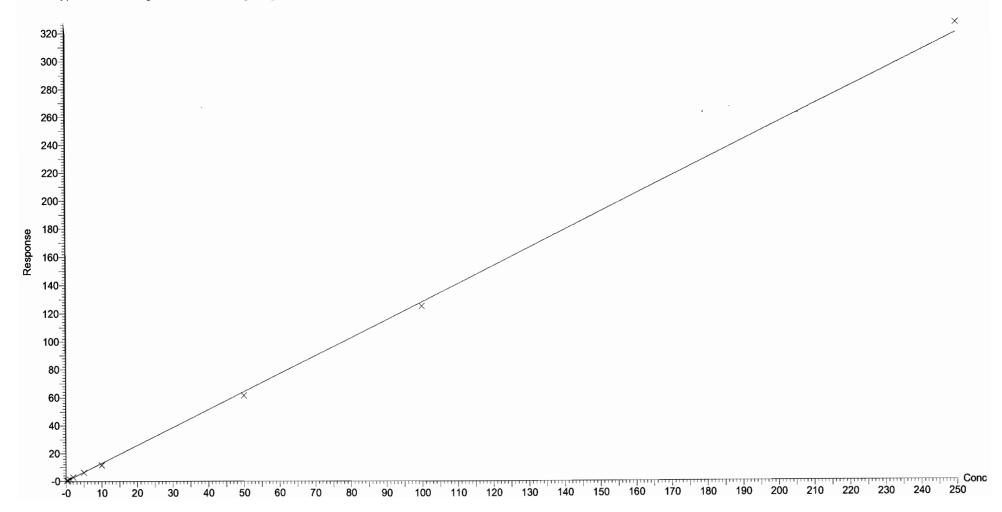
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Compound name: PFDA

Correlation coefficient: r = 0.999473, r^2 = 0.998946

Calibration curve: 1.28134 * x + 0.0315821

Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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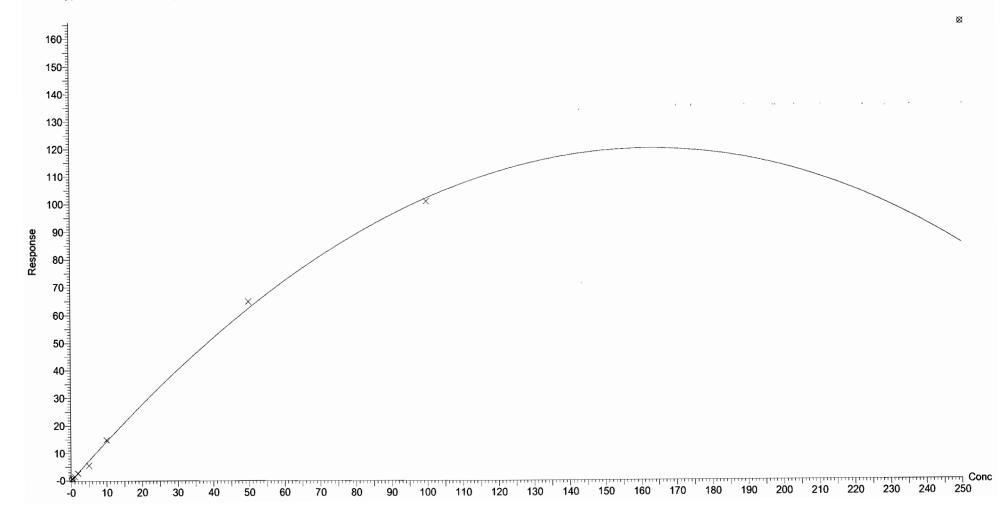
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Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: 8:2 FTS

Coefficient of Determination: R^2 = 0.996235

Calibration curve: -0.00453751 * x^2 + 1.47718 * x + -0.0973776 Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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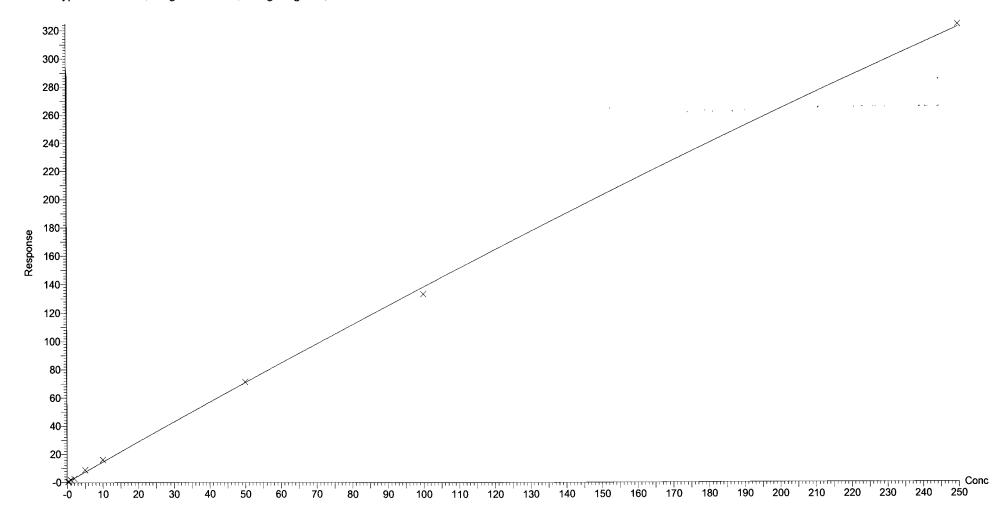
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Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: N-MeFOSAA

Coefficient of Determination: R^2 = 0.998527

Calibration curve: -0.00061126 * x^2 + 1.44366 * x + 0.138034 Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

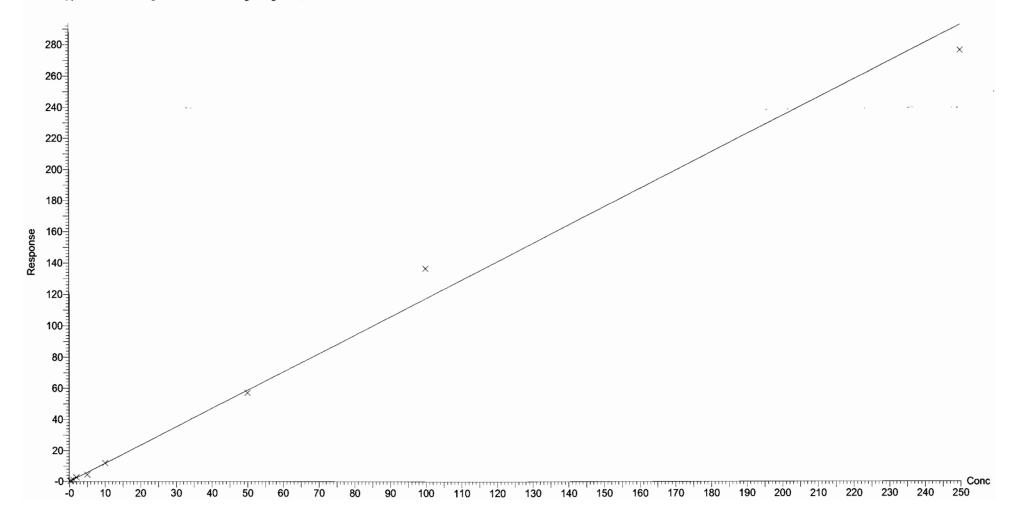
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Compound name: N-EtFOSAA

Correlation coefficient: r = 0.995319, $r^2 = 0.990659$

Calibration curve: 1.17468 * x + -0.0150013

Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

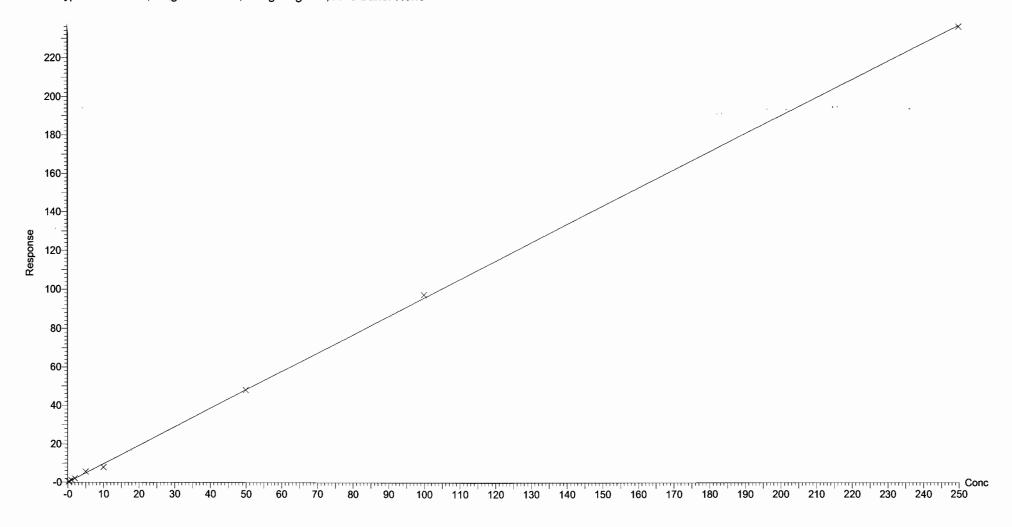
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Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFUdA

Coefficient of Determination: R^2 = 0.998778

Calibration curve: $-5.23555e-005 * x^2 + 0.962109 * x + 0.0759805$ Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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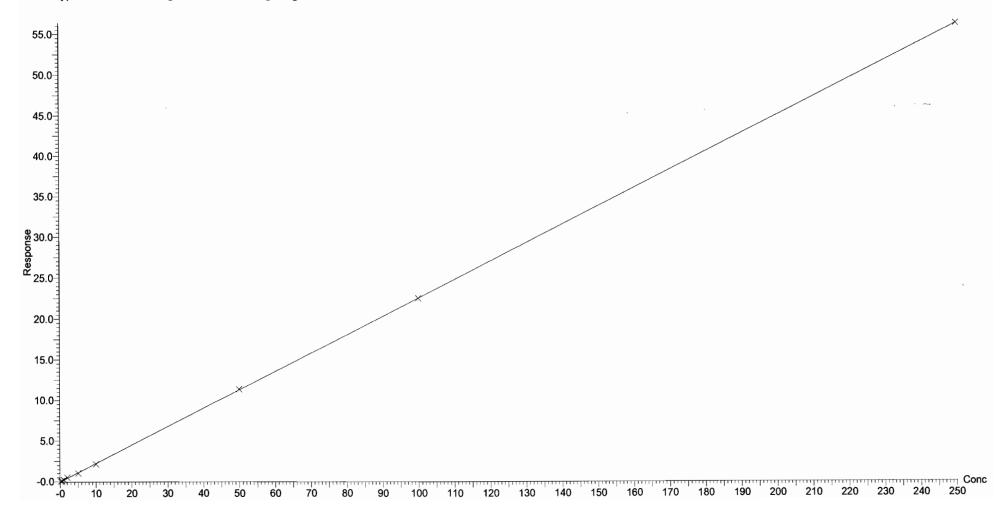
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Last Altered: Printed: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFDS

Coefficient of Determination: R^2 = 0.999698

Calibration curve: $-2.28699e-006 * x^2 + 0.226098 * x + -0.0396467$ Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

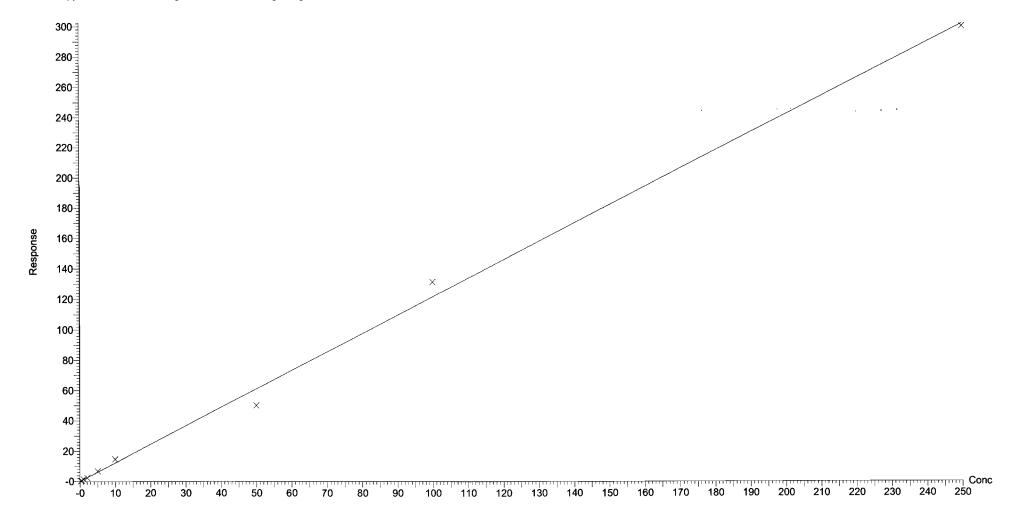
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Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFDoA

Coefficient of Determination: R^2 = 0.993286

Calibration curve: $-6.13859e-005 * x^2 + 1.22441 * x + 0.0900393$ Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

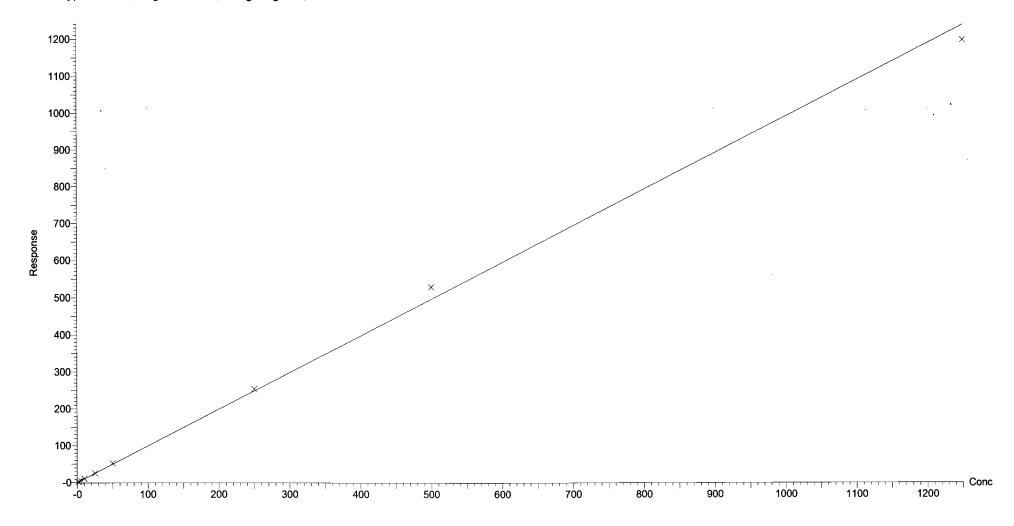
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Compound name: N-MeFOSA

Correlation coefficient: r = 0.999056, $r^2 = 0.998113$

Calibration curve: 0.99285 * x + 0.328893

Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



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Quantify Calibration Report Vista Analytical Laboratory Q1 MassLynx MassLynx V4.1 SCN945 SCN960

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Dataset:

Printed:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered:

Wednesday, November 01, 2017 09:42:13 Pacific Daylight Time Wednesday, November 01, 2017 09:42:55 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33

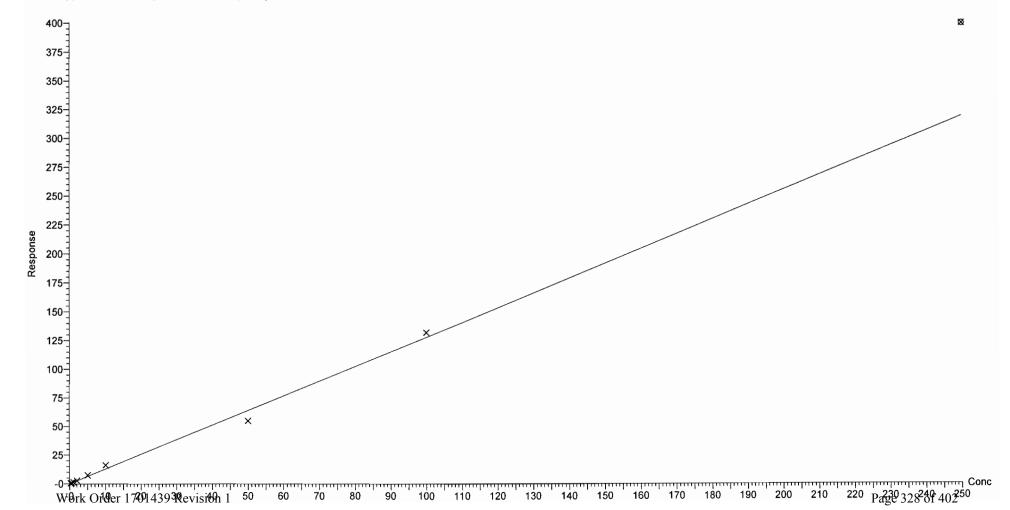
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

Compound name: PFTrDA

Coefficient of Determination: R^2 = 0.992550

Calibration curve: 1.27931 * x

Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Force, Weighting: Null, Axis trans: None



Vista Analytical Laboratory Q1

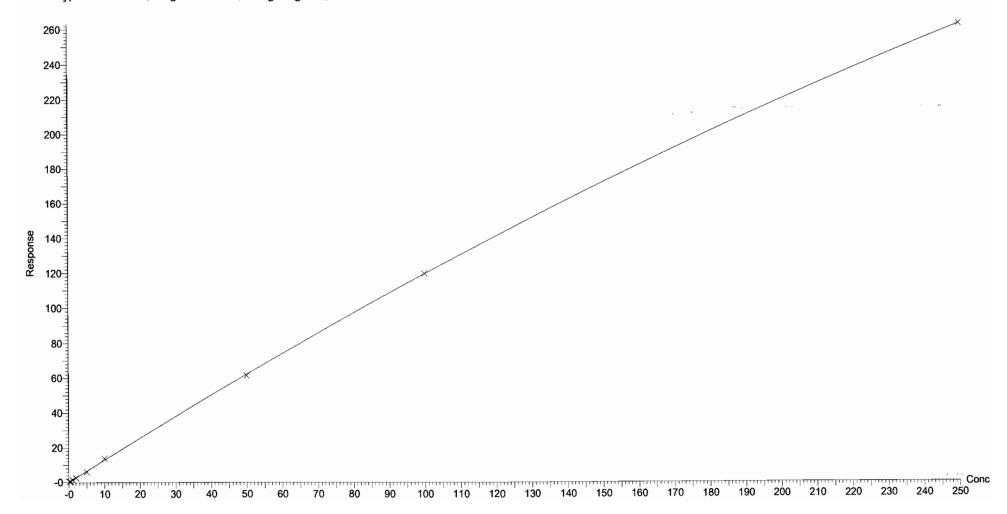
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Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFTeDA

Coefficient of Determination: R^2 = 0.999673

Calibration curve: -0.000957767 * x^2 + 1.29262 * x + -0.00461528 Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

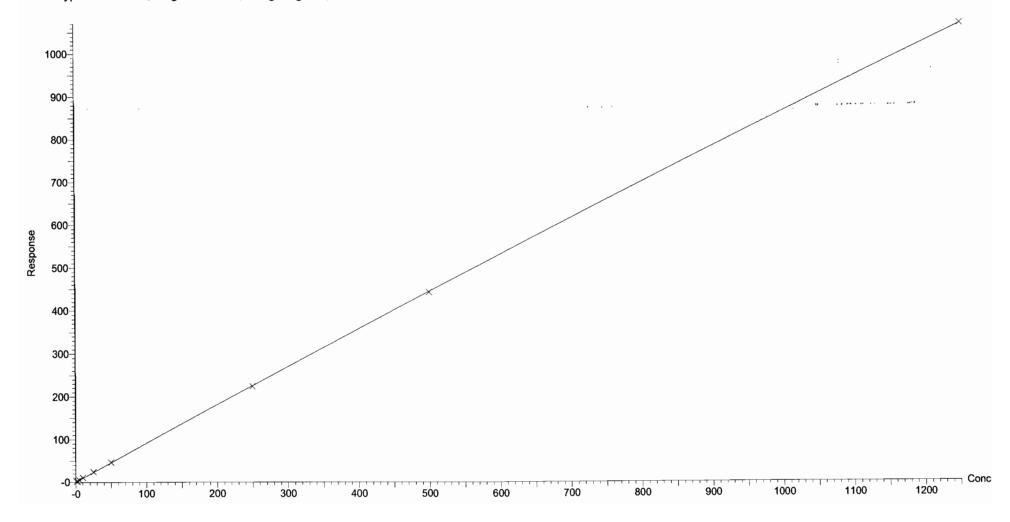
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Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: N-EtFOSA

Coefficient of Determination: R^2 = 0.999831

Calibration curve: -4.41537e-005 * x^2 + 0.910589 * x + 0.484101 Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

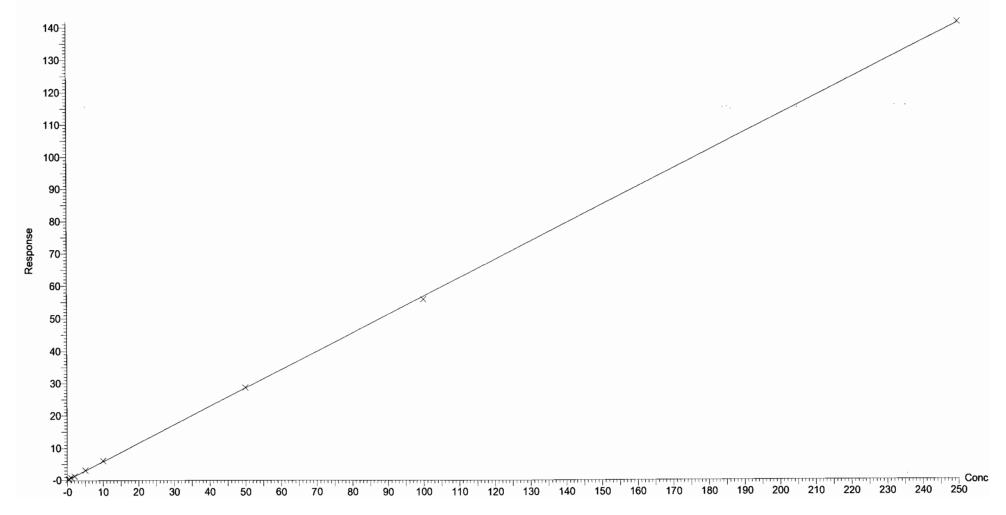
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Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFHxDA

Coefficient of Determination: R^2 = 0.999773

Calibration curve: $-1.68772e-005 * x^2 + 0.569695 * x + 0.110552$ Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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MassLynx MassLynx V4.1 SCN945 SCN960

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Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time

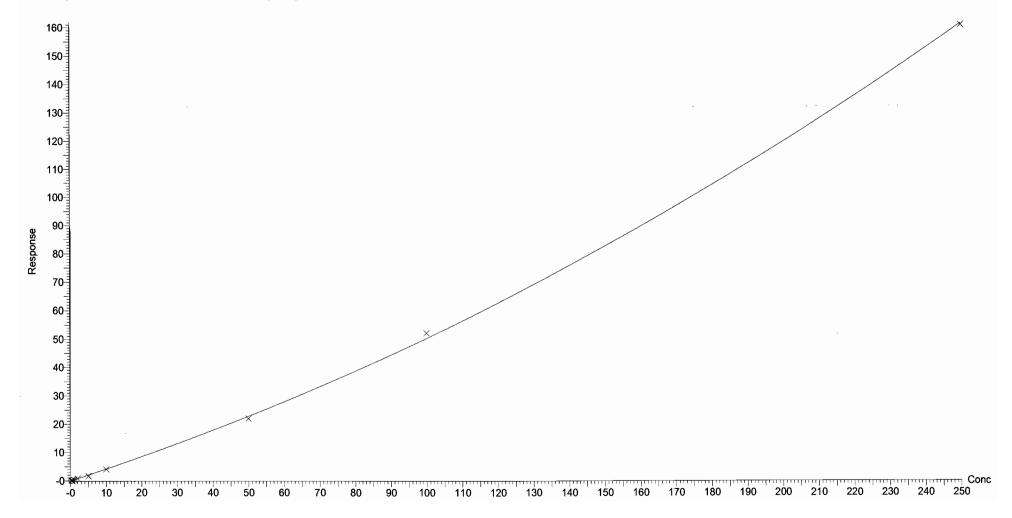
Printed:

Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: PFODA

Coefficient of Determination: R^2 = 0.999396

Calibration curve: 0.000959304 * x^2 + 0.407622 * x + -0.0239268 Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area) Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

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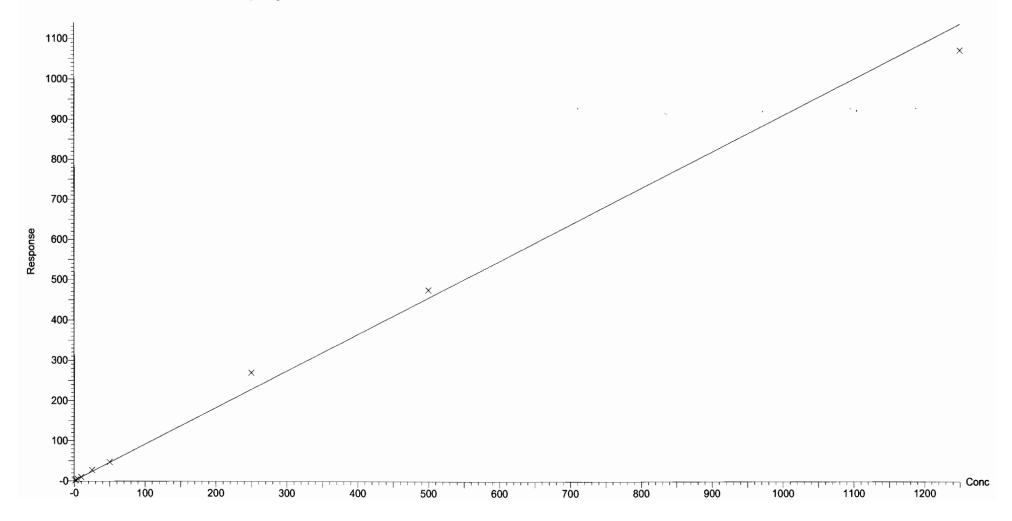
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Compound name: N-MeFOSE

Correlation coefficient: r = 0.996570, $r^2 = 0.993151$

Calibration curve: 0.910887 * x + 0.561201

Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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Vista Analytical Laboratory Q1

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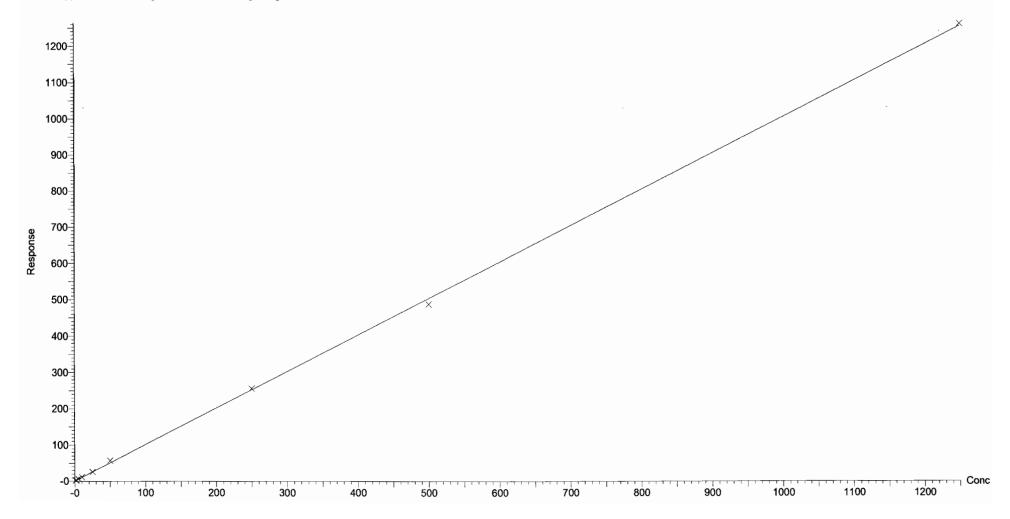
Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:44:23 Pacific Daylight Time

Compound name: N-EtFOSE

Correlation coefficient: r = 0.999631, $r^2 = 0.999262$

Calibration curve: 1.00592 * x + 0.816282

Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area) Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

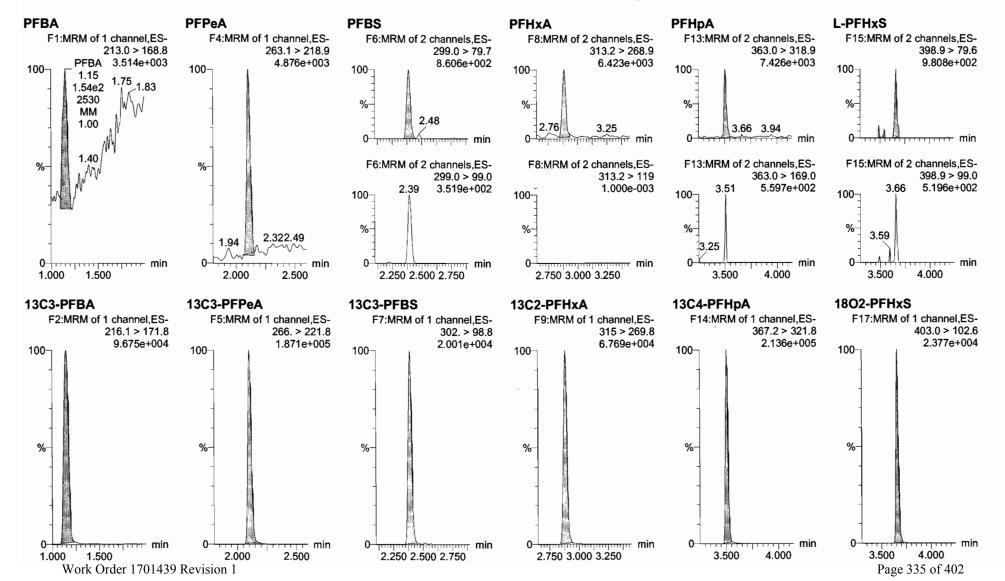
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Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_102717.mdb 31 Oct 2017 10:25:33

Calibration: 01 Nov 2017 08:21:58

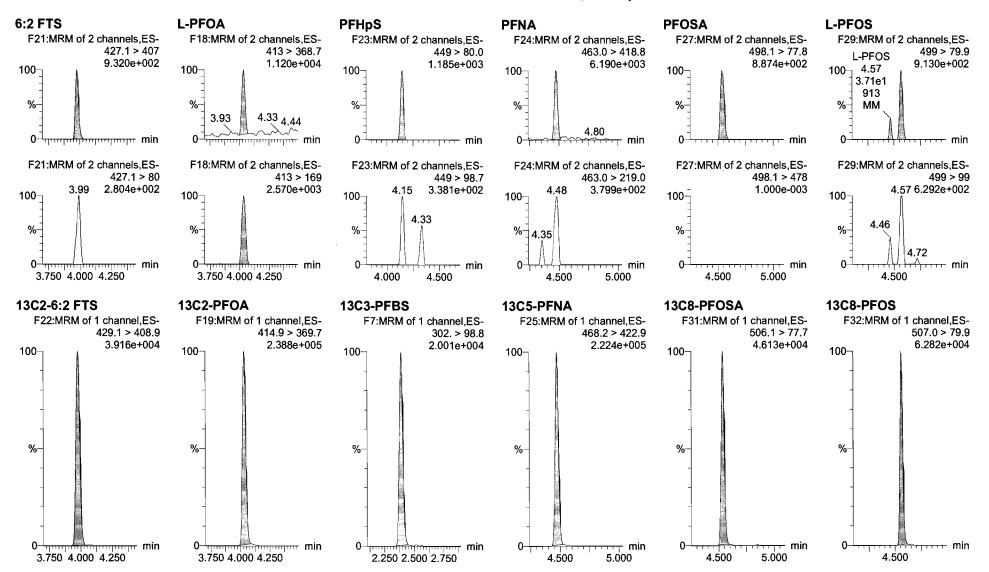
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U:\Q4.PRO\results\171031M1\171031M1-CRV.gld

Last Altered: Printed: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805



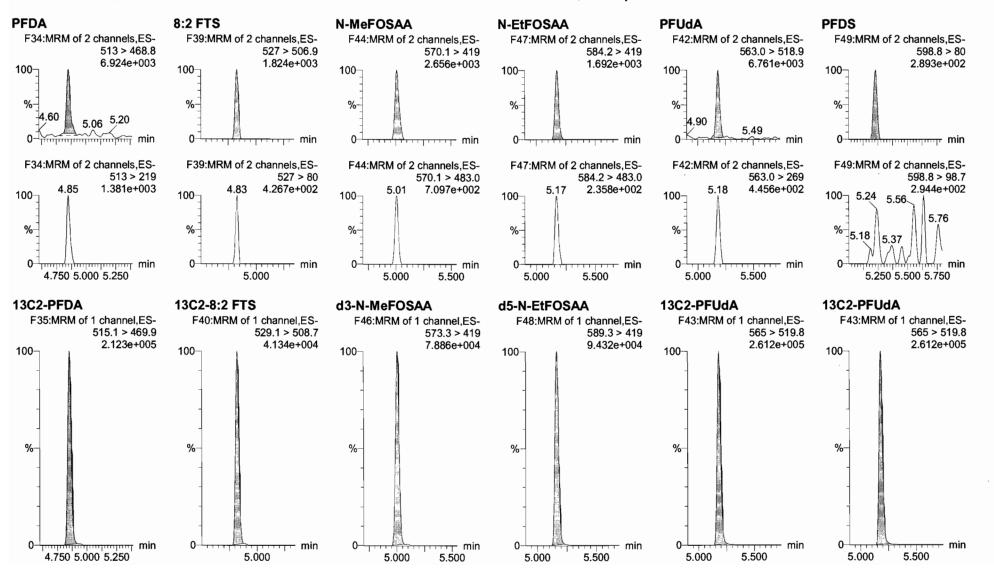
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U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805



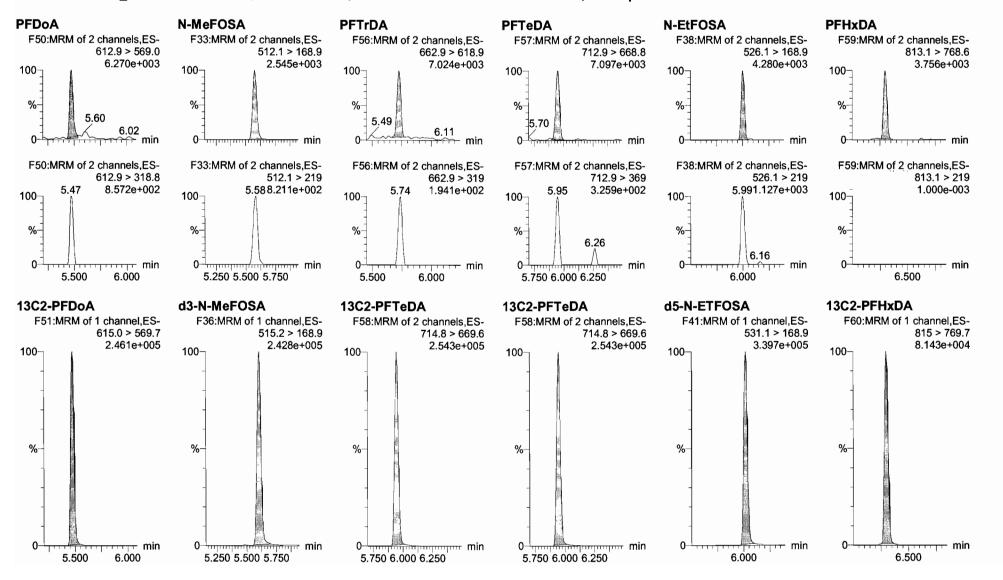
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U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

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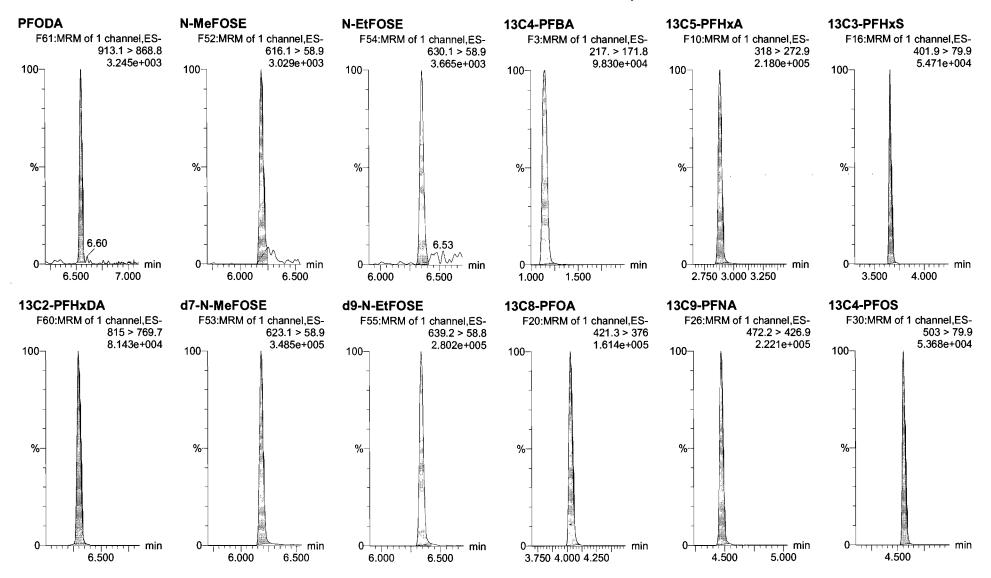
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U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_2, Date: 31-Oct-2017, Time: 16:08:10, ID: ST171031M1-1 PFC CS-2 17J2805, Description: PFC CS-2 17J2805



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Vista Analytical Laboratory

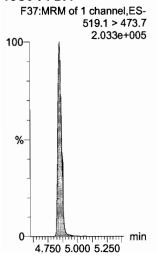
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Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

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13C6-PFDA

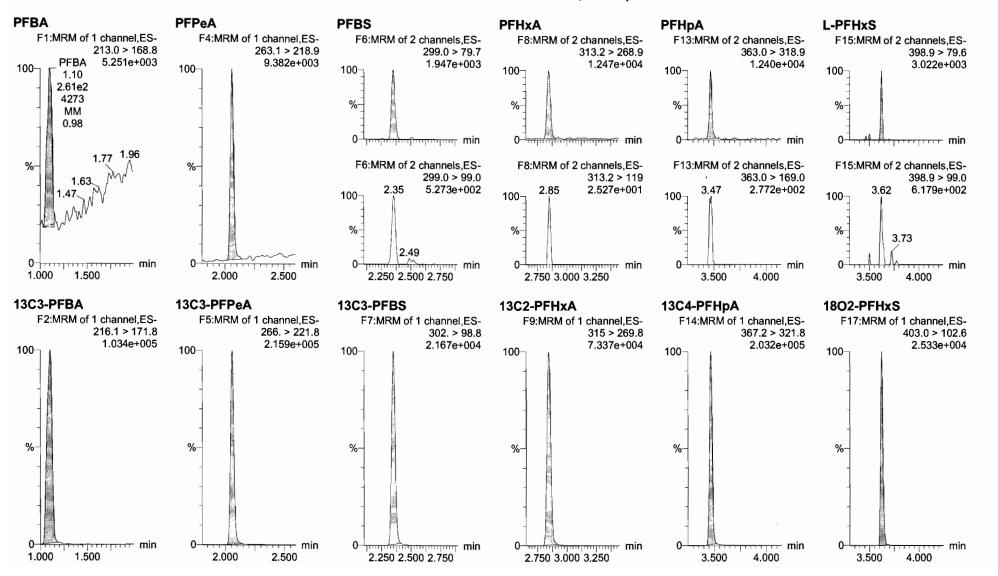


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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

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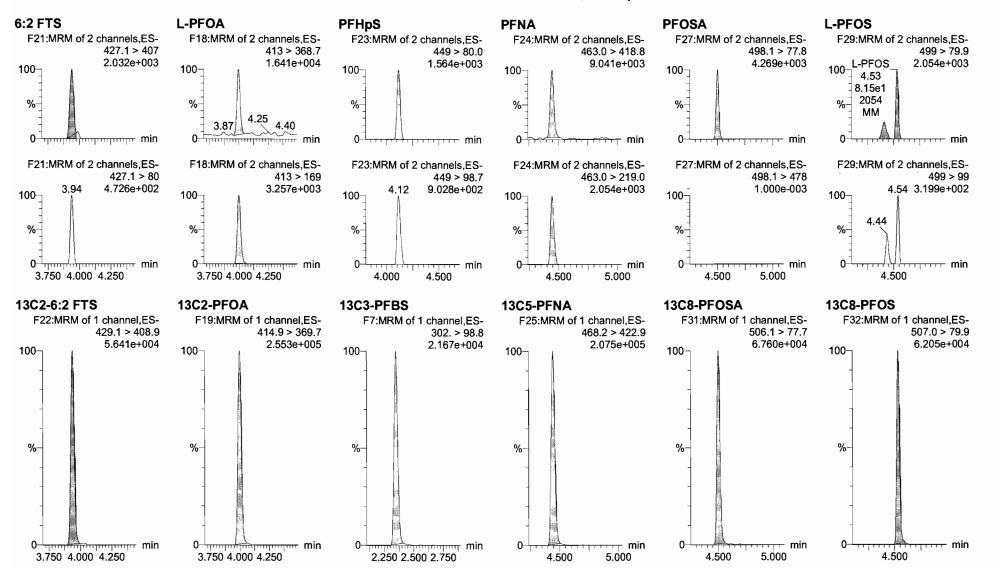
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U:\Q4.PRO\results\171031M1\171031M1-CRV.gld

Last Altered: Printed:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

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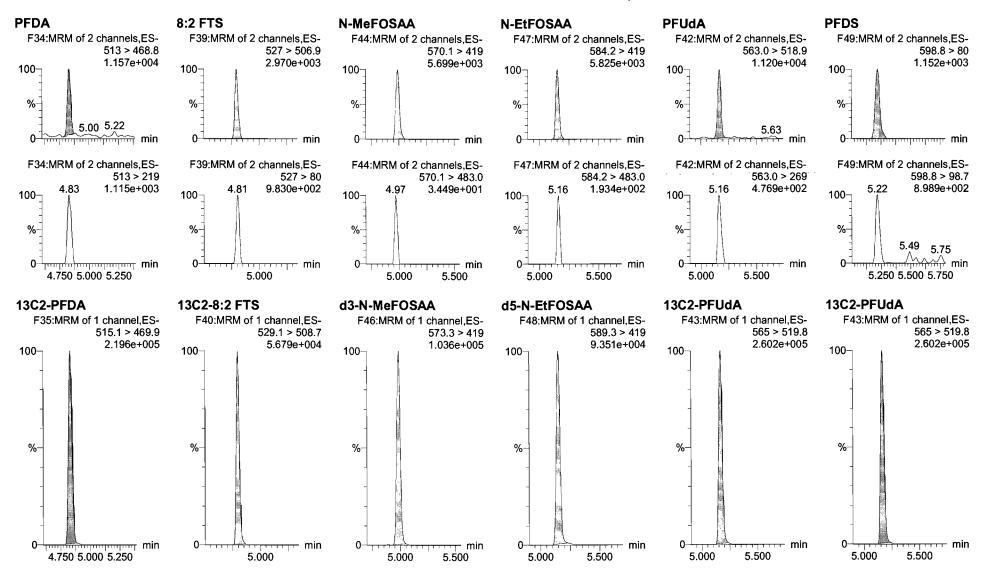


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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.gld

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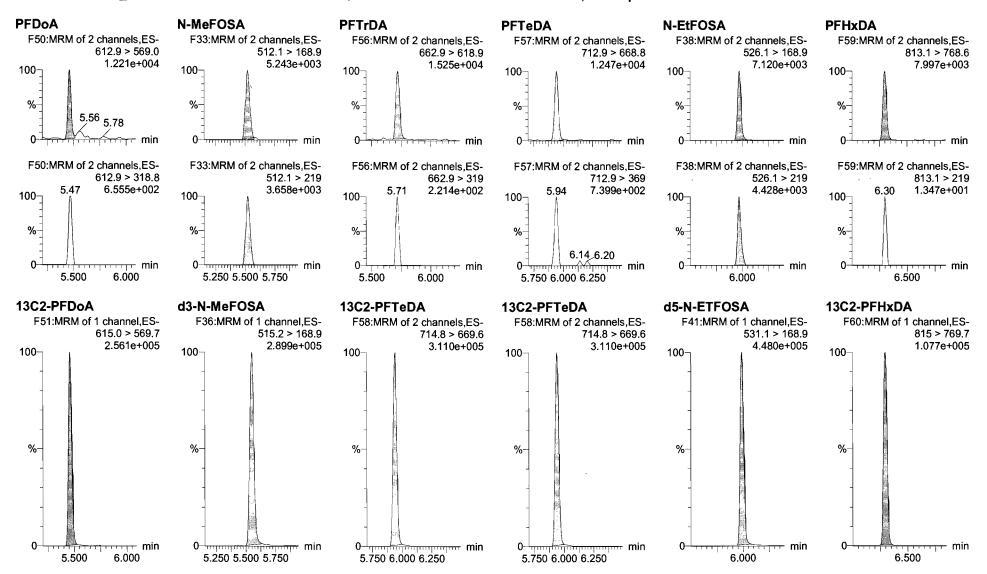
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U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

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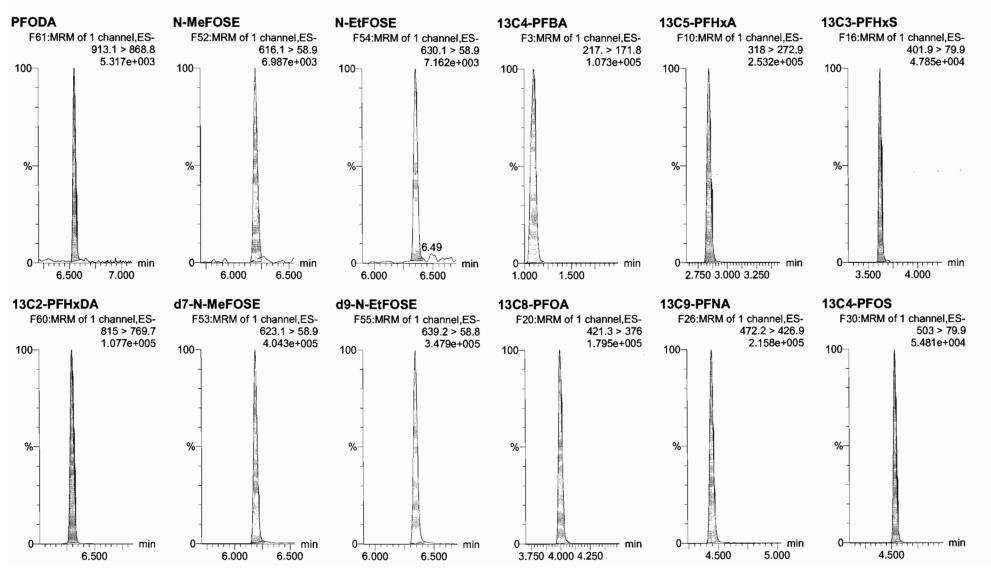


Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

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Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17J2806



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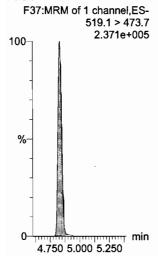
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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_3, Date: 31-Oct-2017, Time: 16:19:21, ID: ST171031M1-2 PFC CS-1 17J2806, Description: PFC CS-1 17J2806

13C6-PFDA

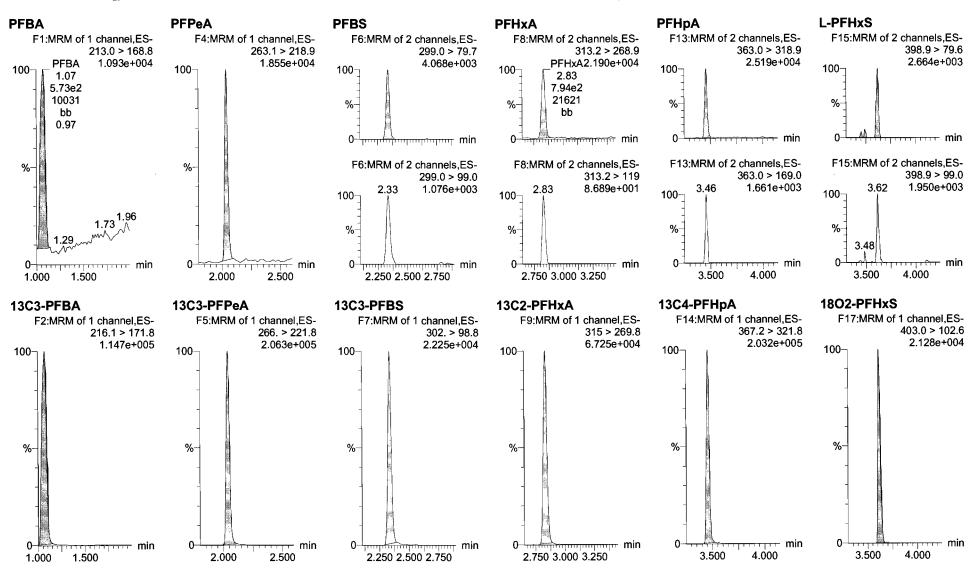


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Dataset: U:\Q4.PRO\results\171031M1\171031M1-CRV.gld

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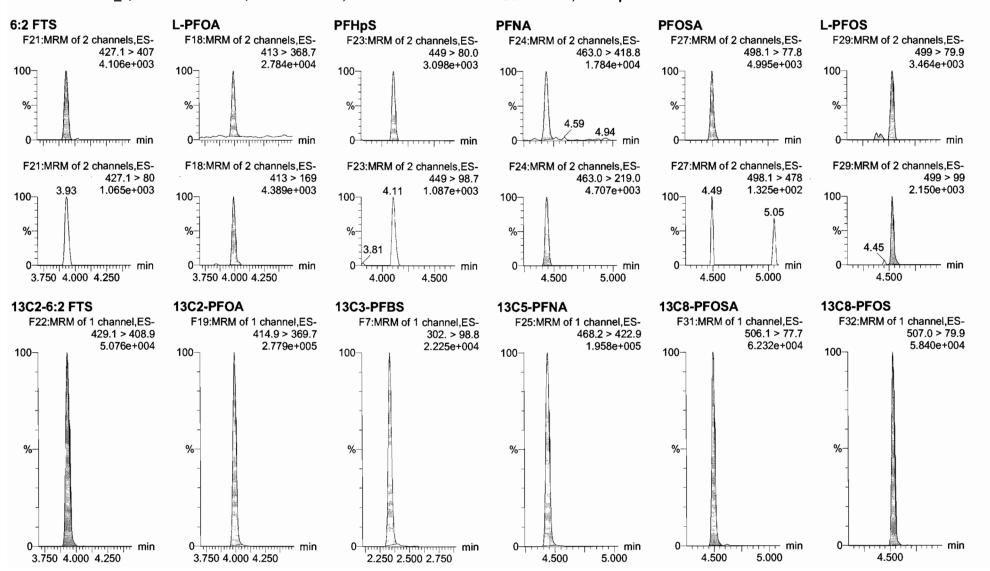
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Last Altered: Printed:

Dataset:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

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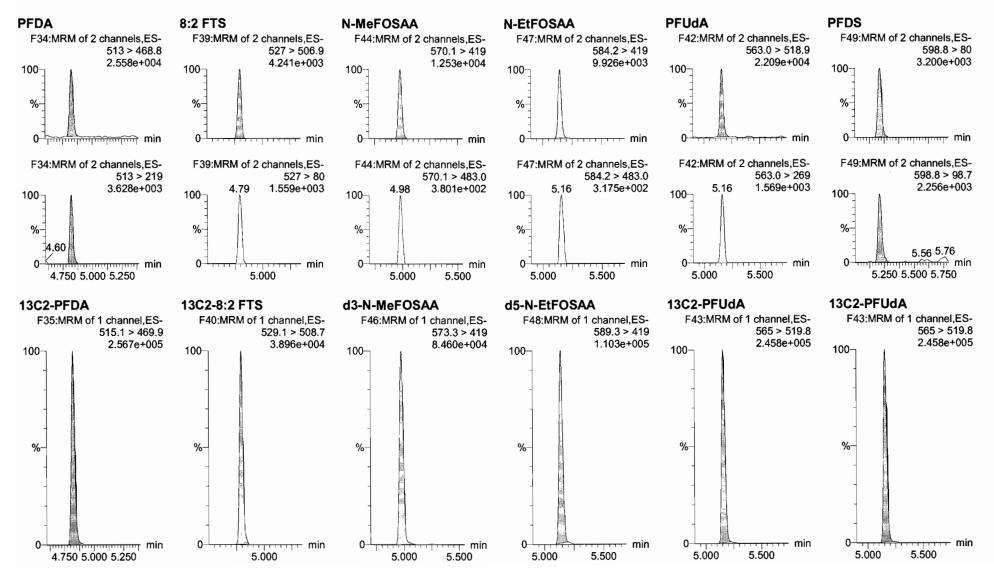


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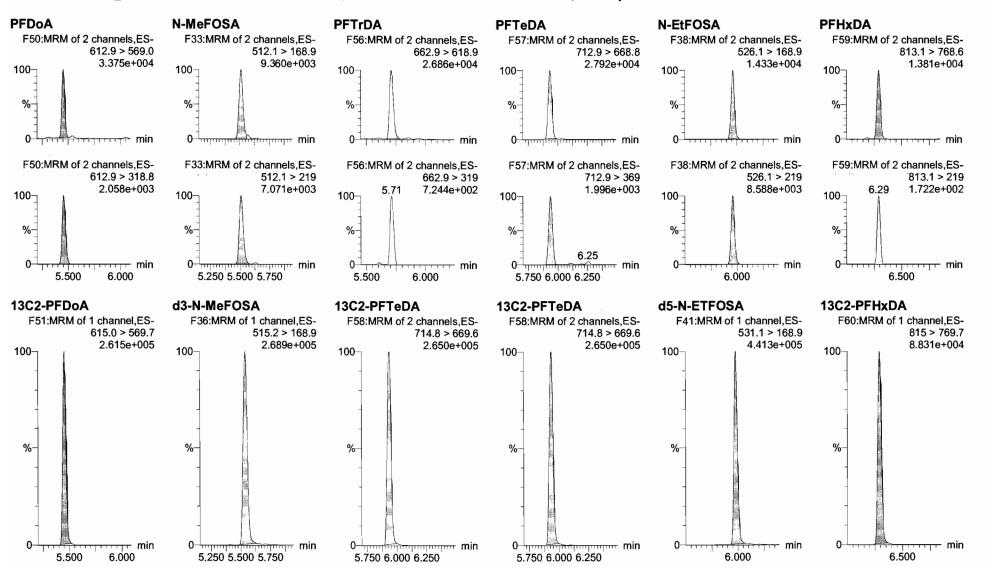
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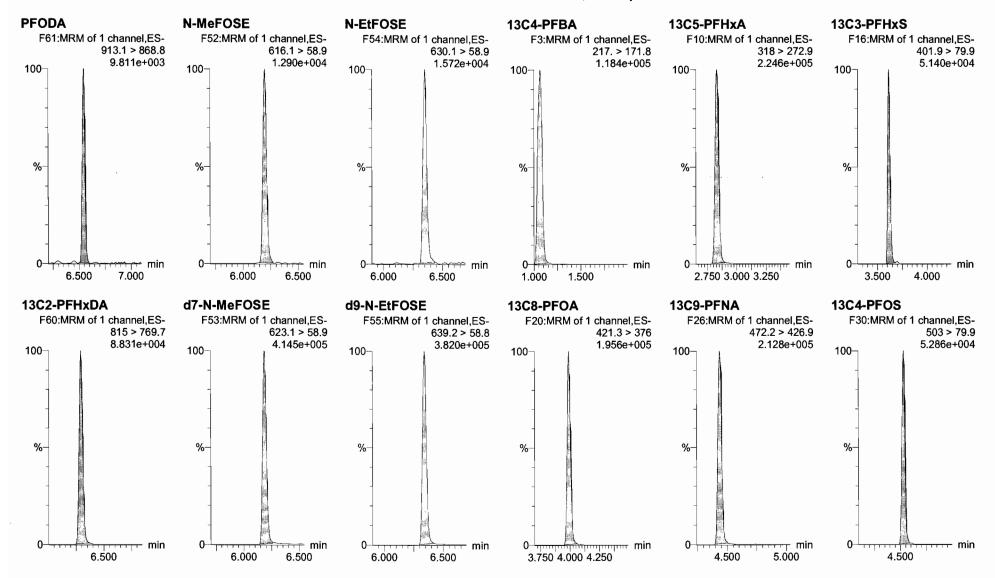
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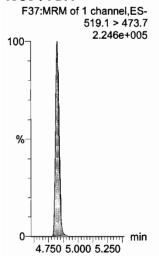
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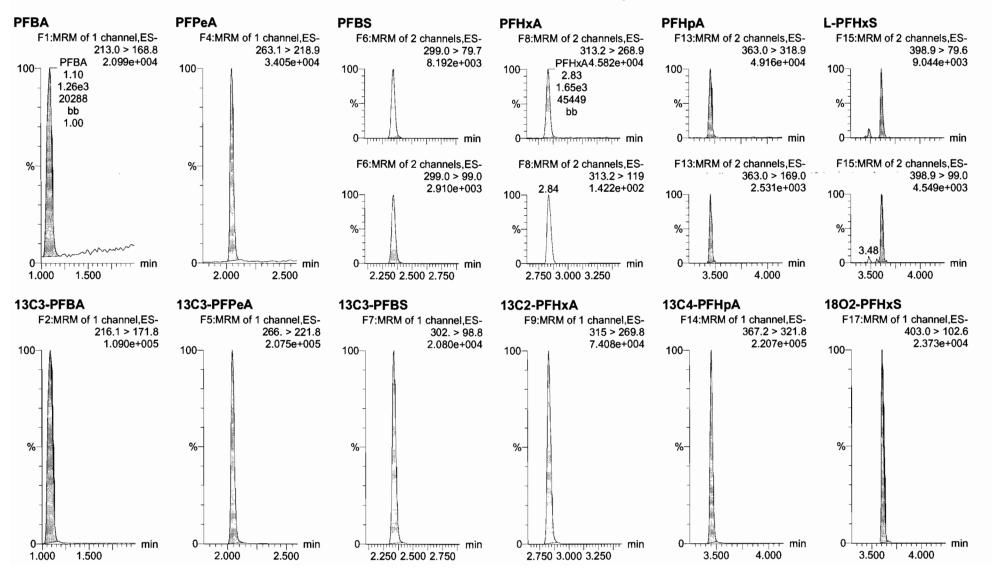


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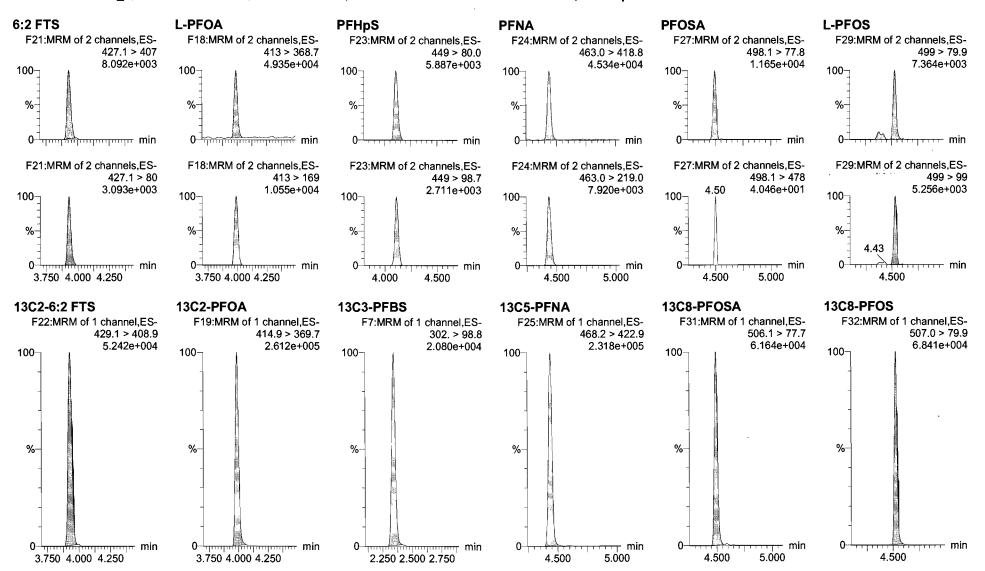
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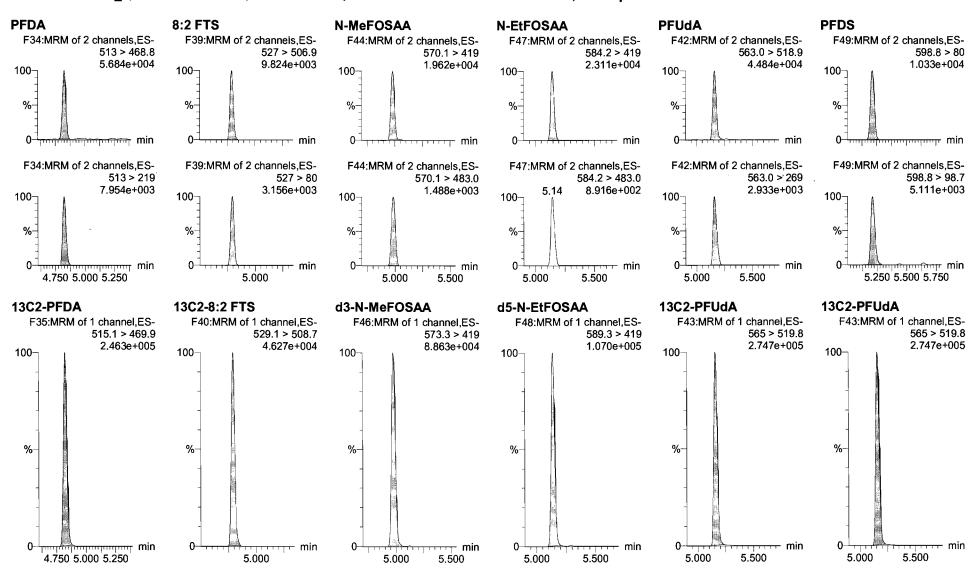


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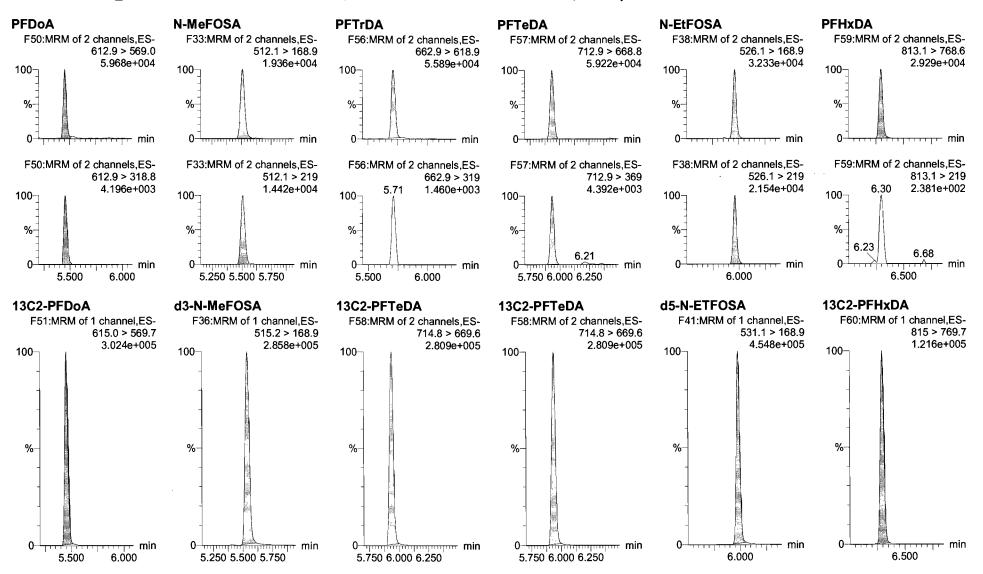
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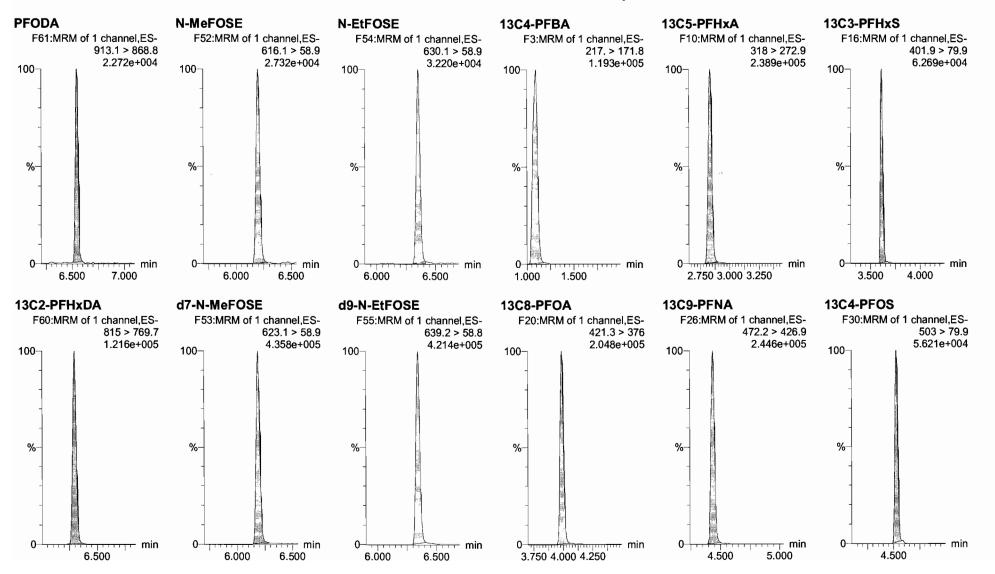


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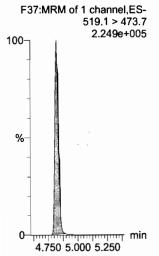
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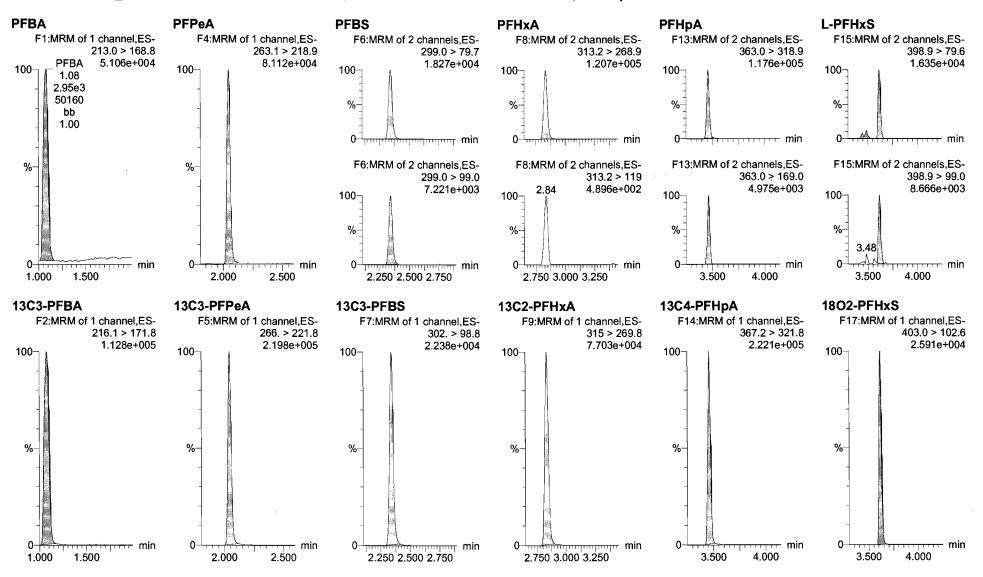


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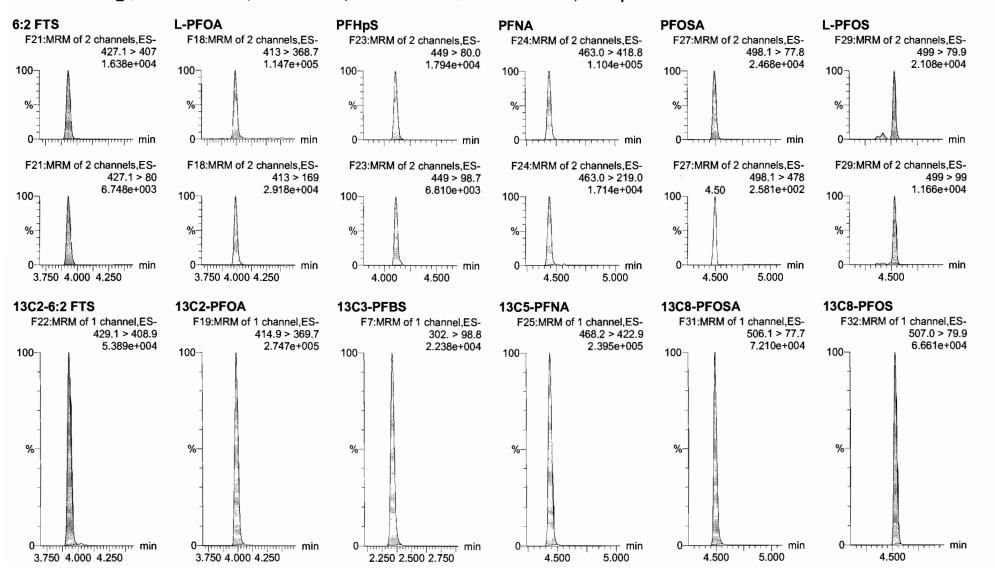


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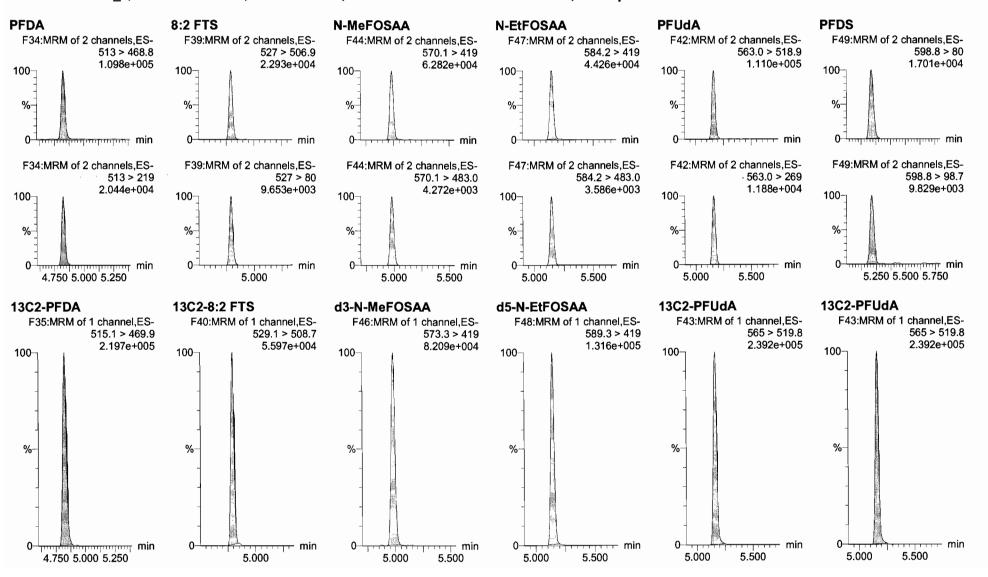
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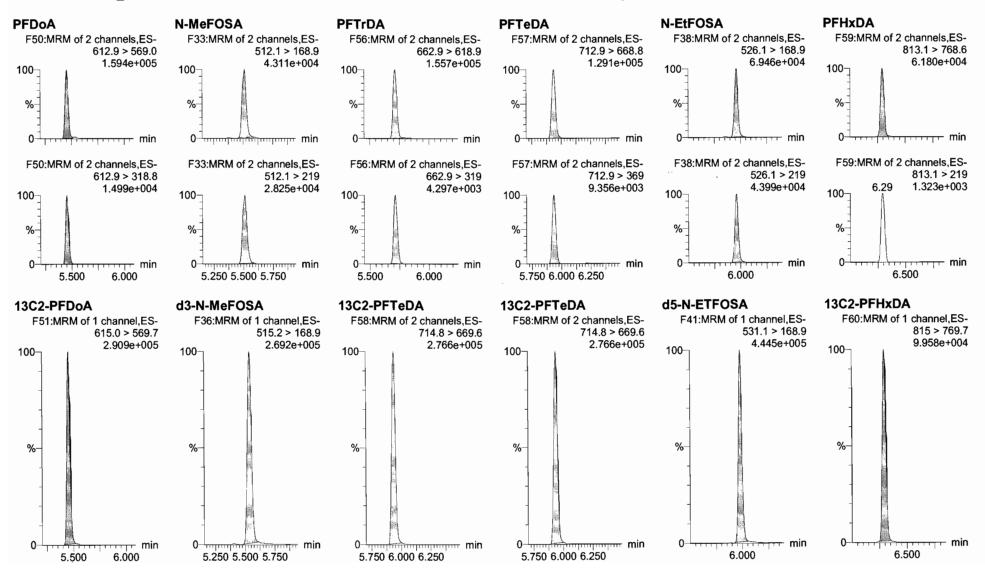


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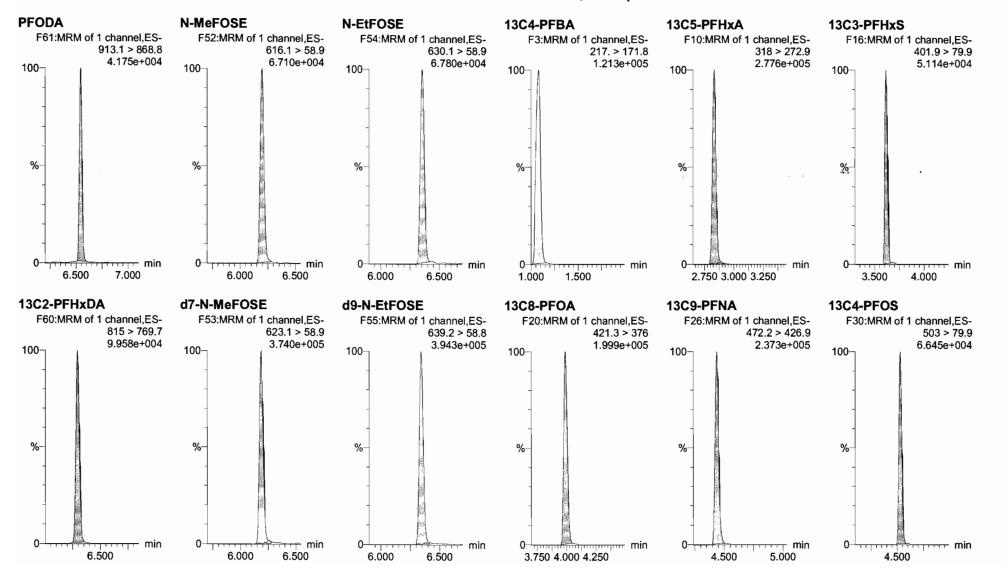
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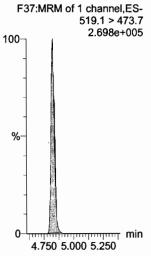
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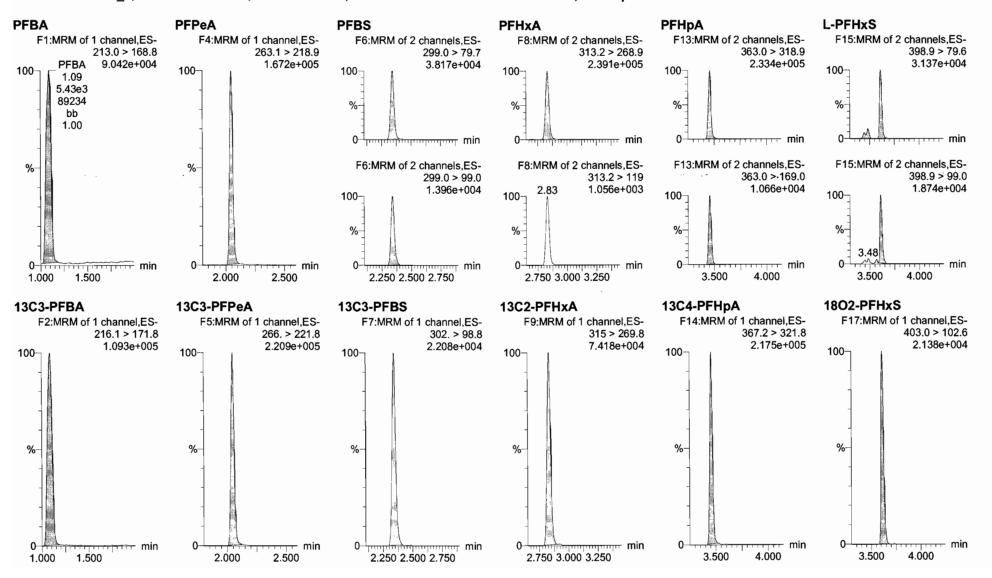


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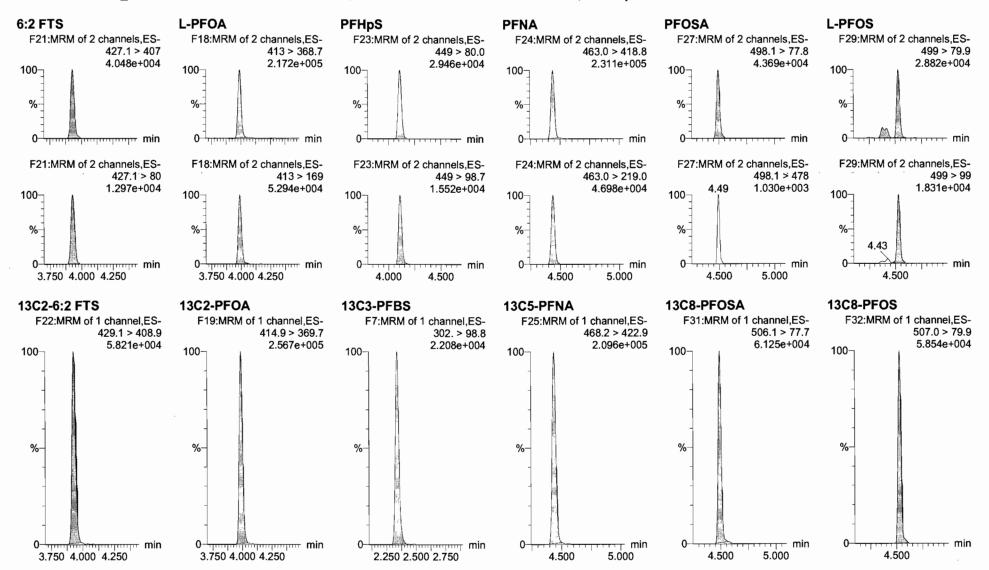
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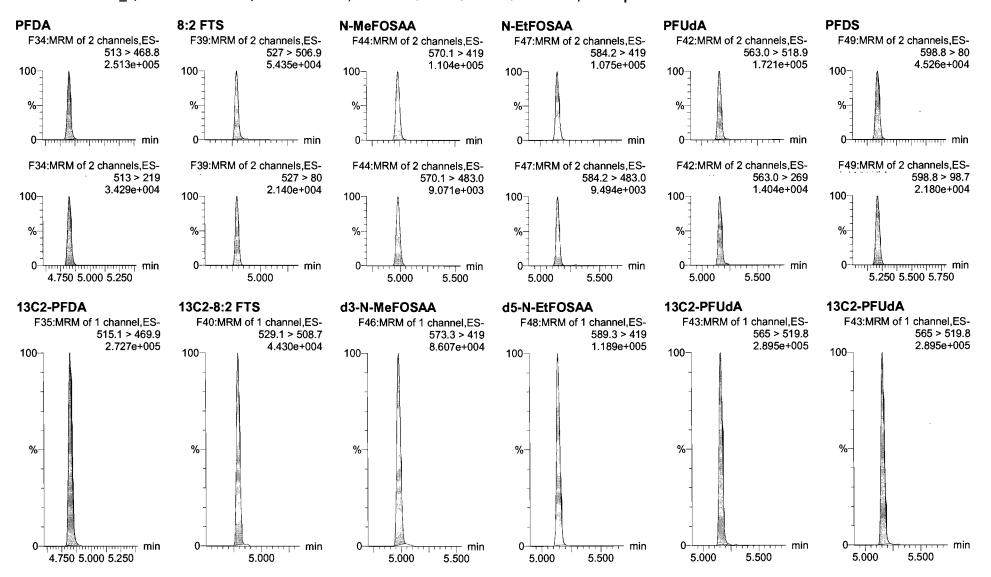
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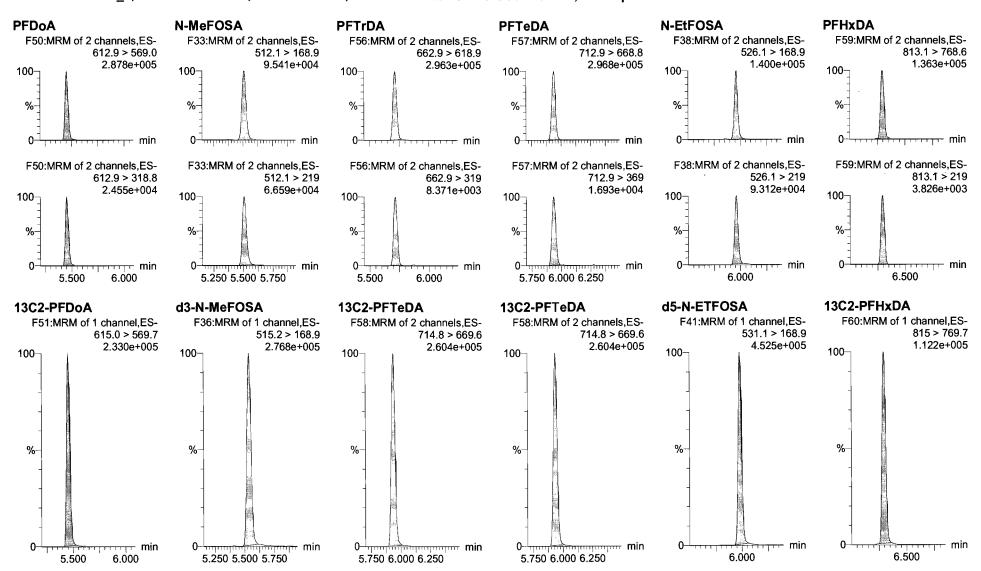
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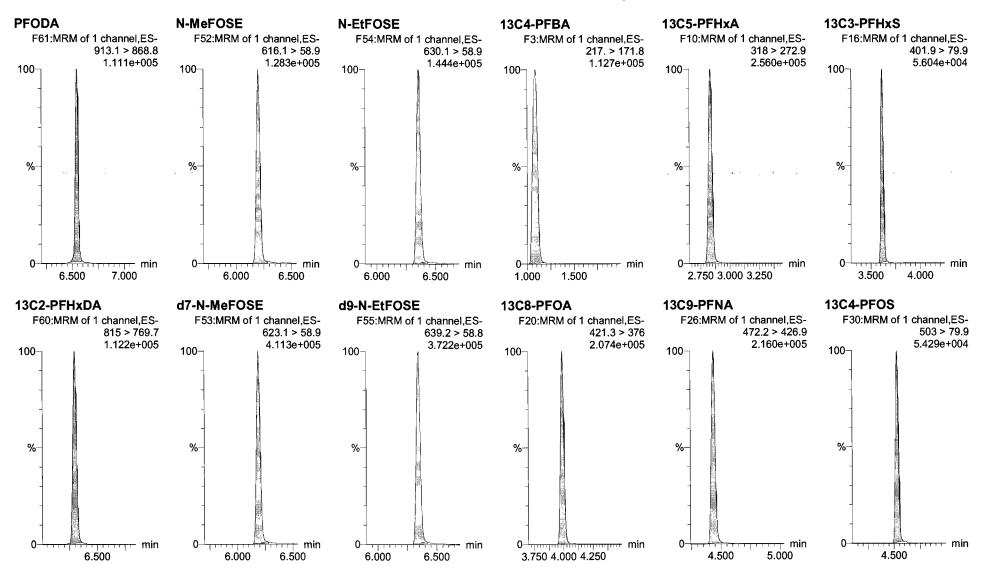


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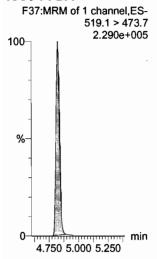
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13C6-PFDA



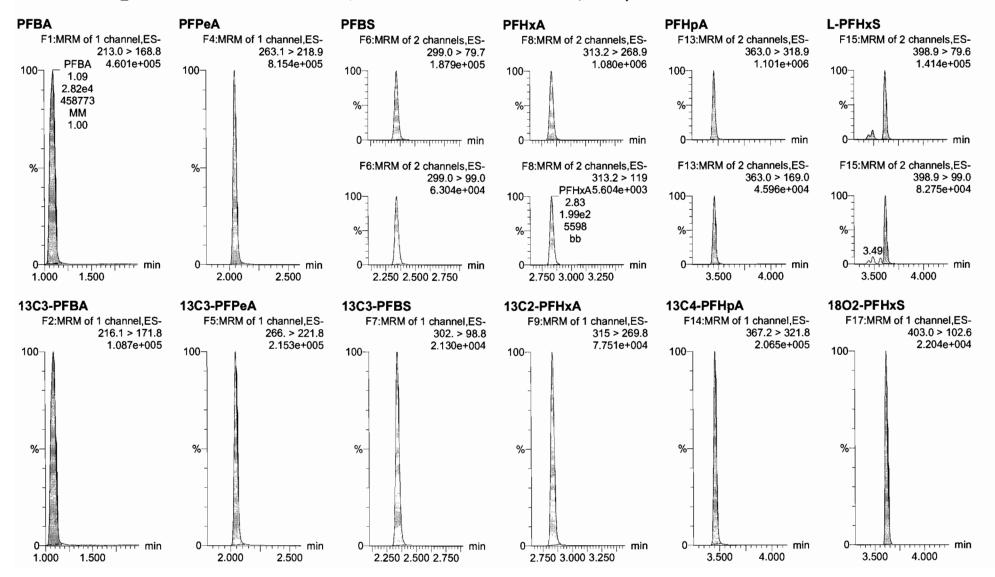
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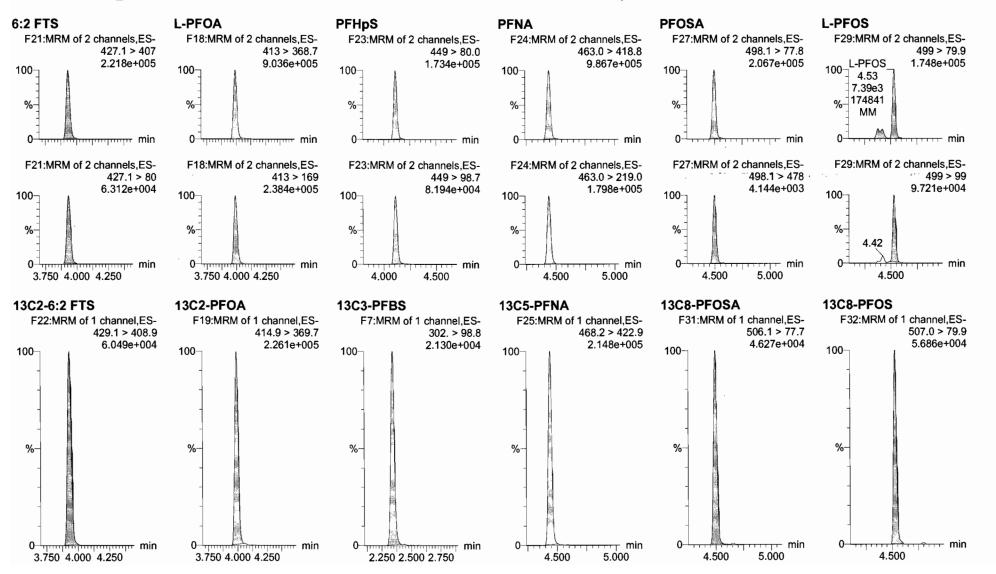
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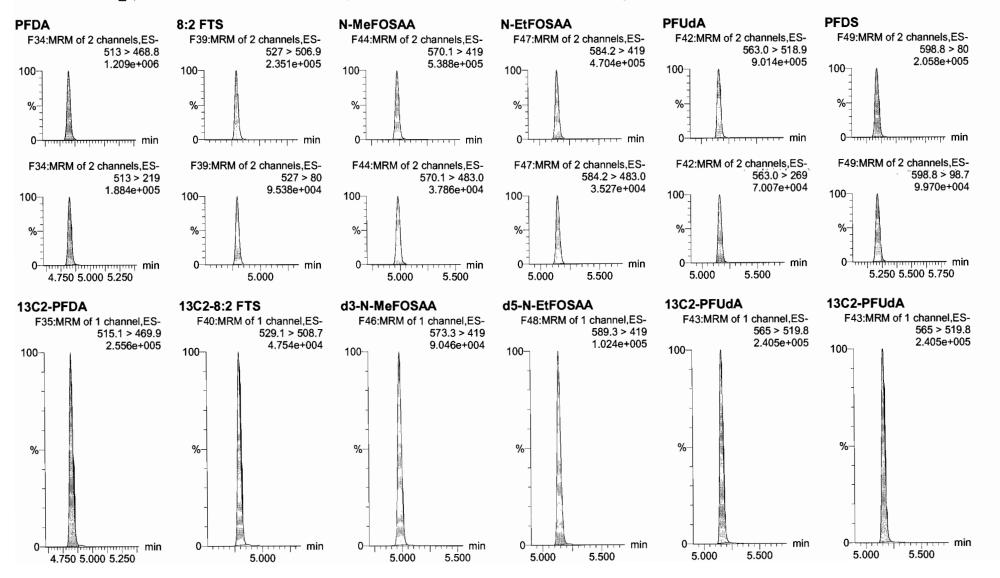
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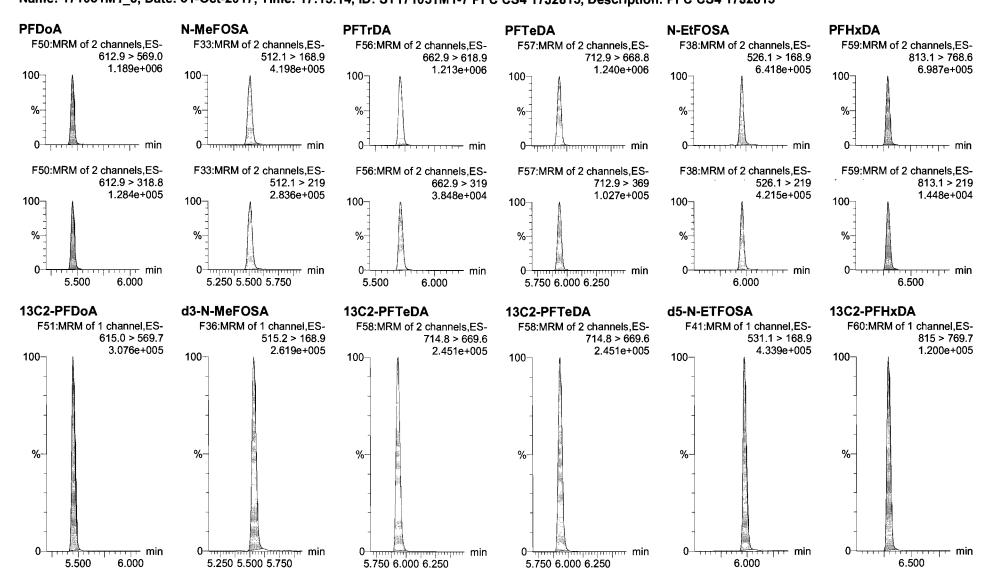
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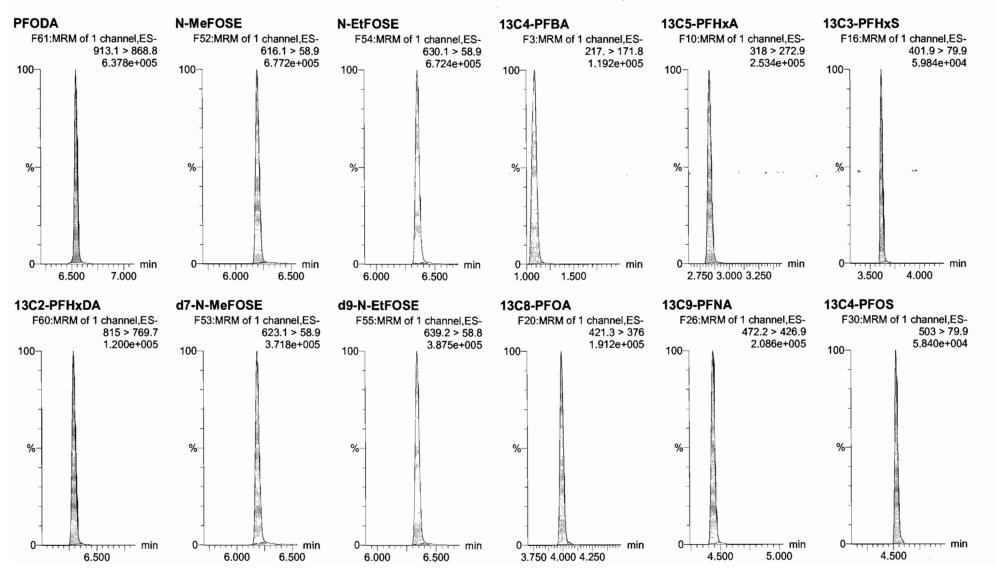
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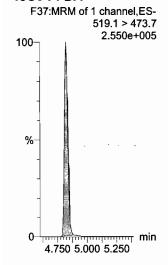
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13C6-PFDA

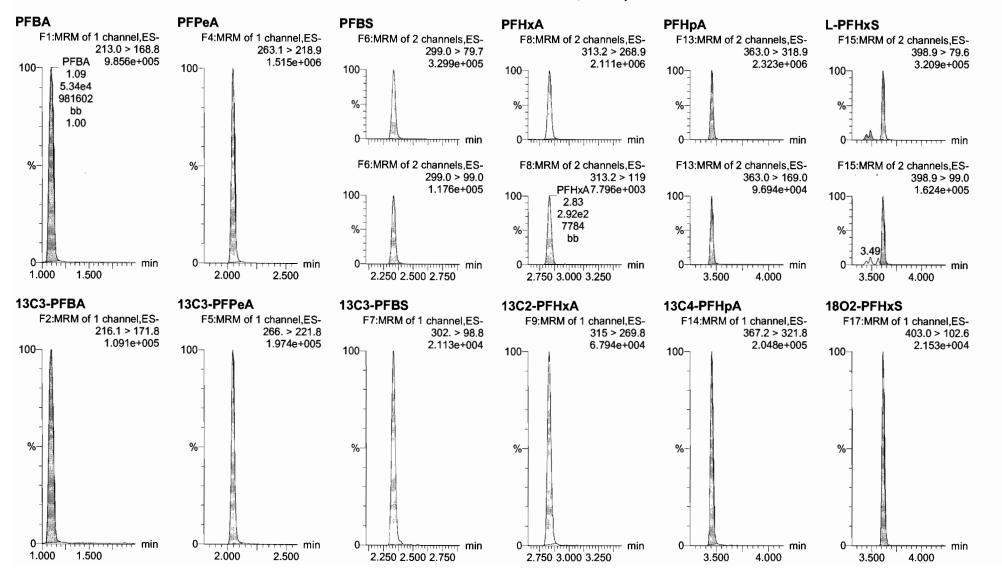


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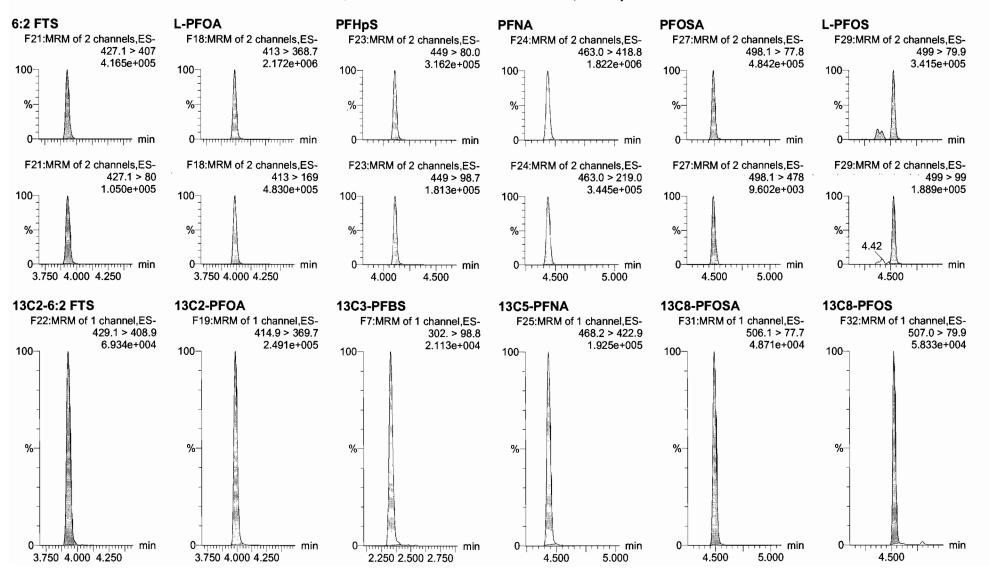
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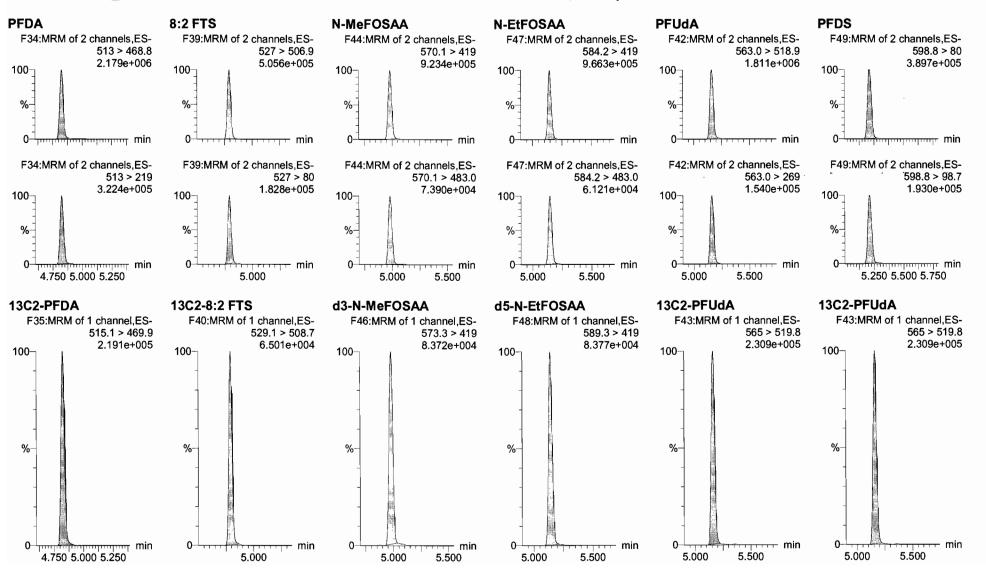


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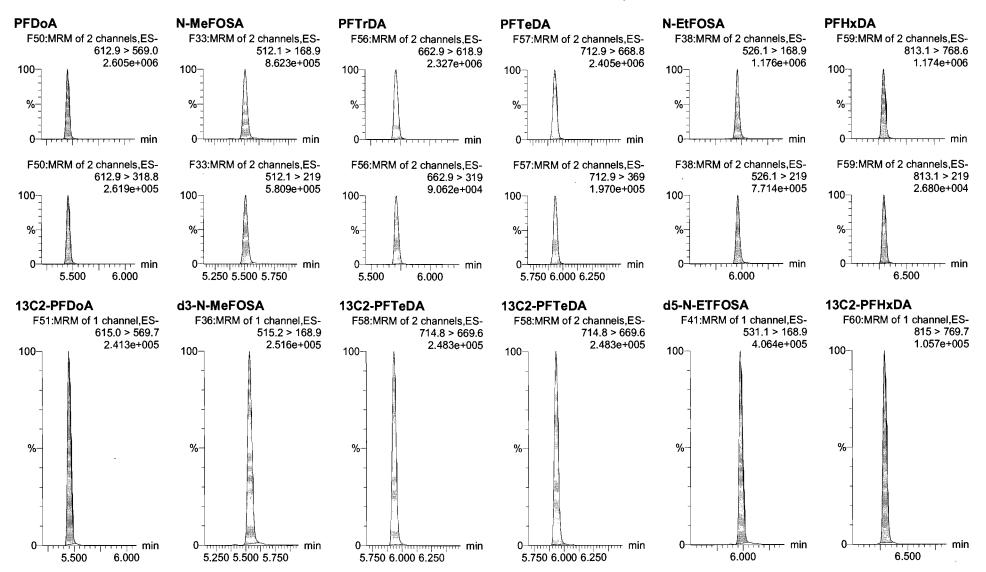
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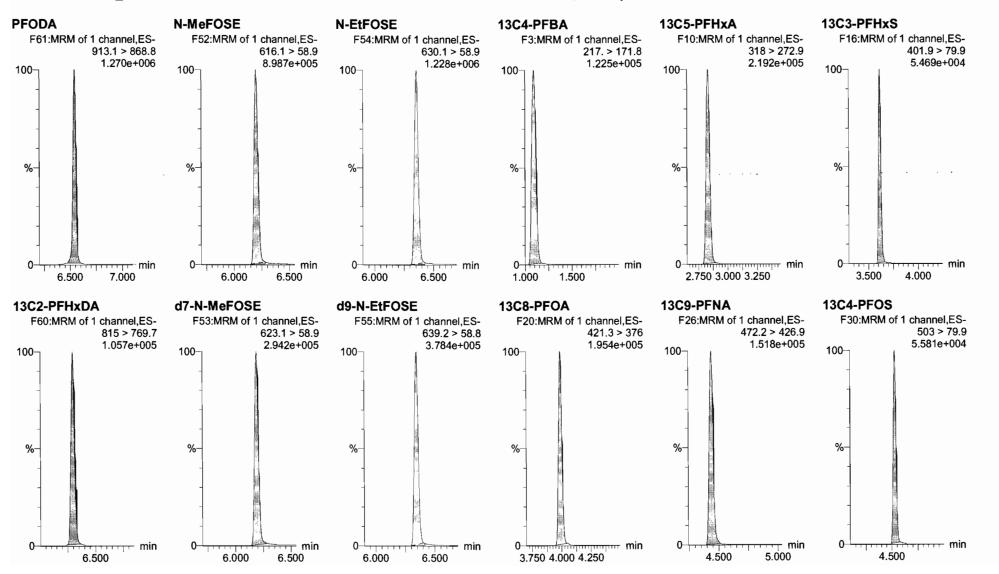
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Quantify Sample Report

MassLynx MassLynx V4.1 SCN945 SCN960

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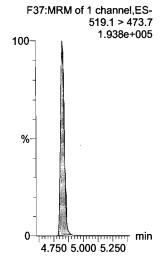
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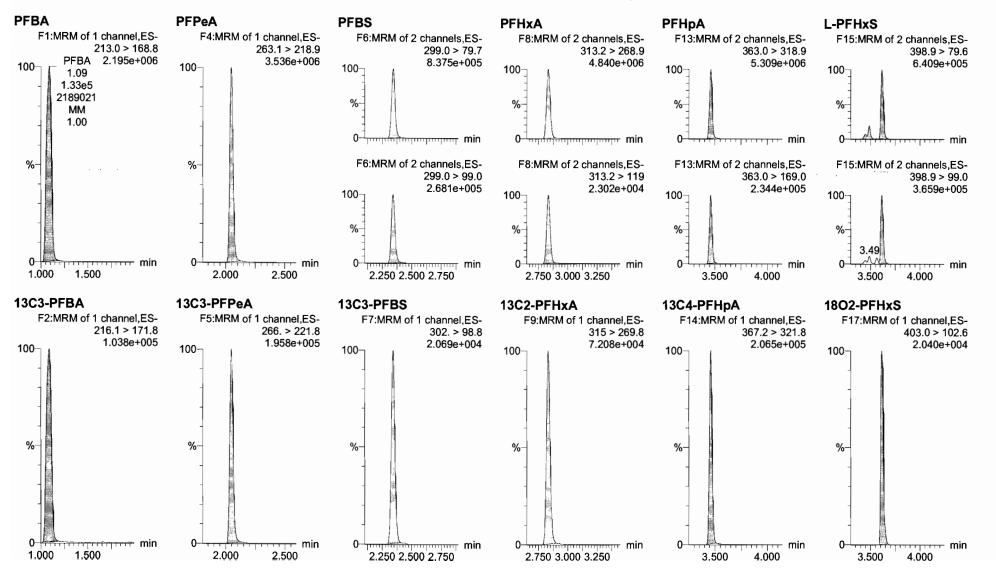


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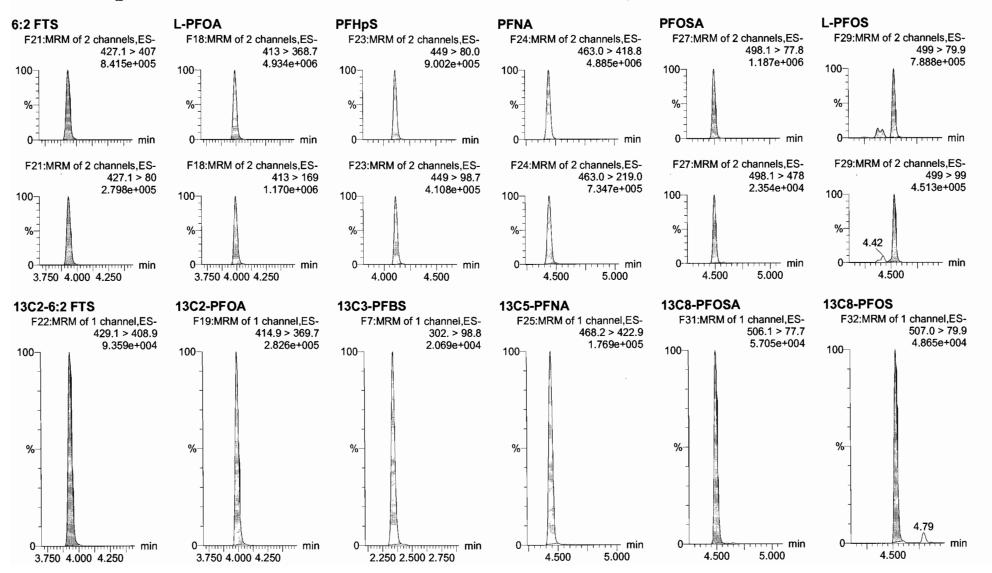


Vista Analytical Laboratory

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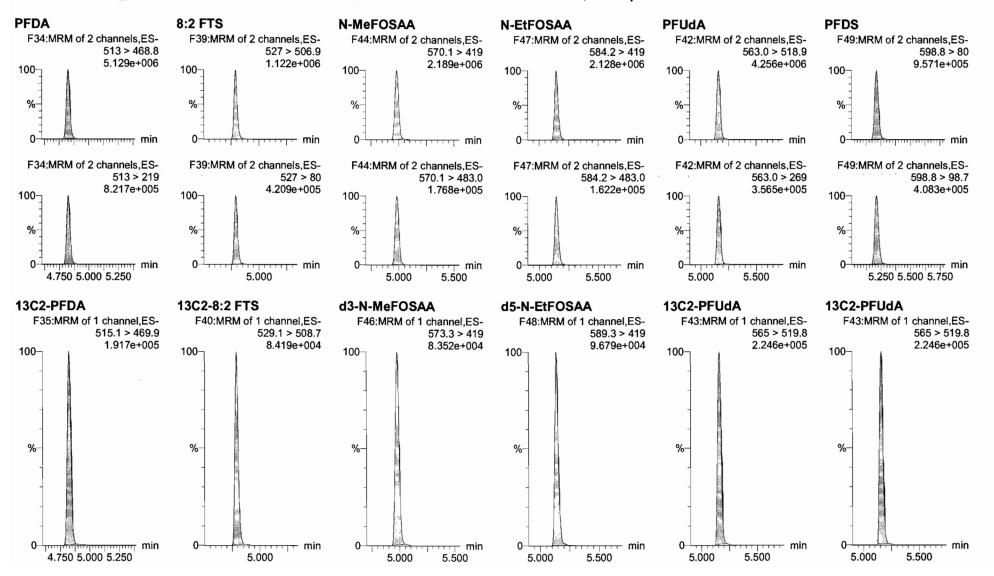
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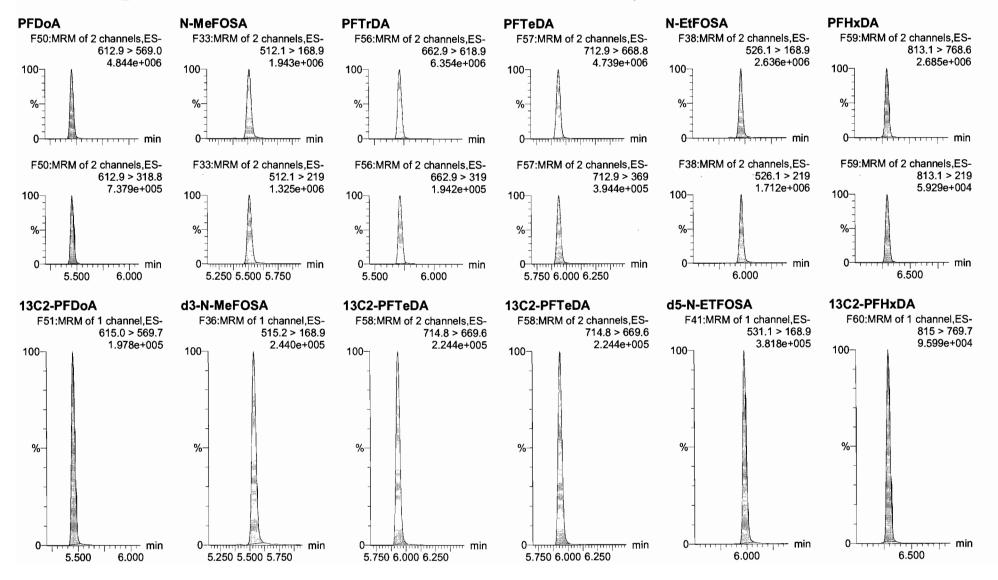
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Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17J2815



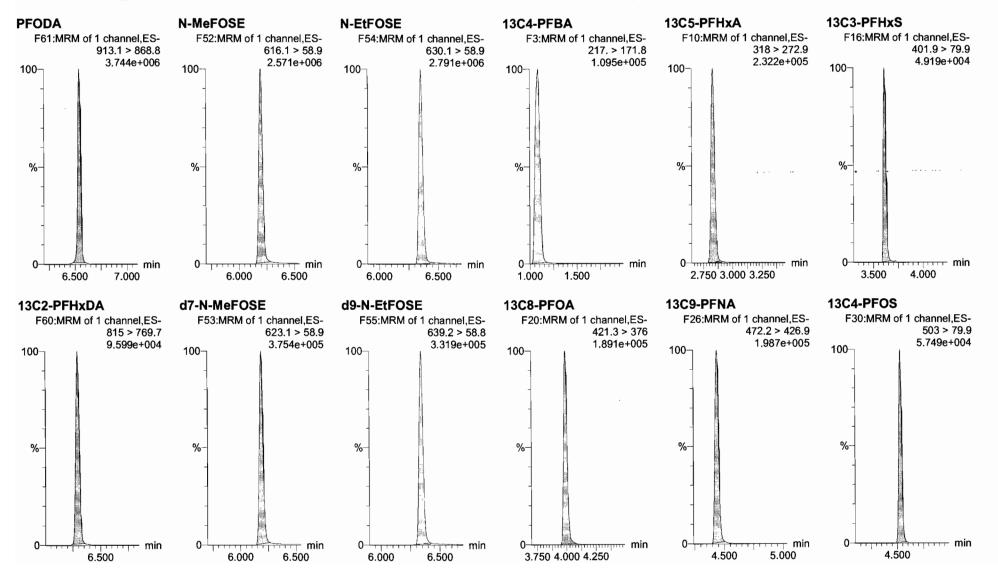
Work Order 1701439 Revision 1 Page 386 of 402

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

Last Altered: Printed:

Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17J2815



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Vista Analytical Laboratory

Dataset:

U:\Q4.PRO\results\171031M1\171031M1-CRV.qld

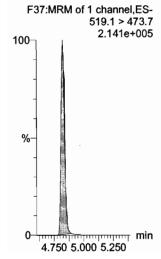
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Wednesday, November 01, 2017 08:21:58 Pacific Daylight Time

Printed: Wednesday, November 01, 2017 08:24:12 Pacific Daylight Time

Name: 171031M1_10, Date: 31-Oct-2017, Time: 17:38:27, ID: ST171031M1-9 PFC CS6 17J2815, Description: PFC CS6 17J2815

13C6-PFDA



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Vista Analytical Laboratory

Dataset:

U:\Q4.PRO\results\171031M1\171031M1-13.qld

Last Altered: Printed:

Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_10-31-17-FULL_OLD.cdb 01 Nov 2017 09:42:13

(A) pot m 1W.

Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804

| prosentation 25 | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec | |
|--|--------------------------------|---------------|--------|---------|-----------|---------|------|--------------|-------|----------|--------------------------|
| | 1 PFBA | 213.0 > 168.8 | 5.86e3 | 6.42e3 | 7411 M.PS | 1.17 | 1.07 | 11.4 | 10.6 | 106.4 30 | <u>-130</u> |
| | 2 PFPeA | 263.1 > 218.9 | 5.61e3 | 6.88e3 | | 2.15 | 2.04 | 10.2 | 10.6 | 106.3 | |
| proprieta de la composición dela composición de la composición de la composición de la composición de la composición dela composición de la composición de la composición dela composición dela composición de la | 3 PFBS | 299.0 > 79.7 | 1.18e3 | 8.03e2 | | 2.44 | 2.34 | 18.3 | 9.00 | 90.0 | |
| | 4 PFHxA | 313.2 > 268.9 | 8.16e3 | 2.61e3 | | 2.93 | 2.83 | 15.6 | 11.0 | 110.0 | |
| | 5 PFHpA | 363.0 > 318.9 | 6.90e3 | 6.33e3 | | 3.56 | 3.46 | 13.6 | 10.5 | 104.6 | |
| grande et et et. Grande et e | 6 L-PFHxS | 398.9 > 79.6 | 1.08e3 | 6.24e2 | | 3.71 | 3.62 | 21.7 | 10.7 | 106.9 | |
| Depres de la constante de la c | 8 6:2 FTS | 427.1 > 407 | 1.45e3 | 1.69e3 | | 4.03 | 3.93 | 10.8 | 11.5 | 114.5 | |
| | 9 L-PFOA | 413 > 368.7 | 7.12e3 | 8.26e3 | | 4.05 | 3.99 | 10.8 | 11.1 | 110.8 | |
| ac- | 11 PFHpS | 449 > 80.0 | 1.11e3 | 8.26e3 | | 4.20 | 4.11 | 1.67 | 9.11 | 91.1 | -1 |
| | 12 PFNA | 463.0 > 418.8 | 7.68e3 | 7.22e3 | | 4.55 | 4.44 | 13.3 | 10.6 | 106.3 | ΟYV |
| ayehid into | 13 PFOSA | 498.1 > 77.8 | 1.57e3 | 1.96e3 | | 4.59 | 4.50 | 10.0 | 9.30 | 93.0 | () ~/ |
| | 14 L-PFOS | 499 > 79.9 | 1.45e3 | 1.91e3 | | 4.63 | 4.53 | 9.47 | 9.35 | 93.5 | om ulilit Mailoila |
| | 16 PFDA | 513 > 468.8 | 8.14e3 | 8.46e3 | | 4.92 | 4.82 | 12.0 | 9.37 | 93.7 | ((/, |
| | 17 8:2 FTS | 527 > 506.9 | 1.55e3 | 1.73e3 | | 4.89 | 4.79 | 11.2 | 7.82 | 78.2 | |
| | 18 N-MeFOSAA | 570.1 > 419 | 5.21e3 | 3.88e3 | | 5.08 | 4.98 | 16.8 | 11.6 | 115.8 | ΔIA |
| | 19 N-EtFOSAA | 584.2 > 419 | 3.42e3 | 4.22e3 | | 5.24 | 5.14 | 10.1 | 8.63 | 86.3 | YWY' L |
| | 20 PFUdA | 563.0 > 518.9 | 7.42e3 | 9.78e3 | | 5.25 | 5.16 | 9.48 | 9.78 | 97.8 | 0 1110112 |
| | 21 PFDS | 598.8 > 80 | 1.54e3 | 9.78e3 | | 5.31 | 5.21 | 1.97 | 8.88 | 88.8 | , |
| | 22 PFDoA | 612.9 > 569.0 | 1.00e4 | 9.72e3 | | 5.55 | 5.45 | 12.9 | 10.5 | . 104.6 | |
| and the little | 23 N-MeFOSA | 512.1 > 168.9 | | 1.09e4 | | 5.56 | | | (- | k) | |
| | 24 PFTrDA | 662.9 > 618.9 | 9.70e3 | 9.72e3 | | 5.80 | 5.71 | 12.5 | 9.75 | 97.5 | |
| | 25 PFTeDA | 712.9 > 668.8 | 1.04e4 | 8.57e3 | | 6.02 | 5.94 | 15.2 | 11.8 | 118.4 | |
| KIN N | 26 N-EtFOSA | 526.1 > 168.9 | | 1.71e4 | | 6.01 | | | (| h l | |
| indications in a | 27 PFHxDA | 813.1 > 768.6 | | 3.83e3 | | 6.32 | | | (| ۱ ۱ | |
| ri galbarg i hina wainta | 28 PFODA | 913.1 > 868.8 | | 3.83e3 | | 6.61 | | | | \ | |
| jidografisadi Roj jildhoggi milidojaliki | 29 N-MeFOSE | 616.1 > 58.9 | | 1.63e4 | | 6.23 | | | | l. \ | |
| , 1 1 1 1 1 1 1 1 1 1 | 30 N-EtFOSE | 630.1 > 58.9 | | 1.50e4 | | 6.39 | | | | N 1 | |
| | 31 13C3-PFBA | 216.1 > 171.8 | 6.42e3 | 6.90e3 | 0.949 | 1.17 | 1.07 | 11.6 | 12.3 | 98.1 50- | 150 |
| in i la | 32 13C3-PFPeA | 266. > 221.8 | 6.88e3 | 8.91e3 | 0.781 | 2.15 | 2.04 | 9.65 | 12.3 | 98.8 | |
| i galandaniah jebi ergano tebas Ajr jiyo hasasah jeb | 33 13C3-PFBS | 302. > 98.8 | 8.03e2 | 8.91e3 | 0.089 | 2.44 | 2.34 | 1.13 | 12.7 | 101.8 | |
| W | ork 04de3C270ff4349 Revision 1 | 315 > 269.8 | 2.61e3 | 8.91e3 | 0.755 | 2.93 | 2.83 | 3.66 | 4.85 | 97.0 | Page 389 of 402 |

U:\Q4.PRO\results\171031M1\171031M1-13.qld

Last Altered: Printed:

Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

Name: 171031M1_13, Date: 31-Oct-2017, Time: 18:11:58, ID: ICV171031M1-1 PFC ICV 17J2804, Description: PFC ICV 17J2804

| | # Name | Trace | Area | IS Area | RRF | Pred.RT | RT | y Axis Resp. | Conc. | %Rec |
|-----------|-----------------|---------------|--------|---------|-------|---------|------|--------------|-------|-------|
| 32 | 35 13C4-PFHpA | 367.2 > 321.8 | 6.33e3 | 8.91e3 | 0.711 | 3.56 | 3.46 | 8.88 | 12.5 | 99.9 |
| 33 | 36 18O2-PFHxS | 403.0 > 102.6 | 6.24e2 | 1.65e3 | 0.423 | 3.71 | 3.61 | 4.73 | 11.2 | 89.3 |
| 34 | 37 13C2-6:2 FTS | 429.1 > 408.9 | 1.69e3 | 6.53e3 | 0.286 | 4.03 | 3.93 | 3.23 | 11.3 | 90.5 |
| 35 | 38 13C2-PFOA | 414.9 > 369.7 | 8.26e3 | 6.53e3 | 1.310 | 4.05 | 3.99 | 15.8 | 12.1 | 96.6 |
| 36 | 39 13C5-PFNA | 468.2 > 422.9 | 7.22e3 | 7.70e3 | 0.979 | 4.55 | 4.44 | 11.7 | 12.0 | 95.8 |
| 37 | 40 13C8-PFOSA | 506.1 > 77.7 | 1.96e3 | 9.19e3 | 0.207 | 4.59 | 4.49 | 2.67 | 12.9 | 103.3 |
| 38 | 41 13C8-PFOS | 507.0 > 79.9 | 1.91e3 | 2.02e3 | 1.072 | 4.63 | 4.53 | 11.8 | 11.1 | 88.4 |
| 39 | 42 13C2-PFDA | 515.1 > 469.9 | 8.46e3 | 8.09e3 | 1.014 | 4.92 | 4.82 | 13.1 | 12.9 | 103.1 |
| 40 | 43 13C2-8:2 FTS | 529.1 > 508.7 | 1.73e3 | 8.09e3 | 0.216 | 4.89 | 4.79 | 2.67 | 12.4 | 98.9 |
| 41 | 44 d3-N-MeFOSAA | 573.3 > 419 | 3.88e3 | 9.19e3 | 0.368 | 5.08 | 4.98 | 5.28 | 14.3 | 114.8 |
| 42 | 45 d5-N-EtFOSAA | 589.3 > 419 | 4.22e3 | 9.19e3 | 0.389 | 5.24 | 5.14 | 5.74 | 14.8 | 118.3 |
| 43 | 46 13C2-PFUdA | 565 > 519.8 | 9.78e3 | 9.19e3 | 0.983 | 5.25 | 5.16 | 13.3 | 13.5 | 108.2 |
| 44 | 47 13C2-PFDoA | 615.0 > 569.7 | 9.72e3 | 9.19e3 | 0.997 | 5.55 | 5.45 | 13.2 | 13.3 | 106.0 |
| 45 | 48 d3-N-MeFOSA | 515.2 > 168.9 | 1.09e4 | 9.19e3 | 0.096 | 5.56 | 5.54 | 14.8 | 155 | 103.2 |
| 46 | 49 13C2-PFTeDA | 714.8 > 669.6 | 8.57e3 | 9.19e3 | 1.039 | 6.02 | 5.94 | 11.7 | 11.2 | 89.7 |
| 47 | 50 d5-N-ETFOSA | 531.1 > 168.9 | 1.71e4 | 9.19e3 | 0.144 | 6.01 | 5.98 | 23.2 | 161 | 107.5 |
| 48 | 51 13C2-PFHxDA | 815 > 769.7 | 3.83e3 | 9.19e3 | 1.032 | 6.32 | 6.29 | 5.21 | 5.05 | 101.0 |
| 49 | 52 d7-N-MeFOSE | 623.1 > 58.9 | 1.63e4 | 9.19e3 | 0.133 | 6.23 | 6.19 | 22.2 | 167 | 111.4 |
| 50 | 53 d9-N-EtFOSE | 639.2 > 58.8 | 1.50e4 | 9.19e3 | 0.128 | 6.39 | 6.34 | 20.4 | 160 | 106.6 |
| 51 | 54 13C4-PFBA | 217. > 171.8 | 6.90e3 | 6.90e3 | 1.000 | 1.17 | 1.07 | 12.5 | 12.5 | 100.0 |
| 52 | 55 13C5-PFHxA | 318 > 272.9 | 8.91e3 | 8.91e3 | 1.000 | 2.93 | 2.83 | 12.5 | 12.5 | 100.0 |
| 53 | 56 13C3-PFHxS | 401.9 > 79.9 | 1.65e3 | 1.65e3 | 1.000 | 3.71 | 3.62 | 12.5 | 12.5 | 100.0 |
| 54 | 57 13C8-PFOA | 421.3 > 376 | 6.53e3 | 6.53e3 | 1.000 | 4.05 | 3.99 | 12.5 | 12.5 | 100.0 |
| 55 | 58 13C9-PFNA | 472.2 > 426.9 | 7.70e3 | 7.70e3 | 1.000 | 4.55 | 4.44 | 12.5 | 12.5 | 100.0 |
| 56 | 59 13C4-PFOS | 503 > 79.9 | 2.02e3 | 2.02e3 | 1.000 | 4.63 | 4.53 | 12.5 | 12.5 | 100.0 |
| 57 | 60 13C6-PFDA | 519.1 > 473.7 | 8.09e3 | 8.09e3 | 1.000 | 4.92 | 4.82 | 12.5 | 12.5 | 100.0 |
| 58 | 61 13C7-PFUdA | 570.1 > 524.8 | 9.19e3 | 9.19e3 | 1.000 | 5.25 | 5.16 | 12.5 | 12.5 | 100.0 |

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U:\Q4.PRO\results\171031M1\171031M1-13.qld

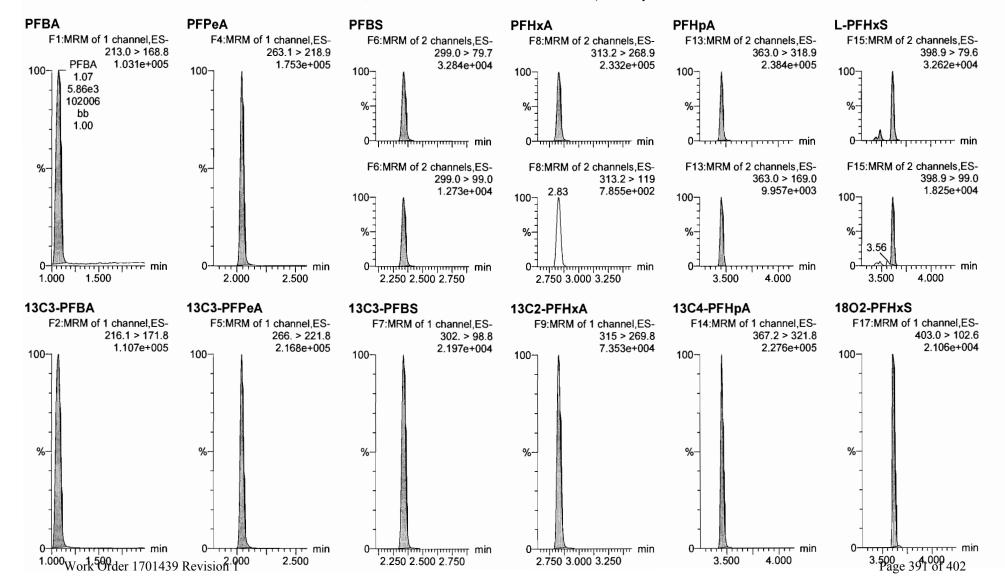
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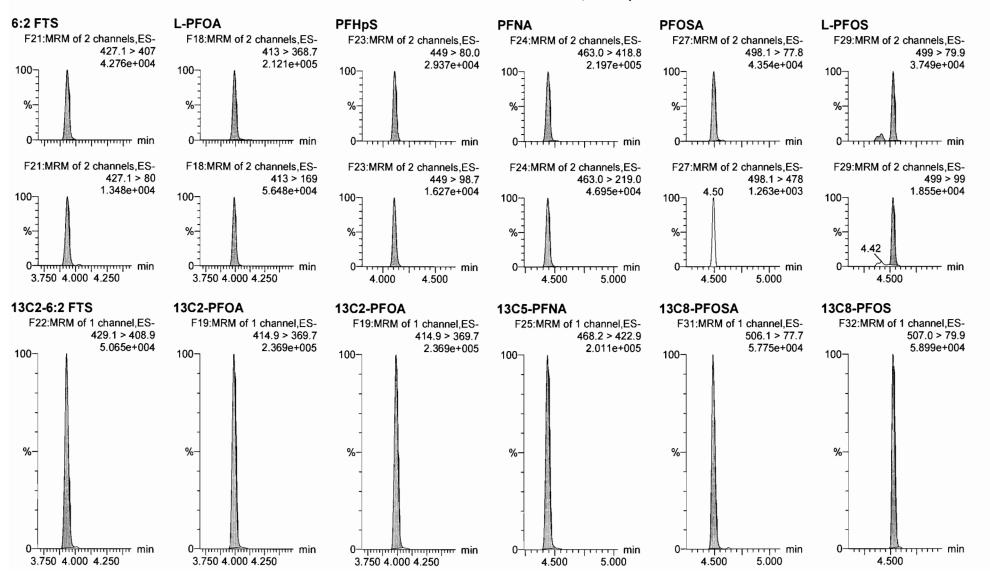
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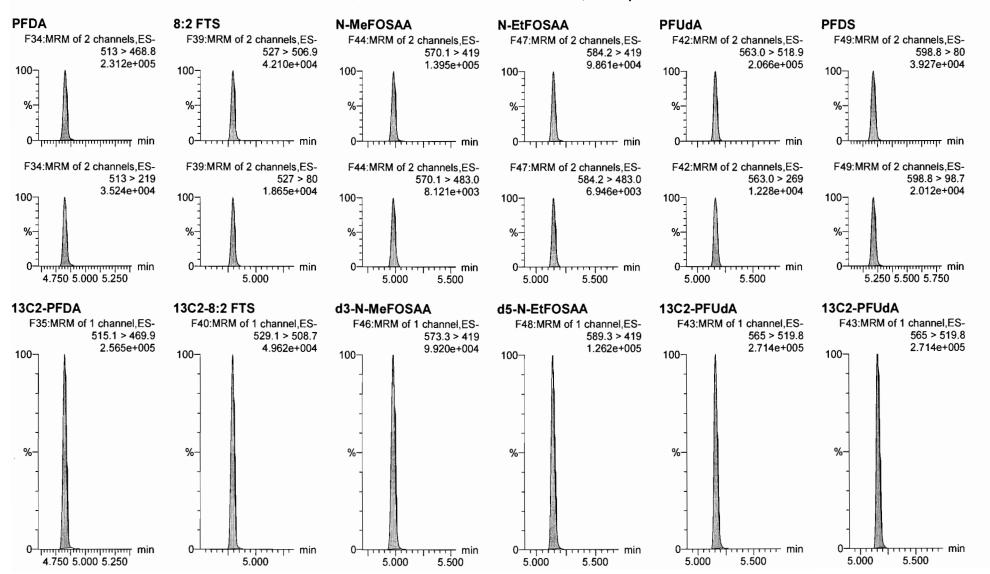


Work Order 1701439 Revision 1 Page 392 of 402

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Last Altered: Printed: Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

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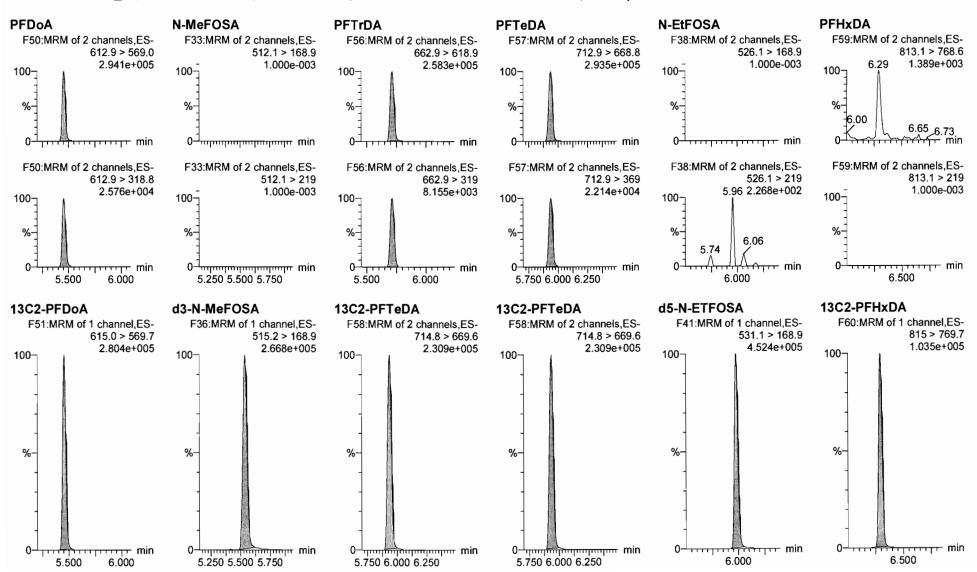


Work Order 1701439 Revision 1 Page 393 of 402

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Last Altered: Printed: Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

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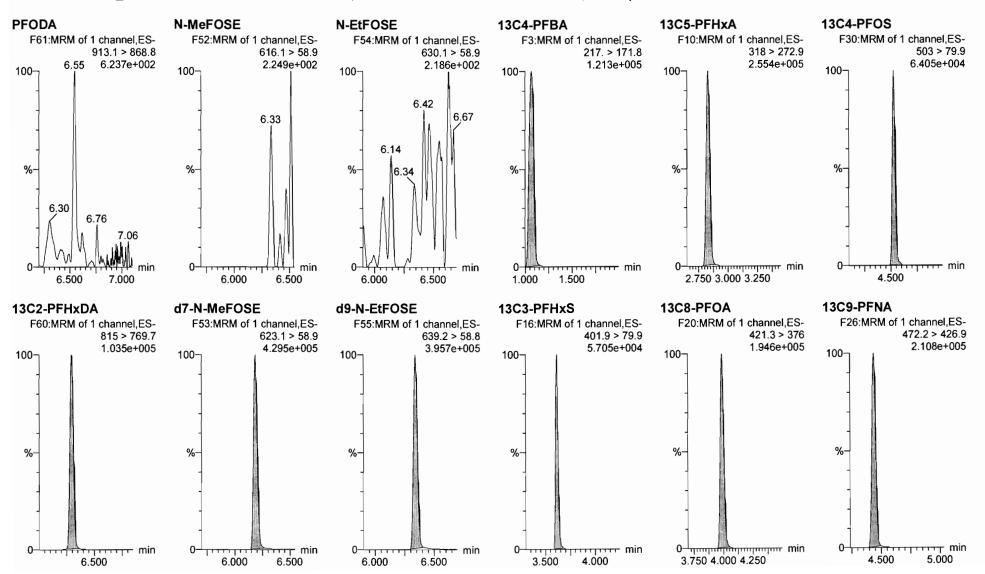


Work Order 1701439 Revision 1 Page 394 of 402

U:\Q4.PRO\results\171031M1\171031M1-13.qld

Last Altered: Printed: Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

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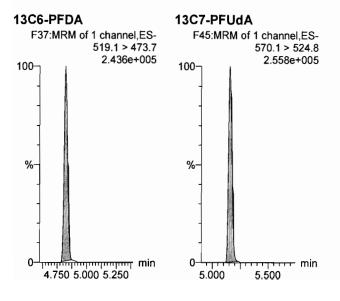
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Wednesday, November 01, 2017 09:45:32 Pacific Daylight Time

Printed: Wednesday, November 01, 2017 09:46:28 Pacific Daylight Time

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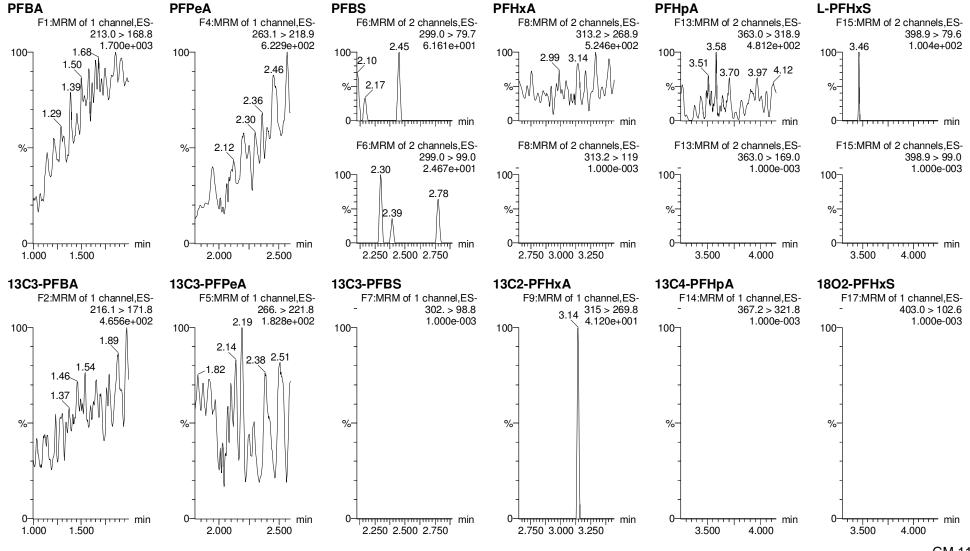
Work Order 1701439 Revision 1 Page 396 of 402

Dataset: Untitled

Last Altered: Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time

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GM 11/1/17

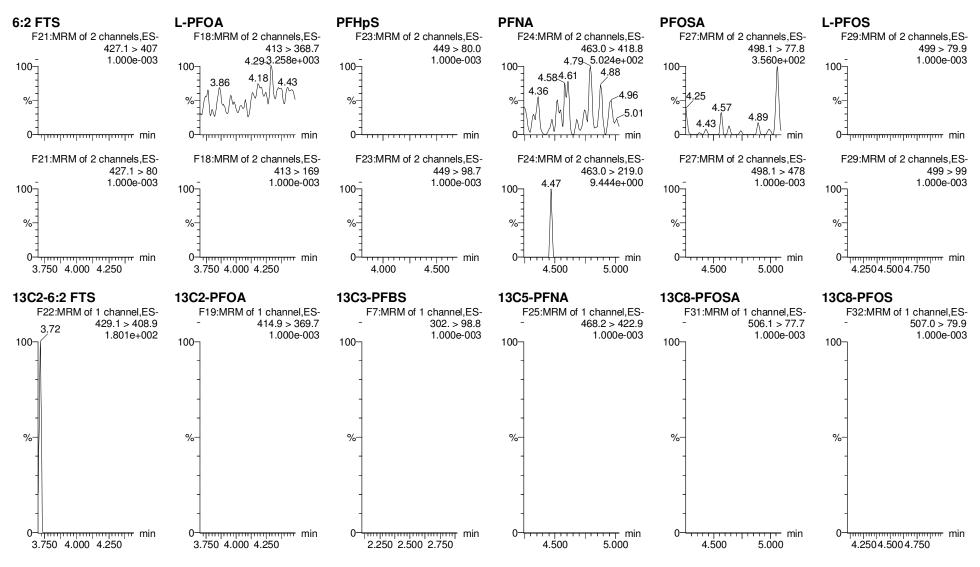
Work Order 1701439 Revision 1

Page 397 of 402

Vista Analytical Laboratory

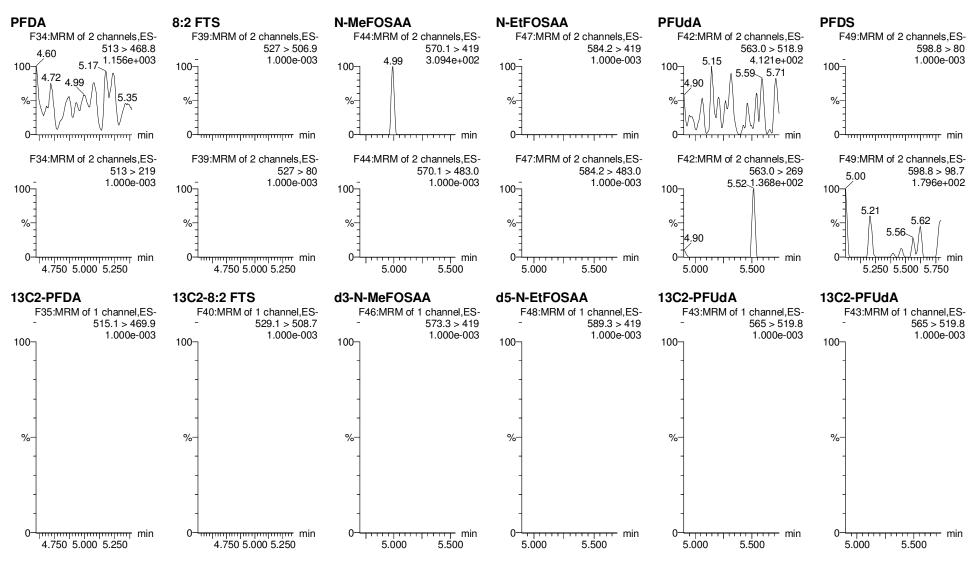
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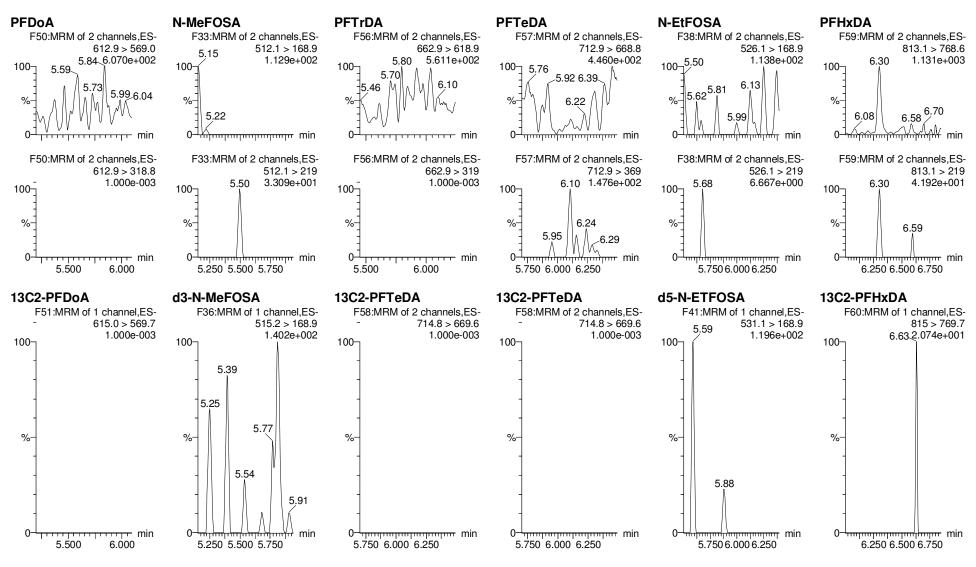
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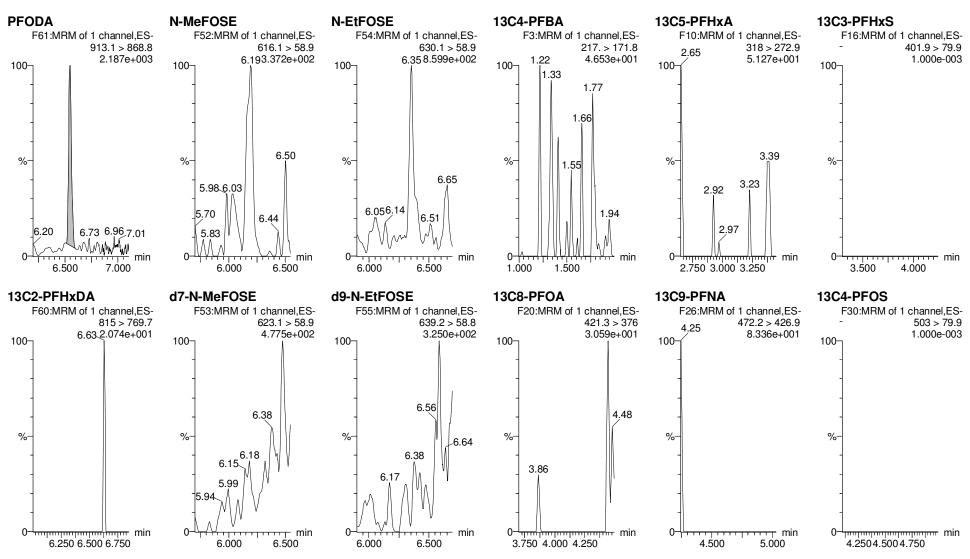
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Last Altered: Wednesday, November 01, 2017 08:54:23 Pacific Daylight Time Printed: Wednesday, November 01, 2017 08:56:10 Pacific Daylight Time



MassLynx WassLynx V4.1 SCN945 SCN960 Page 6 of 6

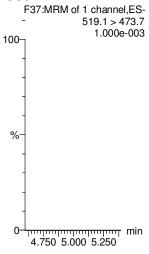
Quantify Sample Report Vista Analytical Laboratory

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13C6-PFDA



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(PFHXS)", "0.0743", "", "TRG", "Yes", "Y", "", "Y", "0.000947", "0.00500", "0.00800", "UG\_L", "UG\_L", "", "", "", "0.0800", "0.00800", "UG\_L", "UG_L", "UG_L
.0743","92.9","","","","","","70","130","","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","335-67-1","PERFLUOROOCTANOIC ACID
(PFOA)","0.0667","","TRG","Yes","Y","","Y","0.000651","0.00500","0.00800","UG_L","UG_L","","","","","0.0800","0.
0667","83.4","","","","","","70","130","","","","",""
"B7J0092-BS1","537 MOD","10/26/17","12:03","N","NA","000","1763-23-
 1","HEPTADECAFLUOROACTANESULFONIC ACID SOLUTION
", "0.0606", "", "TRG", "Yes", "Y", "", "Y", "0.000807", "0.00500", "0.00800", "UG\_L", "UG\_L", "", "", "0.0800", "0.0800", "0.0606", "70.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.00800", "0.0080
5.7","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","375-95-1","PERFLUORONONANOIC ACID
(PFNA)","0.0696","","TRG","Yes","Y","","Y","0.000810","0.00500","0.00800","UG_L","UG_L","","","","0.0800","0.
0696","87.1","","","","","","70","130","","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","335-76-2","PERFLUORODECANOIC ACID
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","754-91-
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","2355-31-
9", "MeFOSAA", "0.0715", "", "TRG", "Yes", "Y", "", "Y", "0.00165", "0.00500", "0.00800", "UG\_L", "UG\_L", "", "", "", "0.0800", "UG\_L", "UG\_
0","0.0715","89.4","","","","","","70","130","","","","",""
"B7J0092-BS1","537 MOD","10/26/17","12:03","N","NA","000","335-77-
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","2058-94-8","PERFLUOROUNDECANOIC ACID
(PFUNA)","0.0707","","TRG","Yes","Y","","Y","0.00105","0.00500","0.00800","UG_L","UG_L","","","","","0.0800","0.
0707","88.3","","","","","","70","130","","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","2991-50-
6","EtFOSAA","0.0622","","TRG","Yes","Y","","Y","0.00137","0.00500","0.00800","UG_L","UG_L","","","","","0.0800
","0.0622","77.8","","","","","","70","130","","","","",""
```

```
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","307-55-1","PERFLUORODODECANOIC ACID
8","PFTrDA","0.0917","","TRG","Yes","Y","","Y","0.000494","0.00500","0.00800","UG_L","UG_L","","","","","0.0800
","0.0917","115","","","","","","60","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","376-06-
7","PFTeDA","0.0582","","TRG","Yes","Y","","Y","0.000755","0.00500","0.00800","UG_L","UG_L","","","","0.0800
","0.0582","72.8","","","","","","70","130","","","",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C3-PFBA","13C3-
PFBA","89.9","","IS","Yes","Y","","","","","","PCT_REC","","","","","100","89.9","89.9","89.9","","","","","","","150",""
, ,
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C3-PFPeA","13C3-
PFPeA","79.3","","IS","Yes","Y","","","","","","PCT_REC","","","","","100","79.3","79.3","","","","","","","50","150","
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C3-PFBS","13C3-
PFBS","81.8","","IS","Yes","Y","","","","","","PCT_REC","","","","100","81.8","81.8","","","","","","","50","150","",
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFHxA","13C2-
PFHxA","83.1","","IS","Yes","Y","","","","","","PCT_REC","","","","100","83.1","83.1","","","","","","","50","150","
.. ... ... ...
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C4-PFHpA","13C4-
PFHpA","84.8","","IS","Yes","Y","","","","","","PCT_REC","","","","100","84.8","84.8","","","","","","","50","150","
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","18O2-PFHxS","18O2-
PFHxS","82.4","","IS","Yes","Y","","","","","","PCT_REC","","","","100","82.4","82.4","82.4","","","","","","50","150","
", ", ",
"B7J0092-BS1","537 MOD","10/26/17","12:03","N","NA","000","13C2-PFOA","13C2-
PFOA","82.5","","IS","Yes","Y","","","","","","PCT_REC","","","","100","82.5","82.5","82.5","","","","","","50","150",""
, , , ,
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C8-PFOS","13C8-
PFOS","97.7","","IS","Yes","Y","","","","","","PCT_REC","","","","","100","97.7","97.7","","","","","","","50","150","",
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C5-PFNA","13C5-
PFNA","81.7","","IS","Yes","Y","","","","","","PCT_REC","","","","100","81.7","81.7","","","","","","","50","150",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFDA","13C2-
PFDA","68.7","","IS","Yes","Y","","","","","","PCT_REC","","","","100","68.7","68.7","68.7","","","","","","","150",""
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C8-PFOSA","13C8-
PFOSA","57.8","","IS","Yes","Y","","","","","","PCT_REC","","","","100","57.8","57.8","","","","","","","50","150","
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","d3-MeFOSAA","d3-
MeFOSAA","57.6","","IS","Yes","Y","","Y","","","PCT_REC","","","","100","57.6","57.6","57.6","","","","","50","15
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFUnA","13C2-
PFUnA","66.4","","IS","Yes","Y","","","","","","PCT_REC","","","","100","66.4","66.4","66.4","","","","","","50","150","
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","d5-EtFOSAA","d5-
EtFOSAA","61.9","","IS","Yes","Y","","Y","","","","PCT_REC","","","","100","61.9","61.9","61.9","","","","","","150
"B7J0092-BS1","537_MOD","10/26/17","12:03","N","NA","000","13C2-PFDoA","13C2-
","","",
```

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

AMEC Foster Wheeler, Inc. 7376 SW Durham Road Portland, OR 97224 Attn: Ms. Marina Mitchell November 17, 2017

SUBJECT: Former Chase Field, Data Validation

Dear Ms. Mitchell,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on November 14, 2017. Attachment 1 is a summary of the samples that were reviewed for analysis.

LDC Project #39837:

SDG # Fraction

1701432, 1701439 Perfluorinated Alkyl Acids

The data validation was performed under Stage 2B & 4 guidelines. The analyses were validated using the following documents, as applicable to each method:

- Final Sampling and Analysis Plan for Initial Assessment of Perfluorinated Compounds or Per- and Polyfluoroalkyl Substances Sites at Various Base Realignment and Closure Installations, June 2017
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.1, 2017
- USEPA, National Functional Guidelines for Organic Superfund Methods Data Review, January 2017

Please feel free to contact us if you have any questions.

Sincerely,

Pei Geng

Project Manager/Senior Chemist

1,603 pages-ADV 1 WEEK TAT Attachment 1 LDC #39837 (AMEC Foster Wheeler-Portland, OR / Former Chase Field) 90/10 (client select) (1) PFAs DATE DATE (537) LDC SDG# REC'D DUE Matrix: Water/Soil 4 0 11/14/17 11/21/17 1701432 11/14/17 | 11/21/17 | 3 | 0 Α 1701432 11/14/17 | 11/21/17 | 4 В 1701439 0 0 Total T/PG

Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Former Chase Field

LDC Report Date:

November 15, 2017

Parameters:

Perfluorinated Alkyl Acids

Validation Level:

Stage 2B & 4

Laboratory:

Vista Analytical Laboratory

Sample Delivery Group (SDG): 1701432

| | Laboratory Sample | | Collection |
|------------------------------|-------------------|--------|------------|
| Sample Identification | Identification | Matrix | Date |
| Site 3-GW-03GW01-20171004 | 1701432-06 | Water | 10/04/17 |
| Site 4-GW-04GW03-20171004 | 1701432-08 | Water | 10/04/17 |
| Site 4-GW-04GW02-20171004 | 1701432-10 | Water | 10/04/17 |
| Site 3-GW-MW1-20171005 | 1701432-13 | Water | 10/05/17 |
| Site 3-DW-421648-20171005** | 1701432-15** | Water | 10/05/17 |
| DUP01_20171005** | 1701432-16** | Water | 10/05/17 |
| Site 3-GW-03GW03-20171005** | 1701432-18** | Water | 10/05/17 |
| Site 4-GW-04GW02-20171004MS | 1701432-10MS | Water | 10/04/17 |
| Site 4-GW-04GW02-20171004MSD | 1701432-10MSD | Water | 10/04/17 |

^{**}Indicates sample underwent Stage 4 validation

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan for Initial Assessment of Perfluorinated Compounds (PFCS) or Per- and Polyfluoroalkyl Substances (PFAS) Sites at Various Base Realignment and Closure (BRAC) Installations (June 2017), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.1 (2017), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results. Samples appended with a double asterisk on the cover page were subjected to Stage 4 data validation, which is comprised of the QC summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked as applicable.

All ion abundance requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r²) were greater than or equal to 0.990.

For each calibration point, the percent differences (%D) for their true value were less than or equal to 30.0% for all compounds.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks with the following exceptions:

| Blank ID | Extraction Date | Compound | Concentration | Associated Samples |
|--------------|--------------------|----------|---------------|---|
| B7J0077-BLK1 | 10/13/17 | PFHxA | 0.00119 ug/L | Site 3-DW-421648-20171005** DUP01_20171005** |

Sample concentrations were compared to concentrations detected in the laboratory blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated method blanks with the following exceptions:

| Sample | Compound | Reported Concentration | Modified Final Concentration |
|-----------------------------|----------|---------------------------|---------------------------------|
| Site 3-DW-421648-20171005** | PFHxA | 0.00125 ug/L | 0.00494U ug/L |
| DUP01_20171005** | PFHxA | 0.00189 ug/L | 0.00485U ug/L |

VI. Field Blanks

Samples EB01_20171002, EB02_20171002, EB03_20171003, EB04_2017003, EB05_2017004, and EB06_20171005 were identified as equipment blanks. No contaminants were found with the following exceptions:

| Blank ID | Collection Date | Compound | Concentration | Associated Samples |
|---------------|--------------------|----------|---------------|---|
| EB01_20171002 | 10/02/17 | PFHxA | 0.00112 ug/L | Site 3-DW-421648-20171005** DUP01_20171005** |
| EB04_20171003 | 10/03/17 | PFHxS | 0.00213 ug/L | Site 4-GW-04GW02-20171004 |
| EB05_20171004 | 10/04/17 | PFHxS | 0.00203 ug/L | Site 3-GW-03GW01-20171004 Site 4-GW-04GW03-20171004 Site 4-GW-04GW02-20171004 |

Sample FB05_2017004 (from SDG 1701439) was identified as a field blank. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks with the following exceptions:

| Sample | Compound | Reported Concentration | Modified Final Concentration |
|-----------------------------|----------|---------------------------|---------------------------------|
| Site 3-DW-421648-20171005** | PFHxA | 0.00125 ug/L | 0.00494U ug/L |
| DUP01_20171005** | PFHxA | 0.00189 ug/L | 0.00485U ug/L |

VII. Surrogates

Surrogates were added to all drinking water samples as required by the method. All surrogate recoveries (%R) were within QC limits.

VIII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Compound | MS (%R) (Limits) | MSD (%R) (Limits) | Flag | A or P |
|--|----------|---------------------|----------------------|-----------------|--------|
| Site 4-GW-04GW02-20171004MS/MSD (Site 4-GW-04GW02-20171004) | PFHxS | 51.3 (70-130) | 142 (70-130) | J (all detects) | Α |

Relative percent differences (RPD) were within QC limits with the following exceptions:

| Spike ID (Associated Samples) | Compound | RPD (Limits) | Flag | A or P |
|--|----------|-----------------|-----------------|--------|
| Site 4-GW-04GW02-20171004MS/MSD (Site 4-GW-04GW02-20171004) | PFHxS | 93.8 (≤30) | J (all detects) | А |

IX. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

X. Field Duplicates

Samples Site 3-DW-421648-20171005** and DUP01_20171005** were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

| | Concentration (ug/L) | | | | | |
|----------|-----------------------------|------------------|-----------------|-------------------------|------|--------|
| Compound | Site 3-DW-421648-20171005** | DUP01_20171005** | RPD (Limits) | Differences (Limits) | Flag | A or P |
| PFHxA | 0.00125 | 0.00189 | - | 0.00064 (≤0.00988) | - | - |

XI. Internal Standards

All internal standard areas and retention times were within QC limits.

XII. Compound Quantitation

All compound quantitations met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

The laboratory limit of quantitation (LOQ), limit of detection (LOD), and detection limit (DL) are higher than the QAPP LOQ, LOD, and DL.

XIII. Target Compound Identifications

All target compound identifications met validation criteria for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

XIV. System Performance

The system performance was acceptable for samples which underwent Stage 4 validation. Raw data were not reviewed for Stage 2B validation.

XV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to MS/MSD %R and RPD, data were qualified as estimated in one sample.

Due to laboratory blank contamination, data were qualified as not detected in two samples.

Due to equipment blank contamination, data were qualified as not detected in two samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable. Sample results that were found to be estimated (J) are usable for limited purposes only. Based upon the data validation all other results are considered valid and usable for all purposes.

Former Chase Field Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 1701432

| Sample | Compound | Flag | A or P | Reason |
|---------------------------|----------|-----------------|--------|--|
| Site 4-GW-04GW02-20171004 | PFHxS | J (all detects) | A | Matrix spike/Matrix spike duplicate (%R)(RPD) |

Former Chase Field Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1701432

| Sample | Compound | Modified Final Concentration | A or P |
|-----------------------------|----------|---------------------------------|--------|
| Site 3-DW-421648-20171005** | PFHxA | 0.00494U ug/L | Α |
| DUP01_20171005** | PFHxA | 0.00485U ug/L | Α |

Former Chase Field Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1701432

| Sample | Compound | Modified Final Concentration | A or P |
|-----------------------------|----------|---------------------------------|--------|
| Site 3-DW-421648-20171005** | PFHxA | 0.00494U ug/L | Α |
| DUP01_20171005** | PFHxA | 0.00485U ug/L | Α |

| SDG# | : 39837A96 VALID t: 1701432 atory: Vista Analytical Laboratory | | PLETENESS WORKSHEET age 2B/4 | Date: //////////////////////////////////// |
|-------|--|---|---|--|
| METH | OD: LC/MS Perfluorinated Alkyl A | cids (EPA Metho | d 537) | Zilu Neviewei |
| | amples listed below were reviewed ion findings worksheets. | for each of the fo | ollowing validation areas. Validation | findings are noted in attached |
| | Validation Area | | Comme | nts |
| I. | Sample receipt/Technical holding times | A | | |
| 11. | GC/MS Instrument performance check | A | | |
| Ш. | Initial calibration/ICV | AA | YORSO ₹ 240.8, - | True 60 330/0 10/53 |
| IV. | Continuing calibration | ★ | CCV 538/0 | , |
| V. | Laboratory Blanks | W | | |
| VI. | Field blanks | W | see WS for ZB. | FRB05_2017,005(170) |
| VII. | Surrogate spikes | _ A | | |
| VIII. | Matrix spike/Matrix spike duplicates | W | | |
| IX. | Laboratory control samples | Á | 4C8/0 | |
| X. | Field duplicates | w | D=5+6 | |
| XI. | Internal standards | Ŵ, | | |
| XII. | Compound quantitation RL/LOQ/LODs | w/ | Not reviewed for Stage 2B validation | |
| XIII. | Target compound identification | 4 | Not reviewed for Stage 2B validation | |
| XIV. | System performance | 4 | Not reviewed for Stage 2B validation | |
| XV. | Overall assessment of data | Ž. | | |
| lote: | A = Acceptable N = Not provided/applicable SW = See worksheet | ND = No compound R = Rinsate FB = Field blank | s detected D = Duplicate TB = Trip blank EB = Equipment blank | SB=Source blank OTHER: |

N = Not provided/applicable
SW = See worksheet
** Indicates sample underwent Stage 4 validation

| Client ID | Lab ID | Matrix | Date |
|--|---------------|--------|----------|
| 1 > Site 3-GW-03GW01 <u>-</u> 20171004 | 1701432-06 | Water | 10/04/17 |
| 2 7 Site 4-GW-04-GW03 <u>-</u> 20171004 | 1701432-08 | Water | 10/04/17 |
| Site 4-GW-04-GW02 <u>-</u> 20171004 | 1701432-10 | Water | 10/04/17 |
| Site 3-GW-MW 1_20171005 | 1701432-13 | Water | 10/05/17 |
| 5 Site 3-DW-421648 <u>=</u> 20171005** | 1701432-15** | Water | 10/05/17 |
| 6 DUP01_20171005** | 1701432-16** | Water | 10/05/17 |
| 7 Site 3-GW-03GW03 <u>-2</u> 0171005** | 1701432-18** | Water | 10/05/17 |
| Site 4-GW-04-GW02 <u>-</u> 20171004MS | 1701432-10MS | Water | 10/04/17 |
| 9 Site 4-GW-04-GW02 <u>-</u> 20171004MSD | 1701432-10MSD | Water | 10/04/17 |
| 10 | | | |
| 11 BT JOOTT-BOL | | | |
| 12 BZ10071- BAL | | | |
| 133 BTJ 0092-BA- | | | |
| 14 | | | |



VALIDATION FINDINGS CHECKLIST

Page: / of AReviewer: 2nd Reviewer: No

Method: LCMS (EPA Method 537)

| Validation Area | Yes | No | NA | Findings/Comments |
|--|-----|----|----------|--|
| I. Technical holding times | | | | |
| Were all technical holding times met? | / | | | |
| Was cooler temperature criteria met? | | | | |
| II. LC/MS Instrument performance check | | | | |
| Were the instrument performance reviewed and found to be within the specified criteria? | / | | | |
| Were all samples analyzed within the 12 hour clock criteria? | | | | |
| Illa, Initial calibration | | | | The second secon |
| Did the laboratory perform a 5 point calibration prior to sample analysis? | | | | |
| Were all percent relative standard deviations (%RSD) ≤ 20%? | | | | |
| Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit criteria of \geq 0.990? | | | | |
| Were all analytes within 70-130% or percent differences (%D) ≤30% of their true value for each calibration standard | | | | |
| IIIb. Initial Calibration Verification | | | | |
| Was an initial calibration verification standard analyzed after each initial calibration for each instrument? | | • | | |
| Were all percent differences (%D) ≤ 30%? | | | | |
| IV. Continuing calibration | | | | |
| Was a continuing calibration analyzed daily? | | | L | |
| Were all percent differences (%D) of the continuing calibration < 30%? | | | | AND THE WAY IN SOME |
| V. Laboratory Blanks | T _ | | | |
| Was a laboratory blank associated with every sample in this SDG? | | | | |
| Was a laboratory blank analyzed for each matrix and concentration? | | | | |
| Was there contamination in the laboratory blanks? If yes, please see the Blanks validation completeness worksheet. | | | | |
| VI. Field blanks | | | 12 | |
| Were field blanks identified in this SDG? | / | | | |
| Were target compounds detected in the field blanks? | / | | <u> </u> | |
| VIII. Matrix spike/Matrix spike duplicates | | | | |
| Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water. | / | | | · |
| Was a MS/MSD analyzed every 20 samples of each matrix? | / | | | |
| Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits? | | | | |
| IX. Laboratory control samples | | / | r | |
| Was an LCS analyzed for this SDG? | / | | 1 | |



VALIDATION FINDINGS CHECKLIST

Page: of a Reviewer: 0

| Validation Area | Yes | No | NA | Findings/Comments |
|---|-----|----|-----|--|
| Was an LCS analyzed per extraction batch? | | | | |
| Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits? | | | | |
| X. Field duplicates | | | 1.0 | |
| Were field duplicate pairs identified in this SDG? | / | | | |
| Were target compounds detected in the field duplicates?. | | | | |
| XI. Internal standards | | | | |
| Were internal standard area counts within \pm 50% of the associated calibration standard? | 0 | | | |
| XII. Compound quantitation | | | | |
| Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound? | | | | |
| Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation? | | | | |
| XIII. Target compound identification | | | | |
| Were relative retention times (RRT's) within ± 0.06 RRT units of the standard? | | | | , |
| Did compound spectra meet specified EPA "Functional Guidelines" criteria? | / | | | |
| Were chromatogram peaks verified and accounted for? | | | | |
| XIV. System performance | T | | | part of the second of the seco |
| System performance was found to be acceptable. | / | | | |
| XIII- Overall assessment of data | _/ | | | |
| Overall assessment of data was found to be acceptable. | Ľ | | | |

TARGET COMPOUND WORKSHEET

METHOD: PFOS/PFOAs

| METHOD: PFOS/PFOAs | | | |
|--|---|---|--|
| A. Perfluorohexanoic acid (PFHxA) | | | |
| B. Perfluoroheptanoic acid (PFHpA) | 1 | | |
| C. Perfluorooctanoic acid (PFOA) | | | |
| D. Perfluorononanoic acid (PFNA) | | · | |
| E. Perfluorodecanoic acid (PFDA) | | | |
| F. Perfluoroundecanoic acid (PFUnA) | | | |
| G. Perfluorododecanoic acid (PFDoA) | | | |
| H. Perfluorotridecanoic acid (PFTriA) | | | |
| I. Perfluorotetradecanoic acid (PFTeA) | | | |
| J. Perfluorobutanesulfonic acid (PFBS) | | | |
| K. Perfluorohexanesulfonic acid (PFHxS) | | | |
| L. Perfluoroheptanesulfonic acid (PFHpS) | | | |
| M. Perfluorooctanesulfonic acid (PFOS) | | | |
| N.Perfluorodecanesulfonic acid (PFDS) | | | |
| O. Perfluorooctane Sulfonamide (FOSA) | | | |
| P. Perfluorobutanoic acid (PFBA) | | | |
| Q. Perfluoropentanoic acis (PFPeA) | | | |
| R. 6:2FTS | | | |
| S. 8:2FTS | | | |
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| LDC | #:3 | ්ප ි | H | 16 |
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VALIDATION FINDINGS WORKSHEET Blanks

| Page:_ | <u>/</u> of |
|--------------|-------------|
| Reviewer: | 4 |
| nd Reviewer: | NY |

| METHOD: GC | HPLC MS | | | | | 2nd Re | viewer: |
|---|---|--|--|--------------------------|---|--------|---------|
| N N/A Were all s N N/A Was a me N N/A Was a me V N N/A Were any Level V/D Only Y N/A (Gasoline | amples associated thod blank perforn thod blank perforn contaminants four and aromatics only thod blank analyze | I with a given method ned for each matrix and the with each extraction in the method bland () Was a method blanded for each analytical | nd whenever a sample extract ion batch? ks? If yes, please see findings k analyzed with each 24 hour / extraction batch of ≤20 sam | ion procedure was below. | | | • |
| Compound | Blank ID | | | Sample Identification | n | | |
| B T: | 100TT-BH | 5 | 6 | | | | |
| FHXA | 0.00119 | 0.001256.0049cl | 0.00/89/0.00 | 185 | | | |
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| | | | | | | | |
| Blank extraction date: Conc. units: | Blank a | nalysis date: | Assoc | ciated samples: | | | |
| Compound | Blank ID | | S | Sample Identification | 1 | | |
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ALL CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT: All contaminants within five times the method blank concentration were qualified as not detected, "U".

LDC #: 39837A96

M N/A

VALIDATION FINDINGS WORKSHEET Field Blanks

EB02_20171002, EB03_20171003 and EB06_20171005 = ND

| Page: | |
|---------------|----|
| Reviewer: | 9 |
| 2nd Reviewer: | SV |

METHOD: LC/MS PFOS/PFOAs (EPA Method 537M)

Were field blanks identified in this SDG?

Were target compounds detected in the field blanks?

Blank units: ug/L Associated sample units: ug/L

Sampling date: 10/2/17

Field blank type: (circle one) Trip Blank/Field Blank / Rinsate / Other: EB Associated Samples: 5-6

| Compound | Blank ID | | Sample Identification | | | | | | | |
|----------|---------------|--------------|-----------------------|-----------------|--|--|--|--|--|--|
| | EB01_20171002 | Action Level | 5 | 6 | | | | | | |
| PFHxA | 0.00112 | 0.0056 | 0.00125/0.00494 | 0.00189/0.00485 | | | | | | |
| | | | | | | | | | | |

Blank units: ug/L Associated sample units: ug/L

Sampling date: 10/3/17

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 3

| Compound | Blank ID | | Sample Identification | | | | | | | |
|----------|--------------|--------------|-----------------------|---|--|---|--|--|--|--|
| | FB04_2017003 | Action Level | | - | | | | | | |
| PFHxS | 0.00213 | 0.01065 | | | | | | | | |
| | | | | | | · | | | | |

Blank units: ug/L Associated sample units: ug/L

Sampling date: 10/4/17

Field blank type: (circle one) Field Blank / Rinsate / Other: EB ____ Associated Samples: 1 - 3

| Compound | Blank ID | | Sample Identification | | | | | | | |
|----------|--------------|--------------|-----------------------|--|--|--|--|--|--|--|
| | FB05 2017004 | Action Level | 1 | | | | | | | |
| PFHxS | 0.00203 | 0.01015 | | | | | | | | |
| | | | | | | | | | | |

VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates

| Page:_ | |
|---------------|-----|
| Reviewer: | 9 |
| 2nd Reviewer: | 500 |

METHOD: __GC _V HPLC Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

N N/A Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG?

N N/A Was an MS/MSD analyzed every 20 samples for each matrix or whenever a sample extraction was performed?

Were the MS/MSD percent recoveries (%R) and relative percent differences (RPD) within QC limits?

| # | MS/MSD ID | Compound | MS %R (Limits) | MSD %R (Limits) 14 ≥ (70-130) | RPD (Limits) | Associated Samples | Qualifications |
|---|-----------|----------|-------------------|-------------------------------------|--------------|--------------------|----------------|
| | 8/9 | PFHXS | 51.3 (70-130) | 14= TO-130 | () | 3 (dets) | J/W/A |
| | // | V | () | () | 93.8 (570) | | John A |
| | | · | () | () | () | | / / |
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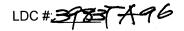
LDC#: 39837496

VALIDATION FINDINGS WORKSHEET <u>Field Duplicates</u>

| Page: <u>/</u> of_ | / |
|--------------------|----------|
| Reviewer:9 | <u> </u> |
| 2nd Reviewer: | W |

METHOD: PFCs (Method 537 mod)

| | Concentra | tion (ug/L) | (≤30) | Difference | Limits | Qual |
|----------|-----------|-------------|-------|------------|----------|------|
| Compound | 5 | 6 | RPD | Difference | Lillits | Quai |
| PFHxA | 0.00125 | 0.00189 | | 0.00064 | ≤0.00988 | |



VALIDATION FINDINGS WORKSHEET Internal Standards

| Page: | of |
|-------------|-----|
| Reviewer: | Ď. |
| nd Reviewer | JV4 |

METHOD: LC/MS PFCs

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

YAN/A

Were all internal standard area counts within 50-150% limits?

Were the retention times of the internal standards within +/- 30 seconds of the retention times of the associated calibration standard? Y N N/A

| # | Date | Sample ID | Internal Standard | Area (Limits) | RT (Limits) | Qualifications |
|----------|------|------------|---------------------------------------|---------------|-------------|----------------|
| | | 3710071-BH | 13C8-PF0SA | 49.3 (50-150) | | los/ |
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VALIDATION FINDINGS WORKSHEET Compound Quantitation and RLs

| Page: _ | <u></u> |
|-------------|---------|
| Reviewer: | 9 |
| nd Reviewer | . N/2 |

METHOD: LC/MS

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Kevel IV/D Only
N N/A Were RLs adjusted for sample dilutions, dry weights, etc.?

| # | Date | Sample ID | Finding | Associated Samples | Qualifications |
|---|------|-----------|---|--------------------|----------------|
| | | | The laboratory limit of quantitation (LOQ), limit of detection (LOD), and detection limit (DL) are higher than the QAPP LOQ, LOD, and DL. | | Text |
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LDC: 39837A 96

VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Method: LC/MS PFCs

| Calibration | | | (X) | (Y) |
|-------------|---------|----------|---------------|-----------|
| Date | Analyte | Standard | Concentration | Area |
| 10/15/2017 | PFHxA | 1 | 0.050 | 0.0163138 |
| | Q2 | 2 | 0.100 | 0.0282592 |
| | | 3 | 0.200 | 0.0542646 |
| | | 4 | 0.500 | 0.1030327 |
| | | 5 | 1.000 | 0.2047553 |
| | | 6 | 2.500 | 0.4836747 |
| | | 7 | 5.000 | 1.0121985 |
| | | 8 | 7.500 | 1.5125812 |
| | | 9 | 10.000 | 2.0256968 |

Linear through the origin

| | calculated | Reported |
|------------------------------------|--------------|-------------|
| Constant | 0.000000 | 0.0000 |
| X Coefficient(s) | 2.020221E-01 | 2.02105E-01 |
| Correlation Coefficient | 0.999948 | |
| Coefficient of Determination (r^2) | 0.999895 | 0.9986 |



VALIDATION FINDINGS WORKSHEET Initial Calibration Calculation Verification

Page:____of___ Reviewer:_____ 2nd Reviewer:___\nabla_c

Method: LC/MS/MS PFCs

| Calibration | | | | (Y) | (X) |
|-------------|--------|----------|------------|------------|---------------|
| Date | System | Compound | Standard | Response | Concentration |
| 10/16/2017 | Q4 | PFOA | 0 | 0.6885150 | 0.25 |
| | | | s1 | 0.8251737 | 0.50 |
| | | | s2 | 1.4842825 | 1.00 |
| | | | s3 | 2.6060887 | 2.00 |
| | | | s4 | 5.3262037 | 5.00 |
| | | | s5 | 10.2938050 | 10.00 |
| | | | s6 | 50.4021010 | 50.00 |
| | | | s 7 | 99.906131 | 100.00 |
| | | | s9 | 229.659260 | 250.00 |

Regression Output

| Reported |
|----------|
|----------|

| 1.603415 | 0.469792 |
|----------|----------------------|
| | |
| 0.998821 | 0.998193 |
| | |
| 0.923608 | 0.947972 |
| | |
| 0.999411 | |
| 0.998821 | 0.998193 |
| | 0.923608 0.999411 |

VALIDATION FINDINGS WORKSHEET Continuing Calibration Results Verification

| Page:_ | of/_ |
|---------------|------|
| Reviewer: | 4 |
| 2nd Reviewer: | 200 |

| METHOD: GC / HPLC/14-> |
|------------------------|
|------------------------|

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF ·CF = A/C

Where: ave. CF = initial calibration average CF CF = continuing calibration CF

A = Area of compound

C = Concentration of compound

| # | Standard ID | Calibration Date | Compound | Average CF(Ical)/ CCV Conc. | Reported CF/Conc. CCV | Recalculated CF/Conc. CCV | Reported %D | Recalculated %D |
|---|-------------|---------------------|----------|--------------------------------|------------------------|-----------------------------|----------------|--------------------|
| 1 | TIDISTE | 10/15/1 | PFIXA | 50.0 | 48.965 | 48.918 | | 3.2 |
| | אבילו ג'אור | 10/1/ | #FAL | 10.0 | 11.6 | 11.57 | 157 | 15.7 |
| 2 | 11101014.36 | 10/4/17 | | 10.5 | 11. | (1 1 | 194 | 13.1 |
| 3 | | | | | | · | | |
| | | | | | | | | |
| 4 | | | : | | | | | |
| | | | | | | | | |

| Comments: | Refer to Continuing | Calibration fi | indings wo | rksheet for | list o | of qualifications | s and | associated | <u>l samples wi</u> | <u>nen reported</u> | <u>l results</u> | do not | agree within | <u> 10.0%</u> | of the |
|--------------|---------------------|----------------|------------|-------------|--------|-------------------|-------|------------|---------------------|---------------------|------------------|--------|--------------|---------------|--------|
| recalculated | results. | | | | | | • | | | | | | , | | |
| | | | | | | | | | | | | | | • | |

VALIDATION FINDINGS WORKSHEET Surrogate Results Verification

| Page:_ | /of_/ |
|---------------|-------|
| Reviewer: | 0, - |
| 2nd reviewer: | DR |

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found

SS = Sűrrögate Spiked

Sample ID:_

| Surrogate | Column/Detector | Surrogate Spiked | Surrogate Found | Percent Recovery | Percent Recovery | Percent Difference |
|------------|-----------------|---------------------|--------------------|---------------------|---------------------|-----------------------|
| | | | | Reported | Recalculated | |
| 13CZ-PFHXA | | 39.5257 | 39.846 | 101 | 101 | 0 |
| 13C2-4FBA | | U | 38.953 | 98.5 | 98.5 | 1 |
| 15-2+FOSAA | | 158.10270 | 161.430 | 102 | 102 | |
| | | | | | | |

Sample ID:

| Surrogate | Column/Detector | Surrogate Spiked | Surrogate Found | Percent Recovery | Percent Recovery | Percent Difference |
|-----------|-----------------|---------------------|--------------------|---------------------|---------------------|-----------------------|
| | | | | Reported | Recalculated | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | · · | | | |

Sample ID:

| Surrogate | Column/Detector | Surrogate Spiked | Surrogate Found | Percent Recovery | Percent Recovery | Percent Difference |
|-----------|-----------------|---------------------|--------------------|---------------------|---------------------|-----------------------|
| | | | | Reported | Recalculated | |
| | | | | | | |
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| | | | - | | | |

| LDC | #: 2983 1 96 |
|-----|------------------------------------|
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VALIDATION FINDINGS WORKSHEET Matrix Spike/Matrix Spike Duplicates Results Verification

| Page:_ | of |
|------------|--------|
| Reviewer:_ | 9 |
| 2nd Rev | iewer: |

| METHOD: | GC | V | HPLC N | 5 |
|---------|----|----------|--------|---|
| | | | | |

The percent recoveries (%R) and relative percent differences (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

%Recovery = 100 * (SSC - SC)/SA

Where

SSC = Spiked sample concentration

SC = Sample concentration

RPD =(((SSCMS - SSCMSD) * 2) / (SSCMS + SSCMSD))*100

SA = Spike added MS = Matrix spike

MSD = Matrix spike duplicate

MS/MSD samples: 8/9

| | | Sp | Spike Sample Spike Sample Matrix spike | | x spike | Matrix Spike Duplicate | | MS/MSD | | | | |
|------------------|---------------|--------|--|-------|---------|------------------------|----------|----------|------------------|---------|----------|---------|
| Comp | ound | (72 | ded Se) | Cone. | Conce | Stration (| Percent | Recovery | Percent Recovery | | RPD | |
| | | MS | MSD | | MS | MSD | Reported | Recalc. | Reported | Recalc. | Reported | Recalc. |
| Gasoline | (8015) | | | | | | | | | | | · |
| Diesel | (8015) | | | · | | | | | | | | |
| Benzene | (8021B) | | | | | · | | | · | | | |
| Methane | (RSK-175) | | | | | | | | | | | |
| 2,4-D | (8151) | | | | | | · | | | | | |
| Dinoseb | (8151) | | | | | | | | | | | |
| Naphthalene | (8310) | | | | | | | | | | | |
| Anthracene | (8310) | | | · | | | | | • | | | |
| НМХ | (8330) | | | | | | | | | | · | |
| 2,4,6-Trinitroto | oluene (8330) | | | | | | | | | · | | |
| TY-HX-X | | 0.0854 | 0.0906 | 0.300 | 0.386 | 0.390 | 100.0 | 100.7 | 99.0 | 99.3 | 101 | 1.03 |
| | • | | | | | | | · | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 398374 96

VALIDATION FINDINGS WORKSHEET Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

| Page:_ | <u> </u> |
|---------------|----------|
| Reviewer: | 8 |
| 2nd Reviewer: | SV |

_ GC /HPLC/MS

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

Where: SSC = Spiked sample concentration

SC = Concentration

RPD = I SSCLCS - SSCLCSD I * 2/(SSCLCS + SSCLCSD)

SA = Spike added LCS = Laboratory control sample percent recovery

LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: BTV0077

| | Spike Added (/ 14) | | Spiked Sample Concentration | | LCS | | LCSD | | LCS/LCSD | |
|------------------------------|--------------------------|--------|--------------------------------|--------|----------|----------|------------------|---------|----------|---------|
| Compound | | | | | Percent | Recovery | Percent Recovery | | RPD | |
| 8 (1986) | LCS | LCSD | LCS | LCSD | Reported | Recalc. | Reported | Recalc. | Reported | Recaic. |
| Gasoline (8015) | | | | | | | | , | | |
| Diesel (8015) | | | | | | | | | | |
| Benzene (8021B) | | | | | | | | | | |
| Methane (RSK-175) | | | | | | | | | | |
| 2,4-D (8151) | | | | | | | | | | |
| Dinoseb (8151) | | | | · | | | | | | |
| Naphthalene (8310) | | | | | | | | | | |
| Anthracene (8310) | | | | | | | | | | |
| HMX (8330) | | | | | | | | | | |
| 2,4,6-Trinitrotoluene (8330) | | | | | | | | | | |
| PFHXA | 0.000 | 0.0400 | 0.0390 | 0.0366 | 97.6 | 97.5 | 91.5 | 91.5 | 6.41 | 6.35 |
| | | | • | | | - | | | | |

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC#: 39837496

VALIDATION FINDINGS WORKSHEET Sample Calculation Verification

| Page: _ | |
|---------------|---|
| Reviewer: | 9 |
| 2nd Reviewer: | W |

| METHOD:GC/HPLC/MS | |
|--|---|
| Were all reported results recalculated | d and verified for all level IV samples? cted target compounds within 10% of the reported results? |
| Concentration= (A)(Fv)(Df) (RF)(Vs or Ws)(%S/100) A= Area or height of the compound to be measured Fv= Final Volume of extract Df= Dilution Factor | Example: Sample ID. 5 Compound Name ###### |
| RF= Average response factor of the compound In the initial calibration Vs= Initial volume of the sample Ws= Initial weight of the sample %S= Percent Solid | Concentration = $(3.6021)(10.0)(1)$ (5.6423)(0.202105)(0.253)(1000) = 0.0125 PS/L |

| # | Sample ID | Compound | Reported Concentrations | Recalculated Results Concentrations () | Qualifications |
|---|-----------|----------|----------------------------|---|----------------|
| | 5 | DFHXA | 0.0125 | | |
| | | | | | |
| | | | | | |
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| Comments: | | • | 4. | |
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Laboratory Data Consultants, Inc. Data Validation Report

Project/Site Name:

Former Chase Field

LDC Report Date:

November 15, 2017

Parameters:

Perfluorinated Alkyl Acids

Validation Level:

Stage 2B

Laboratory:

Vista Analytical Laboratory

Sample Delivery Group (SDG): 1701439

| Sample Identification | Laboratory Sample Identification | Matrix | Collection Date |
|---------------------------|----------------------------------|--------|-----------------|
| FRB05_20171005 | 1701439-01 | Water | 10/05/17 |
| Site 3-GW-03GW02-20171005 | 1701439-02 | Water | 10/05/17 |
| Site 4-GW-04GW01-20171006 | 1701439-04 | Water | 10/06/17 |
| FRB06_20171006 | 1701439-05 | Water | 10/06/17 |

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan for Initial Assessment of Perfluorinated Compounds (PFCS) or Per- and Polyfluoroalkyl Substances (PFAS) Sites at Various Base Realignment and Closure (BRAC) Installations (June 2017), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.1 (2017), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluorinated Alkyl Acids by Environmental Protection Agency (EPA) Method 537

All sample results were subjected to Stage 2B data validation, which comprises an evaluation of quality control (QC) summary results.

The following are definitions of the data qualifiers utilized during data validation:

- J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.
- U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).
- UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.
- R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.
- NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked as applicable.

All ion abundance requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

For compounds where average relative response factors (RRFs) were utilized, the percent relative standard deviations (%RSD) were less than or equal to 20.0%.

In the case where the laboratory used a calibration curve to evaluate the compounds, all coefficients of determination (r²) were greater than or equal to 0.990.

For each calibration point, the percent differences (%D) for their true value were less than or equal to 30.0% for all compounds.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

Sample EB06_20171005 (from SDG 1701432) was identified as an equipment blank. No contaminants were found.

Samples FRB05_20171005 and FRB06_20171006 were identified as field rinsate blanks. No contaminants were found.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Compound Quantitation

The laboratory limit of quantitation (LOQ), limit of detection (LOD), and detection limit (DL) are higher than the QAPP LOQ, LOD, and DL.

Raw data were not reviewed for Stage 2B validation.

XII. Target Compound Identifications

Raw data were not reviewed for Stage 2B validation.

XIII. System Performance

Raw data were not reviewed for Stage 2B validation.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

The quality control criteria reviewed were met and are considered acceptable. Based upon the data validation all results are considered valid and usable for all purposes.

Former Chase Field Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 1701439

No Sample Data Qualified in this SDG

Former Chase Field Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 1701439

No Sample Data Qualified in this SDG

Former Chase Field
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 1701439

No Sample Data Qualified in this SDG

| | | | LETENESS tage 2B | WORKSHEE | т | Date: <u>///4/</u> / |
|------------------|---|--------------------------------------|--------------------------|---|--|----------------------|
| | t: <u>1701439</u> atory: <u>Vista Analytical Laboratory</u> | ŀ | Page:_/of_/ Reviewer: | | | |
| | | | | | | Reviewer: |
| METH | OD: LC/MS Perfluorinated Alkyl Acids (| EPA Metho | d 537) | | | |
| | amples listed below were reviewed for e ion findings worksheets. | ach of the fo | ollowing valida | tion areas. Valida | tion findings are | noted in attached |
| | Validation Area | | | Com | ments | |
| I. | Sample receipt/Technical holding times | A | | | | |
| 11. | GC/MS Instrument performance check | A | | | 7, | |
| 111. | Initial calibration/ICV | AA | RSON | 2 Y True | 6553%. | 1015302 |
| IV. | Continuing calibration | A | 00 V = | 350 | | - /0 |
| V. | Laboratory Blanks | A | | | | |
| VI. | Field blanks | NO | FB=/ | 1 2806 20 | 0171005 (17 | (a.d.22) |
| VII. | Surrogate spikes | 1 N | Not REG | 1 | 111005 (11 | 0175-1 |
| VIII. | Matrix spike/Matrix spike duplicates | 1 | 05 | | | |
| IX. | Laboratory control samples | TÄ | 1051- | | | |
| X. | Field duplicates | T TV | 700 | | | |
| XI. | Internal standards | TÀ. | | | · · · · · · · · · · · · · · · · · · · | |
| | | <u>N</u> | | | | |
| XII. | Compound quantitation RL/LOQ/LODs | N N | | | | |
| XIII. | Target compound identification | N | | | ······································ | |
| XIV. | System performance | <u> </u> | | | | |
| XV. | Overall assessment of data | 1 B | | | | |
| Note: | N = Not provided/applicable R = R | No compound insate Field blank | s detected | D = Duplicate TB = Trip blank EB = Equipment bl | OTHER: | rce blank |
| (| Client ID | | | Lab ID | Matrix | Date |
| 1 | FRB05_20171005 | | | 1701439-01 | Water | 10/05/17 |
| | Site 3-GW-03GW02-20171005 | | ·. | 1701439-02 | Water | 10/05/17 |
| | Site 4-GW-04GW01-20171006 | | | 1701439-04 | Water | 10/06/17 |
| $\neg \tau \neg$ | FRB06_20171006 | | | 1701439-05 | Water | 10/06/17 |
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| 6 | | | | · | | |
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| 8 | | | | | | |
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| Notes: | | | | | | |
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VALIDATION FINDINGS WORKSHEET Compound Quantitation and RLs

| Page: _ | |
|---------------|-----|
| Reviewer: | 7 |
| 2nd Reviewer: | 154 |

METHOD: LC/MS

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Level-IV/D Only
Y N NA Were RLs adjusted for sample dilutions, dry weights, etc.?

| # | Date | Sample ID | Finding | Associated Samples | Qualifications |
|---|------|-----------|---|--------------------|----------------|
| | | | The laboratory limit of quantitation (LOQ), limit of detection (LOD), and detection limit (DL) are higher than the QAPP LOQ, LOD, and DL. | | Coxt |
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LDC#: 39837

EDD POPULATION COMPLETENESS WORKSHEET



The LDC job number listed above was entered by $_$ $\underbrace{\hspace{.1cm}}$ $\underbrace{\hspace{.1cm}}$.

| | EDD Process | | Comments/Action |
|-------|--|--------|-----------------|
| I. | EDD Completeness | - | |
| Ia. | - All methods present? | 4 | |
| Ib. | - All samples present/match report? | 4 | |
| Ic. | - All reported analytes present? | 4 | |
| Id. | 10% or 100% verification of EDD? | 4 | |
| | | | |
| II. | EDD Preparation/Entry | _ | |
| IIa. | - Carryover U/J? | _ | |
| IIb. | - Reason Codes used? If so, note which codes. | 4 | |
| IIc. | - Additional Information (QC Level, Validator, Validated Y/N, etc.) | 7 | |
| | | | |
| ·III. | Reasonableness Checks | - | |
| IIIa. | - Do all qualified ND results have ND qualifier (e.g. UJ)? | Ч | |
| IIIb. | - Do all qualified detect results have detect qualifier (e.g. J)? | 4 | |
| IIIc. | - If reason codes are used, do all qualified results have reason code field populated, and vice versa? | Ч | |
| IIId. | -Does the detect flag require changing for blank qualifier? If so, are all U results marked ND? | 4/4 | |
| IIIe. | - Do blank concentrations in report match EDD where data was qualified due to blank contamination? | Ч | |
| IIIf. | - Were multiple results reported due to dilutions/reanalysis? If so, were results qualified appropriately? | + | |
| IIIg. | -Are there any discrepancies between the data packet and the EDD? | \sim | |

| Notes: | *see discrepancy sheet | | | |
|--------|------------------------|------|------|--|
| | | | | |

| INSTALLATION_ID | SITE_NAME | LOCATION_NAME | LOCATION_TYPE | LOCATION_TYPE_DESC | COORD_X* | COORD_Y* | SAMPLE_NAME | SAMPLE_MATRIX | SAMPLE_MATRIX_DESC | COLLECT_DATE | ANALYTICAL_METHOD_GRP_DESC | SDG |
|-----------------|-----------|---------------|---------------|--------------------|------------|-----------|---------------------------|---------------|--------------------|--------------|----------------------------|---------|
| CHASE_FIELD_NAS | TBC | 03GW02 | WLM | Monitoring Well | -97.657826 | 28.367192 | SITE 3-GW-03GW02-20171005 | WG | Ground water | 5-Oct-17 | Perfluoroalkyl Compounds | 1701439 |
| CHASE_FIELD_NAS | TBC | 04GW01 | WLM | Monitoring Well | -97.645635 | 28.353282 | SITE 4-GW-04GW01-20171006 | WG | Ground water | 6-Oct-17 | Perfluoroalkyl Compounds | 1701439 |